AUGUST 2006

BUCKEYE/SUN VALLEY AREA DRAINAGE MASTER STUDY
TECHNICAL DATA NOTEBOOK

CONTRACT FCD 2002C027

VOLUME III: AREA I HYDROLOGY REPORT

FINAL

PREPARED FOR

Flood Control District of Maricopa County

2801 W. DURANGO STREET
PHOENIX, ARIZONA 85009-6399

PREPARED BY

PBS&J

7310 N. 16TH STREET, SUITE 310
PHOENIX, ARIZONA 85020-5250
PHONE: (602) 943-1003 FAX: (602) 943-1303

IN ASSOCIATION WITH

LTM Engineering, Inc
epg
AYRES ASSOCIATES
Entellus

Buckeye/Sun Valley Area Drainage Master Study

Contract FCD 2002C027

Technical Data Notebook

Volume III-A: Area 1 Hydrology Report

August 2006

Prepared for

Flood Control District of Maricopa County

2801 W. Durango Street
Phoenix, Arizona 85009-6399

Registered Professional Engineer (Civil) CERTIFICATE NO. 42881 STEPHEN W. ROGERS Date Signed 8/14/06 ARIZONA U.S.A.

Prepared by

PBSJ

http://www.pbsj.com
7310 N. 16th Street, Suite 310
Phoenix, Arizona 85020-5250
Phone: (602) 943-1003 Fax: (602) 943-1303

Table of Contents

Section **Page**

1 INTRODUCTION 1

1.1 PURPOSE OF STUDY 1
1.2 PROJECT AUTHORIZATION 1
1.3 LOCATION OF STUDY 1
1.4 METHODOLOGY USED FOR HYDROLOGY AND HYDRAULICS 1
1.5 ACKNOWLEDGEMENTS 2
1.6 BRIEF DESCRIPTION OF STUDY RESULTS 2

2 FLOOD CONTROL DISTRICT OF MARICOPA COUNTY ABSTRACT 4

2.1 GENERAL INFORMATION 4
2.2 MAPPING INFORMATION 5
2.3 HYDROLOGY 6
2.4 HYDRAULICS 7
2.5 ADDITIONAL STUDY INFORMATION 8

3 MAPPING AND SURVEY INFORMATION 9

3.1 FIELD SURVEY INFORMATION 9
3.2 MAPPING 9

4 HYDROLOGY 10

4.1 METHOD DESCRIPTION 10
4.2 PARAMETER ESTIMATION 11
4.2.1 Drainage Area Boundaries 11
4.2.2 Watershed Work Maps 12
4.2.3 Gage Data 12
4.2.4 Statistical Parameters 12
4.2.5 Precipitation 13
4.2.5.1 Rainfall Depths 13
4.2.5.2 Rainfall Distributions 13
4.2.6 Physical Parameters 13
4.2.6.1 Rainfall Losses 15
4.2.6.2 Unit Hydrograph 16
4.2.6.3 Lag Time 16
4.2.6.4 Channel Routing Path Parameters 17
4.3 PROBLEMS ENCOUNTERED DURING THE STUDY 17
4.3.1 Special Problems and Solutions 17
4.3.1.1 S-graph Assignment for Sub-basin 17
4.3.1.2 Flow Diversions 17
4.3.1.3 Influence of Canals on Modeling Methodology 17
4.3.1.4 Future Condition Assumptions 18
4.3.2 Model Warning and Error Messages 19

4.4 CALIBRATION 19
4.5 FINAL RESULTS 20
4.5.1 Hydrologic & Hydraulic Analysis Results 20
4.5.2 Verification of Results 48
APPENDICES 1

Appendices

Appendix A – References

Appendix B - General Documentation & Correspondence

Appendix C – Survey Field Notes

Appendix D – Hydrologic Analysis Supporting Documentation

Appendix E - Hydraulic Analysis Supporting Documentation

Tables and Figures

Table **Page**

4-1 Summary of Rainfall Depths for Buckeye 13

4-2 Comparison of 100-Year, 6-Hour Results from Various Models 15

4-3 Correlations between Buckeye and County Land Use Codes 18

4-4a Buckeye Hydrologic Responses for Various Storm Events (Peak Discharge and Time to Peak – Existing Condition) 21

4-4b Buckeye Area 1 Hydrologic Responses for Various Storm Events (Peak Discharge and Time to Peak – Future Condition) 31

4-5a Existing Conditions Runoff Volumes for Concentration Points 43

4-5b Future Conditions Runoff Volumes for Concentration Points 44

4-6 Combined HEC-1/HEC-RAS Modeling Results for Railroad Crossing 46

4-7 Combined HEC-1/HEC-RAS Modeling Results for Canal Overtopping Locations 46

4-8 Comparison of Rainfall Loss Parameters 49

4-9 Comparison of Unit Hydrograph Lag Time Calculation Parameters 52

4-10a Comparison of Peak and Unit Peak Discharges for the 100-Year, 6-Hour Storm Event 55

4-10b Comparison of Peak and Unit Peak Discharges for the 100-Year, 24-Hour Storm Event 56

D.1-1 Rainfall Amounts from Isopluvial Maps in FCDMC Hydrology Manual D-2

D.2-1a Land Use Look-up Table for Buckeye Area 1 (Existing Conditions) D-7

D.2-1b Land Use Look-up Table for Buckeye Area 1 (Future Conditions) D-8

D.2-2 Soil Map look-up Table for Buckeye Area 1 .... D-8

D.2-3 Summary of Green & Ampt Parameters for Buckeye Area 1 Existing Conditions..... D-18

D.2-4 Summary of Green & Ampt Parameters for Buckeye Area 1 Future Conditions D-22

D.2-5 Summary of Lag Time Estimation Parameters for Buckeye Area 1 Sub-basins..... D-25

D.3-1 Summary of Routing Channel Parameters – Length, Slope and Manning's *n* D-28

D.3-2 Summary of Routing Channel Parameters – Representative Cross Sections D-31

D.4-1 SPRR Storage-Elevation Summary D-32

D.4-2 SPRR Storage-Elevation Data D-33

Figure **Page**

1-1 Buckeye Area 1 ADMS Vicinity Map 4

4-1 H&H Combined Model Execution Sequences 13

4-2 Watershed Workmap ..... Pocket

4-3 Existing and Future Conditions Schematic Map ..... Pocket

4-4 Drainage Basin Map with Hydrograph Routing Paths ..... Pocket

4-5 Hydrology Soils Map ..... Pocket

4-6a Existing Condition Land Use Map ..... Pocket

4-6b Future Condition Land Use Map ..... Pocket

4-7a Existing Conditions Peak Flow Rates Map ..... Pocket

4-7b Future Conditions Peak Flow Rates Map ..... Pocket

4-8 Overtopping Locations Map ..... Pocket

D.1-1 10-Year, 6-Hour Isopluvial Map D-3

D.1-2 100-Year, 6-Hour Isopluvial Map D-4

D.1-3 10-Year, 24-Hour Isopluvial Map D-5

D.1-4 100-Year, 24-Hour Isopluvial Map D-6

1 Introduction

1.1 Purpose of Study

The Flood Control District of Maricopa County (District) contracted with PBS&J to perform the Buckeye/Sun Valley Area Drainage Master Study (ADMS) to identify drainage, erosion, and sediment problems; evaluate existing floodplain delineations and delineate addition floodplains; identify a range of alternative solutions; and develop preliminary development guidelines for the area. The ADMS encompasses 280 square miles and is divided into four distinct hydrologic study areas.

The purpose of Technical Data Notebook, Volume III-A is to provide updated hydrologic models for both the existing and future conditions for Area 1; specifically, this study will update the most current hydrologic study that exists for the area from McLaughlin Kmetty Engineers, LTD (References 1 and 2). In addition, the new hydrologic models will extend to the Gila River. The updated hydrology will be used to quantify existing and future drainage problems and to develop alternatives to mitigate those identified problems.

1.2 Project Authorization

A Notice to Proceed (NTP) for this study was issued in June 2003 by the District. The FCD Contract Number for this project is 2002C027.

1.3 Location of Study

Area 1 covers all or parts of sections in Township 1N, Range 3W, Township 1N, Range 4W, Township 1N, Range 5W, Township 1S, Range 3W, Township 1S, Range 4W and Township 1S, Range 5W located in the Town of Buckeye, Arizona. A project location map is presented in Figure 1-1. Area 1 is bounded on the north by the Buckeye FRS #1, #2, and #3 (Buckeye Structures), the Gila River to the south, Johnson Road to the west, and Dean Road to the east.

1.4 Methodology Used for Hydrology and Hydraulics

The previous hydrology model of the area was used as a basis for and comparison to the results produced in this study (References 1 and 2). HEC-1 embedded in WMS version 7.0 (September, 2003) was used to model the hydrologic response of the watershed for four storm events ranging from the 10-year, 6-hour storm to the 100-year, 24-hour event. The HEC-1 parameters were determined using the methods described in the Drainage Design Manual for Maricopa County, Arizona, Volume I, Hydrology, hereinafter referred to as the Hydrology Manual (Reference 3). In the Area 1 HEC-1 models between Miller and Apache Roads and between Beloat Road and the BID, the sub-basins from the Candidate Assessment Report prepared for FCDMC by Project Engineering Consultants was included (Reference 4).

Since the Roosevelt Irrigation District (RID) and Buckeye Water Conservation & Drainage District (BID) canals cross the entire watershed from east to west, the runoff concentrated from basins north of each the RID and BID canal may be intercepted by the canals and overtop the north bank. A joint HEC-1/unsteady flow HEC-RAS model was developed in order to link the sub-basins above the RID to the sub-basins between the RID and BID and below the BID, taking into consideration the effects that the RID and BID have on routing the discharge in Area 1. All hydraulic parameters were determined using the Drainage Design Manual for Maricopa County, Volume I, Hydraulics, hereinafter referred to as the Hydraulics Manual (Reference 5).

In addition, a pilot study by Entellus, Inc., (Reference 6) was conducted in Area 1 to refine the current methodology used to determined runoff from irrigated farmland. The pilot study examined the current assumption by Maricopa County that agricultural areas are completely saturated with irrigation water prior to a storm event. This assumption is being challenged because the irrigation infrastructure does not allow this condition to occur and because the high retention capacity of the irrigated fields is currently being ignored.

1.5 Acknowledgements

Ms. Valerie Swick, CFM (Project Manager, Flood Control District of Maricopa County) and Mr. Amir Motamedi, P.E. (Supervisor, Regulatory Division, Flood Control District of Maricopa County) provided guidance during the course of study. Mr. Tom Renckly, P.E. (Structures Management Branch Engineer, Planning and Project Management Division) provided input on hydrologic issues related to the FRSs. Dr. Bing Zhao, P.E. (Engineering Application Development Branch Manager, Engineering Division, Flood Control District of Maricopa County) and Ms. Julie Cox (Hydrologist, Engineering Division, Flood Control District of Maricopa County) provided guidance on hydrologic and other technical issues. Ms. Laurie Miller, P.E. (LTM Engineering) performed an independent technical review of the report. Mr. Joe Blanton (Town Manager, Town of Buckeye) provided assistance in researching historical flooding records.

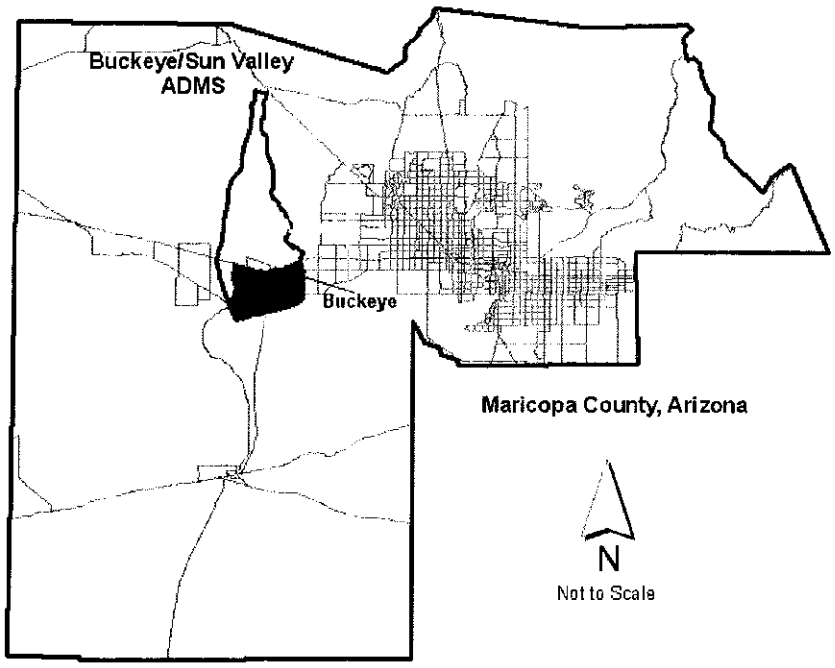
1.6 Brief Description of Study Results

The results of the Area 1 hydrology study indicate that the 100-year, 6-hour storm peak flows and runoff volumes are generally larger compared to the 100-year, 24-hour storm event. Therefore, the 100-year, 6-hour discharges were adopted as the existing and future conditions critical storm. For the future condition hydrologic analysis, peak discharges and runoff volumes generated from the sub-basins are effectively attenuated by the assumed implementation of retention requirements for new development (see Section 4.3.1.5) for storm events less than 100-year recurrence, but not necessarily so for events greater than the 100-year storm event. Retention basin should be an important component of future flood mitigation strategies.

While the McLaughlin study indicated that any runoff overtopping the north bank of either the RID or BID would be directly routed to its adjacent southern sub-basin, the results of this study showed that some of the runoff flow would be captured and contained by the canals and subsequently diverted from the study area. Section 4.5.1 contains a table that shows the areas where overtopping occurs. Generally, for sub-basins below the canals, the western portions gained more flow from overtopping, and the eastern portions gained less.

Figure 1-1

Buckeye Area 1 ADMS Vicinity Map



2 Flood Control District of Maricopa County Abstract

2.1 General Information

2.1.1 Community Name

The Town of Buckeye, Arizona and unincorporated areas of Maricopa County.

2.1.2 Community Number

040037 and 040039

2.1.3 County

Maricopa

2.1.4 State

Arizona

2.1.5 Date Study Accepted

N/A

2.1.6 Study Contractor

PBS&J, 4601 DTC Boulevard, Suite 700, Denver, Colorado, 80237.

Technical contact: Steve Rogers, P.E., CFM

2.1.7 State Technical Reviewer

N/A

2.1.8 Local Technical Reviewer

Flood Control District of Maricopa County

2.1.9 River or Stream Name

Roosevelt Irrigation District (RID) Canal and Buckeye Irrigation Canal (BID).

2.1.10 Reach Description

The RID supplies irrigation water to the agricultural fields north of the RID and to fields in the south located between the RID and the BID. The RID is built along a natural terrace with an unpaved access road along each bank. The canal is lined, and includes approximately 1 foot of exposed earthen freeboard. Turnouts and irrigation pump stations occur along its length. An irrigation storage pond exists in T1N, R4W, Section 20. Irrigation return flow and storm runoff are directed to the RID through gated structures along the north bank of the canal at numerous locations that are usually adjacent to the north-south roads. The turnout gates to the canals are typically closed during normal operation, but it can be opened to drain the canal for maintenance of the canal or if excess water is threatening overtopping.

The BID supplies water to the agricultural fields south of the BID (which was not in the scope of the McLaughlin study) and to some of the fields to the north that are between the BID and RID. The construction of the BID is similar to the RID, however, irrigation return flow structures do not occur in the BID as they do in the RID.

2.1.11 Study Type

Detailed hydrology & hydraulics.

2.2 Mapping Information

2.2.1 USGS Quad Sheets

N/A

2.2.2 Mapping for Hydrology Study

Two-foot contour maps derived from 50-foot mass points and breaklines digital elevation model (DEM) and one-foot resolution MrSid format orthophotography provided by the District in 2003 were used as the base mapping for the Area 1 hydrology study.

2.2.3 Mapping for Hydraulics Study

Two-foot contour maps derived from 50-foot mass points and breaklines digital elevation model (DEM) and one-foot resolution MrSID format orthophotography provided by the District in 2003 were used as the base mapping for the Area 1 hydraulics study.

2.3 Hydrology

2.3.1 Model or Method Used

The methodologies for this study included Green & Ampt rainfall/runoff losses with S-graph unit hydrographs and normal depth routing using 8-point cross sections.

2.3.2 Storm Frequency and Duration

For both existing and future conditions, the following storm frequencies and durations were used:

- 10-year 6-hour
- 10-year 24-hour
- 100-year 6-hour
- 100-year 24-hour

2.3.3 Hydrograph Type

S-graphs (Agricultural, Desert/Rangeland, and Phoenix Valley) that were developed for Maricopa County.

2.3.4 Frequencies Determined

10-year and 100-year

2.3.5 List of Gages used in Frequency Analysis or Calibration

N/A

2.3.6 Rainfall Amounts and Reference

The rainfall amounts were derived from the NOAA Atlas 2 isopluvial maps as provided in the Hydrology Manual for events up to the 100-year return frequency storm. The rainfall depths are presented in Table 4-1.

2.3.7 Unique Conditions and Problems

Special problems encountered in the course of study are discussed in subsequent sections, including:

- Flow splits and diversions among sub-basins
- Ponding areas along the BID, RID and Southern Pacific Railroad (SPRR)
- Unit hydrograph K_n-values for desert/rangeland and agricultural areas
- Future condition assumptions used for hydrologic modeling
- Entellus study to determine hydrologic parameters

2.3.8 Coordination of Discharges

Peak flows for Area 1 submitted in this report have been coordinated with Julie Cox from the District throughout the entire project. The final peak flows from the individual sub-basins from this study were approximately 30-40% lower than that of McLaughlin's previous study.

2.4 Hydraulics

2.4.1 Model or Method Used

The unsteady flow module established in HEC-RAS (version 3.1.2), developed by the Corps of Engineers, was used to create hydraulic models that represents the RID and BID, from which the overflow hydrograph for flows overtopping the south bank of each canal was generated.

2.4.2 Regime

The flow regime in the unsteady hydraulic model is assumed subcritical for all reaches. Additionally, base flows in the canal were based on irrigation maximum allocations of 450 cfs and 200 cfs for the RID and BID, respectively.

2.4.3 Frequencies for which Profiles were Computed

For both existing and future conditions, the following storm frequencies and durations were used:

- 10-year 6-hour
- 10-year 24-hour

- 100-year 6-hour
- 100-year 24-hour

2.4.4 Method of Floodway Calculation

N/A

2.4.5 Unique Conditions and Problems

Special problems and conditions encountered in the course of this study are discussed in subsequent sections, including:

- Alignments of Canal – the centerline of the BID/RID canals was set as the thalweg for each canal since a previous model had not established this condition.
- Cross Section Data – cross sections were spaced approximately every 200 feet, unless geographic or structural constraints dictated closer since a previous model had not established this condition.
- Manning's roughness coefficient for each cross section was determined using the methodology in the USGS report, *Estimated Manning's Roughness Coefficients for Stream Channels and Flood Plains in Maricopa County*, Arizona, April 1991 since a previous model had not established this condition.
- Flows from ponding areas on the north bank of the canal were treated as lateral inflows to the channel. There are 11 lateral inflows along each canal. The overtopping and outflow on the south bank of the canal were determined by placing a broad-crest weir in the models.
- The upstream boundary of the canals is at the Dean Road crossing, and the downstream boundary of the canals ends east of the Hassayampa River.

2.5 Additional Study Information

N/A

3 Mapping and Survey Information

3.1 Field Survey Information

The first field investigation was conducted on May 24, 2004 to scope out the critical points of the watershed and to identify problematic areas. The project engineers surveyed boundaries between sub-basins, and the effects of the RID, BID, and SPRR on the entire watershed were evaluated (Appendix C, Pictures #1- #18).

The second survey was conducted on September 10, 2004 to determine channel routings and probable ponding areas (Appendix C Pictures #19-51). The survey included a typical 8-point cross section measurement and estimation of Manning's "*n*" for left overbank, main channel, and right overbank. The results of the channel routing survey are summarized in Tables D.3-1 and D.3-2 (Appendix D) for basin lag time calculations.

3.2 Mapping

New mapping for Buckeye Areas 1 and 2 and the southern boundary of Area 3 (the three FRSs) was prepared for the District by Kenney Aerial Mapping, Inc., in 2003. The new mapping provided 2-foot contour data, which are much more accurate than the USGS 7.5 DEM.

Aerial photography was flown in December 2002 as part of the District's ongoing effort to maintain current aerial photography for the entire county. The aerial photography for the study area is 2003 1-foot resolution orthophotography in MrSID format.

Mapping for the entire Buckeye/Sun Valley ADMS study area was prepared for the District by LandData Inc. in 2000. This mapping was prepared with 10-foot grid data derived from 50-foot mass points and break lines, and provides 10-foot contour elevations.

The District has some older strip mapping of the Buckeye FRSs prepared by McLain Harbers Co., Inc. in 1995. This strip mapping was 2-foot contour mapping.

The projected coordinates of State Plane NAD 1983, Arizona Central, were used as the horizontal datum, and the projected coordinates of NAVD 1988 were used as the vertical datum for all of the mapping.

4 Hydrology

4.1 Method Description

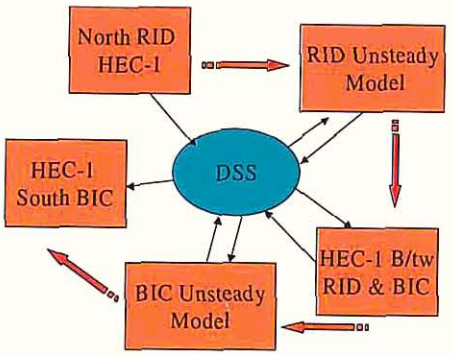
The hydrologic response of Area 1 to the various storm events were simulated using the modified U.S. Army Corps of Engineers HEC-1 (Reference 7) computer program embedded in WMS 7.0 (Reference 8). The HEC-1 parameters were determined using the methods described in the Hydrology Manual. The computational interval used to determine the unit hydrograph for each sub-basin was 5 minutes. Since the RID and BID canals cross the entire watershed from east to west, the runoff concentrated from basins north of each the RID and BID canal may be intercepted by the canals and overtop the north bank. A joint HEC-1/unsteady flow HEC-RAS model was developed in order to link the sub-basins above the RID to the sub-basins between the RID and BID and below the BID, taking into consideration the effects that the RID and BID have on routing discharge in Area 1.

The runoff intercepted by either canal will either be conveyed downstream or overtop the south bank and flow into the basins south of the canal. The assumption in McLaughlin's study was that the overtopping flow from the north bank is completely routed to its adjacent southern sub-basin (no conveyance in the canals for stormwater runoff). The canal unsteady hydraulic model also established flow dynamics of the storage areas along the north side of the canal, overtopping of the north banks into the canal, the hydraulics of canal and associated infrastructure and overtopping of the south banks into the sub-basin below the canal.

The model used 2-foot digital terrain model (DTM) and supplemental field survey data for the bridges, water control structures, storage areas on the north side, and bank profiles for geometry data. Stage-storage relationships were developed using geographical information system (GIS) data, and each storage area was connected to a concentration point with an associated runoff hydrograph determined from the HEC-1 analysis. Canal bank overtopping segments were determined from survey data. Flows into and out of the canal were determined by the unsteady model calculations. The resulting overflows were then routed to the next downstream sub-basin in the HEC-1 hydrology model. The HEC-1 and unsteady HEC-RAS models were interconnected by using Data Storage System (DSS) output functions. The combined models were set to update the HEC-1 hydrology and HEC-RAS hydraulics automatically. HEC-1 files were all executed and the HEC-1 output files are included in Appendix D. HEC-RAS output is located in Appendix E. Links between hydrology and hydraulic models were built in HEC-1 (ZR, ZW records) and HEC-RAS files via DSS files. Figure 4-1 shows how the combined models are executed.

Figure 4-1

H&H Combined Model Execution Sequences



To appropriately run the models, the following sequence must be followed:

- First, run all HEC-1 models. When executing the HEC-1 models, it is important to assign the correct XX.dss file type to its designated storm event. For example, all existing 100-year, 6-hour storm events for each HEC-1 model has the dss file designation of a1.dss. Likewise, all future 100-year, 6-hour storm events for each HEC-1 model is a2.dss. The remaining designations can be found in Appendix D.6.
- After the HEC-1 models have been run for the three sub-sections of Area 1, then the HEC-RAS models should be executed. The RID files should be run before the BID files because the overtopping flows from the RID will be stored in the XX.dss file. Once all RID files have been run, then the BID files should be run. In this manner, when the BID files are run they read the overtopping flows from the RID files and then route this additional information to show if any overtopping occurs along the BID.

4.2 Parameter Estimation

This section includes a complete description of the methodology and calculations used to develop the hydrology. The HEC-RAS model parameters were determined using the methods described in the Hydraulics Manual.

4.2.1 Drainage Area Boundaries

Area 1 of the Buckeye/Sun Valley ADMS is defined as the area between the Buckeye Structures and the Gila River. The area covers approximately 70 square miles in aerial extent. Runoff generally flows in a south to southwest direction toward the Gila River. The McLaughlin Area 1 study area did not include the area south of the BID. Also, the Buckeye Candidate Assessment Report (Reference 5) was used to further define sub-basins within the Town of Buckeye.

In reality, Area 1 is subdivided into three smaller regions:

- Area 1A – Area south of the Buckeye Structures and north of the RID

- Area 1B – Area south of the RID and north of the BID
- Area 1C – Area south of the BID and north of the Gila River Floodplain Boundary

The RID and BID canals cross the entire watershed from east to west, and a portion of any runoff overtopping the north bank of each canal is expected to be intercepted by the canal and conveyed downstream in the canal. This challenges the McLaughlin assumption that the overtopping flow from the north bank is completely routed to its adjacent southern sub-basin (i.e. no flow in the canals). For this study, a combined hydrology and hydraulics model was developed in order to simulate potential flow diversion in the canals to be considered.

In addition to the irrigation canals, the paved section line roads have a significant impact on runoff. The roads generally intersect the drainage areas at one-mile intervals in both the north-south and east-west directions. The roads are slightly crowned and often have roadside drainage ditches and adjacent irrigation return flow ditches.

Currently, this watershed is mostly agricultural; a small portion of it is desert/rangeland and urban (Town of Buckeye). In the future, a number of master planned communities are envisioned for this area. It is noted that Sub-basin 83 does not contribute to Area 1, but it is included in the Area 1 hydrology for consistency in the updating of McLaughlin's study. Figure 4-2 (Pocket) shows the drainage area boundaries, major sub-basin boundaries, and concentration points.

4.2.2 Watershed Work Maps

The watershed work maps include:

- Watershed Workmap (Figure 4-2, in Pocket)
- HEC-1 routing diagram (Figure 4-3 for existing and future conditions, in Pocket)
- Drainage basin map showing lag flow paths (Figure 4-4, in Pocket)
- Soils map (Figure 4-5, in Pocket)
- Land use maps (Figure 4-6a & 4-6b for existing and future conditions, in Pocket)
- Flow maps including the drainage basin map with lag time paths and concentration points (Figure 4-7a & 4-7b, for existing and future conditions, in Pocket).

4.2.3 Gage Data

There are no existing precipitation gages or stage gages within the study watershed. There are precipitation and reservoir pool gages at the downstream end of the watershed at each of the three FRSs. There is also a weather station located near the Hassayampa River at the I-10 bridge.

4.2.4 Statistical Parameters

The statistical parameters such as rainfall depths and rainfall distributions for storms up to the 100-year return frequency events are based on the data provided in the Hydrology Manual.

4.2.5 Precipitation

4.2.5.1 Rainfall Depths

The NOAA Atlas 2 data set was used for point rainfall amounts in this study. The NOAA Atlas 14 data set is available for use; however, it has not been accepted to date by the District and depth-duration-frequency relationships have not been completed. For the same storm event within the study area, rainfall depths in NOAA Atlas 14 are approximately 15 to 25% less than that in NOAA Atlas 2.

The point rainfall depths for less than the 100-year, 24-hour storm events were obtained from the isopluvial maps in the Hydrology Manual (Appendix D). As advised by the District, the point rainfall depths presented in the following Table 4-1 are area-weighted based on the size of the watershed.

Table 4-1

Summary of Rainfall Depths for Area 1

	Precipitation			
	10-Yr,	10-Yr,	100-Yr,	100-Yr,
Basin ID	6-Hr	24-Hr	6-hr	24-Hr
FRD*-RID West	2.10	2.50	3.30	4.10
FRD*-RID East	2.08	2.50	3.30	4.10
RID*-BID West	2.10	2.50	3.30	4.10
RID*-Gila East	2.09	2.50	3.30	4.10
BID*-Gila West	2.10	2.50	3.30	4.10
BID*-Gila East	2.09	2.50	3.30	4.10

* Abbreviation refers to a portion of Area 1. FRD-RID West means that the rainfall depth South of the FRSs and North of the RID in the Western portion of Area 1 is 2.10 inches for the 10-Year, 6-Hour Storm Event.

The point rainfall depths were adjusted by aerial reduction factors (JD records) to develop the rainfall depths to be entered into the combined HEC-1 model by using the PC records. The aerial reduction factors are based on the Hydrology Manual as presented in JD records of HEC-1 input files (Appendix D.6).

4.2.5.2 Rainfall Distributions

Both the 6-hour and 24-hour rainfall distributions were based on the Hydrology Manual. The 24-hour rainfall distribution is the SCS Type II distribution for each sub-basin. The 6-hour rainfall distributions vary with the size of the sub-basin (distribution patterns were obtained from the Maricopa County Rainfall Distribution module in WMS 7.0). The values of rainfall distributions can be found in the final HEC-1 models (Appendix D.6).

4.2.6 Physical Parameters

This section describes the methods used for estimation of the physical hydrologic parameters such as rainfall losses, the unit hydrograph, and lag time for the desert/rangeland type terrain drainage area. A study by Entellus was commissioned to refine current methods and

assumptions used to determine runoff from irrigated farmlands. The Entellus study, completed in February 2005, makes comparisons to the PBS&J models that were not finalized at that time. The following information given in Table 4-2 is taken directly from the Entellus study and does not reflect any changes in the models after February 2005.

The Entellus pilot study of a portion of Area 1 showed that the parameters and assumptions commonly used by the District generally are conservative and can produce high estimates of discharges. Currently, agricultural areas are considered to be completely saturated with irrigation water prior to a storm event. Commissioned by the District, the pilot study focused on four sub-basins in Area 1 that are classified as agricultural areas in order to determine what effect adjusting the hydrologic factors will have on discharges. These sub-basins are the following with their concentration point ID in parentheses: 31 (H4), 43 (H5), 54 (H6), and 62 (H7).

The pilot study produced a model that reflected the changes in parameters that were intended to show that the current hydrologic parameters are too conservative. The pilot study did not make changes to sub-basins, lag times, precipitation data, unit hydrographs, and flow routes. Changes were made to the following parameters:

- Green and Ampt Parameters
    - Initial Soil Moisture Content (DTHETA) – DTHETA values in the pilot study were estimated using the weighted average of saturated soil in the pilot sub-basins (0.19 for sandy loams). DTHETA values in this study were estimated assuming all of the fields were in a normal saturated state (0.25 for all sandy loams).
    - Initial Abstraction (IA) – The IA value used in the PBS&J models study was 0.5 inches, the recommended District value, while the IA value in the pilot study was 1.0 inch for agricultural areas.
- Storage Routes - Runoff attenuation caused by storage throughout the fields in the pilot study was accounted for using proposed IA and Kn values. For this study, storage behind the RID was accounted for using a stage-storage distribution modeled in HEC-RAS that generated a hydrograph that was routed through the area downstream of the RID.

Table 4-2 shows a comparison of peak unit discharges for the 100-year, 6-hour storm event. The comparison of the models shows that the proposed changes to the District's methodology reduced peak flows by approximately 40% when compared to the PBS&J models and by approximately 40% compared to the McLaughlin study. The decrease in peak flows is consistent with the findings of the calibration process.

Table 4-2

Comparison of 100-Year, 6-Hour Results from Various Models

		100-Year, 6-Hour Peak Unit Discharges		
Sub-Basin ID	Area [mi^2]	MKE [cfs]	Current PBS&J Models [cfs]	PBS&J Model w/ Proposed Changes [cfs]
31	1.1	283	149	157
43	1.0	264	151	161
54	0.4	382	221	225
62	0.6	498	277	278

Julie Cox of the FCDMC performed a sensitivity analysis (Reference 9) of various DTHETA values and determined that there is a small percentage difference in peak flows and volumes when comparing the weighted average DTHETA proposed by Entellus and the District's normal DTHETA. For this study, the District's normal DTHETA values will be used so no changes are required in the models. Additionally, due to the Entellus study, the IA values for all sub-basins with greater than 50% agricultural land use were changed from 0.5 to 1.0. The following sub-basin's IA values were modified to reflect the findings of the Entellus study: 3, 15B, 17, 18, 19, 20, 21A, 21B, 22, 23, 25, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45A, 45B, 46, 47, 48, 49, 50, 51, 52A, 52B, 53, 54, 55, 56A, 57, 58, 59, 60A, 60B, 61, 62, 63, 64, 65, 66, 70, 71, 72, 84, 85A, 85B, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, DRAIN.

4.2.6.1 Rainfall Losses

The Green-Ampt procedure was used to compute rainfall losses in accordance with the Hydrology Manual. The digital soil and land use files (both in GIS shape file format) for the study area were provided by the District. The digital soil file corresponds to SCS soil maps (Reference 10). The GIS land use shape file was based on published digital GIS land use maps (Reference 11), the most current land use information. Figures 4-4 and 4-5a & 4-5b describe the soil and land use, respectively. The existing land use cutoff date is 2000 or the date the MAG landuse file was generated. The future land use build out date is 2025.

The GIS land use shape files and soil files were imported into WMS 7.0. Two additional attribute tables (one for soil and another for land use, Table D.2-1 and D.2-2) were imported into WMS 7.0 for the Green-Ampt rainfall loss parameter estimation. The attribute tables for the land use types can be found in Appendix D.2.

The Green-Ampt rainfall loss parameters used in the HEC-1 input files (Appendix D.6) are found in Table D.2-3 and D.2-4 for existing and future conditions, respectively. For future conditions, the Green-Ampt parameters were estimated based upon variations of land use types according to conceptual community plans within the study area as determined by the Town of Buckeye. This study assumes that the Green & Ampt loss parameters do not change with storm return frequencies.

4.2.6.2 Unit Hydrograph

The Maricopa County S-Graph method was used to compute unit hydrographs in accordance with the Hydrology Manual. The Phoenix Valley, Agricultural, and Desert/Rangeland S-Graphs were used to compute the unit hydrographs. McLaughlin used Phoenix Valley S-graph for both the desert and agricultural areas because the Desert/Rangeland and Agricultural S-Graphs were still under development. The unit hydrographs were computed by using WMS 7.0. The unit hydrograph can be found in the UI record in the HEC-1 input files (see Appendix D.6).

4.2.6.3 Lag Time

Lag time must be estimated before S-Graph unit hydrographs can be computed. Four parameters must be computed to estimate the lag time for each sub-basin. These four parameters are: the longest watercourse length measured from the concentration point to a most hydraulically upstream point (L), the slope for the longest watercourse (S), the length from the concentration point along the longest watercourse to a point opposite the centroid (L_{ca}), and the basin roughness (K_n).

The first three parameters (L, L_{ca}, and S) can be automatically computed in WMS 7.0, but due to problematic sub-basin delineation using WMS 7.0, L, L_{ca}, and S were computed using AutoCAD. Some L_{ca} values were adjusted based on engineering judgment. The basin roughness is a composite Manning's *n* value for all the channels in the sub-basins. An appropriate basin roughness value is determined for each sub-basin based on field observation, aerial photographs, soil maps, and land use maps. Lag time for each basin is calculated by using the formula in the Hydrology Manual. The parameters for lag time calculation are summarized in Table D.2-5 (Appendix D.2).

Since Desert/Rangeland S-graphs are used for gently sloping natural areas, the K_n-value range is 0.02 to 0.03 as shown in Table 5-4 in the Hydrology Manual. Also, from the Hydrology Manual, the Agricultural S-graphs called for a K_n-value in the range of 0.06 to 0.20 and the Phoenix Valley S-graph K_n-value can range from 0.011 to 0.20. However, based upon our field survey, we determined a range of 0.04 to 0.06 for Desert/Rangeland according to the base material, vegetation, obstruction, and irregularity in the basins. Generally, 0.05 was used for Desert/Rangeland and 0.2 was used for Agricultural and Phoenix Valley. These values were also used in the 1992 McLaughlin study. The selection of K_n values is in agreement with studies conducted at similar surface geographic watersheds (Reference 12).

As the Hydrology Manual notes, "some adjustment in K_n should be made for use with rainfalls of different magnitudes (frequencies)." We agree that K_n should be adjusted for storms with different return frequencies in the study since the study storm events vary from 10-year, 6-hour to the 100-year, 24-hour. However, no quantitative adjustment factors are available. Therefore, based on discussions with the District, no adjustment is made to K_n -value for different storm events.

4.2.6.4 Channel Routing Path Parameters

The normal depth channel routing in HEC-1 was used to route runoff hydrographs through sub-basins. The routing paths for the runoff can be found in Figure 4-2.

The channel routing parameters include NSTPS (the number of sub-reaches to be divided for the routing reach by HEC-1), initial outflow, Manning's n-values for left overbank, main channel, and right overbank, reach length, bed slope for the routing reach, and an eight-point cross section (RX-RY data). The eight-point cross section data was obtained from field observations. WMS 7.0 automatically computes the reach length and channel bed slope. The estimation of Manning's n-values was based on field trips, aerial photos, land use maps, and soil maps using the procedures recommended by the USGS (Reference 13). The estimation of the Manning's n-values was primarily preformed during the September 10, 2004, field investigation. The n-values were based on the n-values used in other areas of the Buckeye ADMS. An iterative process in WMS 7.0 calculated NSTEPS values for routing reaches. All channel routing parameters are summarized in Table D.3-1 through Table D.3-3 in Appendix D.3.

4.3 Problems Encountered During the Study

4.3.1 Special Problems and Solutions

Several issues have already been proposed and discussed in the previous sections, such as unit hydrographs and basin roughness K_n-values. This section covers additional issues encountered during the study.

4.3.1.1 S-graph Assignment for Sub-basin

As mentioned in Section 4.2.6.2, McLaughlin used the Phoenix Valley S-Graph for natural desert rangelands and agricultural areas because the Desert/Rangeland and Agricultural S-Graphs were under development at that time. This study reassigns some of the S-Graph types for each sub-basin based on current land use conditions that gives a better prediction of discharges. Also, this study uses Agricultural, Desert/Rangeland, and Phoenix Valley S-Graphs.

4.3.1.2 Flow Diversions

N/A

4.3.1.3 Influence of Canals on Modeling Methodology

The influence of the canals on routing runoff was a huge consideration because this study challenges the McLaughlin assumption that runoff overtopping a basin north of one of the canals will be routed directly to the basin south of the canal. The combined HEC-1 and HEC-RAS models showed that runoff overtopping a canal's northern berm would most likely be carried along the canal to a point further downstream.

For both existing and future land use conditions, the unit discharges seem to be high north of the RID and BID. This can be attributed to the overtopping of the canals and can be ignored.

4.3.1.4 Future Condition Assumptions

The following assumptions were used for future conditions after consultation and discussion with the District.

1. Basin and sub-basin boundary delineations were kept the same as the existing conditions model. Basin delineation includes all the surface characteristics such as sub-basin boundaries, concentration points, and routing channels. Community Master Plans (CMP) (References 14 to 18) within Buckeye Area 1 were reviewed. Most of the CMPs use the previous HEC-1 model in this area. In their reports, they maintained the major natural channel and flow patterns and did not make significant changes to the topography. Based on these reports, we assume that the basin delineations for future conditions can be maintained the same as for the existing conditions.

2. The future condition model should incorporate the "land-use plan" provided by the Town of Buckeye. Buckeye land use codes are different from the County's. The relationship between the two land use code systems is identified in Table 4-3. These changes were incorporated in the GIS shape file and used to re-calculate the Green & Ampt parameters.

3. Retention was assumed for flood mitigation due to land development for future conditions. As stated in "Town of Buckeye Development Code (1996)", the Town does not allow any increase of peak discharge, runoff volume, and velocity of runoff for post-development; 100-year 2-hour onsite retention is encouraged. The retention volumes required for each sub-basin were determined through a trial-and-error process. The information supporting both existing and future retention volumes is located in Appendix D.6.

Table 4-3

Correlations between Buckeye and the County Land Use Codes

Buckeye Code	Description of Buckeye Code	FCDMC Code	Relation to County Code
CC	Community Center, to accommodate a variety of commerce and specialized development including commercial uses which comprise the central business district of the Town	C2	Central, general, office, intermediate commerce
GC	General Commerce, to accommodate general commercial and employment uses and compatible industrial uses to which public services are available	C2	Central, general, office, intermediate commerce
MR	Mixed Residential, to accommodate both single and multiple family residential development, historic residential neighborhoods and compatible commercial uses	MDR	Medium Density Residential, 6,000~12,000 sq. ft lot size

Buckeye Code	Description of Buckeye Code	FCDMC Code	Relation to County Code
PC	Planned Community, to accommodate all land uses approved as part of a Community Master Plan, where specific uses, public services, densities, and design criteria have been identified and adopted	MDR	Developers proposed MDR
PR	Planned Residential, to accommodate all subdivided residential development to which public services are available	MDR	Developers proposed MDR
RR	Rural Residential, to accommodate low-density residential development in outlying areas where all public services may not be available.	VLDR	40,000 sq. ft and greater lot size
Special Use	To accommodate uses in natural hazard or floodplain areas or those under public ownership where development may not be possible.	NDR	Undeveloped desert rangeland
Undeveloped	Little topographic relief, slope < 5%, desert rangeland	NDR	Undeveloped desert rangeland

4.3.2 Model Warning and Error Messages

No error messages are present in the computer model output files. There are several warning messages about the channel and reservoir routing, including the following:

```
*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR
OUTFLOWS BETWEEN     2617. TO 3974.

                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR
OUTFLOWS GREATER THAN PEAK INFLOWS.

                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR
INCREASING STORAGE (USE A LONGER REACH.)
```

A test was conducted by decreasing NSTEPS until the warning message disappeared. Since the "modified puls" routing method was not used, and there is less than 3% difference in peak discharge after the NSTEPS was changed, this type of warning is ignored.

4.4 Calibration

No calibration was performed because there is no gage station within the watershed. However, verification is performed (see Section 4.5.2, this report).

4.5 Final Results

4.5.1 Hydrologic & Hydraulic Analysis Results

The results for Buckeye Area 1 hydrology & hydraulics study were obtained using the 1998 revision of HEC-1 (version 4.1) embedded in WMS 7.0, and then by developing a HEC-1/Unsteady Flow HEC-RAS integrated model. The peak discharges and times-to-peak at all of the sub-basin, concentration points, and other points of interest within Area 1 are shown in Tables 4-4a and 4-4b for existing and future conditions, respectively. Tables 4-5a and 4-5b summarize the runoff volumes in units of acre-feet for all concentration points.

Table 4-4a

Buckeye Area 1 Hydrologic Responses for Various Storm Events (Peak Discharge and Time to Peak – Existing Condition)

Station	Area [mi²]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]
15A	0.59	310	4.5	525	205	12.5	347	711	4.5	1205	539	12.5	914
F1A-1B	0.59	128	6	217	75	14.25	127	363	5.75	615	254	13.75	431
15B	0.82	13	7	16	9	15	11	114	7	139	95	15	116
F1B	1.4	130	6	93	82	14.25	59	376	5.75	269	318	13.75	227
2	1.23	398	4.75	324	351	12.75	285	1048	4.75	852	895	12.75	728
1	1.63	358	5	220	344	13	211	1004	5	616	876	13	537
G2	2.86	505	4.75	177	629	12.75	220	1652	4.75	578	1633	12.75	571
G2-G3	2.86	460	5.5	161	583	13.5	204	1572	5.25	550	1518	13.5	531
16	0.95	563	5	593	437	13	460	1049	5	1104	836	13	880
G3	3.81	659	5.5	173	824	13.5	216	2197	5.25	577	2149	13.25	564
4	0.55	298	4.75	542	192	12.75	349	614	4.75	1116	448	12.75	815
H1-H2	0.55	189	5.25	344	117	13.25	213	438	5	796	306	13	556
3	1.65	81	5	49	80	13	48	715	5	433	733	13	444
H2	2.2	188	5	85	179	13	81	991	5	450	1030	13	468
H2-H3	2.2	133	5.75	60	129	13.75	59	825	5.25	375	866	13.25	394
17	0.61	20	6.25	33	12	14.5	20	118	6.5	193	92	14.5	151
H3	2.8	131	5.75	47	136	13.75	49	820	5.5	293	916	13.25	327
5A	1.17	390	4.75	333	338	12.75	289	1008	4.75	862	849	12.75	726
I1AI2A	1.17	258	5.5	221	219	13.5	187	795	5.25	679	648	13.25	554
18	0.8	15	6.25	19	11	14.5	14	136	6.5	170	113	14.5	141
I2A	1.97	258	5.5	131	223	13.5	113	795	5.25	404	710	13.25	360
5B	0.58	280	4.75	483	190	12.75	328	602	4.75	1038	447	12.75	771
I1BI2B	0.58	94	5.5	162	61	13.5	105	234	5.5	403	168	13.5	290
19	0.54	22	6.5	41	13	14.5	24	108	6.5	200	82	14.5	152
I2B	1.11	94	5.5	85	69	13.5	62	275	5.5	248	223	13.5	201
6	0.32	277	4.25	866	183	12.25	572	583	4.25	1822	440	12.25	1375
J1-J2	0.32	161	5	503	104	13	325	401	4.75	1253	277	12.75	866
8	0.41	264	4.75	644	171	12.75	417	508	4.75	1239	366	12.75	893
J2	0.73	365	4.75	500	257	12.75	352	849	4.75	1163	638	12.75	874
J2-J3	0.73	260	5.25	356	168	13.25	230	631	5.00	864	462	13.25	633
20	0.66	19	6.5	29	11	14.5	17	115	6.75	174	91	14.5	138
J3	1.4	262	5.25	187	171	13.25	122	631	5.25	451	505	13.25	361
7	0.45	359	4.5	798	222	12.5	493	734	4.50	1631	521	12.5	1158
K1-K2	0.45	239	4.75	531	145	12.75	322	566	4.75	1258	393	12.75	873
9	0.61	482	4.5	790	323	12.5	530	1005	4.50	1648	754	12.5	1236
K2	1.06	486	4.5	458	398	12.5	375	1238	4.50	1168	1043	12.5	984

Station	Area [mi²]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]
K2-K3	1.06	294	5	277	233	13.25	220	925	5.00	873	730	13	689
21B	0.27	8	5.75	30	2	13.75	7	67	5.75	248	48	13.75	178
21A	0.37	9	6	24	3	14	8	77	6.00	208	55	14	149
10	1.17	441	5	377	373	13	319	1073	4.75	917	894	12.75	764
L1-L2	1.17	407	5.25	348	343	13.25	293	991	5.25	847	813	13.25	695
22	0.56	16	6.5	29	7	14.5	13	99	6.50	177	75	14.5	134
L2	1.73	407	5.25	235	345	13.25	199	991	5.25	573	850	13.25	491
11C	0.34	305	4.5	897	188	12.5	553	640	4.50	1882	460	12.5	1353
N1C-N2	0.34	117	5	344	68	13.25	200	329	5.00	968	229	13	674
11A	0.57	537	4.5	942	366	12.5	642	1038	4.50	1821	787	12.25	1381
11Aret	0.57	537	4.5	942	366	12.5	642	1017	4.25	1784	787	12.25	1381
11A-O	0.57	0	0	0	0	0	0	488	4.50	856	82	12.75	144
N1A-1B	0.57	0	0	0	0	0	0	189	5.00	332	27	13.5	47
11B	0.58	339	4.75	584	222	12.75	383	744	4.75	1283	547	12.75	943
N1B	1.15	252	4.75	219	219	12.75	190	684	4.75	595	546	12.75	475
N1B-N2	1.15	51	7.25	44	43	15.25	37	303	6.25	263	194	14.25	169
23	0.52	23	6.25	44	12	14.5	23	112	6.50	215	85	14.25	163
N2	2.02	117	5.25	58	74	13.25	37	364	6.25	180	296	14.25	147
12	0.74	611	4.5	826	446	12.5	603	1300	4.50	1757	1028	12.5	1389
12ret	0.74	611	4.5	826	446	12.5	603	1300	4.50	1757	1028	12.5	1389
12-O	0.74	0	0	0	0	0	0	328	4.75	443	0	24.25	0
O1-O2	0.74	0	0	0	0	0	0	198	5.00	268	0	24.75	0
13	0.5	445	4.25	890	287	12.25	574	971	4.25	1942	731	12.25	1462
13ret	0.5	445	4.25	890	287	12.25	574	971	4.25	1942	731	12.25	1462
13-O	0.5	0	0	0	0	0	0	0	0.00	0	0	0	0
O2	1.24	0	0	0	0	0	0	198	5.25	160	0	24.75	0
O2-O3	1.24	0	0	0	0	0	0	92	5.25	74	0	25	0
24	0.49	423	4.25	863	273	12.25	557	881	4.25	1798	652	12.25	1331
O3	1.73	277	4.25	160	269	12.25	155	668	4.25	386	643	12.25	372
O3-O4	1.73	87	6.25	50	77	14.25	45	281	5.75	162	222	13.75	128
25	0.27	65	4.75	241	36	12.75	133	301	4.75	1115	226	12.75	837
O4	2	87	6.25	44	77	14.25	39	281	5.75	141	229	13.75	115
14A	0.69	386	4.75	559	273	12.75	396	846	4.75	1226	643	12.5	932
14Aret	0.69	386	4.75	559	273	12.75	396	822	4.50	1191	643	12.5	932
14A-O	0.69	0	0	0	0	0	0	370	5.00	536	32	13.25	46
P1A-1B	0.69	0	0	0	0	0	0	238	5.25	345	19	13.75	28
14B	0.5	376	4.5	752	231	12.5	462	786	4.50	1572	557	12.25	1114
14Bret	0.5	376	4.5	752	231	12.5	462	746	4.25	1492	557	12.25	1114
14B-O	0.5	0	0	0	0	0	0	189	4.75	378	0	0	0
P1B	1.19	0	0	0	0	0	0	239	5.50	201	19	13.75	16
P1B-P2	1.19	0	0	0	0	0	0	140	5.75	118	11	14.25	9
26	0.52	551	4.5	1060	362	12.5	696	1060	4.50	2038	768	12.5	1477
P2	1.72	367	4.5	213	356	12.5	207	791	4.50	460	759	12.5	441

Station	Area [mi²]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]
83	0.68	356	4.75	524	254	12.75	374	781	4.75	1149	599	12.75	881
83ret	0.68	356	4.75	524	254	12.75	374	672	4.50	988	599	12.75	881
83-O	0.68	0	0	0	0	0	0	507	5.00	746	247	13	363
68	0.41	324	4.5	790	203	12.5	495	694	4.5	1693	499	12.5	1217
E1-E2	0.41	221	4.75	539	147	12.5	359	453	4.75	1105	343	12.5	837
59	0.25	43	4.75	172	26	12.75	104	169	4.75	676	126	12.75	504
E2	0.66	234	4.75	355	165	12.75	250	589	4.75	892	465	12.75	705
RIDF	0	0	0	--	67	15.5	--	288	6	--	285	14	--
F1S-F2	0	0	0	--	33	16.75	--	229	7.75	--	231	15.75	--
27	0.24	12	5.75	50	6	13.75	25	70	5.75	292	51	13.75	213
F2	0.24	12	5.75	50	33	16.75	138	249	7.5	1038	245	15.5	1021
F2-F3	0.24	8	9	33	26	18.75	108	239	8.75	996	236	17	983
29	1	13	6.25	13	13	14.25	13	162	6.5	162	145	14.25	145
F3	1.24	12	6.75	10	27	18.5	22	290	8	234	285	16.75	230
F3-F4	1.24	9	10.25	7	22	20.75	18	282	9.5	227	279	17.75	225
41	1.2	19	6.25	16	22	14.25	18	197	6.5	164	179	14.25	149
F4	2.44	10	6.75	4	22	20.75	9	299	9.75	123	317	17	130
F4-F5B	2.44	9	8.25	4	19	22	8	293	10.25	120	310	18	127
52B	0.5	31	5.25	62	15	13.25	30	192	5.25	384	141	13.25	282
F5B	2.94	9	8	3	19	22.25	6	291	10.25	99	312	18	106
F5BF6B	2.94	7	8	2	19	22.25	6	288	10.25	98	311	18	106
60B	0.57	31	5.5	54	18	13.5	32	174	5.5	305	132	13.5	232
F6B	3.51	14	5.5	4	27	13.5	8	284	10.5	81	314	18	89
52A	0.31	14	6.25	45	8	14.25	26	71	6.25	229	53	14.25	171
F5AF6A	0.31	14	6.5	45	8	14.5	26	71	6.25	229	53	14.5	171
60A	0.41	20	5.75	49	10	13.75	24	117	5.75	285	86	13.75	210
F6A	0.72	24	6	33	16	14	22	163	6	226	133	14	185
RIDG	0	0	0	--	0	0	--	565	6.25	--	550	14.25	--
G3S-G4	0	0	0	--	0	0	--	330	7.25	--	332	15.25	--
28	0.33	16	5.75	48	9	14	27	87	5.75	264	65	13.75	197
G4	0.33	16	5.75	48	9	14	27	383	7.25	1161	371	15.25	1124
G4-G5	0.33	10	10.75	30	5	18.75	15	351	8.75	1064	340	17	1030
30	0.98	44	6.5	45	39	14.5	40	195	6.5	199	168	14.5	171
G5	1.32	41	6.5	31	38	14.5	29	411	8.75	311	404	16.75	306
G5-G6	1.32	36	8.75	27	34	16.75	26	390	10	295	383	18	290
42	0.78	20	6.5	26	15	14.5	19	140	6.5	179	115	14.5	147
G6	2.1	36	8.5	17	40	16.25	19	397	10	189	400	18	190
G6-G7	2.1	34	9.5	16	38	17.25	18	390	10.5	186	394	18.5	188
53	0.34	20	5.75	59	11	13.75	32	104	5.75	306	78	13.75	229
G7	2.43	33	9.5	14	39	17.25	16	390	10.5	160	395	18.5	163
G7-G8	2.43	32	9.5	13	39	17.25	16	387	10.5	159	395	18.5	163
61	0.51	34	5.75	67	19	13.75	37	159	5.75	312	119	13.75	233
G8	2.94	31	9.5	11	40	17.25	14	387	10.5	132	397	18.5	135

Station	Area [mi²]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]
RIDH	0	12	7.25	--	6	15.5	--	220	7.25	--	281	15	--
H3S-H4	0	2	8.25	--	1	16.25	--	110	8.75	--	120	16.5	--
31	1.08	20	6.75	19	20	15	19	161	6.75	149	143	15	132
H4	1.08	20	7.25	19	20	15.25	19	246	8	228	246	16	228
H4-H5	1.08	16	9.75	15	16	17.25	15	226	8.75	209	225	16.75	208
43	1	20	7	20	20	15	20	151	7	151	131	15	131
H5	2.08	17	8.25	8	28	16.25	13	310	8.25	149	324	16.25	156
H5-H6	2.08	16	9.25	8	26	17.25	13	301	8.75	145	315	16.75	151
54	0.39	17	6.25	44	9	14.25	23	86	6.5	221	64	14.25	164
H6	2.47	16	8.75	6	27	16.75	11	311	8.75	126	336	16.75	136
H6-H7	2.47	14	9	6	27	17	11	312	8.5	126	337	16.5	136
62	0.57	29	5.75	51	17	13.75	30	158	6	277	121	13.75	212
H7	3.04	14	8.5	5	28	17	9	313	8.5	103	353	16.5	116
RIDI	0	0	0	--	0	0	--	314	5.75	--	120	14	--
I2S-I3	0	0	0	--	0	0	--	16	6	--	10	14.25	--
32	0.9	17	6.75	19	14	14.75	16	135	6.75	150	116	14.75	129
I3	0.9	17	6.75	19	14	14.75	16	140	6.5	156	122	14.5	136
I3-I4	0.9	10	12.75	11	9	21	10	111	9.5	123	87	18.25	97
44	1.01	27	7	27	25	15	25	153	7	151	134	15	133
I4	1.9	22	7	12	24	15	13	139	9.5	73	135	18	71
I4-I5	1.9	21	8.25	11	23	16.25	12	135	10	71	132	18.5	69
55	0.26	13	5.75	50	7	13.75	27	68	6	262	52	13.75	200
I5	2.17	21	8	10	25	16	12	147	7.5	68	152	15.25	70
I5-I6	2.17	21	8	10	25	16	12	125	10.75	58	128	19	59
63	0.5	71	5.75	142	49	13.75	98	192	5.75	384	147	13.75	294
I6	2.66	54	6	20	57	14	21	208	6	78	202	13.75	76
RIDJ	0	0	0	--	0	0	--	218	6	--	157	14	--
J3S-J4	0	0	0	--	0	0	--	68	7	--	51	15	--
33	1	21	6.75	21	21	14.75	21	163	6.75	163	142	14.75	142
J4	1	21	6.75	21	21	14.75	21	232	7	232	193	15	193
J4-J5	1	16	9	16	16	17	16	213	8	213	177	16	177
45A	1	18	6.75	18	18	15	18	149	7	149	130	15	130
J5A	2.01	17	8.75	8	27	16	13	303	8	151	289	16	144
J5A-5B	2.01	15	10	7	25	18	12	287	8.75	143	273	16.75	136
45B	0.14	32	5.25	229	23	13.25	164	77	5.25	550	59	13.25	421
J5B	2.14	24	5.25	11	26	18	12	284	8.75	133	277	16.75	129
J5B-J6	2.14	16	6.25	7	23	19	11	186	10.5	87	183	18.5	86
64	0.41	24	5.75	59	13	13.75	32	124	5.75	302	92	13.75	224
J6	2.56	21	6	8	25	14	10	186	10.5	73	185	18.5	72
RIDKB	0	149	5.75	--	93	14	--	516	5.25	--	441	13.25	--
K3SBK4	0	89	6.75	--	55	14.75	--	319	5.75	--	267	14	--
DKA	0	220	6.25	--	165	14.5	--	626	5.5	--	521	13.5	--
K3SAK4	0	151	8	--	109	16	--	319	6.75	--	291	15	--

Station	Area [mi²]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]
34	0.64	23	6	36	13	14.25	20	135	6.25	211	106	14.25	166
K4	0.64	236	7	369	154	15.5	241	723	6.25	1130	616	14.25	963
K4-K5	0.64	232	8	363	149	16.25	233	711	6.75	1111	603	14.75	942
35	1.5	33	6.75	22	33	14.75	22	220	6.75	147	209	14.75	139
K5	2.14	244	8	114	170	16.25	79	876	6.75	409	809	14.75	378
K5-K6	2.14	225	9.25	105	151	17.75	71	826	7.75	386	767	15.75	358
46	1.38	28	6.75	20	28	14.75	20	205	6.75	149	192	14.75	139
K6	3.52	226	9.5	64	158	17.75	45	931	7.75	264	934	15.75	265
K6-K7	3.52	223	9.5	63	159	17.75	45	825	8.25	234	827	16.5	235
65	0.38	24	5.75	63	13	13.75	34	110	5.75	289	83	13.75	218
K7	3.9	222	9.5	57	159	17.75	41	827	8.25	212	838	16.5	215
RIDL	0	0	0	--	0	0	--	0	0	--	0	0	--
L2S-L3	0	0	0	--	0	0	--	0	0	--	0	0	--
36	0.68	30	6.5	44	21	14.75	31	134	6.5	197	108	14.75	159
L3	0.68	30	6.5	44	21	14.75	31	134	6.5	197	108	14.75	159
L3-L4	0.68	21	10	31	14	18.75	21	111	8.75	163	86	17.25	126
47	0.62	21	6.25	34	12	14.25	19	125	6.5	202	98	14.25	158
L4	1.3	21	10.5	16	15	18.5	12	132	8.75	102	115	16.75	88
L4-L5	1.3	15	10.75	12	15	18.75	12	127	9	98	111	17	85
66	0.29	31	5.5	107	19	13.5	66	114	5.5	393	87	13.5	300
L5	1.59	23	6	14	26	14	16	161	6	101	154	14	97
RIDM	0	119	6	--	30	14	--	725	5.5	--	598	13.5	--
L2S2M1	0	18	7.5	--	3	15.25	--	187	6.75	--	145	15	--
37	1.42	17	6.75	12	19	14.75	13	171	7	120	161	14.75	113
M1	1.42	35	7.5	25	22	15.25	15	358	7	252	305	15	215
M1-M2	1.42	28	10.5	20	18	18.5	13	333	8.75	235	286	16.75	201
48	0.5	26	6	52	14	14	28	125	6	250	94	14	188
M2	1.92	27	10.5	14	18	18.5	9	339	8.5	177	303	16.75	158
M2-M3	1.92	23	11.25	12	17	19	9	336	9	175	299	17	156
67	0.47	175	5.75	372	119	13.75	253	334	5.75	711	245	13.75	521
M3	2.39	130	5.75	54	124	13.75	52	334	9	140	312	17	131
M3-M4	2.39	98	6.25	41	93	14.25	39	195	11.5	82	185	19.5	77
69	0.14	167	4.5	1193	114	12.5	814	292	4.5	2086	214	12.5	1529
M4	2.53	144	4.5	57	140	12.5	55	281	4.5	111	271	12.5	107
RIDN	0	42	7	--	8	15.25	--	280	6.25	--	214	14.5	--
N2S-N3	0	17	8.25	--	1	16	--	158	7.25	--	117	15.5	--
38	0.54	23	6.25	43	13	14.5	24	116	6.5	215	88	14.25	163
N3	0.54	31	7.25	57	13	14.5	24	261	7.25	483	194	15.25	359
N3-N4	0.54	28	9	52	11	16.75	20	248	7.75	459	183	16	339
49	1.01	22	7	22	21	15	21	154	7	152	134	15	133
N4	1.55	26	8.75	17	27	16	17	351	8	226	300	16	194
N4-N5B	1.55	24	9.75	15	24	17	15	343	8.25	221	289	16.25	186

Station	Area [mi²]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]
56B	0.33	212	5.5	642	152	13.5	461	345	5.5	1045	260	13.5	788
N5B	1.88	184	5.5	98	152	13.5	81	342	8.25	182	311	16.25	165
N5B-N6	1.88	103	6.25	55	82	14.25	44	189	10	101	181	18.25	96
56A	0.41	49	5.75	120	33	14	80	137	5.75	334	105	14	256
N5A-N6	0.41	49	5.75	120	33	14	80	137	5.75	334	105	14	256
70	0.14	5	6	36	2	14	14	30	6	214	23	14	164
N6	2.44	134	6.25	55	113	14.25	46	260	6.25	107	248	14.25	102
RIDO	0	21	6.75	--	8	15	--	191	6	--	131	14	--
O4S-O5	0	5	7.75	--	2	16	--	90	7	--	56	15	--
39	0.73	22	6.5	30	15	14.5	21	132	6.5	181	107	14.5	147
O5	0.73	25	6.75	34	15	14.75	21	221	6.75	303	161	14.75	221
O5-O6	0.73	21	8.75	29	13	16.75	18	211	7.5	289	146	15.75	200
50	1	21	6.75	21	19	15	19	147	6.75	147	129	15	129
O6	1.73	24	8	14	27	16	16	302	7.25	175	257	16	149
O6-O7	1.73	22	9.5	13	24	17.25	14	291	8.25	168	249	16.25	144
57	0.49	31	5.5	63	14	13.5	29	173	5.5	353	127	13.5	259
O7	2.22	22	9.5	10	24	17.25	11	291	8.25	131	256	16.25	115
O7-O8	2.22	19	9.5	9	24	17.25	11	203	9.25	91	181	17.75	82
71	0.16	20	5	125	11	13	69	92	5	575	70	13	438
O8	2.37	19	9.5	8	24	17.25	10	203	9.25	86	181	17.75	76
RIDP	0	143	4.75	--	135	12.75	--	463	4.75	--	402	12.75	--
P2S-P3	0	23	7.25	--	21	13.75	--	110	6	--	83	13.5	--
40	0.98	15	6.75	15	13	14.75	13	146	6.75	149	129	14.75	132
P3	0.98	38	7	39	33	14	34	250	6.5	255	201	14.5	205
P3-P4	0.98	34	8.5	35	30	16.75	31	239	7.25	244	193	15.25	197
51	1	13	7	13	11	15	11	128	7	128	117	15	117
P4	1.98	35	8.25	18	37	16.25	19	322	7.25	163	307	15.25	155
P4-P5	1.98	34	9.75	17	35	17.75	18	311	8	157	296	16	149
58	0.19	25	5.25	132	15	13.25	79	92	5.25	484	68	13.25	358
P5	2.17	33	9.75	15	36	17.5	17	311	8	143	298	16	137
P5-P6	2.17	33	9.75	15	36	17.75	17	304	8	140	297	16	137
72	0.09	25	4.5	278	16	12.5	178	91	4.5	1011	70	12.5	778
P6	2.26	33	9.75	15	36	17.75	16	304	8	135	297	16	131
BICE	0	0	0	--	0	0	--	0	0	--	0	0	--
E2S-E3	0	0	0	--	0	0	--	0	0	--	0	0	--
84	0.88	62	7	70	48	15.25	55	192	7.25	218	179	15.25	203
E3	0.88	62	7	70	48	15.25	55	192	7.25	218	179	15.25	203
BICFB	0.01	0	0	0	0	0	0	295	10.75	29500	260	20.25	26000
F6BS7B	0.01	0	0	0	0	0	0	290	11.75	29000	259	21.25	25900
85B	0.75	29	6.5	39	22	14.5	29	149	6.5	199	121	14.5	161
F7B	0.76	28	6.5	37	22	14.5	29	300	11.75	395	263	20.25	346
F7B-F8	0.76	23	9.25	30	17	17.5	22	298	12.75	392	261	21.75	343

Station	Area [mi²]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]
BICG	0.01	0	0	0	0	0	0	342	11.25	34200	168	20.75	16800
G8S-G9	0.01	0	0	0	0	0	0	253	12.25	25300	151	22	15100
86	0.44	61	6	139	44	13.75	100	172	6	391	147	13.75	334
G9	0.45	61	6	136	44	13.75	98	255	12.25	567	153	22	340
G9-F8	0.45	41	10	91	29	18	64	241	14.75	536	148	24.5	329
BICFA	0	0	0	--	0	0	--	0	0	--	0	0	--
F6AS7A	0	0	0	--	0	0	--	0	0	--	0	0	--
85A	0.22	29	5.5	132	22	13.5	100	99	5.5	450	82	13.5	373
F7A	0.22	29	5.5	132	22	13.5	100	99	5.5	450	82	13.5	373
F7A-F8	0.22	10	11	45	8	19.25	36	48	9	218	39	17	177
105	1	65	7	65	52	15.25	52	213	7.25	213	196	15.25	196
104	1.01	40	7.25	40	35	15	35	173	7.25	171	156	15.25	154
F8	3.43	78	7.5	23	89	15.5	26	534	14.5	156	508	16.5	148
BICH	0.01	0	0	0	0	0	0	173	10.5	17300	130	18.25	13000
H7S-H8	0.01	0	0	0	0	0	0	85	12.75	8500	60	21	6000
87	0.91	74	6.75	81	57	15	63	225	7	247	212	15	233
H8	0.92	73	6.75	79	57	15	62	225	7	245	212	15	230
H8-H9	0.92	64	9	70	50	17	54	207	8.25	225	195	16.25	212
106	1.21	58	7.5	48	50	15.5	41	218	7.5	180	202	15.5	167
H9	2.13	98	8.5	46	91	16.5	43	389	7.75	183	376	15.75	177
BICJ	0.01	115	10.5	11500	127	18.75	12700	364	10.25	36400	345	18	34500
J6S-J7	0.01	86	13.5	8600	102	21.25	10200	320	12	32000	299	19.75	29900
89	0.96	76	6.75	79	60	15	63	239	7	249	224	15	233
J7	0.97	91	13	94	106	21	109	346	11.75	357	324	19.5	334
J7-J8	0.97	89	13.25	92	105	21.25	108	344	11.75	355	323	19.75	333
BICI	0.01	1	14	100	14	21	1400	302	10.25	30200	261	18.5	26100
I6S-I7	0.01	1	15	100	8	22.75	800	249	11.75	24900	220	19.75	22000
88	0.76	66	6.75	87	49	14.75	64	199	6.75	262	186	14.75	245
I7	0.77	65	6.75	84	49	14.75	64	270	11.5	351	237	19.5	308
I7-I8	0.77	63	7.5	82	47	15.25	61	266	12	345	235	20	305
102	0.52	49	6.5	94	35	14.25	67	152	6.5	292	134	14.25	258
I8	1.29	92	7.25	71	76	15.25	59	313	7.25	243	294	15.25	228
I8-J8	1.29	91	7.25	71	74	15.25	57	310	7.25	240	293	15	227
103	0.51	35	6	69	23	14	45	149	6.25	292	115	14	225
J8	2.77	153	7.25	55	145	15.25	52	618	7.25	223	609	15.25	220
107	0.48	42	5.75	88	29	13.75	60	162	6	338	129	13.75	269
BICM	0	0	0	--	0	0	--	51	16.25	--	52	23.75	--
M4S6TH	0	0	0	--	0	0	--	51	16.25	--	52	24	--
4th	0.08	108	4.5	1350	75	12.5	938	184	4.5	2300	136	12.5	1700
TO4THS	0.08	54	4.5	675	37	12.5	463	92	4.5	1150	68	12.5	850
4THS	0.08	54	4.5	675	37	12.5	463	92	4.5	1150	68	12.5	850
4TH6TH	0.08	45	4.5	563	30	12.5	375	80	4.5	1000	59	12.5	738

Station	Area [mi²]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]
6th	0.06	83	4.5	1383	58	12.5	967	135	4.5	2250	101	12.5	1683
6thA	0.14	128	4.5	914	88	12.5	629	215	4.5	1536	159	12.5	1136
TO7THS	0.14	64	4.5	457	44	12.5	314	108	4.5	771	79	12.5	564
TO7THS	0.14	64	4.5	457	44	12.5	314	108	4.5	771	79	12.5	564
6TH8TH	0.14	57	4.5	407	39	12.5	279	97	4.5	693	71	12.5	507
8th	0.08	117	4.5	1463	84	12.5	1050	193	4.5	2413	144	12.5	1800
8thA	0.22	174	4.5	791	121	12.5	550	289	4.5	1314	214	12.5	973
TOCEN1	0.22	87	4.5	395	61	12.5	277	145	4.5	659	107	12.5	486
TOCEN	0.22	87	4.5	395	61	12.5	277	145	4.5	659	107	12.5	486
8TH9TH	0.22	78	4.5	355	55	12.5	250	131	4.5	595	98	12.5	445
9thE	0.09	116	4.5	1289	83	12.5	922	194	4.5	2156	145	12.5	1611
9thW	0.08	118	4.5	1475	84	12.5	1050	196	4.5	2450	147	12.5	1838
9th	0.4	311	4.5	778	219	12.5	548	520	4.5	1300	385	12.5	963
TOCEN2	0.4	156	4.5	390	109	12.5	273	260	4.5	650	193	12.5	483
TOCEN2	0.4	156	4.5	390	109	12.5	273	260	4.5	650	193	12.5	483
BICN	0	63	7.25	--	54	15.25	--	226	9.25	--	228	17.25	--
N6S-D	0	17	10.25	--	18	19.5	--	176	15.5	--	180	23	--
BICO	0	0	0	--	0	0	--	47	9.25	--	47	17.25	--
8SO9	0	0	0	--	0	0	--	23	12	--	23	20	--
93	0.38	29	6	76	18	14.25	47	101	6	266	77	14.25	203
O9	0.38	29	6	76	18	14.25	47	101	6	266	77	14.25	203
O9O10	0.38	7	13	18	5	22.75	13	33	12.5	87	28	22.25	74
95	0.52	36	7	69	25	15.25	48	110	7.25	212	96	15.25	185
O10	0.9	33	7.5	37	25	15.5	28	108	7.5	120	99	15.5	110
TOP9	0.9	16	7.5	18	13	15.5	14	54	7.5	60	49	15.5	54
TOP9	0.9	16	7.5	18	13	15.5	14	54	7.5	60	49	15.5	54
O10DR	0.9	10	15.5	11	7	23.75	8	41	13.5	46	37	21.5	41
CENTRE	0.07	99	4.5	1414	69	12.5	986	166	4.5	2371	123	12.5	1757
FRM9TH	0.4	156	4.5	390	109	12.5	273	260	4.5	650	193	12.5	483
9THCEN	0.4	134	4.5	335	96	12.5	240	226	4.5	565	167	12.5	418
FRM8TH	0.22	87	4.5	395	61	12.5	277	145	4.5	659	107	12.5	486
8THCEN	0.22	74	4.5	336	53	12.5	241	120	4.5	545	91	12.5	414
CENTRA	0.07	308	4.5	4400	221	12.5	3157	513	4.5	7329	384	12.5	5486
TODRN	0.07	154	4.5	2200	110	12.5	1571	256	4.5	3657	192	12.5	2743
TOBELO	0.07	154	4.5	2200	110	12.5	1571	256	4.5	3657	192	12.5	2743
CENBEL	0.07	134	4.75	1914	96	12.75	1371	225	4.75	3214	169	12.75	2414
BELOAT	0.05	65	4.5	1300	47	12.5	940	113	4.5	2260	85	12.5	1700
BELOAA	0.12	171	4.5	1425	124	12.5	1033	290	4.5	2417	218	12.5	1817
BELDRN	0.12	159	4.75	1325	112	12.75	933	279	4.75	2325	208	12.75	1733
BAYLIS	0.02	34	4.25	1700	25	12.25	1250	54	4.25	2700	41	12.25	2050
TDRN	0.02	20	4.25	1000	14	12.25	700	34	4.25	1700	25	12.25	1250
92	1.01	174	5.5	172	134	13.5	133	505	5.5	500	457	13.5	452

Station	Area [mi²]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi²]
DRAIN	0.12	99	4.5	825	73	12.5	608	257	4.5	2142	196	12.5	1633
FRMCEN	0.07	154	4.5	2200	110	12.5	1571	256	4.5	3657	192	12.5	2743
CENDRN	0.07	74	5	1057	50	13	714	140	4.75	2000	101	13	1443
DRAINA	2.16	313	4.75	145	260	12.75	120	718	5	332	660	13	306
DRNM5	2.16	242	6.25	112	208	14	96	557	6.5	258	516	14.5	239
4thS	0.15	152	4.5	1013	106	12.5	707	269	4.5	1793	199	12.5	1327
FRM4TH	0.08	54	4.5	675	37	12.5	463	92	4.5	1150	68	12.5	850
4TH4S	0.08	46	4.5	575	30	12.5	375	81	4.5	1013	60	12.5	750
4thSA	0.15	198	4.5	1320	136	12.5	907	349	4.5	2327	259	12.5	1727
4TH7TH	0.15	188	4.75	1253	130	12.75	867	333	4.75	2220	245	12.75	1633
7th	0.13	152	4.5	1169	104	12.5	800	272	4.5	2092	200	12.5	1538
FRM6TH	0.14	64	4.5	457	44	12.5	314	108	4.5	771	79	12.5	564
6TH7TH	0.14	52	4.5	371	36	12.5	257	85	4.5	607	64	12.5	457
7thSA	0.27	342	4.5	1267	234	12.5	867	607	4.5	2248	445	12.5	1648
7THM5	0.27	275	5	1019	184	13	681	474	5	1756	354	13	1311
98	0.39	80	5.5	205	56	13.5	144	203	5.5	521	174	13.5	446
M5	2.82	345	5.5	122	305	13.25	108	723	5.25	256	671	13.25	238
BICP	0	0	0	--	0	0	--	124	9.25	--	123	17.25	--
6SP7	0	0	0	--	0	0	--	63	10.75	--	64	18.75	--
94	0.72	64	6.25	89	48	14.25	67	211	6.25	293	184	14.25	256
P7	0.72	64	6.25	89	48	14.25	67	211	6.25	293	184	14.25	256
P7-P8	0.72	49	8.5	68	35	16.75	49	181	8	251	156	16	217
96	0.91	51	7	56	40	15	44	182	7	200	163	15	179
P8	1.63	73	8.25	45	65	16.25	40	317	8	194	296	16	182
P8-P9	1.63	53	12.25	33	48	20.5	29	262	10.5	161	242	18.75	148
97	0.5	31	6.75	62	21	15	42	111	6.75	222	90	15	180
FRO10	0.9	16	7.5	18	13	15.5	14	54	7.5	60	49	15.5	54
O10-P9	0.9	16	7.5	18	13	15.5	14	54	7.5	60	49	15.5	54
P9	2.13	53	12.25	25	52	20.25	24	301	10.5	141	285	18.5	134
P9-P10	2.13	51	13.75	24	50	21.75	23	293	11.25	138	278	19.25	131
100	0.58	28	6.75	48	18	14.75	31	117	6.75	202	92	14.75	159
P10	2.72	50	14	18	49	21.75	18	296	11.5	109	286	19.25	105
99	0.95	72	5.5	76	65	13.5	68	470	5.5	495	399	13.5	420
101	0.38	27	7	71	19	15.25	50	83	7	218	69	15.25	182
BICK	0	101	11	--	74	19.75	--	499	9.75	--	510	17.75	--
K7SK8	0	56	14.25	--	45	22.5	--	400	11.25	--	416	19.25	--
90	1.05	85	7	81	66	15.25	63	242	7.25	230	226	15.25	215
K8	1.06	88	7.25	83	70	15.5	66	454	10.5	428	467	18.5	441
BICL	0	35	7.5	--	33	15.5	--	85	16.25	--	82	23.75	--
L5SL6	0	21	12.5	--	23	21	--	79	19	--	76	26.5	--
91	1.19	82	7	69	66	15.25	55	249	7.25	209	230	15.25	193
L6	1.19	89	7.5	75	76	15.5	64	264	7.5	222	252	15.25	212

Note: 1. Station designations can be found in Figure 4-6a.

Table 4-4b

Buckeye Area 1 Hydrologic Responses for Various Storm Events (Peak Discharge and Time to Peak –Future Condition)

Station	Area [mi2]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]
15A	0.59	478	4.5	810	333	12.5	564	889	4.5	1507	662	12.5	1122
15Aret	0.59	478	4.5	810	333	12.5	564	452	4.25	766	331	12.25	561
15A-O	0.59	217	5	368	146	13	247	765	4.75	1297	560	12.75	949
F1A-B	0.59	72	6.5	122	40	15	68	320	5.75	542	242	14	410
15B	0.82	189	7	230	151	15	184	316	7	385	261	15	318
15Bret	0.82	189	7	230	151	15	184	316	7	385	261	15	318
15B-O	0.82	0	0	0	0	0	0	153	9.25	187	150	17.25	183
F1B	1.4	76	6.75	54	40	15	29	321	5.75	229	242	14	173
2	1.23	948	4.75	771	751	12.75	611	1605	4.75	1305	1310	12.75	1065
2ret	1.23	948	4.75	771	751	12.75	611	1605	4.75	1305	1205	12.75	980
2-O	1.23	22	7	18	34	17	28	1089	5	885	1034	13	841
1	1.63	918	5	563	738	13	453	1584	5	972	1303	13	799
1ret	1.63	918	5	563	738	13	453	1584	5	972	1303	13	799
1-O	1.63	0	0	0	29	19.75	18	1047	5.5	642	887	13.5	544
G2	2.86	22	7	8	52	19.75	18	1516	5.5	530	1336	13.5	467
G2-G3	2.86	3	9	1	48	21.5	17	1282	6	448	1257	14	440
16	0.95	742	5	781	568	13	598	1228	5	1293	974	13	1025
16ret	0.95	742	5	781	568	13	598	1007	4.75	1060	535	12.5	563
16-O	0.95	429	5.5	452	308	13.5	324	1120	5	1179	974	13	1025
G3	3.81	276	5.75	72	295	13.5	77	1511	6	397	1499	14	393
4	0.55	432	4.75	785	296	12.75	538	755	4.75	1373	554	12.75	1007
4ret	0.55	432	4.75	785	296	12.75	538	744	4.5	1353	543	12.5	987
4-O	0.55	81	5.25	147	19	14.75	35	645	4.75	1173	499	12.75	907
H1-H2	0.55	36	6.25	65	13	16.25	24	321	5.25	584	240	13.5	436
3	1.65	753	5	456	638	13	387	1460	5	885	1231	13	746
3ret	1.65	753	5	456	638	13	387	1456	4.75	882	1228	12.75	744
3-O	1.65	0	0	0	4	20.75	2	978	5.25	593	909	13.25	551
H2	2.2	36	6.75	16	12	16.5	5	1089	5.25	495	1128	13.25	513
H2-H3	2.2	7	8	3	11	18.5	5	843	5.75	383	791	13.75	360
17	0.61	131	6.5	215	99	14.5	162	238	6.5	390	186	14.5	305
17ret	0.61	131	6.5	215	99	14.5	162	238	6.5	390	186	14.5	305
17-O	0.61	0	0	0	0	0	0	156	8	256	106	16.25	174
H3	2.8	7	8	3	11	18.5	4	812	5.75	290	791	13.75	283
5A	1.17	691	4.75	591	554	12.75	474	1309	4.75	1119	1067	12.75	912

Station	Area [mi2]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]
5Aret	1.17	691	4.75	591	554	12.75	474	1046	4.5	894	826	12.5	706
5A-O	1.17	271	5.25	232	199	13.5	170	1099	5	939	981	12.75	838
I1AI2A	1.17	130	6.25	111	84	14.5	72	802	5.5	685	676	13.5	578
18	0.8	155	6.5	194	120	14.5	150	292	6.5	365	232	14.5	290
18ret	0.8	155	6.5	194	120	14.5	150	292	6.5	365	232	14.5	290
18-O	0.8	0	0	0	0	0	0	198	7.75	248	162	16	203
I2A	1.97	130	6.25	66	84	14.5	43	802	5.5	407	676	13.5	343
5B	0.58	405	4.75	698	282	12.75	486	728	4.75	1255	537	12.75	926
5Bret	0.58	405	4.75	698	282	12.75	486	564	4.5	972	416	12.5	717
5B-O	0.58	210	5.25	362	106	13.5	183	611	5	1053	485	12.75	836
1B-I2B	0.58	45	6	78	26	14.75	45	195	5.5	336	152	13.75	262
19	0.54	115	6.5	213	85	14.5	157	207	6.5	383	161	14.5	298
19ret	0.54	115	6.5	213	85	14.5	157	207	6.5	383	161	14.5	298
19-O	0.54	0	0	0	0	0	0	136	8	252	92	16.25	170
I2B	1.11	47	6	42	26	14.75	23	217	8	195	150	13.75	135
6	0.32	385	4.25	1203	264	12.25	825	676	4.25	2113	499	12.25	1559
6ret	0.32	385	4.25	1203	264	12.25	825	304	4.25	950	164	12.25	513
6-O	0.32	251	4.5	784	97	12.5	303	602	4.5	1881	433	12.5	1353
I1-J2	0.32	102	5.25	319	44	13.25	138	376	5	1175	283	13	884
[illegible]	0.41	345	4.75	841	234	12.75	571	595	4.75	1451	432	12.75	1054
8ret	0.41	345	4.75	841	234	12.75	571	568	4.5	1385	390	12.5	951
8-O	0.41	118	5.25	288	31	13.75	76	553	4.75	1349	420	12.75	1024
J2	0.73	169	5.25	232	63	13.5	86	764	4.75	1047	625	12.75	856
J2-J3	0.73	89	6.25	122	47	14.75	64	571	5.25	782	438	13.5	600
20	0.66	132	6.75	200	101	14.75	153	240	6.75	364	190	14.75	288
20ret	0.66	132	6.75	200	101	14.75	153	240	6.75	364	190	14.75	288
20-O	0.66	0	0	0	0	0	0	158	8.25	239	119	16.5	180
J3	1.4	94	6.25	67	47	14.75	34	602	5.25	430	434	13.5	310
7	0.45	574	4.5	1276	393	12.5	873	944	4.5	2098	683	12.5	1518
7ret	0.45	574	4.5	1276	393	12.5	873	873	4.25	1940	642	12.25	1427
7-O	0.45	31	5.25	69	13	15.75	29	759	4.5	1687	587	12.5	1304
K1-K2	0.45	21	6	47	12	17	27	450	5	1000	342	13	760
9	0.61	813	4.5	1333	585	12.5	959	1324	4.5	2170	999	12.5	1638
9ret	0.61	813	4.5	1333	585	12.5	959	973	4.25	1595	711	12.25	1166
9-O	0.61	172	5	282	86	13.25	141	1022	4.5	1675	950	12.5	1557
K2	1.06	183	5	173	86	13.25	81	941	4.75	888	985	12.5	929
K2-K3	1.06	80	5.75	75	50	14.25	47	773	5.25	729	651	13.25	614
21B	0.27	79	5.75	293	56	13.75	207	140	5.75	519	107	13.75	396
21Bret	0.27	79	5.75	293	56	13.75	207	140	5.75	519	107	13.75	396
21B-O	0.27	0	0	0	0	0	0	89	6.75	330	57	15	211
21A	0.37	103	6	278	75	14.25	203	175	6	473	136	14	368
[illegible]Aret	0.37	103	6	278	75	14.25	203	175	6	473	136	14	368
21A-O	0.37	0	0	0	0	0	0	86	7.75	232	66	16	178

Station	Area [mi2]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]
K3	1.7	80	5.75	47	50	14.25	29	773	5.25	455	651	13.25	383
10	1.17	689	4.75	589	542	12.75	463	1325	4.75	1132	1073	12.75	917
10ret	1.17	689	4.75	589	542	12.75	463	1325	4.75	1132	1065	12.75	910
10-O	1.17	13	7	11	12	20.25	10	1139	5	974	897	13	767
L1-L2	1.17	6	8	5	10	22	9	945	5.5	808	709	13.5	606
22	0.56	97	6.5	173	70	14.75	125	185	6.5	330	142	14.5	254
22ret	0.56	97	6.5	173	70	14.75	125	185	6.5	330	142	14.5	254
22-O	0.56	0	0	0	0	0	0	120	8.25	214	69	16.75	123
L2	1.73	6	8	3	10	22	6	945	5.5	546	709	13.5	410
11C	0.34	410	4.5	1206	272	12.5	800	741	4.5	2179	535	12.5	1574
11Cret	0.34	383	4.5	1126	272	12.5	800	439	4.25	1291	327	12.25	962
11C-O	0.34	160	4.75	471	16	13	47	693	4.5	2038	484	12.5	1424
N1C-N2	0.34	46	5.5	135	9	14.75	26	269	5	791	179	13.25	526
11A	0.57	632	4.5	1109	439	12.5	770	1133	4.25	1988	862	12.25	1512
11Aret	0.57	632	4.5	1109	439	12.5	770	1133	4.25	1988	862	12.25	1512
11A-O	0.57	0	0	0	0	0	0	988	4.5	1733	564	12.5	989
N1A-1B	0.57	0	0	0	0	0	0	359	5	630	218	13.25	382
11B	0.58	487	4.75	840	337	12.75	581	895	4.75	1543	659	12.75	1136
11Bret	0.58	487	4.75	840	337	12.75	581	786	4.5	1355	585	12.5	1009
[illegible]B-O	0.58	45	5.25	78	4	23.75	7	792	4.75	1366	491	12.75	847
N1B	1.15	0	0	0	4	23.75	3	752	4.75	654	565	12.75	491
N1B-N2	1.15	0	0	0	2	27.75	2	371	6.5	323	238	14.5	207
23	0.52	103	6.25	198	73	14.5	140	195	6.25	375	148	14.25	285
23ret	0.52	103	6.25	198	73	14.5	140	195	6.25	375	148	14.25	285
23-O	0.52	0	0	0	0	0	0	140	7.5	269	91	15.75	175
N2	2.02	50	5.75	25	9	14.75	4	366	6.5	181	259	14.5	128
12	0.74	827	4.5	1118	616	12.5	832	1494	4.5	2019	1175	12.5	1588
12ret	0.74	827	4.5	1118	616	12.5	832	953	4.25	1288	731	12.25	988
12-O	0.74	0	0	0	2	23	3	741	4.5	1001	479	12.5	647
O1-O2	0.74	0	0	0	2	24	3	649	4.75	877	401	12.75	542
13	0.5	633	4.25	1266	435	12.25	870	1134	4.25	2268	844	12.25	1688
13ret	0.5	633	4.25	1266	435	12.25	870	1134	4.25	2268	844	12.25	1688
13-O	0.5	0	0	0	0	0	0	725	4.5	1450	352	12.5	704
O2	1.24	0	0	0	2	24	2	721	4.75	581	478	12.75	385
O2-O3	1.24	0	0	0	2	24.25	2	702	5	566	486	13	392
24	0.49	427	4.25	871	277	12.25	565	899	4.25	1835	667	12.25	1361
O3	1.73	288	4.25	166	272	12.25	157	773	4.5	447	676	12.5	391
O3-O4	1.73	87	6.25	50	73	14.25	42	572	6	331	439	14	254
25	0.27	190	4.75	704	122	12.75	452	388	4.75	1437	279	12.75	1033
O4	2	120	4.75	60	120	12.75	60	569	6	285	440	14	220
14A	0.69	559	4.75	810	405	12.75	587	1029	4.5	1491	787	12.5	1141
[illegible]Aret	0.69	559	4.75	810	405	12.75	587	982	4.5	1423	767	12.5	1112
14A-O	0.69	53	5.25	77	7	18.75	10	1014	4.75	1470	728	12.75	1055

Station	Area [mi2]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]
P1A-1B	0.69	31	5.75	45	7	20	10	695	5	1007	464	13	672
14B	0.5	540	4.5	1080	361	12.5	722	948	4.5	1896	697	12.25	1394
14Bret	0.5	540	4.5	1080	361	12.5	722	934	4.25	1868	693	12.25	1386
14B-O	0.5	51	5	102	5	18.75	10	948	4.5	1896	632	12.5	1264
P1B	1.19	31	6.5	26	12	20	10	728	4.5	612	618	12.5	519
P1B-P2	1.19	15	7	13	12	20.5	10	666	5	560	506	13	425
26	0.52	529	4.5	1017	344	12.5	662	1041	4.5	2002	752	12.5	1446
P2	1.72	345	4.5	201	338	12.5	197	834	4.5	485	798	12.5	464
83	0.68	485	4.75	713	349	12.75	513	902	4.75	1326	686	12.75	1009
83ret	0.68	485	4.75	713	349	12.75	513	802	4.5	1179	616	12.5	906
83-O	0.68	171	5.25	251	36	13.75	53	853	4.75	1254	617	12.75	907
68	0.41	521	4.5	1271	357	12.5	871	880	4.5	2146	638	12.5	1556
68ret	0.41	521	4.5	1271	357	12.5	871	620	4.25	1512	454	12.25	1107
68-O	0.41	96	5	234	24	13.75	59	639	4.5	1559	519	12.5	1266
E1-E2	0.41	79	5	193	24	14	59	423	4.75	1032	356	12.75	868
59	0.25	108	4.75	432	69	12.75	276	223	4.75	892	159	12.75	636
E2	0.66	154	5	233	68	12.75	103	618	4.75	936	511	12.75	774
RIDF	0	0	0	--	0	0	--	242	7	--	286	14	--
E1S-F2	0	0	0	--	0	0	--	193	8.75	--	231	15.75	--
27	0.24	99	5.75	413	74	13.75	308	162	5.75	675	126	13.75	525
27ret	0.24	99	5.75	413	74	13.75	308	162	5.75	675	126	13.75	525
27-O	0.24	0	0	0	0	0	0	90	6.75	375	74	15	308
F2	0.24	0	0	0	0	0	0	218	8.25	908	284	15.5	1183
F2-F3	0.24	0	0	0	0	0	0	215	9.5	896	279	16.5	1163
29	1	292	6.25	292	233	14.5	233	482	6.25	482	396	14.5	396
29ret	1	292	6.25	292	233	14.5	233	482	6.25	482	396	14.5	396
29-O	1	0	0	0	0	0	0	206	8.5	206	202	16.5	202
F3	1.24	0	0	0	0	0	0	377	8.75	304	479	16.5	386
F3-F4	1.24	0	0	0	0	0	0	331	10.25	267	423	17.75	341
41	1.2	342	6.5	285	275	14.5	229	566	6.5	472	467	14.5	389
41ret	1.2	342	6.5	285	275	14.5	229	566	6.5	472	467	14.5	389
41-O	1.2	0	0	0	0	0	0	273	8.25	228	281	16.25	234
F4	2.44	0	0	0	0	0	0	401	10.25	164	565	17.75	232
F4-F5B	2.44	0	0	0	0	0	0	383	11	157	541	18.5	222
52B	0.5	263	5.25	526	189	13.25	378	431	5.25	862	324	13.25	648
52Bret	0.5	263	5.25	526	189	13.25	378	431	5.25	862	324	13.25	648
52B-O	0.5	0	0	0	0	0	0	224	6.25	448	163	14.25	326
F5B	2.94	0	0	0	0	0	0	380	11	129	562	18.5	191
5B-F6B	2.94	0	0	0	0	0	0	379	11	129	570	18.5	194
60B	0.57	200	5.5	351	146	13.5	256	350	5.5	614	266	13.5	467
60Bret	0.57	200	5.5	351	146	13.5	256	350	5.5	614	266	13.5	467
B-O	0.57	0	0	0	0	0	0	194	6.75	340	133	15	233
F6B	3.51	0	0	0	0	0	0	379	11	108	591	18.5	168

Station	Area [mi2]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]
52A	0.31	100	6.25	323	76	14.25	245	164	6.25	529	130	14.25	419
52Aret	0.31	100	6.25	323	76	14.25	245	164	6.25	529	130	14.25	419
52A-O	0.31	0	0	0	0	0	0	83	8	268	68	16.25	219
5A-F6A	0.31	0	0	0	0	0	0	82	8.25	265	67	16.25	216
60A	0.41	130	5.75	317	94	13.75	229	229	5.75	559	174	13.75	424
60Aret	0.41	130	5.75	317	94	13.75	229	229	5.75	559	174	13.75	424
60A-O	0.41	0	0	0	0	0	0	153	6.75	373	100	15	244
F6A	0.72	0	0	0	0	0	0	147	6.75	204	108	16.25	150
RIDG	0	0	0	--	0	0	--	269	7	--	553	14.25	--
G3S-G4	0	0	0	--	0	0	--	146	8.25	--	333	15.25	--
28	0.33	123	5.75	373	93	14	282	202	5.75	612	158	14	479
28ret	0.33	123	5.75	373	93	14	282	202	5.75	612	158	14	479
28-O	0.33	0	0	0	0	0	0	109	7.25	330	89	15.5	270
G4	0.33	0	0	0	0	0	0	214	7.5	648	419	15.5	1270
G4-G5	0.33	0	0	0	0	0	0	190	10.25	576	378	17.25	1145
30	0.98	277	6.5	283	221	14.5	226	459	6.5	468	375	14.5	383
30ret	0.98	277	6.5	283	221	14.5	226	459	6.5	468	375	14.5	383
30-O	0.98	0	0	0	0	0	0	266	8.25	271	244	16.25	249
G5	1.32	0	0	0	0	0	0	265	10	201	540	17	409
[illegible]-G6	1.32	0	0	0	0	0	0	246	11.5	186	501	18.25	380
42	0.78	223	6.5	286	175	14.5	224	367	6.5	471	298	14.5	382
42ret	0.78	223	6.5	286	175	14.5	224	367	6.5	471	298	14.5	382
42-O	0.78	0	0	0	0	0	0	189	8.25	242	177	16.25	227
G6	2.1	0	0	0	0	0	0	268	11.5	128	580	18.25	276
G6-G7	2.1	0	0	0	0	0	0	263	12	125	565	18.75	269
53	0.34	141	5.75	415	105	13.75	309	232	5.75	682	179	13.75	526
53ret	0.34	141	5.75	415	105	13.75	309	232	5.75	682	179	13.75	526
53-O	0.34	0	0	0	0	0	0	116	7	341	102	15	300
G7	2.43	0	0	0	0	0	0	264	12	109	582	18.75	240
G7-G8	2.43	0	0	0	0	0	0	264	12	109	584	18.75	240
61	0.51	183	5.75	359	133	13.75	261	314	5.75	616	239	13.75	469
61ret	0.51	183	5.75	359	133	13.75	261	314	5.75	616	239	13.75	469
61-O	0.51	0	0	0	0	0	0	200	6.75	392	164	14.75	322
G8	2.94	0	0	0	0	0	0	265	12	90	604	18.75	205
RIDH	0	0	0	--	0	0	--	169	6.5	--	280	15	--
H3S-H4	0	0	0	--	0	0	--	75	10	--	121	16.5	--
31	1.08	205	6.75	190	166	15	154	373	6.75	345	305	15	282
31ret	1.08	205	6.75	190	166	15	154	373	6.75	345	305	15	282
31-O	1.08	0	0	0	0	0	0	221	8.5	205	203	16.75	188
H4	1.08	0	0	0	0	0	0	276	8.75	256	323	16.75	299
H4-H5	1.08	0	0	0	0	0	0	238	9.75	220	274	18	254
[illegible]3	1	204	7	204	164	15	164	357	7	357	293	15	293
43ret	1	204	7	204	164	15	164	357	7	357	293	15	293

Station	Area [mi2]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]
43-O	1	0	0	0	0	0	0	204	9	204	188	17	188
H5	2.08	0	0	0	0	0	0	318	10	153	403	17.75	194
H5-H6	2.08	0	0	0	0	0	0	309	10.5	149	394	18.25	189
54	0.39	122	6.25	313	94	14.25	241	201	6.25	515	159	14.25	408
54ret	0.39	122	6.25	313	94	14.25	241	201	6.25	515	159	14.25	408
54-O	0.39	0	0	0	0	0	0	103	8	264	95	16	244
H6	2.47	0	0	0	0	0	0	317	10.5	128	429	18.25	174
H6-H7	2.47	0	0	0	0	0	0	317	10.5	128	410	18.5	166
62	0.57	223	5.75	391	167	13.75	293	367	5.75	644	286	13.75	502
62ret	0.57	223	5.75	391	167	13.75	293	367	5.75	644	286	13.75	502
62-O	0.57	0	0	0	0	0	0	179	7.25	314	160	15.25	281
H7	3.04	0	0	0	0	0	0	316	10.75	104	441	18.5	145
RIDI	0	0	0	--	0	0	--	198	6.25	--	0	0	--
I2S-I3	0	0	0	--	0	0	--	0	0	--	0	0	--
32	0.9	141	6.75	157	113	15	126	278	6.75	309	222	14.75	247
32ret	0.9	141	6.75	157	113	15	126	278	6.75	309	222	14.75	247
32-O	0.9	0	0	0	0	0	0	188	8.25	209	156	16.5	173
I3	0.9	0	0	0	0	0	0	188	8.25	209	156	16.5	173
I3-I4	0.9	0	0	0	0	0	0	91	11.75	101	76	21	84
[illegible]4	1.01	139	7	138	114	15	113	283	7	280	229	15	227
44ret	1.01	139	7	138	114	15	113	283	7	280	229	15	227
44-O	1.01	0	0	0	0	0	0	191	8.5	189	160	16.75	158
I4	1.9	0	0	0	0	0	0	156	9	82	159	16.75	84
I4-I5	1.9	0	0	0	0	0	0	123	10	65	112	18	59
55	0.26	96	5.75	369	73	14	281	158	5.75	608	124	14	477
55ret	0.26	96	5.75	369	73	14	281	158	5.75	608	124	14	477
55-O	0.26	0	0	0	0	0	0	78	7.5	300	71	15.5	273
I5	2.17	0	0	0	0	0	0	130	10	60	133	18	61
I5-I6	2.17	0	0	0	0	0	0	91	11	42	99	22.5	46
63	0.5	200	5.75	400	149	13.75	298	328	5.75	656	255	13.75	510
63ret	0.5	200	5.75	400	149	13.75	298	328	5.75	656	255	13.75	510
63-O	0.5	0	0	0	9	22	18	223	6.75	446	187	14.75	374
I6	2.66	0	0	0	9	22	3	198	6.75	74	184	14.75	69
RIDJ	0	0	0	--	0	0	--	157	6.25	--	164	14	--
J3S-J4	0	0	0	--	0	0	--	38	7	--	52	15	--
33	1	208	6.75	208	167	14.75	167	374	6.75	374	305	14.75	305
33ret	1	208	6.75	208	167	14.75	167	374	6.75	374	305	14.75	305
33-O	1	0	0	0	0	0	0	225	8.5	225	195	16.5	195
J4	1	0	0	0	0	0	0	247	8.5	247	227	16.5	227
J4-J5	1	0	0	0	0	0	0	183	9.75	183	171	18	171
45A	1	192	6.75	192	155	15	155	346	7	346	283	15	283
[illegible]Aret	1	192	6.75	192	155	15	155	346	7	346	283	15	283
45A-O	1	0	0	0	0	0	0	198	8.75	198	156	17	156

Station	Area [mi2]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]
J5A	2.01	0	0	0	0	0	0	265	10	132	291	18	145
J5A-5B	2.01	0	0	0	0	0	0	228	11	113	256	19	127
45B	0.14	72	5.25	514	53	13.25	379	118	5.25	843	90	13.25	643
45Bret	0.14	72	5.25	514	53	13.25	379	118	5.25	843	90	13.25	643
45B-O	0.14	4	8	29	5	18	36	86	6	614	70	14	500
J5B	2.14	1	9.25	0	5	18	2	227	11.25	106	262	19	122
J5B-J6	2.14	0	10.5	0	3	20	1	155	12.75	72	173	20.75	81
64	0.41	168	5.75	410	125	13.75	305	276	5.75	673	214	13.75	522
64ret	0.41	168	5.75	410	125	13.75	305	276	5.75	673	214	13.75	522
64-O	0.41	0	0	0	0	0	0	149	7	363	112	15.25	273
J6	2.56	0	10.5	0	3	20	1	155	12.5	61	190	20.25	74
RIDKB	0	0	0	--	0	0	--	393	5.5	--	441	13.25	--
K3SBK4	0	0	0	--	0	0	--	244	6	--	266	14	--
RIDKA	0	39	7.5	--	27	15.5	--	489	5.75	--	521	13.5	--
K3SAK4	0	22	9	--	11	17	--	227	7	--	291	15	--
34	0.64	124	6	194	90	14.25	141	243	6	380	186	14.25	291
34ret	0.64	124	6	194	90	14.25	141	243	6	380	186	14.25	291
34-O	0.64	0	0	0	0	0	0	172	7.25	269	128	15.5	200
K4	0.64	22	9	34	11	17	17	569	7	889	541	15.5	845
[illegible]-K5	0.64	20	11.25	31	11	19.75	17	538	7.75	841	507	16	792
35	1.5	291	6.75	194	239	14.75	159	525	6.75	350	437	14.75	291
35ret	1.5	291	6.75	194	239	14.75	159	525	6.75	350	437	14.75	291
35-O	1.5	0	0	0	0	0	0	320	8.5	213	314	16.5	209
K5	2.14	20	11.25	9	11	19.75	5	733	8.5	343	782	16.5	365
K5-K6	2.14	16	14.5	7	10	23.75	5	679	9.5	317	710	17.25	332
46	1.38	265	6.75	192	217	14.75	157	484	6.75	351	401	14.75	291
46ret	1.38	265	6.75	192	217	14.75	157	484	6.75	351	401	14.75	291
46-O	1.38	0	0	0	0	0	0	296	8.5	214	269	16.5	195
K6	3.52	16	14.5	5	10	23.75	3	806	9.5	229	884	17.25	251
K6-K7	3.52	16	14.5	5	10	23.75	3	746	9.75	212	815	17.75	232
65	0.38	150	5.75	395	112	13.75	295	245	5.75	645	190	13.75	500
65ret	0.38	150	5.75	395	112	13.75	295	245	5.75	645	190	13.75	500
65-O	0.38	0	0	0	0	28.5	0	147	7	387	127	15	334
K7	3.9	16	14.5	4	10	23.75	3	749	9.75	192	841	17.75	216
RIDL	0	0	0	--	0	0	--	0	0	--	0	0	--
L2S-L3	0	0	0	--	0	0	--	0	0	--	0	0	--
36	0.68	128	6.5	188	97	14.75	143	240	6.5	353	188	14.75	276
36ret	0.68	128	6.5	188	97	14.75	143	240	6.5	353	188	14.75	276
36-O	0.68	0	0	0	0	0	0	188	7.75	276	132	16	194
L3	0.68	0	0	0	0	0	0	188	7.75	276	132	16	194
L3-L4	0.68	0	0	0	0	0	0	95	10.25	140	78	19.25	115
[illegible]7	0.62	126	6.25	203	93	14.5	150	238	6.25	384	183	14.25	295
47ret	0.62	126	6.25	203	93	14.5	150	238	6.25	384	183	14.25	295

Station	Area [mi2]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]
47-O	0.62	0	0	0	0	0	0	167	7.5	269	110	16	177
L4	1.3	0	0	0	0	0	0	130	7.75	100	109	16	84
L4-L5	1.3	0	0	0	0	0	0	115	8.25	88	98	19.5	75
66	0.29	139	5.5	479	102	13.5	352	227	5.5	783	174	13.5	600
66ret	0.29	139	5.5	479	102	13.5	352	227	5.5	783	174	13.5	600
66-O	0.29	0	0	0	3	21.5	10	146	6.25	503	113	14.5	390
L5	1.59	0	0	0	1	21.5	1	137	8	86	123	16.25	77
RIDM	0	0	0	--	0	0	--	455	5.75	--	598	13.5	--
L2S2M1	0	0	0	--	0	0	--	89	7.25	--	145	15	--
37	1.42	211	7.25	149	176	15.25	124	400	7.25	282	335	15.25	236
37ret	1.42	211	7.25	149	176	15.25	124	400	7.25	282	335	15.25	236
37-O	1.42	0	0	0	0	0	0	244	9.25	172	239	17.25	168
M1	1.42	0	0	0	0	0	0	312	9.25	220	329	17.25	232
M1-M2	1.42	0	0	0	0	0	0	247	11	174	250	19	176
48	0.5	131	6	262	94	14	188	236	6	472	180	14	360
48ret	0.5	131	6	262	94	14	188	236	6	472	180	14	360
48-O	0.5	0	0	0	0	0	0	157	7.25	314	90	15.75	180
M2	1.92	0	0	0	0	0	0	234	11.25	122	264	19	138
M2-M3	1.92	0	0	0	0	0	0	230	11.5	120	259	19.5	135
[illegible]7	0.47	176	5.75	374	119	13.75	253	334	5.75	711	244	13.75	519
M3	2.39	127	5.75	53	117	13.75	49	275	5.75	115	264	19.5	110
M3-M4	2.39	96	6.25	40	91	14	38	159	13.25	67	172	21.5	72
69	0.14	161	4.5	1150	109	12.5	779	285	4.5	2036	208	12.5	1486
M4	2.53	138	4.5	55	134	12.5	53	269	4.5	106	262	12.5	104
RIDN	0	0	0	--	0	0	--	280	6.75	--	214	14.5	--
N2S-N3	0	0	0	--	0	0	--	155	8	--	117	15.5	--
38	0.54	106	6.25	196	76	14.5	141	202	6.25	374	153	14.25	283
38ret	0.54	106	6.25	196	76	14.5	141	202	6.25	374	153	14.25	283
38-O	0.54	0	0	0	0	0	0	145	7.5	269	91	16	169
N3	0.54	0	0	0	0	0	0	293	7.5	543	199	16	369
N3-N4	0.54	0	0	0	0	0	0	283	8.5	524	186	16.75	344
49	1.01	159	7	157	128	15	127	307	7	304	249	15	247
49ret	1.01	159	7	157	128	15	127	307	7	304	249	15	247
49-O	1.01	0	0	0	0	0	0	208	8.25	206	176	16.75	174
N4	1.55	0	0	0	0	0	0	439	8.75	283	357	16.75	230
N4-N5B	1.55	0	0	0	0	0	0	419	9.25	270	325	17.5	210
56B	0.33	212	5.5	642	152	13.5	461	346	5.5	1048	261	13.5	791
N5B	1.88	184	5.5	98	150	13.5	80	402	9.25	214	341	17.5	181
N5B-N6	1.88	102	6.25	54	80	14.25	43	172	11.5	91	160	19.5	85
56A	0.41	152	5.75	371	114	14	278	247	5.75	602	194	14	473
56Aret	0.41	152	5.75	371	114	14	278	247	5.75	602	194	14	473
[illegible]A-O	0.41	0	0	0	4	22	10	169	7	412	143	15	349
N5A-N6	0.41	0	0	0	4	22	10	168	7	410	143	15	349

Station	Area [mi2]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]
70	0.14	46	6	329	35	14.25	250	75	6.25	536	60	14.25	429
70ret	0.14	46	6	329	35	14.25	250	75	6.25	536	60	14.25	429
70-O	0.14	0	0	0	0	0	0	36	8	257	32	16	229
N6	2.44	102	6.25	42	80	14.25	33	269	7.25	110	257	15	105
RIDO	0	4	6.75	--	0	14.75	--	438	6	--	130	14	--
O4S-O5	0	1	7.5	--	0	15.25	--	236	7	--	55	15	--
39	0.73	121	6.5	166	91	14.5	125	240	6.5	329	186	14.5	255
39-ret	0.73	121	6.5	166	91	14.5	125	240	6.5	329	186	14.5	255
39-O	0.73	0	0	0	0	0	0	177	7.75	242	128	16	175
O5	0.73	1	7.5	1	0	15.25	0	394	7.5	540	173	16	237
O5-O6	0.73	1	10	1	0	17.5	0	358	8.5	490	128	17.25	175
50	1	147	6.75	147	119	15	119	294	6.75	294	237	15	237
50ret	1	147	6.75	147	119	15	119	294	6.75	294	237	15	237
50-O	1	0	0	0	0	0	0	196	8.5	196	163	16.75	163
O6	1.73	1	10	1	0	17.5	0	446	8.75	258	256	16.75	148
O6-O7	1.73	0	12.25	0	0	19.75	0	430	9.25	249	238	18	138
57	0.49	237	5.5	484	172	13.5	351	386	5.5	788	294	13.5	600
57ret	0.49	237	5.5	484	172	13.5	351	386	5.5	788	294	13.5	600
57-O	0.49	0	0	0	2	25.75	4	212	6.25	433	171	14.5	349
O7	2.22	0	12.25	0	1	25.75	0	405	9.25	182	265	17.75	119
O7-O8	2.22	0	12.25	0	1	25.75	0	296	10.25	133	148	19.5	67
71	0.16	111	5	694	79	13	494	181	5	1131	135	13	844
71ret	0.16	111	5	694	79	13	494	181	5	1131	135	13	844
71-O	0.16	0	0	0	2	23.25	13	114	5.5	713	91	13.5	569
O8	2.37	0	12.25	0	2	23.25	1	296	10.25	125	153	19.5	65
RIDP	0	108	4.75	--	93	12.75	--	623	5	--	400	12.75	--
P2S-P3	0	18	8	--	14	15.75	--	266	6	--	82	13.5	--
40	0.98	151	6.75	154	121	14.75	123	304	6.75	310	244	14.75	249
40ret	0.98	151	6.75	154	121	14.75	123	304	6.75	310	244	14.75	249
40-O	0.98	0	0	0	0	0	0	199	8.25	203	125	16.75	128
P3	0.98	18	8	18	14	15.75	14	332	8.25	339	170	16.75	173
P3-P4	0.98	17	10	17	14	18	14	282	9.25	288	132	18.25	135
51	1	149	7	149	120	15	120	292	7	292	237	15	237
51ret	1	149	7	149	120	15	120	292	7	292	237	15	237
51-O	1	0	0	0	0	0	0	167	8.75	167	111	17.5	111
P4	1.98	17	10	9	14	18	7	316	9.5	160	225	18	114
P4-P5	1.98	17	11.25	9	14	19.25	7	302	10	153	214	18.75	108
58	0.19	109	5.25	574	78	13.25	411	178	5.25	937	134	13.25	705
58ret	0.19	109	5.25	574	78	13.25	411	178	5.25	937	134	13.25	705
58-O	0.19	0	0	0	2	21.5	11	102	6	537	85	14	447
P5	2.17	17	11.25	8	14	19.25	6	293	10.25	135	222	18.75	102
-P6	2.17	16	11.5	7	14	19.25	6	288	10.25	133	217	19	100
72	0.09	94	4.5	1044	66	12.5	733	154	4.5	1711	113	12.5	1256

Station	Area [mi2]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]
72ret	0.09	94	4.5	1044	66	12.5	733	154	4.5	1711	113	12.5	1256
72-O	0.09	5	6.25	56	3	17	33	96	4.75	1067	84	12.75	933
P6	2.26	16	11.5	7	15	19.25	7	288	10.25	127	219	19	97
BICE	0	0	0	--	0	0	--	0	0	--	0	0	--
E2S-E3	0	0	0	--	0	0	--	0	0	--	0	0	--
84	0.88	150	7	170	112	15.25	127	278	7	316	227	15.25	258
84ret	0.88	150	7	170	112	15.25	127	278	7	316	227	15.25	258
84-O	0.88	60	9.75	68	1	22.75	1	256	7.5	291	202	16.25	230
E3	0.88	60	9.75	68	1	22.75	1	256	7.5	291	202	16.25	230
BICFB	0.01	0	0	0	0	0	0	185	13.75	18500	322	20.75	32200
F6BS7B	0.01	0	0	0	0	0	0	169	14.5	16900	309	22	30900
85B	0.75	106	6.5	141	79	14.5	105	232	6.5	309	179	14.5	239
85Bret	0.75	106	6.5	141	79	14.5	105	232	6.5	309	179	14.5	239
85B-O	0.75	0	0	0	0	0	0	199	7.25	265	134	15.75	179
F7B	0.76	0	0	0	0	0	0	199	7.25	262	313	22	412
F7B-F8	0.76	0	0	0	0	0	0	169	16.25	222	312	23.25	411
BICG	0.01	0	0	0	0	0	0	50	14.5	5000	314	21.5	31400
G8S-G9	0.01	0	0	0	0	0	0	31	16.25	3100	231	23	23100
86	0.44	124	5.75	282	91	13.75	207	232	5.75	527	184	14	418
[illegible]ret	0.44	78	5	177	58	13	132	92	4.75	209	72	12.75	164
86-O	0.44	124	5.75	282	91	13.75	207	232	5.75	527	184	14	418
G9	0.45	124	5.75	276	91	13.75	202	232	5.75	516	232	23	516
G9-F8	0.45	76	9.5	169	53	18	118	173	8.75	384	221	25.5	491
BICFA	0	0	0	--	0	0	--	0	0	--	0	0	--
F6AS7A	0	0	0	--	0	0	--	0	0	--	0	0	--
85A	0.22	74	5.5	336	51	13.5	232	140	5.5	636	103	13.5	468
85Aret	0.22	74	5.5	336	51	13.5	232	136	5.25	618	103	13.5	468
85A-O	0.22	29	6.75	132	0	0	0	130	5.75	591	90	14	409
F7A	0.22	29	6.75	132	0	0	0	130	5.75	591	90	14	409
F7A-F8	0.22	8	13	36	0	0	0	58	9.75	264	32	18.25	145
105	1	164	7.25	164	130	15.25	130	321	7	321	269	15.25	269
105ret	1	164	7.25	164	130	15.25	130	321	7	321	269	15.25	269
105-O	1	25	11.25	25	0	0	0	280	7.75	280	235	16.25	235
104	1.01	133	7.25	132	100	15.25	99	269	7.25	266	209	15.25	207
104ret	1.01	133	7.25	132	100	15.25	99	269	7.25	266	209	15.25	207
104-O	1.01	9	13.75	9	0	0	0	231	8	229	152	16.75	150
F8	3.43	82	11.25	24	53	18	15	576	8.25	168	522	25.25	152
BICH	0.01	0	0	0	0	0	0	0	0	0	93	21.25	9300
H7S-H8	0.01	0	0	0	0	0	0	0	0	0	43	23.75	4300
87	0.91	174	7	191	139	15	153	327	6.75	359	281	15	309
87ret	0.91	174	7	191	139	15	153	327	6.75	359	279	14.75	307
[illegible]-O	0.91	85	9	93	15	19.75	16	315	7.25	346	253	15.5	278
H8	0.92	85	9	92	15	19.75	16	315	7.25	342	253	15.5	275

Station	Area [mi2]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]
H8-H9	0.92	53	11.5	58	9	23.5	10	269	9	292	219	17.25	238
106	1.21	171	7.25	141	133	15.5	110	341	7.25	282	277	15.5	229
106ret	1.21	171	7.25	141	133	15.5	110	341	7.25	282	277	15.5	229
106-O	1.21	39	11	32	0	0	0	301	8	249	243	16.5	201
H9	2.13	56	11.75	26	9	23.5	4	482	8.75	226	400	17.25	188
BICJ	0.01	31	0	3100	31	0	3100	224	12.75	22400	283	20.25	28300
J6S-J7	0.01	4	13.5	400	4	21.75	400	186	14.25	18600	240	22.25	24000
89	0.96	227	6.75	236	181	15	189	393	6.75	409	329	15	343
89ret	0.96	227	6.75	236	181	15	189	393	6.75	409	329	15	343
89-O	0.96	3	18	3	5	22.75	5	322	7.75	335	282	16	294
J7	0.97	7	18	7	9	22.75	9	326	7.75	336	286	16	295
J7-J8	0.97	6	19.25	6	9	24.75	9	346	8.5	357	296	16.5	305
BICI	0.01	0	0	0	0	0	0	90	14.25	9000	166	21	16600
I6S-I7	0.01	0	0	0	0	0	0	74	16.5	7400	142	23.25	14200
88	0.76	156	6.75	205	124	14.75	163	292	6.75	384	249	14.75	328
88ret	0.76	156	6.75	205	124	14.75	163	291	6.5	383	249	14.75	328
88-O	0.76	63	9	83	7	18.75	9	281	7	370	223	15.5	293
I7	0.77	63	9	82	7	18.75	9	281	7	365	223	15.5	290
I7-I8	0.77	53	10	69	5	20.5	6	266	7.75	345	220	16.25	286
102	0.52	118	6.25	227	88	14.25	169	222	6.25	427	181	14.5	348
102ret	0.52	118	6.25	227	88	14.25	169	222	6.25	427	181	14.5	348
102-O	0.52	38	8.75	73	0	0	0	209	6.75	402	158	15.25	304
I8	1.29	55	10	43	5	20.5	4	386	7.75	299	309	16	240
I8-J8	1.29	54	10.25	42	4	21	3	391	8	303	316	16.25	245
103	0.51	150	6	294	111	14	218	267	6	524	206	14	404
103ret	0.51	150	6	294	111	14	218	267	6	524	206	14	404
103-O	0.51	0	0	0	0	0	0	198	6.75	388	139	15	273
J8	2.77	45	10.25	16	8	26.75	3	682	8.5	246	635	16.5	229
107	0.48	120	5.75	250	83	13.75	173	237	5.75	494	175	13.75	365
107ret	0.48	120	5.75	250	83	13.75	173	237	5.75	494	175	13.75	365
107-O	0.48	2	11.25	4	0	0	0	200	6.5	417	112	15	233
BICM	0	0	0	--	0	0	--	1	17	--	44	25.5	--
M4S6TH	0	0	0	--	0	0	--	1	17.25	--	43	25.5	--
4th	0.08	109	4.5	1363	76	12.5	950	185	4.5	2313	137	12.5	1713
TO4THS	0.08	55	4.5	688	38	12.5	475	93	4.5	1163	68	12.5	850
TO6th	0.08	55	4.5	688	38	12.5	475	93	4.5	1163	68	12.5	850
4TH6TH	0.08	46	4.5	575	31	12.5	388	80	4.5	1000	59	12.5	738
6th	0.06	81	4.5	1350	57	12.5	950	134	4.5	2233	100	12.5	1667
6thA	0.14	127	4.5	907	87	12.5	621	214	4.5	1529	158	12.5	1129
TO7THS	0.14	63	4.5	450	44	12.5	314	107	4.5	764	79	12.5	564
TO8TH	0.14	63	4.5	450	44	12.5	314	107	4.5	764	79	12.5	564
I8TH	0.14	56	4.5	400	38	12.5	271	96	4.5	686	71	12.5	507
8th	0.08	116	4.5	1450	83	12.5	1038	191	4.5	2388	143	12.5	1788

Station	Area [mi2]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]
8thA	0.22	172	4.5	782	120	12.5	545	287	4.5	1305	213	12.5	968
TOCEN1	0.22	86	4.5	391	60	12.5	273	144	4.5	655	106	12.5	482
TO9TH	0.22	86	4.5	391	60	12.5	273	144	4.5	655	106	12.5	482
8TH9TH	0.22	77	4.5	350	54	12.5	245	130	4.5	591	96	12.5	436
9thE	0.09	115	4.5	1278	82	12.5	911	193	4.5	2144	144	12.5	1600
9thW	0.08	115	4.5	1438	81	12.5	1013	194	4.5	2425	145	12.5	1813
9th	0.4	306	4.5	765	214	12.5	535	516	4.5	1290	381	12.5	953
TOCEN2	0.4	153	4.5	383	107	12.5	268	258	4.5	645	191	12.5	478
TODET	0.4	153	4.5	383	107	12.5	268	258	4.5	645	191	12.5	478
BICN	0	37	7.5	--	30	15.5	--	203	11.25	--	213	20.25	--
N6S-D	0	8	10.25	--	7	18.75	--	158	16.75	--	168	25.25	--
BICO	0	0	0	--	0	0	--	49	11	--	33	20	--
O8SO9	0	0	0	--	0	0	--	27	13.25	--	14	22.75	--
93	0.38	85	6	224	60	14.25	158	160	6	421	121	14.25	318
93ret	0.38	85	6	224	60	14.25	158	160	6	421	121	14.25	318
93-O	0.38	0	0	0	0	0	0	127	7	334	83	15.5	218
O9	0.38	0	0	0	0	0	0	127	7	334	83	15.5	218
O9O10	0.38	0	0	0	0	0	0	44	13.75	116	29	23.25	76
95	0.52	104	7	200	79	15.25	152	181	7	348	148	15.25	285
5ret	0.52	104	7	200	79	15.25	152	181	7	348	148	15.25	285
95-O	0.52	0	0	0	0	0	0	153	8.5	294	107	16.75	206
O10	0.9	0	0	0	0	0	0	148	8.5	164	106	16.75	118
TOP9	0.9	0	0	0	0	0	0	74	8.5	82	53	16.75	59
TODRN	0.9	0	0	0	0	0	0	74	8.5	82	53	16.75	59
O10DRN	0.9	0	0	0	0	0	0	29	16.25	32	23	25	26
CENTRE	0.07	98	4.5	1400	68	12.5	971	165	4.5	2357	123	12.5	1757
FRM9TH	0.4	153	4.5	383	107	12.5	268	258	4.5	645	191	12.5	478
9THCEN	0.4	132	4.5	330	95	12.5	238	223	4.5	558	165	12.5	413
FRM8TH	0.22	86	4.5	391	60	12.5	273	144	4.5	655	106	12.5	482
8THCEN	0.22	72	4.5	327	51	12.5	232	117	4.5	532	88	12.5	400
CENTRA	0.07	302	4.5	4314	216	12.5	3086	506	4.5	7229	380	12.5	5429
TODRN	0.07	151	4.5	2157	108	12.5	1543	253	4.5	3614	190	12.5	2714
TOBELO	0.07	151	4.5	2157	108	12.5	1543	253	4.5	3614	190	12.5	2714
CENBEL	0.07	132	4.75	1886	94	12.75	1343	223	4.75	3186	167	12.75	2386
BELOAT	0.05	72	4.5	1440	51	12.5	1020	117	4.5	2340	88	12.5	1760
BELOAA	0.12	175	4.5	1458	127	12.5	1058	292	4.5	2433	219	12.5	1825
BELDRN	0.12	160	4.75	1333	112	12.75	933	278	4.75	2317	206	12.75	1717
BAYLIS	0.02	34	4.25	1700	25	12.25	1250	54	4.25	2700	41	12.25	2050
DETDRN	0.02	21	4.25	1050	14	12.25	700	35	4.25	1750	26	12.25	1300
92	1.01	440	5.5	436	335	13.5	332	760	5.5	752	609	13.5	603
92ret	1.01	440	5.5	436	335	13.5	332	749	5.25	742	598	13.25	592
2-O	1.01	169	6.75	167	70	15.5	69	690	5.75	683	556	13.75	550
DRAIN	0.12	176	4.5	1467	125	12.5	1042	288	4.5	2400	215	12.5	1792

Station	Area [mi2]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]
FRMCEN	0.07	151	4.5	2157	108	12.5	1543	253	4.5	3614	190	12.5	2714
CENDRN	0.07	71	5	1014	49	13	700	137	4.75	1957	99	13	1414
DRAINA	2.16	264	4.5	122	228	12.5	106	760	5.75	352	640	13.75	296
DRNM5	2.16	190	6	88	155	14	72	498	7.5	231	432	15.5	200
4thS	0.15	152	4.5	1013	106	12.5	707	268	4.5	1787	199	12.5	1327
FRM4TH	0.08	55	4.5	688	38	12.5	475	93	4.5	1163	68	12.5	850
4TH4S	0.08	47	4.5	588	31	12.5	388	82	4.5	1025	60	12.5	750
4thSA	0.15	199	4.5	1327	137	12.5	913	350	4.5	2333	259	12.5	1727
4TH7TH	0.15	189	4.75	1260	131	12.75	873	334	4.75	2227	246	12.75	1640
7th	0.13	146	4.5	1123	99	12.5	762	267	4.5	2054	196	12.5	1508
FRM6TH	0.14	63	4.5	450	44	12.5	314	107	4.5	764	79	12.5	564
6TH7TH	0.14	52	4.5	371	35	12.5	250	85	4.5	607	64	12.5	457
7thSA	0.27	337	4.5	1248	230	12.5	852	603	4.5	2233	442	12.5	1637
7THM5	0.27	282	5	1044	190	13	704	481	5	1781	360	13	1333
98	0.39	170	5.5	436	123	13.5	315	290	5.5	744	224	13.5	574
98ret	0.39	170	5.5	436	123	13.5	315	289	5.5	741	224	13.5	574
98-O	0.39	57	7	146	12	15.75	31	266	5.75	682	200	14	513
M5	2.82	282	5.25	100	239	13.25	85	578	6	205	506	14	179
BICP	0	0	0	--	0	0	--	136	10.75	--	64	20	--
SP7	0	0	0	--	0	0	--	81	12	--	29	21.5	--
94	0.72	205	6.25	285	155	14.25	215	355	6	493	283	14.25	393
94ret	0.72	205	6.25	285	155	14.25	215	355	6	493	283	14.25	393
94-O	0.72	2	13.75	3	2	25.25	3	297	7	413	217	15.25	301
P7	0.72	2	13.75	3	2	25.25	3	297	7	413	217	15.25	301
P7-P8	0.72	1	18	1	1	29.75	1	192	9	267	144	17.25	200
96	0.91	145	7	159	110	15	121	285	7	313	230	15	253
96ret	0.91	145	7	159	110	15	121	285	7	313	230	15	253
96-O	0.91	8	13.5	9	0	0	0	248	7.75	273	189	16.25	208
P8	1.63	6	13.5	4	1	29.75	1	337	8.75	207	268	17	164
P8-P9	1.63	1	25.5	1	0	39.5	0	233	12.25	143	176	20.75	108
97	0.5	86	6.75	172	61	15	122	165	6.75	330	128	15	256
97ret	0.5	86	6.75	172	61	15	122	165	6.75	330	128	15	256
97-O	0.5	0	0	0	0	0	0	141	8	282	85	16.5	170
FRO10	0.9	0	0	0	0	0	0	74	8.5	82	53	16.75	59
O10-P9	0.9	0	0	0	0	0	0	65	8.75	72	50	17.25	56
P9	2.13	1	25.5	0	0	39.5	0	250	12.25	117	198	20.75	93
P9-P10	2.13	1	28	0	0	42	0	236	13.25	111	185	22	87
100	0.58	82	6.75	141	57	14.75	98	171	6.75	295	126	14.75	217
100ret	0.58	82	6.75	141	57	14.75	98	171	6.75	295	126	14.75	217
100-O	0.58	13	10.25	22	0	0	0	158	7.25	272	97	16	167
P10	2.72	1	28	0	0	42	0	232	13.25	85	187	22	69
9	0.95	337	5.5	355	254	13.5	267	695	5.5	732	545	13.5	574
99ret	0.95	337	5.5	355	254	13.5	267	672	5.25	707	538	13.25	566

Station	Area [mi2]	10-YR 6-HR			10-YR 24-HR			100-YR 6-HR			100-YR 24-HR		
		Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]	Peak [cfs]	T_p [hr]	Unit Discharge [cfs/mi^2]
99-O	0.95	10	7.75	11	0	0	0	674	5.5	709	407	13.75	428
101	0.38	61	7	161	42	15.25	111	116	7	305	87	15.25	229
101ret	0.38	61	7	161	42	15.25	111	116	7	305	87	15.25	229
101-O	0.38	24	9.75	63	0	0	0	112	7.5	295	76	16.25	200
BICK	0	22	0	--	22	0	--	462	11	--	512	19	--
K7SK8	0	5	12	--	5	20.25	--	363	12.75	--	415	20.75	--
90	1.05	244	7	232	193	15.25	184	406	7	387	342	15.25	326
90ret	1.05	244	7	232	193	15.25	184	406	7	387	342	15.25	326
90-O	1.05	4	18.25	4	13	26	12	338	8.25	322	286	16.25	272
K8	1.06	7	18.25	7	18	26	17	404	12.5	381	482	20.5	455
BICL	0	29	8	--	26	16	--	66	11.25	--	77	25.75	--
L5SL6	0	14	11.25	--	16	19.5	--	60	18.5	--	72	28.5	--
91	1.19	212	7	178	166	15.25	139	388	7	326	324	15.25	272
91ret	1.19	212	7	178	166	15.25	139	388	7	326	324	15.25	272
91-O	1.19	63	10.5	53	9	23.25	8	346	7.75	291	290	16.25	244
L6	1.19	77	10.5	65	25	20.25	21	356	7.75	299	310	16.25	261

Note: 1. Station designations can be found in Figure 4-6b.

Table 4-5a

Existing Conditions Runoff Volumes for Concentration Points

Outlet	Area [mi^2]	10-yr 6-hr [acre-ft]	10-yr 24-hr [acre-ft]	100-yr 6-hr [acre-ft]	100-yr 24-hr [acre-ft]
From FRS to RID					
F1B	1.4	23	16	74	68
G3	3.81	105	139	277	296
H3	2.8	26	33	122	140
I2A	1.97	35	34	113	107
I2B	1.11	27	23	76	68
J3	1.4	36	32	97	89
K3	1.7	31	29	98	90
L2	1.73	41	40	115	108
N2	2.02	33	22	89	79
O4	2	17	18	55	49
P2	1.72	19	19	54	44
Q3	0.68	0	0	26	14
From RID to BID					
E2	0.66	15	11	46	36
F6A	0.72	6	4	39	32
F6B	3.51	6	24	205	238

G8	2.94	17	27	219	234
H7	3.04	10	19	180	199
I6	2.66	23	33	124	141
J6	2.56	12	21	138	139
K7	3.90	100	87	347	383
L5	1.59	12	15	79	78
M4	2.53	47	46	224	217
N6	2.44	52	58	199	206
O8	2.37	13	16	128	125
P6	2.26	45	50	159	166
From BID to Gila River					
E3	0.88	23	18	73	69
F8	3.43	44	53	389	435
H9	2.13	42	39	162	166
I9	0.48	9	6	35	28
J8	2.77	133	129	542	594
K8	1.06	109	91	398	435
L6	1.19	92	89	357	393
M5	2.82	144	114	489	558
N7	0.95	72	65	470	399
P10	2.72	44	46	224	224
Q2	0.38	10	8	31	27

Table 4-5b

Future Conditions Runoff Volumes for Concentration Points

Outlet	Area [mi^2]	10-yr 6-hr [acre-ft]	10-yr 24-hr [acre-ft]	100-yr 6-hr [acre-ft]	100-yr 24-hr [acre-ft]
From FRS to RID					
F1B	1.4	14	14	74	93
G3	3.81	23	66	221	328
H3	2.8	2	9	114	155
I2A	1.97	20	27	112	128
I2B	1.11	13	14	65	70
J3	1.4	14	17	81	89
K3	1.7	12	25	94	128
L2	1.73	1	5	78	86
N2	2.02	7	5	90	96
O4	2	22	22	107	111
P2	1.72	17	21	101	106
Q3	0.68	42	40	78	76
From RID to BID					
E2	0.66	15	17	51	54
F6A	0.72	0	0	27	39
F6B	3.51	0	0	182	309

G8	2.94	0	0	147	263
H7	3.04	0	0	140	242
I6	2.66	0	4	91	128
J6	2.56	0	2	95	152
K7	3.90	10	11	312	392
L5	1.59	0	1	61	76
M4	2.53	29	33	167	218
N6	2.44	31	37	177	203
O8	2.37	0	1	151	129
P6	2.26	35	36	176	144
From BID to Gila River					
E3	0.88	12	0	61	46
F8	3.43	34	17	272	466
H9	2.13	16	4	135	139
I9	0.48	26	19	52	40
J8	2.77	41	33	407	547
K8	1.06	23	28	259	408
L6	1.19	62	57	325	306
M5	2.82	79	83	433	473
N7	0.95	43	37	89	77
P10	2.72	1	0	185	144
Q2	0.38	23	16	43	33

The higher of the two peak discharges from the 100-year, 24-hour and 100-year, 6-hour storms is considered the critical peak discharge and should be used for floodplain delineation studies. As shown in Tables 4-4a and 4-4b, the peak flows for the 100-year, 6-hour storm are larger at most downstream outlets than for the 100-year, 24-hour storm. The peak discharge hydrographs from all the events were used as inputs for the unsteady hydraulic model of Area 1 to develop a frequency-stage relationship.

For the future condition hydrologic analysis, the major changes to the model included revision of the land use classification, which affected the rainfall loss parameters, and addition of retention to the model. For storm events the retention basins effectively attenuate less than 100-year recurrence frequency, peak discharges and runoff volumes.

Table 4-6 gives the locations of and information about overtopping at the railroad. Table 4-7 gives the locations for low points and discharges entering or leaving the canals. The low point locations provide a generalized area along both canals where overtopping occurs. Figure 4-8 (Pocket) shows these overtopping locations (low points along the canal).

Table 4-6

Combined HEC-1/HEC-RAS Modeling Results for Railroad Crossing

Routing ID	Elevation	Comment 1	Comment 2
E1	873.07	STORAGE ROUTE AT SPRR BETWEEN EOC AND JOHNSON ROAD (SUB 68 SR)	OVERTOPPING WILL NOT OCCUR (All flow values are for orifice flow)
F5A	894.00	STORAGE ROUTE AT SPRR BETWEEN BRUNER AND JOHNSON ROADS (SUB 52A)	OVERTOPPING WILL NOT OCCUR (All flow is orifice flow)
F5B	886.00	STORAGE ROUTE AT SPRR BETWEEN BRUNER AND JOHNSON ROADS (SUB 52B)	OVERTOPPING WILL NOT OCCUR (All flow is orifice flow)
G7	888.00	STORAGE ROUTE @ SPRR FROM PALO VERDE TO BURNER ROADS (SUB53 STORAGE ROUTING)	OVERTOPPING WILL NOT OCCUR (All flow is orifice flow)
H6	890.00	STORAGE ROUTE @ SPRR FROM WILSON TO PALO VERDE ROADS (SUB 54 STORAGE ROUTING)	OVERTOPPING STARTS @ Q=1025cfs, EL=893.4 (OVERTOPPING = 0.05 ft)
I5	892.00	STORAGE ROUTE @ SPRR FROM TURNER TO WILSON ROADS (SUB 55 STORAGE ROUTING)	OVERTOPPING STARTS @ Q=221cfs, EL=893.8 (OVERTOPPING = 0.18 ft)
J5B	892.00	STORAGE ROUTE @ SPRR FROM OGLESBY TO TURNER ROADS (SUB 45B STORAGE ROUTING)	OVERTOPPING STARTS @ Q=241cfs, EL=893.2 (OVERTOPPING = 0.02 ft)
K6	890.00	STORAGE ROUTE @ SPRR FROM ROOKS TO OGLESBY ROADS (SUB 46 STORAGE ROUTING)	OVERTOPPING STARTS @ Q=1565cfs, EL=892.88 (OVERTOPPING = 0.01 ft)
L4	886.29	STORAGE ROUTE @ SPRR FROM MILLER TO ROOKS ROADS (SUB 47 STORAGE ROUTING)	OVERTOPPING STARTS @ Q=286cfs, EL=889.6 (OVERTOPPING = 0.18 ft)
M3	884.00	STORAGE ROUTE @ SPRR FROM APACHE TO MILLER ROADS (SUB 67 STORAGE ROUTING)	OVERTOPPING STARTS @ Q=226cfs, EL=887.2 (OVERTOPPING = 0.12 ft)
N5A	886.00	STORAGE ROUTE @ SPRR FROM WATSON TO APACHE ROADS (SUB 56A STORAGE ROUTING)	OVERTOPPING STARTS @ Q=664cfs, EL=889.7 (OVERTOPPING = 0.17 ft)
N5B	887.23	STORAGE ROUTE @ SPRR FROM WATSON TO APACHE ROADS (SUB 56B STORAGE ROUTING)	OVERTOPPING STARTS @ Q=664cfs, EL=889.7 (OVERTOPPING = 0.17 ft)
O7	891.10	STORAGE ROUTE @ SPRR FROM RAINBOW TO WATSON ROADS (SUB 57 STORAGE ROUTING)	OVERTOPPING STARTS @ Q=139cfs, EL=892.3 (OVERTOPPING = 0.11 ft)
P5	889.11	STORAGE ROUTE @ SPRR FROM DEAN TO RAINBOW ROADS (SUB 58 STORAGE ROUTING)	OVERTOPPING STARTS @ Q=1605cfs, EL=892.7 (OVERTOPPING = 0.04 ft)

Table 4-7

Combined HEC-1/HEC-RAS Modeling Results for Canal Overtopping Locations

Canal ID	Approx. Low Point Station	North or South Side of Canal	Discharge (cfs)	Discharge Entering or Leaving Canal?
RID	594+00	South	485.65	Leaving
RID	582+00	North	528.29	Entering
RID	550+00	South	188.16	Leaving

Canal ID	Approx. Low Point Station	North or South Side of Canal	Discharge (cfs)	Discharge Entering or Leaving Canal?
RID	536+00	North	262.16	Entering
RID	490+00	South	284.87	Leaving
RID	484+00	North	341.78	Entering
RID	448+00	South	733.52	Leaving
RID	424+00	North	681.67	Entering
RID	416+00	South	0.29	Leaving
RID	396+00	North	319.33	Entering
RID	372+00	South	536.43	Leaving
RID	364+00	North	397.13	Entering
RID	340+00	South	632.5	Leaving
RID	320+00	North	538.85	Entering
RID	282+00	North	73.9	Entering
RID	260+00	South	224.82	Leaving
RID	238+00	North	96.72	Entering
RID	228+00	South	0	---
RID	190+00	South	243.54	Leaving
RID	154+00	North	131.12	Entering
RID	124+00	South	569.13	Leaving
RID	94+00	North	836.06	Entering
RID	62+00	South	300.35	Leaving
RID	42+00	North	0	---
BIC	678+00	North	267.63	Entering
BIC	668+00	South	124.25	Leaving
BIC	656+00	North	0	---
BIC	610+00	South	47.09	Leaving
BIC	584+00	South	225.52	Leaving
BIC	566+00	North	246.76	Entering
BIC	536+00	North	139.21	Entering
BIC	520+00	South	51.24	Leaving
BIC	474+00	North	11.92	Entering
BIC	464+00	South	85.24	Leaving
BIC	418+00	South	499.14	Leaving
BIC	396+00	North	537.37	Entering
BIC	362+00	South	304.68	Leaving
BIC	354+00	North	182.36	Entering
BIC	320+00	South	146.71	Leaving
BIC	298+00	North	122.96	Entering
BIC	266+00	North	141.76	Entering
BIC	236+00	South	33.29	Leaving
BIC	202+00	South	158.05	Leaving
BIC	178+00	North	253.32	Entering
BIC	154+00	North	233.11	Entering
BIC	140+00	South	250.65	Leaving
BIC	104+00	South	0	---
BIC	94+00	North	146.35	Entering

Canal ID	Approx. Low Point Station	North or South Side of Canal	Discharge (cfs)	Discharge Entering or Leaving Canal?
BIC	48+00	North	335.15	Entering
BIC	36+00	South	0	---

4.5.2 Verification of Results

In 1992, McLaughlin Kmetty Engineers, LTD conducted a study of Area 1 for 100-year storm events. The basin delineations and hydrologic parameters used in these studies as well as their results were compared to the parameters and results of the current study as verification. Table 4-8 compares the rainfall loss parameters used for this study and the McLaughlin study. Table 4-9 compares the unit hydrograph lag time calculation parameters used by both studies. Tables 4-10a and 4-10b compare the 100-year, 6-hour and 100-year, 24-hour, respectively, peak discharges and unit peak discharges for the area's sub-basins. The tables only represent the sub-basins that have not been altered in this study so that an appropriate comparison can be made between this study and the McLaughlin study.

The peak flows and unit peak discharges for both the 100-year, 6-hour and 100-year, 24-hour storm event from this study were generally 30-40% lower than for the McLaughlin study. This is due to the fact that this study used updated land use GIS coverage that accurately predicts Area 1's current hydrologic response of Area 1 better than the McLaughlin study.

Table 4-8

Comparison of Rainfall Loss Parameters

Sub-Basin	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J
ID	Area [mi^2]	Area [mi^2]	IA [in]	IA [in]	DTHETA	DTHETA	PSIF [in]	PSIF [in]	XKSAT[a] [in/hr]	XKSAT[a] [in/hr]	RTIMP [%]	RTIMP [%]
1	1.672	1.626	0.350	0.347	0.350	0.329	3.98	4.33	0.359	0.398	0	5.88
2	1.239	1.233	0.350	0.338	0.350	0.339	4.24	3.99	0.412	0.443	0	5.58
3	1.309	1.648	0.429	1.00	0.206	0.298	4.24	4.03	0.535	0.546	0	4.13
4	0.567	0.549	0.350	0.306	0.350	0.332	4.24	4.02	0.411	0.485	0.28	14.55
6	0.323	0.318	0.350	0.327	0.370	0.359	4.74	5.26	0.222	0.239	4.88	8.06
7	0.413	0.446	0.350	0.336	0.350	0.345	4.14	4.13	0.391	0.4	0	4.38
8	0.383	0.414	0.350	0.277	0.350	0.319	4.19	4.1	0.401	0.445	0	23.07
9	0.706	0.612	0.350	0.327	0.350	0.34	4.24	3.98	0.412	0.411	0	7.24
10	1.316	1.174	0.321	0.299	0.338	0.312	4.14	4.15	0.383	0.403	1.73	10.87
12	0.977	0.736	0.350	0.338	0.350	0.345	3.5	4.5	0.264	0.333	0	3.95
13	0.447	0.501	0.350	0.35	0.350	0.364	4.08	5.14	0.380	0.247	0	0
16	0.92	0.951	0.328	0.208	0.312	0.25	4.19	4.4	0.380	0.438	0	45.68
17	0.88	0.607	0.449	1.00	0.169	0.25	4.24	4.02	0.567	0.465	0	0.17
18	0.905	0.796	0.437	1.00	0.191	0.291	4.14	4.13	0.520	0.479	0	0.12
19	0.594	0.536	0.500	1.00	0.075	0.249	4.3	3.96	0.664	0.435	0	0.57
20	0.666	0.665	0.500	1.00	0.075	0.252	4.24	3.97	0.647	0.479	0	0.02
22	0.577	0.557	0.500	1.00	0.075	0.25	4.24	4	0.647	0.55	0	0.18
23	0.527	0.524	0.500	1.00	0.075	0.248	4.3	3.96	0.664	0.472	0	0.99
24	0.486	0.489	0.500	0.312	0.250	0.276	3.66	4.59	0.280	0.365	7.5	11.26
25	0.27	0.274	0.500	1.00	0.075	0.285	4.14	4.14	0.614	0.39	0	1.29
26	0.519	0.524	0.200	0.304	0.250	0.26	4.24	4.05	0.390	0.4	7.5	13.8
27	0.231	0.241	0.500	1.00	0.074	0.246	4.24	3.98	0.649	0.567	0	1.42
28	0.325	0.335	0.500	1.00	0.075	0.249	4.14	4.18	0.615	0.467	0	0.54
29	1	0.999	0.500	1.00	0.075	0.25	4.24	3.98	0.647	0.548	0	0
30	1	0.983	0.500	1.00	0.075	0.25	4.24	4.03	0.647	0.469	0	8.73

Sub-Basin	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J
ID	Area [mi^2]	Area [mi^2]	IA [in]	IA [in]	DTHETA	DTHETA	PSIF [in]	PSIF [in]	XKSAT[a] [in/hr]	XKSAT[a] [in/hr]	RTIMP [%]	RTIMP [%]
31	1.063	1.079	0.500	1.00	0.075	0.249	4.24	4.02	0.647	0.456	0	0.85
32	0.881	0.896	0.500	1.00	0.075	0.249	4.24	4	0.648	0.515	0	1.15
33	0.978	1.002	0.500	1.00	0.075	0.249	4.3	3.96	0.664	0.44	0	0.53
34	0.625	0.637	0.500	1.00	0.075	0.245	4.24	3.99	0.647	0.565	0	2.07
35	1.502	1.504	0.500	1.00	0.075	0.25	4.24	3.98	0.648	0.486	0	3.32
36	0.683	0.684	0.500	1.00	0.075	0.258	4.3	3.97	0.664	0.455	0	5.1
37	1.441	1.421	0.500	1.00	0.075	0.25	4.19	4.12	0.631	0.457	0	0
38	0.525	0.542	0.500	1.00	0.075	0.249	4.3	3.96	0.664	0.466	0	1.07
39	0.714	0.725	0.500	1.00	0.075	0.249	3.98	4.31	0.564	0.47	0	1.59
40	0.952	0.976	0.500	1.00	0.075	0.249	4.03	4.21	0.581	0.525	0	0.74
41	1.208	1.202	0.500	1.00	0.075	0.25	4.3	3.97	0.664	0.474	0	0
42	0.775	0.778	0.500	1.00	0.075	0.25	4.03	4.28	0.581	0.452	0	0.47
43	1	1.002	0.500	1.00	0.075	0.25	4.3	3.96	0.664	0.425	0	0.66
44	1	1.007	0.500	1.00	0.075	0.25	4.19	4.14	0.631	0.485	0	5.22
46	1.375	1.381	0.500	1.00	0.075	0.258	4.14	4.19	0.614	0.469	0	2.56
47	0.62	0.617	0.500	1.00	0.075	0.271	3.77	4.5	0.498	0.411	0	0.1
48	0.486	0.5	0.500	1.00	0.075	0.25	3.92	4.37	0.548	0.445	0	1.37
49	1	1.009	0.500	1.00	0.075	0.25	4.3	3.95	0.664	0.417	0	0.66
50	1	1.002	0.500	1.00	0.075	0.251	4.08	4.18	0.598	0.488	0	2.4
51	0.998	1.004	0.500	1.00	0.075	0.25	3.87	4.4	0.531	0.563	0	1.52
53	0.341	0.339	0.500	1.00	0.075	0.25	4.24	4	0.648	0.444	0	0
54	0.38	0.386	0.500	1.00	0.075	0.25	4.24	4	0.647	0.447	0	0
55	0.266	0.263	0.365	1.00	0.075	0.25	4.19	4.13	0.631	0.446	0	0
57	0.508	0.489	0.500	1.00	0.075	0.25	4.03	4.26	0.580	0.53	0	1.42
58	0.211	0.19	0.500	1.00	0.076	0.25	3.98	4.29	0.563	0.552	0	11.15
59	0.236	0.252	0.500	1.00	0.075	0.23	4.24	4.17	0.648	0.497	0	8.09
61	0.347	0.508	0.500	1.00	0.075	0.248	4.3	3.97	0.663	0.464	0	2.23
62	0.58	0.572	0.500	1.00	0.075	0.249	4.19	4.2	0.631	0.444	0	0.47
63	0.513	0.499	0.500	1.00	0.075	0.25	4.08	4.19	0.598	0.398	0	20.75

Sub-Basin	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J
ID	Area [mi^2]	Area [mi^2]	IA [in]	IA [in]	DTHETA	DTHETA	PSIF [in]	PSIF [in]	XKSAT[a] [in/hr]	XKSAT[a] [in/hr]	RTIMP [%]	RTIMP [%]
64	0.427	0.415	0.500	1.00	0.075	0.248	3.87	4.36	0.531	0.445	0	1.18
65	0.405	0.376	0.500	1.00	0.075	0.247	3.61	4.71	0.448	0.411	0	1.76
66	0.286	0.294	0.500	1.00	0.075	0.249	3.92	4.47	0.548	0.385	0	6.04
67	0.489	0.472	0.200	0.261	0.250	0.262	3.92	4.33	0.330	0.393	0	26.59
68	0.278	0.413	0.500	0.374	0.074	0.334	3.98	4.37	0.565	0.374	22.5	0
69	0.138	0.137	0.200	0.176	0.250	0.264	3.71	4.5	0.290	0.395	0	49.22
70	0.166	0.141	0.500	1.00	0.075	0.25	3.92	4.4	0.547	0.512	22.5	0
71	0.139	0.155	0.500	1.00	0.076	0.243	3.5	4.91	0.414	0.414	0	2.61
72	0.067	0.086	0.500	1.00	0.076	0.23	3.71	4.47	0.481	0.424	0	7.94
83	0.87	0.675	0.350	0.341	0.380	0.375	5.05	5.44	0.211	0.214	0.00	2.8

Table 4-9

Comparison of Unit Hydrograph Lag Time Calculation Parameters

Sub-Basin	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J
ID	Area [mi^2]	Area [mi^2]	K_n	K_n	L [miles]	L [miles]	L_{ca} [miles]	L_{ca} [miles]	S [ft/mi]	S [ft/mi]	Lag [hours]	Lag [hours]	Lag [min]	Lag [min]	S-Graph Type	S-Graph Type
1	1.672	1.626	0.05	0.050	2.51	2.61	1.34	1.54	24	34.86	1.04	1.03	62	62	Phoenix Valley	Desert Rangeland
2	1.239	1.233	0.05	0.050	1.77	2.02	0.90	0.86	37	45.95	0.72	0.72	43	43	Phoenix Valley	Desert Rangeland
3	1.309	1.648	0.05	0.050	1.84	2.04	1.44	1.39	36	39.22	0.88	0.88	53	53	Phoenix Valley	Desert Rangeland
4	0.567	0.549	0.05	0.050	1.26	1.38	0.68	0.74	41	40.65	0.57	0.60	34	36	Phoenix Valley	Desert Rangeland
6	0.323	0.318	0.05	0.050	0.73	0.5	0.23	0.35	62	88.18	0.28	0.27	17	16	Phoenix Valley	Desert Rangeland
7	0.413	0.446	0.05	0.050	0.76	0.74	0.33	0.3	64	73.02	0.32	0.30	19	18	Phoenix Valley	Desert Rangeland
8	0.383	0.414	0.05	0.050	1.29	1.22	0.49	0.56	22	14.8	0.56	0.62	34	37	Phoenix Valley	Desert Rangeland
9	0.706	0.612	0.05	0.050	1.01	0.79	0.36	0.41	54	57.09	0.38	0.37	23	22	Phoenix Valley	Desert Rangeland
10	1.316	1.174	0.05	0.050	1.58	1.77	1.06	1.27	47	46.29	0.70	0.78	42	47	Phoenix Valley	Phoenix Valley
12	0.977	0.736	0.05	0.050	1.37	0.96	0.76	0.41	77	83.03	0.53	0.37	32	22	Phoenix Valley	Phoenix Valley
13	0.447	0.501	0.05	0.050	1.57	0.52	0.86	0.26	73	71.2	0.60	0.25	36	15	Phoenix Valley	Phoenix Valley
16	0.92	0.951	0.20	0.050	1.56	2	0.78	1.37	31	24.99	2.69	0.95	162	57	Phoenix Valley	Phoenix Valley
17	0.88	0.607	0.20	0.200	1.58	1.43	0.79	0.71	36	16.84	2.64	2.82	159	169	Phoenix Valley	Agriculture
18	0.905	0.796	0.20	0.200	1.40	1.81	0.70	Ta	44	30.99	2.32	2.80	139	168	Phoenix Valley	Agriculture
19	0.594	0.536	0.20	0.200	1.45	1.51	0.73	0.76	19	18.49	2.80	2.90	168	174	Phoenix Valley	Agriculture
20	0.666	0.665	0.20	0.200	1.04	1.57	0.52	0.79	27	16.56	2.03	3.05	122	183	Phoenix Valley	Agriculture
22	0.577	0.557	0.20	0.200	1.46	1.54	0.73	0.77	20	18.14	2.78	2.97	167	178	Phoenix Valley	Agriculture
23	0.527	0.524	0.20	0.200	1.57	1.32	0.79	0.66	16	15.92	3.07	2.68	184	161	Phoenix Valley	Agriculture
24	0.486	0.489	0.20	0.050	0.95	0.53	0.48	0.27	15	56.27	2.12	0.27	127	16	Phoenix Valley	Desert Rangeland
25	0.27	0.274	0.20	0.050	1.29	1.05	0.65	0.52	22	10.49	2.49	0.62	149	37	Phoenix Valley	Phoenix Valley
26	0.519	0.524	0.20	0.050	1.63	0.76	0.82	0.38	25	39.29	2.90	0.37	174	22	Phoenix Valley	Phoenix Valley
27	0.231	0.241	0.20	0.200	0.67	0.82	0.34	0.41	15	14.59	1.63	1.92	98	115	Phoenix Valley	Agriculture
28	0.325	0.335	0.20	0.200	0.95	1.02	0.48	0.51	14	16.68	2.15	2.20	129	132	Phoenix Valley	Agriculture
29	1	0.999	0.20	0.200	1.50	1.47	0.75	0.73	24	22.92	2.74	2.72	165	163	Phoenix Valley	Agriculture
30	1	0.983	0.20	0.200	1.51	1.55	0.76	0.78	25	21.93	2.74	2.87	164	172	Phoenix Valley	Agriculture

Sub-Basin	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J
ID	Area [mi²]	Area [mi²]	K_n	K_n	L [miles]	L [miles]	L_{ca} [miles]	L_{ca} [miles]	S [ft/mi]	S [ft/mi]	Lag [hours]	Lag [hours]	Lag [min]	Lag [min]	S-Graph Type	S-Graph Type
31	1.063	1.079	0.20	0.200	1.91	1.93	0.96	0.97	29	26.4	3.18	3.27	191	196	Phoenix Valley	Agriculture
32	0.881	0.896	0.20	0.200	1.80	1.84	0.90	0.92	32	24.34	2.99	3.20	179	192	Phoenix Valley	Agriculture
33	0.978	1.002	0.20	0.200	1.72	1.84	0.86	0.92	31	29.3	2.90	3.08	174	185	Phoenix Valley	Agriculture
34	0.625	0.637	0.20	0.200	1.17	1.23	0.59	0.62	19	19.48	2.38	2.47	143	148	Phoenix Valley	Agriculture
35	1.502	1.504	0.20	0.200	1.95	1.96	0.98	0.98	26	33.61	3.30	3.17	198	190	Phoenix Valley	Agriculture
36	0.683	0.684	0.20	0.200	1.85	1.85	0.93	0.93	36	36.67	2.98	2.97	179	178	Phoenix Valley	Agriculture
37	1.441	1.421	0.20	0.200	2.37	2.36	1.19	1.18	30	30.11	3.72	3.70	223	222	Phoenix Valley	Agriculture
38	0.525	0.542	0.20	0.200	1.33	1.4	0.67	0.7	22	20.72	2.55	2.68	153	161	Phoenix Valley	Agriculture
39	0.714	0.725	0.20	0.200	1.52	1.63	0.76	0.82	25	25.14	2.75	2.90	165	174	Phoenix Valley	Agriculture
40	0.952	0.976	0.20	0.200	1.77	1.83	0.88	0.91	31	31.23	2.96	3.03	178	182	Phoenix Valley	Agriculture
41	1.208	1.202	0.20	0.200	1.52	1.54	0.76	0.77	24	23.99	2.77	2.80	166	168	Phoenix Valley	Agriculture
42	0.775	0.778	0.20	0.200	1.50	1.56	0.75	0.78	26	22.73	2.70	2.87	162	172	Phoenix Valley	Agriculture
43	1	1.002	0.20	0.200	2.00	1.92	1.00	0.96	23	20.85	3.44	3.40	207	204	Phoenix Valley	Agriculture
44	1	1.007	0.20	0.200	2.00	1.97	1.00	0.98	28	22.43	3.32	3.42	199	205	Phoenix Valley	Agriculture
46	1.375	1.381	0.20	0.200	1.70	1.79	0.85	0.89	30	25.18	2.89	3.10	174	186	Phoenix Valley	Agriculture
47	0.62	0.617	0.20	0.200	1.39	1.46	0.70	0.73	27	24.6	2.53	2.68	152	161	Phoenix Valley	Agriculture
48	0.486	0.5	0.20	0.200	0.98	1.1	0.49	0.55	22	16.43	2.02	2.32	121	139	Phoenix Valley	Agriculture
49	1	49	0.20	0.200	1.98	1.96	0.98	0.98	27	23.51	3.30	3.37	198	202	Phoenix Valley	Agriculture
50	1	50	0.20	0.200	1.98	1.98	0.98	0.99	31	26.73	3.22	3.32	193	199	Phoenix Valley	Agriculture
51	0.998	51	0.20	0.200	1.98	1.96	0.98	0.98	28	22.98	3.28	3.38	197	203	Phoenix Valley	Agriculture
53	0.341	53	0.20	0.200	0.61	0.91	0.31	0.46	25	23.93	1.37	1.88	82	113	Phoenix Valley	Agriculture
54	0.38	54	0.20	0.200	1.17	1.2	0.59	0.6	11	12.35	2.64	2.62	158	157	Phoenix Valley	Agriculture
55	0.266	55	0.20	0.200	0.92	0.97	0.46	0.48	8	12.83	2.33	2.22	140	133	Phoenix Valley	Agriculture
57	0.508	57	0.20	0.200	1.27	0.68	0.64	0.34	22	19.18	2.46	1.57	148	94	Phoenix Valley	Agriculture
58	0.211	58	0.20	0.200	0.93	0.5	0.47	0.25	13	15.93	2.14	1.28	129	77	Phoenix Valley	Agriculture
59	0.236	59	0.20	0.200	0.57	0.5	0.28	0.17	46	49.34	1.15	0.88	69	53	Phoenix Valley	Agriculture
61	0.347	61	0.20	0.200	0.81	0.9	0.41	0.45	25	23	1.71	1.88	102	113	Phoenix Valley	Agriculture
62	0.58	62	0.20	0.200	0.98	0.98	0.49	0.49	22	21.54	2.02	2.03	121	122	Phoenix Valley	Agriculture
63	0.513	63	0.20	0.200	0.94	0.95	0.47	0.47	26	20.27	1.90	2.00	114	120	Phoenix Valley	Agriculture

Sub-Basin	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J	MKE	PBS&J
ID	Area [mi^2]	Area [mi^2]	K_n	K_n	L [miles]	L [miles]	L_{ca} [miles]	L_{ca} [miles]	S [ft/mi]	S [ft/mi]	Lag [hours]	Lag [hours]	Lag [min]	Lag [min]	S-Graph Type	S-Graph Type
64	0.427	64	0.20	0.200	0.80	0.89	0.40	0.45	26	17.94	1.68	1.95	101	117	Phoenix Valley	Agriculture
65	0.405	65	0.20	0.200	0.78	0.82	0.39	0.41	21	10.93	1.71	2.02	103	121	Phoenix Valley	Agriculture
66	0.286	66	0.20	0.200	0.73	0.73	0.37	0.36	12	19.24	1.81	1.65	109	99	Phoenix Valley	Agriculture
67	0.489	67	0.20	0.200	0.85	0.82	0.43	0.41	25	25.73	1.77	1.70	106	102	Phoenix Valley	Phoenix Valley
68	0.278	68	0.20	0.050	0.87	0.96	0.44	0.33	46	45.58	1.60	0.37	96	22	Phoenix Valley	Desert Rangeland
69	0.138	69	0.20	0.200	0.87	0.11	0.44	0.06	5	17.52	2.44	0.42	147	25	Phoenix Valley	Phoenix Valley
70	0.166	70	0.20	0.200	0.85	0.68	0.43	0.34	5	1.48	2.40	2.53	144	152	Phoenix Valley	Agriculture
71	0.139	71	0.20	0.200	0.61	0.34	0.31	0.17	5	14.51	1.87	0.98	112	59	Phoenix Valley	Agriculture
72	0.067	72	0.20	0.200	0.59	0.13	0.30	0.06	5	7.71	1.82	0.53	109	32	Phoenix Valley	Agriculture
83	0.87	83	0.05	0.050	1.61	1.72	0.76	0.93	75	64.69	0.57	0.65	34	39	Phoenix Valley	Desert Rangeland

Table 4-10a

Comparison of Peak and Unit Peak Discharges for the 100-Year, 6-Hour Storm Event

	100-year 6-hour Peak Discharge			100-year 6-hour Unit Peak Discharge		
Sub-basin	MKE	PBS&J	% Change	MKE	PBS&J	% Change
1	1109	1004	10.46	663	616	7.63
2	1112	1048	6.11	897	852	5.28
3	989	715	38.32	756	433	74.60
4	702	614	14.33	1238	1116	10.93
6	653	583	12.01	2022	1822	10.98
7	795	734	8.31	1925	1631	18.03
8	493	508	-2.95	1287	1239	3.87
9	1150	1005	14.43	1629	1648	-1.15
10	1283	1073	19.57	975	917	6.32
12	1238	1300	-4.77	1267	1757	-27.89
13	591	971	-39.13	1322	1942	-31.93
16	319	1049	-69.59	347	1104	-68.57
17	280	118	137.29	318	193	64.77
18	344	136	152.94	380	170	123.53
19	213	108	97.22	359	200	79.50
20	316	115	174.78	474	174	172.41
22	210	99	112.12	364	177	105.65
23	177	112	58.04	336	215	56.28
24	277	881	-68.56	570	1798	-68.30
25	116	301	-61.46	430	1115	-61.43
26	206	1060	-80.57	397	2038	-80.52
27	136	70	94.29	589	292	101.71
28	153	87	75.86	471	264	78.41
29	338	162	108.64	338	162	108.64
30	338	195	73.33	338	199	69.85
31	301	161	86.96	283	149	89.93
32	281	135	108.15	319	150	112.67
33	305	163	87.12	312	163	91.41
34	248	135	83.70	397	211	88.15
35	400	220	81.82	266	147	80.95
36	225	134	67.91	329	197	67.01
37	343	171	100.58	238	120	98.33
38	210	116	81.03	400	215	86.05
39	274	132	107.58	384	181	112.15
40	317	146	117.12	333	149	123.49
41	387	197	96.45	320	164	95.12
42	290	140	107.14	374	179	108.94
43	264	151	74.83	264	151	74.83
44	289	153	88.89	289	151	91.39
46	420	205	104.88	305	149	104.70
47	271	125	116.80	437	202	116.34

	100-year 6-hour Peak Discharge			100-year 6-hour Unit Peak Discharge		
Sub-basin	MKE	PBS&J	% Change	MKE	PBS&J	% Change
48	263	125	110.40	541	250	116.40
49	285	154	85.06	285	152	87.50
50	300	147	104.08	300	147	104.08
51	317	128	147.66	318	128	148.44
53	233	104	124.04	683	306	123.20
54	145	86	68.60	382	221	72.85
55	121	68	77.94	455	262	73.66
57	222	173	28.32	437	353	23.80
58	103	92	11.96	488	484	0.83
59	193	159	21.38	818	676	21.01
61	201	159	26.42	579	312	85.58
62	289	158	82.91	498	277	79.78
63	274	192	42.71	534	384	39.06
64	270	124	117.74	632	302	109.27
65	269	110	144.55	664	289	129.76
66	164	114	43.86	573	393	45.80
67	348	334	4.19	712	711	0.14
68	171	694	-75.36	615	1693	-63.67
69	76	292	-73.97	551	2086	-73.59
70	73	30	143.33	440	214	105.61
71	83	92	-9.78	597	575	3.83
72	40	91	-56.04	597	1011	-40.95
80	792	310	155.48	1230	295	316.95
83	1142	781	46.22	1313	1149	14.27

Table 4-10b

Comparison of Peak and Unit Peak Discharges for the 100-Year, 24-Hour Storm Event

	100-year 24-hour Peak Discharge			100-year 24-hour Unit Peak Discharge		
Sub-basin	MKE	PBS&J	% Change	MKE	PBS&J	% Change
1	982.00	876	12.10	587.32	537	9.37
2	897.00	895	0.22	723.97	728	-0.55
3	764.00	733	4.23	583.65	444	31.45
4	482.00	448	7.59	850.09	815	4.31
6	468.00	440	6.36	1448.92	1375	5.38
7	478.00	521	-8.25	1157.38	1158	-0.05
8	331.00	366	-9.56	864.23	893	-3.22
9	699.00	754	-7.29	990.08	1236	-19.90
10	1025.00	894	14.65	778.88	764	1.95
12	1041.00	1028	1.26	1065.51	1389	-23.29
13	374.00	731	-48.84	836.69	1462	-42.77

	100-year 24-hour Peak Discharge			100-year 24-hour Unit Peak Discharge		
Sub-basin	MKE	PBS&J	% Change	MKE	PBS&J	% Change
16	244.00	836	-70.81	265.22	880	-69.86
17	223.00	92	142.39	253.41	151	67.82
18	265.00	113	134.51	292.82	141	107.67
19	148.00	82	80.49	249.16	152	63.92
20	224.00	91	146.15	336.34	138	97.85
22	145.00	75	93.33	251.30	134	87.54
23	121.00	85	42.35	229.60	163	40.86
24	201.00	652	-69.17	413.58	1331	-68.93
25	78.00	226	-65.49	288.89	837	-65.49
26	148.00	768	-80.73	285.16	1477	-80.69
27	93.00	51	82.35	402.60	213	89.01
28	107.00	65	64.62	329.23	197	67.12
29	252.00	145	73.79	252.00	145	73.79
30	255.00	168	51.79	255.00	171	49.12
31	241.00	143	68.53	226.72	132	71.76
32	209.00	116	80.17	237.23	129	83.90
33	240.00	142	69.01	245.40	142	72.82
34	184.00	106	73.58	294.40	166	77.35
35	322.00	209	54.07	214.38	139	54.23
36	161.00	108	49.07	235.72	159	48.25
37	287.00	161	78.26	199.17	113	76.26
38	143.00	88	62.50	272.38	163	67.10
39	192.00	107	79.44	268.91	147	82.93
40	240.00	129	86.05	252.10	132	90.98
41	300.00	179	67.60	248.34	149	66.67
42	212.00	115	84.35	273.55	147	86.09
43	210.00	131	60.31	210.00	131	60.31
44	218.00	134	62.69	218.00	133	63.91
46	347.00	192	80.73	252.36	139	81.55
47	188.00	98	91.84	303.23	158	91.92
48	176.00	94	87.23	362.14	188	92.63
49	214.00	134	59.70	214.00	133	60.90
50	232.00	129	79.84	232.00	129	79.84
51	234.00	117	100.00	234.47	117	100.40
53	158.00	78	102.56	463.34	229	102.33
54	103.00	64	60.94	271.05	164	65.27
55	83.00	52	59.62	312.03	200	56.02
57	150.00	127	18.11	295.28	259	14.01
58	72.00	68	5.88	341.23	358	-4.68
59	124.00	126	-1.59	525.42	504	4.25
61	132.00	119	10.92	380.40	233	63.26
62	199.00	121	64.46	343.10	212	61.84
63	188.00	147	27.89	366.47	294	24.65
64	177.00	92	92.39	414.52	224	85.05
65	178.00	83	114.46	439.51	218	101.61

	100-year 24-hour Peak Discharge			100-year 24-hour Unit Peak Discharge		
Sub-basin	MKE	PBS&J	% Change	MKE	PBS&J	% Change
66	115.00	87	32.18	402.10	300	34.03
67	242.00	245	-1.22	494.89	521	-5.01
68	122.00	499	-75.55	438.85	1217	-63.94
69	54.00	214	-74.77	391.30	1529	-74.41
70	53.00	23	130.43	319.28	164	94.68
71	60.00	70	-14.29	431.65	438	-1.45
72	28.00	70	-60.00	417.91	778	-46.28
80	512.00	265	93.21	795.03	252	215.49
83	870.00	599	45.24	1000.00	881	13.51

Appendices

A. References

1. McLaughlin Kmetty Engineers, LTD. 1992. Buckeye Area Flood Delineation Study, Hydrology Report. *Flood Control District of Maricopa County – FCD 90-6.*

2. McLaughlin Kmetty Engineers, LTD. 1992. Buckeye Area Flood Delineation Study, Hydrology Report, Appendices AA and BB. *Flood Control District of Maricopa County – FCD 90-6.*

3. Sabol, G.V., et al. 1995. Drainage Design Manual for Maricopa County, Arizona, Volume I, Hydrology. *Prepared for the Flood Control District of Maricopa County.*

4. Sabol, G.V., et al. 1995. Drainage Design Manual for Maricopa County, Arizona, Volume II, Hydraulics. *Prepared for the Flood Control District of Maricopa County.*

5. Project Engineering Consultants. June 2004. Buckeye Candidate Assessment Report.

6. Entellus, Inc. 2005. Buckeye/Sun Valley Area Drainage Master Study, Agricultural Pilot Study, Final Hydrology Report. *Flood Control District of Maricopa Count – FCD 2002C029.*

7. Hydrologic Engineering Center. 1998. HEC-1 Flood Hydrograph Package, User's Manual. *US Army Corps of Engineers.*

8. Brigham Young University. 2003. WMS 7.0 Reference Manual. Engineering Computer Graphics Laboratory, Brigham Young University, Provo, Utah.

9. Julie Cox – FCDMC. March 29, 2005. Memo to Valerie Swick – FCDMC. *Agricultural Pilot Study Hydrology Report.*

10. Camp, P.D. 1986. Soil Survey of Aguila-Carefree Area, Parts of Maricopa and Pinal Counties, Arizona. *Soil Conservation Service, United States Department of Agriculture.*

11. MAG. 2000. The Digital GIS Land Use Maps for Maricopa County *(Updated every 5 years).*

12. Zhao, Bing. Hydrologic Study for Bonita Dam, Maricopa County, Arizona. *Prepared for the Flood Control District of Maricopa County.*

13. USGS. 1991. Estimated Manning's Roughness Coefficients for Stream Channels and Floodplains in Maricopa County, Arizona. *Water Resource Diversion, USGS.*

14. RBF. March 2002. Community Master Plan. Preliminary Drainage Report for Riata West. *Town of Buckeye.*

15. RBF. March 2002. Community Master Plan. Preliminary Drainage Report for Roston/Buckeye West Park Phase One. *Town of Buckeye.*

16. RBF. October 2003. Community Master Plan. Westwind Water Master Drainage Report. *Town of Buckeye.*

17. RBF. May 2004. Community Master Plan. Preliminary Drainage Report for West Park Phase 2. *Town of Buckeye.*

18. AMEC. May 2004. Community Master Plan. Silver Rock Master Drainage Report. *Town of Buckeye.*

B. General Documentation & Correspondence

The general documentation and correspondence for this project are organized in the Project Administration Report for the Buckeye/Sun Valley ADMS included in Volume VIII, Supporting Documents. The following sections are included in the Project Administration Report.

B.1 Special Problem Reports

N/A

B.2 Contact (telephone) Reports

N/A

B.3 Meeting Minutes or Reports

N/A

B.4 General Correspondence

N/A

B.5 Contract Documents

N/A

C. Survey Field Notes

C.1 Survey Field Notes for Aerial Mapping Control

N/A

C.2 Survey Field Notes for Hydrologic Modeling

The following notes are from the May 24, 2004 field investigation. Unfortunately, there are no notes from the September 10, 2004 field survey; however, the data gathered was used to create the HEC-1 model channel routings and to determine probable ponding areas. The results of the channel routing survey are summarized in Tables D.3-1 and D.3-2 in Appendix D. Photos #1-#18 are from the May 24, 2004 field investigation, and photos #19-# 51 are from the September 10, 2004 field investigation.

Notes from May 24, 2004 Field Survey

- RID is approx. 25' wide at Palo Verde Rd.
- At Ogelsby Road, North Berm is higher than South Berm.

Picture.1
Looking South across Palo Verde Road at RID

Picture.2
Palo Verde Road - At RID Looking South

Picture.3
North Berm of RID at Palo Verde Road

Picture.4
South Berm of RID at Palo Verde Road

Picture.5
Looking DS at RID Control Str. – Palo Verde Road

Picture.6
Irrigation Method

Picture.7
Looking N. at Channel Joining RID about 1 mi. US at Palo Verde Road

Picture.8
Looking DS RID at Oglesby Road

Picture.9
Wall Looking West at Development E. of Miller Rd.

Picture.10
Wall Looking South at Development East of Miller Rd.

Picture.11
Desert North of RID, West of Rainbow Rd.

Picture.12
Same as #11, Shows Spillway to Canal

Picture.13
Looking US of RR,E. of Rainbow Rd.,North of BIC

Picture.14
Looking DS of RR,E. of Rainbow Rd.,North of BIC

Picture.15
BIC at Rainbow Rd, Looking DS

Picture.16
Ponding Area N. of BIC, S. of RR at Rainbow Rd.

Picture. 17
Looking US of Developed Area at Rainbow Rd

Picture.18
Depth Meter at Oglesby Rd

Picture. 19

Picture. 20

Picture. 21

Picture. 22

Picture. 23

Picture.24

Picture.25

Picture.26

Picture.27

Picture.28

Picture.29

Picture.30

Picture.31

Picture.32

Picture.33

Picture.34

Picture.35

Picture.36

Picture.37

Picture.38

Picture.39

Picture.40

Picture.41

Picture.42

Picture.43

Picture.44

Picture.45

Picture.46

Picture.47

Picture.48

Picture.49

Picture.50

Picture.51

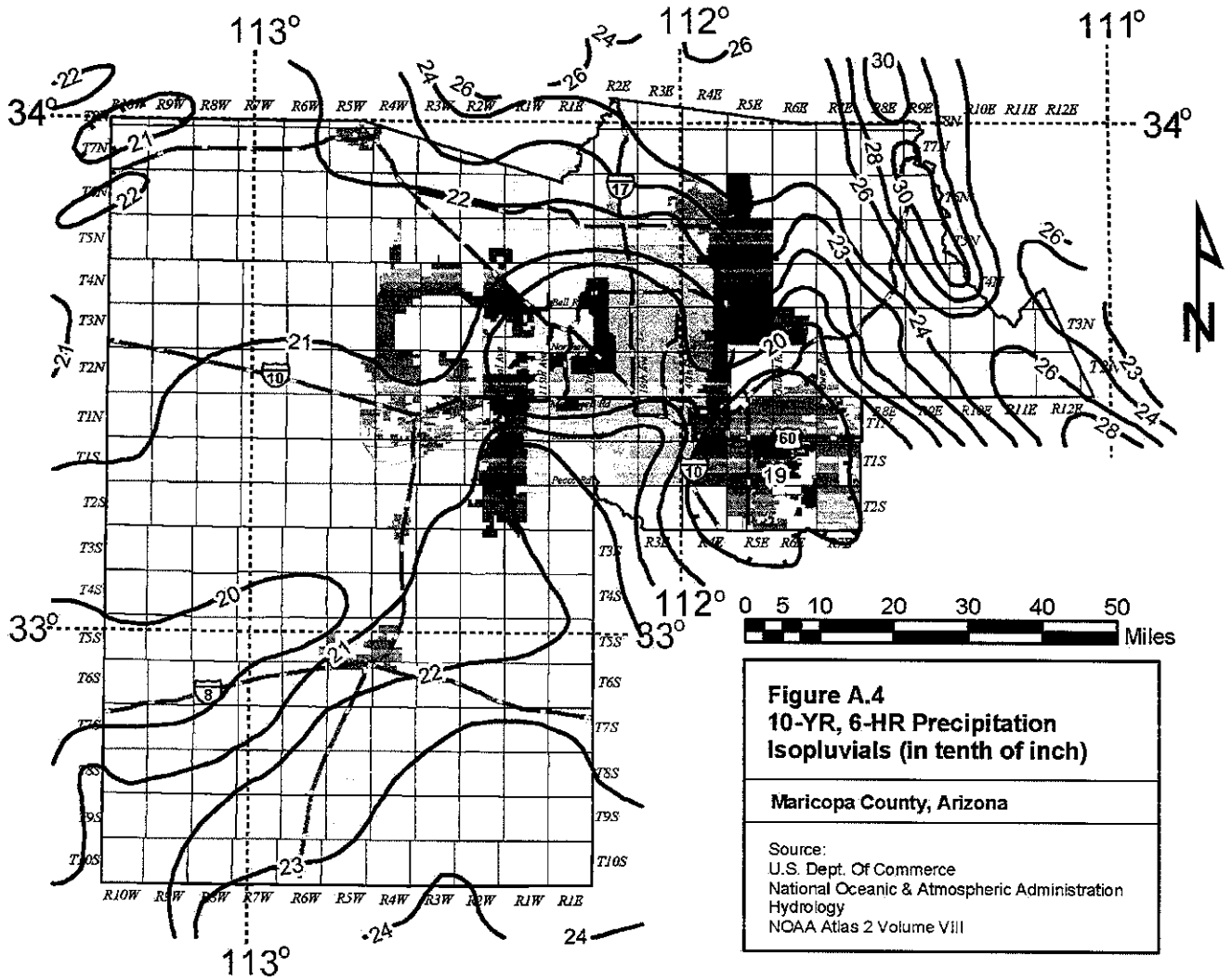
D. Hydrologic Analysis Supporting Documentation

D.1 Precipitation Data

Table D.1-1

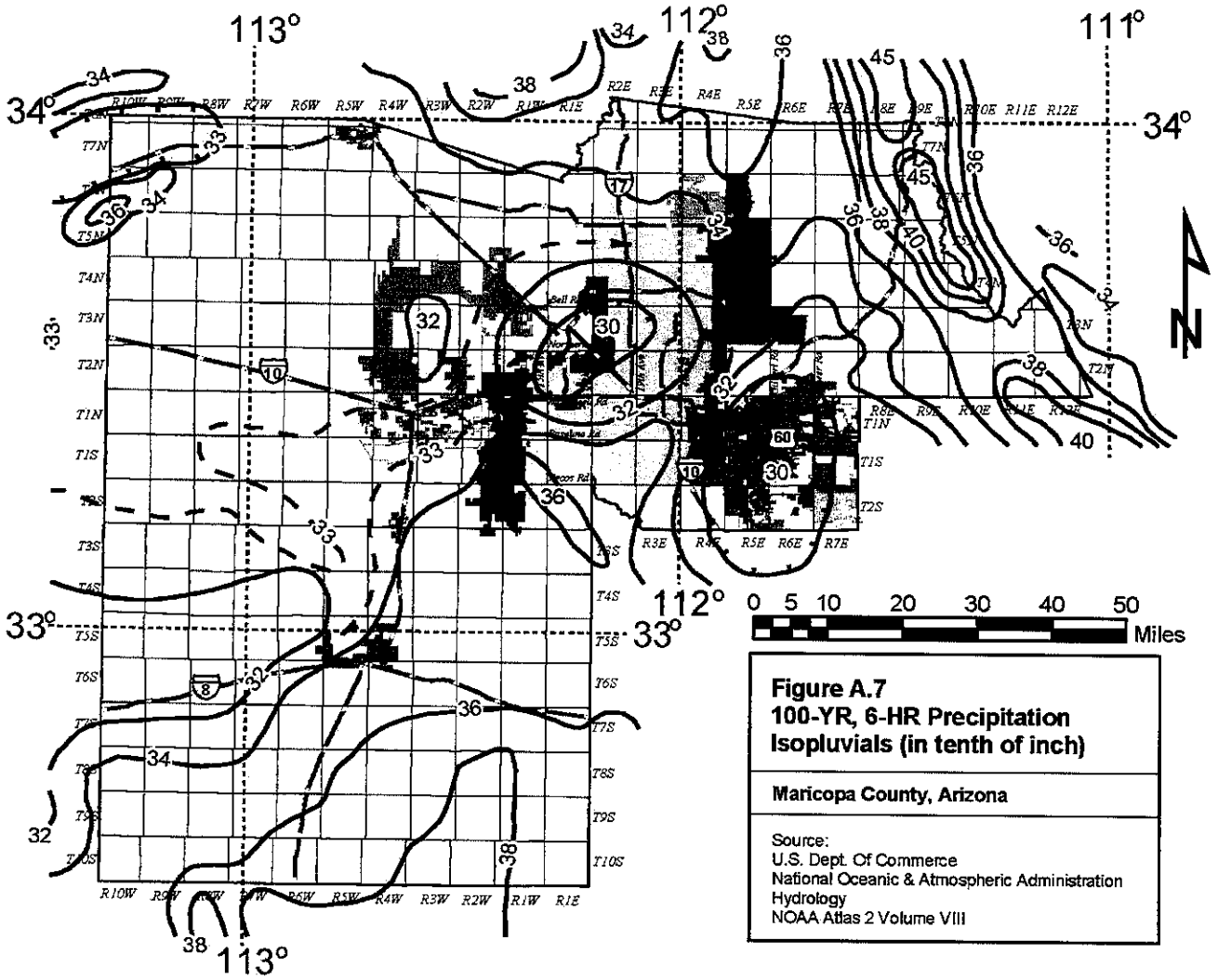
Rainfall Amount from Isopluvial Maps in FCDMC Hydrology Manual

	Precipitation			
	10-Yr, 6-Hr	**10-Yr, 24-Hr**	**100-Yr, 6-hr**	**100-Yr, 24-Hr**
FRD-RID West	2.10	2.50	3.30	4.10
FRD-RID East	2.08	2.50	3.30	4.10
RID-BIC West	2.10	2.50	3.30	4.10
RID-Gila East	2.09	2.50	3.30	4.10
BIC-Gila West	2.10	2.50	3.30	4.10
BIC-Gila East	2.09	2.50	3.30	4.10



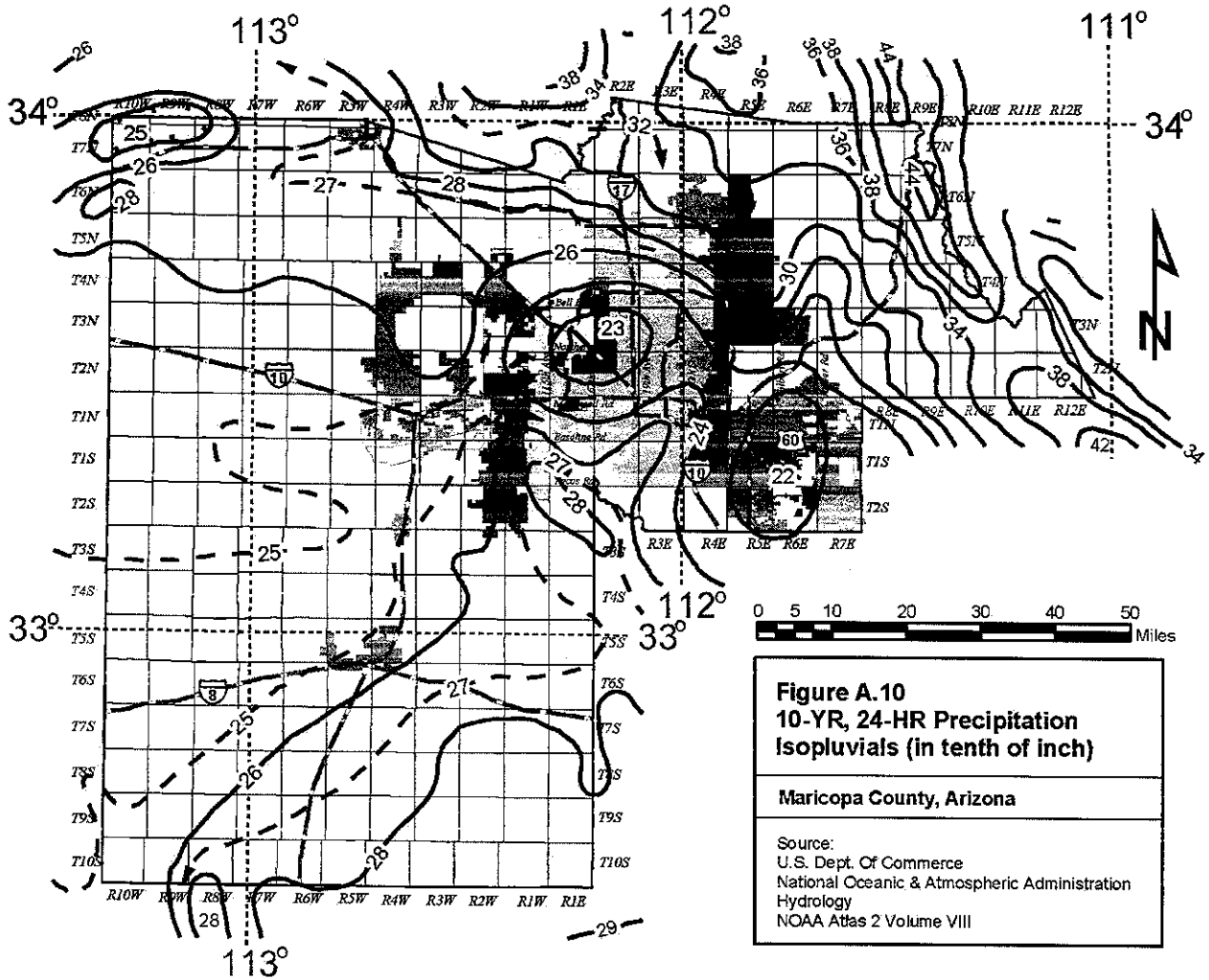
A-6

Figure D.1-1
10-Year, 6-Hour Isopluvial Map



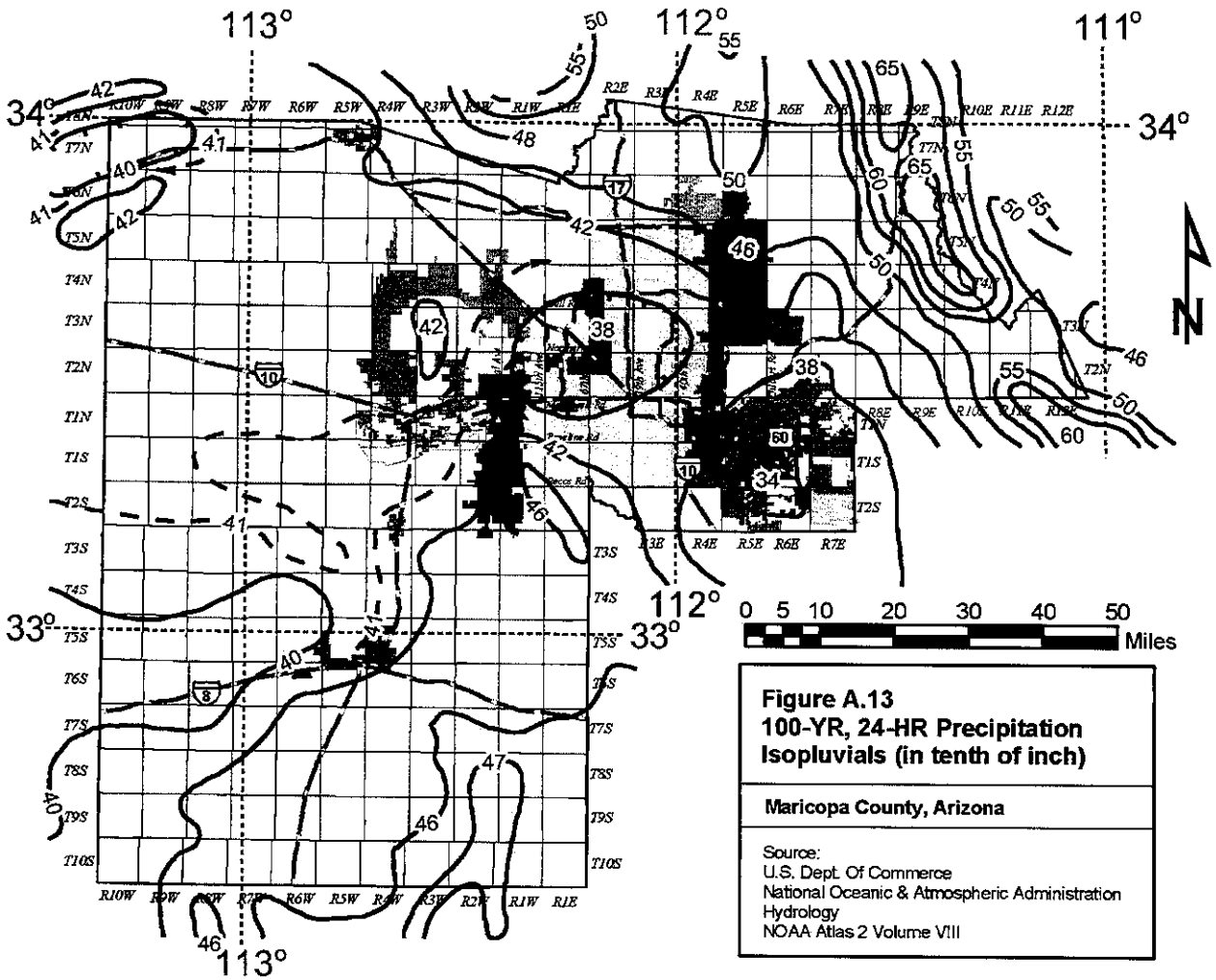
A-9

Figure D.1-2
100-Year, 6-Hour Isopluvial Map



A-12

Figure D.1-3
10-Year, 24-Hour Isopluvial Map



A-15

Figure D.1-4
100-Year, 24-Hour Isopluvial Map

D.2 Physical Parameter Calculations

Table D.2-1a

Existing Conditions Land Use Look-up Table for Area 1

LU Code	Land Use Description	IA	RTIMP	% Veg	Saturation
110	Rural Residential (<= 1/5 du per acre)	0.30	5	30	normal
120	Estate Residential (1/5 du per acre to 1 du per acre)	0.30	5	30	normal
130	Large Lot Residential - Single Family (1 du per acre to 2 du per acre)	0.30	15	50	normal
140	Medium Lot Residential - Single Family (2-4 du per acre)	0.25	30	50	normal
150	Small Lot Residential - Single Family (4-6 du per acre)	0.25	30	50	normal
160	Very Small Lot Residential - Single Family (>6 du per acre-includes mobile home	0.25	40	50	normal
170	Medium Density Residential - Muli Family (5-10 du per acre)	0.25	45	50	normal
180	High Density Residential - Multi Family (10-15 du per acre)	0.25	45	50	normal
210	Specialty Commercial (<=50,000 sq. ft.)	0.10	80	65	normal
220	Neighborhood Commercial (50,000 to 100,000 sq. ft.)	0.10	80	65	normal
230	Community Commercial (100,000 to 500,000 sq. ft.)	0.10	80	75	normal
300	General Industrial (Industrial where no detail available)	0.15	55	60	normal
310	Warehouse/Distribution Centers	0.10	80	75	normal
320	Industrial	0.15	55	60	normal
410	Office Low Rise (1-4 stories)	0.10	80	75	normal
510	Tourist and Visitor Accommodations (Hotels, motels and resorts)	0.10	80	75	normal
520	Educational (Public schools, private schools and universities)	0.29	45	80	normal
530	Institutional (Includes hospitals and churches)	0.10	80	75	normal
550	Public Facilities (Includes community centers, power sub-stations, libraries, ci	0.10	80	75	normal
570	Other Employment - low (Proving grounds and land fills)	0.10	80	75	normal
610	Transportation (Includes railroads, railyards, transit centers and freeways)	0.10	80	75	normal
620	Airports (Includes public use airports)	0.15	55	60	normal
700	General Open Space (Open space where no detail available)	0.10	5	90	normal
710	Active Open Space (Includes parks)	0.10	5	90	normal
730	Passive Open Space (Includes mountain preserves and washes)	0.10	0	90	normal
740	Water	0.00	100	0	wet
750	Agriculture	1.00	0	85	normal
810	Business Park (Includes enclosed industrial, office or retail in a planned envir	0.10	80	75	normal
900	Vacant (Existing land use database only)	0.35	0	25	dry

Table D.2-1b

Future Conditions Land Use Look-up Table for Area 1

LU Code	Land Use Description	IA	RTIMP	% Veg	Saturation
110	Rural Residential (<= 1/5 du per acre)	0.3	5	30	normal
120	Estate Residential (1/5 du per acre to 1 du per acre)	0.3	5	30	normal
130	Large Lot Residential - Single Family (1 du per acre to 2 du per acre)	0.3	15	50	normal
140	Medium Lot Residential - Single Family (2-4 du per acre)	0.25	30	50	normal
150	Small Lot Residential - Single Family (4-6 du per acre)	0.25	30	50	normal
170	Medium Density Residential - Muli Family (5-10 du per acre)	0.25	45	50	normal
180	High Density Residential - Multi Family (10-15 du per acre)	0.25	45	50	normal
190	Very High Density Residential - Multi Family (> 15 du per acre)	0.25	45	50	normal
200	General Commercial (Commercial where no detail available)	0.1	80	60	normal
220	Neighborhood Commercial (50,000 to 100,000 sq. ft.)	0.1	80	65	normal
230	Community Commercial (100,000 to 500,000 sq. ft.)	0.1	80	75	normal
320	Industrial	0.15	55	60	normal
510	Tourist and Visitor Accommodations (Hotels, motels and resorts)	0.1	80	75	normal
550	Public Facilities (Includes community centers, power sub-stations, libraries, ci	0.1	80	75	normal
570	Other Employment - low (Proving grounds and land fills)	0.1	80	75	normal
710	Active Open Space (Includes parks)	0.1	5	90	normal
730	Passive Open Space (Includes mountain preserves and washes)	0.1	0	90	normal
740	Water	0	100	0	wet
820	Mixed Use (Jurisdictional defined)	0.25	45	50	normal

Table D.2-2

Soil Map look-up Table for Buckeye Area 1

Soil LID	Soil Description	XKSAT	RTIMP	% Effective
6451	Antho sandy loams	0.410	0	100
6452	Antho gravelly sandy loams	0.410	0	100
6453	Antho-Carrizo-Maripo complex	0.580	0	100
6454	Antho-Carrizo-Maripo complex, low precipitation	0.580	0	100
6455	Anthony sandy loam	0.430	0	100
6456	Anthony-Arizo complex	0.620	0	100
6457	Anthony-Arizo complex, low precipitation	0.620	0	100
6458	Arizo cobbly sandy loam	0.960	0	100
6459	Beeline-Cipriano complex, 3 to 45 percent slopes	0.270	0	100
6531	Agualt and Ripley soils	0.000	0	100
6532	Agualt and Ripley soils, saline-sodic	0.000	0	100
6533	Ajo-Gunsight-Pompeii complex, 3 to 25 percent slopes	0.660	0	100
6535	Carrizo-Dateland complex, 0 to 3 percent slopes	0.820	0	100

Soil LID	Soil Description	XKSAT	RTIMP	% Effective
6536	Carrizo-Momoli complex, 0 to 3 percent slopes	1.200	0	100
6537	Cherioni very cobbly fine sandy loam, 3 to 10 percent slopes	0.400	0	100
6538	Cherioni-Coolidge complex, 1 to 15 percent slopes	0.000	0	100
6539	Cipriano-Hyder-Rock outcrop complex, 15 to 65 percent slopes	0.590	15	100
6581	Brios gravelly loamy sand,3 to 5 percent slopes	0.000	0	100
6582	Brios very fine sandy loam,0 to 2 percent slopes	0.000	0	100
6583	Carrizo-Momoli complex, 1 to 3 percent slopes	0.000	0	100
6584	Carrizo-Pinamt complex, 1 to 5 percent slopes	0.000	0	100
6585	Carrizo very gravelly coarse sand, 0 to 1 percent slopes	0.000	0	100
6586	Casa Grande clay loam, 0 to 1 percent slopes	0.000	0	100
6587	Casa Grande complex, 0 to 5 percent slopes	0.000	0	100
6588	Casa Grande fine sandy loam, 0 to 3 percent slopes	0.000	0	100
6589	Cavelt-Carrizo-Gunsight complex, 1 to 10 percent slopes	0.000	0	100
7031	Ajo-pinamt, deep, complex, 3 to 15 percent slopes	0.000	0	100
7032	Anklam-cellar-rock outcrop complex, 15 to 55 percent slopes	0.000	0	100
7033	Anklam very gravelly sandy loam, 3 to 15 percent slopes	0.000	0	100
20012	Sandy Loam	0.400	0	100
20073	Sandy Loam	0.400	0	100
64510	Brios-Carrizo complex, 1 to 5 percent slopes	0.940	0	100
64511	Brios-Carrizo complex, low precipitation, 1 to 5 percent slopes	0.940	0	100
64512	Carefree cobbly clay loam, 1 to 8 percent slopes	0.010	0	100
64513	Carefree-Beardsley complex	0.010	0	100
64514	Carrizo very gravelly sand	1.040	0	100
64515	Carrizo-Gunsight complex, 1 to 5 percent slopes	0.540	0	100
64516	Cellar-Rock outcrop complex, 10 to 70 percent slopes	0.440	15	100
64517	Cellar-Rock outcrop complex, low precipitation, 10 to 70 percent slopes	0.440	15	100
64518	Cheriono-Rock outcrop complex, 5 to 60 percent slopes	0.330	15	100
64519	Chuckawalla-Gunsight complex, 1 to 8 percent slopes	0.190	0	100
64520	Chuckawalla-Gunsight complex, low precipitation, 1 to 8 percent slopes	0.190	0	100
64521	Cipriano very gravelly loam	0.380	0	100
64522	Contine clay loam	0.040	0	100
64523	Contine clay	0.010	0	100
64524	continental clay loam, 0 to 3 percent slopes	0.020	0	100
64525	Continental clay, 0 to 3 percent slopes	0.020	0	100
64526	Continental cobbly clay loam, 1 to 8 percent slopes	0.010	0	100
64527	Continental-Mohave complex, 1 to 7 percent slopes	0.010	0	100
64528	Continental-Ohaco complex	0.020	0	100
64529	Denure-Momoli-Carrizo complex	0.340	0	100
64530	Denure-Momoli-Carrizo complex, low precipitation	0.340	0	100
64531	Dixaleta-Rock outcrop complex, 25 to 65 percent slopes	0.330	35	100
64532	Dixaleta-Rock outcrop complex, low precipitation, 25 to 65 percent slopes	0.330	35	100
64533	Eba very gravelly loam, 1 to 8 percent slopes	0.230	0	100
64534	Eba very gravelly loam, 8 to 20 percent slopes	0.230	0	100
64535	Eba very gravelly loam, low precipitation, 8 to 20 percent slopes	0.230	0	100
64536	Eba-Continental complex, 1 to 8 percent slopes	0.070	0	100
64537	Eba-Continental-Cave association, 3 to 20 percent slopes	0.130	0	100

Soil LID	Soil Description	XKSAT	RTIMP	% Effective
64538	Eba-Continental-Cave association, low precipitation, 3 to 20 percent	0.130	0	100
64539	Eba-Nickel-Cave association, 3 to 25 percent slopes	0.290	0	100
64540	Eba-Pinaleno complex, 3 to 20 percent slopes	0.170	0	100
64541	Eba-Pinaleno complex, 20 to 40 percent slopes	0.170	0	100
64542	Eba-Pinaleno complex, low precipitation, 3 to 20 percent slopes	0.170	0	100
64543	Eba-Pinaleno complex, low precipitation, 20 to 40 percent slopes	0.170	0	100
64544	Ebon very gravelly loam, 1 to 8 percent slopes	0.030	0	100
64545	Ebon very gravelly loam, 8 to 20 percent slopes	0.030	0	100
64546	Ebon-Contine complex, 1 to 8 percent	0.030	0	100
64547	Ebon-Gunsight-Cipriano association, 3 to 25 percent slopes	0.110	0	100
64548	Ebon-Pinamt complex, 3 to 20 percent slopes	0.060	0	100
64549	Ebon-Pinamt complex, 20 to 40 percent slopes	0.060	0	100
64550	Estrella loams	0.260	0	100
64551	Gachado-Lomitas complex, 8 to 25 percent slopes	0.240	0	100
64552	Gachado-Lomitas-Rock outcrop complex, 7 to 55 percent slopes	0.160	20	100
64553	Gadsden clay	0.020	0	100
64554	Gila fine sandy loams	0.290	0	100
64555	Gilman loams	0.270	0	100
64556	Gilman loams, low precipitation	0.270	0	100
64557	Gilman clay loam	0.060	0	100
64558	Gilman-Momoli-Denure complex	0.340	0	100
64559	Gilman-Momoli-Denure complex, low precipitation	0.340	0	100
64560	Glenbar loams	0.260	0	100
64561	Gran-Wickenburg complex, 1 to 10 percent slopes	0.150	0	100
64562	Gran-Wickenburg complex, low precipitation, 1 to 10 percent slopes	0.150	0	100
64563	Gran-Wickenburg-Rock outcrop complex, 1 to 7 percent slopes	0.140	25	100
64564	Gran-Wickenburg-Rock outcrop complex, low precipitation, 10 to 65 percent slopes	0.140	25	100
64565	Greyeagle-Continental-Nickel association, 1 to 40 percent slopes	0.190	0	100
64566	Greyeagle-Suncity Variant complex, 1 to 7 percent slopes	0.230	0	100
64567	Guest clay	0.010	0	100
64568	Gunsight-Cipriano complex, 1 to 7 percent slopes	0.630	0	100
64569	Gunsight-Cipriano complex, low precipitation, 1 to 7 percent slopes	0.630	0	100
64570	Gunsight-Rillito complex, 1 to 25 percent slopes	0.360	0	100
64571	Gunsight-Rillito complex, low precipitation, 1 to 40 percent slopes	0.360	0	100
64572	Lehmans-Rock outcrop complex, 8 to 65 percent slopes	0.090	30	100
64573	Lehmans-Rock outcrop complex, low precipitation, 8 to 65 percent slopes	0.090	30	100
64574	Luke-Cipriano association, 1 to 15 percent slopes	0.080	0	100
64575	Mohall loam	0.230	0	100
64576	Mohall loam, calcareous solum	0.230	0	100
64577	Mohall clay loam	0.050	0	100
64578	Mohall clay loam, calcareous solum	0.050	0	100
64579	Mohall clay	0.020	0	100
64580	Mohall-Tremant complex, 1 to 8 percent slopes	0.080	0	100
64581	Mohall-Tremant complex, low precipitation, 1 to 8 percent slopes	0.080	0	100
64582	Mohave sandy loam	0.040	0	100
64583	Mohave loam	0.040	0	100

Soil LID	Soil Description	XKSAT	RTIMP	% Effective
64584	Mohave loam, calcareous solum	0.050	0	100
64585	Mohave clay loam	0.040	0	100
64586	Mohave clay loam, calcareous solum	0.050	0	100
64587	Mohave complex	0.040	0	100
64588	Mohave-Guest complex	0.020	0	100
64589	Mohave-Tres Hermanos complex, 1 to 8 percent slopes	0.060	0	100
64590	Momoli gravelly sandy loam, 1 to 5 percent slopes	0.390	0	100
64591	Momoli-Carrizo complex	0.930	0	100
64592	Momoli-Carrizo complex, low precipitation	0.930	0	100
64593	Nickel-Cave complex, 8 to 30 percent slopes	0.330	0	100
64594	Nickel-Cave complex, low precipitation, 8 to 30 percent slopes	0.330	0	100
64595	Ohaco gravelly loam	0.040	0	100
64596	Pinaleno-Tres Hermanos complex, 1 to 10 percent slopes	0.070	0	100
64597	Pinaleno-Tres Hermanos complex, low precipitation, 1 to 10 percent slopes	0.070	0	100
64598	Pinamt-Tremant complex, 1 to 10 percent slopes	0.370	0	100
64599	Pinamt-Tremant complex, low precipitation, 1 to 10 percent slopes	0.370	0	100
65164	Lakes, ponds, reservoirs - perennial	0.000	0	100
65310	Cipriano-Momoli complex, 1 to 7 percent slopes	0.500	0	100
65311	Coolidge complex, 0 to 3 percent slopes	0.000	0	100
65312	Cuerda-Why-Lagunita complex	0.350	0	100
65313	Dateland very fine sandy loam	0.000	0	100
65314	Dateland-Cuerda complex, 0 to 3 percent slopes	0.250	0	100
65315	Dateland-Denure fine sandy loams, saline-sodic, 0 to 3 percent slopes	0.280	0	100
65316	Denure sandy loam	0.000	0	100
65317	Denure gravelly fine sandy loam, 1 to 3 percent slopes	0.560	0	100
65318	Denure-Carrizo, bench, gravelly fine sandy loams	0.000	0	100
65319	Denure-Cavelt complex, 0 to 3 percent slopes	0.000	0	100
65320	Denure-Coolidge complex, 1 to 3 percent slopes	0.500	0	100
65321	Denure-Rillito-Why complex, 1 to 5 percent slopes	0.400	0	100
65322	Denure-Why complex, 1 to 5 percent slopes	0.000	0	100
65324	Gadsden clay loam, 0 to 3 percent slopes	0.000	0	100
65325	Gadsden and Kofa silty clay loams, saline-sodic	0.000	0	100
65327	Gilman very fine sandy loam	0.000	0	100
65328	Gilman very fine sandy loam, saline-sodic	0.000	0	100
65329	Glenbar silty clay loam	0.000	0	100
65330	Glenbar silty clay loam, saline-sodic	0.000	0	100
65331	Growler-Momoli complex, 1 to 3 percent slopes	0.840	0	100
65332	Growler-Wellton complex, 1 to 3 percent slopes	0.490	0	100
65333	Gunsight-Ajolito extremely gravelly sandy loams, 1 to 15 percent slopes	1.200	0	100
65334	Gunsight-Chuckawalla complex, 1 to 15 percent slopes	0.840	0	100
65335	Gunsight-Cipriano complex, 1 to 15 percent slopes	0.910	0	100
65336	Gunsight-Pinamt complex, 1 to 15 percent slopes	0.840	0	100
65337	Gunsight-Rillito-Carrizo complex, 1 to 15 percent slopes	0.800	0	100
65338	Harqua fine sandy loam, 0 to 3 percent slopes	0.000	0	100
65339	Harqua-Cavelt complex, 1 to 10 percent slopes	0.000	0	100
65340	Hyder-Gachado-Gunsight extremely gravelly sandy loams, 1 to 25 percent slopes	0.400	15	100

Soil LID	Soil Description	XKSAT	RTIMP	% Effective
65341	Indio silt loam	0.000	0	100
65342	Indio silt loam, saline-sodic	0.000	0	100
65343	Lagunita-Vint complex	0.000	0	100
65344	Mohall fine sandy loam	0.000	0	100
65345	Mohall loam	0.280	0	100
65346	Mohall loam, occasionally flooded	0.000	0	100
65347	Mohall clay loam	0.000	0	100
65348	Mohall complex, 0 to 3 percent slopes	0.000	0	100
65349	Momoli-Carrizo extremely gravelly sandy loams, 1 to 10 percent slopes	1.200	0	100
65350	Momoli-Carrizo, bench, very gravelly sandy loams, 1 to 3 percent slopes	1.200	0	100
65351	Momoli-Comobabi association, 5 to 15 percent slopes	0.480	0	100
65352	Pits	0.000	0	100
65353	Quilotosa-Momoli-Carrizo complex, 1 to 15 percent slopes	1.200	15	100
65354	Quilotosa-Rock outcrop complex, 15 to 55 percent slopes	0.970	26	100
65355	Riverwash	0.000	0	100
65356	Rock outcrop-Hyder complex. 25 to 65 percent slopes	0.000	0	100
65357	Rositas-Denure loamy fine sands, 1 to 10 percent slopes	0.000	0	100
65358	Schenco-Laposa-Rock outcrop complex, 10 to 55 percent slopes	0.630	19	100
65359	Tremant gravelly fine sandy loam	0.000	0	100
65360	Tucson loam	0.250	0	100
65361	Vaiva-Quilotosa extremely gravelly sandy loams, 3 to 25 percent slopes	0.000	0	100
65362	Vaiva-Quilotosa extremely stony sandy loams, 25 to 55 percent slopes	0.000	0	100
65363	Vint very fine sandy loam	0.000	0	100
65364	Lakes, ponds, reservoirs - perennial	0.000	0	100
65365	Wellton complex	0.000	0	100
65366	Why gravelly fine sandy loam	0.000	0	100
65367	Why-Carrizo complex, 0 to 3 percent slopes	0.440	0	100
65564	Lakes, ponds, reservoirs - perennial	0.000	0	100
65810	Chuckwalla-Gunsight complex, 1 to 5 percent slopes	0.000	0	100
65811	Cristobal-Gunsight complex, 3 to 15 percent slopes	0.000	0	100
65812	Dateland-Cuerda complex, saline-sodic, 0 to 3 percent slopes	0.000	0	100
65813	Denure-Pahaka complex, 1 to 3 percent slopes	0.000	0	100
65814	Denure-Pahaka complex, 3 to 5 percent slopes	0.000	0	100
65815	Gadsden, Glenbar and Vint soils, saline-sodic, 0 to 2 percent slopes	0.000	0	100
65816	Gadsden silty clay loam, saline-sodic, 0 to 2 percent slopes	0.000	0	100
65817	Glenbar silt loam, saline-sodic, 0 to 2 percent slopes	0.000	0	100
65818	Indio silt loam, saline-sodic, 0 to 2 percent slopes	0.000	0	100
65819	Indio-Vint complex, saline-sodic, 0 to 3 percent slopes	0.000	0	100
65820	Kamato complex, 0 to 5 percent slopes	0.000	0	100
65821	Kamato loam, 0 to 2 percent slopes	0.000	0	100
65822	Lagunita silt loam, 0 to 2 percent slopes	0.000	0	100
65823	Laveen fine sandy loam, saline-sodic, 0 to 2 percent slopes	0.000	0	100
65824	Momoli cobbly sandy loam, 5 to 15 percent slopes	0.000	0	100
65825	Pompeii-Lomitas-Rock outcrop complex, 15 to 65 percent slopes	0.000	0	100
65826	Quilotosa-Momoli-Vaiva complex, 1 to 15 percent slopes	0.000	0	100
65827	Quilotosa-Rock outcrop-Vaiva complex, 20 to 65 percent slopes	0.000	0	100

Soil LID	Soil Description	XKSAT	RTIMP	% Effective
65828	Redun-Shontik complex, 1 to 3 percent slopes	0.000	0	100
65829	Rillito-Gunsight complex, 3 to 15 percent slopes	0.000	0	100
65830	Rositas-Casa Grande-Slickspots complex, 1 to 15 percent slopes	0.000	0	100
65831	Rositas loamy fine sand, sodic, 0 to 3 percent slopes	0.000	0	100
65832	Shontik-Redun complex, 0 to 3 percent slopes	0.000	0	100
65833	Talai silt loam, 0 to 2 percent slopes	0.000	0	100
65834	Trix loam, saline-sodic, 0 to 1 percent slopes	0.000	0	100
65835	Vint-Yahana complex, saline-sodic, 0 to 10 percent slopes	0.000	0	100
65836	Why-Brios complex, 0 to 2 percent slopes	0.000	0	100
65837	Yahana-Indio complex, saline-sodic, 0 to 3 percent slopes	0.000	0	100
65838	Yahana silty clay loam, 0 to 2 percent slopes	0.000	0	100
70313	Chutum loam, 1 to 3 percent slopes	0.000	0	100
70315	Dateland-denure association, 1 to 3 percent slopes	0.000	0	100
70316	Delnorte-stagecoach complex, 1 to 20 percent slopes	0.000	0	100
70318	Delthorny-garzona-rock outcrop complex, 15 to 60 percent slopes	0.000	0	100
70319	Denure-momoli complex, 1 to 5 percent slopes	0.000	0	100
70323	Gachado-lomitas-rock outcrop complex, 15 to 45 percent slopes	0.000	0	100
70324	Gadsden silty clay loam, 0 to 1 percent slopes	0.000	0	100
70325	Gilman very fine sandy loam, 0 to 1 percent slopes	0.000	0	100
70327	Glenbar loam, 0 to 1 percent slopes	0.000	0	100
70328	Glendale clay loam, 0 to 2 percent slopes, flooded	0.000	0	100
70329	Glendale silt loam, 1 to 3 percent slopes	0.000	0	100
70330	Glendale-pajarito complex, 1 to 3 percent slopes	0.000	0	100
70331	Grabe-vado complex, 1 to 5 percent slopes	0.000	0	100
70332	Granolite-rock outcrop complex, 15 to 65 percent slopes	0.000	0	100
70334	Hantz clay loam, 0 to 1 percent slopes	0.000	0	100
70336	Hickiwan-gunsight-momoli complex, 3 to 15 percent slopes	0.000	0	100
70340	Lajitas-bosa-rock outcrop complex, 15 to 50 percent slopes	0.000	0	100
70343	Mohall-pahaka complex, 1 to 3 percent slopes	0.000	0	100
70344	Mohall-trix complex, 0 to 1 percent slopes	0.000	0	100
70345	Nahda-stagecoach complex, 1 to 15 percent slopes	0.000	0	100
70347	Pajarito-sahuarita complex, 1 to 3 percent slopes	0.000	0	100
70348	Pantano-granolite complex, 5 to 25 percent slopes	0.000	0	100
70349	Pinamt-momoli complex, 1 to 10 percent slopes	0.000	0	100
70355	Sasco loam, 0 to 1 percent slopes	0.000	0	100
70360	Vado-agustin complex, 1 to 8 percent slopes	0.000	0	100
70362	Wintersburg loam, 0 to 1 percent slopes	0.000	0	100
70363	Water	0.000	0	100
100103	Sandy Clay Loam	0.120	0	100
100121	Sandy Clay Loam	0.120	0	100
100126	Sandy Loam	0.400	15	100
100301	Sandy Loam	0.400	0	100
100303	Sandy Loam	0.400	15	100
200239	Sandy Loam	0.400	30	100
200292	Sandy Loam	0.400	30	100
200300	Sandy Clay Loam	0.060	0	100

Soil LID	Soil Description	XKSAT	RTIMP	% Effective
200301	Sandy Clay Loam	0.060	0	100
200352	Sandy Loam	0.400	10	100
200381	Sandy Loam	0.400	0	100
200382	Sandy Loam	0.400	15	100
200390	Sandy Clay Loam	0.060	0	100
200391	Sandy Clay Loam	0.060	0	100
200400	Sandy Clay Loam	0.060	0	100
200401	Sandy Clay Loam	0.060	0	100
200402	Sandy Loam	0.400	10	100
200415	Sandy Loam	0.400	0	100
200416	Sandy Clay Loam	0.060	0	100
200417	Loam	0.250	20	100
200418	Sandy Loam	0.400	0	100
200451	Loam	0.250	0	100
200452	Loam	0.250	20	100
300337	Saucedo volcanics - includes rhyolite, latite, and andesite	0.000	0	100
645100	Quilotosa-Vaiva-Rock outcrop complex, 20 to 65 percent slopes	0.400	20	100
645101	Rillito loam, 0 to 3 percent slopes	0.280	0	100
645102	Rillito gravelly loam, 1 to 8 percent slopes	0.400	0	100
645103	Rock outcrop-Gachado complex, 5 to 55 percent slopes	0.100	65	100
645104	Rock outcrop-Lehmans complex, 15 to 65 percent slopes	0.140	60	100
645105	Rock outcrop-Lehmans complex, low precipitation, 15 to 65 percent slopes	0.140	60	100
645106	Sal-Cipriano complex, 1 to 10 percent slopes	0.180	0	100
645107	Sal-Cipriano complex, low precipitation, 1 to 10 percent slopes	0.180	0	100
645108	Schenco-Rock outcrop complex, 3 to 25 percent slopes	0.310	30	100
645109	Schenco-Rock outcrop complex, 25 to 60 percent slopes	0.350	35	100
645110	Suncity-Cipriano complex, 1 to 7 percent slopes	0.130	0	100
645111	Torriorthents, 15 to 40 percent slopes	0.400	0	100
645112	Tremant gravelly sandy loams	0.390	0	100
645113	Tremant gravelly loams	0.390	0	100
645114	Tremant gravelly loams, low precipitation	0.390	0	100
645115	Tremant-Antho complex, 1 to 5 percent slopes	0.390	0	100
645116	Tremant-Gunsight-Rillito complex, 1 to 5 percent slopes	0.230	0	100
645117	Tremant-Gunsight-Rillito complex, low precipitation, 1 to 5 percent slopes	0.230	0	100
645118	Tremant-Rillito complex	0.420	0	100
645119	Tremant-Suncity complex, 1 to 8 percent slopes	0.140	0	100
645120	Tres Hermanos gravelly sandy loams	0.060	0	100
645121	Tres Hermanos-Anthony complex, 1 to 5 percent slopes	0.120	0	100
645122	Vado gravelly sandy loam, 1 to 5 percent slopes	0.330	0	100
645123	Vaiva very gravelly loam, 1 to 20 percent slopes	0.370	0	100
645124	Valencia sandy loams	0.390	0	100
645125	Vint loamy fine sand	0.430	0	100
645999	Blank/Unknown/Uncertain	0.000	0	100
651999	Blank/Unknown/Uncertain	0.000	0	100
655999	Blank/Unknown/Uncertain	0.000	0	100
999999	Blank/Unknown/Uncertain	0.000	0	100

Soil LID	Soil Description	XKSAT	RTIMP	% Effective
6512021	Agualt loam	0.260	0	100
6512025	Antho sandy loam, saline-alkali	0.390	0	100
6512029	Antho-Brios sandy loams	0.390	0	100
6512042	Antho association	0.400	0	100
6512044	Antho-Valencia association	0.390	0	100
6512047	Avonda clay loam	0.050	0	100
6512049	Avondale clay loam	0.040	0	100
6512051	Avondale clay loam, saline-alkali	0.040	0	100
6512228	Beardsley loam	0.240	0	100
6512255	Brios loamy sand	1.050	0	100
6512257	Brios sandy loam	0.390	0	100
6512259	Brios loam	0.250	0	100
6512423	Carrizo gravelly sandy loam	0.400	0	100
6512430	Carrizo and Brios soils	0.500	0	100
6512433	Casa Grande Sandy loam	0.240	0	100
6512435	Casa Grande loam	0.240	0	100
6512441	Casa Grande complex	0.300	0	100
6512445	Casa Grande-Leveen complex, alkali	0.260	0	100
6512447	Cashion clay, saline-alkali	0.010	0	100
6512448	Cheriono-Rock outcrop complex	0.290	20	100
6512451	Coolidge sandy loam	0.400	0	100
6512457	Coolidge-Tremant complex	0.190	0	100
6512462	Coolidge-Laveen association	0.390	0	100
6512647	Dune land	1.200	0	100
6512857	Estrella loam	0.250	0	100
6512859	Estrella loam, saline-alkali	0.250	0	100
6513220	Gachado-Rock outcrop complex	0.100	40	100
6513223	Gadsden clay loam	0.040	0	100
6513225	Gadsden clay	0.010	0	100
6513227	Gadsden clay, saline-alkali	0.010	0	100
6513229	Gilman fine sandy loam	0.260	0	100
6513231	Gilman fine sandy loam, saline-alkali	0.240	0	100
6513235	Gilman loam, saline-alkali	0.240	0	100
6513242	Gilman complex, saline-alkali	0.250	0	100
6513244	Gilman-Antho association	0.290	0	100
6513246	Gilman-Laveen association	0.250	0	100
6513251	Gilman loam, clayey subsoil variant, moderately saline	0.240	0	100
6513255	Glenbar loam	0.230	0	100
6513257	Glenbar loam, saline-alkali	0.230	0	100
6513259	Glenbar clay loam	0.040	0	100
6513261	Glenbar clay loam, saline-alkali	0.040	0	100
6513263	Glenbar clay	0.010	0	100
6513444	Harqua-Laveen complex	0.150	0	100
6514221	La Palma very fine sandy loam	0.260	0	100
6514223	Laveen sandy loam	0.400	0	100
6514227	Laveen loam, saline-alkali	0.250	0	100

Soil LID	Soil Description	XKSAT	RTIMP	% Effective
6514229	Laveen clay loam	0.040	0	100
6514231	Laveen-Antho complex, saline-alkali	0.330	0	100
6514421	Maripo sandy loam	0.400	0	100
6514449	Mohall sandy loam	0.390	0	100
6514451	Mohall loam	0.250	0	100
6514455	Mohall clay loam	0.050	0	100
6514457	Mohall clay	0.010	0	100
6514462	Mohall-Laveen association	0.150	0	100
6515021	Perryville sandy loam	0.400	0	100
6515023	Perryville loam, saline-alkali	0.380	0	100
6515058	Pinal gravelly loam	0.400	0	100
6515456	Rock outcrop-Cherioni complex	0.400	65	100
6515821	Toltec loam	0.250	0	100
6515822	Torrifluvents	0.400	0	100
6515825	Torriorthents	0.400	0	100
6515826	Torripsamments and Torrifluvents, frequently flooded	1.200	0	100
6515829	Tremant loam	0.250	0	100
6515833	Tremant clay loam	0.040	0	100
6515835	Tremant gravelly clay loam	0.040	0	100
6515859	Trix clay loam	0.040	0	100
6515861	Tucson loam	0.250	0	100
6515865	Tucson clay loam	0.050	0	100
6516221	Valencia sandy loam	0.390	0	100
6516223	Valencia sandy loam, saline-alkali	0.390	0	100
6516225	Valencia gravelly sandy loam	0.390	0	100
6516229	Vecont loam	0.250	0	100
6516231	Vecont clay	0.010	0	100
6516233	Vint loamy fine sand	0.910	0	100
6516235	Vint fine sandy loam	0.270	0	100
6516241	Vint loam	0.260	0	100
6516247	Vint clay loam	0.040	0	100
6516255	Vint-Carrizo complex	0.630	0	100
6516433	Wintersburg complex	0.030	0	100
6552031	Agualt fine sandy loam	0.250	0	100
6552033	Agualt loam	0.250	0	100
6552045	Alluvial land	1.200	0	100
6552063	Avondale clay loam	0.040	0	100
6552421	Carrizo gravelly loamy sand	1.200	0	100
6552423	Carrizo fine sandy loam	0.250	0	100
6552425	Cashion clay	0.010	0	100
6552449	Contine clay loam	0.040	0	100
6552857	Estrella loam	0.250	0	100
6553231	Gilman fine sandy loam	0.250	0	100
6553245	Gilman loam	0.250	0	100
6553247	Glenbar clay loam	0.040	0	100
6553255	Gravelly alluvial land	1.200	0	100

Soil LID	Soil Description	XKSAT	RTIMP	% Effective
6554449	Mohall sandy loam	0.400	0	100
6554463	Mohall loam	0.250	0	100
6555045	Pimer clay loam	0.040	0	100
6555049	Pinal loam, moderately deep variant	0.250	0	100
6555449	Rock land	0.250	65	100
6555461	Rough broken land	0.400	20	100
6555867	Trix clay loam	0.040	0	100
6556221	Valencia sandy loam	0.400	0	100
6556229	Vecont clay	0.010	0	100
6556231	Vint loamy fine sand	1.200	0	100
65124202	Calciorthids and Torriorthents, eroded	0.380	0	100
65132493	Gilman,Antho and Glenbar soils, severely eroded	0.190	0	100
651202320	Anthosandy loam, 0 to 1 percent slopes	0.380	0	100
651202322	Antho sandy loam, 1 to 3 percent slopes	0.390	0	100
651202720	Antho gravelly sandy loam, 0 to 1 percent slopes	0.400	0	100
651202722	Antho gravelly sandy loam, 1 to 3 percent slopes	0.400	0	100
651203120	Antho-Carrizo complex, 0 to 1 percent slopes	0.380	0	100
651203122	Antho-Carrizo complex, 1 to 3 percent slopes	0.400	0	100
651203222	Antho-Carrizo complex, 0 to 3 percent slopes	0.400	0	100
651203424	Antho-Tremant complex, 1 to 5 percent slopes	0.380	0	100
651204122	Antho-Tremant-Mohall complex, 1 to 5 percent slopes	0.270	0	100
651225036	Borrow pit	0.000	0	100
651242926	Carrizo-Ebon complex, 3 to 12 percent slopes	0.190	0	100
651245522	Coolidge gravelly sandy loam, 1 to 3 percent slopes	0.400	0	100
651282326	Ebon gravelly loam, 0 to 8 percent slopes	0.100	0	100
651285026	Ebon-Pinamt complex, 0 to 10 percent slopes	0.120	0	100
651323320	Gilman loan, 0 to 1 percent slopes	0.250	0	100
651323322	Gilman loam, 1 to 3 percent slopes	0.260	0	100
651325036	Gravel pit	0.000	0	100
651326426	Gunsight-Pinal complex, 1 to 10 percent slopes	0.350	0	100
651326720	Gunsight-Rillito complex, 0 to 1 percent slopes	0.230	0	100
651326722	Gunsight-Rillito complex, 1 to 3 percent slopes	0.240	0	100
651326826	Gunsight-Rillito complex, 0 to 10 percent slopes	0.260	0	100
651342022	Harqua complex, 0 to 3 percent slopes	0.070	0	100
651342024	Harqua complex, 3 to 8 percent slopes	0.050	0	100
651344224	Harqua-Gunsight complex, 0 to 5 percent slopes	0.140	0	100
651345522	Harqua-Rillito complex, 1 to 3 percent slopes	0.120	0	100
651422520	Laveen loam, 0 to 1 percent slopes	0.250	0	100
651422522	Laveen loam, 1 to 3 percent slopes	0.250	0	100
651422862	Man-made levee	0.000	0	100
651441064	Waste stabilization pond	0.000	0	100
651445822	Mohall-Tremant complex, 0 to 3 percent slopes	0.150	0	100
651502920	Perryville gravelly loam, 0 to 1 percent slopes	0.370	0	100
651502922	Perryville gravelly loam, 1 to 3 percent slopes	0.380	0	100
651505422	Perryville-Rillito complex, 0 to 3 percent slopes	0.280	0	100
651505720	Pinal loam, 0 to 1 percent slopes	0.250	0	100

Soil LID	Soil Description	XKSAT	RTIMP	% Effective
651505722	Pinal loam, 1 to 3 percent slopes	0.260	0	100
651506322	Pinal-La Palma loams, 1 to 3 percent slopes	0.250	0	100
651506422	Pinal-Suncity complex, 0 to 3 percent slopes	0.380	0	100
651506826	Pinamt-Tremant complex, 1 to 10 percent slopes	0.200	0	100
651542120	Rillito sandy loam, 0 to 1 percent slopes	0.390	0	100
651542122	Rillito sandy loam, 1 to 3 percent slopes	0.390	0	100
651542320	Rillito loam, 0 to 1 percent slopes	0.260	0	100
651542322	Rillito loam, 1 to 3 percent slopes	0.250	0	100
651543522	Rillito-Harqua complex, 1 to 3 percent slopes	0.230	0	100
651545128	Rillito-Perryville complex, 5 to 20 percent slopes	0.290	0	100
651583120	Tremant gravelly loam, 0 to 1 percent slopes	0.370	0	100
651583122	Tremant gravelly loam 1 to 3 percent slopes	0.360	0	100
651585022	Tremant complex, 0 to 3 percent slopes	0.120	0	100
651585520	Tremant-Rillito complex, 0 to 1 percent slopes	0.110	0	100
651585522	Tremant-Rillito complex, 1 to 3 percent slopes	0.130	0	100
651585624	Tremant-Rillito complex, 0 to 5 percent slopes	0.140	0	100
653422862	Man-made levee	0.000	0	100
655204720	Antho sandy loam, 0 to 1 percent slopes	0.400	0	100
655204722	Antho sandy loam, 1 to 3 percent slopes	0.400	0	100
655204922	Antho gravelly sandy loam, 1 to 3 percent slopes	0.400	0	100
655242924	Cavelt gravelly loam, 1 to 5 percent slopes	0.400	0	100
655325462	Gravel pit	0.000	0	100
655422120	Laveen loam, 0 to 1 percent slopes	0.250	0	100
655422122	Laveen loam, 1 to 3 percent slopes	0.250	0	100
655422920	Laveen clay loam, 0 to 1 percent slopes	0.040	0	100
655504720	Pinal gravelly loam, 0 to 1 percent slopes	0.400	0	100
655504724	Pinal gravelly loam, 1 to 3 percent slopes	0.400	0	100
655506320	Pinamt very gravelly loam, 0 to 1 percent slopes	0.400	0	100
655506324	Pinamt very gravelly loam, 3 to 5 percent slopes	0.400	0	100
655543720	Rillito gravelly loam, 0 to 1 percent slopes	0.400	0	100
655543722	Rillito gravelly loam, 1 to 3 percent slopes	0.400	0	100
655585522	Tremant gravelly loam, 1 to 3 percent slopes	0.100	0	100

Table D.2-3

Summary of Green & Ampt Parameters for Buckeye Area 1 Existing Conditions

Subbasin	Area [mi^2]	IA	DTHETA	PSIF	XKSAT	RTIMP
1	1.626	0.347	0.329	4.33	0.398	5.88
2	1.233	0.338	0.339	3.99	0.443	5.58
3	1.648	1.000	0.298	4.03	0.546	4.13
4	0.549	0.306	0.332	4.02	0.485	14.55
5A	1.172	0.333	0.342	4.33	0.387	5.98
5B	0.576	0.318	0.336	4.61	0.319	10.55

Subbasin	Area [mi^2]	IA	DTHETA	PSIF	XKSAT	RTIMP
6	0.318	0.327	0.359	5.26	0.239	8.06
7	0.446	0.336	0.345	4.13	0.400	4.38
8	0.414	0.277	0.319	4.10	0.445	23.07
9	0.612	0.327	0.340	3.98	0.411	7.24
10	1.174	0.299	0.312	4.15	0.403	10.87
11A	0.571	0.320	0.356	5.20	0.244	9.66
11B	0.581	0.350	0.350	4.28	0.363	0.00
11C	0.343	0.350	0.350	3.98	0.400	0.00
12	0.736	0.338	0.345	4.50	0.333	3.95
13	0.501	0.350	0.364	5.14	0.247	0.00
14A	0.692	0.335	0.344	4.26	0.368	4.73
14B	0.502	0.360	0.344	4.18	0.385	0.00
15A	0.588	0.358	0.324	4.42	0.391	2.37
15B	0.816	1.000	0.249	4.10	0.541	0.37
16	0.951	0.208	0.250	4.40	0.438	45.68
17	0.607	1.000	0.250	4.02	0.465	0.17
18	0.796	1.000	0.291	4.13	0.479	0.12
19	0.536	1.000	0.249	3.96	0.435	0.57
20	0.665	1.000	0.252	3.97	0.479	0.02
21A	0.366	1.000	0.277	4.00	0.641	0.00
21B	0.273	1.000	0.250	4.00	0.692	0.00
22	0.557	1.000	0.250	4.00	0.550	0.18
23	0.524	1.000	0.248	3.96	0.472	0.99
24	0.489	0.312	0.276	4.59	0.365	11.26
25	0.274	1.000	0.285	4.14	0.390	1.29
26	0.524	0.304	0.260	4.05	0.400	13.80
27	0.241	1.000	0.246	3.98	0.567	1.42
28	0.335	1.000	0.249	4.18	0.467	0.54
29	0.999	1.000	0.250	3.98	0.548	0.00
30	0.983	1.000	0.250	4.03	0.469	8.73
31	1.079	1.000	0.249	4.02	0.456	0.85
32	0.896	1.000	0.249	4.00	0.515	1.15
33	1.002	1.000	0.249	3.96	0.440	0.53
34	0.637	1.000	0.245	3.99	0.565	2.07
35	1.504	1.000	0.250	3.98	0.486	3.32
36	0.684	1.000	0.258	3.97	0.455	5.10
37	1.421	1.000	0.250	4.12	0.457	0.00
38	0.542	1.000	0.249	3.96	0.466	1.07
39	0.725	1.000	0.249	4.31	0.470	1.59
40	0.976	1.000	0.249	4.21	0.525	0.74
41	1.202	1.000	0.250	3.97	0.474	0.00
42	0.778	1.000	0.250	4.28	0.452	0.47
43	1.002	1.000	0.250	3.96	0.425	0.66
44	1.007	1.000	0.250	4.14	0.485	5.22

Subbasin	Area [mi^2]	IA	DTHETA	PSIF	XKSAT	RTIMP
45A	1.003	1.000	0.250	3.99	0.441	0.24
45B	0.140	1.000	0.250	3.97	0.417	29.71
46	1.381	1.000	0.258	4.19	0.469	2.56
47	0.617	1.000	0.271	4.50	0.411	0.10
48	0.500	1.000	0.250	4.37	0.445	1.37
49	1.009	1.000	0.250	3.95	0.417	0.66
50	1.002	1.000	0.251	4.18	0.488	2.40
51	1.004	1.000	0.250	4.40	0.563	1.52
52A	0.313	1.000	0.250	3.97	0.439	0.36
52B	0.495	1.000	0.251	4.09	0.530	0.35
53	0.339	1.000	0.250	4.00	0.444	0.00
54	0.386	1.000	0.250	4.00	0.447	0.00
55	0.263	1.000	0.250	4.13	0.446	0.00
56A	0.411	1.000	0.250	3.97	0.455	18.06
56B	0.334	0.100	0.250	4.00	0.524	80.00
57	0.489	1.000	0.250	4.26	0.530	1.42
58	0.190	1.000	0.250	4.29	0.552	11.15
59	0.252	1.000	0.230	4.17	0.497	8.09
60A	0.412	1.000	0.249	4.04	0.541	0.79
60B	0.574	1.000	0.249	4.16	0.551	3.25
61	0.508	1.000	0.248	3.97	0.464	2.23
62	0.572	1.000	0.249	4.20	0.444	0.47
63	0.499	1.000	0.250	4.19	0.398	20.75
64	0.415	1.000	0.248	4.36	0.445	1.18
65	0.376	1.000	0.247	4.71	0.411	1.76
66	0.294	1.000	0.249	4.47	0.385	6.04
67	0.472	0.261	0.262	4.33	0.393	26.59
68	0.413	0.374	0.334	4.37	0.374	0.00
69	0.137	0.176	0.264	4.50	0.395	49.22
70	0.141	1.000	0.250	4.40	0.512	0.00
71	0.155	1.000	0.243	4.91	0.414	2.61
72	0.086	1.000	0.230	4.47	0.424	7.94
83	0.675	0.341	0.375	5.44	0.214	2.80
84	0.877	1.000	0.147	9.73	0.071	1.00
85A	0.216	1.000	0.148	7.22	0.169	1.44
85B	0.745	1.000	0.247	5.67	0.297	1.99
86	0.440	1.000	0.150	8.11	0.110	6.81
87	0.913	1.000	0.142	9.84	0.066	1.13
88	0.765	1.000	0.145	9.80	0.068	0.29
89	0.963	1.000	0.144	9.82	0.068	0.56
90	1.055	1.000	0.152	9.53	0.075	5.87
91	1.189	1.000	0.150	8.29	0.113	5.19
92	1.014	1.000	0.152	8.66	0.095	5.86

Subbasin	Area [mi^2]	IA	DTHETA	PSIF	XKSAT	RTIMP
93	0.377	1.000	0.245	4.88	0.410	9.38
94	0.719	1.000	0.150	7.30	0.157	2.20
95	0.522	1.000	0.150	8.20	0.118	0.73
96	0.914	1.000	0.150	7.20	0.171	0.59
97	0.500	1.000	0.163	6.87	0.195	0.28
98	0.388	1.000	0.174	9.08	0.078	10.56
99	0.948	1.000	0.334	6.02	0.216	0.01
100	0.582	1.000	0.228	6.24	0.251	1.19
101	0.381	1.000	0.149	6.96	0.172	3.95
102	0.520	1.000	0.150	8.60	0.100	0.19
103	0.507	1.000	0.218	6.32	0.244	0.67
104	1.012	1.000	0.175	6.76	0.192	0.05
105	0.997	1.000	0.150	8.42	0.106	1.66
106	1.209	1.000	0.150	7.60	0.146	0.44
107	0.484	1.000	0.181	6.69	0.210	0.00
4th	0.082	0.192	0.248	5.15	0.326	55.32
6th	0.057	0.206	0.148	7.57	0.120	51.54
8th	0.079	0.241	0.150	8.77	0.074	42.70
9thE	0.095	0.173	0.154	8.73	0.083	35.40
9thW	0.081	0.197	0.149	8.42	0.101	29.52
BAYLIS	0.016	0.100	0.150	9.70	0.069	80.00
4thS	0.145	0.181	0.203	6.47	0.204	37.61
7th	0.127	0.252	0.261	5.11	0.312	38.17
CENTRE	0.069	0.248	0.153	6.97	0.147	35.73
BELOAT	0.047	0.370	0.218	9.33	0.062	7.02
DRAIN	0.116	1.000	0.150	9.66	0.071	7.35

Table D.2-4

Summary of Green & Ampt Parameters for Buckeye Area 1 Future Conditions

Subbasin	Area [mi^2]	IA	DTHETA	PSIF	XKSAT	RTIMP
1	1.626	0.115	0.250	4.33	0.468	69.02
2	1.233	0.100	0.250	3.99	0.548	74.17
3	1.648	0.230	0.250	4.03	0.538	43.96
4	0.549	0.143	0.250	4.02	0.619	52.67
5A	1.172	0.194	0.250	4.33	0.471	45.55
5B	0.576	0.145	0.250	4.61	0.387	47.21
6	0.318	0.100	0.250	5.26	0.315	48.90
7	0.446	0.100	0.250	4.13	0.467	71.44
8	0.414	0.147	0.250	4.10	0.501	54.05
9	0.612	0.100	0.250	3.98	0.433	80.00
10	1.174	0.196	0.250	4.15	0.425	40.67
11A	0.571	0.213	0.250	5.20	0.287	32.63
11B	0.581	0.238	0.250	4.28	0.395	34.04
11C	0.343	0.249	0.250	3.98	0.410	30.45
12	0.736	0.238	0.250	4.50	0.382	39.82
13	0.501	0.250	0.250	5.14	0.299	45.00
14A	0.692	0.232	0.250	4.26	0.393	39.38
14B	0.502	0.250	0.250	4.18	0.409	41.52
15A	0.588	0.208	0.250	4.42	0.432	39.61
15B	0.816	0.117	0.250	4.10	0.496	73.49
16	0.951	0.100	0.250	4.40	0.440	80.00
17	0.607	0.250	0.250	4.02	0.429	45.00
18	0.796	0.250	0.250	4.13	0.467	39.85
19	0.536	0.250	0.250	3.96	0.418	44.77
20	0.665	0.250	0.250	3.97	0.440	45.00
21A	0.366	0.198	0.250	4.00	0.567	57.03
21B	0.273	0.250	0.250	4.00	0.551	45.00
22	0.557	0.250	0.250	4.00	0.475	30.00
23	0.524	0.250	0.250	3.96	0.438	30.00
24	0.489	0.300	0.250	4.59	0.329	5.00
25	0.274	0.300	0.250	4.14	0.396	5.00
26	0.524	0.300	0.250	4.05	0.393	5.00
27	0.241	0.100	0.250	3.98	0.522	80.00
28	0.335	0.100	0.250	4.18	0.441	80.00
29	0.999	0.100	0.250	3.98	0.507	80.00
30	0.983	0.100	0.250	4.03	0.450	80.00
31	1.079	0.212	0.250	4.02	0.427	50.88
32	0.896	0.250	0.250	4.00	0.457	34.05
33	1.002	0.179	0.250	3.96	0.422	53.62
34	0.637	0.266	0.250	3.99	0.460	26.76

Subbasin	Area [mi^2]	IA	DTHETA	PSIF	XKSAT	RTIMP
35	1.504	0.197	0.250	3.98	0.449	52.27
36	0.684	0.251	0.250	3.97	0.427	36.84
37	1.421	0.248	0.250	4.12	0.419	41.53
38	0.542	0.250	0.250	3.96	0.435	30.00
39	0.725	0.257	0.250	4.31	0.407	26.63
40	0.976	0.250	0.250	4.21	0.448	29.90
41	1.202	0.100	0.250	3.97	0.454	80.00
42	0.778	0.100	0.250	4.28	0.425	80.00
43	1.002	0.163	0.250	3.96	0.413	59.17
44	1.007	0.250	0.250	4.14	0.433	30.00
45A	1.003	0.181	0.250	3.99	0.422	52.92
45B	0.140	0.100	0.250	3.97	0.413	80.00
46	1.381	0.191	0.250	4.19	0.431	49.22
47	0.617	0.235	0.250	4.50	0.387	34.95
48	0.500	0.211	0.250	4.37	0.389	42.96
49	1.009	0.250	0.250	3.95	0.409	36.23
50	1.002	0.262	0.250	4.18	0.427	31.56
51	1.004	0.263	0.250	4.40	0.435	34.25
52A	0.313	0.100	0.250	3.97	0.427	80.00
52B	0.495	0.100	0.250	4.09	0.492	80.00
53	0.339	0.100	0.250	4.00	0.429	80.00
54	0.386	0.100	0.250	4.00	0.432	80.00
55	0.263	0.100	0.250	4.13	0.426	80.00
56A	0.411	0.100	0.250	3.97	0.441	80.00
56B	0.334	0.100	0.250	4.00	0.503	80.00
57	0.489	0.100	0.250	4.26	0.482	80.00
58	0.190	0.100	0.250	4.29	0.498	80.00
59	0.252	0.100	0.250	4.17	0.523	13.27
60A	0.412	0.100	0.250	4.04	0.535	50.19
60B	0.574	0.101	0.250	4.16	0.551	55.37
61	0.508	0.101	0.250	3.97	0.457	60.16
62	0.572	0.101	0.250	4.20	0.421	79.78
63	0.499	0.100	0.250	4.19	0.389	80.00
64	0.415	0.101	0.250	4.36	0.417	79.71
65	0.376	0.100	0.250	4.71	0.374	80.00
66	0.294	0.101	0.250	4.47	0.367	79.73
67	0.472	0.210	0.250	4.33	0.412	26.19
68	0.413	0.100	0.250	4.37	0.494	64.32
69	0.137	0.100	0.250	4.50	0.453	43.97
70	0.141	0.100	0.250	4.40	0.461	80.00
71	0.155	0.100	0.250	4.91	0.370	80.00
72	0.086	0.100	0.250	4.47	0.401	80.00
83	0.675	0.235	0.250	5.44	0.256	31.62
84	0.877	0.100	0.149	9.71	0.075	5.00

Subbasin	Area [mi^2]	IA	DTHETA	PSIF	XKSAT	RTIMP
85A	0.216	0.100	0.150	7.44	0.161	5.00
85B	0.745	0.292	0.250	5.71	0.207	5.00
86	0.440	0.300	0.150	7.99	0.083	5.00
87	0.913	0.300	0.143	9.84	0.045	5.00
88	0.765	0.300	0.143	9.84	0.045	5.00
89	0.963	0.250	0.145	9.80	0.054	45.00
90	1.055	0.160	0.150	9.53	0.063	57.60
91	1.189	0.260	0.150	8.29	0.086	23.16
92	1.014	0.229	0.150	8.66	0.079	42.57
93	0.377	0.260	0.250	4.88	0.323	31.09
94	0.719	0.249	0.150	7.30	0.126	43.87
95	0.522	0.250	0.150	8.20	0.093	36.11
96	0.914	0.300	0.150	7.20	0.114	5.00
97	0.500	0.300	0.163	6.87	0.130	5.00
98	0.388	0.190	0.150	9.08	0.073	38.29
99	0.948	0.107	0.248	6.02	0.276	11.11
100	0.582	0.100	0.226	6.24	0.260	5.00
101	0.381	0.157	0.154	6.96	0.160	5.00
102	0.520	0.300	0.150	8.59	0.068	5.00
103	0.507	0.250	0.209	6.41	0.187	45.00
104	1.012	0.146	0.174	6.76	0.182	5.00
105	0.997	0.300	0.150	8.48	0.070	5.00
106	1.209	0.244	0.150	7.62	0.112	5.00
107	0.484	0.202	0.179	6.71	0.177	5.00
4th	0.082	0.159	0.250	5.15	0.347	59.51
6th	0.057	0.208	0.150	7.57	0.123	43.14
8th	0.079	0.235	0.150	8.77	0.075	35.00
9thE	0.095	0.151	0.150	8.73	0.088	31.80
9thW	0.081	0.143	0.150	8.42	0.105	14.13
BAYLIS	0.016	0.100	0.150	9.70	0.069	80.00
4thS	0.145	0.166	0.203	6.47	0.206	36.97
7th	0.127	0.248	0.250	5.11	0.311	29.14
CENTRE	0.069	0.246	0.153	6.97	0.148	31.22
BELOAT	0.047	0.237	0.150	9.33	0.064	34.39
DRAIN	0.116	0.242	0.150	9.66	0.059	32.69

Table D.2-5

Summary of Lag Time Estimation for Buckeye Area 1 Sub-basins

Subbasin	Flow Length (mi)	Lca (mi)	Slope (ft/mi)	S-Graph Type	Kn Value	Lag (min)
1	2.61	1.54	34.86	Desert Rangeland	0.05	62
2	2.02	0.86	45.95	Desert Rangeland	0.05	43
3	2.04	1.39	39.22	Desert Rangeland	0.05	53
4	1.38	0.74	40.65	Desert Rangeland	0.05	36
5A	1.75	1.16	49.05	Desert Rangeland	0.05	45
5B	1.73	1.08	38.66	Desert Rangeland	0.05	46
6	0.50	0.35	88.18	Desert Rangeland	0.05	16
7	.74	0.30	73.02	Desert Rangeland	0.05	18
8	1.22	0.56	14.80	Desert Rangeland	0.05	37
9	0.79	0.41	57.09	Desert Rangeland	0.05	22
10	1.77	1.27	46.29	Phoenix Valley	0.05	47
11A	0.57	0.33	83.95	Phoenix Valley	0.05	16
11B	1.39	0.62	41.81	Phoenix Valley	0.05	34
11C	0.99	0.31	54.38	Phoenix Valley	0.05	22
12	0.96	0.41	83.03	Phoenix Valley	0.05	22
13	0.52	0.26	71.20	Phoenix Valley	0.05	15
14A	1.33	0.71	67.87	Phoenix Valley	0.05	32
14B	0.59	0.30	54.00	Desert Rangeland	0.05	17
15A	1.45	0.48	34.58	Desert Rangeland	0.05	32
15B	1.63	0.82	11.02	Agriculture	0.20	204
16	2.00	1.37	24.99	Phoenix Valley	0.05	57
17	1.43	0.71	16.84	Agriculture	0.02	169
18	1.81	0.75	30.99	Agriculture	0.02	168
19	1.51	0.76	18.49	Agriculture	0.02	174
20	1.57	0.79	16.56	Agriculture	0.02	183
21A	1.43	0.71	39.92	Agriculture	0.02	144
21B	1.02	0.51	24.58	Agriculture	0.02	122
22	1.54	0.77	18.14	Agriculture	0.02	178
23	1.32	0.66	15.92	Agriculture	0.02	161
24	0.53	0.27	56.27	Desert Rangeland	0.05	16
25	1.05	0.52	10.49	Phoenix Valley	0.05	37
26	0.76	0.38	39.29	Phoenix Valley	0.05	22
27	0.82	0.41	14.59	Agriculture	0.20	115
28	1.02	0.51	16.68	Agriculture	0.20	132
29	1.47	0.73	22.92	Agriculture	0.20	163
30	1.55	0.78	21.93	Agriculture	0.20	172
31	1.93	0.97	26.40	Agriculture	0.20	196
32	1.84	0.92	24.34	Agriculture	0.20	192
33	1.84	0.92	29.30	Agriculture	0.20	185
34	1.23	0.62	19.48	Agriculture	0.20	148

Subbasin	Flow Length (mi)	Lca (mi)	Slope (ft/mi)	S-Graph Type	Kn Value	Lag (min)
35	1.96	0.98	33.61	Agriculture	0.20	190
36	1.85	0.93	36.67	Agriculture	0.20	178
37	2.36	1.18	30.11	Agriculture	0.20	222
38	1.40	0.70	20.72	Agriculture	0.20	161
39	1.63	0.82	25.14	Agriculture	0.20	174
40	1.83	0.91	31.23	Agriculture	0.20	182
41	1.54	0.77	23.99	Agriculture	0.20	168
42	1.56	0.78	22.73	Agriculture	0.20	172
43	1.92	0.96	20.85	Agriculture	0.20	204
44	1.97	0.98	22.43	Agriculture	0.20	205
45A	1.97	0.99	25.14	Agriculture	0.20	201
45B	0.52	0.26	8.59	Agriculture	0.20	89
46	1.79	0.89	25.18	Agriculture	0.20	186
47	1.46	0.73	24.60	Agriculture	0.20	161
48	1.10	0.55	16.43	Agriculture	0.20	139
49	1.96	0.98	23.51	Agriculture	0.20	202
50	1.98	0.99	26.73	Agriculture	0.20	199
51	1.96	0.98	22.98	Agriculture	0.20	203
52A	0.92	0.57	6.91	Agriculture	0.20	156
52B	0.71	0.32	32.56	Agriculture	0.20	85
53	0.91	0.46	23.93	Agriculture	0.20	113
54	1.20	0.60	12.35	Agriculture	0.20	157
55	0.97	0.48	12.83	Agriculture	0.20	133
56A	1.19	0.59	30.31	Agriculture	0.20	132
56B	0.73	0.37	43.70	Phoenix Valley	0.20	85
57	0.68	0.34	19.18	Agriculture	0.20	94
58	0.50	0.25	15.93	Agriculture	0.20	77
59	0.50	0.17	49.34	Agriculture	0.20	53
60A	1.07	0.46	27.51	Agriculture	0.20	117
60B	1.03	0.35	22.68	Agriculture	0.20	108
61	0.90	0.45	23.00	Agriculture	0.20	113
62	0.98	0.49	21.54	Agriculture	0.20	122
63	0.95	0.47	20.27	Agriculture	0.20	120
64	0.89	0.45	17.94	Agriculture	0.20	117
65	0.82	0.41	10.93	Agriculture	0.20	121
66	0.73	0.36	19.24	Agriculture	0.20	99
67	0.82	0.41	25.73	Phoenix Valley	0.20	102
68	0.96	0.33	45.58	Desert Rangeland	0.05	22
69	0.11	0.06	17.52	Phoenix Valley	0.20	25
70	0.68	0.34	1.48	Agriculture	0.20	152
71	0.34	0.17	14.51	Agriculture	0.20	59
72	0.13	0.06	7.71	Agriculture	0.20	32
83	1.72	0.93	64.69	Desert Rangeland	0.05	39

Subbasin	Flow Length (mi)	Lca (mi)	Slope (ft/mi)	S-Graph Type	Kn Value	Lag (min)
84	1.81	0.98	13.27	Agriculture	0.20	219
85A	.84	0.42	37.89	Agriculture	0.20	98
85B	1.47	0.73	15.68	Agriculture	0.20	176
86	1.09	0.54	25.78	Agriculture	0.20	127
87	1.87	0.93	22.48	Agriculture	0.20	197
88	1.66	0.83	19.29	Agriculture	0.20	185
89	1.79	0.90	21.20	Agriculture	0.20	193
90	2.05	1.02	21.50	Agriculture	0.20	213
91	5.08	1.04	21.10	Agriculture	0.20	217
92	2.06	1.03	17.46	Agriculture	0.20	223
93	1.21	0.60	17.39	Agriculture	0.20	148
94	1.30	0.65	22.37	Agriculture	0.20	149
95	1.66	0.83	7.84	Agriculture	0.20	220
96	1.32	0.66	4.55	Agriculture	0.20	205
97	1.32	0.66	6.05	Agriculture	0.20	195
98	1.50	0.75	6.69	Agriculture	0.20	209
99	2.01	1.24	3.49	Phoenix Valley	0.05	80
100	1.70	0.85	18.83	Agriculture	0.20	190
101	1.63	0.81	8.59	Agriculture	0.20	213
102	1.48	0.74	25.68	Agriculture	0.20	161
103	1.14	0.57	22.77	Agriculture	0.20	135
104	1.95	0.98	13.83	Agriculture	0.20	223
105	1.94	0.97	18.59	Agriculture	0.20	210
106	2.21	1.11	20.78	Agriculture	0.20	227
107	0.98	0.49	18.37	Agriculture	0.20	125
4th	0.52	0.40	0.01	Phoenix Valley	0.011	24
6th	0.46	0.17	0.01	Phoenix Valley	0.011	17
8th	0.60	0.31	0.01	Phoenix Valley	0.011	23
9thE	0.54	0.32	0.01	Phoenix Valley	0.011	22
9thW	0.77	0.39	0.01	Phoenix Valley	0.011	29
BAYLIS	0.30	0.08	0.01	Phoenix Valley	0.011	9
4thS	0.74	0.50	0.01	Phoenix Valley	0.011	30
7th	0.66	0.33	0.01	Phoenix Valley	0.011	24
CENTRE	0.40	0.23	0.01	Phoenix Valley	0.011	18
BELOAT	0.44	0.25	0.00	Phoenix Valley	0.011	19
DRAIN	0.59	0.26	0.01	Phoenix Valley	0.011	20

D.3 Hydrograph Routing Data

Table D.3-1

Summary of Routing Channel Parameters – Length, Slope and Manning's n

Routing Channel	S [ft/ft]	Channel Section	n-left	n-channel	n-right
4TH4S	0.015	4TH4S	0.050	0.015	0.050
4TH6TH	0.002	4TH6TH	0.050	0.015	0.050
4TH7TH	0.003	4TH7TH	0.050	0.015	0.050
6TH7TH	0.006	6TH7TH	0.050	0.015	0.050
6TH8TH	0.002	6TH8TH	0.050	0.015	0.050
7THM5	0.002	7THM6	0.050	0.050	0.050
8TH9TH	0.002	8TH9TH	0.050	0.015	0.050
8THCEN	0.007	8THCEN	0.050	0.015	0.050
9THCEN	0.008	9THCEN	0.050	0.015	0.050
BELDRN	0.001	BELDRN	0.035	0.150	0.035
CENBEL	0.005	CENBEL	0.050	0.015	0.050
CENDRN	0.005	CENDRN	0.050	0.050	0.050
DETDRN	0.007	DETDRN	0.050	0.030	0.050
DRNM5	0.001	DRNM6	0.050	0.050	0.050
E1-E2	0.004	A	0.100	0.100	0.100
E2S-E3	0.003	A	0.100	0.100	0.100
F1A-F1B	0.004	A	0.100	0.100	0.100
F1S-F2	0.008	A	0.100	0.100	0.100
F2-F3	0.006	A	0.100	0.100	0.100
F3-F4	0.006	A	0.100	0.100	0.100
F4-F5B	0.006	A	0.100	0.100	0.100
F5A-F6A	0.006	A	0.100	0.100	0.100
F5B-F6B	0.004	A	0.100	0.100	0.100
F6AS-F7A	0.011	A	0.100	0.100	0.100
F6BS-F7B	0.007	A	0.100	0.100	0.100
F7A-F8	0.006	A	0.100	0.100	0.100
F7B-F8	0.006	A	0.100	0.100	0.100
G2-G3	0.005	A	0.100	0.100	0.100
G3S-G4	0.004	A	0.100	0.100	0.100
G4-G5	0.004	A	0.100	0.100	0.100
G5-G6	0.005	A	0.100	0.100	0.100
G6-G7	0.007	A	0.100	0.100	0.100
G7-G8	0.004	A	0.100	0.100	0.100
G8S-G9	0.005	A	0.100	0.100	0.100
G9-F8	0.004	A	0.100	0.100	0.100
H1-H2	0.005	C	0.035	0.035	0.035
H2-H3	0.007	B	0.100	0.020	0.100

H3S-H4	0.005	A	0.100	0.100	0.100
H4-H5	0.006	B	0.100	0.020	0.100
H5-H6	0.005	B	0.100	0.020	0.100
H6-H7	0.004	A	0.100	0.100	0.100
H7S-H8	0.004	A	0.100	0.100	0.100
H8-H9	0.005	A	0.100	0.100	0.100
I1A-I2A	0.005	B	0.100	0.020	0.100
I1B-I2B	0.005	A	0.100	0.100	0.100
I2S-I3	0.005	A	0.100	0.100	0.100
I3-I4	0.004	B	0.100	0.020	0.100
I4-I5	0.003	A	0.100	0.100	0.100
I5-I6	0.004	A	0.100	0.100	0.100
I6S-I7	0.006	A	0.100	0.100	0.100
I7-I8	0.011	A	0.100	0.100	0.100
I8-J8	0.002	Outlet to Gila	0.035	0.050	0.035
J1-J2	0.004	A	0.035	0.035	0.035
J2-J3	0.008	B	0.100	0.020	0.100
J3S-J4	0.006	A	0.100	0.100	0.100
J4-J5A	0.008	A	0.100	0.100	0.100
J5A-J5B	0.001	A	0.100	0.100	0.100
J5B-J6	0.006	A	0.100	0.100	0.100
J6S-J7	0.005	A	0.100	0.100	0.100
J7-J8	0.005	Outlet to Gila	0.035	0.050	0.035
K1-K2	0.011	A	0.035	0.035	0.035
K2-K3	0.009	A	0.100	0.100	0.100
K3SAK4	0.005	A	0.100	0.100	0.100
K3SBK4	0.009	A	0.100	0.100	0.100
K4-K5	0.008	B	0.100	0.020	0.100
K5-K6	0.006	B	0.100	0.020	0.100
K6-K7	0.003	A	0.100	0.100	0.100
K7S-K8	0.005	A	0.100	0.100	0.100
L1-L2	0.010	B	0.100	0.020	0.100
L2S2-M1	0.003	A	0.100	0.100	0.100
L2S-L3	0.009	B	0.100	0.020	0.100
L3-L4	0.005	B	0.100	0.020	0.100
L4-L5	0.008	A	0.100	0.100	0.100
L5S-L6	0.005	A	0.100	0.100	0.100
M1-M2	0.003	A	0.100	0.100	0.100
M2-M3	0.005	A	0.025	0.025	0.025
M3-M4	0.003	A	0.025	0.025	0.025
M4S-6TH	0.008	M4S-6TH	0.050	0.015	0.050
N1A-N1B	0.009	N1A-N1B	0.050	0.050	0.050
N1B-N2	0.003	B	0.100	0.020	0.100
N1C-N2	0.010	A	0.100	0.100	0.100

N2S-N3	0.005	A	0.100	0.100	0.100
N3-N4	0.009	B	0.100	0.020	0.100
N4-N5B	0.008	B	0.100	0.020	0.100
N5A-N6	0.000	A	0.100	0.100	0.100
N5B-N6	0.002	A	0.100	0.100	0.100
N6S-DRAINA	0.003	A	0.100	0.100	0.100
O10-DRN	0.0003	A	0.100	0.100	0.100
O10-P9	0.002	M5-011	0.050	0.050	0.050
O1-O2	0.013	A	0.035	0.035	0.035
O2-O3	0.011	A	0.025	0.025	0.025
O3-O4	0.002	A	0.100	0.100	0.100
O4S-O5	0.006	A	0.100	0.100	0.100
O5-O6	0.010	B	0.100	0.020	0.100
O6-O7	0.004	B	0.100	0.020	0.100
O7-O8	0.003	A	0.100	0.100	0.100
O8S-O9	0.004	A	0.100	0.100	0.100
O9-O10	0.001	A	0.100	0.100	0.100
P1A-P1B	0.010	A	0.035	0.035	0.035
P1B-P2	0.007	A	0.025	0.025	0.025
P2S-P3	0.007	A	0.100	0.100	0.100
P3-P4	0.008	B	0.100	0.020	0.100
P4-P5	0.003	A	0.100	0.100	0.100
P5-P6	0.001	A	0.100	0.100	0.100
P6S-P7	0.005	A	0.100	0.100	0.100
P7-P8	0.002	A	0.100	0.100	0.100
P8-P9	0.001	A	0.100	0.100	0.100
P9-P10	0.005	A	0.100	0.100	0.100
O6-O7	0.015	4TH4S	0.050	0.015	0.050
O7-O8	0.002	4TH6TH	0.050	0.015	0.050
O8S-O9	0.003	4TH7TH	0.050	0.015	0.050
O9-O10	0.006	6TH7TH	0.050	0.015	0.050
P1A-P1B	0.002	6TH8TH	0.050	0.015	0.050
P1B-P2	0.002	7THM6	0.050	0.050	0.050
P2S-P3	0.002	8TH9TH	0.050	0.015	0.050

Table D.3-2

Summary of Routing Channel Parameters – Representative Cross Sections

	A		B		BELDRN		C		CENBEL		DENDRN		DETDRN		DRNM6	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
1	0.0	10.0	0.0	10.0	0.0	8.0	0.0	5.0	0.0	2.0	0.0	1.0	0.0	9.0	0.0	4.0
2	250.0	7.5	1000.0	0.0	108.0	0.0	2.0	5.0	100.0	0.5	300.0	0.7	50.0	8.5	1.0	4.0
3	500.0	5.0	1006.0	0.0	120.0	3.0	12.0	0.0	100.0	0.0	600.0	0.3	100.0	8.0	26.0	2.0
4	750.0	2.5	1010.0	1.0	132.0	3.2	112.0	1.0	112.0	0.2	900.0	0.0	108.0	0.0	29.0	0.0
5	1000.0	0.0	1050.0	1.0	132.0	3.2	212.0	2.0	112.0	0.2	1200.0	0.0	110.0	0.0	44.0	0.0
6	1333.3	3.3	1054.0	0.0	144.0	3.0	312.0	3.0	124.0	0.0	1500.0	0.3	118.0	8.0	47.0	2.0
7	1666.6	6.6	1060.0	0.0	156.0	0.0	412.0	4.0	124.0	0.5	1800.0	0.7	168.0	8.5	72.0	4.0
8	2000.0	10.0	2060.0	10.0	264.0	8.0	512.0	5.0	224.0	2.0	2100.0	1.0	218.0	9.0	73.0	4.0

	M5-O11		N1A-N1B		Outlet to Gila		4TH4S		4TH6TH		4TH7TH		6TH7TH		6TH8TH	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
1	0.0	12.0	10.0	1032.0	0.0	12.0	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0
2	200.0	10.0	16.0	1032.0	5.0	12.0	100.0	0.5	100.0	0.5	100.0	0.5	100.0	0.5	100.0	0.5
3	235.0	8.0	26.0	1030.0	15.0	6.0	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0
4	251.0	0.0	56.0	1028.0	25.0	0.0	112.0	0.2	127.5	0.6	112.0	0.2	112.0	0.2	127.5	0.6
5	263.0	0.0	106.0	1030.0	45.0	0.0	112.0	0.2	127.5	0.6	112.0	0.2	112.0	0.2	127.5	0.6
6	279.0	8.0	197.0	1030.7	55.0	6.0	124.0	0.0	155.0	0.0	124.0	0.0	124.0	0.0	155.0	0.0
7	314.0	10.0	289.0	1031.3	65.0	12.0	124.0	0.5	155.0	0.5	124.0	0.5	124.0	0.5	155.0	0.5
8	349.0	12.0	380.0	1032.0	70.0	12.0	224.0	2.0	255.0	2.0	224.0	2.0	224.0	2.0	255.0	2.0

	7THM6		8THCEN		8TH9TH		9THCEN	
	X	Y	X	Y	X	Y	X	Y
1	0.0	6.0	0.0	2.0	0.0	2.0	0.0	2.0
2	25.0	4.0	100.0	0.5	100.0	0.5	100.0	0.5
3	28.0	2.0	100.0	0.0	100.0	0.0	100.0	0.0
4	31.0	0.0	112.0	0.2	127.5	0.6	112.0	0.2
5	46.0	0.0	112.0	0.2	127.5	0.6	112.0	0.2
6	49.0	2.0	124.0	0.0	155.0	0.0	124.0	0.0
7	52.0	4.0	124.0	0.5	155.0	0.5	124.0	0.5
8	77.0	6.0	224.0	2.0	255.0	2.0	224.0	2.0

D.4 Reservoir Routing Data

Table D.4-1

SPRR Storage-Elevation Summary

Routing ID	Elevation	Comment 1	Comment 2
E1	873.07	STORAGE ROUTE AT SPRR BETWEEN EOC AND JOHNSON ROAD (SUB 68 SR)	OVERTOPPING WILL NOT OCCUR (All flow values are for orrifice flow)
F5A	894.00	STORAGE ROUTE AT SPRR BETWEEN BRUNER AND JOHNSON ROADS (SUB 52A)	OVERTOPPING WILL NOT OCCUR (All flow is orrifice flow)
F5B	886.00	STORAGE ROUTE AT SPRR BETWEEN BRUNER AND JOHNSON ROADS (SUB 52B)	OVERTOPPING WILL NOT OCCUR (All flow is orrifice flow)
G7	888.00	STORAGE ROUTE @ SPRR FROM PALO VERDE TO BURNER ROADS (SUB53 STORAGE ROUTING)	OVERTOPPING WILL NOT OCCUR (All flow is orrifice flow)
H6	890.00	STORAGE ROUTE @ SPRR FROM WILSON TO PALO VERDE ROADS (SUB 54 STORAGE ROUTING)	OVERTOPPING STARTS @ Q=1025cfs, EL=893.4 (OVERTOPPING = 0.05 ft)
I5	892.00	STORAGE ROUTE @ SPRR FROM TURNER TO WILSON ROADS (SUB 55 STORAGE ROUTING)	OVERTOPPING STARTS @ Q=221cfs, EL=893.8 (OVERTOPPING = 0.18 ft)
J5B	892.00	STORAGE ROUTE @ SPRR FROM OGLESBY TO TURNER ROADS (SUB 45B STORAGE ROUTING)	OVERTOPPING STARTS @ Q=241cfs, EL=893.2 (OVERTOPPING = 0.02 ft)
K6	890.00	STORAGE ROUTE @ SPRR FROM ROOKS TO OGLESBY ROADS (SUB 46 STORAGE ROUTING)	OVERTOPPING STARTS @ Q=1565cfs, EL=892.88 (OVERTOPPING = 0.01 ft)
L4	886.29	STORAGE ROUTE @ SPRR FROM MILLER TO ROOKS ROADS (SUB 47 STORAGE ROUTING)	OVERTOPPING STARTS @ Q=286cfs, EL=889.6 (OVERTOPPING = 0.18 ft)
M3	884.00	STORAGE ROUTE @ SPRR FROM APACHE TO MILLER ROADS (SUB 67 STORAGE ROUTING)	OVERTOPPING STARTS @ Q=226cfs, EL=887.2 (OVERTOPPING = 0.12 ft)
N5A	886.00	STORAGE ROUTE @ SPRR FROM WATSON TO APACHE ROADS (SUB 56A STORAGE ROUTING)	OVERTOPPING STARTS @ Q=664cfs, EL=889.7 (OVERTOPPING = 0.17 ft)
N5B	887.23	STORAGE ROUTE @ SPRR FROM WATSON TO APACHE ROADS (SUB 56B STORAGE ROUTING)	OVERTOPPING STARTS @ Q=664cfs, EL=889.7 (OVERTOPPING = 0.17 ft)
O7	891.10	STORAGE ROUTE @ SPRR FROM RAINBOW TO WATSON ROADS (SUB 57 STORAGE ROUTING)	OVERTOPPING STARTS @ Q=139cfs, EL=892.3 (OVERTOPPING = 0.11 ft)
P5	889.11	STORAGE ROUTE @ SPRR FROM DEAN TO RAINBOW ROADS (SUB 58 STORAGE ROUTING)	OVERTOPPING STARTS @ Q=1605cfs, EL=892.7 (OVERTOPPING = 0.04 ft)

Table D.4-2

SPRR Storage-Elevation Data

Basin ID 68/Routing Combination Pt E1		
ELEV [ft]	VOLUME [yd^3]	VOLUME [ac-ft]
872	0	0.00
874	2,244	1.39
876	9,425	5.84
878	21,555	13.36
880	66,285	41.09
882	156,180	96.81
884	293,694	182.04
886	471,100	292.00
888	687,713	426.27
890	938,501	581.71
892	1,220,763	756.67
894	1,544,220	957.16
896	1,902,291	1179.10

Basin ID 52A/Routing Combination Pt F5A		
ELEV [ft]	VOLUME [yd^3]	VOLUME [ac-ft]
894	0	0.00
896	29	0.02
898	1,031	0.64
900	20,828	12.91
902	99,638	61.76

Basin ID 52B/Routing Combination Pt F5B		
ELEV [ft]	VOLUME [yd^3]	VOLUME [ac-ft]
886	0	0.00
888	122	0.08
890	1,510	0.94
892	9,894	6.13
894	59,729	37.02
896	197,573	122.46
898	424,191	262.93
900	772,786	479.00
902	1,209,737	749.83

Basin ID 54/Routing Combination Pt H6		
ELEV [ft]	VOLUME [yd^3]	VOLUME [ac-ft]
890	0	0.00
892	734	0.45
894	49,087	30.43
896	239,179	148.25
898	542,210	336.08

Basin ID 55/Routing Combination Pt I5		
ELEV [ft]	VOLUME [yd^3]	VOLUME [ac-ft]
892	0	0.00
894	159	0.10
896	40,496	25.10
898	201,533	124.92
900	441,514	273.66

Basin ID 45B/Routing Combination Pt J5B		
ELEV [ft]	VOLUME [yd^3]	VOLUME [ac-ft]
892	0	0.00
894	32,799	20.33
896	147,542	91.45
898	361,364	223.99

Basin ID 46/Routing Combination Pt K6		
ELEV [ft]	VOLUME [yd^3]	VOLUME [ac-ft]
890	0	0.00
892	696	0.43
894	70,143	43.48
896	280,100	173.62
898	661,497	410.02

Basin ID 47/Routing Combination Pt L4		
ELEV [ft]	VOLUME [yd^3]	VOLUME [ac-ft]
886	0	0.00
888	1,445	0.90
890	6,458	4.00
892	41,463	25.70
894	173,926	107.80
896	428,613	265.67

Basin ID 53/Routing Combination Pt G7		
ELEV [ft]	VOLUME [yd^3]	VOLUME [ac-ft]
888	0	0.00
890	960	0.60
892	6,857	4.25
894	43,460	26.94
896	175,313	108.66
898	416,201	257.97
900	725,351	449.60

Basin ID 67/Routing Combination Pt M8		
ELEV [ft]	VOLUME [yd^3]	VOLUME [ac-ft]
884	0	0.00
886	448	0.28
888	20,490	12.70
890	151,815	94.10
892	325,930	202.02
894	618,520	383.38

Basin ID 6A/Routing Combination Pt N5A		
ELEV [ft]	VOLUME [yd^3]	VOLUME [ac-ft]
886	0	0.00
888	38	0.02
890	13,029	8.08
892	56,684	35.13
894	161,753	100.26

Basin ID 56B/Routing Combination Pt N5B		
ELEV [ft]	VOLUME [yd^3]	VOLUME [ac-ft]
886	0	0.00
888	1,541	0.96
890	20,804	12.89
892	64,435	39.94
894	138,935	86.12
896	242,434	150.27

Basin ID 57/Routing Combination Pt G7		
ELEV [ft]	VOLUME [yd^3]	VOLUME [ac-ft]
890	0	0.00
892	320	0.20
894	13,740	8.52
896	123,666	76.65
898	362,161	224.48

Basin ID 58/Routing Combination Pt P5		
ELEV [ft]	VOLUME [yd^3]	VOLUME [ac-ft]
888	0	0.00
890	2,149	1.33
892	10,944	6.78
894	59,684	36.99
896	211,274	130.95
898	462,798	286.86

D.5 Flow Splits and Diversion Data

N/A

D.6 Retention Volume Data

The existing retention volumes were taken from Sundance and the Buckeye Candidate Assessment drainage reports. The existing retention volumes are summarized in Table 6.1.

Table 6.1

Existing Retention Volumes

Area	Sub-Basin	Retention Volume (ac-ft)
Sundance	11A	38.23
Sundance	12	49.02
Sundance	13	41.08
Sundance	14A	45.83
Sundance	14B	30.68
Sundance	83	31.99
Buckeye	4th	11
Buckeye	4thS	18
Buckeye	6th	8
Buckeye	7th	15
Buckeye	8th	11
Buckeye	9thE	13
Buckeye	9thW	11
Buckeye	Baylis	2
Buckeye	Beloat	5
Buckeye	Centre	9
Buckeye	Drain	10

The future retention volumes were determined by subtracting the existing 100-yr, 6-hour volumes (ac-ft) from the future no retention model 100-yr, 6-hour volumes. This volume was then input in the future with retention models, and through an iterative process, the retention volumes were determined for each basin. When determining the final future retention volumes, the final with retention volume had to be greater than the existing minus future with no retention volumes or the volumes from post-development should not exceed the pre-development volumes. Table 6.2 gives a summary of the final retention volumes.

Table 6.2

Future Retention Volumes

		HEC-1 Model Output				
		100-YR 6-HR (existing)	100-YR 6-HR (future w/out retention)	100-YR 6-HR (future w/ retention)		
Station	Area [mi2]	Volume [ac-ft]	Volume [ac-ft]	Volume [ac-ft]	Future - Existing Volume [ac-ft]	Final Retention Volume [ac-ft]
1	1.63	114	228	86	114	142
2	1.23	86	179	72	93	107
3	1.65	69	181	71	112	110
4	0.55	47	69	35	22	34
5A	1.17	87	137	82	50	55
5B	0.58	52	73	45	21	28
6	0.32	29	41	26	12	15
7	0.45	36	66	29	30	37
8	0.41	41	54	29	13	25
9	0.61	50	95	48	45	47
10	1.17	95	134	66	39	68
11A	0.57	15	28	-10	13	38
11B	0.58	44	66	33	22	33
11C	0.34	26	38	23	12	15
12	0.74	9	37	-12	28	49
13	0.50	0	20	-21	20	41
14A	0.69	14	40	-1	26	41
14B	0.50	8	30	-1	22	31
15A	0.59	45	69	45	24	24
15B	0.82	40	121	29	81	92
16	0.95	114	146	83	32	63
17	0.61	34	75	25	41	50
18	0.80	39	91	32	52	59
19	0.54	32	66	21	34	45
20	0.66	36	81	26	45	55
21A	0.37	19	48	12	29	36
21B	0.27	14	33	11	19	22
22	0.56	30	60	20	30	40
23	0.52	31	57	22	26	35
24	0.49	44	44	44	0	0
25	0.27	22	24	24	2	0
26	0.52	50	46	46	-4	0
27	0.24	14	38	11	24	27
28	0.33	20	53	14	33	39
29	1.00	45	153	32	108	121

		HEC-1 Model Output				
		100-YR 6-HR (existing)	100-YR 6-HR (future w/out retention)	100-YR 6-HR (future w/ retention)		
Station	Area [mi2]	Volume [ac-ft]	Volume [ac-ft]	Volume [ac-ft]	Future - Existing Volume [ac-ft]	Final Retention Volume [ac-ft]
30	0.98	59	152	40	93	112
31	1.08	54	135	39	81	96
32	0.90	45	97	35	52	62
33	1.00	52	129	37	77	92
34	0.64	35	66	26	31	40
35	1.50	73	186	58	113	128
36	0.68	42	78	30	36	48
37	1.42	65	162	52	97	110
38	0.54	32	59	22	27	37
39	0.73	40	76	31	36	45
40	0.98	46	101	31	55	70
41	1.20	57	184	44	127	140
42	0.78	42	121	30	79	91
43	1.00	53	135	38	82	98
44	1.01	55	105	38	50	67
45A	1.00	52	129	35	77	94
45B	0.14	13	22	9	9	13
46	1.38	66	168	53	102	115
47	0.62	35	71	26	36	45
48	0.50	30	62	19	32	43
49	1.01	54	113	40	59	73
50	1.00	51	106	36	55	70
51	1.00	45	108	30	63	78
52A	0.31	19	49	12	30	38
52B	0.50	28	77	20	49	57
53	0.34	20	53	14	33	39
54	0.39	23	61	16	38	45
55	0.26	16	41	10	25	31
56A	0.41	33	64	21	31	43
56B	0.33	52	52	52	0	0
57	0.49	28	76	22	48	54
58	0.19	13	30	10	17	20
59	0.25	17	23	23	6	0
60A	0.41	24	52	18	28	35
60B	0.57	33	75	23	42	53
61	0.51	31	70	24	39	47
62	0.57	33	89	22	56	67
63	0.50	42	79	29	37	50
64	0.41	25	65	16	40	49
65	0.38	23	59	17	36	42
66	0.29	20	46	15	26	31

		HEC-1 Model Output				
		100-YR 6-HR (existing)	100-YR 6-HR (future w/out retention)	100-YR 6-HR (future w/ retention)		
Station	Area [mi2]	Volume [ac-ft]	Volume [ac-ft]	Volume [ac-ft]	Future - Existing Volume [ac-ft]	Final Retention Volume [ac-ft]
67	0.47	51	51	51	0	0
68	0.41	32	58	29	26	29
69	0.14	17	17	17	0	0
70	0.14	8	22	5	14	17
71	0.16	10	24	8	14	16
72	0.09	6	13	5	7	8
83	0.68	26	46	14	20	32
84	0.88	73	106	61	33	45
85A	0.22	17	24	14	7	10
85B	0.75	45	71	36	26	35
86	0.44	38	52	48	14	4
87	0.91	77	112	67	35	45
88	0.76	64	95	55	31	40
89	0.96	80	139	59	59	80
90	1.05	90	159	69	69	90
91	1.19	94	150	80	56	70
92	1.01	84	142	77	58	65
93	0.38	26	43	17	17	26
94	0.72	55	99	41	44	58
95	0.52	42	71	29	29	42
96	0.91	64	102	52	38	50
97	0.50	37	56	26	19	30
98	0.39	45	54	28	9	26
99	0.95	54	89	47	35	42
100	0.58	38	56	31	18	25
101	0.38	31	43	25	12	18
102	0.52	42	63	35	21	28
103	0.51	35	67	26	32	41
104	1.01	66	104	54	38	50
105	1.00	77	117	62	40	55
106	1.21	85	134	74	49	60
107	0.48	35	52	26	17	26
4th	0.08	11	11	11	0	0
4thS	0.15	18	18	18	0	0
6th	0.06	8	8	8	0	0
7th	0.13	15	14	14	-1	0
8th	0.08	11	11	11	0	0
9thE	0.09	13	13	13	0	0
9thW	0.08	11	10	10	-1	0
BAYLIS	0.02	2	2	2	0	0
BELOAT	0.05	5	6	6	1	0

		HEC-1 Model Output				
		100-YR 6-HR (existing)	100-YR 6-HR (future w/out retention)	100-YR 6-HR (future w/ retention)		
Station	Area [mi2]	Volume [ac-ft]	Volume [ac-ft]	Volume [ac-ft]	Future - Existing Volume [ac-ft]	Final Retention Volume [ac-ft]
CENTRE	0.07	9	9	9	0	0
DRAIN	0.12	10	16	16	6	0

D.7 Hydrologic Calculations

Naming Convention for HEC-1 and HEC-RAS Files

I: **Hydrologic sections, each section further broken into west (W) and east (E) parts**

Section Watershed between FRS (F) and RID (R)
HEC-1 Name FRW FRE
Section Watershed between RID (R) and BIC (B)
HEC-1 Name RBW RBE
Section Watershed between BIC (B) and Gila (G)
HEC-1 Name BGW BGE

II: **Hydraulic sections**

RID unsteady model
BIC unsteady model

III: **H&H model Schematic**

FRW FRE *(hydrology)*
RID Unsteady *(hydraulics)*
RBW RBE *(hydrology)*
BIC Unsteady *(hydraulics)*
BGW BGE *(hydrology)*

IV: All HEC-1 Files are composed by section name and event&condition abbreviations

Events	Existing	DSS	RAS Work Plan Name	Future	DSS	RAS Work Plan Name
100Yr24Hr	10024EX	b1.dss	RID (or BIC)-100-24E	10024FUT	b2.dss	RID (or BIC)-100-24F
100Yr6Hr	1006EX	a1.dss	RID (or BIC)-100-06E	1006FUT	a2.dss	RID (or BIC)-100-06F

10Yr24Hr	1024EX	c1.dss	RID (or BIC)-10-24E	1024FUT	c2.dss	RID (or BIC)-10-24F
10Yr6hr	106EX	d1.dss	RID (or BIC)-10-06E	106FUT	d2.dss	RID (or BIC)-10-06F

* for example, for watershed between FRS and RID, west part, 100-year 24-hour storm event, existing condition, the HEC-1 file name would be FRW10024EX.hc1
* for HEC-RAS unsteady model, RID at 100-year, 24-hour under existing conditions, the HEC-RAS work plan would be RID-100-24E

D.7.1 HEC-1 Output File 10-Year 6-Hour

D.7.1.a HEC-1 Output File for 10-year 6-hour Storm (Existing Conditions)

```
1****************************************
 *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
 *              JUN   1998              *
 *            VERSION 4.1               *
 *                                      *
 *  RUN DATE   22MAR06  TIME  10:50:19  *
 *                                      *
 ****************************************

                                        ************************************
                                        *                                  *
                                        *   U.S. ARMY CORPS OF ENGINEERS   *
                                        *   HYDROLOGIC ENGINEERING CENTER  *
                                        *         609 SECOND STREET        *
                                        *      DAVIS, CALIFORNIA 95616     *
                                        *          (916) 756-1104          *
                                        *                                  *
                                        ************************************

X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X       XXXXX  X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX   XXXXX        XXX

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                          HEC-1 INPUT                                                    PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID   Buckeye/Sun Valley ADMS - November 2004
  2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
  3           ID   10-year 6-hour
  4           ID   Existing Conditions
  5           ID   Area 1 - FRS to RID (East)
  6           ID   File Name: fre106ex.hc1
  7           ID   Rainfall Loss Method - Green & Ampt
  8           ID   Unit Hydrograph Method - FCDMC S-Graph
  9           ID   Channel Routing Method - Normal Depth
 10           ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
 11           ID   Existing Land Use Cutoff Date: 2000
 12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
 13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
              *DIAGRAM
 14           IT      15 02JAN94       0     400
 15           IO       3
 16           IN      15 02JAN94       0
 17           JD     2.1     0.01
              * 6-hour distribution, pattern 1.0
 18           PC     0.0    0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
 19           PC   0.087    0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
 20           PC   0.962    0.972   0.983   0.991     1.0
 21           IN      15 02JAN94       0
 22           JD   2.087      0.5
              * 6-hour distribution, pattern 1.0
 23           PC     0.0    0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
 24           PC   0.087    0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
 25           PC   0.962    0.972   0.983   0.991     1.0
 26           IN      15 02JAN94       0
 27           JD   2.073      1.0
              * 6-hour distribution, pattern 1.4
 28           PC     0.0  0.0084   0.016   0.025  0.0334  0.0414  0.0504  0.0584  0.0664  0.0748
 29           PC   0.087  0.0994  0.1188   0.148  0.2304  0.4067  0.7778  0.8813  0.9186  0.9452
 30           PC  0.9572  0.9684  0.9798  0.9898     1.0
 31           IN      15 02JAN94       0
 32           JD   2.016      5.0
              * 6-hour distribution, pattern 2.3
 33           PC     0.0   0.011  0.0173  0.0267  0.0387   0.049  0.0593  0.0693  0.0797  0.0903
```

```
 34          PC   0.103  0.1173  0.1383  0.1827  0.2693   0.458   0.686  0.8233  0.8893  0.9293
 35          PC  0.9487   0.962  0.9743  0.9877     1.0
 36          IN      15 02JAN94       0
 37          JD   1.974    10.0
             * 6-hour distribution, pattern 2.7
 38          PC     0.0  0.0134  0.0189  0.0287  0.0443  0.0574  0.0694  0.0818  0.0949  0.1076
 39          PC  0.1223  0.1382  0.1604  0.2063  0.2902  0.4664  0.6764  0.8069  0.8765  0.9289
 40          PC  0.9471  0.9608  0.9735  0.9873     1.0

 41          KK       6
 42          KM  ******************************************************************************
 43          KM  **   SUB-WATERSHED J   ******************************************************
 44          KM  ******************************************************************************
 45          KM  THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 46          KM  L=0.50     Lca=0.35     S=88.18     Kn=0.050     LAG=16
 47          KM  S-GRAPH TYPE=DESERT RANGELAND
 48          KO       0        0     0.0        1       22
1                                          HEC-1 INPUT                                          PAGE  2

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 49          BA  0.3175
 50          LG   0.327   0.359   5.257   0.239   8.065
 51          UI     0.0  367.81  364.77   72.06     0.0

 52          KK  J1-J2   CNAME      J1
 53          KM  ROUTE HYDRPGRAPH FROM J1 TO J2 (CHANNEL A)
 54          KO       0        0     0.0        0       22
 55          RS       3     FLOW     0.0      0.0
 56          RC   0.035    0.035   0.035 4135.69   0.004     0.0
 57          RX     0.0    250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 58          RY    10.0      7.5     5.0     2.5     0.0     3.3     6.6    10.0

 59          KK       8
 60          KM  THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 61          KM  L=1.22     Lca=0.56     S=14.80     Kn=0.050     LAG=37
 62          KM  S-GRAPH TYPE=DESERT RANGELAND
 63          KO       0        0     0.0        1       22
 64          BA  0.4136
 65          LG   0.277   0.319   4.104   0.445  23.066
 66          UI     0.0   80.26  286.14  333.87  188.89   92.75   45.37   21.43    9.16    9.16
 67          UI     0.0

 68          KK      J2   CNAME   J2-J3
 69          KM  COMBINE ROUTED HYDROGRAPH FROM J1 WITH RUNOFF FROM 8 @ J2
 70          KO       0        0     0.0        0       22
 71          HC       2

 72          KK  J2-J3   CNAME      J2
 73          KM  ROUTE HYDRPGRAPH FROM J2 TO J3 (CHANNEL B)
 74          KO       0        0     0.0        0       22
 75          RS       2     FLOW     0.0      0.0
 76          RC     0.1     0.02     0.1 3195.75   0.008     0.0
 77          RX     0.0   1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 78          RY    10.0      0.0     0.0     1.0     1.0     0.0     0.0    10.0

 79          KK      20
 80          KM  THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 81          KM  L=1.57     Lca=0.79     S=16.56     Kn=0.200     LAG=183
 82          KM  S-GRAPH TYPE=AGRICULTURE
 83          KO       0        0     0.0        1       22
 84          BA  0.6645
 85          LG     1.0   0.252   3.974   0.479   0.015
 86          UI     0.0   13.39   13.39   19.84   32.21   58.26   78.88   74.24  102.61  104.94
 87          UI  112.49  112.49  112.49   97.49   93.74  105.07   70.56   74.86   64.48   51.13
 88          UI    43.2   37.84   40.14   25.57   22.34   20.44   16.54   15.85   12.23   12.23
 89          UI   10.59     7.6     7.6     7.6     7.6    2.62    1.67    1.67    1.67    1.67
 90          UI    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67
 91          UI    1.67    1.67    1.67    1.67    1.67     0.0

 92          KK      J3
 93          KM  COMBINE ROUTED HYDROGRAPH FROM J2 WITH RUNOFF FROM 20 @ J3
 94          ZW  A=FRE B=J3 C=FLOW E=15MIN F=10y6h-ex
 95          KO       0        0     0.0        0       22
 96          HC       2
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 97          KK       7
 98          KM  ******************************************************************************
 99          KM  **   SUB-WATERSHED K   ******************************************************
100          KM  ******************************************************************************
101          KM  THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
102          KM  L=0.74     Lca=0.30     S=73.02     Kn=0.050     LAG=18
103          KM  S-GRAPH TYPE=DESERT RANGELAND
104          KO       0        0     0.0        1       22
105          BA  0.4459
106          LG   0.336   0.345   4.134     0.4   4.384
107          UI     0.0  416.62  556.92   138.6   30.54     0.0

108          KK  K1-K2   CNAME      K1
109          KM  ROUTE HYDRPGRAPH FROM K1 TO K2 (CHANNEL A)
110          KO       0        0     0.0        0       22
111          RS       2     FLOW     0.0      0.0
112          RC   0.035    0.035   0.035  4162.2   0.011     0.0
113          RX     0.0    250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
114          RY    10.0      7.5     5.0     2.5     0.0     3.3     6.6    10.0

115          KK       9
116          KM  THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
117          KM  L=0.79     Lca=0.41     S=57.09     Kn=0.050     LAG=22
118          KM  S-GRAPH TYPE=DESERT RANGELAND
119          KO       0        0     0.0        1       22
120          BA  0.6124
121          LG   0.327    0.34   3.984   0.411   7.241
122          UI     0.0  381.65  780.49  295.85   90.95    23.1     0.0

123          KK      K2   CNAME   K2-K3
124          KM  COMBINE ROUTED HYDROGRAPH FROM K1 WITH RUNOFF FROM 9 @ K2
125          KO       0        0     0.0        0       22
126          HC       2
```

```
 127          KK   K2-K3   CNAME      K2
 128          KM   ROUTE HYDRPGRAPH FROM K2 TO K3 (CHANNEL A)
 129          KO       0       0     0.0       0      22
 130          RS       3    FLOW     0.0     0.0
 131          RC     0.1     0.1     0.1 2881.52   0.009     0.0
 132          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 133          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 134          KK     21B
 135          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 136          KM   L=1.02     Lca=0.51     S=24.58     Kn=0.200     LAG=122
 137          KM   S-GRAPH TYPE=AGRICULTURE
 138          KO       0       0     0.0       1      22
 139          BA  0.2728
 140          LG     1.0    0.25   4.001   0.692     0.0
 141          UI     0.0    8.25    10.9   22.84   46.68   49.72   65.96   69.27   69.27   59.27
 142          UI   62.38   43.49   42.68   30.48   23.78   21.73   14.42   11.79     9.9    7.53
 143          UI    6.86    4.68    4.68    3.85    1.03    1.03    1.03    1.03    1.03    1.03
 144          UI    1.03    1.03    1.03    1.03    1.03    1.03    1.03     0.0
1                                          HEC-1 INPUT                                                    PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 145          KK     21A
 146          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 147          KM   L=1.43     Lca=0.71     S=39.92     Kn=0.200     LAG=144
 148          KM   S-GRAPH TYPE=AGRICULTURE
 149          KO       0       0     0.0       1      22
 150          BA  0.3660
 151          LG     1.0   0.277   3.998   0.641     0.0
 152          UI     0.0    9.37    9.37   19.83   40.15   53.93   61.02   74.01   78.73   78.73
 153          UI   73.49   65.61   68.76   49.43   50.09   36.19   29.11   28.02   20.17    15.8
 154          UI   13.32   11.58    8.92    8.56    6.38    5.32    5.32    4.82    1.17    1.17
 155          UI    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17
 156          UI    1.17    1.17    1.17    1.17

 157          KK      K3
 158          KM   COMBINE ROUTED HYDROGRAPH FROM K2 WITH RUNOFF FROM 21A AND 21B @ K3
 159          ZW   A=PRE B=K3 C=FLOW E=15MIN F=10y6h-ex
 160          KO       0       0     0.0       0      22
 161          HC       3

 162          KK      10
 163          KM   ******************************************************************************
 164          KM   **   SUB-WATERSHED L   ***********************************************************
 165          KM   ******************************************************************************
 166          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 167          KM   L=1.77     Lca=1.27     S=46.29     Kn=0.050     LAG=47
 168          KM   S-GRAPH TYPE=PHOENIX VALLEY
 169          KO       0       0     0.0       1      22
 170          BA  1.1737
 171          LG   0.299   0.312   4.152   0.403  10.872
 172          UI     0.0  140.53  441.72   791.7  810.58  481.45  203.27   99.52   26.14   25.79
 173          UI     0.0

 174          KK   L1-L2   CNAME      L1
 175          KM   ROUTE HYDRPGRAPH FROM L1 TO L2 (CHANNEL B)
 176          KO       0       0     0.0       0      22
 177          RS       3    FLOW     0.0     0.0
 178          RC     0.1    0.02     0.1 2843.85    0.01     0.0
 179          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 180          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 181          KK      22
 182          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 183          KM   L=1.54     Lca=0.77     S=18.14     Kn=0.200     LAG=178
 184          KM   S-GRAPH TYPE=AGRICULTURE
 185          KO       0       0     0.0       1      22
 186          BA  0.5572
 187          LG     1.0    0.25   4.002    0.55   0.185
 188          UI     0.0   11.54   11.54   17.99   29.44   52.71    67.8   67.77   85.72   96.69
 189          UI   96.97   96.97   94.81   80.81    85.6   77.44   60.61   65.99   46.03   41.71
 190          UI   33.66   34.96   25.72    20.5   18.65   14.65   14.26   10.94   10.54    9.89
 191          UI    6.55    6.55    6.55    6.55     2.6    1.44    1.44    1.44    1.44    1.44
 192          UI    1.44    1.44    1.44    1.44    1.44    1.44    1.44    1.44    1.44    1.44
 193          UI    1.44    1.44    1.44    1.44     0.0
1                                          HEC-1 INPUT                                                    PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 194          KK      L2
 195          KM   COMBINE ROUTED HYDROGRAPH FROM L1 WITH RUNOFF FROM 22 @ L2
 196          ZW   A=PRE B=L2 C=FLOW E=15MIN F=10y6h-ex
 197          KO       0       0     0.0       0      22
 198          HC       2

 199          KK     11C
 200          KM   ******************************************************************************
 201          KM   **   SUB-WATERSHED N   ***********************************************************
 202          KM   ******************************************************************************
 203          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 204          KM   L=0.99     Lca=0.31     S=54.38     Kn=0.050     LAG=22
 205          KM   S-GRAPH TYPE=PHOENIX VALLEY
 206          KO       0       0     0.0       1      22
 207          BA  0.3431
 208          LG    0.35    0.35   3.978     0.4     0.0
 209          UI     0.0  193.16  491.17  169.06   26.28     0.0

 210          KK  N1C-N2   CNAME     N1C
 211          KM   ROUTE HYDRPGRAPH FROM N1C TO N2 (CHANNEL A)
 212          KO       0       0     0.0       0      22
 213          RS       3    FLOW     0.0     0.0
 214          RC     0.1     0.1     0.1 3084.31    0.01     0.0
 215          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 216          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 217          KK     11A
 218          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 219          KM   L=0.57     Lca=0.33     S=83.95     Kn=0.050     LAG=16
 220          KM   S-GRAPH TYPE=PHOENIX VALLEY
 221          KO       0       0     0.0       1      22
 222          BA  0.5711
```

```
 223          LG    0.32   0.356   5.202   0.244   9.658
 224          UI     0.0   634.0  753.85   79.75     0.0

 225          KK   11A-O
 226          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 227          KO       0       0     0.0       0      22
 228          DT  11Aret   38.23     0.0
 229          DI     0.0  2000.0
 230          DQ     0.0  2000.0

 231          KK  N1A-1B   CNAME     N1A
 232          KM   ROUTE HYDRPGRAPH FROM N1A TO N1B (CHANNEL N1A-N1B)
 233          KO       0       0     0.0       0      22
 234          RS       3    FLOW     0.0     0.0
 235          RC    0.05    0.05    0.05  6236.1   0.009     0.0
 236          RX    10.0    16.0    26.0    56.0   106.0   197.0   289.0   380.0
 237          RY  1032.0  1032.0  1030.0  1028.0  1030.0 1030.67 1031.33  1032.0
1                                          HEC-1 INPUT                                                    PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 238          KK     11B
 239          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 240          KM   L=1.39     Lca=0.62     S=41.81     Kn=0.050     LAG=34
 241          KM   S-GRAPH TYPE=PHOENIX VALLEY
 242          KO       0       0     0.0       1      22
 243          BA  0.5806
 244          LG    0.35    0.35    4.28   0.363     0.0
 245          UI     0.0   139.8  417.05  566.92  261.85   79.39   20.36     0.0

 246          KK     N1B   CNAME  N1B-N2
 247          KM   COMBINE ROUTED HYDROGRAPH FROM N1A WITH RUNOFF FROM 11B @ N1B
 248          KO       0       0     0.0       0      22
 249          HC       2

 250          KK  N1B-N2   CNAME     N1B
 251          KM   ROUTE HYDRPGRAPH FROM N1B TO N2 (CHANNEL B)
 252          KO       0       0     0.0       0      22
 253          RS       6    FLOW     0.0     0.0
 254          RC     0.1    0.02     0.1 6966.87   0.003     0.0
 255          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 256          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 257          KK      23
 258          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 259          KM   L=1.32     Lca=0.66     S=15.92     Kn=0.200     LAG=161
 260          KM   S-GRAPH TYPE=AGRICULTURE
 261          KO       0       0     0.0       1      22
 262          BA  0.5238
 263          LG     1.0   0.248   3.965   0.472    0.99
 264          UI     0.0    12.0    12.0   21.84    37.1   66.56   66.18   91.21   93.73  100.79
 265          UI  100.79   96.31   83.99   89.61   70.63   67.07    55.1   45.41    35.3    36.1
 266          UI   26.28   20.77   18.42   14.82   13.33   10.95   10.95    7.15    6.81    6.81
 267          UI    6.81    1.78     1.5     1.5     1.5     1.5     1.5     1.5     1.5     1.5
 268          UI     1.5     1.5     1.5     1.5     1.5     1.5     1.5     1.5     1.5     0.0

 269          KK      N2
 270          KM   COMBINE ROUTED HYDROGRAPH FROM N1C AND N1B WITH RUNOFF FROM 23 @ N2
 271          ZW   A=FRE B=N2 C=FLOW E=15MIN F=10y6h-ex
 272          KO       0       0     0.0       0      22
 273          HC       3

 274          KK      12
 275          KM   ******************************************************************************
 276          KM   **   SUB-WATERSHED O   ***************************************************
 277          KM   ******************************************************************************
 278          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 279          KM   L=0.96     Lca=0.41     S=83.03     Kn=0.050     LAG=22
 280          KM   S-GRAPH TYPE=PHOENIX VALLEY
 281          KO       0       0     0.0       1      22
 282          BA  0.7364
 283          LG   0.338   0.345   4.502   0.333   3.945
 284          UI     0.0  414.56 1054.13  362.82    56.4     0.0
1                                          HEC-1 INPUT                                                    PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 285          KK    12-O
 286          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 287          KO       0       0     0.0       0      22
 288          DT   12ret   49.02     0.0
 289          DI     0.0  2000.0
 290          DQ     0.0  2000.0

 291          KK   O1-O2   CNAME      O1
 292          KM   ROUTE HYDRPGRAPH FROM O1 TO O2 (CHANNEL A)
 293          KO       0       0     0.0       0      22
 294          RS       3    FLOW     0.0     0.0
 295          RC   0.035   0.035   0.035  2743.8   0.013     0.0
 296          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 297          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 298          KK      13
 299          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 300          KM   L=0.52     Lca=0.26     S=71.20     Kn=0.050     LAG=15
 301          KM   S-GRAPH TYPE=PHOENIX VALLEY
 302          KO       0       0     0.0       1      22
 303          BA  0.5012
 304          LG    0.35   0.364    5.14   0.247     0.0
 305          UI     0.0  646.99  594.12     0.0

 306          KK    13-O
 307          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 308          KO       0       0     0.0       0      22
 309          DT   13ret   41.08     0.0
 310          DI     0.0  2000.0
 311          DQ     0.0  2000.0

 312          KK      O2   CNAME   O2-O3
 313          KM   COMBINE ROUTED HYDROGRAPH FROM O1 WITH RUNOFF FROM 13 @ O2
 314          KO       0       0     0.0       0      22
 315          HC       2
```

```
316          KK   O2-O3   CNAME      O2
317          KM   ROUTE HYDRPGRAPH FROM O2 TO O3 (CHANNEL A)
318          KO       0       0     0.0       0      22
319          RS       2    FLOW     0.0     0.0
320          RC   0.025   0.025   0.025 2814.95   0.011     0.0
321          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
322          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

323          KK      24
324          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
325          KM   L=0.53      Lca=0.27      S=56.27      Kn=0.050      LAG=16
326          KM   S-GRAPH TYPE=DESERT RANGELAND
327          KO       0       0     0.0       1      22
328          BA  0.4891
329          LG   0.312   0.276   4.586   0.365  11.258
330          UI     0.0  566.65  561.96  111.02     0.0
1                                        HEC-1 INPUT                                                    PAGE  8

        LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


331          KK      O3   CNAME   O3-O4
332          KM   COMBINE ROUTED HYDROGRAPH FROM O2 WITH RUNOFF FROM 24 @ O3
333          KO       0       0     0.0       0      22
334          HC       2

335          KK   O3-O4   CNAME      O3
336          KM   ROUTE HYDRPGRAPH FROM O3 TO O4 (CHANNEL A)
337          KO       0       0     0.0       0      22
338          RS       7    FLOW     0.0     0.0
339          RC     0.1     0.1     0.1 4482.81   0.002     0.0
340          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
341          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

342          KK      25
343          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
344          KM   L=1.05      Lca=0.52      S=10.49      Kn=0.050      LAG=37
345          KM   S-GRAPH TYPE=PHOENIX VALLEY
346          KO       0       0     0.0       1      22
347          BA  0.2742
348          LG     1.0   0.285    4.14    0.39   1.288
349          UI     0.0   55.33  162.01  264.09  147.51   51.88   16.57    7.65     0.0

350          KK      O4
351          KM   COMBINE ROUTED HYDROGRAPH FROM O3 WITH RUNOFF FROM 25 @ O4
352          ZW   A=FRE B=O4 C=FLOW E=15MIN F=10y6h-ex
353          KO       0       0     0.0       0      22
354          HC       2

355          KK     14A
356          KM   ******************************************************************************
357          KM   **    SUB-WATERSHED F    ***************************************************
358          KM   ******************************************************************************
359          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
360          KM   L=1.33      Lca=0.71      S=67.87      Kn=0.050      LAG=32
361          KM   S-GRAPH TYPE=PHOENIX VALLEY
362          KO       0       0     0.0       1      22
363          BA  0.6923
364          LG   0.335   0.344   4.262   0.368   4.726
365          UI     0.0  188.49   580.0  653.03  260.73   74.32   22.34     0.0

366          KK   14A-O
367          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
368          KO       0       0     0.0       0      22
369          DT  14Aret   41.08     0.0
370          DI     0.0  2000.0
371          DQ     0.0  2000.0

372          KK  P1A-1B   CNAME     P1A
373          KM   ROUTE HYDRPGRAPH FROM P1A TO P1B (CHANNEL A)
374          KO       0       0     0.0       0      22
375          RS       3    FLOW     0.0     0.0
376          RC   0.035   0.035   0.035 3128.61    0.01     0.0
377          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
378          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                        HEC-1 INPUT                                                    PAGE  9

        LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


379          KK     14B
380          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
381          KM   L=0.59      Lca=0.30      S=54.00      Kn=0.050      LAG=17
382          KM   S-GRAPH TYPE=DESERT RANGELAND
383          KO       0       0     0.0       1      22
384          BA  0.5015
385          LG   0.36   0.344   4.185   0.385     0.0
386          UI     0.0  521.46  605.68  135.03   28.39     0.0

387          KK   14B-O
388          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
389          KO       0       0     0.0       0      22
390          DT  14Bret   30.68     0.0
391          DI     0.0  2000.0
392          DQ     0.0  2000.0

393          KK     P1B   CNAME  P1B-P2
394          KM   COMBINE ROUTED HYDROGRAPH FROM P1A WITH RUNOFF FROM 14B @ P1B
395          KO       0       0     0.0       0      22
396          HC       2

397          KK  P1B-P2   CNAME     P1B
398          KM   ROUTE HYDRPGRAPH FROM P1B TO P2 (CHANNEL A)
399          KO       0       0     0.0       0      22
400          RS       2    FLOW     0.0     0.0
401          RC   0.025   0.025   0.025 4031.58   0.007     0.0
402          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
403          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

404          KK      26
405          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
406          KM   L=0.76      Lca=0.38      S=39.29      Kn=0.050      LAG=22
407          KM   S-GRAPH TYPE=PHOENIX VALLEY
```

```
  408          KO       0       0     0.0       1      22
  409          BA  0.5244
  410          LG   0.304    0.26   4.048     0.4  13.801
  411          UI     0.0  295.23   750.7  258.38   40.17     0.0

  412          KK      P2   CNAME    zzz6
  413          KM   COMBINE ROUTED HYDROGRAPH FROM P1B WITH RUNOFF FROM 26 @ P2
  414          ZW   A=FRE B=P2 C=FLOW E=15MIN F=10y6h-ex
  415          KO       0       0     0.0       0      22
  416          HC       2

  417          KK      83
  418          KM   ******************************************************************************
  419          KM   **   SUB-WATERSHED Q   ******************************************************
  420          KM   ******************************************************************************
  421          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
  422          KM   L=1.72     Lca=0.93     S=64.69     Kn=0.050     LAG=39
  423          KM   S-GRAPH TYPE=DESERT RANGELAND
  424          KO       0       0     0.0       1      22
  425          BA  0.6752
  426          LG   0.341   0.375   5.438   0.214   2.801
1                                          HEC-1 INPUT                                          PAGE 10

 LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  427          UI     0.0  115.92  423.38  535.16  330.25  168.58    85.8   44.93   16.84   14.19
  428          UI     0.0

  429          KK    83-O
  430          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
  431          KO       0       0     0.0       0      22
  432          DT   83ret   31.99     0.0
  433          DI     0.0  2000.0
  434          DQ     0.0  2000.0
  435          ZZ
       RUNOFF SUMMARY
                                   FLOW IN CUBIC FEET PER SECOND
                                TIME IN HOURS,  AREA IN SQUARE MILES

                                PEAK   TIME OF    AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
       OPERATION       STATION  FLOW    PEAK                                          AREA      STAGE     MAX STAGE
+                                                  6-HOUR     24-HOUR     72-HOUR

       HYDROGRAPH AT
+                          6     277.   4.25         27.         7.          2.       0.32
       ROUTED TO
+                       J1-J2    161.   5.00         27.         7.          2.       0.32
       HYDROGRAPH AT
+                          8     264.   4.75         43.        11.          4.       0.41
       2 COMBINED AT
+                         J2     365.   4.75         64.        16.          5.       0.73
       ROUTED TO
+                       J2-J3    260.   5.25         63.        16.          5.       0.73
       HYDROGRAPH AT
+                         20      19.   6.50         11.         3.          1.       0.66
       2 COMBINED AT
+                         J3     262.   5.25         69.        18.          6.       1.40
       HYDROGRAPH AT
+                          7     359.   4.50         33.         8.          3.       0.45
       ROUTED TO
+                       K1-K2    239.   4.75         33.         8.          3.       0.45
       HYDROGRAPH AT
+                          9     482.   4.50         45.        11.          4.       0.61
       2 COMBINED AT
+                         K2     486.   4.50         61.        15.          5.       1.06
       ROUTED TO
+                       K2-K3    294.   5.00         61.        15.          5.       1.06
       HYDROGRAPH AT
+                        21B       8.   5.75          3.         1.          0.       0.27
       HYDROGRAPH AT
+                        21A       9.   6.00          4.         1.          0.       0.37
       3 COMBINED AT
+                         K3     293.   5.00         62.        16.          5.       1.70
       HYDROGRAPH AT
+                         10     441.   5.00         79.        20.          7.       1.17
       ROUTED TO
+                       L1-L2    407.   5.25         79.        20.          7.       1.17
       HYDROGRAPH AT
+                         22      16.   6.50          9.         2.          1.       0.56
       2 COMBINED AT
+                         L2     407.   5.25         81.        21.          7.       1.73
       HYDROGRAPH AT
+                        11C     305.   4.50         23.         6.          2.       0.34
       ROUTED TO
+                      N1C-N2    117.   5.00         23.         6.          2.       0.34
       HYDROGRAPH AT
+                        11A     537.   4.50         50.        12.          4.       0.57
       DIVERSION TO
+                      11Aret    537.   4.50         50.        12.          4.       0.57
       HYDROGRAPH AT
+                      11A-O       0.   0.00          0.         0.          0.       0.57
```

```
+          ROUTED TO
                        N1A-1B      0.   0.00      0.      0.      0.   0.57
+          HYDROGRAPH AT
                           11B    339.   4.75     37.      9.      3.   0.58
+          2 COMBINED AT
                           N1B    252.   4.75     28.      7.      2.   1.15
+          ROUTED TO
                        N1B-N2     51.   7.25     26.      7.      2.   1.15
+          HYDROGRAPH AT
                            23     23.   6.25     12.      3.      1.   0.52
+          3 COMBINED AT
                            N2    117.   5.25     61.     16.      5.   2.02
+          HYDROGRAPH AT
                            12    611.   4.50     49.     12.      4.   0.74
+          DIVERSION TO
                        12ret    611.   4.50     49.     12.      4.   0.74
+          HYDROGRAPH AT
                          12-O      0.   0.00      0.      0.      0.   0.74
+          ROUTED TO
                        O1-O2      0.   0.00      0.      0.      0.   0.74
+          HYDROGRAPH AT
                            13    445.   4.25     36.      9.      3.   0.50
+          DIVERSION TO
                        13ret    445.   4.25     36.      9.      3.   0.50
+          HYDROGRAPH AT
                          13 O      0.   0.00      0.      0.      0.   0.50
+          2 COMBINED AT
                            O2      0.   0.00      0.      0.      0.   1.24
+          ROUTED TO
                        O2-O3      0.   0.00      0.      0.      0.   1.24
+          HYDROGRAPH AT
                            24    423.   4.25     43.     11.      4.   0.49
+          2 COMBINED AT
                            O3    277.   4.25     32.      8.      3.   1.73
+          ROUTED TO
                        O3-O4     87.   6.25     31.      8.      3.   1.73
+          HYDROGRAPH AT
                            25     65.   4.75      7.      2.      1.   0.27
+          2 COMBINED AT
                            O4     87.   6.25     33.      9.      3.   2.00
+          HYDROGRAPH AT
                           14A    386.   4.75     47.     12.      4.   0.69
+          DIVERSION TO
                        14Aret    386.   4.75     47.     12.      4.   0.69
+          HYDROGRAPH AT
                          14A-O      0.   0.00      0.      0.      0.   0.69
+          ROUTED TO
                        P1A-1B      0.   0.00      0.      0.      0.   0.69
+          HYDROGRAPH AT
                           14B    376.   4.50     33.      8.      3.   0.50
+          DIVERSION TO
                        14Bret    376.   4.50     33.      8.      3.   0.50
+          HYDROGRAPH AT
                          14B-O      0.   0.00      0.      0.      0.   0.50
+          2 COMBINED AT
                           P1B      0.   0.00      0.      0.      0.   1.19
+          ROUTED TO
                        P1B-P2      0.   0.00      0.      0.      0.   1.19
+          HYDROGRAPH AT
                            26    551.   4.50     48.     12.      4.   0.52
+          2 COMBINED AT
                            P2    367.   4.50     38.      9.      3.   1.72
+          HYDROGRAPH AT
                            83    356.   4.75     50.     13.      4.   0.68
+          DIVERSION TO
                         83ret    356.   4.75     50.     13.      4.   0.68
+          HYDROGRAPH AT
                          83-O      0.   0.00      0.      0.      0.   0.68

 *** NORMAL END OF HEC-1 ***

1*************************************                  *************************************
 *                                   *                  *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                  *   U.S. ARMY CORPS OF ENGINEERS    *
 *             JUN   1998            *                  *   HYDROLOGIC ENGINEERING CENTER   *
 *           VERSION 4.1             *                  *         609 SECOND STREET         *
 *                                   *                  *      DAVIS, CALIFORNIA 95616      *
 *  RUN DATE   22MAR06  TIME  10:47:47  *                  *         (916) 756-1104            *
```

```
*                                    *                                    *                                    *
**************************************                                    **************************************

                                        X     X  XXXXXXX   XXXXX           X
                                        X     X  X        X     X         XX
                                        X     X  X        X                X
                                        XXXXXXX  XXXX     X        XXXXX   X
                                        X     X  X        X                X
                                        X     X  X        X     X          X
                                        X     X  XXXXXXX   XXXXX          XXX


THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                    PAGE  1

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

    1           ID   Buckeye/Sun Valley ADMS - November 2004
    2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
    3           ID   10-year 6-hour
    4           ID   Existing Conditions
    5           ID   Area 1 - PKS to RID (West)
    6           ID   File Name: frw106ex.hc1
    7           ID   Rainfall Loss Method - Green & Ampt
    8           ID   Unit Hydrograph Method - FCDMC S-Graph
    9           ID   Channel Routing Method - Normal Depth
   10           ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
   11           ID   Existing Land Use Cutoff Date: 2000
   12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
   13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                *DIAGRAM
   14           IT       15 02JAN94       0      400
   15           IO        3
   16           IN       15 02JAN94       0
   17           JD    2.09     0.01
                * 6-hour distribution, pattern 1.0
   18           PC     0.0    0.008    0.016    0.025    0.033    0.041     0.05    0.058    0.066    0.074
   19           PC   0.087    0.099    0.118    0.138    0.216    0.377    0.834    0.911    0.931     0.95
   20           PC   0.962    0.972    0.983    0.991      1.0
   21           IN       15 02JAN94       0
   22           JD   2.078      0.5
                * 6-hour distribution, pattern 1.0
   23           PC     0.0    0.008    0.016    0.025    0.033    0.041     0.05    0.058    0.066    0.074
   24           PC   0.087    0.099    0.118    0.138    0.216    0.377    0.834    0.911    0.931     0.95
   25           PC   0.962    0.972    0.983    0.991      1.0
   26           IN       15 02JAN94       0
   27           JD   2.063      1.0
                * 6-hour distribution, pattern 1.4
   28           PC     0.0   0.0084    0.016    0.025   0.0334   0.0414   0.0504   0.0584   0.0664   0.0748
   29           PC   0.087   0.0994   0.1188    0.148   0.2304   0.4067   0.7778   0.8813   0.9186   0.9452
   30           PC  0.9572   0.9684   0.9798   0.9898      1.0
   31           IN       15 02JAN94       0
   32           JD   2.007      5.0
                * 6-hour distribution, pattern 2.3
   33           PC     0.0    0.011   0.0173   0.0267   0.0387    0.049   0.0593   0.0693   0.0797   0.0903
   34           PC   0.103   0.1173   0.1383   0.1827   0.2693    0.458    0.686   0.8233   0.8893   0.9293
   35           PC  0.9487    0.962   0.9743   0.9877      1.0
   36           IN       15 02JAN94       0
   37           JD   1.965     10.0
                * 6-hour distribution, pattern 2.7
   38           PC     0.0   0.0134   0.0189   0.0287   0.0443   0.0574   0.0694   0.0818   0.0949   0.1076
   39           PC  0.1223   0.1382   0.1604   0.2063   0.2902   0.4664   0.6764   0.8069   0.8765   0.9189
   40           PC  0.9471   0.9608   0.9735   0.9873      1.0

   41           KK     15A
   42           KM   ******************************************************************************
   43           KM   **    SUB-WATERSHED F    ******************************************************
   44           KM   ******************************************************************************
   45           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
   46           KM   L=1.45      Lca=0.48      S=34.58      Kn=0.050      LAG=32
   47           KM   S-GRAPH TYPE=DESERT RANGELAND
   48           KO       0        0      0.0        1       22
1                                                HEC-1 INPUT                                                    PAGE  2

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

   49           BA  0.5884
   50           LG   0.358    0.324    4.419    0.391    2.373
   51           UI     0.0   159.68   521.91   464.14   211.81    93.26    40.28    15.07      0.0

   52           KK  F1A-1B   CNAME      F1A
   53           KM   ROUTE HYDROGRAPH FROM F1A TO F1B (CHANNEL A)
   54           KO       0        0      0.0        0       22
   55           RS       6     FLOW      0.0      0.0
   56           RC     0.1      0.1      0.1  4677.52   0.0039      0.0
   57           RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
   58           RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

   59           KK     15B
   60           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
   61           KM   L=1.63      Lca=0.82      S=11.02      Kn=0.200      LAG=204
   62           KM   S-GRAPH TYPE=AGRICULTURE
   63           KO       0        0      0.0        1       22
   64           BA  0.8162
   65           LG     1.0    0.249    4.099    0.541    0.367
   66           UI     0.0    14.76    14.76    17.09    30.99    47.18    76.64     88.0    87.38   112.97
   67           UI  117.57   123.95   123.95   123.95   115.68   103.29   110.31   103.29    77.47    83.74
   68           UI   71.03    56.34    50.16    42.61    44.75    34.88    27.48    23.84    21.64    18.23
   69           UI   17.85    13.47    13.47    13.47     8.62     8.37     8.37     8.37     8.37     2.37
   70           UI    1.84     1.84     1.84     1.84     1.84     1.84     1.84     1.84     1.84     1.84
```

```
 71          UI    1.84    1.84    1.84    1.84    1.84    1.84    1.84    1.84    1.84    1.84
 72          UI    1.84     0.0

 73          KK     F1B
 74          KM   COMBINE ROUTED HYDROGRAPH FROM F1A WITH RUNOFF FROM 15B @ F1B
 75          ZW   A=FRW B=F1B C=FLOW E=15MIN F=10y6h-ex
 76          KO       0       0     0.0       0      22
 77          HC       2

 78          KK       2
 79          KM   ******************************************************************************
 80          KM   **   SUB-WATERSHED G   ***********************************************************
 81          KM   ******************************************************************************
 82          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 83          KM   L=2.02     Lca=0.86     S=45.95     Kn=0.050     LAG=43
 84          KM   S-GRAPH TYPE=DESERT RANGELAND
 85          KO       0       0     0.0       1      22
 86          BA  1.2330
 87          LG   0.338   0.339   3.994   0.443   5.585
 88          UI     0.0  169.22  637.96  900.62  677.78  370.08  199.82  108.84   58.92    23.5
 89          UI    23.5     0.0

 90          KK       1
 91          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 92          KM   L=2.61     Lca=1.54     S=34.86     Kn=0.050     LAG=62
 93          KM   S-GRAPH TYPE=DESERT RANGELAND
 94          KO       0       0     0.0       1      22
 95          BA  1.6264
 96          LG   0.347   0.329   4.334   0.398   5.884
 97          UI     0.0   96.49  378.3  680.74  834.28   747.2  509.62  334.33  217.15  147.44
 98          UI   90.69   60.46   32.88    21.5    21.5    21.5     0.0
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 99          KK      G2   CNAME   G2-G3
100          KM   COMBINE RUNOFF HYDROGRAPH FROM 1 AND 2 @ G2
101          KO       0       0     0.0       0      22
102          HC       2

103          KK   G2-G3   CNAME      G2
104          KM   ROUTE HYDRPGRAPH FROM G1 TO G2 (CHANNEL A)
105          KO       0       0     0.0       0      22
106          RS       9    FLOW     0.0     0.0
107          RC     0.1     0.1     0.1  3231.1  0.0050     0.0
108          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
109          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

110          KK      16
111          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
112          KM   L=2.00     Lca=1.37     S=24.99     Kn=0.050     LAG=57
113          KM   S-GRAPH TYPE=PHOENIX VALLEY
114          KO       0       0     0.0       1      22
115          BA  0.9506
116          LG   0.208    0.25   4.398   0.438  45.683
117          UI     0.0   72.32  253.63  387.42  637.63   477.5  314.11  154.95   79.28   36.56
118          UI   17.22   17.22     0.0

119          KK      G3
120          KM   COMBINE ROUTED HYDROGRAPH FROM G2 WITH RUNOFF FROM 16 @ G3
121          ZW   A=FRW B=G3 C=FLOW E=15MIN F=10y6h-ex
122          KO       0       0     0.0       0      22
123          HC       2

124          KK       4
125          KM   ******************************************************************************
126          KM   **   SUB-WATERSHED H   ***********************************************************
127          KM   ******************************************************************************
128          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
129          KM   L=1.38     Lca=0.74     S=40.65     Kn=0.050     LAG=36
130          KM   S-GRAPH TYPE=DESERT RANGELAND
131          KO       0       0     0.0       1      22
132          BA  0.5493
133          LG   0.306   0.332   4.023   0.485  14.545
134          UI     0.0  113.24  399.98  445.83  240.22  115.51   55.22   25.12    12.5     0.0

135          KK   H1-H2   CNAME      H1
136          KM   ROUTE HYDRPGRAPH FROM H1 TO H2 (CHANNEL C)
137          KO       0       0     0.0       0      22
138          RS       2    FLOW     0.0     0.0
139          RC   0.035   0.035   0.035 5802.98  0.0050     0.0
140          RX     0.0     2.0    12.0   112.0   212.0   312.0   412.0   512.0
141          RY     5.0     5.0     0.0     1.0     2.0     3.0     4.0     5.0
1                                          HEC-1 INPUT                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

142          KK       3
143          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
144          KM   L=2.04     Lca=1.39     S=39.22     Kn=0.050     LAG=53
145          KM   S-GRAPH TYPE=DESERT RANGELAND
146          KO       0       0     0.0       1      22
147          BA  1.6478
148          LG     1.0   0.298   4.027   0.546    4.13
149          UI     0.0  141.45  544.37  909.46  962.94   667.1  407.91  246.66  151.83   89.96
150          UI   55.64   25.48   25.48     0.0

151          KK      H2   CNAME   H2-H3
152          KM   COMBINE ROUTED HYDROGRAPH FROM H1 WITH RUNOFF FROM 3 @ H2
153          KO       0       0     0.0       0      22
154          HC       2

155          KK   H2-H3   CNAME      H2
156          KM   ROUTE HYDRPGRAPH FROM H2 TO H3 (CHANNEL B)
157          KO       0       0     0.0       0      22
158          RS       2    FLOW     0.0     0.0
159          RC     0.1    0.02     0.1 3094.41   0.007     0.0
160          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
161          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

162          KK      17
163          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
```

```
 164          KM   L=1.43     Lca=0.71     S=16.84     Kn=0.200     LAG=169
 165          KM   S-GRAPH TYPE=AGRICULTURE
 166          KO       0       0     0.0       1      22
 167          BA  0.6065
 168          LG     1.0    0.25   4.017   0.464   0.168
 169          UI     0.0   13.23   13.23   22.46   37.19   65.58   77.31   86.16   104.5  111.17
 170          UI  111.17  111.17   97.58   93.45   98.99   69.48   77.29   53.37   48.38   38.62
 171          UI   40.28   28.19   22.96   20.73   16.35   15.44   12.08   12.08    9.24    7.51
 172          UI    7.51    7.51    4.86    1.65    1.65    1.65    1.65    1.65    1.65    1.65
 173          UI    1.65    1.65    1.65    1.65    1.65    1.65    1.65    1.65    1.65    1.65
 174          UI    1.65     0.0

 175          KK      H3
 176          KM   COMBINE ROUTED HYDROGRAPH FROM H2 WITH RUNOFF FROM 17 @ H3
 177          ZW   A=FRW B=H3 C=FLOW E=15MIN F=10y6h-ex
 178          KO       0       0     0.0       0      22
 179          HC       2

 180          KK      5A
 181          KM   ******************************************************************************
 182          KM   **   SUB-WATERSHED I   ***********************************************************
 183          KM   ******************************************************************************
 184          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 185          KM   L=1.75     Lca=1.16     S=49.05     Kn=0.050     LAG=45
 186          KM   S-GRAPH TYPE=DESERT RANGELAND
 187          KO       0       0     0.0       1      22
 188          BA  1.1721
 189          LG   0.333   0.342   4.333   0.387   5.983
 190          UI     0.0  144.96  551.31  816.54  667.55  378.63  210.18  117.93   66.22   28.93
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 191          UI   21.34   21.34

 192          KK  I1AI2A   CNAME     I1A
 193          KM   ROUTE HYDROGRAPH FROM I1A TO I2A (CHANNEL B)
 194          KO       0       0     0.0       0      22
 195          RS       3    FLOW     0.0     0.0
 196          RC     0.1    0.02     0.1 3507.57  0.0046     0.0
 197          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 198          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 199          KK      18
 200          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 201          KM   L=1.81     Lca=0.75     S=30.99     Kn=0.200     LAG=168
 202          KM   S-GRAPH TYPE=AGRICULTURE
 203          KO       0       0     0.0       1      22
 204          BA  0.7963
 205          LG     1.0   0.291   4.134   0.479   0.124
 206          UI     0.0   17.48   17.48   29.94   49.63   87.36  102.05  117.46  136.55  146.83
 207          UI  146.83  146.83  127.25  125.29  126.27   91.77  100.28   69.84   62.39   50.62
 208          UI   54.06   34.48   29.67   26.48   21.59   19.56   15.96   15.96   11.23    9.92
 209          UI    9.92    9.92    4.97    2.18    2.18    2.18    2.18    2.18    2.18    2.18
 210          UI    2.18    2.18    2.18    2.18    2.18    2.18    2.18    2.18    2.18    2.18
 211          UI    2.18     0.0

 212          KK     I2A
 213          KM   COMBINE ROUTED HYDROGRAPH FROM I1A WITH RUNOFF FROM 18 @ I2A
 214          ZW   A=FRW B=I2A C=FLOW E=15MIN F=10y6h-ex
 215          KO       0       0     0.0       0      22
 216          HC       2

 217          KK      5B
 218          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 219          KM   L=1.73     Lca=1.08     S=38.66     Kn=0.050     LAG=46
 220          KM   S-GRAPH TYPE=DESERT RANGELAND
 221          KO       0       0     0.0       1      22
 222          BA  0.5758
 223          LG   0.318   0.336   4.606   0.319  10.551
 224          UI     0.0   67.57  258.59  391.25   331.8   192.8  107.92   61.59   34.35   17.29
 225          UI   10.26   10.26     0.0

 226          KK  I1BI2B   CNAME     I1B
 227          KM   ROUTE HYDROGRAPH FROM I1B TO I2B (CHANNEL A)
 228          KO       0       0     0.0       0      22
 229          RS       1    FLOW     0.0     0.0
 230          RC     0.1     0.1     0.1 4972.04  0.0047     0.0
 231          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 232          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 233          KK      19
 234          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 235          KM   L=1.51     Lca=0.76     S=18.49     Kn=0.200     LAG=174
 236          KM   S-GRAPH TYPE=AGRICULTURE
 237          KO       0       0     0.0       1      22
 238          BA  0.5356
 239          LG     1.0   0.249   3.962   0.435   0.567
1                                          HEC-1 INPUT                                          PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 240          UI     0.0   11.35   11.35    18.4   30.26    53.8   66.51   69.61   86.78   95.36
 241          UI   95.36   95.36    89.0   79.47   84.42   69.18   61.85   57.97   43.57    37.1
 242          UI    32.1   33.09   21.67   18.47   16.39   14.02   12.27   10.37   10.37    7.18
 243          UI    6.44    6.44    6.44    3.83    1.42    1.42    1.42    1.42    1.42    1.42
 244          UI    1.42    1.42    1.42    1.42    1.42    1.42    1.42    1.42    1.42    1.42
 245          UI    1.42    1.42     0.0

 246          KK     I2B
 247          KM   COMBINE ROUTED HYDROGRAPH FROM I1B WITH RUNOFF FROM 19 @ I2B
 248          ZW   A=FRW B=I2B C=FLOW E=15MIN F=10y6h-ex
 249          KO       0       0     0.0       0      22
 250          HC       2
            251          ZZ
  RUNOFF SUMMARY
                                   FLOW IN CUBIC FEET PER SECOND
                                TIME IN HOURS,  AREA IN SQUARE MILES

                          PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
     OPERATION     STATION    FLOW     PEAK                                       AREA      STAGE     MAX STAGE
+                                              6-HOUR     24-HOUR     72-HOUR

     HYDROGRAPH AT
```

```
+                          15A      310.   4.50        38.        10.        3.      0.59
          ROUTED TO
+                        F1A-1B     128.   6.00        38.        10.        3.      0.59
          HYDROGRAPH AT
+                          15B       13.   7.00         8.         2.        1.      0.82
          2 COMBINED AT
+                          F1B      130.   6.00        45.        12.        4.      1.40
          HYDROGRAPH AT
+                            2      398.   4.75        64.        16.        5.      1.23
          HYDROGRAPH AT
+                            1      358.   5.00        81.        21.        7.      1.63
          2 COMBINED AT
+                           G2      505.   4.75       113.        28.        9.      2.86
          ROUTED TO
+                        G2-G3      460.   5.50       112.        28.        9.      2.86
          HYDROGRAPH AT
+                           16      563.   5.00       124.        31.       10.      0.95
          2 COMBINED AT
+                           G3      659.   5.50       205.        53.       18.      3.81
          HYDROGRAPH AT
+                            4      298.   4.75        46.        11.        4.      0.55
          ROUTED TO
+                        H1-H2      189.   5.25        45.        11.        4.      0.55
          HYDROGRAPH AT
+                            3       81.   5.00        20.         5.        2.      1.65
          2 COMBINED AT
+                           H2      188.   5.00        51.        13.        4.      2.20
          ROUTED TO
+                        H2-H3      133.   5.75        47.        12.        4.      2.20
          HYDROGRAPH AT
+                           17       20.   6.25        11.         3.        1.      0.61
          2 COMBINED AT
+                           H3      131.   5.75        49.        13.        4.      2.80
          HYDROGRAPH AT
+                           5A      390.   4.75        66.        17.        6.      1.17
          ROUTED TO
+                       I1AI2A      258.   5.50        65.        17.        6.      1.17
          HYDROGRAPH AT
+                           18       15.   6.25         8.         2.        1.      0.80
          2 COMBINED AT
+                          I2A      258.   5.50        69.        18.        6.      1.97
          HYDROGRAPH AT
+                           5B      280.   4.75        48.        12.        4.      0.58
          ROUTED TO
+                       I1BI2B       94.   5.50        42.        12.        4.      0.58
          HYDROGRAPH AT
+                           19       22.   6.50        12.         3.        1.      0.54
          2 COMBINED AT
+                          I2B       94.   5.50        48.        14.        5.      1.11

 *** NORMAL END OF HEC-1 ***
1*************************************                    *************************************
 *                                   *                    *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                    *    U.S. ARMY CORPS OF ENGINEERS   *
 *              JUN  1998            *                    *    HYDROLOGIC ENGINEERING CENTER  *
 *            VERSION 4.1            *                    *          609 SECOND STREET        *
 *                                   *                    *       DAVIS, CALIFORNIA 95616     *
 *  RUN DATE   23MAR06  TIME  04:56:58  *                    *           (916) 756-1104          *
 *                                   *                    *                                   *
 *************************************                    *************************************

                                        X     X  XXXXXXX   XXXXX          X
                                        X     X  X        X     X        XX
                                        X     X  X        X               X
                                        XXXXXXX  XXXX     X        XXXXX  X
                                        X     X  X        X               X
                                        X     X  X        X     X         X
                                        X     X  XXXXXXX   XXXXX         XXX

          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                          PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
 1          ID   Buckeye/Sun Valley ADMS - November 2004
 2          ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
 3          ID   10-year 6-hour
 4          ID   Existing Conditions
 5          ID   Area 1 - RID to BIC (East)
 6          ID   File Name: rbe106ex.hc1
 7          ID   Rainfall Loss Method - Green & Ampt
 8          ID   Unit Hydrograph Method - FCDMC S-Graph
 9          ID   Channel Routing Method - Normal Depth
10          ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
11          ID   Existing Land Use Cutoff Date: 2000
12          ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
13          ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
            *DIAGRAM
14          IT      15 02JAN94       0     400
15          IO       3
16          IN      15 02JAN94       0
17          JD     2.1    0.01
            * 6-hour distribution, pattern 1.0
18          PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
19          PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
20          PC   0.962   0.972   0.983   0.991     1.0
21          IN      15 02JAN94       0
22          JD   2.087     0.5
            * 6-hour distribution, pattern 1.0
23          PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
24          PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
25          PC   0.962   0.972   0.983   0.991     1.0
26          IN      15 02JAN94       0
27          JD   2.073     1.0
            * 6-hour distribution, pattern 1.4
28          PC     0.0  0.0084   0.016   0.025  0.0334  0.0414  0.0504  0.0584  0.0664  0.0748
29          PC   0.087  0.0994  0.1188   0.148  0.2304  0.4067  0.7778  0.8813  0.9186  0.9452
30          PC  0.9572  0.9684  0.9798  0.9898     1.0
31          IN      15 02JAN94       0
32          JD   2.016     5.0
            * 6-hour distribution, pattern 2.3
33          PC     0.0   0.011  0.0173  0.0267  0.0387   0.049  0.0593  0.0693  0.0797  0.0903
34          PC   0.103  0.1173  0.1383  0.1827  0.2693   0.458   0.686  0.8233  0.8893  0.9293
35          PC  0.9487   0.962  0.9743  0.9877     1.0
36          IN      15 02JAN94       0
37          JD   1.974    10.0
            * 6-hour distribution, pattern 2.7
38          PC     0.0  0.0134  0.0189  0.0287  0.0443  0.0574  0.0694  0.0818  0.0949  0.1076
39          PC  0.1223  0.1382  0.1604  0.2063  0.2902  0.4664  0.6764  0.8069  0.8765  0.9189
40          PC  0.9471  0.9608  0.9735  0.9873     1.0

41          KK   RIDKB
42          KM   ***********************************************************************
43          KM   **   SUB-WATERSHED K   ***************************************************
44          KM   ***********************************************************************
45          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
46          BA  0.0001
47          ZR  =QI A=RID RID B=38999 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-06E
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

48          KK  K3SBK4   CNAME    K3SB
49          KM   ROUTE INFLOW FROM RID CONCENTRATED AT K3SB TO K4 (CHANNEL A)
50          KO       0       0     0.0       0      22
51          RS       1    FLOW     0.0     0.0
52          RC     0.1     0.1     0.1 3026.00  0.0090     0.0
53          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
54          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

55          KK   RIDKA
56          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
57          BA  0.0001
58          ZR  =QI A=RID RID B=35599 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-06E

59          KK  K3SAK4   CNAME    K3SA
60          KM   ROUTE INFLOW FROM RID CONCENTRATED AT K3SA TO K4 (CHANNEL A)
61          KO       0       0     0.0       0      22
62          RS       1    FLOW     0.0     0.0
63          RC     0.1     0.1     0.1 4868.00  0.0049     0.0
64          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
65          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

66          KK      34
67          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
68          KM   L=1.23     Lca=0.62     S=19.48     Kn=0.200     LAG=148
69          KM   S-GRAPH TYPE=AGRICULTURE
70          KO       0       0     0.0       1      22
71          BA  0.6373
72          LG     1.0   0.245   3.994   0.565    2.07
73          UI     0.0   15.88   15.88   32.09   63.99    91.6   96.57  124.21   133.4   133.4
74          UI  130.44  111.17  119.11   90.18   91.45   64.03    55.3   45.36   44.06   29.14
75          UI   25.65    19.8   18.12    14.5   14.37    9.01    9.01    9.01    6.39    1.99
76          UI    1.99    1.99    1.99    1.99    1.99    1.99    1.99    1.99    1.99    1.99
77          UI    1.99    1.99    1.99    1.99    1.99     0.0

78          KK      K4   CNAME   K4-K5
79          KM   COMBINE ROUTED HYDROGRAPH FROM K3SA AND K3SB WITH RUNOFF FROM 34 @ K4
80          KO       0       0     0.0       0      22
81          HC       3

82          KK   K4-K5   CNAME      K4
83          KM   ROUTE HYDROGRAPH FROM K4 TO K5 (CHANNEL B)
84          KO       0       0     0.0       0      22
85          RS       5    FLOW     0.0     0.0
86          RC     0.1    0.02     0.1 5283.85  0.0080     0.0
87          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
88          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

89          KK      35
90          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
91          KM   L=1.96     Lca=0.98     S=33.61     Kn=0.200     LAG=190
92          KM   S-GRAPH TYPE=AGRICULTURE
93          KO       0       0     0.0       1      22
94          BA  1.5042
95          LG     1.0    0.25   3.978   0.486   3.315
```

```
1                                          HEC-1 INPUT                                                          PAGE  3

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

    96          UI     0.0    29.2    29.2   40.11   64.31  118.19   168.6  157.36  214.59  220.72
    97          UI  245.24  245.24  245.24  231.62  204.37  217.31  195.85  153.28  172.28  118.39
    98          UI  111.47   87.32   83.63   81.72   55.74   47.73   43.98   36.07   34.81   26.66
    99          UI   26.66   24.44   16.57   16.57   16.57   16.57    9.68    3.65    3.65    3.65
   100          UI    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65
   101          UI    3.65    3.65    3.65    3.65    3.65    3.65    3.65     0.0

   102          KK      K5   CNAME   K5-K6
   103          KM   COMBINE ROUTED HYDROGRAPH FROM K4 WITH RUNOFF FROM 35 @ K5
   104          KO       0       0     0.0       0      22
   105          HC       2

   106          KK   K5-K6   CNAME      K5
   107          KM   ROUTE HYDRPGRAPH FROM K5 TO K6 (CHANNEL B)
   108          KO       0       0     0.0       0      22
   109          RS       5    FLOW     0.0     0.0
   110          RC     0.1    0.02     0.1 6533.09   0.006     0.0
   111          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
   112          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

   113          KK      46
   114          KM   THE POLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
   115          KM   L=1.79     Lca=0.89     S=25.18     Kn=0.200     LAG=186
   116          KM   S-GRAPH TYPE=AGRICULTURE
   117          KO       0       0     0.0       1      22
   118          BA  1.3812
   119          LG     1.0   0.258   4.186   0.469   2.565
   120          UI     0.0   27.39   27.39   39.31   63.49  115.59   161.6  146.46  213.71  205.72
   121          UI  230.03  230.03  230.03  207.03   191.7   205.8  165.51  147.93  146.17  106.95
   122          UI   95.42    79.2   83.87   59.37   48.74   44.24   35.62   33.83   27.47    25.0
   123          UI    25.0   16.79   15.54   15.54   15.54   12.15    3.42    3.42    3.42    3.42
   124          UI    3.42    3.42    3.42    3.42    3.42    3.42    3.42    3.42    3.42    3.42
   125          UI    3.42    3.42    3.42    3.42    3.42    3.42     0.0

   126          KK      K6   CNAME   K6-K7
   127          KM   COMBINE ROUTED HYDROGRAPH FROM K5 WITH RUNOFF FROM 46 @ K6
   128          KO       0       0     0.0       0      22
   129          HC       2

   130          KK   K6-K7   CNAME      K6
   131          KM   STORAGE ROUTE FROM K6 TO K7 THROUGH SPRR TRESTLE
   132          KO       0       0     0.0       0      22
   133          RS       1    ELEV   890.0     0.0
   134          SV     0.0    0.43   43.48  173.62  410.02  410.02  410.02  410.02  410.02  410.02
   135          SV  410.02  410.02  410.02  410.02  410.02  410.02  410.02  410.02  410.02  410.02
   136          SE   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0
   137          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
   138          SQ     0.0   200.0   975.0  1120.0  1555.0  1565.0  1610.0  2150.0  2150.0  2150.0
   139          SQ  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0
   140          SE   890.0  891.09  893.09  893.69  894.89  894.99  895.09  895.29  895.29  895.29
   141          SE  895.29  895.29  895.29  895.29  895.29  895.29  895.29  895.29  895.29  895.29
1                                          HEC-1 INPUT                                                          PAGE  4

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

   142          KK      65
   143          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
   144          KM   L=0.82     Lca=0.41     S=10.93     Kn=0.200     LAG=121
   145          KM   S-GRAPH TYPE=AGRICULTURE
   146          KO       0       0     0.0       1      22
   147          BA  0.3756
   148          LG     1.0   0.247   4.712   0.411    1.76
   149          UI     0.0   11.45    15.3   32.35   64.94   69.77   92.26   96.16   96.16    81.2
   150          UI   85.03   60.83   57.04   41.32   33.18    28.5   19.59   15.77   13.21   10.45
   151          UI    8.88     6.5     6.5     4.4    1.43    1.43    1.43    1.43    1.43    1.43
   152          UI    1.43    1.43    1.43    1.43    1.43    1.43    1.43     0.0

   153          KK      K7
   154          KM   COMBINE STORAGE HYDROGRAPH FROM K6 WITH RUNOFF FROM 65 @ K7
   155          ZW   A=RBE B=K7 C=FLOW E=15MIN F=10y6h-ex
   156          KO       0       0     0.0       0      22
   157          HC       2

   158          KK   RIDL
   159          KM   ******************************************************************************
   160          KM   **    SUB-WATERSHED L    ******************************************************
   161          KM   ******************************************************************************
   162          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
   163          BA  0.0001
   164          ZR  =QI A=RID RID B=41599 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-06E

   165          KK  L2S-L3   CNAME     L2S
   166          KM   ROUTE INFLOW FROM RID CONCENTRATED AT L2S TO L3 (CHANNEL B)
   167          KO       0       0     0.0       0      22
   168          RS       1    FLOW     0.0     0.0
   169          RC     0.1    0.02     0.1 7457.00   0.009     0.0
   170          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
   171          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

   172          KK      36
   173          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
   174          KM   L=1.85     Lca=0.93     S=36.67     Kn=0.200     LAG=178
   175          KM   S-GRAPH TYPE=AGRICULTURE
   176          KO       0       0     0.0       1      22
   177          BA  0.6838
   178          LG     1.0   0.258   3.967   0.455   5.096
   179          UI     0.0   14.17   14.17   22.08   36.12   64.69    83.2   83.17  105.19  118.66
   180          UI   119.0   119.0  116.36   99.17  105.05   95.04   74.38   80.98   56.49   51.19
   181          UI   41.31    42.9   31.56   25.16   22.88   17.98    17.5   13.42   12.93   12.13
   182          UI    8.04    8.04    8.04    8.04    3.19    1.77    1.77    1.77    1.77    1.77
   183          UI    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77
   184          UI    1.77    1.77    1.77    1.77     0.0

   185          KK      L3   CNAME   L3-L4
   186          KM   COMBINE ROUTED HYDROGRAPH FROM L2S WITH RUNOFF FROM 36 @ L3
   187          KO       0       0     0.0       0      22
   188          HC       2
1                                          HEC-1 INPUT                                                          PAGE  5
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 189          KK   L3-L4   CNAME      L3
 190          KM   ROUTE HYDROGRAPH FROM L3 TO L4 (CHANNEL B)
 191          KO       0       0      0.0       0      22
 192          RS       7    FLOW      0.0     0.0
 193          RC     0.1    0.02      0.1 7726.73  0.0047     0.0
 194          RX     0.0  1000.0   1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 195          RY    10.0     0.0      0.0     1.0     1.0     0.0     0.0    10.0

 196          KK      47
 197          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 198          KM   L=1.46     Lca=0.73     S=24.60     Kn=0.200     LAG=161
 199          KM   S-GRAPH TYPE=AGRICULTURE
 200          KO       0       0      0.0       1      22
 201          BA  0.6169
 202          LG     1.0   0.271    4.499   0.411   0.105
 203          UI     0.0   14.13    14.13   25.73   43.69   78.39   77.95  107.42  110.39   118.7
 204          UI   118.7  113.43    98.92  105.54   83.18   78.99   64.89   53.48   41.57   42.52
 205          UI   30.95   24.46    21.69   17.46    15.7    12.9    12.9    8.42    8.02    8.02
 206          UI    8.02     2.1     1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77
 207          UI    1.77    1.77     1.77    1.77    1.77    1.77    1.77    1.77    1.77     0.0

 208          KK      L4   CNAME   L4-L5
 209          KM   COMBINE ROUTED HYDROGRAPH FROM L3 WITH RUNOFF FROM 47 @ L4
 210          KO       0       0      0.0       0      22
 211          HC       2

 212          KK   L4-L5   CNAME      L4
 213          KM   STORAGE ROUTE FROM L4 TO L5 THROUGH SPRR TRESTLE
 214          KO       0       0      0.0       0      22
 215          RS       1    ELEV    886.3     0.0
 216          SV     0.0     0.9      4.0    25.7   107.8  265.67  265.67  265.67  265.67  265.67
 217          SV  265.67  265.67   265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67
 218          SE   886.0   883.0    890.0   892.0   894.0   896.0   896.0   896.0   896.0   896.0
 219          SE   896.0   896.0    896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0
 220          SQ     0.0    59.0    172.0   230.0   323.0   480.0   769.0  1218.0  1828.0  1828.0
 221          SQ  1828.0  1828.0   1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0
 222          SE  886.29  888.09   890.09  890.99  891.79  891.99  892.19  892.39  892.59  892.59
 223          SE  892.59  892.59   892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59

 224          KK      66
 225          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 226          KM   L=0.73     Lca=0.36     S=19.24     Kn=0.200     LAG=99
 227          KM   S-GRAPH TYPE=AGRICULTURE
 228          KO       0       0      0.0       1      22
 229          BA  0.2941
 230          LG     1.0   0.249    4.471   0.385   6.037
 231          UI     0.0   10.96    18.36   48.91   66.57   87.58   92.03   85.89   79.94   62.17
 232          UI   52.27   36.46    30.89   19.44   15.19   11.84    10.0    6.36    6.22     3.7
 233          UI    1.37    1.37     1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37
 234          UI     0.0
1                                          HEC-1 INPUT                                          PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 235          KK      L5
 236          KM   COMBINE STORAGE HYDROGRAPH FROM L4 WITH RUNOFF FROM 66 @ L5
 237          ZW   A=RBE B=L5 C=FLOW E=15MIN F=10y6h-ex
 238          KO       0       0      0.0       0      22
 239          HC       2

 240          KK   RIDM
 241          KM   ******************************************************************************
 242          KM   **    SUB-WATERSHED M    ******************************************************
 243          KM   ******************************************************************************
 244          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 245          BA  0.0001
 246          ZR  =QI A=RID RID B=47199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-06F

 247          KK  L2S2M1   CNAME    L2S2
 248          KM   ROUTE INFLOW FROM RID CONCENTRATED AT L2S2 TO M1 (CHANNEL A)
 249          KO       0       0      0.0       0      22
 250          RS       1    FLOW      0.0     0.0
 251          RC     0.1     0.1      0.1 9579.00  0.0030     0.0
 252          RX     0.0   250.0    500.0   750.0  1000.0  1333.3  1666.6  2000.0
 253          RY    10.0     7.5      5.0     2.5     0.0     3.3     6.6    10.0

 254          KK      37
 255          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 256          KM   L=2.36     Lca=1.18     S=30.11     Kn=0.200     LAG=222
 257          KM   S-GRAPH TYPE=AGRICULTURE
 258          KO       0       0      0.0       1      22
 259          BA  1.4211
 260          LG     1.0    0.25     4.12   0.457     0.0
 261          UI     0.0   23.61    23.61   23.61   46.77   63.19  104.27  137.98  128.23  153.35
 262          UI  177.81   198.3    198.3   198.3   198.3  191.69  165.25  165.25  182.96  139.11
 263          UI  124.21  141.65     97.7   90.14   78.24   68.08   70.88   60.42   45.07   38.97
 264          UI   38.13   29.56    29.16   25.81   21.55   21.55   21.26    13.4    13.4    13.4
 265          UI    13.4    13.4     7.55    2.95    2.95    2.95    2.95    2.95    2.95    2.95
 266          UI    2.95    2.95     2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95
 267          UI    2.95    2.95     2.95    2.95    2.95    2.95    2.95     0.0

 268          KK      M1   CNAME   M1-M2
 269          KM   COMBINE ROUTED HYDROGRAPH FROM L2S2 WITH RUNOFF FROM 37 @ M1
 270          KO       0       0      0.0       0      22
 271          HC       2

 272          KK   M1-M2   CNAME      M1
 273          KM   ROUTE HYDROGRAPH FROM M1 TO M2 (CHANNEL A)
 274          KO       0       0      0.0       0      22
 275          RS       7    FLOW      0.0     0.0
 276          RC     0.1     0.1      0.1  5783.5  0.0032     0.0
 277          RX     0.0   250.0    500.0   750.0  1000.0  1333.3  1666.6  2000.0
 278          RY    10.0     7.5      5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                          PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 279          KK      40
 280          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
```

```
 281          KM   L=1.10     Lca=0.55     S=16.43     Kn=0.200     LAG=139
 282          KM   S-GRAPH TYPE=AGRICULTURE
 283          KO       0       0     0.0       1      22
 284          BA  0.4997
 285          LG     1.0    0.25   4.375   0.445   1.368
 286          UI     0.0   13.26   14.05   30.21   59.66   76.06    96.1  103.26  111.37  111.37
 287          UI   97.76   97.11   83.14   74.11   57.93   46.73   37.98    35.6   23.78   20.47
 288          UI   16.38   13.76   12.11     9.9    7.53    7.53    7.21    1.66    1.66    1.66
 289          UI    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66
 290          UI    1.66    1.66     0.0

 291          KK      M2   CNAME   M2-M3
 292          KM   COMBINE ROUTED HYDROGRAPH FROM M1 WITH RUNOFF FROM 48 @ M2
 293          KO       0       0     0.0       0      22
 294          HC       2

 295          KK   M2-M3   CNAME      M2
 296          KM   ROUTE HYDROGRAPH FROM M2 TO M3 (CHANNEL A)
 297          KO       0       0     0.0       0      22
 298          RS       2    FLOW     0.0     0.0
 299          RC   0.025   0.025   0.025 4309.67  0.0050     0.0
 300          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 301          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 302          KK      67
 303          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 304          KM   L=0.82     Lca=0.41     S=25.73     Kn=0.200     LAG=102
 305          KM   S-GRAPH TYPE=PHOENIX VALLEY
 306          KO       0       0     0.0       1      22
 307          BA  0.4717
 308          LG   0.261   0.262   4.328   0.393  26.592
 309          UI     0.0   15.57   31.09   66.92   86.69  107.67  144.49  191.76  149.18  119.67
 310          UI   94.22   73.23    45.3   26.94   21.99   15.57    6.99    4.78    4.78    4.78
 311          UI    4.78     0.0

 312          KK      M3   CNAME   M3-M4
 313          KM   COMBINE ROUTED HYDROGRAPH FROM M2 WITH RUNOFF FROM 67 @ M3
 314          KO       0       0     0.0       0      22
 315          HC       2

 316          KK   M3-M4   CNAME      M3
 317          KM   STORAGE ROUTE FROM M3 TO M4 THROUGH SPRR TRESTLE
 318          KO       0       0     0.0       0      22
 319          RS       1    ELEV   884.0     0.0
 320          SV     0.0    0.28    12.7    94.1  202.02  383.38  383.38  383.38  383.38  383.38
 321          SV  383.38  383.38  383.38  383.38  383.38  383.38  383.38  383.38  383.38  383.38
 322          SE   884.0   886.0   888.0   890.0   892.0   894.0   894.0   894.0   894.0   894.0
 323          SE   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0
 324          SQ     0.0    42.0   135.0   200.0   226.0   465.0  1010.0  1703.0  1703.0  1703.0
 325          SQ  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0
 326          SE   884.0  885.09  887.09  889.19  889.29  889.49  889.69  889.89  889.89  889.89
 327          SE  889.89  889.89  889.89  889.89  889.89  889.89  889.89  889.89  889.89  889.89
1                                          HEC-1 INPUT                                                PAGE  8
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 328          KK      69
 329          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 330          KM   L=0.11     Lca=0.06     S=17.52     Kn=0.200     LAG=25
 331          KM   S-GRAPH TYPE=PHOENIX VALLEY
 332          KO       0       0     0.0       1      22
 333          BA  0.1371
 334          LG   0.176   0.264   4.502   0.395  49.216
 335          UI     0.0   60.46  176.19   92.48    19.3     0.0

 336          KK      M4
 337          KM   COMBINE STORAGE HYDROGRAPH FROM M3 WITH RUNOFF FROM 69 @ M4
 338          ZW   A=RBE B=M4 C=FLOW E=15MIN F=10y6h-ex
 339          KO       0       0     0.0       0      22
 340          HC       2

 341          KK   RIDN
 342          KM   ***********************************************************************
 343          KM   **   SUB-WATERSHED N   ****************************************************
 344          KM   ***********************************************************************
 345          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 346          BA  0.0001
 347          ZR  =QI A=RID RID B=51199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-06E

 348          KK  N2S-N3   CNAME     N2S
 349          KM   ROUTE INFLOW FROM RID CONCENTRATED AT N2S TO N3 (CHANNEL A)
 350          KO       0       0     0.0       0      22
 351          RS       1    FLOW     0.0     0.0
 352          RC     0.1     0.1     0.1 5806.00  0.0050     0.0
 353          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 354          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 355          KK      38
 356          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 357          KM   L=1.40     Lca=0.70     S=20.72     Kn=0.200     LAG=161
 358          KM   S-GRAPH TYPE=AGRICULTURE
 359          KO       0       0     0.0       1      22
 360          BA  0.5419
 361          LG     1.0   0.249   3.963   0.466   1.066
 362          UI     0.0   12.41   12.41    22.6   38.38   68.87   68.47   94.37   96.98  104.28
 363          UI  104.28   99.64    86.9   92.71   73.07   69.39   57.01   46.98   36.52   37.35
 364          UI   27.19   21.49   19.06   15.33   13.79   11.33   11.33     7.4    7.05    7.05
 365          UI    7.05    1.84    1.55    1.55    1.55    1.55    1.55    1.55    1.55    1.55
 366          UI    1.55    1.55    1.55    1.55    1.55    1.55    1.55    1.55    1.55     0.0

 367          KK      N3   CNAME   N3-N4
 368          KM   COMBINE ROUTED HYDROGRAPH FROM N2S WITH RUNOFF FROM 38 @ N3
 369          KO       0       0     0.0       0      22
 370          HC       2
1                                          HEC-1 INPUT                                                PAGE  9
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 371          KK   N3-N4   CNAME      N3
 372          KM   ROUTE HYDROGRAPH FROM N3 TO N4 (CHANNEL B)
 373          KO       0       0     0.0       0      22
 374          RS       5    FLOW     0.0     0.0
```

```
375          RC     0.1    0.02     0.1 5295.68  0.0087     0.0
376          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
377          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

378          KK      49
379          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
380          KM   L=1.96     Lca=0.98     S=23.51     Kn=0.200     LAG=202
381          KM   S-GRAPH TYPE=AGRICULTURE
382          KO      0       0     0.0       1      22
383          BA  1.0093
384          LG     1.0    0.25   3.954   0.417   0.658
385          UI     0.0   18.43   18.43   21.91    38.7   60.54   96.74  109.77  111.53  139.33
386          UI   150.8  154.78  154.78  154.78  141.02  128.98  137.67  123.61   96.74  107.67
387          UI   80.42   70.35   59.46    52.4   57.71   37.74   32.94   29.77   25.12   22.76
388          UI   20.55   16.82   16.82   15.07   10.46   10.46   10.46   10.46    8.07     2.3
389          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
390          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
391          UI     2.3     0.0

392          KK      N4   CNAME  N4-N5B
393          KM   COMBINE ROUTED HYDROGRAPH FROM N3 WITH RUNOFF FROM 49 @ N4
394          KO      0       0     0.0       0      22
395          HC      2

396          KK  N4-N5B   CNAME      N4
397          KM   ROUTE HYDROGRAPH FROM N4 TO N5 (CHANNEL B)
398          KO      0       0     0.0       0      22
399          RS      3    FLOW     0.0     0.0
400          RC     0.1    0.02     0.1 3866.36  0.0080     0.0
401          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
402          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

403          KK     56B
404          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
405          KM   L=0.71     Lca=0.32     S=32.56     Kn=0.200     LAG=85
406          KM   S-GRAPH TYPE=AGRICULTURE
407          KO      0       0     0.0       1      22
408          BA  0.3335
409          LG     0.1    0.25   3.998   0.524    80.0
410          UI     0.0   13.21   36.42   66.04   85.35  118.84  159.02  118.04    90.4   67.67
411          UI   40.92   22.66   16.33    10.2    4.05    4.05    4.05     0.0

412          KK     N5B   CNAME  N5B-N6
413          KM   COMBINE ROUTED HYDROGRAPH FROM N4 WITH RUNOFF FROM 56B @ N5B
414          KO      0       0     0.0       0      22
415          HC      2
1                                        HEC-1 INPUT                                                    PAGE 10

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

416          KK  N5B-N6   CNAME     N5B
417          KM   STORAGE ROUTE FROM N5B TO N6 THROUGH SPRR TRESTLE
418          KO      0       0     0.0       0      22
419          RS      1    ELEV  887.23     0.0
420          SV    0.0    0.96   12.89   39.94   86.12  150.27  150.27  150.27  150.27  150.27
421          SV  150.27  150.27  150.27  150.27  150.27  150.27  150.27  150.27  150.27  150.27
422          SE   886.0   888.0   890.0   892.0   894.0   896.0   896.0   896.0   896.0   896.0
423          SE   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0
424          SQ     0.0    71.6    98.1   118.7   136.2   151.6   165.7   178.6   190.7   202.0
425          SQ   212.8   223.0   232.8   242.1   251.2   259.9   268.3   276.5   276.5   276.5
426          SE  887.23  889.23  889.73  890.23  890.73  891.23  891.73  892.23  892.73  893.23
427          SE  893.73  894.23  894.73  895.23  895.73  896.23  896.73  897.23  897.23  897.23

428          KK     56A
429          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
430          KM   L=1.19     Lca=0.59     S=30.31     Kn=0.200     LAG=132
431          KM   S-GRAPH TYPE=AGRICULTURE
432          KO      0       0     0.0       1      22
433          BA  0.4105
434          LG     1.0    0.25   3.969   0.455  18.065
435          UI     0.0   11.47   13.39   28.45   55.88   66.16   84.79   96.35   96.35   93.14
436          UI   80.29   83.82   61.02   58.36   42.89   33.31   32.41   20.95   17.94   14.17
437          UI    11.8   10.47    8.03    6.51    6.51    4.68    1.43    1.43    1.43    1.43
438          UI    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43
439          UI     0.0

440          KK  N5A-N6   CNAME     N5A
441          KM   STORAGE ROUTE FROM N5A TO N6 THROUGH SPRR TRESTLE
442          KO      0       0     0.0       0      22
443          RS      1    ELEV  886.0     0.0
444          SV    0.0    0.02    8.08   35.13  100.26  100.26  100.26  100.26  100.26  100.26
445          SV  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26
446          SE   886.0   888.0   890.0   892.0   894.0   894.0   894.0   894.0   894.0   894.0
447          SE   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0
448          SQ     0.0   102.4   189.7   248.0   294.9   335.4   371.5   404.3   434.7   463.1
449          SQ   489.9   515.2   539.4   562.6   584.8   606.2   626.9   646.9   646.9   646.9
450          SE   886.0  887.52  888.02  888.52  889.02  889.52  890.02  890.52  891.02  891.52
451          SE  892.02  892.52  893.02  893.52  894.02  894.52  895.02  895.52  895.52  895.52

452          KK      70
453          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
454          KM   L=0.68     Lca=0.34     S=1.48     Kn=0.200     LAG=152
455          KM   S-GRAPH TYPE=AGRICULTURE
456          KO      0       0     0.0       1      22
457          BA  0.1406
458          LG     1.0    0.25   4.395   0.512     0.0
459          UI     0.0    3.41    3.41    6.68   12.76   19.73   19.85   25.86   28.66   28.66
460          UI   28.66   24.52   25.09   21.89   18.55   16.77   13.03   10.07   10.32    7.14
461          UI    5.77    4.95    4.21    3.44    3.12    2.67    1.94    1.94    1.94    0.99
462          UI    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43
463          UI    0.43    0.43    0.43    0.43    0.43    0.43     0.0
1                                        HEC-1 INPUT                                                    PAGE 11

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

464          KK      N6
465          KM   COMBINE STORAGE HYDROGRAPH FROM N5A AND N5B WITH RUNOFF FROM 70 @ N6
466          ZW   A=RBE B=N6 C=FLOW E=15MIN F=10y6h-ex
467          KO      0       0     0.0       0      22
468          HC      3

469          KK   RIDO
```

```
470          KM   ***********************************************************************
471          KM   **   SUB-WATERSHED O   ***********************************************
472          KM   ***********************************************************************
473          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
474          BA  0.0001
475          ZR  =QI A=RID RID B=57199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-06E

476          KK  O4S-O5   CNAME     O4S
477          KM   ROUTE INFLOW FROM RID CONCENTRATED AT O4S TO O5 (CHANNEL A)
478          KO       0       0     0.0       0      22
479          RS       1    FLOW     0.0     0.0
480          RC     0.1     0.1     0.1 6325.00  0.0060     0.0
481          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
482          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

483          KK      39
484          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
485          KM   L=1.63     Lca=0.82     S=25.14     Kn=0.200     LAG=174
486          KM   S-GRAPH TYPE=AGRICULTURE
487          KO       0       0     0.0       1      22
488          BA  0.7253
489          LG     1.0   0.249    4.31    0.47   1.592
490          UI     0.0   15.37   15.37   24.91   40.98   72.85   90.07   94.27  117.51  129.13
491          UI  129.13  129.13  120.52  107.61  114.33   93.69   83.76    78.5    59.0   50.24
492          UI   43.47   44.81   29.35   25.01   22.19   18.99   16.61   14.04   14.04    9.72
493          UI    8.73    8.73    8.73    5.19    1.92    1.92    1.92    1.92    1.92    1.92
494          UI    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92
495          UI    1.92    1.92     0.0

496          KK      O5   CNAME   O5-O6
497          KM   COMBINE ROUTED HYDROGRAPH FROM O4S WITH RUNOFF FROM 39 @ O5
498          KO       0       0     0.0       0      22
499          HC       2

500          KK   O5-O6   CNAME      O5
501          KM   ROUTE HYDROGRAPH FROM O5 TO O6 (CHANNEL B)
502          KO       0       0     0.0       0      22
503          RS       4    FLOW     0.0     0.0
504          RC     0.1    0.02     0.1 5267.87  0.0100     0.0
505          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
506          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0
1                                          HEC-1 INPUT                                    PAGE 12

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


507          KK      50
508          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
509          KM   L=1.98     Lca=0.99     S=26.73     Kn=0.200     LAG=199
510          KM   S-GRAPH TYPE=AGRICULTURE
511          KO       0       0     0.0       1      22
512          BA  1.0018
513          LG     1.0   0.251   4.181   0.488   2.404
514          UI     0.0   18.57   18.57   22.94   38.99   65.02   98.44  109.42  116.01  139.75
515          UI  155.95  155.95  155.95  155.95  136.89  129.96  138.93  116.06   98.44  106.28
516          UI   74.44    70.3   55.29    52.9   53.78   35.44   31.12   29.51   22.93   22.93
517          UI   18.07   16.95   16.95   12.06   10.54   10.54   10.54   10.54    3.53    2.32
518          UI    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32
519          UI    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32
520          UI     0.0

521          KK      O6   CNAME   O6-O7
522          KM   COMBINE ROUTED HYDROGRAPH FROM O5 WITH RUNOFF FROM 50 @ O6
523          KO       0       0     0.0       0      22
524          HC       2

525          KK   O6-O7   CNAME      O6
526          KM   ROUTE HYDROGRAPH FROM O6 TO O7 (CHANNEL B)
527          KO       0       0     0.0       0      22
528          RS       4    FLOW     0.0     0.0
529          RC     0.1    0.02     0.1 3578.87  0.0040     0.0
530          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
531          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

532          KK      57
533          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
534          KM   L=0.68     Lca=0.34     S=19.18     Kn=0.200     LAG=94
535          KM   S-GRAPH TYPE=AGRICULTURE
536          KO       0       0     0.0       1      22
537          BA  0.4885
538          LG     1.0    0.25   4.256    0.53   1.416
539          UI     0.0   19.17   35.13   95.98  125.05  151.34   161.0  141.33  132.78  104.89
540          UI   73.19   56.54   41.57   28.93   22.36    17.5   12.39   10.88    7.03     2.4
541          UI     2.4     2.4     2.4     2.4     2.4     2.4     2.4     2.4     2.4     0.0

542          KK      O7   CNAME   O7-O8
543          KM   COMBINE ROUTED HYDROGRAPH FROM O6 WITH RUNOFF FROM 57 @ O7
544          KO       0       0     0.0       0      22
545          HC       2

546          KK   O7-O8   CNAME      O7
547          KM   STORAGE ROUTE FROM O7 TO O8 THROUGH SPRR TRESTLE
548          KO       0       0     0.0       0      22
549          RS       1    ELEV   891.1     0.0
550          SV     0.0     0.2    8.52   76.65  224.48  224.48  224.48  224.48  224.48  224.48
551          SV  224.48  224.48  224.48  224.48  224.48  224.48  224.48  224.48  224.48  224.48
552          SE   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0
553          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
554          SQ     0.0    78.0    85.0   151.0   248.0   540.0   954.0  1560.0  2334.0  2334.0
555          SQ  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0
1                                          HEC-1 INPUT                                    PAGE 13

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

556          SE   891.1   893.1   893.4   894.5   894.7   895.0   895.2   895.4   895.6   895.6
557          SE   895.6   895.6   895.6   895.6   895.6   895.6   895.6   895.6   895.6   895.6

558          KK      71
559          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
560          KM   L=0.34     Lca=0.17     S=14.51     Kn=0.200     LAG=59
561          KM   S-GRAPH TYPE=AGRICULTURE
562          KO       0       0     0.0       1      22
563          BA  0.1553
564          LG     1.0   0.243   4.911   0.414   2.609
```

```
565          UI     0.0   11.57   42.26   70.54   80.65   67.88   47.94   30.74    17.5   10.91
566          UI    7.38    5.51    1.27    1.21    1.21    1.21    1.21    1.21     0.0

567          KK      08    CNAME
568          KM   COMBINE STORAGE HYDROGRAPH FROM 07 WITH RUNOFF FROM 71 @ 08
569          ZW   A=RBE B=08 C=FLOW E=15MIN F=10y6h-ex
570          KO       0       0     0.0       0      22
571          HC       2

572          KK   RIDP
573          KM   ***********************************************************************
574          KM   **   SUB-WATERSHED P   ****************************************************
575          KM   ***********************************************************************
576          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
577          BA  0.0001
578          ZR  =QI A=RID RID B=61999 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-06E

579          KK  P2S-P3   CNAME     P2S
580          KM   ROUTE INFLOW FROM RID CONCENTRATED AT P2S TO P3 (CHANNEL A)
581          KO       0       0     0.0       0      22
582          RS       1    FLOW     0.0     0.0
583          RC     0.1     0.1     0.1 8445.00  0.0070     0.0
584          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
585          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

586          KK      40
587          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
588          KM   L=1.83     Lca=0.91     S=31.23     Kn=0.200     LAG=182
589          KM   S-GRAPH TYPE=AGRICULTURE
590          KO       0       0     0.0       1      22
591          BA  0.9761
592          LG     1.0   0.249   4.211   0.525   0.739
593          UI     0.0   19.78   19.78   29.61   48.14    86.9  116.44  110.94  150.61  157.12
594          UI  166.14  166.14  166.14  142.14  139.74  151.32  103.84  112.23    90.8   75.52
595          UI    62.1   56.05   56.55   37.76   32.26   29.17   24.43   22.48   18.06   18.06
596          UI   14.53   11.23   11.23   11.23   10.99    2.47    2.47    2.47    2.47    2.47
597          UI    2.47    2.47    2.47    2.47    2.47    2.47    2.47    2.47    2.47    2.47
598          UI    2.47    2.47    2.47    2.47    2.47     0.0

599          KK      P3    CNAME    P3-P4
600          KM   COMBINE ROUTED HYDROGRAPH FROM P2S WITH RUNOFF FROM 40 @ P3
601          KO       0       0     0.0       0      22
602          HC       2
1                                          HEC-1 INPUT                                          PAGE 14

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

603          KK   P3-P4   CNAME      P3
604          KM   ROUTE HYDROGRAPH FROM P3 TO P4 (CHANNEL B)
605          KO       0       0     0.0       0      22
606          RS       3    FLOW     0.0     0.0
607          RC     0.1    0.02     0.1 5302.14   0.008     0.0
608          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
609          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

610          KK      51
611          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
612          KM   L=1.96     Lca=0.98     S=22.98     Kn=0.200     LAG=203
613          KM   S-GRAPH TYPE=AGRICULTURE
614          KO       0       0     0.0       1      22
615          BA   1.004
616          LG     1.0    0.25   4.401   0.563   1.523
617          UI     0.0   18.24   18.24   21.41    38.3   58.85   95.52  108.71   109.2  138.77
618          UI  147.29   153.2   153.2   153.2  141.28  127.67  136.31  125.01   95.75  105.04
619          UI    83.7   69.64   60.42   52.27   56.21   40.23   33.28   29.46   25.81   22.53
620          UI    21.2   16.65   16.65   15.93   10.35   10.35   10.35   10.35    9.49    2.28
621          UI    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
622          UI    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
623          UI    2.28     0.0

624          KK      P4    CNAME    P4-P5
625          KM   COMBINE ROUTED HYDROGRAPH FROM P3 WITH RUNOFF FROM 51 @ P4
626          KO       0       0     0.0       0      22
627          HC       2

628          KK   P4-P5   CNAME      P4
629          KM   ROUTE HYDROGRAPH FROM P4 TO P5 (CHANNEL A)
630          KO       0       0     0.0       0      22
631          RS       5    FLOW     0.0     0.0
632          RC     0.1     0.1     0.1 2651.48  0.0030     0.0
633          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
634          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

635          KK      58
636          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
637          KM   L=0.50     Lca=0.25     S=15.93     Kn=0.200     LAG=77
638          KM   S-GRAPH TYPE=AGRICULTURE
639          KO       0       0     0.0       1      22
640          BA  0.1897
641          LG     1.0    0.25   4.294   0.552  11.148
642          UI     0.0    9.09   25.11   52.16   72.06   76.34   66.54   55.11   41.43   27.69
643          UI   18.96   12.68    9.16    6.65    5.16    2.64    1.14    1.14    1.14    1.14
644          UI    1.14    1.14    1.14     0.0

645          KK      P5    CNAME    P5-P6
646          KM   COMBINE ROUTED HYDROGRAPH FROM P4 WITH RUNOFF FROM 58 @ P5
647          KO       0       0     0.0       0      22
648          HC       2
1                                          HEC-1 INPUT                                          PAGE 15

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

649          KK   P5-P6   CNAME      P5
650          KM   STORAGE ROUTE FROM P5 TO P6 THROUGH SPRR TRESTLE
651          KO       0       0     0.0       0      22
652          RS       1    ELEV   889.1     0.0
653          SV     0.0    1.33    6.78   36.99  130.95  286.86  286.86  286.86  286.86  286.86
654          SV  286.86  286.86  286.86  286.86  286.86  286.86  286.86  286.86  286.86  286.86
655          SE   888.0   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0
656          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
657          SQ     0.0    40.0   105.0   187.0   278.0   531.0   853.0  1198.0  1573.0  1722.0
658          SQ  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0
```

```
659          SE  889.11  889.61  890.11  890.61  891.11  892.11  893.11  894.11  895.11  896.11
660          SE  897.11  897.11  897.11  897.11  897.11  897.11  897.11  897.11  897.11  897.11

661          KK      72
662          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
663          KM   L=0.13      Lca=0.06      S=7.71      Kn=0.200      LAG=32
664          KM   S-GRAPH TYPE=AGRICULTURE
665          KO       0        0      0.0        1       22
666          BA  0.0856
667          LG     1.0     0.23   4.468   0.424   7.937
668          UI     0.0    24.87    74.6   66.73   31.73   12.61    6.11    1.23    1.23    1.23
669          UI     0.0

670          KK      P6
671          KM   COMBINE STORAGE HYDROGRAPH FROM P5 WITH RUNOFF FROM 72 @ P6
672          ZW   A=RBE B=P6 C=FLOW E=15MIN F=10y6h-ox
673          KO       0        0      0.0        0       22
674          HC       2
675          ZZ
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	RIDKB	149.	5.75	41.	10.	3.	0.00		
+	ROUTED TO	K3SBK4	89.	6.75	40.	10.	3.	0.00		
+	HYDROGRAPH AT	RIDKA	220.	6.25	124.	32.	11.	0.00		
+	ROUTED TO	K3SAK4	151.	8.00	109.	32.	11.	0.00		
+	HYDROGRAPH AT	34	23.	6.00	11.	3.	1.	0.64		
+	3 COMBINED AT	K4	236.	7.00	156.	46.	15.	0.64		
+	ROUTED TO	K4-K5	232.	8.00	150.	46.	15.	0.64		
+	HYDROGRAPH AT	35	33.	6.75	20.	6.	2.	1.50		
+	2 COMBINED AT	K5	244.	8.00	156.	49.	16.	2.14		
+	ROUTED TO	K5-K6	225.	9.25	147.	49.	16.	2.14		
+	HYDROGRAPH AT	46	28.	6.75	17.	5.	2.	1.38		
+	2 COMBINED AT	K6	226.	9.50	147.	50.	17.	3.52		
+	ROUTED TO	K6-K7	223.	9.50	145.	50.	17.	3.52		
+	HYDROGRAPH AT	65	24.	5.75	10.	3.	1.	0.38		
+	2 COMBINED AT	K7	222.	9.50	145.	50.	17.	3.90		
+	HYDROGRAPH AT	RIDL	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	L2S-L3	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	36	30.	6.50	18.	5.	2.	0.68		
+	2 COMBINED AT	L3	30.	6.50	18.	5.	2.	0.68		
+	ROUTED TO	L3-L4	21.	10.00	16.	5.	2.	0.68		
+	HYDROGRAPH AT	47	21.	6.25	11.	3.	1.	0.62		
+	2 COMBINED AT	L4	21.	10.50	19.	7.	2.	1.30		
+	ROUTED TO	L4-L5	15.	10.75	13.	5.	2.	1.30		
+	HYDROGRAPH AT	66	31.	5.50	11.	3.	1.	0.29		
+	2 COMBINED AT	L5	23.	6.00	16.	6.	2.	1.59		
+	HYDROGRAPH AT	RIDM	119.	6.00	23.	6.	2.	0.00		
+	ROUTED TO	L2S2M1	18.	7.50	12.	5.	2.	0.00		
+	HYDROGRAPH AT	37	17.	6.75	11.	3.	1.	1.42		
+	2 COMBINED AT	M1	35.	7.50	23.	9.	3.	1.42		

+	ROUTED TO	M1-M2	28.	10.50	20.	9.	3.	1.42
+	HYDROGRAPH AT	48	26.	6.00	12.	3.	1.	0.50
+	2 COMBINED AT	M2	27.	10.50	20.	9.	3.	1.92
+	ROUTED TO	M2-M3	23.	11.25	18.	9.	3.	1.92
+	HYDROGRAPH AT	67	175.	5.75	53.	13.	4.	0.47
+	2 COMBINED AT	M3	130.	5.75	47.	18.	6.	2.39
+	ROUTED TO	M3-M4	98.	6.25	47.	18.	6.	2.39
+	HYDROGRAPH AT	69	167.	4.50	20.	5.	2.	0.14
+	2 COMBINED AT	M4	144.	4.50	62.	22.	8.	2.53
+	HYDROGRAPH AT	RIDN	42.	7.00	13.	3.	1.	0.00
+	ROUTED TO	N2S-N3	17.	8.25	10.	3.	1.	0.00
+	HYDROGRAPH AT	38	23.	6.25	12.	3.	1.	0.54
+	2 COMBINED AT	N3	31.	7.25	21.	7.	2.	0.54
+	ROUTED TO	N3-N4	28.	9.00	20.	7.	2.	0.54
+	HYDROGRAPH AT	49	22.	7.00	14.	4.	1.	1.01
+	2 COMBINED AT	N4	26.	8.75	22.	8.	3.	1.55
+	ROUTED TO	N4-N5B	24.	9.75	21.	8.	3.	1.55
+	HYDROGRAPH AT	56B	212.	5.50	63.	16.	5.	0.33
+	2 COMBINED AT	N5B	184.	5.50	66.	22.	8.	1.88
+	ROUTED TO	N5B-N6	103.	6.25	63.	22.	8.	1.88
+	HYDROGRAPH AT	56A	49.	5.75	23.	6.	2.	0.41
+	ROUTED TO	N5A-N6	49.	5.75	23.	6.	2.	0.41
+	HYDROGRAPH AT	70	5.	6.00	3.	1.	0.	0.14
+	3 COMBINED AT	N6	134.	6.25	78.	26.	9.	2.44
+	HYDROGRAPH AT	RIDO	21.	6.75	5.	1.	0.	0.00
+	ROUTED TO	O4S-O5	5.	7.75	3.	1.	0.	0.00
+	HYDROGRAPH AT	39	22.	6.50	13.	3.	1.	0.73
+	2 COMBINED AT	O5	25.	6.75	15.	5.	2.	0.73
+	ROUTED TO	O5-O6	21.	8.75	15.	5.	2.	0.73
+	HYDROGRAPH AT	50	21.	6.75	13.	4.	1.	1.00
+	2 COMBINED AT	O6	24.	8.00	18.	6.	2.	1.73
+	ROUTED TO	O6-O7	22.	9.50	17.	6.	2.	1.73
+	HYDROGRAPH AT	57	31.	5.50	10.	3.	1.	0.49
+	2 COMBINED AT	O7	22.	9.50	17.	7.	2.	2.22
+	ROUTED TO	O7-O8	19.	9.50	15.	6.	2.	2.22
+	HYDROGRAPH AT	71	20.	5.00	4.	1.	0.	0.16
+	2 COMBINED AT	O8	19.	9.50	15.	6.	2.	2.37
+	HYDROGRAPH AT	RIDP	143.	4.75	30.	10.	5.	0.00

```
          ROUTED TO
+                        P2S-P3      23.   7.25        20.        10.        5.      0.00
          HYDROGRAPH AT
+                           40       15.   6.75         9.         2.        1.      0.98
          2 COMBINED AT
+                           P3       38.   7.00        29.        12.        6.      0.98
          ROUTED TO
+                        P3-P4       34.   8.50        27.        12.        6.      0.98
          HYDROGRAPH AT
+                           51       13.   7.00         8.         2.        1.      1.00
          2 COMBINED AT
+                           P4       35.   8.25        28.        13.        6.      1.98
          ROUTED TO
+                        P4-P5       34.   9.75        27.        13.        6.      1.98
          HYDROGRAPH AT
+                           58       25.   5.25         7.         2.        1.      0.19
          2 COMBINED AT
+                           P5       33.   9.75        27.        13.        6.      2.17
          ROUTED TO
+                        P5-P6       33.   9.75        27.        13.        6.      2.17
          HYDROGRAPH AT
+                           72       25.   4.50         4.         1.        0.      0.09
          2 COMBINED AT
+                           P6       33.   9.75        27.        14.        7.      2.26

 *** NORMAL END OF HEC-1 ***
 1*************************************                                  ************************************
 *                                   *                                  *                                  *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)*                                  *   U.S. ARMY CORPS OF ENGINEERS   *
 *              JUN   1998           *                                  *   HYDROLOGIC ENGINEERING CENTER  *
 *            VERSION 4.1            *                                  *         609 SECOND STREET        *
 *                                   *                                  *      DAVIS, CALIFORNIA 95616     *
 *  RUN DATE   23MAR06  TIME  05:00:22 *                                 *         (916) 756-1104           *
 *                                   *                                  *                                  *
 *************************************                                  ************************************

                                   X     X  XXXXXXX   XXXXX          X
                                   X     X  X        X     X        XX
                                   X     X  X        X              X
                                   XXXXXXX  XXXX     X        XXXXX  X
                                   X     X  X        X              X
                                   X     X  X        X     X        X
                                   X     X  XXXXXXX   XXXXX        XXX

          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

            1           ID   Buckeye/Sun Valley ADMS - November 2004
            2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
            3           ID   10-year 6-hour
            4           ID   Existing Conditions
            5           ID   Area 1 - RID to BIC (West)
            6           ID   File Name: rbw106ex.hcl
            7           ID   Rainfall Loss Method - Green & Ampt
            8           ID   Unit Hydrograph Method - FCDMC S-Graph
            9           ID   Channel Routing Method - Normal Depth
           10           ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
           11           ID   Existing Land Use Cutoff Date: 2000
           12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
           13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                        *DIAGRAM
           14           IT      15 02JAN94       0     400
           15           IO       3
           16           IN      15 02JAN94       0
           17           JD   2.086    0.01
                        * 6-hour distribution, pattern 1.0
           18           PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
           19           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
           20           PC   0.962   0.972   0.983   0.991     1.0
           21           IN      15 02JAN94       0
           22           JD   2.073     0.5
                        * 6-hour distribution, pattern 1.0
           23           PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
           24           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
           25           PC   0.962   0.972   0.983   0.991     1.0
           26           IN      15 02JAN94       0
           27           JD   2.059     1.0
                        * 6-hour distribution, pattern 1.4
           28           PC     0.0  0.0084   0.016   0.025  0.0334  0.0414  0.0504  0.0584  0.0664  0.0748
           29           PC   0.087  0.0994  0.1188   0.148  0.2304  0.4067  0.7778  0.8813  0.9186  0.9452
           30           PC  0.9572  0.9684  0.9798  0.9898     1.0
           31           IN      15 02JAN94       0
           32           JD   2.002     5.0
                        * 6-hour distribution, pattern 2.3
```

```
 33          PC     0.0   0.011  0.0173  0.0267  0.0387   0.049  0.0593  0.0693  0.0797  0.0903
 34          PC   0.103  0.1173  0.1383  0.1827  0.2693   0.458   0.686  0.8233  0.8893  0.9293
 35          PC  0.9487   0.962  0.9743  0.9877     1.0
 36          IN      15 02JAN94       0
 37          JD   1.961    10.0
             * 6-hour distribution, pattern 2.7
 38          PC     0.0  0.0134  0.0189  0.0287  0.0443  0.0574  0.0694  0.0818  0.0949  0.1076
 39          PC  0.1223  0.1382  0.1604  0.2063  0.2902  0.4664  0.6764  0.8069  0.8765  0.9189
 40          PC  0.9471  0.9608  0.9735  0.9873     1.0

 41          KK      68
 42          KM   ***********************************************************************
 43          KM   **   SUB-WATERSHED E   ***************************************************
 44          KM   ***********************************************************************
 45          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 46          KM   L=0.96     Lca=0.33     S=45.58     Kn=0.050     LAG=22
 47          KM   S-GRAPH TYPE=DESERT RANGELAND
 48          KO       0       0     0.0       1      22
1                                        HEC-1 INPUT                                          PAGE  2

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 49          BA  0.4130
 50          LG   0.374   0.334   4.366   0.374     0.0
 51          UI     0.0  257.36  526.31   199.5   61.33   15.58     0.0

 52          KK   E1-E2   CNAME      E1
 53          KM   STORAGE ROUTE FROM E1 TO E2 THROUGH SPRR TRESTLE
 54          KO       0       0     0.0       0      22
 55          RS       1    ELEV   871.0     0.0
 56          SV     0.0    1.39    5.84   13.36   41.09   96.81  182.04   292.0  426.27  581.71
 57          SV  756.67  957.16  1179.1  1179.1  1179.1  1179.1  1179.1  1179.1  1179.1  1179.1
 58          SE   872.0   874.0   876.0   878.0   880.0   882.0   884.0   886.0   888.0   890.0
 59          SE   892.0   894.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0
 60          SQ     0.0   100.0   240.0   360.0   480.0   600.0  1020.0  2000.0  2760.0  2760.0
 61          SQ  2760.0  2760.0  2760.0  2760.0  2760.0  2760.0  2760.0  2760.0  2760.0  2760.0
 62          SE  873.07  874.07  875.07  876.07  877.07  878.07  879.07  880.07  881.07  881.07
 63          SE  881.07  881.07  881.07  881.07  881.07  881.07  881.07  881.07  881.07  881.07

 64          KK      59
 65          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 66          KM   L=0.50     Lca=0.17     S=49.34     Kn=0.200     LAG=53
 67          KM   S-GRAPH TYPE=AGRICULTURE
 68          KO       0       0     0.0       1      22
 69          BA  0.2519
 70          LG     1.0    0.23   4.174   0.497   8.088
 71          UI     0.0    22.5   84.15  139.94  135.77  109.93   62.24   38.79   21.52    13.5
 72          UI    9.12    2.19    2.19    2.19    2.19    2.19     0.0

 73          KK      E2
 74          KM   COMBINE STORAGE HYDROGRAPH FROM E1 WITH RUNOFF FROM 59 @ E2
 75          ZW   A=REW B=E2 C=FLOW E=15MIN F=10Y6H-EX
 76          KO       0       0     0.0       0      22
 77          HC       2

 78          KK   RIDF
 79          KM   ***********************************************************************
 80          KM   **   SUB-WATERSHED F   ***************************************************
 81          KM   ***********************************************************************
 82          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 83          BA  0.0001
 84          ZR  =QI A=RID RID B=8199 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-10-06E

 85          KK  F1S-F2   CNAME     F1S
 86          KM   ROUTE INFLOW FROM RID CONCENTRATED AT F1S TO F2 (CHANNEL A)
 87          KO       0       0     0.0       0      22
 88          RS       1    FLOW     0.0     0.0
 89          RC     0.1     0.1     0.1  3225.0   0.004     0.0
 90          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 91          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 92          KK      27
 93          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 94          KM   L=0.82     Lca=0.41     S=14.59     Kn=0.200     LAG=115
 95          KM   S-GRAPH TYPE=AGRICULTURE
 96          KO       0       0     0.0       1      22
 97          BA  0.2410
1                                        HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 98          LG     1.0   0.246   3.979   0.567   1.418
 99          UI     0.0    7.73   11.05   25.19   43.69   53.56   61.68   64.93   61.32   56.09
100          UI   48.56   42.77   30.31   23.36    21.4   13.77    11.2    9.22    7.06    6.07
101          UI    4.39    4.39    2.56    0.97    0.97    0.97    0.97    0.97    0.97    0.97
102          UI    0.97    0.97    0.97    0.97    0.97     0.0

103          KK      F2   CNAME   F2-F3
104          KM   COMBINE ROUTED HYDROGRAPH FROM F1S WITH RUNOFF FROM 27 @ F2
105          KO       0       0     0.0       0      22
106          HC       2

107          KK   F2-F3   CNAME      F2
108          KM   ROUTE HYDROGRAPH FROM F2 TO F3 (CHANNEL A)
109          KO       0       0     0.0       0      22
110          RS       8    FLOW     0.0     0.0
111          RC     0.1     0.1     0.1 5241.87  0.0057     0.0
112          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
113          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

114          KK      29
115          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
116          KM   L=1.47     Lca=0.73     S=22.92     Kn=0.200     LAG=163
117          KM   S-GRAPH TYPE=AGRICULTURE
118          KO       0       0     0.0       1      22
119          BA  0.9987
120          LG     1.0    0.25   3.977   0.548     0.0
121          UI     0.0    22.6    22.6   40.44   67.42  122.16  127.17  170.96  171.63   189.8
122          UI   189.8  185.58  158.17  166.76  141.69  122.98  113.44   86.27    70.6   65.75
123          UI   56.62   40.79    36.5   28.42   27.23   20.63   20.63   15.99   12.82   12.82
124          UI   12.82    7.09    2.82    2.82    2.82    2.82    2.82    2.82    2.82    2.82
125          UI    2.82    2.82    2.82    2.82    2.82    2.82    2.82    2.82    2.82     0.0

126          KK      F3   CNAME   F3-F4
```

```
 127          KM   COMBINE ROUTED HYDROGRAPH FROM F2 WITH RUNOFF FROM 29 @ F3
 128          KO       0       0     0.0       0      22
 129          HC       2

 130          KK   F3-F4   CNAME      F3
 131          KM   ROUTE HYDRPGRAPH FROM F3 TO F4 (CHANNEL A)
 132          KO       0       0     0.0       0      22
 133          RS       7    FLOW     0.0     0.0
 134          RC     0.1     0.1     0.1 5501.87  0.0058     0.0
 135          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 136          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 137          KK      41
 138          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 139          KM   L=1.54      Lca=0.77      S=23.99      Kn=0.200      LAG=168
 140          KM   S-GRAPH TYPE=AGRICULTURE
 141          KO       0       0     0.0       1      22
 142          BA  1.2021
 143          LG     1.0    0.25   3.965   0.474     0.0
 144          UI     0.0   26.39   26.39    45.2   74.92  131.88  154.05  177.32  206.14  221.65
 145          UI  221.65  221.65   192.1  189.15  190.62  138.53  151.39  105.43   94.19   76.42
 146          UI   81.61   52.05    44.8   39.98    32.6   29.54   24.09   24.09   16.95   14.98
1                                          HEC-1 INPUT                                              PAGE  4
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 147          UI   14.98   14.98     7.5     3.3     3.3     3.3     3.3     3.3     3.3     3.3
 148          UI     3.3     3.3     3.3     3.3     3.3     3.3     3.3     3.3     3.3     3.3
 149          UI     3.3     0.0

 150          KK      F4   CNAME  F4-F5B
 151          KM   COMBINE ROUTED HYDROGRAPH FROM F3 WITH RUNOFF FROM 41 @ F4
 152          KO       0       0     0.0       0      22
 153          HC       2

 154          KK  F4-F5B   CNAME      F4
 155          KM   ROUTE HYDRPGRAPH FROM F4 TO F5B (CHANNEL A)
 156          KO       0       0     0.0       0      22
 157          RS       4    FLOW     0.0     0.0
 158          RC     0.1     0.1     0.1 3704.65  0.0065     0.0
 159          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 160          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 161          KK     52B
 162          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 163          KM   L=0.71      Lca=0.32      S=32.56      Kn=0.200      LAG=85
 164          KM   S-GRAPH TYPE=AGRICULTURE
 165          KO       0       0     0.0       1      22
 166          BA  0.4953
 167          LG     1.0   0.251   4.087    0.53   0.349
 168          UI     0.0   21.49   47.96  115.57  153.43   180.5  170.48  157.82  118.28   85.92
 169          UI   63.75   43.62   30.66   22.85   17.91    12.2   10.93    2.69    2.69    2.69
 170          UI    2.69    2.69    2.69    2.69    2.69    2.69     0.0

 171          KK     F5B   CNAME F5B-F6B
 172          KM   COMBINE ROUTED HYDROGRAPH FROM F4 WITH RUNOFF FROM 52B @ F5B
 173          KO       0       0     0.0       0      22
 174          HC       2

 175          KK  F5BF6B   CNAME      F5B
 176          KM   STORAGE ROUTE FROM F5B TO F6B THROUGH SPRR TRESTLE
 177          KO       0       0     0.0       0      22
 178          RS       1    ELEV   886.0     0.0
 179          SV     0.0    0.08    0.94    6.13   37.02  122.46  262.93   479.0  749.83  749.83
 180          SV  749.83  749.83  749.83  749.83  749.83  749.83  749.83  749.83  749.83  749.83
 181          SE   886.0   888.0   890.0   892.0   894.0   896.0   898.0   900.0   902.0   902.0
 182          SE   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0
 183          SQ     0.0    80.0   120.0   230.0  1145.0  1980.0  2670.0  2670.0  2670.0  2670.0
 184          SQ  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0
 185          SE   886.0  887.07  888.07  889.07  890.07  891.07  892.07  892.07  892.07  892.07
 186          SE  892.07  892.07  892.07  892.07  892.07  892.07  892.07  892.07  892.07  892.07

 187          KK     60B
 188          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 189          KM   L=1.03      Lca=0.35      S=22.68      Kn=0.200      LAG=108
 190          KM   S-GRAPH TYPE=AGRICULTURE
 191          KO       0       0     0.0       1      22
 192          BA  0.5744
 193          LG     1.0   0.249   4.158   0.551   3.254
 194          UI     0.0   19.61   30.14   73.81  110.38  144.98  164.75  164.75  142.78  142.23
 195          UI  106.31   87.94    64.4   56.91    35.6   28.82   23.22   17.91   14.49   11.13
1                                          HEC-1 INPUT                                              PAGE  5
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 196          UI   11.13    3.84    2.45    2.45    2.45    2.45    2.45    2.45    2.45    2.45
 197          UI    2.45    2.45    2.45     0.0

 198          KK     F6B
 199          KM   COMBINE STORAGE HYDROGRAPH FROM F5B WITH RUNOFF FROM 60B @ F6B
 200          ZW   A=RBW B=F6B C=FLOW E=15MIN F=10Y6H-EX
 201          KO       0       0     0.0       0      22
 202          HC       2

 203          KK     52A
 204          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 205          KM   L=0.92      Lca=0.57      S=6.91      Kn=0.200      LAG=156
 206          KM   S-GRAPH TYPE=AGRICULTURE
 207          KO       0       0     0.0       1      22
 208          BA  0.3127
 209          LG     1.0    0.25   3.966   0.439   0.364
 210          UI     0.0    7.39    7.39   14.03   25.52   42.85   41.09   54.59   61.74    62.1
 211          UI    62.1   55.89   52.16   54.02   38.81   41.05   29.04   24.79   21.13   20.13
 212          UI   13.59   11.94    9.45    8.85    6.75    6.75    4.89     4.2     4.2     4.2
 213          UI    1.32    0.92    0.92    0.92    0.92    0.92    0.92    0.92    0.92    0.92
 214          UI    0.92    0.92    0.92    0.92    0.92    0.92    0.92     0.0

 215          KK  F5AF6A   CNAME      F5A
 216          KM   STORAGE ROUTE FROM F5A TO F6A THROUGH SPRR TRESTLE
 217          KO       0       0     0.0       0      22
 218          RS       1    ELEV   894.0     0.0
 219          SV     0.0    0.02    0.64   12.91   61.76   61.76   61.76   61.76   61.76   61.76
 220          SV   61.76   61.76   61.76   61.76   61.76   61.76   61.76   61.76   61.76   61.76
 221          SE   894.0   896.0   898.0   900.0   902.0   902.0   902.0   902.0   902.0   902.0
```

```
222        SE   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0
223        SQ     0.0    58.1   112.2   146.6   174.0   198.5   218.5   237.6   255.3   271.8
224        SQ   287.4   302.2   316.3   329.7   342.7   355.2   367.2   378.9   401.2   422.3
225        SE   894.0   896.4   896.9   897.4   897.9   898.4   898.9   899.4   899.9   900.4
226        SE   900.9   901.4   901.9   902.4   902.9   903.4   903.9   904.4   905.4   906.4

227        KK     60A
228        KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
229        KM   L=1.07      Lca=0.46      S=27.51      Kn=0.200      LAG=117
230        KM   S-GRAPH TYPE=AGRICULTURE
231        KO       0        0      0.0        1       22
232        BA  0.4117
233        LG     1.0    0.249    4.045    0.541    0.795
234        UI     0.0    12.98    18.15    40.42    73.45    89.47   100.76   109.02   105.38    91.39
235        UI   88.17    72.54    53.81    42.04    38.73    24.09    20.15    16.03    12.52    11.64
236        UI    7.37     7.37     6.45     1.62     1.62     1.62     1.62     1.62     1.62     1.62
237        UI    1.62     1.62     1.62     1.62     1.62      0.0

238        KK     F6A
239        KM   COMBINE STORAGE HYDROGRAPH FROM F5A WITH RUNOFF FROM 60A @ F6A
240        ZW   A=RBW B=F6A C=FLOW E=15MIN F=10Y6H-EX
241        KO       0        0      0.0        0       22
242        HC       2
1                                          HEC-1 INPUT                                                    PAGE  6

LINE       ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


243        KK   RIDG
244        KM   ******************************************************************************
245        KM   **   SUB-WATERSHED G   ******************************************************
246        KM   ******************************************************************************
247        KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
248        BA  0.0001
249        ZR  =QI A=RID RID B=13399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-10-06E

250        KK  G3S-G4   CNAME     G3S
251        KM   ROUTE INFLOW FROM RID CONCENTRATED AT G3S TO G4 (CHANNEL A)
252        KO       0        0      0.0        0       22
253        RS       1     FLOW      0.0      0.0
254        RC     0.1      0.1      0.1   4594.0    0.004      0.0
255        RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
256        RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

257        KK      28
258        KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
259        KM   L=1.02      Lca=0.51      S=16.68      Kn=0.200      LAG=132
260        KM   S-GRAPH TYPE=AGRICULTURE
261        KO       0        0      0.0        1       22
262        BA  0.3347
263        LG     1.0    0.249    4.178    0.467    0.543
264        UI     0.0     9.35    10.92     23.2    45.57    53.95    69.13    78.56    78.56    75.94
265        UI   65.47    68.35    49.76    47.59    34.97    27.16    26.43    17.09    14.62    11.55
266        UI    9.62     8.54     6.55     5.31     5.31     3.82     1.17     1.17     1.17     1.17
267        UI    1.17     1.17     1.17     1.17     1.17     1.17     1.17     1.17     1.17     1.17
268        UI     0.0

269        KK      G4   CNAME   G4-G5
270        KM   COMBINE ROUTED HYDROGRAPH FROM G3S WITH RUNOFF FROM 28 @ G4
271        KO       0        0      0.0        0       22
272        HC       2

273        KK   G4-G5   CNAME      G4
274        KM   ROUTE HYDRPGRAPH FROM G4 TO G5 (CHANNEL A)
275        KO       0        0      0.0        0       22
276        RS      11     FLOW      0.0      0.0
277        RC     0.1      0.1      0.1 7127.48   0.0045      0.0
278        RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
279        RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

280        KK      30
281        KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
282        KM   L=1.55      Lca=0.78      S=21.93      Kn=0.200      LAG=172
283        KM   S-GRAPH TYPE=AGRICULTURE
284        KO       0        0      0.0        1       22
285        BA  0.9830
286        LG     1.0     0.25    4.028    0.469    8.734
287        UI     0.0    21.08    21.08     34.8     57.4    101.7   123.34    132.0   163.67   177.05
288        UI  177.05   177.05   161.31   147.54   161.39   117.56   117.82    99.14    80.48    64.92
289        UI   61.01    54.87    38.92    34.05    28.26    26.04    20.78    19.24    18.25    11.96
290        UI   11.96    11.96    11.96     3.63     2.63     2.63     2.63     2.63     2.63     2.63
291        UI    2.63     2.63     2.63     2.63     2.63     2.63     2.63     2.63     2.63     2.63
1                                          HEC-1 INPUT                                                    PAGE  7

LINE       ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

292        UI    2.63     2.63      0.0

293        KK      G5   CNAME   G5-G6
294        KM   COMBINE ROUTED HYDROGRAPH FROM G4 WITH RUNOFF FROM 30 @ G5
295        KO       0        0      0.0        0       22
296        HC       2

297        KK   G5-G6   CNAME      G5
298        KM   ROUTE HYDRPGRAPH FROM G5 TO G6 (CHANNEL A)
299        KO       0        0      0.0        0       22
300        RS       8     FLOW      0.0      0.0
301        RC     0.1      0.1      0.1 5820.25   0.0055      0.0
302        RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
303        RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

304        KK      42
305        KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
306        KM   L=1.56      Lca=0.78      S=22.73      Kn=0.200      LAG=172
307        KM   S-GRAPH TYPE=AGRICULTURE
308        KO       0        0      0.0        1       22
309        BA  0.7784
310        LG     1.0     0.25    4.279    0.452    0.465
311        UI     0.0    16.69    16.69    27.56    45.45    80.53    97.66   104.52   129.6   140.19
312        UI  140.19   140.19   127.73   116.82   127.79    93.09    93.29     78.5    63.72     51.4
313        UI   48.31    43.45    30.82    26.96    22.38    20.62    16.46    15.24    14.45     9.47
314        UI    9.47     9.47     9.47     2.87     2.09     2.09     2.09     2.09     2.09     2.09
315        UI    2.09     2.09     2.09     2.09     2.09     2.09     2.09     2.09     2.09     2.09
316        UI    2.09     2.09      0.0
```

```
 317          KK      G6   CNAME   G6-G7
 318          KM   COMBINE ROUTED HYDROGRAPH FROM G5 WITH RUNOFF FROM 42 @ G6
 319          KO       0       0     0.0       0      22
 320          HC       2

 321          KK   G6-G7   CNAME      G6
 322          KM   ROUTE HYDRPGRAPH FROM G6 TO G7 (CHANNEL A)
 323          KO       0       0     0.0       0      22
 324          RS       4    FLOW     0.0     0.0
 325          RC     0.1     0.1     0.1 2613.05  0.0069     0.0
 326          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 327          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 328          KK      53
 329          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 330          KM   L=0.91      Lca=0.46      S=23.93      Kn=0.200      LAG=113
 331          KM   S-GRAPH TYPE=AGRICULTURE
 332          KO       0       0     0.0       1      22
 333          BA  0.3385
 334          LG     1.0    0.25   3.997   0.444     0.0
 335          UI     0.0   11.05   16.13    37.6   62.38   76.97   90.56   92.81    85.6   80.26
 336          UI   66.07   58.87   41.62   31.91   28.17   18.87   14.88   12.13   10.09    7.44
 337          UI    6.27    6.27    1.84    1.38    1.38    1.38    1.38    1.38    1.38    1.38
 338          UI    1.38    1.38    1.38    1.38     0.0
1                                          HEC-1 INPUT                                                    PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 339          KK      G7   CNAME   G7-G8
 340          KM   COMBINE ROUTED HYDROGRAPH FROM G6 WITH RUNOFF FROM 53 @ G7
 341          KO       0       0     0.0       0      22
 342          HC       2

 343          KK   G7-G8   CNAME      G7
 344          KM   STORAGE ROUTE FROM G7 TO G8 THROUGH SPRR TRESTLE
 345          KO       0       0     0.0       0      22
 346          RS       1    ELEV   888.0     0.0
 347          SV     0.0     0.6    4.25   26.94  108.66  257.97   449.6   449.6   449.6   449.6
 348          SV   449.6   449.6   449.6   449.6   449.6   449.6   449.6   449.6   449.6   449.6
 349          SE   888.0   890.0   892.0   894.0   896.0   898.0   900.0   900.0   900.0   900.0
 350          SE   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0
 351          SQ     0.0   100.0   200.0   480.0  1480.0  2060.0  2520.0  2900.0  2900.0  2900.0
 352          SQ  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0
 353          SE   888.0  888.07  889.07  890.07  891.07  892.07  893.07  894.07  894.07  894.07
 354          SE  894.07  894.07  894.07  894.07  894.07  894.07  894.07  894.07  894.07  894.07

 355          KK      61
 356          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 357          KM   L=0.90      Lca=0.45      S=23.00      Kn=0.200      LAG=113
 358          KM   S-GRAPH TYPE=AGRICULTURE
 359          KO       0       0     0.0       1      22
 360          BA  0.5081
 361          LG     1.0   0.248   3.965   0.464   2.234
 362          UI     0.0   16.58   24.21   56.43   93.62  115.52  135.92   139.3  128.47  120.46
 363          UI   99.16   88.35   62.47    47.9   42.28   28.31   22.33   18.21   15.14   11.17
 364          UI    9.41    9.41    2.76    2.07    2.07    2.07    2.07    2.07    2.07    2.07
 365          UI    2.07    2.07    2.07    2.07     0.0

 366          KK      G8
 367          KM   COMBINE STORAGE HYDROGRAPH FROM G7 WITH RUNOFF FROM 61 @ G8
 368          ZW   A=RBW B=G8 C=FLOW E=15MIN F=10Y6H-EX
 369          KO       0       0     0.0       0      22
 370          HC       2

 371          KK   RIDH
 372          KM   ***********************************************************************
 373          KM   **    SUB-WATERSHED H    ***********************************************
 374          KM   ***********************************************************************
 375          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 376          BA  0.0001
 377          ZR  =QI A=RID RID B=19799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-10-06E

 378          KK  H3S-H4   CNAME     H3S
 379          KM   ROUTE INFLOW FROM RID CONCENTRATED AT H3S TO H4 (CHANNEL A)
 380          KO       0       0     0.0       0      22
 381          RS       1    FLOW     0.0     0.0
 382          RC     0.1     0.1     0.110193.17  0.005     0.0
 383          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 384          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                                    PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 385          KK      31
 386          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 387          KM   L=1.93      Lca=0.97      S=26.40      Kn=0.200      LAG=196
 388          KM   S-GRAPH TYPE=AGRICULTURE
 389          KO       0       0     0.0       1      22
 390          BA  1.0788
 391          LG     1.0   0.249   4.018   0.456   0.852
 392          UI     0.0    20.3    20.3   26.01   42.62   75.47  110.82  116.22  130.81  156.48
 393          UI  170.49  170.49  170.49  170.49  143.97  142.08   158.6  111.16  110.82  106.73
 394          UI   79.11   71.61    59.1   60.85   49.19   37.72   32.79   29.13   25.07   23.42
 395          UI   18.53   18.53   16.79   11.52   11.52   11.52   11.52    7.81    2.54    2.54
 396          UI    2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54
 397          UI    2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54     0.0

 398          KK      H4   CNAME   H4-H5
 399          KM   COMBINE ROUTED HYDROGRAPH FROM H3S WITH RUNOFF FROM 31 @ H4
 400          KO       0       0     0.0       0      22
 401          HC       2

 402          KK   H4-H5   CNAME      H4
 403          KM   ROUTE HYDRPGRAPH FROM H4 TO H5 (CHANNEL B)
 404          KO       0       0     0.0       0      22
 405          RS       5    FLOW     0.0     0.0
 406          RC     0.1    0.02     0.1 5382.76  0.0059     0.0
 407          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 408          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 409          KK      43
```

```
410          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
411          KM   L=1.92      Lca=0.96      S=20.85      Kn=0.200      LAG=204
412          KM   S-GRAPH TYPE=AGRICULTURE
413          KO       0        0      0.0        1       22
414          BA  1.0022
415          LG     1.0     0.25    3.958    0.425     0.66
416          UI     0.0    18.12    18.12    20.99    38.04    57.93     94.1   108.05   107.28    138.7
417          UI  144.35   152.18   152.18   152.18   142.03   126.81   135.44   126.81    95.11   102.81
418          UI    87.2    69.17    61.58    52.32    54.94    42.82    33.73    29.26    26.57    22.38
419          UI   21.91    16.54    16.54    16.54    10.58    10.28    10.28    10.28    10.28     2.91
420          UI    2.26     2.26     2.26     2.26     2.26     2.26     2.26     2.26     2.26     2.26
421          UI    2.26     2.26     2.26     2.26     2.26     2.26     2.26     2.26     2.26     2.26
422          UI    2.26      0.0

423          KK      H5    CNAME    H5-H6
424          KM   COMBINE ROUTED HYDROGRAPH FROM H4 WITH RUNOFF FROM 43 @ H5
425          KO       0        0      0.0        0       22
426          HC       2

427          KK   H5-H6    CNAME      H5
428          KM   ROUTE HYDROGRAPH FROM H5 TO H6 (CHANNEL B)
429          KO       0        0      0.0        0       22
430          RS       3     FLOW      0.0      0.0
431          RC     0.1     0.02      0.1  2887.92   0.0049      0.0
432          RX     0.0   1000.0   1006.0   1010.0   1050.0   1054.0   1060.0   2060.0
433          RY    10.0      0.0      0.0      1.0      1.0      0.0      0.0     10.0
1                                          HEC-1 INPUT                                                    PAGE 10
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9.......10

434          KK      54
435          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
436          KM   L=1.20      Lca=0.60      S=12.35      Kn=0.200      LAG=157
437          KM   S-GRAPH TYPE=AGRICULTURE
438          KO       0        0      0.0        1       22
439          BA  0.3861
440          LG     1.0     0.25      4.0    0.447      0.0
441          UI     0.0     9.07     9.07    17.07    30.66    52.22     50.2     67.4    74.77    76.18
442          UI   76.18    69.41    63.49    68.13    47.62    51.29    35.97     31.2    25.88    25.91
443          UI   17.01    14.65    12.06     11.2     8.36     8.28     6.51     5.15     5.15     5.15
444          UI    2.36     1.13     1.13     1.13     1.13     1.13     1.13     1.13     1.13     1.13
445          UI    1.13     1.13     1.13     1.13     1.13     1.13     1.13      0.0

446          KK      H6    CNAME    H6-H7
447          KM   COMBINE ROUTED HYDROGRAPH FROM H5 WITH RUNOFF FROM 54 @ H6
448          KO       0        0      0.0        0       22
449          HC       2

450          KK   H6-H7    CNAME      H6
451          KM   STORAGE ROUTE FROM H6 TO H7 THROUGH SPRR TRESTLE
452          KO       0        0      0.0        0       22
453          RS       1     ELEV    890.0      0.0
454          SV     0.0     0.45    30.43   148.25   336.08   336.08   336.08   336.08   336.08   336.08
455          SV  336.08   336.08   336.08   336.08   336.08   336.08   336.08   336.08   336.08   336.08
456          SE   890.0    892.0    894.0    896.0    898.0    898.0    898.0    898.0    898.0    898.0
457          SE   898.0    898.0    898.0    898.0    898.0    898.0    898.0    898.0    898.0    898.0
458          SQ     0.0    185.0    720.0   1025.0   1075.0   1150.0   1355.0   1800.0   1800.0   1800.0
459          SQ  1800.0   1800.0   1800.0   1800.0   1800.0   1800.0   1800.0   1800.0   1800.0   1800.0
460          SE   890.0   891.07   893.47   895.47   895.57   895.67   895.77   895.87   895.87   895.87
461          SE  895.87   895.87   895.87   895.87   895.87   895.87   895.87   895.87   895.87   895.87

462          KK      62
463          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
464          KM   L=0.98      Lca=0.49      S=21.54      Kn=0.200      LAG=122
465          KM   S-GRAPH TYPE=AGRICULTURE
466          KO       0        0      0.0        1       22
467          BA  0.5717
468          LG     1.0    0.249    4.203    0.444    0.473
469          UI     0.0    17.28    22.83    47.88    97.83   104.21   138.24   145.18   145.18   124.21
470          UI  130.72    91.16    89.45    63.88    49.84    45.53    30.22     24.7    20.76    15.78
471          UI   14.37     9.81     9.81     8.08     2.16     2.16     2.16     2.16     2.16     2.16
472          UI    2.16     2.16     2.16     2.16     2.16     2.16     2.16      0.0

473          KK      H7
474          KM   COMBINE STORAGE HYDROGRAPH FROM H6 WITH RUNOFF FROM 62 @ H7
475          ZW   A=REW B=H7 C=FLOW E=15MIN F=10Y6H-EX
476          KO       0        0      0.0        0       22
477          HC       2
1                                          HEC-1 INPUT                                                    PAGE 11
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9.......10

478          KK   RIDI
479          KM   ****************************************************************************
480          KM   **   SUB-WATERSHED I   ******************************************************
481          KM   ****************************************************************************
482          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
483          BA  0.0001
484          ZR  =QI A=RID RID B=24399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-10-06E

485          KK  I2S-I3    CNAME     I2S
486          KM   ROUTE INFLOW FROM RID CONCENTRATED AT I2S TO I3 (CHANNEL A)
487          KO       0        0      0.0        0       22
488          RS       1     FLOW      0.0      0.0
489          RC     0.1      0.1      0.1  8174.00    0.005      0.0
490          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
491          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

492          KK      32
493          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
494          KM   L=1.84      Lca=0.92      S=24.34      Kn=0.200      LAG=192
495          KM   S-GRAPH TYPE=AGRICULTURE
496          KO       0        0      0.0        1       22
497          BA  0.8959
498          LG     1.0    0.249      4.0    0.515    1.146
499          UI     0.0    17.21    17.21    23.11    36.91    68.18    97.57    94.68   119.26   132.99
500          UI  144.55   144.55   144.55   139.73   120.46   127.21   121.42    90.35     99.1    77.05
501          UI   65.71    54.78     48.6     53.0    32.85    29.42    27.69    21.26    21.26     16.6
502          UI   15.71    15.71    10.39     9.77     9.77     9.77     8.55     2.15     2.15     2.15
503          UI    2.15     2.15     2.15     2.15     2.15     2.15     2.15     2.15     2.15     2.15
504          UI    2.15     2.15     2.15     2.15     2.15     2.15     2.15     2.15      0.0
```

```
 505          KK      I3   CNAME   I3-I4
 506          KM   COMBINE ROUTED HYDROGRAPH FROM I2S WITH RUNOFF FROM 32 @ I3
 507          KO       0       0     0.0       0      22
 508          HC       2

 509          KK   I3-I4   CNAME      I3
 510          KM   ROUTE HYDRPGRAPH FROM I3 TO I4 (CHANNEL B)
 511          KO       0       0     0.0       0      22
 512          RS      10    FLOW     0.0     0.0
 513          RC     0.1    0.02     0.110387.48  0.0042     0.0
 514          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 515          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 516          KK      44
 517          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 518          KM   L=1.97     Lca=0.98     S=22.43     Kn=0.200     LAG=205
 519          KM   S-GRAPH TYPE=AGRICULTURE
 520          KO       0       0     0.0       1      22
 521          BA  1.0069
 522          LG     1.0    0.25   4.136   0.485   5.217
 523          UI     0.0   18.11   18.11    20.7   38.04    57.4    93.3  108.09  106.09  139.54
 524          UI  142.37  152.15  152.15  152.15   143.7   126.8  133.98  130.92    95.1  101.27
 525          UI   90.64   69.78   63.13   52.71   54.03   45.67    34.4   29.26   27.49   22.38
 526          UI   22.38   16.93   16.54   16.54   11.59   10.28   10.28   10.28   10.28     4.4
1                                          HEC-1 INPUT                                                    PAGE 12

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 527          UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
 528          UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
 529          UI    2.26    2.26     0.0

 530          KK      I4   CNAME   I4-I5
 531          KM   COMBINE ROUTED HYDROGRAPH FROM I3 WITH RUNOFF FROM 44 @ I4
 532          KO       0       0     0.0       0      22
 533          HC       2

 534          KK   I4-I5   CNAME      I4
 535          KM   ROUTE HYDRPGRAPH FROM I4 TO I5 (CHANNEL A)
 536          KO       0       0     0.0       0      22
 537          RS       4    FLOW     0.0     0.0
 538          RC     0.1     0.1     0.1 2589.37  0.0035     0.0
 539          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 540          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 541          KK      55
 542          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 543          KM   L=0.97     Lca=0.48     S=12.83     Kn=0.200     LAG=133
 544          KM   S-GRAPH TYPE=AGRICULTURE
 545          KO       0       0     0.0       1      22
 546          BA  0.2627
 547          LG     1.0    0.25   4.128   0.446     0.0
 548          UI     0.0    7.29    8.39   17.86    34.8   41.96   53.41    61.2    61.2   59.84
 549          UI    51.0   54.32   38.38   38.38   27.91   21.37   21.37   13.58   11.77     9.0
 550          UI    7.84    6.65    5.51    4.14    4.14    3.58    0.91    0.91    0.91    0.91
 551          UI    0.91    0.91    0.91    0.91    0.91    0.91    0.91    0.91    0.91    0.91
 552          UI     0.0

 553          KK      I5   CNAME   I5-I6
 554          KM   COMBINE ROUTED HYDROGRAPH FROM I4 WITH RUNOFF FROM 55 @ I5
 555          KO       0       0     0.0       0      22
 556          HC       2

 557          KK   I5-I6   CNAME      I5
 558          KM   STORAGE ROUTE FROM I5 TO I6 THROUGH SPRR TRESTLE
 559          KO       0       0     0.0       0      22
 560          RS       1    ELEV   892.0     0.0
 561          SV     0.0     0.1    25.1  124.92  273.66  273.66  273.66  273.66  273.66  273.66
 562          SV  273.66  273.66  273.66  273.66  273.66  273.66  273.66  273.66  273.66  273.66
 563          SE   892.0   894.0   896.0   898.0   900.0   900.0   900.0   900.0   900.0   900.0
 564          SE   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0
 565          SQ     0.0    60.0   150.0   221.0   400.0   830.0  1134.0  1488.0  1892.0  1892.0
 566          SQ  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0
 567          SE  892.00  894.08  895.18  895.88  896.08  896.28  896.38  896.48  896.58  896.58
 568          SE  896.58  896.58  896.58  896.58  896.58  896.58  896.58  896.58  896.58  896.58

 569          KK      63
 570          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 571          KM   L=0.95     Lca=0.47     S=20.27     Kn=0.200     LAG=120
 572          KM   S-GRAPH TYPE=AGRICULTURE
 573          KO       0       0     0.0       1      22
 574          BA  0.4994
 575          LG     1.0    0.25   4.192   0.398  20.751
1                                          HEC-1 INPUT                                                    PAGE 13

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 576          UI     0.0   15.35   20.75   44.48   87.02   96.69  122.47  128.92  128.92  107.43
 577          UI  111.73   82.37   73.51   54.08   44.91   35.79   25.69   20.36   16.98   14.01
 578          UI   11.04    8.71    8.71    4.64    1.92    1.92    1.92    1.92    1.92    1.92
 579          UI    1.92    1.92    1.92    1.92    1.92    1.92     0.0

 580          KK      I6
 581          KM   COMBINE STORAGE HYDROGRAPH FROM I5 WITH RUNOFF FROM 63 @ I6
 582          ZW   A=RBW B=I6 C=FLOW E=15MIN F=10Y6H-EX
 583          KO       0       0     0.0       0      22
 584          HC       2

 585          KK   RIDJ
 586          KM   ******************************************************************************
 587          KM   **    SUB-WATERSHED J    ***********************************************************
 588          KM   ******************************************************************************
 589          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 590          BA  0.0001
 591          ZR  =QI A=RID RID B=27599 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-10-06E

 592          KK  J3S-J4   CNAME     J3S
 593          KM   ROUTE INFLOW FROM RID CONCENTRATED AT J3S TO J4 (CHANNEL A)
 594          KO       0       0     0.0       0      22
 595          RS       1    FLOW     0.0     0.0
 596          RC     0.1     0.1     0.1 8056.46   0.007     0.0
 597          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 598          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
```

```
599          KK      33
600          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
601          KM   L=1.84      Lca=0.92      S=29.30      Kn=0.200      LAG=185
602          KM   S-GRAPH TYPE=AGRICULTURE
603          KO       0        0      0.0        1       22
604          BA  1.0024
605          LG     1.0    0.249    3.962    0.44    0.529
606          UI     0.0    19.98    19.98   28.99    46.91   85.21  117.85  108.17   155.0  152.26
607          UI  167.85   167.85   167.85   149.2   139.88  152.37  115.61  108.99  103.55   77.29
608          UI    67.9    57.35    62.19   40.17    34.82   32.28   24.96   24.68    19.1   18.24
609          UI   18.04    11.34    11.34   11.34    11.34    7.21     2.5     2.5     2.5     2.5
610          UI     2.5      2.5      2.5     2.5      2.5     2.5     2.5     2.5     2.5     2.5
611          UI     2.5      2.5      2.5     2.5      2.5     2.5     0.0

612          KK      J4   CNAME   J4-J5
613          KM   COMBINE ROUTED HYDROGRAPH FROM J3S WITH RUNOFF FROM 33 @ J4
614          KO       0        0      0.0        0       22
615          HC       2

616          KK   J4-J5   CNAME      J4
617          KM   ROUTE HYDROGRAPH FROM J4 TO J5 (CHANNEL A)
618          KO       0        0      0.0        0       22
619          RS       5     FLOW      0.0      0.0
620          RC     0.1      0.1      0.1 5307.06  0.0077     0.0
621          RX     0.0    250.0    500.0    750.0  1000.0  1333.3  1666.6  2000.0
622          RY    10.0      7.5      5.0      2.5     0.0     3.3     6.6    10.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

623          KK     45A
624          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
625          KM   L=1.97      Lca=0.99      S=25.14      Kn=0.200      LAG=201
626          KM   S-GRAPH TYPE=AGRICULTURE
627          KO       0        0      0.0        1       22
628          BA  1.0027
629          LG     1.0     0.25    3.993   0.441   0.243
630          UI     0.0     18.4     18.4   22.16   38.63   61.78   96.59  109.53  112.56  138.24
631          UI  152.55   154.54   154.54  154.54  139.08  128.78  137.41  120.73   96.59  109.05
632          UI   76.17    70.24    57.78   51.92   58.19   35.12    32.2   29.72   24.14   22.73
633          UI   19.64     16.8     16.8   14.01   10.44   10.44   10.44   10.44    6.53     2.3
634          UI     2.3      2.3      2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
635          UI     2.3      2.3      2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
636          UI     2.3

637          KK     J5A   CNAME  J5A-5B
638          KM   COMBINE ROUTED HYDROGRAPH FROM J4 WITH RUNOFF FROM 45A @ J5A
639          KO       0        0      0.0        0       22
640          HC       2

641          KK  J5A-5B   CNAME     J5A
642          KM   ROUTE HYDROGRAPH FROM J5A TO J5B (CHANNEL A)
643          KO       0        0      0.0        0       22
644          RS       6     FLOW      0.0      0.0
645          RC     0.1      0.1      0.1 2736.25  0.0015     0.0
646          RX     0.0    250.0    500.0    750.0  1000.0  1333.3  1666.6  2000.0
647          RY    10.0      7.5      5.0      2.5     0.0     3.3     6.6    10.0

648          KK     45B
649          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
650          KM   L=0.52      Lca=0.26      S=8.59      Kn=0.200      LAG=89
651          KM   S-GRAPH TYPE=AGRICULTURE
652          KO       0        0      0.0        1       22
653          BA  0.1397
654          LG     1.0     0.25    3.969   0.417  29.714
655          UI     0.0     5.79     11.9   30.23    38.5   48.58   48.11   41.75   34.63    28.1
656          UI   18.91    15.22     9.82    7.25    5.39    4.12    3.29     2.3    0.72    0.72
657          UI    0.72     0.72     0.72    0.72    0.72    0.72    0.72     0.0

658          KK     J5B   CNAME  J5B-J6
659          KM   COMBINE ROUTED HYDROGRAPH FROM J5A WITH RUNOFF FROM 45B @ J5B
660          KO       0        0      0.0        0       22
661          HC       2

662          KK  J5B-J6   CNAME     J5B
663          KM   STORAGE ROUTE FROM J5B TO J6 THROUGH SPRR TRESTLE
664          KO       0        0      0.0        0       22
665          RS       1     ELEV   892.0      0.0
666          SV     0.0    20.33    91.45  223.99  223.99  223.99  223.99  223.99  223.99  223.99
667          SV  223.99   223.99   223.99  223.99  223.99  223.99  223.99  223.99  223.99  223.99
668          SE   892.0    894.0    896.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
669          SE   898.0    898.0    898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
670          SQ     0.0    150.0    230.0   308.0   825.0  1144.0  1970.0  1970.0  1970.0  1970.0
671          SQ  1970.0   1970.0   1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

672          SE   892.0   893.68   895.08  895.48  895.68  895.88  896.08  896.08  896.08  896.08
673          SE  896.08   896.08   896.08  896.08  896.08  896.08  896.08  896.08  896.08  896.08

674          KK      64
675          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
676          KM   L=0.89      Lca=0.45      S=17.94      Kn=0.200      LAG=117
677          KM   S-GRAPH TYPE=AGRICULTURE
678          KO       0        0      0.0        1       22
679          BA  0.4148
680          LG     1.0    0.248    4.357   0.445   1.184
681          UI     0.0    13.07    18.28   40.72   73.99   90.13  101.51  109.82  106.16   92.07
682          UI   88.82    73.07    54.21   42.35   39.02   24.27    20.3   16.15   12.61   11.73
683          UI    7.42     7.42     6.49    1.63    1.63    1.63    1.63    1.63    1.63    1.63
684          UI    1.63     1.63     1.63    1.63    1.63     0.0

685          KK      J6
686          KM   COMBINE STORAGE HYDROGRAPH FROM J5B WITH RUNOFF FROM 64 @ J6
687          ZW   A=RBW B=J6 C=FLOW E=15MIN F=10Y6H-EX
688          KO       0        0      0.0        0       22
689          HC       2
690          ZZ
```

D.7.1.b

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	68	324.	4.50	27.	7.	2.	0.41		
+	ROUTED TO	E1-E2	221.	4.75	26.	6.	2.	0.41		
+	HYDROGRAPH AT	59	43.	4.75	9.	2.	1.	0.25		
+	2 COMBINED AT	E2	234.	4.75	31.	8.	3.	0.66		
+	HYDROGRAPH AT	RIDF	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	F1S-F2	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	27	12.	5.75	5.	1.	0.	0.24		
+	2 COMBINED AT	F2	12.	5.75	5.	1.	0.	0.24		
+	ROUTED TO	F2-F3	8.	9.00	5.	1.	0.	0.24		
+	HYDROGRAPH AT	29	13.	6.25	7.	2.	1.	1.00		
+	2 COMBINED AT	F3	12.	6.75	8.	2.	1.	1.24		
+	ROUTED TO	F3-F4	9.	10.25	7.	2.	1.	1.24		
+	HYDROGRAPH AT	41	19.	6.25	10.	3.	1.	1.20		
+	2 COMBINED AT	F4	10.	6.75	8.	3.	1.	2.44		
+	ROUTED TO	F4-F5B	9.	8.25	7.	3.	1.	2.44		
+	HYDROGRAPH AT	52B	31.	5.25	9.	2.	1.	0.50		
+	2 COMBINED AT	F5B	9.	8.00	7.	3.	1.	2.94		
+	ROUTED TO	F5BF6B	7.	8.00	6.	2.	1.	2.94		
+	HYDROGRAPH AT	60B	31.	5.50	12.	3.	1.	0.57		
+	2 COMBINED AT	F6B	14.	5.50	8.	3.	1.	3.51		
+	HYDROGRAPH AT	52A	14.	6.25	7.	2.	1.	0.31		
+	ROUTED TO	F5AF6A	14.	6.50	7.	2.	1.	0.31		
+	HYDROGRAPH AT	60A	20.	5.75	8.	2.	1.	0.41		
+	2 COMBINED AT	F6A	24.	6.00	11.	3.	1.	0.72		
+	HYDROGRAPH AT	RIDG	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	G3S-G4	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	28	16.	5.75	7.	2.	1.	0.33		
+	2 COMBINED AT	G4	16.	5.75	7.	2.	1.	0.33		
+	ROUTED TO	G4-G5	10.	10.75	7.	2.	1.	0.33		
+	HYDROGRAPH AT	30	44.	6.50	26.	7.	2.	0.98		
+	2 COMBINED AT	G5	41.	6.50	25.	7.	2.	1.32		
+	ROUTED TO	G5-G6	36.	8.75	23.	7.	2.	1.32		
+	HYDROGRAPH AT	42	20.	6.50	11.	3.	1.	0.78		
+	2 COMBINED AT	G6	36.	8.50	23.	8.	3.	2.10		
+	ROUTED TO	G6-G7	34.	9.50	23.	8.	3.	2.10		
+	HYDROGRAPH AT	53	20.	5.75	8.	2.	1.	0.34		
	2 COMBINED AT									

```
+                    G7      33.   9.50      22.      8.      3.    2.43
+   ROUTED TO
                 G7-G8      32.   9.50      21.      8.      3.    2.43
+   HYDROGRAPH AT
                    61      34.   5.75      13.      3.      1.    0.51
+   2 COMBINED AT
                    G8      31.   9.50      21.      9.      3.    2.94
+   HYDROGRAPH AT
                  RIDH      12.   7.25       2.      1.      0.    0.00
+   ROUTED TO
                 H3S-H4      2.   8.25       1.      1.      0.    0.00
+   HYDROGRAPH AT
                    31      20.   6.75      12.      3.      1.    1.08
+   2 COMBINED AT
                    H4      20.   7.25      13.      4.      1.    1.08
+   ROUTED TO
                 H4-H5      16.   9.75      12.      4.      1.    1.08
+   HYDROGRAPH AT
                    43      20.   7.00      13.      4.      1.    1.00
+   2 COMBINED AT
                    H5      17.   8.25      14.      5.      2.    2.08
+   ROUTED TO
                 H5-H6      16.   9.25      13.      5.      2.    2.08
+   HYDROGRAPH AT
                    54      17.   6.25       9.      2.      1.    0.39
+   2 COMBINED AT
                    H6      16.   8.75      13.      5.      2.    2.47
+   ROUTED TO
                 H6-H7      14.   9.00      12.      5.      2.    2.47
+   HYDROGRAPH AT
                    62      29.   5.75      12.      3.      1.    0.57
+   2 COMBINED AT
                    H7      14.   8.50      13.      5.      2.    3.04
+   HYDROGRAPH AT
                  RIDI       0.   0.00       0.      0.      0.    0.00
+   ROUTED TO
                 I2S-I3      0.   0.00       0.      0.      0.    0.00
+   HYDROGRAPH AT
                    32      17.   6.75      10.      3.      1.    0.90
+   2 COMBINED AT
                    I3      17.   6.75      10.      3.      1.    0.90
+   ROUTED TO
                 I3-I4      10.  12.75       8.      3.      1.    0.90
+   HYDROGRAPH AT
                    44      27.   7.00      18.      5.      2.    1.01
+   2 COMBINED AT
                    I4      22.   7.00      15.      6.      2.    1.90
+   ROUTED TO
                 I4-I5      21.   8.25      15.      6.      2.    1.90
+   HYDROGRAPH AT
                    55      13.   5.75       6.      2.      1.    0.26
+   2 COMBINED AT
                    I5      21.   8.00      15.      6.      2.    2.17
+   ROUTED TO
                 I5-I6      21.   8.00      15.      6.      2.    2.17
+   HYDROGRAPH AT
                    63      71.   5.75      31.      8.      3.    0.50
+   2 COMBINED AT
                    I6      54.   6.00      34.     11.      4.    2.66
+   HYDROGRAPH AT
                  RIDJ       0.   0.00       0.      0.      0.    0.00
+   ROUTED TO
                 J3S-J4      0.   0.00       0.      0.      0.    0.00
+   HYDROGRAPH AT
                    33      21.   6.75      12.      3.      1.    1.00
+   2 COMBINED AT
                    J4      21.   6.75      12.      3.      1.    1.00
+   ROUTED TO
                 J4-J5      16.   9.00      11.      3.      1.    1.00
+   HYDROGRAPH AT
                   45A      18.   6.75      11.      3.      1.    1.00
+   2 COMBINED AT
                   J5A      17.   8.75      12.      4.      1.    2.01
+   ROUTED TO
                 J5A-5B     15.  10.00      12.      4.      1.    2.01
    HYDROGRAPH AT
```

```
+                          45B        32.    5.25          11.          3.          1.       0.14

          2 COMBINED AT
+                          J5B        24.    5.25          14.          6.          2.       2.14

          ROUTED TO
+                        J5B-J6       16.    6.25          13.          6.          2.       2.14

          HYDROGRAPH AT
+                           64        24.    5.75          10.          3.          1.       0.41

          2 COMBINED AT
+                           J6        21.    6.00          14.          6.          2.       2.56


 *** NORMAL END OF HEC-1 ***
1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *             JUN   1998               *                                    *   HYDROLOGIC ENGINEERING CENTER      *
 *           VERSION 4.1                *                                    *         609 SECOND STREET            *
 *                                      *                                    *      DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   23MAR06  TIME  05:05:46  *                                    *          (916) 756-1104              *
 *                                      *                                    *                                      *
 ****************************************                                    ****************************************


                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X        XX
                                                X     X  X        X              X
                                                XXXXXXX  XXXX     X        XXXXX  X
                                                X     X  X        X              X
                                                X     X  X        X     X        X
                                                X     X  XXXXXXX   XXXXX        XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                    PAGE  1

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          1           ID   Buckeye/Sun Valley ADMS - November 2004
          2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
          3           ID   10-year 6-hour
          4           ID   Existing Conditions
          5           ID   Area 1 - BIC to Gila (East)
          6           ID   File Name: bge106ex.hc1
          7           ID   Rainfall Loss Method - Green & Ampt
          8           ID   Unit Hydrograph Method - FCDMC S-Graph
          9           ID   Channel Routing Method - Normal Depth
         10           ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
         11           ID   Existing Land Use Cutoff Date: 2000
         12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
         13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                      *DIAGRAM
         14           IT      15 02JAN94       0     400
         15           IO       3
         16           IN      15 02JAN94       0
         17           JD     2.1     0.01
                      * 6-hour distribution, pattern 1.0
         18           PC     0.0    0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
         19           PC   0.087    0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
         20           PC   0.962    0.972   0.983   0.991     1.0
         21           IN      15 02JAN94       0
         22           JD   2.087      0.5
                      * 6-hour distribution, pattern 1.0
         23           PC     0.0    0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
         24           PC   0.087    0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
         25           PC   0.962    0.972   0.983   0.991     1.0
         26           IN      15 02JAN94       0
         27           JD   2.073      1.0
                      * 6-hour distribution, pattern 1.4
         28           PC     0.0  0.0084   0.016   0.025  0.0334  0.0414  0.0504  0.0584  0.0664  0.0748
         29           PC   0.087  0.0994  0.1188   0.148  0.2304  0.4067  0.7778  0.8813  0.9186  0.9452
         30           PC  0.9572  0.9684  0.9798  0.9898     1.0
         31           IN      15 02JAN94       0
         32           JD   2.016      5.0
                      * 6-hour distribution, pattern 2.3
         33           PC     0.0   0.011  0.0173  0.0267  0.0387   0.049  0.0593  0.0693  0.0797  0.0903
         34           PC   0.103  0.1173  0.1383  0.1827  0.2693   0.458   0.686  0.8233  0.8893  0.9293
         35           PC  0.9487   0.962  0.9743  0.9877     1.0
         36           IN      15 02JAN94       0
         37           JD   1.974     10.0
                      * 6-hour distribution, pattern 2.7
         38           PC     0.0  0.0134  0.0189  0.0287  0.0443  0.0574  0.0694  0.0818  0.0949  0.1076
         39           PC  0.1223  0.1382  0.1604  0.2063  0.2902  0.4664  0.6764  0.8069  0.8765  0.9189
         40           PC  0.9471  0.9608  0.9735  0.9873     1.0

         41           KK    BICM
         42           KM   ******************************************************************************
         43           KM   **    SUB-WATERSHED M   ******************************************************
         44           KM   ******************************************************************************
         45           KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
         46           BA   0.001
         47           ZR  =QI A=BIC BIC B=52599 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06E
1                                                   HEC-1 INPUT                                                    PAGE  2

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
 48          KK  M4S6TH   CNAME     M4S
 49          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT M4S TO 6TH (CHANNEL M4S-6TH)
 50          KO       0       0     0.0       0      22
 51          RS       1    FLOW     0.0     0.0
 52          RC    0.05   0.015    0.05  1950.0   0.008     0.0
 53          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 54          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 55          KK     4th
 56          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 57          KM   L=0.52     Lca=0.40     S=0.01     Kn=0.011     LAG=24
 58          KM   S-GRAPH TYPE=PHOENIX VALLEY
 59          KO       0       0     0.0       1      22
 60          BA  0.0819
 61          LG   0.192   0.248   5.145   0.326  55.315
 62          UI     0.0   39.02  109.68   50.31    9.67     0.0

 63          KK  TO4THS
 64          KM   HYDRPGRAPH DIVERTED TO 4THS
 65          KO       0       0     0.0       0      22
 66          DT  TO4THS     0.0     0.0
 67          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 68          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 69          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 70          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

 71          KK  4TH6TH   CNAME    4thA
 72          KM   ROUTE HYDRPGRAPH FROM 4TH CONCENTRATED AT 4THA TO 6TH (CHANNEL 4TH6TH)
 73          KO       0       0     0.0       0      22
 74          RS       1    FLOW     0.0     0.0
 75          RC    0.05   0.015    0.05   872.0   0.002     0.0
 76          RX     0.0   100.0   100.0  127.49  127.51   155.0   155.0   255.0
 77          RY     2.0     0.5     0.0    0.55    0.55     0.0     0.5     2.0

 78          KK     6th
 79          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 80          KM   L=0.46     Lca=0.17     S=0.01     Kn=0.011     LAG=17
 81          KM   S-GRAPH TYPE=PHOENIX VALLEY
 82          KO       0       0     0.0       1      22
 83          BA  0.0571
 84          LG   0.206   0.148   7.572    0.12  51.538
 85          UI     0.0   54.83   81.61    9.82     0.0

 86          KK    6thA   CNAME  6TH8TH
 87          KM   COMBINE ROUTED HYDROGRAPH FROM 4THA WITH RUNOFF FROM 6TH @ 6THA
 88          KO       0       0     0.0       0      22
 89          HC       3

 90          KK  TO7THS
 91          KM   HYDRPGRAPH DIVERTED TO 7THS
 92          KO       0       0     0.0       0      22
 93          DT  TO7THS     0.0     0.0
 94          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 95          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
```



```
1                                        HEC-1 INPUT

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 96          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 97          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

 98          KK  6TH8TH   CNAME    6thA
 99          KM   ROUTE HYDRPGRAPH FROM 6THA TO 8TH (CHANNEL 6TH8TH)
100          KO       0       0     0.0       0      22
101          RS       1    FLOW     0.0     0.0
102          RC    0.05   0.015    0.05  1116.0   0.002     0.0
103          RX     0.0   100.0   100.0  127.49  127.51   155.0   155.0   255.0
104          RY     2.0     0.5     0.0    0.55    0.55     0.0     0.5     2.0

105          KK     8th
106          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
107          KM   L=0.60     Lca=0.31     S=0.01     Kn=0.011     LAG=23
108          KM   S-GRAPH TYPE=PHOENIX VALLEY
109          KO       0       0     0.0       1      22
110          BA  0.0793
111          LG   0.241    0.15    8.77   0.074    42.7
112          UI     0.0    41.0  110.28   43.97    7.58     0.0

113          KK    8thA   CNAME  8TH9TH
114          KM   COMBINE ROUTED HYDROGRAPH FROM 6THA WITH RUNOFF FROM 8TH @ 8THA
115          KO       0       0     0.0       0      22
116          HC       2

117          KK   TOCEN1
118          KM   HYDRPGRAPH DIVERTED TO CENTRA
119          KO       0       0     0.0       0      22
120          DT  TOCEN1     0.0     0.0
121          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
122          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
123          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
124          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

125          KK  8TH9TH   CNAME    8thA
126          KM   ROUTE HYDRPGRAPH FROM 8THA TO 9TH (CHANNEL 8TH9TH)
127          KO       0       0     0.0       0      22
128          RS       1    FLOW     0.0     0.0
129          RC    0.05   0.015    0.05   680.0   0.002     0.0
130          RX     0.0   100.0   100.0  127.49  127.51   155.0   155.0   255.0
131          RY     2.0     0.5     0.0    0.55    0.55     0.0     0.5     2.0

132          KK     9thE
133          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
134          KM   L=0.77     Lca=0.39     S=0.00     Kn=0.011     LAG=29
135          KM   S-GRAPH TYPE=PHOENIX VALLEY
136          KO       0       0     0.0       1      22
137          BA  0.0947
138          LG   0.173   0.154   8.731   0.083  35.396
139          UI     0.0   31.39   99.09    80.3   25.22    5.83     0.0
```



```
1                                        HEC-1 INPUT

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

140          KK     9thW
```

```
141          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
142          KM   L=0.54      Lca=0.32      S=0.01      Kn=0.011      LAG=22
143          KM   S-GRAPH TYPE=PHOENIX VALLEY
144          KO       0        0      0.0        1       22
145          BA  0.0813
146          LG   0.197    0.149     8.42    0.101   29.522
147          UI     0.0    45.77   116.37    40.05     6.23      0.0

148          KK     9th
149          KM   COMBINE ROUTED HYDROGRAPH FROM 8THA WITH RUNOFF FROM 9THE AND 9THW @ 9TH
150          KO       0        0      0.0        0       22
151          HC       3

152          KK  TOCEN2
153          KM   HYDRPGRAPH DIVERTED TO CENTRA
154          KO       0        0      0.0        0       22
155          DT  TOCEN2      0.0      0.0
156          DI     0.0    100.0   1000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
157          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
158          DQ     0.0     50.0    500.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0
159          DQ  1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0

160          KK    BICN
161          KM   ******************************************************************************
162          KM   **   SUB-WATERSHED N-A   (DRAINS INTO SUB-WATERSHED M) **********************
163          KM   ******************************************************************************
164          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
165          BA   0.001
166          ZR  =QI A=BIC BIC B=58999 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06E

167          KK   N6S-D   CNAME     N6S
168          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT N6S TO DRAINA (CHANNEL A)
169          KO       0        0      0.0        0       22
170          RS       1     FLOW      0.0      0.0
171          RC     0.1      0.1      0.1  12189.0    0.003      0.0
172          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
173          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

174          KK    BICO
175          KM   ******************************************************************************
176          KM   **   SUB-WATERSHED O (DRAINS INTO SUB-WATERSHED M) **************************
177          KM   ******************************************************************************
178          KM   FALSE BASIN TO SIMULATR INFLOW FROM BIC
179          BA   0.001
180          ZR  =QI A=BIC BIC B=63799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06E

181          KK   O8SO9   CNAME     O8S
182          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT O8S TO O9 (CHANNEL A)
183          KO       0        0      0.0        0       22
184          RS       1     FLOW      0.0      0.0
185          RC     0.1      0.1      0.1   6048.0    0.004      0.0
186          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
187          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0
1                                          HEC-1 INPUT                                                    PAGE  5

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

188          KK      93
189          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
190          KM   L=1.21      Lca=0.60      S=17.39      Kn=0.200      LAG=148
191          KM   S-GRAPH TYPE=AGRICULTURE
192          KO       0        0      0.0        1       22
193          BA  0.3774
194          LG     1.0    0.245    4.879     0.41    9.378
195          UI     0.0      9.4      9.4     19.0    37.89    54.24    57.18    73.55    78.99    78.99
196          UI   77.24    65.83    70.53     53.4    54.15    37.91    32.75    26.86    26.09    17.25
197          UI   15.19    11.72    10.73     8.59     8.51     5.34     5.34     5.34     3.78     1.18
198          UI    1.18     1.18     1.18     1.18     1.18     1.18     1.18     1.18     1.18     1.18
199          UI    1.18     1.18     1.18     1.18     1.18      0.0

200          KK      O9   CNAME   O9O10
201          KM   COMBINE ROUTED HYDROGRAPH FROM O9 WITH RUNOFF FROM 93 @ O10
202          KO       0        0      0.0        0       22
203          HC       2

204          KK   O9O10   CNAME      O9
205          KM   ROUTE HYDRPGRAPH FROM O9 TO O10 (CHANNEL A)
206          KO       0        0      0.0        0       22
207          RS       3     FLOW      0.0      0.0
208          RC     0.1      0.1      0.1   8757.67    0.001      0.0
209          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
210          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

211          KK      95
212          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
213          KM   L=1.66      Lca=0.83      S=7.84      Kn=0.200      LAG=220
214          KM   S-GRAPH TYPE=AGRICULTURE
215          KO       0        0      0.0        1       22
216          BA  0.5221
217          LG     1.0     0.15      8.2    0.118    0.728
218          UI     0.0     8.75     8.75     8.75    17.61    23.93    39.41    52.07    46.56     58.0
219          UI   66.98    73.51    73.51    73.51    73.51    69.43    61.26     62.9    68.12    47.05
220          UI   46.97    50.07    35.29    33.42     27.5    24.86    27.14    19.64    16.37    14.14
221          UI   13.38    10.81    10.81     8.74     7.99     7.99      6.9     4.97     4.97     4.97
222          UI    4.97     4.97     1.35     1.09     1.09     1.09     1.09     1.09     1.09     1.09
223          UI    1.09     1.09     1.09     1.09     1.09     1.09     1.09     1.09     1.09     1.09
224          UI    1.09     1.09     1.09     1.09     1.09     1.09      0.0

225          KK     O10   CNAME   O10DR
226          KM   COMBINE ROUTED HYDROGRAPH FROM O9 WITH RUNOFF FROM 95 @ O10
227          KO       0        0      0.0        0       22
228          HC       2

229          KK    TOP9
230          KM   HYDRPGRAPH DIVERTED TO P9
231          KO       0        0      0.0        0       22
232          DT    TOP9      0.0      0.0
233          DI     0.0    100.0   1000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
234          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
235          DQ     0.0     50.0    500.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0
236          DQ  1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0
1                                          HEC-1 INPUT                                                    PAGE  6
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 237          KK   010DR   CNAME     010
 238          KM   ROUTE HYDRPGRAPH FROM 010 TO DRAINA (CHANNEL A)
 239          KO       0       0     0.0       0      22
 240          RS      13    FLOW     0.0     0.0
 241          RC     0.1     0.1     0.1 5733.05  0.0004     0.0
 242          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 243          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 244          KK  CENTRE
 245          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 246          KM   L=0.40      Lca=0.23      S=0.01      Kn=0.011      LAG=18
 247          KM   S-GRAPH TYPE=PHOENIX VALLEY
 248          KO       0       0     0.0       1      22
 249          BA  0.0692
 250          LG   0.248   0.153   6.965   0.147  35.732
 251          UI     0.0   58.22  103.23   15.09     0.0

 252          KK  FRM9TH
 253          KM   RETRIEVE HYDROGRAPH FROM 9TH
 254          KO       0       0     0.0       0      22
 255          DR  TOCEN2

 256          KK  9THCEN   CNAME
 257          KM   ROUTE HYDRPGRAPH FROM 9TH TO CENTRA (CHANNEL 9THCEN)
 258          RS       1    FLOW     0.0     0.0
 259          RC    0.05   0.015    0.05  1300.0   0.008     0.0
 260          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 261          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 262          KK  FRM8TH
 263          KM   RETRIEVE HYDROGRAPH FROM 8TH
 264          KO       0       0     0.0       0      22
 265          DR  TOCEN1

 266          KK  8THCEN   CNAME
 267          KM   ROUTE HYDRPGRAPH FROM 8TH TO CENTRA (CHANNEL 8THCEN)
 268          RS       1    FLOW     0.0     0.0
 269          RC    0.05   0.015    0.05  1967.0   0.008     0.0
 270          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 271          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 272          KK  CENTRA   CNAME  CENBEL
 273          KM   COMBINE DIVERTED HYDROGRAPHS FROM 8THA AND 9TH WITH RUNOFF FROM CENTRAL @ CEN
 274          KO       0       0     0.0       0      22
 275          HC       3

 276          KK  TOBELO
 277          KM   HYDRPGRAPH DIVERTED TO BELOAA
 278          KO       0       0     0.0       0      22
 279          DT   TODRN     0.0     0.0
 280          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 281          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 282          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 283          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
1                                          HEC-1 INPUT                                          PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 284          KK  CENBEL   CNAME  CENTRA
 285          KM   ROUTE HYDRPGRAPH FROM CENTRA TO BELOAA (CHANNEL CENBEL)
 286          KO       0       0     0.0       0      22
 287          RS       2    FLOW     0.0     0.0
 288          RC    0.05   0.015    0.05  2542.0   0.005     0.0
 289          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 290          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 291          KK  BELOAT
 292          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 293          KM   L=0.44      Lca=0.25      S=0.00      Kn=0.011      LAG=19
 294          KM   S-GRAPH TYPE=PHOENIX VALLEY
 295          KO       0       0     0.0       1      22
 296          BA  0.047
 297          LG   0.37   0.218   9.327   0.062   7.018
 298          UI     0.0   35.33   70.77   13.41     0.0

 299          KK  BELOAA   CNAME  BELDRN
 300          KM   COMBINE ROUTED HYDROGRAPH FROM CENTRA WITH RUNOFF FROM BELOAT @ BELOAA
 301          KO       0       0     0.0       0      22
 302          HC       2

 303          KK  BELDRN   CNAME  BELOAA
 304          KM   ROUTE HYDRPGRAPH FROM BELOAA TO DRAINA (CHANNEL BELDRN)
 305          KO       0       0     0.0       0      22
 306          RS       2    FLOW     0.0     0.0
 307          RC   0.035   0.015   0.035  1343.0  0.0011     0.0
 308          RX     0.0   108.0   120.0  131.99   132.0   144.0   156.0   264.0
 309          RY     8.0     0.0     3.0    3.24    3.24     3.0     0.0     8.0

 310          KK  BAYLIS
 311          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 312          KM   L=0.30      Lca=0.08      S=0.01      Kn=0.011      LAG=9
 313          KM   S-GRAPH TYPE=PHOENIX VALLEY
 314          KO       0       0     0.0       1      22
 315          BA  0.0155
 316          LG     0.1    0.15     9.7   0.069    80.0
 317          UI     0.0   36.19     0.0

 318          KK  DETDRN   CNAME     DET
 319          KM   ROUTE HYDROGRAPH FROM DET TO DRAINA (CHANNEL DETDRN)
 320          KO       0       0     0.0       0      22
 321          RS       1    FLOW     0.0     0.0
 322          RC    0.05    0.03    0.05  2657.0  0.0065     0.0
 323          RX     0.0    50.0   100.0   108.0   110.0   118.0   168.0   218.0
 324          RY     9.0     8.5     8.0     0.0     0.0     8.0     8.5     9.0

 325          KK      92
 326          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 327          KM   L=2.06      Lca=1.03      S=17.46      Kn=0.200      LAG=223
 328          KM   S-GRAPH TYPE=AGRICULTURE
 329          KO       0       0     0.0       1      22
```

```
 330          BA   1.014
 331          LG     1.0   0.152   8.658   0.095   5.858
1                                        HEC-1 INPUT                                                          PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 332          UI     0.0   40.65    78.1  207.32  268.02  327.77  341.43  292.11  269.54  214.08
 333          UI  145.16  120.99   73.46   57.17   43.57   35.76   23.07   23.07     8.2    5.08
 334          UI    5.08    5.08    5.08    5.08    5.08    5.08    5.08    5.08     0.0

 335          KK   DRAIN
 336          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 337          KM   L=0.59     Lca=0.26     S=0.01     Kn=0.011     LAG=20
 338          KM   S-GRAPH TYPE=PHOENIX VALLEY
 339          KO       0       0     0.0       1      22
 340          BA  0.1155
 341          LG     1.0    0.15   9.659   0.071   7.349
 342          UI     0.0   78.37   172.3   41.74     0.0

 343          KK  FRMCEN
 344          KM   RETRIEVE HYDROGRAPH FROM CENTRA
 345          KO       0       0     0.0       0      22
 346          DR   TODRN

 347          KK  CENDRN   CNAME
 348          KM   ROUTE HYDROGRAPH FROM CENTRA TO DRAINA (CHANNEL CENDRN)
 349          RS       1    FLOW     0.0     0.0
 350          RC    0.05    0.05    0.05  1888.0   0.005     0.0
 351          RX     0.0   300.0   600.0   900.0  1200.0  1500.0  1800.0  2100.0
 352          RY     1.0    0.67    0.33     0.0     0.0    0.33    0.67     1.0

 353          KK  DRAINA   CNAME   DRNM5
 354          KM   COMBINE DIVERTED HYDROGRAPH FROM CENTRA WITH ROUTED HYDROGRAPHS FROM BELOAA,
 355          KO       0       0     0.0       0      22
 356          HC       7

 357          KK   DRNM5   CNAME  DRAINA
 358          KM   ROUTE HYDROGRAPH FROM DRAINA TO M5 (CHANNEL DRNM5)
 359          KO       0       0     0.0       0      22
 360          RS       5    FLOW     0.0     0.0
 361          RC    0.05    0.05    0.05 7894.85  0.0013     0.0
 362          RX     0.0   500.0   525.0   528.0   543.0   546.0   571.0  1071.0
 363          RY     9.0     4.0     2.0     0.0     0.0     2.0     4.0     9.0

 364          KK    4thS
 365          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 366          KM   L=0.74     Lca=0.50     S=0.01     Kn=0.011     LAG=30
 367          KM   S-GRAPH TYPE=PHOENIX VALLEY
 368          KO       0       0     0.0       1      22
 369          BA  0.1451
 370          LG   0.181   0.203   6.474   0.204  37.605
 371          UI     0.0   44.97  142.41  127.57   44.49   10.45     0.0

 372          KK  FRM4TH
 373          KM   RETRIEVE HYDROGRAPH FROM 4TH
 374          KO       0       0     0.0       0      22
 375          DR  TO4THS
1                                        HEC-1 INPUT                                                          PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 376          KK   4TH4S   CNAME
 377          KM   ROUTE HYDROGRAPH FROM 4THA TO 4THSA (CHANNEL 4TH4S)
 378          RS       1    FLOW     0.0     0.0
 379          RC    0.05   0.015    0.05  2629.0   0.015     0.0
 380          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 381          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 382          KK   4thSA   CNAME  4TH7TH
 383          KM   COMBINE DIVERTED HYDROGRAPH FROM 4THA WITH RUNOFF FROM 4THS @ 4THSA
 384          KO       0       0     0.0       0      22
 385          HC       2

 386          KK  4TH7TH   CNAME   4thSA
 387          KM   ROUTE HYDROGRAPH FROM 4THSA TO 7THSA (CHANNEL 4TH7TH)
 388          KO       0       0     0.0       0      22
 389          RS       2    FLOW     0.0     0.0
 390          RC    0.05   0.015    0.05  1339.0  0.0028     0.0
 391          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 392          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 393          KK     7th
 394          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 395          KM   L=0.66     Lca=0.33     S=0.01     Kn=0.011     LAG=24
 396          KM   S-GRAPH TYPE=PHOENIX VALLEY
 397          KO       0       0     0.0       1      22
 398          BA  0.1268
 399          LG   0.252   0.261   5.114   0.312  38.171
 400          UI     0.0   60.41  169.79   77.88   14.98     0.0

 401          KK  FRM6TH
 402          KM   RETRIEVE HYDROGRAPH FROM 6THA
 403          KO       0       0     0.0       0      22
 404          DR  TO7THS

 405          KK  6TH7TH   CNAME
 406          KM   ROUTE HYDROGRAPH FROM 6THA TO 7THSA (CHANNEL 6TH7TH)
 407          RS       1    FLOW     0.0     0.0
 408          RC    0.05   0.015    0.05  3061.0  0.0059     0.0
 409          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 410          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 411          KK   7thSA   CNAME   7THM5
 412          KM   COMBINE DIVERTED HYDROGRAPH FROM 6THA WITH ROUTED HYDROGRAPH FROM 4THSA WITH
 413          KO       0       0     0.0       0      22
 414          HC       3

 415          KK   7THM5   CNAME   7thSA
 416          KM   ROUTE HYDROGRAPH FROM 7THSA TO M5 (CHANNEL 7THM5)
 417          KO       0       0     0.0       0      22
 418          RS       2    FLOW     0.0     0.0
 419          RC    0.05    0.05    0.05 5286.53  0.0023     0.0
 420          RX     0.0    25.0    28.0    31.0    46.0    49.0    52.0    77.0
```

```
 421          RY     6.0     4.0     2.0     0.0     0.0     2.0     4.0     6.0
1                                          HEC-1 INPUT                                                          PAGE 10

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 422          KK      98
 423          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 424          KM   L=1.50     Lca=0.75     S=6.69     Kn=0.200     LAG=209
 425          KM   S-GRAPH TYPE=AGRICULTURE
 426          KO       0       0     0.0       1      22
 427          BA  0.3878
 428          LG     1.0   0.174   9.082   0.078  10.556
 429          UI     0.0   14.59   24.67   66.97    88.8  117.54  122.57  113.04  108.08    79.8
 430          UI    66.8   46.99   39.56   25.34   19.48   15.08    12.7    8.28    8.28    3.72
 431          UI    1.82    1.82    1.82    1.82    1.82    1.82    1.82    1.82    1.82    1.82
 432          UI     0.0

 433          KK      M5
 434          KM   COMBINE ROUTED HYDROGRAPHS FROM 7THSA AND DRAINA WITH RUNOFF FROM 98 @ M5
 435          KO       0       0     0.0       0      22
 436          HC       3

 437          KK    BICP
 438          KM   ***********************************************************************
 439          KM   **   SUB-WATERSHED P   ***************************************************
 440          KM   ***********************************************************************
 441          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 442          BA   0.001
 443          ZR  =QI A=BIC BIC B=67395 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06E

 444          KK   P6SP7   CNAME     P6S
 445          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT P6S TO P7 (CHANNEL A)
 446          KO       0       0     0.0       0      22
 447          RS       1    FLOW     0.0     0.0
 448          RC     0.1     0.1     0.1  5100.0   0.005     0.0
 449          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 450          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 451          KK      94
 452          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 453          KM   L=1.30     Lca=0.65     S=22.37     Kn=0.200     LAG=149
 454          KM   S-GRAPH TYPE=AGRICULTURE
 455          KO       0       0     0.0       1      22
 456          BA  0.7194
 457          LG     1.0    0.15   7.304   0.157   2.203
 458          UI     0.0   17.81   17.81   35.71   70.46  102.77  107.11  138.19  149.58  149.58
 459          UI  147.91  124.65  131.59  105.71  101.03   75.79   63.54   51.25   51.33   33.33
 460          UI   28.76   23.11   21.15   16.26   16.26   10.96   10.11   10.11    8.64    2.23
 461          UI    2.23    2.23    2.23    2.23    2.23    2.23    2.23    2.23    2.23    2.23
 462          UI    2.23    2.23    2.23    2.23    2.23     0.0

 463          KK      P7   CNAME   P7-P8
 464          KM   COMBINE ROUTED HYDROGRAPH FROM P6S WITH RUNOFF FROM 94 @ P7
 465          KO       0       0     0.0       0      22
 466          HC       2
1                                          HEC-1 INPUT                                                          PAGE 11

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 467          KK   P7-P8   CNAME      P7
 468          KM   ROUTE HYDROGRAPH FROM P7 TO P8 (CHANNEL A)
 469          KO       0       0     0.0       0      22
 470          RS       6    FLOW     0.0     0.0
 471          RC     0.1     0.1     0.1 3899.99  0.0015     0.0
 472          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 473          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 474          KK      96
 475          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 476          KM   L=1.32     Lca=0.66     S=4.55     Kn=0.200     LAG=205
 477          KM   S-GRAPH TYPE=AGRICULTURE
 478          KO       0       0     0.0       1      22
 479          BA  0.9142
 480          LG     1.0    0.15   7.196   0.171   0.589
 481          UI     0.0   16.45   16.45    18.8   34.54   52.11   84.71   98.14   96.32  126.68
 482          UI  129.26  138.14  138.14  138.14  130.47  115.12  121.64  118.86   86.34   91.94
 483          UI   82.29   63.36   57.32   47.86   49.06   41.47   31.23   26.57   24.96   20.31
 484          UI   20.31   15.37   15.02   15.02   10.53    9.33    9.33    9.33    9.33     4.0
 485          UI    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06
 486          UI    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06
 487          UI    2.06    2.06     0.0

 488          KK      P8   CNAME   P8-P9
 489          KM   COMBINE ROUTED HYDROGRAPH FROM P7 WITH RUNOFF FROM 96 @ P8
 490          KO       0       0     0.0       0      22
 491          HC       2

 492          KK   P8-P9   CNAME      P8
 493          KM   ROUTE HYDROGRAPH FROM P8 TO P9 (CHANNEL A)
 494          KO       0       0     0.0       0      22
 495          RS       9    FLOW     0.0     0.0
 496          RC     0.1     0.1     0.1 6986.11  0.0012     0.0
 497          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 498          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 499          KK      97
 500          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 501          KM   L=1.32     Lca=0.66     S=6.05     Kn=0.200     LAG=195
 502          KM   S-GRAPH TYPE=AGRICULTURE
 503          KO       0       0     0.0       1      22
 504          BA  0.5002
 505          LG     1.0   0.163   6.866   0.195   0.278
 506          UI     0.0    9.46    9.46   12.27   19.87   35.86   52.15   53.64   61.59   73.51
 507          UI   79.47   79.47   79.47   79.47   66.22   66.89    74.0   49.67   52.15   48.28
 508          UI   36.52   32.56   27.34   28.83   21.44   17.23   15.28   13.09   11.69   10.47
 509          UI    8.64    8.64     7.3    5.37    5.37    5.37    5.37    2.86    1.18    1.18
 510          UI    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18
 511          UI    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18     0.0
1                                          HEC-1 INPUT                                                          PAGE 12

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
512          KK   FRO10
513          KM   RETRIEVE HYDROGRAPH FROM O10
514          KO       0       0     0.0       0      22
515          DR    TOP9

516          KK  O10-P9   CNAME
517          KM   ROUTE HYDROGRAPH FROM O10 TO P9 (CHANNEL O10-P9)
518          RS       1    FLOW     0.0     0.0
519          RC    0.05    0.05    0.05  1492.0   0.002     0.0
520          RX     0.0   200.0   235.0   251.0   263.0   279.0   314.0   349.0
521          RY    12.0    10.0     8.0     0.0     0.0     8.0    10.0    12.0

522          KK      P9   CNAME  P9-P10
523          KM   COMBINE ROUTED HYDROGRAPH FROM P8 WITH DIVERTED HYDROGRAPH FROM O10 WITH RUNO
524          KO       0       0     0.0       0      22
525          HC       3

526          KK  P9-P10   CNAME      P9
527          KM   ROUTE HYDROGRAPH FROM P9 TO P10 (CHANNEL A)
528          KO       0       0     0.0       0      22
529          RS       5    FLOW     0.0     0.0
530          RC     0.1     0.1     0.1 3952.01  0.0048     0.0
531          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
532          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

533          KK     100
534          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
535          KM   L=1.70      Lca=0.85      S=18.83      Kn=0.200      LAG=190
536          KM   S-GRAPH TYPE=AGRICULTURE
537          KO       0       0     0.0       1      22
538          BA  0.5816
539          LG     1.0   0.228   6.243   0.251   1.187
540          UI     0.0   11.29   11.29   15.51   24.87    45.7   65.19   60.85   82.97   85.34
541          UI   94.82   94.82   94.82   89.56   79.02   84.02   75.73   59.27   66.61   45.77
542          UI    43.1   33.76   32.34    31.6   21.55   18.46   17.01   13.94   13.46   10.31
543          UI   10.31    9.45    6.41    6.41    6.41    6.41    3.74    1.41    1.41    1.41
544          UI    1.41    1.41    1.41    1.41    1.41    1.41    1.41    1.41    1.41    1.41
545          UI    1.41    1.41    1.41    1.41    1.41    1.41    1.41     0.0

546          KK     P10
547          KM   COMBINE ROUTED HYDROGRAPH FROM P9 WITH RUNOFF FROM 100 @ P10
548          KO       0       0     0.0       0      22
549          HC       2

550          KK      99
551          KM   ******************************************************************************
552          KM   **   SUB-WATERSHED N-B   ***********************************************************
553          KM   ******************************************************************************
554          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
555          KM   L=2.01      Lca=1.24      S=3.49      Kn=0.050      LAG=80
556          KM   S-GRAPH TYPE=PHOENIX VALLEY
557          KO       0       0     0.0       1      22
558          BA  0.9484
559          LG     1.0   0.334   6.022   0.216   0.014
1                                        HEC-1 INPUT                                                PAGE 13

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

560          UI     0.0   39.92  121.66  208.16  273.54  409.44  445.57  321.29  237.94  165.13
561          UI    81.8   57.84   37.85   12.24   12.24   12.24     0.0

562          KK     101
563          KM   ******************************************************************************
564          KM   **   SUB-WATERSHED Q   ***********************************************************
565          KM   ******************************************************************************
566          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
567          KM   L=1.63      Lca=0.81      S=8.59      Kn=0.200      LAG=213
568          KM   S-GRAPH TYPE=AGRICULTURE
569          KO       0       0     0.0       1      22
570          BA  0.3807
571          LG     1.0   0.149   6.963   0.172   3.947
572          UI     0.0    6.59    6.59    6.72   13.84   19.36   31.67   39.52   35.16   50.66
573          UI   48.72   55.36   55.36   55.36   55.36   47.98   46.14   49.41   43.25    34.6
574          UI   38.51    29.5   25.17   22.12   19.02   19.89   16.22   12.54   10.65   10.21
575          UI    8.14    8.14    6.53    6.02    6.02    4.89    3.74    3.74    3.74    3.74
576          UI    3.04    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82
577          UI    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82
578          UI    0.82    0.82    0.82    0.82     0.0

579          KK    BICK
580          KM   ******************************************************************************
581          KM   **   SUB-WATERSHED K   ***********************************************************
582          KM   ******************************************************************************
583          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
584          BA   0.001
585          ZR  =QI A=BIC BIC B=42799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06E

586          KK   K7SK8   CNAME     K7S
587          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT K7S TO K8 (CHANNEL A)
588          KO       0       0     0.0       0      22
589          RS       1    FLOW     0.0     0.0
590          RC     0.1     0.1     0.1  8240.0   0.005     0.0
591          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
592          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

593          KK      90
594          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
595          KM   L=2.05      Lca=1.02      S=21.50      Kn=0.200      LAG=213
596          KM   S-GRAPH TYPE=AGRICULTURE
597          KO       0       0     0.0       1      22
598          BA  1.0549
599          LG     1.0   0.152   9.525   0.075   5.871
600          UI     0.0   18.26   18.26   18.63   38.35   53.64   87.77   109.5   97.42  140.37
601          UI   135.0  153.41  153.41  153.41  153.41  132.96  127.84  136.92  119.85   95.88
602          UI  106.72   81.75   69.73   61.31   52.71   55.11   44.96   34.76    29.5   28.29
603          UI   22.56   22.56   18.09   16.68   16.68   13.56   10.37   10.37   10.37   10.37
604          UI    8.43    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
605          UI    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
606          UI    2.28    2.28    2.28    2.28     0.0
1                                        HEC-1 INPUT                                                PAGE 14

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
KK      K8
KM   COMBINE ROUTED HYDROGRAPH FROM K7S WITH RUNOFF FROM 90 @ K8
KO       0       0     0.0       6      22
HC       2

KK    BICL
KM   ***********************************************************************
KM   **   SUB-WATERSHED L   ****************************************************
KM   ***********************************************************************
KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
BA   0.001
ZR  =QI A=BIC BIC B=47195 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06E

KK   L5SL6   CNAME     L5S
KM   ROUTE INFLOW FROM BIC CONCENTRATED AT L5S TO L6 (CHANNEL A)
KO       0       0     0.0       0      22
RS       1    FLOW     0.0     0.0
RC     0.1     0.1     0.1  9280.0   0.005     0.0
RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

KK      91
KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
KM   L=2.08      Lca=1.04      S=21.10      Kn=0.200      LAG=217
KM   S-GRAPH TYPE=AGRICULTURE
KO       0       0     0.0       1      22
BA   1.189
LG     1.0    0.15   8.293   0.113   5.191
UI     0.0   20.21   20.21   20.21   41.59   57.01   93.61  121.43  106.09  140.03
UI  156.16  169.74  169.74  169.74  169.74  154.65  141.45  151.68  144.39  106.09
UI  111.63  106.19   79.21   74.79   60.09   56.97   62.49   38.58   35.53   32.64
UI   27.78   24.96   23.83   18.45   18.45   18.45   12.54   11.47   11.47   11.47
UI   11.47    7.06    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53
UI    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53
UI    2.53    2.53    2.53    2.53    2.53     0.0

KK      L6
KM   COMBINE ROUTED HYDROGRAPH FROM L5S WITH RUNOFF FROM 91 @ L6
KO       0       0     0.0       0      22
HC       2
ZZ
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	BICM	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	M4S6TH	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	4th	108.	4.50	13.	3.	1.	0.08		
+	DIVERSION TO	TO4THS	54.	4.50	6.	2.	1.	0.08		
+	HYDROGRAPH AT	TO4THS	54.	4.50	6.	2.	1.	0.08		
+	ROUTED TO	4TH6TH	45.	4.50	6.	2.	1.	0.08		
+	HYDROGRAPH AT	6th	83.	4.50	10.	2.	1.	0.06		
+	3 COMBINED AT	6thA	128.	4.50	16.	4.	1.	0.14		
+	DIVERSION TO	TO7THS	64.	4.50	8.	2.	1.	0.14		
+	HYDROGRAPH AT	TO7THS	64.	4.50	8.	2.	1.	0.14		
+	ROUTED TO	6TH8TH	57.	4.50	8.	2.	1.	0.14		
+	HYDROGRAPH AT	8th	117.	4.50	13.	3.	1.	0.08		
+	2 COMBINED AT	8thA	174.	4.50	21.	5.	2.	0.22		
+	DIVERSION TO	TOCEN1	87.	4.50	11.	3.	1.	0.22		
+	HYDROGRAPH AT	TOCEN	87.	4.50	11.	3.	1.	0.22		
+	ROUTED TO	8TH9TH	78.	4.50	11.	3.	1.	0.22		
+	HYDROGRAPH AT	9thE	116.	4.50	15.	4.	1.	0.09		
+	HYDROGRAPH AT	9thW	118.	4.50	12.	3.	1.	0.08		
+	3 COMBINED AT	9th	311.	4.50	38.	10.	3.	0.40		
+	DIVERSION TO	TOCEN2	156.	4.50	19.	5.	2.	0.40		
+	HYDROGRAPH AT	TOCEN2	156.	4.50	19.	5.	2.	0.40		
	HYDROGRAPH AT									

```
+                    BICN      63.   7.25      33.      9.      3.    0.00
      ROUTED TO
+                    N6S-D     17.  10.25      15.      8.      3.    0.00
      HYDROGRAPH AT
+                    BICO       0.   0.00       0.      0.      0.    0.00
      ROUTED TO
+                    08S09      0.   0.00       0.      0.      0.    0.00
      HYDROGRAPH AT
+                      93      29.   6.00      15.      4.      1.    0.38
      2 COMBINED AT
+                      09      29.   6.00      15.      4.      1.    0.38
      ROUTED TO
+                    09010      7.  13.00       6.      4.      1.    0.38
      HYDROGRAPH AT
+                      95      36.   7.00      24.      7.      2.    0.52
      2 COMBINED AT
+                     010      33.   7.50      23.      9.      3.    0.90
      DIVERSION TO
+                    TOP9      16.   7.50      11.      4.      2.    0.90
      HYDROGRAPH AT
+                    TOP9      16.   7.50      11.      4.      2.    0.90
      ROUTED TO
+                    010DR     10.  15.50       8.      4.      2.    0.90
      HYDROGRAPH AT
+                   CENTRE     99.   4.50      10.      3.      1.    0.07
      HYDROGRAPH AT
+                   FRM9TH    156.   4.50      19.      5.      2.    0.40
      ROUTED TO
+                   9THCEN    134.   4.50      19.      5.      2.    0.40
      HYDROGRAPH AT
+                   FRM8TH     87.   4.50      11.      3.      1.    0.22
      ROUTED TO
+                   8THCEN     74.   4.50      11.      3.      1.    0.22
      3 COMBINED AT
+                   CENTRA    308.   4.50      40.     10.      3.    0.07
      DIVERSION TO
+                    TODRN    154.   4.50      20.      5.      2.    0.07
      HYDROGRAPH AT
+                   TOBELO    154.   4.50      20.      5.      2.    0.07
      ROUTED TO
+                   CENBEL    134.   4.75      20.      5.      2.    0.07
      HYDROGRAPH AT
+                   BELOAT     65.   4.50       6.      1.      0.    0.05
      2 COMBINED AT
+                   BELOAA    171.   4.50      26.      6.      2.    0.12
      ROUTED TO
+                   BELDRN    159.   4.75      26.      6.      2.    0.12
      HYDROGRAPH AT
+                   BAYLIS     34.   4.25       3.      1.      0.    0.02
      ROUTED TO
+                   DETDRN     20.   4.25       3.      1.      0.    0.02
      HYDROGRAPH AT
+                      92     174.   5.50      57.     15.      5.    1.01
      HYDROGRAPH AT
+                    DRAIN     99.   4.50       8.      2.      1.    0.12
      HYDROGRAPH AT
+                   FRMCEN    154.   4.50      20.      5.      2.    0.07
      ROUTED TO
+                   CENDRN     74.   5.00      19.      5.      2.    0.07
      7 COMBINED AT
+                   DRAINA    313.   4.75     110.     47.     17.    2.16
      ROUTED TO
+                    DRNM5    242.   6.25     108.     47.     17.    2.16
      HYDROGRAPH AT
+                     4thS    152.   4.50      21.      5.      2.    0.15
      HYDROGRAPH AT
+                   FRM4TH     54.   4.50       6.      2.      1.    0.08
      ROUTED TO
+                    4TH4S     46.   4.50       6.      2.      1.    0.08
      2 COMBINED AT
+                    4thSA    198.   4.50      27.      7.      2.    0.15
      ROUTED TO
+                   4TH7TH    188.   4.75      27.      7.      2.    0.15
      HYDROGRAPH AT
+                      7th    152.   4.50      17.      4.      1.    0.13
      HYDROGRAPH AT
```

```
+                    FRM6TH      64.   4.50        8.        2.        1.     0.14
        ROUTED TO
+                    6TH7TH      52.   4.50        8.        2.        1.     0.14
        3 COMBINED AT
+                     7thSA     342.   4.50       52.       13.        4.     0.27
        ROUTED TO
+                     7THM5     275.   5.00       51.       13.        4.     0.27
        HYDROGRAPH AT
+                        98      80.   5.50       28.        7.        2.     0.39
        3 COMBINED AT
+                        M5     342.   5.50      165.       52.       18.     2.82
        HYDROGRAPH AT
+                      BICP       0.   0.00        0.        0.        0.     0.00
        ROUTED TO
+                     P6SP7       0.   0.00        0.        0.        0.     0.00
        HYDROGRAPH AT
+                        94      64.   6.25       32.        8.        3.     0.72
        2 COMBINED AT
+                        P7      64.   6.25       32.        8.        3.     0.72
        ROUTED TO
+                     P7-P8      49.   8.50       29.        8.        3.     0.72
        HYDROGRAPH AT
+                        96      51.   7.00       32.        9.        3.     0.91
        2 COMBINED AT
+                        P8      73.   8.25       48.       15.        5.     1.63
        ROUTED TO
+                     P8-P9      53.  12.25       41.       15.        5.     1.63
        HYDROGRAPH AT
+                        97      31.   6.75       19.        5.        2.     0.50
        HYDROGRAPH AT
+                     FRO10      16.   7.50       11.        4.        2.     0.90
        ROUTED TO
+                    O10-P9      16.   7.50       11.        4.        2.     0.90
        3 COMBINED AT
+                        P9      53.  12.25       42.       20.        7.     2.13
        ROUTED TO
+                    P9-P10      51.  13.75       42.       20.        7.     2.13
        HYDROGRAPH AT
+                       100      28.   6.75       17.        5.        2.     0.58
        2 COMBINED AT
+                       P10      50.  14.00       41.       22.        7.     2.72
        HYDROGRAPH AT
+                        99      72.   5.50       16.        4.        1.     0.95
        HYDROGRAPH AT
+                       101      27.   7.00       18.        5.        2.     0.38
        HYDROGRAPH AT
+                      BICK     101.  11.00       67.       25.       11.     0.00
        ROUTED TO
+                     K7SK8      56.  14.25       50.       24.       11.     0.00
        HYDROGRAPH AT
+                        90      85.   7.00       56.       16.        5.     1.05
        2 COMBINED AT
+                        K8      88.   7.25       61.       39.       19.     1.06
        HYDROGRAPH AT
+                      BICL      35.   7.50       28.       14.        9.     0.00
        ROUTED TO
+                     L5SL6      21.  12.50       20.       13.        8.     0.00
        HYDROGRAPH AT
+                        91      82.   7.00       54.       16.        5.     1.19
        2 COMBINED AT
+                        L6      89.   7.50       55.       28.       13.     1.19

*** NORMAL END OF HEC-1 ***
      1****************************************
*                                          *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)      *
*              JUN   1998                  *
*            VERSION 4.1                   *
*                                          *
*  RUN DATE   23MAR06  TIME  05:09:07      *
*                                          *
********************************************

                                                  ****************************************
                                                  *                                      *
                                                  *   U.S. ARMY CORPS OF ENGINEERS       *
                                                  *   HYDROLOGIC ENGINEERING CENTER      *
                                                  *         609 SECOND STREET            *
                                                  *      DAVIS, CALIFORNIA 95616         *
                                                  *          (916) 756-1104              *
                                                  *                                      *
                                                  ****************************************

                                        X     X  XXXXXXX   XXXXX          X
                                        X     X  X        X     X        XX
                                        X     X  X        X              X
                                        XXXXXXX  XXXX     X        XXXXX  X
                                        X     X  X        X              X
```

```
                                        X     X  X        X     X          X
                                        X     X  XXXXXXX   XXXXX          XXX


THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                    PAGE  1

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

         1          ID   Buckeye/Sun Valley ADMS - November 2004
         2          ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
         3          ID   10-year 6-hour
         4          ID   Existing Conditions
         5          ID   Area 1 - BIC to Gila (West)
         6          ID   File Name: bgw106ex.hc1
         7          ID   Rainfall Loss Method - Green & Ampt
         8          ID   Unit Hydrograph Method - FCDMC S-Graph
         9          ID   Channel Routing Method - Normal Depth
        10          ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
        11          ID   Existing Land Use Cutoff Date: 2000
        12          ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
        13          ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                    *DIAGRAM
        14          IT      15 02JAN94       0      400
        15          IO       3
        16          IN      15 02JAN94       0
        17          JD   2.082    0.01
                    * 6-hour distribution, pattern 1.0
        18          PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
        19          PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
        20          PC   0.962   0.972   0.983   0.991     1.0
        21          IN      15 02JAN94       0
        22          JD    2.07     0.5
                    * 6-hour distribution, pattern 1.0
        23          PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
        24          PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
        25          PC   0.962   0.972   0.983   0.991     1.0
        26          IN      15 02JAN94       0
        27          JD   2.055     1.0
                    * 6-hour distribution, pattern 1.4
        28          PC     0.0  0.0084   0.016   0.025  0.0334  0.0414  0.0504  0.0584  0.0664  0.0748
        29          PC   0.087  0.0994  0.1188   0.148  0.2304  0.4067  0.7778  0.8813  0.9186  0.9452
        30          PC  0.9572  0.9684  0.9798  0.9898     1.0
        31          IN      15 02JAN94       0
        32          JD   1.999     5.0
                    * 6-hour distribution, pattern 2.3
        33          PC     0.0   0.011  0.0173  0.0267  0.0387   0.049  0.0593  0.0693  0.0797  0.0903
        34          PC   0.103  0.1173  0.1383  0.1827  0.2693   0.458   0.686  0.8233  0.8893  0.9293
        35          PC  0.9487   0.962  0.9743  0.9877     1.0
        36          IN      15 02JAN94       0
        37          JD   1.958    10.0
                    * 6-hour distribution, pattern 2.7
        38          PC     0.0  0.0134  0.0189  0.0287  0.0443  0.0574  0.0694  0.0818  0.0949  0.1076
        39          PC  0.1223  0.1382  0.1604  0.2063  0.2902  0.4664  0.6764  0.8069  0.8765  0.9189
        40          PC  0.9471  0.9608  0.9735  0.9873     1.0

        41          KK   BICE
        42          KM   ******************************************************************************
        43          KM   **   SUB-WATERSHED E   ******************************************************
        44          KM   ******************************************************************************
        45          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
        46          BA  0.0001
        47          ZR  =QI A=BIC BIC B=4395 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06E
1                                                HEC-1 INPUT                                                    PAGE  2

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

        48          KK  E2S-E3   CNAME     E2S
        49          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT E2S TO E3 (CHANNEL A)
        50          KO       0       0     0.0       0      22
        51          RS       1    FLOW     0.0     0.0
        52          RC     0.1     0.1     0.1 9548.74   0.003     0.0
        53          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
        54          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

        55          KK      84
        56          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
        57          KM   L=1.81      Lca=0.98     S=13.27     Kn=0.200     LAG=219
        58          KM   S-GRAPH TYPE=AGRICULTURE
        59          KO       0       0     0.0       1      22
        60          BA  0.8772
        61          LG     1.0   0.147   9.727   0.071   0.998
        62          UI     0.0   14.77   14.77   14.77   29.95   40.82   67.16   88.66   77.76   98.85
        63          UI  113.94  124.08  124.08  124.08  124.08  115.81   103.4  107.74  113.07   77.55
        64          UI   80.05   82.21    59.0    56.4   45.14   41.62   46.54   30.82   27.07   23.86
        65          UI   21.83   18.25   18.25   14.06   13.49   13.49   10.82    8.38    8.38    8.38
        66          UI    8.38     7.6    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85
        67          UI    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85
        68          UI    1.85    1.85    1.85    1.85    1.85    1.85     0.0

        69          KK      E3
        70          KM   COMBINE ROUTED HYDROGRAPH FROM E2S WITH RUNOFF FROM 84 @ E3
        71          KO       0       0     0.0       0      22
        72          HC       2

        73          KK  BICFB
        74          KM   ******************************************************************************
        75          KM   **   SUB-WATERSHEDS F AND G   ***************************************************
        76          KM   ******************************************************************************
        77          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
        78          BA    0.01
        79          ZR  =QI A=BIC BIC B=14995 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06E
```

```
 80          KK  F6BS7B   CNAME    F6BS
 81          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT F6BS TO F7B (CHANNEL A)
 82          KO       0       0     0.0       0      22
 83          RS       1    FLOW     0.0     0.0
 84          RC     0.1     0.1     0.1 3159.78   0.007     0.0
 85          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 86          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 87          KK     85B
 88          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 89          KM   L=1.47     Lca=0.73     S=15.68     Km=0.200     LAG=176
 90          KM   S-GRAPH TYPE=AGRICULTURE
 91          KO       0       0     0.0       1      22
 92          BA  0.7453
 93          LG     1.0   0.247   5.674   0.297   1.988
 94          UI     0.0   15.62   15.62   24.82   40.72   72.66   91.61   93.72  117.48  131.18
 95          UI  131.18  131.18  125.35  109.32  115.73  100.21   83.45    84.6   61.11   53.73
 96          UI   44.85   48.84   29.87   26.57   24.15   19.29   18.35   14.26   14.26   11.63
1                                          HEC-1 INPUT                                              PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 97          UI    8.86    8.86    8.86    7.85    1.95    1.95    1.95    1.95    1.95    1.95
 98          UI    1.95    1.95    1.95    1.95    1.95    1.95    1.95    1.95    1.95    1.95
 99          UI    1.95    1.95    1.95     0.0

100          KK     F7B   CNAME  F7B-F8
101          KM   COMBINE ROUTED HYDROGRAPH FROM F6BS WITH RUNOFF FROM 85B @ F7B
102          KO       0       0     0.0       0      22
103          HC       2

104          KK  F7B-F8   CNAME     F7B
105          KM   ROUTE HYDROGRAPH FROM F7B TO F8 (CHANNEL A)
106          KO       0       0     0.0       0      22
107          RS       8    FLOW     0.0     0.0
108          RC     0.1     0.1     0.1 6483.88   0.006     0.0
109          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
110          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

111          KK   BICG
112          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
113          BA    0.01
114          ZR  =QI A=BIC BIC B=21999 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06E

115          KK  G8S-G9   CNAME     G8S
116          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT G8S TO G9 (CHANNEL A)
117          KO       0       0     0.0       0      22
118          RS       1    FLOW     0.0     0.0
119          RC     0.1     0.1     0.1 5481.53   0.005     0.0
120          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
121          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

122          KK      86
123          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
124          KM   L=1.09     Lca=0.54     S=25.78     Km=0.200     LAG=127
125          KM   S-GRAPH TYPE=AGRICULTURE
126          KO       0       0     0.0       1      22
127          BA  0.4398
128          LG     1.0    0.15   8.108    0.11   6.815
129          UI     0.0   12.77   15.89   33.53   68.33   74.26   98.27  107.27  107.27   97.74
130          UI   93.18   80.08   72.45   51.51   42.18   37.93    27.0   20.95   16.68   14.24
131          UI   11.66    9.78    7.25    7.25    5.59     1.6     1.6     1.6     1.6     1.6
132          UI     1.6     1.6     1.6     1.6     1.6     1.6     1.6     1.6     0.0

133          KK      G9   CNAME   G9-F8
134          KM   COMBINE ROUTED HYDROGRAPH FROM G8S WITH RUNOFF FROM 86 @ G9
135          KO       0       0     0.0       0      22
136          HC       2

137          KK   G9-F8   CNAME      G9
138          KM   ROUTE HYDROGRAPH FROM G9 TO F8 (CHANNEL A)
139          KO       0       0     0.0       0      22
140          RS      13    FLOW     0.0     0.0
141          RC     0.1     0.1     0.1 9228.08   0.004     0.0
142          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
143          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                              PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


144          KK  BICFA
145          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
146          BA  0.0001
147          ZR  =QI A=BIC BIC B=11199 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06E

148          KK  F6AS7A   CNAME    F6AS
149          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT F6AS TO F7A (CHANNEL A)
150          KO       0       0     0.0       0      22
151          RS       1    FLOW     0.0     0.0
152          RC     0.1     0.1     0.1  2921.0   0.011     0.0
153          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
154          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

155          KK     85A
156          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
157          KM   L=0.84     Lca=0.42     S=37.89     Km=0.200     LAG=98
158          KM   S-GRAPH TYPE=AGRICULTURE
159          KO       0       0     0.0       1      22
160          BA  0.2163
161          LG     1.0   0.148   7.216   0.169   1.439
162          UI     0.0    8.14   13.77   37.36   49.55   65.58   68.39   63.07   60.31   44.52
163          UI   37.27   26.22   22.07   14.14   10.87    8.41    7.09    4.62    4.62    2.07
164          UI    1.02    1.02    1.02    1.02    1.02    1.02    1.02    1.02    1.02    1.02
165          UI     0.0

166          KK     F7A   CNAME  F7A-F8
167          KM   COMBINE ROUTED HYDROGRAPH FROM F6AS WITH RUNOFF FROM 85A @ F7A
168          KO       0       0     0.0       0      22
169          HC       2

170          KK  F7A-F8   CNAME     F7A
171          KM   ROUTE HYDROGRAPH FROM F7A TO F8 (CHANNEL A)
172          KO       0       0     0.0       0      22
```

```
173          RS       7    FLOW     0.0      0.0
174          RC     0.1     0.1     0.110377.67   0.006     0.0
175          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
176          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

177          KK     105
178          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
179          KM   L=1.94      Lca=0.97      S=18.59      Kn=0.200      LAG=210
180          KM   S-GRAPH TYPE=AGRICULTURE
181          KO       0       0     0.0       1      22
182          BA  0.9967
183          LG     1.0    0.15   8.425   0.106   1.659
184          UI     0.0    17.5    17.5   18.66   36.76   52.93   86.38  104.76   96.79  138.98
185          UI  128.13  147.03  147.03  147.03  147.03  122.52  122.52  134.29  104.02   92.91
186          UI  101.53   70.71   66.83   54.23   49.36   55.42    34.8   31.36   28.27   24.42
187          UI   21.62   20.49   15.98   15.98   15.98   10.06    9.93    9.93    9.93    9.93
188          UI    3.74    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19
189          UI    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19
190          UI    2.19    2.19    2.19     0.0
1                                         HEC-1 INPUT                                                    PAGE  5

        LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


191          KK     104
192          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
193          KM   L=1.95      Lca=0.98      S=13.83      Kn=0.200      LAG=223
194          KM   S-GRAPH TYPE=AGRICULTURE
195          KO       0       0     0.0       1      22
196          BA  1.0120
197          LG     1.0   0.174   6.755   0.192   0.053
198          UI     0.0   16.74   16.74   16.74    32.9   44.31    73.2   96.94   91.85  107.62
199          UI  126.44  139.17  140.58  140.58  140.58  137.46  117.15  117.15  127.87  102.94
200          UI   87.86   99.21   73.02    63.9   56.91   48.63   49.42   45.47   31.95   28.25
201          UI   27.03   21.81   20.67   19.09   15.28   15.28   15.28   10.23     9.5     9.5
202          UI     9.5     9.5    6.73    2.09    2.09    2.09    2.09    2.09    2.09    2.09
203          UI    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09
204          UI    2.09    2.09    2.09    2.09    2.09    2.09    2.09     0.0

205          KK      F8
206          KM   COMBINE ROUTED HYDROGRAPH FROM G9, F7A, AND F7B WITH RUNOFF FROM 104 AND 105
207          KO       0       0     0.0       0      22
208          HC       5

209          KK   BICH
210          KM   ***************************************************************************
211          KM   **    SUB-WATERSHED H    ****************************************************
212          KM   ***************************************************************************
213          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
214          BA    0.01
215          ZR  =QI A=BIC BIC B=24799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06E

216          KK  H7S-H8   CNAME     H7S
217          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT H7S TO H8 (CHANNEL A)
218          KO       0       0     0.0       0      22
219          RS       1    FLOW     0.0     0.0
220          RC     0.1     0.1     0.1 9426.94   0.004     0.0
221          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
222          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

223          KK      87
224          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
225          KM   L=1.87      Lca=0.93      S=22.48      Kn=0.200      LAG=197
226          KM   S-GRAPH TYPE=AGRICULTURE
227          KO       0       0     0.0       1      22
228          BA  0.9127
229          LG     1.0   0.142   9.841   0.066   1.133
230          UI     0.0   17.08   17.08   21.63   35.88    62.3   92.38   98.78  108.99  130.67
231          UI  143.51  143.51  143.51  143.51  122.78  119.59  131.61   97.98   92.38   92.49
232          UI   67.23   61.75   50.13   50.38    44.1   32.38    27.6   25.39    21.1   20.52
233          UI    15.6    15.6   15.09     9.7     9.7     9.7     9.7    7.98    2.14    2.14
234          UI    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14
235          UI    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14     0.0
1                                         HEC-1 INPUT                                                    PAGE  6

        LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


236          KK      H8   CNAME   H8-H9
237          KM   COMBINE ROUTED HYDROGRAPH FROM H7S WITH RUNOFF FROM 87 @ H8
238          KO       0       0     0.0       0      22
239          HC       2

240          KK   H8-H9   CNAME      H8
241          KM   ROUTE HYDRPGRAPH FROM H8 TO H9 (CHANNEL A)
242          KO       0       0     0.0       0      22
243          RS       5    FLOW     0.0     0.0
244          RC     0.1     0.1     0.1 5170.32   0.005     0.0
245          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
246          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

247          KK     106
248          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
249          KM   L=2.21      Lca=1.11      S=20.78      Kn=0.200      LAG=227
250          KM   S-GRAPH TYPE=AGRICULTURE
251          KO       0       0     0.0       1      22
252          BA  1.2094
253          LG     1.0    0.15   7.597   0.146   0.441
254          UI     0.0   19.65   19.65   19.65   37.41   49.75   82.54  109.68  112.23  121.21
255          UI  152.16   154.9  165.04  165.04  165.04  165.04   141.2  137.53  147.94  134.67
256          UI  103.15  109.85  101.52   76.86   73.58   58.83   55.01   62.59   39.81   36.09
257          UI   31.74   29.65   24.27   24.27    19.8   17.94   17.94   16.41   11.15   11.15
258          UI   11.15   11.15   11.15     5.7    2.46    2.46    2.46    2.46    2.46    2.46
259          UI    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46
260          UI    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46     0.0

261          KK      H9
262          KM   COMBINE ROUTED HYDROGRAPH FROM H8 WITH RUNOFF FROM 106 @ H9
263          KO       0       0     0.0       0      22
264          HC       2

265          KK   BICJ
266          KM   ***************************************************************************
267          KM   **    SUB-WATERSHED J AND I    ***************************************************
```

```
 268          KM   ***********************************************************************
 269          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 270          BA    0.01
 271          ZR  =QI A=BIC BIC B=36399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06E

 272          KK  J6S-J7   CNAME     J6S
 273          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT J6S TO J7 (CHANNEL A)
 274          KO       0       0     0.0       0      22
 275          RS       1    FLOW     0.0     0.0
 276          RC     0.1     0.1     0.1 7531.83   0.005     0.0
 277          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 278          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                          PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 279          KK      89
 280          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 281          KM   L=1.79     Lca=0.90     S=21.20     Kn=0.200     LAG=193
 282          KM   S-GRAPH TYPE=AGRICULTURE
 283          KO       0       0     0.0       1      22
 284          BA  0.9629
 285          LG     1.0   0.144   9.821   0.068   0.559
 286          UI     0.0    18.4    18.4   24.43   38.93    72.1  103.35  102.26  123.64  143.73
 287          UI  154.55  154.55  154.55  151.11  128.79  134.03  134.52   96.59  104.41   86.51
 288          UI   70.25   60.15   52.36    57.9   35.89   32.13   29.72   23.56   22.73   18.62
 289          UI    16.8    16.8   12.13   10.44   10.44   10.44   10.44    2.52     2.3     2.3
 290          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
 291          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     0.0

 292          KK      J7   CNAME   J7-J8
 293          KM   COMBINE ROUTED HYDROGRAPH FROM J6S WITH RUNOFF FROM 89 @ J7
 294          KO       0       0     0.0       0      22
 295          HC       2

 296          KK   J7-J8   CNAME      J7
 297          KM   ROUTE HYDROGRAPH FROM J7 TO J8 (CHANNEL Outlet to Gila)
 298          KO       0       0     0.0       0      22
 299          RS       2    FLOW     0.0     0.0
 300          RC   0.035    0.05   0.035  6030.2   0.005     0.0
 301          RX     0.0     5.0    15.0    25.0    45.0    55.0    65.0    70.0
 302          RY    12.0    12.0     6.0     0.0     0.0     6.0    12.0    12.0

 303          KK   BICI
 304          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 305          BA    0.01
 306          ZR  =QI A=BIC BIC B=33399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06E

 307          KK  I6S-I7   CNAME     I6S
 308          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT I6S TO I7 (CHANNEL A)
 309          KO       0       0     0.0       0      22
 310          RS       1    FLOW     0.0     0.0
 311          RC     0.1     0.1     0.1 5514.43   0.006     0.0
 312          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 313          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 314          KK      88
 315          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 316          KM   L=1.66     Lca=0.83     S=19.29     Kn=0.200     LAG=185
 317          KM   S-GRAPH TYPE=AGRICULTURE
 318          KO       0       0     0.0       1      22
 319          BA  0.7650
 320          LG     1.0   0.145   9.798   0.068   0.288
 321          UI     0.0   15.25   15.25   22.13    35.8   65.03   89.94   82.55  118.29   116.2
 322          UI   128.1   128.1   128.1  113.86  106.75  116.28   88.23   83.17   79.03   58.98
 323          UI   51.82   43.77   47.46   30.66   26.58   24.63   19.05   18.84   14.58   13.92
 324          UI   13.77    8.66    8.66    8.66    8.66    5.51    1.91    1.91    1.91    1.91
 325          UI    1.91    1.91    1.91    1.91    1.91    1.91    1.91    1.91    1.91    1.91
 326          UI    1.91    1.91    1.91    1.91    1.91    1.91     0.0
1                                          HEC-1 INPUT                                          PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 327          KK      I7   CNAME   I7-I8
 328          KM   COMBINE ROUTED HYDROGRAPH FROM I6S WITH RUNOFF FROM 88 @ I7
 329          KO       0       0     0.0       0      22
 330          HC       2

 331          KK   I7-I8   CNAME      I7
 332          KM   ROUTE HYDROGRAPH FROM I7 TO I8 (CHANNEL A)
 333          KO       0       0     0.0       0      22
 334          RS       3    FLOW     0.0     0.0
 335          RC     0.1     0.1     0.1 2738.75   0.011     0.0
 336          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 337          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 338          KK     102
 339          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 340          KM   L=1.48     Lca=0.74     S=25.68     Kn=0.200     LAG=161
 341          KM   S-GRAPH TYPE=AGRICULTURE
 342          KO       0       0     0.0       1      22
 343          BA  0.5197
 344          LG     1.0    0.15   8.603     0.1   0.185
 345          UI     0.0    11.9    11.9   21.67   36.81   66.04   65.67    90.5    93.0   100.0
 346          UI   100.0   95.56   83.33   88.91   70.08   66.55   54.67   45.05   35.02   35.82
 347          UI   26.07   20.61   18.27   14.71   13.22   10.87   10.87    7.09    6.76    6.76
 348          UI    6.76    1.77    1.49    1.49    1.49    1.49    1.49    1.49    1.49    1.49
 349          UI    1.49    1.49    1.49    1.49    1.49    1.49    1.49    1.49    1.49     0.0

 350          KK      I8   CNAME   I8-J8
 351          KM   COMBINE ROUTED HYDROGRAPH FROM I7 WITH RUNOFF FROM 102 @ I8
 352          KO       0       0     0.0       0      22
 353          HC       2

 354          KK   I8-J8   CNAME      I8
 355          KM   ROUTE HYDROGRAPH FROM I8 TO J8 (CHANNEL Outlet to Gila)
 356          KO       0       0     0.0       0      22
 357          RS       2    FLOW     0.0     0.0
 358          RC   0.035    0.05   0.035 1438.31   0.002     0.0
 359          RX     0.0     5.0    15.0    25.0    45.0    55.0    65.0    70.0
 360          RY    12.0    12.0     6.0     0.0     0.0     6.0    12.0    12.0
```

```
  361          KK     103
  362          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
  363          KM   L=1.14      Lca=0.57      S=22.77      Kn=0.200      LAG=135
  364          KM   S-GRAPH TYPE=AGRICULTURE
  365          KO       0        0      0.0        1       22
  366          BA  0.5071
  367          LG     1.0    0.218    6.325    0.244    0.669
  368          UI     0.0    13.85    15.53    33.16    64.73    79.27    101.4   113.87   116.37   116.37
  369          UI   96.97   104.34    75.78    76.07    54.11    43.64    41.62    28.46    22.78    18.53
  370          UI   16.22    12.65    12.03     7.86     7.86     7.86     2.96     1.73     1.73     1.73
  371          UI    1.73     1.73     1.73     1.73     1.73     1.73     1.73     1.73     1.73     1.73
  372          UI    1.73      0.0
1                                          HEC-1 INPUT                                                    PAGE  9

 LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  373          KK      J8
  374          KM   COMBINE ROUTED HYDROGRAPH FROM I8 AND J7 WITH RUNOFF FROM 103 @ J8
  375          KO       0        0      0.0        0       22
  376          HC       3

  377          KK     107
  378          KO       0        0      0.0        1       22
  379          BA  0.4835
  380          LG     1.0    0.181    6.695    0.21      0.0
  381          UI     0.0    14.27    18.19    38.28    79.06    83.22   111.51   119.83   119.83   106.52
  382          UI  104.02     85.3    78.64    55.83    44.03    42.21    26.54    22.59    17.62    14.56
  383          UI   13.03     9.33      8.1      8.1     3.89     1.78     1.78     1.78     1.78     1.78
  384          UI    1.78     1.78     1.78     1.78     1.78     1.78     1.78     1.78      0.0
  385          ZZ

  H                 RUNOFF SUMMARY
                                   FLOW IN CUBIC FEET PER SECOND
                                 TIME IN HOURS,  AREA IN SQUARE MILES

                                 PEAK   TIME OF   AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM    TIME OF
        OPERATION       STATION  FLOW    PEAK                                         AREA      STAGE    MAX STAGE
+                                                   6-HOUR     24-HOUR     72-HOUR
        HYDROGRAPH AT
+                        BICE      0.    0.00          0.          0.          0.      0.00
        ROUTED TO
+                       E2S-E3     0.    0.00          0.          0.          0.      0.00
        HYDROGRAPH AT
+                          84     62.    7.00         41.         12.          4.      0.88
        2 COMBINED AT
+                          E3     62.    7.00         41.         12.          4.      0.88
        HYDROGRAPH AT
+                       BICFB      0.    0.00          0.          0.          0.      0.01
        ROUTED TO
+                      F6BS7B      0.    0.00          0.          0.          0.      0.01
        HYDROGRAPH AT
+                         85B     29.    6.50         16.          4.          1.      0.75
        2 COMBINED AT
+                         F7B     28.    6.50         16.          4.          1.      0.76
        ROUTED TO
+                       F7B-F8    23.    9.25         15.          4.          1.      0.76
        HYDROGRAPH AT
+                        BICG      0.    0.00          0.          0.          0.      0.01
        ROUTED TO
+                      G8S-G9      0.    0.00          0.          0.          0.      0.01
        HYDROGRAPH AT
+                          86     61.    6.00         27.          7.          2.      0.44
        2 COMBINED AT
+                          G9     61.    6.00         27.          7.          2.      0.45
        ROUTED TO
+                       G9-F8     41.   10.00         23.          7.          2.      0.45
        HYDROGRAPH AT
+                       BICFA      0.    0.00          0.          0.          0.      0.00
        ROUTED TO
+                      F6AS7A      0.    0.00          0.          0.          0.      0.00
        HYDROGRAPH AT
+                         85A     29.    5.50         10.          3.          1.      0.22
        2 COMBINED AT
+                         F7A     29.    5.50         10.          3.          1.      0.22
        ROUTED TO
+                       F7A-F8    10.   11.00          8.          3.          1.      0.22
        HYDROGRAPH AT
+                         105     65.    7.00         42.         12.          4.      1.00
        HYDROGRAPH AT
+                         104     40.    7.25         27.          8.          3.      1.01
        5 COMBINED AT
+                          F8     78.    7.50         65.         22.          7.      3.43
        HYDROGRAPH AT
+                        BICH      0.    0.00          0.          0.          0.      0.01
        ROUTED TO
+                      H7S-H8      0.    0.00          0.          0.          0.      0.01
        HYDROGRAPH AT
+                          87     74.    6.75         45.         13.          4.      0.91
```

```
+          2 COMBINED AT
                          H8        73.   6.75        45.        13.        4.      0.92
+          ROUTED TO
                          H8-H9     64.   9.00        42.        13.        4.      0.92
+          HYDROGRAPH AT
                          106       58.   7.50        39.        11.        4.      1.21
+          2 COMBINED AT
                          H9        98.   8.50        68.        21.        7.      2.13
+          HYDROGRAPH AT
                          BICJ     115.  10.50        97.        40.       17.      0.01
+          ROUTED TO
                          J6S-J7    96.  13.50        77.        39.       17.      0.01
+          HYDROGRAPH AT
                          89        76.   6.75        46.        13.        4.      0.96
+          2 COMBINED AT
                          J7        91.  13.00        81.        50.       21.      0.97
+          ROUTED TO
                          J7-J8     89.  13.25        80.        50.       21.      0.97
+          HYDROGRAPH AT
                          BICI       1.  14.00         1.         0.        0.      0.01
+          ROUTED TO
                          I6S-I7     1.  15.00         1.         0.        0.      0.01
+          HYDROGRAPH AT
                          88        66.   6.75        39.        11.        4.      0.76
+          2 COMBINED AT
                          I7        65.   6.75        38.        11.        4.      0.77
+          ROUTED TO
                          I7-I8     63.   7.50        38.        11.        4.      0.77
+          HYDROGRAPH AT
                          102       49.   6.50        26.         7.        2.      0.52
+          2 COMBINED AT
                          I8        92.   7.25        55.        16.        5.      1.29
+          ROUTED TO
                          I8-J8     91.   7.25        54.        16.        5.      1.29
+          HYDROGRAPH AT
                          103       35.   6.00        16.         4.        1.      0.51
+          3 COMBINED AT
                          J8       153.   7.25       108.        63.       25.      2.77
+          HYDROGRAPH AT
                          107       42.   5.75        18.         5.        2.      0.48


*** NORMAL END OF HEC-1 ***
```

D.7.1.b HEC-1 Output File for 10-year 6-hour Storm (Future Conditions)

```
1****************************************                    ***************************************
 *                                      *                    *                                     *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                    *   U.S. ARMY CORPS OF ENGINEERS      *
 *             JUN   1998               *                    *   HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                    *         609 SECOND STREET           *
 *                                      *                    *      DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   22MAR06  TIME  10:48:00  *                    *          (916) 756-1104           *
 *                                      *                    *                                     *
 ****************************************                    ***************************************


                                        X     X  XXXXXXX   XXXXX          X
                                        X     X  X        X     X        XX
                                        X     X  X        X               X
                                        XXXXXXX  XXXX     X        XXXXX  X
                                        X     X  X        X               X
                                        X     X  X        X     X         X
                                        X     X  XXXXXXX   XXXXX         XXX


THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                          HEC-1 INPUT                                          PAGE  1

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          1           ID   Buckeye/Sun Valley ADMS - November 2004
          2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
          3           ID   10-year 6-hour
          4           ID   Future Conditions
          5           ID   Area 1 - FRS to RID (West)
          6           ID   File Name: frw106fut.hc1
          7           ID   Rainfall Loss Method - Green & Ampt
```

```
 8          ID   Unit Hydrograph Method - FCDMC S-Graph
 9          ID   Channel Routing Method - Normal Depth
10          ID   Land Use - FCDMC GIS Data: mag_genplan (2000)
11          ID   Future Land Use Build Out Date: 2025
12          ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
13          ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
            *DIAGRAM
14          IT      15 02JAN94       0     400
15          IO       3
16          IN      15 02JAN94       0
17          JD    2.09    0.01
            * 6-hour distribution, pattern 1.0
18          PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
19          PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
20          PC   0.962   0.972   0.983   0.991     1.0
21          IN      15 02JAN94       0
22          JD   2.078     0.5
            * 6-hour distribution, pattern 1.0
23          PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
24          PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
25          PC   0.962   0.972   0.983   0.991     1.0
26          IN      15 02JAN94       0
27          JD   2.063     1.0
            * 6-hour distribution, pattern 1.4
28          PC     0.0  0.0084   0.016   0.025  0.0334  0.0414  0.0504  0.0584  0.0664  0.0748
29          PC   0.087  0.0994  0.1188   0.148  0.2304  0.4067  0.7778  0.8813  0.9186  0.9452
30          PC  0.9572  0.9684  0.9798  0.9898     1.0
31          IN      15 02JAN94       0
32          JD   2.007     5.0
            * 6-hour distribution, pattern 2.3
33          PC     0.0   0.011  0.0173  0.0267  0.0387   0.049  0.0593  0.0693  0.0797  0.0903
34          PC   0.103  0.1173  0.1383  0.1827  0.2693   0.458   0.686  0.8233  0.8893  0.9293
35          PC  0.9487   0.962  0.9743  0.9877     1.0
36          IN      15 02JAN94       0
37          JD   1.965    10.0
            * 6-hour distribution, pattern 2.7
38          PC     0.0  0.0134  0.0189  0.0287  0.0443  0.0574  0.0694  0.0818  0.0949  0.1076
39          PC  0.1223  0.1382  0.1604  0.2063  0.2902  0.4664  0.6764  0.8069  0.8765  0.9189
40          PC  0.9471  0.9608  0.9735  0.9873     1.0
            * ******************************************************************************
            * **   SUB-WATERSHED F   ********************************************************
            * ******************************************************************************
1                                   HEC-1 INPUT                                          PAGE  2

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

41          KK     15A
42          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
43          KM   L=1.45     Lca=0.48     S=34.58     Kn=0.050     LAG=32
44          KM   S-GRAPH TYPE=DESERT RANGELAND
45          KO       0        0     0.0        1       22
46          BA  0.5884
47          LG   0.208     0.25   4.419   0.432  39.606
48          UI     0.0   159.68  521.91  464.14  211.81   93.26   40.28   15.07     0.0

49          KK   15A-O
50          KO       0        0     0.0        0       22
51          DT  15Aret     24.0     0.0
52          DI     0.0   2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
53          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
54          DQ     0.0   2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
55          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

56          KK   F1A-B   CNAME     F1A
57          KM   ROUTE HYDROGRAPH FROM F1A TO F1B (CHANNEL A)
58          KO       0        0     0.0        0       22
59          RS       5     FLOW     0.0      0.0
60          RC     0.1      0.1     0.1   4678.0   0.004     0.0
61          RX     0.0    250.0   500.0    750.0  1000.0  1333.3  1666.6  2000.0
62          RY    10.0      7.5     5.0      2.5     0.0     3.3     6.6    10.0

63          KK     15B
64          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
65          KM   L=1.63     Lca=0.82     S=11.02     Kn=0.200     LAG=204
66          KM   S-GRAPH TYPE=AGRICULTURE
67          KO       0        0     0.0        1       22
68          BA  0.8162
69          LG   0.117     0.25   4.099   0.496   73.49
70          UI     0.0    14.76   14.76   17.09   30.99   47.18   76.64    88.0   87.38  112.97
71          UI  117.57   123.95  123.95  123.95  115.68  103.29  110.31  103.29   77.47   83.74
72          UI   71.03    56.34   50.16   42.61   44.75   34.88   27.48   23.84   21.64   18.23
73          UI   17.85    13.47   13.47   13.47    8.62    8.37    8.37    8.37    8.37    2.37
74          UI    1.84     1.84    1.84    1.84    1.84    1.84    1.84    1.84    1.84    1.84
75          UI    1.84     1.84    1.84    1.84    1.84    1.84    1.84    1.84    1.84    1.84
76          UI    1.84      0.0

77          KK   15B-O
78          KO       0        0     0.0        0       22
79          DT  15Bret     92.0     0.0
80          DI     0.0   2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
81          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
82          DQ     0.0   2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
83          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

84          KK     F1B
85          KM   COMBINE ROUTED HYDROGRAPH FROM F1A WITH RUNOFF FROM 15B @ F1B
86          ZW   A=FRW B=F1B C=FLOW E=15MIN F=10y6h-fut
87          KO       0        0     0.0        0       22
88          HC       2
            * ******************************************************************************
            * **   SUB-WATERSHED G   ********************************************************
            * ******************************************************************************
1                                   HEC-1 INPUT                                          PAGE  3

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

89          KK       2
90          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
91          KM   L=2.02     Lca=0.86     S=45.95     Kn=0.050     LAG=43
92          KM   S-GRAPH TYPE=DESERT RANGELAND
93          KO       0        0     0.0        1       22
94          BA  1.2330
```

```
 95          LG     0.1    0.25   3.994   0.548  74.171
 96          UI     0.0  169.22  637.96  900.62  677.78  370.08  199.82  108.84   58.92    23.5
 97          UI    23.5     0.0

 98          KK     2-O
 99          KO       0       0     0.0       0      22
100          DT    2ret   107.0     0.0
101          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
102          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
103          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
104          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

105          KK       1
106          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
107          KM   L=2.61      Lca=1.54      S=34.86      Kn=0.050      LAG=62
108          KM   S-GRAPH TYPE=DESERT RANGELAND
109          KO       0       0     0.0       1      22
110          BA  1.6264
111          LG   0.115    0.25   4.334   0.468  69.018
112          UI     0.0   96.49   378.3  680.74  834.28   747.2  509.62  334.33  217.15  147.44
113          UI   90.69   60.46   32.88    21.5    21.5    21.5     0.0

114          KK     1-O
115          KO       0       0     0.0       0      22
116          DT    1ret   142.0     0.0
117          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
118          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
119          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
120          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

121          KK      G2   CNAME   G2-G3
122          KM   COMBINE RUNOFF HYDROGRAPH FROM 1 AND 2 @ G2
123          KO       0       0     0.0       0      22
124          HC       2

125          KK   G2-G3   CNAME      G2
126          KM   ROUTE HYDRPGRAPH FROM G1 TO G2 (CHANNEL A)
127          KO       0       0     0.0       0      22
128          RS       7    FLOW     0.0     0.0
129          RC     0.1     0.1     0.1  3231.1   0.005     0.0
130          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
131          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                                    PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

132          KK      16
133          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
134          KM   L=2.00      Lca=1.37      S=24.99      Kn=0.050      LAG=57
135          KM   S-GRAPH TYPE=PHOENIX VALLEY
136          KO       0       0     0.0       1      22
137          BA  0.9506
138          LG     0.1    0.25   4.398    0.44    80.0
139          UI     0.0   72.32  253.63  387.42  637.63   477.5  314.11  154.95   79.28   36.56
140          UI   17.22   17.22     0.0

141          KK    16-O
142          KO       0       0     0.0       0      22
143          DT   16ret    63.0     0.0
144          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
145          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
146          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
147          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

148          KK      G3
149          KM   COMBINE ROUTED HYDROGRAPH FROM G2 WITH RUNOFF FROM 16 @ G3
150          ZW   A=FRW B=G3 C=FLOW E=15MIN F=10y6h-fut
151          KO       0       0     0.0       0      22
152          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED H   ***********************************************
             * ***********************************************************************

153          KK       4
154          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
155          KM   L=1.38      Lca=0.74      S=40.65      Kn=0.050      LAG=36
156          KM   S-GRAPH TYPE=DESERT RANGELAND
157          KO       0       0     0.0       1      22
158          BA  0.5493
159          LG   0.143    0.25   4.023   0.619  52.665
160          UI     0.0  113.24  399.98  445.83  240.22  115.51   55.22   25.12    12.5     0.0

161          KK     4-O
162          KO       0       0     0.0       0      22
163          DT    4ret    34.0     0.0
164          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
165          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
166          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
167          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

168          KK   H1-H2   CNAME      H1
169          KM   ROUTE HYDRPGRAPH FROM H1 TO H2 (CHANNEL C)
170          KO       0       0     0.0       0      22
171          RS       2    FLOW     0.0     0.0
172          RC   0.035   0.035   0.035 5802.98  0.0050     0.0
173          RX     0.0     2.0    12.0   112.0   212.0   312.0   412.0   512.0
174          RY     5.0     5.0     0.0     1.0     2.0     3.0     4.0     5.0
1                                          HEC-1 INPUT                                                    PAGE  5

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

175          KK       3
176          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
177          KM   L=2.04      Lca=1.39      S=39.22      Kn=0.050      LAG=53
178          KM   S-GRAPH TYPE=DESERT RANGELAND
179          KO       0       0     0.0       1      22
180          BA  1.6478
181          LG   0.23    0.25   4.028   0.538  43.956
182          UI     0.0  141.45  544.37  909.46  962.94   667.1  407.91  246.66  151.83   89.96
183          UI   55.64   25.48   25.48     0.0

184          KK     3-O
```

```
185          KO       0       0     0.0       0      22
186          DT    3ret   110.0     0.0
187          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
188          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
189          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
190          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

191          KK      H2   CNAME   H2-H3
192          KM   COMBINE ROUTED HYDROGRAPH FROM H1 WITH RUNOFF FROM 3 @ H2
193          KO       0       0     0.0       0      22
194          HC       2

195          KK   H2-H3   CNAME      H2
196          KM   ROUTE HYDRPGRAPH FROM H2 TO H3 (CHANNEL B)
197          KO       0       0     0.0       0      22
198          RS       2    FLOW     0.0     0.0
199          RC     0.1    0.02     0.1 3094.41   0.007     0.0
200          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
201          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

202          KK      17
203          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
204          KM   L=1.43      Lca=0.71      S=16.84      Kn=0.200      LAG=169
205          KM   S-GRAPH TYPE=AGRICULTURE
206          KO       0       0     0.0       1      22
207          BA  0.6065
208          LG    0.25    0.25   4.017   0.429    45.0
209          UI     0.0   13.23   13.23   22.46   37.19   65.58   77.31   86.16   104.5  111.17
210          UI  111.17  111.17   97.58   93.45   98.99   69.48   77.29   53.37   48.38   38.62
211          UI   40.28   28.19   22.96   20.73   16.35   15.44   12.08   12.08    9.24    7.51
212          UI    7.51    7.51    4.86    1.65    1.65    1.65    1.65    1.65    1.65    1.65
213          UI    1.65    1.65    1.65    1.65    1.65    1.65    1.65    1.65    1.65    1.65
214          UI    1.65     0.0

215          KK    17-O
216          KO       0       0     0.0       0      22
217          DT   17ret    50.0     0.0
218          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
219          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
220          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
221          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
1                                          HEC-1 INPUT                                          PAGE  6
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

222          KK      H3
223          KM   COMBINE ROUTED HYDROGRAPH FROM H2 WITH RUNOFF FROM 17 @ H3
224          ZW   A=FRW B=H3 C=FLOW E=15MIN F=10y6h-fut
225          KO       0       0     0.0       0      22
226          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED I   ***********************************************
             * ***********************************************************************

227          KK      5A
228          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
229          KM   L=1.75      Lca=1.16      S=49.05      Kn=0.050      LAG=45
230          KM   S-GRAPH TYPE=DESERT RANGELAND
231          KO       0       0     0.0       1      22
232          BA  1.1721
233          LG   0.194    0.25   4.333   0.471  45.554
234          UI     0.0  144.96  551.31  816.54  667.55  378.63  210.18  117.93   66.22   28.93
235          UI   21.34   21.34

236          KK    5A-O
237          KO       0       0     0.0       0      22
238          DT    5Aret    55.0     0.0
239          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
240          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
241          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
242          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

243          KK  I1AI2A   CNAME     I1A
244          KM   ROUTE HYDRPGRAPH FROM I1A TO I2A (CHANNEL B)
245          KO       0       0     0.0       0      22
246          RS       3    FLOW     0.0     0.0
247          RC     0.1    0.02     0.1 3507.57   0.005     0.0
248          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
249          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

250          KK      18
251          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
252          KM   L=1.81      Lca=0.75      S=30.99      Kn=0.200      LAG=168
253          KM   S-GRAPH TYPE=AGRICULTURE
254          KO       0       0     0.0       1      22
255          BA  0.7963
256          LG    0.25    0.25   4.134   0.467  39.845
257          UI     0.0   17.48   17.48   29.94   49.63   87.36  102.05  117.46  136.55  146.83
258          UI  146.83  146.83  127.25  125.29  126.27   91.77  100.28   69.84   62.39   50.62
259          UI   54.06   34.48   29.67   26.48   21.59   19.56   15.96   15.96   11.23    9.92
260          UI    9.92    9.92    4.97    2.18    2.18    2.18    2.18    2.18    2.18    2.18
261          UI    2.18    2.18    2.18    2.18    2.18    2.18    2.18    2.18    2.18    2.18
262          UI    2.18     0.0
1                                          HEC-1 INPUT                                          PAGE  7
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

263          KK    18-O
264          KO       0       0     0.0       0      22
265          DT   18ret    59.0     0.0
266          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
267          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
268          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
269          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

270          KK     I2A
271          KM   COMBINE ROUTED HYDROGRAPH FROM I1A WITH RUNOFF FROM 18 @ I2A
272          ZW   A=FRW B=I2A C=FLOW E=15MIN F=10y6h-fut
273          KO       0       0     0.0       0      22
274          HC       2

275          KK      5B
```

```
 276          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 277          KM   L=1.73      Lca=1.08      S=38.66      Kn=0.050      LAG=46
 278          KM   S-GRAPH TYPE=DESERT RANGELAND
 279          KO       0        0      0.0        1       22
 280          BA  0.5758
 281          LG   0.145     0.25    4.606    0.387   47.212
 282          UI     0.0    67.57   258.59   391.25    331.8    192.8   107.92    61.59    34.35    17.29
 283          UI   10.26    10.26      0.0

 284          KK    5B-O
 285          KO       0        0      0.0        0       22
 286          DT   5Bret     28.0      0.0
 287          DI     0.0   2500.0   5000.0   7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 288          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
 289          DQ     0.0   2500.0   5000.0   7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 290          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

 291          KK  1B-I2B   CNAME     I1B
 292          KM   ROUTE HYDRPGRAPH FROM I1B TO I2B (CHANNEL A)
 293          KO       0        0      0.0        0       22
 294          RS       1     FLOW      0.0      0.0
 295          RC     0.1      0.1      0.1 4972.04   0.0047      0.0
 296          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
 297          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

 298          KK      19
 299          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 300          KM   L=1.51      Lca=0.76      S=18.49      Kn=0.200      LAG=174
 301          KM   S-GRAPH TYPE=AGRICULTURE
 302          KO       0        0      0.0        1       22
 303          BA  0.5356
 304          LG    0.25     0.25    3.962    0.418   44.773
 305          UI     0.0    11.35    11.35     18.4    30.26     53.8    66.51    69.61    86.78    95.36
 306          UI   95.36    95.36     89.0    79.47    84.42    69.18    61.85    57.97    43.57     37.1
 307          UI    32.1    33.09    21.67    18.47    16.39    14.02    12.27    10.37    10.37     7.18
 308          UI    6.44     6.44     6.44     3.83     1.42     1.42     1.42     1.42     1.42     1.42
 309          UI    1.42     1.42     1.42     1.42     1.42     1.42     1.42     1.42     1.42     1.42
 310          UI    1.42     1.42      0.0
1                                          HEC-1 INPUT                                                    PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 311          KK    19-O
 312          KO       0        0      0.0        0       22
 313          DT   19ret     45.0      0.0
 314          DI     0.0   2500.0   5000.0   7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 315          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
 316          DQ     0.0   2500.0   5000.0   7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 317          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

 318          KK     I2B
 319          KM   COMBINE ROUTED HYDROGRAPH FROM I1B WITH RUNOFF FROM 19 @ I2B
 320          ZW   A=FRW B=I2B C=FLOW E=15MIN F=10y6h-fut
 321          KO       0        0      0.0        0       22
 322          HC       2
 323          ZZ                                                                                           RUNOFF
SUMMARY
                                        FLOW IN CUBIC FEET PER SECOND
                                      TIME IN HOURS,  AREA IN SQUARE MILES

                                  PEAK   TIME OF    AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN    MAXIMUM    TIME OF
        OPERATION       STATION   FLOW    PEAK                                          AREA     STAGE    MAX STAGE
+                                                     6-HOUR     24-HOUR     72-HOUR
        HYDROGRAPH AT
+                          15A     478.   4.50          75.         19.          6.      0.59
        DIVERSION TO
+                       15Aret     478.   4.50          48.         12.          4.      0.59
        HYDROGRAPH AT
+                        15A-O     217.   5.00          27.          7.          2.      0.59
        ROUTED TO
+                         F1A-B     72.   6.50          27.          7.          2.      0.59
        HYDROGRAPH AT
+                          15B     189.   7.00         125.         37.         12.      0.82
        DIVERSION TO
+                       15Bret     189.   7.00         125.         37.         12.      0.82
        HYDROGRAPH AT
+                        15B-O       0.   0.00           0.          0.          0.      0.82
        2 COMBINED AT
+                          F1B      76.   6.75          28.          7.          2.      1.40
        HYDROGRAPH AT
+                            2     948.   4.75         214.         54.         18.      1.23
        DIVERSION TO
+                         2ret     948.   4.75         213.         54.         18.      1.23
        HYDROGRAPH AT
+                          2-O      22.   7.00           2.          1.          0.      1.23
        HYDROGRAPH AT
+                            1     918.   5.00         265.         68.         23.      1.63
        DIVERSION TO
+                         1ret     918.   5.00         265.         68.         23.      1.63
        HYDROGRAPH AT
+                          1-O       0.   0.00           0.          0.          0.      1.63
        2 COMBINED AT
+                           G2      22.   7.00           2.          1.          0.      2.86
        ROUTED TO
+                        G2-G3       3.   9.00           1.          0.          0.      2.86
        HYDROGRAPH AT
```

```
+                          16      742.   5.00       177.       45.       15.      0.95
          DIVERSION TO
+                       16ret      742.   5.00       127.       32.       11.      0.95
          HYDROGRAPH AT
+                        16-O      429.   5.50        53.       13.        4.      0.95
          2 COMBINED AT
+                          G3      276.   5.75        45.       11.        4.      3.81
          HYDROGRAPH AT
+                           4      432.   4.75        80.       20.        7.      0.55
          DIVERSION TO
+                        4ret      432.   4.75        69.       17.        6.      0.55
          HYDROGRAPH AT
+                         4-O       81.   5.25        12.        3.        1.      0.55
          ROUTED TO
+                       H1-H2       36.   6.25        11.        3.        1.      0.55
          HYDROGRAPH AT
+                           3      753.   5.00       192.       49.       16.      1.65
          DIVERSION TO
+                        3ret      753.   5.00       192.       49.       16.      1.65
          HYDROGRAPH AT
+                         3-O        0.   0.00         0.        0.        0.      1.65
          2 COMBINED AT
+                          H2       36.   6.75        13.        3.        1.      2.20
          ROUTED TO
+                       H2-H3        7.   8.00         3.        1.        0.      2.20
          HYDROGRAPH AT
+                          17      131.   6.50        75.       21.        7.      0.61
          DIVERSION TO
+                       17ret      131.   6.50        75.       21.        7.      0.61
          HYDROGRAPH AT
+                        17-O        0.   0.00         0.        0.        0.      0.61
          2 COMBINED AT
+                          H3        7.   8.00         3.        1.        0.      2.80
          HYDROGRAPH AT
+                          5A      691.   4.75       149.       38.       13.      1.17
          DIVERSION TO
+                       5Aret      691.   4.75       111.       28.        9.      1.17
          HYDROGRAPH AT
+                        5A-O      271.   5.25        39.       10.        3.      1.17
          ROUTED TO
+                      I1AI2A      130.   6.25        39.       10.        3.      1.17
          HYDROGRAPH AT
+                          18      155.   6.50        89.       25.        8.      0.80
          DIVERSION TO
+                       18ret      155.   6.50        89.       25.        8.      0.80
          HYDROGRAPH AT
+                        18-O        0.   0.00         0.        0.        0.      0.80
          2 COMBINED AT
+                         I2A      130.   6.25        39.       10.        3.      1.97
          HYDROGRAPH AT
+                          5B      405.   4.75        82.       21.        7.      0.58
          DIVERSION TO
+                       5Bret      405.   4.75        56.       14.        5.      0.58
          HYDROGRAPH AT
+                        5B-O      210.   5.25        27.        7.        2.      0.58
          ROUTED TO
+                      1B-I2B       45.   6.00        23.        7.        2.      0.58
          HYDROGRAPH AT
+                          19      115.   6.50        67.       19.        6.      0.54
          DIVERSION TO
+                       19ret      115.   6.50        67.       19.        6.      0.54
          HYDROGRAPH AT
+                        19-O        0.   0.00         0.        0.        0.      0.54
          2 COMBINED AT
+                         I2B       47.   6.00        23.        7.        2.      1.11

1*************************************
 *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
 *              JUN   1998           *
 *            VERSION 4.1            *
 *                                   *
 *  RUN DATE   22MAR06  TIME  10:50:36  *
 *                                   *
 *************************************

*************************************
*                                   *
*   U.S. ARMY CORPS OF ENGINEERS    *
*   HYDROLOGIC ENGINEERING CENTER   *
*         609 SECOND STREET         *
*      DAVIS, CALIFORNIA 95616      *
*          (916) 756-1104           *
*                                   *
*************************************
```

```
X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X        XXXXX X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX   XXXXX         XXX


THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                          HEC-1 INPUT                                                    PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID   Buckeye/Sun Valley ADMS - November 2004
  2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
  3           ID   10-year 6-hour
  4           ID   Future Conditions
  5           ID   Area 1 - FRS to RID (East)
  6           ID   File Name: fre106fut.hc1
  7           ID   Rainfall Loss Method - Green & Ampt
  8           ID   Unit Hydrograph Method - FCDMC S-Graph
  9           ID   Channel Routing Method - Normal Depth
 10           ID   Land Use - FCDMC GIS Data: mag_genplan (2000)
 11           ID   Future Land Use Build Out Date: 2025
 12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
 13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
              *DIAGRAM
 14           IT      15 02JAN94       0     400
 15           IO       3
 16           IN      15 02JAN94       0
 17           JD     2.1    0.01
              * 6-hour distribution, pattern 1.0
 18           PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
 19           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
 20           PC   0.962   0.972   0.983   0.991     1.0
 21           IN      15 02JAN94       0
 22           JD   2.087     0.5
              * 6-hour distribution, pattern 1.0
 23           PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
 24           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
 25           PC   0.962   0.972   0.983   0.991     1.0
 26           IN      15 02JAN94       0
 27           JD   2.073     1.0
              * 6-hour distribution, pattern 1.4
 28           PC     0.0  0.0084   0.016   0.025  0.0334  0.0414  0.0504  0.0584  0.0664  0.0748
 29           PC   0.087  0.0994  0.1188   0.148  0.2304  0.4067  0.7778  0.8813  0.9186  0.9452
 30           PC  0.9572  0.9684  0.9798  0.9898     1.0
 31           IN      15 02JAN94       0
 32           JD   2.016     5.0
              * 6-hour distribution, pattern 2.3
 33           PC     0.0   0.011  0.0173  0.0267  0.0387   0.049  0.0593  0.0693  0.0797  0.0903
 34           PC   0.103  0.1173  0.1383  0.1827  0.2693   0.458   0.686  0.8233  0.8893  0.9293
 35           PC  0.9487   0.962  0.9743  0.9877     1.0
 36           IN      15 02JAN94       0
 37           JD   1.974    10.0
              * 6-hour distribution, pattern 2.7
 38           PC     0.0  0.0134  0.0189  0.0287  0.0443  0.0574  0.0694  0.0818  0.0949  0.1076
 39           PC  0.1223  0.1382  0.1604  0.2063  0.2902  0.4664  0.6764  0.8069  0.8765  0.9189
 40           PC  0.9471  0.9608  0.9735  0.9873     1.0
              * ***********************************************************************
              * **   SUB-WATERSHED J   ****************************************************
              * ***********************************************************************

1                                          HEC-1 INPUT                                                    PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 41           KK       6
 42           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 43           KM   L=0.50      Lca=0.35      S=88.18      Kn=0.050      LAG=16
 44           KM   S-GRAPH TYPE=DESERT RANGELAND
 45           KO       0        0     0.0        1       22
 46           BA  0.3175
 47           LG     0.1     0.25   5.257   0.315  48.903
 48           UI     0.0   367.81  364.77   72.06     0.0

 49           KK     6-O
 50           KO       0        0     0.0        0       22
 51           DT    6ret     15.0     0.0
 52           DI     0.0   2000.0
 53           DQ     0.0   2000.0

 54           KK   J1-J2   CNAME      J1
 55           KM   ROUTE HYDROGRAPH FROM J1 TO J2 (CHANNEL A)
 56           KO       0        0     0.0        0       22
 57           RS       4     FLOW     0.0      0.0
 58           RC   0.035    0.035   0.035 4135.69    0.004     0.0
 59           RX     0.0    250.0   500.0    750.0  1000.0  1333.3  1666.6  2000.0
 60           RY    10.0      7.5     5.0      2.5     0.0     3.3     6.6    10.0

 61           KK       8
 62           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 63           KM   L=1.22      Lca=0.56      S=14.80      Kn=0.050      LAG=37
 64           KM   S-GRAPH TYPE=DESERT RANGELAND
 65           KO       0        0     0.0        1       22
 66           BA  0.4136
 67           LG   0.147     0.25   4.104   0.501  54.051
 68           UI     0.0    80.26  286.14  333.87  188.89   92.75   45.37   21.43    9.16    9.16
 69           UI     0.0

 70           KK     8-O
 71           KO       0        0     0.0        0       22
```

```
 72          DT    8ret    25.0      0.0
 73          DI     0.0  2000.0
 74          DQ     0.0  2000.0

 75          KK      J2   CNAME   J2-J3
 76          KM   COMBINE ROUTED HYDROGRAPH FROM J1 WITH RUNOFF FROM 8 @ J2
 77          KO       0       0     0.0       0      22
 78          HC       2

 79          KK   J2-J3   CNAME      J2
 80          KM   ROUTE HYDRPGRAPH FROM J2 TO J3 (CHANNEL B)
 81          KO       0       0     0.0       0      22
 82          RS       3    FLOW     0.0     0.0
 83          RC     0.1    0.02     0.1 3195.75   0.008     0.0
 84          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 85          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0
1                                        HEC-1 INPUT                                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 86          KK      20
 87          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 88          KM   L=1.57     Lca=0.79     S=16.56     Kn=0.200     LAG=183
 89          KM   S-GRAPH TYPE=AGRICULTURE
 90          KO       0       0     0.0       1      22
 91          BA  0.6645
 92          LG    0.25    0.25   3.974    0.44    45.0
 93          UI     0.0   13.39   13.39   19.84   32.21   58.26   78.88   74.24  102.61  104.94
 94          UI  112.49  112.49  112.49   97.49   93.74  105.07   70.56   74.86   64.48   51.13
 95          UI    43.2   37.84   40.14   25.57   22.34   20.44   16.54   15.85   12.23   12.23
 96          UI   10.59     7.6     7.6     7.6     7.6    2.62    1.67    1.67    1.67    1.67
 97          UI    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67
 98          UI    1.67    1.67    1.67    1.67    1.67     0.0

 99          KK    20-O
100          KO       0       0     0.0       0      22
101          DT   20ret    55.0     0.0
102          DI     0.0  2000.0
103          DQ     0.0  2000.0

104          KK      J3
105          KM   COMBINE ROUTED HYDROGRAPH FROM J2 WITH RUNOFF FROM 20 @ J3
106          ZW   A=FRE B=J3 C=FLOW E=15MIN F=10y6h-fut
107          KO       0       0     0.0       0      22
108          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED K   ***********************************************
             * ***********************************************************************

109          KK       7
110          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
111          KM   L=0.74     Lca=0.30     S=73.02     Kn=0.050     LAG=18
112          KM   S-GRAPH TYPE=DESERT RANGELAND
113          KO       0       0     0.0       1      22
114          BA  0.4459
115          LG     0.1    0.25   4.134   0.467  71.438
116          UI     0.0  416.62  556.92   138.6   30.54     0.0

117          KK     7-O
118          KO       0       0     0.0       0      22
119          DT    7ret    37.0     0.0
120          DI     0.0  2000.0
121          DQ     0.0  2000.0

122          KK   K1-K2   CNAME      K1
123          KM   ROUTE HYDRPGRAPH FROM K1 TO K2 (CHANNEL A)
124          KO       0       0     0.0       0      22
125          RS       3    FLOW     0.0     0.0
126          RC   0.035   0.035   0.035  4162.2   0.011     0.0
127          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
128          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                        HEC-1 INPUT                                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


129          KK       9
130          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
131          KM   L=0.79     Lca=0.41     S=57.09     Kn=0.050     LAG=22
132          KM   S-GRAPH TYPE=DESERT RANGELAND
133          KO       0       0     0.0       1      22
134          BA  0.6124
135          LG     0.1    0.25   3.984   0.443    80.0
136          UI     0.0  381.65  780.49  295.85   90.95    23.1     0.0

137          KK     9-O
138          KO       0       0     0.0       0      22
139          DT    9ret    47.0     0.0
140          DI     0.0  2000.0
141          DQ     0.0  2000.0

142          KK      K2   CNAME   K2-K3
143          KM   COMBINE ROUTED HYDROGRAPH FROM K1 WITH RUNOFF FROM 9 @ K2
144          KO       0       0     0.0       0      22
145          HC       2

146          KK   K2-K3   CNAME      K2
147          KM   ROUTE HYDRPGRAPH FROM K2 TO K3 (CHANNEL A)
148          KO       0       0     0.0       0      22
149          RS       3    FLOW     0.0     0.0
150          RC     0.1     0.1     0.1 2881.52   0.009     0.0
151          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
152          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

153          KK     21B
154          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
155          KM   L=1.02     Lca=0.51     S=24.58     Kn=0.200     LAG=122
156          KM   S-GRAPH TYPE=AGRICULTURE
157          KO       0       0     0.0       1      22
158          BA  0.2728
159          LG    0.25    0.25   4.001   0.551    45.0
160          UI     0.0    8.25    10.9   22.84   46.68   49.72   65.96   69.27   69.27   59.27
161          UI   62.38   43.49   42.68   30.48   23.78   21.73   14.42   11.79     9.9    7.53
```

```
162          UI    6.86    4.68    4.68    3.85    1.03    1.03    1.03    1.03    1.03    1.03
163          UI    1.03    1.03    1.03    1.03    1.03    1.03    1.03     0.0

164          KK   21B-O
165          KO       0       0     0.0       0      22
166          DT  21Bret    22.0     0.0
167          DI     0.0  2000.0
168          DQ     0.0  2000.0

169          KK     21A
170          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
171          KM   L=1.43      Lca=0.71      S=39.92      Kn=0.200      LAG=144
172          KM   S-GRAPH TYPE=AGRICULTURE
173          KO       0       0     0.0       1      22
174          BA  0.3660
175          LG   0.198    0.25   3.998   0.567  57.034
176          UI     0.0    9.37    9.37   19.83   40.15   53.93   61.02   74.01   78.73   78.73
1                                          HEC-1 INPUT                                                PAGE  5

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

177          UI   73.49   65.61   68.76   49.43   50.09   36.19   29.11   28.02   20.17    15.8
178          UI   13.32   11.58    8.92    8.56    6.38    5.32    5.32    4.82    1.17    1.17
179          UI    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17
180          UI    1.17    1.17    1.17    1.17

181          KK   21A-O
182          KO       0       0     0.0       0      22
183          DT  21Aret    36.0     0.0
184          DI     0.0  2000.0
185          DQ     0.0  2000.0

186          KK      K3
187          KM   COMBINE ROUTED HYDROGRAPH FROM K2 WITH RUNOFF FROM 21A AND 21B @ K3
188          ZW   A=FRE B=K3 C=FLOW E=15MIN F=10y6h-fut
189          KO       0       0     0.0       0      22
190          HC       3
             * ***********************************************************************
             * **   SUB-WATERSHED L   ***********************************************
             * ***********************************************************************

191          KK      10
192          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
193          KM   L=1.77      Lca=1.27      S=46.29      Kn=0.050      LAG=47
194          KM   S-GRAPH TYPE=PHOENIX VALLEY
195          KO       0       0     0.0       1      22
196          BA  1.1737
197          LG   0.196    0.25   4.152   0.425  40.672
198          UI     0.0  140.53  441.72   791.7  810.58  481.45  203.27   99.52   26.14   25.79
199          UI     0.0

200          KK    10-O
201          KO       0       0     0.0       0      22
202          DT   10ret    72.0     0.0
203          DI     0.0  2000.0
204          DQ     0.0  2000.0

205          KK   L1-L2   CNAME      L1
206          KM   ROUTE HYDRIGRAPH FROM L1 TO L2 (CHANNEL B)
207          KO       0       0     0.0       0      22
208          RS       4    FLOW     0.0     0.0
209          RC     0.1    0.02     0.1  2843.85    0.01     0.0
210          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
211          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

212          KK      22
213          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
214          KM   L=1.54      Lca=0.77      S=18.14      Kn=0.200      LAG=178
215          KM   S-GRAPH TYPE=AGRICULTURE
216          KO       0       0     0.0       1      22
217          BA  0.5572
218          LG    0.25    0.25   4.002   0.475    30.0
219          UI     0.0   11.54   11.54   17.99   29.44   52.71    67.8   67.77   85.72   96.69
220          UI   96.97   96.97   94.81   80.81    85.6   77.44   60.61   65.99   46.03   41.71
221          UI   33.66   34.96   25.72    20.5   18.65   14.65   14.26   10.94   10.54    9.89
222          UI    6.55    6.55    6.55    6.55     2.6    1.44    1.44    1.44    1.44    1.44
1                                          HEC-1 INPUT                                                PAGE  6

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

223          UI    1.44    1.44    1.44    1.44    1.44    1.44    1.44    1.44    1.44    1.44
224          UI    1.44    1.44    1.44    1.44     0.0

225          KK    22-O
226          KO       0       0     0.0       0      22
227          DT   22ret    40.0     0.0
228          DI     0.0  2000.0
229          DQ     0.0  2000.0

230          KK      L2
231          KM   COMBINE ROUTED HYDROGRAPH FROM L1 WITH RUNOFF FROM 22 @ L2
232          ZW   A=FRE B=L2 C=FLOW E=15MIN F=10y6h-fut
233          KO       0       0     0.0       0      22
234          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED N   ***********************************************
             * ***********************************************************************

235          KK     11C
236          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
237          KM   L=0.99      Lca=0.31      S=54.38      Kn=0.050      LAG=22
238          KM   S-GRAPH TYPE=PHOENIX VALLEY
239          KO       0       0     0.0       1      22
240          BA  0.3431
241          LG   0.249    0.25   3.978    0.41  30.445
242          UI     0.0  193.16  491.17  169.06   26.28     0.0

243          KK   11C-O
244          KO       0       0     0.0       0      22
245          DT  11Cret    15.0     0.0
246          DI     0.0  2000.0
247          DQ     0.0  2000.0

248          KK  N1C-N2   CNAME     N1C
```

```
249          KM   ROUTE HYDRPGRAPH FROM N1C TO N2 (CHANNEL A)
250          KO       0       0     0.0       0      22
251          RS       3    FLOW     0.0     0.0
252          RC     0.1     0.1     0.1 3084.31    0.01     0.0
253          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
254          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

255          KK     11A
256          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
257          KM   L=0.57     Lca=0.33     S=83.95     Kn=0.050     LAG=16
258          KM   S-GRAPH TYPE=PHOENIX VALLEY
259          KO       0       0     0.0       1      22
260          BA  0.5711
261          LG   0.213    0.25   5.202   0.287  32.631
262          UI     0.0   634.0  753.85   79.75     0.0
1                                        HEC-1 INPUT                                                    PAGE  7

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


263          KK   11A-O
264          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
265          KO       0       0     0.0       0      22
266          DT  11Aret   38.23     0.0
267          DI     0.0  2000.0
268          DQ     0.0  2000.0

269          KK  N1A-1B   CNAME     N1A
270          KM   ROUTE HYDRPGRAPH FROM N1A TO N1B (CHANNEL N1A-N1B)
271          KO       0       0     0.0       0      22
272          RS       4    FLOW     0.0     0.0
273          RC    0.05    0.05    0.05  6236.1   0.009     0.0
274          RX    10.0    16.0    26.0    56.0   106.0   197.0   289.0   380.0
275          RY  1032.0  1032.0  1030.0  1028.0  1030.0 1030.67 1031.33  1032.0

276          KK     11B
277          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
278          KM   L=1.39     Lca=0.62     S=41.81     Kn=0.050     LAG=34
279          KM   S-GRAPH TYPE=PHOENIX VALLEY
280          KO       0       0     0.0       1      22
281          BA  0.5806
282          LG   0.238    0.25    4.28   0.395  34.039
283          UI     0.0   139.8  417.05  566.92  261.85   79.39   20.36     0.0

284          KK   11B-O
285          KO       0       0     0.0       0      22
286          DT  11Bret    33.0     0.0
287          DI     0.0  2000.0
288          DQ     0.0  2000.0

289          KK     N1B   CNAME  N1B-N2
290          KM   COMBINE ROUTED HYDROGRAPH FROM N1A WITH RUNOFF FROM 11B @ N1B
291          KO       0       0     0.0       0      22
292          HC       2

293          KK  N1B-N2   CNAME     N1B
294          KM   ROUTE HYDRPGRAPH FROM N1B TO N2 (CHANNEL B)
295          KO       0       0     0.0       0      22
296          RS       8    FLOW     0.0     0.0
297          RC     0.1    0.02     0.1 6966.87   0.003     0.0
298          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
299          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

300          KK      23
301          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
302          KM   L=1.32     Lca=0.66     S=15.92     Kn=0.200     LAG=161
303          KM   S-GRAPH TYPE=AGRICULTURE
304          KO       0       0     0.0       1      22
305          BA  0.5238
306          LG    0.25    0.25   3.965   0.438    30.0
307          UI     0.0    12.0    12.0   21.84    37.1   66.56   66.18   91.21   93.73  100.79
308          UI  100.79   96.31   83.99   89.61   70.63   67.07    55.1   45.41    35.3    36.1
309          UI   26.28   20.77   18.42   14.82   13.33   10.95   10.95    7.15    6.81    6.81
310          UI    6.81    1.78     1.5     1.5     1.5     1.5     1.5     1.5     1.5     1.5
1                                        HEC-1 INPUT                                                    PAGE  8

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

311          UI     1.5     1.5     1.5     1.5     1.5     1.5     1.5     1.5     1.5     0.0

312          KK    23-O
313          KO       0       0     0.0       0      22
314          DT   23ret    35.0     0.0
315          DI     0.0  2000.0
316          DQ     0.0  2000.0

317          KK      N2
318          KM   COMBINE ROUTED HYDROGRAPH FROM N1C AND N1B WITH RUNOFF FROM 23 @ N2
319          ZW   A=FRE B=N2 C=FLOW E=15MIN F=10y6h-fut
320          KO       0       0     0.0       0      22
321          HC       3
             * ***********************************************************************
             * **   SUB-WATERSHED O   ***********************************************
             * ***********************************************************************

322          KK      12
323          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
324          KM   L=0.96     Lca=0.41     S=83.03     Kn=0.050     LAG=22
325          KM   S-GRAPH TYPE=PHOENIX VALLEY
326          KO       0       0     0.0       1      22
327          BA  0.7364
328          LG   0.238    0.25   4.502   0.382  39.822
329          UI     0.0  414.56 1054.13  362.82    56.4     0.0

330          KK    12-O
331          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
332          KO       0       0     0.0       0      22
333          DT   12ret   49.02     0.0
334          DI     0.0  2000.0
335          DQ     0.0  2000.0

336          KK   O1-O2   CNAME      O1
337          KM   ROUTE HYDRPGRAPH FROM O1 TO O2 (CHANNEL A)
338          KO       0       0     0.0       0      22
```

```
 339          RS       2    FLOW     0.0     0.0
 340          RC   0.035   0.035   0.035  2743.8   0.013     0.0
 341          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 342          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 343          KK      13
 344          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 345          KM   L=0.52     Lca=0.26     S=71.20     Kn=0.050     LAG=15
 346          KM   S-GRAPH TYPE=PHOENIX VALLEY
 347          KO       0       0     0.0       1      22
 348          BA  0.5012
 349          LG    0.25    0.25    5.14   0.299    45.0
 350          UI     0.0  646.99  594.12     0.0
1                                        HEC-1 INPUT                                                    PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 351          KK    13-O
 352          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 353          KO       0       0     0.0       0      22
 354          DT   13ret   41.08     0.0
 355          DI     0.0  2000.0
 356          DQ     0.0  2000.0

 357          KK      O2   CNAME   O2-O3
 358          KM   COMBINE ROUTED HYDROGRAPH FROM O1 WITH RUNOFF FROM 13 @ O2
 359          KO       0       0     0.0       0      22
 360          HC       2

 361          KK   O2-O3   CNAME      O2
 362          KM   ROUTE HYDROGRAPH FROM O2 TO O3 (CHANNEL A)
 363          KO       0       0     0.0       0      22
 364          RS       2    FLOW     0.0     0.0
 365          RC   0.025   0.025   0.025 2814.95   0.011     0.0
 366          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 367          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 368          KK      24
 369          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 370          KM   L=0.53     Lca=0.27     S=56.27     Kn=0.050     LAG=16
 371          KM   S-GRAPH TYPE=DESERT RANGELAND
 372          KO       0       0     0.0       1      22
 373          BA  0.4891
 374          LG     0.3    0.25   4.586   0.329     5.0
 375          UI     0.0  566.65  561.96  111.02     0.0

 376          KK      O3   CNAME   O3-O4
 377          KM   COMBINE ROUTED HYDROGRAPH FROM O2 WITH RUNOFF FROM 24 @ O3
 378          KO       0       0     0.0       0      22
 379          HC       2

 380          KK   O3-O4   CNAME      O3
 381          KM   ROUTE HYDROGRAPH FROM O3 TO O4 (CHANNEL A)
 382          KO       0       0     0.0       0      22
 383          RS       7    FLOW     0.0     0.0
 384          RC     0.1     0.1     0.1 4482.81   0.002     0.0
 385          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 386          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 387          KK      25
 388          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 389          KM   L=1.05     Lca=0.52     S=10.49     Kn=0.050     LAG=37
 390          KM   S-GRAPH TYPE=PHOENIX VALLEY
 391          KO       0       0     0.0       1      22
 392          BA  0.2742
 393          LG     0.3    0.25   4.14   0.396     5.0
              * 25
 394          UI     0.0   55.33  162.01  264.09  147.51   51.88   16.57    7.65     0.0
1                                        HEC-1 INPUT                                                    PAGE 10

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 395          KK      O4
 396          KM   COMBINE ROUTED HYDROGRAPH FROM O3 WITH RUNOFF FROM 25 @ O4
 397          ZW   A=FRE B=O4 C=FLOW E=15MIN F=10y6h-fut
 398          KO       0       0     0.0       0      22
 399          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED P   ***********************************************
              * ***********************************************************************

 400          KK     14A
 401          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 402          KM   L=1.33     Lca=0.71     S=67.87     Kn=0.050     LAG=32
 403          KM   S-GRAPH TYPE=PHOENIX VALLEY
 404          KO       0       0     0.0       1      22
 405          BA  0.6923
 406          LG   0.232    0.25   4.262   0.393   39.38
 407          UI     0.0  188.49   580.0  653.03  260.73   74.32   22.34     0.0

 408          KK   14A-O
 409          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 410          KO       0       0     0.0       0      22
 411          DT  14Aret   41.08     0.0
 412          DI     0.0  2000.0
 413          DQ     0.0  2000.0

 414          KK  P1A-1B   CNAME     P1A
 415          KM   ROUTE HYDROGRAPH FROM P1A TO P1B (CHANNEL A)
 416          KO       0       0     0.0       0      22
 417          RS       3    FLOW     0.0     0.0
 418          RC   0.035   0.035   0.035 3128.61    0.01     0.0
 419          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 420          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 421          KK     14B
 422          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 423          KM   L=0.59     Lca=0.30     S=54.00     Kn=0.050     LAG=17
 424          KM   S-GRAPH TYPE=DESERT RANGELAND
 425          KO       0       0     0.0       1      22
 426          BA  0.5015
 427          LG    0.25    0.25   4.185   0.409  41.516
```

```
 428          UI     0.0  521.46  605.68  135.03   28.39     0.0

 429          KK   14B-O
 430          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 431          KO       0       0     0.0       0      22
 432          DT  14Bret   30.68     0.0
 433          DI     0.0  2000.0
 434          DQ     0.0  2000.0
1                                          HEC-1 INPUT                                                    PAGE 11

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 435          KK     P1B   CNAME  P1B-P2
 436          KM   COMBINE ROUTED HYDROGRAPH FROM P1A WITH RUNOFF FROM 14B @ P1B
 437          KO       0       0     0.0       0      22
 438          HC       2

 439          KK  P1B-P2   CNAME     P1B
 440          KM   ROUTE HYDRPGRAPH FROM P1B TO P2 (CHANNEL A)
 441          KO       0       0     0.0       0      22
 442          RS       4    FLOW     0.0     0.0
 443          RC   0.025   0.025   0.025 4031.58   0.007     0.0
 444          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 445          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 446          KK      26
 447          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 448          KM   L=0.76      Lca=0.38      S=39.29      Kn=0.050      LAG=22
 449          KM   S-GRAPH TYPE=PHOENIX VALLEY
 450          KO       0       0     0.0       1      22
 451          BA  0.5244
 452          LG     0.3    0.25   4.048   0.393     5.0
 453          UI     0.0  295.23   750.7  258.38   40.17     0.0

 454          KK      P2   CNAME    zzz6
 455          KM   COMBINE ROUTED HYDROGRAPH FROM P1B WITH RUNOFF FROM 26 @ P2
 456          ZW   A=FRE B=P2 C=FLOW E=15MIN F=10y6h-fut
 457          KO       0       0     0.0       0      22
 458          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED Q   ***************************************************
              * ***********************************************************************

 459          KK      83
 460          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 461          KM   L=1.72      Lca=0.93      S=64.69      Kn=0.050      LAG=39
 462          KM   S-GRAPH TYPE=DESERT RANGELAND
 463          KO       0       0     0.0       1      22
 464          BA  0.6752
 465          LG   0.235    0.25   5.438   0.256  31.621
 466          UI     0.0  115.92  423.38  535.16  330.25  168.58    85.8   44.93   16.84   14.19
 467          UI     0.0

 468          KK    83-O
 469          KO       0       0     0.0       0      22
 470          DT   83ret   31.99     0.0
 471          DI     0.0  2000.0
 472          DQ     0.0  2000.0
 473          ZZ                                                                                          1
                                          RUNOFF SUMMARY
                                   FLOW IN CUBIC FEET PER SECOND
                                 TIME IN HOURS,  AREA IN SQUARE MILES

                                 PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
        OPERATION       STATION  FLOW    PEAK                                           AREA      STAGE     MAX STAGE
+                                                    6-HOUR     24-HOUR     72-HOUR
        HYDROGRAPH AT
+                          6      385.   4.25          48.         12.          4.      0.32
        DIVERSION TO
+                        6ret     385.   4.25          30.          8.          3.      0.32
        HYDROGRAPH AT
+                        6-O      251.   4.50          17.          4.          1.      0.32
        ROUTED TO
+                       J1-J2     102.   5.25          17.          4.          1.      0.32
        HYDROGRAPH AT
+                          8      345.   4.75          63.         16.          5.      0.41
        DIVERSION TO
+                        8ret     345.   4.75          50.         13.          4.      0.41
        HYDROGRAPH AT
+                        8-O      118.   5.25          13.          3.          1.      0.41
        2 COMBINED AT
+                         J2      169.   5.25          27.          7.          2.      0.73
        ROUTED TO
+                       J2-J3      89.   6.25          27.          7.          2.      0.73
        HYDROGRAPH AT
+                         20      132.   6.75          81.         23.          8.      0.66
        DIVERSION TO
+                       20ret     132.   6.75          81.         23.          8.      0.66
        HYDROGRAPH AT
+                       20-O        0.   0.00           0.          0.          0.      0.66
        2 COMBINED AT
+                         J3       94.   6.25          27.          7.          2.      1.40
        HYDROGRAPH AT
+                          7      574.   4.50          80.         20.          7.      0.45
        DIVERSION TO
+                        7ret     574.   4.50          75.         19.          6.      0.45
        HYDROGRAPH AT
```

```
+                    7-O      31.   5.25      6.      1.      0.   0.45
+   ROUTED TO       K1-K2     21.   6.00      6.      1.      0.   0.45
+   HYDROGRAPH AT       9    813.   4.50    117.     30.     10.   0.61
+   DIVERSION TO     9ret    813.   4.50     95.     24.      8.   0.61
+   HYDROGRAPH AT     9-O    172.   5.00     23.      6.      2.   0.61
+   2 COMBINED AT       K2   183.   5.00     24.      6.      2.   1.06
+   ROUTED TO       K2-K3     80.   5.75     24.      6.      2.   1.06
+   HYDROGRAPH AT     21B     79.   5.75     35.      9.      3.   0.27
+   DIVERSION TO   21Bret     79.   5.75     35.      9.      3.   0.27
+   HYDROGRAPH AT   21B-O      0.   0.00      0.      0.      0.   0.27
+   HYDROGRAPH AT     21A    103.   6.00     53.     14.      5.   0.37
+   DIVERSION TO   21Aret    103.   6.00     53.     14.      5.   0.37
+   HYDROGRAPH AT   21A-O      0.   0.00      0.      0.      0.   0.37
+   3 COMBINED AT       K3    80.   5.75     24.      6.      2.   1.70
+   HYDROGRAPH AT       10   689.   4.75    144.     36.     12.   1.17
+   DIVERSION TO    10ret    689.   4.75    143.     36.     12.   1.17
+   HYDROGRAPH AT    10-O     13.   7.00      1.      0.      0.   1.17
+   ROUTED TO       L1-L2      6.   8.00      1.      0.      0.   1.17
+   HYDROGRAPH AT       22    97.   6.50     57.     16.      5.   0.56
+   DIVERSION TO    22ret     97.   6.50     57.     16.      5.   0.56
+   HYDROGRAPH AT    22-O      0.   0.00      0.      0.      0.   0.56
+   2 COMBINED AT       L2     6.   8.00      1.      0.      0.   1.73
+   HYDROGRAPH AT      11C    410.   4.50     41.     10.      3.   0.34
+   DIVERSION TO   11Cret    383.   4.50     30.      8.      3.   0.34
+   HYDROGRAPH AT   11C-O    160.   4.75     11.      3.      1.   0.34
+   ROUTED TO       N1C-N2    46.   5.50     11.      3.      1.   0.34
+   HYDROGRAPH AT      11A    632.   4.50     72.     18.      6.   0.57
+   DIVERSION TO   11Aret    632.   4.50     72.     18.      6.   0.57
+   HYDROGRAPH AT   11A-O      0.   0.00      0.      0.      0.   0.57
+   ROUTED TO       N1A-1B     0.   0.00      0.      0.      0.   0.57
+   HYDROGRAPH AT      11B    487.   4.75     71.     18.      6.   0.58
+   DIVERSION TO   11Bret    487.   4.75     66.     17.      6.   0.58
+   HYDROGRAPH AT   11B-O     45.   5.25      5.      1.      0.   0.58
+   2 COMBINED AT      N1B      0.   0.00      0.      0.      0.   1.15
+   ROUTED TO       N1B-N2     0.   0.00      0.      0.      0.   1.15
+   HYDROGRAPH AT       23    103.   6.25     57.     15.      5.   0.52
+   DIVERSION TO    23ret    103.   6.25     57.     15.      5.   0.52
+   HYDROGRAPH AT    23-O      0.   0.00      0.      0.      0.   0.52
    3 COMBINED AT
```

```
+                          N2      50.   5.75      14.      4.      1.    2.02
        HYDROGRAPH AT
+                          12     827.   4.50      94.     24.      8.    0.74
        DIVERSION TO
+                       12ret     827.   4.50      94.     24.      8.    0.74
        HYDROGRAPH AT
+                        12-O       0.   0.00       0.      0.      0.    0.74
        ROUTED TO
+                       O1-O2       0.   0.00       0.      0.      0.    0.74
        HYDROGRAPH AT
+                          13     633.   4.25      70.     17.      6.    0.50
        DIVERSION TO
+                       13ret     633.   4.25      70.     17.      6.    0.50
        HYDROGRAPH AT
+                        13-O       0.   0.00       0.      0.      0.    0.50
        2 COMBINED AT
+                          O2       0.   0.00       0.      0.      0.    1.24
        ROUTED TO
+                       O2-O3       0.   0.00       0.      0.      0.    1.24
        HYDROGRAPH AT
+                          24     427.   4.25      41.     10.      3.    0.49
        2 COMBINED AT
+                          O3     288.   4.25      31.      8.      3.    1.73
        ROUTED TO
+                       O3-O4      87.   6.25      30.      8.      3.    1.73
        HYDROGRAPH AT
+                          25     190.   4.75      22.      6.      2.    0.27
        2 COMBINED AT
+                          O4     120.   4.75      43.     11.      4.    2.00
        HYDROGRAPH AT
+                         14A     559.   4.75      89.     22.      7.    0.69
        DIVERSION TO
+                      14Aret     559.   4.75      83.     21.      7.    0.69
        HYDROGRAPH AT
+                       14A-O      53.   5.25       6.      2.      1.    0.69
        ROUTED TO
+                      P1A-1B      31.   5.75       6.      2.      1.    0.69
        HYDROGRAPH AT
+                         14B     540.   4.50      68.     17.      6.    0.50
        DIVERSION TO
+                      14Bret     540.   4.50      62.     15.      5.    0.50
        HYDROGRAPH AT
+                       14B-O      51.   5.00       7.      2.      1.    0.50
        2 COMBINED AT
+                         P1B      31.   6.50       6.      2.      1.    1.19
        ROUTED TO
+                      P1B-P2      15.   7.00       4.      1.      0.    1.19
        HYDROGRAPH AT
+                          26     529.   4.50      42.     11.      4.    0.52
        2 COMBINED AT
+                          P2     345.   4.50      33.      8.      3.    1.72
        HYDROGRAPH AT
+                          83     485.   4.75      84.     21.      7.    0.68
        DIVERSION TO
+                       83ret     485.   4.75      65.     16.      5.    0.68
        HYDROGRAPH AT
+                        83-O     171.   5.25      20.      5.      2.    0.68

 *** NORMAL END OF HEC-1 ***

1*************************************
 *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)*
 *              JUN   1998           *
 *           VERSION 4.1             *
 *                                   *
 *  RUN DATE   23MAR06  TIME  05:01:14*
 *                                   *
 *************************************

*************************************
*                                   *
*    U.S. ARMY CORPS OF ENGINEERS   *
*    HYDROLOGIC ENGINEERING CENTER  *
*          609 SECOND STREET        *
*       DAVIS, CALIFORNIA 95616     *
*           (916) 756-1104          *
*                                   *
*************************************

X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X               X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X               X
X     X  X        X     X         X
X     X  XXXXXXX   XXXXX         XXX
```

```
THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                          HEC-1 INPUT                                                    PAGE  1

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

    1           ID   Buckeye/Sun Valley ADMS - November 2004
    2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
    3           ID   10-year 6-hour
    4           ID   Future Conditions
    5           ID   Area 1 - RID to BIC (West)
    6           ID   File Name: rbw106fut.hc1
    7           ID   Rainfall Loss Method - Green & Ampt
    8           ID   Unit Hydrograph Method - FCDMC S-Graph
    9           ID   Channel Routing Method - Normal Depth
   10           ID   Land Use - FCDMC GIS Data: mag_genplan (2000)
   11           ID   Future Land Use Build Out Date: 2025
   12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
   13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                *DIAGRAM
   14           IT      15 02JAN94       0     400
   15           IO       3
   16           IN      15 02JAN94       0
   17           JD   2.086    0.01
                * 6-hour distribution, pattern 1.0
   18           PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
   19           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
   20           PC   0.962   0.972   0.983   0.991     1.0
   21           IN      15 02JAN94       0
   22           JD   2.073     0.5
                * 6-hour distribution, pattern 1.0
   23           PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
   24           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
   25           PC   0.962   0.972   0.983   0.991     1.0
   26           IN      15 02JAN94       0
   27           JD   2.059     1.0
                * 6-hour distribution, pattern 1.4
   28           PC     0.0  0.0084   0.016   0.025  0.0334  0.0414  0.0504  0.0584  0.0664  0.0748
   29           PC   0.087  0.0994  0.1188   0.148  0.2304  0.4067  0.7778  0.8813  0.9186  0.9452
   30           PC  0.9572  0.9684  0.9798  0.9898     1.0
   31           IN      15 02JAN94       0
   32           JD   2.002     5.0
                * 6-hour distribution, pattern 2.3
   33           PC     0.0   0.011  0.0173  0.0267  0.0387   0.049  0.0593  0.0693  0.0797  0.0903
   34           PC   0.103  0.1173  0.1383  0.1827  0.2693   0.458   0.686  0.8233  0.8893  0.9293
   35           PC  0.9487   0.962  0.9743  0.9877     1.0
   36           IN      15 02JAN94       0
   37           JD   1.961    10.0
                * 6-hour distribution, pattern 2.7
   38           PC     0.0  0.0134  0.0189  0.0287  0.0443  0.0574  0.0694  0.0818  0.0949  0.1076
   39           PC  0.1223  0.1382  0.1604  0.2063  0.2902  0.4664  0.6764  0.8069  0.8765  0.9189
   40           PC  0.9471  0.9608  0.9735  0.9873     1.0
                * ***********************************************************************************
                * **   SUB-WATERSHED E   ***********************************************************
                * ***********************************************************************************
1                                          HEC-1 INPUT                                                    PAGE  2

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


   41           KK      68
   42           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
   43           KM   L=0.96      Lca=0.33      S=45.58      Kn=0.050      LAG=22
   44           KM   S-GRAPH TYPE=DESERT RANGELAND
   45           KO       0       0     0.0       1      22
   46           BA  0.4130
   47           LG     0.1    0.25   4.366   0.494  64.324
   48           UI     0.0  257.36  526.31   199.5   61.33   15.58     0.0

   49           KK    68-O
   50           KO       0       0     0.0       0      22
   51           DT   68ret    29.0     0.0
   52           DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
   53           DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
   54           DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
   55           DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

   56           KK   E1-E2   CNAME      E1
   57           KM   STORAGE ROUTE FROM E1 TO E2 THROUGH SPRR TRESTLE
   58           KO       0       0     0.0       0      22
   59           RS       1    ELEV  873.07     0.0
   60           SV     0.0    1.39    5.84   13.36   41.09   96.81  182.04   292.0  426.27  581.71
   61           SV  756.67  957.16  1179.1  1179.1  1179.1  1179.1  1179.1  1179.1  1179.1  1179.1
   62           SE   872.0   874.0   876.0   878.0   880.0   882.0   884.0   886.0   888.0   890.0
   63           SE   892.0   894.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0
   64           SQ     0.0   100.0   240.0   360.0   480.0   600.0  1020.0  2000.0  2760.0  2760.0
   65           SQ  2760.0  2760.0  2760.0  2760.0  2760.0  2760.0  2760.0  2760.0  2760.0  2760.0
   66           SE  873.07  874.07  875.07  876.07  877.07  878.07  879.07  880.07  881.07  881.07
   67           SE  881.07  881.07  881.07  881.07  881.07  881.07  881.07  881.07  881.07  881.07

   68           KK      59
   69           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
   70           KM   L=0.50      Lca=0.17      S=49.34      Kn=0.200      LAG=53
   71           KM   S-GRAPH TYPE=AGRICULTURE
   72           KO       0       0     0.0       1      22
   73           BA  0.2519
   74           LG     0.1    0.25   4.174   0.523  13.272
   75           UI     0.0    22.5   84.15  139.94  135.77  109.93   62.24   38.79   21.52    13.5
   76           UI    9.12    2.19    2.19    2.19    2.19    2.19     0.0

   77           KK      E2
   78           KM   COMBINE STORAGE HYDROGRAPH FROM E1 WITH RUNOFF FROM 59 @ E2
   79           ZW   A=RBW B=E2 C=FLOW E=15MIN F=10Y6H-FUT
   80           KO       0       0     0.0       0      22
   81           HC       2
                * ***********************************************************************************
```

```
                 * **   SUB-WATERSHED F   ***********************************************
                 * ***********************************************************************
1                                          HEC-1 INPUT                                          PAGE  3

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  82             KK   RIDF
  83             KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
  84             BA  0.0001
  85             ZR  =QI A=RID RID B=8199 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-10-06F

  86             KK  F1S-F2   CNAME     F1S
  87             KM   ROUTE INFLOW FROM RID CONCENTRATED AT F1S TO F2 (CHANNEL A)
  88             KO       0       0     0.0       0      22
  89             RS       1    FLOW     0.0     0.0
  90             RC     0.1     0.1     0.1  3225.0   0.004     0.0
  91             RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
  92             RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

  93             KK      27
  94             KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
  95             KM   L=0.82     Lca=0.41     S=14.59     Kn=0.200     LAG=115
  96             KM   S-GRAPH TYPE=AGRICULTURE
  97             KO       0       0     0.0       1      22
  98             BA  0.2410
  99             LG     0.1    0.25   3.979   0.522    80.0
 100             UI     0.0    7.73   11.05   25.19   43.69   53.56   61.68   64.93   61.32   56.09
 101             UI   48.56   42.77   30.31   23.36    21.4   13.77    11.2    9.22    7.06    6.07
 102             UI    4.39    4.39    2.56    0.97    0.97    0.97    0.97    0.97    0.97    0.97
 103             UI    0.97    0.97    0.97    0.97    0.97     0.0

 104             KK    27-O
 105             KO       0       0     0.0       0      22
 106             DT   27ret    27.0     0.0
 107             DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 108             DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 109             DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 110             DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 111             KK      F2   CNAME   F2-F3
 112             KM   COMBINE ROUTED HYDROGRAPH FROM F1S WITH RUNOFF FROM 27 @ F2
 113             KO       0       0     0.0       0      22
 114             HC       2

 115             KK   F2-F3   CNAME      F2
 116             KM   ROUTE HYDRPGRAPH FROM F2 TO F3 (CHANNEL A)
 117             KO       0       0     0.0       0      22
 118             RS      10    FLOW     0.0     0.0
 119             RC     0.1     0.1     0.1 5241.87   0.006     0.0
 120             RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 121             RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 122             KK      29
 123             KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 124             KM   L=1.47     Lca=0.73     S=22.92     Kn=0.200     LAG=163
 125             KM   S-GRAPH TYPE=AGRICULTURE
 126             KO       0       0     0.0       1      22
 127             BA  0.9987
 128             LG     0.1    0.25   3.977   0.507    80.0
 129             UI     0.0    22.6    22.6   40.44   67.42  122.16  127.17  170.96  171.63   189.8
1                                          HEC-1 INPUT                                          PAGE  4

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 130             UI   189.8  185.58  158.17  166.76  141.69  122.98  113.44   86.27    70.6   65.75
 131             UI   56.62   40.79    36.5   28.42   27.23   20.63   20.63   15.99   12.82   12.82
 132             UI   12.82    7.09    2.82    2.82    2.82    2.82    2.82    2.82    2.82    2.82
 133             UI    2.82    2.82    2.82    2.82    2.82    2.82    2.82    2.82    2.82     0.0

 134             KK    29-O
 135             KO       0       0     0.0       0      22
 136             DT   29ret   121.0     0.0
 137             DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 138             DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 139             DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 140             DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 141             KK      F3   CNAME   F3-F4
 142             KM   COMBINE ROUTED HYDROGRAPH FROM F2 WITH RUNOFF FROM 29 @ F3
 143             KO       0       0     0.0       0      22
 144             HC       2

 145             KK   F3-F4   CNAME      F3
 146             KM   ROUTE HYDRPGRAPH FROM F3 TO F4 (CHANNEL A)
 147             KO       0       0     0.0       0      22
 148             RS       7    FLOW     0.0     0.0
 149             RC     0.1     0.1     0.1 5501.87   0.006     0.0
 150             RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 151             RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 152             KK      41
 153             KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 154             KM   L=1.54     Lca=0.77     S=23.99     Kn=0.200     LAG=168
 155             KM   S-GRAPH TYPE=AGRICULTURE
 156             KO       0       0     0.0       1      22
 157             BA  1.2021
 158             LG     0.1    0.25   3.965   0.454    80.0
 159             UI     0.0   26.39   26.39    45.2   74.92  131.88  154.05  177.32  206.14  221.65
 160             UI  221.65  221.65   192.1  189.15  190.62  138.53  151.39  105.43   94.19   76.42
 161             UI   81.61   52.05    44.8   39.98    32.6   29.54   24.09   24.09   16.95   14.98
 162             UI   14.98   14.98     7.5     3.3     3.3     3.3     3.3     3.3     3.3     3.3
 163             UI     3.3     3.3     3.3     3.3     3.3     3.3     3.3     3.3     3.3     3.3
 164             UI     3.3     0.0

 165             KK    41-O
 166             KO       0       0     0.0       0      22
 167             DT   41ret   140.0     0.0
 168             DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 169             DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 170             DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 171             DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 172             KK      F4   CNAME  F4-F5B
```

```
 173          KM   COMBINE ROUTED HYDROGRAPH FROM F3 WITH RUNOFF FROM 41 @ F4
 174          KO       0       0     0.0       0      22
 175          HC       2
1                                          HEC-1 INPUT                                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 176          KK  F4-F5B   CNAME      F4
 177          KM   ROUTE HYDRPGRAPH FROM F4 TO F5B (CHANNEL A)
 178          KO       0       0     0.0       0      22
 179          RS       6    FLOW     0.0     0.0
 180          RC     0.1     0.1     0.1 3704.65   0.006     0.0
 181          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 182          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 183          KK     52B
 184          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 185          KM   L=0.71     Lca=0.32     S=32.56     Kn=0.200     LAG=85
 186          KM   S-GRAPH TYPE=AGRICULTURE
 187          KO       0       0     0.0       1      22
 188          BA  0.4953
 189          LG     0.1    0.25   4.087   0.492    80.0
 190          UI     0.0   21.49   47.96  115.57  153.43   180.5  170.48  157.82  118.28   85.92
 191          UI   63.75   43.62   30.66   22.85   17.91    12.2   10.93    2.69    2.69    2.69
 192          UI    2.69    2.69    2.69    2.69    2.69    2.69     0.0

 193          KK   52B-O
 194          KO       0       0     0.0       0      22
 195          DT  52Bret    57.0     0.0
 196          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 197          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 198          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 199          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 200          KK     F5B   CNAME F5B-F6B
 201          KM   COMBINE ROUTED HYDROGRAPH FROM F4 WITH RUNOFF FROM 52B @ F5B
 202          KO       0       0     0.0       0      22
 203          HC       2

 204          KK  5B-F6B   CNAME     F5B
 205          KM   STORAGE ROUTE FROM F5B TO F6B THROUGH SPRR TRESTLE
 206          KO       0       0     0.0       0      22
 207          RS       1    ELEV   886.0     0.0
 208          SV     0.0    0.08    0.94    6.13   37.02  122.46  262.93   479.0  749.83  749.83
 209          SV  749.83  749.83  749.83  749.83  749.83  749.83  749.83  749.83  749.83  749.83
 210          SE   886.0   888.0   890.0   892.0   894.0   896.0   898.0   900.0   902.0   902.0
 211          SE   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0
 212          SQ     0.0    80.0   120.0   230.0  1145.0  1980.0  2670.0  2670.0  2670.0  2670.0
 213          SQ  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0
 214          SE   886.0  887.07  888.07  889.07  890.07  891.07  892.07  892.07  892.07  892.07
 215          SE  892.07  892.07  892.07  892.07  892.07  892.07  892.07  892.07  892.07  892.07

 216          KK     60B
 217          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 218          KM   L=1.03     Lca=0.35     S=22.68     Kn=0.200     LAG=108
 219          KM   S-GRAPH TYPE=AGRICULTURE
 220          KO       0       0     0.0       1      22
 221          BA  0.5744
 222          LG   0.101    0.25   4.158   0.551   55.37
 223          UI     0.0   19.61   30.14   73.81  110.38  144.98  164.75  164.75  142.78  142.23
 224          UI  106.31   87.94    64.4   56.91    35.6   28.82   23.22   17.91   14.49   11.13
1                                          HEC-1 INPUT                                                          PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 225          UI   11.13    3.84    2.45    2.45    2.45    2.45    2.45    2.45    2.45    2.45
 226          UI    2.45    2.45    2.45     0.0

 227          KK   60B-O
 228          KO       0       0     0.0       0      22
 229          DT  60Bret    53.0     0.0
 230          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 231          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 232          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 233          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 234          KK     F6B
 235          KM   COMBINE STORAGE HYDROGRAPH FROM F5B WITH RUNOFF FROM 60B @ F6B
 236          ZW   A=RBW B=F6B C=FLOW E=15MIN F=10Y6H-FUT
 237          KO       0       0     0.0       0      22
 238          HC       2

 239          KK     52A
 240          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 241          KM   L=0.92     Lca=0.57     S=6.91     Kn=0.200     LAG=156
 242          KM   S-GRAPH TYPE=AGRICULTURE
 243          KO       0       0     0.0       1      22
 244          BA  0.3127
 245          LG     0.1    0.25   3.966   0.427    80.0
 246          UI     0.0    7.39    7.39   14.03   25.52   42.85   41.09   54.59   61.74    62.1
 247          UI    62.1   55.89   52.16   54.02   38.81   41.05   29.04   24.79   21.13   20.13
 248          UI   13.59   11.94    9.45    8.85    6.75    6.75    4.89     4.2     4.2     4.2
 249          UI    1.32    0.92    0.92    0.92    0.92    0.92    0.92    0.92    0.92    0.92
 250          UI    0.92    0.92    0.92    0.92    0.92    0.92    0.92     0.0

 251          KK   52A-O
 252          KO       0       0     0.0       0      22
 253          DT  52Aret    38.0     0.0
 254          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 255          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 256          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 257          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 258          KK  5A-F6A   CNAME     F5A
 259          KM   STORAGE ROUTE FROM F5A TO F6A THROUGH SPRR TRESTLE
 260          KO       0       0     0.0       0      22
 261          RS       1    ELEV   894.0     0.0
 262          SV     0.0    0.02    0.64   12.91   61.76   61.76   61.76   61.76   61.76   61.76
 263          SV   61.76   61.76   61.76   61.76   61.76   61.76   61.76   61.76   61.76   61.76
 264          SE   894.0   896.0   898.0   900.0   902.0   902.0   902.0   902.0   902.0   902.0
 265          SE   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0
 266          SQ     0.0    58.1   112.2   146.6   174.0   198.5   218.5   237.6   255.3   271.8
 267          SQ   287.4   302.2   316.3   329.7   342.7   355.2   367.2   378.9   401.2   422.3
```

```
 268          SE   894.0   896.4   896.9   897.4   897.9   898.4   898.9   899.4   899.9   900.4
 269          SE   900.9   901.4   901.9   902.4   902.9   903.4   903.9   904.4   905.4   906.4
1                                          HEC-1 INPUT                                                PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 270          KK     60A
 271          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 272          KM   L=1.07      Lca=0.46      S=27.51      Kn=0.200      LAG=117
 273          KM   S-GRAPH TYPE=AGRICULTURE
 274          KO       0        0      0.0        1       22
 275          BA  0.4117
 276          LG     0.1     0.25    4.045    0.535   50.188
 277          UI     0.0    12.98    18.15    40.42    73.45    89.47   100.76   109.02   105.38    91.39
 278          UI   88.17    72.54    53.81    42.04    38.73    24.09    20.15    16.03    12.52    11.64
 279          UI    7.37     7.37     6.45     1.62     1.62     1.62     1.62     1.62     1.62     1.62
 280          UI    1.62     1.62     1.62     1.62     1.62      0.0

 281          KK   60A-O
 282          KO       0        0      0.0        0       22
 283          DT  60Aret     35.0      0.0
 284          DI     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 285          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 286          DQ     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 287          DQ  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0

 288          KK     F6A
 289          KM   COMBINE STORAGE HYDROGRAPH FROM F5A WITH RUNOFF FROM 60A @ F6A
 290          ZW   A=RBW B=F6A C=FLOW E=15MIN F=10Y6H-FUT
 291          KO       0        0      0.0        0       22
 292          HC       2

 293          KK   RIDG
 294          KM   * ***********************************************************************
 295          KM   * **   SUB-WATERSHED G   ***********************************************
 296          KM   * ***********************************************************************
 297          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 298          BA  0.0001
 299          ZR  =QI A=RID RID B=13399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-10-06F

 300          KK  G3S-G4   CNAME     G3S
 301          KM   ROUTE INFLOW FROM RID CONCENTRATED AT G3S TO G4 (CHANNEL A)
 302          KO       0        0      0.0        0       22
 303          RS       1     FLOW      0.0      0.0
 304          RC     0.1      0.1      0.1   4594.0    0.004      0.0
 305          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
 306          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

 307          KK      28
 308          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 309          KM   L=1.02      Lca=0.51      S=16.68      Kn=0.200      LAG=132
 310          KM   S-GRAPH TYPE=AGRICULTURE
 311          KO       0        0      0.0        1       22
 312          BA  0.3347
 313          LG     0.1     0.25    4.178    0.441    80.0
 314          UI     0.0     9.35    10.92     23.2    45.57    53.95    69.13    78.56    78.56    75.94
 315          UI   65.47    68.35    49.76    47.59    34.97    27.16    26.43    17.09    14.62    11.55
 316          UI    9.62     8.54     6.55     5.31     5.31     3.82     1.17     1.17     1.17     1.17
 317          UI    1.17     1.17     1.17     1.17     1.17     1.17     1.17     1.17     1.17     1.17
 318          UI     0.0
1                                          HEC-1 INPUT                                                PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 319          KK    28-O
 320          KO       0        0      0.0        0       22
 321          DT   28ret     39.0      0.0
 322          DI     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 323          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 324          DQ     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 325          DQ  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0

 326          KK      G4   CNAME   G4-G5
 327          KM   COMBINE ROUTED HYDROGRAPH FROM G3S WITH RUNOFF FROM 28 @ G4
 328          KO       0        0      0.0        0       22
 329          HC       2

 330          KK   G4-G5   CNAME      G4
 331          KM   ROUTE HYDRPGRAPH FROM G4 TO G5 (CHANNEL A)
 332          KO       0        0      0.0        0       22
 333          RS      15     FLOW      0.0      0.0
 334          RC     0.1      0.1      0.1 7127.48    0.004      0.0
 335          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
 336          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

 337          KK      30
 338          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 339          KM   L=1.55      Lca=0.78      S=21.93      Kn=0.200      LAG=172
 340          KM   S-GRAPH TYPE=AGRICULTURE
 341          KO       0        0      0.0        1       22
 342          BA  0.9830
 343          LG     0.1     0.25    4.028     0.45    80.0
 344          UI     0.0    21.08    21.08     34.8    57.4    101.7   123.34    132.0   163.67   177.05
 345          UI  177.05   177.05   161.31   147.54   161.39   117.56   117.82    99.14    80.48    64.92
 346          UI   61.01    54.87    38.92    34.05    28.26    26.04    20.78    19.24    18.25    11.96
 347          UI   11.96    11.96    11.96     3.63     2.63     2.63     2.63     2.63     2.63     2.63
 348          UI    2.63     2.63     2.63     2.63     2.63     2.63     2.63     2.63     2.63     2.63
 349          UI    2.63     2.63      0.0

 350          KK    30-O
 351          KO       0        0      0.0        0       22
 352          DT   30ret    112.0      0.0
 353          DI     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 354          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 355          DQ     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 356          DQ  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0

 357          KK      G5   CNAME   G5-G6
 358          KM   COMBINE ROUTED HYDROGRAPH FROM G4 WITH RUNOFF FROM 30 @ G5
 359          KO       0        0      0.0        0       22
 360          HC       2
```

```
 361          KK   G5-G6   CNAME      G5
 362          KM   ROUTE HYDRPGRAPH FROM G5 TO G6 (CHANNEL A)
 363          KO       0       0     0.0       0      22
 364          RS       9    FLOW     0.0     0.0
 365          RC     0.1     0.1     0.1 5820.25   0.005     0.0
 366          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
1                                          HEC-1 INPUT                                                    PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 367          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 368          KK      42
 369          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 370          KM   L=1.56      Lca=0.78      S=22.73      Kn=0.200      LAG=172
 371          KM   S-GRAPH TYPE=AGRICULTURE
 372          KO       0       0     0.0       1      22
 373          BA  0.7784
 374          LG     0.1    0.25   4.279   0.425    80.0
 375          UI     0.0   16.69   16.69   27.56   45.45   80.53   97.66  104.52   129.6  140.19
 376          UI  140.19  140.19  127.73  116.82  127.79   93.09   93.29    78.5   63.72    51.4
 377          UI   48.31   43.45   30.82   26.96   22.38   20.62   16.46   15.24   14.45    9.47
 378          UI    9.47    9.47    9.47    2.87    2.09    2.09    2.09    2.09    2.09    2.09
 379          UI    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09
 380          UI    2.09    2.09     0.0

 381          KK    42-O
 382          KO       0       0     0.0       0      22
 383          DT   42ret    91.0     0.0
 384          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 385          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 386          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 387          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 388          KK      G6   CNAME   G6-G7
 389          KM   COMBINE ROUTED HYDROGRAPH FROM G5 WITH RUNOFF FROM 42 @ G6
 390          KO       0       0     0.0       0      22
 391          HC       2

 392          KK   G6-G7   CNAME      G6
 393          KM   ROUTE HYDRPGRAPH FROM G6 TO G7 (CHANNEL A)
 394          KO       0       0     0.0       0      22
 395          RS       4    FLOW     0.0     0.0
 396          RC     0.1     0.1     0.1 2613.05   0.007     0.0
 397          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 398          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 399          KK      53
 400          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 401          KM   L=0.91      Lca=0.46      S=23.93      Kn=0.200      LAG=113
 402          KM   S-GRAPH TYPE=AGRICULTURE
 403          KO       0       0     0.0       1      22
 404          BA  0.3385
 405          LG     0.1    0.25   3.997   0.429    80.0
 406          UI     0.0   11.05   16.13    37.6   62.38   76.97   90.56   92.81    85.6   80.26
 407          UI   66.07   58.87   41.62   31.91   28.17   18.87   14.88   12.13   10.09    7.44
 408          UI    6.27    6.27    1.84    1.38    1.38    1.38    1.38    1.38    1.38    1.38
 409          UI    1.38    1.38    1.38    1.38     0.0

 410          KK    53-O
 411          KO       0       0     0.0       0      22
 412          DT   53ret    39.0     0.0
 413          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 414          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 415          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
1                                          HEC-1 INPUT                                                    PAGE 10

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 416          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 417          KK      G7   CNAME   G7-G8
 418          KM   COMBINE ROUTED HYDROGRAPH FROM G6 WITH RUNOFF FROM 53 @ G7
 419          KO       0       0     0.0       0      22
 420          HC       2

 421          KK   G7-G8   CNAME      G7
 422          KM   STORAGE ROUTE FROM G7 TO G8 THROUGH SPRR TRESTLE
 423          KO       0       0     0.0       0      22
 424          RS       1    ELEV   888.0     0.0
 425          SV     0.0     0.6    4.25   26.94  108.66  257.97   449.6   449.6   449.6   449.6
 426          SV   449.6   449.6   449.6   449.6   449.6   449.6   449.6   449.6   449.6   449.6
 427          SE   888.0   890.0   892.0   894.0   896.0   898.0   900.0   900.0   900.0   900.0
 428          SE   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0
 429          SQ     0.0   100.0   200.0   480.0  1480.0  2060.0  2520.0  2900.0  2900.0  2900.0
 430          SQ  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0
 431          SE   888.0  888.07  889.07  890.07  891.07  892.07  893.07  894.07  894.07  894.07
 432          SE  894.07  894.07  894.07  894.07  894.07  894.07  894.07  894.07  894.07  894.07

 433          KK      61
 434          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 435          KM   L=0.90      Lca=0.45      S=23.00      Kn=0.200      LAG=113
 436          KM   S-GRAPH TYPE=AGRICULTURE
 437          KO       0       0     0.0       1      22
 438          BA  0.5081
 439          LG   0.101    0.25   3.965   0.457  60.155
 440          UI     0.0   16.58   24.21   56.43   93.62  115.52  135.92   139.3  128.47  120.46
 441          UI   99.16   88.35   62.47    47.9   42.28   28.31   22.33   18.21   15.14   11.17
 442          UI    9.41    9.41    2.76    2.07    2.07    2.07    2.07    2.07    2.07    2.07
 443          UI    2.07    2.07    2.07    2.07     0.0

 444          KK    61-O
 445          KO       0       0     0.0       0      22
 446          DT   61ret    47.0     0.0
 447          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 448          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 449          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 450          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 451          KK      G8
 452          KM   COMBINE STORAGE HYDROGRAPH FROM G7 WITH RUNOFF FROM 61 @ G8
 453          ZW   A=RBW B=G8 C=FLOW E=15MIN F=10Y6H-FUT
 454          KO       0       0     0.0       0      22
 455          HC       2
```

```
                 * ***********************************************************************
                 * **   SUB-WATERSHED H   ***************************************************
                 * ***********************************************************************

 456             KK    RIDH
 457             KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 458             BA  0.0001
 459             ZR  =QI A=RID RID B=19799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-10-06F
1                                          HEC-1 INPUT                                          PAGE 11

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 460             KK  H3S-H4   CNAME     H3S
 461             KM   ROUTE INFLOW FROM RID CONCENTRATED AT H3S TO H4 (CHANNEL A)
 462             KO       0       0     0.0       0      22
 463             RS       1    FLOW     0.0     0.0
 464             RC     0.1     0.1     0.110193.17   0.005     0.0
 465             RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 466             RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 467             KK      31
 468             KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 469             KM   L=1.93     Lca=0.97     S=26.40     Kn=0.200     LAG=196
 470             KM   S-GRAPH TYPE=AGRICULTURE
 471             KO       0       0     0.0       1      22
 472             BA  1.0788
 473             LG   0.212    0.25   4.018   0.427  50.883
 474             UI     0.0    20.3    20.3   26.01   42.62   75.47  110.82  116.22  130.81  156.48
 475             UI  170.49  170.49  170.49  170.49  143.97  142.08   158.6  111.16  110.82  106.73
 476             UI   79.11   71.61    59.1   60.85   49.19   37.72   32.79   29.13   25.07   23.42
 477             UI   18.53   18.53   16.79   11.52   11.52   11.52   11.52    7.81    2.54    2.54
 478             UI    2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54
 479             UI    2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54     0.0

 480             KK    31-O
 481             KO       0       0     0.0       0      22
 482             DT   31ret    96.0     0.0
 483             DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 484             DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 485             DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 486             DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 487             KK      H4   CNAME   H4-H5
 488             KM   COMBINE ROUTED HYDROGRAPH FROM H3S WITH RUNOFF FROM 31 @ H4
 489             KO       0       0     0.0       0      22
 490             HC       2

 491             KK   H4-H5   CNAME      H4
 492             KM   ROUTE HYDRPGRAPH FROM H4 TO H5 (CHANNEL B)
 493             KO       0       0     0.0       0      22
 494             RS       7    FLOW     0.0     0.0
 495             RC     0.1    0.02     0.1 5382.76   0.006     0.0
 496             RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 497             RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 498             KK      43
 499             KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 500             KM   L=1.92     Lca=0.96     S=20.85     Kn=0.200     LAG=204
 501             KM   S-GRAPH TYPE=AGRICULTURE
 502             KO       0       0     0.0       1      22
 503             BA  1.0022
 504             LG   0.163    0.25   3.958   0.413  59.167
 505             UI     0.0   18.12   18.12   20.99   38.04   57.93    94.1  108.05  107.28   138.7
 506             UI  144.35  152.18  152.18  152.18  142.03  126.81  135.44  126.81   95.11  102.81
 507             UI    87.2   69.17   61.58   52.32   54.94   42.82   33.73   29.26   26.57   22.38
 508             UI   21.91   16.54   16.54   16.54   10.58   10.28   10.28   10.28   10.28    2.91
1                                          HEC-1 INPUT                                          PAGE 12

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 509             UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
 510             UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
 511             UI    2.26     0.0

 512             KK    43-O
 513             KO       0       0     0.0       0      22
 514             DT   43ret    98.0     0.0
 515             DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 516             DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 517             DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 518             DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 519             KK      H5   CNAME   H5-H6
 520             KM   COMBINE ROUTED HYDROGRAPH FROM H4 WITH RUNOFF FROM 43 @ H5
 521             KO       0       0     0.0       0      22
 522             HC       2

 523             KK   H5-H6   CNAME      H5
 524             KM   ROUTE HYDRPGRAPH FROM H5 TO H6 (CHANNEL B)
 525             KO       0       0     0.0       0      22
 526             RS       4    FLOW     0.0     0.0
 527             RC     0.1    0.02     0.1 2887.92   0.005     0.0
 528             RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 529             RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 530             KK      54
 531             KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 532             KM   L=1.20     Lca=0.60     S=12.35     Kn=0.200     LAG=157
 533             KM   S-GRAPH TYPE=AGRICULTURE
 534             KO       0       0     0.0       1      22
 535             BA  0.3861
 536             LG     0.1    0.25     4.0   0.432    80.0
 537             UI     0.0    9.07    9.07   17.07   30.66   52.22    50.2    67.4   74.77   76.18
 538             UI   76.18   69.41   63.49   68.13   47.62   51.29   35.97    31.2   25.88   25.91
 539             UI   17.01   14.65   12.06    11.2    8.36    8.28    6.51    5.15    5.15    5.15
 540             UI    2.36    1.13    1.13    1.13    1.13    1.13    1.13    1.13    1.13    1.13
 541             UI    1.13    1.13    1.13    1.13    1.13    1.13    1.13     0.0

 542             KK    54-O
 543             KO       0       0     0.0       0      22
 544             DT   54ret    45.0     0.0
 545             DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 546             DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
```

```
547          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
548          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

549          KK      H6   CNAME   H6-H7
550          KM   COMBINE ROUTED HYDROGRAPH FROM H5 WITH RUNOFF FROM 54 @ H6
551          KO       0       0     0.0       0      22
552          HC       2
1                                        HEC-1 INPUT                                                PAGE 13

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


553          KK   H6-H7   CNAME      H6
554          KM   STORAGE ROUTE FROM H6 TO H7 THROUGH SPRR TRESTLE
555          KO       0       0     0.0       0      22
556          RS       1    ELEV   890.0     0.0
557          SV     0.0    0.45   30.43    148.25  336.08  336.08  336.08  336.08  336.08  336.08
558          SV  336.08  336.08  336.08  336.08  336.08  336.08  336.08  336.08  336.08  336.08
559          SE   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0
560          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
561          SQ     0.0   185.0   720.0  1025.0  1075.0  1150.0  1355.0  1800.0  1800.0  1800.0
562          SQ  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0
563          SE   890.0  891.07  893.47  895.47  895.57  895.67  895.77  895.87  895.87  895.87
564          SE  895.87  895.87  895.87  895.87  895.87  895.87  895.87  895.87  895.87  895.87

565          KK      62
566          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
567          KM   L=0.98     Lca=0.49     S=21.54     Kn=0.200     LAG=122
568          KM   S-GRAPH TYPE=AGRICULTURE
569          KO       0       0     0.0       1      22
570          BA  0.5717
571          LG   0.101    0.25   4.203   0.421  79.778
572          UI     0.0   17.28   22.83   47.88   97.83  104.21  138.24  145.18  145.18  124.21
573          UI  130.72   91.16   89.45   63.88   49.84   45.53   30.22    24.7   20.76   15.78
574          UI   14.37    9.81    9.81    8.08    2.16    2.16    2.16    2.16    2.16    2.16
575          UI    2.16    2.16    2.16    2.16    2.16    2.16    2.16     0.0

576          KK    62-O
577          KO       0       0     0.0       0      22
578          DT   62ret    67.0     0.0
579          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
580          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
581          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
582          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

583          KK      H7
584          KM   COMBINE STORAGE HYDROGRAPH FROM H6 WITH RUNOFF FROM 62 @ H7
585          ZW   A=RBW B=H7 C=FLOW E=15MIN F=10Y6H-FUT
586          KO       0       0     0.0       0      22
587          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED I   ***********************************************
             * ***********************************************************************

588          KK    RIDI
589          KM   PALSE BASIN TO SIMULATE INFLOW FROM RID
590          BA  0.0001
591          ZR  =QI A=RID RID B=24399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-10-06F

592          KK  I2S-I3   CNAME     I2S
593          KM   ROUTE INFLOW FROM RID CONCENTRATED AT I2S TO I3 (CHANNEL A)
594          KO       0       0     0.0       0      22
595          RS       1    FLOW     0.0     0.0
596          RC     0.1     0.1     0.1 8174.00   0.005     0.0
597          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
598          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                        HEC-1 INPUT                                                PAGE 14

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


599          KK      32
600          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
601          KM   L=1.84     Lca=0.92     S=24.34     Kn=0.200     LAG=192
602          KM   S-GRAPH TYPE=AGRICULTURE
603          KO       0       0     0.0       1      22
604          BA  0.8959
605          LG    0.25    0.25     4.0   0.457  34.049
606          UI     0.0   17.21   17.21   23.11   36.91   68.18   97.57   94.68  119.26  132.99
607          UI  144.55  144.55  144.55  139.73  120.46  127.21  121.42   90.35    99.1   77.05
608          UI   65.71   54.78    48.6    53.0   32.85   29.42   27.69   21.26   21.26    16.6
609          UI   15.71   15.71   10.39    9.77    9.77    9.77    8.55    2.15    2.15    2.15
610          UI    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15
611          UI    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15     0.0

612          KK    32-O
613          KO       0       0     0.0       0      22
614          DT   32ret    62.0     0.0
615          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
616          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
617          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
618          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

619          KK      I3   CNAME   I3-I4
620          KM   COMBINE ROUTED HYDROGRAPH FROM I2S WITH RUNOFF FROM 32 @ I3
621          KO       0       0     0.0       0      22
622          HC       2

623          KK   I3-I4   CNAME      I3
624          KM   ROUTE HYDROGRAPH FROM I3 TO I4 (CHANNEL B)
625          KO       0       0     0.0       0      22
626          RS      15    FLOW     0.0     0.0
627          RC     0.1    0.02     0.110387.48   0.004     0.0
628          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
629          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

630          KK      44
631          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
632          KM   L=1.97     Lca=0.98     S=22.43     Kn=0.200     LAG=205
633          KM   S-GRAPH TYPE=AGRICULTURE
634          KO       0       0     0.0       1      22
635          BA  1.0069
636          LG    0.25    0.25   4.136   0.433    30.0
637          UI     0.0   18.11   18.11    20.7   38.04    57.4    93.3  108.09  106.09  139.54
```

```
638          UI  142.37  152.15  152.15  152.15   143.7   126.8  133.98  130.92    95.1  101.27
639          UI   90.64   69.78   63.13   52.71   54.03   45.67   34.4   29.26   27.49   22.38
640          UI   22.38   16.93   16.54   16.54   11.59   10.28   10.28   10.28   10.28     4.4
641          UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
642          UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
643          UI    2.26    2.26     0.0
1                                          HEC-1 INPUT                                          PAGE 15

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


644          KK    44-O
645          KO       0       0     0.0       0      22
646          DT   44ret    67.0     0.0
647          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
648          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
649          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
650          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

651          KK      I4   CNAME   I4-I5
652          KM   COMBINE ROUTED HYDROGRAPH FROM I3 WITH RUNOFF FROM 44 @ I4
653          KO       0       0     0.0       0      22
654          HC       2

655          KK   I4-I5   CNAME      I4
656          KM   ROUTE HYDRPGRAPH FROM I4 TO I5 (CHANNEL A)
657          KO       0       0     0.0       0      22
658          RS       5    FLOW     0.0     0.0
659          RC     0.1     0.1     0.1 2589.37   0.003     0.0
660          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
661          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

662          KK      55
663          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
664          KM   L=0.97     Lca=0.48     S=12.81     Kn=0.200     LAG=133
665          KM   S-GRAPH TYPE=AGRICULTURE
666          KO       0       0     0.0       1      22
667          BA  0.2627
668          LG     0.1    0.25   4.128   0.426    80.0
669          UI     0.0    7.29    8.39   17.86    34.8   41.96   53.41    61.2    61.2   59.84
670          UI    51.0   54.32   38.38   38.38   27.91   21.37   21.37   13.58   11.77     9.0
671          UI    7.84    6.65    5.51    4.14    4.14    3.58    0.91    0.91    0.91    0.91
672          UI    0.91    0.91    0.91    0.91    0.91    0.91    0.91    0.91    0.91    0.91
673          UI     0.0

674          KK    55-O
675          KO       0       0     0.0       0      22
676          DT   55ret    31.0     0.0
677          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
678          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
679          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
680          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

681          KK      I5   CNAME   I5-I6
682          KM   COMBINE ROUTED HYDROGRAPH FROM I4 WITH RUNOFF FROM 55 @ I5
683          KO       0       0     0.0       0      22
684          HC       2

685          KK   I5-I6   CNAME      I5
686          KM   STORAGE ROUTE FROM I5 TO I6 THROUGH SPRR TRESTLE
687          KO       0       0     0.0       0      22
688          RS       1    ELEV   892.0     0.0
689          SV     0.0     0.1    25.1  124.92  273.66  273.66  273.66  273.66  273.66  273.66
690          SV  273.66  273.66  273.66  273.66  273.66  273.66  273.66  273.66  273.66  273.66
691          SE   892.0   894.0   896.0   898.0   900.0   900.0   900.0   900.0   900.0   900.0
1                                          HEC-1 INPUT                                          PAGE 16

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

692          SE   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0
693          SQ     0.0    60.0   150.0   221.0   400.0   830.0  1134.0  1488.0  1892.0  1892.0
694          SQ  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0
695          SE   892.0  894.08  895.18  895.88  896.08  896.28  896.38  896.48  896.58  896.58
696          SE  896.58  896.58  896.58  896.58  896.58  896.58  896.58  896.58  896.58  896.58

697          KK      63
698          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
699          KM   L=0.95     Lca=0.47     S=20.27     Kn=0.200     LAG=120
700          KM   S-GRAPH TYPE=AGRICULTURE
701          KO       0       0     0.0       1      22
702          BA  0.4994
703          LG     0.1    0.25   4.192   0.389    80.0
704          UI     0.0   15.35   20.75   44.48   87.02   96.69  122.47  128.92  128.92  107.43
705          UI  111.73   82.37   73.51   54.08   44.91   35.79   25.69   20.36   16.98   14.01
706          UI   11.04    8.71    8.71    4.64    1.92    1.92    1.92    1.92    1.92    1.92
707          UI    1.92    1.92    1.92    1.92    1.92    1.92     0.0

708          KK    63-O
709          KO       0       0     0.0       0      22
710          DT   63ret    50.0     0.0
711          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
712          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
713          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
714          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

715          KK      I6
716          KM   COMBINE STORAGE HYDROGRAPH FROM I5 WITH RUNOFF FROM 63 @ I6
717          ZW   A=RBW B=I6 C=FLOW E=15MIN F=10Y6H-FUT
718          KO       0       0     0.0       0      22
719          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED J   ***********************************************
             * ***********************************************************************

720          KK    RIDJ
721          KM   PALSE BASIN TO SIMULATE INFLOW FROM RID
722          BA  0.0001
723          ZR  =QI A=RID RID B=27599 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-10-06F

724          KK  J3S-J4   CNAME     J3S
725          KM   ROUTE INFLOW FROM RID CONCENTRATED AT J3S TO J4 (CHANNEL A)
726          KO       0       0     0.0       0      22
727          RS       1    FLOW     0.0     0.0
728          RC     0.1     0.1     0.1 8056.46   0.007     0.0
```

```
 729          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 730          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 731          KK      33
 732          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 733          KM   L=1.84      Lca=0.92      S=29.30      Kn=0.200      LAG=185
 734          KM   S-GRAPH TYPE=AGRICULTURE
 735          KO       0       0     0.0       1      22
 736          BA  1.0024
 737          LG   0.179    0.25   3.962   0.422  53.624
1                                          HEC-1 INPUT                                                          PAGE 17

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 738          UI     0.0   19.98   19.98   28.99   46.91   85.21  117.85  108.17   155.0  152.26
 739          UI  167.85  167.85  167.85   149.2  139.88  252.37  115.61  108.99  103.55   77.29
 740          UI    67.9   57.35   62.19   40.17   34.82   32.28   24.96   24.68    19.1   18.24
 741          UI   18.04   11.34   11.34   11.34   11.34    7.21     2.5     2.5     2.5     2.5
 742          UI     2.5     2.5     2.5     2.5     2.5     2.5     2.5     2.5     2.5     2.5
 743          UI     2.5     2.5     2.5     2.5     2.5     2.5     0.0

 744          KK    33-O
 745          KO       0       0     0.0       0      22
 746          DT   33ret    92.0     0.0
 747          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 748          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 749          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 750          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 751          KK      J4   CNAME   J4-J5
 752          KM   COMBINE ROUTED HYDROGRAPH FROM J3S WITH RUNOFF FROM 33 @ J4
 753          KO       0       0     0.0       0      22
 754          HC       2

 755          KK   J4-J5   CNAME      J4
 756          KM   ROUTE HYDROGRAPH FROM J4 TO J5 (CHANNEL A)
 757          KO       0       0     0.0       0      22
 758          RS       7    FLOW     0.0     0.0
 759          RC     0.1     0.1     0.1 5307.06   0.008     0.0
 760          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 761          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 762          KK     45A
 763          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 764          KM   L=1.97      Lca=0.99      S=25.14      Kn=0.200      LAG=201
 765          KM   S-GRAPH TYPE=AGRICULTURE
 766          KO       0       0     0.0       1      22
 767          BA  1.0027
 768          LG   0.181    0.25   3.993   0.422  52.917
 769          UI     0.0    18.4    18.4   22.16   38.63   61.78   96.59  109.53  112.56  138.24
 770          UI  152.55  154.54  154.54  154.54  139.08  128.78  137.41  120.73   96.59  109.05
 771          UI   76.17   70.24   57.78   51.92   58.19   35.12    32.2   29.72   24.14   22.73
 772          UI   19.64    16.8    16.8   14.01   10.44   10.44   10.44   10.44    6.53     2.3
 773          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
 774          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
 775          UI     2.3

 776          KK   45A-O
 777          KO       0       0     0.0       0      22
 778          DT   45Aret    94.0     0.0
 779          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 780          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 781          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 782          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
1                                          HEC-1 INPUT                                                          PAGE 18

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 783          KK     J5A   CNAME  J5A-5B
 784          KM   COMBINE ROUTED HYDROGRAPH FROM J4 WITH RUNOFF FROM 45A @ J5A
 785          KO       0       0     0.0       0      22
 786          HC       2

 787          KK  J5A-5B   CNAME     J5A
 788          KM   ROUTE HYDROGRAPH FROM J5A TO J5B (CHANNEL A)
 789          KO       0       0     0.0       0      22
 790          RS       6    FLOW     0.0     0.0
 791          RC     0.1     0.1     0.1 2736.25   0.001     0.0
 792          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 793          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 794          KK     45B
 795          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 796          KM   L=0.52      Lca=0.26      S=8.59      Kn=0.200      LAG=89
 797          KM   S-GRAPH TYPE=AGRICULTURE
 798          KO       0       0     0.0       1      22
 799          BA  0.1397
 800          LG     0.1    0.25   3.969   0.413    80.0
 801          UI     0.0    5.79    11.9   30.23    38.5   48.58   48.11   41.75   34.63    28.1
 802          UI   18.91   15.22    9.82    7.25    5.39    4.12    3.29     2.3    0.72    0.72
 803          UI    0.72    0.72    0.72    0.72    0.72    0.72    0.72     0.0

 804          KK   45B-O
 805          KO       0       0     0.0       0      22
 806          DT   45Bret    13.0     0.0
 807          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 808          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 809          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 810          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 811          KK     J5B   CNAME  J5B-J6
 812          KM   COMBINE ROUTED HYDROGRAPH FROM J5A WITH RUNOFF FROM 45B @ J5B
 813          KO       0       0     0.0       0      22
 814          HC       2

 815          KK  J5B-J6   CNAME     J5B
 816          KM   STORAGE ROUTE FROM J5B TO J6 THROUGH SPRR TRESTLE
 817          KO       0       0     0.0       0      22
 818          RS       1    ELEV   892.0     0.0
 819          SV     0.0   20.33   91.45  223.99  223.99  223.99  223.99  223.99  223.99  223.99
 820          SV  223.99  223.99  223.99  223.99  223.99  223.99  223.99  223.99  223.99  223.99
 821          SE   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
 822          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
```

```
 823          SQ     0.0   150.0   230.0   308.0   825.0  1144.0  1970.0  1970.0  1970.0  1970.0
 824          SQ  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0
 825          SE   892.0  893.68  895.08  895.48  895.68  895.88  896.08  896.08  896.08  896.08
 826          SE  896.08  896.08  896.08  896.08  896.08  896.08  896.08  896.08  896.08  896.08
1                                          HEC-1 INPUT                                          PAGE 19
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 827          KK      64
 828          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 829          KM   L=0.89     Lca=0.45     S=17.94     Kn=0.200     LAG=117
 830          KM   S-GRAPH TYPE=AGRICULTURE
 831          KO       0       0     0.0       1      22
 832          BA  0.4148
 833          LG   0.101    0.25   4.357   0.417  79.714
 834          UI     0.0   13.07   18.28   40.72   73.99   90.13  101.51  109.82  106.16   92.07
 835          UI   88.82   73.07   54.21   42.35   39.02   24.27    20.3   16.15   12.61   11.73
 836          UI    7.42    7.42    6.49    1.63    1.63    1.63    1.63    1.63    1.63    1.63
 837          UI    1.63    1.63    1.63    1.63    1.63     0.0

 838          KK    64-O
 839          KO       0       0     0.0       0      22
 840          DT   64ret    49.0     0.0
 841          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 842          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 843          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 844          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 845          KK      J6
 846          KM   COMBINE STORAGE HYDROGRAPH FROM J5B WITH RUNOFF FROM 64 @ J6
 847          ZW   A=RBW B=J6 C=FLOW E=15MIN F=10Y6H-FUT
 848          KO       0       0     0.0       0      22
 849          HC       2
 850          ZZ
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	68	521.	4.50	69.	17.	6.	0.41		
+	DIVERSION TO	68ret	521.	4.50	58.	15.	5.	0.41		
+	HYDROGRAPH AT	68-O	96.	5.00	11.	3.	1.	0.41		
+	ROUTED TO	E1-E2	79.	5.00	11.	3.	1.	0.41		
+	HYDROGRAPH AT	59	108.	4.75	23.	6.	2.	0.25		
+	2 COMBINED AT	E2	154.	5.00	30.	8.	3.	0.66		
+	HYDROGRAPH AT	RIDF	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	F1S-F2	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	27	99.	5.75	44.	12.	4.	0.24		
+	DIVERSION TO	27ret	99.	5.75	44.	12.	4.	0.24		
+	HYDROGRAPH AT	27-O	0.	0.00	0.	0.	0.	0.24		
+	2 COMBINED AT	F2	0.	0.00	0.	0.	0.	0.24		
+	ROUTED TO	F2-F3	0.	0.00	0.	0.	0.	0.24		
+	HYDROGRAPH AT	29	292.	6.25	169.	47.	16.	1.00		
+	DIVERSION TO	29ret	292.	6.25	169.	47.	16.	1.00		
+	HYDROGRAPH AT	29-O	0.	0.00	0.	0.	0.	1.00		
+	2 COMBINED AT	F3	0.	0.00	0.	0.	0.	1.24		
+	ROUTED TO	F3-F4	0.	0.00	0.	0.	0.	1.24		
+	HYDROGRAPH AT	41	342.	6.50	201.	56.	19.	1.20		
+	DIVERSION TO	41ret	342.	6.50	201.	56.	19.	1.20		
+	HYDROGRAPH AT	41-O	0.	0.00	0.	0.	0.	1.20		
+	2 COMBINED AT	F4	0.	0.00	0.	0.	0.	2.44		
+	ROUTED TO	F4-F5B	0.	0.00	0.	0.	0.	2.44		
+	HYDROGRAPH AT	52B	263.	5.25	92.	24.	8.	0.50		

```
+   DIVERSION TO      52Bret    263.   5.25    92.    24.    8.    0.50
+   HYDROGRAPH AT     52B-O       0.   0.00     0.     0.    0.    0.50
+   2 COMBINED AT       F5B       0.   0.00     0.     0.    0.    2.94
+   ROUTED TO       5B-F6B       0.   0.00     0.     0.    0.    2.94
+   HYDROGRAPH AT       60B     200.   5.50    83.    22.    7.    0.57
+   DIVERSION TO     60Bret     200.   5.50    83.    22.    7.    0.57
+   HYDROGRAPH AT     60B-O       0.   0.00     0.     0.    0.    0.57
+   2 COMBINED AT       F6B       0.   0.00     0.     0.    0.    3.51
+   HYDROGRAPH AT       52A     100.   6.25    55.    15.    5.    0.31
+   DIVERSION TO     52Aret     100.   6.25    55.    15.    5.    0.31
+   HYDROGRAPH AT     52A-O       0.   0.00     0.     0.    0.    0.31
+   ROUTED TO       5A-F6A       0.   0.00     0.     0.    0.    0.31
+   HYDROGRAPH AT       60A     130.   5.75    57.    15.    5.    0.41
+   DIVERSION TO     60Aret     130.   5.75    57.    15.    5.    0.41
+   HYDROGRAPH AT     60A-O       0.   0.00     0.     0.    0.    0.41
+   2 COMBINED AT       F6A       0.   0.00     0.     0.    0.    0.72
+   HYDROGRAPH AT      RIDG       0.   0.00     0.     0.    0.    0.00
+   ROUTED TO       G3S-G4       0.   0.00     0.     0.    0.    0.00
+   HYDROGRAPH AT        28     123.   5.75    60.    16.    5.    0.33
+   DIVERSION TO      28ret     123.   5.75    60.    16.    5.    0.33
+   HYDROGRAPH AT     28-O       0.   0.00     0.     0.    0.    0.33
+   2 COMBINED AT        G4       0.   0.00     0.     0.    0.    0.33
+   ROUTED TO       G4-G5       0.   0.00     0.     0.    0.    0.33
+   HYDROGRAPH AT        30     277.   6.50   165.    46.   15.    0.98
+   DIVERSION TO      30ret     277.   6.50   165.    46.   15.    0.98
+   HYDROGRAPH AT     30-O       0.   0.00     0.     0.    0.    0.98
+   2 COMBINED AT        G5       0.   0.00     0.     0.    0.    1.32
+   ROUTED TO       G5-G6       0.   0.00     0.     0.    0.    1.32
+   HYDROGRAPH AT        42     223.   6.50   132.    37.   12.    0.78
+   DIVERSION TO      42ret     223.   6.50   132.    37.   12.    0.78
+   HYDROGRAPH AT     42-O       0.   0.00     0.     0.    0.    0.78
+   2 COMBINED AT        G6       0.   0.00     0.     0.    0.    2.10
+   ROUTED TO       G6-G7       0.   0.00     0.     0.    0.    2.10
+   HYDROGRAPH AT        53     141.   5.75    62.    16.    5.    0.34
+   DIVERSION TO      53ret     141.   5.75    62.    16.    5.    0.34
+   HYDROGRAPH AT     53-O       0.   0.00     0.     0.    0.    0.34
+   2 COMBINED AT        G7       0.   0.00     0.     0.    0.    2.43
+   ROUTED TO       G7-G8       0.   0.00     0.     0.    0.    2.43
```

```
+          HYDROGRAPH AT
                      61      183.   5.75       79.      21.       7.     0.51
+          DIVERSION TO
                   61ret      183.   5.75       79.      21.       7.     0.51
+          HYDROGRAPH AT
                    61-O        0.   0.00        0.       0.       0.     0.51
+          2 COMBINED AT
                      G8        0.   0.00        0.       0.       0.     2.94
+          HYDROGRAPH AT
                    RIDH        0.   0.00        0.       0.       0.     0.00
+          ROUTED TO
                  H3S-H4        0.   0.00        0.       0.       0.     0.00
+          HYDROGRAPH AT
                      31      205.   6.75      131.      38.      13.     1.08
+          DIVERSION TO
                   31ret      205.   6.75      131.      38.      13.     1.08
+          HYDROGRAPH AT
                    31-O        0.   0.00        0.       0.       0.     1.08
+          2 COMBINED AT
                      H4        0.   0.00        0.       0.       0.     1.08
+          ROUTED TO
                   H4-H5        0.   0.00        0.       0.       0.     1.08
+          HYDROGRAPH AT
                      43      204.   7.00      134.      39.      13.     1.00
+          DIVERSION TO
                   43ret      204.   7.00      134.      39.      13.     1.00
+          HYDROGRAPH AT
                    43-O        0.   0.00        0.       0.       0.     1.00
+          2 COMBINED AT
                      H5        0.   0.00        0.       0.       0.     2.08
+          ROUTED TO
                   H5-H6        0.   0.00        0.       0.       0.     2.08
+          HYDROGRAPH AT
                      54      122.   6.25       68.      19.       6.     0.39
+          DIVERSION TO
                   54ret      122.   6.25       68.      19.       6.     0.39
+          HYDROGRAPH AT
                    54-O        0.   0.00        0.       0.       0.     0.39
+          2 COMBINED AT
                      H6        0.   0.00        0.       0.       0.     2.47
+          ROUTED TO
                   H6-H7        0.   0.00        0.       0.       0.     2.47
+          HYDROGRAPH AT
                      62      223.   5.75      103.      28.       9.     0.57
+          DIVERSION TO
                   62ret      223.   5.75      103.      28.       9.     0.57
+          HYDROGRAPH AT
                    62-O        0.   0.00        0.       0.       0.     0.57
+          2 COMBINED AT
                      H7        0.   0.00        0.       0.       0.     3.04
+          HYDROGRAPH AT
                    RIDI        0.   0.00        0.       0.       0.     0.00
+          ROUTED TO
                  I2S-I3        0.   0.00        0.       0.       0.     0.00
+          HYDROGRAPH AT
                      32      141.   6.75       88.      25.       8.     0.90
+          DIVERSION TO
                   32ret      141.   6.75       88.      25.       8.     0.90
+          HYDROGRAPH AT
                    32-O        0.   0.00        0.       0.       0.     0.90
+          2 COMBINED AT
                      I3        0.   0.00        0.       0.       0.     0.90
+          ROUTED TO
                   I3-I4        0.   0.00        0.       0.       0.     0.90
+          HYDROGRAPH AT
                      44      139.   7.00       91.      26.       9.     1.01
+          DIVERSION TO
                   44ret      139.   7.00       91.      26.       9.     1.01
+          HYDROGRAPH AT
                    44-O        0.   0.00        0.       0.       0.     1.01
+          2 COMBINED AT
                      I4        0.   0.00        0.       0.       0.     1.90
+          ROUTED TO
                   I4-I5        0.   0.00        0.       0.       0.     1.90
+          HYDROGRAPH AT
                      55       96.   5.75       47.      13.       4.     0.26
```

```
+          DIVERSION TO
                          55ret      96.   5.75        47.       13.        4.     0.26
+          HYDROGRAPH AT
                           55-O       0.   0.00         0.        0.        0.     0.26
+          2 COMBINED AT
                             I5       0.   0.00         0.        0.        0.     2.17
+          ROUTED TO
                          I5-I6       0.   0.00         0.        0.        0.     2.17
+          HYDROGRAPH AT
                             63     200.   5.75        91.       24.        8.     0.50
+          DIVERSION TO
                          63ret     200.   5.75        91.       24.        8.     0.50
+          HYDROGRAPH AT
                           63-O       0.   0.00         0.        0.        0.     0.50
+          2 COMBINED AT
                             I6       0.   0.00         0.        0.        0.     2.66
+          HYDROGRAPH AT
                           RIDJ       0.   0.00         0.        0.        0.     0.00
+          ROUTED TO
                         J3S-J4       0.   0.00         0.        0.        0.     0.00
+          HYDROGRAPH AT
                             33     208.   6.75       129.       37.       12.     1.00
+          DIVERSION TO
                          33ret     208.   6.75       129.       37.       12.     1.00
+          HYDROGRAPH AT
                           33-O       0.   0.00         0.        0.        0.     1.00
+          2 COMBINED AT
                             J4       0.   0.00         0.        0.        0.     1.00
+          ROUTED TO
                           J4-J5      0.   0.00         0.        0.        0.     1.00
+          HYDROGRAPH AT
                            45A     192.   6.75       125.       36.       12.     1.00
+          DIVERSION TO
                          45Aret    192.   6.75       125.       36.       12.     1.00
+          HYDROGRAPH AT
                           45A-O       0.   0.00         0.        0.        0.     1.00
+          2 COMBINED AT
                            J5A       0.   0.00         0.        0.        0.     2.01
+          ROUTED TO
                          J5A-5B      0.   0.00         0.        0.        0.     2.01
+          HYDROGRAPH AT
                            45B      72.   5.25        26.        7.        2.     0.14
+          DIVERSION TO
                          45Bret     72.   5.25        26.        7.        2.     0.14
+          HYDROGRAPH AT
                           45B-O       4.   8.00         1.        0.        0.     0.14
+          2 COMBINED AT
                            J5B       1.   9.25         0.        0.        0.     2.14
+          ROUTED TO
                          J5B-J6      0.  10.50         0.        0.        0.     2.14
+          HYDROGRAPH AT
                             64     168.   5.75        75.       20.        7.     0.41
+          DIVERSION TO
                          64ret     168.   5.75        75.       20.        7.     0.41
+          HYDROGRAPH AT
                           64-O       0.   0.00         0.        0.        0.     0.41
+          2 COMBINED AT
                             J6       0.  10.50         0.        0.        0.     2.56

 *** NORMAL END OF HEC-1 ***

1****************************************
 *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
 *              JUN   1998              *
 *            VERSION 4.1               *
 *                                      *
 *  RUN DATE   23MAR06  TIME  04:57:15  *
 *                                      *
 ****************************************

 ****************************************
 *                                      *
 *    U.S. ARMY CORPS OF ENGINEERS      *
 *    HYDROLOGIC ENGINEERING CENTER     *
 *          609 SECOND STREET           *
 *       DAVIS, CALIFORNIA 95616        *
 *           (916) 756-1104             *
 *                                      *
 ****************************************

 X     X  XXXXXXX   XXXXX          X
 X     X  X        X     X        XX
 X     X  X        X               X
 XXXXXXX  XXXX     X        XXXXX  X
 X     X  X        X               X
 X     X  X        X     X         X
```

```
                                        X     X  XXXXXXX   XXXXX          XXX


THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                    PAGE  1

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

    1           ID   Buckeye/Sun Valley ADMS - November 2004
    2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
    3           ID   10-year 6-hour
    4           ID   Future Conditions
    5           ID   Area 1 - RID to BIC (East)
    6           ID   File Name: rbe106fut.hc1
    7           ID   Rainfall Loss Method - Green & Ampt
    8           ID   Unit Hydrograph Method - FCDMC S-Graph
    9           ID   Channel Routing Method - Normal Depth
   10           ID   Land Use - FCDMC GIS Data; mag_genplan (2000)
   11           ID   Future Land Use Build Out Date: 2025
   12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
   13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                *DIAGRAM
   14           IT      15 02JAN94       0     400
   15           IO       3
   16           IN      15 02JAN94       0
   17           JD     2.1     0.01
                * 6-hour distribution, pattern 1.0
   18           PC     0.0    0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
   19           PC   0.087    0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
   20           PC   0.962    0.972   0.983   0.991     1.0
   21           IN      15 02JAN94       0
   22           JD   2.087      0.5
                * 6-hour distribution, pattern 1.0
   23           PC     0.0    0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
   24           PC   0.087    0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
   25           PC   0.962    0.972   0.983   0.991     1.0
   26           IN      15 02JAN94       0
   27           JD   2.073      1.0
                * 6-hour distribution, pattern 1.4
   28           PC     0.0  0.0084   0.016   0.025  0.0334  0.0414  0.0504  0.0584  0.0664  0.0748
   29           PC   0.087  0.0994  0.1188   0.148  0.2304  0.4067  0.7778  0.8813  0.9186  0.9452
   30           PC  0.9572  0.9684  0.9798  0.9898     1.0
   31           IN      15 02JAN94       0
   32           JD   2.016      5.0
                * 6-hour distribution, pattern 2.3
   33           PC     0.0   0.011  0.0173  0.0267  0.0387   0.049  0.0593  0.0693  0.0797  0.0903
   34           PC   0.103  0.1173  0.1383  0.1827  0.2693   0.458   0.686  0.8233  0.8893  0.9293
   35           PC  0.9487   0.962  0.9743  0.9877     1.0
   36           IN      15 02JAN94       0
   37           JD   1.974     10.0
                * 6-hour distribution, pattern 2.7
   38           PC     0.0  0.0134  0.0189  0.0287  0.0443  0.0574  0.0694  0.0818  0.0949  0.1076
   39           PC  0.1223  0.1382  0.1604  0.2063  0.2902  0.4664  0.6764  0.8069  0.8765  0.9189
   40           PC  0.9471  0.9608  0.9735  0.9873     1.0
                * ***********************************************************************************
                * **   SUB-WATERSHED K   ************************************************************
                * ***********************************************************************************
1                                                   HEC-1 INPUT                                                    PAGE  2

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


   41           KK   RIDKB
   42           KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
   43           BA  0.0001
   44           ZR  =QI A=RID RID B=38999 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-06F

   45           KK  K3SBK4   CNAME    K3SB
   46           KM   ROUTE INFLOW FROM RID CONCENTRATED AT K3SB TO K4 (CHANNEL A)
   47           KO       0       0     0.0       0      22
   48           RS       1    FLOW     0.0     0.0
   49           RC     0.1     0.1     0.1 3026.00  0.0090     0.0
   50           RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
   51           RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

   52           KK   RIDKA
   53           KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
   54           BA  0.0001
   55           ZR  =QI A=RID RID B=35599 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-06F

   56           KK  K3SAK4   CNAME    K3SA
   57           KM   ROUTE INFLOW FROM RID CONCENTRATED AT K3SA TO K4 (CHANNEL A)
   58           KO       0       0     0.0       0      22
   59           RS       1    FLOW     0.0     0.0
   60           RC     0.1     0.1     0.1 4868.00  0.0049     0.0
   61           RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
   62           RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

   63           KK      34
   64           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
   65           KM   L=1.23     Lca=0.62     S=19.48     Kn=0.200     LAG=148
   66           KM   S-GRAPH TYPE=AGRICULTURE
   67           KO       0       0     0.0       1      22
   68           BA  0.6373
   69           LG   0.266    0.25   3.994    0.46  26.762
   70           UI     0.0   15.88   15.88   32.09   63.99    91.6   96.57  124.21   133.4   133.4
   71           UI  130.44  111.17  119.11   90.18   91.45   64.03    55.3   45.36   44.06   29.14
   72           UI   25.65    19.8   18.12    14.5   14.37    9.01    9.01    9.01    6.39    1.99
   73           UI    1.99    1.99    1.99    1.99    1.99    1.99    1.99    1.99    1.99    1.99
   74           UI    1.99    1.99    1.99    1.99    1.99     0.0

   75           KK    34-O
   76           KO       0       0     0.0       0      22
   77           DT   34ret    40.0     0.0
```

```
 78          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 79          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 80          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 81          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 82          KK      K4   CNAME   K4-K5
 83          KM   COMBINE ROUTED HYDROGRAPH FROM K3SA AND K3SB WITH RUNOFF FROM 34 @ K4
 84          KO       0       0     0.0       0      22
 85          HC       3
1                                        HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 86          KK   K4-K5   CNAME      K4
 87          KM   ROUTE HYDRPGRAPH FROM K4 TO K5 (CHANNEL B)
 88          KO       0       0     0.0       0      22
 89          RS       7    FLOW     0.0     0.0
 90          RC     0.1    0.02     0.1 5283.85   0.008     0.0
 91          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 92          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 93          KK      35
 94          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 95          KM   L=1.96     Lca=0.98     S=33.61     Kn=0.200     LAG=190
 96          KM   S-GRAPH TYPE=AGRICULTURE
 97          KO       0       0     0.0       1      22
 98          BA  1.5042
 99          LG   0.197    0.25   3.978   0.449  52.272
100          UI     0.0    29.2    29.2   40.11   64.31  118.19   168.6  157.36  214.59  220.72
101          UI  245.24  245.24  245.24  231.62  204.37  217.31  195.85  153.28  172.28  118.39
102          UI  111.47   87.32   83.63   81.72   55.74   47.73   43.98   36.07   34.81   26.66
103          UI   26.66   24.44   16.57   16.57   16.57   16.57    9.68    3.65    3.65    3.65
104          UI    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65
105          UI    3.65    3.65    3.65    3.65    3.65    3.65    3.65     0.0

106          KK    35-O
107          KO       0       0     0.0       0      22
108          DT   35ret   128.0     0.0
109          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
110          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
111          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
112          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

113          KK      K5   CNAME   K5-K6
114          KM   COMBINE ROUTED HYDROGRAPH FROM K4 WITH RUNOFF FROM 35 @ K5
115          KO       0       0     0.0       0      22
116          HC       2

117          KK   K5-K6   CNAME      K5
118          KM   ROUTE HYDRPGRAPH FROM K5 TO K6 (CHANNEL B)
119          KO       0       0     0.0       0      22
120          RS       7    FLOW     0.0     0.0
121          RC     0.1    0.02     0.1 6533.09   0.006     0.0
122          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
123          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

124          KK      46
125          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
126          KM   L=1.79     Lca=0.89     S=25.18     Kn=0.200     LAG=186
127          KM   S-GRAPH TYPE=AGRICULTURE
128          KO       0       0     0.0       1      22
129          BA  1.3812
130          LG   0.191    0.25   4.186   0.431  49.223
131          UI     0.0   27.39   27.39   39.31   63.49  115.59   161.6  146.46  213.71  205.72
132          UI  230.03  230.03  230.03  207.03   191.7   205.8  165.51  147.93  146.17  106.95
133          UI   95.42    79.2   83.87   59.37   48.74   44.24   35.62   33.83   27.47    25.0
134          UI    25.0   16.79   15.54   15.54   15.54   12.15    3.42    3.42    3.42    3.42
1                                        HEC-1 INPUT                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

135          UI    3.42    3.42    3.42    3.42    3.42    3.42    3.42    3.42    3.42    3.42
136          UI    3.42    3.42    3.42    3.42    3.42    3.42     0.0

137          KK    46-O
138          KO       0       0     0.0       0      22
139          DT   46ret   115.0     0.0
140          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
141          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
142          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
143          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

144          KK      K6   CNAME   K6-K7
145          KM   COMBINE ROUTED HYDROGRAPH FROM K5 WITH RUNOFF FROM 46 @ K6
146          KO       0       0     0.0       0      22
147          HC       2

148          KK   K6-K7   CNAME      K6
149          KM   STORAGE ROUTE FROM K6 TO K7 THROUGH SPRR TRESTLE
150          KO       0       0     0.0       0      22
151          RS       1    ELEV   890.0     0.0
152          SV     0.0    0.43   43.48  173.62  410.02  410.02  410.02  410.02  410.02  410.02
153          SV  410.02  410.02  410.02  410.02  410.02  410.02  410.02  410.02  410.02  410.02
154          SE   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0
155          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
156          SQ     0.0   200.0   975.0  1120.0  1555.0  1565.0  1610.0  2150.0  2150.0  2150.0
157          SQ  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0
158          SE   890.0  891.09  893.09  893.69  894.89  894.99  895.09  895.29  895.29  895.29
159          SE  895.29  895.29  895.29  895.29  895.29  895.29  895.29  895.29  895.29  895.29

160          KK      65
161          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
162          KM   L=0.82     Lca=0.41     S=10.93     Kn=0.200     LAG=121
163          KM   S-GRAPH TYPE=AGRICULTURE
164          KO       0       0     0.0       1      22
165          BA  0.3756
166          LG     0.1    0.25   4.712   0.374    80.0
167          UI     0.0   11.45    15.3   32.35   64.94   69.77   92.26   96.16   96.16    81.2
168          UI   85.03   60.83   57.04   41.32   33.18    28.5   19.59   15.77   13.21   10.45
169          UI    8.88     6.5     6.5     4.4    1.43    1.43    1.43    1.43    1.43    1.43
170          UI    1.43    1.43    1.43    1.43    1.43    1.43    1.43     0.0

171          KK    65-O
```

```
 172          KO       0       0     0.0       0      22
 173          DT   65ret    42.0     0.0
 174          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 175          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 176          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 177          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 178          KK      K7
 179          KM   COMBINE STORAGE HYDROGRAPH FROM K6 WITH RUNOFF FROM 65 @ K7
 180          ZW   A=RBE B=K7 C=FLOW E=15MIN F=10y6h-fut
 181          KO       0       0     0.0       0      22
 182          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED L   ***********************************************
              * ***********************************************************************
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 183          KK    RIDL
 184          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 185          BA  0.0001
 186          ZR  =QI A=RID RID B=41599 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-06F

 187          KK  L2S-L3   CNAME     L2S
 188          KM   ROUTE INFLOW FROM RID CONCENTRATED AT L2S TO L3 (CHANNEL B)
 189          KO       0       0     0.0       0      22
 190          RS       1    FLOW     0.0     0.0
 191          RC     0.1    0.02     0.1 7457.00   0.009     0.0
 192          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 193          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 194          KK      36
 195          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 196          KM   L=1.85     Lca=0.93     S=36.67     Kn=0.200     LAG=178
 197          KM   S-GRAPH TYPE=AGRICULTURE
 198          KO       0       0     0.0       1      22
 199          BA  0.6838
 200          LG   0.251    0.25   3.967   0.427  36.844
 201          UI     0.0   14.17   14.17   22.08   36.12   64.69    83.2   83.17  105.19  118.66
 202          UI   119.0   119.0  116.36   99.17  105.05   95.04   74.38   80.98   56.49   51.19
 203          UI   41.31    42.9   31.56   25.16   22.88   17.98    17.5   13.42   12.93   12.13
 204          UI    8.04    8.04    8.04    8.04    3.19    1.77    1.77    1.77    1.77    1.77
 205          UI    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77
 206          UI    1.77    1.77    1.77    1.77     0.0

 207          KK    36-O
 208          KO       0       0     0.0       0      22
 209          DT   36ret    48.0     0.0
 210          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 211          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 212          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 213          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 214          KK      L3   CNAME   L3-L4
 215          KM   COMBINE ROUTED HYDROGRAPH FROM L2S WITH RUNOFF FROM 36 @ L3
 216          KO       0       0     0.0       0      22
 217          HC       2

 218          KK   L3-L4   CNAME      L3
 219          KM   ROUTE HYDROGRAPH FROM L3 TO L4 (CHANNEL B)
 220          KO       0       0     0.0       0      22
 221          RS      11    FLOW     0.0     0.0
 222          RC     0.1    0.02     0.1 7726.73   0.005     0.0
 223          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 224          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 225          KK      47
 226          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 227          KM   L=1.46     Lca=0.73     S=24.60     Kn=0.200     LAG=161
 228          KM   S-GRAPH TYPE=AGRICULTURE
 229          KO       0       0     0.0       1      22
 230          BA  0.6169
1                                          HEC-1 INPUT                                          PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 231          LG   0.235    0.25   4.499   0.387  34.953
 232          UI     0.0   14.13   14.13   25.73   43.69   78.39   77.95  107.42  110.39   118.7
 233          UI   118.7  113.43   98.92  105.54   83.18   78.99   64.89   53.48   41.57   42.52
 234          UI   30.95   24.46   21.69   17.46    15.7    12.9    12.9    8.42    8.02    8.02
 235          UI    8.02     2.1    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77
 236          UI    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77     0.0

 237          KK    47-O
 238          KO       0       0     0.0       0      22
 239          DT   47ret    45.0     0.0
 240          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 241          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 242          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 243          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 244          KK      L4   CNAME   L4-L5
 245          KM   COMBINE ROUTED HYDROGRAPH FROM L3 WITH RUNOFF FROM 47 @ L4
 246          KO       0       0     0.0       0      22
 247          HC       2

 248          KK   L4-L5   CNAME      L4
 249          KM   STORAGE ROUTE FROM L4 TO L5 THROUGH SPRR TRESTLE
 250          KO       0       0     0.0       0      22
 251          RS       1    ELEV  886.29     0.0
 252          SV     0.0     0.9     4.0    25.7   107.8  265.67  265.67  265.67  265.67  265.67
 253          SV  265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67
 254          SE   886.0   888.0   890.0   892.0   894.0   896.0   896.0   896.0   896.0   896.0
 255          SE   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0
 256          SQ     0.0    59.0   172.0   230.0   323.0   480.0   769.0  1218.0  1828.0  1828.0
 257          SQ  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0
 258          SE  886.29  888.09  890.09  890.99  891.79  891.99  892.19  892.39  892.59  892.59
 259          SE  892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59

 260          KK      66
 261          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 262          KM   L=0.73     Lca=0.36     S=19.24     Kn=0.200     LAG=99
```

```
KM   S-GRAPH TYPE=AGRICULTURE
KO       0       0     0.0       1      22
BA  0.2941
LG   0.101    0.25   4.471   0.367  79.734
UI     0.0   10.96   18.36   48.91   66.57   87.58   92.03   85.89   79.94   62.17
UI   52.27   36.46   30.89   19.44   15.19   11.84    10.0    6.36    6.22     3.7
UI    1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37
UI     0.0

KK    66-O
KO       0       0     0.0       0      22
DT   66ret    31.0     0.0
DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
1                                   HEC-1 INPUT                                                    PAGE  7

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


KK      L5
KM   COMBINE STORAGE HYDROGRAPH FROM L4 WITH RUNOFF FROM 66 @ L5
ZW   A=RBE B=L5 C=FLOW E=15MIN F=10y6h-fut
KO       0       0     0.0       0      22
HC       2
* ***********************************************************************
* **   SUB-WATERSHED M   ***************************************************
* ***********************************************************************

KK    RIDM
KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
BA  0.0001
ZR  =QI A=RID RID B=47199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-06F

KK  L2S2M1   CNAME    L2S2
KM   ROUTE INFLOW FROM RID CONCENTRATED AT L2S2 TO M1 (CHANNEL A)
KO       0       0     0.0       0      22
RS       1    FLOW     0.0     0.0
RC     0.1     0.1     0.1 9579.00  0.0030     0.0
RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

KK      37
KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
KM   L=2.36     Lca=1.18     S=30.11     Kn=0.200     LAG=222
KM   S-GRAPH TYPE=AGRICULTURE
KO       0       0     0.0       1      22
BA  1.4211
LG   0.248    0.25    4.12   0.419  41.529
UI     0.0   23.61   23.61   23.61   46.77   63.19  104.27  137.98  128.23  153.35
UI  177.81   198.3   198.3   198.3   198.3  191.69  165.25  165.25  182.96  139.11
UI  124.21  141.65    97.7   90.14   78.24   68.08   70.88   60.42   45.07   38.97
UI   38.13   29.56   29.16   25.81   21.55   21.55   21.26    13.4    13.4    13.4
UI    13.4    13.4    7.55    2.95    2.95    2.95    2.95    2.95    2.95    2.95
UI    2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95
UI    2.95    2.95    2.95    2.95    2.95    2.95    2.95     0.0

KK    37-O
KO       0       0     0.0       0      22
DT   37ret   110.0     0.0
DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

KK      M1   CNAME   M1-M2
KM   COMBINE ROUTED HYDROGRAPH FROM L2S2 WITH RUNOFF FROM 37 @ M1
KO       0       0     0.0       0      22
HC       2
1                                   HEC-1 INPUT                                                    PAGE  8

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


KK   M1-M2   CNAME      M1
KM   ROUTE HYDROGRAPH FROM M1 TO M2 (CHANNEL A)
KO       0       0     0.0       0      22
RS      10    FLOW     0.0     0.0
RC     0.1     0.1     0.1  5783.5   0.003     0.0
RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

KK      48
KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
KM   L=1.10     Lca=0.55     S=16.43     Kn=0.200     LAG=139
KM   S-GRAPH TYPE=AGRICULTURE
KO       0       0     0.0       1      22
BA  0.4997
LG   0.211    0.25   4.375   0.389  42.963
UI     0.0   13.26   14.05   30.21   59.66   76.06    96.1  103.26  111.37  111.37
UI   97.76   97.11   83.14   74.11   57.93   46.73   37.98    35.6   23.78   20.47
UI   16.38   13.76   12.11     9.9    7.53    7.53    7.21    1.66    1.66    1.66
UI    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66
UI    1.66    1.66     0.0

KK    48-O
KO       0       0     0.0       0      22
DT   48ret    41.0     0.0
DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

KK      M2   CNAME   M2-M3
KM   COMBINE ROUTED HYDROGRAPH FROM M1 WITH RUNOFF FROM 48 @ M2
KO       0       0     0.0       0      22
HC       2

KK   M2-M3   CNAME      M2
KM   ROUTE HYDROGRAPH FROM M2 TO M3 (CHANNEL A)
KO       0       0     0.0       0      22
RS       3    FLOW     0.0     0.0
RC   0.025   0.025   0.025 4309.67   0.005     0.0
```

```
 354          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 355          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 356          KK      67
 357          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 358          KM   L=0.82      Lca=0.41      S=25.73      Kn=0.200      LAG=102
 359          KM   S-GRAPH TYPE=PHOENIX VALLEY
 360          KO       0        0     0.0        1       22
 361          BA  0.4717
 362          LG    0.21     0.25   4.328   0.412   26.19
 363          UI     0.0    15.57   31.09   66.92   86.69  107.67  144.49  191.76  149.18  119.67
 364          UI   94.22    73.23    45.3   26.94   21.99   15.57    6.99    4.78    4.78    4.78
 365          UI    4.78      0.0
1                                          HEC-1 INPUT                                                    PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 366          KK      M3   CNAME   M3-M4
 367          KM   COMBINE ROUTED HYDROGRAPH FROM M2 WITH RUNOFF FROM 67 @ M3
 368          KO       0        0     0.0        0       22
 369          HC       2

 370          KK   M3-M4   CNAME      M3
 371          KM   STORAGE ROUTE FROM M3 TO M4 THROUGH SPRR TRESTLE
 372          KO       0        0     0.0        0       22
 373          RS       1     ELEV   884.0      0.0
 374          SV     0.0     0.28    12.7     94.1  202.02  383.38  383.38  383.38  383.38  383.38
 375          SV  383.38  383.38  383.38  383.38  383.38  383.38  383.38  383.38  383.38  383.38
 376          SE   884.0   886.0   888.0   890.0   892.0   894.0   894.0   894.0   894.0   894.0
 377          SE   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0
 378          SQ     0.0    42.0   135.0   200.0   226.0   465.0  1010.0  1703.0  1703.0  1703.0
 379          SQ  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0
 380          SE   884.0  885.09  887.09  889.19  889.29  889.49  889.69  889.89  889.89  889.89
 381          SE  889.89  889.89  889.89  889.89  889.89  889.89  889.89  889.89  889.89  889.89

 382          KK      69
 383          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 384          KM   L=0.11      Lca=0.06      S=17.52      Kn=0.200      LAG=25
 385          KM   S-GRAPH TYPE=PHOENIX VALLEY
 386          KO       0        0     0.0        1       22
 387          BA  0.1371
 388          LG     0.1     0.25   4.502   0.453   43.971
 389          UI     0.0    60.46  176.19   92.48    19.3     0.0

 390          KK      M4
 391          KM   COMBINE STORAGE HYDROGRAPH FROM M3 WITH RUNOFF FROM 69 @ M4
 392          ZW   A=RBE B=M4 C=FLOW E=15MIN F=10y6h-fut
 393          KO       0        0     0.0        0       22
 394          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED N   ***********************************************
              * ***********************************************************************

 395          KK    RIDN
 396          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 397          BA  0.0001
 398          ZR  =QI A=RID RID B=51199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-06F

 399          KK  N2S-N3   CNAME     N2S
 400          KM   ROUTE INFLOW FROM RID CONCENTRATED AT N2S TO N3 (CHANNEL A)
 401          KO       0        0     0.0        0       22
 402          RS       1     FLOW     0.0      0.0
 403          RC     0.1      0.1     0.1 5806.00  0.0050     0.0
 404          RX     0.0    250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 405          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                                    PAGE 10

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 406          KK      38
 407          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 408          KM   L=1.40      Lca=0.70      S=20.72      Kn=0.200      LAG=161
 409          KM   S-GRAPH TYPE=AGRICULTURE
 410          KO       0        0     0.0        1       22
 411          BA  0.5419
 412          LG    0.25     0.25   3.963   0.435    30.0
 413          UI     0.0    12.41   12.41    22.6   38.38   68.87   68.47   94.37   96.98  104.28
 414          UI  104.28    99.64    86.9   92.71   73.07   69.39   57.01   46.98   36.52   37.35
 415          UI   27.19    21.49   19.06   15.33   13.79   11.33   11.33     7.4    7.05    7.05
 416          UI    7.05     1.84    1.55    1.55    1.55    1.55    1.55    1.55    1.55    1.55
 417          UI    1.55     1.55    1.55    1.55    1.55    1.55    1.55    1.55    1.55     0.0

 418          KK    38-O
 419          KO       0        0     0.0        0       22
 420          DT   38ret     37.0     0.0
 421          DI     0.0   2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 422          DI  2000.0   2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 423          DQ     0.0   2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 424          DQ  2000.0   2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 425          KK      N3   CNAME   N3-N4
 426          KM   COMBINE ROUTED HYDROGRAPH FROM N2S WITH RUNOFF FROM 38 @ N3
 427          KO       0        0     0.0        0       22
 428          HC       2

 429          KK   N3-N4   CNAME      N3
 430          KM   ROUTE HYDROGRAPH FROM N3 TO N4 (CHANNEL B)
 431          KO       0        0     0.0        0       22
 432          RS       8     FLOW     0.0      0.0
 433          RC     0.1     0.02     0.1 5295.68   0.009     0.0
 434          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 435          RY    10.0      0.0     0.0     1.0     1.0     0.0     0.0    10.0

 436          KK      49
 437          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 438          KM   L=1.96      Lca=0.98      S=23.51      Kn=0.200      LAG=202
 439          KM   S-GRAPH TYPE=AGRICULTURE
 440          KO       0        0     0.0        1       22
 441          BA  1.0093
 442          LG    0.25     0.25   3.954   0.409  36.233
 443          UI     0.0    18.43   18.43   21.91    38.7   60.54   96.74  109.77  111.53  139.33
 444          UI   150.8   154.78  154.78  154.78  141.02  128.98  137.67  123.61   96.74  107.67
```

```
445          UI   80.42   70.35   59.46    52.4   57.71   37.74   32.94   29.77   25.12   22.76
446          UI   20.55   16.82   16.82   15.07   10.46   10.46   10.46   10.46    8.07     2.3
447          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
448          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
449          UI     2.3     0.0
1                                          HEC-1 INPUT                                          PAGE 11

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


450          KK    49-O
451          KO       0       0     0.0       0      22
452          DT   49ret    73.0     0.0
453          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
454          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
455          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
456          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

457          KK      N4   CNAME  N4-N5B
458          KM   COMBINE ROUTED HYDROGRAPH FROM N3 WITH RUNOFF FROM 49 @ N4
459          KO       0       0     0.0       0      22
460          HC       2

461          KK  N4-N5B   CNAME      N4
462          KM   ROUTE HYDROGRAPH FROM N4 TO N5 (CHANNEL B)
463          KO       0       0     0.0       0      22
464          RS       6    FLOW     0.0     0.0
465          RC     0.1    0.02     0.1 3866.36   0.008     0.0
466          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
467          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

468          KK     56B
469          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
470          KM   L=0.71     Lca=0.32     S=32.56     Kn=0.200     LAG=85
471          KM   S-GRAPH TYPE=AGRICULTURE
472          KO       0       0     0.0       1      22
473          BA  0.3335
474          LG     0.1    0.25   3.998   0.503    80.0
475          UI     0.0   13.21   36.42   66.04   85.35  118.84  159.02  118.04    90.4   67.67
476          UI   40.92   22.66   16.33    10.2    4.05    4.05    4.05     0.0

477          KK     N5B   CNAME  N5B-N6
478          KM   COMBINE ROUTED HYDROGRAPH FROM N4 WITH RUNOFF FROM 56B @ N5B
479          KO       0       0     0.0       0      22
480          HC       2

481          KK  N5B-N6   CNAME     N5B
482          KM   STORAGE ROUTE FROM N5B TO N6 THROUGH SPRR TRESTLE
483          KO       0       0     0.0       0      22
484          RS       1    ELEV  887.23     0.0
485          SV     0.0    0.96   12.89   39.94   86.12  150.27  150.27  150.27  150.27  150.27
486          SV  150.27  150.27  150.27  150.27  150.27  150.27  150.27  150.27  150.27  150.27
487          SE   886.0   888.0   890.0   892.0   894.0   896.0   896.0   896.0   896.0   896.0
488          SE   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0
489          SQ     0.0    71.6    98.1   118.7   136.2   151.6   165.7   178.6   190.7   202.0
490          SQ   212.8   223.0   232.8   242.1   251.2   259.9   268.3   276.5   276.5   276.5
491          SE  887.23  889.23  889.73  890.23  890.73  891.23  891.73  892.23  892.73  893.23
492          SE  893.73  894.23  894.73  895.23  895.73  896.23  896.73  897.23  897.23  897.23
1                                          HEC-1 INPUT                                          PAGE 12

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


493          KK     56A
494          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
495          KM   L=1.19     Lca=0.59     S=30.31     Kn=0.200     LAG=132
496          KM   S-GRAPH TYPE=AGRICULTURE
497          KO       0       0     0.0       1      22
498          BA  0.4105
499          LG     0.1    0.25   3.969   0.441    80.0
500          UI     0.0   11.47   13.39   28.45   55.88   66.16   84.79   96.35   96.35   93.14
501          UI   80.29   83.82   61.02   58.36   42.89   33.31   32.41   20.95   17.94   14.17
502          UI    11.8   10.47    8.03    6.51    6.51    4.68    1.43    1.43    1.43    1.43
503          UI    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43
504          UI     0.0

505          KK    56A-O
506          KO       0       0     0.0       0      22
507          DT   56Aret    43.0     0.0
508          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
509          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
510          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
511          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

512          KK  N5A-N6   CNAME     N5A
513          KM   STORAGE ROUTE FROM N5A TO N6 THROUGH SPRR TRESTLE
514          KO       0       0     0.0       0      22
515          RS       1    ELEV  886.0     0.0
516          SV     0.0    0.02    8.08   35.13  100.26  100.26  100.26  100.26  100.26  100.26
517          SV  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26
518          SE   886.0   888.0   890.0   892.0   894.0   894.0   894.0   894.0   894.0   894.0
519          SE   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0
520          SQ     0.0   102.4   189.7   248.0   294.9   335.4   371.5   404.3   434.7   463.1
521          SQ   489.9   515.2   539.4   562.6   584.8   606.2   626.9   646.9   646.9   646.9
522          SE   886.0  887.52  888.02  888.52  889.02  889.52  890.02  890.52  891.02  891.52
523          SE  892.02  892.52  893.02  893.52  894.02  894.52  895.02  895.52  895.52  895.52

524          KK      70
525          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
526          KM   L=0.68     Lca=0.34     S=1.48     Kn=0.200     LAG=152
527          KM   S-GRAPH TYPE=AGRICULTURE
528          KO       0       0     0.0       1      22
529          BA  0.1406
530          LG     0.1    0.25   4.395   0.461    80.0
531          UI     0.0    3.41    3.41    6.68   12.76   19.73   19.85   25.86   28.66   28.66
532          UI   28.66   24.52   25.09   21.89   18.55   16.77   13.03   10.07   10.32    7.14
533          UI    5.77    4.95    4.21    3.44    3.12    2.67    1.94    1.94    1.94    0.99
534          UI    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43
535          UI    0.43    0.43    0.43    0.43    0.43    0.43     0.0

536          KK    70-O
537          KO       0       0     0.0       0      22
538          DT   70ret    17.0     0.0
539          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
```

```
540          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
541          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
542          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
1                                         HEC-1 INPUT                                                PAGE 13

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


543          KK      N6
544          KM   COMBINE STORAGE HYDROGRAPH FROM N5A AND N5B WITH RUNOFF FROM 70 @ N6
545          ZW   A=RBE B=N6 C=FLOW E=15MIN F=10y6h-fut
546          KO       0       0     0.0       0      22
547          HC       3
             * ***********************************************************************
             * **   SUB-WATERSHED O   ***********************************************
             * ***********************************************************************


548          KK    RIDO
549          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
550          BA  0.0001
551          ZR  =QI A=RID RID B=57199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-06F

552          KK  O4S-05   CNAME     O4S
553          KM   ROUTE INFLOW FROM RID CONCENTRATED AT O4S TO O5 (CHANNEL A)
554          KO       0       0     0.0       0      22
555          RS       1    FLOW     0.0     0.0
556          RC     0.1     0.1     0.1 6325.00  0.0060     0.0
557          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
558          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

559          KK      39
560          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
561          KM   L=1.63     Lca=0.82     S=25.14     Kn=0.200     LAG=174
562          KM   S-GRAPH TYPE=AGRICULTURE
563          KO       0       0     0.0       1      22
564          BA  0.7253
565          LG   0.257    0.25    4.31   0.407  26.629
566          UI     0.0   15.37   15.37   24.91   40.98   72.85   90.07   94.27  117.51  129.13
567          UI  129.13  129.13  120.52  107.61  114.33   93.69   83.76    78.5    59.0   50.24
568          UI   43.47   44.81   29.35   25.01   22.19   18.99   16.61   14.04   14.04    9.72
569          UI    8.73    8.73    8.73    5.19    1.92    1.92    1.92    1.92    1.92    1.92
570          UI    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92
571          UI    1.92    1.92     0.0

572          KK    39-O
573          KO       0       0     0.0       0      22
574          DT  39-ret    45.0     0.0
575          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
576          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
577          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
578          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

579          KK      05   CNAME   O5-O6
580          KM   COMBINE ROUTED HYDROGRAPH FROM O4S WITH RUNOFF FROM 39 @ O5
581          KO       0       0     0.0       0      22
582          HC       2
1                                         HEC-1 INPUT                                                PAGE 14

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


583          KK   O5-O6   CNAME      O5
584          KM   ROUTE HYDROGRAPH FROM O5 TO O6 (CHANNEL B)
585          KO       0       0     0.0       0      22
586          RS       7    FLOW     0.0     0.0
587          RC     0.1    0.02     0.1 5267.87    0.01     0.0
588          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
589          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

590          KK      50
591          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
592          KM   L=1.98     Lca=0.99     S=26.73     Kn=0.200     LAG=199
593          KM   S-GRAPH TYPE=AGRICULTURE
594          KO       0       0     0.0       1      22
595          BA  1.0018
596          LG   0.262    0.25   4.181   0.427  31.555
597          UI     0.0   18.57   18.57   22.94   38.99   65.02   98.44  109.42  116.01  139.75
598          UI  155.95  155.95  155.95  155.95  136.89  129.96  138.93  116.06   98.44  106.28
599          UI   74.44    70.3   55.29    52.9   53.78   35.44   31.12   29.51   22.93   22.93
600          UI   18.07   16.95   16.95   12.06   10.54   10.54   10.54   10.54    3.53    2.32
601          UI    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32
602          UI    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32
603          UI     0.0

604          KK    50-O
605          KO       0       0     0.0       0      22
606          DT   50ret    70.0     0.0
607          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
608          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
609          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
610          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

611          KK      O6   CNAME   O6-O7
612          KM   COMBINE ROUTED HYDROGRAPH FROM O5 WITH RUNOFF FROM 50 @ O6
613          KO       0       0     0.0       0      22
614          HC       2

615          KK   O6-O7   CNAME      O6
616          KM   ROUTE HYDROGRAPH FROM O6 TO O7 (CHANNEL B)
617          KO       0       0     0.0       0      22
618          RS       6    FLOW     0.0     0.0
619          RC     0.1    0.02     0.1 3578.87   0.004     0.0
620          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
621          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

622          KK      57
623          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
624          KM   L=0.68     Lca=0.34     S=19.18     Kn=0.200     LAG=94
625          KM   S-GRAPH TYPE=AGRICULTURE
626          KO       0       0     0.0       1      22
627          BA  0.4885
628          LG     0.1    0.25   4.256   0.482    80.0
629          UI     0.0   19.17   35.13   95.98  125.05  151.34   161.0  141.33  132.78  104.89
630          UI   73.19   56.54   41.57   28.93   22.36    17.5   12.39   10.88    7.03     2.4
```

```
 631          UI     2.4     2.4     2.4     2.4     2.4     2.4     2.4     2.4     2.4     0.0
1                                                HEC-1 INPUT                                                    PAGE 15

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 632          KK    57-0
 633          KO       0       0     0.0       0      22
 634          DT   57ret    54.0     0.0
 635          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 636          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 637          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 638          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 639          KK      O7   CNAME   O7-O8
 640          KM   COMBINE ROUTED HYDROGRAPH FROM O6 WITH RUNOFF FROM 57 @ O7
 641          KO       0       0     0.0       0      22
 642          HC       2

 643          KK   O7-O8   CNAME      O7
 644          KM   STORAGE ROUTE FROM O7 TO O8 THROUGH SPRR TRESTLE
 645          KO       0       0     0.0       0      22
 646          RS       1    ELEV   891.1     0.0
 647          SV     0.0     0.2    8.52   76.65  224.48  224.48  224.48  224.48  224.48  224.48
 648          SV  224.48  224.48  224.48  224.48  224.48  224.48  224.48  224.48  224.48  224.48
 649          SE   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0
 650          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
 651          SQ     0.0    78.0    85.0   151.0   248.0   540.0   954.0  1560.0  2334.0  2334.0
 652          SQ  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0
 653          SE   891.1   893.1   893.4   894.5   894.7   895.0   895.2   895.4   895.6   895.6
 654          SE   895.6   895.6   895.6   895.6   895.6   895.6   895.6   895.6   895.6   895.6

 655          KK      71
 656          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 657          KM   L=0.34     Lca=0.17     S=14.51     Kn=0.200     LAG=59
 658          KM   S-GRAPH TYPE=AGRICULTURE
 659          KO       0       0     0.0       1      22
 660          BA  0.1553
 661          LG     0.1    0.25   4.911    0.37    80.0
 662          UI     0.0   11.57   42.26   70.54   80.65   67.88   47.94   30.74    17.5   10.91
 663          UI    7.38    5.51    1.27    1.21    1.21    1.21    1.21    1.21     0.0

 664          KK    71-0
 665          KO       0       0     0.0       0      22
 666          DT   71ret    16.0     0.0
 667          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 668          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 669          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 670          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 671          KK      O8   CNAME
 672          KM   COMBINE STORAGE HYDROGRAPH FROM O7 WITH RUNOFF FROM 71 @ O8
 673          ZW   A=RBE B=08 C=FLOW E=15MIN F=10y6h-fut
 674          KO       0       0     0.0       0      22
 675          HC       2
              * ***********************************************************************************
              * **   SUB-WATERSHED P   ***********************************************************
              * ***********************************************************************************
1                                                HEC-1 INPUT                                                    PAGE 16

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 676          KK    RIDP
 677          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 678          BA  0.0001
 679          ZR  =QI A=RID RID B=61999 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-06F

 680          KK  P2S-P3   CNAME     P2S
 681          KM   ROUTE INFLOW FROM RID CONCENTRATED AT P2S TO P3 (CHANNEL A)
 682          KO       0       0     0.0       0      22
 683          RS       1    FLOW     0.0     0.0
 684          RC     0.1     0.1     0.1 8445.00  0.0070     0.0
 685          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 686          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 687          KK      40
 688          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 689          KM   L=1.83     Lca=0.91     S=31.23     Kn=0.200     LAG=182
 690          KM   S-GRAPH TYPE=AGRICULTURE
 691          KO       0       0     0.0       1      22
 692          BA  0.9761
 693          LG    0.25    0.25   4.211   0.448  29.895
 694          UI     0.0   19.78   19.78   29.61   48.14    86.9  116.44  110.94  150.61  157.12
 695          UI  166.14  166.14  166.14  142.14  139.74  151.32  103.84  112.23    90.8   75.52
 696          UI    62.1   56.05   56.55   37.76   32.26   29.17   24.43   22.48   18.06   18.06
 697          UI   14.53   11.23   11.23   11.23   10.99    2.47    2.47    2.47    2.47    2.47
 698          UI    2.47    2.47    2.47    2.47    2.47    2.47    2.47    2.47    2.47    2.47
 699          UI    2.47    2.47    2.47    2.47    2.47     0.0

 700          KK    40-0
 701          KO       0       0     0.0       0      22
 702          DT   40ret    70.0     0.0
 703          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 704          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 705          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 706          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 707          KK      P3   CNAME   P3-P4
 708          KM   COMBINE ROUTED HYDROGRAPH FROM P2S WITH RUNOFF FROM 40 @ P3
 709          KO       0       0     0.0       0      22
 710          HC       2

 711          KK   P3-P4   CNAME      P3
 712          KM   ROUTE HYDROGRAPH FROM P3 TO P4 (CHANNEL B)
 713          KO       0       0     0.0       0      22
 714          RS       8    FLOW     0.0     0.0
 715          RC     0.1    0.02     0.1 5302.14   0.008     0.0
 716          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 717          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 718          KK      51
 719          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 720          KM   L=1.96     Lca=0.98     S=22.98     Kn=0.200     LAG=203
```

```
 721          KM   S-GRAPH TYPE=AGRICULTURE
 722          KO       0       0     0.0       1      22
 723          BA   1.004
1                                          HEC-1 INPUT                                                          PAGE 17

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 724          LG   0.263    0.25   4.401   0.435  34.246
 725          UI     0.0   18.24   18.24   21.41    38.3   58.85   95.52  108.71   109.2  138.77
 726          UI  147.29   153.2   153.2   153.2  141.28  127.67  136.31  125.01   95.75  105.04
 727          UI    83.7   69.64   60.42   52.27   56.21   40.23   33.28   29.46   25.81   22.53
 728          UI    21.2   16.65   16.65   15.93   10.35   10.35   10.35   10.35    9.49    2.28
 729          UI    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
 730          UI    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
 731          UI    2.28     0.0

 732          KK    51-O
 733          KO       0       0     0.0       0      22
 734          DT   51ret    78.0     0.0
 735          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 736          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 737          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 738          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 739          KK      P4   CNAME   P4-P5
 740          KM   COMBINE ROUTED HYDROGRAPH FROM P3 WITH RUNOFF FROM 51 @ P4
 741          KO       0       0     0.0       0      22
 742          HC       2

 743          KK   P4-P5   CNAME      P4
 744          KM   ROUTE HYDROGRAPH FROM P4 TO P5 (CHANNEL A)
 745          KO       0       0     0.0       0      22
 746          RS       6    FLOW     0.0     0.0
 747          RC     0.1     0.1     0.1 2651.48   0.003     0.0
 748          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 749          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 750          KK      58
 751          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 752          KM   L=0.50     Lca=0.25      S=15.93      Kn=0.200      LAG=77
 753          KM   S-GRAPH TYPE=AGRICULTURE
 754          KO       0       0     0.0       1      22
 755          BA  0.1897
 756          LG     0.1    0.25   4.294   0.498    80.0
 757          UI     0.0    9.09   25.11   52.16   72.06   76.34   66.54   55.11   41.43   27.69
 758          UI   18.96   12.68    9.16    6.65    5.16    2.64    1.14    1.14    1.14    1.14
 759          UI    1.14    1.14    1.14     0.0

 760          KK    58-O
 761          KO       0       0     0.0       0      22
 762          DT   58ret    20.0     0.0
 763          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 764          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 765          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 766          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 767          KK      P5   CNAME   P5-P6
 768          KM   COMBINE ROUTED HYDROGRAPH FROM P4 WITH RUNOFF FROM 58 @ P5
 769          KO       0       0     0.0       0      22
 770          HC       2
1                                          HEC-1 INPUT                                                          PAGE 18

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 771          KK   P5-P6   CNAME      P5
 772          KM   STORAGE ROUTE FROM P5 TO P6 THROUGH SPRR TRESTLE
 773          KO       0       0     0.0       0      22
 774          RS       1    ELEV  889.11     0.0
 775          SV     0.0    1.33    6.78   36.99  130.95  286.86  286.86  286.86  286.86  286.86
 776          SV  286.86  286.86  286.86  286.86  286.86  286.86  286.86  286.86  286.86  286.86
 777          SE   888.0   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0
 778          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
 779          SQ     0.0    40.0   105.0   187.0   278.0   531.0   853.0  1198.0  1573.0  1722.0
 780          SQ  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0
 781          SE  889.11  889.61  890.11  890.61  891.11  892.11  893.11  894.11  895.11  896.11
 782          SE  897.11  897.11  897.11  897.11  897.11  897.11  897.11  897.11  897.11  897.11

 783          KK      72
 784          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 785          KM   L=0.13     Lca=0.06      S=7.71      Kn=0.200      LAG=32
 786          KM   S-GRAPH TYPE=AGRICULTURE
 787          KO       0       0     0.0       1      22
 788          BA  0.0856
 789          LG     0.1    0.25   4.468   0.401    80.0
 790          UI     0.0   24.87    74.6   66.73   31.73   12.61    6.11    1.23    1.23    1.23
 791          UI     0.0

 792          KK    72-O
 793          KO       0       0     0.0       0      22
 794          DT   72ret     8.0     0.0
 795          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 796          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 797          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 798          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 799          KK      P6
 800          KM   COMBINE STORAGE HYDROGRAPH FROM P5 WITH RUNOFF FROM 72 @ P6
 801          ZW   A=RBE B=P6 C=FLOW E=15MIN F=10y6h-fut
 802          KO       0       0     0.0       0      22
 803          HC       2
 804          ZZ

1
                                          RUNOFF SUMMARY
                                   FLOW IN CUBIC FEET PER SECOND
                                 TIME IN HOURS,  AREA IN SQUARE MILES

                                 PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
      OPERATION       STATION    FLOW    PEAK                                            AREA      STAGE     MAX STAGE
+                                                     6-HOUR      24-HOUR      72-HOUR

      HYDROGRAPH AT
+                     RIDKB        0.    0.00           0.           0.           0.      0.00
```

+	ROUTED TO	K3SBK4	0.	0.00	0.	0.	0.	0.00
+	HYDROGRAPH AT	RIDKA	39.	7.50	18.	5.	2.	0.00
+	ROUTED TO	K3SAK4	22.	9.00	14.	5.	2.	0.00
+	HYDROGRAPH AT	34	124.	6.00	64.	17.	6.	0.64
+	DIVERSION TO	34ret	124.	6.00	64.	17.	6.	0.64
+	HYDROGRAPH AT	34-O	0.	0.00	0.	0.	0.	0.64
+	3 COMBINED AT	K4	22.	9.00	14.	5.	2.	0.64
+	ROUTED TO	K4-K5	20.	11.25	14.	5.	2.	0.64
+	HYDROGRAPH AT	35	291.	6.75	183.	53.	18.	1.50
+	DIVERSION TO	35ret	291.	6.75	183.	53.	18.	1.50
+	HYDROGRAPH AT	35-O	0.	0.00	0.	0.	0.	1.50
+	2 COMBINED AT	K5	20.	11.25	14.	5.	2.	2.14
+	ROUTED TO	K5-K6	16.	14.50	13.	5.	2.	2.14
+	HYDROGRAPH AT	46	265.	6.75	165.	47.	16.	1.38
+	DIVERSION TO	46ret	265.	6.75	165.	47.	16.	1.38
+	HYDROGRAPH AT	46-O	0.	0.00	0.	0.	0.	1.38
+	2 COMBINED AT	K6	16.	14.50	13.	5.	2.	3.52
+	ROUTED TO	K6-K7	16.	14.50	13.	5.	2.	3.52
+	HYDROGRAPH AT	65	150.	5.75	69.	18.	6.	0.38
+	DIVERSION TO	65ret	150.	5.75	69.	18.	6.	0.38
+	HYDROGRAPH AT	65-O	0.	0.00	0.	0.	0.	0.38
+	2 COMBINED AT	K7	16.	14.50	13.	5.	2.	3.90
+	HYDROGRAPH AT	RIDL	0.	0.00	0.	0.	0.	0.00
+	ROUTED TO	L2S-L3	0.	0.00	0.	0.	0.	0.00
+	HYDROGRAPH AT	36	128.	6.50	76.	21.	7.	0.68
+	DIVERSION TO	36ret	128.	6.50	76.	21.	7.	0.68
+	HYDROGRAPH AT	36-O	0.	0.00	0.	0.	0.	0.68
+	2 COMBINED AT	L3	0.	0.00	0.	0.	0.	0.68
+	ROUTED TO	L3-L4	0.	0.00	0.	0.	0.	0.68
+	HYDROGRAPH AT	47	126.	6.25	70.	19.	6.	0.62
+	DIVERSION TO	47ret	126.	6.25	70.	19.	6.	0.62
+	HYDROGRAPH AT	47-O	0.	0.00	0.	0.	0.	0.62
+	2 COMBINED AT	L4	0.	0.00	0.	0.	0.	1.30
+	ROUTED TO	L4-L5	0.	0.00	0.	0.	0.	1.30
+	HYDROGRAPH AT	66	139.	5.50	55.	14.	5.	0.29
+	DIVERSION TO	66ret	139.	5.50	55.	14.	5.	0.29
+	HYDROGRAPH AT	66-O	0.	0.00	0.	0.	0.	0.29
+	2 COMBINED AT	L5	0.	0.00	0.	0.	0.	1.59

+	HYDROGRAPH AT	RIDM	0.	0.00	0.	0.	0.	0.00
+	ROUTED TO	L2S2M1	0.	0.00	0.	0.	0.	0.00
+	HYDROGRAPH AT	37	211.	7.25	145.	44.	15.	1.42
+	DIVERSION TO	37ret	211.	7.25	145.	44.	15.	1.42
+	HYDROGRAPH AT	37-O	0.	0.00	0.	0.	0.	1.42
+	2 COMBINED AT	M1	0.	0.00	0.	0.	0.	1.42
+	ROUTED TO	M1-M2	0.	0.00	0.	0.	0.	1.42
+	HYDROGRAPH AT	48	131.	6.00	65.	18.	6.	0.50
+	DIVERSION TO	48ret	131.	6.00	65.	18.	6.	0.50
+	HYDROGRAPH AT	48-O	0.	0.00	0.	0.	0.	0.50
+	2 COMBINED AT	M2	0.	0.00	0.	0.	0.	1.92
+	ROUTED TO	M2-M3	0.	0.00	0.	0.	0.	1.92
+	HYDROGRAPH AT	67	176.	5.75	53.	13.	4.	0.47
+	2 COMBINED AT	M3	127.	5.75	42.	11.	4.	2.39
+	ROUTED TO	M3-M4	96.	6.25	42.	11.	4.	2.39
+	HYDROGRAPH AT	69	161.	4.50	19.	5.	2.	0.14
+	2 COMBINED AT	M4	138.	4.50	57.	15.	5.	2.53
+	HYDROGRAPH AT	RIDN	0.	0.00	0.	0.	0.	0.00
+	ROUTED TO	N2S-N3	0.	0.00	0.	0.	0.	0.00
+	HYDROGRAPH AT	38	106.	6.25	58.	16.	5.	0.54
+	DIVERSION TO	38ret	106.	6.25	58.	16.	5.	0.54
+	HYDROGRAPH AT	38-O	0.	0.00	0.	0.	0.	0.54
+	2 COMBINED AT	N3	0.	0.00	0.	0.	0.	0.54
+	ROUTED TO	N3-N4	0.	0.00	0.	0.	0.	0.54
+	HYDROGRAPH AT	49	159.	7.00	103.	30.	10.	1.01
+	DIVERSION TO	49ret	159.	7.00	103.	30.	10.	1.01
+	HYDROGRAPH AT	49-O	0.	0.00	0.	0.	0.	1.01
+	2 COMBINED AT	N4	0.	0.00	0.	0.	0.	1.55
+	ROUTED TO	N4-N5B	0.	0.00	0.	0.	0.	1.55
+	HYDROGRAPH AT	56B	212.	5.50	63.	16.	5.	0.33
+	2 COMBINED AT	N5B	184.	5.50	60.	15.	5.	1.88
+	ROUTED TO	N5B-N6	102.	6.25	57.	15.	5.	1.88
+	HYDROGRAPH AT	56A	152.	5.75	74.	20.	7.	0.41
+	DIVERSION TO	56Aret	152.	5.75	74.	20.	7.	0.41
+	HYDROGRAPH AT	56A-O	0.	0.00	0.	0.	0.	0.41
+	ROUTED TO	N5A-N6	0.	0.00	0.	0.	0.	0.41
+	HYDROGRAPH AT	70	46.	6.00	25.	7.	2.	0.14
+	DIVERSION TO	70ret	46.	6.00	25.	7.	2.	0.14

+	HYDROGRAPH AT	70-O	0.	0.00	0.	0.	0.	0.14
+	3 COMBINED AT	N6	102.	6.25	57.	15.	5.	2.44
+	HYDROGRAPH AT	RIDO	4.	6.75	0.	0.	0.	0.00
+	ROUTED TO	O4S-O5	1.	7.50	0.	0.	0.	0.00
+	HYDROGRAPH AT	39	121.	6.50	70.	19.	6.	0.73
+	DIVERSION TO	39-ret	121.	6.50	70.	19.	6.	0.73
+	HYDROGRAPH AT	39-O	0.	0.00	0.	0.	0.	0.73
+	2 COMBINED AT	O5	1.	7.50	0.	0.	0.	0.73
+	ROUTED TO	O5-O6	0.	10.00	0.	0.	0.	0.73
+	HYDROGRAPH AT	50	147.	6.75	94.	27.	9.	1.00
+	DIVERSION TO	50ret	147.	6.75	94.	27.	9.	1.00
+	HYDROGRAPH AT	50-O	0.	0.00	0.	0.	0.	1.00
+	2 COMBINED AT	O6	0.	10.00	0.	0.	0.	1.73
+	ROUTED TO	O6-O7	0.	12.25	0.	0.	0.	1.73
+	HYDROGRAPH AT	57	237.	5.50	90.	24.	8.	0.49
+	DIVERSION TO	57ret	237.	5.50	90.	24.	8.	0.49
+	HYDROGRAPH AT	57-O	0.	0.00	0.	0.	0.	0.49
+	2 COMBINED AT	O7	0.	12.25	0.	0.	0.	2.22
+	ROUTED TO	O7-O8	0.	12.25	0.	0.	0.	2.22
+	HYDROGRAPH AT	71	111.	5.00	30.	8.	3.	0.16
+	DIVERSION TO	71ret	111.	5.00	30.	8.	3.	0.16
+	HYDROGRAPH AT	71-O	0.	0.00	0.	0.	0.	0.16
+	2 COMBINED AT	O8	0.	12.25	0.	0.	0.	2.37
+	HYDROGRAPH AT	RIDP	108.	4.75	23.	8.	5.	0.00
+	ROUTED TO	P2S-P3	18.	8.00	15.	8.	5.	0.00
+	HYDROGRAPH AT	40	151.	6.75	91.	26.	9.	0.98
+	DIVERSION TO	40ret	151.	6.75	91.	26.	9.	0.98
+	HYDROGRAPH AT	40-O	0.	0.00	0.	0.	0.	0.98
+	2 COMBINED AT	P3	18.	8.00	15.	8.	5.	0.98
+	ROUTED TO	P3-P4	17.	10.00	15.	8.	5.	0.98
+	HYDROGRAPH AT	51	149.	7.00	97.	28.	9.	1.00
+	DIVERSION TO	51ret	149.	7.00	97.	28.	9.	1.00
+	HYDROGRAPH AT	51-O	0.	0.00	0.	0.	0.	1.00
+	2 COMBINED AT	P4	17.	10.00	15.	8.	5.	1.98
+	ROUTED TO	P4-P5	17.	11.25	14.	8.	5.	1.98
+	HYDROGRAPH AT	58	109.	5.25	36.	9.	3.	0.19
+	DIVERSION TO	58ret	109.	5.25	36.	9.	3.	0.19
+	HYDROGRAPH AT	58-O	0.	0.00	0.	0.	0.	0.19

```
          2 COMBINED AT
+                          P5        17.   11.25          14.          8.          5.       2.17

          ROUTED TO
+                        P5-P6       16.   11.50          14.          8.          5.       2.17

          HYDROGRAPH AT
+                          72        94.    4.50          17.          4.          1.       0.09

          DIVERSION TO
+                       72ret        94.    4.50          16.          4.          1.       0.09

          HYDROGRAPH AT
+                        72-O         5.    6.25           1.          0.          0.       0.09

          2 COMBINED AT
+                          P6        16.   11.50          14.          8.          5.       2.26


 *** NORMAL END OF HEC-1 ***

1****************************************                                    ************************************
 *                                      *                                    *                                  *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS   *
 *             JUN   1998               *                                    *   HYDROLOGIC ENGINEERING CENTER  *
 *           VERSION 4.1                *                                    *         609 SECOND STREET        *
 *                                      *                                    *      DAVIS, CALIFORNIA 95616     *
 *  RUN DATE   23MAR06  TIME  05:08:50  *                                    *          (916) 756-1104          *
 *                                      *                                    *                                  *
 ****************************************                                    ************************************

                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X        XX
                                                X     X  X        X              X
                                                XXXXXXX  XXXX     X        XXXXX  X
                                                X     X  X        X              X
                                                X     X  X        X     X        X
                                                X     X  XXXXXXX   XXXXX        XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                    PAGE  1

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          1           ID   Buckeye/Sun Valley ADMS - November 2004
          2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
          3           ID   10-year 6-hour
          4           ID   Future Conditions
          5           ID   Area 1 - BIC to Gila (West)
          6           ID   File Name: bgw106fut.hc1
          7           ID   Rainfall Loss Method - Green & Ampt
          8           ID   Unit Hydrograph Method - FCDMC S-Graph
          9           ID   Channel Routing Method - Normal Depth
         10           ID   Land Use - FCDMC GIS Data: mag_genplan (2000)
         11           ID   Future Land Use Build Out Date: 2025
         12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
         13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                      *DIAGRAM
         14           IT      15 02JAN94       0     400
         15           IO       3
         16           IN      15 02JAN94       0
         17           JD   2.082    0.01
                      * 6-hour distribution, pattern 1.0
         18           PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
         19           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
         20           PC   0.962   0.972   0.983   0.991     1.0
         21           IN      15 02JAN94       0
         22           JD    2.07     0.5
                      * 6-hour distribution, pattern 1.0
         23           PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
         24           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
         25           PC   0.962   0.972   0.983   0.991     1.0
         26           IN      15 02JAN94       0
         27           JD   2.055     1.0
                      * 6-hour distribution, pattern 1.4
         28           PC     0.0  0.0084   0.016   0.025  0.0334  0.0414  0.0504  0.0584  0.0664  0.0748
         29           PC   0.087  0.0994  0.1188   0.148  0.2304  0.4067  0.7778  0.8813  0.9186  0.9452
         30           PC  0.9572  0.9684  0.9798  0.9898     1.0
         31           IN      15 02JAN94       0
         32           JD   1.999     5.0
                      * 6-hour distribution, pattern 2.3
         33           PC     0.0   0.011  0.0173  0.0267  0.0387   0.049  0.0593  0.0693  0.0797  0.0903
         34           PC   0.103  0.1173  0.1383  0.1827  0.2693   0.458   0.686  0.8233  0.8893  0.9293
         35           PC  0.9487   0.962  0.9743  0.9877     1.0
         36           IN      15 02JAN94       0
         37           JD   1.958    10.0
                      * 6-hour distribution, pattern 2.7
         38           PC     0.0  0.0134  0.0189  0.0287  0.0443  0.0574  0.0694  0.0818  0.0949  0.1076
         39           PC  0.1223  0.1382  0.1604  0.2063  0.2902  0.4664  0.6764  0.8069  0.8765  0.9189
         40           PC  0.9471  0.9608  0.9735  0.9873     1.0
                      * ***********************************************************************
                      * **   SUB-WATERSHED E   ************************************************
                      * ***********************************************************************
1                                                   HEC-1 INPUT                                                    PAGE  2

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
 41          KK   BICE
 42          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 43          BA  0.0001
 44          ZR  =QI A=BIC BIC B=4395 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06F

 45          KK  E2S-E3   CNAME     E2S
 46          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT E2S TO E3 (CHANNEL A)
 47          KO       0       0     0.0       0      22
 48          RS       1    FLOW     0.0     0.0
 49          RC     0.1     0.1     0.1 9548.74   0.003     0.0
 50          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 51          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 52          KK      84
 53          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 54          KM   L=1.81     Lca=0.98     S=13.27     Kn=0.200     LAG=219
 55          KM   S-GRAPH TYPE=AGRICULTURE
 56          KO       0       0     0.0       0      22
 57          BA  0.8772
 58          LG     0.1   0.149   9.712   0.075     5.0
 59          UI     0.0   14.77   14.77   14.77   29.95   40.82   67.16   88.66   77.76   98.85
 60          UI  113.94  174.08  124.08  124.08  124.08  115.81   103.4  107.74  113.07   77.55
 61          UI   80.05   82.21    59.0    56.4   45.14   41.62   46.54   30.82   27.07   23.86
 62          UI   21.83   18.25   18.25   14.06   13.49   13.49   10.82    8.38    8.38    8.38
 63          UI    8.38     7.6    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85
 64          UI    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85
 65          UI    1.85    1.85    1.85    1.85    1.85    1.85     0.0

 66          KK    84-O
 67          KO       0       0     0.0       0      22
 68          DT   84ret    45.0     0.0
 69          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 70          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 71          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 72          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 73          KK      E3
 74          KM   COMBINE ROUTED HYDROGRAPH FROM E2S WITH RUNOFF FROM 84 @ E3
 75          KO       0       0     0.0       0      22
 76          HC       2
             * ******************************************************************************
             * **   SUB-WATERSHEDS F AND G   ***********************************************
             * ******************************************************************************

 77          KK   BICFB
 78          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 79          BA    0.01
 80          ZR  =QI A=BIC BIC B=14995 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06F
1                                        HEC-1 INPUT                                          PAGE  3
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 81          KK  F6BS7B   CNAME    F6BS
 82          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT F6BS TO F7B (CHANNEL A)
 83          KO       0       0     0.0       0      22
 84          RS       1    FLOW     0.0     0.0
 85          RC     0.1     0.1     0.1 3159.78   0.007     0.0
 86          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 87          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 88          KK     85B
 89          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 90          KM   L=1.47     Lca=0.73     S=15.68     Kn=0.200     LAG=176
 91          KM   S-GRAPH TYPE=AGRICULTURE
 92          KO       0       0     0.0       0      22
 93          BA  0.7453
 94          LG   0.292    0.25   5.706   0.207     5.0
 95          UI     0.0   15.62   15.62   24.82   40.72   72.66   91.61   93.72  117.48  131.18
 96          UI  131.18  131.18  125.35  109.32  115.73  100.21   83.45    84.6   61.11   53.73
 97          UI   44.85   48.84   29.87   26.57   24.15   19.29   18.35   14.26   14.26   11.63
 98          UI    8.86    8.86    8.86    7.85    1.95    1.95    1.95    1.95    1.95    1.95
 99          UI    1.95    1.95    1.95    1.95    1.95    1.95    1.95    1.95    1.95    1.95
100          UI    1.95    1.95    1.95     0.0

101          KK    85B-O
102          KO       0       0     0.0       0      22
103          DT   85Bret    35.0     0.0
104          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
105          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
106          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
107          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

108          KK     F7B   CNAME  F7B-F8
109          KM   COMBINE ROUTED HYDROGRAPH FROM F6BS WITH RUNOFF FROM 85B @ F7B
110          KO       0       0     0.0       0      22
111          HC       2

112          KK  F7B-F8   CNAME     F7B
113          KM   ROUTE HYDRPGRAPH FROM F7B TO F8 (CHANNEL A)
114          KO       0       0     0.0       0      22
115          RS      13    FLOW     0.0     0.0
116          RC     0.1     0.1     0.1 6483.88   0.006     0.0
117          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
118          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

119          KK   BICG
120          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
121          BA    0.01
122          ZR  =QI A=BIC BIC B=21999 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06F

123          KK  G8S-G9   CNAME     G8S
124          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT G8S TO G9 (CHANNEL A)
125          KO       0       0     0.0       0      22
126          RS       1    FLOW     0.0     0.0
127          RC     0.1     0.1     0.1 5481.53   0.005     0.0
128          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
1                                        HEC-1 INPUT                                          PAGE  4
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

129          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
```

```
130          KK      86
131          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
132          KM   L=1.09      Lca=0.54      S=25.78      Kn=0.200      LAG=127
133          KM   S-GRAPH TYPE=AGRICULTURE
134          KO       0        0      0.0        0       22
135          BA  0.4398
136          LG     0.3     0.15    7.988    0.083      5.0
137          UI     0.0    12.77    15.89    33.53    68.33    74.26    98.27   107.27   107.27    97.74
138          UI   93.18    80.08    72.45    51.51    42.18    37.93     27.0    20.95    16.68    14.24
139          UI   11.66     9.78     7.25     7.25     5.59      1.6      1.6      1.6      1.6      1.6
140          UI     1.6      1.6      1.6      1.6      1.6      1.6      1.6      1.6      0.0

141          KK    86-O
142          KO       0        0      0.0        0       22
143          DT   86ret      4.0      0.0
144          DI     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
145          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
146          DQ     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
147          DQ  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0

148          KK      G9   CNAME   G9-F8
149          KM   COMBINE ROUTED HYDROGRAPH FROM G8S WITH RUNOFF FROM 86 @ G9
150          KO       0        0      0.0        0       22
151          HC       2

152          KK   G9-F8   CNAME      G9
153          KM   ROUTE HYDRPGRAPH FROM G9 TO F8 (CHANNEL A)
154          KO       0        0      0.0        0       22
155          RS      13     FLOW      0.0      0.0
156          RC     0.1      0.1      0.1  9228.08    0.004      0.0
157          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
158          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

159          KK  BICFA
160          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
161          BA  0.0001
162          ZR  =QI A=BIC BIC B=11199 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06F

163          KK  F6AS7A   CNAME    F6AS
164          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT F6AS TO F7A (CHANNEL A)
165          KO       0        0      0.0        0       22
166          RS       1     FLOW      0.0      0.0
167          RC     0.1      0.1      0.1  2921.0    0.011      0.0
168          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
169          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

170          KK      85A
171          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
172          KM   L=0.84      Lca=0.42      S=37.89      Kn=0.200      LAG=98
173          KM   S-GRAPH TYPE=AGRICULTURE
174          KO       0        0      0.0        0       22
175          BA  0.2163
176          LG     0.1     0.15    7.439    0.161      5.0
1                                          HEC-1 INPUT                                                    PAGE  5

     LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

177          UI     0.0     8.14    13.77    37.36    49.55    65.58    68.39    63.07    60.31    44.52
178          UI   37.27    26.22    22.07    14.14    10.87     8.41     7.09     4.62     4.62     2.07
179          UI    1.02     1.02     1.02     1.02     1.02     1.02     1.02     1.02     1.02     1.02
180          UI     0.0

181          KK   85A-O
182          KO       0        0      0.0        0       22
183          DT  85Aret     10.0      0.0
184          DI     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
185          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
186          DQ     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
187          DQ  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0

188          KK     F7A   CNAME  F7A-F8
189          KM   COMBINE ROUTED HYDROGRAPH FROM F6AS WITH RUNOFF FROM 85A @ F7A
190          KO       0        0      0.0        0       22
191          HC       2

192          KK  F7A-F8   CNAME     F7A
193          KM   ROUTE HYDRPGRAPH FROM F7A TO F8 (CHANNEL A)
194          KO       0        0      0.0        0       22
195          RS      17     FLOW      0.0      0.0
196          RC     0.1      0.1      0.1 10377.67    0.006      0.0
197          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
198          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

199          KK     105
200          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
201          KM   L=1.94      Lca=0.97      S=18.59      Kn=0.200      LAG=210
202          KM   S-GRAPH TYPE=AGRICULTURE
203          KO       0        0      0.0        1       22
204          BA  0.9967
205          LG     0.3     0.15    8.482     0.07      5.0
206          UI     0.0     17.5     17.5    18.66    36.76    52.93    86.38   104.76    96.79   138.98
207          UI  128.13   147.03   147.03   147.03   147.03   122.52   122.52   134.29   104.02    92.91
208          UI  101.53    70.71    66.83    54.23    49.36    55.42     34.8    31.36    28.27    24.42
209          UI   21.62    20.49    15.98    15.98    15.98    10.06     9.93     9.93     9.93     9.93
210          UI    3.74     2.19     2.19     2.19     2.19     2.19     2.19     2.19     2.19     2.19
211          UI    2.19     2.19     2.19     2.19     2.19     2.19     2.19     2.19     2.19     2.19
212          UI    2.19     2.19     2.19      0.0

213          KK   105-O
214          KO       0        0      0.0        0       22
215          DT  105ret     55.0      0.0
216          DI     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
217          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
218          DQ     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
219          DQ  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0

220          KK     104
221          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
222          KM   L=1.95      Lca=0.98      S=13.83      Kn=0.200      LAG=223
223          KM   S-GRAPH TYPE=AGRICULTURE
224          KO       0        0      0.0        1       22
225          BA  1.0120
1                                          HEC-1 INPUT                                                    PAGE  6
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 226          LG   0.146   0.174   6.763   0.182     5.0
 227          UI     0.0   16.74   16.74   16.74    32.9   44.31    73.2   96.94   91.85  107.62
 228          UI  126.44  139.17  140.58  140.58  140.58  137.46  117.15  117.15  127.87  102.94
 229          UI   87.86   99.21   73.02    63.9   56.91   48.63   49.42   45.47   31.95   28.25
 230          UI   27.03   21.81   20.67   19.09   15.28   15.28   15.28   10.23     9.5     9.5
 231          UI     9.5     9.5    6.73    2.09    2.09    2.09    2.09    2.09    2.09    2.09
 232          UI    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09
 233          UI    2.09    2.09    2.09    2.09    2.09    2.09    2.09     0.0

 234          KK   104-O
 235          KO       0       0     0.0       0      22
 236          DT  104ret    50.0     0.0
 237          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 238          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 239          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 240          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 241          KK      F8
 242          KM   COMBINE ROUTED HYDROGRAPH FROM G9, F7A, AND F7B WITH RUNOFF FROM 104 AND 105
 243          KO       0       0     0.0       0      22
 244          HC       5
              * ***********************************************************************
              * **   SUB-WATERSHED H   ***************************************************
              * ***********************************************************************

 245          KK   BICH
 246          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 247          BA    0.01
 248          ZR  =QI A=BIC BIC B=24799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06F

 249          KK  H7S-H8   CNAME     H7S
 250          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT H7S TO H8 (CHANNEL A)
 251          KO       0       0     0.0       0      22
 252          RS       1    FLOW     0.0     0.0
 253          RC     0.1     0.1     0.1 9426.94   0.004     0.0
 254          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 255          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 256          KK      87
 257          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 258          KM   L=1.87     Lca=0.93     S=22.48     Kn=0.200     LAG=197
 259          KM   S-GRAPH TYPE=AGRICULTURE
 260          KO       0       0     0.0       0      22
 261          BA  0.9127
 262          LG     0.3   0.143   9.843   0.045     5.0
 263          UI     0.0   17.08   17.08   21.63   35.88    62.3   92.38   98.78  108.99  130.67
 264          UI  143.51  143.51  143.51  143.51  122.78  119.59  131.61   97.98   92.38   92.49
 265          UI   67.23   61.75   50.13   50.38    44.1   32.38    27.6   25.39    21.1   20.52
 266          UI    15.6    15.6   15.09     9.7     9.7     9.7     9.7    7.98    2.14    2.14
 267          UI    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14
 268          UI    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14     0.0
1                                          HEC-1 INPUT                                          PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 269          KK    87-O
 270          KO       0       0     0.0       0      22
 271          DT   87ret    45.0     0.0
 272          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 273          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 274          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 275          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 276          KK      H8   CNAME   H8-H9
 277          KM   COMBINE ROUTED HYDROGRAPH FROM H7S WITH RUNOFF FROM 87 @ H8
 278          KO       0       0     0.0       0      22
 279          HC       2

 280          KK   H8-H9   CNAME      H8
 281          KM   ROUTE HYDROGRAPH FROM H8 TO H9 (CHANNEL A)
 282          KO       0       0     0.0       0      22
 283          RS      10    FLOW     0.0     0.0
 284          RC     0.1     0.1     0.1 5170.32   0.005     0.0
 285          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 286          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 287          KK     106
 288          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 289          KM   L=2.21     Lca=1.11     S=20.78     Kn=0.200     LAG=227
 290          KM   S-GRAPH TYPE=AGRICULTURE
 291          KO       0       0     0.0       1      22
 292          BA  1.2094
 293          LG   0.244    0.15   7.622   0.112     5.0
 294          UI     0.0   19.65   19.65   19.65   37.41   49.75   82.54  109.68  112.23  121.21
 295          UI  152.16   154.9  165.04  165.04  165.04  165.04   141.2  137.53  147.94  134.67
 296          UI  103.15  109.85  101.52   76.86   73.58   58.83   55.01   62.59   39.81   36.09
 297          UI   31.74   29.65   24.27   24.27    19.8   17.94   17.94   16.41   11.15   11.15
 298          UI   11.15   11.15   11.15     5.7    2.46    2.46    2.46    2.46    2.46    2.46
 299          UI    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46
 300          UI    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46     0.0

 301          KK   106-O
 302          KO       0       0     0.0       0      22
 303          DT  106ret    60.0     0.0
 304          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 305          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 306          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 307          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 308          KK      H9
 309          KM   COMBINE ROUTED HYDROGRAPH FROM H8 WITH RUNOFF FROM 106 @ H9
 310          KO       0       0     0.0       0      22
 311          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED J AND I   *********************************************
              * ***********************************************************************
1                                          HEC-1 INPUT                                          PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
312          KK   BICJ
313          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
314          BA    0.01
315          ZR  =QI A=BIC BIC B-36399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06F

316          KK  J6S-J7   CNAME     J6S
317          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT J6S TO J7 (CHANNEL A)
318          KO       0       0     0.0       0      22
319          RS       1    FLOW     0.0     0.0
320          RC     0.1     0.1     0.1 7531.83   0.005     0.0
321          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
322          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

323          KK      89
324          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
325          KM   L=1.79      Lca=0.90      S=21.20      Kn=0.200      LAG=193
326          KM   S-GRAPH TYPE=AGRICULTURE
327          KO       0       0     0.0       0      22
328          BA  0.9629
329          LG    0.25   0.145   9.804   0.054    45.0
330          UI     0.0    18.4    18.4   24.43   38.93    72.1  103.35  102.26  123.64  143.73
331          UI  154.55  154.55  154.55  151.11  128.79  134.03  134.52   96.59  104.41   86.51
332          UI   70.25   60.15   52.36    57.9   35.89   32.13   29.72   23.56   22.73   18.62
333          UI    16.8    16.8   12.13   10.44   10.44   10.44   10.44    2.52     2.3     2.3
334          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
335          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     0.0

336          KK    89-O
337          KO       0       0     0.0       0      22
338          DT   89ret    80.0     0.0
339          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
340          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
341          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
342          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

343          KK      J7   CNAME   J7-J8
344          KO       0       0     0.0       0      22
345          HC       2

346          KK   J7-J8   CNAME      J7
347          KM   ROUTE HYDRPGRAPH FROM J7 TO J8 (CHANNEL Outlet to Gila)
348          KO       0       0     0.0       0      22
349          RS       8    FLOW     0.0     0.0
350          RC   0.035    0.05   0.035  6030.2   0.005     0.0
351          RX     0.0     5.0    15.0    25.0    45.0    55.0    65.0    70.0
352          RY    12.0    12.0     6.0     0.0     0.0     6.0    12.0    12.0

353          KK   BICI
354          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
355          BA    0.01
356          ZR  =QI A=BIC BIC B=33399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06F
1                                          HEC-1 INPUT                                          PAGE  9
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

357          KK  I6S-I7   CNAME     I6S
358          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT I6S TO I7 (CHANNEL A)
359          KO       0       0     0.0       0      22
360          RS       1    FLOW     0.0     0.0
361          RC     0.1     0.1     0.1 5514.43   0.006     0.0
362          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
363          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

364          KK      88
365          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
366          KM   L=1.66      Lca=0.83      S=19.29      Kn=0.200      LAG=185
367          KM   S-GRAPH TYPE=AGRICULTURE
368          KO       0       0     0.0       0      22
369          BA  0.7650
370          LG     0.3   0.143   9.838   0.045     5.0
371          UI     0.0   15.25   15.25   22.13    35.8   65.03   89.94   82.55  118.29   116.2
372          UI   128.1   128.1   128.1  113.86  106.75  116.28   88.23   83.17   79.03   58.98
373          UI   51.82   43.77   47.46   30.66   26.58   24.63   19.05   18.84   14.58   13.92
374          UI   13.77    8.66    8.66    8.66    8.66    5.51    1.91    1.91    1.91    1.91
375          UI    1.91    1.91    1.91    1.91    1.91    1.91    1.91    1.91    1.91    1.91
376          UI    1.91    1.91    1.91    1.91    1.91    1.91     0.0

377          KK    88-O
378          KO       0       0     0.0       0      22
379          DT   88ret    40.0     0.0
380          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
381          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
382          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
383          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

384          KK      I7   CNAME   I7-I8
385          KM   COMBINE ROUTED HYDROGRAPH FROM I6S WITH RUNOFF FROM 88 @ I7
386          KO       0       0     0.0       0      22
387          HC       2

388          KK   I7-I8   CNAME      I7
389          KM   ROUTE HYDRPGRAPH FROM I7 TO I8 (CHANNEL A)
390          KO       0       0     0.0       0      22
391          RS       6    FLOW     0.0     0.0
392          RC     0.1     0.1     0.1 2738.75   0.011     0.0
393          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
394          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

395          KK     102
396          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
397          KM   L=1.48      Lca=0.74      S=25.68      Kn=0.200      LAG=161
398          KM   S-GRAPH TYPE=AGRICULTURE
399          KO       0       0     0.0       1      22
400          BA  0.5197
401          LG     0.3    0.15   8.585   0.068     5.0
402          UI     0.0    11.9    11.9   21.67   36.81   66.04   65.67    90.5    93.0   100.0
403          UI   100.0   95.56   83.33   88.91   70.08   66.55   54.67   45.05   35.02   35.82
404          UI   26.07   20.61   18.27   14.71   13.22   10.87   10.87    7.09    6.76    6.76
405          UI    6.76    1.77    1.49    1.49    1.49    1.49    1.49    1.49    1.49    1.49
1                                          HEC-1 INPUT                                          PAGE 10
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
406          UI    1.49    1.49    1.49    1.49    1.49    1.49    1.49    1.49    1.49     0.0

407          KK   102-O
408          KO       0       0     0.0       0      22
409          DT  102ret    28.0     0.0
410          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
411          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
412          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
413          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

414          KK      I8   CNAME   I8-J8
415          KM   COMBINE ROUTED HYDROGRAPH FROM I7 WITH RUNOFF FROM 102 @ I8
416          KO       0       0     0.0       0      22
417          HC       2

418          KK   I8-J8   CNAME      I8
419          KM   ROUTE HYDROGRAPH FROM I8 TO J8 (CHANNEL Outlet to Gila)
420          KO       0       0     0.0       0      22
421          RS       2    FLOW     0.0     0.0
422          RC   0.035    0.05   0.035 1438.31   0.002     0.0
423          RX     0.0     5.0    15.0    25.0    45.0    55.0    65.0    70.0
424          RY    12.0    12.0     6.0     0.0     0.0     6.0    12.0    12.0

425          KK     103
426          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
427          KM   L=1.14     Lca=0.57     S=22.77     Kn=0.200     LAG=135
428          KM   S-GRAPH TYPE=AGRICULTURE
429          KO       0       0     0.0       1      22
430          BA  0.5071
431          LG    0.25   0.209    6.41   0.187    45.0
432          UI     0.0   13.85   15.53   33.16   64.73   79.27   101.4  113.87  116.37  116.37
433          UI   96.97  104.34   75.78   76.07   54.11   43.64   41.62   28.46   22.78   18.53
434          UI   16.22   12.65   12.03    7.86    7.86    7.86    2.96    1.73    1.73    1.73
435          UI    1.73    1.73    1.73    1.73    1.73    1.73    1.73    1.73    1.73    1.73
436          UI    1.73     0.0

437          KK   103-O
438          KO       0       0     0.0       0      22
439          DT  103ret    41.0     0.0
440          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
441          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
442          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
443          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

444          KK      J8
445          KM   COMBINE ROUTED HYDROGRAPH FROM I8 AND J7 WITH RUNOFF FROM 103 @ J8
446          KO       0       0     0.0       0      22
447          HC       3

448          KK     107
449          KO       0       0     0.0       1      22
450          BA  0.4835
451          LG   0.202   0.179   6.711   0.177     5.0
452          UI     0.0   14.27   18.19   38.28   79.06   83.22  111.51  119.83  119.83  106.52
453          UI  104.02    85.3   78.64   55.83   44.03   42.21   26.54   22.59   17.62   14.56
1                                          HEC-1 INPUT                                          PAGE 11

       LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

454          UI   13.03    9.33     8.1     8.1    3.89    1.78    1.78    1.78    1.78    1.78
455          UI    1.78    1.78    1.78    1.78    1.78    1.78    1.78    1.78     0.0

456          KK   107-O
457          KO       0       0     0.0       0      22
458          DT  107ret    26.0     0.0
459          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
460          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
461          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
462          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
463          ZZ                                                                                                                    RUNOFF
SUMMARY
                                        FLOW IN CUBIC FEET PER SECOND
                                      TIME IN HOURS,  AREA IN SQUARE MILES

                                   PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
       OPERATION        STATION    FLOW    PEAK                                          AREA      STAGE     MAX STAGE
+                                                        6-HOUR     24-HOUR     72-HOUR

       HYDROGRAPH AT
+                         BICE       0.    0.00           0.          0.          0.      0.00

       ROUTED TO
+                        E2S-E3      0.    0.00           0.          0.          0.      0.00

       HYDROGRAPH AT
+                           84     150.    7.00          99.         29.         10.      0.88

       DIVERSION TO
+                        84ret     150.    7.00          90.         23.          8.      0.88

       HYDROGRAPH AT
+                         84-O      60.    9.75          22.          6.          2.      0.88

       2 COMBINED AT
+                           E3      60.    9.75          22.          6.          2.      0.88

       HYDROGRAPH AT
+                        BICFB       0.    0.00           0.          0.          0.      0.01

       ROUTED TO
+                       F6BS7B       0.    0.00           0.          0.          0.      0.01

       HYDROGRAPH AT
+                          85B     106.    6.50          60.         16.          5.      0.75

       DIVERSION TO
+                       85Bret     106.    6.50          60.         16.          5.      0.75

       HYDROGRAPH AT
+                        85B-O       0.    0.00           0.          0.          0.      0.75

       2 COMBINED AT
+                          F7B       0.    0.00           0.          0.          0.      0.76
```

```
+ ROUTED TO
                F7B-F8      0.   0.00      0.      0.      0.    0.76
+ HYDROGRAPH AT
                 BICG       0.   0.00      0.      0.      0.    0.01
+ ROUTED TO
                G8S-G9      0.   0.00      0.      0.      0.    0.01
+ HYDROGRAPH AT
                    86    124.   5.75     54.     14.      5.    0.44
+ DIVERSION TO
                 86ret     78.   5.00      8.      2.      1.    0.44
+ HYDROGRAPH AT
                  86-O    124.   5.75     47.     12.      4.    0.44
+ 2 COMBINED AT
                    G9    124.   5.75     47.     12.      4.    0.45
+ ROUTED TO
                 G9-F8     76.   9.50     41.     12.      4.    0.45
+ HYDROGRAPH AT
                 BICFA      0.   0.00      0.      0.      0.    0.00
+ ROUTED TO
                F6AS7A      0.   0.00      0.      0.      0.    0.00
+ HYDROGRAPH AT
                   85A     74.   5.50     25.      6.      2.    0.22
+ DIVERSION TO
                85Aret     74.   5.50     20.      5.      2.    0.22
+ HYDROGRAPH AT
                 85A-O     29.   6.75      6.      1.      0.    0.22
+ 2 COMBINED AT
                    F7A    29.   6.75      6.      1.      0.    0.22
+ ROUTED TO
                F7A-F8      8.  13.00      5.      1.      0.    0.22
+ HYDROGRAPH AT
                   105    164.   7.25    106.     30.     10.    1.00
+ DIVERSION TO
                105ret    164.   7.25    106.     28.      9.    1.00
+ HYDROGRAPH AT
                 105-O     25.  11.25      9.      3.      1.    1.00
+ HYDROGRAPH AT
                   104    133.   7.25     90.     26.      9.    1.01
+ DIVERSION TO
                104ret    133.   7.25     90.     25.      8.    1.01
+ HYDROGRAPH AT
                 104-O      9.  13.75      3.      1.      0.    1.01
+ 5 COMBINED AT
                    F8     82.  11.25     55.     17.      6.    3.43
+ HYDROGRAPH AT
                  BICH      0.   0.00      0.      0.      0.    0.01
+ ROUTED TO
                H7S-H8      0.   0.00      0.      0.      0.    0.01
+ HYDROGRAPH AT
                    87    174.   7.00    107.     30.     10.    0.91
+ DIVERSION TO
                 87ret    174.   7.00     91.     23.      8.    0.91
+ HYDROGRAPH AT
                  87-O     85.   9.00     27.      7.      2.    0.91
+ 2 COMBINED AT
                    H8     85.   9.00     27.      7.      2.    0.92
+ ROUTED TO
                 H8-H9     53.  11.50     25.      7.      2.    0.92
+ HYDROGRAPH AT
                   106    171.   7.25    116.     34.     11.    1.21
+ DIVERSION TO
                106ret    171.   7.25    115.     30.     10.    1.21
+ HYDROGRAPH AT
                 106-O     39.  11.00     13.      4.      1.    1.21
+ 2 COMBINED AT
                    H9     56.  11.75     28.      8.      3.    2.13
+ HYDROGRAPH AT
                  BICJ     31.   0.00      5.      4.      4.    0.01
+ ROUTED TO
                J6S-J7      4.  13.50      4.      4.      4.    0.01
+ HYDROGRAPH AT
                    89    227.   6.75    142.     40.     13.    0.96
+ DIVERSION TO
                 89ret    227.   6.75    142.     40.     13.    0.96
+ HYDROGRAPH AT
                  89-O      3.  18.00      1.      0.      0.    0.96
```

```
          2 COMBINED AT
+                    J7        7.   18.00        5.        4.        4.     0.97
          ROUTED TO
+                  J7-J8       6.   19.25        5.        4.        4.     0.97
          HYDROGRAPH AT
+                  BICI        0.    0.00        0.        0.        0.     0.01
          ROUTED TO
+                 I6S-I7       0.    0.00        0.        0.        0.     0.01
          HYDROGRAPH AT
+                    88      156.    6.75       92.       25.        8.     0.76
          DIVERSION TO
+                 88ret      156.    6.75       81.       20.        7.     0.76
          HYDROGRAPH AT
+                  88-O       63.    9.00       20.        5.        2.     0.76
          2 COMBINED AT
+                    I7       63.    9.00       19.        5.        2.     0.77
          ROUTED TO
+                  I7-I8      53.   10.00       19.        5.        2.     0.77
          HYDROGRAPH AT
+                   102      118.    6.25       63.       17.        6.     0.52
          DIVERSION TO
+                102ret      118.    6.25       56.       14.        5.     0.52
          HYDROGRAPH AT
+                 102-O       38.    8.75       10.        3.        1.     0.52
          2 COMBINED AT
+                    I8       55.   10.00       22.        6.        2.     1.29
          ROUTED TO
+                  I8-J8      54.   10.25       22.        6.        2.     1.29
          HYDROGRAPH AT
+                   103      150.    6.00       72.       19.        6.     0.51
          DIVERSION TO
+                103ret      150.    6.00       72.       19.        6.     0.51
          HYDROGRAPH AT
+                 103-O        0.    0.00        0.        0.        0.     0.51
          3 COMBINED AT
+                    J8       45.   10.25       23.        9.        6.     2.77
          HYDROGRAPH AT
+                   107      120.    5.75       52.       13.        4.     0.48
          DIVERSION TO
+                107ret      120.    5.75       52.       13.        4.     0.48
          HYDROGRAPH AT
+                 107-O        2.   11.25        1.        0.        0.     0.48
```

```
1*************************************
 *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)*
 *              JUN  1998            *
 *           VERSION 4.1             *
 *                                   *
 *  RUN DATE   23MAR06  TIME  05:06:06*
 *                                   *
 *************************************
```

```
*************************************
*                                   *
*    U.S. ARMY CORPS OF ENGINEERS   *
*    HYDROLOGIC ENGINEERING CENTER  *
*          609 SECOND STREET        *
*       DAVIS, CALIFORNIA 95616     *
*          (916) 756-1104           *
*                                   *
*************************************
```

```
X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX   XXXXX        XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE; NEW FINITE DIFFERENCE ALGORITHM

```
1                                        HEC-1 INPUT                                        PAGE  1

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          1           ID   Buckeye/Sun Valley ADMS - November 2004
          2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
          3           ID   10-year 6-hour
          4           ID   Future Conditions
          5           ID   Area 1 - BIC to Gila (East)
          6           ID   File Name: bge106fut.hc1
          7           ID   Rainfall Loss Method - Green & Ampt
          8           ID   Unit Hydrograph Method - FCDMC S-Graph
          9           ID   Channel Routing Method - Normal Depth
         10           ID   Land Use - FCDMC GIS Data: maq_genplan (2000)
```

```
 11          ID   Future Land Use Build Out Date: 2025
 12          ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
 13          ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
             *DIAGRAM
 14          IT       15 02JAN94        0      400
 15          IO        3
 16          IN       15 02JAN94        0
 17          JD      2.1     0.01
             * 6-hour distribution, pattern 1.0
 18          PC      0.0    0.008    0.016    0.025    0.033    0.041     0.05    0.058    0.066    0.074
 19          PC    0.087    0.099    0.118    0.138    0.216    0.377    0.834    0.911    0.931     0.95
 20          PC    0.962    0.972    0.983    0.991      1.0
 21          IN       15 02JAN94        0
 22          JD    2.087      0.5
             * 6-hour distribution, pattern 1.0
 23          PC      0.0    0.008    0.016    0.025    0.033    0.041     0.05    0.058    0.066    0.074
 24          PC    0.087    0.099    0.118    0.138    0.216    0.377    0.834    0.911    0.931     0.95
 25          PC    0.962    0.972    0.983    0.991      1.0
 26          IN       15 02JAN94        0
 27          JD    2.073      1.0
             * 6-hour distribution, pattern 1.4
 28          PC      0.0   0.0084    0.016    0.025   0.0334   0.0414   0.0504   0.0584   0.0664   0.0748
 29          PC    0.087   0.0994   0.1188    0.148   0.2304   0.4067   0.7778   0.8813   0.9186   0.9452
 30          PC   0.9572   0.9684   0.9798   0.9898      1.0
 31          IN       15 02JAN94        0
 32          JD    2.016      5.0
             * 6-hour distribution, pattern 2.3
 33          PC      0.0    0.011   0.0173   0.0267   0.0387    0.049   0.0593   0.0693   0.0797   0.0903
 34          PC    0.103   0.1173   0.1383   0.1827   0.2693    0.458    0.686   0.8233   0.8893   0.9293
 35          PC   0.9487    0.962   0.9743   0.9877      1.0
 36          IN       15 02JAN94        0
 37          JD    1.974     10.0
             * 6-hour distribution, pattern 2.7
 38          PC      0.0   0.0134   0.0189   0.0287   0.0443   0.0574   0.0694   0.0818   0.0949   0.1076
 39          PC   0.1223   0.1382   0.1604   0.2063   0.2902   0.4664   0.6764   0.8069   0.8765   0.9189
 40          PC   0.9471   0.9608   0.9735   0.9873      1.0
             * ***********************************************************************************
             * **   SUB-WATERSHED M   ***********************************************************
             * ***********************************************************************************
1                                          HEC-1 INPUT                                          PAGE  2

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 41          KK    BICM
 42          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 43          BA   0.001
 44          ZR  =QI A=BIC BIC B=52599 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06F

 45          KK  M4S6TH   CNAME     M4S
 46          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT M4S TO 6TH (CHANNEL M4S-6TH)
 47          KO       0        0      0.0        0       22
 48          RS       1     FLOW      0.0      0.0
 49          RC    0.05    0.015     0.05   1950.0    0.008      0.0
 50          RX     0.0    100.0    100.0   111.99    112.0    124.0    124.0    224.0
 51          RY     2.0      0.5      0.0     0.24     0.24      0.0      0.5      2.0

 52          KK     4th
 53          KM   THE POLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 54          KM   L=0.52      Lca=0.40      S=0.01      Kn=0.011      LAG=24
 55          KM   S-GRAPH TYPE=PHOENIX VALLEY
 56          KO       0        0      0.0        1       22
 57          BA  0.0819
 58          LG   0.159     0.25    5.145    0.347   59.505
 59          UI     0.0    39.02   109.68    50.31     9.67      0.0

 60          KK   TO6th
 61          KM   HYDRPGRAPH DIVERTED TO 4THS
 62          KO       0        0      0.0        0       22
 63          DT  TO4THS      0.0      0.0
 64          DI     0.0    100.0   1000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 65          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 66          DQ     0.0     50.0    500.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0
 67          DQ  1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0

 68          KK  4TH6TH   CNAME    4thA
 69          KM   ROUTE HYDRPGRAPH FROM 4TH CONCENTRATED AT 4THA TO 6TH (CHANNEL 4TH6TH)
 70          KO       0        0      0.0        0       22
 71          RS       1     FLOW      0.0      0.0
 72          RC    0.05    0.015     0.05   900.28    0.002      0.0
 73          RX     0.0    100.0    100.0   127.49   127.51    155.0    155.0    255.0
 74          RY     2.0      0.5      0.0     0.55     0.55      0.0      0.5      2.0

 75          KK     6th
 76          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 77          KM   L=0.46      Lca=0.17      S=0.01      Kn=0.011      LAG=17
 78          KM   S-GRAPH TYPE=PHOENIX VALLEY
 79          KO       0        0      0.0        1       22
 80          BA  0.0571
 81          LG   0.208     0.15    7.572    0.123   43.141
 82          UI     0.0    54.83    81.61     9.82      0.0

 83          KK    6thA   CNAME  6TH8TH
 84          KM   COMBINE ROUTED HYDROGRAPH FROM 4THA WITH RUNOFF FROM 6TH @ 6THA
 85          KO       0        0      0.0        0       22
 86          HC       3
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 87          KK   TO8TH
 88          KM   HYDRPGRAPH DIVERTED TO 7THS
 89          KO       0        0      0.0        0       22
 90          DT  TO7THS      0.0      0.0
 91          DI     0.0    100.0   1000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 92          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 93          DQ     0.0     50.0    500.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0
 94          DQ  1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0

 95          KK  6TH8TH   CNAME    6thA
 96          KM   ROUTE HYDRPGRAPH FROM 6THA TO 8TH (CHANNEL 6TH8TH)
 97          KO       0        0      0.0        0       22
 98          RS       1     FLOW      0.0      0.0
```

```
 99          RC    0.05   0.015    0.05 1120.51   0.002     0.0
100          RX     0.0   100.0   100.0  127.49  127.51   155.0   155.0   255.0
101          RY     2.0     0.5     0.0    0.55    0.55     0.0     0.5     2.0

102          KK     8th
103          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
104          KM   L=0.60     Lca=0.31     S=0.01     Kn=0.011     LAG=23
105          KM   S-GRAPH TYPE=PHOENIX VALLEY
106          KO       0       0     0.0       1      22
107          BA  0.0793
108          LG   0.235    0.15    8.77   0.075    35.0
109          UI     0.0    41.0  110.28   43.97    7.58     0.0

110          KK    8thA   CNAME  8TH9TH
111          KM   COMBINE ROUTED HYDROGRAPH FROM 6THA WITH RUNOFF FROM 8TH @ 8THA
112          KO       0       0     0.0       0      22
113          HC       2

114          KK   TO9TH
115          KM   HYDRPGRAPH DIVERTED TO CENTRA
116          KO       0       0     0.0       0      22
117          DT  TOCEN1     0.0     0.0
118          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
119          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
120          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
121          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

122          KK  8TH9TH   CNAME    8thA
123          KM   ROUTE HYDRPGRAPH FROM 8THA TO 9TH (CHANNEL 8TH9TH)
124          KO       0       0     0.0       0      22
125          RS       1    FLOW     0.0     0.0
126          RC    0.05   0.015    0.05  702.41   0.002     0.0
127          RX     0.0   100.0   100.0  127.49  127.51   155.0   155.0   255.0
128          RY     2.0     0.5     0.0    0.55    0.55     0.0     0.5     2.0

129          KK    9thE
130          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
131          KM   L=0.77     Lca=0.39     S=0.00     Kn=0.011     LAG=29
132          KM   S-GRAPH TYPE=PHOENIX VALLEY
133          KO       0       0     0.0       1      22
134          BA  0.0947
1                                        HEC-1 INPUT                                                    PAGE  4
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

135          LG   0.151    0.15   8.731   0.088  31.799
136          UI     0.0   31.39   99.09    80.3   25.22    5.83     0.0

137          KK    9thW
138          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
139          KM   L=0.54     Lca=0.32     S=0.01     Kn=0.011     LAG=22
140          KM   S-GRAPH TYPE=PHOENIX VALLEY
141          KO       0       0     0.0       1      22
142          BA  0.0813
143          LG   0.143    0.15    8.42   0.105   14.13
144          UI     0.0   45.77  116.37   40.05    6.23     0.0

145          KK     9th
146          KM   COMBINE ROUTED HYDROGRAPH FROM 8THA WITH RUNOFF FROM 9THE AND 9THW @ 9TH
147          KO       0       0     0.0       0      22
148          HC       3

149          KK   TODET
150          KM   HYDRPGRAPH DIVERTED TO CENTRA
151          KO       0       0     0.0       0      22
152          DT  TOCEN2     0.0     0.0
153          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
154          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
155          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
156          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
             * ***********************************************************************************
             * **   SUB-WATERSHED N-A   (DRAINS INTO SUB-WATERSHED M) **********************
             * ***********************************************************************************

157          KK    BICN
158          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
159          BA   0.001
160          ZR  =QI A=BIC BIC B=58999 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06F

161          KK   N6S-D   CNAME     N6S
162          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT N6S TO DRAINA (CHANNEL A)
163          KO       0       0     0.0       0      22
164          RS       1    FLOW     0.0     0.0
165          RC     0.1     0.1     0.1 12189.0   0.003     0.0
166          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
167          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
             * ***********************************************************************************
             * **   SUB-WATERSHED O (DRAINS INTO SUB-WATERSHED M) **************************
             * ***********************************************************************************

168          KK    BICO
169          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
170          BA   0.001
171          ZR  =QI A=BIC BIC B=63799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06F
1                                        HEC-1 INPUT                                                    PAGE  5
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

172          KK   O8SO9   CNAME     O8S
173          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT O8S TO O9 (CHANNEL A)
174          KO       0       0     0.0       0      22
175          RS       1    FLOW     0.0     0.0
176          RC     0.1     0.1     0.1  6048.0   0.004     0.0
177          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
178          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

179          KK      93
180          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
181          KM   L=1.21     Lca=0.60     S=17.39     Kn=0.200     LAG=148
182          KM   S-GRAPH TYPE=AGRICULTURE
183          KO       0       0     0.0       1      22
184          BA  0.3774
185          LG    0.26    0.25   4.879   0.323  31.085
```

```
186          UI     0.0     9.4     9.4    19.0    37.89    54.24    57.18    73.55    78.99    78.99
187          UI   77.24    65.83   70.53    53.4    54.15    37.91    32.75    26.86    26.09    17.25
188          UI   15.19    11.72   10.73    8.59     8.51     5.34     5.34     5.34     3.78     1.18
189          UI    1.18     1.18    1.18    1.18     1.18     1.18     1.18     1.18     1.18     1.18
190          UI    1.18     1.18    1.18    1.18     1.18      0.0

191          KK    93-O
192          KO       0        0     0.0       0       22
193          DT   93ret     26.0     0.0
194          DI     0.0   2000.0  2000.0  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
195          DI  2000.0   2000.0  2000.0  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
196          DQ     0.0   2000.0  2000.0  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
197          DQ  2000.0   2000.0  2000.0  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0

198          KK      O9    CNAME   O9O10
199          KM   COMBINE ROUTED HYDROGRAPH FROM O9 WITH RUNOFF FROM 93 @ O10
200          KO       0        0     0.0       0       22
201          HC       2

202          KK   O9O10    CNAME      O9
203          KM   ROUTE HYDRPGRAPH FROM O9 TO O10 (CHANNEL A)
204          KO       0        0     0.0       0       22
205          RS      26     FLOW     0.0     0.0
206          RC     0.1      0.1     0.1 8757.67    0.001      0.0
207          RX     0.0    250.0   500.0   750.0   1000.0   1333.3   1666.6   2000.0
208          RY    10.0      7.5     5.0     2.5      0.0      3.3      6.6     10.0

209          KK      95
210          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
211          KM   L=1.66      Lca=0.83      S=7.84      Kn=0.200      LAG=220
212          KM   S-GRAPH TYPE=AGRICULTURE
213          KO       0        0     0.0       1       22
214          BA  0.5221
215          LG    0.25     0.15     8.2   0.093   36.112
216          UI     0.0     8.75    8.75    8.75    17.61    23.93    39.41    52.07    46.56    58.0
217          UI   66.98    73.51   73.51   73.51    73.51    69.43    61.26     62.9    68.12   47.05
218          UI   46.97    50.07   35.29   33.42     27.5    24.86    27.14    19.64    16.37   14.14
219          UI   13.38    10.81   10.81    8.74     7.99     7.99      6.9     4.97     4.97    4.97
220          UI    4.97     4.97    1.35    1.09     1.09     1.09     1.09     1.09     1.09    1.09
1                                          HEC-1 INPUT                                                    PAGE  6

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

221          UI    1.09     1.09    1.09    1.09     1.09     1.09     1.09     1.09     1.09    1.09
222          UI    1.09     1.09    1.09    1.09     1.09     1.09      0.0

223          KK    95-O
224          KO       0        0     0.0       0       22
225          DT   95ret     42.0     0.0
226          DI     0.0   2000.0  2000.0  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
227          DI  2000.0   2000.0  2000.0  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
228          DQ     0.0   2000.0  2000.0  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
229          DQ  2000.0   2000.0  2000.0  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0

230          KK     O10    CNAME   O10DR
231          KM   COMBINE ROUTED HYDROGRAPH FROM O9 WITH RUNOFF FROM 95 @ O10
232          KO       0        0     0.0       0       22
233          HC       2

234          KK   TODRN
235          KM   HYDRPGRAPH DIVERTED TO P9
236          KO       0        0     0.0       0       22
237          DT    TOP9      0.0     0.0
238          DI     0.0    100.0  1000.0  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
239          DI  2000.0   2000.0  2000.0  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
240          DQ     0.0     50.0   500.0  1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0
241          DQ  1000.0   1000.0  1000.0  1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0

242          KK  O10DRN    CNAME     O10
243          KM   ROUTE HYDRPGRAPH FROM O10 TO DRAINA (CHANNEL A)
244          KO       0        0     0.0       0       22
245          RS      26     FLOW     0.0     0.0
246          RC     0.1      0.1     0.1 5733.05   0.0003      0.0
247          RX     0.0    250.0   500.0   750.0   1000.0   1333.3   1666.6   2000.0
248          RY    10.0      7.5     5.0     2.5      0.0      3.3      6.6     10.0

249          KK  CENTRE
250          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
251          KM   L=0.40      Lca=0.23      S=0.01      Kn=0.011      LAG=18
252          KM   S-GRAPH TYPE=PHOENIX VALLEY
253          KO       0        0     0.0       1       22
254          BA  0.0692
255          LG   0.246    0.153   6.965   0.148    31.22
256          UI     0.0    58.22  103.23   15.09      0.0

257          KK  FRM9TH
258          KM   RETRIEVE HYDROGRAPH FROM 9TH
259          KO       0        0     0.0       0       22
260          DR  TOCEN2

261          KK  9THCEN    CNAME
262          KM   ROUTE HYDRPGRAPH FROM 9TH TO CENTRA (CHANNEL 9THCEN)
263          RS       1     FLOW     0.0     0.0
264          RC    0.05    0.015    0.05  1300.0    0.008      0.0
265          RX     0.0    100.0   100.0  111.99    112.0    124.0    124.0    224.0
266          RY     2.0      0.5     0.0    0.24     0.24      0.0      0.5      2.0
1                                          HEC-1 INPUT                                                    PAGE  7

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

267          KK  FRM8TH
268          KM   RETRIEVE HYDROGRAPH FROM 8TH
269          KO       0        0     0.0       0       22
270          DR  TOCEN1

271          KK  8THCEN    CNAME
272          KM   ROUTE HYDRPGRAPH FROM 8TH TO CENTRA (CHANNEL 8THCEN)
273          RS       1     FLOW     0.0     0.0
274          RC    0.05    0.015    0.05  1967.0    0.007      0.0
275          RX     0.0    100.0   100.0  111.99    112.0    124.0    124.0    224.0
276          RY     2.0      0.5     0.0    0.24     0.24      0.0      0.5      2.0

277          KK  CENTRA    CNAME  CENBEL
```

```
 278          KM   COMBINE DIVERTED HYDROGRAPHS FROM 8THA AND 9TH WITH RUNOFF FROM CENTRAL @ CEN
 279          KO       0       0     0.0       0      22
 280          HC       3

 281          KK  TOBELO
 282          KM   HYDRPGRAPH DIVERTED TO BELOAA
 283          KO       0       0     0.0       0      22
 284          DT   TODRN     0.0     0.0
 285          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 286          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 287          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 288          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

 289          KK  CENBEL   CNAME  CENTRA
 290          KM   ROUTE HYDRPGRAPH FROM CENTRA TO BELOAA (CHANNEL CENBEL)
 291          KO       0       0     0.0       0      22
 292          RS       2    FLOW     0.0     0.0
 293          RC    0.05   0.015    0.05 2520.78   0.005     0.0
 294          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 295          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 296          KK  BELOAT
 297          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 298          KM   L=0.44      Lca=0.25      S=0.00      Kn=0.011      LAG=19
 299          KM   S-GRAPH TYPE=PHOENIX VALLEY
 300          KO       0       0     0.0       1      22
 301          BA  0.0470
 302          LG   0.237    0.15   9.327   0.064  34.386
 303          UI     0.0   35.33   70.77   13.41     0.0

 304          KK  BELOAA   CNAME  BELDRN
 305          KM   COMBINE ROUTED HYDROGRAPH FROM CENTRA WITH RUNOFF FROM BELOAT @ BELOAA
 306          KO       0       0     0.0       0      22
 307          HC       2

 308          KK  BELDRN   CNAME  BELOAA
 309          KM   ROUTE HYDRPGRAPH FROM BELOAA TO DRAINA (CHANNEL BELDRN)
 310          KO       0       0     0.0       0      22
 311          RS       2    FLOW     0.0     0.0
 312          RC   0.035   0.015   0.035 1391.66   0.001     0.0
 313          RX     0.0   108.0   120.0  131.99   132.0   144.0   156.0   264.0
1                                          HEC-1 INPUT                                          PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 314          RY     8.0     0.0     3.0    3.24    3.24     3.0     0.0     8.0

 315          KK  BAYLIS
 316          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 317          KM   L=0.30      Lca=0.08      S=0.01      Kn=0.011      LAG=9
 318          KM   S-GRAPH TYPE=PHOENIX VALLEY
 319          KO       0       0     0.0       1      22
 320          BA  0.0155
 321          LG     0.1    0.15     9.7   0.069    80.0
 322          UI     0.0   36.19     0.0

 323          KK  DETDRN   CNAME     DET
 324          KM   ROUTE HYDROGRAPH FROM DET TO DRAINA (CHANNEL DETDRN)
 325          KO       0       0     0.0       0      22
 326          RS       1    FLOW     0.0     0.0
 327          RC    0.05    0.03    0.05 2655.17   0.007     0.0
 328          RX     0.0    50.0   100.0   108.0   110.0   118.0   168.0   218.0
 329          RY     9.0     8.5     8.0     0.0     0.0     8.0     8.5     9.0

 330          KK      92
 331          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 332          KM   L=2.06      Lca=1.03      S=17.46      Kn=0.200      LAG=223
 333          KM   S-GRAPH TYPE=AGRICULTURE
 334          KO       0       0     0.0       1      22
 335          BA  1.0140
 336          LG   0.229    0.15   8.658   0.079  42.566
 337          UI     0.0   40.65    78.1  207.32  268.02  327.77  341.43  292.11  269.54  214.08
 338          UI  145.16  120.99   73.46   57.17   43.57   35.76   23.07   23.07     8.2    5.08
 339          UI    5.08    5.08    5.08    5.08    5.08    5.08    5.08    5.08     0.0

 340          KK    92-O
 341          KO       0       0     0.0       0      22
 342          DT   92ret    65.0     0.0
 343          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 344          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 345          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 346          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 347          KK   DRAIN
 348          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 349          KM   L=0.59      Lca=0.26      S=0.01      Kn=0.011      LAG=20
 350          KM   S-GRAPH TYPE=PHOENIX VALLEY
 351          KO       0       0     0.0       1      22
 352          BA  0.1155
 353          LG   0.242    0.15   9.659   0.059  32.685
 354          UI     0.0   78.37   172.3   41.74     0.0

 355          KK  FRMCEN
 356          KM   RETRIEVE HYDROGRAPH FROM CENTRA
 357          KO       0       0     0.0       0      22
 358          DR   TODRN
1                                          HEC-1 INPUT                                          PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 359          KK  CENDRN   CNAME
 360          KM   ROUTE HYDROGRAPH FROM CENTRA TO DRAINA (CHANNEL CENDRN)
 361          RS       1    FLOW     0.0     0.0
 362          RC    0.05    0.05    0.05  1888.0   0.005     0.0
 363          RX     0.0   300.0   600.0   900.0  1200.0  1500.0  1800.0  2100.0
 364          RY     1.0    0.67    0.33     0.0     0.0    0.33    0.67     1.0

 365          KK  DRAINA   CNAME   DRNM5
 366          KM   COMBINE DIVERTED HYDROGRAPH FROM CENTRA WITH ROUTED HYDROGRAPHS FROM BELOAA,
 367          KO       0       0     0.0       0      22
 368          HC       7

 369          KK   DRNM5   CNAME  DRAINA
```

```
370          KM   ROUTE HYDROGRAPH FROM DRAINA TO M5 (CHANNEL DRNM5)
371          KO       0       0     0.0       0      22
372          RS       8    FLOW     0.0     0.0
373          RC    0.05    0.05    0.05 7894.85   0.001     0.0
374          RX     0.0   500.0   525.0   528.0   543.0   546.0   571.0  1071.0
375          RY     9.0     4.0     2.0     0.0     0.0     2.0     4.0     9.0

376          KK    4thS
377          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
378          KM   L=0.74      Lca=0.50     S=0.01      Kn=0.011     LAG=30
379          KM   S-GRAPH TYPE=PHOENIX VALLEY
380          KO       0       0     0.0       1      22
381          BA  0.1451
382          LG   0.166   0.203   6.474   0.206  36.974
383          UI     0.0   44.97  142.41  127.57   44.49   10.45     0.0

384          KK  FRM4TH
385          KM   RETRIEVE HYDROGRAPH FROM 4TH
386          KO       0       0     0.0       0      22
387          DR  TO4THS

388          KK   4TH4S   CNAME
389          KM   ROUTE HYDROGRAPH FROM 4THA TO 4THSA (CHANNEL 4TH4S)
390          RS       1    FLOW     0.0     0.0
391          RC    0.05   0.015    0.05  2629.0   0.015     0.0
392          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
393          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

394          KK   4thSA   CNAME  4TH7TH
395          KM   COMBINE DIVERTED HYDROGRAPH FROM 4THA WITH RUNOFF FROM 4THS @ 4THSA
396          KO       0       0     0.0       0      22
397          HC       2

398          KK  4TH7TH   CNAME   4thSA
399          KM   ROUTE HYDROGRAPH FROM 4THSA TO 7THSA (CHANNEL 4TH7TH)
400          KO       0       0     0.0       0      22
401          RS       2    FLOW     0.0     0.0
402          RC    0.05   0.015    0.05 1378.54   0.003     0.0
403          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
404          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0
1                                          HEC-1 INPUT                                                          PAGE 10

        LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


405          KK     7th
406          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
407          KM   L=0.66      Lca=0.33     S=0.01      Kn=0.011     LAG=24
408          KM   S-GRAPH TYPE=PHOENIX VALLEY
409          KO       0       0     0.0       1      22
410          BA  0.1268
411          LG   0.248    0.25   5.114   0.311  29.143
412          UI     0.0   60.41  169.79   77.88   14.98     0.0

413          KK  FRM6TH
414          KM   RETRIEVE HYDROGRAPH FROM 6THA
415          KO       0       0     0.0       0      22
416          DR  TO7THS

417          KK  6TH7TH   CNAME
418          KM   ROUTE HYDROGRAPH FROM 6THA TO 7THSA (CHANNEL 6TH7TH)
419          RS       1    FLOW     0.0     0.0
420          RC    0.05   0.015    0.05  3061.0  0.0059     0.0
421          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
422          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

423          KK   7thSA   CNAME   7THM5
424          KM   COMBINE DIVERTED HYDROGRAPH FROM 6THA WITH ROUTED HYDROGRAPH FROM 4THSA WITH
425          KO       0       0     0.0       0      22
426          HC       3

427          KK   7THM5   CNAME   7thSA
428          KM   ROUTE HYDROGRAPH FROM 7THSA TO M5 (CHANNEL 7THM5)
429          KO       0       0     0.0       0      22
430          RS       3    FLOW     0.0     0.0
431          RC    0.05    0.05    0.05 5286.53   0.002     0.0
432          RX     0.0    25.0    28.0    31.0    46.0    49.0    52.0    77.0
433          RY     6.0     4.0     2.0     0.0     0.0     2.0     4.0     6.0

434          KK      98
435          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
436          KM   L=1.50      Lca=0.75     S=6.69      Kn=0.200     LAG=209
437          KM   S-GRAPH TYPE=AGRICULTURE
438          KO       0       0     0.0       1      22
439          BA  0.3878
440          LG    0.19    0.15   9.082   0.073  38.285
441          UI     0.0   14.59   24.67   66.97   88.8  117.54  122.57  113.04  108.08    79.8
442          UI    66.8   46.99   39.56   25.34   19.48   15.08    12.7    8.28    8.28    3.72
443          UI    1.82    1.82    1.82    1.82    1.82    1.82    1.82    1.82    1.82    1.82
444          UI     0.0

445          KK    98-O
446          KO       0       0     0.0       0      22
447          DT   98ret    26.0     0.0
448          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
449          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
450          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
451          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
1                                          HEC-1 INPUT                                                          PAGE 11

        LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


452          KK      M5
453          KM   COMBINE ROUTED HYDROGRAPHs FROM 7THSA AND DRAINA WITH RUNOFF FROM 98 @ M5
454          KO       0       0     0.0       0      22
455          HC       3
             * ***********************************************************************
             * **   SUB-WATERSHED P   ***********************************************
             * ***********************************************************************

456          KK    BICP
457          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
458          BA   0.001
```

```
459          ZR  =QI A=BIC BIC B=67395 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06F

460          KK   P6SP7   CNAME     P6S
461          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT P6S TO P7 (CHANNEL A)
462          KO       0       0     0.0       0      22
463          RS       1    FLOW     0.0     0.0
464          RC     0.1     0.1     0.1  5100.0   0.005     0.0
465          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
466          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

467          KK      94
468          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
469          KM   L=1.30     Lca=0.65     S=22.37     Kn=0.200     LAG=149
470          KM   S-GRAPH TYPE=AGRICULTURE
471          KO       0       0     0.0       1      22
472          BA  0.7194
473          LG   0.249    0.15   7.304   0.126   43.87
474          UI     0.0   17.81   17.81   35.71   70.46  102.77  107.11  138.19  149.58  149.58
475          UI  147.91  124.65  131.59  105.71  101.03   75.79   63.54   51.25   51.33   33.33
476          UI   28.76   23.11   21.15   16.26   16.26   10.96   10.11   10.11    8.64    2.23
477          UI    2.23    2.23    2.23    2.23    2.23    2.23    2.23    2.23    2.23    2.23
478          UI    2.23    2.23    2.23    2.23    2.23     0.0

479          KK    94-O
480          KO       0       0     0.0       0      22
481          DT   94ret    58.0     0.0
482          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
483          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
484          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
485          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

486          KK      P7   CNAME   P7-P8
487          KM   COMBINE ROUTED HYDROGRAPH FROM P6S WITH RUNOFF FROM 94 @ P7
488          KO       0       0     0.0       0      22
489          HC       2

490          KK   P7-P8   CNAME      P7
491          KM   ROUTE HYDROGRAPH FROM P7 TO P8 (CHANNEL A)
492          KO       0       0     0.0       0      22
493          RS      10    FLOW     0.0     0.0
494          RC     0.1     0.1     0.1 3899.99   0.002     0.0
495          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
496          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                        HEC-1 INPUT                                                PAGE 12
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

497          KK      96
498          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
499          KM   L=1.32     Lca=0.66     S=4.55     Kn=0.200     LAG=205
500          KM   S-GRAPH TYPE=AGRICULTURE
501          KO       0       0     0.0       1      22
502          BA  0.9142
503          LG     0.3    0.15   7.196   0.114     5.0
504          UI     0.0   16.45   16.45    18.8   34.54   52.11   84.71   98.14   96.32  126.68
505          UI  129.26  138.14  138.14  138.14  130.47  115.12  121.64  118.86   86.34   91.94
506          UI   82.29   63.36   57.32   47.86   49.06   41.47   31.23   26.57   24.96   20.31
507          UI   20.31   15.37   15.02   15.02   10.53    9.33    9.33    9.33    9.33     4.0
508          UI    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06
509          UI    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06
510          UI    2.06    2.06     0.0

511          KK    96-O
512          KO       0       0     0.0       0      22
513          DT   96ret    50.0     0.0
514          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
515          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
516          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
517          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

518          KK      P8   CNAME   P8-P9
519          KM   COMBINE ROUTED HYDROGRAPH FROM P7 WITH RUNOFF FROM 96 @ P8
520          KO       0       0     0.0       0      22
521          HC       2

522          KK   P8-P9   CNAME      P8
523          KM   ROUTE HYDROGRAPH FROM P8 TO P9 (CHANNEL A)
524          KO       0       0     0.0       0      22
525          RS      12    FLOW     0.0     0.0
526          RC     0.1     0.1     0.1 6986.11   0.001     0.0
527          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
528          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

529          KK      97
530          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
531          KM   L=1.32     Lca=0.66     S=6.05     Kn=0.200     LAG=195
532          KM   S-GRAPH TYPE=AGRICULTURE
533          KO       0       0     0.0       1      22
534          BA  0.5002
535          LG     0.3   0.163   6.866    0.13     5.0
536          UI     0.0    9.46    9.46   12.27   19.87   35.86   52.15   53.64   61.59   73.51
537          UI   79.47   79.47   79.47   79.47   66.22   66.89    74.0   49.67   52.15   48.28
538          UI   36.52   32.56   27.34   28.83   21.44   17.23   15.28   13.09   11.69   10.47
539          UI    8.64    8.64     7.3    5.37    5.37    5.37    5.37    2.86    1.18    1.18
540          UI    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18
541          UI    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18     0.0
1                                        HEC-1 INPUT                                                PAGE 13
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

542          KK    97-O
543          KO       0       0     0.0       0      22
544          DT   97ret    30.0     0.0
545          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
546          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
547          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
548          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

549          KK   FRO10
550          KM   RETRIEVE HYDROGRAPH FROM O10
551          KO       0       0     0.0       0      22
552          DR    TOP9
```

```
553          KK  O10-P9   CNAME
554          KM   ROUTE HYDROGRAPH FROM O10 TO P9 (CHANNEL 010-P9)
555          RS       1    FLOW     0.0     0.0
556          RC    0.05    0.05    0.05  1492.0   0.002     0.0
557          RX     0.0   200.0   235.0   251.0   263.0   279.0   314.0   349.0
558          RY    12.0    10.0     8.0     0.0     0.0     8.0    10.0    12.0

559          KK      P9   CNAME  P9-P10
560          KM   COMBINE ROUTED HYDROGRAPH FROM P8 WITH DIVERTED HYDROGRAPH FROM O10 WITH RUNO
561          KO       0       0     0.0       0      22
562          HC       3

563          KK  P9-P10   CNAME      P9
564          KM   ROUTE HYDROGRAPH FROM P9 TO P10 (CHANNEL A)
565          KO       0       0     0.0       0      22
566          RS       5    FLOW     0.0     0.0
567          RC     0.1     0.1     0.1 3952.01   0.005     0.0
568          RX     0.0   250.0   500.0   750.0  1000.0  1333:3  1666.6  2000.0
569          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

570          KK     100
571          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
572          KM   L=1.70      Lca=0.85     S=18.83     Kn=0.200     LAG=190
573          KM   S-GRAPH TYPE=AGRICULTURE
574          KO       0       0     0.0       1      22
575          BA  0.5816
576          LG     0.1   0.226   6.243    0.26     5.0
577          UI     0.0   11.29   11.29   15.51   24.87    45.7   65.19   60.85   82.97   85.34
578          UI   94.82   94.82   94.82   89.56   79.02   84.02   75.73   59.27   66.61   45.77
579          UI    43.1   33.76   32.34    31.6   21.55   18.46   17.01   13.94   13.46   10.31
580          UI   10.31    9.45    6.41    6.41    6.41    6.41    3.74    1.41    1.41    1.41
581          UI    1.41    1.41    1.41    1.41    1.41    1.41    1.41    1.41    1.41    1.41
582          UI    1.41    1.41    1.41    1.41    1.41    1.41    1.41     0.0

583          KK   100-O
584          KO       0       0     0.0       0      22
585          DT  100ret    25.0     0.0
586          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
587          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
588          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
589          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
1                                        HEC-1 INPUT                                                PAGE 14

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

590          KK      P10
591          KM   COMBINE ROUTED HYDROGRAPH FROM P9 WITH RUNOFF FROM 100 @ P10
592          KO       0       0     0.0       0      22
593          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED N-B   ***********************************************
             * ***********************************************************************

594          KK      99
595          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
596          KM   L=2.01      Lca=1.24      S=3.49      Kn=0.050      LAG=80
597          KM   S-GRAPH TYPE=PHOENIX VALLEY
598          KO       0       0     0.0       1      22
599          BA  0.9484
600          LG   0.107   0.248   6.022   0.276  11.109
601          UI     0.0   39.92  121.66  208.16  273.54  409.44  445.57  321.29  237.94  165.13
602          UI    81.8   57.84   37.85   12.24   12.24   12.24     0.0

603          KK    99-O
604          KO       0       0     0.0       0      22
605          DT   99ret    42.0     0.0
606          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
607          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
608          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
609          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
             * ***********************************************************************
             * **   SUB-WATERSHED Q   *************************************************
             * ***********************************************************************

610          KK     101
611          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
612          KM   L=1.63      Lca=0.81      S=8.59      Kn=0.200      LAG=213
613          KM   S-GRAPH TYPE=AGRICULTURE
614          KO       0       0     0.0       1      22
615          BA  0.3807
616          LG   0.157   0.154   6.963    0.16     5.0
617          UI     0.0    6.59    6.59    6.72   13.84   19.36   31.67   39.52   35.16   50.66
618          UI   48.72   55.36   55.36   55.36   55.36   47.98   46.14   49.41   43.25    34.6
619          UI   38.51    29.5   25.17   22.12   19.02   19.89   16.22   12.54   10.65   10.21
620          UI    8.14    8.14    6.53    6.02    6.02    4.89    3.74    3.74    3.74    3.74
621          UI    3.04    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82
622          UI    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82
623          UI    0.82    0.82    0.82    0.82     0.0

624          KK   101-O
625          KO       0       0     0.0       0      22
626          DT  101ret    18.0     0.0
627          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
628          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
629          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
630          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
             * ***********************************************************************
             * **   SUB-WATERSHED K   *************************************************
             * ***********************************************************************
1                                        HEC-1 INPUT                                                PAGE 15

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

631          KK    BICK
632          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
633          BA   0.001
634          ZR  =QI A=BIC BIC B=42799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06F

635          KK   K7SK8   CNAME     K7S
636          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT K7S TO K8 (CHANNEL A)
637          KO       0       0     0.0       0      22
```

```
638          RS       1    FLOW     0.0     0.0
639          RC     0.1     0.1     0.1  8240.0   0.005     0.0
640          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
641          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

642          KK      90
643          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
644          KM   L=2.05     Lca=1.02     S=21.50     Kn=0.200     LAG=213
645          KM   S-GRAPH TYPE=AGRICULTURE
646          KO       0       0     0.0       1      22
647          BA  1.0549
648          LG    0.16    0.15   9.525   0.063  57.603
649          UI     0.0   18.26   18.26   18.63   38.35   53.64   87.77   109.5   97.42  140.37
650          UI   135.0  153.41  153.41  153.41  153.41  132.96  127.84  136.92  119.85   95.88
651          UI  106.72   81.75   69.73   61.31   52.71   55.11   44.96   34.76    29.5   28.29
652          UI   22.56   22.56   18.09   16.68   16.68   13.56   10.37   10.37   10.37   10.37
653          UI    8.43    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
654          UI    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
655          UI    2.28    2.28    2.28    2.28     0.0

656          KK    90-O
657          KO       0       0     0.0       0      22
658          DT   90ret    95.0     0.0
659          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
660          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
661          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
662          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

663          KK      K8
664          KM   COMBINE ROUTED HYDROGRAPH FROM K7S WITH RUNOFF FROM 90 @ K8
665          KO       0       0     0.0       0      22
666          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED L   ***************************************************
             * ***********************************************************************

667          KK    BICL
668          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
669          BA   0.001
670          ZR  =QI A=BIC BIC B=47195 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-06F
1                                        HEC-1 INPUT                                          PAGE 16

       LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


671          KK   L5SL6   CNAME     L5S
672          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT L5S TO L6 (CHANNEL A)
673          KO       0       0     0.0       0      22
674          RS       1    FLOW     0.0     0.0
675          RC     0.1     0.1     0.1  9280.0   0.005     0.0
676          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
677          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

678          KK      91
679          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
680          KM   L=2.08     Lca=1.04     S=21.10     Kn=0.200     LAG=217
681          KM   S-GRAPH TYPE=AGRICULTURE
682          KO       0       0     0.0       1      22
683          BA  1.1890
684          LG    0.26    0.15   8.293   0.086   23.16
685          UI     0.0   20.21   20.21   20.21   41.59   57.01   93.61  121.43  106.09  140.03
686          UI  156.16  169.74  169.74  169.74  169.74  154.65  141.45  151.68  144.39  106.09
687          UI  111.63  106.19   79.21   74.79   60.09   56.97   62.49   38.58   35.53   32.64
688          UI   27.78   24.96   23.83   18.45   18.45   18.45   12.54   11.47   11.47   11.47
689          UI   11.47    7.06    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53
690          UI    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53
691          UI    2.53    2.53    2.53    2.53    2.53     0.0

692          KK    91-O
693          KO       0       0     0.0       0      22
694          DT   91ret    70.0     0.0
695          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
696          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
697          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
698          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

699          KK      L6
700          KM   COMBINE ROUTED HYDROGRAPH FROM L5S WITH RUNOFF FROM 91 @ L6
701          KO       0       0     0.0       0      22
702          HC       2
703          ZZ
RUNOFF SUMMARY
                                   FLOW IN CUBIC FEET PER SECOND
                                TIME IN HOURS,  AREA IN SQUARE MILES

                                   PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
        OPERATION      STATION     FLOW    PEAK                                           AREA      STAGE     MAX STAGE
+                                                     6-HOUR     24-HOUR     72-HOUR

        HYDROGRAPH AT
+                        BICM        0.    0.00          0.          0.          0.      0.00

        ROUTED TO
+                      M4S6TH        0.    0.00          0.          0.          0.      0.00

        HYDROGRAPH AT
+                         4th      109.    4.50         13.          3.          1.      0.08

        DIVERSION TO
+                      TO4THS       55.    4.50          7.          2.          1.      0.08

        HYDROGRAPH AT
+                       TO6th       55.    4.50          7.          2.          1.      0.08

        ROUTED TO
+                     4TH6TH        46.    4.50          7.          2.          1.      0.08

        HYDROGRAPH AT
+                         6th       81.    4.50          9.          2.          1.      0.06

        3 COMBINED AT
+                        6thA      127.    4.50         16.          4.          1.      0.14

        DIVERSION TO
```

```
+                    TO7THS     63.   4.50      8.      2.      1.    0.14
      HYDROGRAPH AT
+                    TO8TH      63.   4.50      8.      2.      1.    0.14
      ROUTED TO
+                   6TH8TH      56.   4.50      8.      2.      1.    0.14
      HYDROGRAPH AT
+                      8th     116.   4.50     13.      3.      1.    0.08
      2 COMBINED AT
+                     8thA     172.   4.50     21.      5.      2.    0.22
      DIVERSION TO
+                   TOCEN1      86.   4.50     10.      3.      1.    0.22
      HYDROGRAPH AT
+                    TO9TH      86.   4.50     10.      3.      1.    0.22
      ROUTED TO
+                   8TH9TH      77.   4.50     10.      3.      1.    0.22
      HYDROGRAPH AT
+                     9thE     115.   4.50     15.      4.      1.    0.09
      HYDROGRAPH AT
+                     9thW     115.   4.50     11.      3.      1.    0.08
      3 COMBINED AT
+                      9th     306.   4.50     36.      9.      3.    0.40
      DIVERSION TO
+                   TOCEN2     153.   4.50     18.      5.      2.    0.40
      HYDROGRAPH AT
+                    TODET     153.   4.50     18.      5.      2.    0.40
      HYDROGRAPH AT
+                     BICN      37.   7.50     17.      4.      1.    0.00
      ROUTED TO
+                    N6S-D       8.  10.25      7.      4.      1.    0.00
      HYDROGRAPH AT
+                     BICO       0.   0.00      0.      0.      0.    0.00
      ROUTED TO
+                   O8SO9        0.   0.00      0.      0.      0.    0.00
      HYDROGRAPH AT
+                      93      85.   6.00     44.     12.      4.    0.38
      DIVERSION TO
+                   93ret      85.   6.00     44.     12.      4.    0.38
      HYDROGRAPH AT
+                    93-O       0.   0.00      0.      0.      0.    0.38
      2 COMBINED AT
+                      O9       0.   0.00      0.      0.      0.    0.38
      ROUTED TO
+                   O9O10       0.   0.00      0.      0.      0.    0.38
      HYDROGRAPH AT
+                      95     104.   7.00     70.     21.      7.    0.52
      DIVERSION TO
+                   95ret     104.   7.00     70.     21.      7.    0.52
      HYDROGRAPH AT
+                    95-O       0.   0.00      0.      0.      0.    0.52
      2 COMBINED AT
+                     O10       0.   0.00      0.      0.      0.    0.90
      DIVERSION TO
+                    TOP9       0.   0.00      0.      0.      0.    0.90
      HYDROGRAPH AT
+                   TODRN       0.   0.00      0.      0.      0.    0.90
      ROUTED TO
+                  O10DRN       0.   0.00      0.      0.      0.    0.90
      HYDROGRAPH AT
+                  CENTRE      98.   4.50     10.      3.      1.    0.07
      HYDROGRAPH AT
+                  FRM9TH     153.   4.50     18.      5.      2.    0.40
      ROUTED TO
+                  9THCEN     132.   4.50     18.      5.      2.    0.40
      HYDROGRAPH AT
+                  FRM8TH      86.   4.50     10.      3.      1.    0.22
      ROUTED TO
+                  8THCEN      72.   4.50     10.      3.      1.    0.22
      3 COMBINED AT
+                  CENTRA     302.   4.50     39.     10.      3.    0.07
      DIVERSION TO
+                   TODRN     151.   4.50     19.      5.      2.    0.07
      HYDROGRAPH AT
+                  TOBELO     151.   4.50     19.      5.      2.    0.07
      ROUTED TO
+                  CENBEL     132.   4.75     19.      5.      2.    0.07
      HYDROGRAPH AT
```

```
+                    BELQAT    72.  4.50     8.     2.     1.   0.05
+  2 COMBINED AT     BELQAA   175.  4.50    27.     7.     2.   0.12
+  ROUTED TO         BELDRN   160.  4.75    27.     7.     2.   0.12
+  HYDROGRAPH AT     BAYLIS    34.  4.25     3.     1.     0.   0.02
+  ROUTED TO         DETDRN    21.  4.25     3.     1.     0.   0.02
+  HYDROGRAPH AT        92   440.  5.50   159.    41.    14.   1.01
+  DIVERSION TO      92ret   440.  5.50   131.    33.    11.   1.01
+  HYDROGRAPH AT     92-O    169.  6.75    34.     8.     3.   1.01
+  HYDROGRAPH AT     DRAIN   176.  4.50    18.     5.     2.   0.12
+  HYDROGRAPH AT     FRMCEN  151.  4.50    19.     5.     2.   0.07
+  ROUTED TO         CENDRN   71.  5.00    18.     5.     2.   0.07
+  7 COMBINED AT     DRAINA  264.  4.50    89.    26.     9.   2.16
+  ROUTED TO         DRNM5   190.  6.00    88.    26.     9.   2.16
+  HYDROGRAPH AT       4thS  152.  4.50    21.     5.     2.   0.15
+  HYDROGRAPH AT     FRM4TH   55.  4.50     7.     2.     1.   0.08
+  ROUTED TO         4TH4S    47.  4.50     7.     2.     1.   0.08
+  2 COMBINED AT     4thSA   199.  4.50    27.     7.     2.   0.15
+  ROUTED TO         4TH7TH  189.  4.75    27.     7.     2.   0.15
+  HYDROGRAPH AT       7th   146.  4.50    15.     4.     1.   0.13
+  HYDROGRAPH AT     FRM6TH   63.  4.50     8.     2.     1.   0.14
+  ROUTED TO         6TH7TH   52.  4.50     8.     2.     1.   0.14
+  3 COMBINED AT     7thSA   337.  4.50    50.    13.     4.   0.27
+  ROUTED TO         7THM5   282.  5.00    50.    13.     4.   0.27
+  HYDROGRAPH AT        98   170.  5.50    62.    16.     5.   0.39
+  DIVERSION TO      98ret   170.  5.50    52.    13.     4.   0.39
+  HYDROGRAPH AT     98-O     57.  7.00    12.     3.     1.   0.39
+  3 COMBINED AT        M5   282.  5.25   133.    39.    13.   2.82
+  HYDROGRAPH AT      BICP     0.  0.00     0.     0.     0.   0.00
+  ROUTED TO         P6SP7     0.  0.00     0.     0.     0.   0.00
+  HYDROGRAPH AT        94   205.  6.25   107.    29.    10.   0.72
+  DIVERSION TO      94ret   205.  6.25   107.    29.    10.   0.72
+  HYDROGRAPH AT     94-O      2. 13.75     0.     0.     0.   0.72
+  2 COMBINED AT        P7     2. 13.75     0.     0.     0.   0.72
+  ROUTED TO         P7-P8     1. 18.00     0.     0.     0.   0.72
+  HYDROGRAPH AT        96   145.  7.00    92.    26.     9.   0.91
+  DIVERSION TO      96ret   145.  7.00    92.    25.     8.   0.91
+  HYDROGRAPH AT     96-O      8. 13.50     3.     1.     0.   0.91
+  2 COMBINED AT        P8     6. 13.50     2.     0.     0.   1.63
   ROUTED TO
```

```
+                          P8-P9        1.   25.50        1.        0.        0.      1.63
          HYDROGRAPH AT
+                             97       86.    6.75       53.       15.        5.      0.50
          DIVERSION TO
+                          97ret       86.    6.75       53.       15.        5.      0.50
          HYDROGRAPH AT
+                            97-O        0.    0.00        0.        0.        0.      0.50
          HYDROGRAPH AT
+                           FRO10        0.    0.00        0.        0.        0.      0.90
          ROUTED TO
+                          O10-P9        0.    0.00        0.        0.        0.      0.90
          3 COMBINED AT
+                             P9        1.   25.50        1.        0.        0.      2.13
          ROUTED TO
+                         P9-P10        1.   28.00        1.        0.        0.      2.13
          HYDROGRAPH AT
+                            100       82.    6.75       50.       14.        5.      0.58
          DIVERSION TO
+                         100ret       82.    6.75       49.       13.        4.      0.58
          HYDROGRAPH AT
+                          100-O       13.   10.25        4.        1.        0.      0.58
          2 COMBINED AT
+                            P10        1.   28.00        1.        0.        0.      2.72
          HYDROGRAPH AT
+                             99      337.    5.50       86.       22.        7.      0.95
          DIVERSION TO
+                          99ret      337.    5.50       84.       21.        7.      0.95
          HYDROGRAPH AT
+                            99-O       10.    7.75        2.        0.        0.      0.95
          HYDROGRAPH AT
+                            101       61.    7.00       40.       11.        4.      0.38
          DIVERSION TO
+                         101ret       61.    7.00       36.        9.        3.      0.38
          HYDROGRAPH AT
+                           101-O       24.    9.75        9.        2.        1.      0.38
          HYDROGRAPH AT
+                            BICK       22.    0.00        7.        4.        3.      0.00
          ROUTED TO
+                           K7SK8        5.   12.00        5.        4.        3.      0.00
          HYDROGRAPH AT
+                             90      244.    7.00      163.       48.       16.      1.05
          DIVERSION TO
+                          90ret      244.    7.00      163.       48.       16.      1.05
          HYDROGRAPH AT
+                            90-O        4.   18.25        1.        0.        0.      1.05
          2 COMBINED AT
+                             K8        7.   18.25        5.        4.        3.      1.06
          HYDROGRAPH AT
+                            BICL       29.    8.00       21.       10.        7.      0.00
          ROUTED TO
+                           L5SL6       14.   11.25       13.        9.        7.      0.00
          HYDROGRAPH AT
+                             91      212.    7.00      141.       41.       14.      1.19
          DIVERSION TO
+                          91ret      212.    7.00      137.       35.       12.      1.19
          HYDROGRAPH AT
+                           91-O       63.   10.50       21.        6.        2.      1.19
          2 COMBINED AT
+                             L6       77.   10.50       34.       15.        9.      1.19

*** NORMAL END OF HEC-1 ***
```

D.7.2 HEC-1 Output File 10-Year 24-Hour

D.7.2.a HEC-1 Output File for 10-Year 24-Hour (Existing Conditions)

```
1*************************************                    *************************************
 *                                   *                    *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                    *    U.S. ARMY CORPS OF ENGINEERS   *
 *              JUN  1998            *                    *    HYDROLOGIC ENGINEERING CENTER  *
 *            VERSION 4.1            *                    *          609 SECOND STREET        *
 *                                   *                    *       DAVIS, CALIFORNIA 95616     *
 *  RUN DATE   22MAR06  TIME  10:49:48  *                    *          (916) 756-1104           *
 *                                   *                    *                                   *
 *************************************                    *************************************
```

```
X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X               X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X               X
X     X  X        X     X         X
X     X  XXXXXXX   XXXXX         XXX
```

```
THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                        HEC-1 INPUT                                                    PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID   Buckeye/Sun Valley ADMS - November 2004
  2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
  3           ID   10-year 24-hour
  4           ID   Existing Conditions
  5           ID   Area 1 - FRS to RID (East)
  6           ID   File Name: fre1024ex.hc1
  7           ID   Rainfall Loss Method - Green & Ampt
  8           ID   Unit Hydrograph Method - FCDMC S-Graph
  9           ID   Channel Routing Method - Normal Depth
 10           ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
 11           ID   Existing Land Use Build Out Date: 2000
 12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
 13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
              *DIAGRAM
 14           IT      15 02JAN94       0      400
 15           IO       3
 16           IN      15 02JAN94       0
 17           JD     2.5    0.01
              * 24-hour distribution
 18           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
 19           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 20           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 21           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 22           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 23           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 24           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 25           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 26           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 27           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
 28           IN      15 02JAN94       0
 29           JD   2.375    10.0
              * 24-hour distribution
 30           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
 31           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 32           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 33           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 34           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 35           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 36           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 37           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 38           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 39           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
 40           IN      15 02JAN94       0
 41           JD   2.295    20.0
              * 24-hour distribution
 42           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
 43           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 44           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 45           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 46           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 47           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 48           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 49           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 50           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 51           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
1                                        HEC-1 INPUT                                                    PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 52           KK       6
 53           KM   ******************************************************************************
 54           KM   **   SUB-WATERSHED J   ******************************************************
 55           KM   ******************************************************************************
 56           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 57           KM   L=0.50      Lca=0.35      S=88.18      Kn=0.050      LAG=16
 58           KM   S-GRAPH TYPE=DESERT RANGELAND
 59           KO       0        0      0.0        1       22
 60           BA  0.3175
 61           LG   0.327    0.359   5.257   0.239   8.065
 62           UI     0.0   367.81  364.77   72.06     0.0

 63           KK   J1-J2   CNAME      J1
 64           KM   ROUTE HYDRPGRAPH FROM J1 TO J2 (CHANNEL A)
 65           KO       0        0      0.0        0       22
 66           RS       3     FLOW      0.0      0.0
 67           RC   0.035    0.035   0.035 4135.69   0.004     0.0
 68           RX     0.0    250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 69           RY    10.0      7.5     5.0     2.5     0.0     3.3     6.6    10.0

 70           KK       8
 71           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 72           KM   L=1.22      Lca=0.56      S=14.80      Kn=0.050      LAG=37
 73           KM   S-GRAPH TYPE=DESERT RANGELAND
 74           KO       0        0      0.0        1       22
 75           BA  0.4136
 76           LG   0.277    0.319   4.104   0.445  23.066
```

```
 77          UI     0.0   80.26  286.14  333.87  188.89   92.75   45.37   21.43    9.16    9.16
 78          UI     0.0

 79          KK      J2   CNAME   J2-J3
 80          KM   COMBINE ROUTED HYDROGRAPH FROM J1 WITH RUNOFF FROM 8 @ J2
 81          KO       0       0     0.0       0      22
 82          HC       2

 83          KK   J2-J3   CNAME      J2
 84          KM   ROUTE HYDRPGRAPH FROM J2 TO J3 (CHANNEL B)
 85          KO       0       0     0.0       0      22
 86          RS       2    FLOW     0.0     0.0
 87          RC     0.1    0.02     0.1 3195.75   0.008     0.0
 88          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 89          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 90          KK      20
 91          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 92          KM   L=1.57     Lca=0.79     S=16.56     Kn=0.200     LAG=183
 93          KM   S-GRAPH TYPE=AGRICULTURE
 94          KO       0       0     0.0       1      22
 95          BA  0.6645
 96          LG     1.0   0.252   3.974   0.479   0.015
 97          UI     0.0   13.39   13.39   19.84   32.21   58.26   78.88   74.24  102.61  104.94
 98          UI  112.49  112.49  112.49   97.49   93.74  105.07   70.56   74.86   64.48   51.13
 99          UI    43.2   37.84   40.14   25.57   22.34   20.44   16.54   15.85   12.23   12.23
100          UI   10.59     7.6     7.6     7.6     7.6    2.62    1.67    1.67    1.67    1.67
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

101          UI    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67
102          UI    1.67    1.67    1.67    1.67    1.67     0.0

103          KK      J3
104          KM   COMBINE ROUTED HYDROGRAPH FROM J2 WITH RUNOFF FROM 20 @ J3
105          ZW   A=FRE B=J3 C=FLOW E=15MIN F=10y24h-ex
106          KO       0       0     0.0       0      22
107          HC       2

108          KK       7
109          KM   ******************************************************************************
110          KM   **   SUB-WATERSHED K   ********************************************************
111          KM   ******************************************************************************
112          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
113          KM   L=0.74     Lca=0.30     S=73.02     Kn=0.050     LAG=18
114          KM   S-GRAPH TYPE=DESERT RANGELAND
115          KO       0       0     0.0       1      22
116          BA  0.4459
117          LG   0.336   0.345   4.134     0.4   4.384
118          UI     0.0  416.62  556.92   138.6   30.54     0.0

119          KK   K1-K2   CNAME      K1
120          KM   ROUTE HYDRPGRAPH FROM K1 TO K2 (CHANNEL A)
121          KO       0       0     0.0       0      22
122          RS       2    FLOW     0.0     0.0
123          RC   0.035   0.035   0.035  4162.2   0.011     0.0
124          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
125          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

126          KK       9
127          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
128          KM   L=0.79     Lca=0.41     S=57.09     Kn=0.050     LAG=22
129          KM   S-GRAPH TYPE=DESERT RANGELAND
130          KO       0       0     0.0       1      22
131          BA  0.6124
132          LG   0.327    0.34   3.984   0.411   7.241
133          UI     0.0  381.65  780.49  295.85   90.95    23.1     0.0

134          KK      K2   CNAME   K2-K3
135          KM   COMBINE ROUTED HYDROGRAPH FROM K1 WITH RUNOFF FROM 9 @ K2
136          KO       0       0     0.0       0      22
137          HC       2

138          KK   K2-K3   CNAME      K2
139          KM   ROUTE HYDRPGRAPH FROM K2 TO K3 (CHANNEL A)
140          KO       0       0     0.0       0      22
141          RS       3    FLOW     0.0     0.0
142          RC     0.1     0.1     0.1 2881.52   0.009     0.0
143          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
144          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

145          KK     21B
146          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
147          KM   L=1.02     Lca=0.51     S=24.58     Kn=0.200     LAG=122
148          KM   S-GRAPH TYPE=AGRICULTURE
149          KO       0       0     0.0       1      22
150          BA  0.2728
151          LG     1.0    0.25   4.001   0.692     0.0
152          UI     0.0    8.25    10.9   22.84   46.68   49.72   65.96   69.27   69.27   59.27
153          UI   62.38   43.49   42.68   30.48   23.78   21.73   14.42   11.79     9.9    7.53
154          UI    6.86    4.68    4.68    3.85    1.03    1.03    1.03    1.03    1.03    1.03
155          UI    1.03    1.03    1.03    1.03    1.03    1.03    1.03     0.0

156          KK     21A
157          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
158          KM   L=1.43     Lca=0.71     S=39.92     Kn=0.200     LAG=144
159          KM   S-GRAPH TYPE=AGRICULTURE
160          KO       0       0     0.0       1      22
161          BA  0.3660
162          LG     1.0   0.277   3.998   0.641     0.0
163          UI     0.0    9.37    9.37   19.83   40.15   53.93   61.02   74.01   78.73   78.73
164          UI   73.49   65.61   68.76   49.43   50.09   36.19   29.11   28.02   20.17    15.8
165          UI   13.32   11.58    8.92    8.56    6.38    5.32    5.32    4.82    1.17    1.17
166          UI    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17
167          UI    1.17    1.17    1.17    1.17

168          KK      K3
169          KM   COMBINE ROUTED HYDROGRAPH FROM K2 WITH RUNOFF FROM 21A AND 21B @ K3
170          ZW   A=FRE B=K3 C=FLOW E=15MIN F=10y24h-ex
```

```
171          KO       0       0     0.0       0      22
172          HC       3

173          KK      10
174          KM   ******************************************************************************
175          KM   **   SUB-WATERSHED L   ******************************************************
176          KM   ******************************************************************************
177          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
178          KM   L=1.77     Lca=1.27     S=46.29     Kn=0.050     LAG=47
179          KM   S-GRAPH TYPE=PHOENIX VALLEY
180          KO       0       0     0.0       1      22
181          BA  1.1737
182          LG   0.299   0.312   4.152   0.403  10.872
183          UI     0.0  140.53  441.72   791.7  810.58  481.45  203.27   99.52   26.14   25.79
184          UI     0.0

185          KK   L1-L2   CNAME      L1
186          KM   ROUTE HYDROGRAPH FROM L1 TO L2 (CHANNEL B)
187          KO       0       0     0.0       0      22
188          RS       3    FLOW     0.0     0.0
189          RC     0.1    0.02     0.1 2843.85    0.01     0.0
190          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
191          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0
1                                        HEC-1 INPUT                                                PAGE  5

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

192          KK      22
193          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
194          KM   L=1.54     Lca=0.77     S=18.14     Kn=0.200     LAG=178
195          KM   S-GRAPH TYPE=AGRICULTURE
196          KO       0       0     0.0       1      22
197          BA  0.5572
198          LG     1.0    0.25   4.002    0.55   0.185
199          UI     0.0   11.54   11.54   17.99   29.44   52.71    67.8   67.77   85.72   96.69
200          UI   96.97   96.97   94.81   80.81    85.6   77.44   60.61   65.99   46.03   41.71
201          UI   33.66   34.96   25.72    20.5   18.65   14.65   14.26   10.94   10.54    9.89
202          UI    6.55    6.55    6.55    6.55     2.6    1.44    1.44    1.44    1.44    1.44
203          UI    1.44    1.44    1.44    1.44    1.44    1.44    1.44    1.44    1.44    1.44
204          UI    1.44    1.44    1.44    1.44     0.0

205          KK      L2
206          KM   COMBINE ROUTED HYDROGRAPH FROM L1 WITH RUNOFF FROM 22 @ L2
207          ZW   A=FRE B=L2 C=FLOW E=15MIN F=10y24h-ex
208          KO       0       0     0.0       0      22
209          HC       2

210          KK     11C
211          KM   ******************************************************************************
212          KM   **   SUB-WATERSHED N   ******************************************************
213          KM   ******************************************************************************
214          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
215          KM   L=0.99     Lca=0.31     S=54.38     Kn=0.050     LAG=22
216          KM   S-GRAPH TYPE=PHOENIX VALLEY
217          KO       0       0     0.0       1      22
218          BA  0.3431
219          LG    0.35    0.35   3.978     0.4     0.0
220          UI     0.0  193.16  491.17  169.06   26.28     0.0

221          KK  N1C-N2   CNAME     N1C
222          KM   ROUTE HYDROGRAPH FROM N1C TO N2 (CHANNEL A)
223          KO       0       0     0.0       0      22
224          RS       3    FLOW     0.0     0.0
225          RC     0.1     0.1     0.1 3084.31    0.01     0.0
226          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
227          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

228          KK     11A
229          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
230          KM   L=0.57     Lca=0.33     S=83.95     Kn=0.050     LAG=16
231          KM   S-GRAPH TYPE=PHOENIX VALLEY
232          KO       0       0     0.0       1      22
233          BA  0.5711
234          LG    0.32   0.356   5.202   0.244   9.658
235          UI     0.0   634.0  753.85   79.75     0.0
1                                        HEC-1 INPUT                                                PAGE  6

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

236          KK   11A-O
237          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
238          KO       0       0     0.0       0      22
239          DT  11Aret   38.23     0.0
240          DI     0.0  2000.0
241          DQ     0.0  2000.0

242          KK  N1A-1B   CNAME     N1A
243          KM   ROUTE HYDROGRAPH FROM N1A TO N1B (CHANNEL N1A-N1B)
244          KO       0       0     0.0       0      22
245          RS       3    FLOW     0.0     0.0
246          RC    0.05    0.05    0.05  6236.1   0.009     0.0
247          RX    10.0    16.0    26.0    56.0   106.0   197.0   289.0   380.0
248          RY  1032.0  1032.0  1030.0  1028.0  1030.0 1030.67 1031.33  1032.0

249          KK     11B
250          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
251          KM   L=1.39     Lca=0.62     S=41.81     Kn=0.050     LAG=34
252          KM   S-GRAPH TYPE=PHOENIX VALLEY
253          KO       0       0     0.0       1      22
254          BA  0.5806
255          LG    0.35    0.35    4.28   0.363     0.0
256          UI     0.0   139.8  417.05  566.92  261.85   79.39   20.36     0.0

257          KK     N1B   CNAME  N1B-N2
258          KM   COMBINE ROUTED HYDROGRAPH FROM N1A WITH RUNOFF FROM 11B @ N1B
259          KO       0       0     0.0       0      22
260          HC       2

261          KK  N1B-N2   CNAME     N1B
262          KM   ROUTE HYDROGRAPH FROM N1B TO N2 (CHANNEL B)
263          KO       0       0     0.0       0      22
264          RS       6    FLOW     0.0     0.0
```

```
 265          RC     0.1    0.02     0.1 6966.87   0.003     0.0
 266          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 267          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 268          KK      23
 269          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 270          KM   L=1.32     Lca=0.66     S=15.92     Kn=0.200     LAG=161
 271          KM   S-GRAPH TYPE=AGRICULTURE
 272          KO       0       0     0.0       1      22
 273          BA  0.5238
 274          LG     1.0   0.248   3.965   0.472    0.99
 275          UI     0.0    12.0    12.0   21.84    37.1   66.56   66.18   91.21   93.73  100.79
 276          UI  100.79   96.31   83.99   89.61   70.63   67.07    55.1   45.41    35.3    36.1
 277          UI   26.28   20.77   18.42   14.82   13.33   10.95   10.95    7.15    6.81    6.81
 278          UI    6.81    1.78     1.5     1.5     1.5     1.5     1.5     1.5     1.5     1.5
 279          UI     1.5     1.5     1.5     1.5     1.5     1.5     1.5     1.5     1.5     0.0
1                                          HEC-1 INPUT                                                    PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 280          KK      N2
 281          KM   COMBINE ROUTED HYDROGRAPH FROM N1C AND N1B WITH RUNOFF FROM 23 @ N2
 282          ZW   A=FRE B=N2 C=FLOW E=15MIN F=10y24h-ex
 283          KO       0       0     0.0       0      22
 284          HC       3

 285          KK      12
 286          KM   ******************************************************************************
 287          KM   **   SUB-WATERSHED O   ***********************************************************
 288          KM   ******************************************************************************
 289          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 290          KM   L=0.96     Lca=0.41     S=83.03     Kn=0.050     LAG=22
 291          KM   S-GRAPH TYPE=PHOENIX VALLEY
 292          KO       0       0     0.0       1      22
 293          BA  0.7364
 294          LG   0.338   0.345   4.502   0.333   3.945
 295          UI     0.0  414.56 1054.13  362.82    56.4     0.0

 296          KK    12-O
 297          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 298          KO       0       0     0.0       0      22
 299          DT   12ret   49.02     0.0
 300          DI     0.0  2000.0
 301          DQ     0.0  2000.0

 302          KK   O1-O2   CNAME      O1
 303          KM   ROUTE HYDRPGRAPH FROM O1 TO O2 (CHANNEL A)
 304          KO       0       0     0.0       0      22
 305          RS       3    FLOW     0.0     0.0
 306          RC   0.035   0.035   0.035  2743.8   0.013     0.0
 307          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 308          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 309          KK      13
 310          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 311          KM   L=0.52     Lca=0.26     S=71.20     Kn=0.050     LAG=15
 312          KM   S-GRAPH TYPE=PHOENIX VALLEY
 313          KO       0       0     0.0       1      22
 314          BA  0.5012
 315          LG    0.35   0.364    5.14   0.247     0.0
 316          UI     0.0  646.99  594.12     0.0

 317          KK    13-O
 318          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 319          KO       0       0     0.0       0      22
 320          DT   13ret   41.08     0.0
 321          DI     0.0  2000.0
 322          DQ     0.0  2000.0
1                                          HEC-1 INPUT                                                    PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 323          KK      O2   CNAME   O2-O3
 324          KM   COMBINE ROUTED HYDROGRAPH FROM O1 WITH RUNOFF FROM 13 @ O2
 325          KO       0       0     0.0       0      22
 326          HC       2

 327          KK   O2-O3   CNAME      O2
 328          KM   ROUTE HYDRPGRAPH FROM O2 TO O3 (CHANNEL A)
 329          KO       0       0     0.0       0      22
 330          RS       2    FLOW     0.0     0.0
 331          RC   0.025   0.025   0.025 2814.95   0.011     0.0
 332          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 333          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 334          KK      24
 335          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 336          KM   L=0.53     Lca=0.27     S=56.27     Kn=0.050     LAG=16
 337          KM   S-GRAPH TYPE=DESERT RANGELAND
 338          KO       0       0     0.0       1      22
 339          BA  0.4891
 340          LG   0.312   0.276   4.586   0.365  11.258
 341          UI     0.0  566.65  561.96  111.02     0.0

 342          KK      O3   CNAME   O3-O4
 343          KM   COMBINE ROUTED HYDROGRAPH FROM O2 WITH RUNOFF FROM 24 @ O3
 344          KO       0       0     0.0       0      22
 345          HC       2

 346          KK   O3-O4   CNAME      O3
 347          KM   ROUTE HYDRPGRAPH FROM O3 TO O4 (CHANNEL A)
 348          KO       0       0     0.0       0      22
 349          RS       7    FLOW     0.0     0.0
 350          RC     0.1     0.1     0.1 4482.81   0.002     0.0
 351          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 352          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 353          KK      25
 354          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 355          KM   L=1.05     Lca=0.52     S=10.49     Kn=0.050     LAG=37
 356          KM   S-GRAPH TYPE=PHOENIX VALLEY
 357          KO       0       0     0.0       1      22
```

```
 358          BA  0.2742
 359          LG     1.0   0.285    4.14    0.39   1.288
 360          UI     0.0   55.33  162.01  264.09  147.51   51.88   16.57    7.65     0.0

 361          KK      04
 362          KM   COMBINE ROUTED HYDROGRAPH FROM 03 WITH RUNOFF FROM 25 @ 04
 363          ZW   A=FRE B=04 C=FLOW E=15MIN F=10y24h-ex
 364          KO       0       0     0.0       0      22
 365          HC       2
1                                          HEC-1 INPUT                                                          PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 366          KK     14A
 367          KM   ******************************************************************************
 368          KM   **   SUB-WATERSHED P   ******************************************************
 369          KM   ******************************************************************************
 370          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 371          KM   L=1.33     Lca=0.71     S=67.87     Kn=0.050     LAG=32
 372          KM   S-GRAPH TYPE=PHOENIX VALLEY
 373          KO       0       0     0.0       1      22
 374          BA  0.6923
 375          LG   0.335   0.344   4.262   0.368   4.726
 376          UI     0.0  188.49   580.0  653.03  260.73   74.32   22.34     0.0

 377          KK   14A-O
 378          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 379          KO       0       0     0.0       0      22
 380          DT  14Aret   41.08     0.0
 381          DI     0.0  2000.0
 382          DQ     0.0  2000.0

 383          KK  P1A-1B   CNAME     P1A
 384          KM   ROUTE HYDROGRAPH FROM P1A TO P1B (CHANNEL A)
 385          KO       0       0     0.0       0      22
 386          RS       3    FLOW     0.0     0.0
 387          RC   0.035   0.035   0.035 3128.61    0.01     0.0
 388          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 389          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 390          KK     14B
 391          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 392          KM   L=0.59     Lca=0.30     S=54.00     Kn=0.050     LAG=17
 393          KM   S-GRAPH TYPE=DESERT RANGELAND
 394          KO       0       0     0.0       1      22
 395          BA  0.5015
 396          LG   0.36   0.344   4.185   0.385     0.0
 397          UI     0.0  521.46  605.68  135.03   28.39     0.0

 398          KK   14B-O
 399          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 400          KO       0       0     0.0       0      22
 401          DT  14Bret   30.68     0.0
 402          DI     0.0  2000.0
 403          DQ     0.0  2000.0

 404          KK     P1B   CNAME  P1B-P2
 405          KM   COMBINE ROUTED HYDROGRAPH FROM P1A WITH RUNOFF FROM 14B @ P1B
 406          KO       0       0     0.0       0      22
 407          HC       2

 408          KK  P1B-P2   CNAME     P1B
 409          KM   ROUTE HYDROGRAPH FROM P1B TO P2 (CHANNEL A)
 410          KO       0       0     0.0       0      22
 411          RS       2    FLOW     0.0     0.0
 412          RC   0.025   0.025   0.025 4031.58   0.007     0.0
 413          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
1                                          HEC-1 INPUT                                                          PAGE 10

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 414          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 415          KK      26
 416          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 417          KM   L=0.76     Lca=0.38     S=39.29     Kn=0.050     LAG=22
 418          KM   S-GRAPH TYPE=PHOENIX VALLEY
 419          KO       0       0     0.0       1      22
 420          BA  0.5244
 421          LG   0.304    0.26   4.048     0.4  13.801
 422          UI     0.0  295.23   750.7  258.38   40.17     0.0

 423          KK      P2   CNAME    zzz6
 424          KM   COMBINE ROUTED HYDROGRAPH FROM P1B WITH RUNOFF FROM 26 @ P2
 425          ZW   A=FRE B=P2 C=FLOW E=15MIN F=10y24h-ex
 426          KO       0       0     0.0       0      22
 427          HC       2

 428          KK      83
 429          KM   ******************************************************************************
 430          KM   **   SUB-WATERSHED Q   ******************************************************
 431          KM   ******************************************************************************
 432          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 433          KM   L=1.72     Lca=0.93     S=64.69     Kn=0.050     LAG=39
 434          KM   S-GRAPH TYPE=DESERT RANGELAND
 435          KO       0       0     0.0       1      22
 436          BA  0.6752
 437          LG   0.341   0.375   5.438   0.214   2.801
 438          UI     0.0  115.92  423.38  535.16  330.25  168.58    85.8   44.93   16.84   14.19
 439          UI     0.0

 440          KK    83-O
 441          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 442          KO       0       0     0.0       0      22
 443          DT   83ret   31.99     0.0
 444          DI     0.0  2000.0
 445          DQ     0.0  2000.0
 446          ZZ
                                   RUNOFF SUMMARY
                                   FLOW IN CUBIC FEET PER SECOND
                                TIME IN HOURS,  AREA IN SQUARE MILES

                        PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
```

	OPERATION	STATION	FLOW	PEAK	6-HOUR	24-HOUR	72-HOUR	AREA	STAGE	MAX STAGE
+	HYDROGRAPH AT	6	183.	12.25	19.	5.	2.	0.32		
+	ROUTED TO	J1-J2	104.	13.00	19.	5.	2.	0.32		
+	HYDROGRAPH AT	8	171.	12.75	31.	9.	3.	0.41		
+	2 COMBINED AT	J2	257.	12.75	49.	15.	5.	0.73		
+	ROUTED TO	J2-J3	168.	13.25	49.	14.	5.	0.73		
+	HYDROGRAPH AT	20	11.	14.50	7.	2.	1.	0.66		
+	2 COMBINED AT	J3	171.	13.25	54.	16.	5.	1.40		
+	HYDROGRAPH AT	7	222.	12.50	21.	6.	2.	0.45		
+	ROUTED TO	K1-K2	145.	12.75	21.	6.	2.	0.45		
+	HYDROGRAPH AT	9	323.	12.50	31.	9.	3.	0.61		
+	2 COMBINED AT	K2	398.	12.50	52.	14.	5.	1.06		
+	ROUTED TO	K2-K3	233.	13.25	52.	14.	5.	1.06		
+	HYDROGRAPH AT	21B	2.	13.75	1.	0.	0.	0.27		
+	HYDROGRAPH AT	21A	3.	14.00	1.	0.	0.	0.37		
+	3 COMBINED AT	K3	234.	13.25	53.	14.	5.	1.70		
+	HYDROGRAPH AT	10	373.	13.00	68.	19.	6.	1.17		
+	ROUTED TO	L1-L2	343.	13.25	68.	19.	6.	1.17		
+	HYDROGRAPH AT	22	7.	14.50	4.	1.	0.	0.56		
+	2 COMBINED AT	L2	345.	13.25	71.	20.	7.	1.73		
+	HYDROGRAPH AT	11C	188.	12.50	14.	4.	1.	0.34		
+	ROUTED TO	N1C-N2	68.	13.25	14.	4.	1.	0.34		
+	HYDROGRAPH AT	11A	366.	12.50	35.	10.	3.	0.57		
+	DIVERSION TO	11Aret	366.	12.50	35.	10.	3.	0.57		
+	HYDROGRAPH AT	11A-O	0.	0.00	0.	0.	0.	0.57		
+	ROUTED TO	N1A-1B	0.	0.00	0.	0.	0.	0.57		
+	HYDROGRAPH AT	11B	222.	12.75	24.	6.	2.	0.58		
+	2 COMBINED AT	N1B	219.	12.75	24.	6.	2.	1.15		
+	ROUTED TO	N1B-N2	43.	15.25	22.	6.	2.	1.15		
+	HYDROGRAPH AT	23	12.	14.50	7.	2.	1.	0.52		
+	3 COMBINED AT	N2	74.	13.25	40.	11.	4.	2.02		
+	HYDROGRAPH AT	12	446.	12.50	36.	10.	3.	0.74		
+	DIVERSION TO	12ret	446.	12.50	36.	10.	3.	0.74		
+	HYDROGRAPH AT	12-O	0.	0.00	0.	0.	0.	0.74		
+	ROUTED TO	O1-O2	0.	0.00	0.	0.	0.	0.74		
+	HYDROGRAPH AT	13	287.	12.25	23.	6.	2.	0.50		
+	DIVERSION TO	13ret	287.	12.25	23.	6.	2.	0.50		
+	HYDROGRAPH AT	13-O	0.	0.00	0.	0.	0.	0.50		

```
+        2 COMBINED AT
                          02        0.   0.00        0.        0.        0.     1.24
+        ROUTED TO
                        02-03        0.   0.00        0.        0.        0.     1.24
+        HYDROGRAPH AT
                          24      273.  12.25       29.        8.        3.     0.49
+        2 COMBINED AT
                          03      269.  12.25       29.        8.        3.     1.73
+        ROUTED TO
                        03-04       77.  14.25       28.        8.        3.     1.73
+        HYDROGRAPH AT
                          25       36.  12.75        4.        1.        0.     0.27
+        2 COMBINED AT
                          04       77.  14.25       31.        9.        3.     2.00
+        HYDROGRAPH AT
                         14A      273.  12.75       34.        9.        3.     0.69
+        DIVERSION TO
                      14Aret      273.  12.75       34.        9.        3.     0.69
+        HYDROGRAPH AT
                        14A-O        0.   0.00        0.        0.        0.     0.69
+        ROUTED TO
                       P1A-1B        0.   0.00        0.        0.        0.     0.69
+        HYDROGRAPH AT
                         14B      231.  12.50       21.        5.        2.     0.50
+        DIVERSION TO
                      14Bret      231.  12.50       21.        5.        2.     0.50
+        HYDROGRAPH AT
                        14B-O        0.   0.00        0.        0.        0.     0.50
+        2 COMBINED AT
                          P1B        0.   0.00        0.        0.        0.     1.19
+        ROUTED TO
                       P1B-P2        0.   0.00        0.        0.        0.     1.19
+        HYDROGRAPH AT
                          26      362.  12.50       34.       10.        3.     0.52
+        2 COMBINED AT
                          P2      356.  12.50       34.       10.        3.     1.72
+        HYDROGRAPH AT
                          83      254.  12.75       36.        9.        3.     0.68
+        DIVERSION TO
                       83ret      254.  12.75       36.        9.        3.     0.68
+        HYDROGRAPH AT
                        83-O        0.   0.00        0.        0.        0.     0.68
```

```
*** NORMAL END OF HEC-1 ***
          1****************************************
*                                                  *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)              *
*              JUN   1998                          *
*            VERSION 4.1                           *
*                                                  *
*  RUN DATE   22MAR06  TIME  10:47:29              *
*                                                  *
****************************************
```

```
                                        ****************************************
*                                                                              *
*    U.S. ARMY CORPS OF ENGINEERS                                              *
*    HYDROLOGIC ENGINEERING CENTER                                             *
*            609 SECOND STREET                                                 *
*        DAVIS, CALIFORNIA 95616                                               *
*            (916) 756-1104                                                    *
*                                                                              *
****************************************
```

```
X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X               X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X               X
X     X  X        X     X         X
X     X  XXXXXXX   XXXXX         XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

```
1                                          HEC-1 INPUT                                          PAGE  1

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

         1          ID   Buckeye/Sun Valley ADMS - November 2004
         2          ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
         3          ID   10-year 24-hour
         4          ID   Existing Conditions
         5          ID   Area 1 - FRS to RID (West)
         6          ID   File Name: frw1024ex.hcl
         7          ID   Rainfall Loss Method - Green & Ampt
         8          ID   Unit Hydrograph Method - FCDMC S-Graph
         9          ID   Channel Routing Method - Normal Depth
        10          ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
```

```
 11          ID   Existing Land Use Cutoff Date: 2000
 12          ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
 13          ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
             *DIAGRAM
 14          IT      15 02JAN94       0      400
 15          IO       3
 16          IN      15 02JAN94       0
 17          JD     2.5    0.01
             * 24-hour distribution
 18          PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
 19          PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 20          PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 21          PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 22          PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 23          PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 24          PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 25          PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 26          PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 27          PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
 28          IN      15 02JAN94       0
 29          JD   2.375    10.0
             * 24-hour distribution
 30          PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
 31          PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 32          PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 33          PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 34          PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 35          PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 36          PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 37          PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 38          PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 39          PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
 40          IN      15 02JAN94       0
 41          JD   2.295    20.0
             * 24-hour distribution
 42          PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
 43          PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 44          PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 45          PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 46          PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 47          PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 48          PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 49          PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 50          PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 51          PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
1                                          HEC-1 INPUT                                          PAGE  2

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 52          KK     15A
 53          KM   ******************************************************************************
 54          KM   **   SUB-WATERSHED F   ******************************************************
 55          KM   ******************************************************************************
 56          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 57          KM   L=1.45      Lca=0.48      S=34.58      Kn=0.050      LAG=32
 58          KM   S-GRAPH TYPE=DESERT RANGELAND
 59          KO       0        0      0.0        1       22
 60          BA  0.5884
 61          LG   0.358    0.324    4.419    0.391    2.373
 62          UI     0.0   159.68   521.91   464.14   211.81    93.26    40.28    15.07      0.0

 63          KK  F1A-1B    CNAME     F1A
 64          KM   ROUTE HYDRPGRAPH FROM F1A TO F1B (CHANNEL A)
 65          KO       0        0      0.0        0       22
 66          RS       6     FLOW      0.0      0.0
 67          RC     0.1      0.1      0.1  4677.52   0.0039      0.0
 68          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
 69          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

 70          KK     15B
 71          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 72          KM   L=1.63      Lca=0.82      S=11.02      Kn=0.200      LAG=204
 73          KM   S-GRAPH TYPE=AGRICULTURE
 74          KO       0        0      0.0        1       22
 75          BA  0.8162
 76          LG     1.0    0.249    4.099    0.541    0.367
 77          UI     0.0    14.76    14.76    17.09    30.99    47.18    76.64     88.0    87.38   112.97
 78          UI  117.57   123.95   123.95   123.95   115.68   103.29   110.31   103.29    77.47    83.74
 79          UI   71.03    56.34    50.16    42.61    44.75    34.88    27.48    23.84    21.64    18.23
 80          UI   17.85    13.47    13.47    13.47     8.62     8.37     8.37     8.37     8.37     2.37
 81          UI    1.84     1.84     1.84     1.84     1.84     1.84     1.84     1.84     1.84     1.84
 82          UI    1.84     1.84     1.84     1.84     1.84     1.84     1.84     1.84     1.84     1.84
 83          UI    1.84      0.0

 84          KK     F1B
 85          KM   COMBINE ROUTED HYDROGRAPH FROM F1A WITH RUNOFF FROM 15B @ F1B
 86          ZW   A=FRW B=F1B C=FLOW D=15MIN F=10y24h-ex
 87          KO       0        0      0.0        0       22
 88          HC       2

 89          KK       2
 90          KM   ******************************************************************************
 91          KM   **   SUB-WATERSHED G   ******************************************************
 92          KM   ******************************************************************************
 93          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 94          KM   L=2.02      Lca=0.86      S=45.95      Kn=0.050      LAG=43
 95          KM   S-GRAPH TYPE=DESERT RANGELAND
 96          KO       0        0      0.0        1       22
 97          BA  1.2330
 98          LG   0.338    0.339    3.994    0.443    5.585
 99          UI     0.0   169.22   637.96   900.62   677.78   370.08   199.82   108.84    58.92     23.5
100          UI    23.5      0.0
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

101          KK       1
102          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
103          KM   L=2.61      Lca=1.54      S=34.86      Kn=0.050      LAG=62
104          KM   S-GRAPH TYPE=DESERT RANGELAND
105          KO       0        0      0.0        1       22
106          BA  1.6264
```

```
 107          LG   0.347   0.329   4.334   0.398   5.884
 108          UI     0.0   96.49   378.3  680.74  834.28   747.2  509.62  334.33  217.15  147.44
 109          UI   90.69   60.46   32.88    21.5    21.5    21.5     0.0

 110          KK      G2   CNAME   G2-G3
 111          KM   COMBINE RUNOFF HYDROGRAPH FROM 1 AND 2 @ G2
 112          KO       0       0     0.0       0      22
 113          HC       2

 114          KK   G2-G3   CNAME      G2
 115          KM   ROUTE HYDRPGRAPH FROM G1 TO G2 (CHANNEL A)
 116          KO       0       0     0.0       0      22
 117          RS       9    FLOW     0.0     0.0
 118          RC     0.1     0.1     0.1  3231.1  0.0050     0.0
 119          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 120          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 121          KK      16
 122          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 123          KM   L=2.00     Lca=1.37     S=24.99     Kn=0.050     LAG=57
 124          KM   S-GRAPH TYPE=PHOENIX VALLEY
 125          KO       0       0     0.0       1      22
 126          BA  0.9506
 127          LG   0.208    0.25   4.398   0.438  45.683
 128          UI     0.0   72.32  253.63  387.42  637.63   477.5  314.11  154.95   79.28   36.56
 129          UI   17.22   17.22     0.0

 130          KK      G3
 131          KM   COMBINE ROUTED HYDROGRAPH FROM G2 WITH RUNOFF FROM 16 @ G3
 132          ZW   A=FRW B=G3 C=FLOW E=15MIN F=10y24h-ex
 133          KO       0       0     0.0       0      22
 134          HC       2

 135          KK       4
 136          KM   ***********************************************************************
 137          KM   **   SUB-WATERSHED H   ***************************************************
 138          KM   ***********************************************************************
 139          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 140          KM   L=1.38     Lca=0.74     S=40.65     Kn=0.050     LAG=36
 141          KM   S-GRAPH TYPE=DESERT RANGELAND
 142          KO       0       0     0.0       1      22
 143          BA  0.5493
 144          LG   0.306   0.332   4.023   0.485  14.545
 145          UI     0.0  113.24  399.98  445.83  240.22  115.51   55.22   25.12    12.5     0.0
1                                          HEC-1 INPUT                                          PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 146          KK   H1-H2   CNAME      H1
 147          KM   ROUTE HYDRPGRAPH FROM H1 TO H2 (CHANNEL C)
 148          KO       0       0     0.0       0      22
 149          RS       2    FLOW     0.0     0.0
 150          RC   0.035   0.035   0.035 5802.98  0.0050     0.0
 151          RX     0.0     2.0    12.0   112.0   212.0   312.0   412.0   512.0
 152          RY     5.0     5.0     0.0     1.0     2.0     3.0     4.0     5.0

 153          KK       3
 154          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 155          KM   L=2.04     Lca=1.39     S=39.22     Kn=0.050     LAG=53
 156          KM   S-GRAPH TYPE=DESERT RANGELAND
 157          KO       0       0     0.0       1      22
 158          BA  1.6478
 159          LG     1.0   0.298   4.027   0.546    4.13
 160          UI     0.0  141.45  544.37  909.46  962.94   667.1  407.91  246.66  151.83   89.96
 161          UI   55.64   25.48   25.48     0.0

 162          KK      H2   CNAME   H2-H3
 163          KM   COMBINE ROUTED HYDROGRAPH FROM H1 WITH RUNOFF FROM 3 @ H2
 164          KO       0       0     0.0       0      22
 165          HC       2

 166          KK   H2-H3   CNAME      H2
 167          KM   ROUTE HYDRPGRAPH FROM H2 TO H3 (CHANNEL B)
 168          KO       0       0     0.0       0      22
 169          RS       2    FLOW     0.0     0.0
 170          RC     0.1    0.02     0.1 3094.41   0.007     0.0
 171          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 172          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 173          KK      17
 174          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 175          KM   L=1.43     Lca=0.71     S=16.84     Kn=0.200     LAG=169
 176          KM   S-GRAPH TYPE=AGRICULTURE
 177          KO       0       0     0.0       1      22
 178          BA  0.6065
 179          LG     1.0    0.25   4.017   0.464   0.168
 180          UI     0.0   13.23   13.23   22.46   37.19   65.58   77.31   86.16   104.5  111.17
 181          UI  111.17  111.17   97.58   93.45   98.99   69.48   77.29   53.37   48.38   38.62
 182          UI   40.28   28.19   22.96   20.73   16.35   15.44   12.08   12.08    9.24    7.51
 183          UI    7.51    7.51    4.86    1.65    1.65    1.65    1.65    1.65    1.65    1.65
 184          UI    1.65    1.65    1.65    1.65    1.65    1.65    1.65    1.65    1.65    1.65
 185          UI    1.65     0.0

 186          KK      H3
 187          KM   COMBINE ROUTED HYDROGRAPH FROM H2 WITH RUNOFF FROM 17 @ H3
 188          ZW   A=FRW B=H3 C=FLOW E=15MIN F=10y24h-ex
 189          KO       0       0     0.0       0      22
 190          HC       2
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 191          KK      5A
 192          KM   ***********************************************************************
 193          KM   **   SUB-WATERSHED I   ***************************************************
 194          KM   ***********************************************************************
 195          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 196          KM   L=1.75     Lca=1.16     S=49.05     Kn=0.050     LAG=45
 197          KM   S-GRAPH TYPE=DESERT RANGELAND
 198          KO       0       0     0.0       1      22
 199          BA  1.1721
 200          LG   0.333   0.342   4.333   0.387   5.983
```

```
 201          UI     0.0  144.96  551.31  816.54  667.55  378.63  210.18  117.93   66.22   28.93
 202          UI   21.34   21.34

 203          KK  I1AI2A   CNAME     I1A
 204          KM   ROUTE HYDRPGRAPH FROM I1A TO I2A (CHANNEL B)
 205          KO       0       0     0.0       0      22
 206          RS       3    FLOW     0.0     0.0
 207          RC     0.1    0.02     0.1 3507.57  0.0046     0.0
 208          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 209          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 210          KK      18
 211          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 212          KM   L=1.81     Lca=0.75     S=30.99     Kn=0.200     LAG=168
 213          KM   S-GRAPH TYPE=AGRICULTURE
 214          KO       0       0     0.0       1      22
 215          BA  0.7963
 216          LG     1.0   0.291   4.134   0.479   0.124
 217          UI     0.0   17.48   17.48   29.94   49.63   87.36  102.05  117.46  136.55  146.83
 218          UI  146.83  146.83  127.25  125.29  126.27   91.77  100.28   69.84   62.39   50.62
 219          UI   54.06   34.48   29.67   26.48   21.59   19.56   15.96   15.96   11.23    9.92
 220          UI    9.92    9.92    4.97    2.18    2.18    2.18    2.18    2.18    2.18    2.18
 221          UI    2.18    2.18    2.18    2.18    2.18    2.18    2.18    2.18    2.18    2.18
 222          UI    2.18     0.0

 223          KK     I2A
 224          KM   COMBINE ROUTED HYDROGRAPH FROM I1A WITH RUNOFF FROM 18 @ I2A
 225          ZW   A=FRW B=I2A C=FLOW E=15MIN F=10y24h-ex
 226          KO       0       0     0.0       0      22
 227          HC       2

 228          KK      5B
 229          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 230          KM   L=1.73     Lca=1.08     S=38.66     Kn=0.050     LAG=46
 231          KM   S-GRAPH TYPE=DESERT RANGELAND
 232          KO       0       0     0.0       1      22
 233          BA  0.5758
 234          LG   0.318   0.336   4.606   0.319  10.551
 235          UI     0.0   67.57  258.59  391.25   331.8   192.8  107.92   61.59   34.35   17.29
 236          UI   10.26   10.26     0.0
1                                          HEC-1 INPUT                                          PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 237          KK  I1BI2B   CNAME     I1B
 238          KM   ROUTE HYDRPGRAPH FROM I1B TO I2B (CHANNEL A)
 239          KO       0       0     0.0       0      22
 240          RS       1    FLOW     0.0     0.0
 241          RC     0.1     0.1     0.1 4972.04  0.0047     0.0
 242          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 243          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 244          KK      19
 245          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 246          KM   L=1.51     Lca=0.76     S=18.49     Kn=0.200     LAG=174
 247          KM   S-GRAPH TYPE=AGRICULTURE
 248          KO       0       0     0.0       1      22
 249          BA  0.5356
 250          LG     1.0   0.249   3.962   0.435   0.567
 251          UI     0.0   11.35   11.35    18.4   30.26    53.8   66.51   69.61   86.78   95.36
 252          UI   95.36   95.36    89.0   79.47   84.42   69.18   61.85   57.97   43.57    37.1
 253          UI    32.1   33.09   21.67   18.47   16.39   14.02   12.27   10.37   10.37    7.18
 254          UI    6.44    6.44    6.44    3.83    1.42    1.42    1.42    1.42    1.42    1.42
 255          UI    1.42    1.42    1.42    1.42    1.42    1.42    1.42    1.42    1.42    1.42
 256          UI    1.42    1.42     0.0

 257          KK     I2B
 258          KM   COMBINE ROUTED HYDROGRAPH FROM I1B WITH RUNOFF FROM 19 @ I2B
 259          ZW   A=FRW B=I2B C=FLOW E=15MIN F=10y24h-ex
 260          KO       0       0     0.0       0      22
 261          HC       2
 262          ZZ
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

+	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	15A	205.	12.50	26.	7.	2.	0.59		
+	ROUTED TO	F1A-1B	75.	14.25	25.	7.	2.	0.59		
+	HYDROGRAPH AT	15B	9.	15.00	6.	2.	1.	0.82		
+	2 COMBINED AT	F1B	82.	14.25	31.	8.	3.	1.40		
+	HYDROGRAPH AT	2	351.	12.75	57.	15.	5.	1.23		
+	HYDROGRAPH AT	1	344.	13.00	78.	21.	7.	1.63		
+	2 COMBINED AT	G2	629.	12.75	134.	36.	12.	2.86		
+	ROUTED TO	G2-G3	583.	13.50	133.	36.	12.	2.86		
+	HYDROGRAPH AT	16	437.	13.00	103.	34.	11.	0.95		
+	2 COMBINED AT	G3	824.	13.50	233.	70.	23.	3.81		
+	HYDROGRAPH AT	4	192.	12.75	32.	9.	3.	0.55		

```
          ROUTED TO
+                    H1-H2     117.  13.25      32.       9.       3.     0.55

          HYDROGRAPH AT
+                        3      80.  13.00      19.       6.       2.     1.65

          2 COMBINED AT
+                       H2     179.  13.00      50.      15.       5.     2.20

          ROUTED TO
+                    H2-H3     129.  13.75      49.      15.       5.     2.20

          HYDROGRAPH AT
+                       17      12.  14.50       7.       2.       1.     0.61

          2 COMBINED AT
+                       H3     136.  13.75      55.      17.       6.     2.80

          HYDROGRAPH AT
+                       5A     338.  12.75      57.      16.       5.     1.17

          ROUTED TO
+                   I1AI2A     219.  13.50      57.      16.       5.     1.17

          HYDROGRAPH AT
+                       18      11.  14.50       6.       2.       1.     0.80

          2 COMBINED AT
+                      I2A     223.  13.50      62.      17.       6.     1.97

          HYDROGRAPH AT
+                       5B     190.  12.75      35.      10.       3.     0.58

          ROUTED TO
+                   I1BI2B      61.  13.50      30.      10.       3.     0.58

          HYDROGRAPH AT
+                       19      13.  14.50       7.       2.       1.     0.54

          2 COMBINED AT
+                      I2B      69.  13.50      37.      11.       4.     1.11


 *** NORMAL END OF HEC-1 ***
1*************************************                    *************************************
 *                                   *                    *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                    *   U.S. ARMY CORPS OF ENGINEERS    *
 *             JUN   1998            *                    *   HYDROLOGIC ENGINEERING CENTER   *
 *           VERSION 4.1             *                    *         609 SECOND STREET         *
 *                                   *                    *      DAVIS, CALIFORNIA 95616      *
 *  RUN DATE   23MAR06  TIME  04:56:18  *                    *          (916) 756-1104           *
 *                                   *                    *                                   *
 *************************************                    *************************************


                                        X     X  XXXXXXX   XXXXX           X
                                        X     X  X        X     X         XX
                                        X     X  X        X               X
                                        XXXXXXX  XXXX     X        XXXXX  X
                                        X     X  X        X               X
                                        X     X  X        X     X         X
                                        X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                    PAGE  1

         LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

           1           ID   Buckeye/Sun Valley ADMS - November 2004
           2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
           3           ID   10-year 24-hour
           4           ID   Existing Conditions
           5           ID   Area 1 - RID to BIC (East)
           6           ID   File Name: rbel024ex.hcl
           7           ID   Rainfall Loss Method - Green & Ampt
           8           ID   Unit Hydrograph Method - FCDMC S-Graph
           9           ID   Channel Routing Method - Normal Depth
          10           ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
          11           ID   Existing Land Use Cutoff Date: 2000
          12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
          13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                       *DIAGRAM
          14           IT      15 02JAN94       0     400
          15           IO       3
          16           IN      15 02JAN94       0
          17           JD     2.5    0.01
                       * 24-hour distribution
          18           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
          19           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
          20           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
          21           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
          22           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
          23           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
          24           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
          25           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
          26           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
          27           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
          28           IN      15 02JAN94       0
          29           JD   2.375    10.0
```

```
                 * 24-hour distribution
  30             PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
  31             PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
  32             PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
  33             PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
  34             PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
  35             PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
  36             PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
  37             PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
  38             PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
  39             PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
  40             IN      15 02JAN94       0
  41             JD   2.295    20.0
                 * 24-hour distribution
  42             PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
  43             PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
  44             PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
  45             PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
  46             PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
  47             PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
  48             PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
  49             PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
  50             PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
  51             PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
1                                              HEC-1 INPUT                                          PAGE  2

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


  52             KK   RIDKB
  53             KM   ***********************************************************************
  54             KM   **    SUB-WATERSHED K    ************************************************
  55             KM   ***********************************************************************
  56             KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
  57             BA  0.0001
  58             ZR  =QI A=RID RID B=38999 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-24E

  59             KK  K3SBK4    CNAME    K3SB
  60             KM   ROUTE INFLOW FROM RID CONCENTRATED AT K3SB TO K4 (CHANNEL A)
  61             KO       0       0     0.0       0      22
  62             RS       1    FLOW     0.0     0.0
  63             RC     0.1     0.1     0.1 3026.00  0.0090     0.0
  64             RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
  65             RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

  66             KK   RIDKA
  67             KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
  68             BA  0.0001
  69             ZR  =QI A=RID RID B=35599 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-24E

  70             KK  K3SAK4    CNAME    K3SA
  71             KM   ROUTE INFLOW FROM RID CONCENTRATED AT K3SA TO K4 (CHANNEL A)
  72             KO       0       0     0.0       0      22
  73             RS       1    FLOW     0.0     0.0
  74             RC     0.1     0.1     0.1 4868.00  0.0049     0.0
  75             RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
  76             RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

  77             KK      34
  78             KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
  79             KM   L=1.23      Lca=0.62      S=19.48      Kn=0.200      LAG=148
  80             KM   S-GRAPH TYPE=AGRICULTURE
  81             KO       0       0     0.0       1      22
  82             BA  0.6373
  83             LG     1.0   0.245   3.994   0.565    2.07
  84             UI     0.0   15.88   15.88   32.09   63.99   91.6   96.57  124.21   133.4   133.4
  85             UI  130.44  111.17  119.11   90.18   91.45  64.03    55.3   45.36   44.06   29.14
  86             UI   25.65    19.8   18.12    14.5   14.37   9.01    9.01    9.01    6.39    1.99
  87             UI    1.99    1.99    1.99    1.99    1.99   1.99    1.99    1.99    1.99    1.99
  88             UI    1.99    1.99    1.99    1.99    1.99    0.0

  89             KK      K4    CNAME    K4-K5
  90             KM   COMBINE ROUTED HYDROGRAPH FROM K3SA AND K3SB WITH RUNOFF FROM 34 @ K4
  91             KO       0       0     0.0       0      22
  92             HC       3

  93             KK   K4-K5    CNAME      K4
  94             KM   ROUTE HYDRPGRAPH FROM K4 TO K5 (CHANNEL B)
  95             KO       0       0     0.0       0      22
  96             RS       5    FLOW     0.0     0.0
  97             RC     0.1    0.02     0.1 5283.85  0.0080     0.0
  98             RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
  99             RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0
1                                              HEC-1 INPUT                                          PAGE  3

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 100             KK      35
 101             KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 102             KM   L=1.96      Lca=0.98      S=33.61      Kn=0.200      LAG=190
 103             KM   S-GRAPH TYPE=AGRICULTURE
 104             KO       0       0     0.0       1      22
 105             BA  1.5042
 106             LG     1.0    0.25   3.978   0.486   3.315
 107             UI     0.0    29.2    29.2   40.11   64.31  118.19   168.6  157.36  214.59  220.72
 108             UI  245.24  245.24  245.24  231.62  204.37  217.31  195.85  153.28  172.28  118.39
 109             UI  111.47   87.32   83.63   81.72   55.74   47.73   43.98   36.07   34.81   26.66
 110             UI   26.66   24.44   16.57   16.57   16.57   16.57    9.68    3.65    3.65    3.65
 111             UI    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65
 112             UI    3.65    3.65    3.65    3.65    3.65    3.65    3.65     0.0

 113             KK      K5    CNAME    K5-K6
 114             KM   COMBINE ROUTED HYDROGRAPH FROM K4 WITH RUNOFF FROM 35 @ K5
 115             KO       0       0     0.0       0      22
 116             HC       2

 117             KK   K5-K6    CNAME      K5
 118             KM   ROUTE HYDRPGRAPH FROM K5 TO K6 (CHANNEL B)
 119             KO       0       0     0.0       0      22
 120             RS       5    FLOW     0.0     0.0
 121             RC     0.1    0.02     0.1 6533.09   0.006     0.0
 122             RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 123             RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0
```

```
 124          KK      46
 125          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 126          KM   L=1.79      Lca=0.89     S=25.18      Kn=0.200     LAG=186
 127          KM   S-GRAPH TYPE=AGRICULTURE
 128          KO       0        0     0.0        1       22
 129          BA  1.3812
 130          LG     1.0    0.258   4.186    0.469    2.565
 131          UI     0.0    27.39   27.39    39.31    63.49   115.59   161.6  146.46  213.71  205.72
 132          UI  230.03   230.03  230.03   207.03    191.7    205.8  165.51  147.93  146.17  106.95
 133          UI   95.42     79.2   83.87    59.37    48.74    44.24   35.62   33.83   27.47    25.0
 134          UI    25.0    16.79   15.54    15.54    15.54    12.15    3.42    3.42    3.42    3.42
 135          UI    3.42     3.42    3.42     3.42     3.42     3.42    3.42    3.42    3.42    3.42
 136          UI    3.42     3.42    3.42     3.42     3.42     3.42     0.0

 137          KK      K6   CNAME    K6-K7
 138          KM   COMBINE ROUTED HYDROGRAPH FROM K5 WITH RUNOFF FROM 46 @ K6
 139          KO       0        0     0.0        0       22
 140          HC       2

 141          KK   K6-K7   CNAME       K6
 142          KM   STORAGE ROUTE FROM K6 TO K7 THROUGH SPRR TRESTLE
 143          KO       0        0     0.0        0       22
 144          RS       1     ELEV   890.0      0.0
 145          SV     0.0     0.43   43.48   173.62   410.02   410.02   410.02   410.02   410.02   410.02
 146          SV  410.02   410.02  410.02   410.02   410.02   410.02   410.02   410.02   410.02   410.02
 147          SE   890.0    892.0   894.0    896.0    898.0    898.0    898.0    898.0    898.0    898.0
 148          SE   898.0    898.0   898.0    898.0    898.0    898.0    898.0    898.0    898.0    898.0
1                                            HEC-1 INPUT                                                    PAGE  4
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 149          SQ     0.0    200.0   975.0   1120.0   1555.0   1565.0   1610.0   2150.0   2150.0   2150.0
 150          SQ  2150.0   2150.0  2150.0   2150.0   2150.0   2150.0   2150.0   2150.0   2150.0   2150.0
 151          SE   890.0   891.09  893.09   893.69   894.89   894.99   895.09   895.29   895.29   895.29
 152          SE  895.29   895.29  895.29   895.29   895.29   895.29   895.29   895.29   895.29   895.29

 153          KK      65
 154          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 155          KM   L=0.82      Lca=0.41     S=10.93      Kn=0.200     LAG=121
 156          KM   S-GRAPH TYPE=AGRICULTURE
 157          KO       0        0     0.0        1       22
 158          BA  0.3756
 159          LG     1.0    0.247   4.712    0.411     1.76
 160          UI     0.0    11.45    15.3    32.35    64.94    69.77    92.26    96.16    96.16     81.2
 161          UI   85.03    60.83   57.04    41.32    33.18     28.5    19.59    15.77    13.21    10.45
 162          UI    8.88      6.5     6.5      4.4     1.43     1.43     1.43     1.43     1.43     1.43
 163          UI    1.43     1.43    1.43     1.43     1.43     1.43     1.43      0.0

 164          KK      K7
 165          KM   COMBINE STORAGE HYDROGRAPH FROM K6 WITH RUNOFF FROM 65 @ K7
 166          ZW   A=RBE B=K7 C=FLOW E=15MIN F=10y24h-ex
 167          KO       0        0     0.0        0       22
 168          HC       2

 169          KK   RIDL
 170          KM   ******************************************************************************
 171          KM   **   SUB-WATERSHED L   ***********************************************************
 172          KM   ******************************************************************************
 173          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 174          BA  0.0001
 175          ZR  =QI A=RID RID B=41599 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-24E

 176          KK  L2S-L3   CNAME     L2S
 177          KM   ROUTE INFLOW FROM RID CONCENTRATED AT L2S TO L3 (CHANNEL B)
 178          KO       0        0     0.0        0       22
 179          RS       1     FLOW     0.0      0.0
 180          RC     0.1     0.02     0.1  7457.00    0.009      0.0
 181          RX     0.0   1000.0  1006.0   1010.0   1050.0   1054.0   1060.0   2060.0
 182          RY    10.0      0.0     0.0      1.0      1.0      0.0      0.0     10.0

 183          KK      36
 184          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 185          KM   L=1.85      Lca=0.93     S=36.67      Kn=0.200     LAG=178
 186          KM   S-GRAPH TYPE=AGRICULTURE
 187          KO       0        0     0.0        1       22
 188          BA  0.6838
 189          LG     1.0    0.258   3.967    0.455    5.096
 190          UI     0.0    14.17   14.17    22.08    36.12    64.69     83.2    83.17   105.19   118.66
 191          UI   119.0    119.0  116.36    99.17   105.05    95.04    74.38    80.98    56.49    51.19
 192          UI   41.31     42.9   31.56    25.16    22.88    17.98     17.5    13.42    12.93    12.13
 193          UI    8.04     8.04    8.04     8.04     3.19     1.77     1.77     1.77     1.77     1.77
 194          UI    1.77     1.77    1.77     1.77     1.77     1.77     1.77     1.77     1.77     1.77
 195          UI    1.77     1.77    1.77     1.77      0.0
1                                            HEC-1 INPUT                                                    PAGE  5
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 196          KK      L3   CNAME   L3-L4
 197          KM   COMBINE ROUTED HYDROGRAPH FROM L2S WITH RUNOFF FROM 36 @ L3
 198          KO       0        0     0.0        0       22
 199          HC       2

 200          KK   L3-L4   CNAME       L3
 201          KM   ROUTE HYDROGRAPH FROM L3 TO L4 (CHANNEL B)
 202          KO       0        0     0.0        0       22
 203          RS       7     FLOW     0.0      0.0
 204          RC     0.1     0.02     0.1  7726.73   0.0047      0.0
 205          RX     0.0   1000.0  1006.0   1010.0   1050.0   1054.0   1060.0   2060.0
 206          RY    10.0      0.0     0.0      1.0      1.0      0.0      0.0     10.0

 207          KK      47
 208          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 209          KM   L=1.46      Lca=0.73     S=24.60      Kn=0.200     LAG=161
 210          KM   S-GRAPH TYPE=AGRICULTURE
 211          KO       0        0     0.0        1       22
 212          BA  0.6169
 213          LG     1.0    0.271   4.499    0.411    0.105
 214          UI     0.0    14.13   14.13    25.73    43.69    78.39    77.95   107.42   110.39    118.7
 215          UI   118.7   113.43   98.92   105.54    83.18    78.99    64.89    53.48    41.57    42.52
 216          UI   30.95    24.46   21.69    17.46     15.7     12.9     12.9     8.42     8.02     8.02
 217          UI    8.02      2.1    1.77     1.77     1.77     1.77     1.77     1.77     1.77     1.77
 218          UI    1.77     1.77    1.77     1.77     1.77     1.77     1.77     1.77     1.77      0.0
```

```
 219          KK      L4   CNAME   L4-L5
 220          KM   COMBINE ROUTED HYDROGRAPH FROM L3 WITH RUNOFF FROM 47 @ L4
 221          KO       0       0     0.0       0      22
 222          HC       2

 223          KK   L4-L5   CNAME      L4
 224          KM   STORAGE ROUTE FROM L4 TO L5 THROUGH SPRR TRESTLE
 225          KO       0       0     0.0       0      22
 226          RS       1    ELEV   886.3     0.0
 227          SV     0.0     0.9     4.0    25.7   107.8  265.67  265.67  265.67  265.67  265.67
 228          SV  265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67
 229          SE   886.0   888.0   890.0   892.0   894.0   896.0   896.0   896.0   896.0   896.0
 230          SE   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0
 231          SQ     0.0    59.0   172.0   230.0   323.0   480.0   769.0  1218.0  1828.0  1828.0
 232          SQ  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0
 233          SE  886.29  888.09  890.09  890.99  891.79  891.99  892.19  892.39  892.59  892.59
 234          SE  892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59

 235          KK      66
 236          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 237          KM   L=0.73     Lca=0.36     S=19.24     Kn=0.200     LAG=99
 238          KM   S-GRAPH TYPE=AGRICULTURE
 239          KO       0       0     0.0       1      22
 240          BA  0.2941
 241          LG     1.0   0.249   4.471   0.385   6.037
 242          UI     0.0   10.96   18.36   48.91   66.57   87.58   92.03   85.89   79.94   62.17
 243          UI   52.27   36.46   30.89   19.44   15.19   11.84    10.0    6.36    6.22     3.7
 244          UI    1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37
1                                          HEC-1 INPUT                                                    PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 245          UI     0.0

 246          KK      L5
 247          KM   COMBINE STORAGE HYDROGRAPH FROM L4 WITH RUNOFF FROM 66 @ L5
 248          ZW   A=RBE B=L5 C=FLOW E=15MIN F=10y24h-ex
 249          KO       0       0     0.0       0      22
 250          HC       2

 251          KK   RIDM
 252          KM   ********************************************************************
 253          KM   **   SUB-WATERSHED M   ***********************************************
 254          KM   ********************************************************************
 255          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 256          BA  0.0001
 257          ZR  =QI A=RID RID B=47199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-24E

 258          KK  L2S2M1   CNAME    L2S2
 259          KM   ROUTE INFLOW FROM RID CONCENTRATED AT L2S2 TO M1 (CHANNEL A)
 260          KO       0       0     0.0       0      22
 261          RS       1    FLOW     0.0     0.0
 262          RC     0.1     0.1     0.1 9579.00  0.0030     0.0
 263          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 264          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 265          KK      37
 266          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 267          KM   L=2.36     Lca=1.18     S=30.11     Kn=0.200     LAG=222
 268          KM   S-GRAPH TYPE=AGRICULTURE
 269          KO       0       0     0.0       1      22
 270          BA  1.4211
 271          LG     1.0    0.25    4.12   0.457     0.0
 272          UI     0.0   23.61   23.61   23.61   46.77   63.19  104.27  137.98  128.23  153.35
 273          UI  177.81   198.3   198.3   198.3   198.3  191.69  165.25  165.25  182.96  139.11
 274          UI  124.21  141.65    97.7   90.14   78.24   68.08   70.88   60.42   45.07   38.97
 275          UI   38.13   29.56   29.16   25.81   21.55   21.55   21.26    13.4    13.4    13.4
 276          UI    13.4    13.4    7.55    2.95    2.95    2.95    2.95    2.95    2.95    2.95
 277          UI    2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95
 278          UI    2.95    2.95    2.95    2.95    2.95    2.95    2.95     0.0

 279          KK      M1   CNAME   M1-M2
 280          KM   COMBINE ROUTED HYDROGRAPH FROM L2S2 WITH RUNOFF FROM 37 @ M1
 281          KO       0       0     0.0       0      22
 282          HC       2

 283          KK   M1-M2   CNAME      M1
 284          KM   ROUTE HYDROGRAPH FROM M1 TO M2 (CHANNEL A)
 285          KO       0       0     0.0       0      22
 286          RS       7    FLOW     0.0     0.0
 287          RC     0.1     0.1     0.1  5783.5  0.0032     0.0
 288          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 289          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                                    PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 290          KK      48
 291          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 292          KM   L=1.10     Lca=0.55     S=16.43     Kn=0.200     LAG=139
 293          KM   S-GRAPH TYPE=AGRICULTURE
 294          KO       0       0     0.0       1      22
 295          BA  0.4997
 296          LG     1.0    0.25   4.375   0.445   1.368
 297          UI     0.0   13.26   14.05   30.21   59.66   76.06    96.1  103.26  111.37  111.37
 298          UI   97.76   97.11   83.14   74.11   57.93   46.73   37.98    35.6   23.78   20.47
 299          UI   16.38   13.76   12.11     9.9    7.53    7.53    7.21    1.66    1.66    1.66
 300          UI    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66
 301          UI    1.66    1.66     0.0

 302          KK      M2   CNAME   M2-M3
 303          KM   COMBINE ROUTED HYDROGRAPH FROM M1 WITH RUNOFF FROM 48 @ M2
 304          KO       0       0     0.0       0      22
 305          HC       2

 306          KK   M2-M3   CNAME      M2
 307          KM   ROUTE HYDROGRAPH FROM M2 TO M3 (CHANNEL A)
 308          KO       0       0     0.0       0      22
 309          RS       2    FLOW     0.0     0.0
 310          RC   0.025   0.025   0.025 4309.67  0.0050     0.0
 311          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 312          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
```

```
 313          KK      67
 314          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 315          KM   L=0.82      Lca=0.41      S=25.73      Kn=0.200      LAG=102
 316          KM   S-GRAPH TYPE=PHOENIX VALLEY
 317          KO       0        0      0.0        1       22
 318          BA  0.4717
 319          LG   0.261    0.262    4.328    0.393   26.592
 320          UI     0.0    15.57    31.09    66.92    86.69   107.67   144.49   191.76   149.18   119.67
 321          UI   94.22    73.23     45.3    26.94    21.99    15.57     6.99     4.78     4.78     4.78
 322          UI    4.78      0.0

 323          KK      M3   CNAME   M3-M4
 324          KM   COMBINE ROUTED HYDROGRAPH FROM M2 WITH RUNOFF FROM 67 @ M3
 325          KO       0        0      0.0        0       22
 326          HC       2

 327          KK   M3-M4   CNAME      M3
 328          KM   STORAGE ROUTE FROM M3 TO M4 THROUGH SPRR TRESTLE
 329          KO       0        0      0.0        0       22
 330          RS       1     ELEV    884.0      0.0
 331          SV     0.0     0.28     12.7     94.1   202.02   383.38   383.38   383.38   383.38   383.38
 332          SV  383.38   383.38   383.38   383.38   383.38   383.38   383.38   383.38   383.38   383.38
 333          SE   884.0    886.0    888.0    890.0    892.0    894.0    894.0    894.0    894.0    894.0
 334          SE   894.0    894.0    894.0    894.0    894.0    894.0    894.0    894.0    894.0    894.0
 335          SQ     0.0     42.0    135.0    200.0    226.0    465.0   1010.0   1703.0   1703.0   1703.0
 336          SQ  1703.0   1703.0   1703.0   1703.0   1703.0   1703.0   1703.0   1703.0   1703.0   1703.0
 337          SE   884.0   885.09   887.09   889.19   889.29   889.49   889.69   889.89   889.89   889.89
 338          SE  889.89   889.89   889.89   889.89   889.89   889.89   889.89   889.89   889.89   889.89
1                                                HEC-1 INPUT                                                    PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 339          KK      69
 340          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 341          KM   L=0.11      Lca=0.06      S=17.52      Kn=0.200      LAG=25
 342          KM   S-GRAPH TYPE=PHOENIX VALLEY
 343          KO       0        0      0.0        1       22
 344          BA  0.1371
 345          LG   0.176    0.364    4.502    0.395   49.216
 346          UI     0.0    60.46   176.19    92.48     19.3      0.0

 347          KK      M4
 348          KM   COMBINE STORAGE HYDROGRAPH FROM M3 WITH RUNOFF FROM 69 @ M4
 349          ZW   A=RBE B=M4 C=FLOW E=15MIN F=10y24h-ex
 350          KO       0        0      0.0        0       22
 351          HC       2

 352          KK   RIDN
 353          KM   ***********************************************************************
 354          KM   **    SUB-WATERSHED N    ***********************************************
 355          KM   ***********************************************************************
 356          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 357          BA  0.0001
 358          ZR   =QI A=RID RID B=51199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-24E

 359          KK  N2S-N3   CNAME     N2S
 360          KM   ROUTE INFLOW FROM RID CONCENTRATED AT N2S TO N3 (CHANNEL A)
 361          KO       0        0      0.0        0       22
 362          RS       1     FLOW      0.0      0.0
 363          RC     0.1      0.1      0.1  5806.00   0.0050      0.0
 364          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
 365          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

 366          KK      38
 367          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 368          KM   L=1.40      Lca=0.70      S=20.72      Kn=0.200      LAG=161
 369          KM   S-GRAPH TYPE=AGRICULTURE
 370          KO       0        0      0.0        1       22
 371          BA  0.5419
 372          LG     1.0    0.249    3.963    0.466    1.066
 373          UI     0.0    12.41    12.41     22.6    38.38    68.87    68.47    94.37    96.98   104.28
 374          UI  104.28    99.64     86.9    92.71    73.07    69.39    57.01    46.98    36.52    37.35
 375          UI   27.19    21.49    19.06    15.33    13.79    11.33    11.33      7.4     7.05     7.05
 376          UI    7.05     1.84     1.55     1.55     1.55     1.55     1.55     1.55     1.55     1.55
 377          UI    1.55     1.55     1.55     1.55     1.55     1.55     1.55     1.55     1.55      0.0

 378          KK      N3   CNAME   N3-N4
 379          KM   COMBINE ROUTED HYDROGRAPH FROM N2S WITH RUNOFF FROM 38 @ N3
 380          KO       0        0      0.0        0       22
 381          HC       2
1                                                HEC-1 INPUT                                                    PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 382          KK   N3-N4   CNAME      N3
 383          KM   ROUTE HYDROGRAPH FROM N3 TO N4 (CHANNEL B)
 384          KO       0        0      0.0        0       22
 385          RS       5     FLOW      0.0      0.0
 386          RC     0.1     0.02      0.1  5295.68   0.0087      0.0
 387          RX     0.0   1000.0   1006.0   1010.0   1050.0   1054.0   1060.0   2060.0
 388          RY    10.0      0.0      0.0      1.0      1.0      0.0      0.0     10.0

 389          KK      49
 390          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 391          KM   L=1.96      Lca=0.98      S=23.51      Kn=0.200      LAG=202
 392          KM   S-GRAPH TYPE=AGRICULTURE
 393          KO       0        0      0.0        1       22
 394          BA  1.0093
 395          LG     1.0     0.25    3.954    0.417    0.658
 396          UI     0.0    18.43    18.43    21.91     38.7    60.54    96.74   109.77   111.53   139.33
 397          UI   150.8   154.78   154.78   154.78   141.02   128.98   137.67   123.61    96.74   107.67
 398          UI   80.42    70.35    59.46     52.4    57.71    37.74    32.94    29.77    25.12    22.76
 399          UI   20.55    16.82    16.82    15.07    10.46    10.46    10.46    10.46     8.07      2.3
 400          UI     2.3      2.3      2.3      2.3      2.3      2.3      2.3      2.3      2.3      2.3
 401          UI     2.3      2.3      2.3      2.3      2.3      2.3      2.3      2.3      2.3      2.3
 402          UI     2.3      0.0

 403          KK      N4   CNAME  N4-N5B
 404          KM   COMBINE ROUTED HYDROGRAPH FROM N3 WITH RUNOFF FROM 49 @ N4
 405          KO       0        0      0.0        0       22
 406          HC       2
```

```
407          KK  N4-N5B   CNAME      N4
408          KM   ROUTE HYDROGRAPH FROM N4 TO N5 (CHANNEL B)
409          KO       0       0     0.0       0      22
410          RS       3    FLOW     0.0     0.0
411          RC     0.1    0.02     0.1 3866.36  0.0080     0.0
412          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
413          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

414          KK     56B
415          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
416          KM   L=0.71     Lca=0.32     S=32.56     Kn=0.200     LAG=85
417          KM   S-GRAPH TYPE=AGRICULTURE
418          KO       0       0     0.0       1      22
419          BA  0.3335
420          LG     0.1    0.25   3.998   0.524    80.0
421          UI     0.0   13.21   36.42   66.04   85.35  118.84  159.02  118.04    90.4   67.67
422          UI   40.92   22.66   16.33    10.2    4.05    4.05    4.05     0.0

423          KK     N5B   CNAME  N5B-N6
424          KM   COMBINE ROUTED HYDROGRAPH FROM N4 WITH RUNOFF FROM 56B @ N5B
425          KO       0       0     0.0       0      22
426          HC       2
1                                          HEC-1 INPUT                                                          PAGE 10

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

427          KK  N5B-N6   CNAME      N5B
428          KM   STORAGE ROUTE FROM N5B TO N6 THROUGH SPRR TRESTLE
429          KO       0       0     0.0       0      22
430          RS       1    ELEV  887.23     0.0
431          SV     0.0    0.96   12.89   39.94   86.12  150.27  150.27  150.27  150.27  150.27
432          SV  150.27  150.27  150.27  150.27  150.27  150.27  150.27  150.27  150.27  150.27
433          SE   886.0   888.0   890.0   892.0   894.0   896.0   896.0   896.0   896.0   896.0
434          SE   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0
435          SQ     0.0    71.6    98.1   118.7   136.2   151.6   165.7   178.6   190.7   202.0
436          SQ   212.8   223.0   232.8   242.1   251.2   259.9   268.3   276.5   276.5   276.5
437          SE  887.23  889.23  889.73  890.23  890.73  891.23  891.73  892.23  892.73  893.23
438          SE  893.73  894.23  894.73  895.23  895.73  896.23  896.73  897.23  897.23  897.23

439          KK     56A
440          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
441          KM   L=1.19     Lca=0.59     S=30.31     Kn=0.200     LAG=132
442          KM   S-GRAPH TYPE=AGRICULTURE
443          KO       0       0     0.0       1      22
444          BA  0.4105
445          LG     1.0    0.25   3.969   0.455  18.065
446          UI     0.0   11.47   13.39   28.45   55.88   66.16   84.79   96.35   96.35   93.14
447          UI   80.29   83.82   61.02   58.36   42.89   33.31   32.41   20.95   17.94   14.17
448          UI    11.8   10.47    8.03    6.51    6.51    4.68    1.43    1.43    1.43    1.43
449          UI    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43
450          UI     0.0

451          KK  N5A-N6   CNAME      N5A
452          KM   STORAGE ROUTE FROM N5A TO N6 THROUGH SPRR TRESTLE
453          KO       0       0     0.0       0      22
454          RS       1    ELEV  886.0     0.0
455          SV     0.0    0.02    8.08   35.13  100.26  100.26  100.26  100.26  100.26  100.26
456          SV  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26
457          SE   886.0   888.0   890.0   892.0   894.0   894.0   894.0   894.0   894.0   894.0
458          SE   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0
459          SQ     0.0   102.4   189.7   248.0   294.9   335.4   371.5   404.3   434.7   463.1
460          SQ   489.9   515.2   539.4   562.6   584.8   606.2   626.9   646.9   646.9   646.9
461          SE   886.0  887.52  888.02  888.52  889.02  889.52  890.02  890.52  891.02  891.52
462          SE  892.02  892.52  893.02  893.52  894.02  894.52  895.02  895.52  895.52  895.52

463          KK      70
464          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
465          KM   L=0.68     Lca=0.34     S=1.48     Kn=0.200     LAG=152
466          KM   S-GRAPH TYPE=AGRICULTURE
467          KO       0       0     0.0       1      22
468          BA  0.1406
469          LG     1.0    0.25   4.395   0.512     0.0
470          UI     0.0    3.41    3.41    6.68   12.76   19.73   19.85   25.86   28.66   28.66
471          UI   28.66   24.52   25.09   21.89   18.55   16.77   13.03   10.07   10.32    7.14
472          UI    5.77    4.95    4.21    3.44    3.12    2.67    1.94    1.94    1.94    0.99
473          UI    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43
474          UI    0.43    0.43    0.43    0.43    0.43    0.43     0.0
1                                          HEC-1 INPUT                                                          PAGE 11

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

475          KK      N6
476          KM   COMBINE STORAGE HYDROGRAPH FROM N5A AND N5B WITH RUNOFF FROM 70 @ N6
477          ZW   A=RBE B=N6 C=FLOW E=15MIN F=10y24h-ex
478          KO       0       0     0.0       0      22
479          HC       3

480          KK   RIDO
481          KM   ***********************************************************************
482          KM   **   SUB-WATERSHED O   ***********************************************
483          KM   ***********************************************************************
484          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
485          BA  0.0001
486          ZR  =QI A=RID RID B=57199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-24E

487          KK  O4S-O5   CNAME     O4S
488          KM   ROUTE INFLOW FROM RID CONCENTRATED AT O4S TO O5 (CHANNEL A)
489          KO       0       0     0.0       0      22
490          RS       1    FLOW     0.0     0.0
491          RC     0.1     0.1     0.1 6325.00  0.0060     0.0
492          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
493          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

494          KK      39
495          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
496          KM   L=1.63     Lca=0.82     S=25.14     Kn=0.200     LAG=174
497          KM   S-GRAPH TYPE=AGRICULTURE
498          KO       0       0     0.0       1      22
499          BA  0.7253
500          LG     1.0   0.249    4.31    0.47   1.592
501          UI     0.0   15.37   15.37   24.91   40.98   72.85   90.07   94.27  117.51  129.13
```

```
502          UI  129.13  129.13  120.52  107.61  114.33   93.69   83.76   78.5    59.0   50.24
503          UI   43.47   44.81   29.35   25.01   22.19   18.99   16.61   14.04   14.04    9.72
504          UI    8.73    8.73    8.73    5.19    1.92    1.92    1.92    1.92    1.92    1.92
505          UI    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92
506          UI    1.92    1.92    0.0

507          KK      O5   CNAME   O5-O6
508          KM   COMBINE ROUTED HYDROGRAPH FROM O4S WITH RUNOFF FROM 39 @ O5
509          KO       0       0     0.0       0      22
510          HC       2

511          KK   O5-O6   CNAME      O5
512          KM   ROUTE HYDROGRAPH FROM O5 TO O6 (CHANNEL B)
513          KO       0       0     0.0       0      22
514          RS       4    FLOW     0.0     0.0
515          RC     0.1    0.02     0.1 5267.87  0.0100     0.0
516          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
517          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0
1                                        HEC-1 INPUT                                          PAGE 12

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

518          KK      50
519          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
520          KM   L=1.98     Lca=0.99     S=26.73     Kn=0.200     LAG=199
521          KM   S-GRAPH TYPE=AGRICULTURE
522          KO       0       0     0.0       1      22
523          BA  1.0018
524          LG     1.0   0.251   4.181   0.488   2.404
525          UI     0.0   18.57   18.57   22.94   38.99   65.02   98.44  109.42  116.01  139.75
526          UI  155.95  155.95  155.95  155.95  136.89  129.96  138.93  116.06   98.44  106.28
527          UI   74.44    70.3   55.29    52.9   53.78   35.44   31.12   29.51   22.93   22.93
528          UI   18.07   16.95   16.95   12.06   10.54   10.54   10.54   10.54    3.53    2.32
529          UI    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32
530          UI    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32
531          UI     0.0

532          KK      O6   CNAME   O6-O7
533          KM   COMBINE ROUTED HYDROGRAPH FROM O5 WITH RUNOFF FROM 50 @ O6
534          KO       0       0     0.0       0      22
535          HC       2

536          KK   O6-O7   CNAME      O6
537          KM   ROUTE HYDROGRAPH FROM O6 TO O7 (CHANNEL B)
538          KO       0       0     0.0       0      22
539          RS       4    FLOW     0.0     0.0
540          RC     0.1    0.02     0.1 3578.87  0.0040     0.0
541          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
542          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

543          KK      57
544          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
545          KM   L=0.68     Lca=0.34     S=19.18     Kn=0.200     LAG=94
546          KM   S-GRAPH TYPE=AGRICULTURE
547          KO       0       0     0.0       1      22
548          BA  0.4885
549          LG     1.0    0.25   4.256    0.53   1.416
550          UI     0.0   19.17   35.13   95.98  125.05  151.34   161.0  141.33  132.78  104.89
551          UI   73.19   56.54   41.57   28.93   22.36    17.5   12.39   10.88    7.03     2.4
552          UI     2.4     2.4     2.4     2.4     2.4     2.4     2.4     2.4     2.4     0.0

553          KK      O7   CNAME   O7-O8
554          KM   COMBINE ROUTED HYDROGRAPH FROM O6 WITH RUNOFF FROM 57 @ O7
555          KO       0       0     0.0       0      22
556          HC       2

557          KK   O7-O8   CNAME      O7
558          KM   STORAGE ROUTE FROM O7 TO O8 THROUGH SPRR TRESTLE
559          KO       0       0     0.0       0      22
560          RS       1    ELEV   891.1     0.0
561          SV     0.0     0.2    8.52   76.65  224.48  224.48  224.48  224.48  224.48  224.48
562          SV  224.48  224.48  224.48  224.48  224.48  224.48  224.48  224.48  224.48  224.48
563          SE   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0
564          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
565          SQ     0.0    78.0    85.0   151.0   248.0   540.0   954.0  1560.0  2334.0  2334.0
566          SQ  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0
1                                        HEC-1 INPUT                                          PAGE 13

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

567          SE   891.1   893.1   893.4   894.5   894.7   895.0   895.2   895.4   895.6   895.6
568          SE   895.6   895.6   895.6   895.6   895.6   895.6   895.6   895.6   895.6   895.6

569          KK      71
570          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
571          KM   L=0.34     Lca=0.17     S=14.51     Kn=0.200     LAG=59
572          KM   S-GRAPH TYPE=AGRICULTURE
573          KO       0       0     0.0       1      22
574          BA  0.1553
575          LG     1.0   0.243   4.911   0.414   2.609
576          UI     0.0   11.57   42.26   70.54   80.65   67.88   47.94   30.74    17.5   10.91
577          UI    7.38    5.51    1.27    1.21    1.21    1.21    1.21    1.21     0.0

578          KK      O8   CNAME
579          KM   COMBINE STORAGE HYDROGRAPH FROM O7 WITH RUNOFF FROM 71 @ O8
580          ZW   A=RBE B=O8 C=FLOW E=15MIN F=10y24h-ex
581          KO       0       0     0.0       0      22
582          HC       2

583          KK   RIDP
584          KM   ******************************************************************************
585          KM   **   SUB-WATERSHED P   ******************************************************
586          KM   ******************************************************************************
587          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
588          BA  0.0001
589          ZR  =QI A=RID RID B=61999 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-24E

590          KK  P2S-P3   CNAME     P2S
591          KM   ROUTE INFLOW FROM RID CONCENTRATED AT P2S TO P3 (CHANNEL A)
592          KO       0       0     0.0       0      22
593          RS       1    FLOW     0.0     0.0
594          RC     0.1     0.1     0.1 8445.00  0.0070     0.0
595          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
```

```
596          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

597          KK      40
598          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
599          KM   L=1.83     Lca=0.91     S=31.23     Kn=0.200     LAG=182
600          KM   S-GRAPH TYPE=AGRICULTURE
601          KO       0       0     0.0       1      22
602          BA  0.9761
603          LG     1.0   0.249   4.211   0.525   0.739
604          UI     0.0   19.78   19.78   29.61   48.14    86.9  116.44  110.94  150.61  157.12
605          UI  166.14  166.14  166.14  142.14  139.74  151.32  103.84  112.23    90.8   75.52
606          UI    62.1   56.05   56.55   37.76   32.26   29.17   24.43   22.48   18.06   18.06
607          UI   14.53   11.23   11.23   11.23   10.99    2.47    2.47    2.47    2.47    2.47
608          UI    2.47    2.47    2.47    2.47    2.47    2.47    2.47    2.47    2.47    2.47
609          UI    2.47    2.47    2.47    2.47    2.47     0.0

610          KK      P3   CNAME   P3-P4
611          KM   COMBINE ROUTED HYDROGRAPH FROM P2S WITH RUNOFF FROM 40 @ P3
612          KO       0       0     0.0       0      22
613          HC       2
1                                          HEC-1 INPUT                                                    PAGE 14

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

614          KK   P3-P4   CNAME      P3
615          KM   ROUTE HYDROGRAPH FROM P3 TO P4 (CHANNEL B)
616          KO       0       0     0.0       0      22
617          RS       3    FLOW     0.0     0.0
618          RC     0.1    0.02     0.1 5302.14   0.008     0.0
619          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
620          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

621          KK      51
622          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
623          KM   L=1.96     Lca=0.98     S=22.98     Kn=0.200     LAG=203
624          KM   S-GRAPH TYPE=AGRICULTURE
625          KO       0       0     0.0       1      22
626          BA   1.004
627          LG     1.0    0.25   4.401   0.563   1.523
628          UI     0.0   18.24   18.24   21.41    38.3   58.85   95.52  108.71   109.2  138.77
629          UI  147.29   153.2   153.2   153.2  141.28  127.67  136.31  125.01   95.75  105.04
630          UI    83.7   69.64   60.42   52.27   56.21   40.23   33.28   29.46   25.81   22.53
631          UI    21.2   16.65   16.65   15.93   10.35   10.35   10.35   10.35    9.49    2.28
632          UI    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
633          UI    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
634          UI    2.28     0.0

635          KK      P4   CNAME   P4-P5
636          KM   COMBINE ROUTED HYDROGRAPH FROM P3 WITH RUNOFF FROM 51 @ P4
637          KO       0       0     0.0       0      22
638          HC       2

639          KK   P4-P5   CNAME      P4
640          KM   ROUTE HYDROGRAPH FROM P4 TO P5 (CHANNEL A)
641          KO       0       0     0.0       0      22
642          RS       5    FLOW     0.0     0.0
643          RC     0.1     0.1     0.1 2651.48  0.0030     0.0
644          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
645          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

646          KK      58
647          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
648          KM   L=0.50     Lca=0.25     S=15.93     Kn=0.200     LAG=77
649          KM   S-GRAPH TYPE=AGRICULTURE
650          KO       0       0     0.0       1      22
651          BA  0.1897
652          LG     1.0    0.25   4.294   0.552  11.148
653          UI     0.0    9.09   25.11   52.16   72.06   76.34   66.54   55.11   41.43   27.69
654          UI   18.96   12.68    9.16    6.65    5.16    2.64    1.14    1.14    1.14    1.14
655          UI    1.14    1.14    1.14     0.0

656          KK      P5   CNAME   P5-P6
657          KM   COMBINE ROUTED HYDROGRAPH FROM P4 WITH RUNOFF FROM 58 @ P5
658          KO       0       0     0.0       0      22
659          HC       2
1                                          HEC-1 INPUT                                                    PAGE 15

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

660          KK   P5-P6   CNAME      P5
661          KM   STORAGE ROUTE FROM P5 TO P6 THROUGH SPRR TRESTLE
662          KO       0       0     0.0       0      22
663          RS       1    ELEV   889.1     0.0
664          SV     0.0    1.33    6.78   36.99  130.95  286.86  286.86  286.86  286.86  286.86
665          SV  286.86  286.86  286.86  286.86  286.86  286.86  286.86  286.86  286.86  286.86
666          SE   888.0   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0
667          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
668          SQ     0.0    40.0   105.0   187.0   278.0   531.0   853.0  1198.0  1573.0  1722.0
669          SQ  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0
670          SE  889.11  889.61  890.11  890.61  891.11  892.11  893.11  894.11  895.11  896.11
671          SE  897.11  897.11  897.11  897.11  897.11  897.11  897.11  897.11  897.11  897.11

672          KK      72
673          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
674          KM   L=0.13     Lca=0.06     S=7.71     Kn=0.200     LAG=32
675          KM   S-GRAPH TYPE=AGRICULTURE
676          KO       0       0     0.0       1      22
677          BA  0.0856
678          LG     1.0    0.23   4.468   0.424   7.937
679          UI     0.0   24.87    74.6   66.73   31.73   12.61    6.11    1.23    1.23    1.23
680          UI     0.0

681          KK      P6
682          KM   COMBINE STORAGE HYDROGRAPH FROM P5 WITH RUNOFF FROM 72 @ P6
683          ZW   A=RBE B=P6 C=FLOW E=15MIN F=10y24h-ex
684          KO       0       0     0.0       0      22
685          HC       2
686                                                    RUNOFF SUMMARY
                                        FLOW IN CUBIC FEET PER SECOND
                                      TIME IN HOURS,  AREA IN SQUARE MILES

                          PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
```

	OPERATION	STATION	FLOW	PEAK	6-HOUR	24-HOUR	72-HOUR	AREA	STAGE	MAX STAGE
+	HYDROGRAPH AT	RIDKB	93.	14.00	22.	6.	2.	0.00		
+	ROUTED TO	K3SBK4	55.	14.75	22.	6.	2.	0.00		
+	HYDROGRAPH AT	RIDKA	165.	14.50	90.	24.	8.	0.00		
+	ROUTED TO	K3SAK4	109.	16.00	77.	23.	8.	0.00		
+	HYDROGRAPH AT	34	13.	14.25	7.	2.	1.	0.64		
+	3 COMBINED AT	K4	154.	15.50	104.	31.	11.	0.64		
+	ROUTED TO	K4-K5	149.	16.25	99.	31.	11.	0.64		
+	HYDROGRAPH AT	35	33.	14.75	21.	7.	2.	1.50		
+	2 COMBINED AT	K5	170.	16.25	112.	37.	13.	2.14		
+	ROUTED TO	K5-K6	151.	17.75	107.	37.	13.	2.14		
+	HYDROGRAPH AT	46	28.	14.75	17.	5.	2.	1.38		
+	2 COMBINED AT	K6	158.	17.75	112.	42.	14.	3.52		
+	ROUTED TO	K6-K7	159.	17.75	112.	42.	14.	3.52		
+	HYDROGRAPH AT	65	13.	13.75	6.	2.	1.	0.38		
+	2 COMBINED AT	K7	159.	17.75	112.	43.	15.	3.90		
+	HYDROGRAPH AT	RIDL	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	L2S-L3	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	36	21.	14.75	13.	4.	1.	0.68		
+	2 COMBINED AT	L3	21.	14.75	13.	4.	1.	0.68		
+	ROUTED TO	L3-L4	14.	18.75	11.	4.	1.	0.68		
+	HYDROGRAPH AT	47	12.	14.25	6.	2.	1.	0.62		
+	2 COMBINED AT	L4	15.	18.50	13.	6.	2.	1.30		
+	ROUTED TO	L4-L5	15.	18.75	13.	6.	2.	1.30		
+	HYDROGRAPH AT	66	19.	13.50	7.	2.	1.	0.29		
+	2 COMBINED AT	L5	26.	14.00	18.	7.	3.	1.59		
+	HYDROGRAPH AT	RIDM	30.	14.00	4.	1.	0.	0.00		
+	ROUTED TO	L2S2M1	3.	15.25	2.	1.	0.	0.00		
+	HYDROGRAPH AT	37	19.	14.75	13.	4.	1.	1.42		
+	2 COMBINED AT	M1	22.	15.25	15.	5.	2.	1.42		
+	ROUTED TO	M1-M2	18.	18.50	13.	5.	2.	1.42		
+	HYDROGRAPH AT	48	14.	14.00	7.	2.	1.	0.50		
+	2 COMBINED AT	M2	18.	18.50	13.	6.	2.	1.92		
+	ROUTED TO	M2-M3	17.	19.00	13.	6.	2.	1.92		
+	HYDROGRAPH AT	67	119.	13.75	39.	12.	4.	0.47		
+	2 COMBINED AT	M3	124.	13.75	46.	18.	6.	2.39		
+	ROUTED TO	M3-M4	93.	14.25	46.	18.	6.	2.39		
+	HYDROGRAPH AT	69	114.	12.50	16.	5.	2.	0.14		

+	2 COMBINED AT	M4	140.	12.50	60.	22.	8.	2.53
+	HYDROGRAPH AT	RIDN	8.	15.25	1.	0.	0.	0.00
+	ROUTED TO	N2S-N3	1.	16.00	1.	0.	0.	0.00
+	HYDROGRAPH AT	38	13.	14.50	7.	2.	1.	0.54
+	2 COMBINED AT	N3	13.	14.50	8.	2.	1.	0.54
+	ROUTED TO	N3-N4	11.	16.75	7.	2.	1.	0.54
+	HYDROGRAPH AT	49	21.	15.00	13.	4.	1.	1.01
+	2 COMBINED AT	N4	27.	16.00	19.	6.	2.	1.55
+	ROUTED TO	N4-N5B	24.	17.00	18.	6.	2.	1.55
+	HYDROGRAPH AT	56B	152.	13.50	52.	18.	6.	0.33
+	2 COMBINED AT	N5B	152.	13.50	62.	23.	8.	1.88
+	ROUTED TO	N5B-N6	82.	14.25	58.	23.	8.	1.88
+	HYDROGRAPH AT	56A	33.	14.00	17.	6.	2.	0.41
+	ROUTED TO	N5A-N6	33.	14.00	17.	6.	2.	0.41
+	HYDROGRAPH AT	70	2.	14.00	1.	0.	0.	0.14
+	3 COMBINED AT	N6	113.	14.25	75.	29.	10.	2.44
+	HYDROGRAPH AT	RIDO	8.	15.00	1.	0.	0.	0.00
+	ROUTED TO	O4S-O5	2.	16.00	1.	0.	0.	0.00
+	HYDROGRAPH AT	39	15.	14.50	9.	3.	1.	0.73
+	2 COMBINED AT	O5	15.	14.75	9.	3.	1.	0.73
+	ROUTED TO	O5-O6	13.	16.75	9.	3.	1.	0.73
+	HYDROGRAPH AT	50	19.	15.00	12.	4.	1.	1.00
+	2 COMBINED AT	O6	27.	16.00	19.	6.	2.	1.73
+	ROUTED TO	O6-O7	24.	17.25	18.	6.	2.	1.73
+	HYDROGRAPH AT	57	14.	13.50	5.	1.	0.	0.49
+	2 COMBINED AT	O7	24.	17.25	18.	7.	2.	2.22
+	ROUTED TO	O7-O8	24.	17.25	18.	7.	2.	2.22
+	HYDROGRAPH AT	71	11.	13.00	3.	1.	0.	0.16
+	2 COMBINED AT	O8	24.	17.25	19.	8.	3.	2.37
+	HYDROGRAPH AT	RIDP	135.	12.75	27.	10.	6.	0.00
+	ROUTED TO	P2S-P3	21.	13.75	18.	9.	5.	0.00
+	HYDROGRAPH AT	40	13.	14.75	8.	2.	1.	0.98
+	2 COMBINED AT	P3	33.	14.00	26.	12.	6.	0.98
+	ROUTED TO	P3-P4	30.	16.75	24.	12.	6.	0.98
+	HYDROGRAPH AT	51	11.	15.00	7.	2.	1.	1.00
+	2 COMBINED AT	P4	37.	16.25	29.	14.	7.	1.98
+	ROUTED TO	P4-P5	35.	17.75	28.	13.	7.	1.98
+	HYDROGRAPH AT	58	15.	13.25	5.	2.	1.	0.19

```
          2 COMBINED AT
+                          P5        36.   17.50          29.          15.          7.        2.17

          ROUTED TO
+                        P5-P6       36.   17.75          29.          15.          7.        2.17

          HYDROGRAPH AT
+                          72        16.   12.50           2.           1.          0.        0.09

          2 COMBINED AT
+                          P6        36.   17.75          29.          15.          7.        2.26


 *** NORMAL END OF HEC-1 ***
      ZZ

1*************************************                                    *************************************
 *                                   *                                    *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *    U.S. ARMY CORPS OF ENGINEERS   *
 *             JUN   1998            *                                    *    HYDROLOGIC ENGINEERING CENTER  *
 *           VERSION 4.1             *                                    *          609 SECOND STREET        *
 *                                   *                                    *       DAVIS, CALIFORNIA 95616     *
 *  RUN DATE   23MAR06  TIME  04:59:33  *                                    *          (916) 756-1104           *
 *                                   *                                    *                                   *
 *************************************                                    *************************************


                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X        XX
                                                X     X  X        X              X
                                                XXXXXXX  XXXX     X        XXXXX  X
                                                X     X  X        X              X
                                                X     X  X        X     X        X
                                                X     X  XXXXXXX   XXXXX        XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                    HEC-1 INPUT                                                    PAGE  1

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          1           ID   Buckeye/Sun Valley ADMS - November 2004
          2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
          3           ID   10-year 24-hour
          4           ID   Existing Conditions
          5           ID   Area 1 - RID to BIC (West)
          6           ID   File Name: rbw1024ex.hc1
          7           ID   Rainfall Loss Method - Green & Ampt
          8           ID   Unit Hydrograph Method - FCDMC S-Graph
          9           ID   Channel Routing Method - Normal Depth
         10           ID   Land Use - FCDMC GIS Data: maq_landuse (2000)
         11           ID   Existing Land Use Cutoff Date: 2000
         12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
         13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                      *DIAGRAM
         14           IT      15 02JAN94       0     400
         15           IO       3
         16           IN      15 02JAN94       0
         17           JD     2.5     0.01
                      * 24-hour distribution
         18           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
         19           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
         20           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
         21           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
         22           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
         23           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
         24           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
         25           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
         26           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
         27           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
         28           IN      15 02JAN94       0
         29           JD   2.375    10.0
                      * 24-hour distribution
         30           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
         31           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
         32           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
         33           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
         34           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
         35           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
         36           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
         37           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
         38           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
         39           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
         40           IN      15 02JAN94       0
         41           JD   2.295    20.0
                      * 24-hour distribution
         42           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
         43           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
         44           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
         45           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
         46           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
         47           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
         48           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
         49           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
         50           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
         51           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
1                                                    HEC-1 INPUT                                                    PAGE  2

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
 52          KK      68
 53          KM   ***********************************************************************************
 54          KM   **   SUB-WATERSHED E   ***********************************************************
 55          KM   ***********************************************************************************
 56          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 57          KM   L=0.96      Lca=0.33      S=45.58      Kn=0.050      LAG=22
 58          KM   S-GRAPH TYPE=DESERT RANGELAND
 59          KO       0        0      0.0        1       22
 60          BA  0.4130
 61          LG   0.374    0.334    4.366    0.374     0.0
 62          UI     0.0   257.36   526.31    199.5   61.33    15.58     0.0

 63          KK   E1-E2    CNAME      E1
 64          KM   STORAGE ROUTE FROM E1 TO E2 THROUGH SPRR TRESTLE
 65          KO       0        0      0.0        0       22
 66          RS       1     ELEV    871.0      0.0
 67          SV     0.0     1.39     5.84    13.36    41.09    96.81   182.04    292.0   426.27   581.71
 68          SV  756.67   957.16   1179.1   1179.1   1179.1   1179.1   1179.1   1179.1   1179.1   1179.1
 69          SE   872.0    874.0    876.0    878.0    880.0    882.0    884.0    886.0    888.0    890.0
 70          SE   892.0    894.0    896.0    896.0    896.0    896.0    896.0    896.0    896.0    896.0
 71          SQ     0.0    100.0    240.0    360.0    480.0    600.0   1020.0   2000.0   2760.0   2760.0
 72          SQ  2760.0   2760.0   2760.0   2760.0   2760.0   2760.0   2760.0   2760.0   2760.0   2760.0
 73          SE  873.07   874.07   875.07   876.07   877.07   878.07   879.07   880.07   881.07   881.07
 74          SE  881.07   881.07   881.07   881.07   881.07   881.07   881.07   881.07   881.07   881.07

 75          KK      59
 76          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 77          KM   L=0.50      Lca=0.17      S=49.34      Kn=0.200      LAG=53
 78          KM   S-GRAPH TYPE=AGRICULTURE
 79          KO       0        0      0.0        1       22
 80          BA  0.2519
 81          LG     1.0     0.23    4.174    0.497    8.088
 82          UI     0.0     22.5    84.15   139.94   135.77   109.93    62.24    38.79    21.52     13.5
 83          UI    9.12     2.19     2.19     2.19     2.19     2.19      0.0

 84          KK      E2
 85          KM   COMBINE STORAGE HYDROGRAPH FROM E1 WITH RUNOFF FROM 59 @ E2
 86          ZW   A=RBW B=E2 C=FLOW B=15MIN F=10Y24H-EX
 87          KO       0        0      0.0        0       22
 88          HC       2

 89          KK   RIDF
 90          KM   ***********************************************************************************
 91          KM   **   SUB-WATERSHED F   ***********************************************************
 92          KM   ***********************************************************************************
 93          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 94          BA  0.0001
 95          ZR  =QI A=RID RID B=8199 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-10-24E
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 96          KK  F1S-F2    CNAME     F1S
 97          KM   ROUTE INFLOW FROM RID CONCENTRATED AT F1S TO F2 (CHANNEL A)
 98          KO       0        0      0.0        0       22
 99          RS       1     FLOW      0.0      0.0
100          RC     0.1      0.1      0.1   3225.0    0.004      0.0
101          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
102          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

103          KK      27
104          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
105          KM   L=0.82      Lca=0.41      S=14.59      Kn=0.200      LAG=115
106          KM   S-GRAPH TYPE=AGRICULTURE
107          KO       0        0      0.0        1       22
108          BA  0.2410
109          LG     1.0    0.246    3.979    0.567    1.418
110          UI     0.0     7.73    11.05    25.19    43.69    53.56    61.68    64.93    61.32    56.09
111          UI   48.56    42.77    30.31    23.36     21.4    13.77     11.2     9.22     7.06     6.07
112          UI    4.39     4.39     2.56     0.97     0.97     0.97     0.97     0.97     0.97     0.97
113          UI    0.97     0.97     0.97     0.97     0.97      0.0

114          KK      F2    CNAME    F2-F3
115          KM   COMBINE ROUTED HYDROGRAPH FROM F1S WITH RUNOFF FROM 27 @ F2
116          KO       0        0      0.0        0       22
117          HC       2

118          KK   F2-F3    CNAME      F2
119          KM   ROUTE HYDROGRAPH FROM F2 TO F3 (CHANNEL A)
120          KO       0        0      0.0        0       22
121          RS       8     FLOW      0.0      0.0
122          RC     0.1      0.1      0.1   5241.87   0.0057      0.0
123          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
124          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

125          KK      29
126          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
127          KM   L=1.47      Lca=0.73      S=22.92      Kn=0.200      LAG=163
128          KM   S-GRAPH TYPE=AGRICULTURE
129          KO       0        0      0.0        1       22
130          BA  0.9987
131          LG     1.0     0.25    3.977    0.548      0.0
132          UI     0.0     22.6     22.6    40.44    67.42   122.16   127.17   170.96   171.63    189.8
133          UI   189.8   185.58   158.17   166.76   141.69   122.98   113.44    86.27     70.6    65.75
134          UI   56.62    40.79     36.5    28.42    27.23    20.63    20.63    15.99    12.82    12.82
135          UI   12.82     7.09     2.82     2.82     2.82     2.82     2.82     2.82     2.82     2.82
136          UI    2.82     2.82     2.82     2.82     2.82     2.82     2.82     2.82     2.82      0.0

137          KK      F3    CNAME    F3-F4
138          KM   COMBINE ROUTED HYDROGRAPH FROM F2 WITH RUNOFF FROM 29 @ F3
139          KO       0        0      0.0        0       22
140          HC       2
1                                          HEC-1 INPUT                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

141          KK   F3-F4    CNAME      F3
142          KM   ROUTE HYDROGRAPH FROM F3 TO F4 (CHANNEL A)
143          KO       0        0      0.0        0       22
144          RS       7     FLOW      0.0      0.0
145          RC     0.1      0.1      0.1   5501.87   0.0058      0.0
```

```
146          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
147          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

148          KK      41
149          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
150          KM   L=1.54      Lca=0.77      S=23.99      Kn=0.200      LAG=168
151          KM   S-GRAPH TYPE=AGRICULTURE
152          KO       0        0     0.0        1       22
153          BA  1.2021
154          LG     1.0     0.25   3.965   0.474     0.0
155          UI     0.0    26.39   26.39    45.2   74.92  131.88  154.05  177.32  206.14  221.65
156          UI  221.65   221.65   192.1  189.15  190.62  138.53  151.39  105.43   94.19   76.42
157          UI   81.61    52.05    44.8   39.98    32.6   29.54   24.09   24.09   16.95   14.98
158          UI   14.98    14.98     7.5     3.3     3.3     3.3     3.3     3.3     3.3     3.3
159          UI     3.3      3.3     3.3     3.3     3.3     3.3     3.3     3.3     3.3     3.3
160          UI     3.3      0.0

161          KK      F4   CNAME   F4-F5B
162          KM   COMBINE ROUTED HYDROGRAPH FROM F3 WITH RUNOFF FROM 41 @ F4
163          KO       0        0     0.0        0       22
164          HC       2

165          KK  F4-F5B   CNAME      F4
166          KM   ROUTE HYDRPGRAPH FROM F4 TO F5B (CHANNEL A)
167          KO       0        0     0.0        0       22
168          RS       4     FLOW     0.0      0.0
169          RC     0.1      0.1     0.1 3704.65  0.0065     0.0
170          RX     0.0    250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
171          RY    10.0      7.5     5.0     2.5     0.0     3.3     6.6    10.0

172          KK     52B
173          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
174          KM   L=0.71      Lca=0.32      S=32.56      Kn=0.200      LAG=85
175          KM   S-GRAPH TYPE=AGRICULTURE
176          KO       0        0     0.0        1       22
177          BA  0.4953
178          LG     1.0    0.251   4.087    0.53   0.349
179          UI     0.0    21.49   47.96  115.57  153.43   180.5  170.48  157.82  118.28   85.92
180          UI   63.75    43.62   30.66   22.85   17.91    12.2   10.93    2.69    2.69    2.69
181          UI    2.69     2.69    2.69    2.69    2.69    2.69     0.0

182          KK     F5B   CNAME F5B-F6B
183          KM   COMBINE ROUTED HYDROGRAPH FROM F4 WITH RUNOFF FROM 52B @ F5B
184          KO       0        0     0.0        0       22
185          HC       2
1                                          HEC-1 INPUT                                                    PAGE  5
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

186          KK  F5BF6B   CNAME     F5B
187          KM   STORAGE ROUTE FROM F5B TO F6B THROUGH SPRR TRESTLE
188          KO       0        0     0.0        0       22
189          RS       1     ELEV   886.0      0.0
190          SV     0.0      0.08    0.94    6.13   37.02  122.46  262.93   479.0  749.83  749.83
191          SV  749.83   749.83  749.83  749.83  749.83  749.83  749.83  749.83  749.83  749.83
192          SE   886.0    888.0   890.0   892.0   894.0   896.0   898.0   900.0   902.0   902.0
193          SE   902.0    902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0
194          SQ     0.0     80.0   120.0   230.0  1145.0  2980.0  2670.0  2670.0  2670.0  2670.0
195          SQ  2670.0   2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0
196          SE   886.0   887.07  888.07  889.07  890.07  891.07  892.07  892.07  892.07  892.07
197          SE  892.07   892.07  892.07  892.07  892.07  892.07  892.07  892.07  892.07  892.07

198          KK     60B
199          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
200          KM   L=1.03      Lca=0.35      S=22.68      Kn=0.200      LAG=108
201          KM   S-GRAPH TYPE=AGRICULTURE
202          KO       0        0     0.0        1       22
203          BA  0.5744
204          LG     1.0    0.249   4.158   0.551   3.254
205          UI     0.0    19.61   30.14   73.81  110.38  144.98  164.75  164.75  142.78  142.23
206          UI  106.31    87.94    64.4   56.91    35.6   28.82   23.22   17.91   14.49   11.13
207          UI   11.13     3.84    2.45    2.45    2.45    2.45    2.45    2.45    2.45    2.45
208          UI    2.45     2.45    2.45     0.0

209          KK     F6B
210          KM   COMBINE STORAGE HYDROGRAPH FROM F5B WITH RUNOFF FROM 60B @ F6B
211          ZW   A=RBW B=F6B C=FLOW E=15MIN F=10Y24H-EX
212          KO       0        0     0.0        0       22
213          HC       2

214          KK     52A
215          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
216          KM   L=0.92      Lca=0.57      S=6.91      Kn=0.200      LAG=156
217          KM   S-GRAPH TYPE=AGRICULTURE
218          KO       0        0     0.0        1       22
219          BA  0.3127
220          LG     1.0     0.25   3.966   0.439   0.364
221          UI     0.0     7.39    7.39   14.03   25.52   42.85   41.09   54.59   61.74    62.1
222          UI    62.1    55.89   52.16   54.02   38.81   41.05   29.04   24.79   21.13   20.13
223          UI   13.59    11.94    9.45    8.85    6.75    6.75    4.89     4.2     4.2     4.2
224          UI    1.32     0.92    0.92    0.92    0.92    0.92    0.92    0.92    0.92    0.92
225          UI    0.92     0.92    0.92    0.92    0.92    0.92    0.92     0.0

226          KK  F5AF6A   CNAME     F5A
227          KM   STORAGE ROUTE FROM F5A TO F6A THROUGH SPRR TRESTLE
228          KO       0        0     0.0        0       22
229          RS       1     ELEV   894.0      0.0
230          SV     0.0     0.02    0.64   12.91   61.76   61.76   61.76   61.76   61.76   61.76
231          SV   61.76    61.76   61.76   61.76   61.76   61.76   61.76   61.76   61.76   61.76
232          SE   894.0    896.0   898.0   900.0   902.0   902.0   902.0   902.0   902.0   902.0
233          SE   902.0    902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0
234          SQ     0.0     58.1   112.2   146.6   174.0   198.5   218.5   237.6   255.3   271.8
235          SQ   287.4    302.2   316.3   329.7   342.7   355.2   367.2   378.9   401.2   422.3
1                                          HEC-1 INPUT                                                    PAGE  6
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

236          SE   894.0    896.4   896.9   897.4   897.9   898.4   898.9   899.4   899.9   900.4
237          SE   900.9    901.4   901.9   902.4   902.9   903.4   903.9   904.4   905.4   906.4

238          KK     60A
239          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
240          KM   L=1.07      Lca=0.46      S=27.51      Kn=0.200      LAG=117
```

```
241          KM   S-GRAPH TYPE=AGRICULTURE
242          KO       0       0     0.0       1      22
243          BA  0.4117
244          LG     1.0   0.249   4.045   0.541   0.795
245          UI     0.0   12.98   18.15   40.42   73.45   89.47  100.76  109.02  105.38   91.39
246          UI   88.17   72.54   53.81   42.04   38.73   24.09   20.15   16.03   12.52   11.64
247          UI    7.37    7.37    6.45    1.62    1.62    1.62    1.62    1.62    1.62    1.62
248          UI    1.62    1.62    1.62    1.62    1.62     0.0

249          KK     F6A
250          KM   COMBINE STORAGE HYDROGRAPH FROM F5A WITH RUNOFF FROM 60A @ F6A
251          ZW   A=RBW B=F6A C=FLOW E=15MIN F=10Y24H-EX
252          KO       0       0     0.0       0      22
253          HC       2

254          KK   RIDG
255          KM   ******************************************************************************
256          KM   **   SUB-WATERSHED G   ***********************************************************
257          KM   ******************************************************************************
258          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
259          BA  0.0001
260          ZR  =QI A=RID RID B=13399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-10-24E

261          KK  G3S-G4   CNAME     G3S
262          KM   ROUTE INFLOW FROM RID CONCENTRATED AT G3S TO G4 (CHANNEL A)
263          KO       0       0     0.0       0      22
264          RS       1    FLOW     0.0     0.0
265          RC     0.1     0.1     0.1  4594.0   0.004     0.0
266          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
267          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

268          KK      28
269          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
270          KM   L=1.02      Lca=0.51      S=16.68      Kn=0.200      LAG=132
271          KM   S-GRAPH TYPE=AGRICULTURE
272          KO       0       0     0.0       1      22
273          BA  0.3347
274          LG     1.0   0.249   4.178   0.467   0.543
275          UI     0.0    9.35   10.92    23.2   45.57   53.95   69.13   78.56   78.56   75.94
276          UI   65.47   68.35   49.76   47.59   34.97   27.16   26.43   17.09   14.62   11.55
277          UI    9.62    8.54    6.55    5.31    5.31    3.82    1.17    1.17    1.17    1.17
278          UI    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17
279          UI     0.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

280          KK      G4   CNAME   G4-G5
281          KM   COMBINE ROUTED HYDROGRAPH FROM G3S WITH RUNOFF FROM 28 @ G4
282          KO       0       0     0.0       0      22
283          HC       2

284          KK   G4-G5   CNAME      G4
285          KM   ROUTE HYDRPGRAPH FROM G4 TO G5 (CHANNEL A)
286          KO       0       0     0.0       0      22
287          RS      11    FLOW     0.0     0.0
288          RC     0.1     0.1     0.1 7127.48  0.0045     0.0
289          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
290          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

291          KK      30
292          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
293          KM   L=1.55      Lca=0.78      S=21.93      Kn=0.200      LAG=172
294          KM   S-GRAPH TYPE=AGRICULTURE
295          KO       0       0     0.0       1      22
296          BA  0.9830
297          LG     1.0    0.25   4.028   0.469   8.734
298          UI     0.0   21.08   21.08    34.8    57.4   101.7  123.34   132.0  163.67  177.05
299          UI  177.05  177.05  161.31  147.54  161.39  117.56  117.82   99.14   80.48   64.92
300          UI   61.01   54.87   38.92   34.05   28.26   26.04   20.78   19.24   18.25   11.96
301          UI   11.96   11.96   11.96    3.63    2.63    2.63    2.63    2.63    2.63    2.63
302          UI    2.63    2.63    2.63    2.63    2.63    2.63    2.63    2.63    2.63    2.63
303          UI    2.63    2.63     0.0

304          KK      G5   CNAME   G5-G6
305          KM   COMBINE ROUTED HYDROGRAPH FROM G4 WITH RUNOFF FROM 30 @ G5
306          KO       0       0     0.0       0      22
307          HC       2

308          KK   G5-G6   CNAME      G5
309          KM   ROUTE HYDRPGRAPH FROM G5 TO G6 (CHANNEL A)
310          KO       0       0     0.0       0      22
311          RS       8    FLOW     0.0     0.0
312          RC     0.1     0.1     0.1 5820.25  0.0055     0.0
313          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
314          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

315          KK      42
316          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
317          KM   L=1.56      Lca=0.78      S=22.73      Kn=0.200      LAG=172
318          KM   S-GRAPH TYPE=AGRICULTURE
319          KO       0       0     0.0       1      22
320          BA  0.7784
321          LG     1.0    0.25   4.279   0.452   0.465
322          UI     0.0   16.69   16.69   27.56   45.45   80.53   97.66  104.52   129.6  140.19
323          UI  140.19  140.19  127.73  116.82  127.79   93.09   93.29    78.5   63.72    51.4
324          UI   48.31   43.45   30.82   26.96   22.38   20.62   16.46   15.24   14.45    9.47
325          UI    9.47    9.47    9.47    2.87    2.09    2.09    2.09    2.09    2.09    2.09
326          UI    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09
327          UI    2.09    2.09     0.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

328          KK      G6   CNAME   G6-G7
329          KM   COMBINE ROUTED HYDROGRAPH FROM G5 WITH RUNOFF FROM 42 @ G6
330          KO       0       0     0.0       0      22
331          HC       2

332          KK   G6-G7   CNAME      G6
333          KM   ROUTE HYDRPGRAPH FROM G6 TO G7 (CHANNEL A)
334          KO       0       0     0.0       0      22
```

```
335          RS       4    FLOW      0.0      0.0
336          RC     0.1     0.1      0.1 2613.05  0.0069      0.0
337          RX     0.0   250.0    500.0    750.0  1000.0   1333.3   1666.6   2000.0
338          RY    10.0     7.5      5.0      2.5     0.0      3.3      6.6     10.0

339          KK      53
340          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
341          KM   L=0.91      Lca=0.46      S=23.93      Kn=0.200      LAG=113
342          KM   S-GRAPH TYPE=AGRICULTURE
343          KO       0        0      0.0        1       22
344          BA  0.3385
345          LG     1.0     0.25    3.997    0.444      0.0
346          UI     0.0    11.05    16.13     37.6    62.38    76.97    90.56    92.81     85.6    80.26
347          UI   66.07    58.87    41.62    31.91    28.17    18.87    14.88    12.13    10.09     7.44
348          UI    6.27     6.27     1.84     1.38     1.38     1.38     1.38     1.38     1.38     1.38
349          UI    1.38     1.38     1.38     1.38      0.0

350          KK      G7    CNAME    G7-G8
351          KM   COMBINE ROUTED HYDROGRAPH FROM G6 WITH RUNOFF FROM 53 @ G7
352          KO       0        0      0.0        6       22
353          HC       2

354          KK    G7-G8    CNAME      G7
355          KM   STORAGE ROUTE FROM G7 TO G8 THROUGH SPRR TRESTLE
356          KO       0        0      0.0        0       22
357          RS       1     ELEV    888.0      0.0
358          SV     0.0      0.6     4.25    26.94   108.66   257.97    449.6    449.6    449.6    449.6
359          SV   449.6    449.6    449.6    449.6    449.6    449.6    449.6    449.6    449.6    449.6
360          SE   888.0    890.0    892.0    894.0    896.0    898.0    900.0    900.0    900.0    900.0
361          SE   900.0    900.0    900.0    900.0    900.0    900.0    900.0    900.0    900.0    900.0
362          SQ     0.0    100.0    200.0    480.0   1480.0   2060.0   2520.0   2900.0   2900.0   2900.0
363          SQ  2900.0   2900.0   2900.0   2900.0   2900.0   2900.0   2900.0   2900.0   2900.0   2900.0
364          SE   888.0    888.07   889.07   890.07   891.07   892.07   893.07   894.07   894.07   894.07
365          SE  894.07   894.07   894.07   894.07   894.07   894.07   894.07   894.07   894.07   894.07

366          KK      61
367          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
368          KM   L=0.90      Lca=0.45      S=23.00      Kn=0.200      LAG=113
369          KM   S-GRAPH TYPE=AGRICULTURE
370          KO       0        0      0.0        1       22
371          BA  0.5081
372          LG     1.0    0.248    3.965    0.464    2.234
373          UI     0.0    16.58    24.21    56.43    93.62   115.52   135.92    139.3   128.47   120.46
374          UI   99.16    88.35    62.47     47.9    42.28    28.31    22.33    18.21    15.14    11.17
375          UI    9.41     9.41     2.76     2.07     2.07     2.07     2.07     2.07     2.07     2.07
376          UI    2.07     2.07     2.07     2.07      0.0
1                                          HEC-1 INPUT                                                    PAGE  9

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


377          KK      G8
378          KM   COMBINE STORAGE HYDROGRAPH FROM G7 WITH RUNOFF FROM 61 @ G8
379          ZW   A=RBW B=G8 C=FLOW E=15MIN F=10Y24H-EX
380          KO       0        0      0.0        0       22
381          HC       2

382          KK    RIDH
383          KM   ******************************************************************************
384          KM   **   SUB-WATERSHED H   ********************************************************
385          KM   ******************************************************************************
386          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
387          BA  0.0001
388          ZR  =QI A=RID RID B=19799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-10-24E

389          KK   H3S-H4    CNAME     H3S
390          KM   ROUTE INFLOW FROM RID CONCENTRATED AT H3S TO H4 (CHANNEL A)
391          KO       0        0      0.0        0       22
392          RS       1     FLOW      0.0      0.0
393          RC     0.1      0.1     0.110193.17   0.005      0.0
394          RX     0.0    250.0    500.0    750.0  1000.0   1333.3   1666.6   2000.0
395          RY    10.0      7.5      5.0      2.5     0.0      3.3      6.6     10.0

396          KK      31
397          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
398          KM   L=1.93      Lca=0.97      S=26.40      Kn=0.200      LAG=196
399          KM   S-GRAPH TYPE=AGRICULTURE
400          KO       0        0      0.0        1       22
401          BA  1.0788
402          LG     1.0    0.249    4.018    0.456    0.852
403          UI     0.0     20.3     20.3    26.01    42.62    75.47   110.82   116.22   130.81   156.48
404          UI  170.49   170.49   170.49   170.49   143.97   142.08    158.6   111.16   110.82   106.73
405          UI   79.11    71.61     59.1    60.85    49.19    37.72    32.79    29.13    25.07    23.42
406          UI   18.53    18.53    16.79    11.52    11.52    11.52    11.52     7.81     2.54     2.54
407          UI    2.54     2.54     2.54     2.54     2.54     2.54     2.54     2.54     2.54     2.54
408          UI    2.54     2.54     2.54     2.54     2.54     2.54     2.54     2.54     2.54      0.0

409          KK      H4    CNAME    H4-H5
410          KM   COMBINE ROUTED HYDROGRAPH FROM H3S WITH RUNOFF FROM 31 @ H4
411          KO       0        0      0.0        0       22
412          HC       2

413          KK    H4-H5    CNAME      H4
414          KM   ROUTE HYDROGRAPH FROM H4 TO H5 (CHANNEL B)
415          KO       0        0      0.0        0       22
416          RS       5     FLOW      0.0      0.0
417          RC     0.1     0.02      0.1 5382.76  0.0059      0.0
418          RX     0.0   1000.0   1006.0   1010.0   1050.0   1054.0   1060.0   2060.0
419          RY    10.0      0.0      0.0      1.0      1.0      0.0      0.0     10.0
1                                          HEC-1 INPUT                                                    PAGE 10

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


420          KK      43
421          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
422          KM   L=1.92      Lca=0.96      S=20.85      Kn=0.200      LAG=204
423          KM   S-GRAPH TYPE=AGRICULTURE
424          KO       0        0      0.0        1       22
425          BA  1.0022
426          LG     1.0     0.25    3.958    0.425     0.66
427          UI     0.0    18.12    18.12    20.99    38.04    57.93     94.1   108.05   107.28    138.7
428          UI  144.35   152.18   152.18   152.18   142.03   126.81   135.44   126.81    95.11   132.81
429          UI    87.2    69.17    61.58    52.32    54.94    42.82    33.73    29.26    26.57    22.38
```

```
430          UI   21.91   16.54   16.54   16.54   10.58   10.28   10.28   10.28   10.28    2.91
431          UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
432          UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
433          UI    2.26     0.0

434          KK      H5   CNAME   H5-H6
435          KM   COMBINE ROUTED HYDROGRAPH FROM H4 WITH RUNOFF FROM 43 @ H5
436          KO       0       0     0.0       0      22
437          HC       2

438          KK   H5-H6   CNAME      H5
439          KM   ROUTE HYDRPGRAPH FROM H5 TO H6 (CHANNEL B)
440          KO       0       0     0.0       0      22
441          RS       3    FLOW     0.0     0.0
442          RC     0.1    0.02     0.1 2887.92  0.0049     0.0
443          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
444          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

445          KK      54
446          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
447          KM   L=1.20     Lca=0.60      S=12.35      Kn=0.200      LAG=157
448          KM   S-GRAPH TYPE=AGRICULTURE
449          KO       0       0     0.0       1      22
450          BA  0.3861
451          LG     1.0    0.25     4.0   0.447     0.0
452          UI     0.0    9.07    9.07   17.07   30.66   52.22    50.2    67.4   74.77   76.18
453          UI   76.18   69.41   63.49   68.13   47.62   51.29   35.97    31.2   25.88   25.91
454          UI   17.01   14.65   12.06    11.2    8.36    8.28    6.51    5.15    5.15    5.15
455          UI    2.36    1.13    1.13    1.13    1.13    1.13    1.13    1.13    1.13    1.13
456          UI    1.13    1.13    1.13    1.13    1.13    1.13    1.13     0.0

457          KK      H6   CNAME   H6-H7
458          KM   COMBINE ROUTED HYDROGRAPH FROM H5 WITH RUNOFF FROM 54 @ H6
459          KO       0       0     0.0       0      22
460          HC       2

461          KK   H6-H7   CNAME      H6
462          KM   STORAGE ROUTE FROM H6 TO H7 THROUGH SPRR TRESTLE
463          KO       0       0     0.0       0      22
464          RS       1    ELEV   890.0     0.0
465          SV     0.0    0.45   30.43  148.25  336.08  336.08  336.08  336.08  336.08  336.08
466          SV  336.08  336.08  336.08  336.08  336.08  336.08  336.08  336.08  336.08  336.08
467          SE   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0
468          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

469          SQ     0.0   185.0   720.0  1025.0  1075.0  1150.0  1355.0  1800.0  1800.0  1800.0
470          SQ  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0
471          SE   890.0  891.07  893.47  895.47  895.57  895.67  895.77  895.87  895.87  895.87
472          SE  895.87  895.87  895.87  895.87  895.87  895.87  895.87  895.87  895.87  895.87

473          KK      62
474          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
475          KM   L=0.98     Lca=0.49      S=21.54      Kn=0.200      LAG=122
476          KM   S-GRAPH TYPE=AGRICULTURE
477          KO       0       0     0.0       1      22
478          BA  0.5717
479          LG     1.0   0.249   4.203   0.444   0.473
480          UI     0.0   17.28   22.83   47.88   97.83  104.21  138.24  145.18  145.18  124.21
481          UI  130.72   91.16   89.45   63.88   49.84   45.53   30.22    24.7   20.76   15.78
482          UI   14.37    9.81    9.81    8.08    2.16    2.16    2.16    2.16    2.16    2.16
483          UI    2.16    2.16    2.16    2.16    2.16    2.16    2.16     0.0

484          KK      H7
485          KM   COMBINE STORAGE HYDROGRAPH FROM H6 WITH RUNOFF FROM 62 @ H7
486          ZW   A=RBW B=H7 C=FLOW E=15MIN F=10Y24H-EX
487          KO       0       0     0.0       0      22
488          HC       2

489          KK   RIDI
490          KM   ***********************************************************************
491          KM   **   SUB-WATERSHED I   ***********************************************
492          KM   ***********************************************************************
493          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
494          BA  0.0001
495          ZR  =QI A=RID RID B=24399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-10-24E

496          KK  I2S-I3   CNAME     I2S
497          KM   ROUTE INFLOW FROM RID CONCENTRATED AT I2S TO I3 (CHANNEL A)
498          KO       0       0     0.0       0      22
499          RS       1    FLOW     0.0     0.0
500          RC     0.1     0.1     0.1 8174.00   0.005     0.0
501          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
502          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

503          KK      32
504          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
505          KM   L=1.84     Lca=0.92      S=24.34      Kn=0.200      LAG=192
506          KM   S-GRAPH TYPE=AGRICULTURE
507          KO       0       0     0.0       1      22
508          BA  0.8959
509          LG     1.0   0.249     4.0   0.515   1.146
510          UI     0.0   17.21   17.21   23.11   36.91   68.18   97.57   94.68  119.26  132.99
511          UI  144.55  144.55  144.55  139.73  120.46  127.21  121.42   90.35    99.1   77.05
512          UI   65.71   54.78    48.6    53.0   32.85   29.42   27.69   21.26   21.26    16.6
513          UI   15.71   15.71   10.39    9.77    9.77    9.77    8.55    2.15    2.15    2.15
514          UI    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15
515          UI    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15     0.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

516          KK      I3   CNAME   I3-I4
517          KM   COMBINE ROUTED HYDROGRAPH FROM I2S WITH RUNOFF FROM 32 @ I3
518          KO       0       0     0.0       0      22
519          HC       2

520          KK   I3-I4   CNAME      I3
521          KM   ROUTE HYDRPGRAPH FROM I3 TO I4 (CHANNEL B)
522          KO       0       0     0.0       0      22
523          RS      10    FLOW     0.0     0.0
```

```
524          RC     0.1    0.02     0.110387.48  0.0042     0.0
525          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
526          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

527          KK      44
528          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
529          KM   L=1.97     Lca=0.98     S=22.43     Kn=0.200     LAG=205
530          KM   S-GRAPH TYPE=AGRICULTURE
531          KO       0       0     0.0       1      22
532          BA  1.0069
533          LG     1.0    0.25   4.136   0.485   5.217
534          UI     0.0   18.11   18.11    20.7   38.04    57.4    93.3  108.09  106.09  139.54
535          UI  142.37  152.15  152.15  152.15   143.7   126.8  133.98  130.92    95.1  101.27
536          UI   90.64   69.78   63.13   52.71   54.03   45.67    34.4   29.26   27.49   22.38
537          UI   22.38   16.93   16.54   16.54   11.59   10.28   10.28   10.28   10.28     4.4
538          UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
539          UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
540          UI    2.26    2.26     0.0

541          KK      I4   CNAME   I4-I5
542          KM   COMBINE ROUTED HYDROGRAPH FROM I3 WITH RUNOFF FROM 44 @ I4
543          KO       0       0     0.0       0      22
544          HC       2

545          KK   I4-I5   CNAME      I4
546          KM   ROUTE HYDROGRAPH FROM I4 TO I5 (CHANNEL A)
547          KO       0       0     0.0       0      22
548          RS       4    FLOW     0.0     0.0
549          RC     0.1     0.1     0.1 2589.37  0.0035     0.0
550          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
551          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

552          KK      55
553          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
554          KM   L=0.97     Lca=0.48     S=12.83     Kn=0.200     LAG=133
555          KM   S-GRAPH TYPE=AGRICULTURE
556          KO       0       0     0.0       1      22
557          BA  0.2627
558          LG     1.0    0.25   4.128   0.446     0.0
559          UI     0.0    7.29    8.39   17.86   34.8   41.96   53.41    61.2    61.2   59.84
560          UI    51.0   54.32   38.38   38.38   27.91   21.37   21.37   13.58   11.77     9.0
561          UI    7.84    6.65    5.51    4.14    4.14    3.58    0.91    0.91    0.91    0.91
562          UI    0.91    0.91    0.91    0.91    0.91    0.91    0.91    0.91    0.91    0.91
563          UI     0.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

564          KK      I5   CNAME   I5-I6
565          KM   COMBINE ROUTED HYDROGRAPH FROM I4 WITH RUNOFF FROM 55 @ I5
566          KO       0       0     0.0       0      22
567          HC       2

568          KK   I5-I6   CNAME      I5
569          KM   STORAGE ROUTE FROM I5 TO I6 THROUGH SPRR TRESTLE
570          KO       0       0     0.0       0      22
571          RS       1    ELEV   892.0     0.0
572          SV     0.0     0.1    25.1  124.92  273.66  273.66  273.66  273.66  273.66  273.66
573          SV  273.66  273.66  273.66  273.66  273.66  273.66  273.66  273.66  273.66  273.66
574          SE   892.0   894.0   896.0   898.0   900.0   900.0   900.0   900.0   900.0   900.0
575          SE   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0
576          SQ     0.0    60.0   150.0   221.0   400.0   830.0  1134.0  1488.0  1892.0  1892.0
577          SQ  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0
578          SE  892.00  894.08  895.18  895.88  896.08  896.28  896.38  896.48  896.58  896.58
579          SE  896.58  896.58  896.58  896.58  896.58  896.58  896.58  896.58  896.58  896.58

580          KK      63
581          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
582          KM   L=0.95     Lca=0.47     S=20.27     Kn=0.200     LAG=120
583          KM   S-GRAPH TYPE=AGRICULTURE
584          KO       0       0     0.0       1      22
585          BA  0.4994
586          LG     1.0    0.25   4.192   0.398  20.751
587          UI     0.0   15.35   20.75   44.48   87.02   96.69  122.47  128.92  128.92  107.43
588          UI  111.73   82.37   73.51   54.08   44.91   35.79   25.69   20.36   16.98   14.01
589          UI   11.04    8.71    8.71    4.64    1.92    1.92    1.92    1.92    1.92    1.92
590          UI    1.92    1.92    1.92    1.92    1.92    1.92     0.0

591          KK      I6
592          KM   COMBINE STORAGE HYDROGRAPH FROM I5 WITH RUNOFF FROM 63 @ I6
593          ZW   A=RBW B=J6 C=FLOW E=15MIN F=10Y24H-EX
594          KO       0       0     0.0       0      22
595          HC       2

596          KK   RIDJ
597          KM   ***********************************************************************
598          KM   **    SUB-WATERSHED J    ***************************************************
599          KM   ***********************************************************************
600          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
601          BA  0.0001
602          ZR  =QI A=RID RID B=27599 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-10-24E

603          KK  J3S-J4   CNAME     J3S
604          KM   ROUTE INFLOW FROM RID CONCENTRATED AT J3S TO J4 (CHANNEL A)
605          KO       0       0     0.0       0      22
606          RS       1    FLOW     0.0     0.0
607          RC     0.1     0.1     0.1 8056.46   0.007     0.0
608          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
609          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

610          KK      33
611          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
612          KM   L=1.84     Lca=0.92     S=29.30     Kn=0.200     LAG=185
613          KM   S-GRAPH TYPE=AGRICULTURE
614          KO       0       0     0.0       1      22
615          BA  1.0024
616          LG     1.0   0.249   3.962    0.44   0.529
617          UI     0.0   19.98   19.98   28.99   46.91   85.21  117.85  108.17   155.0  152.26
618          UI  167.85  167.85  167.85   149.2  139.88  152.37  115.61  108.99  103.55   77.29
```

```
619          UI    67.9   57.35   62.19   40.17   34.82   32.28   24.96   24.68    19.1   18.24
620          UI   18.04   11.34   11.34   11.34   11.34    7.21     2.5     2.5     2.5     2.5
621          UI     2.5     2.5     2.5     2.5     2.5     2.5     2.5     2.5     2.5     2.5
622          UI     2.5     2.5     2.5     2.5     2.5     2.5     0.0

623          KK      J4   CNAME   J4-J5
624          KM   COMBINE ROUTED HYDROGRAPH FROM J3S WITH RUNOFF FROM 33 @ J4
625          KO       0       0     0.0       0      22
626          HC       2

627          KK   J4-J5   CNAME      J4
628          KM   ROUTE HYDRPGRAPH FROM J4 TO J5 (CHANNEL A)
629          KO       0       0     0.0       0      22
630          RS       5    FLOW     0.0     0.0
631          RC     0.1     0.1     0.1 5307.06  0.0077     0.0
632          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
633          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

634          KK     45A
635          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
636          KM   L=1.97     Lca=0.99     S=25.14     Kn=0.200     LAG=201
637          KM   S-GRAPH TYPE=AGRICULTURE
638          KO       0       0     0.0       1      22
639          BA  1.0027
640          LG     1.0    0.25   3.993   0.441   0.243
641          UI     0.0    18.4    18.4   22.16   38.63   61.78   96.59  109.53  112.56  138.24
642          UI  152.55  154.54  154.54  154.54  139.08  128.78  137.41  120.73   96.59  109.05
643          UI   76.17   70.24   57.78   51.92   58.19   35.12    32.2   29.72   24.14   22.73
644          UI   19.64    16.8    16.8   14.01   10.44   10.44   10.44   10.44    6.53     2.3
645          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
646          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
647          UI     2.3

648          KK     J5A   CNAME  J5A-5B
649          KM   COMBINE ROUTED HYDROGRAPH FROM J4 WITH RUNOFF FROM 45A @ J5A
650          KO       0       0     0.0       0      22
651          HC       2

652          KK  J5A-5B   CNAME     J5A
653          KM   ROUTE HYDRPGRAPH FROM J5A TO J5B (CHANNEL A)
654          KO       0       0     0.0       0      22
655          RS       6    FLOW     0.0     0.0
656          RC     0.1     0.1     0.1 2736.25  0.0015     0.0
657          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
658          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                                    PAGE 15

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

659          KK     45B
660          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
661          KM   L=0.52     Lca=0.26     S=8.59     Kn=0.200     LAG=89
662          KM   S-GRAPH TYPE=AGRICULTURE
663          KO       0       0     0.0       1      22
664          BA  0.1397
665          LG     1.0    0.25   3.969   0.417  29.714
666          UI     0.0    5.79    11.9   30.23    38.5   48.58   48.11   41.75   34.63    28.1
667          UI   18.91   15.22    9.82    7.25    5.39    4.12    3.29     2.3    0.72    0.72
668          UI    0.72    0.72    0.72    0.72    0.72    0.72    0.72     0.0

669          KK     J5B   CNAME  J5B-J6
670          KM   COMBINE ROUTED HYDROGRAPH FROM J5A WITH RUNOFF FROM 45B @ J5B
671          KO       0       0     0.0       0      22
672          HC       2

673          KK  J5B-J6   CNAME     J5B
674          KM   STORAGE ROUTE FROM J5B TO J6 THROUGH SPRR TRESTLE
675          KO       0       0     0.0       0      22
676          RS       1    ELEV   892.0     0.0
677          SV     0.0   20.33   91.45  223.99  223.99  223.99  223.99  223.99  223.99  223.99
678          SV  223.99  223.99  223.99  223.99  223.99  223.99  223.99  223.99  223.99  223.99
679          SE   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
680          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
681          SQ     0.0   150.0   230.0   308.0   825.0  1144.0  1970.0  1970.0  1970.0  1970.0
682          SQ  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0
683          SE   892.0  893.68  895.08  895.48  895.68  895.88  896.08  896.08  896.08  896.08
684          SE  896.08  896.08  896.08  896.08  896.08  896.08  896.08  896.08  896.08  896.08

685          KK      64
686          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
687          KM   L=0.89     Lca=0.45     S=17.94     Kn=0.200     LAG=117
688          KM   S-GRAPH TYPE=AGRICULTURE
689          KO       0       0     0.0       1      22
690          BA  0.4148
691          LG     1.0   0.248   4.357   0.445   1.184
692          UI     0.0   13.07   18.28   40.72   73.99   90.13  101.51  109.82  106.16   92.07
693          UI   88.82   73.07   54.21   42.35   39.02   24.27    20.3   16.15   12.61   11.73
694          UI    7.42    7.42    6.49    1.63    1.63    1.63    1.63    1.63    1.63    1.63
695          UI    1.63    1.63    1.63    1.63    1.63     0.0

696          KK      J6
697          KM   COMBINE STORAGE HYDROGRAPH FROM J5B WITH RUNOFF FROM 64 @ J6
698          ZW   A=RBW B=J6 C=FLOW E=15MIN F=10Y24H-EX
699          KO       0       0     0.0       0      22
700          HC       2
701          ZZ
                  RUNOFF SUMMARY
                              FLOW IN CUBIC FEET PER SECOND
                           TIME IN HOURS,  AREA IN SQUARE MILES

                          PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
OPERATION       STATION   FLOW    PEAK                                           AREA      STAGE     MAX STAGE
+                                              6-HOUR     24-HOUR     72-HOUR

HYDROGRAPH AT
+                  68     203.   12.50          17.          4.          1.       0.41

ROUTED TO
+                E1-E2    147.   12.50          16.          4.          1.       0.41

HYDROGRAPH AT
+                  59      26.   12.75           6.          2.          1.       0.25
```

+	2 COMBINED AT	E2	165.	12.75	22.	6.	2.	0.66
+	HYDROGRAPH AT	RIDF	67.	15.50	16.	4.	1.	0.00
+	ROUTED TO	F1S-F2	33.	16.75	14.	4.	1.	0.00
+	HYDROGRAPH AT	27	6.	13.75	3.	1.	0.	0.24
+	2 COMBINED AT	F2	33.	16.75	15.	5.	2.	0.24
+	ROUTED TO	F2-F3	26.	18.75	15.	5.	2.	0.24
+	HYDROGRAPH AT	29	13.	14.25	7.	2.	1.	1.00
+	2 COMBINED AT	F3	27.	18.50	15.	6.	2.	1.24
+	ROUTED TO	F3-F4	22.	20.75	15.	6.	2.	1.24
+	HYDROGRAPH AT	41	22.	14.25	12.	3.	1.	1.20
+	2 COMBINED AT	F4	22.	20.75	16.	9.	3.	2.44
+	ROUTED TO	F4-F5B	19.	22.00	16.	9.	3.	2.44
+	HYDROGRAPH AT	52B	15.	13.25	4.	1.	0.	0.50
+	2 COMBINED AT	F5B	19.	22.25	16.	10.	3.	2.94
+	ROUTED TO	F5BF6B	19.	22.25	16.	10.	3.	2.94
+	HYDROGRAPH AT	60B	18.	13.50	7.	2.	1.	0.57
+	2 COMBINED AT	F6B	27.	13.50	20.	12.	4.	3.51
+	HYDROGRAPH AT	52A	8.	14.25	4.	1.	0.	0.31
+	ROUTED TO	F5AF6A	8.	14.50	4.	1.	0.	0.31
+	HYDROGRAPH AT	60A	10.	13.75	4.	1.	0.	0.41
+	2 COMBINED AT	F6A	16.	14.00	8.	2.	1.	0.72
+	HYDROGRAPH AT	RIDG	0.	0.00	0.	0.	0.	0.00
+	ROUTED TO	G3S-G4	0.	0.00	0.	0.	0.	0.00
+	HYDROGRAPH AT	28	9.	14.00	4.	1.	0.	0.33
+	2 COMBINED AT	G4	9.	14.00	4.	1.	0.	0.33
+	ROUTED TO	G4-G5	5.	18.75	4.	1.	0.	0.33
+	HYDROGRAPH AT	30	39.	14.50	24.	8.	3.	0.98
+	2 COMBINED AT	G5	38.	14.50	25.	9.	3.	1.32
+	ROUTED TO	G5-G6	34.	16.75	23.	9.	3.	1.32
+	HYDROGRAPH AT	42	15.	14.50	8.	2.	1.	0.78
+	2 COMBINED AT	G6	40.	16.25	27.	11.	4.	2.10
+	ROUTED TO	G6-G7	38.	17.25	27.	11.	4.	2.10
+	HYDROGRAPH AT	53	11.	13.75	4.	1.	0.	0.34
+	2 COMBINED AT	G7	39.	17.25	28.	12.	4.	2.43
+	ROUTED TO	G7-G8	39.	17.25	28.	12.	4.	2.43
+	HYDROGRAPH AT	61	19.	13.75	8.	2.	1.	0.51
+	2 COMBINED AT	G8	40.	17.25	32.	13.	5.	2.94
+	HYDROGRAPH AT	RIDH	6.	15.50	1.	0.	0.	0.00

```
+                ROUTED TO
                 H3S-H4      1.  16.25     0.     0.     0.    0.00
+                HYDROGRAPH AT
                    31      20.  15.00    12.     4.     1.    1.08
+                2 COMBINED AT
                    H4      20.  15.25    13.     4.     1.    1.08
+                ROUTED TO
                 H4-H5      16.  17.25    12.     4.     1.    1.08
+                HYDROGRAPH AT
                    43      20.  15.00    13.     4.     1.    1.00
+                2 COMBINED AT
                    H5      28.  16.25    21.     7.     2.    2.08
+                ROUTED TO
                 H5-H6      26.  17.25    21.     7.     2.    2.08
+                HYDROGRAPH AT
                    54       9.  14.25     5.     1.     0.    0.39
+                2 COMBINED AT
                    H6      27.  16.75    22.     8.     3.    2.47
+                ROUTED TO
                 H6-H7      27.  17.00    22.     8.     3.    2.47
+                HYDROGRAPH AT
                    62      17.  13.75     7.     2.     1.    0.57
+                2 COMBINED AT
                    H7      28.  17.00    26.    10.     3.    3.04
+                HYDROGRAPH AT
                  RIDI       0.   0.00     0.     0.     0.    0.00
+                ROUTED TO
                 I2S-I3      0.   0.00     0.     0.     0.    0.00
+                HYDROGRAPH AT
                    32      14.  14.75     9.     3.     1.    0.90
+                2 COMBINED AT
                    I3      14.  14.75     9.     3.     1.    0.90
+                ROUTED TO
                 I3-I4       9.  21.00     7.     3.     1.    0.90
+                HYDROGRAPH AT
                    44      25.  15.00    17.     6.     2.    1.01
+                2 COMBINED AT
                    I4      24.  15.00    18.     8.     3.    1.90
+                ROUTED TO
                 I4-I5      23.  16.25    17.     8.     3.    1.90
+                HYDROGRAPH AT
                    55       7.  13.75     3.     1.     0.    0.26
+                2 COMBINED AT
                    I5      25.  16.00    18.     8.     3.    2.17
+                ROUTED TO
                 I5-I6      25.  16.00    18.     8.     3.    2.17
+                HYDROGRAPH AT
                    63      49.  13.75    24.     8.     3.    0.50
+                2 COMBINED AT
                    I6      57.  14.00    39.    16.     5.    2.66
+                HYDROGRAPH AT
                  RIDJ       0.   0.00     0.     0.     0.    0.00
+                ROUTED TO
                 J3S-J4      0.   0.00     0.     0.     0.    0.00
+                HYDROGRAPH AT
                    33      21.  14.75    12.     3.     1.    1.00
+                2 COMBINED AT
                    J4      21.  14.75    12.     3.     1.    1.00
+                ROUTED TO
                 J4-J5      16.  17.00    11.     3.     1.    1.00
+                HYDROGRAPH AT
                   45A      18.  15.00    11.     3.     1.    1.00
+                2 COMBINED AT
                   J5A      27.  16.00    20.     6.     2.    2.01
+                ROUTED TO
                 J5A-5B     25.  18.00    19.     6.     2.    2.01
+                HYDROGRAPH AT
                   45B      23.  13.25     9.     3.     1.    0.14
+                2 COMBINED AT
                   J5B      26.  18.00    21.     9.     3.    2.14
+                ROUTED TO
                 J5B-J6     23.  19.00    20.     9.     3.    2.14
+                HYDROGRAPH AT
                    64      13.  13.75     6.     2.     1.    0.41
+                2 COMBINED AT
                    J6      25.  14.00    20.    10.     3.    2.56
```

```
 *** NORMAL END OF HEC-1 ***
1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *    U.S. ARMY CORPS OF ENGINEERS      *
 *             JUN   1998               *                                    *    HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                                    *          609 SECOND STREET           *
 *                                      *                                    *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   23MAR06  TIME  05:05:06  *                                    *          (916) 756-1104              *
 *                                      *                                    *                                      *
 ****************************************                                    ****************************************

                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X        XX
                                                X     X  X        X              X
                                                XXXXXXX  XXXX     X        XXXXX  X
                                                X     X  X        X              X
                                                X     X  X        X     X        X
                                                X     X  XXXXXXX   XXXXX        XXX

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                    PAGE  1

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

    1           ID   Buckeye/Sun Valley ADMS - November 2004
    2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
    3           ID   10-year 24-hour
    4           ID   Existing Conditions
    5           ID   Area 1 - BIC to Gila (East)
    6           ID   File Name: bge1024ex.hc1
    7           ID   Rainfall Loss Method - Green & Ampt
    8           ID   Unit Hydrograph Method - FCDMC S-Graph
    9           ID   Channel Routing Method - Normal Depth
   10           ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
   11           ID   Existing Land Use Cutoff Date: 2000
   12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
   13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                *DIAGRAM
   14           IT      15 02JAN94       0     400
   15           IO       3
   16           IN      15 02JAN94       0
   17           JD     2.5    0.01
                * 24-hour distribution
   18           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
   19           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
   20           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
   21           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
   22           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
   23           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
   24           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
   25           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
   26           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
   27           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
   28           IN      15 02JAN94       0
   29           JD   2.375    10.0
                * 24-hour distribution
   30           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
   31           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
   32           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
   33           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
   34           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
   35           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
   36           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
   37           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
   38           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
   39           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
   40           IN      15 02JAN94       0
   41           JD   2.295    20.0
                * 24-hour distribution
   42           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
   43           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
   44           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
   45           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
   46           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
   47           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
   48           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
   49           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
   50           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
   51           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
1                                                HEC-1 INPUT                                                    PAGE  2

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

   52           KK    BICM
   53           KM   ***********************************************************************
   54           KM   **    SUB-WATERSHED M    ************************************************
   55           KM   ***********************************************************************
   56           KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
   57           BA   0.001
   58           ZR  =QI A=BIC BIC B=52599 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24E

   59           KK  M4S6TH   CNAME     M4S
   60           KM   ROUTE INFLOW FROM BIC CONCENTRATED AT M4S TO 6TH (CHANNEL M4S-6TH)
   61           KO       0       0     0.0       0      22
   62           RS       1    FLOW     0.0     0.0
   63           RC    0.05   0.015    0.05  1950.0   0.008     0.0
```

```
 64          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 65          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 66          KK     4th
 67          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 68          KM   L=0.52     Lca=0.40     S=0.01     Kn=0.011     LAG=24
 69          KM   S-GRAPH TYPE=PHOENIX VALLEY
 70          KO       0        0     0.0       1       22
 71          BA  0.0819
 72          LG   0.192   0.248   5.145   0.326  55.315
 73          UI     0.0   39.02  109.68   50.31    9.67     0.0

 74          KK  TO4THS
 75          KM   HYDRPGRAPH DIVERTED TO 4THS
 76          KO       0        0     0.0       0       22
 77          DT  TO4THS     0.0     0.0
 78          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 79          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 80          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 81          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

 82          KK  4TH6TH   CNAME    4thA
 83          KM   ROUTE HYDRPGRAPH FROM 4TH CONCENTRATED AT 4THA TO 6TH (CHANNEL 4TH6TH)
 84          KO       0        0     0.0       0       22
 85          RS       1     FLOW     0.0     0.0
 86          RC    0.05    0.015    0.05   872.0   0.002     0.0
 87          RX     0.0   100.0   100.0  127.49  127.51   155.0   155.0   255.0
 88          RY     2.0     0.5     0.0    0.55    0.55     0.0     0.5     2.0

 89          KK     6th
 90          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 91          KM   L=0.46     Lca=0.17     S=0.01     Kn=0.011     LAG=17
 92          KM   S-GRAPH TYPE=PHOENIX VALLEY
 93          KO       0        0     0.0       1       22
 94          BA  0.0571
 95          LG   0.206   0.148   7.572    0.12  51.538
 96          UI     0.0   54.83   81.61    9.82     0.0
1                                        HEC-1 INPUT                                                    PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 97          KK    6thA   CNAME  6TH8TH
 98          KM   COMBINE ROUTED HYDROGRAPH FROM 4THA WITH RUNOFF FROM 6TH @ 6THA
 99          KO       0        0     0.0       0       22
100          HC       3

101          KK  TO7THS
102          KM   HYDRPGRAPH DIVERTED TO 7THS
103          KO       0        0     0.0       0       22
104          DT  TO7THS     0.0     0.0
105          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
106          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
107          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
108          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

109          KK  6TH8TH   CNAME    6thA
110          KM   ROUTE HYDRPGRAPH FROM 6THA TO 8TH (CHANNEL 6TH8TH)
111          KO       0        0     0.0       0       22
112          RS       1     FLOW     0.0     0.0
113          RC    0.05    0.015    0.05  1116.0   0.002     0.0
114          RX     0.0   100.0   100.0  127.49  127.51   155.0   155.0   255.0
115          RY     2.0     0.5     0.0    0.55    0.55     0.0     0.5     2.0

116          KK     8th
117          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
118          KM   L=0.60     Lca=0.31     S=0.01     Kn=0.011     LAG=23
119          KM   S-GRAPH TYPE=PHOENIX VALLEY
120          KO       0        0     0.0       1       22
121          BA  0.0793
122          LG   0.241    0.15    8.77   0.074    42.7
123          UI     0.0    41.0  110.28   43.97    7.58     0.0

124          KK    8thA   CNAME  8TH9TH
125          KM   COMBINE ROUTED HYDROGRAPH FROM 6THA WITH RUNOFF FROM 8TH @ 8THA
126          KO       0        0     0.0       0       22
127          HC       2

128          KK   TOCEN1
129          KM   HYDRPGRAPH DIVERTED TO CENTRA
130          KO       0        0     0.0       0       22
131          DT  TOCEN1     0.0     0.0
132          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
133          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
134          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
135          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

136          KK  8TH9TH   CNAME    8thA
137          KM   ROUTE HYDRPGRAPH FROM 8THA TO 9TH (CHANNEL 8TH9TH)
138          KO       0        0     0.0       0       22
139          RS       1     FLOW     0.0     0.0
140          RC    0.05    0.015    0.05   680.0   0.002     0.0
141          RX     0.0   100.0   100.0  127.49  127.51   155.0   155.0   255.0
142          RY     2.0     0.5     0.0    0.55    0.55     0.0     0.5     2.0
1                                        HEC-1 INPUT                                                    PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


143          KK    9thE
144          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
145          KM   L=0.77     Lca=0.39     S=0.00     Kn=0.011     LAG=29
146          KM   S-GRAPH TYPE=PHOENIX VALLEY
147          KO       0        0     0.0       1       22
148          BA  0.0947
149          LG   0.173   0.154   8.731   0.083  35.396
150          UI     0.0   31.39   99.09    80.3   25.22    5.83     0.0

151          KK    9thW
152          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
153          KM   L=0.54     Lca=0.32     S=0.01     Kn=0.011     LAG=22
154          KM   S-GRAPH TYPE=PHOENIX VALLEY
155          KO       0        0     0.0       1       22
156          BA  0.0813
```

```
157          LG   0.197   0.149    8.42   0.101  29.522
158          UI     0.0   45.77  116.37   40.05    6.23     0.0

159          KK     9th
160          KM   COMBINE ROUTED HYDROGRAPH FROM 8THA WITH RUNOFF FROM 9THE AND 9THW @ 9TH
161          KO       0       0     0.0       0      22
162          HC       3

163          KK  TOCEN2
164          KM   HYDRPGRAPH DIVERTED TO CENTRA
165          KO       0       0     0.0       0      22
166          DT  TOCEN2     0.0     0.0
167          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
168          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
169          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
170          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

171          KK    BICN
172          KM   ******************************************************************************
173          KM   **    SUB-WATERSHED N-A    (DRAINS INTO SUB-WATERSHED M) ************************
174          KM   ******************************************************************************
175          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
176          BA   0.001
177          ZR  =QI A=BIC BIC B=58999 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24E

178          KK   N6S-D   CNAME     N6S
179          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT N6S TO DRAINA (CHANNEL A)
180          KO       0       0     0.0       0      22
181          RS       1    FLOW     0.0     0.0
182          RC     0.1     0.1     0.1 12189.0   0.003     0.0
183          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
184          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

185          KK    BICO
186          KM   ******************************************************************************
187          KM   **    SUB-WATERSHED O (DRAINS INTO SUB-WATERSHED M) ************************
188          KM   ******************************************************************************
189          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
190          BA   0.001
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

191          ZR  =QI A=BIC BIC B=63799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24E

192          KK   O8SO9   CNAME     O8S
193          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT O8S TO O9 (CHANNEL A)
194          KO       0       0     0.0       0      22
195          RS       1    FLOW     0.0     0.0
196          RC     0.1     0.1     0.1  6048.0   0.004     0.0
197          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
198          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

199          KK      93
200          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
201          KM   L=1.21     Lca=0.60     S=17.39     Kn=0.200     LAG=148
202          KM   S-GRAPH TYPE=AGRICULTURE
203          KO       0       0     0.0       1      22
204          BA  0.3774
205          LG     1.0   0.245   4.879    0.41   9.378
206          UI     0.0     9.4     9.4    19.0   37.89   54.24   57.18   73.55   78.99   78.99
207          UI   77.24   65.83   70.53    53.4   54.15   37.91   32.75   26.86   26.09   17.25
208          UI   15.19   11.72   10.73    8.59    8.51    5.34    5.34    5.34    3.78    1.18
209          UI    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18
210          UI    1.18    1.18    1.18    1.18    1.18     0.0

211          KK      O9   CNAME   O9O10
212          KM   COMBINE ROUTED HYDROGRAPH FROM O9 WITH RUNOFF FROM 93 @ O10
213          KO       0       0     0.0       0      22
214          HC       2

215          KK   O9O10   CNAME      O9
216          KM   ROUTE HYDRPGRAPH FROM O9 TO O10 (CHANNEL A)
217          KO       0       0     0.0       0      22
218          RS       3    FLOW     0.0     0.0
219          RC     0.1     0.1     0.1 8757.67   0.001     0.0
220          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
221          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

222          KK      95
223          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
224          KM   L=1.66     Lca=0.83     S=7.84     Kn=0.200     LAG=220
225          KM   S-GRAPH TYPE=AGRICULTURE
226          KO       0       0     0.0       1      22
227          BA  0.5221
228          LG     1.0    0.15     8.2   0.118   0.728
229          UI     0.0    8.75    8.75    8.75   17.61   23.93   39.41   52.07   46.56    58.0
230          UI   66.98   73.51   73.51   73.51   73.51   69.43   61.26    62.9   68.12   47.05
231          UI   46.97   50.07   35.29   33.42    27.5   24.86   27.14   19.64   16.37   14.14
232          UI   13.38   10.81   10.81    8.74    7.99    7.99     6.9    4.97    4.97    4.97
233          UI    4.97    4.97    1.35    1.09    1.09    1.09    1.09    1.09    1.09    1.09
234          UI    1.09    1.09    1.09    1.09    1.09    1.09    1.09    1.09    1.09    1.09
235          UI    1.09    1.09    1.09    1.09    1.09    1.09     0.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

236          KK     O10   CNAME   O10DR
237          KM   COMBINE ROUTED HYDROGRAPH FROM O9 WITH RUNOFF FROM 95 @ O10
238          KO       0       0     0.0       0      22
239          HC       2

240          KK    TOP9
241          KM   HYDRPGRAPH DIVERTED TO P9
242          KO       0       0     0.0       0      22
243          DT    TOP9     0.0     0.0
244          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
245          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
246          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
247          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

248          KK   O10DR   CNAME     O10
249          KM   ROUTE HYDRPGRAPH FROM O10 TO DRAINA (CHANNEL A)
```

```
250          KO       0       0     0.0       0      22
251          RS      13    FLOW     0.0     0.0
252          RC     0.1     0.1     0.1 5733.05  0.0004     0.0
253          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
254          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

255          KK  CENTRE
256          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
257          KM   L=0.40      Lca=0.23      S=0.01      Kn=0.011      LAG=18
258          KM   S-GRAPH TYPE=PHOENIX VALLEY
259          KO       0       0     0.0       1      22
260          BA  0.0692
261          LG   0.248   0.153   6.965   0.147  35.732
262          UI     0.0   58.22  103.23   15.09     0.0

263          KK  FRM9TH
264          KM   RETRIEVE HYDROGRAPH FROM 9TH
265          KO       0       0     0.0       0      22
266          DR  TOCEN2

267          KK  9THCEN   CNAME
268          KM   ROUTE HYDRPGRAPH FROM 9TH TO CENTRA (CHANNEL 9THCEN)
269          RS       1    FLOW     0.0     0.0
270          RC    0.05   0.015    0.05  1300.0   0.008     0.0
271          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
272          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

273          KK  FRM8TH
274          KM   RETRIEVE HYDROGRAPH FROM 8TH
275          KO       0       0     0.0       0      22
276          DR  TOCEN1

277          KK  8THCEN   CNAME
278          KM   ROUTE HYDRPGRAPH FROM 8TH TO CENTRA (CHANNEL 8THCEN)
279          RS       1    FLOW     0.0     0.0
280          RC    0.05   0.015    0.05  1967.0   0.008     0.0
281          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
282          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0
1                                          HEC-1 INPUT                                                          PAGE  7

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


283          KK  CENTRA   CNAME  CENBEL
284          KM   COMBINE DIVERTED HYDROGRAPHS FROM 8THA AND 9TH WITH RUNOFF FROM CENTRAL @ CEN
285          KO       0       0     0.0       0      22
286          HC       3

287          KK  TOBELO
288          KM   HYDRPGRAPH DIVERTED TO BELOAA
289          KO       0       0     0.0       0      22
290          DT   TODRN     0.0     0.0
291          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
292          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
293          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
294          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

295          KK  CENBEL   CNAME  CENTRA
296          KM   ROUTE HYDRPGRAPH FROM CENTRA TO BELOAA (CHANNEL CENBEL)
297          KO       0       0     0.0       0      22
298          RS       2    FLOW     0.0     0.0
299          RC    0.05   0.015    0.05  2542.0   0.005     0.0
300          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
301          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

302          KK  BELOAT
303          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
304          KM   L=0.44      Lca=0.25      S=0.00      Kn=0.011      LAG=19
305          KM   S-GRAPH TYPE=PHOENIX VALLEY
306          KO       0       0     0.0       1      22
307          BA   0.047
308          LG    0.37   0.218   9.327   0.062   7.018
309          UI     0.0   35.33   70.77   13.41     0.0

310          KK  BELOAA   CNAME  BELDRN
311          KM   COMBINE ROUTED HYDROGRAPH FROM CENTRA WITH RUNOFF FROM BELOAT @ BELOAA
312          KO       0       0     0.0       0      22
313          HC       2

314          KK  BELDRN   CNAME  BELOAA
315          KM   ROUTE HYDRPGRAPH FROM BELOAA TO DRAINA (CHANNEL BELDRN)
316          KO       0       0     0.0       0      22
317          RS       2    FLOW     0.0     0.0
318          RC   0.035   0.015   0.035  1343.0  0.0011     0.0
319          RX     0.0   108.0   120.0  131.99   132.0   144.0   156.0   264.0
320          RY     8.0     0.0     3.0    3.24    3.24     3.0     0.0     8.0

321          KK  BAYLIS
322          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
323          KM   L=0.30      Lca=0.08      S=0.01      Kn=0.011      LAG=9
324          KM   S-GRAPH TYPE=PHOENIX VALLEY
325          KO       0       0     0.0       1      22
326          BA  0.0155
327          LG     0.1    0.15     9.7   0.069    80.0
328          UI     0.0   36.19     0.0
1                                          HEC-1 INPUT                                                          PAGE  8

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


329          KK  DETDRN   CNAME     DET
330          KM   ROUTE HYDROGRAPH FROM DET TO DRAINA (CHANNEL DETDRN)
331          KO       0       0     0.0       0      22
332          RS       1    FLOW     0.0     0.0
333          RC    0.05    0.03    0.05  2657.0  0.0065     0.0
334          RX     0.0    50.0   100.0   108.0   110.0   118.0   168.0   218.0
335          RY     9.0     8.5     8.0     0.0     0.0     8.0     8.5     9.0

336          KK      92
337          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
338          KM   L=2.06      Lca=1.03      S=17.46      Kn=0.200      LAG=223
339          KM   S-GRAPH TYPE=AGRICULTURE
340          KO       0       0     0.0       1      22
341          BA   1.014
```

```
342          LG     1.0   0.152   8.658   0.095   5.858
343          UI     0.0   40.65    78.1  207.32  268.02  327.77  341.43  292.11  269.54  214.08
344          UI  145.16  120.99   73.46   57.17   43.57   35.76   23.07   23.07     8.2    5.08
345          UI    5.08    5.08    5.08    5.08    5.08    5.08    5.08    5.08     0.0

346          KK   DRAIN
347          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
348          KM   L=0.59      Lca=0.26      S=0.01      Kn=0.011      LAG=20
349          KM   S-GRAPH TYPE=PHOENIX VALLEY
350          KO       0       0     0.0       1      22
351          BA  0.1155
352          LG     1.0    0.15   9.659   0.071   7.349
353          UI     0.0   78.37   172.3   41.74     0.0

354          KK  FRMCEN
355          KM   RETRIEVE HYDROGRAPH FROM CENTRA
356          KO       0       0     0.0       0      22
357          DR   TODRN

358          KK  CENDRN   CNAME
359          KM   ROUTE HYDROGRAPH FROM CENTRA TO DRAINA (CHANNEL CENDRN)
360          RS       1    FLOW     0.0     0.0
361          RC    0.05    0.05    0.05  1888.0   0.005     0.0
362          RX     0.0   300.0   600.0   900.0  1200.0  1500.0  1800.0  2100.0
363          RY     1.0    0.67    0.33     0.0     0.0    0.33    0.67     1.0

364          KK  DRAINA   CNAME   DRNM5
365          KM   COMBINE DIVERTED HYDROGRAPH FROM CENTRA WITH ROUTED HYDROGRAPHS FROM BELOAA.
366          KO       0       0     0.0       0      22
367          HC       7

368          KK   DRNM5   CNAME  DRAINA
369          KM   ROUTE HYDROGRAPH FROM DRAINA TO M5 (CHANNEL DRNM5)
370          KO       0       0     0.0       0      22
371          RS       5    FLOW     0.0     0.0
372          RC    0.05    0.05    0.05 7894.85  0.0013     0.0
373          RX     0.0   500.0   525.0   528.0   543.0   546.0   571.0  1071.0
374          RY     9.0     4.0     2.0     0.0     0.0     2.0     4.0     9.0
1                                        HEC-1 INPUT                                                    PAGE  9

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


375          KK    4thS
376          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
377          KM   L=0.74      Lca=0.50      S=0.01      Kn=0.011      LAG=30
378          KM   S-GRAPH TYPE=PHOENIX VALLEY
379          KO       0       0     0.0       1      22
380          BA  0.1451
381          LG   0.181   0.203   6.474   0.204  37.605
382          UI     0.0   44.97  142.41  127.57   44.49   10.45     0.0

383          KK  FRM4TH
384          KM   RETRIEVE HYDROGRAPH FROM 4TH
385          KO       0       0     0.0       0      22
386          DR  TO4THS

387          KK   4TH4S   CNAME
388          KM   ROUTE HYDROGRAPH FROM 4THA TO 4THSA (CHANNEL 4TH4S)
389          RS       1    FLOW     0.0     0.0
390          RC    0.05   0.015    0.05  2629.0   0.015     0.0
391          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
392          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

393          KK   4thSA   CNAME  4TH7TH
394          KM   COMBINE DIVERTED HYDROGRAPH FROM 4THA WITH RUNOFF FROM 4THS @ 4THSA
395          KO       0       0     0.0       0      22
396          HC       2

397          KK  4TH7TH   CNAME   4thSA
398          KM   ROUTE HYDROGRAPH FROM 4THSA TO 7THSA (CHANNEL 4TH7TH)
399          KO       0       0     0.0       0      22
400          RS       2    FLOW     0.0     0.0
401          RC    0.05   0.015    0.05  1339.0  0.0028     0.0
402          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
403          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

404          KK     7th
405          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
406          KM   L=0.66      Lca=0.33      S=0.01      Kn=0.011      LAG=24
407          KM   S-GRAPH TYPE=PHOENIX VALLEY
408          KO       0       0     0.0       1      22
409          BA  0.1268
410          LG   0.252   0.261   5.114   0.312  38.171
411          UI     0.0   60.41  169.79   77.88   14.98     0.0

412          KK  FRM6TH
413          KM   RETRIEVE HYDROGRAPH FROM 6THA
414          KO       0       0     0.0       0      22
415          DR  TO7THS

416          KK  6TH7TH   CNAME
417          KM   ROUTE HYDROGRAPH FROM 6THA TO 7THSA (CHANNEL 6TH7TH)
418          RS       1    FLOW     0.0     0.0
419          RC    0.05   0.015    0.05  3061.0  0.0059     0.0
420          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
421          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0
1                                        HEC-1 INPUT                                                    PAGE 10

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


422          KK   7thSA   CNAME   7THM5
423          KM   COMBINE DIVERTED HYDROGRAPH FROM 6THA WITH ROUTED HYDROGRAPH FROM 4THSA WITH
424          KO       0       0     0.0       0      22
425          HC       3

426          KK   7THM5   CNAME   7thSA
427          KM   ROUTE HYDROGRAPH FROM 7THSA TO M5 (CHANNEL 7THM5)
428          KO       0       0     0.0       0      22
429          RS       2    FLOW     0.0     0.0
430          RC    0.05    0.05    0.05 5286.53  0.0023     0.0
431          RX     0.0    25.0    28.0    31.0    46.0    49.0    52.0    77.0
432          RY     6.0     4.0     2.0     0.0     0.0     2.0     4.0     6.0
```

```
433          KK      98
434          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
435          KM   L=1.50      Lca=0.75      S=6.69      Kn=0.200      LAG=209
436          KM   S-GRAPH TYPE=AGRICULTURE
437          KO       0        0      0.0        1       22
438          BA  0.3878
439          LG     1.0    0.174    9.082    0.078   10.556
440          UI     0.0    14.59    24.67    66.97     88.8   117.54   122.57   113.04   108.08     79.8
441          UI    66.8    46.99    39.56    25.34    19.48    15.08     12.7     8.28     8.28     3.72
442          UI    1.82     1.82     1.82     1.82     1.82     1.82     1.82     1.82     1.82     1.82
443          UI     0.0

444          KK      M5
445          KM   COMBINE ROUTED HYDROGRAPHs FROM 7THSA AND DRAINA WITH RUNOFF FROM 98 @ M5
446          KO       0        0      0.0        0       22
447          HC       3

448          KK    BICP
449          KM   ******************************************************************************
450          KM   **    SUB-WATERSHED P    ***************************************************
451          KM   ******************************************************************************
452          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
453          BA   0.001
454          ZR  =QI A=BIC BIC B=67395 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24E

455          KK   P6SP7    CNAME      P6S
456          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT P6S TO P7 (CHANNEL A)
457          KO       0        0      0.0        0       22
458          RS       1     FLOW      0.0      0.0
459          RC     0.1      0.1      0.1   5100.0    0.005      0.0
460          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
461          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

462          KK      94
463          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
464          KM   L=1.30      Lca=0.65      S=22.37      Kn=0.200      LAG=149
465          KM   S-GRAPH TYPE=AGRICULTURE
466          KO       0        0      0.0        1       22
467          BA  0.7194
468          LG     1.0     0.15    7.304    0.157    2.203
469          UI     0.0    17.81    17.81    35.71    70.46   102.77   107.11   138.19   149.58   149.58
1                                          HEC-1 INPUT                                                          PAGE 11

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

470          UI  147.91   124.65   131.59   105.71   101.03    75.79    63.54    51.25    51.33    33.33
471          UI   28.76    23.11    21.15    16.26    16.26    10.96    10.11    10.11     8.64     2.23
472          UI    2.23     2.23     2.23     2.23     2.23     2.23     2.23     2.23     2.23     2.23
473          UI    2.23     2.23     2.23     2.23     2.23      0.0

474          KK      P7    CNAME    P7-P8
475          KM   COMBINE ROUTED HYDROGRAPH FROM P6S WITH RUNOFF FROM 94 @ P7
476          KO       0        0      0.0        0       22
477          HC       2

478          KK   P7-P8    CNAME      P7
479          KM   ROUTE HYDROGRAPH FROM P7 TO P8 (CHANNEL A)
480          KO       0        0      0.0        0       22
481          RS       6     FLOW      0.0      0.0
482          RC     0.1      0.1      0.1  3899.99   0.0015      0.0
483          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
484          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

485          KK      96
486          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
487          KM   L=1.32      Lca=0.66      S=4.55      Kn=0.200      LAG=205
488          KM   S-GRAPH TYPE=AGRICULTURE
489          KO       0        0      0.0        1       22
490          BA  0.9142
491          LG     1.0     0.15    7.196    0.171    0.589
492          UI     0.0    16.45    16.45     18.8    34.54    52.11    84.71    98.14    96.32   126.68
493          UI  129.26   138.14   138.14   138.14   130.47   115.12   121.64   118.86    86.34    91.94
494          UI   82.29    63.36    57.32    47.86    49.06    41.47    31.23    26.57    24.96    20.31
495          UI   20.31    15.37    15.02    15.02    10.53     9.33     9.33     9.33     9.33      4.0
496          UI    2.06     2.06     2.06     2.06     2.06     2.06     2.06     2.06     2.06     2.06
497          UI    2.06     2.06     2.06     2.06     2.06     2.06     2.06     2.06     2.06     2.06
498          UI    2.06     2.06      0.0

499          KK      P8    CNAME    P8-P9
500          KM   COMBINE ROUTED HYDROGRAPH FROM P7 WITH RUNOFF FROM 96 @ P8
501          KO       0        0      0.0        0       22
502          HC       2

503          KK   P8-P9    CNAME      P8
504          KM   ROUTE HYDROGRAPH FROM P8 TO P9 (CHANNEL A)
505          KO       0        0      0.0        0       22
506          RS       9     FLOW      0.0      0.0
507          RC     0.1      0.1      0.1  6986.11   0.0012      0.0
508          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
509          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

510          KK      97
511          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
512          KM   L=1.32      Lca=0.66      S=6.05      Kn=0.200      LAG=195
513          KM   S-GRAPH TYPE=AGRICULTURE
514          KO       0        0      0.0        1       22
515          BA  0.5002
516          LG     1.0    0.163    6.866    0.195    0.278
517          UI     0.0    9.46     9.46    12.27    19.87    35.86    52.15    53.64    61.59    73.51
518          UI   79.47    79.47    79.47    79.47    66.22    66.89     74.0    49.67    52.15    48.28
1                                          HEC-1 INPUT                                                          PAGE 12

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

519          UI   36.52    32.56    27.34    28.83    21.44    17.23    15.28    13.09    11.69    10.47
520          UI    8.64     8.64      7.3     5.37     5.37     5.37     5.37     2.86     1.18     1.18
521          UI    1.18     1.18     1.18     1.18     1.18     1.18     1.18     1.18     1.18     1.18
522          UI    1.18     1.18     1.18     1.18     1.18     1.18     1.18     1.18     1.18      0.0

523          KK   FRO10
524          KM   RETRIEVE HYDROGRAPH FROM O10
525          KO       0        0      0.0        0       22
526          DR    TOP9
```

```
527          KK  O10-P9   CNAME
528          KM   ROUTE HYDROGRAPH FROM O10 TO P9 (CHANNEL 010-P9)
529          RS       1    FLOW     0.0     0.0
530          RC    0.05    0.05    0.05  1492.0   0.002     0.0
531          RX     0.0   200.0   235.0   251.0   263.0   279.0   314.0   349.0
532          RY    12.0    10.0     8.0     0.0     0.0     8.0    10.0    12.0

533          KK      P9   CNAME  P9-P10
534          KM   COMBINE ROUTED HYDROGRAPH FROM P8 WITH DIVERTED HYDROGRAPH FROM O10 WITH RUNO
535          KO       0       0     0.0       0      22
536          HC       3

537          KK  P9-P10   CNAME      P9
538          KM   ROUTE HYDROGRAPH FROM P9 TO P10 (CHANNEL A)
539          KO       0       0     0.0       0      22
540          RS       5    FLOW     0.0     0.0
541          RC     0.1     0.1     0.1 3952.01  0.0048     0.0
542          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
543          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

544          KK     100
545          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
546          KM   L=1.70      Lca=0.85     S=18.83     Kn=0.200     LAG=190
547          KM   S-GRAPH TYPE=AGRICULTURE
548          KO       0       0     0.0       1      22
549          BA  0.5816
550          LG     1.0   0.228   6.243   0.251   1.187
551          UI     0.0   11.29   11.29   15.51   24.87    45.7   65.19   60.85   82.97   85.34
552          UI   94.82   94.82   94.82   89.56   79.02   84.02   75.73   59.27   66.61   45.77
553          UI    43.1   33.76   32.34    31.6   21.55   18.46   17.01   13.94   13.46   10.31
554          UI   10.31    9.45    6.41    6.41    6.41    6.41    3.74    1.41    1.41    1.41
555          UI    1.41    1.41    1.41    1.41    1.41    1.41    1.41    1.41    1.41    1.41
556          UI    1.41    1.41    1.41    1.41    1.41    1.41    1.41     0.0

557          KK     P10
558          KM   COMBINE ROUTED HYDROGRAPH FROM P9 WITH RUNOFF FROM 100 @ P10
559          KO       0       0     0.0       0      22
560          HC       2

561          KK      99
562          KM   ******************************************************************************
563          KM   **   SUB-WATERSHED N-B   ******************************************************
564          KM   ******************************************************************************
565          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
566          KM   L=2.01      Lca=1.24      S=3.49      Kn=0.050      LAG=80
1                                          HEC-1 INPUT                                          PAGE 13

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

567          KM   S-GRAPH TYPE=PHOENIX VALLEY
568          KO       0       0     0.0       1      22
569          BA  0.9484
570          LG     1.0   0.334   6.022   0.216   0.014
571          UI     0.0   39.92  121.66  208.16  273.54  409.44  445.57  321.29  237.94  165.13
572          UI    81.8   57.84   37.85   12.24   12.24   12.24     0.0

573          KK     101
574          KM   ******************************************************************************
575          KM   **   SUB-WATERSHED Q   *******************************************************
576          KM   ******************************************************************************
577          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
578          KM   L=1.63      Lca=0.81      S=8.59      Kn=0.200      LAG=213
579          KM   S-GRAPH TYPE=AGRICULTURE
580          KO       0       0     0.0       1      22
581          BA  0.3807
582          LG     1.0   0.149   6.963   0.172   3.947
583          UI     0.0    6.59    6.59    6.72   13.84   19.36   31.67   39.52   35.16   50.66
584          UI   48.72   55.36   55.36   55.36   55.36   47.98   46.14   49.41   41.25    34.6
585          UI   38.51    29.5   25.17   22.12   19.02   19.89   16.22   12.54   10.65   10.21
586          UI    8.14    8.14    6.53    6.02    6.02    4.89    3.74    3.74    3.74    3.74
587          UI    3.04    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82
588          UI    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82
589          UI    0.82    0.82    0.82    0.82     0.0

590          KK    BICK
591          KM   ******************************************************************************
592          KM   **   SUB-WATERSHED K   *******************************************************
593          KM   ******************************************************************************
594          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
595          BA   0.001
596          ZR  =QI A=BIC BIC B=42799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24E

597          KK   K7SK8   CNAME     K7S
598          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT K7S TO K8 (CHANNEL A)
599          KO       0       0     0.0       0      22
600          RS       1    FLOW     0.0     0.0
601          RC     0.1     0.1     0.1  8240.0   0.005     0.0
602          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
603          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

604          KK      90
605          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
606          KM   L=2.05      Lca=1.02      S=21.50      Kn=0.200      LAG=213
607          KM   S-GRAPH TYPE=AGRICULTURE
608          KO       0       0     0.0       1      22
609          BA  1.0549
610          LG     1.0   0.152   9.525   0.075   5.871
611          UI     0.0   18.26   18.26   18.63   38.35   53.64   87.77   109.5   97.42  140.37
612          UI   135.0  153.41  153.41  153.41  153.41  132.96  127.84  116.92  119.85   95.88
613          UI  106.72   81.75   69.73   61.31   52.71   55.11   44.96   34.76    29.5   28.29
614          UI   22.56   22.56   18.09   16.68   16.68   13.56   10.37   10.37   10.37   10.37
615          UI    8.43    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
616          UI    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
617          UI    2.28    2.28    2.28    2.28     0.0
1                                          HEC-1 INPUT                                          PAGE 14

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

618          KK      K8
619          KM   COMBINE ROUTED HYDROGRAPH FROM K7S WITH RUNOFF FROM 90 @ K8
620          KO       0       0     0.0       0      22
621          HC       2
```

```
622          KK    BICL
623          KM    ***********************************************************************
624          KM    **    SUB-WATERSHED L    ***********************************************
625          KM    ***********************************************************************
626          KM    FALSE BASIN TO SIMULATE INFLOW FROM BIC
627          BA    0.001
628          ZR   =QI A=BIC BIC B=47195 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24E

629          KK    L5SL6   CNAME     L5S
630          KM    ROUTE INFLOW FROM BIC CONCENTRATED AT L5S TO L6 (CHANNEL A)
631          KO       0       0     0.0       0      22
632          RS       1    FLOW     0.0     0.0
633          RC     0.1     0.1     0.1  9280.0   0.005     0.0
634          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
635          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

636          KK      91
637          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
638          KM    L=2.08     Lca=1.04     S=21.10     Kn=0.200     LAG=217
639          KM    S-GRAPH TYPE=AGRICULTURE
640          KO       0       0     0.0       1      22
641          BA    1.189
642          LG     1.0    0.15   8.293   0.113   5.191
643          UI     0.0   20.21   20.21   20.21   41.59   57.01   93.61  121.43  106.09  140.03
644          UI  156.16  169.74  169.74  169.74  169.74  154.65  141.45  151.68  144.39  106.09
645          UI  111.63  106.19   79.21   74.79   60.09   56.97   62.49   38.58   35.53   32.64
646          UI   27.78   24.96   23.83   18.45   18.45   18.45   12.54   11.47   11.47   11.47
647          UI   11.47    7.06    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53
648          UI    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53
649          UI    2.53    2.53    2.53    2.53    2.53     0.0

650          KK      L6
651          KM    COMBINE ROUTED HYDROGRAPH FROM L5S WITH RUNOFF FROM 91 @ L6
652          KO       0       0     0.0       0      22
653          HC       2
654          ZZ
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	BICM	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	M4S6TH	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	4th	75.	12.50	10.	3.	1.	0.08		
+	DIVERSION TO	TO4THS	37.	12.50	5.	2.	1.	0.08		
+	HYDROGRAPH AT	TO4THS	37.	12.50	5.	2.	1.	0.08		
+	ROUTED TO	4TH6TH	30.	12.50	5.	2.	1.	0.08		
+	HYDROGRAPH AT	6th	58.	12.50	8.	3.	1.	0.06		
+	3 COMBINED AT	6thA	88.	12.50	13.	4.	1.	0.14		
+	DIVERSION TO	TO7THS	44.	12.50	6.	2.	1.	0.14		
+	HYDROGRAPH AT	TO7THS	44.	12.50	6.	2.	1.	0.14		
+	ROUTED TO	6TH8TH	39.	12.50	6.	2.	1.	0.14		
+	HYDROGRAPH AT	8th	84.	12.50	11.	3.	1.	0.08		
+	2 COMBINED AT	8thA	121.	12.50	17.	5.	2.	0.22		
+	DIVERSION TO	TOCEN1	61.	12.50	8.	3.	1.	0.22		
+	HYDROGRAPH AT	TOCEN	61.	12.50	8.	3.	1.	0.22		
+	ROUTED TO	8TH9TH	55.	12.50	8.	3.	1.	0.22		
+	HYDROGRAPH AT	9thE	83.	12.50	12.	4.	1.	0.09		
+	HYDROGRAPH AT	9thW	84.	12.50	9.	3.	1.	0.08		
+	3 COMBINED AT	9th	219.	12.50	29.	9.	3.	0.40		
+	DIVERSION TO	TOCEN2	109.	12.50	15.	4.	1.	0.40		
+	HYDROGRAPH AT	TOCEN2	109.	12.50	15.	4.	1.	0.40		
+	HYDROGRAPH AT	BICN	54.	15.25	35.	10.	3.	0.00		
+	ROUTED TO	N6S-D	18.	19.50	17.	9.	3.	0.00		

+	HYDROGRAPH AT	BICO	0.	0.00	0.	0.	0.	0.00
+	ROUTED TO	O8SO9	0.	0.00	0.	0.	0.	0.00
+	HYDROGRAPH AT	93	18.	14.25	10.	3.	1.	0.38
+	2 COMBINED AT	O9	18.	14.25	10.	3.	1.	0.38
+	ROUTED TO	O9O10	5.	22.75	4.	3.	1.	0.38
+	HYDROGRAPH AT	95	25.	15.25	17.	5.	2.	0.52
+	2 COMBINED AT	O10	25.	15.50	18.	7.	3.	0.90
+	DIVERSION TO	TOP9	13.	15.50	9.	4.	1.	0.90
+	HYDROGRAPH AT	TOP9	13.	15.50	9.	4.	1.	0.90
+	ROUTED TO	O10DR	7.	23.75	6.	3.	1.	0.90
+	HYDROGRAPH AT	CENTRE	69.	12.50	8.	2.	1.	0.07
+	HYDROGRAPH AT	FRM9TH	109.	12.50	15.	4.	1.	0.40
+	ROUTED TO	9THCEN	96.	12.50	15.	4.	1.	0.40
+	HYDROGRAPH AT	FRM8TH	61.	12.50	8.	3.	1.	0.22
+	ROUTED TO	8THCEN	53.	12.50	8.	3.	1.	0.22
+	3 COMBINED AT	CENTRA	221.	12.50	31.	10.	3.	0.07
+	DIVERSION TO	TODRN	110.	12.50	16.	5.	2.	0.07
+	HYDROGRAPH AT	TOBELO	110.	12.50	16.	5.	2.	0.07
+	ROUTED TO	CENBEL	96.	12.75	16.	5.	2.	0.07
+	HYDROGRAPH AT	BELOAT	47.	12.50	4.	1.	0.	0.05
+	2 COMBINED AT	BELOAA	124.	12.50	20.	6.	2.	0.12
+	ROUTED TO	BELDRN	112.	12.75	20.	6.	2.	0.12
+	HYDROGRAPH AT	BAYLIS	25.	12.25	2.	1.	0.	0.02
+	ROUTED TO	DETDRN	14.	12.25	2.	1.	0.	0.02
+	HYDROGRAPH AT	92	134.	13.50	45.	13.	4.	1.01
+	HYDROGRAPH AT	DRAIN	73.	12.50	6.	2.	1.	0.12
+	HYDROGRAPH AT	FRMCEN	110.	12.50	16.	5.	2.	0.07
+	ROUTED TO	CENDRN	50.	13.00	15.	5.	2.	0.07
+	7 COMBINED AT	DRAINA	260.	12.75	92.	35.	13.	2.16
+	ROUTED TO	DRNM5	208.	14.00	90.	35.	13.	2.16
+	HYDROGRAPH AT	4thS	106.	12.50	16.	5.	2.	0.15
+	HYDROGRAPH AT	FRM4TH	37.	12.50	5.	2.	1.	0.08
+	ROUTED TO	4TH4S	30.	12.50	5.	2.	1.	0.08
+	2 COMBINED AT	4thSA	136.	12.50	21.	7.	2.	0.15
+	ROUTED TO	4TH7TH	130.	12.75	21.	7.	2.	0.15
+	HYDROGRAPH AT	7th	104.	12.50	13.	4.	1.	0.13
+	HYDROGRAPH AT	FRM6TH	44.	12.50	6.	2.	1.	0.14
+	ROUTED TO	6TH7TH	36.	12.50	6.	2.	1.	0.14

```
+        3 COMBINED AT
                      7thSA     234.  12.50        40.        13.        4.      0.27
+        ROUTED TO
                      7THM5     184.  13.00        40.        13.        4.      0.27
+        HYDROGRAPH AT
                         98      56.  13.50        21.         6.        2.      0.39
+        3 COMBINED AT
                         M5     305.  13.25       146.        52.       19.      2.82
+        HYDROGRAPH AT
                       BICP       0.   0.00         0.         0.        0.      0.00
+        ROUTED TO
                      P6SP7       0.   0.00         0.         0.        0.      0.00
+        HYDROGRAPH AT
                         94      48.  14.25        24.         7.        2.      0.72
+        2 COMBINED AT
                         P7      48.  14.25        24.         7.        2.      0.72
+        ROUTED TO
                      P7-P8      35.  16.75        22.         7.        2.      0.72
+        HYDROGRAPH AT
                         96      40.  15.00        25.         7.        2.      0.91
+        2 COMBINED AT
                         P8      65.  16.25        43.        14.        5.      1.63
+        ROUTED TO
                      P8-P9      48.  20.50        37.        13.        5.      1.63
+        HYDROGRAPH AT
                         97      21.  15.00        13.         4.        1.      0.50
+        HYDROGRAPH AT
                      FRO10      13.  15.50         9.         4.        1.      0.90
+        ROUTED TO
                     O10-P9      13.  15.50         9.         4.        1.      0.90
+        3 COMBINED AT
                         P9      52.  20.25        41.        20.        7.      2.13
+        ROUTED TO
                     P9-P10      50.  21.75        41.        20.        7.      2.13
+        HYDROGRAPH AT
                        100      18.  14.75        11.         3.        1.      0.58
+        2 COMBINED AT
                        P10      49.  21.75        41.        23.        8.      2.72
+        HYDROGRAPH AT
                         99      65.  13.50        15.         4.        1.      0.95
+        HYDROGRAPH AT
                        101      19.  15.25        13.         4.        1.      0.38
+        HYDROGRAPH AT
                       BICK      74.  19.75        53.        21.       10.      0.00
+        ROUTED TO
                      K7SK8      45.  22.50        40.        20.       10.      0.00
+        HYDROGRAPH AT
                         90      66.  15.25        44.        14.        5.      1.05
+        2 COMBINED AT
                         K8      70.  15.50        49.        32.       14.      1.06
+        HYDROGRAPH AT
                       BICL      33.  15.50        29.        15.        9.      0.00
+        ROUTED TO
                      L5SL6      23.  21.00        22.        15.        9.      0.00
+        HYDROGRAPH AT
                         91      66.  15.25        44.        14.        5.      1.19
+        2 COMBINED AT
                         L6      76.  15.50        57.        28.       13.      1.19

 *** NORMAL END OF HEC-1 ***
1****************************************
 *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
 *              JUN  1998               *
 *            VERSION 4.1               *
 *                                      *
 *  RUN DATE   23MAR06  TIME  05:07:37  *
 *                                      *
 ****************************************

****************************************
*                                      *
*    U.S. ARMY CORPS OF ENGINEERS      *
*    HYDROLOGIC ENGINEERING CENTER     *
*          609 SECOND STREET           *
*       DAVIS, CALIFORNIA 95616        *
*           (916) 756-1104             *
*                                      *
****************************************

X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X               X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X               X
X     X  X        X     X         X
X     X  XXXXXXX   XXXXX         XXX
```

```
THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


1                                        HEC-1 INPUT                                                    PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID   Buckeye/Sun Valley ADMS - November 2004
  2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
  3           ID   10-year 24-hour
  4           ID   Existing Conditions
  5           ID   Area 1 - BIC to Gila (West)
  6           ID   File Name: bgw1024ex.hc1
  7           ID   Rainfall Loss Method - Green & Ampt
  8           ID   Unit Hydrograph Method - FCDMC S-Graph
  9           ID   Channel Routing Method - Normal Depth
 10           ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
 11           ID   Existing Land Use Cutoff Date: 2000
 12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
 13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
              *DIAGRAM
 14           IT      15 02JAN94       0     400
 15           IO       3
 16           IN      15 02JAN94       0
 17           JD     2.5    0.01
              * 24-hour distribution
 18           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
 19           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 20           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 21           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 22           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 23           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 24           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 25           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 26           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 27           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
 28           IN      15 02JAN94       0
 29           JD   2.375    10.0
              * 24-hour distribution
 30           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
 31           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 32           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 33           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 34           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 35           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 36           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 37           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 38           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 39           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
 40           IN      15 02JAN94       0
 41           JD   2.295    20.0
              * 24-hour distribution
 42           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
 43           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 44           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 45           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 46           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 47           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 48           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 49           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 50           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 51           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
1                                        HEC-1 INPUT                                                    PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 52           KK   BICE
 53           KM   ***********************************************************************
 54           KM   **    SUB-WATERSHED E    ************************************************
 55           KM   ***********************************************************************
 56           KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 57           BA  0.0001
 58           ZR  =QI A=BIC BIC B=4395 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24E

 59           KK  E2S-E3   CNAME     E2S
 60           KM   ROUTE INFLOW FROM BIC CONCENTRATED AT E2S TO E3 (CHANNEL A)
 61           KO       0       0     0.0       0      22
 62           RS       1    FLOW     0.0     0.0
 63           RC     0.1     0.1     0.1 9548.74   0.003     0.0
 64           RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 65           RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 66           KK      84
 67           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 68           KM   L=1.81      Lca=0.98      S=13.27      Kn=0.200      LAG=219
 69           KM   S-GRAPH TYPE=AGRICULTURE
 70           KO       0       0     0.0       1      22
 71           BA  0.8772
 72           LG     1.0   0.147   9.727   0.071   0.998
 73           UI     0.0   14.77   14.77   14.77   29.95   40.82   67.16   88.66   77.76   98.85
 74           UI  113.94  124.08  124.08  124.08  124.08  115.81   103.4  107.74  113.07   77.55
 75           UI   80.05   82.21    59.0    56.4   45.14   41.62   46.54   30.82   27.07   23.86
 76           UI   21.83   18.25   18.25   14.06   13.49   13.49   10.82    8.38    8.38    8.38
 77           UI    8.38     7.6    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85
 78           UI    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85
 79           UI    1.85    1.85    1.85    1.85    1.85    1.85     0.0

 80           KK      E3
 81           KM   COMBINE ROUTED HYDROGRAPH FROM E2S WITH RUNOFF FROM 84 @ E3
 82           KO       0       0     0.0       0      22
 83           HC       2

 84           KK  BICFB
 85           KM   ***********************************************************************
 86           KM   **    SUB-WATERSHEDS F AND G    ***********************************
 87           KM   ***********************************************************************
```

```
  98          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
  89          BA    0.01
  90          ZR  =QI A=BIC BIC B=14995 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24E

  91          KK  F6BS7B   CNAME    F6BS
  92          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT F6BS TO F7B (CHANNEL A)
  93          KO       0       0     0.0       0      22
  94          RS       1    FLOW     0.0     0.0
  95          RC     0.1     0.1     0.1 3159.78   0.007     0.0
  96          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
  97          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                                    PAGE  3

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


  98          KK     85B
  99          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 100          KM   L=1.47      Lca=0.73      S=15.68      Kn=0.200      LAG=176
 101          KM   S-GRAPH TYPE=AGRICULTURE
 102          KO       0       0     0.0       1      22
 103          BA  0.7453
 104          LG     1.0   0.247   5.674   0.297   1.988
 105          UI     0.0   15.62   15.62   24.82   40.72   72.66   91.61   93.72  117.48  131.18
 106          UI  131.18  131.18  125.35  109.32  115.73  100.21   83.45   84.6   61.11   53.73
 107          UI   44.85   48.84   29.87   26.57   24.15   19.29   18.35   14.26   14.26   11.63
 108          UI    8.86    8.86    8.86    7.85    1.95    1.95    1.95    1.95    1.95    1.95
 109          UI    1.95    1.95    1.95    1.95    1.95    1.95    1.95    1.95    1.95    1.95
 110          UI    1.95    1.95    1.95     0.0

 111          KK     F7B   CNAME  F7B-F8
 112          KM   COMBINE ROUTED HYDROGRAPH FROM F6BS WITH RUNOFF FROM 85B @ F7B
 113          KO       0       0     0.0       0      22
 114          HC       2

 115          KK  F7B-F8   CNAME     F7B
 116          KM   ROUTE HYDRPGRAPH FROM F7B TO F8 (CHANNEL A)
 117          KO       0       0     0.0       0      22
 118          RS       8    FLOW     0.0     0.0
 119          RC     0.1     0.1     0.1 6483.88   0.006     0.0
 120          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 121          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 122          KK   BICG
 123          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 124          BA    0.01
 125          ZR  =QI A=BIC BIC B=21999 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24E

 126          KK  G8S-G9   CNAME     G8S
 127          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT G8S TO G9 (CHANNEL A)
 128          KO       0       0     0.0       0      22
 129          RS       1    FLOW     0.0     0.0
 130          RC     0.1     0.1     0.1 5481.53   0.005     0.0
 131          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 132          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 133          KK      86
 134          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 135          KM   L=1.09      Lca=0.54      S=25.78      Kn=0.200      LAG=127
 136          KM   S-GRAPH TYPE=AGRICULTURE
 137          KO       0       0     0.0       1      22
 138          BA  0.4398
 139          LG     1.0    0.15   8.108    0.11   6.815
 140          UI     0.0   12.77   15.89   33.53   68.33   74.26   98.27  107.27  107.27   97.74
 141          UI   93.18   80.08   72.45   51.51   42.18   37.93    27.0   20.95   16.68   14.24
 142          UI   11.66    9.78    7.25    7.25    5.59     1.6     1.6     1.6     1.6     1.6
 143          UI     1.6     1.6     1.6     1.6     1.6     1.6     1.6     1.6     0.0
1                                          HEC-1 INPUT                                                    PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 144          KK      G9   CNAME   G9-F8
 145          KM   COMBINE ROUTED HYDROGRAPH FROM G8S WITH RUNOFF FROM 86 @ G9
 146          KO       0       0     0.0       0      22
 147          HC       2

 148          KK   G9-F8   CNAME      G9
 149          KM   ROUTE HYDRPGRAPH FROM G9 TO F8 (CHANNEL A)
 150          KO       0       0     0.0       0      22
 151          RS      13    FLOW     0.0     0.0
 152          RC     0.1     0.1     0.1 9228.08   0.004     0.0
 153          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 154          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 155          KK  BICFA
 156          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 157          BA  0.0001
 158          ZR  =QI A=BIC BIC B=11199 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24E

 159          KK  F6AS7A   CNAME    F6AS
 160          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT F6AS TO F7A (CHANNEL A)
 161          KO       0       0     0.0       0      22
 162          RS       1    FLOW     0.0     0.0
 163          RC     0.1     0.1     0.1  2921.0   0.011     0.0
 164          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 165          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 166          KK     85A
 167          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 168          KM   L=0.84      Lca=0.42      S=37.89      Kn=0.200      LAG=98
 169          KM   S-GRAPH TYPE=AGRICULTURE
 170          KO       0       0     0.0       1      22
 171          BA  0.2163
 172          LG     1.0   0.148   7.216   0.169   1.439
 173          UI     0.0    8.14   13.77   37.36   49.55   65.58   68.39   63.07   60.31   44.52
 174          UI   37.27   26.22   22.07   14.14   10.87    8.41    7.09    4.62    4.62    2.07
 175          UI    1.02    1.02    1.02    1.02    1.02    1.02    1.02    1.02    1.02    1.02
 176          UI     0.0

 177          KK     F7A   CNAME  F7A-F8
 178          KM   COMBINE ROUTED HYDROGRAPH FROM F6AS WITH RUNOFF FROM 85A @ F7A
 179          KO       0       0     0.0       0      22
 180          HC       2
```

```
 181          KK  F7A-F8   CNAME     F7A
 182          KM   ROUTE HYDRPGRAPH FROM F7A TO F8 (CHANNEL A)
 183          KO       0       0     0.0       0      22
 184          RS       7    FLOW     0.0     0.0
 185          RC     0.1     0.1     0.110377.67   0.006     0.0
 186          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 187          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 188          KK     105
 189          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 190          KM   L=1.94     Lca=0.97     S=18.59     Kn=0.200     LAG=210
 191          KM   S-GRAPH TYPE=AGRICULTURE
 192          KO       0       0     0.0       1      22
 193          BA  0.9967
 194          LG     1.0    0.15   8.425   0.106   1.659
 195          UI     0.0    17.5    17.5   18.66   36.76   52.93   86.38  104.76   96.79  138.98
 196          UI  128.13  147.03  147.03  147.03  147.03  122.52  122.52  134.29  104.02   92.91
 197          UI  101.53   70.71   66.83   54.23   49.36   55.42    34.8   31.36   28.27   24.42
 198          UI   21.62   20.49   15.98   15.98   15.98   10.06    9.93    9.93    9.93    9.93
 199          UI    3.74    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19
 200          UI    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19
 201          UI    2.19    2.19    2.19     0.0

 202          KK     104
 203          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 204          KM   L=1.95     Lca=0.98     S=13.83     Kn=0.200     LAG=223
 205          KM   S-GRAPH TYPE=AGRICULTURE
 206          KO       0       0     0.0       1      22
 207          BA  1.0120
 208          LG     1.0   0.174   6.755   0.192   0.053
 209          UI     0.0   16.74   16.74   16.74    32.9   44.31    73.2   96.94   91.85  107.62
 210          UI  126.44  139.17  140.58  140.58  140.58  137.46  117.15  117.15  127.87  102.94
 211          UI   87.86   99.21   73.02    63.9   56.91   48.63   49.42   45.47   31.95   28.25
 212          UI   27.03   21.81   20.67   19.09   15.28   15.28   15.28   10.23     9.5     9.5
 213          UI     9.5     9.5    6.73    2.09    2.09    2.09    2.09    2.09    2.09    2.09
 214          UI    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09
 215          UI    2.09    2.09    2.09    2.09    2.09    2.09    2.09     0.0

 216          KK      F8
 217          KM   COMBINE ROUTED HYDROGRAPH FROM G9, F7A, AND F7B WITH RUNOFF FROM 104 AND 105
 218          KO       0       0     0.0       0      22
 219          HC       5

 220          KK   BICH
 221          KM   ******************************************************************************
 222          KM   **   SUB-WATERSHED H   ******************************************************
 223          KM   ******************************************************************************
 224          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 225          BA    0.01
 226          ZR  =QI A=BIC BIC B=24799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24E

 227          KK  H7S-H8   CNAME     H7S
 228          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT H7S TO H8 (CHANNEL A)
 229          KO       0       0     0.0       0      22
 230          RS       1    FLOW     0.0     0.0
 231          RC     0.1     0.1     0.1 9426.94   0.004     0.0
 232          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 233          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                                          PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 234          KK      87
 235          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 236          KM   L=1.87     Lca=0.93     S=22.48     Kn=0.200     LAG=197
 237          KM   S-GRAPH TYPE=AGRICULTURE
 238          KO       0       0     0.0       1      22
 239          BA  0.9127
 240          LG     1.0   0.142   9.841   0.066   1.133
 241          UI     0.0   17.08   17.08   21.63   35.88    62.3   92.38   98.78  108.99  130.67
 242          UI  143.51  143.51  143.51  143.51  122.78  119.59  131.61   97.98   92.38   92.49
 243          UI   67.23   61.75   50.13   50.38    44.1   32.38    27.6   25.39    21.1   20.52
 244          UI    15.6    15.6   15.09     9.7     9.7     9.7     9.7    7.98    2.14    2.14
 245          UI    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14
 246          UI    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14     0.0

 247          KK      H8   CNAME    H8-H9
 248          KM   COMBINE ROUTED HYDROGRAPH FROM H7S WITH RUNOFF FROM 87 @ H8
 249          KO       0       0     0.0       0      22
 250          HC       2

 251          KK   H8-H9   CNAME      H8
 252          KM   ROUTE HYDRPGRAPH FROM H8 TO H9 (CHANNEL A)
 253          KO       0       0     0.0       0      22
 254          RS       5    FLOW     0.0     0.0
 255          RC     0.1     0.1     0.1 5170.32   0.005     0.0
 256          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 257          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 258          KK     106
 259          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 260          KM   L=2.21     Lca=1.11     S=20.78     Kn=0.200     LAG=227
 261          KM   S-GRAPH TYPE=AGRICULTURE
 262          KO       0       0     0.0       1      22
 263          BA  1.2094
 264          LG     1.0    0.15   7.597   0.146   0.441
 265          UI     0.0   19.65   19.65   19.65   37.41   49.75   82.54  109.68  112.23  121.21
 266          UI  152.16   154.9  165.04  165.04  165.04  165.04   141.2  137.53  147.94  134.67
 267          UI  103.15  109.85  101.52   76.86   73.58   58.83   55.01   62.59   39.81   36.09
 268          UI   31.74   29.65   24.27   24.27    19.8   17.94   17.94   16.41   11.15   11.15
 269          UI   11.15   11.15   11.15     5.7    2.46    2.46    2.46    2.46    2.46    2.46
 270          UI    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46
 271          UI    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46     0.0

 272          KK      H9
 273          KM   COMBINE ROUTED HYDROGRAPH FROM H8 WITH RUNOFF FROM 106 @ H9
 274          KO       0       0     0.0       0      22
 275          HC       2
```

```
 276          KK   BICJ
 277          KM   ******************************************************************************
 278          KM   **   SUB-WATERSHED J AND I  ***********************************************
 279          KM   ******************************************************************************
 280          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 281          BA    0.01
 282          ZR  =QI A=BIC BIC B=36399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24E
1                                          HEC-1 INPUT                                          PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 283          KK  J6S-J7   CNAME     J6S
 284          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT J6S TO J7 (CHANNEL A)
 285          KO       0       0     0.0       0      22
 286          RS       1    FLOW     0.0     0.0
 287          RC     0.1     0.1     0.1 7531.83   0.005     0.0
 288          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 289          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 290          KK      89
 291          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 292          KM   L=1.79     Lca=0.90     S=21.20     Kn=0.200     LAG=193
 293          KM   S-GRAPH TYPE=AGRICULTURE
 294          KO       0       0     0.0       1      22
 295          BA  0.9629
 296          LG     1.0   0.144   9.821   0.068   0.559
 297          UI     0.0    18.4    18.4   24.43   38.93    72.1  103.35  102.26  123.64  143.73
 298          UI  154.55  154.55  154.55  151.11  128.79  134.03  134.52   96.59  104.41   86.51
 299          UI   70.25   60.15   52.36    57.9   35.89   32.13   29.72   23.56   22.73   18.62
 300          UI    16.8    16.8   12.13   10.44   10.44   10.44   10.44    2.52     2.3     2.3
 301          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
 302          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     0.0

 303          KK      J7   CNAME   J7-J8
 304          KM   COMBINE ROUTED HYDROGRAPH FROM J6S WITH RUNOFF FROM 89 @ J7
 305          KO       0       0     0.0       0      22
 306          HC       2

 307          KK   J7-J8   CNAME      J7
 308          KM   ROUTE HYDRPGRAPH FROM J7 TO J8 (CHANNEL Outlet to Gila)
 309          KO       0       0     0.0       0      22
 310          RS       2    FLOW     0.0     0.0
 311          RC   0.035    0.05   0.035  6030.2   0.005     0.0
 312          RX     0.0     5.0    15.0    25.0    45.0    55.0    65.0    70.0
 313          RY    12.0    12.0     6.0     0.0     0.0     6.0    12.0    12.0

 314          KK   BICI
 315          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 316          BA    0.01
 317          ZR  =QI A=BIC BIC B=33399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24E

 318          KK  I6S-I7   CNAME     I6S
 319          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT I6S TO I7 (CHANNEL A)
 320          KO       0       0     0.0       0      22
 321          RS       1    FLOW     0.0     0.0
 322          RC     0.1     0.1     0.1 5514.43   0.006     0.0
 323          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 324          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 325          KK      88
 326          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 327          KM   L=1.66     Lca=0.83     S=19.29     Kn=0.200     LAG=185
 328          KM   S-GRAPH TYPE=AGRICULTURE
 329          KO       0       0     0.0       1      22
 330          BA  0.7650
1                                          HEC-1 INPUT                                          PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 331          LG     1.0   0.145   9.798   0.068   0.288
 332          UI     0.0   15.25   15.25   22.13    35.8   65.03   89.94   82.55  118.29   116.2
 333          UI   128.1   128.1   128.1  113.86  106.75  116.28   88.23   83.17   79.03   58.98
 334          UI   51.82   43.77   47.46   30.66   26.58   24.63   19.05   18.84   14.58   13.92
 335          UI   13.77    8.66    8.66    8.66    8.66    5.51    1.91    1.91    1.91    1.91
 336          UI    1.91    1.91    1.91    1.91    1.91    1.91    1.91    1.91    1.91    1.91
 337          UI    1.91    1.91    1.91    1.91    1.91    1.91     0.0

 338          KK      I7   CNAME   I7-I8
 339          KM   COMBINE ROUTED HYDROGRAPH FROM I6S WITH RUNOFF FROM 88 @ I7
 340          KO       0       0     0.0       0      22
 341          HC       2

 342          KK   I7-I8   CNAME      I7
 343          KM   ROUTE HYDRPGRAPH FROM I7 TO I8 (CHANNEL A)
 344          KO       0       0     0.0       0      22
 345          RS       3    FLOW     0.0     0.0
 346          RC     0.1     0.1     0.1 2738.75   0.011     0.0
 347          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 348          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 349          KK     102
 350          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 351          KM   L=1.48     Lca=0.74     S=25.68     Kn=0.200     LAG=161
 352          KM   S-GRAPH TYPE=AGRICULTURE
 353          KO       0       0     0.0       1      22
 354          BA  0.5197
 355          LG     1.0    0.15   8.603     0.1   0.185
 356          UI     0.0    11.9    11.9   21.67   36.81   66.04   65.67    90.5    93.0   100.0
 357          UI   100.0   95.56   83.33   88.91   70.08   66.55   54.67   45.05   35.02   35.82
 358          UI   26.07   20.61   18.27   14.71   13.22   10.87   10.87    7.09    6.76    6.76
 359          UI    6.76    1.77    1.49    1.49    1.49    1.49    1.49    1.49    1.49    1.49
 360          UI    1.49    1.49    1.49    1.49    1.49    1.49    1.49    1.49    1.49     0.0

 361          KK      I8   CNAME   I8-J8
 362          KM   COMBINE ROUTED HYDROGRAPH FROM I7 WITH RUNOFF FROM 102 @ I8
 363          KO       0       0     0.0       0      22
 364          HC       2

 365          KK   I8-J8   CNAME      I8
 366          KM   ROUTE HYDRPGRAPH FROM I8 TO J8 (CHANNEL Outlet to Gila)
 367          KO       0       0     0.0       0      22
 368          RS       2    FLOW     0.0     0.0
```

```
 369          RC   0.035    0.05   0.035 1438.31   0.002     0.0
 370          RX     0.0     5.0    15.0    25.0    45.0    55.0    65.0    70.0
 371          RY    12.0    12.0     6.0     0.0     0.0     6.0    12.0    12.0

 372          KK     103
 373          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 374          KM   L=1.14      Lca=0.57     S=22.77      Kn=0.200     LAG=135
 375          KM   S-GRAPH TYPE=AGRICULTURE
 376          KO       0       0     0.0       1      22
 377          BA  0.5071
 378          LG     1.0   0.218   6.325   0.244   0.669
 379          UI     0.0   13.85   15.53   33.16   64.73   79.27   101.4  113.87  116.37  116.37
1                                          HEC-1 INPUT                                                    PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 380          UI   96.97  104.34   75.78   76.07   54.11   43.64   41.62   28.46   22.78   18.53
 381          UI   16.22   12.65   12.03    7.86    7.86    7.86    2.96    1.73    1.73    1.73
 382          UI    1.73    1.73    1.73    1.73    1.73    1.73    1.73    1.73    1.73    1.73
 383          UI    1.73     0.0

 384          KK      J8
 385          KM   COMBINE ROUTED HYDROGRAPH FROM I8 AND J7 WITH RUNOFF FROM 103 & J8
 386          KO       0       0     0.0       0      22
 387          HC       3

 388          KK     107
 389          KO       0       0     0.0       1      22
 390          BA  0.4835
 391          LG     1.0   0.181   6.695    0.21     0.0
 392          UI     0.0   14.27   18.19   38.28   79.06   83.22  111.51  119.83  119.83  106.52
 393          UI  104.02    85.3   78.64   55.83   44.03   42.21   26.54   22.59   17.62   14.56
 394          UI   13.03    9.33     8.1     8.1    3.89    1.78    1.78    1.78    1.78    1.78
 395          UI    1.78    1.78    1.78    1.78    1.78    1.78    1.78    1.78     0.0
 396          ZZ
                                   RUNOFF SUMMARY
                                  FLOW IN CUBIC FEET PER SECOND
                                TIME IN HOURS,  AREA IN SQUARE MILES

                                PEAK   TIME OF    AVERAGE FLOW FOR MAXIMUM PERIOD     BASIN    MAXIMUM    TIME OF
          OPERATION     STATION  FLOW   PEAK      6-HOUR     24-HOUR     72-HOUR      AREA     STAGE    MAX STAGE
+
          HYDROGRAPH AT
+                        BICE      0.   0.00         0.          0.          0.      0.00
          ROUTED TO
+                        E2S-E3    0.   0.00         0.          0.          0.      0.00
          HYDROGRAPH AT
+                         84      48.  15.25        32.          9.          3.      0.88
          2 COMBINED AT
+                         E3      48.  15.25        32.          9.          3.      0.88
          HYDROGRAPH AT
+                        BICFB     0.   0.00         0.          0.          0.      0.01
          ROUTED TO
+                        F6BS7B    0.   0.00         0.          0.          0.      0.01
          HYDROGRAPH AT
+                         85B     22.  14.50        13.          4.          1.      0.75
          2 COMBINED AT
+                         F7B     22.  14.50        13.          4.          1.      0.76
          ROUTED TO
+                        F7B-F8   17.  17.50        12.          4.          1.      0.76
          HYDROGRAPH AT
+                        BICG      0.   0.00         0.          0.          0.      0.01
          ROUTED TO
+                        G8S-G9    0.   0.00         0.          0.          0.      0.01
          HYDROGRAPH AT
+                         86      44.  13.75        20.          6.          2.      0.44
          2 COMBINED AT
+                         G9      44.  13.75        20.          6.          2.      0.45
          ROUTED TO
+                        G9-F8    29.  18.00        17.          6.          2.      0.45
          HYDROGRAPH AT
+                        BICFA     0.   0.00         0.          0.          0.      0.00
          ROUTED TO
+                        F6AS7A    0.   0.00         0.          0.          0.      0.00
          HYDROGRAPH AT
+                         85A     22.  13.50         7.          2.          1.      0.22
          2 COMBINED AT
+                         F7A     22.  13.50         7.          2.          1.      0.22
          ROUTED TO
+                        F7A-F8    8.  19.25         6.          2.          1.      0.22
          HYDROGRAPH AT
+                         105     52.  15.25        34.         10.          3.      1.00
          HYDROGRAPH AT
+                         104     35.  15.00        24.          7.          2.      1.01
          5 COMBINED AT
+                         F8      89.  15.50        76.         26.          9.      3.43
          HYDROGRAPH AT
+                        BICH      0.   0.00         0.          0.          0.      0.01
          ROUTED TO
+                        H7S-H8    0.   0.00         0.          0.          0.      0.01
```

```
          HYDROGRAPH AT
+                    87       57.  15.00        35.        10.        3.      0.91
          2 COMBINED AT
+                    H8       57.  15.00        35.        10.        3.      0.92
          ROUTED TO
+                 H8-H9       50.  17.00        33.        10.        3.      0.92
          HYDROGRAPH AT
+                   106       50.  15.50        34.        10.        3.      1.21
          2 COMBINED AT
+                    H9       91.  16.50        62.        19.        7.      2.13
          HYDROGRAPH AT
+                  BICJ      127.  18.75       111.        47.       19.      0.01
          ROUTED TO
+                 J6S-J7     102.  21.25        91.        46.       19.      0.01
          HYDROGRAPH AT
+                    89       60.  15.00        36.        10.        3.      0.96
          2 COMBINED AT
+                    J7      106.  21.00        94.        54.       22.      0.97
          ROUTED TO
+                 J7-J8      105.  21.25        94.        54.       22.      0.97
          HYDROGRAPH AT
+                  BICI       14.  21.00         9.         2.        1.      0.01
          ROUTED TO
+                 I6S-I7       8.  22.75         6.         2.        1.      0.01
          HYDROGRAPH AT
+                    88       49.  14.75        29.         8.        3.      0.76
          2 COMBINED AT
+                    I7       49.  14.75        29.        10.        3.      0.77
          ROUTED TO
+                 I7-I8       47.  15.25        28.        10.        3.      0.77
          HYDROGRAPH AT
+                   102       35.  14.25        18.         5.        2.      0.52
          2 COMBINED AT
+                    I8       76.  15.25        45.        15.        5.      1.29
          ROUTED TO
+                 I8-J8       74.  15.25        44.        15.        5.      1.29
          HYDROGRAPH AT
+                   103       23.  14.00        11.         3.        1.      0.51
          3 COMBINED AT
+                    J8      145.  15.25       110.        71.       28.      2.77
          HYDROGRAPH AT
+                   107       29.  13.75        12.         3.        1.      0.48

 *** NORMAL END OF HEC-1 ***
```

D.7.2.b HEC-1 Output File for 10-Year 24-Hour (Future Conditions)

```
1****************************************
 *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
 *              JUN   1998              *
 *            VERSION 4.1               *
 *                                      *
 *  RUN DATE   22MAR06  TIME  10:47:09  *
 *                                      *
 ****************************************

                                                    ****************************************
                                                    *                                      *
                                                    *   U.S. ARMY CORPS OF ENGINEERS       *
                                                    *   HYDROLOGIC ENGINEERING CENTER      *
                                                    *         609 SECOND STREET            *
                                                    *      DAVIS, CALIFORNIA 95616         *
                                                    *          (916) 756-1104              *
                                                    *                                      *
                                                    ****************************************

                                  X     X  XXXXXXX   XXXXX          X
                                  X     X  X        X     X        XX
                                  X     X  X        X               X
                                  XXXXXXX  XXXX     X        XXXXX  X
                                  X     X  X        X               X
                                  X     X  X        X     X         X
                                  X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                          HEC-1 INPUT                                          PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

            1           ID   Buckeye/Sun Valley ADMS - November 2004
```

```
 2   ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
 3   ID   10-year 24-hour
 4   ID   Future Conditions
 5   ID   Area 1 - FRS to RID (West)
 6   ID   File Name: frw1024fut.hc1
 7   ID   Rainfall Loss Method - Green & Ampt
 8   ID   Unit Hydrograph Method - FCDMC S-Graph
 9   ID   Channel Routing Method - Normal Depth
10   ID   Land Use - FCDMC GIS Data: mag_genplan (2000)
11   ID   Future Land Use Build Out Date: 2025
12   ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
13   ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
     *DIAGRAM
14   IT      15 02JAN94       0     400
15   IO       3
16   IN      15 02JAN94       0
17   JD     2.5     0.01
     * 24-hour distribution
18   PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
19   PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
20   PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
21   PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
22   PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
23   PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
24   PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
25   PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
26   PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
27   PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
28   IN      15 02JAN94       0
29   JD   2.375    10.0
     * 24-hour distribution
30   PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
31   PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
32   PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
33   PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
34   PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
35   PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
36   PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
37   PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
38   PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
39   PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
40   IN      15 02JAN94       0
41   JD   2.295    20.0
     * 24-hour distribution
42   PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
43   PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
44   PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
45   PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
46   PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
47   PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
48   PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
49   PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
50   PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
51   PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
     * ***********************************************************************************
     * **   SUB-WATERSHED F   ***********************************************************
     * ***********************************************************************************
1                                   HEC-1 INPUT                                          PAGE  2

LINE     ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

52   KK     15A
53   KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
54   KM   L=1.45      Lca=0.48      S=34.58      Kn=0.050      LAG=32
55   KM   S-GRAPH TYPE=DESERT RANGELAND
56   KO       0        0      0.0        1       22
57   BA  0.5884
58   LG   0.208     0.25    4.419    0.432   39.606
59   UI     0.0   159.68   521.91   464.14   211.81    93.26    40.28    15.07      0.0

60   KK   15A-O
61   KO       0        0      0.0        0       22
62   DT  15Aret     24.0      0.0
63   DI     0.0   2500.0   5000.0   7500.0  10000.0  12500.0  15000.0  17500.0  20000.0  22500.0
64   DI  25000.  27500.0  30000.0  32500.0  35000.0  37500.0  40000.0  42500.0  45000.0  47500.0
65   DQ     0.0   2500.0   5000.0   7500.0  10000.0  12500.0  15000.0  17500.0  20000.0  22500.0
66   DQ  25000.  27500.0  30000.0  32500.0  35000.0  37500.0  40000.0  42500.0  45000.0  47500.0

67   KK   F1A-B    CNAME      F1A
68   KM   ROUTE HYDROGRAPH FROM F1A TO F1B (CHANNEL A)
69   KO       0        0      0.0        0       22
70   RS       5     FLOW      0.0      0.0
71   RC     0.1      0.1      0.1   4678.0    0.004      0.0
72   RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
73   RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

74   KK     15B
75   KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
76   KM   L=1.63      Lca=0.82      S=11.02      Kn=0.200      LAG=204
77   KM   S-GRAPH TYPE=AGRICULTURE
78   KO       0        0      0.0        1       22
79   BA  0.8162
80   LG   0.117     0.25    4.099    0.496   73.49
81   UI     0.0    14.76    14.76    17.09   30.99    47.18    76.64     88.0    87.38   112.97
82   UI  117.57   123.95   123.95   123.95  115.68   103.29   110.31   103.29    77.47    83.74
83   UI   71.03    56.34    50.16    42.61   44.75    34.88    27.48    23.84    21.64    18.23
84   UI   17.85    13.47    13.47    13.47    8.62     8.37     8.37     8.37     8.37     2.37
85   UI    1.84     1.84     1.84     1.84    1.84     1.84     1.84     1.84     1.84     1.84
86   UI    1.84     1.84     1.84     1.84    1.84     1.84     1.84     1.84     1.84     1.84
87   UI    1.84      0.0

88   KK   15B-O
89   KO       0        0      0.0        0       22
90   DT  15Bret     92.0      0.0
91   DI     0.0   2500.0   5000.0   7500.0  10000.0  12500.0  15000.0  17500.0  20000.0  22500.0
92   DI  25000.  27500.0  30000.0  32500.0  35000.0  37500.0  40000.0  42500.0  45000.0  47500.0
93   DQ     0.0   2500.0   5000.0   7500.0  10000.0  12500.0  15000.0  17500.0  20000.0  22500.0
94   DQ  25000.  27500.0  30000.0  32500.0  35000.0  37500.0  40000.0  42500.0  45000.0  47500.0

95   KK     F1B
96   KM   COMBINE ROUTED HYDROGRAPH FROM F1A WITH RUNOFF FROM 15B @ F1B
97   ZW   A=FRW B=F1B C=FLOW E=15MIN F=10y24h-fut
98   KO       0        0      0.0        0       22
```

```
 99          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED G   ***************************************************
             * ***********************************************************************
1                                        HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


100          KK       2
101          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
102          KM   L=2.02     Lca=0.86     S=45.95     Kn=0.050     LAG=43
103          KM   S-GRAPH TYPE=DESERT RANGELAND
104          KO       0       0     0.0       1      22
105          BA  1.2330
106          LG     0.1    0.25   3.994   0.548  74.171
107          UI     0.0  169.22  637.96  900.62  677.78  370.08  199.82  108.84   58.92    23.5
108          UI    23.5     0.0

109          KK     2-O
110          KO       0       0     0.0       0      22
111          DT    2ret   107.0     0.0
112          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
113          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
114          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
115          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

116          KK       1
117          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
118          KM   L=2.61     Lca=1.54     S=34.86     Kn=0.050     LAG=62
119          KM   S-GRAPH TYPE=DESERT RANGELAND
120          KO       0       0     0.0       1      22
121          BA  1.6264
122          LG   0.115    0.25   4.334   0.468  69.018
123          UI     0.0   96.49   378.3  680.74  834.28   747.2  509.62  334.33  217.15  147.44
124          UI   90.69   60.46   32.88    21.5    21.5    21.5     0.0

125          KK     1-O
126          KO       0       0     0.0       0      22
127          DT    1ret   142.0     0.0
128          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
129          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
130          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
131          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

132          KK      G2   CNAME   G2-G3
133          KM   COMBINE RUNOFF HYDROGRAPH FROM 1 AND 2 @ G2
134          KO       0       0     0.0       0      22
135          HC       2

136          KK   G2-G3   CNAME      G2
137          KM   ROUTE HYDRPGRAPH FROM G1 TO G2 (CHANNEL A)
138          KO       0       0     0.0       0      22
139          RS       7    FLOW     0.0     0.0
140          RC     0.1     0.1     0.1  3231.1   0.005     0.0
141          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
142          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                        HEC-1 INPUT                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


143          KK      16
144          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
145          KM   L=2.00     Lca=1.37     S=24.99     Kn=0.050     LAG=57
146          KM   S-GRAPH TYPE=PHOENIX VALLEY
147          KO       0       0     0.0       1      22
148          BA  0.9506
149          LG     0.1    0.25   4.398    0.44    80.0
150          UI     0.0   72.32  253.63  387.42  637.63   477.5  314.11  154.95   79.28   36.56
151          UI   17.22   17.22     0.0

152          KK    16-O
153          KO       0       0     0.0       0      22
154          DT   16ret    63.0     0.0
155          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
156          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
157          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
158          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

159          KK      G3
160          KM   COMBINE ROUTED HYDROGRAPH FROM G2 WITH RUNOFF FROM 16 @ G3
161          ZW   A=FRW B=G3 C=FLOW E=15MIN F=10y24h-fut
162          KO       0       0     0.0       0      22
163          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED H   ***************************************************
             * ***********************************************************************

164          KK       4
165          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
166          KM   L=1.38     Lca=0.74     S=40.65     Kn=0.050     LAG=36
167          KM   S-GRAPH TYPE=DESERT RANGELAND
168          KO       0       0     0.0       1      22
169          BA  0.5493
170          LG   0.143    0.25   4.023   0.619  52.665
171          UI     0.0  113.24  399.98  445.83  240.22  115.51   55.22   25.12    12.5     0.0

172          KK     4-O
173          KO       0       0     0.0       0      22
174          DT    4ret    34.0     0.0
175          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
176          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
177          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
178          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

179          KK   H1-H2   CNAME      H1
180          KM   ROUTE HYDRPGRAPH FROM H1 TO H2 (CHANNEL C)
181          KO       0       0     0.0       0      22
182          RS       2    FLOW     0.0     0.0
183          RC   0.035   0.035   0.035 5802.98  0.0050     0.0
184          RX     0.0     2.0    12.0   112.0   212.0   312.0   412.0   512.0
185          RY     5.0     5.0     0.0     1.0     2.0     3.0     4.0     5.0
1                                        HEC-1 INPUT                                          PAGE  5
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 186          KK       3
 187          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 188          KM   L=2.04      Lca=1.39      S=39.22      Kn=0.050      LAG=53
 189          KM   S-GRAPH TYPE=DESERT RANGELAND
 190          KO       0        0      0.0        1       22
 191          BA  1.6478
 192          LG    0.23     0.25    4.028    0.538   43.956
 193          UI     0.0   141.45   544.37   909.46   962.94    667.1   407.91   246.66   151.83    89.96
 194          UI   55.64    25.48    25.48      0.0

 195          KK     3-O
 196          KO       0        0      0.0        0       22
 197          DT    3ret    110.0      0.0
 198          DI     0.0   2500.0   5000.0   7500.0  10000.0  12500.0  15000.0  17500.0  20000.0  22500.0
 199          DI  25000.  27500.0  30000.0  32500.0  35000.0  37500.0  40000.0  42500.0  45000.0  47500.0
 200          DQ     0.0   2500.0   5000.0   7500.0  10000.0  12500.0  15000.0  17500.0  20000.0  22500.0
 201          DQ  25000.  27500.0  30000.0  32500.0  35000.0  37500.0  40000.0  42500.0  45000.0  47500.0

 202          KK      H2    CNAME    H2-H3
 203          KM   COMBINE ROUTED HYDROGRAPH FROM H1 WITH RUNOFF FROM 3 @ H2
 204          KO       0        0      0.0        0       22
 205          HC       2

 206          KK   H2-H3    CNAME      H2
 207          KM   ROUTE HYDROGRAPH FROM H2 TO H3 (CHANNEL B)
 208          KO       0        0      0.0        0       22
 209          RS       2     FLOW      0.0      0.0
 210          RC     0.1     0.02      0.1  3094.41    0.007      0.0
 211          RX     0.0   1000.0   1006.0   1010.0   1050.0   1054.0   1060.0   2060.0
 212          RY    10.0      0.0      0.0      1.0      1.0      0.0      0.0     10.0

 213          KK      17
 214          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 215          KM   L=1.43      Lca=0.71      S=16.84      Kn=0.200      LAG=169
 216          KM   S-GRAPH TYPE=AGRICULTURE
 217          KO       0        0      0.0        1       22
 218          BA  0.6065
 219          LG    0.25     0.25    4.017    0.429    45.0
 220          UI     0.0    13.23    13.23    22.46    37.19    65.58    77.31    86.16    104.5   111.17
 221          UI  111.17   111.17    97.58    93.45    98.99    69.48    77.29    53.37    48.38    38.62
 222          UI   40.28    28.19    22.96    20.73    16.35    15.44    12.08    12.08     9.24     7.51
 223          UI    7.51     7.51     4.86     1.65     1.65     1.65     1.65     1.65     1.65     1.65
 224          UI    1.65     1.65     1.65     1.65     1.65     1.65     1.65     1.65     1.65     1.65
 225          UI    1.65      0.0

 226          KK    17-O
 227          KO       0        0      0.0        0       22
 228          DT   17ret     50.0      0.0
 229          DI     0.0   2500.0   5000.0   7500.0  10000.0  12500.0  15000.0  17500.0  20000.0  22500.0
 230          DI  25000.  27500.0  30000.0  32500.0  35000.0  37500.0  40000.0  42500.0  45000.0  47500.0
 231          DQ     0.0   2500.0   5000.0   7500.0  10000.0  12500.0  15000.0  17500.0  20000.0  22500.0
 232          DQ  25000.  27500.0  30000.0  32500.0  35000.0  37500.0  40000.0  42500.0  45000.0  47500.0
1                                          HEC-1 INPUT                                                    PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 233          KK      H3
 234          KM   COMBINE ROUTED HYDROGRAPH FROM H2 WITH RUNOFF FROM 17 @ H3
 235          ZW   A=FRW B=H3 C=FLOW E=15MIN F=10y24h-fut
 236          KO       0        0      0.0        0       22
 237          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED I   ***********************************************
              * ***********************************************************************

 238          KK      5A
 239          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 240          KM   L=1.75      Lca=1.16      S=49.05      Kn=0.050      LAG=45
 241          KM   S-GRAPH TYPE=DESERT RANGELAND
 242          KO       0        0      0.0        1       22
 243          BA  1.1721
 244          LG   0.194     0.25    4.333    0.471   45.554
 245          UI     0.0   144.96   551.31   816.54   667.55   378.63   210.18   117.93    66.22    28.93
 246          UI   21.34    21.34

 247          KK    5A-O
 248          KO       0        0      0.0        0       22
 249          DT    5Aret     55.0      0.0
 250          DI     0.0   2500.0   5000.0   7500.0  10000.0  12500.0  15000.0  17500.0  20000.0  22500.0
 251          DI  25000.  27500.0  30000.0  32500.0  35000.0  37500.0  40000.0  42500.0  45000.0  47500.0
 252          DQ     0.0   2500.0   5000.0   7500.0  10000.0  12500.0  15000.0  17500.0  20000.0  22500.0
 253          DQ  25000.  27500.0  30000.0  32500.0  35000.0  37500.0  40000.0  42500.0  45000.0  47500.0

 254          KK  I1AI2A    CNAME     I1A
 255          KM   ROUTE HYDROGRAPH FROM I1A TO I2A (CHANNEL B)
 256          KO       0        0      0.0        0       22
 257          RS       3     FLOW      0.0      0.0
 258          RC     0.1     0.02      0.1  3507.57    0.005      0.0
 259          RX     0.0   1000.0   1006.0   1010.0   1050.0   1054.0   1060.0   2060.0
 260          RY    10.0      0.0      0.0      1.0      1.0      0.0      0.0     10.0

 261          KK      18
 262          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 263          KM   L=1.81      Lca=0.75      S=30.99      Kn=0.200      LAG=168
 264          KM   S-GRAPH TYPE=AGRICULTURE
 265          KO       0        0      0.0        1       22
 266          BA  0.7963
 267          LG    0.25     0.25    4.134    0.467   39.845
 268          UI     0.0    17.48    17.48    29.94    49.63    87.36   102.05   117.46   136.55   146.83
 269          UI  146.83   146.83   127.25   125.29   126.27    91.77   100.28    69.84    62.39    50.62
 270          UI   54.06    34.48    29.67    26.48    21.59    19.56    15.96    15.96    11.23     9.92
 271          UI    9.92     9.92     4.97     2.18     2.18     2.18     2.18     2.18     2.18     2.18
 272          UI    2.18     2.18     2.18     2.18     2.18     2.18     2.18     2.18     2.18     2.18
 273          UI    2.18      0.0
1                                          HEC-1 INPUT                                                    PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
 274          KK    18-O
 275          KO       0       0     0.0       0      22
 276          DT   18ret    59.0     0.0
 277          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 278          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
 279          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 280          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

 281          KK     I2A
 282          KM   COMBINE ROUTED HYDROGRAPH FROM I1A WITH RUNOFF FROM 18 @ I2A
 283          ZW   A=FRW B=I2A C=FLOW E=15MIN F=10y24h-fut
 284          KO       0       0     0.0       0      22
 285          HC       2

 286          KK      5B
 287          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 288          KM   L=1.73     Lca=1.08     S=38.66     Kn=0.050     LAG=46
 289          KM   S-GRAPH TYPE=DESERT RANGELAND
 290          KO       0       0     0.0       1      22
 291          BA  0.5758
 292          LG   0.145    0.25   4.606   0.387  47.212
 293          UI     0.0   67.57  258.59  391.25   331.8   192.8  107.92   61.59   34.35   17.29
 294          UI   10.26   10.26     0.0

 295          KK    5B-O
 296          KO       0       0     0.0       0      22
 297          DT    5Bret    28.0     0.0
 298          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 299          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
 300          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 301          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

 302          KK  1B-I2B   CNAME     I1B
 303          KM   ROUTE HYDRPGRAPH FROM I1B TO I2B (CHANNEL A)
 304          KO       0       0     0.0       0      22
 305          RS       1    FLOW     0.0     0.0
 306          RC     0.1     0.1     0.1 4972.04  0.0047     0.0
 307          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 308          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 309          KK      19
 310          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 311          KM   L=1.51     Lca=0.76     S=18.49     Kn=0.200     LAG=174
 312          KM   S-GRAPH TYPE=AGRICULTURE
 313          KO       0       0     0.0       1      22
 314          BA  0.5356
 315          LG    0.25    0.25   3.962   0.418  44.773
 316          UI     0.0   11.35   11.35    18.4   30.26    53.8   66.51   69.61   86.78   95.36
 317          UI   95.36   95.36    89.0   79.47   84.42   69.18   61.85   57.97   43.57    37.1
 318          UI    32.1   33.09   21.67   18.47   16.39   14.02   12.27   10.37   10.37    7.18
 319          UI    6.44    6.44    6.44    3.83    1.42    1.42    1.42    1.42    1.42    1.42
 320          UI    1.42    1.42    1.42    1.42    1.42    1.42    1.42    1.42    1.42    1.42
 321          UI    1.42    1.42     0.0
1                                          HEC-1 INPUT                                          PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 322          KK    19-O
 323          KO       0       0     0.0       0      22
 324          DT   19ret    45.0     0.0
 325          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 326          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
 327          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 328          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

 329          KK     I2B
 330          KM   COMBINE ROUTED HYDROGRAPH FROM I1B WITH RUNOFF FROM 19 @ I2B
 331          ZW   A=FRW B=I2B C=FLOW E=15MIN F=10y24h-fut
 332          KO       0       0     0.0       0      22
 333          HC       2
 334          ZZ
1


                                   RUNOFF SUMMARY
                          FLOW IN CUBIC FEET PER SECOND
                        TIME IN HOURS,  AREA IN SQUARE MILES

                                  PEAK   TIME OF    AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM    TIME OF
      OPERATION        STATION    FLOW    PEAK                                          AREA      STAGE    MAX STAGE
+                                                     6-HOUR     24-HOUR     72-HOUR

      HYDROGRAPH AT
+                        15A      333.   12.50          59.         19.          6.      0.59
      DIVERSION TO
+                      15Aret     333.   12.50          43.         12.          4.      0.59
      HYDROGRAPH AT
+                      15A-O      146.   13.00          23.          7.          2.      0.59
      ROUTED TO
+                       F1A-B      40.   15.00          20.          7.          2.      0.59
      HYDROGRAPH AT
+                        15B      151.   15.00         107.         41.         14.      0.82
      DIVERSION TO
+                      15Bret     151.   15.00         107.         41.         14.      0.82
      HYDROGRAPH AT
+                      15B-O        0.    0.00           0.          0.          0.      0.82
      2 COMBINED AT
+                        F1B       40.   15.00          20.          7.          2.      1.40
      HYDROGRAPH AT
+                          2      751.   12.75         181.         62.         21.      1.23
      DIVERSION TO
+                       2ret      751.   12.75         179.         54.         18.      1.23
```

+	HYDROGRAPH AT	2-O	34.	17.00	24.	8.	3.	1.23
+	HYDROGRAPH AT	1	738.	13.00	227.	78.	26.	1.63
+	DIVERSION TO	1ret	738.	13.00	227.	72.	24.	1.63
+	HYDROGRAPH AT	1-O	29.	19.75	22.	7.	2.	1.63
+	2 COMBINED AT	G2	52.	19.75	40.	14.	5.	2.86
+	ROUTED TO	G2-G3	48.	21.50	39.	14.	5.	2.86
+	HYDROGRAPH AT	16	568.	13.00	148.	51.	17.	0.95
+	DIVERSION TO	16ret	568.	13.00	110.	32.	11.	0.95
+	HYDROGRAPH AT	16-O	308.	13.50	63.	20.	7.	0.95
+	2 COMBINED AT	G3	395.	13.50	69.	33.	11.	3.81
+	HYDROGRAPH AT	4	296.	12.75	63.	21.	7.	0.55
+	DIVERSION TO	4ret	296.	12.75	60.	17.	6.	0.55
+	HYDROGRAPH AT	4-O	19.	14.75	11.	4.	1.	0.55
+	ROUTED TO	H1-H2	13.	16.25	10.	4.	1.	0.55
+	HYDROGRAPH AT	3	638.	13.00	168.	56.	19.	1.65
+	DIVERSION TO	3ret	638.	13.00	168.	55.	18.	1.65
+	HYDROGRAPH AT	3-O	4.	20.75	3.	1.	0.	1.65
+	2 COMBINED AT	H2	12.	16.50	10.	4.	1.	2.20
+	ROUTED TO	H2-H3	11.	18.50	10.	4.	1.	2.20
+	HYDROGRAPH AT	17	99.	14.50	61.	21.	7.	0.61
+	DIVERSION TO	17ret	99.	14.50	61.	21.	7.	0.61
+	HYDROGRAPH AT	17-O	0.	0.00	0.	0.	0.	0.61
+	2 COMBINED AT	H3	11.	18.50	10.	4.	1.	2.80
+	HYDROGRAPH AT	5A	554.	12.75	126.	41.	14.	1.17
+	DIVERSION TO	5Aret	554.	12.75	99.	28.	9.	1.17
+	HYDROGRAPH AT	5A-O	199.	13.50	44.	14.	5.	1.17
+	ROUTED TO	I1AI2A	84.	14.50	40.	14.	5.	1.17
+	HYDROGRAPH AT	18	120.	14.50	74.	26.	9.	0.80
+	DIVERSION TO	18ret	120.	14.50	74.	26.	9.	0.80
+	HYDROGRAPH AT	18-O	0.	0.00	0.	0.	0.	0.80
+	2 COMBINED AT	I2A	84.	14.50	40.	14.	5.	1.97
+	HYDROGRAPH AT	5B	282.	12.75	65.	21.	7.	0.58
+	DIVERSION TO	5Bret	282.	12.75	50.	14.	5.	0.58
+	HYDROGRAPH AT	5B-O	106.	13.50	23.	7.	2.	0.58
+	ROUTED TO	1B-I2B	26.	14.75	18.	7.	2.	0.58
+	HYDROGRAPH AT	19	85.	14.50	54.	19.	6.	0.54
+	DIVERSION TO	19ret	85.	14.50	54.	19.	6.	0.54
+	HYDROGRAPH AT	19-O	0.	0.00	0.	0.	0.	0.54

```
          2 COMBINED AT
+                          I2B        26.   14.75          18.          7.          2.       1.11


 *** NORMAL END OF HEC-1 ***
1*************************************                                                    ************************************
 *                                   *                                                    *                                  *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                                                *   U.S. ARMY CORPS OF ENGINEERS   *
 *              JUN   1998           *                                                    *   HYDROLOGIC ENGINEERING CENTER  *
 *           VERSION 4.1             *                                                    *         609 SECOND STREET        *
 *                                   *                                                    *      DAVIS, CALIFORNIA 95616     *
 *  RUN DATE   22MAR06  TIME  10:50:01   *                                                *         (916) 756-1104           *
 *                                   *                                                    *                                  *
 *************************************                                                    ************************************


                                                X     X  XXXXXXX   XXXXX           X
                                                X     X  X        X     X         XX
                                                X     X  X        X               X
                                                XXXXXXX  XXXX     X        XXXXX  X
                                                X     X  X        X               X
                                                X     X  X        X     X         X
                                                X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                          PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

            1           ID   Buckeye/Sun Valley ADMS - November 2004
            2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
            3           ID   10-year 24-hour
            4           ID   Future Conditions
            5           ID   Area 1 - FRS to RID (East)
            6           ID   File Name: fre1024fut.hc1
            7           ID   Rainfall Loss Method - Green & Ampt
            8           ID   Unit Hydrograph Method - FCDMC S-Graph
            9           ID   Channel Routing Method - Normal Depth
           10           ID   Land Use - FCDMC GIS Data: mag_genplan (2000)
           11           ID   Future Land Use Build Out Date: 2025
           12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
           13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                        *DIAGRAM
           14           IT      15 02JAN94       0     400
           15           IO       3
           16           IN      15 02JAN94       0
           17           JD     2.5    0.01
                        * 24-hour distribution
           18           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
           19           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
           20           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
           21           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
           22           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
           23           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
           24           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
           25           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
           26           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
           27           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
           28           IN      15 02JAN94       0
           29           JD   2.375    10.0
                        * 24-hour distribution
           30           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
           31           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
           32           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
           33           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
           34           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
           35           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
           36           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
           37           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
           38           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
           39           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
           40           IN      15 02JAN94       0
           41           JD   2.295    20.0
                        * 24-hour distribution
           42           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
           43           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
           44           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
           45           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
           46           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
           47           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
           48           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
           49           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
           50           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
           51           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
                        * ***********************************************************************************
                        * **   SUB-WATERSHED J   ***********************************************************
                        * ***********************************************************************************
1                                                   HEC-1 INPUT                                                          PAGE  2

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


           52           KK       6
           53           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
           54           KM   L=0.50      Lca=0.35      S=88.18      Km=0.050      LAG=16
           55           KM   S-GRAPH TYPE=DESERT RANGELAND
           56           KO       0       0     0.0       1      22
           57           BA  0.3175
           58           LG     0.1    0.25   5.257   0.315  48.903
```

```
 59          UI     0.0  367.81  364.77   72.06     0.0

 60          KK     6-O
 61          KO       0       0     0.0       0      22
 62          DT    6ret    15.0     0.0
 63          DI     0.0  2000.0
 64          DQ     0.0  2000.0

 65          KK   J1-J2   CNAME      J1
 66          KM   ROUTE HYDRPGRAPH FROM J1 TO J2 (CHANNEL A)
 67          KO       0       0     0.0       0      22
 68          RS       4    FLOW     0.0     0.0
 69          RC   0.035   0.035   0.035 4135.69   0.004     0.0
 70          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 71          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 72          KK       8
 73          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 74          KM   L=1.22     Lca=0.56     S=14.80     Kn=0.050     LAG=37
 75          KM   S-GRAPH TYPE=DESERT RANGELAND
 76          KO       0       0     0.0       1      22
 77          BA  0.4136
 78          LG   0.147    0.25   4.104   0.501  54.051
 79          UI     0.0   80.26  286.14  333.87  188.89   92.75   45.37   21.43    9.16    9.16
 80          UI     0.0

 81          KK     8-O
 82          KO       0       0     0.0       0      22
 83          DT    8ret    25.0     0.0
 84          DI     0.0  2000.0
 85          DQ     0.0  2000.0

 86          KK      J2   CNAME   J2-J3
 87          KM   COMBINE ROUTED HYDROGRAPH FROM J1 WITH RUNOFF FROM 8 @ J2
 88          KO       0       0     0.0       0      22
 89          HC       2

 90          KK   J2-J3   CNAME      J2
 91          KM   ROUTE HYDRPGRAPH FROM J2 TO J3 (CHANNEL B)
 92          KO       0       0     0.0       0      22
 93          RS       3    FLOW     0.0     0.0
 94          RC     0.1    0.02     0.1 3195.75   0.008     0.0
 95          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 96          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0
1                                        HEC-1 INPUT                                                    PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 97          KK      20
 98          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 99          KM   L=1.57     Lca=0.79     S=16.56     Kn=0.200     LAG=183
100          KM   S-GRAPH TYPE=AGRICULTURE
101          KO       0       0     0.0       1      22
102          BA  0.6645
103          LG    0.25    0.25   3.974    0.44    45.0
104          UI     0.0   13.39   13.39   19.84   32.21   58.26   78.88   74.24  102.61  104.94
105          UI  112.49  112.49  112.49   97.49   93.74  105.07   70.56   74.86   64.48   51.13
106          UI    43.2   37.84   40.14   25.57   22.34   20.44   16.54   15.85   12.23   12.23
107          UI   10.59     7.6     7.6     7.6     7.6    2.62    1.67    1.67    1.67    1.67
108          UI    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67
109          UI    1.67    1.67    1.67    1.67    1.67     0.0

110          KK    20-O
111          KO       0       0     0.0       0      22
112          DT   20ret    55.0     0.0
113          DI     0.0  2000.0
114          DQ     0.0  2000.0

115          KK      J3
116          KM   COMBINE ROUTED HYDROGRAPH FROM J2 WITH RUNOFF FROM 20 @ J3
117          ZW   A=FRE B=J3 C=FLOW E=15MIN F=10y24h-fut
118          KO       0       0     0.0       0      22
119          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED K   ***********************************************
             * ***********************************************************************

120          KK       7
121          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
122          KM   L=0.74     Lca=0.30     S=73.02     Kn=0.050     LAG=18
123          KM   S-GRAPH TYPE=DESERT RANGELAND
124          KO       0       0     0.0       1      22
125          BA  0.4459
126          LG     0.1    0.25   4.134   0.467  71.438
127          UI     0.0  416.62  556.92   138.6   30.54     0.0

128          KK     7-O
129          KO       0       0     0.0       0      22
130          DT    7ret    37.0     0.0
131          DI     0.0  2000.0
132          DQ     0.0  2000.0

133          KK   K1-K2   CNAME      K1
134          KM   ROUTE HYDRPGRAPH FROM K1 TO K2 (CHANNEL A)
135          KO       0       0     0.0       0      22
136          RS       3    FLOW     0.0     0.0
137          RC   0.035   0.035   0.035  4162.2   0.011     0.0
138          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
139          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                        HEC-1 INPUT                                                    PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

140          KK       9
141          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
142          KM   L=0.79     Lca=0.41     S=57.09     Kn=0.050     LAG=22
143          KM   S-GRAPH TYPE=DESERT RANGELAND
144          KO       0       0     0.0       1      22
145          BA  0.6124
146          LG     0.1    0.25   3.984   0.443    80.0
147          UI     0.0  381.65  780.49  295.85   90.95    23.1     0.0
```

```
148          KK     9-O
149          KO       0       0     0.0       0      22
150          DT    9ret    47.0     0.0
151          DI     0.0  2000.0
152          DQ     0.0  2000.0

153          KK      K2   CNAME   K2-K3
154          KM   COMBINE ROUTED HYDROGRAPH FROM K1 WITH RUNOFF FROM 9 @ K2
155          KO       0       0     0.0       0      22
156          HC       2

157          KK   K2-K3   CNAME      K2
158          KM   ROUTE HYDRPGRAPH FROM K2 TO K3 (CHANNEL A)
159          KO       0       0     0.0       0      22
160          RS       3    FLOW     0.0     0.0
161          RC     0.1     0.1     0.1 2881.52   0.009     0.0
162          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
163          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

164          KK     21B
165          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
166          KM   L=1.02      Lca=0.51     S=24.58     Kn=0.200     LAG=122
167          KM   S-GRAPH TYPE=AGRICULTURE
168          KO       0       0     0.0       1      22
169          BA  0.2728
170          LG    0.25    0.25   4.001   0.551    45.0
171          UI     0.0    8.25   10.9   22.84   46.68   49.72   65.96   69.27   69.27   59.27
172          UI   62.38   43.49   42.68   30.48   23.78   21.73   14.42   11.79     9.9    7.53
173          UI    6.86    4.68    4.68    3.85    1.03    1.03    1.03    1.03    1.03    1.03
174          UI    1.03    1.03    1.03    1.03    1.03    1.03    1.03     0.0

175          KK   21B-O
176          KO       0       0     0.0       0      22
177          DT  21Bret    22.0     0.0
178          DI     0.0  2000.0
179          DQ     0.0  2000.0

180          KK     21A
181          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
182          KM   L=1.43      Lca=0.71     S=39.92     Kn=0.200     LAG=144
183          KM   S-GRAPH TYPE=AGRICULTURE
184          KO       0       0     0.0       1      22
185          BA  0.3660
186          LG   0.198    0.25   3.998   0.567  57.034
187          UI     0.0    9.37    9.37   19.83   40.15   53.93   61.02   74.01   78.73   78.73
1                                          HEC-1 INPUT                                          PAGE  5
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

188          UI   73.49   65.61   68.76   49.43   50.09   36.19   29.11   28.02   20.17    15.8
189          UI   13.32   11.58    8.92    8.56    6.38    5.32    5.32    4.82    1.17    1.17
190          UI    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17
191          UI    1.17    1.17    1.17    1.17

192          KK   21A-O
193          KO       0       0     0.0       0      22
194          DT  21Aret    36.0     0.0
195          DI     0.0  2000.0
196          DQ     0.0  2000.0

197          KK      K3
198          KM   COMBINE ROUTED HYDROGRAPH FROM K2 WITH RUNOFF FROM 21A AND 21B @ K3
199          ZW   A=PRE B=K3 C=FLOW E=15MIN F=10y24h-fut
200          KO       0       0     0.0       0      22
201          HC       3
             * ***********************************************************************
             * **   SUB-WATERSHED L   ***************************************************
             * ***********************************************************************

202          KK      10
203          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
204          KM   L=1.77      Lca=1.27     S=46.29     Kn=0.050     LAG=47
205          KM   S-GRAPH TYPE=PHOENIX VALLEY
206          KO       0       0     0.0       1      22
207          BA  1.1737
208          LG   0.196    0.25   4.152   0.425  40.672
209          UI     0.0  140.53  441.72   791.7  810.58  481.45  203.27   99.52   26.14   25.79
210          UI     0.0

211          KK    10-O
212          KO       0       0     0.0       0      22
213          DT   10ret    72.0     0.0
214          DI     0.0  2000.0
215          DQ     0.0  2000.0

216          KK   L1-L2   CNAME      L1
217          KM   ROUTE HYDRPGRAPH FROM L1 TO L2 (CHANNEL B)
218          KO       0       0     0.0       0      22
219          RS       4    FLOW     0.0     0.0
220          RC     0.1    0.02     0.1 2843.85    0.01     0.0
221          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
222          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

223          KK      22
224          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
225          KM   L=1.54      Lca=0.77     S=18.14     Kn=0.200     LAG=178
226          KM   S-GRAPH TYPE=AGRICULTURE
227          KO       0       0     0.0       1      22
228          BA  0.5572
229          LG    0.25    0.25   4.002   0.475    30.0
230          UI     0.0   11.54   11.54   17.99   29.44   52.71    67.8   67.77   85.72   96.69
231          UI   96.97   96.97   94.81   80.81    85.6   77.44   60.61   65.99   46.03   41.71
232          UI   33.66   34.96   25.72    20.5   18.65   14.65   14.26   10.94   10.54    9.89
233          UI    6.55    6.55    6.55    6.55     2.6    1.44    1.44    1.44    1.44    1.44
1                                          HEC-1 INPUT                                          PAGE  6
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

234          UI    1.44    1.44    1.44    1.44    1.44    1.44    1.44    1.44    1.44    1.44
235          UI    1.44    1.44    1.44    1.44     0.0

236          KK    22-O
237          KO       0       0     0.0       0      22
238          DT   22ret    40.0     0.0
```

```
 239          DI     0.0  2000.0
 240          DQ     0.0  2000.0

 241          KK      L2
 242          KM   COMBINE ROUTED HYDROGRAPH FROM L1 WITH RUNOFF FROM 22 @ L2
 243          ZW   A=FRE B=L2 C=FLOW E=15MIN F=10y24h-fut
 244          KO       0       0     0.0       0      22
 245          HC       2
              * ******************************************************************************
              * **   SUB-WATERSHED N   ******************************************************
              * ******************************************************************************

 246          KK     11C
 247          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 248          KM   L=0.99     Lca=0.31     S=54.38     Kn=0.050     LAG=22
 249          KM   S-GRAPH TYPE=PHOENIX VALLEY
 250          KO       0       0     0.0       1      22
 251          BA  0.3431
 252          LG   0.249    0.25   3.978    0.41  30.445
 253          UI     0.0  193.16  491.17  169.06   26.28     0.0

 254          KK   11C-O
 255          KO       0       0     0.0       0      22
 256          DT  11Cret    15.0     0.0
 257          DI     0.0  2000.0
 258          DQ     0.0  2000.0

 259          KK  N1C-N2   CNAME     N1C
 260          KM   ROUTE HYDROGRAPH FROM N1C TO N2 (CHANNEL A)
 261          KO       0       0     0.0       0      22
 262          RS       3    FLOW     0.0     0.0
 263          RC     0.1     0.1     0.1 3084.31    0.01     0.0
 264          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 265          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 266          KK     11A
 267          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 268          KM   L=0.57     Lca=0.33     S=83.95     Kn=0.050     LAG=16
 269          KM   S-GRAPH TYPE=PHOENIX VALLEY
 270          KO       0       0     0.0       1      22
 271          BA  0.5711
 272          LG   0.213    0.25   5.202   0.287  32.631
 273          UI     0.0   634.0  753.85   79.75     0.0
1                                          HEC-1 INPUT                                    PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 274          KK   11A-O
 275          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 276          KO       0       0     0.0       0      22
 277          DT  11Aret   38.23     0.0
 278          DI     0.0  2000.0
 279          DQ     0.0  2000.0

 280          KK  N1A-1B   CNAME     N1A
 281          KM   ROUTE HYDROGRAPH FROM N1A TO N1B (CHANNEL N1A-N1B)
 282          KO       0       0     0.0       0      22
 283          RS       4    FLOW     0.0     0.0
 284          RC    0.05    0.05    0.05  6236.1   0.009     0.0
 285          RX    10.0    16.0    26.0    56.0   106.0   197.0   289.0   380.0
 286          RY  1032.0  1032.0  1030.0  1028.0  1030.0 1030.67 1031.33  1032.0

 287          KK     11B
 288          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 289          KM   L=1.39     Lca=0.62     S=41.81     Kn=0.050     LAG=34
 290          KM   S-GRAPH TYPE=PHOENIX VALLEY
 291          KO       0       0     0.0       1      22
 292          BA  0.5806
 293          LG   0.238    0.25   4.28   0.395  34.039
 294          UI     0.0   139.8  417.05  566.92  261.85   79.39   20.36     0.0

 295          KK   11B-O
 296          KO       0       0     0.0       0      22
 297          DT  11Bret    33.0     0.0
 298          DI     0.0  2000.0
 299          DQ     0.0  2000.0

 300          KK     N1B   CNAME  N1B-N2
 301          KM   COMBINE ROUTED HYDROGRAPH FROM N1A WITH RUNOFF FROM 11B @ N1B
 302          KO       0       0     0.0       0      22
 303          HC       2

 304          KK  N1B-N2   CNAME     N1B
 305          KM   ROUTE HYDROGRAPH FROM N1B TO N2 (CHANNEL B)
 306          KO       0       0     0.0       0      22
 307          RS       8    FLOW     0.0     0.0
 308          RC     0.1    0.02     0.1 6966.87   0.003     0.0
 309          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 310          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 311          KK      23
 312          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 313          KM   L=1.32     Lca=0.66     S=15.92     Kn=0.200     LAG=161
 314          KM   S-GRAPH TYPE=AGRICULTURE
 315          KO       0       0     0.0       1      22
 316          BA  0.5238
 317          LG   0.25    0.25   3.965   0.438    30.0
 318          UI     0.0    12.0    12.0   21.84    37.1   66.56   66.18   91.21   93.73  100.79
 319          UI  100.79   96.31   83.99   89.61   70.63   67.07    55.1   45.41    35.3    36.1
 320          UI   26.28   20.77   18.42   14.82   13.33   10.95   10.95    7.15    6.81    6.81
 321          UI    6.81    1.78     1.5     1.5     1.5     1.5     1.5     1.5     1.5     1.5
1                                          HEC-1 INPUT                                    PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 322          UI     1.5     1.5     1.5     1.5     1.5     1.5     1.5     1.5     1.5     0.0

 323          KK    23-O
 324          KO       0       0     0.0       0      22
 325          DT   23ret    35.0     0.0
 326          DI     0.0  2000.0
 327          DQ     0.0  2000.0
```

```
 328          KK      N2
 329          KM   COMBINE ROUTED HYDROGRAPH FROM N1C AND N1B WITH RUNOFF FROM 23 @ N2
 330          ZW   A=FRE B=N2 C=FLOW E=15MIN F=10y24h-fut
 331          KO       0       0     0.0       0      22
 332          HC       3
              * ***********************************************************************
              * **   SUB-WATERSHED O   ***********************************************
              * ***********************************************************************

 333          KK      12
 334          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 335          KM   L=0.96      Lca=0.41      S=83.03      Kn=0.050      LAG=22
 336          KM   S-GRAPH TYPE=PHOENIX VALLEY
 337          KO       0       0     0.0       1      22
 338          BA  0.7364
 339          LG   0.238    0.25   4.502   0.382  39.822
 340          UI     0.0  414.56 1054.13  362.82    56.4     0.0

 341          KK    12-O
 342          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 343          KO       0       0     0.0       0      22
 344          DT   12ret   49.02     0.0
 345          DI     0.0  2000.0
 346          DQ     0.0  2000.0

 347          KK   O1-O2   CNAME      O1
 348          KM   ROUTE HYDRPGRAPH FROM O1 TO O2 (CHANNEL A)
 349          KO       0       0     0.0       0      22
 350          RS       2    FLOW     0.0     0.0
 351          RC   0.035   0.035   0.035  2743.8   0.013     0.0
 352          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 353          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 354          KK      13
 355          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 356          KM   L=0.52      Lca=0.26      S=71.20      Kn=0.050      LAG=15
 357          KM   S-GRAPH TYPE=PHOENIX VALLEY
 358          KO       0       0     0.0       1      22
 359          BA  0.5012
 360          LG    0.25    0.25    5.14   0.299    45.0
 361          UI     0.0  646.99  594.12     0.0
1                                          HEC-1 INPUT                                    PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 362          KK    13-O
 363          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 364          KO       0       0     0.0       0      22
 365          DT   13ret   41.08     0.0
 366          DI     0.0  2000.0
 367          DQ     0.0  2000.0

 368          KK      O2   CNAME   O2-O3
 369          KM   COMBINE ROUTED HYDROGRAPH FROM O1 WITH RUNOFF FROM 13 @ O2
 370          KO       0       0     0.0       0      22
 371          HC       2

 372          KK   O2-O3   CNAME      O2
 373          KM   ROUTE HYDRPGRAPH FROM O2 TO O3 (CHANNEL A)
 374          KO       0       0     0.0       0      22
 375          RS       2    FLOW     0.0     0.0
 376          RC   0.025   0.025   0.025 2814.95   0.011     0.0
 377          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 378          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 379          KK      24
 380          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 381          KM   L=0.53      Lca=0.27      S=56.27      Kn=0.050      LAG=16
 382          KM   S-GRAPH TYPE=DESERT RANGELAND
 383          KO       0       0     0.0       1      22
 384          BA  0.4891
 385          LG     0.3    0.25   4.586   0.329     5.0
 386          UI     0.0  566.65  561.96  111.02     0.0

 387          KK      O3   CNAME   O3-O4
 388          KM   COMBINE ROUTED HYDROGRAPH FROM O2 WITH RUNOFF FROM 24 @ O3
 389          KO       0       0     0.0       0      22
 390          HC       2

 391          KK   O3-O4   CNAME      O3
 392          KM   ROUTE HYDRPGRAPH FROM O3 TO O4 (CHANNEL A)
 393          KO       0       0     0.0       0      22
 394          RS       7    FLOW     0.0     0.0
 395          RC     0.1     0.1     0.1 4482.81   0.002     0.0
 396          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 397          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 398          KK      25
 399          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 400          KM   L=1.05      Lca=0.52      S=10.49      Kn=0.050      LAG=37
 401          KM   S-GRAPH TYPE=PHOENIX VALLEY
 402          KO       0       0     0.0       1      22
 403          BA  0.2742
 404          LG     0.3    0.25    4.14   0.396     5.0
              * 25
 405          UI     0.0   55.33  162.01  264.09  147.51   51.88   16.57    7.65     0.0
1                                          HEC-1 INPUT                                    PAGE 10

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 406          KK      O4
 407          KM   COMBINE ROUTED HYDROGRAPH FROM O3 WITH RUNOFF FROM 25 @ O4
 408          ZW   A=FRE B=O4 C=FLOW E=15MIN F=10y24h-fut
 409          KO       0       0     0.0       0      22
 410          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED P   ***********************************************
              * ***********************************************************************

 411          KK     14A
 412          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 413          KM   L=1.33      Lca=0.71      S=67.87      Kn=0.050      LAG=32
```

```
414          KM   S-GRAPH TYPE=PHOENIX VALLEY
415          KO       0       0     0.0       1      22
416          BA  0.6923
417          LG   0.232    0.25   4.262   0.393   39.38
418          UI     0.0  188.49   580.0  653.03  260.73   74.32   22.34     0.0

419          KK   14A-O
420          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
421          KO       0       0     0.0       0      22
422          DT  14Aret   41.08     0.0
423          DI     0.0  2000.0
424          DQ     0.0  2000.0

425          KK  P1A-1B   CNAME     P1A
426          KM   ROUTE HYDRPGRAPH FROM P1A TO P1B (CHANNEL A)
427          KO       0       0     0.0       0      22
428          RS       3    FLOW     0.0     0.0
429          RC   0.035   0.035   0.035 3128.61    0.01     0.0
430          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
431          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

432          KK     14B
433          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
434          KM   L=0.59      Lca=0.30      S=54.00      Kn=0.050      LAG=17
435          KM   S-GRAPH TYPE=DESERT RANGELAND
436          KO       0       0     0.0       1      22
437          BA  0.5015
438          LG    0.25    0.25   4.185   0.409  41.516
439          UI     0.0  521.46  605.68  136.03   28.39     0.0

440          KK   14B-O
441          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
442          KO       0       0     0.0       0      22
443          DT  14Bret   30.68     0.0
444          DI     0.0  2000.0
445          DQ     0.0  2000.0
1                                        HEC-1 INPUT                                                    PAGE 11

        LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


446          KK     P1B   CNAME  P1B-P2
447          KM   COMBINE ROUTED HYDROGRAPH FROM P1A WITH RUNOFF FROM 14B @ P1B
448          KO       0       0     0.0       0      22
449          HC       2

450          KK  P1B-P2   CNAME     P1B
451          KM   ROUTE HYDRPGRAPH FROM P1B TO P2 (CHANNEL A)
452          KO       0       0     0.0       0      22
453          RS       4    FLOW     0.0     0.0
454          RC   0.025   0.025   0.025 4031.58   0.007     0.0
455          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
456          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

457          KK      26
458          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
459          KM   L=0.76      Lca=0.38      S=39.29      Kn=0.050      LAG=22
460          KM   S-GRAPH TYPE=PHOENIX VALLEY
461          KO       0       0     0.0       1      22
462          BA  0.5244
463          LG     0.3    0.25   4.048   0.393     5.0
464          UI     0.0  295.23   750.7  258.38   40.17     0.0

465          KK      P2   CNAME     zzz6
466          KM   COMBINE ROUTED HYDROGRAPH FROM P1B WITH RUNOFF FROM 26 @ P2
467          ZW   A=FRE B=P2 C=FLOW E=15MIN F=10y24h-fut
468          KO       0       0     0.0       0      22
469          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED Q   ***********************************************
             * ***********************************************************************

470          KK      83
471          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
472          KM   L=1.72      Lca=0.93      S=64.69      Kn=0.050      LAG=39
473          KM   S-GRAPH TYPE=DESERT RANGELAND
474          KO       0       0     0.0       1      22
475          BA  0.6752
476          LG   0.235    0.25   5.438   0.256  31.621
477          UI     0.0  115.92  423.38  535.16  330.25  168.58    85.8   44.93   16.84   14.19
478          UI     0.0

479          KK    83-O
480          KO       0       0     0.0       0      22
481          DT   83ret   31.99     0.0
482          DI     0.0  2000.0
483          DQ     0.0  2000.0
484          ZZ
RUNOFF SUMMARY
                                   FLOW IN CUBIC FEET PER SECOND
                                TIME IN HOURS,  AREA IN SQUARE MILES

                                PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
        OPERATION       STATION  FLOW    PEAK                                          AREA      STAGE     MAX STAGE
+                                                    6-HOUR     24-HOUR     72-HOUR

        HYDROGRAPH AT
+                          6     264.   12.25          37.         12.          4.       0.32

        DIVERSION TO
+                        6ret    264.   12.25          27.          8.          3.       0.32

        HYDROGRAPH AT
+                        6-O      97.   12.50          15.          5.          2.       0.32

        ROUTED TO
+                       J1-J2     44.   13.25          14.          5.          2.       0.32

        HYDROGRAPH AT
+                          8     234.   12.75          50.         17.          6.       0.41

        DIVERSION TO
+                        8ret    234.   12.75          45.         13.          4.       0.41
```

+	HYDROGRAPH AT	8-O	31.	13.75	12.	4.	1.	0.41
+	2 COMBINED AT	J2	63.	13.50	25.	9.	3.	0.73
+	ROUTED TO	J2-J3	47.	14.75	24.	9.	3.	0.73
+	HYDROGRAPH AT	20	101.	14.75	66.	23.	8.	0.66
+	DIVERSION TO	20ret	101.	14.75	66.	23.	8.	0.66
+	HYDROGRAPH AT	20-O	0.	0.00	0.	0.	0.	0.66
+	2 COMBINED AT	J3	47.	14.75	24.	9.	3.	1.40
+	HYDROGRAPH AT	7	393.	12.50	64.	22.	7.	0.45
+	DIVERSION TO	7ret	393.	12.50	63.	19.	6.	0.45
+	HYDROGRAPH AT	7-O	13.	15.75	9.	3.	1.	0.45
+	ROUTED TO	K1-K2	12.	17.00	9.	3.	1.	0.45
+	HYDROGRAPH AT	9	585.	12.50	96.	33.	11.	0.61
+	DIVERSION TO	9ret	585.	12.50	83.	24.	8.	0.61
+	HYDROGRAPH AT	9-O	86.	13.25	28.	10.	3.	0.61
+	2 COMBINED AT	K2	86.	13.25	34.	13.	4.	1.06
+	ROUTED TO	K2-K3	50.	14.25	32.	13.	4.	1.06
+	HYDROGRAPH AT	21B	56.	13.75	28.	9.	3.	0.27
+	DIVERSION TO	21Bret	56.	13.75	28.	9.	3.	0.27
+	HYDROGRAPH AT	21B-O	0.	0.00	0.	0.	0.	0.27
+	HYDROGRAPH AT	21A	75.	14.25	43.	15.	5.	0.37
+	DIVERSION TO	21Aret	75.	14.25	43.	15.	5.	0.37
+	HYDROGRAPH AT	21A-O	0.	0.00	0.	0.	0.	0.37
+	3 COMBINED AT	K3	50.	14.25	32.	13.	4.	1.70
+	HYDROGRAPH AT	10	542.	12.75	120.	39.	13.	1.17
+	DIVERSION TO	10ret	542.	12.75	120.	36.	12.	1.17
+	HYDROGRAPH AT	10-O	12.	20.25	8.	3.	1.	1.17
+	ROUTED TO	L1-L2	10.	22.00	8.	3.	1.	1.17
+	HYDROGRAPH AT	22	70.	14.75	44.	15.	5.	0.56
+	DIVERSION TO	22ret	70.	14.75	44.	15.	5.	0.56
+	HYDROGRAPH AT	22-O	0.	0.00	0.	0.	0.	0.56
+	2 COMBINED AT	L2	10.	22.00	8.	3.	1.	1.73
+	HYDROGRAPH AT	11C	272.	12.50	31.	10.	3.	0.34
+	DIVERSION TO	11Cret	272.	12.50	28.	8.	3.	0.34
+	HYDROGRAPH AT	11C-O	16.	13.00	6.	2.	1.	0.34
+	ROUTED TO	N1C-N2	9.	14.75	6.	2.	1.	0.34
+	HYDROGRAPH AT	11A	439.	12.50	55.	17.	6.	0.57
+	DIVERSION TO	11Aret	439.	12.50	55.	17.	6.	0.57
+	HYDROGRAPH AT	11A-O	0.	0.00	0.	0.	0.	0.57

+	ROUTED TO	N1A-1B	0.	0.00	0.	0.	0.	0.57
+	HYDROGRAPH AT	11B	337.	12.75	54.	17.	6.	0.58
+	DIVERSION TO	11Bret	337.	12.75	54.	17.	6.	0.58
+	HYDROGRAPH AT	11B-O	4.	23.75	2.	1.	0.	0.58
+	2 COMBINED AT	N1B	4.	23.75	2.	1.	0.	1.15
+	ROUTED TO	N1B-N2	2.	27.75	1.	1.	0.	1.15
+	HYDROGRAPH AT	23	73.	14.50	43.	14.	5.	0.52
+	DIVERSION TO	23ret	73.	14.50	43.	14.	5.	0.52
+	HYDROGRAPH AT	23-O	0.	0.00	0.	0.	0.	0.52
+	3 COMBINED AT	N2	9.	14.75	6.	3.	1.	2.02
+	HYDROGRAPH AT	12	616.	12.50	75.	24.	8.	0.74
+	DIVERSION TO	12ret	616.	12.50	75.	24.	8.	0.74
+	HYDROGRAPH AT	12-O	2.	23.00	1.	0.	0.	0.74
+	ROUTED TO	O1-O2	2.	24.00	1.	0.	0.	0.74
+	HYDROGRAPH AT	13	435.	12.25	54.	18.	6.	0.50
+	DIVERSION TO	13ret	435.	12.25	54.	18.	6.	0.50
+	HYDROGRAPH AT	13-O	0.	0.00	0.	0.	0.	0.50
+	2 COMBINED AT	O2	2.	24.00	1.	0.	0.	1.24
+	ROUTED TO	O2-O3	2.	24.25	0.	0.	0.	1.24
+	HYDROGRAPH AT	24	277.	12.25	27.	7.	2.	0.49
+	2 COMBINED AT	O3	272.	12.25	27.	7.	2.	1.73
+	ROUTED TO	O3-O4	73.	14.25	26.	7.	2.	1.73
+	HYDROGRAPH AT	25	122.	12.75	15.	4.	1.	0.27
+	2 COMBINED AT	O4	120.	12.75	40.	11.	4.	2.00
+	HYDROGRAPH AT	14A	405.	12.75	70.	23.	8.	0.69
+	DIVERSION TO	14Aret	405.	12.75	70.	21.	7.	0.69
+	HYDROGRAPH AT	14A-O	7.	18.75	6.	2.	1.	0.69
+	ROUTED TO	P1A-1B	7.	20.00	6.	2.	1.	0.69
+	HYDROGRAPH AT	14B	361.	12.50	52.	17.	6.	0.50
+	DIVERSION TO	14Bret	361.	12.50	52.	15.	5.	0.50
+	HYDROGRAPH AT	14B-O	5.	18.75	4.	2.	1.	0.50
+	2 COMBINED AT	P1B	12.	20.00	10.	3.	1.	1.19
+	ROUTED TO	P1B-P2	12.	20.50	9.	3.	1.	1.19
+	HYDROGRAPH AT	26	344.	12.50	28.	8.	3.	0.52
+	2 COMBINED AT	P2	338.	12.50	29.	11.	4.	1.72
+	HYDROGRAPH AT	83	349.	12.75	65.	20.	7.	0.68
+	DIVERSION TO	83ret	349.	12.75	59.	16.	5.	0.68
+	HYDROGRAPH AT	83-O	36.	13.75	13.	4.	1.	0.68

```
 *** NORMAL END OF HEC-1 ***
1*************************************                                    *************************************
 *                                   *                                    *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                                *   U.S. ARMY CORPS OF ENGINEERS    *
 *             JUN   1998            *                                    *   HYDROLOGIC ENGINEERING CENTER   *
 *           VERSION 4.1             *                                    *         609 SECOND STREET         *
 *                                   *                                    *      DAVIS, CALIFORNIA 95616      *
 *  RUN DATE   23MAR06  TIME  04:59:53   *                                *         (916) 756-1104            *
 *                                   *                                    *                                   *
 *************************************                                    *************************************

                                        X     X  XXXXXXX   XXXXX          X
                                        X     X  X        X     X        XX
                                        X     X  X        X              X
                                        XXXXXXX  XXXX     X        XXXXX  X
                                        X     X  X        X              X
                                        X     X  X        X     X        X
                                        X     X  XXXXXXX   XXXXX        XXX

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                    PAGE  1

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......,10

        1           ID   Buckeye/Sun Valley ADMS - November 2004
        2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
        3           ID   10-year 24-hour
        4           ID   Future Conditions
        5           ID   Area 1 - RID to BIC (West)
        6           ID   File Name: rbw1024fut.hc1
        7           ID   Rainfall Loss Method - Green & Ampt
        8           ID   Unit Hydrograph Method - FCDMC S-Graph
        9           ID   Channel Routing Method - Normal Depth
       10           ID   Land Use - FCDMC GIS Data: mag_genplan (2000)
       11           ID   Future Land Use Build Out Date: 2025
       12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
       13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                    *DIAGRAM
       14           IT       15 02JAN94       0      400
       15           IO        3
       16           IN       15 02JAN94       0
       17           JD      2.5     0.01
                    * 24-hour distribution
       18           PC      0.0    0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
       19           PC    0.029    0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
       20           PC    0.064    0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
       21           PC     0.11    0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
       22           PC    0.181    0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
       23           PC    0.735    0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
       24           PC    0.856    0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
       25           PC    0.913    0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
       26           PC    0.953    0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
       27           PC    0.983    0.986   0.989   0.992   0.995   0.998     1.0
       28           IN       15 02JAN94       0
       29           JD    2.375     10.0
                    * 24-hour distribution
       30           PC      0.0    0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
       31           PC    0.029    0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
       32           PC    0.064    0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
       33           PC     0.11    0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
       34           PC    0.181    0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
       35           PC    0.735    0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
       36           PC    0.856    0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
       37           PC    0.913    0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
       38           PC    0.953    0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
       39           PC    0.983    0.986   0.989   0.992   0.995   0.998     1.0
       40           IN       15 02JAN94       0
       41           JD    2.295     20.0
                    * 24-hour distribution
       42           PC      0.0    0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
       43           PC    0.029    0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
       44           PC    0.064    0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
       45           PC     0.11    0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
       46           PC    0.181    0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
       47           PC    0.735    0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
       48           PC    0.856    0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
       49           PC    0.913    0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
       50           PC    0.953    0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
       51           PC    0.983    0.986   0.989   0.992   0.995   0.998     1.0
                    * ***********************************************************************
                    * **    SUB-WATERSHED E    ***********************************************
                    * ***********************************************************************
1                                                HEC-1 INPUT                                                    PAGE  2

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


       52           KK      68
       53           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
       54           KM   L=0.96     Lca=0.33     S=45.58     Kn=0.050     LAG=22
       55           KM   S-GRAPH TYPE=DESERT RANGELAND
       56           KO       0        0     0.0        1       22
       57           BA  0.4130
       58           LG     0.1     0.25   4.366   0.494  64.324
       59           UI     0.0   257.36  526.31   199.5   61.33   15.58     0.0

       60           KK    68-O
```

```
 61          KO       0       0     0.0       0      22
 62          DT   68ret    29.0     0.0
 63          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 64          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 65          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 66          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 67          KK   E1-E2   CNAME      E1
 68          KM   STORAGE ROUTE FROM E1 TO E2 THROUGH SPRR TRESTLE
 69          KO       0       0     0.0       0      22
 70          RS       1    ELEV  873.07     0.0
 71          SV     0.0    1.39    5.84   13.36   41.09   96.81  182.04   292.0  426.27  581.71
 72          SV  756.67  957.16  1179.1  1179.1  1179.1  1179.1  1179.1  1179.1  1179.1  1179.1
 73          SE   872.0   874.0   876.0   878.0   880.0   882.0   884.0   886.0   888.0   890.0
 74          SE   892.0   894.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0
 75          SQ     0.0   100.0   240.0   360.0   480.0   600.0  1020.0  2000.0  2760.0  2760.0
 76          SQ  2760.0  2760.0  2760.0  2760.0  2760.0  2760.0  2760.0  2760.0  2760.0  2760.0
 77          SE  873.07  874.07  875.07  876.07  877.07  878.07  879.07  880.07  881.07  881.07
 78          SE  881.07  881.07  881.07  881.07  881.07  881.07  881.07  881.07  881.07  881.07

 79          KK      59
 80          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 81          KM   L=0.50     Lca=0.17     S=49.34     Kn=0.200     LAG=53
 82          KM   S-GRAPH TYPE=AGRICULTURE
 83          KO       0       0     0.0       1      22
 84          BA  0.2519
 85          LG     0.1    0.25   4.174   0.523  13.272
 86          UI     0.0    22.5   84.15  139.94  135.77  109.93   62.24   38.79   21.52    13.5
 87          UI    9.12    2.19    2.19    2.19    2.19    2.19     0.0

 88          KK      E2
 89          KM   COMBINE STORAGE HYDROGRAPH FROM E1 WITH RUNOFF FROM 59 @ E2
 90          ZW   A=RBW B=E2 C=FLOW E=15MIN F=10Y24H-FUT
 91          KO       0       0     0.0       0      22
 92          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED F   ***************************************************
             * ***********************************************************************
1                                        HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 93          KK   RIDF
 94          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 95          BA  0.0001
 96          ZR  =QI A=RID RID B=8199 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-10-24F

 97          KK  F1S-F2   CNAME     F1S
 98          KM   ROUTE INFLOW FROM RID CONCENTRATED AT F1S TO F2 (CHANNEL A)
 99          KO       0       0     0.0       0      22
100          RS       1    FLOW     0.0     0.0
101          RC     0.1     0.1     0.1  3225.0   0.004     0.0
102          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
103          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

104          KK      27
105          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
106          KM   L=0.82     Lca=0.41     S=14.59     Kn=0.200     LAG=115
107          KM   S-GRAPH TYPE=AGRICULTURE
108          KO       0       0     0.0       1      22
109          BA  0.2410
110          LG     0.1    0.25   3.979   0.522    80.0
111          UI     0.0    7.73   11.05   25.19   43.69   53.56   61.68   64.93   61.32   56.09
112          UI   48.56   42.77   30.31   23.36    21.4   13.77    11.2    9.22    7.06    6.07
113          UI    4.39    4.39    2.56    0.97    0.97    0.97    0.97    0.97    0.97    0.97
114          UI    0.97    0.97    0.97    0.97    0.97     0.0

115          KK    27-O
116          KO       0       0     0.0       0      22
117          DT   27ret    27.0     0.0
118          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
119          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
120          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
121          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

122          KK      F2   CNAME   F2-F3
123          KM   COMBINE ROUTED HYDROGRAPH FROM F1S WITH RUNOFF FROM 27 @ F2
124          KO       0       0     0.0       0      22
125          HC       2

126          KK   F2-F3   CNAME      F2
127          KM   ROUTE HYDRPGRAPH FROM F2 TO F3 (CHANNEL A)
128          KO       0       0     0.0       0      22
129          RS      10    FLOW     0.0     0.0
130          RC     0.1     0.1     0.1  5241.87   0.006     0.0
131          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
132          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

133          KK      29
134          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
135          KM   L=1.47     Lca=0.73     S=22.92     Kn=0.200     LAG=163
136          KM   S-GRAPH TYPE=AGRICULTURE
137          KO       0       0     0.0       1      22
138          BA  0.9987
139          LG     0.1    0.25   3.977   0.507    80.0
140          UI     0.0    22.6    22.6   40.44   67.42  122.16  127.17  170.96  171.63   189.8
1                                        HEC-1 INPUT                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

141          UI   189.8  185.58  158.17  166.76  141.69  122.98  113.44   86.27    70.6   65.75
142          UI   56.62   40.79    36.5   28.42   27.23   20.63   20.63   15.99   12.82   12.82
143          UI   12.82    7.09    2.82    2.82    2.82    2.82    2.82    2.82    2.82    2.82
144          UI    2.82    2.82    2.82    2.82    2.82    2.82    2.82    2.82    2.82     0.0

145          KK    29-O
146          KO       0       0     0.0       0      22
147          DT   29ret   121.0     0.0
148          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
149          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
150          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
151          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
```

```
 152          KK      F3   CNAME   F3-F4
 153          KM   COMBINE ROUTED HYDROGRAPH FROM F2 WITH RUNOFF FROM 29 @ F3
 154          KO       0       0     0.0       0      22
 155          HC       2

 156          KK   F3-F4   CNAME      F3
 157          KM   ROUTE HYDRPGRAPH FROM F3 TO F4 (CHANNEL A)
 158          KO       0       0     0.0       0      22
 159          RS       7    FLOW     0.0     0.0
 160          RC     0.1     0.1     0.1 5501.87   0.006     0.0
 161          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 162          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 163          KK      41
 164          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 165          KM   L=1.54     Lca=0.77     S=23.99     Kn=0.200     LAG=168
 166          KM   S-GRAPH TYPE=AGRICULTURE
 167          KO       0       0     0.0       1      22
 168          BA  1.2021
 169          LG     0.1    0.25   3.965   0.454    80.0
 170          UI     0.0   26.39   26.39    45.2   74.92  131.88  154.05  177.32  206.14  221.65
 171          UI  221.65  221.65   192.1  189.15  190.62  138.53  151.39  105.43   94.19   76.42
 172          UI   81.61   52.05    44.8   39.98    32.6   29.54   24.09   24.09   16.95   14.98
 173          UI   14.98   14.98     7.5     3.3     3.3     3.3     3.3     3.3     3.3     3.3
 174          UI     3.3     3.3     3.3     3.3     3.3     3.3     3.3     3.3     3.3     3.3
 175          UI     3.3     0.0

 176          KK    41-O
 177          KO       0       0     0.0       0      22
 178          DT   41ret   140.0     0.0
 179          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 180          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 181          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 182          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 183          KK      F4   CNAME  F4-F5B
 184          KM   COMBINE ROUTED HYDROGRAPH FROM F3 WITH RUNOFF FROM 41 @ F4
 185          KO       0       0     0.0       0      22
 186          HC       2
1                                        HEC-1 INPUT                                                    PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 187          KK  F4-F5B   CNAME      F4
 188          KM   ROUTE HYDRPGRAPH FROM F4 TO F5B (CHANNEL A)
 189          KO       0       0     0.0       0      22
 190          RS       6    FLOW     0.0     0.0
 191          RC     0.1     0.1     0.1 3704.65   0.006     0.0
 192          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 193          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 194          KK     52B
 195          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 196          KM   L=0.71     Lca=0.32     S=32.56     Kn=0.200     LAG=85
 197          KM   S-GRAPH TYPE=AGRICULTURE
 198          KO       0       0     0.0       1      22
 199          BA  0.4953
 200          LG     0.1    0.25   4.087   0.492    80.0
 201          UI     0.0   21.49   47.96  115.57  153.43   180.5  170.48  157.82  118.28   85.92
 202          UI   63.75   43.62   30.66   22.85   17.91    12.2   10.93    2.69    2.69    2.69
 203          UI    2.69    2.69    2.69    2.69    2.69    2.69     0.0

 204          KK   52B-O
 205          KO       0       0     0.0       0      22
 206          DT  52Bret    57.0     0.0
 207          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 208          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 209          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 210          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 211          KK     F5B   CNAME F5B-F6B
 212          KM   COMBINE ROUTED HYDROGRAPH FROM F4 WITH RUNOFF FROM 52B @ F5B
 213          KO       0       0     0.0       0      22
 214          HC       2

 215          KK  5B-F6B   CNAME     F5B
 216          KM   STORAGE ROUTE FROM F5B TO F6B THROUGH SPRR TRESTLE
 217          KO       0       0     0.0       0      22
 218          RS       1    ELEV   886.0     0.0
 219          SV     0.0    0.08    0.94    6.13   37.02  122.46  262.93   479.0  749.83  749.83
 220          SV  749.83  749.83  749.83  749.83  749.83  749.83  749.83  749.83  749.83  749.83
 221          SE   886.0   888.0   890.0   892.0   894.0   896.0   898.0   900.0   902.0   902.0
 222          SE   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0
 223          SQ     0.0    80.0   120.0   230.0  1145.0  1980.0  2670.0  2670.0  2670.0  2670.0
 224          SQ  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0
 225          SE   886.0  887.07  888.07  889.07  890.07  891.07  892.07  892.07  892.07  892.07
 226          SE  892.07  892.07  892.07  892.07  892.07  892.07  892.07  892.07  892.07  892.07

 227          KK     60B
 228          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 229          KM   L=1.03     Lca=0.35     S=22.68     Kn=0.200     LAG=108
 230          KM   S-GRAPH TYPE=AGRICULTURE
 231          KO       0       0     0.0       1      22
 232          BA  0.5744
 233          LG   0.101    0.25   4.158   0.551   55.37
 234          UI     0.0   19.61   30.14   73.81  110.38  144.98  164.75  164.75  142.78  142.23
 235          UI  106.31   87.94    64.4   56.91    35.6   28.82   23.22   17.91   14.49   11.13
1                                        HEC-1 INPUT                                                    PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 236          UI   11.13    3.84    2.45    2.45    2.45    2.45    2.45    2.45    2.45    2.45
 237          UI    2.45    2.45    2.45     0.0

 238          KK   60B-O
 239          KO       0       0     0.0       0      22
 240          DT  60Bret    53.0     0.0
 241          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 242          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 243          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 244          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 245          KK     F6B
```

```
 246          KM   COMBINE STORAGE HYDROGRAPH FROM F5B WITH RUNOFF FROM 60B @ F6B
 247          ZW   A=RBW B=F6B C=FLOW E=15MIN F=10Y24H-FUT
 248          KO       0       0     0.0       0      22
 249          HC       2

 250          KK     52A
 251          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 252          KM   L=0.92      Lca=0.57      S=6.91      Kn=0.200      LAG=156
 253          KM   S-GRAPH TYPE=AGRICULTURE
 254          KO       0       0     0.0       1      22
 255          BA  0.3127
 256          LG     0.1    0.25   3.966   0.427    80.0
 257          UI     0.0    7.39    7.39   14.03   25.52   42.85   41.09   54.59   61.74    62.1
 258          UI    62.1   55.89   52.16   54.02   38.81   41.05   29.04   24.79   21.13   20.13
 259          UI   13.59   11.94    9.45    8.85    6.75    6.75    4.89     4.2     4.2     4.2
 260          UI    1.32    0.92    0.92    0.92    0.92    0.92    0.92    0.92    0.92    0.92
 261          UI    0.92    0.92    0.92    0.92    0.92    0.92    0.92     0.0

 262          KK   52A-O
 263          KO       0       0     0.0       0      22
 264          DT   52Aret    38.0     0.0
 265          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 266          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 267          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 268          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 269          KK  5A-F6A   CNAME     F5A
 270          KM   STORAGE ROUTE FROM F5A TO F6A THROUGH SPRR TRESTLE
 271          KO       0       0     0.0       0      22
 272          RS       1    ELEV   894.0     0.0
 273          SV     0.0    0.02    0.64   12.91   61.76   61.76   61.76   61.76   61.76   61.76
 274          SV   61.76   61.76   61.76   61.76   61.76   61.76   61.76   61.76   61.76   61.76
 275          SE   894.0   896.0   898.0   900.0   902.0   902.0   902.0   902.0   902.0   902.0
 276          SE   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0
 277          SQ     0.0    58.1   112.2   146.6   174.0   198.5   218.5   237.6   255.3   271.8
 278          SQ   287.4   302.2   316.3   329.7   342.7   355.2   367.2   378.9   401.2   422.3
 279          SE   894.0   896.4   896.9   897.4   897.9   898.4   898.9   899.4   899.9   900.4
 280          SE   900.9   901.4   901.9   902.4   902.9   903.4   903.9   904.4   905.4   906.4
1                                          HEC-1 INPUT                                                    PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 281          KK     60A
 282          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 283          KM   L=1.07      Lca=0.46      S=27.51      Kn=0.200      LAG=117
 284          KM   S-GRAPH TYPE=AGRICULTURE
 285          KO       0       0     0.0       1      22
 286          BA  0.4117
 287          LG     0.1    0.25   4.045   0.535  50.188
 288          UI     0.0   12.98   18.15   40.42   73.45   89.47  100.76  109.02  105.38   91.39
 289          UI   88.17   72.54   53.81   42.04   38.73   24.09   20.15   16.03   12.52   11.64
 290          UI    7.37    7.37    6.45    1.62    1.62    1.62    1.62    1.62    1.62    1.62
 291          UI    1.62    1.62    1.62    1.62    1.62     0.0

 292          KK   60A-O
 293          KO       0       0     0.0       0      22
 294          DT   60Aret    35.0     0.0
 295          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 296          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 297          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 298          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 299          KK     F6A
 300          KM   COMBINE STORAGE HYDROGRAPH FROM F5A WITH RUNOFF FROM 60A @ F6A
 301          ZW   A=RBW B=F6A C=FLOW E=15MIN F=10Y24H-FUT
 302          KO       0       0     0.0       0      22
 303          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED G   ***********************************************
              * ***********************************************************************

 304          KK    RIDG
 305          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 306          BA  0.0001
 307          ZR  =QI A=RID RID B=13399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-10-24F

 308          KK  G3S-G4   CNAME     G3S
 309          KM   ROUTE INFLOW FROM RID CONCENTRATED AT G3S TO G4 (CHANNEL A)
 310          KO       0       0     0.0       0      22
 311          RS       1    FLOW     0.0     0.0
 312          RC     0.1     0.1     0.1  4594.0   0.004     0.0
 313          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 314          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 315          KK      28
 316          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 317          KM   L=1.02      Lca=0.51      S=16.68      Kn=0.200      LAG=132
 318          KM   S-GRAPH TYPE=AGRICULTURE
 319          KO       0       0     0.0       1      22
 320          BA  0.3347
 321          LG     0.1    0.25   4.178   0.441    80.0
 322          UI     0.0    9.35   10.92    23.2   45.57   53.95   69.13   78.56   78.56   75.94
 323          UI   65.47   68.35   49.76   47.59   34.97   27.16   26.43   17.09   14.62   11.55
 324          UI    9.62    8.54    6.55    5.31    5.31    3.82    1.17    1.17    1.17    1.17
 325          UI    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17
 326          UI     0.0
1                                          HEC-1 INPUT                                                    PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 327          KK    28-O
 328          KO       0       0     0.0       0      22
 329          DT    28ret    39.0     0.0
 330          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 331          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 332          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 333          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 334          KK      G4   CNAME   G4-G5
 335          KM   COMBINE ROUTED HYDROGRAPH FROM G3S WITH RUNOFF FROM 28 @ G4
 336          KO       0       0     0.0       0      22
 337          HC       2
```

```
338          KK   G4-G5   CNAME      G4
339          KM   ROUTE HYDRPGRAPH FROM G4 TO G5 (CHANNEL A)
340          KO       0       0     0.0       0      22
341          RS      15    FLOW     0.0     0.0
342          RC     0.1     0.1     0.1 7127.48   0.004     0.0
343          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
344          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

345          KK      30
346          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
347          KM   L=1.55     Lca=0.78     S=21.93     Kn=0.200     LAG=172
348          KM   S-GRAPH TYPE=AGRICULTURE
349          KO       0       0     0.0       1      22
350          BA  0.9830
351          LG     0.1    0.25   4.028    0.45    80.0
352          UI     0.0   21.08   21.08    34.8    57.4   101.7  123.34   132.0  163.67  177.05
353          UI  177.05  177.05  161.31  147.54  161.39  117.56  117.82   99.14   80.48   64.92
354          UI   61.01   54.87   38.92   34.05   28.26   26.04   20.78   19.24   18.25   11.96
355          UI   11.96   11.96   11.96    3.63    2.63    2.63    2.63    2.63    2.63    2.63
356          UI    2.63    2.63    2.63    2.63    2.63    2.63    2.63    2.63    2.63    2.63
357          UI    2.63    2.63     0.0

358          KK    30-O
359          KO       0       0     0.0       0      22
360          DT   30ret   112.0     0.0
361          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
362          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
363          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
364          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

365          KK      G5   CNAME   G5-G6
366          KM   COMBINE ROUTED HYDROGRAPH FROM G4 WITH RUNOFF FROM 30 @ G5
367          KO       0       0     0.0       0      22
368          HC       2

369          KK   G5-G6   CNAME      G5
370          KM   ROUTE HYDRPGRAPH FROM G5 TO G6 (CHANNEL A)
371          KO       0       0     0.0       0      22
372          RS       9    FLOW     0.0     0.0
373          RC     0.1     0.1     0.1 5820.25   0.005     0.0
374          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

375          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

376          KK      42
377          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
378          KM   L=1.56     Lca=0.78     S=22.73     Kn=0.200     LAG=172
379          KM   S-GRAPH TYPE=AGRICULTURE
380          KO       0       0     0.0       1      22
381          BA  0.7784
382          LG     0.1    0.25   4.279   0.425    80.0
383          UI     0.0   16.69   16.69   27.56   45.45   80.53   97.66  104.52   129.6  140.19
384          UI  140.19  140.19  127.73  116.82  127.79   93.09   93.29    78.5   63.72    51.4
385          UI   48.31   43.45   30.82   26.96   22.38   20.62   16.46   15.24   14.45    9.47
386          UI    9.47    9.47    9.47    2.87    2.09    2.09    2.09    2.09    2.09    2.09
387          UI    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09
388          UI    2.09    2.09     0.0

389          KK    42-O
390          KO       0       0     0.0       0      22
391          DT   42ret    91.0     0.0
392          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
393          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
394          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
395          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

396          KK      G6   CNAME   G6-G7
397          KM   COMBINE ROUTED HYDROGRAPH FROM G5 WITH RUNOFF FROM 42 @ G6
398          KO       0       0     0.0       0      22
399          HC       2

400          KK   G6-G7   CNAME      G6
401          KM   ROUTE HYDRPGRAPH FROM G6 TO G7 (CHANNEL A)
402          KO       0       0     0.0       0      22
403          RS       4    FLOW     0.0     0.0
404          RC     0.1     0.1     0.1 2613.05   0.007     0.0
405          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
406          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

407          KK      53
408          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
409          KM   L=0.91     Lca=0.46     S=23.93     Kn=0.200     LAG=113
410          KM   S-GRAPH TYPE=AGRICULTURE
411          KO       0       0     0.0       1      22
412          BA  0.3385
413          LG     0.1    0.25   3.997   0.429    80.0
414          UI     0.0   11.05   16.13    37.6   62.38   76.97   90.56   92.81    85.6   80.26
415          UI   66.07   58.87   41.62   31.91   28.17   18.87   14.88   12.13   10.09    7.44
416          UI    6.27    6.27    1.84    1.38    1.38    1.38    1.38    1.38    1.38    1.38
417          UI    1.38    1.38    1.38    1.38     0.0

418          KK    53-O
419          KO       0       0     0.0       0      22
420          DT   53ret    39.0     0.0
421          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
422          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
423          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

424          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

425          KK      G7   CNAME   G7-G8
426          KM   COMBINE ROUTED HYDROGRAPH FROM G6 WITH RUNOFF FROM 53 @ G7
427          KO       0       0     0.0       0      22
428          HC       2

429          KK   G7-G8   CNAME      G7
430          KM   STORAGE ROUTE FROM G7 TO G8 THROUGH SPRR TRESTLE
```

```
431          KO       0       0     0.0       0      22
432          RS       1    ELEV   888.0     0.0
433          SV     0.0     0.6    4.25   26.94  108.66  257.97   449.6   449.6   449.6   449.6
434          SV   449.6   449.6   449.6   449.6   449.6   449.6   449.6   449.6   449.6   449.6
435          SE   888.0   890.0   892.0   894.0   896.0   898.0   900.0   900.0   900.0   900.0
436          SE   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0
437          SQ     0.0   100.0   200.0   480.0  1480.0  2060.0  2520.0  2900.0  2900.0  2900.0
438          SQ  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0
439          SE   888.0  888.07  889.07  890.07  891.07  892.07  893.07  894.07  894.07  894.07
440          SE  894.07  894.07  894.07  894.07  894.07  894.07  894.07  894.07  894.07  894.07

441          KK      61
442          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
443          KM   L=0.90      Lca=0.45      S=23.00      Kn=0.200      LAG=113
444          KM   S-GRAPH TYPE=AGRICULTURE
445          KO       0       0     0.0       1      22
446          BA  0.5081
447          LG   0.101    0.25   3.965   0.457  60.155
448          UI     0.0   16.58   24.21   56.43   93.62  115.52  135.92   139.3  128.47  120.46
449          UI   99.16   88.35   62.47    47.9   42.28   28.31   22.33   18.21   15.14   11.17
450          UI    9.41    9.41    2.76    2.07    2.07    2.07    2.07    2.07    2.07    2.07
451          UI    2.07    2.07    2.07    2.07     0.0

452          KK    61-O
453          KO       0       0     0.0       0      22
454          DT   61ret    47.0     0.0
455          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
456          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
457          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
458          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

459          KK      G8
460          KM   COMBINE STORAGE HYDROGRAPH FROM G7 WITH RUNOFF FROM 61 @ G8
461          ZW   A=RBW B=G8 C=FLOW E=15MIN F=10Y24H-FUT
462          KO       0       0     0.0       0      22
463          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED H   ***********************************************
             * ***********************************************************************

464          KK    RIDH
465          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
466          BA  0.0001
467          ZR  =QI A=RID RID H=19799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-10-24F
1                                          HEC-1 INPUT                                          PAGE 11

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

468          KK  H3S-H4   CNAME     H3S
469          KM   ROUTE INFLOW FROM RID CONCENTRATED AT H3S TO H4 (CHANNEL A)
470          KO       0       0     0.0       0      22
471          RS       1    FLOW     0.0     0.0
472          RC     0.1     0.1     0.110193.17   0.005     0.0
473          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
474          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

475          KK      31
476          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
477          KM   L=1.93      Lca=0.97      S=26.40      Kn=0.200      LAG=196
478          KM   S-GRAPH TYPE=AGRICULTURE
479          KO       0       0     0.0       1      22
480          BA  1.0788
481          LG   0.212    0.25   4.018   0.427  50.883
482          UI     0.0    20.3    20.3   26.01   42.62   75.47  110.82  116.22  130.81  156.48
483          UI  170.49  170.49  170.49  170.49  143.97  142.08   158.6  111.16  110.82  106.73
484          UI   79.11   71.61    59.1   60.85   49.19   37.72   32.79   29.13   25.07   23.42
485          UI   18.53   18.53   16.79   11.52   11.52   11.52   11.52    7.81    2.54    2.54
486          UI    2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54
487          UI    2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54     0.0

488          KK    31-O
489          KO       0       0     0.0       0      22
490          DT   31ret    96.0     0.0
491          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
492          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
493          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
494          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

495          KK      H4   CNAME   H4-H5
496          KM   COMBINE ROUTED HYDROGRAPH FROM H3S WITH RUNOFF FROM 31 @ H4
497          KO       0       0     0.0       0      22
498          HC       2

499          KK   H4-H5   CNAME      H4
500          KM   ROUTE HYDRPGRAPH FROM H4 TO H5 (CHANNEL B)
501          KO       0       0     0.0       0      22
502          RS       7    FLOW     0.0     0.0
503          RC     0.1    0.02     0.1 5382.76   0.006     0.0
504          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
505          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

506          KK      43
507          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
508          KM   L=1.92      Lca=0.96      S=20.85      Kn=0.200      LAG=204
509          KM   S-GRAPH TYPE=AGRICULTURE
510          KO       0       0     0.0       1      22
511          BA  1.0022
512          LG   0.163    0.25   3.958   0.413  59.167
513          UI     0.0   18.12   18.12   20.99   38.04   57.93    94.1  108.05  107.28   138.7
514          UI  144.35  152.18  152.18  152.18  142.03  126.81  135.44  126.81   95.11  102.81
515          UI    87.2   69.17   61.58   52.32   54.94   42.82   33.73   29.26   26.57   22.38
516          UI   21.91   16.54   16.54   16.54   10.58   10.28   10.28   10.28   10.28    2.91
1                                          HEC-1 INPUT                                          PAGE 12

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

517          UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
518          UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
519          UI    2.26     0.0

520          KK    43-O
521          KO       0       0     0.0       0      22
522          DT   43ret    98.0     0.0
```

```
523          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
524          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
525          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
526          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

527          KK      H5   CNAME   H5-H6
528          KM   COMBINE ROUTED HYDROGRAPH FROM H4 WITH RUNOFF FROM 43 @ H5
529          KO       0       0     0.0       0      22
530          HC       2

531          KK   H5-H6   CNAME      H5
532          KM   ROUTE HYDRPGRAPH FROM H5 TO H6 (CHANNEL B)
533          KO       0       0     0.0       0      22
534          RS       4    FLOW     0.0     0.0
535          RC     0.1    0.02     0.1 2887.92   0.005     0.0
536          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
537          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

538          KK      54
539          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
540          KM   L=1.20     Lca=0.60     S=12.35     Kn=0.200     LAG=157
541          KM   S-GRAPH TYPE=AGRICULTURE
542          KO       0       0     0.0       1      22
543          BA  0.3861
544          LG     0.1    0.25     4.0   0.432    80.0
545          UI     0.0    9.07    9.07   17.07   30.66   52.22    50.2    67.4   74.77   76.18
546          UI   76.18   69.41   63.49   68.13   47.62   51.29   35.97    31.2   25.88   25.91
547          UI   17.01   14.65   12.06    11.2    8.36    8.28    6.51    5.15    5.15    5.15
548          UI    2.36    1.13    1.13    1.13    1.13    1.13    1.13    1.13    1.13    1.13
549          UI    1.13    1.13    1.13    1.13    1.13    1.13    1.13     0.0

550          KK    54-O
551          KO       0       0     0.0       0      22
552          DT   54ret    45.0     0.0
553          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
554          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
555          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
556          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

557          KK      H6   CNAME   H6-H7
558          KM   COMBINE ROUTED HYDROGRAPH FROM H5 WITH RUNOFF FROM 54 @ H6
559          KO       0       0     0.0       0      22
560          HC       2
1                                          HEC-1 INPUT                                          PAGE 13

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


561          KK   H6-H7   CNAME      H6
562          KM   STORAGE ROUTE FROM H6 TO H7 THROUGH SPRR TRESTLE
563          KO       0       0     0.0       0      22
564          RS       1    ELEV   890.0     0.0
565          SV     0.0    0.45   30.43  148.25  336.08  336.08  336.08  336.08  336.08  336.08
566          SV  336.08  336.08  336.08  336.08  336.08  336.08  336.08  336.08  336.08  336.08
567          SE   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0
568          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
569          SQ     0.0   185.0   720.0  1025.0  1075.0  1150.0  1355.0  1800.0  1800.0  1800.0
570          SQ  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0
571          SE   890.0  891.07  893.47  895.47  895.57  895.67  895.77  895.87  895.87  895.87
572          SE  895.87  895.87  895.87  895.87  895.87  895.87  895.87  895.87  895.87  895.87

573          KK      62
574          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
575          KM   L=0.98     Lca=0.49     S=21.54     Kn=0.200     LAG=122
576          KM   S-GRAPH TYPE=AGRICULTURE
577          KO       0       0     0.0       1      22
578          BA  0.5717
579          LG   0.101    0.25   4.203   0.421  79.778
580          UI     0.0   17.28   22.83   47.88   97.83  104.21  138.24  145.18  145.18  124.21
581          UI  130.72   91.16   89.45   63.88   49.84   45.53   30.22    24.7   20.76   15.78
582          UI   14.37    9.81    9.81    8.08    2.16    2.16    2.16    2.16    2.16    2.16
583          UI    2.16    2.16    2.16    2.16    2.16    2.16    2.16     0.0

584          KK    62-O
585          KO       0       0     0.0       0      22
586          DT   62ret    67.0     0.0
587          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
588          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
589          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
590          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

591          KK      H7
592          KM   COMBINE STORAGE HYDROGRAPH FROM H6 WITH RUNOFF FROM 62 @ H7
593          ZW   A=RBW B=H7 C=FLOW E=15MIN F=10Y24H-FUT
594          KO       0       0     0.0       0      22
595          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED I   ***********************************************
             * ***********************************************************************

596          KK    RIDI
597          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
598          BA  0.0001
599          ZR  =QI A=RID RID B=24399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-10-24F

600          KK  I2S-I3   CNAME     I2S
601          KM   ROUTE INFLOW FROM RID CONCENTRATED AT I2S TO I3 (CHANNEL A)
602          KO       0       0     0.0       0      22
603          RS       1    FLOW     0.0     0.0
604          RC     0.1     0.1     0.1 8174.00   0.005     0.0
605          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
606          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                          PAGE 14

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


607          KK      32
608          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
609          KM   L=1.84     Lca=0.92     S=24.34     Kn=0.200     LAG=192
610          KM   S-GRAPH TYPE=AGRICULTURE
611          KO       0       0     0.0       1      22
612          BA  0.8959
613          LG    0.25    0.25     4.0   0.457  34.049
```

```
 614          UI     0.0   17.21   17.21   23.11   36.91   68.18   97.57   94.68  119.26  132.99
 615          UI  144.55  144.55  144.55  139.73  120.46  127.21  121.42   90.35   99.1   77.05
 616          UI   65.71   54.78   48.6    53.0    32.85   29.42   27.69   21.26   21.26   16.6
 617          UI   15.71   15.71   10.39    9.77    9.77    9.77    8.55    2.15    2.15    2.15
 618          UI    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15
 619          UI    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15    0.0

 620          KK    32-O
 621          KO       0       0     0.0       0      22
 622          DT   32ret    62.0     0.0
 623          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 624          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 625          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 626          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 627          KK      I3   CNAME   I3-I4
 628          KM   COMBINE ROUTED HYDROGRAPH FROM I2S WITH RUNOFF FROM 32 @ I3
 629          KO       0       0     0.0       0      22
 630          HC       2

 631          KK   I3-I4   CNAME      I3
 632          KM   ROUTE HYDRPGRAPH FROM I3 TO I4 (CHANNEL B)
 633          KO       0       0     0.0       0      22
 634          RS      15    FLOW     0.0     0.0
 635          RC     0.1    0.02     0.110387.48   0.004     0.0
 636          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 637          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 638          KK      44
 639          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 640          KM   L=1.97     Lca=0.98     S=22.43     Kn=0.200     LAG=205
 641          KM   S-GRAPH TYPE=AGRICULTURE
 642          KO       0       0     0.0       1      22
 643          BA  1.0069
 644          LG    0.25    0.25   4.136   0.433    30.0
 645          UI     0.0   18.11   18.11    20.7   38.04    57.4    93.3  108.09  106.09  139.54
 646          UI  142.37  152.15  152.15  152.15   143.7   126.8  133.98  130.92    95.1  101.27
 647          UI   90.64   69.78   63.13   52.71   54.03   45.67    34.4   29.26   27.49   22.38
 648          UI   22.38   16.93   16.54   16.54   11.59   10.28   10.28   10.28   10.28     4.4
 649          UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
 650          UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
 651          UI    2.26    2.26     0.0
1                                          HEC-1 INPUT                                          PAGE 15

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 652          KK    44-O
 653          KO       0       0     0.0       0      22
 654          DT   44ret    67.0     0.0
 655          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 656          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 657          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 658          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 659          KK      I4   CNAME   I4-I5
 660          KM   COMBINE ROUTED HYDROGRAPH FROM I3 WITH RUNOFF FROM 44 @ I4
 661          KO       0       0     0.0       0      22
 662          HC       2

 663          KK   I4-I5   CNAME      I4
 664          KM   ROUTE HYDRPGRAPH FROM I4 TO I5 (CHANNEL A)
 665          KO       0       0     0.0       0      22
 666          RS       5    FLOW     0.0     0.0
 667          RC     0.1     0.1     0.1 2589.37   0.003     0.0
 668          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 669          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 670          KK      55
 671          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 672          KM   L=0.97     Lca=0.48     S=12.83     Kn=0.200     LAG=133
 673          KM   S-GRAPH TYPE=AGRICULTURE
 674          KO       0       0     0.0       1      22
 675          BA  0.2627
 676          LG     0.1    0.25   4.128   0.426    80.0
 677          UI     0.0    7.29    8.39   17.86    34.8   41.96   53.41    61.2    61.2   59.84
 678          UI    51.0   54.32   38.38   38.38   27.91   21.37   21.37   13.58   11.77     9.0
 679          UI    7.84    6.65    5.51    4.14    4.14    3.58    0.91    0.91    0.91    0.91
 680          UI    0.91    0.91    0.91    0.91    0.91    0.91    0.91    0.91    0.91    0.91
 681          UI     0.0

 682          KK    55-O
 683          KO       0       0     0.0       0      22
 684          DT   55ret    31.0     0.0
 685          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 686          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 687          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 688          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 689          KK      I5   CNAME   I5-I6
 690          KM   COMBINE ROUTED HYDROGRAPH FROM I4 WITH RUNOFF FROM 55 @ I5
 691          KO       0       0     0.0       0      22
 692          HC       2

 693          KK   I5-I6   CNAME      I5
 694          KM   STORAGE ROUTE FROM I5 TO I6 THROUGH SPRR TRESTLE
 695          KO       0       0     0.0       0      22
 696          RS       1    ELEV   892.0     0.0
 697          SV     0.0     0.1    25.1  124.92  273.66  273.66  273.66  273.66  273.66  273.66
 698          SV  273.66  273.66  273.66  273.66  273.66  273.66  273.66  273.66  273.66  273.66
 699          SE   892.0   894.0   896.0   898.0   900.0   900.0   900.0   900.0   900.0   900.0
1                                          HEC-1 INPUT                                          PAGE 16

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 700          SE   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0
 701          SQ     0.0    60.0   150.0   221.0   400.0   830.0  1134.0  1488.0  1892.0  1892.0
 702          SQ  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0
 703          SE   892.0  894.08  895.18  895.88  896.08  896.28  896.38  896.48  896.58  896.58
 704          SE  896.58  896.58  896.58  896.58  896.58  896.58  896.58  896.58  896.58  896.58

 705          KK      63
 706          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 707          KM   L=0.95     Lca=0.47     S=20.27     Kn=0.200     LAG=120
```

```
708          KM   S-GRAPH TYPE=AGRICULTURE
709          KO       0       0     0.0       1      22
710          BA  0.4994
711          LG     0.1    0.25   4.192   0.389    80.0
712          UI     0.0   15.35   20.75   44.48   87.02   96.69  122.47  128.92  128.92  107.43
713          UI  111.73   82.37   73.51   54.08   44.91   35.79   25.69   20.36   16.98   14.01
714          UI   11.04    8.71    8.71    4.64    1.92    1.92    1.92    1.92    1.92    1.92
715          UI    1.92    1.92    1.92    1.92    1.92    1.92     0.0

716          KK    63-O
717          KO       0       0     0.0       0      22
718          DT   63ret    50.0     0.0
719          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
720          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
721          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
722          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

723          KK      I6
724          KM   COMBINE STORAGE HYDROGRAPH FROM I5 WITH RUNOFF FROM 63 @ I6
725          ZW   A=RBW B=I6 C=FLOW E=15MIN F=10Y24H-FUT
726          KO       0       0     0.0       0      22
727          HC       2
             * ***********************************************************************
             * **    SUB-WATERSHED J    ***********************************************
             * ***********************************************************************

728          KK    RIDJ
729          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
730          BA  0.0001
731          ZR  =QI A=RID RID B=27599 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-10-24F

732          KK  J3S-J4   CNAME     J3S
733          KM   ROUTE INFLOW FROM RID CONCENTRATED AT J3S TO J4 (CHANNEL A)
734          KO       0       0     0.0       0      22
735          RS       1    FLOW     0.0     0.0
736          RC     0.1     0.1     0.1  8056.46   0.007     0.0
737          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
738          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

739          KK      33
740          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
741          KM   L=1.84     Lca=0.92     S=29.30     Kn=0.200     LAG=185
742          KM   S-GRAPH TYPE=AGRICULTURE
743          KO       0       0     0.0       1      22
744          BA  1.0024
745          LG   0.179    0.25   3.962   0.422  53.624
1                                        HEC-1 INPUT                                          PAGE 17

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

746          UI     0.0   19.98   19.98   28.99   46.91   85.21  117.85  108.17   155.0  152.26
747          UI  167.85  167.85  167.85   149.2  139.88  152.37  115.61  108.99  103.55   77.29
748          UI    67.9   57.35   62.19   40.17   34.82   32.28   24.96   24.68    19.1   18.24
749          UI   18.04   11.34   11.34   11.34   11.34    7.21     2.5     2.5     2.5     2.5
750          UI     2.5     2.5     2.5     2.5     2.5     2.5     2.5     2.5     2.5     2.5
751          UI     2.5     2.5     2.5     2.5     2.5     2.5     0.0

752          KK    33-O
753          KO       0       0     0.0       0      22
754          DT   33ret    92.0     0.0
755          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
756          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
757          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
758          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

759          KK      J4   CNAME   J4-J5
760          KM   COMBINE ROUTED HYDROGRAPH FROM J3S WITH RUNOFF FROM 33 @ J4
761          KO       0       0     0.0       0      22
762          HC       2

763          KK   J4-J5   CNAME      J4
764          KM   ROUTE HYDRPGRAPH FROM J4 TO J5 (CHANNEL A)
765          KO       0       0     0.0       0      22
766          RS       7    FLOW     0.0     0.0
767          RC     0.1     0.1     0.1  5307.06   0.008     0.0
768          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
769          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

770          KK     45A
771          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
772          KM   L=1.97     Lca=0.99     S=25.14     Kn=0.200     LAG=201
773          KM   S-GRAPH TYPE=AGRICULTURE
774          KO       0       0     0.0       1      22
775          BA  1.0027
776          LG   0.181    0.25   3.993   0.422  52.917
777          UI     0.0    18.4    18.4   22.16   38.63   61.78   96.59  109.53  112.56  138.24
778          UI  152.55  154.54  154.54  154.54  139.08  128.78  137.41  120.73   96.59  109.05
779          UI   76.17   70.24   57.78   51.92   58.19   35.12    32.2   29.72   24.14   22.73
780          UI   19.64    16.8    16.8   14.01   10.44   10.44   10.44   10.44    6.53     2.3
781          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
782          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
783          UI     2.3

784          KK   45A-O
785          KO       0       0     0.0       0      22
786          DT  45Aret    94.0     0.0
787          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
788          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
789          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
790          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
1                                        HEC-1 INPUT                                          PAGE 18

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


791          KK     J5A   CNAME  J5A-5B
792          KM   COMBINE ROUTED HYDROGRAPH FROM J4 WITH RUNOFF FROM 45A @ J5A
793          KO       0       0     0.0       0      22
794          HC       2

795          KK  J5A-5B   CNAME     J5A
796          KM   ROUTE HYDRPGRAPH FROM J5A TO J5B (CHANNEL A)
797          KO       0       0     0.0       0      22
798          RS       6    FLOW     0.0     0.0
```

```
 799          RC     0.1     0.1     0.1 2736.25   0.001     0.0
 800          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 801          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 802          KK     45B
 803          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 804          KM   L=0.52     Lca=0.26     S=8.59     Kn=0.200     LAG=89
 805          KM   S-GRAPH TYPE=AGRICULTURE
 806          KO       0       0     0.0       1      22
 807          BA  0.1397
 808          LG     0.1    0.25   3.969   0.413    80.0
 809          UI     0.0    5.79    11.9   30.23    38.5   48.58   48.11   41.75   34.63    28.1
 810          UI   18.91   15.22    9.82    7.25    5.39    4.12    3.29     2.3    0.72    0.72
 811          UI    0.72    0.72    0.72    0.72    0.72    0.72    0.72     0.0

 812          KK   45B-O
 813          KO       0       0     0.0       0      22
 814          DT  45Bret    13.0     0.0
 815          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 816          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 817          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 818          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 819          KK     J5B   CNAME  J5B-J6
 820          KM   COMBINE ROUTED HYDROGRAPH FROM J5A WITH RUNOFF FROM 45B @ J5B
 821          KO       0       0     0.0       0      22
 822          HC       2

 823          KK  J5B-J6   CNAME     J5B
 824          KM   STORAGE ROUTE FROM J5B TO J6 THROUGH SPRR TRESTLE
 825          KO       0       0     0.0       0      22
 826          RS       1    ELEV   892.0     0.0
 827          SV     0.0   20.33   91.45  223.99  223.99  223.99  223.99  223.99  223.99  223.99
 828          SV  223.99  223.99  223.99  223.99  223.99  223.99  223.99  223.99  223.99  223.99
 829          SE   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
 830          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
 831          SQ     0.0   150.0   230.0   308.0   825.0  1144.0  1970.0  1970.0  1970.0  1970.0
 832          SQ  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0
 833          SE   892.0  893.68  895.08  895.48  895.68  895.88  896.08  896.08  896.08  896.08
 834          SE  896.08  896.08  896.08  896.08  896.08  896.08  896.08  896.08  896.08  896.08
1                                          HEC-1 INPUT                                          PAGE 19

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 835          KK      64
 836          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 837          KM   L=0.89     Lca=0.45     S=17.94     Kn=0.200     LAG=117
 838          KM   S-GRAPH TYPE=AGRICULTURE
 839          KO       0       0     0.0       1      22
 840          BA  0.4148
 841          LG   0.101    0.25   4.357   0.417  79.714
 842          UI     0.0   13.07   18.28   40.72   73.99   90.13  101.51  109.82  106.16   92.07
 843          UI   88.82   73.07   54.21   42.35   39.02   24.27    20.3   16.15   12.61   11.73
 844          UI    7.42    7.42    6.49    1.63    1.63    1.63    1.63    1.63    1.63    1.63
 845          UI    1.63    1.63    1.63    1.63    1.63     0.0

 846          KK    64-O
 847          KO       0       0     0.0       0      22
 848          DT   64ret    49.0     0.0
 849          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 850          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 851          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 852          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 853          KK      J6
 854          KM   COMBINE STORAGE HYDROGRAPH FROM J5B WITH RUNOFF FROM 64 @ J6
 855          ZW   A=REW B=J6 C=FLOW E=15MIN F=10Y24H-FUT
 856          KO       0       0     0.0       0      22
 857          HC       2
 858          ZZ
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	68	357.	12.50	55.	19.	6.	0.41		
+	DIVERSION TO	68ret	357.	12.50	51.	15.	5.	0.41		
+	HYDROGRAPH AT	68-O	24.	13.75	12.	4.	1.	0.41		
+	ROUTED TO	E1-E2	24.	14.00	12.	4.	1.	0.41		
+	HYDROGRAPH AT	59	69.	12.75	16.	5.	2.	0.25		
+	2 COMBINED AT	E2	68.	12.75	26.	9.	3.	0.66		
+	HYDROGRAPH AT	RIDF	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	F1S-F2	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	27	74.	13.75	37.	13.	4.	0.24		
+	DIVERSION TO	27ret	74.	13.75	37.	13.	4.	0.24		
+	HYDROGRAPH AT	27-O	0.	0.00	0.	0.	0.	0.24		
+	2 COMBINED AT	F2	0.	0.00	0.	0.	0.	0.24		

```
+          ROUTED TO
                    F2-F3      0.   0.00       0.       0.       0.     0.24
+          HYDROGRAPH AT
                       29    233.  14.50     146.      53.      18.     1.00
+          DIVERSION TO
                    29ret    233.  14.50     146.      53.      18.     1.00
+          HYDROGRAPH AT
                     29-O      0.   0.00       0.       0.       0.     1.00
+          2 COMBINED AT
                       F3      0.   0.00       0.       0.       0.     1.24
+          ROUTED TO
                    F3-F4      0.   0.00       0.       0.       0.     1.24
+          HYDROGRAPH AT
                       41    275.  14.50     175.      64.      22.     1.20
+          DIVERSION TO
                    41ret    275.  14.50     175.      64.      22.     1.20
+          HYDROGRAPH AT
                     41-O      0.   0.00       0.       0.       0.     1.20
+          2 COMBINED AT
                       F4      0.   0.00       0.       0.       0.     2.44
+          ROUTED TO
                   F4-F5B      0.   0.00       0.       0.       0.     2.44
+          HYDROGRAPH AT
                      52B    189.  13.25      77.      27.       9.     0.50
+          DIVERSION TO
                   52Bret    189.  13.25      77.      27.       9.     0.50
+          HYDROGRAPH AT
                    52B-O      0.   0.00       0.       0.       0.     0.50
+          2 COMBINED AT
                      F5B      0.   0.00       0.       0.       0.     2.94
+          ROUTED TO
                   5B-F6B      0.   0.00       0.       0.       0.     2.94
+          HYDROGRAPH AT
                      60B    146.  13.50      68.      23.       8.     0.57
+          DIVERSION TO
                   60Bret    146.  13.50      68.      23.       8.     0.57
+          HYDROGRAPH AT
                    60B-O      0.   0.00       0.       0.       0.     0.57
+          2 COMBINED AT
                      F6B      0.   0.00       0.       0.       0.     3.51
+          HYDROGRAPH AT
                      52A     76.  14.25      47.      17.       6.     0.31
+          DIVERSION TO
                   52Aret     76.  14.25      47.      17.       6.     0.31
+          HYDROGRAPH AT
                    52A-O      0.   0.00       0.       0.       0.     0.31
+          ROUTED TO
                   5A-F6A      0.   0.00       0.       0.       0.     0.31
+          HYDROGRAPH AT
                      60A     94.  13.75      46.      16.       5.     0.41
+          DIVERSION TO
                   60Aret     94.  13.75      46.      16.       5.     0.41
+          HYDROGRAPH AT
                    60A-O      0.   0.00       0.       0.       0.     0.41
+          2 COMBINED AT
                      F6A      0.   0.00       0.       0.       0.     0.72
+          HYDROGRAPH AT
                     RIDG      0.   0.00       0.       0.       0.     0.00
+          ROUTED TO
                   G3S-G4      0.   0.00       0.       0.       0.     0.00
+          HYDROGRAPH AT
                       28     93.  14.00      51.      18.       6.     0.33
+          DIVERSION TO
                    28ret     93.  14.00      51.      18.       6.     0.33
+          HYDROGRAPH AT
                     28-O      0.   0.00       0.       0.       0.     0.33
+          2 COMBINED AT
                       G4      0.   0.00       0.       0.       0.     0.33
+          ROUTED TO
                    G4-G5      0.   0.00       0.       0.       0.     0.33
+          HYDROGRAPH AT
                       30    221.  14.50     143.      53.      18.     0.98
+          DIVERSION TO
                    30ret    221.  14.50     143.      53.      18.     0.98
+          HYDROGRAPH AT
                     30-O      0.   0.00       0.       0.       0.     0.98
```

+	2 COMBINED AT	G5	0.	0.00	0.	0.	0.	1.32
+	ROUTED TO	G5-G6	0.	0.00	0.	0.	0.	1.32
+	HYDROGRAPH AT	42	175.	14.50	113.	42.	14.	0.78
+	DIVERSION TO	42ret	175.	14.50	113.	42.	14.	0.78
+	HYDROGRAPH AT	42-O	0.	0.00	0.	0.	0.	0.78
+	2 COMBINED AT	G6	0.	0.00	0.	0.	0.	2.10
+	ROUTED TO	G6-G7	0.	0.00	0.	0.	0.	2.10
+	HYDROGRAPH AT	53	105.	13.75	52.	18.	6.	0.34
+	DIVERSION TO	53ret	105.	13.75	52.	18.	6.	0.34
+	HYDROGRAPH AT	53-O	0.	0.00	0.	0.	0.	0.34
+	2 COMBINED AT	G7	0.	0.00	0.	0.	0.	2.43
+	ROUTED TO	G7-G8	0.	0.00	0.	0.	0.	2.43
+	HYDROGRAPH AT	61	133.	13.75	64.	22.	7.	0.51
+	DIVERSION TO	61ret	133.	13.75	64.	22.	7.	0.51
+	HYDROGRAPH AT	61-O	0.	0.00	0.	0.	0.	0.51
+	2 COMBINED AT	G8	0.	0.00	0.	0.	0.	2.94
+	HYDROGRAPH AT	RIDH	0.	0.00	0.	0.	0.	0.00
+	ROUTED TO	H3S-H4	0.	0.00	0.	0.	0.	0.00
+	HYDROGRAPH AT	31	166.	15.00	113.	41.	14.	1.08
+	DIVERSION TO	31ret	166.	15.00	113.	41.	14.	1.08
+	HYDROGRAPH AT	31-O	0.	0.00	0.	0.	0.	1.08
+	2 COMBINED AT	H4	0.	0.00	0.	0.	0.	1.08
+	ROUTED TO	H4-H5	0.	0.00	0.	0.	0.	1.08
+	HYDROGRAPH AT	43	164.	15.00	115.	43.	14.	1.00
+	DIVERSION TO	43ret	164.	15.00	115.	43.	14.	1.00
+	HYDROGRAPH AT	43-O	0.	0.00	0.	0.	0.	1.00
+	2 COMBINED AT	H5	0.	0.00	0.	0.	0.	2.08
+	ROUTED TO	H5-H6	0.	0.00	0.	0.	0.	2.08
+	HYDROGRAPH AT	54	94.	14.25	57.	21.	7.	0.39
+	DIVERSION TO	54ret	94.	14.25	57.	21.	7.	0.39
+	HYDROGRAPH AT	54-O	0.	0.00	0.	0.	0.	0.39
+	2 COMBINED AT	H6	0.	0.00	0.	0.	0.	2.47
+	ROUTED TO	H6-H7	0.	0.00	0.	0.	0.	2.47
+	HYDROGRAPH AT	62	167.	13.75	87.	31.	10.	0.57
+	DIVERSION TO	62ret	167.	13.75	87.	31.	10.	0.57
+	HYDROGRAPH AT	62-O	0.	0.00	0.	0.	0.	0.57
+	2 COMBINED AT	H7	0.	0.00	0.	0.	0.	3.04
+	HYDROGRAPH AT	RIDI	0.	0.00	0.	0.	0.	0.00

```
                ROUTED TO
+                   I2S-I3      0.   0.00       0.       0.       0.    0.00
                HYDROGRAPH AT
+                       32    113.  15.00      74.      26.       9.    0.90
                DIVERSION TO
+                    32ret    113.  15.00      74.      26.       9.    0.90
                HYDROGRAPH AT
+                     32-O      0.   0.00       0.       0.       0.    0.90
                2 COMBINED AT
+                       I3      0.   0.00       0.       0.       0.    0.90
                ROUTED TO
+                   I3-I4      0.   0.00       0.       0.       0.    0.90
                HYDROGRAPH AT
+                       44    114.  15.00      78.      27.       9.    1.01
                DIVERSION TO
+                    44ret    114.  15.00      78.      27.       9.    1.01
                HYDROGRAPH AT
+                     44-O      0.   0.00       0.       0.       0.    1.01
                2 COMBINED AT
+                       I4      0.   0.00       0.       0.       0.    1.90
                ROUTED TO
+                   I4-I5      0.   0.00       0.       0.       0.    1.90
                HYDROGRAPH AT
+                       55     73.  14.00      40.      14.       5.    0.26
                DIVERSION TO
+                    55ret     73.  14.00      40.      14.       5.    0.26
                HYDROGRAPH AT
+                     55-O      0.   0.00       0.       0.       0.    0.26
                2 COMBINED AT
+                       I5      0.   0.00       0.       0.       0.    2.17
                ROUTED TO
+                   I5-I6      0.   0.00       0.       0.       0.    2.17
                HYDROGRAPH AT
+                       63    149.  13.75      77.      27.       9.    0.50
                DIVERSION TO
+                    63ret    149.  13.75      77.      25.       8.    0.50
                HYDROGRAPH AT
+                     63-O      9.  22.00       7.       2.       1.    0.50
                2 COMBINED AT
+                       I6      9.  22.00       6.       2.       1.    2.66
                HYDROGRAPH AT
+                     RIDJ      0.   0.00       0.       0.       0.    0.00
                ROUTED TO
+                   J3S-J4      0.   0.00       0.       0.       0.    0.00
                HYDROGRAPH AT
+                       33    167.  14.75     110.      40.      13.    1.00
                DIVERSION TO
+                    33ret    167.  14.75     110.      40.      13.    1.00
                HYDROGRAPH AT
+                     33-O      0.   0.00       0.       0.       0.    1.00
                2 COMBINED AT
+                       J4      0.   0.00       0.       0.       0.    1.00
                ROUTED TO
+                   J4-J5      0.   0.00       0.       0.       0.    1.00
                HYDROGRAPH AT
+                      45A    155.  15.00     107.      39.      13.    1.00
                DIVERSION TO
+                   45Aret    155.  15.00     107.      39.      13.    1.00
                HYDROGRAPH AT
+                    45A-O      0.   0.00       0.       0.       0.    1.00
                2 COMBINED AT
+                      J5A      0.   0.00       0.       0.       0.    2.01
                ROUTED TO
+                  J5A-5B      0.   0.00       0.       0.       0.    2.01
                HYDROGRAPH AT
+                      45B     53.  13.25      22.       8.       3.    0.14
                DIVERSION TO
+                   45Bret     53.  13.25      22.       7.       2.    0.14
                HYDROGRAPH AT
+                    45B-O      5.  18.00       3.       1.       0.    0.14
                2 COMBINED AT
+                      J5B      5.  18.00       3.       1.       0.    2.14
                ROUTED TO
+                  J5B-J6      3.  20.00       3.       1.       0.    2.14
                HYDROGRAPH AT
+                       64    125.  13.75      63.      22.       8.    0.41
```

```
          DIVERSION TO
+                        64ret       125.   13.75          63.         22.          8.       0.41

          HYDROGRAPH AT
+                         64-O         0.    0.00           0.          0.          0.       0.41

          2 COMBINED AT
+                          J6         3.   20.00           3.          1.          0.       2.56


 *** NORMAL END OF HEC-1 ***

1*************************************                                    *************************************
 *                                   *                                    *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                 *   U.S. ARMY CORPS OF ENGINEERS    *
 *              JUN   1998           *                                    *   HYDROLOGIC ENGINEERING CENTER   *
 *            VERSION 4.1            *                                    *         609 SECOND STREET         *
 *                                   *                                    *      DAVIS, CALIFORNIA 95616      *
 *  RUN DATE   23MAR06  TIME  04:56:38 *                                  *         (916) 756-1104            *
 *                                   *                                    *                                   *
 *************************************                                    *************************************

                                        X     X  XXXXXXX   XXXXX          X
                                        X     X  X        X     X        XX
                                        X     X  X        X              X
                                        XXXXXXX  XXXX     X        XXXXX  X
                                        X     X  X        X              X
                                        X     X  X        X     X        X
                                        X     X  XXXXXXX   XXXXX        XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                    PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

            1           ID   Buckeye/Sun Valley ADMS - November 2004
            2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
            3           ID   10-year 24-hour
            4           ID   Future Conditions
            5           ID   Area 1 - RID to BIC (East)
            6           ID   File Name: rbe1024fut.hc1
            7           ID   Rainfall Loss Method - Green & Ampt
            8           ID   Unit Hydrograph Method - FCDMC S-Graph
            9           ID   Channel Routing Method - Normal Depth
           10           ID   Land Use - FCDMC GIS Data: mag_genplan (2000)
           11           ID   Future Land Use Build Out Date: 2025
           12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
           13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                        *DIAGRAM
           14           IT      15 02JAN94       0     400
           15           IO       3
           16           IN      15 02JAN94       0
           17           JD     2.5     0.01
                        * 24-hour distribution
           18           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
           19           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
           20           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
           21           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
           22           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
           23           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
           24           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
           25           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
           26           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
           27           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
           28           IN      15 02JAN94       0
           29           JD   2.375    10.0
                        * 24-hour distribution
           30           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
           31           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
           32           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
           33           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
           34           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
           35           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
           36           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
           37           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
           38           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
           39           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
           40           IN      15 02JAN94       0
           41           JD   2.295    20.0
                        * 24-hour distribution
           42           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
           43           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
           44           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
           45           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
           46           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
           47           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
           48           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
           49           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
           50           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
           51           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
                        * ***********************************************************************
                        * **   SUB-WATERSHED K   ***********************************************
                        * ***********************************************************************
1                                                   HEC-1 INPUT                                                    PAGE  2

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
 52          KK   RIDKB
 53          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 54          BA  0.0001
 55          ZR  =QI A=RID RID B=38999 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-24F

 56          KK  K3SBK4   CNAME    K3SB
 57          KM   ROUTE INFLOW FROM RID CONCENTRATED AT K3SB TO K4 (CHANNEL A)
 58          KO       0       0     0.0       0      22
 59          RS       1    FLOW     0.0     0.0
 60          RC     0.1     0.1     0.1 3026.00  0.0090     0.0
 61          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 62          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 63          KK   RIDKA
 64          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 65          BA  0.0001
 66          ZR  =QI A=RID RID B=35599 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-24F

 67          KK  K3SAK4   CNAME    K3SA
 68          KM   ROUTE INFLOW FROM RID CONCENTRATED AT K3SA TO K4 (CHANNEL A)
 69          KO       0       0     0.0       0      22
 70          RS       1    FLOW     0.0     0.0
 71          RC     0.1     0.1     0.1 4868.00  0.0049     0.0
 72          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 73          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 74          KK      34
 75          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 76          KM   L=1.23     Lca=0.62     S=19.48     Kn=0.200     LAG=148
 77          KM   S-GRAPH TYPE=AGRICULTURE
 78          KO       0       0     0.0       1      22
 79          BA  0.6373
 80          LG   0.266    0.25   3.994    0.46  26.762
 81          UI     0.0   15.88   15.88   32.09   63.99    91.6   96.57  124.21   133.4   133.4
 82          UI  130.44  111.17  119.11   90.18   91.45   64.03    55.3   45.36   44.06   29.14
 83          UI   25.65    19.8   18.12    14.5   14.37    9.01    9.01    9.01    6.39    1.99
 84          UI    1.99    1.99    1.99    1.99    1.99    1.99    1.99    1.99    1.99    1.99
 85          UI    1.99    1.99    1.99    1.99    1.99     0.0

 86          KK    34-O
 87          KO       0       0     0.0       0      22
 88          DT   34ret    40.0     0.0
 89          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 90          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 91          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 92          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 93          KK      K4   CNAME   K4-K5
 94          KM   COMBINE ROUTED HYDROGRAPH FROM K3SA AND K3SB WITH RUNOFF FROM 34 @ K4
 95          KO       0       0     0.0       0      22
 96          HC       3
1                                        HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 97          KK   K4-K5   CNAME      K4
 98          KM   ROUTE HYDRPGRAPH FROM K4 TO K5 (CHANNEL B)
 99          KO       0       0     0.0       0      22
100          RS       7    FLOW     0.0     0.0
101          RC     0.1    0.02     0.1 5283.85   0.008     0.0
102          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
103          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

104          KK      35
105          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
106          KM   L=1.96     Lca=0.98     S=33.61     Kn=0.200     LAG=190
107          KM   S-GRAPH TYPE=AGRICULTURE
108          KO       0       0     0.0       1      22
109          BA  1.5042
110          LG   0.197    0.25   3.978   0.449  52.272
111          UI     0.0    29.2    29.2   40.11   64.31  118.19   168.6  157.36  214.59  220.72
112          UI  245.24  245.24  245.24  231.62  204.37  217.31  195.85  153.28  172.28  118.39
113          UI  111.47   87.32   83.63   81.72   55.74   47.73   43.98   36.07   34.81   26.66
114          UI   26.66   24.44   16.57   16.57   16.57   16.57    9.68    3.65    3.65    3.65
115          UI    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65
116          UI    3.65    3.65    3.65    3.65    3.65    3.65    3.65     0.0

117          KK    35-O
118          KO       0       0     0.0       0      22
119          DT   35ret   128.0     0.0
120          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
121          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
122          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
123          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

124          KK      K5   CNAME   K5-K6
125          KM   COMBINE ROUTED HYDROGRAPH FROM K4 WITH RUNOFF FROM 35 @ K5
126          KO       0       0     0.0       0      22
127          HC       2

128          KK   K5-K6   CNAME      K5
129          KM   ROUTE HYDRPGRAPH FROM K5 TO K6 (CHANNEL B)
130          KO       0       0     0.0       0      22
131          RS       7    FLOW     0.0     0.0
132          RC     0.1    0.02     0.1 6533.09   0.006     0.0
133          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
134          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

135          KK      46
136          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
137          KM   L=1.79     Lca=0.89     S=25.18     Kn=0.200     LAG=186
138          KM   S-GRAPH TYPE=AGRICULTURE
139          KO       0       0     0.0       1      22
140          BA  1.3812
141          LG   0.191    0.25   4.186   0.431  49.223
142          UI     0.0   27.39   27.39   39.31   63.49  115.59   161.6  146.46  213.71  205.72
143          UI  230.03  230.03  230.03  207.03   191.7   205.8  165.51  147.93  146.17  106.95
144          UI   95.42    79.2   83.87   59.37   48.74   44.24   35.62   33.83   27.47    25.0
145          UI    25.0   16.79   15.54   15.54   15.54   12.15    3.42    3.42    3.42    3.42
1                                        HEC-1 INPUT                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
146          UI    3.42    3.42    3.42    3.42    3.42    3.42    3.42    3.42    3.42    3.42
147          UI    3.42    3.42    3.42    3.42    3.42    3.42     0.0

148          KK    46-O
149          KO       0       0     0.0       0      22
150          DT   46ret   115.0     0.0
151          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
152          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
153          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
154          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

155          KK      K6   CNAME   K6-K7
156          KM   COMBINE ROUTED HYDROGRAPH FROM K5 WITH RUNOFF FROM 46 @ K6
157          KO       0       0     0.0       0      22
158          HC       2

159          KK   K6-K7   CNAME      K6
160          KM   STORAGE ROUTE FROM K6 TO K7 THROUGH SPRR TRESTLE
161          KO       0       0     0.0       0      22
162          RS       1    ELEV   890.0     0.0
163          SV     0.0     0.43   43.48  173.62  410.02  410.02  410.02  410.02  410.02  410.02
164          SV  410.02  410.02  410.02  410.02  410.02  410.02  410.02  410.02  410.02  410.02
165          SE   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0
166          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
167          SQ     0.0   200.0   975.0  1120.0  1555.0  1565.0  1610.0  2150.0  2150.0  2150.0
168          SQ  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0
169          SE   890.0  891.09  893.09  893.69  894.89  894.99  895.09  895.29  895.29  895.29
170          SE  895.29  895.29  895.29  895.29  895.29  895.29  895.29  895.29  895.29  895.29

171          KK      65
172          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
173          KM   L=0.82      Lca=0.41      S=10.93      Kn=0.200      LAG=121
174          KM   S-GRAPH TYPE=AGRICULTURE
175          KO       0       0     0.0       1      22
176          BA  0.3756
177          LG     0.1    0.25   4.712   0.374    80.0
178          UI     0.0   11.45    15.3   32.35   64.94   69.77   92.26   96.16   96.16    81.2
179          UI   85.03   60.83   57.04   41.32   33.18    28.5   19.59   15.77   13.21   10.45
180          UI    8.88     6.5     6.5     4.4    1.43    1.43    1.43    1.43    1.43    1.43
181          UI    1.43    1.43    1.43    1.43    1.43    1.43    1.43     0.0

182          KK    65-O
183          KO       0       0     0.0       0      22
184          DT   65ret    42.0     0.0
185          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
186          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
187          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
188          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

189          KK      K7
190          KM   COMBINE STORAGE HYDROGRAPH FROM K6 WITH RUNOFF FROM 65 @ K7
191          ZW   A=RBE B=K7 C=FLOW E=15MIN F=10y24h-fut
192          KO       0       0     0.0       0      22
193          HC       2
             * ***********************************************************************
             * **    SUB-WATERSHED L    ***********************************************
             * ***********************************************************************
1                                          HEC-1 INPUT                                          PAGE  5

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

194          KK    RIDL
195          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
196          BA  0.0001
197          ZR  =QI A=RID RID B=41599 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-24F

198          KK  L2S-L3   CNAME     L2S
199          KM   ROUTE INFLOW FROM RID CONCENTRATED AT L2S TO L3 (CHANNEL B)
200          KO       0       0     0.0       0      22
201          RS       1    FLOW     0.0     0.0
202          RC     0.1    0.02     0.1 7457.00   0.009     0.0
203          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
204          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

205          KK      36
206          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
207          KM   L=1.85      Lca=0.93      S=36.67      Kn=0.200      LAG=178
208          KM   S-GRAPH TYPE=AGRICULTURE
209          KO       0       0     0.0       1      22
210          BA  0.6838
211          LG   0.251    0.25   3.967   0.427  36.844
212          UI     0.0   14.17   14.17   22.08   36.12   64.69    83.2   83.17  105.19  118.66
213          UI   119.0   119.0  116.36   99.17  105.05   95.04   74.38   80.98   56.49   51.19
214          UI   41.31    42.9   31.56   25.16   22.88   17.98    17.5   13.42   12.93   12.13
215          UI    8.04    8.04    8.04    8.04    3.19    1.77    1.77    1.77    1.77    1.77
216          UI    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77
217          UI    1.77    1.77    1.77    1.77     0.0

218          KK    36-O
219          KO       0       0     0.0       0      22
220          DT   36ret    48.0     0.0
221          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
222          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
223          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
224          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

225          KK      L3   CNAME   L3-L4
226          KM   COMBINE ROUTED HYDROGRAPH FROM L2S WITH RUNOFF FROM 36 @ L3
227          KO       0       0     0.0       0      22
228          HC       2

229          KK   L3-L4   CNAME      L3
230          KM   ROUTE HYDROGRAPH FROM L3 TO L4 (CHANNEL B)
231          KO       0       0     0.0       0      22
232          RS      11    FLOW     0.0     0.0
233          RC     0.1    0.02     0.1 7726.73   0.005     0.0
234          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
235          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

236          KK      47
237          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
238          KM   L=1.46      Lca=0.73      S=24.60      Kn=0.200      LAG=161
```

```
 239          KM   S-GRAPH TYPE=AGRICULTURE
 240          KO       0       0     0.0       1      22
 241          BA  0.6169
1                                          HEC-1 INPUT                                                          PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 242          LG   0.235    0.25   4.499   0.387  34.953
 243          UI     0.0   14.13   14.13   25.73   43.69   78.39   77.95  107.42  110.39   118.7
 244          UI   118.7  113.43   98.92  105.54   83.18   78.99   64.89   53.48   41.57   42.52
 245          UI   30.95   24.46   21.69   17.46    15.7    12.9    12.9    8.42    8.02    8.02
 246          UI    8.02     2.1    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77
 247          UI    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77     0.0

 248          KK    47-O
 249          KO       0       0     0.0       0      22
 250          DT   47ret    45.0     0.0
 251          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 252          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 253          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 254          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 255          KK      L4   CNAME   L4-L5
 256          KM   COMBINE ROUTED HYDROGRAPH FROM L3 WITH RUNOFF FROM 47 @ L4
 257          KO       0       0     0.0       0      22
 258          HC       2

 259          KK   L4-L5   CNAME      L4
 260          KM   STORAGE ROUTE FROM L4 TO L5 THROUGH SPRR TRESTLE
 261          KO       0       0     0.0       0      22
 262          RS       1    ELEV  886.29     0.0
 263          SV     0.0     0.9     4.0    25.7   107.8  265.67  265.67  265.67  265.67  265.67
 264          SV  265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67
 265          SE   886.0   888.0   890.0   892.0   894.0   896.0   896.0   896.0   896.0   896.0
 266          SE   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0
 267          SQ     0.0    59.0   172.0   230.0   323.0   480.0   769.0  1218.0  1828.0  1828.0
 268          SQ  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0
 269          SE  886.29  888.09  890.09  890.99  891.79  891.99  892.19  892.39  892.59  892.59
 270          SE  892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59

 271          KK      66
 272          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 273          KM   L=0.73     Lca=0.36     S=19.24     Kn=0.200     LAG=99
 274          KM   S-GRAPH TYPE=AGRICULTURE
 275          KO       0       0     0.0       1      22
 276          BA  0.2941
 277          LG   0.101    0.25   4.471   0.367  79.734
 278          UI     0.0   10.96   18.36   48.91   66.57   87.58   92.03   85.89   79.94   62.17
 279          UI   52.27   36.46   30.89   19.44   15.19   11.84    10.0    6.36    6.22     3.7
 280          UI    1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37
 281          UI     0.0

 282          KK    66-O
 283          KO       0       0     0.0       0      22
 284          DT   66ret    31.0     0.0
 285          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 286          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 287          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 288          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
1                                          HEC-1 INPUT                                                          PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 289          KK      L5
 290          KM   COMBINE STORAGE HYDROGRAPH FROM L4 WITH RUNOFF FROM 66 @ L5
 291          ZW   A=RBE B=L5 C=FLOW E=15MIN F=10y24h-fut
 292          KO       0       0     0.0       0      22
 293          HC       2
              * ******************************************************************************
              * **   SUB-WATERSHED M   ********************************************************
              * ******************************************************************************

 294          KK    RIDM
 295          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 296          BA  0.0001
 297          ZR  =QI A=RID RID B=47199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-24F

 298          KK  L2S2M1   CNAME    L2S2
 299          KM   ROUTE INFLOW FROM RID CONCENTRATED AT L2S2 TO M1 (CHANNEL A)
 300          KO       0       0     0.0       0      22
 301          RS       1    FLOW     0.0     0.0
 302          RC     0.1     0.1     0.1 9579.00  0.0030     0.0
 303          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 304          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 305          KK      37
 306          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 307          KM   L=2.36     Lca=1.18     S=30.11     Kn=0.200     LAG=222
 308          KM   S-GRAPH TYPE=AGRICULTURE
 309          KO       0       0     0.0       1      22
 310          BA  1.4211
 311          LG   0.248    0.25    4.12   0.419  41.529
 312          UI     0.0   23.61   23.61   23.61   46.77   63.19  104.27  137.98  128.23  153.35
 313          UI  177.81   198.3   198.3   198.3   198.3  191.69  165.25  165.25  182.96  139.11
 314          UI  124.21  141.65    97.7   90.14   78.24   68.08   70.88   60.42   45.07   38.97
 315          UI   38.13   29.56   29.16   25.81   21.55   21.55   21.26    13.4    13.4    13.4
 316          UI    13.4    13.4    7.55    2.95    2.95    2.95    2.95    2.95    2.95    2.95
 317          UI    2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95
 318          UI    2.95    2.95    2.95    2.95    2.95    2.95    2.95     0.0

 319          KK    37-O
 320          KO       0       0     0.0       0      22
 321          DT   37ret   110.0     0.0
 322          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 323          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 324          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 325          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 326          KK      M1   CNAME   M1-M2
 327          KM   COMBINE ROUTED HYDROGRAPH FROM L2S2 WITH RUNOFF FROM 37 @ M1
 328          KO       0       0     0.0       0      22
 329          HC       2
1                                          HEC-1 INPUT                                                          PAGE  8
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 330          KK   M1-M2   CNAME      M1
 331          KM   ROUTE HYDROGRAPH FROM M1 TO M2 (CHANNEL A)
 332          KO       0       0     0.0       0      22
 333          RS      10    FLOW     0.0     0.0
 334          RC     0.1     0.1     0.1  5783.5   0.003     0.0
 335          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 336          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 337          KK      48
 338          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 339          KM   L=1.10     Lca=0.55     S=16.43     Kn=0.200     LAG=139
 340          KM   S-GRAPH TYPE=AGRICULTURE
 341          KO       0       0     0.0       1      22
 342          BA  0.4997
 343          LG   0.211    0.25   4.375   0.389  42.963
 344          UI     0.0   13.26   14.05   30.21   59.66   76.06    96.1  103.26  111.37  111.37
 345          UI   97.76   97.11   83.14   74.11   57.93   46.73   37.98    35.6   23.78   20.47
 346          UI   16.38   13.76   12.11     9.9    7.53    7.53    7.21    1.66    1.66    1.66
 347          UI    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66
 348          UI    1.66    1.66     0.0

 349          KK    48-O
 350          KO       0       0     0.0       0      22
 351          DT   48ret    43.0     0.0
 352          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 353          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 354          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 355          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 356          KK      M2   CNAME   M2-M3
 357          KM   COMBINE ROUTED HYDROGRAPH FROM M1 WITH RUNOFF FROM 48 @ M2
 358          KO       0       0     0.0       0      22
 359          HC       2

 360          KK   M2-M3   CNAME      M2
 361          KM   ROUTE HYDROGRAPH FROM M2 TO M3 (CHANNEL A)
 362          KO       0       0     0.0       0      22
 363          RS       3    FLOW     0.0     0.0
 364          RC   0.025   0.025   0.025 4309.67   0.005     0.0
 365          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 366          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 367          KK      67
 368          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 369          KM   L=0.82     Lca=0.41     S=25.73     Kn=0.200     LAG=102
 370          KM   S-GRAPH TYPE=PHOENIX VALLEY
 371          KO       0       0     0.0       1      22
 372          BA  0.4717
 373          LG    0.21    0.25   4.328   0.412   26.19
 374          UI     0.0   15.57   31.09   66.92   86.69  107.67  144.49  191.76  149.18  119.67
 375          UI   94.22   73.23    45.3   26.94   21.99   15.57    6.99    4.78    4.78    4.78
 376          UI    4.78     0.0
1                                          HEC-1 INPUT                                          PAGE  9
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 377          KK      M3   CNAME   M3-M4
 378          KM   COMBINE ROUTED HYDROGRAPH FROM M2 WITH RUNOFF FROM 67 @ M3
 379          KO       0       0     0.0       0      22
 380          HC       2

 381          KK   M3-M4   CNAME      M3
 382          KM   STORAGE ROUTE FROM M3 TO M4 THROUGH SPRR TRESTLE
 383          KO       0       0     0.0       0      22
 384          RS       1    ELEV   884.0     0.0
 385          SV     0.0    0.28    12.7    94.1  202.02  383.38  383.38  383.38  383.38  383.38
 386          SV  383.38  383.38  383.38  383.38  383.38  383.38  383.38  383.38  383.38  383.38
 387          SE   884.0   886.0   888.0   890.0   892.0   894.0   894.0   894.0   894.0   894.0
 388          SE   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0
 389          SQ     0.0    42.0   135.0   200.0   226.0   465.0  1010.0  1703.0  1703.0  1703.0
 390          SQ  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0
 391          SE   884.0  885.09  887.09  889.19  889.29  889.49  889.69  889.89  889.89  889.89
 392          SE  889.89  889.89  889.89  889.89  889.89  889.89  889.89  889.89  889.89  889.89

 393          KK      69
 394          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 395          KM   L=0.11     Lca=0.06     S=17.52     Kn=0.200     LAG=25
 396          KM   S-GRAPH TYPE=PHOENIX VALLEY
 397          KO       0       0     0.0       1      22
 398          BA  0.1371
 399          LG     0.1    0.25   4.502   0.453  43.971
 400          UI     0.0   60.46  176.19   92.48    19.3     0.0

 401          KK      M4
 402          KM   COMBINE STORAGE HYDROGRAPH FROM M3 WITH RUNOFF FROM 69 @ M4
 403          ZW   A=RBE B=M4 C=FLOW E=15MIN F=10y24h-fut
 404          KO       0       0     0.0       0      22
 405          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED N   ***********************************************
              * ***********************************************************************

 406          KK    RIDN
 407          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 408          BA  0.0001
 409          ZR  =QI A=RID RID B=51199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-24F

 410          KK  N2S-N3   CNAME     N2S
 411          KM   ROUTE INFLOW FROM RID CONCENTRATED AT N2S TO N3 (CHANNEL A)
 412          KO       0       0     0.0       0      22
 413          RS       1    FLOW     0.0     0.0
 414          RC     0.1     0.1     0.1 5806.00  0.0050     0.0
 415          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 416          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                          PAGE 10
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
417          KK      38
418          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
419          KM   L=1.40      Lca=0.70      S=20.72      Kn=0.200      LAG=161
420          KM   S-GRAPH TYPE=AGRICULTURE
421          KO       0        0      0.0        1       22
422          BA  0.5419
423          LG    0.25     0.25    3.963    0.435     30.0
424          UI     0.0    12.41    12.41     22.6    38.38    68.87    68.47    94.37    96.98   104.28
425          UI  104.28    99.64     86.9    92.71    73.07    69.39    57.01    46.98    36.52    37.35
426          UI   27.19    21.49    19.06    15.33    13.79    11.33    11.33      7.4     7.05     7.05
427          UI    7.05     1.84     1.55     1.55     1.55     1.55     1.55     1.55     1.55     1.55
428          UI    1.55     1.55     1.55     1.55     1.55     1.55     1.55     1.55     1.55      0.0

429          KK    38-O
430          KO       0        0      0.0        0       22
431          DT   38ret     37.0      0.0
432          DI     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
433          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
434          DQ     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
435          DQ  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0

436          KK      N3    CNAME    N3-N4
437          KM   COMBINE ROUTED HYDROGRAPH FROM N2S WITH RUNOFF FROM 38 @ N3
438          KO       0        0      0.0        0       22
439          HC       2

440          KK   N3-N4    CNAME      N3
441          KM   ROUTE HYDROGRAPH FROM N3 TO N4 (CHANNEL B)
442          KO       0        0      0.0        0       22
443          RS       8     FLOW      0.0      0.0
444          RC     0.1     0.02      0.1  5295.68    0.009      0.0
445          RX     0.0   1000.0   1006.0   1010.0   1050.0   1054.0   1060.0   2060.0
446          RY    10.0      0.0      0.0      1.0      1.0      0.0      0.0     10.0

447          KK      49
448          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
449          KM   L=1.96      Lca=0.98      S=23.51      Kn=0.200      LAG=202
450          KM   S-GRAPH TYPE=AGRICULTURE
451          KO       0        0      0.0        1       22
452          BA  1.0093
453          LG    0.25     0.25    3.954    0.409   36.233
454          UI     0.0    18.43    18.43    21.91     38.7    60.54    96.74   109.77   111.53   139.33
455          UI   150.8   154.78   154.78   154.78   141.02   128.98   137.67   123.61    96.74   107.67
456          UI   80.42    70.35    59.46     52.4    57.71    37.74    32.94    29.77    25.12    22.76
457          UI   20.55    16.82    16.82    15.07    10.46    10.46    10.46    10.46     8.07      2.3
458          UI     2.3      2.3      2.3      2.3      2.3      2.3      2.3      2.3      2.3      2.3
459          UI     2.3      2.3      2.3      2.3      2.3      2.3      2.3      2.3      2.3      2.3
460          UI     2.3      0.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

461          KK    49-O
462          KO       0        0      0.0        0       22
463          DT   49ret     73.0      0.0
464          DI     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
465          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
466          DQ     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
467          DQ  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0

468          KK      N4    CNAME   N4-N5B
469          KM   COMBINE ROUTED HYDROGRAPH FROM N3 WITH RUNOFF FROM 49 @ N4
470          KO       0        0      0.0        0       22
471          HC       2

472          KK  N4-N5B    CNAME      N4
473          KM   ROUTE HYDROGRAPH FROM N4 TO N5 (CHANNEL B)
474          KO       0        0      0.0        0       22
475          RS       6     FLOW      0.0      0.0
476          RC     0.1     0.02      0.1  3866.36    0.008      0.0
477          RX     0.0   1000.0   1006.0   1010.0   1050.0   1054.0   1060.0   2060.0
478          RY    10.0      0.0      0.0      1.0      1.0      0.0      0.0     10.0

479          KK     56B
480          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
481          KM   L=0.71      Lca=0.32      S=32.56      Kn=0.200      LAG=85
482          KM   S-GRAPH TYPE=AGRICULTURE
483          KO       0        0      0.0        1       22
484          BA  0.3335
485          LG     0.1     0.25    3.998    0.503     80.0
486          UI     0.0    13.21    36.42    66.04    85.35   118.84   159.02   118.04     90.4    67.67
487          UI   40.92    22.66    16.33     10.2     4.05     4.05     4.05      0.0

488          KK     N5B    CNAME   N5B-N6
489          KM   COMBINE ROUTED HYDROGRAPH FROM N4 WITH RUNOFF FROM 56B @ N5B
490          KO       0        0      0.0        0       22
491          HC       2

492          KK  N5B-N6    CNAME     N5B
493          KM   STORAGE ROUTE FROM N5B TO N6 THROUGH SPRR TRESTLE
494          KO       0        0      0.0        0       22
495          RS       1     ELEV   887.23      0.0
496          SV     0.0     0.96    12.89    39.94    86.12   150.27   150.27   150.27   150.27   150.27
497          SV  150.27   150.27   150.27   150.27   150.27   150.27   150.27   150.27   150.27   150.27
498          SE   886.0    888.0    890.0    892.0    894.0    896.0    896.0    896.0    896.0    896.0
499          SE   896.0    896.0    896.0    896.0    896.0    896.0    896.0    896.0    896.0    896.0
500          SQ     0.0     71.6     98.1    118.7    136.2    151.6    165.7    178.6    190.7    202.0
501          SQ   212.8    223.0    232.8    242.1    251.2    259.9    268.3    276.5    276.5    276.5
502          SE  887.23   889.23   889.73   890.23   890.73   891.23   891.73   892.23   892.73   893.23
503          SE  893.73   894.23   894.73   895.23   895.73   896.23   896.73   897.23   897.23   897.23
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

504          KK     56A
505          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
506          KM   L=1.19      Lca=0.59      S=30.31      Kn=0.200      LAG=132
507          KM   S-GRAPH TYPE=AGRICULTURE
508          KO       0        0      0.0        1       22
509          BA  0.4105
510          LG     0.1     0.25    3.969    0.441     80.0
511          UI     0.0    11.47    13.39    28.45    55.88    66.16    84.79    96.35    96.35    93.14
```

```
 512          UI   80.29   83.82   61.02   58.36   42.89   33.31   32.41   20.95   17.94   14.17
 513          UI    11.8   10.47    8.03    6.51    6.51    4.68    1.43    1.43    1.43    1.43
 514          UI    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43
 515          UI     0.0

 516          KK   56A-O
 517          KO       0       0     0.0       0      22
 518          DT  56Aret    43.0     0.0
 519          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 520          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 521          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 522          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 523          KK  N5A-N6   CNAME     N5A
 524          KM   STORAGE ROUTE FROM N5A TO N6 THROUGH SPRR TRESTLE
 525          KO       0       0     0.0       0      22
 526          RS       1    ELEV   886.0     0.0
 527          SV     0.0    0.02    8.08   35.13  100.26  100.26  100.26  100.26  100.26  100.26
 528          SV  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26
 529          SE   886.0   888.0   890.0   892.0   894.0   894.0   894.0   894.0   894.0   894.0
 530          SE   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0
 531          SQ     0.0   102.4   189.7   248.0   294.9   335.4   371.5   404.3   434.7   463.1
 532          SQ   489.9   515.2   539.4   562.6   584.8   606.2   626.9   646.9   646.9   646.9
 533          SE   886.0  887.52  888.02  888.52  889.02  889.52  890.02  890.52  891.02  891.52
 534          SE  892.02  892.52  893.02  893.52  894.02  894.52  895.02  895.52  895.52  895.52

 535          KK      70
 536          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 537          KM   L=0.68      Lca=0.34     S=1.48      Kn=0.200     LAG=152
 538          KM   S-GRAPH TYPE=AGRICULTURE
 539          KO       0       0     0.0       1      22
 540          BA  0.1406
 541          LG     0.1    0.25   4.395   0.461    80.0
 542          UI     0.0    3.41    3.41    6.68   12.76   19.73   19.85   25.86   28.66   28.66
 543          UI   28.66   24.52   25.09   21.89   18.55   16.77   13.03   10.07   10.32    7.14
 544          UI    5.77    4.95    4.21    3.44    3.12    2.67    1.94    1.94    1.94    0.99
 545          UI    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43
 546          UI    0.43    0.43    0.43    0.43    0.43    0.43     0.0

 547          KK    70-O
 548          KO       0       0     0.0       0      22
 549          DT   70ret    17.0     0.0
 550          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 551          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 552          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 553          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
1                                          HEC-1 INPUT                                          PAGE 13

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 554          KK      N6
 555          KM   COMBINE STORAGE HYDROGRAPH FROM N5A AND N5B WITH RUNOFF FROM 70 @ N6
 556          ZW   A=RBE B=N6 C=FLOW E=15MIN F=10y24h-fut
 557          KO       0       0     0.0       0      22
 558          HC       3
              * ***********************************************************************
              * **   SUB-WATERSHED O   ***********************************************
              * ***********************************************************************

 559          KK    RIDO
 560          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 561          BA  0.0001
 562          ZR  =QI A=RID RID B=57199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-24F

 563          KK  O4S-O5   CNAME     O4S
 564          KM   ROUTE INFLOW FROM RID CONCENTRATED AT O4S TO O5 (CHANNEL A)
 565          KO       0       0     0.0       0      22
 566          RS       1    FLOW     0.0     0.0
 567          RC     0.1     0.1     0.1 6325.00  0.0060     0.0
 568          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 569          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 570          KK      39
 571          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 572          KM   L=1.63      Lca=0.82     S=25.14     Kn=0.200     LAG=174
 573          KM   S-GRAPH TYPE=AGRICULTURE
 574          KO       0       0     0.0       1      22
 575          BA  0.7253
 576          LG   0.257    0.25    4.31   0.407  26.629
 577          UI     0.0   15.37   15.37   24.91   40.98   72.85   90.07   94.27  117.51  129.13
 578          UI  129.13  129.13  120.52  107.61  114.33   93.69   83.76    78.5    59.0   50.24
 579          UI   43.47   44.81   29.35   25.01   22.19   18.99   16.61   14.04   14.04    9.72
 580          UI    8.73    8.73    8.73    5.19    1.92    1.92    1.92    1.92    1.92    1.92
 581          UI    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92
 582          UI    1.92    1.92     0.0

 583          KK    39-O
 584          KO       0       0     0.0       0      22
 585          DT  39-ret    45.0     0.0
 586          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 587          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 588          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 589          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 590          KK      O5   CNAME    O5-O6
 591          KM   COMBINE ROUTED HYDROGRAPH FROM O4S WITH RUNOFF FROM 39 @ O5
 592          KO       0       0     0.0       0      22
 593          HC       2
1                                          HEC-1 INPUT                                          PAGE 14

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 594          KK   O5-O6   CNAME      O5
 595          KM   ROUTE HYDROGRAPH FROM O5 TO O6 (CHANNEL B)
 596          KO       0       0     0.0       0      22
 597          RS       7    FLOW     0.0     0.0
 598          RC     0.1    0.02     0.1 5267.87    0.01     0.0
 599          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 600          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 601          KK      50
 602          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
```

```
603          KM   L=1.98      Lca=0.99      S=26.73      Kn=0.200      LAG=199
604          KM   S-GRAPH TYPE=AGRICULTURE
605          KO       0        0      0.0        1       22
606          BA  1.0018
607          LG   0.262     0.25    4.181    0.427   31.555
608          UI     0.0    18.57    18.57    22.94    38.99    65.02    98.44   109.42   116.01   139.75
609          UI  155.95   155.95   155.95   155.95   136.89   129.96   138.93   116.06    98.44   106.28
610          UI   74.44     70.3    55.29     52.9    53.78    35.44    31.12    29.51    22.93    22.93
611          UI   18.07    16.95    16.95    12.06    10.54    10.54    10.54    10.54     3.53     2.32
612          UI    2.32     2.32     2.32     2.32     2.32     2.32     2.32     2.32     2.32     2.32
613          UI    2.32     2.32     2.32     2.32     2.32     2.32     2.32     2.32     2.32     2.32
614          UI     0.0

615          KK    50-O
616          KO       0        0      0.0        0       22
617          DT   50ret     70.0      0.0
618          DI     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
619          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
620          DQ     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
621          DQ  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0

622          KK      O6   CNAME   O6-O7
623          KM   COMBINE ROUTED HYDROGRAPH FROM O5 WITH RUNOFF FROM 50 @ O6
624          KO       0        0      0.0        0       22
625          HC       2

626          KK   O6-O7   CNAME      O6
627          KM   ROUTE HYDROGRAPH FROM O6 TO O7 (CHANNEL B)
628          KO       0        0      0.0        0       22
629          RS       6     FLOW      0.0      0.0
630          RC     0.1     0.02      0.1  3578.87    0.004      0.0
631          RX     0.0   1000.0   1006.0   1010.0   1050.0   1054.0   1060.0   2060.0
632          RY    10.0      0.0      0.0      1.0      1.0      0.0      0.0     10.0

633          KK      57
634          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
635          KM   L=0.68      Lca=0.34      S=19.18      Kn=0.200      LAG=94
636          KM   S-GRAPH TYPE=AGRICULTURE
637          KO       0        0      0.0        1       22
638          BA  0.4885
639          LG     0.1     0.25    4.256    0.482    80.0
640          UI     0.0    19.17    35.13    95.98   125.05   151.34    161.0   141.33   132.78   104.89
641          UI   73.19    56.54    41.57    28.93    22.36     17.5    12.39    10.88     7.03      2.4
642          UI     2.4      2.4      2.4      2.4      2.4      2.4      2.4      2.4      2.4      0.0
1                                          HEC-1 INPUT                                                          PAGE 15

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


643          KK    57-O
644          KO       0        0      0.0        0       22
645          DT   57ret     54.0      0.0
646          DI     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
647          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
648          DQ     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
649          DQ  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0

650          KK      O7   CNAME   O7-O8
651          KM   COMBINE ROUTED HYDROGRAPH FROM O6 WITH RUNOFF FROM 57 @ O7
652          KO       0        0      0.0        0       22
653          HC       2

654          KK   O7-O8   CNAME      O7
655          KM   STORAGE ROUTE FROM O7 TO O8 THROUGH SPRR TRESTLE
656          KO       0        0      0.0        0       22
657          RS       1     ELEV    891.1      0.0
658          SV     0.0      0.2     8.52    76.65   224.48   224.48   224.48   224.48   224.48   224.48
659          SV  224.48   224.48   224.48   224.48   224.48   224.48   224.48   224.48   224.48   224.48
660          SE   890.0    892.0    894.0    896.0    898.0    898.0    898.0    898.0    898.0    898.0
661          SE   898.0    898.0    898.0    898.0    898.0    898.0    898.0    898.0    898.0    898.0
662          SQ     0.0     78.0     85.0    151.0    248.0    540.0    954.0   1560.0   2334.0   2334.0
663          SQ  2334.0   2334.0   2334.0   2334.0   2334.0   2334.0   2334.0   2334.0   2334.0   2334.0
664          SE   891.1    893.1    893.4    894.5    894.7    895.0    895.2    895.4    895.6    895.6
665          SE   895.6    895.6    895.6    895.6    895.6    895.6    895.6    895.6    895.6    895.6

666          KK      71
667          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
668          KM   L=0.34      Lca=0.17      S=14.51      Kn=0.200      LAG=59
669          KM   S-GRAPH TYPE=AGRICULTURE
670          KO       0        0      0.0        1       22
671          BA  0.1553
672          LG     0.1     0.25    4.911     0.37    80.0
673          UI     0.0    11.57    42.26    70.54    80.65    67.88    47.94    30.74     17.5    10.91
674          UI    7.38     5.51     1.27     1.21     1.21     1.21     1.21     1.21      0.0

675          KK    71-O
676          KO       0        0      0.0        0       22
677          DT   71ret     16.0      0.0
678          DI     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
679          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
680          DQ     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
681          DQ  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0

682          KK      O8   CNAME
683          KM   COMBINE STORAGE HYDROGRAPH FROM O7 WITH RUNOFF FROM 71 @ O8
684          ZW   A=RBE B=O8 C=FLOW E=15MIN F=10y24h-fut
685          KO       0        0      0.0        0       22
686          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED P   ***********************************************
             * ***********************************************************************
1                                          HEC-1 INPUT                                                          PAGE 16

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


687          KK    RIDP
688          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
689          BA  0.0001
690          ZR  =QI A=RID RID B=61999 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-10-24F

691          KK  P2S-P3   CNAME     P2S
692          KM   ROUTE INFLOW FROM RID CONCENTRATED AT P2S TO P3 (CHANNEL A)
693          KO       0        0      0.0        0       22
```

```
694          RS       1    FLOW     0.0     0.0
695          RC     0.1     0.1     0.1 8445.00  0.0070     0.0
696          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
697          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

698          KK      40
699          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
700          KM   L=1.83      Lca=0.91      S=31.23      Kn=0.200      LAG=182
701          KM   S-GRAPH TYPE=AGRICULTURE
702          KO       0       0     0.0       1      22
703          BA  0.9761
704          LG    0.25    0.25   4.211   0.448  29.895
705          UI     0.0   19.78   19.78   29.61   48.14    86.9  116.44  110.94  150.61  157.12
706          UI  166.14  166.14  166.14  142.14  139.74  151.32  103.84  112.23    90.8   75.52
707          UI    62.1   56.05   56.55   37.76   32.26   29.17   24.43   22.48   18.06   18.06
708          UI   14.53   11.23   11.23   11.23   10.99    2.47    2.47    2.47    2.47    2.47
709          UI    2.47    2.47    2.47    2.47    2.47    2.47    2.47    2.47    2.47    2.47
710          UI    2.47    2.47    2.47    2.47    2.47     0.0

711          KK    40-O
712          KO       0       0     0.0       0      22
713          DT   40ret    70.0     0.0
714          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
715          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
716          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
717          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

718          KK      P3    CNAME    P3-P4
719          KM   COMBINE ROUTED HYDROGRAPH FROM P2S WITH RUNOFF FROM 40 @ P3
720          KO       0       0     0.0       0      22
721          HC       2

722          KK   P3-P4    CNAME      P3
723          KM   ROUTE HYDROGRAPH FROM P3 TO P4 (CHANNEL B)
724          KO       0       0     0.0       0      22
725          RS       8    FLOW     0.0     0.0
726          RC     0.1    0.02     0.1 5302.14   0.008     0.0
727          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
728          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

729          KK      51
730          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
731          KM   L=1.96      Lca=0.98      S=22.98      Kn=0.200      LAG=203
732          KM   S-GRAPH TYPE=AGRICULTURE
733          KO       0       0     0.0       1      22
734          BA   1.004
1                                        HEC-1 INPUT                                                    PAGE 17

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

735          LG   0.263    0.25   4.401   0.435  34.246
736          UI     0.0   18.24   18.24   21.41    38.3   58.85   95.52  108.71   109.2  138.77
737          UI  147.29   153.2   153.2   153.2  141.28  127.67  136.31  125.01   95.75  105.04
738          UI    83.7   69.64   60.42   52.27   56.21   40.23   33.28   29.46   25.81   22.53
739          UI    21.2   16.65   16.65   15.93   10.35   10.35   10.35   10.35    9.49    2.28
740          UI    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
741          UI    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
742          UI    2.28     0.0

743          KK    51-O
744          KO       0       0     0.0       0      22
745          DT   51ret    78.0     0.0
746          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
747          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
748          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
749          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

750          KK      P4    CNAME    P4-P5
751          KM   COMBINE ROUTED HYDROGRAPH FROM P3 WITH RUNOFF FROM 51 @ P4
752          KO       0       0     0.0       0      22
753          HC       2

754          KK   P4-P5    CNAME      P4
755          KM   ROUTE HYDROGRAPH FROM P4 TO P5 (CHANNEL A)
756          KO       0       0     0.0       0      22
757          RS       6    FLOW     0.0     0.0
758          RC     0.1     0.1     0.1 2651.48   0.003     0.0
759          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
760          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

761          KK      58
762          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
763          KM   L=0.50      Lca=0.25      S=15.93      Kn=0.200      LAG=77
764          KM   S-GRAPH TYPE=AGRICULTURE
765          KO       0       0     0.0       1      22
766          BA  0.1897
767          LG     0.1    0.25   4.294   0.498    80.0
768          UI     0.0    9.09   25.11   52.16   72.06   76.34   66.54   55.11   41.43   27.69
769          UI   18.96   12.68    9.16    6.65    5.16    2.64    1.14    1.14    1.14    1.14
770          UI    1.14    1.14    1.14     0.0

771          KK    58-O
772          KO       0       0     0.0       0      22
773          DT   58ret    20.0     0.0
774          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
775          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
776          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
777          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

778          KK      P5    CNAME    P5-P6
779          KM   COMBINE ROUTED HYDROGRAPH FROM P4 WITH RUNOFF FROM 58 @ P5
780          KO       0       0     0.0       0      22
781          HC       2
1                                        HEC-1 INPUT                                                    PAGE 18

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

782          KK   P5-P6    CNAME      P5
783          KM   STORAGE ROUTE FROM P5 TO P6 THROUGH SPRR TRESTLE
784          KO       0       0     0.0       0      22
785          RS       1    ELEV  889.11     0.0
786          SV     0.0    1.33    6.78   36.99  130.95  286.86  286.86  286.86  286.86  286.86
787          SV  286.86  286.86  286.86  286.86  286.86  286.86  286.86  286.86  286.86  286.86
```

```
788          SE   888.0   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0
789          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
790          SQ     0.0    40.0   105.0   187.0   278.0   531.0   853.0  1198.0  1573.0  1722.0
791          SQ  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0
792          SE  889.11  889.61  890.11  890.61  891.11  892.11  893.11  894.11  895.11  896.11
793          SE  897.11  897.11  897.11  897.11  897.11  897.11  897.11  897.11  897.11  897.11

794          KK      72
795          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
796          KM   L=0.13     Lca=0.06     S=7.71     Kn=0.200     LAG=32
797          KM   S-GRAPH TYPE=AGRICULTURE
798          KO       0       0     0.0       1      22
799          BA  0.0856
800          LG     0.1    0.25   4.468   0.401    80.0
801          UI     0.0   24.87    74.6   66.73   31.73   12.61    6.11    1.23    1.23    1.23
802          UI     0.0

803          KK    72-O
804          KO       0       0     0.0       0      22
805          DT   72ret     8.0     0.0
806          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
807          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
808          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
809          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

810          KK      P6
811          KM   COMBINE STORAGE HYDROGRAPH FROM P5 WITH RUNOFF FROM 72 @ P6
812          ZW   A=RBE B=P6 C=FLOW E=15MIN F=10y24h-fut
813          KO       0       0     0.0       0      22
814          HC       2
815          ZZ
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	RIDKB	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	K3SBK4	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	RIDKA	27.	15.50	13.	5.	2.	0.00		
+	ROUTED TO	K3SAK4	11.	17.00	10.	5.	2.	0.00		
+	HYDROGRAPH AT	34	90.	14.25	50.	16.	5.	0.64		
+	DIVERSION TO	34ret	90.	14.25	50.	16.	5.	0.64		
+	HYDROGRAPH AT	34-O	0.	0.00	0.	0.	0.	0.64		
+	3 COMBINED AT	K4	11.	17.00	10.	5.	2.	0.64		
+	ROUTED TO	K4-K5	11.	19.75	10.	5.	2.	0.64		
+	HYDROGRAPH AT	35	239.	14.75	160.	58.	20.	1.50		
+	DIVERSION TO	35ret	239.	14.75	160.	58.	20.	1.50		
+	HYDROGRAPH AT	35-O	0.	0.00	0.	0.	0.	1.50		
+	2 COMBINED AT	K5	11.	19.75	10.	5.	2.	2.14		
+	ROUTED TO	K5-K6	10.	23.75	9.	5.	2.	2.14		
+	HYDROGRAPH AT	46	217.	14.75	143.	51.	17.	1.38		
+	DIVERSION TO	46ret	217.	14.75	143.	51.	17.	1.38		
+	HYDROGRAPH AT	46-O	0.	0.00	0.	0.	0.	1.38		
+	2 COMBINED AT	K6	10.	23.75	9.	5.	2.	3.52		
+	ROUTED TO	K6-K7	10.	23.75	9.	5.	2.	3.52		
+	HYDROGRAPH AT	65	112.	13.75	58.	20.	7.	0.38		
+	DIVERSION TO	65ret	112.	13.75	58.	20.	7.	0.38		
+	HYDROGRAPH AT	65-O	0.	28.50	0.	0.	0.	0.38		
+	2 COMBINED AT	K7	10.	23.75	9.	5.	2.	3.90		
+	HYDROGRAPH AT	RIDL	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	L2S-L3	0.	0.00	0.	0.	0.	0.00		

+	HYDROGRAPH AT	36	97.	14.75	61.	21.	7.	0.68
+	DIVERSION TO	36ret	97.	14.75	61.	21.	7.	0.68
+	HYDROGRAPH AT	36-O	0.	0.00	0.	0.	0.	0.68
+	2 COMBINED AT	L3	0.	0.00	0.	0.	0.	0.68
+	ROUTED TO	L3-L4	0.	0.00	0.	0.	0.	0.68
+	HYDROGRAPH AT	47	93.	14.50	55.	19.	6.	0.62
+	DIVERSION TO	47ret	93.	14.50	55.	19.	6.	0.62
+	HYDROGRAPH AT	47-O	0.	0.00	0.	0.	0.	0.62
+	2 COMBINED AT	L4	0.	0.00	0.	0.	0.	1.30
+	ROUTED TO	L4-L5	0.	0.00	0.	0.	0.	1.30
+	HYDROGRAPH AT	66	102.	13.50	46.	16.	5.	0.29
+	DIVERSION TO	66ret	102.	13.50	46.	16.	5.	0.29
+	HYDROGRAPH AT	66-O	3.	21.50	2.	1.	0.	0.29
+	2 COMBINED AT	L5	1.	21.50	1.	0.	0.	1.59
+	HYDROGRAPH AT	RIDM	0.	0.00	0.	0.	0.	0.00
+	ROUTED TO	L2S2M1	0.	0.00	0.	0.	0.	0.00
+	HYDROGRAPH AT	37	176.	15.25	127.	47.	16.	1.42
+	DIVERSION TO	37ret	176.	15.25	127.	47.	16.	1.42
+	HYDROGRAPH AT	37-O	0.	0.00	0.	0.	0.	1.42
+	2 COMBINED AT	M1	0.	0.00	0.	0.	0.	1.42
+	ROUTED TO	M1-M2	0.	0.00	0.	0.	0.	1.42
+	HYDROGRAPH AT	48	94.	14.00	51.	17.	6.	0.50
+	DIVERSION TO	48ret	94.	14.00	51.	17.	6.	0.50
+	HYDROGRAPH AT	48-O	0.	0.00	0.	0.	0.	0.50
+	2 COMBINED AT	M2	0.	0.00	0.	0.	0.	1.92
+	ROUTED TO	M2-M3	0.	0.00	0.	0.	0.	1.92
+	HYDROGRAPH AT	67	119.	13.75	39.	12.	4.	0.47
+	2 COMBINED AT	M3	117.	13.75	38.	12.	4.	2.39
+	ROUTED TO	M3-M4	91.	14.00	38.	12.	4.	2.39
+	HYDROGRAPH AT	69	109.	12.50	15.	5.	2.	0.14
+	2 COMBINED AT	M4	134.	12.50	52.	17.	6.	2.53
+	HYDROGRAPH AT	RIDN	0.	0.00	0.	0.	0.	0.00
+	ROUTED TO	N2S-N3	0.	0.00	0.	0.	0.	0.00
+	HYDROGRAPH AT	38	76.	14.50	45.	15.	5.	0.54
+	DIVERSION TO	38ret	76.	14.50	45.	15.	5.	0.54
+	HYDROGRAPH AT	38-O	0.	0.00	0.	0.	0.	0.54
+	2 COMBINED AT	N3	0.	0.00	0.	0.	0.	0.54
+	ROUTED TO	N3-N4	0.	0.00	0.	0.	0.	0.54

+	HYDROGRAPH AT	49	128.	15.00	87.	31.	10.	1.01
+	DIVERSION TO	49ret	128.	15.00	87.	31.	10.	1.01
+	HYDROGRAPH AT	49-O	0.	0.00	0.	0.	0.	1.01
+	2 COMBINED AT	N4	0.	0.00	0.	0.	0.	1.55
+	ROUTED TO	N4-N5B	0.	0.00	0.	0.	0.	1.55
+	HYDROGRAPH AT	56B	152.	13.50	52.	18.	6.	0.33
+	2 COMBINED AT	N5B	150.	13.50	51.	18.	6.	1.88
+	ROUTED TO	N5B-N6	80.	14.25	50.	18.	6.	1.88
+	HYDROGRAPH AT	56A	114.	14.00	62.	22.	7.	0.41
+	DIVERSION TO	56Aret	114.	14.00	62.	22.	7.	0.41
+	HYDROGRAPH AT	56A-O	4.	22.00	3.	1.	0.	0.41
+	ROUTED TO	N5A-N6	4.	22.00	3.	1.	0.	0.41
+	HYDROGRAPH AT	70	35.	14.25	21.	8.	3.	0.14
+	DIVERSION TO	70ret	35.	14.25	21.	8.	3.	0.14
+	HYDROGRAPH AT	70-O	0.	0.00	0.	0.	0.	0.14
+	3 COMBINED AT	N6	80.	14.25	50.	18.	6.	2.44
+	HYDROGRAPH AT	RIDO	0.	14.75	0.	0.	0.	0.00
+	ROUTED TO	O4S-O5	0.	15.25	0.	0.	0.	0.00
+	HYDROGRAPH AT	39	91.	14.50	56.	19.	6.	0.73
+	DIVERSION TO	39-ret	91.	14.50	56.	19.	6.	0.73
+	HYDROGRAPH AT	39-O	0.	0.00	0.	0.	0.	0.73
+	2 COMBINED AT	O5	0.	15.25	0.	0.	0.	0.73
+	ROUTED TO	O5-O6	0.	17.50	0.	0.	0.	0.73
+	HYDROGRAPH AT	50	119.	15.00	80.	28.	9.	1.00
+	DIVERSION TO	50ret	119.	15.00	80.	28.	9.	1.00
+	HYDROGRAPH AT	50-O	0.	0.00	0.	0.	0.	1.00
+	2 COMBINED AT	O6	0.	17.50	0.	0.	0.	1.73
+	ROUTED TO	O6-O7	0.	19.75	0.	0.	0.	1.73
+	HYDROGRAPH AT	57	172.	13.50	75.	26.	9.	0.49
+	DIVERSION TO	57ret	172.	13.50	75.	26.	9.	0.49
+	HYDROGRAPH AT	57-O	2.	25.75	0.	0.	0.	0.49
+	2 COMBINED AT	O7	1.	25.75	0.	0.	0.	2.22
+	ROUTED TO	O7-O8	1.	25.75	0.	0.	0.	2.22
+	HYDROGRAPH AT	71	79.	13.00	25.	9.	3.	0.16
+	DIVERSION TO	71ret	79.	13.00	25.	8.	3.	0.16
+	HYDROGRAPH AT	71-O	2.	23.25	2.	0.	0.	0.16
+	2 COMBINED AT	O8	2.	23.25	1.	0.	0.	2.37
+	HYDROGRAPH AT	RIDP	93.	12.75	19.	9.	5.	0.00

```
                ROUTED TO
+                          P2S-P3      14.   15.75        13.        8.        5.      0.00
                HYDROGRAPH AT
+                              40     121.   14.75        77.       26.        9.      0.98
                DIVERSION TO
+                           40ret     121.   14.75        77.       26.        9.      0.98
                HYDROGRAPH AT
+                             40-O       0.    0.00         0.        0.        0.      0.98
                2 COMBINED AT
+                              P3      14.   15.75        13.        8.        5.      0.98
                ROUTED TO
+                           P3-P4      14.   18.00        13.        8.        5.      0.98
                HYDROGRAPH AT
+                              51     120.   15.00        82.       29.       10.      1.00
                DIVERSION TO
+                           51ret     120.   15.00        82.       29.       10.      1.00
                HYDROGRAPH AT
+                             51-O       0.    0.00         0.        0.        0.      1.00
                2 COMBINED AT
+                              P4      14.   18.00        13.        8.        5.      1.98
                ROUTED TO
+                           P4-P5      14.   19.25        12.        8.        5.      1.98
                HYDROGRAPH AT
+                              58      78.   13.25        30.       10.        3.      0.19
                DIVERSION TO
+                           58ret      78.   13.25        30.       10.        3.      0.19
                HYDROGRAPH AT
+                             58-O       2.   21.50         1.        0.        0.      0.19
                2 COMBINED AT
+                              P5      14.   19.25        13.        8.        5.      2.17
                ROUTED TO
+                           P5-P6      14.   19.25        13.        8.        5.      2.17
                HYDROGRAPH AT
+                              72      66.   12.50        14.        5.        2.      0.09
                DIVERSION TO
+                           72ret      66.   12.50        14.        4.        1.      0.09
                HYDROGRAPH AT
+                             72-O       3.   17.00         2.        1.        0.      0.09
                2 COMBINED AT
+                              P6      15.   19.25        14.        9.        5.      2.26

 *** NORMAL END OF HEC-1 ***
1*************************************                    *************************************
 *                                   *                    *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                *   U.S. ARMY CORPS OF ENGINEERS    *
 *              JUN   1998           *                    *   HYDROLOGIC ENGINEERING CENTER   *
 *            VERSION 4.1            *                    *         609 SECOND STREET         *
 *                                   *                    *      DAVIS, CALIFORNIA 95616      *
 *  RUN DATE   23MAR06  TIME  05:07:52 *                  *          (916) 756-1104           *
 *                                   *                    *                                   *
 *************************************                    *************************************

                                        X     X  XXXXXXX   XXXXX          X
                                        X     X  X        X     X        XX
                                        X     X  X        X              X
                                        XXXXXXX  XXXX     X        XXXXX  X
                                        X     X  X        X              X
                                        X     X  X        X     X        X
                                        X     X  XXXXXXX   XXXXX        XXX

          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                          PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

             1          ID   Buckeye/Sun Valley ADMS - November 2004
             2          ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
             3          ID   10-year 24-hour
             4          ID   Future Conditions
             5          ID   Area 1 - BIC to Gila (West)
             6          ID   File Name: bgw1024fut.hc1
             7          ID   Rainfall Loss Method - Green & Ampt
             8          ID   Unit Hydrograph Method - FCDMC S-Graph
             9          ID   Channel Routing Method - Normal Depth
            10          ID   Land Use - FCDMC GIS Data: mag_genplan (2000)
            11          ID   Future Land Use Build Out Date: 2025
            12          ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
            13          ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
```

```
                *DIAGRAM
   14           IT      15 02JAN94       0     400
   15           IO       3
   16           IN      15 02JAN94       0
   17           JD     2.5    0.01
                * 24-hour distribution
   18           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
   19           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
   20           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
   21           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
   22           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
   23           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
   24           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
   25           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
   26           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
   27           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
   28           IN      15 02JAN94       0
   29           JD   2.375    10.0
                * 24-hour distribution
   30           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
   31           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
   32           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
   33           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
   34           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
   35           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
   36           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
   37           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
   38           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
   39           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
   40           IN      15 02JAN94       0
   41           JD   2.295    20.0
                * 24-hour distribution
   42           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
   43           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
   44           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
   45           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
   46           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
   47           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
   48           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
   49           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
   50           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
   51           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
                * ***********************************************************************
                * **   SUB-WATERSHED E   ***********************************************
                * ***********************************************************************
1                                          HEC-1 INPUT                                          PAGE  2

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


   52           KK   BICE
   53           KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
   54           BA  0.0001
   55           ZR  =QI A=BIC BIC B=4395 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24F

   56           KK  E2S-E3   CNAME     E2S
   57           KM   ROUTE INFLOW FROM BIC CONCENTRATED AT E2S TO E3 (CHANNEL A)
   58           KO       0       0     0.0       0      22
   59           RS       1    FLOW     0.0     0.0
   60           RC     0.1     0.1     0.1 9548.74   0.003     0.0
   61           RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
   62           RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

   63           KK      84
   64           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
   65           KM   L=1.81     Lca=0.98     S=13.27     Kn=0.200     LAG=219
   66           KM   S-GRAPH TYPE=AGRICULTURE
   67           KO       0       0     0.0       0      22
   68           BA  0.8772
   69           LG     0.1   0.149   9.712   0.075     5.0
   70           UI     0.0   14.77   14.77   14.77   29.95   40.82   67.16   88.66   77.76   98.85
   71           UI  113.94  124.08  124.08  124.08  124.08  115.81   103.4  107.74  113.07   77.55
   72           UI   80.05   82.21    59.0    56.4   45.14   41.62   46.54   30.82   27.07   23.86
   73           UI   21.83   18.25   18.25   14.06   13.49   13.49   10.82    8.38    8.38    8.38
   74           UI    8.38     7.6    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85
   75           UI    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85
   76           UI    1.85    1.85    1.85    1.85    1.85    1.85     0.0

   77           KK    84-O
   78           KO       0       0     0.0       0      22
   79           DT   84ret    45.0     0.0
   80           DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
   81           DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
   82           DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
   83           DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

   84           KK      E3
   85           KM   COMBINE ROUTED HYDROGRAPH FROM E2S WITH RUNOFF FROM 84 @ E3
   86           KO       0       0     0.0       0      22
   87           HC       2
                * ***********************************************************************
                * **   SUB-WATERSHEDS F AND G   ****************************************
                * ***********************************************************************


   88           KK   BICFB
   89           KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
   90           BA    0.01
   91           ZR  =QI A=BIC BIC B=14995 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24F
1                                          HEC-1 INPUT                                          PAGE  3

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


   92           KK  F6BS7B   CNAME    F6BS
   93           KM   ROUTE INFLOW FROM BIC CONCENTRATED AT F6BS TO F7B (CHANNEL A)
   94           KO       0       0     0.0       0      22
   95           RS       1    FLOW     0.0     0.0
   96           RC     0.1     0.1     0.1 3159.78   0.007     0.0
   97           RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
   98           RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

   99           KK     85B
  100           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
  101           KM   L=1.47     Lca=0.73     S=15.68     Kn=0.200     LAG=176
```

```
 102          KM   S-GRAPH TYPE=AGRICULTURE
 103          KO       0       0     0.0       0      22
 104          BA  0.7453
 105          LG   0.292    0.25   5.706   0.207     5.0
 106          UI     0.0   15.62   15.62   24.82   40.72   72.66   91.61   93.72  117.48  131.18
 107          UI  131.18  131.18  125.35  109.32  115.73  100.21   83.45    84.6   61.11   53.73
 108          UI   44.85   49.84   29.87   26.57   24.15   19.29   18.35   14.26   14.26   11.63
 109          UI    8.86    8.86    8.86    7.85    1.95    1.95    1.95    1.95    1.95    1.95
 110          UI    1.95    1.95    1.95    1.95    1.95    1.95    1.95    1.95    1.95    1.95
 111          UI    1.95    1.95    1.95     0.0

 112          KK   85B-O
 113          KO       0       0     0.0       0      22
 114          DT  85Bret    35.0     0.0
 115          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 116          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 117          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 118          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 119          KK     F7B   CNAME  F7B-F8
 120          KM   COMBINE ROUTED HYDROGRAPH FROM F6BS WITH RUNOFF FROM 85B @ F7B
 121          KO       0       0     0.0       0      22
 122          HC       2

 123          KK  F7B-F8   CNAME     F7B
 124          KM   ROUTE HYDRPGRAPH FROM F7B TO F8 (CHANNEL A)
 125          KO       0       0     0.0       0      22
 126          RS      13    FLOW     0.0     0.0
 127          RC     0.1     0.1     0.1 6483.88   0.006     0.0
 128          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 129          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 130          KK   BICG
 131          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 132          BA    0.01
 133          ZR  =QI A=BIC BIC B=21999 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24F

 134          KK  G8S-G9   CNAME     G8S
 135          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT G8S TO G9 (CHANNEL A)
 136          KO       0       0     0.0       0      22
 137          RS       1    FLOW     0.0     0.0
 138          RC     0.1     0.1     0.1 5481.53   0.005     0.0
 139          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
1                                          HEC-1 INPUT                                                    PAGE  4
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 140          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 141          KK      86
 142          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 143          KM   L=1.09     Lca=0.54     S=25.78     Kn=0.200     LAG=127
 144          KM   S-GRAPH TYPE=AGRICULTURE
 145          KO       0       0     0.0       0      22
 146          BA  0.4398
 147          LG     0.3    0.15   7.988   0.083     5.0
 148          UI     0.0   12.77   15.89   33.53   68.33   74.26   98.27  107.27  107.27   97.74
 149          UI   93.18   80.08   72.45   51.51   42.18   37.93    27.0   20.95   16.68   14.24
 150          UI   11.66    9.78    7.25    7.25    5.59     1.6     1.6     1.6     1.6     1.6
 151          UI     1.6     1.6     1.6     1.6     1.6     1.6     1.6     1.6     0.0

 152          KK    86-O
 153          KO       0       0     0.0       0      22
 154          DT   86ret     4.0     0.0
 155          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 156          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 157          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 158          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 159          KK      G9   CNAME   G9-F8
 160          KM   COMBINE ROUTED HYDROGRAPH FROM G8S WITH RUNOFF FROM 86 @ G9
 161          KO       0       0     0.0       0      22
 162          HC       2

 163          KK   G9-F8   CNAME      G9
 164          KM   ROUTE HYDRPGRAPH FROM G9 TO F8 (CHANNEL A)
 165          KO       0       0     0.0       0      22
 166          RS      13    FLOW     0.0     0.0
 167          RC     0.1     0.1     0.1 9228.08   0.004     0.0
 168          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 169          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 170          KK  BICFA
 171          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 172          BA  0.0001
 173          ZR  =QI A=BIC BIC B=11199 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24F

 174          KK  F6AS7A   CNAME    F6AS
 175          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT F6AS TO F7A (CHANNEL A)
 176          KO       0       0     0.0       0      22
 177          RS       1    FLOW     0.0     0.0
 178          RC     0.1     0.1     0.1  2921.0   0.011     0.0
 179          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 180          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 181          KK     85A
 182          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 183          KM   L=0.84     Lca=0.42     S=37.89     Kn=0.200     LAG=98
 184          KM   S-GRAPH TYPE=AGRICULTURE
 185          KO       0       0     0.0       0      22
 186          BA  0.2163
 187          LG     0.1    0.15   7.439   0.161     5.0
1                                          HEC-1 INPUT                                                    PAGE  5
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 188          UI     0.0    8.14   13.77   37.36   49.55   65.58   68.39   63.07   60.31   44.52
 189          UI   37.27   26.22   22.07   14.14   10.87    8.41    7.09    4.62    4.62    2.07
 190          UI    1.02    1.02    1.02    1.02    1.02    1.02    1.02    1.02    1.02    1.02
 191          UI     0.0

 192          KK   85A-O
 193          KO       0       0     0.0       0      22
 194          DT  85Aret    10.0     0.0
```

```
195          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
196          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
197          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
198          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

199          KK     F7A   CNAME  F7A-F8
200          KM   COMBINE ROUTED HYDROGRAPH FROM F6A5 WITH RUNOFF FROM 85A @ F7A
201          KO       0       0     0.0       0      22
202          HC       2

203          KK  F7A-F8   CNAME     F7A
204          KM   ROUTE HYDRPGRAPH FROM F7A TO F8 (CHANNEL A)
205          KO       0       0     0.0       0      22
206          RS      17    FLOW     0.0     0.0
207          RC     0.1     0.1     0.110377.67   0.006     0.0
208          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
209          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

210          KK     105
211          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
212          KM   L=1.94     Lca=0.97     S=18.59     Kn=0.200     LAG=210
213          KM   S-GRAPH TYPE=AGRICULTURE
214          KO       0       0     0.0       1      22
215          BA  0.9967
216          LG     0.3    0.15   8.482    0.07     5.0
217          UI     0.0    17.5    17.5   18.66   36.76   52.93   86.38  104.76   96.79  138.98
218          UI  128.13  147.03  147.03  147.03  147.03  122.52  122.52  134.29  104.02   92.91
219          UI  101.53   70.71   66.83   54.23   49.36   55.42    34.8   31.36   28.27   24.42
220          UI   21.62   20.49   15.98   15.98   15.98   10.06    9.93    9.93    9.93    9.93
221          UI    3.74    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19
222          UI    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19
223          UI    2.19    2.19    2.19     0.0

224          KK   105-O
225          KO       0       0     0.0       0      22
226          DT  105ret    55.0     0.0
227          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
228          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
229          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
230          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

231          KK     104
232          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
233          KM   L=1.95     Lca=0.98     S=13.83     Kn=0.200     LAG=223
234          KM   S-GRAPH TYPE=AGRICULTURE
235          KO       0       0     0.0       1      22
236          BA  1.0120
1                                        HEC-1 INPUT                                                    PAGE  6

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

237          LG   0.146   0.174   6.763   0.182     5.0
238          UI     0.0   16.74   16.74   16.74    32.9   44.31    73.2   96.94   91.86  107.62
239          UI  126.44  139.17  140.58  140.58  140.58  137.46  117.15  117.15  127.87  102.94
240          UI   87.86   99.21   73.02    63.9   56.91   48.63   49.42   45.47   31.96   28.25
241          UI   27.03   21.81   20.67   19.09   15.28   15.28   15.28   10.23     9.5     9.5
242          UI     9.5     9.5    6.73    2.09    2.09    2.09    2.09    2.09    2.09    2.09
243          UI    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09
244          UI    2.09    2.09    2.09    2.09    2.09    2.09    2.09     0.0

245          KK   104-O
246          KO       0       0     0.0       0      22
247          DT  104ret    50.0     0.0
248          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
249          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
250          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
251          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

252          KK      F8
253          KM   COMBINE ROUTED HYDROGRAPH FROM G9, F7A, AND F7B WITH RUNOFF FROM 104 AND 105
254          KO       0       0     0.0       0      22
255          HC       5
             * ***********************************************************************************
             * **   SUB-WATERSHED H   ***********************************************************
             * ***********************************************************************************

256          KK   BICH
257          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
258          BA    0.01
259          ZR  =QI A=BIC BIC B=24799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24F

260          KK  H7S-H8   CNAME     H7S
261          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT H7S TO H8 (CHANNEL A)
262          KO       0       0     0.0       0      22
263          RS       1    FLOW     0.0     0.0
264          RC     0.1     0.1     0.1 9426.94   0.004     0.0
265          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
266          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

267          KK      87
268          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
269          KM   L=1.87     Lca=0.93     S=22.48     Kn=0.200     LAG=197
270          KM   S-GRAPH TYPE=AGRICULTURE
271          KO       0       0     0.0       0      22
272          BA  0.9127
273          LG     0.3   0.143   9.843   0.045     5.0
274          UI     0.0   17.08   17.08   21.63   35.88    62.3   92.38   98.78  108.99  130.67
275          UI  143.51  143.51  143.51  143.51  122.78  119.59  131.61   97.98   92.38   92.49
276          UI   67.23   61.75   50.13   50.38    44.1   32.38    27.6   25.39    21.1   20.52
277          UI    15.6    15.6   15.09     9.7     9.7     9.7     9.7    7.98    2.14    2.14
278          UI    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14
279          UI    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14     0.0
1                                        HEC-1 INPUT                                                    PAGE  7

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

280          KK   87-O
281          KO       0       0     0.0       0      22
282          DT   87ret    45.0     0.0
283          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
284          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
285          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
286          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
```

```
 287          KK      H8   CNAME   H8-H9
 288          KM   COMBINE ROUTED HYDROGRAPH FROM H7S WITH RUNOFF FROM 87 @ H8
 289          KO       0       0     0.0       0      22
 290          HC       2

 291          KK   H8-H9   CNAME      H8
 292          KM   ROUTE HYDRPGRAPH FROM H8 TO H9 (CHANNEL A)
 293          KO       0       0     0.0       0      22
 294          RS      10    FLOW     0.0     0.0
 295          RC     0.1     0.1     0.1 5170.32   0.005     0.0
 296          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 297          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 298          KK     106
 299          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 300          KM   L=2.21     Lca=1.11     S=20.78     Kn=0.200     LAG=227
 301          KM   S-GRAPH TYPE=AGRICULTURE
 302          KO       0       0     0.0       1      22
 303          BA  1.2094
 304          LG   0.244    0.15   7.622   0.112     5.0
 305          UI     0.0   19.65   19.65   19.65   37.41   49.75   82.54  109.68  112.23  121.21
 306          UI  152.16   154.9  165.04  165.04  165.04  165.04   141.2  137.53  147.94  134.67
 307          UI  103.15  109.85  101.52   76.86   73.58   58.83   55.01   62.59   39.81   36.09
 308          UI   31.74   29.65   24.27   24.27    19.8   17.94   17.94   16.41   11.15   11.15
 309          UI   11.15   11.15   11.15     5.7    2.46    2.46    2.46    2.46    2.46    2.46
 310          UI    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46
 311          UI    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46     0.0

 312          KK   106-O
 313          KO       0       0     0.0       0      22
 314          DT  106ret    60.0     0.0
 315          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 316          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 317          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 318          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 319          KK      H9
 320          KM   COMBINE ROUTED HYDROGRAPH FROM H8 WITH RUNOFF FROM 106 @ H9
 321          KO       0       0     0.0       0      22
 322          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED J AND I  ***********************************************
              * ***********************************************************************
1                                          HEC-1 INPUT                                          PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 323          KK   BICJ
 324          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 325          BA    0.01
 326          ZR  =QI A=BIC BIC B=36399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24F

 327          KK  J6S-J7   CNAME     J6S
 328          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT J6S TO J7 (CHANNEL A)
 329          KO       0       0     0.0       0      22
 330          RS       1    FLOW     0.0     0.0
 331          RC     0.1     0.1     0.1 7531.83   0.005     0.0
 332          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 333          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 334          KK      89
 335          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 336          KM   L=1.79     Lca=0.90     S=21.20     Kn=0.200     LAG=193
 337          KM   S-GRAPH TYPE=AGRICULTURE
 338          KO       0       0     0.0       0      22
 339          BA  0.9629
 340          LG    0.25   0.145   9.804   0.054    45.0
 341          UI     0.0    18.4    18.4   24.43   38.93    72.1  103.35  102.26  123.64  143.73
 342          UI  154.55  154.55  154.55  151.11  128.79  134.03  134.52   96.59  104.41   86.51
 343          UI   70.25   60.15   52.36    57.9   35.89   32.13   29.72   23.56   22.73   18.62
 344          UI    16.8    16.8   12.13   10.44   10.44   10.44   10.44    2.52     2.3     2.3
 345          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
 346          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     0.0

 347          KK    89-O
 348          KO       0       0     0.0       0      22
 349          DT   89ret    80.0     0.0
 350          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 351          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 352          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 353          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 354          KK      J7   CNAME   J7-J8
 355          KO       0       0     0.0       0      22
 356          HC       2

 357          KK   J7-J8   CNAME      J7
 358          KM   ROUTE HYDRPGRAPH FROM J7 TO J8 (CHANNEL Outlet to Gila)
 359          KO       0       0     0.0       0      22
 360          RS       8    FLOW     0.0     0.0
 361          RC   0.035    0.05   0.035  6030.2   0.005     0.0
 362          RX     0.0     5.0    15.0    25.0    45.0    55.0    65.0    70.0
 363          RY    12.0    12.0     6.0     0.0     0.0     6.0    12.0    12.0

 364          KK   BICI
 365          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 366          BA    0.01
 367          ZR  =QI A=BIC BIC B=33399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24F
1                                          HEC-1 INPUT                                          PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 368          KK  I6S-I7   CNAME     I6S
 369          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT I6S TO I7 (CHANNEL A)
 370          KO       0       0     0.0       0      22
 371          RS       1    FLOW     0.0     0.0
 372          RC     0.1     0.1     0.1 5514.43   0.006     0.0
 373          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 374          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 375          KK      88
```

```
376          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
377          KM   L=1.66      Lca=0.83      S=19.29      Kn=0.200      LAG=185
378          KM   S-GRAPH TYPE=AGRICULTURE
379          KO       0        0      0.0        0       22
380          BA  0.7650
381          LG     0.3    0.143    9.838    0.045      5.0
382          UI     0.0    15.25    15.25    22.13     35.8    65.03    89.94    82.55   118.29    116.2
383          UI   128.1    128.1    128.1   113.86   106.75   116.28    88.23    83.17    79.03    58.98
384          UI   51.82    43.77    47.46    30.66    26.58    24.63    19.05    18.84    14.58    13.92
385          UI   13.77     8.66     8.66     8.66     8.66     5.51     1.91     1.91     1.91     1.91
386          UI    1.91     1.91     1.91     1.91     1.91     1.91     1.91     1.91     1.91     1.91
387          UI    1.91     1.91     1.91     1.91     1.91     1.91      0.0

388          KK    88-O
389          KO       0        0      0.0        0       22
390          DT   88ret     40.0      0.0
391          DI     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
392          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
393          DQ     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
394          DQ  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0

395          KK      I7    CNAME    I7-I8
396          KM   COMBINE ROUTED HYDROGRAPH FROM I6S WITH RUNOFF FROM 88 @ I7
397          KO       0        0      0.0        0       22
398          HC       2

399          KK   I7-I8    CNAME      I7
400          KM   ROUTE HYDRPGRAPH FROM I7 TO I8 (CHANNEL A)
401          KO       0        0      0.0        0       22
402          RS       6     FLOW      0.0      0.0
403          RC     0.1      0.1      0.1  2738.75    0.011      0.0
404          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
405          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

406          KK     102
407          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
408          KM   L=1.48      Lca=0.74      S=25.68      Kn=0.200      LAG=161
409          KM   S-GRAPH TYPE=AGRICULTURE
410          KO       0        0      0.0        1       22
411          BA  0.5197
412          LG     0.3     0.15    8.585    0.068      5.0
413          UI     0.0     11.9     11.9    21.67    36.81    66.04    65.67     90.5     93.0    100.0
414          UI   100.0    95.56    83.33    88.91    70.08    66.55    54.67    45.05    35.02    35.82
415          UI   26.07    20.61    18.27    14.71    13.22    10.87    10.87     7.09     6.76     6.76
416          UI    6.76     1.77     1.49     1.49     1.49     1.49     1.49     1.49     1.49     1.49
1                                                HEC-1 INPUT                                                PAGE 10

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

417          UI    1.49     1.49     1.49     1.49     1.49     1.49     1.49     1.49     1.49      0.0

418          KK   102-O
419          KO       0        0      0.0        0       22
420          DT  102ret     28.0      0.0
421          DI     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
422          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
423          DQ     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
424          DQ  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0

425          KK      I8    CNAME    I8-J8
426          KM   COMBINE ROUTED HYDROGRAPH FROM I7 WITH RUNOFF FROM 102 @ I8
427          KO       0        0      0.0        0       22
428          HC       2

429          KK   I8-J8    CNAME      I8
430          KM   ROUTE HYDRPGRAPH FROM I8 TO J8 (CHANNEL Outlet to Gila)
431          KO       0        0      0.0        0       22
432          RS       2     FLOW      0.0      0.0
433          RC   0.035     0.05    0.035  1438.31    0.002      0.0
434          RX     0.0      5.0     15.0     25.0     45.0     55.0     65.0     70.0
435          RY    12.0     12.0      6.0      0.0      0.0      6.0     12.0     12.0

436          KK     103
437          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
438          KM   L=1.14      Lca=0.57      S=22.77      Kn=0.200      LAG=135
439          KM   S-GRAPH TYPE=AGRICULTURE
440          KO       0        0      0.0        1       22
441          BA  0.5071
442          LG    0.25    0.209     6.41    0.187     45.0
443          UI     0.0    13.85    15.53    33.16    64.73    79.27    101.4   113.87   116.37   116.37
444          UI   96.97   104.34    75.78    76.07    54.11    43.64    41.62    28.46    22.78    18.53
445          UI   16.22    12.65    12.03     7.86     7.86     7.86     2.96     1.73     1.73     1.73
446          UI    1.73     1.73     1.73     1.73     1.73     1.73     1.73     1.73     1.73     1.73
447          UI    1.73      0.0

448          KK   103-O
449          KO       0        0      0.0        0       22
450          DT  103ret     41.0      0.0
451          DI     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
452          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
453          DQ     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
454          DQ  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0

455          KK      J8
456          KM   COMBINE ROUTED HYDROGRAPH FROM I8 AND J7 WITH RUNOFF FROM 103 @ J8
457          KO       0        0      0.0        0       22
458          HC       3

459          KK     107
460          KO       0        0      0.0        1       22
461          BA  0.4835
462          LG   0.202    0.179    6.711    0.177      5.0
463          UI     0.0    14.27    18.19    38.28    79.06    83.22   111.51   119.83   119.83   106.52
464          UI  104.02     85.3    78.64    55.83    44.03    42.21    26.54    22.59    17.62    14.56
1                                                HEC-1 INPUT                                                PAGE 11

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

465          UI   13.03     9.33      8.1      8.1     3.89     1.78     1.78     1.78     1.78     1.78
466          UI    1.78     1.78     1.78     1.78     1.78     1.78     1.78     1.78      0.0

467          KK   107-O
468          KO       0        0      0.0        0       22
469          DT  107ret     26.0      0.0
```

```
470          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
471          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
472          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
473          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
474          ZZ
```

RUNOFF SUMMARY

FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	BICE	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	E2S-E3	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	84	112.	15.25	75.	22.	7.	0.88		
+	DIVERSION TO	84ret	112.	15.25	75.	22.	7.	0.88		
+	HYDROGRAPH AT	84-O	1.	22.75	1.	0.	0.	0.88		
+	2 COMBINED AT	E3	1.	22.75	1.	0.	0.	0.88		
+	HYDROGRAPH AT	BICFB	0.	0.00	0.	0.	0.	0.01		
+	ROUTED TO	F6BS7B	0.	0.00	0.	0.	0.	0.01		
+	HYDROGRAPH AT	85B	79.	14.50	46.	13.	4.	0.75		
+	DIVERSION TO	85Bret	79.	14.50	46.	13.	4.	0.75		
+	HYDROGRAPH AT	85B-O	0.	0.00	0.	0.	0.	0.75		
+	2 COMBINED AT	F7B	0.	0.00	0.	0.	0.	0.76		
+	ROUTED TO	F7B-F8	0.	0.00	0.	0.	0.	0.76		
+	HYDROGRAPH AT	BICG	0.	0.00	0.	0.	0.	0.01		
+	ROUTED TO	G8S-G9	0.	0.00	0.	0.	0.	0.01		
+	HYDROGRAPH AT	86	91.	13.75	40.	11.	4.	0.44		
+	DIVERSION TO	86ret	58.	13.00	8.	2.	1.	0.44		
+	HYDROGRAPH AT	86-O	91.	13.75	34.	9.	3.	0.44		
+	2 COMBINED AT	G9	91.	13.75	34.	9.	3.	0.45		
+	ROUTED TO	G9-F8	53.	18.00	29.	9.	3.	0.45		
+	HYDROGRAPH AT	BICFA	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	F6AS7A	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	85A	51.	13.50	18.	5.	2.	0.22		
+	DIVERSION TO	85Aret	51.	13.50	18.	5.	2.	0.22		
+	HYDROGRAPH AT	85A-O	0.	0.00	0.	0.	0.	0.22		
+	2 COMBINED AT	F7A	0.	0.00	0.	0.	0.	0.22		
+	ROUTED TO	F7A-F8	0.	0.00	0.	0.	0.	0.22		
+	HYDROGRAPH AT	105	130.	15.25	84.	25.	8.	1.00		
+	DIVERSION TO	105ret	130.	15.25	84.	25.	8.	1.00		
+	HYDROGRAPH AT	105-O	0.	0.00	0.	0.	0.	1.00		
+	HYDROGRAPH AT	104	100.	15.25	68.	20.	7.	1.01		
+	DIVERSION TO	104ret	100.	15.25	68.	20.	7.	1.01		
+	HYDROGRAPH AT	104-O	0.	0.00	0.	0.	0.	1.01		
+	5 COMBINED AT	F8	53.	18.00	29.	9.	3.	3.43		

+	HYDROGRAPH AT	BICH	0.	0.00	0.	0.	0.	0.01
+	ROUTED TO	H7S-H8	0.	0.00	0.	0.	0.	0.01
+	HYDROGRAPH AT	87	139.	15.00	86.	25.	8.	0.91
+	DIVERSION TO	87ret	139.	15.00	85.	23.	8.	0.91
+	HYDROGRAPH AT	87-O	15.	19.75	7.	2.	1.	0.91
+	2 COMBINED AT	H8	15.	19.75	7.	2.	1.	0.92
+	ROUTED TO	H8-H9	9.	23.50	7.	2.	1.	0.92
+	HYDROGRAPH AT	106	133.	15.50	91.	28.	9.	1.21
+	DIVERSION TO	106ret	133.	15.50	91.	28.	9.	1.21
+	HYDROGRAPH AT	106-O	0.	0.00	0.	0.	0.	1.21
+	2 COMBINED AT	H9	9.	23.50	7.	2.	1.	2.13
+	HYDROGRAPH AT	BICJ	31.	0.00	5.	4.	4.	0.01
+	ROUTED TO	J6S-J7	4.	21.75	4.	4.	4.	0.01
+	HYDROGRAPH AT	89	181.	15.00	119.	41.	14.	0.96
+	DIVERSION TO	89ret	181.	15.00	119.	40.	13.	0.96
+	HYDROGRAPH AT	89-O	5.	22.75	3.	1.	0.	0.96
+	2 COMBINED AT	J7	9.	22.75	7.	5.	4.	0.97
+	ROUTED TO	J7-J8	9.	24.75	7.	5.	4.	0.97
+	HYDROGRAPH AT	BICI	0.	0.00	0.	0.	0.	0.01
+	ROUTED TO	I6S-I7	0.	0.00	0.	0.	0.	0.01
+	HYDROGRAPH AT	88	124.	14.75	74.	21.	7.	0.76
+	DIVERSION TO	88ret	124.	14.75	74.	20.	7.	0.76
+	HYDROGRAPH AT	88-O	7.	18.75	2.	1.	0.	0.76
+	2 COMBINED AT	I7	7.	18.75	2.	1.	0.	0.77
+	ROUTED TO	I7-I8	5.	20.50	2.	1.	0.	0.77
+	HYDROGRAPH AT	102	88.	14.25	48.	13.	4.	0.52
+	DIVERSION TO	102ret	88.	14.25	48.	13.	4.	0.52
+	HYDROGRAPH AT	102-O	0.	0.00	0.	0.	0.	0.52
+	2 COMBINED AT	I8	5.	20.50	2.	1.	0.	1.29
+	ROUTED TO	I8-J8	4.	21.00	2.	1.	0.	1.29
+	HYDROGRAPH AT	103	111.	14.00	58.	19.	7.	0.51
+	DIVERSION TO	103ret	111.	14.00	58.	19.	7.	0.51
+	HYDROGRAPH AT	103-O	0.	0.00	0.	0.	0.	0.51
+	3 COMBINED AT	J8	8.	26.75	7.	5.	4.	2.77
+	HYDROGRAPH AT	107	83.	13.75	36.	10.	3.	0.48
+	DIVERSION TO	107ret	83.	13.75	36.	10.	3.	0.48
+	HYDROGRAPH AT	107-O	0.	0.00	0.	0.	0.	0.48

*** NORMAL END OF HEC-1 ***

```
1*************************************                                    *************************************
 *                                   *                                    *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                                *    U.S. ARMY CORPS OF ENGINEERS   *
 *              JUN   1998           *                                    *    HYDROLOGIC ENGINEERING CENTER  *
 *            VERSION 4.1            *                                    *          609 SECOND STREET        *
 *                                   *                                    *       DAVIS, CALIFORNIA 95616     *
 *  RUN DATE   23MAR06  TIME  05:05:25  *                                 *           (916) 756-1104          *
 *                                   *                                    *                                   *
 *************************************                                    *************************************

                                        X     X  XXXXXXX   XXXXX          X
                                        X     X  X        X     X        XX
                                        X     X  X        X              X
                                        XXXXXXX  XXXX     X        XXXXX  X
                                        X     X  X        X              X
                                        X     X  X        X     X        X
                                        X     X  XXXXXXX   XXXXX        XXX

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE,
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                          HEC-1 INPUT                                                    PAGE  1

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

    1           ID   Buckeye/Sun Valley ADMS - November 2004
    2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
    3           ID   10-year 24-hour
    4           ID   Future Conditions
    5           ID   Area 1 - BIC to Gila (East)
    6           ID   File Name: bge1024fut.hc1
    7           ID   Rainfall Loss Method - Green & Ampt
    8           ID   Unit Hydrograph Method - FCDMC S-Graph
    9           ID   Channel Routing Method - Normal Depth
   10           ID   Land Use - FCDMC GIS Data: mag_genplan (2000)
   11           ID   Future Land Build Out Date: 2025
   12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
   13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                *DIAGRAM
   14           IT      15 02JAN94       0     400
   15           IO       3
   16           IN      15 02JAN94       0
   17           JD     2.5     0.01
                * 24-hour distribution
   18           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
   19           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
   20           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
   21           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
   22           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
   23           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
   24           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
   25           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
   26           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
   27           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
   28           IN      15 02JAN94       0
   29           JD   2.375    10.0
                * 24-hour distribution
   30           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
   31           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
   32           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
   33           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
   34           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
   35           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
   36           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
   37           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
   38           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
   39           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
   40           IN      15 02JAN94       0
   41           JD   2.295    20.0
                * 24-hour distribution
   42           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
   43           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
   44           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
   45           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
   46           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
   47           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
   48           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
   49           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
   50           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
   51           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
                * ******************************************************************************
                * **    SUB-WATERSHED M    ***********************************************************
                * ******************************************************************************
1                                          HEC-1 INPUT                                                    PAGE  2

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

   52           KK    BICM
   53           KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
   54           BA   0.001
   55           ZR  =QI A=BIC BIC B=52599 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24F

   56           KK  M4S6TH   CNAME     M4S
   57           KM   ROUTE INFLOW FROM BIC CONCENTRATED AT M4S TO 6TH (CHANNEL M4S-6TH)
   58           KO       0       0     0.0       0      22
   59           RS       1    FLOW     0.0     0.0
   60           RC    0.05   0.015    0.05  1950.0   0.008     0.0
   61           RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
   62           RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0
```

```
 63          KK     4th
 64          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 65          KM   L=0.52      Lca=0.40      S=0.01      Kn=0.011      LAG=24
 66          KM   S-GRAPH TYPE=PHOENIX VALLEY
 67          KO       0        0      0.0        1       22
 68          BA  0.0819
 69          LG   0.159     0.25   5.145   0.347  59.505
 70          UI     0.0    39.02  109.68   50.31    9.67     0.0

 71          KK   TO6th
 72          KM   HYDRPGRAPH DIVERTED TO 4THS
 73          KO       0        0      0.0        0       22
 74          DT  TO4THS      0.0      0.0
 75          DI     0.0    100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 76          DI  2000.0   2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 77          DQ     0.0     50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 78          DQ  1000.0   1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

 79          KK  4TH6TH   CNAME    4thA
 80          KM   ROUTE HYDRPGRAPH FROM 4TH CONCENTRATED AT 4THA TO 6TH (CHANNEL 4TH6TH)
 81          KO       0        0      0.0        0       22
 82          RS       1     FLOW      0.0      0.0
 83          RC    0.05    0.015     0.05   900.28    0.002      0.0
 84          RX     0.0    100.0    100.0   127.49   127.51    155.0    155.0    255.0
 85          RY     2.0      0.5      0.0     0.55     0.55      0.0      0.5      2.0

 86          KK     6th
 87          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 88          KM   L=0.46      Lca=0.17      S=0.01      Kn=0.011      LAG=17
 89          KM   S-GRAPH TYPE=PHOENIX VALLEY
 90          KO       0        0      0.0        1       22
 91          BA  0.0571
 92          LG   0.208     0.15   7.572   0.123  43.141
 93          UI     0.0    54.83   81.61    9.82     0.0

 94          KK    6thA   CNAME   6TH8TH
 95          KM   COMBINE ROUTED HYDROGRAPH FROM 4THA WITH RUNOFF FROM 6TH @ 6THA
 96          KO       0        0      0.0        0       22
 97          HC       3
1                                          HEC-1 INPUT                                                    PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 98          KK   TO8TH
 99          KM   HYDRPGRAPH DIVERTED TO 7THS
100          KO       0        0      0.0        0       22
101          DT  TO7THS      0.0      0.0
102          DI     0.0    100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
103          DI  2000.0   2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
104          DQ     0.0     50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
105          DQ  1000.0   1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

106          KK  6TH8TH   CNAME    6thA
107          KM   ROUTE HYDRPGRAPH FROM 6THA TO 8TH (CHANNEL 6TH8TH)
108          KO       0        0      0.0        0       22
109          RS       1     FLOW      0.0      0.0
110          RC    0.05    0.015     0.05  1120.51    0.002      0.0
111          RX     0.0    100.0    100.0   127.49   127.51    155.0    155.0    255.0
112          RY     2.0      0.5      0.0     0.55     0.55      0.0      0.5      2.0

113          KK     8th
114          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
115          KM   L=0.60      Lca=0.31      S=0.01      Kn=0.011      LAG=23
116          KM   S-GRAPH TYPE=PHOENIX VALLEY
117          KO       0        0      0.0        1       22
118          BA  0.0793
119          LG   0.235     0.15    8.77   0.075   35.0
120          UI     0.0    41.0  110.28   43.97    7.58     0.0

121          KK    8thA   CNAME   8TH9TH
122          KM   COMBINE ROUTED HYDROGRAPH FROM 6THA WITH RUNOFF FROM 8TH @ 8THA
123          KO       0        0      0.0        0       22
124          HC       2

125          KK   TO9TH
126          KM   HYDRPGRAPH DIVERTED TO CENTRA
127          KO       0        0      0.0        0       22
128          DT  TOCEN1      0.0      0.0
129          DI     0.0    100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
130          DI  2000.0   2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
131          DQ     0.0     50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
132          DQ  1000.0   1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

133          KK  8TH9TH   CNAME    8thA
134          KM   ROUTE HYDRPGRAPH FROM 8THA TO 9TH (CHANNEL 8TH9TH)
135          KO       0        0      0.0        0       22
136          RS       1     FLOW      0.0      0.0
137          RC    0.05    0.015     0.05   702.41    0.002      0.0
138          RX     0.0    100.0    100.0   127.49   127.51    155.0    155.0    255.0
139          RY     2.0      0.5      0.0     0.55     0.55      0.0      0.5      2.0

140          KK     9thE
141          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
142          KM   L=0.77      Lca=0.39      S=0.00      Kn=0.011      LAG=29
143          KM   S-GRAPH TYPE=PHOENIX VALLEY
144          KO       0        0      0.0        1       22
145          BA  0.0947
1                                          HEC-1 INPUT                                                    PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

146          LG   0.151     0.15   8.731   0.088  31.799
147          UI     0.0    31.39   99.09    80.3   25.22    5.83     0.0

148          KK     9thW
149          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
150          KM   L=0.54      Lca=0.32      S=0.01      Kn=0.011      LAG=22
151          KM   S-GRAPH TYPE=PHOENIX VALLEY
152          KO       0        0      0.0        1       22
153          BA  0.0813
154          LG   0.143     0.15    8.42   0.105  14.13
155          UI     0.0    45.77  116.37   40.05   6.23     0.0
```

```
 156          KK     9th
 157          KM   COMBINE ROUTED HYDROGRAPH FROM 8THA WITH RUNOFF FROM 9THE AND 9THW @ 9TH
 158          KO       0       0     0.0       0      22
 159          HC       3

 160          KK   TODET
 161          KM   HYDRPGRAPH DIVERTED TO CENTRA
 162          KO       0       0     0.0       0      22
 163          DT  TOCEN2     0.0     0.0
 164          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 165          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 166          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 167          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
              * ***********************************************************************
              * **   SUB-WATERSHED N-A   (DRAINS INTO SUB-WATERSHED M) ***********************
              * ***********************************************************************

 168          KK    BICN
 169          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 170          BA   0.001
 171          ZR  =QI A=BIC BIC B=58999 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24F

 172          KK   N6S-D   CNAME     N6S
 173          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT N6S TO DRAINA (CHANNEL A)
 174          KO       0       0     0.0       0      22
 175          RS       1    FLOW     0.0     0.0
 176          RC     0.1     0.1     0.1 12189.0   0.003     0.0
 177          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 178          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
              * ***********************************************************************
              * **   SUB-WATERSHED O (DRAINS INTO SUB-WATERSHED M) ***********************
              * ***********************************************************************

 179          KK    BICO
 180          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 181          BA   0.001
 182          ZR  =QI A=BIC BIC B=63799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24F
1                                        HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 183          KK   O8SO9   CNAME     O8S
 184          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT O8S TO O9 (CHANNEL A)
 185          KO       0       0     0.0       0      22
 186          RS       1    FLOW     0.0     0.0
 187          RC     0.1     0.1     0.1  6048.0   0.004     0.0
 188          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 189          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 190          KK      93
 191          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 192          KM   L=1.21     Lca=0.60     S=17.39     Kn=0.200     LAG=148
 193          KM   S-GRAPH TYPE=AGRICULTURE
 194          KO       0       0     0.0       1      22
 195          BA  0.3774
 196          LG    0.26    0.25   4.879   0.323  31.085
 197          UI     0.0     9.4     9.4    19.0   37.89   54.24   57.18   73.55   78.99   78.99
 198          UI   77.24   65.83   70.53    53.4   54.15   37.91   32.75   26.86   26.09   17.25
 199          UI   15.19   11.72   10.73    8.59    8.51    5.34    5.34    5.34    3.78    1.18
 200          UI    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18
 201          UI    1.18    1.18    1.18    1.18    1.18     0.0

 202          KK    93-O
 203          KO       0       0     0.0       0      22
 204          DT   93ret    26.0     0.0
 205          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 206          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 207          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 208          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 209          KK      O9   CNAME   O9O10
 210          KM   COMBINE ROUTED HYDROGRAPH FROM O9 WITH RUNOFF FROM 93 @ O10
 211          KO       0       0     0.0       0      22
 212          HC       2

 213          KK   O9O10   CNAME      O9
 214          KM   ROUTE HYDRPGRAPH FROM O9 TO O10 (CHANNEL A)
 215          KO       0       0     0.0       0      22
 216          RS      26    FLOW     0.0     0.0
 217          RC     0.1     0.1     0.1 8757.67   0.001     0.0
 218          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 219          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 220          KK      95
 221          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 222          KM   L=1.66     Lca=0.83     S=7.84     Kn=0.200     LAG=220
 223          KM   S-GRAPH TYPE=AGRICULTURE
 224          KO       0       0     0.0       1      22
 225          BA  0.5221
 226          LG    0.25    0.15     8.2   0.093  36.112
 227          UI     0.0    8.75    8.75    8.75   17.61   23.93   39.41   52.07   46.56    58.0
 228          UI   66.98   73.51   73.51   73.51   73.51   69.43   61.26    62.9   68.12   47.05
 229          UI   46.97   50.07   35.29   33.42    27.5   24.86   27.14   19.64   16.37   14.14
 230          UI   13.38   10.81   10.81    8.74    7.99    7.99     6.9    4.97    4.97    4.97
 231          UI    4.97    4.97    1.35    1.09    1.09    1.09    1.09    1.09    1.09    1.09
1                                        HEC-1 INPUT                                          PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 232          UI    1.09    1.09    1.09    1.09    1.09    1.09    1.09    1.09    1.09    1.09
 233          UI    1.09    1.09    1.09    1.09    1.09    1.09     0.0

 234          KK    95-O
 235          KO       0       0     0.0       0      22
 236          DT   95ret    42.0     0.0
 237          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 238          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 239          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 240          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 241          KK     O10   CNAME   O10DR
 242          KM   COMBINE ROUTED HYDROGRAPH FROM O9 WITH RUNOFF FROM 95 @ O10
 243          KO       0       0     0.0       0      22
```

```
 244          HC       2

 245          KK   TODRN
 246          KM   HYDRPGRAPH DIVERTED TO P9
 247          KO       0       0     0.0       0      22
 248          DT    TOP9     0.0     0.0
 249          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 250          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 251          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 252          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

 253          KK  O10DRN   CNAME     O10
 254          KM   ROUTE HYDRPGRAPH FROM O10 TO DRAINA (CHANNEL A)
 255          KO       0       0     0.0       0      22
 256          RS      26    FLOW     0.0     0.0
 257          RC     0.1     0.1     0.1 5733.05  0.0003     0.0
 258          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 259          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 260          KK  CENTRE
 261          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 262          KM   L=0.40     Lca=0.23     S=0.01     Kn=0.011     LAG=18
 263          KM   S-GRAPH TYPE=PHOENIX VALLEY
 264          KO       0       0     0.0       1      22
 265          BA  0.0692
 266          LG   0.246   0.153   6.965   0.148   31.22
 267          UI     0.0   58.22  103.23   15.09     0.0

 268          KK  FRM9TH
 269          KM   RETRIEVE HYDROGRAPH FROM 9TH
 270          KO       0       0     0.0       0      22
 271          DR  TOCEN2

 272          KK  9THCEN   CNAME
 273          KM   ROUTE HYDRPGRAPH FROM 9TH TO CENTRA (CHANNEL 9THCEN)
 274          RS       1    FLOW     0.0     0.0
 275          RC    0.05   0.015    0.05  1300.0   0.008     0.0
 276          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 277          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0
1                                          HEC-1 INPUT                                                    PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 278          KK  FRM8TH
 279          KM   RETRIEVE HYDROGRAPH FROM 8TH
 280          KO       0       0     0.0       0      22
 281          DR  TOCEN1

 282          KK  8THCEN   CNAME
 283          KM   ROUTE HYDRPGRAPH FROM 8TH TO CENTRA (CHANNEL 8THCEN)
 284          RS       1    FLOW     0.0     0.0
 285          RC    0.05   0.015    0.05  1967.0   0.007     0.0
 286          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 287          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 288          KK  CENTRA   CNAME  CENBEL
 289          KM   COMBINE DIVERTED HYDROGRAPHS FROM 8THA AND 9TH WITH RUNOFF FROM CENTRAL @ CEN
 290          KO       0       0     0.0       0      22
 291          HC       3

 292          KK  TOBELO
 293          KM   HYDRPGRAPH DIVERTED TO BELOAA
 294          KO       0       0     0.0       0      22
 295          DT   TODRN     0.0     0.0
 296          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 297          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 298          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 299          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

 300          KK  CENBEL   CNAME  CENTRA
 301          KM   ROUTE HYDRPGRAPH FROM CENTRA TO BELOAA (CHANNEL CENBEL)
 302          KO       0       0     0.0       0      22
 303          RS       2    FLOW     0.0     0.0
 304          RC    0.05   0.015    0.05 2520.78   0.005     0.0
 305          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 306          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 307          KK  BELOAT
 308          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 309          KM   L=0.44     Lca=0.25     S=0.00     Kn=0.011     LAG=19
 310          KM   S-GRAPH TYPE=PHOENIX VALLEY
 311          KO       0       0     0.0       1      22
 312          BA  0.0470
 313          LG   0.237    0.15   9.327   0.064  34.386
 314          UI     0.0   35.33   70.77   13.41     0.0

 315          KK  BELOAA   CNAME  BELDRN
 316          KM   COMBINE ROUTED HYDROGRAPH FROM CENTRA WITH RUNOFF FROM BELOAT @ BELOAA
 317          KO       0       0     0.0       0      22
 318          HC       2

 319          KK  BELDRN   CNAME  BELOAA
 320          KM   ROUTE HYDRPGRAPH FROM BELOAA TO DRAINA (CHANNEL BELDRN)
 321          KO       0       0     0.0       0      22
 322          RS       2    FLOW     0.0     0.0
 323          RC   0.035   0.015   0.035 1391.66   0.001     0.0
 324          RX     0.0   108.0   120.0  131.99   132.0   144.0   156.0   264.0
1                                          HEC-1 INPUT                                                    PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 325          RY     8.0     0.0     3.0    3.24    3.24     3.0     0.0     8.0

 326          KK  BAYLIS
 327          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 328          KM   L=0.30     Lca=0.08     S=0.01     Kn=0.011     LAG=9
 329          KM   S-GRAPH TYPE=PHOENIX VALLEY
 330          KO       0       0     0.0       1      22
 331          BA  0.0155
 332          LG     0.1    0.15     9.7   0.069    80.0
 333          UI     0.0   36.19     0.0

 334          KK  DETDRN   CNAME     DET
```

```
 335          KM   ROUTE HYDROGRAPH FROM DET TO DRAINA (CHANNEL DETDRN)
 336          KO       0       0     0.0       0      22
 337          RS       1    FLOW     0.0     0.0
 338          RC    0.05    0.03    0.05 2655.17   0.007     0.0
 339          RX     0.0    50.0   100.0   108.0   110.0   118.0   168.0   218.0
 340          RY     9.0     8.5     8.0     0.0     0.0     8.0     8.5     9.0

 341          KK      92
 342          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 343          KM   L=2.06     Lca=1.03     S=17.46     Kn=0.200     LAG=223
 344          KM   S-GRAPH TYPE=AGRICULTURE
 345          KO       0       0     0.0       1      22
 346          BA  1.0140
 347          LG   0.229    0.15   8.658   0.079  42.566
 348          UI     0.0   40.65    78.1  207.32  268.02  327.77  341.43  292.11  269.54  214.08
 349          UI  145.16  120.99   73.46   57.17   43.57   35.76   23.07   23.07     8.2    5.08
 350          UI    5.08    5.08    5.08    5.08    5.08    5.08    5.08    5.08     0.0

 351          KK    92-O
 352          KO       0       0     0.0       0      22
 353          DT   92ret    65.0     0.0
 354          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 355          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 356          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 357          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 358          KK   DRAIN
 359          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 360          KM   L=0.59     Lca=0.26     S=0.01     Kn=0.011     LAG=20
 361          KM   S-GRAPH TYPE=PHOENIX VALLEY
 362          KO       0       0     0.0       1      22
 363          BA  0.1155
 364          LG   0.242    0.15   9.659   0.059  32.685
 365          UI     0.0   78.37   172.3   41.74     0.0

 366          KK  FRMCEN
 367          KM   RETRIEVE HYDROGRAPH FROM CENTRA
 368          KO       0       0     0.0       0      22
 369          DR   TODRN
1                                          HEC-1 INPUT                                                    PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 370          KK  CENDRN   CNAME
 371          KM   ROUTE HYDROGRAPH FROM CENTRA TO DRAINA (CHANNEL CENDRN)
 372          RS       1    FLOW     0.0     0.0
 373          RC    0.05    0.05    0.05  1888.0   0.005     0.0
 374          RX     0.0   300.0   600.0   900.0  1200.0  1500.0  1800.0  2100.0
 375          RY     1.0    0.67    0.33     0.0     0.0    0.33    0.67     1.0

 376          KK  DRAINA   CNAME   DRNM5
 377          KM   COMBINE DIVERTED HYDROGRAPH FROM CENTRA WITH ROUTED HYDROGRAPHS FROM BELOAA,
 378          KO       0       0     0.0       0      22
 379          HC       7

 380          KK   DRNM5   CNAME  DRAINA
 381          KM   ROUTE HYDROGRAPH FROM DRAINA TO M5 (CHANNEL DRNM5)
 382          KO       0       0     0.0       0      22
 383          RS       8    FLOW     0.0     0.0
 384          RC    0.05    0.05    0.05 7894.85   0.001     0.0
 385          RX     0.0   500.0   525.0   528.0   543.0   546.0   571.0  1071.0
 386          RY     9.0     4.0     2.0     0.0     0.0     2.0     4.0     9.0

 387          KK    4thS
 388          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 389          KM   L=0.74     Lca=0.50     S=0.01     Kn=0.011     LAG=30
 390          KM   S-GRAPH TYPE=PHOENIX VALLEY
 391          KO       0       0     0.0       1      22
 392          BA  0.1451
 393          LG   0.166    0.203   6.474   0.206  36.974
 394          UI     0.0   44.97  142.41  127.57   44.49   10.45     0.0

 395          KK  FRM4TH
 396          KM   RETRIEVE HYDROGRAPH FROM 4TH
 397          KO       0       0     0.0       0      22
 398          DR  TO4THS

 399          KK   4TH4S   CNAME
 400          KM   ROUTE HYDROGRAPH FROM 4THA TO 4THSA (CHANNEL 4TH4S)
 401          RS       1    FLOW     0.0     0.0
 402          RC    0.05   0.015    0.05  2629.0   0.015     0.0
 403          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 404          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 405          KK   4thSA   CNAME  4TH7TH
 406          KM   COMBINE DIVERTED HYDROGRAPH FROM 4THA WITH RUNOFF FROM 4THS @ 4THSA
 407          KO       0       0     0.0       0      22
 408          HC       2

 409          KK  4TH7TH   CNAME   4thSA
 410          KM   ROUTE HYDROGRAPH FROM 4THSA TO 7THSA (CHANNEL 4TH7TH)
 411          KO       0       0     0.0       0      22
 412          RS       2    FLOW     0.0     0.0
 413          RC    0.05   0.015    0.05 1378.54   0.003     0.0
 414          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 415          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0
1                                          HEC-1 INPUT                                                    PAGE 10

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 416          KK     7th
 417          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 418          KM   L=0.66     Lca=0.33     S=0.01     Kn=0.011     LAG=24
 419          KM   S-GRAPH TYPE=PHOENIX VALLEY
 420          KO       0       0     0.0       1      22
 421          BA  0.1268
 422          LG   0.248    0.25   5.114   0.311  29.143
 423          UI     0.0   60.41  169.79   77.88   14.98     0.0

 424          KK  FRM6TH
 425          KM   RETRIEVE HYDROGRAPH FROM 6THA
 426          KO       0       0     0.0       0      22
```

```
427          DR  TO7THS

428          KK  6TH7TH   CNAME
429          KM   ROUTE HYDROGRAPH FROM 6THA TO 7THSA (CHANNEL 6TH7TH)
430          RS      1    FLOW     0.0      0.0
431          RC    0.05   0.015    0.05  3061.0  0.0059     0.0
432          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
433          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

434          KK   7thSA   CNAME   7THM5
435          KM   COMBINE DIVERTED HYDROGRAPH FROM 6THA WITH ROUTED HYDROGRAPH FROM 4THSA WITH
436          KO      0       0     0.0       0      22
437          HC      3

438          KK   7THM5   CNAME   7thSA
439          KM   ROUTE HYDROGRAPH FROM 7THSA TO M5 (CHANNEL 7THM5)
440          KO      0       0     0.0       0      22
441          RS      3    FLOW     0.0     0.0
442          RC    0.05    0.05    0.05 5286.53   0.002     0.0
443          RX     0.0    25.0    28.0    31.0    46.0    49.0    52.0    77.0
444          RY     6.0     4.0     2.0     0.0     0.0     2.0     4.0     6.0

445          KK      98
446          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
447          KM   L=1.50     Lca=0.75     S=6.69     Kn=0.200     LAG=209
448          KM   S-GRAPH TYPE=AGRICULTURE
449          KO      0       0     0.0       1      22
450          BA  0.3878
451          LG    0.19    0.15   9.082   0.073  38.285
452          UI     0.0   14.59   24.67   66.97    88.8  117.54  122.57  113.04  108.08    79.8
453          UI    66.8   46.99   39.56   25.34   19.48   15.08    12.7    8.28    8.28    3.72
454          UI    1.82    1.82    1.82    1.82    1.82    1.82    1.82    1.82    1.82    1.82
455          UI     0.0

456          KK    98-O
457          KO      0       0     0.0       0      22
458          DT   98ret    26.0     0.0
459          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
460          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
461          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
462          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
1                                          HEC-1 INPUT                                          PAGE 11

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


463          KK      M5
464          KM   COMBINE ROUTED HYDROGRAPHs FROM 7THSA AND DRAINA WITH RUNOFF FROM 98 @ M5
465          KO      0       0     0.0       0      22
466          HC      3
             * ***********************************************************************
             * **   SUB-WATERSHED P   ***********************************************
             * ***********************************************************************

467          KK    BICP
468          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
469          BA   0.001
470          ZR  =QI A=BIC BIC B=67395 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24F

471          KK   P6SP7   CNAME     P6S
472          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT P6S TO P7 (CHANNEL A)
473          KO      0       0     0.0       0      22
474          RS      1    FLOW     0.0     0.0
475          RC    0.1     0.1     0.1  5100.0   0.005     0.0
476          RX    0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
477          RY   10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

478          KK      94
479          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
480          KM   L=1.30     Lca=0.65     S=22.37     Kn=0.200     LAG=149
481          KM   S-GRAPH TYPE=AGRICULTURE
482          KO      0       0     0.0       1      22
483          BA  0.7194
484          LG   0.249    0.15   7.304   0.126   43.87
485          UI     0.0   17.81   17.81   35.71   70.46  102.77  107.11  138.19  149.58  149.58
486          UI  147.91  124.65  131.59  105.71  101.03   75.79   63.54   51.25   51.33   33.33
487          UI   28.76   23.11   21.15   16.26   16.26   10.96   10.11   10.11    8.64    2.23
488          UI    2.23    2.23    2.23    2.23    2.23    2.23    2.23    2.23    2.23    2.23
489          UI    2.23    2.23    2.23    2.23    2.23     0.0

490          KK    94-O
491          KO      0       0     0.0       0      22
492          DT   94ret    58.0     0.0
493          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
494          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
495          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
496          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

497          KK      P7   CNAME   P7-P8
498          KM   COMBINE ROUTED HYDROGRAPH FROM P6S WITH RUNOFF FROM 94 @ P7
499          KO      0       0     0.0       0      22
500          HC      2

501          KK   P7-P8   CNAME      P7
502          KM   ROUTE HYDROGRAPH FROM P7 TO P8 (CHANNEL A)
503          KO      0       0     0.0       0      22
504          RS     10    FLOW     0.0     0.0
505          RC    0.1     0.1     0.1 3899.99   0.002     0.0
506          RX    0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
507          RY   10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                          PAGE 12

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


508          KK      96
509          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
510          KM   L=1.32     Lca=0.66     S=4.55     Kn=0.200     LAG=205
511          KM   S-GRAPH TYPE=AGRICULTURE
512          KO      0       0     0.0       1      22
513          BA  0.9142
514          LG    0.3    0.15   7.196   0.114     5.0
515          UI     0.0   16.45   16.45    18.8   34.54   52.11   84.71   98.14   96.32  126.68
516          UI  129.26  138.14  138.14  138.14  130.47  115.12  121.64  118.86   86.34   91.94
```

```
517          UI   82.29   63.36   57.32   47.86   49.06   41.47   31.23   26.57   24.96   20.31
518          UI   20.31   15.37   15.02   15.02   10.53    9.33    9.33    9.33    9.33     4.0
519          UI    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06
520          UI    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06
521          UI    2.06    2.06     0.0

522          KK    96-O
523          KO       0       0     0.0       0      22
524          DT   96ret    50.0     0.0
525          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
526          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
527          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
528          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

529          KK      P8   CNAME   P8-P9
530          KM   COMBINE ROUTED HYDROGRAPH FROM P7 WITH RUNOFF FROM 96 @ P8
531          KO       0       0     0.0       0      22
532          HC       2

533          KK   P8-P9   CNAME      P8
534          KM   ROUTE HYDROGRAPH FROM P8 TO P9 (CHANNEL A)
535          KO       0       0     0.0       0      22
536          RS      12    FLOW     0.0     0.0
537          RC     0.1     0.1     0.1 6986.11   0.001     0.0
538          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
539          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

540          KK      97
541          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
542          KM   L=1.32     Lca=0.66     S=6.05     Kn=0.200     LAG=195
543          KM   S-GRAPH TYPE=AGRICULTURE
544          KO       0       0     0.0       1      22
545          BA  0.5002
546          LG     0.3   0.163   6.866    0.13     5.0
547          UI     0.0    9.46    9.46   12.27   19.87   35.86   52.15   53.64   61.59   73.51
548          UI   79.47   79.47   79.47   79.47   66.22   66.89    74.0   49.67   52.15   48.28
549          UI   36.52   32.56   27.34   28.83   21.44   17.23   15.28   13.09   11.69   10.47
550          UI    8.64    8.64     7.3    5.37    5.37    5.37    5.37    2.86    1.18    1.18
551          UI    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18
552          UI    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18     0.0
1                                         HEC-1 INPUT                                          PAGE 13

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

553          KK    97-O
554          KO       0       0     0.0       0      22
555          DT   97ret    30.0     0.0
556          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
557          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
558          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
559          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

560          KK   FRO10
561          KM   RETRIEVE HYDROGRAPH FROM O10
562          KO       0       0     0.0       0      22
563          DR    TOP9

564          KK  O10-P9   CNAME
565          KM   ROUTE HYDROGRAPH FROM O10 TO P9 (CHANNEL O10-P9)
566          RS       1    FLOW     0.0     0.0
567          RC    0.05    0.05    0.05  1492.0   0.002     0.0
568          RX     0.0   200.0   235.0   251.0   263.0   279.0   314.0   349.0
569          RY    12.0    10.0     8.0     0.0     0.0     8.0    10.0    12.0

570          KK      P9   CNAME  P9-P10
571          KM   COMBINE ROUTED HYDROGRAPH FROM P8 WITH DIVERTED HYDROGRAPH FROM O10 WITH RUNO
572          KO       0       0     0.0       0      22
573          HC       3

574          KK  P9-P10   CNAME      P9
575          KM   ROUTE HYDROGRAPH FROM P9 TO P10 (CHANNEL A)
576          KO       0       0     0.0       0      22
577          RS       5    FLOW     0.0     0.0
578          RC     0.1     0.1     0.1 3952.01   0.005     0.0
579          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
580          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

581          KK     100
582          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
583          KM   L=1.70     Lca=0.85     S=18.83     Kn=0.200     LAG=190
584          KM   S-GRAPH TYPE=AGRICULTURE
585          KO       0       0     0.0       1      22
586          BA  0.5816
587          LG     0.1   0.226   6.243    0.26     5.0
588          UI     0.0   11.29   11.29   15.51   24.87    45.7   65.19   60.85   82.97   85.34
589          UI   94.82   94.82   94.82   89.56   79.02   84.02   75.73   59.27   66.61   45.77
590          UI    43.1   33.76   32.34    31.6   21.55   18.46   17.01   13.94   13.46   10.31
591          UI   10.31    9.45    6.41    6.41    6.41    6.41    3.74    1.41    1.41    1.41
592          UI    1.41    1.41    1.41    1.41    1.41    1.41    1.41    1.41    1.41    1.41
593          UI    1.41    1.41    1.41    1.41    1.41    1.41    1.41     0.0

594          KK   100-O
595          KO       0       0     0.0       0      22
596          DT  100ret    25.0     0.0
597          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
598          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
599          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
600          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
1                                         HEC-1 INPUT                                          PAGE 14

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

601          KK     P10
602          KM   COMBINE ROUTED HYDROGRAPH FROM P9 WITH RUNOFF FROM 100 @ P10
603          KO       0       0     0.0       0      22
604          HC       2
             * ******************************************************************************
             * **   SUB-WATERSHED N-B   ***************************************************
             * ******************************************************************************

605          KK      99
606          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
```

```
 607          KM   L=2.01     Lca=1.24     S=3.49     Kn=0.050     LAG=80
 608          KM   S-GRAPH TYPE=PHOENIX VALLEY
 609          KO       0       0     0.0       1      22
 610          BA  0.9484
 611          LG   0.107   0.248   6.022   0.276  11.109
 612          UI     0.0   39.92  121.66  208.16  273.54  409.44  445.57  321.29  237.94  165.13
 613          UI    81.8   57.84   37.85   12.24   12.24   12.24     0.0

 614          KK    99-O
 615          KO       0       0     0.0       0      22
 616          DT   99ret    42.0     0.0
 617          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 618          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 619          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 620          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
              * ***********************************************************************
              * **   SUB-WATERSHED Q   ***********************************************
              * ***********************************************************************

 621          KK     101
 622          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 623          KM   L=1.63     Lca=0.81     S=8.59     Kn=0.200     LAG=213
 624          KM   S-GRAPH TYPE=AGRICULTURE
 625          KO       0       0     0.0       1      22
 626          BA  0.3807
 627          LG   0.157   0.154   6.963    0.16     5.0
 628          UI     0.0    6.59    6.59    6.72   13.84   19.36   31.67   39.52   35.16   50.66
 629          UI   48.72   55.36   55.36   55.36   55.36   47.98   46.14   49.41   43.25    34.6
 630          UI   38.51    29.5   25.17   22.12   19.02   19.89   16.22   12.54   10.65   10.21
 631          UI    8.14    8.14    6.53    6.02    6.02    4.89    3.74    3.74    3.74    3.74
 632          UI    3.04    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82
 633          UI    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82
 634          UI    0.82    0.82    0.82    0.82     0.0

 635          KK   101-O
 636          KO       0       0     0.0       0      22
 637          DT  101ret    18.0     0.0
 638          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 639          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 640          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 641          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
              * ***********************************************************************
              * **   SUB-WATERSHED K   ***********************************************
              * ***********************************************************************
1                                          HEC-1 INPUT                                          PAGE 15

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 642          KK    BICK
 643          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 644          BA   0.001
 645          ZR  =QI A=BIC BIC B=42799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24F

 646          KK   K7SK8   CNAME     K7S
 647          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT K7S TO K8 (CHANNEL A)
 648          KO       0       0     0.0       0      22
 649          RS       1    FLOW     0.0     0.0
 650          RC     0.1     0.1     0.1  8240.0   0.005     0.0
 651          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 652          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 653          KK      90
 654          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 655          KM   L=2.05     Lca=1.02     S=21.50     Kn=0.200     LAG=213
 656          KM   S-GRAPH TYPE=AGRICULTURE
 657          KO       0       0     0.0       1      22
 658          BA  1.0549
 659          LG    0.16    0.15   9.525   0.063  57.603
 660          UI     0.0   18.26   18.26   18.63   38.35   53.64   87.77   109.5   97.42  140.37
 661          UI   135.0  153.41  153.41  153.41  153.41  132.96  127.84  136.92  119.85   95.88
 662          UI  106.72   81.75   69.73   61.31   52.71   55.11   44.96   34.76    29.5   28.29
 663          UI   22.56   22.56   18.09   16.68   16.68   13.56   10.37   10.37   10.37   10.37
 664          UI    8.43    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
 665          UI    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
 666          UI    2.28    2.28    2.28    2.28     0.0

 667          KK    90-O
 668          KO       0       0     0.0       0      22
 669          DT   90ret    95.0     0.0
 670          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 671          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 672          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 673          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 674          KK      K8
 675          KM   COMBINE ROUTED HYDROGRAPH FROM K7S WITH RUNOFF FROM 90 @ K8
 676          KO       0       0     0.0       0      22
 677          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED L   ***********************************************
              * ***********************************************************************

 678          KK    BICL
 679          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 680          BA   0.001
 681          ZR  =QI A=BIC BIC B=47195 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-10-24F
1                                          HEC-1 INPUT                                          PAGE 16

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 682          KK   L5SL6   CNAME     L5S
 683          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT L5S TO L6 (CHANNEL A)
 684          KO       0       0     0.0       0      22
 685          RS       1    FLOW     0.0     0.0
 686          RC     0.1     0.1     0.1  9280.0   0.005     0.0
 687          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 688          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 689          KK      91
 690          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 691          KM   L=2.08     Lca=1.04     S=21.10     Kn=0.200     LAG=217
 692          KM   S-GRAPH TYPE=AGRICULTURE
```

```
693          KO       0       0     0.0       1      22
694          BA  1.1890
695          LG    0.26    0.15   8.293   0.086   23.16
696          UI     0.0   23.21   20.21   20.21   41.59   57.01   93.61  121.43  106.09  140.03
697          UI  156.16  169.74  169.74  169.74  169.74  154.65  141.45  151.68  144.39  106.09
698          UI  111.63  106.19   79.21   74.79   60.09   56.97   62.49   38.58   35.53   32.64
699          UI   27.78   24.96   23.83   18.45   18.45   18.45   12.54   11.47   11.47   11.47
700          UI   11.47    7.06    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53
701          UI    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53
702          UI    2.53    2.53    2.53    2.53    2.53     0.0

703          KK    91-O
704          KO       0       0     0.0       0      22
705          DT   91ret    70.0     0.0
706          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
707          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
708          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
709          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

710          KK      L6
711          KM   COMBINE ROUTED HYDROGRAPH FROM L5S WITH RUNOFF FROM 91 @ L6
712          KO       0       0     0.0       0      22
713          HC       2
714          ZZ
1
RUNOFF SUMMARY
```

FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	BICM	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	M4S6TH	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	4th	76.	12.50	11.	4.	1.	0.08		
+	DIVERSION TO	TO4THS	38.	12.50	5.	2.	1.	0.08		
+	HYDROGRAPH AT	TO6th	38.	12.50	5.	2.	1.	0.08		
+	ROUTED TO	4TH6TH	31.	12.50	5.	2.	1.	0.08		
+	HYDROGRAPH AT	6th	57.	12.50	7.	2.	1.	0.06		
+	3 COMBINED AT	6thA	87.	12.50	13.	4.	1.	0.14		
+	DIVERSION TO	TO7THS	44.	12.50	6.	2.	1.	0.14		
+	HYDROGRAPH AT	TO8TH	44.	12.50	6.	2.	1.	0.14		
+	ROUTED TO	6TH8TH	38.	12.50	6.	2.	1.	0.14		
+	HYDROGRAPH AT	8th	83.	12.50	10.	3.	1.	0.08		
+	2 COMBINED AT	8thA	120.	12.50	16.	5.	2.	0.22		
+	DIVERSION TO	TOCEN1	60.	12.50	8.	3.	1.	0.22		
+	HYDROGRAPH AT	TO9TH	60.	12.50	8.	3.	1.	0.22		
+	ROUTED TO	8TH9TH	54.	12.50	8.	3.	1.	0.22		
+	HYDROGRAPH AT	9thE	82.	12.50	11.	3.	1.	0.09		
+	HYDROGRAPH AT	9thW	81.	12.50	8.	2.	1.	0.08		
+	3 COMBINED AT	9th	214.	12.50	27.	8.	3.	0.40		
+	DIVERSION TO	TOCEN2	107.	12.50	14.	4.	1.	0.40		
+	HYDROGRAPH AT	TODET	107.	12.50	14.	4.	1.	0.40		
+	HYDROGRAPH AT	BICN	30.	15.50	17.	4.	1.	0.00		
+	ROUTED TO	N6S-D	7.	18.75	7.	4.	1.	0.00		
+	HYDROGRAPH AT	BICO	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	O8SO9	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	93	60.	14.25	33.	11.	4.	0.38		
+	DIVERSION TO	93ret	60.	14.25	33.	11.	4.	0.38		

+	HYDROGRAPH AT	93-O	0.	0.00	0.	0.	0.	0.38
+	2 COMBINED AT	O9	0.	0.00	0.	0.	0.	0.38
+	ROUTED TO	O9O10	0.	0.00	0.	0.	0.	0.38
+	HYDROGRAPH AT	95	79.	15.25	56.	19.	7.	0.52
+	DIVERSION TO	95ret	79.	15.25	56.	19.	7.	0.52
+	HYDROGRAPH AT	95-O	0.	0.00	0.	0.	0.	0.52
+	2 COMBINED AT	O10	0.	0.00	0.	0.	0.	0.90
+	DIVERSION TO	TOP9	0.	0.00	0.	0.	0.	0.90
+	HYDROGRAPH AT	TODRN	0.	0.00	0.	0.	0.	0.90
+	ROUTED TO	O10DRN	0.	0.00	0.	0.	0.	0.90
+	HYDROGRAPH AT	CENTRE	68.	12.50	8.	2.	1.	0.07
+	HYDROGRAPH AT	FRM9TH	107.	12.50	14.	4.	1.	0.40
+	ROUTED TO	9THCEN	95.	12.50	14.	4.	1.	0.40
+	HYDROGRAPH AT	FRM8TH	60.	12.50	8.	3.	1.	0.22
+	ROUTED TO	8THCEN	51.	12.50	8.	3.	1.	0.22
+	3 COMBINED AT	CENTRA	216.	12.50	30.	9.	3.	0.07
+	DIVERSION TO	TODRN	108.	12.50	15.	4.	2.	0.07
+	HYDROGRAPH AT	TOBELO	108.	12.50	15.	4.	2.	0.07
+	ROUTED TO	CENBEL	94.	12.75	15.	4.	2.	0.07
+	HYDROGRAPH AT	BELOAT	51.	12.50	6.	2.	1.	0.05
+	2 COMBINED AT	BELOAA	127.	12.50	21.	6.	2.	0.12
+	ROUTED TO	BELDRN	112.	12.75	21.	6.	2.	0.12
+	HYDROGRAPH AT	BAYLIS	25.	12.25	2.	1.	0.	0.02
+	ROUTED TO	DETDRN	14.	12.25	2.	1.	0.	0.02
+	HYDROGRAPH AT	92	335.	13.50	130.	41.	14.	1.01
+	DIVERSION TO	92ret	335.	13.50	119.	33.	11.	1.01
+	HYDROGRAPH AT	92-O	70.	15.50	26.	8.	3.	1.01
+	HYDROGRAPH AT	DRAIN	125.	12.50	14.	4.	1.	0.12
+	HYDROGRAPH AT	FRMCEN	108.	12.50	15.	4.	2.	0.07
+	ROUTED TO	CENDRN	49.	13.00	14.	4.	2.	0.07
+	7 COMBINED AT	DRAINA	228.	12.50	70.	26.	9.	2.16
+	ROUTED TO	DRNM5	155.	14.00	67.	26.	9.	2.16
+	HYDROGRAPH AT	4thS	106.	12.50	16.	5.	2.	0.15
+	HYDROGRAPH AT	FRM4TH	38.	12.50	5.	2.	1.	0.08
+	ROUTED TO	4TH4S	31.	12.50	5.	2.	1.	0.08
+	2 COMBINED AT	4thSA	137.	12.50	21.	7.	2.	0.15
+	ROUTED TO	4TH7TH	131.	12.75	21.	7.	2.	0.15
+	HYDROGRAPH AT	7th	99.	12.50	11.	4.	1.	0.13

+ HYDROGRAPH AT	FRM6TH	44.	12.50	6.	2.	1.	0.14
+ ROUTED TO	6TH7TH	35.	12.50	6.	2.	1.	0.14
+ 3 COMBINED AT	7thSA	230.	12.50	39.	12.	4.	0.27
+ ROUTED TO	7THM5	190.	13.00	39.	12.	4.	0.27
+ HYDROGRAPH AT	98	123.	13.50	49.	15.	5.	0.39
+ DIVERSION TO	98ret	123.	13.50	47.	13.	4.	0.39
+ HYDROGRAPH AT	98-O	12.	15.75	7.	2.	1.	0.39
+ 3 COMBINED AT	M5	239.	13.25	105.	40.	14.	2.82
+ HYDROGRAPH AT	BICP	0.	0.00	0.	0.	0.	0.00
+ ROUTED TO	P6SP7	0.	0.00	0.	0.	0.	0.00
+ HYDROGRAPH AT	94	155.	14.25	86.	28.	10.	0.72
+ DIVERSION TO	94ret	155.	14.25	86.	28.	9.	0.72
+ HYDROGRAPH AT	94-O	2.	25.25	1.	0.	0.	0.72
+ 2 COMBINED AT	P7	2.	25.25	1.	0.	0.	0.72
+ ROUTED TO	P7-P8	1.	29.75	1.	0.	0.	0.72
+ HYDROGRAPH AT	96	110.	15.00	71.	21.	7.	0.91
+ DIVERSION TO	96ret	110.	15.00	71.	21.	7.	0.91
+ HYDROGRAPH AT	96-O	0.	0.00	0.	0.	0.	0.91
+ 2 COMBINED AT	P8	1.	29.75	1.	0.	0.	1.63
+ ROUTED TO	P8-P9	0.	39.50	0.	0.	0.	1.63
+ HYDROGRAPH AT	97	61.	15.00	38.	11.	4.	0.50
+ DIVERSION TO	97ret	61.	15.00	38.	11.	4.	0.50
+ HYDROGRAPH AT	97-O	0.	0.00	0.	0.	0.	0.50
+ HYDROGRAPH AT	FRO10	0.	0.00	0.	0.	0.	0.90
+ ROUTED TO	O10-P9	0.	0.00	0.	0.	0.	0.90
+ 3 COMBINED AT	P9	0.	39.50	0.	0.	0.	2.13
+ ROUTED TO	P9-P10	0.	42.00	0.	0.	0.	2.13
+ HYDROGRAPH AT	100	57.	14.75	35.	10.	3.	0.58
+ DIVERSION TO	100ret	57.	14.75	35.	10.	3.	0.58
+ HYDROGRAPH AT	100-O	0.	0.00	0.	0.	0.	0.58
+ 2 COMBINED AT	P10	0.	42.00	0.	0.	0.	2.72
+ HYDROGRAPH AT	99	254.	13.50	66.	18.	6.	0.95
+ DIVERSION TO	99ret	254.	13.50	66.	18.	6.	0.95
+ HYDROGRAPH AT	99-O	0.	0.00	0.	0.	0.	0.95
+ HYDROGRAPH AT	101	42.	15.25	28.	8.	3.	0.38
+ DIVERSION TO	101ret	42.	15.25	28.	8.	3.	0.38
+ HYDROGRAPH AT	101-O	0.	0.00	0.	0.	0.	0.38
+ HYDROGRAPH AT	BICK	22.	0.00	7.	4.	3.	0.00

```
          ROUTED TO
+                        K7SK8        5.   20.25         5.         4.         3.      0.00
          HYDROGRAPH AT
+                           90      193.   15.25       136.        49.        17.      1.05
          DIVERSION TO
+                        90ret      193.   15.25       136.        48.        16.      1.05
          HYDROGRAPH AT
+                         90-O       13.   26.00         7.         2.         1.      1.05
          2 COMBINED AT
+                           K8       18.   26.00        12.         6.         4.      1.06
          HYDROGRAPH AT
+                          BICL       26.   16.00        21.        11.         7.      0.00
          ROUTED TO
+                         L5SL6       16.   19.50        15.        10.         7.      0.00
          HYDROGRAPH AT
+                           91      166.   15.25       114.        37.        13.      1.19
          DIVERSION TO
+                        91ret      166.   15.25       114.        35.        12.      1.19
          HYDROGRAPH AT
+                         91-O        9.   23.25         7.         3.         1.      1.19
          2 COMBINED AT
+                           L6       25.   20.25        21.        13.         8.      1.19


 *** NORMAL END OF HEC-1 ***
```

D.7.3 ..... HEC-1 Output File 100-Year 6-Hour

D.7.3.a HEC-1 Output File for 100-Year 6-Hour (Existing Conditions)

```
1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *             JUN   1998               *                                    *   HYDROLOGIC ENGINEERING CENTER      *
 *           VERSION 4.1                *                                    *         609 SECOND STREET            *
 *                                      *                                    *      DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   21MAR06  TIME  17:28:48  *                                    *          (916) 756-1104              *
 *                                      *                                    *                                      *
 ****************************************                                    ****************************************


                                        X     X  XXXXXXX   XXXXX           X
                                        X     X  X        X     X         XX
                                        X     X  X        X                X
                                        XXXXXXX  XXXX     X        XXXXX   X
                                        X     X  X        X                X
                                        X     X  X        X     X          X
                                        X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                   PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

            1           ID   Buckeye/Sun Valley ADMS - November 2004
            2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
            3           ID   100-year 6-hour
            4           ID   Existing Conditions
            5           ID   Area 1 - FRS to RID (East)
            6           ID   File Name: fre1006ex.hcl
            7           ID   Rainfall Loss Method - Green & Ampt
            8           ID   Unit Hydrograph Method - FCDMC S-Graph
            9           ID   Channel Routing Method - Normal Depth
           10           ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
           11           ID   Existing Land Use Cutoff Date: 2000
           12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
           13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                        *DIAGRAM
           14           IT      15 02JAN94       0     400
           15           IO       3
           16           IN      15 02JAN94       0
           17           JD     3.3     0.01
                        * 6-hour distribution, pattern 1.0
           18           PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
           19           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
           20           PC   0.962   0.972   0.983   0.991     1.0
           21           IN      15 02JAN94       0
           22           JD    3.28     0.5
                        * 6-hour distribution, pattern 1.0
```

```
 23          PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
 24          PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
 25          PC   0.962   0.972   0.983   0.991     1.0
 26          IN      15 02JAN94       0
 27          JD   3.257     1.0
             * 6-hour distribution, pattern 1.4
 28          PC     0.0  0.0084   0.016   0.025  0.0334  0.0414  0.0504  0.0584  0.0664  0.0748
 29          PC   0.087  0.0994  0.1188   0.148  0.2304  0.4067  0.7778  0.8813  0.9186  0.9452
 30          PC  0.9572  0.9684  0.9798  0.9898     1.0
 31          IN      15 02JAN94       0
 32          JD   3.168     5.0
             * 6-hour distribution, pattern 2.3
 33          PC     0.0   0.011  0.0173  0.0267  0.0387   0.049  0.0593  0.0693  0.0797  0.0903
 34          PC   0.103  0.1173  0.1383  0.1827  0.2693   0.458   0.686  0.8233  0.8893  0.9293
 35          PC  0.9487   0.962  0.9743  0.9877     1.0
 36          IN      15 02JAN94       0
 37          JD   3.102    10.0
             * 6-hour distribution, pattern 2.7
 38          PC     0.0  0.0134  0.0189  0.0287  0.0443  0.0574  0.0694  0.0818  0.0949  0.1076
 39          PC  0.1223  0.1382  0.1604  0.2063  0.2902  0.4664  0.6764  0.8069  0.8765  0.9189
 40          PC  0.9471  0.9608  0.9735  0.9873     1.0

 41          KK       6
 42          KM   ***********************************************************************
 43          KM   **   SUB-WATERSHED J   ***************************************************
 44          KM   ***********************************************************************
 45          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 46          KM   L=0.50      Lca=0.35      S=88.18      Kn=0.050      LAG=16
 47          KM   S-GRAPH TYPE=DESERT RANGELAND
 48          KO       0        0      0.0        1       22
1                                          HEC-1 INPUT                                          PAGE  2

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 49          BA  0.3175
 50          LG   0.327   0.359   5.257   0.239   8.065
 51          UI     0.0  367.81  364.77   72.06     0.0

 52          KK   J1-J2   CNAME      J1
 53          KM   ROUTE HYDRPGRAPH FROM J1 TO J2 (CHANNEL A)
 54          KO       0        0      0.0        0       22
 55          RS       3     FLOW      0.0      0.0
 56          RC   0.035    0.035   0.035 4135.69   0.004     0.0
 57          RX     0.0    250.0    500.0    750.0  1000.0  1333.3  1666.6  2000.0
 58          RY    10.0      7.5      5.0      2.5     0.0     3.3     6.6    10.0

 59          KK       8
 60          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 61          KM   L=1.22      Lca=0.56      S=14.80      Kn=0.050      LAG=37
 62          KM   S-GRAPH TYPE=DESERT RANGELAND
 63          KO       0        0      0.0        1       22
 64          BA  0.4136
 65          LG   0.277   0.319   4.104   0.445  23.066
 66          UI     0.0   80.26  286.14  333.87  188.89   92.75   45.37   21.43    9.16    9.16
 67          UI     0.0

 68          KK      J2   CNAME   J2-J3
 69          KM   COMBINE ROUTED HYDROGRAPH FROM J1 WITH RUNOFF FROM 8 @ J2
 70          KO       0        0      0.0        0       22
 71          HC       2

 72          KK   J2-J3   CNAME      J2
 73          KM   ROUTE HYDRPGRAPH FROM J2 TO J3 (CHANNEL B)
 74          KO       0        0      0.0        0       22
 75          RS       2     FLOW      0.0      0.0
 76          RC     0.1     0.02      0.1 3195.75   0.008     0.0
 77          RX     0.0   1000.0   1006.0   1010.0  1050.0  1054.0  1060.0  2060.0
 78          RY    10.0      0.0      0.0      1.0     1.0     0.0     0.0    10.0

 79          KK      20
 80          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 81          KM   L=1.57      Lca=0.79      S=16.56      Kn=0.200      LAG=183
 82          KM   S-GRAPH TYPE=AGRICULTURE
 83          KO       0        0      0.0        1       22
 84          BA  0.6645
 85          LG     1.0   0.252   3.974   0.479   0.015
 86          UI     0.0   13.39   13.39   19.84   32.21   58.26   78.88   74.24  102.61  104.94
 87          UI  112.49  112.49  112.49   97.49   93.74  105.07   70.56   74.86   64.48   51.13
 88          UI    43.2   37.84   40.14   25.57   22.34   20.44   16.54   15.85   12.23   12.23
 89          UI   10.59     7.6     7.6     7.6     7.6    2.62    1.67    1.67    1.67    1.67
 90          UI    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67
 91          UI    1.67    1.67    1.67    1.67    1.67     0.0

 92          KK      J3
 93          KM   COMBINE ROUTED HYDROGRAPH FROM J2 WITH RUNOFF FROM 20 @ J3
 94          ZW   A=FRE B=J3 C=FLOW E=15MIN F=100y6h-ex
 95          KO       0        0      0.0        0       22
 96          HC       2
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 97          KK       7
 98          KM   ***********************************************************************
 99          KM   **   SUB-WATERSHED K   ***************************************************
100          KM   ***********************************************************************
101          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
102          KM   L=0.74      Lca=0.30      S=73.02      Kn=0.050      LAG=18
103          KM   S-GRAPH TYPE=DESERT RANGELAND
104          KO       0        0      0.0        1       22
105          BA  0.4459
106          LG   0.336   0.345   4.134     0.4   4.384
107          UI     0.0  416.62  556.92   138.6   30.54     0.0

108          KK   K1-K2   CNAME      K1
109          KM   ROUTE HYDRPGRAPH FROM K1 TO K2 (CHANNEL A)
110          KO       0        0      0.0        0       22
111          RS       2     FLOW      0.0      0.0
112          RC   0.035    0.035   0.035  4162.2   0.011     0.0
113          RX     0.0    250.0    500.0    750.0  1000.0  1333.3  1666.6  2000.0
114          RY    10.0      7.5      5.0      2.5     0.0     3.3     6.6    10.0

115          KK       9
```

```
 116          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 117          KM   L=0.79      Lca=0.41      S=57.09      Kn=0.050      LAG=22
 118          KM   S-GRAPH TYPE=DESERT RANGELAND
 119          KO       0        0      0.0        1       22
 120          BA  0.6124
 121          LG   0.327    0.34    3.984    0.411    7.241
 122          UI     0.0  381.65  780.49  295.85   90.95    23.1      0.0

 123          KK      K2   CNAME   K2-K3
 124          KM   COMBINE ROUTED HYDROGRAPH FROM K1 WITH RUNOFF FROM 9 @ K2
 125          KO       0        0      0.0        0       22
 126          HC       2

 127          KK   K2-K3   CNAME      K2
 128          KM   ROUTE HYDRPGRAPH FROM K2 TO K3 (CHANNEL A)
 129          KO       0        0      0.0        0       22
 130          RS       3     FLOW      0.0      0.0
 131          RC     0.1      0.1      0.1 2881.52    0.009      0.0
 132          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
 133          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

 134          KK     21B
 135          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 136          KM   L=1.02      Lca=0.51      S=24.58      Kn=0.200      LAG=122
 137          KM   S-GRAPH TYPE=AGRICULTURE
 138          KO       0        0      0.0        1       22
 139          BA  0.2728
 140          LG     1.0     0.25    4.001    0.692      0.0
 141          UI     0.0     8.25    10.9     22.84    46.68    49.72    65.96    69.27    69.27    59.27
 142          UI   62.38    43.49    42.68    30.48    23.78    21.73    14.42    11.79      9.9     7.53
 143          UI    6.86     4.68     4.68     3.85     1.03     1.03     1.03     1.03     1.03     1.03
 144          UI    1.03     1.03     1.03     1.03     1.03     1.03     1.03      0.0
1                                              HEC-1 INPUT                                                    PAGE  4
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 145          KK     21A
 146          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 147          KM   L=1.43      Lca=0.71      S=39.92      Kn=0.200      LAG=144
 148          KM   S-GRAPH TYPE=AGRICULTURE
 149          KO       0        0      0.0        1       22
 150          BA  0.3660
 151          LG     1.0    0.277    3.998    0.641      0.0
 152          UI     0.0     9.37     9.37    19.83    40.15    53.93    61.02    74.01    78.73    78.73
 153          UI   73.49    65.61    68.76    49.43    50.09    36.19    29.11    28.02    20.17    15.8
 154          UI   13.32    11.58     8.92     8.56     6.38     5.32     5.32     4.82     1.17     1.17
 155          UI    1.17     1.17     1.17     1.17     1.17     1.17     1.17     1.17     1.17     1.17
 156          UI    1.17     1.17     1.17     1.17

 157          KK      K3
 158          KM   COMBINE ROUTED HYDROGRAPH FROM K2 WITH RUNOFF FROM 21A AND 21B @ K3
 159          ZW   A=FRE B=K3 C=FLOW E=15MIN F=100y6h-ex
 160          KO       0        0      0.0        0       22
 161          HC       3

 162          KK      10
 163          KM   ******************************************************************************
 164          KM   **   SUB-WATERSHED L   ***********************************************************
 165          KM   ******************************************************************************
 166          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 167          KM   L=1.77      Lca=1.27      S=46.29      Kn=0.050      LAG=47
 168          KM   S-GRAPH TYPE=PHOENIX VALLEY
 169          KO       0        0      0.0        1       22
 170          BA  1.1737
 171          LG   0.299    0.312    4.152    0.403   10.872
 172          UI     0.0   140.53   441.72    791.7   810.58   481.45   203.27    99.52    26.14    25.79
 173          UI     0.0

 174          KK   L1-L2   CNAME      L1
 175          KM   ROUTE HYDRPGRAPH FROM L1 TO L2 (CHANNEL B)
 176          KO       0        0      0.0        0       22
 177          RS       3     FLOW      0.0      0.0
 178          RC     0.1     0.02      0.1 2843.85     0.01      0.0
 179          RX     0.0   1000.0   1006.0   1010.0   1050.0   1054.0   1060.0   2060.0
 180          RY    10.0      0.0      0.0      1.0      1.0      0.0      0.0     10.0

 181          KK      22
 182          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 183          KM   L=1.54      Lca=0.77      S=18.14      Kn=0.200      LAG=178
 184          KM   S-GRAPH TYPE=AGRICULTURE
 185          KO       0        0      0.0        1       22
 186          BA  0.5572
 187          LG     1.0     0.25    4.002     0.55    0.185
 188          UI     0.0    11.54    11.54    17.99    29.44    52.71     67.8    67.77    85.72    96.69
 189          UI   96.97    96.97    94.81    80.81     85.6    77.44    60.61    65.99    46.03    41.71
 190          UI   33.66    34.96    25.72     20.5    18.65    14.65    14.26    10.94    10.54     9.89
 191          UI    6.55     6.55     6.55     6.55      2.6     1.44     1.44     1.44     1.44     1.44
 192          UI    1.44     1.44     1.44     1.44     1.44     1.44     1.44     1.44     1.44     1.44
 193          UI    1.44     1.44     1.44     1.44      0.0
1                                              HEC-1 INPUT                                                    PAGE  5
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 194          KK      L2
 195          KM   COMBINE ROUTED HYDROGRAPH FROM L1 WITH RUNOFF FROM 22 @ L2
 196          ZW   A=FRE B=L2 C=FLOW E=15MIN F=100y6h-ex
 197          KO       0        0      0.0        0       22
 198          HC       2

 199          KK     11C
 200          KM   ******************************************************************************
 201          KM   **   SUB-WATERSHED N   ***********************************************************
 202          KM   ******************************************************************************
 203          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 204          KM   L=0.99      Lca=0.31      S=54.38      Kn=0.050      LAG=22
 205          KM   S-GRAPH TYPE=PHOENIX VALLEY
 206          KO       0        0      0.0        1       22
 207          BA  0.3431
 208          LG    0.35     0.35    3.978      0.4      0.0
 209          UI     0.0   193.16   491.17   169.06    26.28      0.0

 210          KK  N1C-N2   CNAME     N1C
```

```
 211          KM   ROUTE HYDRPGRAPH FROM N1C TO N2 (CHANNEL A)
 212          KO       0       0     0.0       0      22
 213          RS       3    FLOW     0.0     0.0
 214          RC     0.1     0.1     0.1 3084.31    0.01     0.0
 215          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 216          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 217          KK     11A
 218          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 219          KM   L=0.57     Lca=0.33     S=83.95     Kn=0.050     LAG=16
 220          KM   S-GRAPH TYPE=PHOENIX VALLEY
 221          KO       0       0     0.0       1      22
 222          BA  0.5711
 223          LG    0.32   0.356   5.202   0.244   9.658
 224          UI     0.0   634.0  753.85   79.75     0.0

 225          KK   11A-O
 226          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 227          KO       0       0     0.0       0      22
 228          DT  11Aret   38.23     0.0
 229          DI     0.0  2000.0
 230          DQ     0.0  2000.0

 231          KK  N1A-1B   CNAME     N1A
 232          KM   ROUTE HYDRPGRAPH FROM N1A TO N1B (CHANNEL N1A-N1B)
 233          KO       0       0     0.0       0      22
 234          RS       3    FLOW     0.0     0.0
 235          RC    0.05    0.05    0.05  6236.1   0.009     0.0
 236          RX    10.0    16.0    26.0    56.0   106.0   197.0   289.0   380.0
 237          RY  1032.0  1032.0  1030.0  1028.0  1030.0 1030.67 1031.33  1032.0
1                                          HEC-1 INPUT                                                    PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 238          KK     11B
 239          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 240          KM   L=1.39     Lca=0.62     S=41.81     Kn=0.050     LAG=34
 241          KM   S-GRAPH TYPE=PHOENIX VALLEY
 242          KO       0       0     0.0       1      22
 243          BA  0.5806
 244          LG    0.35    0.35    4.28   0.363     0.0
 245          UI     0.0   139.8  417.05  566.92  261.85   79.39   20.36     0.0

 246          KK     N1B   CNAME  N1B-N2
 247          KM   COMBINE ROUTED HYDROGRAPH FROM N1A WITH RUNOFF FROM 11B @ N1B
 248          KO       0       0     0.0       0      22
 249          HC       2

 250          KK  N1B-N2   CNAME     N1B
 251          KM   ROUTE HYDRPGRAPH FROM N1B TO N2 (CHANNEL B)
 252          KO       0       0     0.0       0      22
 253          RS       6    FLOW     0.0     0.0
 254          RC     0.1    0.02     0.1 6966.87   0.003     0.0
 255          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 256          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 257          KK      23
 258          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 259          KM   L=1.32     Lca=0.66     S=15.92     Kn=0.200     LAG=161
 260          KM   S-GRAPH TYPE=AGRICULTURE
 261          KO       0       0     0.0       1      22
 262          BA  0.5238
 263          LG     1.0   0.248   3.965   0.472    0.99
 264          UI     0.0    12.0    12.0   21.84    37.1   66.56   66.18   91.21   93.73  100.79
 265          UI  100.79   96.31   83.99   89.61   70.63   67.07    55.1   45.41    35.3    36.1
 266          UI   26.28   20.77   18.42   14.82   13.33   10.95   10.95    7.15    6.81    6.81
 267          UI    6.81    1.78     1.5     1.5     1.5     1.5     1.5     1.5     1.5     1.5
 268          UI     1.5     1.5     1.5     1.5     1.5     1.5     1.5     1.5     1.5     0.0

 269          KK      N2
 270          KM   COMBINE ROUTED HYDROGRAPH FROM N1C AND N1B WITH RUNOFF FROM 23 @ N2
 271          ZW   A=FRE B=N2 C=FLOW E=15MIN F=100y6h-ex
 272          KO       0       0     0.0       0      22
 273          HC       3

 274          KK      12
 275          KM   ******************************************************************************
 276          KM   **   SUB-WATERSHED O   ***********************************************************
 277          KM   ******************************************************************************
 278          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 279          KM   L=0.96     Lca=0.41     S=83.03     Kn=0.050     LAG=22
 280          KM   S-GRAPH TYPE=PHOENIX VALLEY
 281          KO       0       0     0.0       1      23
 282          BA  0.7364
 283          LG   0.338   0.345   4.502   0.333   3.945
 284          UI     0.0  414.56 1054.13  362.82    56.4     0.0
1                                          HEC-1 INPUT                                                    PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 285          KK    12-O
 286          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 287          KO       0       0     0.0       0      22
 288          DT   12ret   49.02     0.0
 289          DI     0.0  2000.0
 290          DQ     0.0  2000.0

 291          KK   O1-O2   CNAME      O1
 292          KM   ROUTE HYDRPGRAPH FROM O1 TO O2 (CHANNEL A)
 293          KO       0       0     0.0       0      22
 294          RS       3    FLOW     0.0     0.0
 295          RC   0.035   0.035   0.035  2743.8   0.013     0.0
 296          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 297          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 298          KK      13
 299          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 300          KM   L=0.52     Lca=0.26     S=71.20     Kn=0.050     LAG=15
 301          KM   S-GRAPH TYPE=PHOENIX VALLEY
 302          KO       0       0     0.0       1      22
 303          BA  0.5012
 304          LG    0.35   0.364    5.14   0.247     0.0
```

```
 305          UI     0.0  646.99  594.12     0.0

 306          KK    13-O
 307          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 308          KO       0       0     0.0       0      22
 309          DT   13ret   41.08     0.0
 310          DI     0.0  2000.0
 311          DQ     0.0  2000.0

 312          KK      O2   CNAME   O2-O3
 313          KM   COMBINE ROUTED HYDROGRAPH FROM O1 WITH RUNOFF FROM 13 @ O2
 314          KO       0       0     0.0       0      22
 315          HC       2

 316          KK   O2-O3   CNAME      O2
 317          KM   ROUTE HYDRPGRAPH FROM O2 TO O3 (CHANNEL A)
 318          KO       0       0     0.0       0      22
 319          RS       2    FLOW     0.0     0.0
 320          RC   0.025   0.025   0.025 2814.95   0.011     0.0
 321          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 322          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 323          KK      24
 324          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 325          KM   L=0.53     Lca=0.27     S=56.27     Kn=0.050     LAG=16
 326          KM   S-GRAPH TYPE=DESERT RANGELAND
 327          KO       0       0     0.0       1      22
 328          BA   0.4891
 329          LG    0.312   0.276   4.586   0.365  11.258
 330          UI     0.0  566.65  561.96  111.02     0.0
1                                          HEC-1 INPUT                                                    PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 331          KK      O3   CNAME   O3-O4
 332          KM   COMBINE ROUTED HYDROGRAPH FROM O2 WITH RUNOFF FROM 24 @ O3
 333          KO       0       0     0.0       0      22
 334          HC       2

 335          KK   O3-O4   CNAME      O3
 336          KM   ROUTE HYDRPGRAPH FROM O3 TO O4 (CHANNEL A)
 337          KO       0       0     0.0       0      22
 338          RS       7    FLOW     0.0     0.0
 339          RC     0.1     0.1     0.1 4482.81   0.002     0.0
 340          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 341          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 342          KK      25
 343          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 344          KM   L=1.05     Lca=0.52     S=10.49     Kn=0.050     LAG=37
 345          KM   S-GRAPH TYPE=PHOENIX VALLEY
 346          KO       0       0     0.0       1      22
 347          BA   0.2742
 348          LG     1.0   0.285    4.14    0.39   1.288
 349          UI     0.0   55.33  162.01  264.09  147.51   51.88   16.57    7.65     0.0

 350          KK      O4
 351          KM   COMBINE ROUTED HYDROGRAPH FROM O3 WITH RUNOFF FROM 25 @ O4
 352          ZW   A=PRE B=O4 C=FLOW E=15MIN F=100y6h-ex
 353          KO       0       0     0.0       0      22
 354          HC       2

 355          KK     14A
 356          KM   ******************************************************************************
 357          KM   **   SUB-WATERSHED P   ******************************************************
 358          KM   ******************************************************************************
 359          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 360          KM   L=1.33     Lca=0.71     S=67.87     Kn=0.050     LAG=32
 361          KM   S-GRAPH TYPE=PHOENIX VALLEY
 362          KO       0       0     0.0       1      22
 363          BA   0.6923
 364          LG   0.335   0.344   4.262   0.368   4.726
 365          UI     0.0  188.49   580.0  653.03  260.73   74.32   22.34     0.0

 366          KK   14A-O
 367          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 368          KO       0       0     0.0       0      22
 369          DT  14Aret   41.08     0.0
 370          DI     0.0  2000.0
 371          DQ     0.0  2000.0

 372          KK  P1A-1B   CNAME     P1A
 373          KM   ROUTE HYDRPGRAPH FROM P1A TO P1B (CHANNEL A)
 374          KO       0       0     0.0       0      22
 375          RS       3    FLOW     0.0     0.0
 376          RC   0.035   0.035   0.035 3128.61    0.01     0.0
 377          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 378          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                                    PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 379          KK     14B
 380          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 381          KM   L=0.59     Lca=0.30     S=54.00     Kn=0.050     LAG=17
 382          KM   S-GRAPH TYPE=DESERT RANGELAND
 383          KO       0       0     0.0       1      22
 384          BA   0.5015
 385          LG    0.36   0.344   4.185   0.385     0.0
 386          UI     0.0  521.46  605.68  135.03   28.39     0.0

 387          KK   14B-O
 388          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 389          KO       0       0     0.0       0      22
 390          DT  14Bret   30.68     0.0
 391          DI     0.0  2000.0
 392          DQ     0.0  2000.0

 393          KK     P1B   CNAME  P1B-P2
 394          KM   COMBINE ROUTED HYDROGRAPH FROM P1A WITH RUNOFF FROM 14B @ P1B
 395          KO       0       0     0.0       0      22
 396          HC       2
```

```
397          KK  P1B-P2   CNAME     P1B
398          KM   ROUTE HYDRPGRAPH FROM P1B TO P2 (CHANNEL A)
399          KO       0       0     0.0       0      22
400          RS       2    FLOW     0.0     0.0
401          RC   0.025   0.025   0.025 4031.53   0.007     0.0
402          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
403          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

404          KK      26
405          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
406          KM   L=0.76      Lca=0.38      S=39.29      Kn=0.050      LAG=22
407          KM   S-GRAPH TYPE=PHOENIX VALLEY
408          KO       0       0     0.0       1      22
409          BA  0.5244
410          LG   0.304    0.26   4.048     0.4  13.801
411          UI     0.0  295.23   750.7  258.38   40.17     0.0

412          KK      P2   CNAME    zzz6
413          KM   COMBINE ROUTED HYDROGRAPH FROM P1B WITH RUNOFF FROM 26 @ P2
414          ZW   A=FRE B=P2 C=FLOW E=15MIN F=100y6h-ex
415          KO       0       0     0.0       0      22
416          HC       2

417          KK      83
418          KM   ******************************************************************************
419          KM   **   SUB-WATERSHED Q   ******************************************************
420          KM   ******************************************************************************
421          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
422          KM   L=1.72      Lca=0.93      S=64.69      Kn=0.050      LAG=39
423          KM   S-GRAPH TYPE=DESERT RANGELAND
424          KO       0       0     0.0       3      22
425          BA  0.6752
426          LG   0.341   0.375   5.438   0.214   2.801
1                                        HEC-1 INPUT                                                    PAGE 10

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

427          UI     0.0  115.92  423.38  535.16  330.25  168.58    85.8   44.93   16.84   14.19
428          UI     0.0

429          KK    83-O
430          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
431          KO       0       0     0.0       0      22
432          DT   83ret   31.99     0.0
433          DI     0.0  2000.0
434          DQ     0.0  2000.0
435          ZZ
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	6	583.	4.25	59.	15.	5.	0.32		
+	ROUTED TO	J1-J2	401.	4.75	59.	15.	5.	0.32		
+	HYDROGRAPH AT	8	508.	4.75	82.	21.	7.	0.41		
+	2 COMBINED AT	J2	849.	4.75	135.	34.	11.	0.73		
+	ROUTED TO	J2-J3	631.	5.00	134.	34.	11.	0.73		
+	HYDROGRAPH AT	20	115.	6.75	67.	18.	6.	0.66		
+	2 COMBINED AT	J3	631.	5.25	186.	49.	16.	1.40		
+	HYDROGRAPH AT	7	734.	4.50	72.	18.	6.	0.45		
+	ROUTED TO	K1-K2	566.	4.75	72.	18.	6.	0.45		
+	HYDROGRAPH AT	9	1005.	4.50	100.	25.	8.	0.61		
+	2 COMBINED AT	K2	1238.	4.50	158.	40.	13.	1.06		
+	ROUTED TO	K2-K3	925.	5.00	158.	40.	13.	1.06		
+	HYDROGRAPH AT	21B	67.	5.75	28.	7.	2.	0.27		
+	HYDROGRAPH AT	21A	77.	6.00	37.	10.	3.	0.37		
+	3 COMBINED AT	K3	925.	5.00	194.	49.	16.	1.70		
+	HYDROGRAPH AT	10	1073.	4.75	191.	48.	16.	1.17		
+	ROUTED TO	L1-L2	991.	5.25	190.	48.	16.	1.17		
+	HYDROGRAPH AT	22	99.	6.50	57.	15.	5.	0.56		
+	2 COMBINED AT	L2	991.	5.25	224.	58.	19.	1.73		

```
+       HYDROGRAPH AT
                  11C      640.   4.50      52.      13.       4.     0.34
+       ROUTED TO
                N1C-N2     329.   5.00      52.      13.       4.     0.34
+       HYDROGRAPH AT
                  11A     1038.   4.50     107.      27.       9.     0.57
+       DIVERSION TO
               11Aret     1017.   4.25      77.      19.       6.     0.57
+       HYDROGRAPH AT
                 11A-O      488.   4.50      30.       8.       3.     0.57
+       ROUTED TO
               N1A-1B      189.   5.00      30.       8.       3.     0.57
+       HYDROGRAPH AT
                  11B      744.   4.75      88.      22.       7.     0.58
+       2 COMBINED AT
                  N1B      684.   4.75     103.      26.       9.     1.15
+       ROUTED TO
               N1B-N2      303.   6.25      98.      26.       9.     1.15
+       HYDROGRAPH AT
                   23      112.   6.50      59.      16.       5.     0.52
+       3 COMBINED AT
                   N2      364.   6.25     169.      45.      15.     2.02
+       HYDROGRAPH AT
                   12     1300.   4.50     118.      29.      10.     0.74
+       DIVERSION TO
                12ret     1300.   4.50      99.      25.       8.     0.74
+       HYDROGRAPH AT
                 12-O      328.   4.75      19.       5.       2.     0.74
+       ROUTED TO
               O1-O2      198.   5.00      19.       5.       2.     0.74
+       HYDROGRAPH AT
                   13      971.   4.25      82.      21.       7.     0.50
+       DIVERSION TO
                13ret      971.   4.25      82.      21.       7.     0.50
+       HYDROGRAPH AT
                 13-O        0.   0.00       0.       0.       0.     0.50
+       2 COMBINED AT
                   O2      198.   5.25      22.       6.       2.     1.24
+       ROUTED TO
               O2-O3       92.   5.25      13.       3.       1.     1.24
+       HYDROGRAPH AT
                   24      881.   4.25      90.      22.       7.     0.49
+       2 COMBINED AT
                   O3      668.   4.25      88.      22.       7.     1.73
+       ROUTED TO
               O3-O4      281.   5.75      86.      22.       7.     1.73
+       HYDROGRAPH AT
                   25      301.   4.75      34.       9.       3.     0.27
+       2 COMBINED AT
                   O4      281.   5.75     108.      28.       9.     2.00
+       HYDROGRAPH AT
                  14A      846.   4.75     110.      28.       9.     0.69
+       DIVERSION TO
               14Aret      822.   4.50      83.      21.       7.     0.69
+       HYDROGRAPH AT
                14A-O      370.   5.00      28.       7.       2.     0.69
+       ROUTED TO
               P1A-1B      238.   5.25      28.       7.       2.     0.69
+       HYDROGRAPH AT
                  14B      786.   4.50      77.      19.       6.     0.50
+       DIVERSION TO
               14Bret      746.   4.25      62.      15.       5.     0.50
+       HYDROGRAPH AT
                14B-O      189.   4.75      15.       4.       1.     0.50
+       2 COMBINED AT
                  P1B      239.   5.50      38.       9.       3.     1.19
+       ROUTED TO
               P1B-P2      140.   5.75      27.       7.       2.     1.19
+       HYDROGRAPH AT
                   26     1060.   4.50     100.      25.       8.     0.52
+       2 COMBINED AT
                   P2      791.   4.50     108.      27.       9.     1.72
+       HYDROGRAPH AT
                   83      781.   4.75     117.      29.      10.     0.68
+       DIVERSION TO
                83ret      672.   4.50      65.      16.       5.     0.68
```

```
          HYDROGRAPH AT
+                         83-O       507.    5.00          53.         13.          4.       0.68


 *** NORMAL END OF HEC-1 ***
1*************************************                                                    *************************************
 *                                   *                                                    *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                                    *   U.S. ARMY CORPS OF ENGINEERS    *
 *              JUN   1998           *                                                    *   HYDROLOGIC ENGINEERING CENTER   *
 *            VERSION 4.1            *                                                    *         609 SECOND STREET         *
 *                                   *                                                    *      DAVIS, CALIFORNIA 95616      *
 *  RUN DATE   23MAR06  TIME  05:23:43  *                                                    *          (916) 756-1104           *
 *                                   *                                                    *                                   *
 *************************************                                                    *************************************


                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X        XX
                                                X     X  X        X              X
                                                XXXXXXX  XXXX     X        XXXXX  X
                                                X     X  X        X              X
                                                X     X  X        X     X        X
                                                X     X  XXXXXXX   XXXXX        XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                          PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

            1           ID   Buckeye/Sun Valley ADMS - November 2004
            2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
            3           ID   100-year 6-hour
            4           ID   Existing Conditions
            5           ID   Area 1 - FRS to RID (West)
            6           ID   File Name: frw1006ex.hcl
            7           ID   Rainfall Loss Method - Green & Ampt
            8           ID   Unit Hydrograph Method - FCDMC S-Graph
            9           ID   Channel Routing Method - Normal Depth
           10           ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
           11           ID   Existing Land Use Cutoff Date: 2000
           12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
           13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                        *DIAGRAM
           14           IT      15 02JAN94       0     400
           15           IO       3
           16           IN      15 02JAN94       0
           17           JD   3.301    0.01
                        * 6-hour distribution, pattern 1.0
           18           PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
           19           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
           20           PC   0.962   0.972   0.983   0.991     1.0
           21           IN      15 02JAN94       0
           22           JD   3.282     0.5
                        * 6-hour distribution, pattern 1.0
           23           PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
           24           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
           25           PC   0.962   0.972   0.983   0.991     1.0
           26           IN      15 02JAN94       0
           27           JD   3.258     1.0
                        * 6-hour distribution, pattern 1.4
           28           PC     0.0  0.0084   0.016   0.025  0.0334  0.0414  0.0504  0.0584  0.0664  0.0748
           29           PC   0.087  0.0994  0.1188   0.148  0.2304  0.4067  0.7778  0.8813  0.9186  0.9452
           30           PC  0.9572  0.9684  0.9798  0.9898     1.0
           31           IN      15 02JAN94       0
           32           JD   3.169     5.0
                        * 6-hour distribution, pattern 2.3
           33           PC     0.0   0.011  0.0173  0.0267  0.0387   0.049  0.0593  0.0693  0.0797  0.0903
           34           PC   0.103  0.1173  0.1383  0.1827  0.2693   0.458   0.686  0.8233  0.8893  0.9293
           35           PC  0.9487   0.962  0.9743  0.9877     1.0
           36           IN      15 02JAN94       0
           37           JD   3.103    10.0
                        * 6-hour distribution, pattern 2.7
           38           PC     0.0  0.0134  0.0189  0.0287  0.0443  0.0574  0.0694  0.0818  0.0949  0.1076
           39           PC  0.1223  0.1382  0.1604  0.2063  0.2902  0.4664  0.6764  0.8069  0.8765  0.9189
           40           PC  0.9471  0.9608  0.9735  0.9873     1.0

           41           KK     15A
           42           KM   ***********************************************************************
           43           KM   **   SUB-WATERSHED F   ***************************************************
           44           KM   ***********************************************************************
           45           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
           46           KM   L=1.45      Lca=0.48      S=34.58      Kn=0.050      LAG=32
           47           KM   S-GRAPH TYPE=DESERT RANGELAND
           48           KO       0        0     0.0        1       22
1                                                   HEC-1 INPUT                                                          PAGE  2

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

           49           BA  0.5884
           50           LG   0.358   0.324   4.419   0.391   2.373
           51           UI     0.0  159.68  521.91  464.14  211.81   93.26   40.28   15.07     0.0

           52           KK  F1A-1B   CNAME     F1A
           53           KM   ROUTE HYDRPGRAPH FROM F1A TO F1B (CHANNEL A)
           54           KO       0        0     0.0        0       22
           55           RS       6     FLOW     0.0      0.0
           56           RC     0.1      0.1     0.1 4677.52  0.0039     0.0
           57           RX     0.0    250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
           58           RY    10.0      7.5     5.0     2.5     0.0     3.3     6.6    10.0
```

```
 59          KK     15B
 60          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 61          KM   L=1.63     Lca=0.82     S=11.02     Kn=0.200     LAG=204
 62          KM   S-GRAPH TYPE=AGRICULTURE
 63          KO       0        0     0.0        1       22
 64          BA  0.8162
 65          LG     1.0    0.249    4.099    0.541    0.367
 66          UI     0.0    14.76    14.76    17.09    30.99    47.18    76.64     88.0    87.38   112.97
 67          UI  117.57   123.95   123.95   123.95   115.68   103.29   110.31   103.29    77.47    83.74
 68          UI   71.03    56.34    50.16    42.61    44.75    34.88    27.48    23.84    21.64    18.23
 69          UI   17.85    13.47    13.47    13.47     8.62     8.37     8.37     8.37     8.37     2.37
 70          UI    1.84     1.84     1.84     1.84     1.84     1.84     1.84     1.84     1.84     1.84
 71          UI    1.84     1.84     1.84     1.84     1.84     1.84     1.84     1.84     1.84     1.84
 72          UI    1.84      0.0

 73          KK     F1B
 74          KM   COMBINE ROUTED HYDROGRAPH FROM F1A WITH RUNOFF FROM 15B @ F1B
 75          ZW   A=FRW B=F1B C=FLOW E=15MIN F=100y6h-ex
 76          KO       0        0     0.0        0       22
 77          HC       2

 78          KK       2
 79          KM   ***************************************************************************
 80          KM   **    SUB-WATERSHED G    ****************************************************
 81          KM   ***************************************************************************
 82          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 83          KM   L=2.02     Lca=0.86     S=45.95     Kn=0.050     LAG=43
 84          KM   S-GRAPH TYPE=DESERT RANGELAND
 85          KO       0        0     0.0        1       22
 86          BA  1.2330
 87          LG   0.338    0.339    3.994    0.443    5.585
 88          UI     0.0   169.22   637.96   900.62   677.78   370.08   199.82   108.84    58.92     23.5
 89          UI    23.5      0.0

 90          KK       1
 91          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 92          KM   L=2.61     Lca=1.54     S=34.86     Kn=0.050     LAG=62
 93          KM   S-GRAPH TYPE=DESERT RANGELAND
 94          KO       0        0     0.0        1       22
 95          BA  1.6264
 96          LG   0.347    0.329    4.334    0.398    5.884
 97          UI     0.0    96.49    378.3   680.74   834.28    747.2   509.62   334.33   217.16   147.44
 98          UI   90.69    60.46    32.88     21.5     21.5     21.5      0.0
1                                          HEC-1 INPUT                                                PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 99          KK      G2   CNAME   G2-G3
100          KM   COMBINE RUNOFF HYDROGRAPH FROM 1 AND 2 @ G2
101          KO       0        0     0.0        0       22
102          HC       2

103          KK   G2-G3   CNAME      G2
104          KM   ROUTE HYDRPGRAPH FROM G1 TO G2 (CHANNEL A)
105          KO       0        0     0.0        0       22
106          RS       9     FLOW     0.0      0.0
107          RC     0.1      0.1     0.1   3231.1    0.005      0.0
108          RX     0.0    250.0   500.0    750.0   1000.0   1333.3   1666.6   2000.0
109          RY    10.0      7.5     5.0      2.5      0.0      3.3      6.6     10.0

110          KK      16
111          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
112          KM   L=2.00     Lca=1.37     S=24.99     Kn=0.050     LAG=57
113          KM   S-GRAPH TYPE=PHOENIX VALLEY
114          KO       0        0     0.0        1       22
115          BA  0.9506
116          LG   0.208     0.25    4.398    0.438   45.683
117          UI     0.0    72.32   253.63   387.42   637.63    477.5   314.11   154.95    79.28    36.56
118          UI   17.22    17.22      0.0

119          KK      G3
120          KM   COMBINE ROUTED HYDROGRAPH FROM G2 WITH RUNOFF FROM 16 @ G3
121          ZW   A=FRW B=G3 C=FLOW E=15MIN F=100y6h-ex
122          KO       0        0     0.0        0       22
123          HC       2

124          KK       4
125          KM   ***************************************************************************
126          KM   **    SUB-WATERSHED H    ****************************************************
127          KM   ***************************************************************************
128          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
129          KM   L=1.38     Lca=0.74     S=40.65     Kn=0.050     LAG=36
130          KM   S-GRAPH TYPE=DESERT RANGELAND
131          KO       0        0     0.0        1       22
132          BA  0.5493
133          LG   0.306    0.332    4.023    0.485   14.545
134          UI     0.0   113.24   399.98   445.83   240.22   115.51    55.22    25.12     12.5      0.0

135          KK   H1-H2   CNAME      H1
136          KM   ROUTE HYDRPGRAPH FROM H1 TO H2 (CHANNEL C)
137          KO       0        0     0.0        0       22
138          RS       2     FLOW     0.0      0.0
139          RC   0.035    0.035   0.035   5802.98   0.0050      0.0
140          RX     0.0      2.0    12.0    112.0    212.0    312.0    412.0    512.0
141          RY     5.0      5.0     0.0      1.0      2.0      3.0      4.0      5.0
1                                          HEC-1 INPUT                                                PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

142          KK       3
143          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
144          KM   L=2.04     Lca=1.39     S=39.22     Kn=0.050     LAG=53
145          KM   S-GRAPH TYPE=DESERT RANGELAND
146          KO       0        0     0.0        1       22
147          BA  1.6478
148          LG     1.0    0.298    4.027    0.546     4.13
149          UI     0.0   141.45   544.37   909.46   962.94    667.1   407.91   246.66   151.83    89.96
150          UI   55.64    25.48    25.48      0.0

151          KK      H2   CNAME   H2-H3
152          KM   COMBINE ROUTED HYDROGRAPH FROM H1 WITH RUNOFF FROM 3 @ H2
```

```
 153          KO       0       0     0.0       0      22
 154          HC       2

 155          KK   H2-H3   CNAME      H2
 156          KM   ROUTE HYDROGRAPH FROM H2 TO H3 (CHANNEL B)
 157          KO       0       0     0.0       0      22
 158          RS       2    FLOW     0.0     0.0
 159          RC     0.1    0.02     0.1 3094.42   0.007     0.0
 160          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 161          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 162          KK      17
 163          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 164          KM   L=1.43     Lca=0.71     S=16.84     Kn=0.200     LAG=169
 165          KM   S-GRAPH TYPE=AGRICULTURE
 166          KO       0       0     0.0       1      22
 167          BA  0.6065
 168          LG     1.0    0.25   4.017   0.464   0.168
 169          UI     0.0   13.23   13.23   22.46   37.19   65.58   77.31   86.16   104.5  111.17
 170          UI  111.17  111.17   97.58   93.45   98.99   69.48   77.29   53.37   48.38   38.62
 171          UI   40.28   28.19   22.96   20.73   16.35   15.44   12.08   12.08    9.24    7.51
 172          UI    7.51    7.51    4.86    1.65    1.65    1.65    1.65    1.65    1.65    1.65
 173          UI    1.65    1.65    1.65    1.65    1.65    1.65    1.65    1.65    1.65    1.65
 174          UI    1.65     0.0

 175          KK      H3
 176          KM   COMBINE ROUTED HYDROGRAPH FROM H2 WITH RUNOFF FROM 17 @ H3
 177          ZW   A=FRW B=H3 C=FLOW E=15MIN F=100y6h-ex
 178          KO       0       0     0.0       0      22
 179          HC       2

 180          KK      5A
 181          KM   ******************************************************************************
 182          KM   **   SUB-WATERSHED I   ******************************************************
 183          KM   ******************************************************************************
 184          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 185          KM   L=1.75     Lca=1.16     S=49.05     Kn=0.050     LAG=45
 186          KM   S-GRAPH TYPE=DESERT RANGELAND
 187          KO       0       0     0.0       1      22
 188          BA  1.1721
 189          LG   0.333   0.342   4.333   0.387   5.983
 190          UI     0.0  144.96  551.31  816.54  667.55  378.63  210.18  117.93   66.22   28.93
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 191          UI   21.34   21.34

 192          KK  I1AI2A   CNAME     I1A
 193          KM   ROUTE HYDROGRAPH FROM I1A TO I2A (CHANNEL B)
 194          KO       0       0     0.0       0      22
 195          RS       3    FLOW     0.0     0.0
 196          RC     0.1    0.02     0.1 3507.57  0.0046     0.0
 197          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 198          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 199          KK      18
 200          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 201          KM   L=1.81     Lca=0.75     S=30.99     Kn=0.200     LAG=168
 202          KM   S-GRAPH TYPE=AGRICULTURE
 203          KO       0       0     0.0       1      22
 204          BA  0.7963
 205          LG     1.0   0.291   4.134   0.479   0.124
 206          UI     0.0   17.48   17.48   29.94   49.63   87.36  102.05  117.46  136.55  146.83
 207          UI  146.83  146.83  127.25  125.29  126.27   91.77  100.28   69.84   62.39   50.62
 208          UI   54.06   34.48   29.67   26.48   21.59   19.96   15.96   15.96   11.23    9.92
 209          UI    9.92    9.92    4.97    2.18    2.18    2.18    2.18    2.18    2.18    2.18
 210          UI    2.18    2.18    2.18    2.18    2.18    2.18    2.18    2.18    2.18    2.18
 211          UI    2.18     0.0

 212          KK     I2A
 213          KM   COMBINE ROUTED HYDROGRAPH FROM I1A WITH RUNOFF FROM 18 @ I2A
 214          ZW   A=FRW B=I2A C=FLOW E=15MIN F=100y6h-ex
 215          KO       0       0     0.0       0      22
 216          HC       2

 217          KK      5B
 218          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 219          KM   L=1.73     Lca=1.08     S=38.66     Kn=0.050     LAG=46
 220          KM   S-GRAPH TYPE=DESERT RANGELAND
 221          KO       0       0     0.0       1      22
 222          BA  0.5758
 223          LG   0.318   0.336   4.606   0.319  10.551
 224          UI     0.0   67.57  258.59  391.25   331.8   192.8  107.92   61.59   34.35   17.29
 225          UI   10.26   10.26     0.0

 226          KK  I1BI2B   CNAME     I1B
 227          KM   ROUTE HYDROGRAPH FROM I1B TO I2B (CHANNEL A)
 228          KO       0       0     0.0       0      22
 229          RS       1    FLOW     0.0     0.0
 230          RC     0.1     0.1     0.1 4972.04  0.0047     0.0
 231          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 232          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 233          KK      19
 234          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 235          KM   L=1.51     Lca=0.76     S=18.49     Kn=0.200     LAG=174
 236          KM   S-GRAPH TYPE=AGRICULTURE
 237          KO       0       0     0.0       1      22
 238          BA  0.5356
 239          LG     1.0   0.249   3.962   0.435   0.567
1                                          HEC-1 INPUT                                          PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 240          UI     0.0   11.35   11.35    18.4   30.26    53.8   66.51   69.61   86.78   95.36
 241          UI   95.36   95.36    89.0   79.47   84.42   69.18   61.85   57.97   43.57    37.1
 242          UI    32.1   33.09   21.67   18.47   16.39   14.02   12.27   10.37   10.37    7.18
 243          UI    6.44    6.44    6.44    3.83    1.42    1.42    1.42    1.42    1.42    1.42
 244          UI    1.42    1.42    1.42    1.42    1.42    1.42    1.42    1.42    1.42    1.42
 245          UI    1.42    1.42     0.0

 246          KK     I2B
 247          KM   COMBINE ROUTED HYDROGRAPH FROM I1B WITH RUNOFF FROM 19 @ I2B
```

```
248          ZW   A=FRW B=I2B C=FLOW E=15MIN F=100y6h-EX
249          KO       0       0     0.0       0      22
250          HC       2


251          ZZ
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	15A	711.	4.50	90.	23.	8.	0.59		
+	ROUTED TO	F1A-1B	363.	5.75	90.	23.	8.	0.59		
+	HYDROGRAPH AT	15B	114.	7.00	72.	20.	7.	0.82		
+	2 COMBINED AT	F1B	376.	5.75	141.	37.	12.	1.40		
+	HYDROGRAPH AT	2	1048.	4.75	173.	43.	14.	1.23		
+	HYDROGRAPH AT	1	1004.	5.00	229.	57.	19.	1.63		
+	2 COMBINED AT	G2	1652.	4.75	362.	91.	30.	2.86		
+	ROUTED TO	G2-G3	1572.	5.25	362.	91.	30.	2.86		
+	HYDROGRAPH AT	16	1049.	5.00	227.	57.	19.	0.95		
+	2 COMBINED AT	G3	2197.	5.25	546.	140.	47.	3.81		
+	HYDROGRAPH AT	4	614.	4.75	94.	24.	8.	0.55		
+	ROUTED TO	H1-H2	438.	5.00	93.	24.	8.	0.55		
+	HYDROGRAPH AT	3	715.	5.00	139.	35.	12.	1.65		
+	2 COMBINED AT	H2	991.	5.00	207.	52.	17.	2.20		
+	ROUTED TO	H2-H3	825.	5.25	206.	52.	17.	2.20		
+	HYDROGRAPH AT	17	118.	6.50	65.	17.	6.	0.61		
+	2 COMBINED AT	H3	820.	5.50	239.	62.	21.	2.80		
+	HYDROGRAPH AT	5A	1008.	4.75	174.	44.	15.	1.17		
+	ROUTED TO	I1AI2A	795.	5.25	173.	44.	15.	1.17		
+	HYDROGRAPH AT	18	136.	6.50	74.	20.	7.	0.80		
+	2 COMBINED AT	I2A	795.	5.25	221.	57.	19.	1.97		
+	HYDROGRAPH AT	5B	602.	4.75	105.	26.	9.	0.58		
+	ROUTED TO	I1BI2B	234.	5.50	96.	26.	9.	0.58		
+	HYDROGRAPH AT	19	108.	6.50	60.	16.	5.	0.54		
+	2 COMBINED AT	I2B	275.	5.50	140.	38.	13.	1.11		

```
*** NORMAL END OF HEC-1 ***
1****************************************
 *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
 *              JUN   1998              *
 *            VERSION 4.1               *
 *                                      *
 *  RUN DATE   23MAR06  TIME  04:54:46  *
 *                                      *
 ****************************************

****************************************
*                                      *
*   U.S. ARMY CORPS OF ENGINEERS       *
*   HYDROLOGIC ENGINEERING CENTER      *
*         609 SECOND STREET            *
*      DAVIS, CALIFORNIA 95616         *
*          (916) 756-1104              *
*                                      *
****************************************

X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X        XXXXX X
X     X  X        X              X
X     X  X        X     X        X
```

```
                                        X     X  XXXXXXX   XXXXX          XXX


THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE; NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                    PAGE  1

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

    1           ID   Buckeye/Sun Valley ADMS - November 2004
    2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
    3           ID   100-year 6-hour
    4           ID   Existing Conditions
    5           ID   Area 1 - RID to BIC (East)
    6           ID   File Name: rbe1006ex.hc1
    7           ID   Rainfall Loss Method - Green & Ampt
    8           ID   Unit Hydrograph Method - FCDMC S-Graph
    9           ID   Channel Routing Method - Normal Depth
   10           ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
   11           ID   Existing Land Use Cutoff Date: 2000
   12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
   13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                *DIAGRAM
   14           IT       15 02JAN94        0      400
   15           IO        3
   16           IN       15 02JAN94        0
   17           JD      3.3     0.01
                * 6-hour distribution, pattern 1.0
   18           PC      0.0    0.008    0.016    0.025    0.033    0.041     0.05    0.058    0.066    0.074
   19           PC    0.087    0.099    0.118    0.138    0.216    0.377    0.834    0.911    0.931     0.95
   20           PC    0.962    0.972    0.983    0.991      1.0
   21           IN       15 02JAN94        0
   22           JD     3.28      0.5
                * 6-hour distribution, pattern 1.0
   23           PC      0.0    0.008    0.016    0.025    0.033    0.041     0.05    0.058    0.066    0.074
   24           PC    0.087    0.099    0.118    0.138    0.216    0.377    0.834    0.911    0.931     0.95
   25           PC    0.962    0.972    0.983    0.991      1.0
   26           IN       15 02JAN94        0
   27           JD    3.257      1.0
                * 6-hour distribution, pattern 1.4
   28           PC      0.0   0.0084    0.016    0.025   0.0334   0.0414   0.0504   0.0584   0.0664   0.0748
   29           PC    0.087   0.0994   0.1188    0.148   0.2304   0.4067   0.7778   0.8813   0.9186   0.9452
   30           PC   0.9572   0.9684   0.9798   0.9898      1.0
   31           IN       15 02JAN94        0
   32           JD    3.168      5.0
                * 6-hour distribution, pattern 2.3
   33           PC      0.0    0.011   0.0173   0.0267   0.0387    0.049   0.0593   0.0693   0.0797   0.0903
   34           PC    0.103   0.1173   0.1383   0.1827   0.2693    0.458    0.686   0.8233   0.8893   0.9293
   35           PC   0.9487    0.962   0.9743   0.9877      1.0
   36           IN       15 02JAN94        0
   37           JD    3.102     10.0
                * 6-hour distribution, pattern 2.7
   38           PC      0.0   0.0134   0.0189   0.0287   0.0443   0.0574   0.0694   0.0818   0.0949   0.1076
   39           PC   0.1223   0.1382   0.1604   0.2063   0.2902   0.4664   0.6764   0.8069   0.8765   0.9189
   40           PC   0.9471   0.9608   0.9735   0.9873      1.0

   41           KK   RIDKB
   42           KM   ******************************************************************************
   43           KM   **   SUB-WATERSHED K   ******************************************************
   44           KM   ******************************************************************************
   45           KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
   46           BA  0.0001
   47           ZR  =QI A=RID RID B=38999 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-100-06E
1                                                HEC-1 INPUT                                                    PAGE  2

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


   48           KK  K3SBK4   CNAME    K3SB
   49           KM   ROUTE INFLOW FROM RID CONCENTRATED AT K3SB TO K4 (CHANNEL A)
   50           KO       0        0      0.0        0       22
   51           RS       1     FLOW      0.0      0.0
   52           RC     0.1      0.1      0.1  3026.00   0.0090      0.0
   53           RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
   54           RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

   55           KK   RIDKA
   56           KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
   57           BA  0.0001
   58           ZR  =QI A=RID RID B=35599 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-100-06E

   59           KK  K3SAK4   CNAME    K3SA
   60           KM   ROUTE INFLOW FROM RID CONCENTRATED AT K3SA TO K4 (CHANNEL A)
   61           KO       0        0      0.0        0       22
   62           RS       1     FLOW      0.0      0.0
   63           RC     0.1      0.1      0.1  4868.00   0.0049      0.0
   64           RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
   65           RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

   66           KK      34
   67           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
   68           KM   L=1.23      Lca=0.62      S=19.48      Kn=0.200      LAG=148
   69           KM   S-GRAPH TYPE=AGRICULTURE
   70           KO       0        0      0.0        1       22
   71           BA  0.6373
   72           LG     1.0    0.245    3.994    0.565     2.07
   73           UI     0.0    15.88    15.88    32.09    63.99     91.6    96.57   124.21    133.4    133.4
   74           UI  130.44   111.17   119.11    90.18    91.45    64.03     55.3    45.36    44.06    29.14
   75           UI   25.65     19.8    18.12     14.5    14.37     9.01     9.01     9.01     6.39     1.99
   76           UI    1.99     1.99     1.99     1.99     1.99     1.99     1.99     1.99     1.99     1.99
   77           UI    1.99     1.99     1.99     1.99     1.99      0.0

   78           KK      K4   CNAME   K4-K5
   79           KM   COMBINE ROUTED HYDROGRAPH FROM K3SA AND K3SB WITH RUNOFF FROM 34 @ K4
   80           KO       0        0      0.0        0       22
```

```
 81          HC       3

 82          KK   K4-K5   CNAME      K4
 83          KM   ROUTE HYDRPGRAPH FROM K4 TO K5 (CHANNEL B)
 84          KO       0       0     0.0       0      22
 85          RS       5    FLOW     0.0     0.0
 86          RC     0.1    0.02     0.1 5283.85  0.008     0.0
 87          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 88          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 89          KK      35
 90          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 91          KM   L=1.96     Lca=0.98     S=33.61     Kn=0.200     LAG=190
 92          KM   S-GRAPH TYPE=AGRICULTURE
 93          KO       0       0     0.0       1      22
 94          BA  1.5042
 95          LG     1.0    0.25   3.978   0.486   3.315
1                                        HEC-1 INPUT                                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 96          UI     0.0    29.2    29.2   40.11   64.31  118.19   168.6  157.36  214.59  220.72
 97          UI  245.24  245.24  245.24  231.62  204.37  217.31  195.85  153.28  172.28  118.39
 98          UI  111.47   87.32   83.63   81.72   55.74   47.73   43.98   36.07   34.81   26.66
 99          UI   26.66   24.44   16.57   16.57   16.57   16.57    9.68    3.65    3.65    3.65
100          UI    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65
101          UI    3.65    3.65    3.65    3.65    3.65    3.65    3.65     0.0

102          KK      K5   CNAME   K5-K6
103          KM   COMBINE ROUTED HYDROGRAPH FROM K4 WITH RUNOFF FROM 35 @ K5
104          KO       0       0     0.0       0      22
105          HC       2

106          KK   K5-K6   CNAME      K5
107          KM   ROUTE HYDRPGRAPH FROM K5 TO K6 (CHANNEL B)
108          KO       0       0     0.0       0      22
109          RS       5    FLOW     0.0     0.0
110          RC     0.1    0.02     0.1 6533.09  0.006     0.0
111          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
112          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

113          KK      46
114          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
115          KM   L=1.79     Lca=0.89     S=25.18     Kn=0.200     LAG=186
116          KM   S-GRAPH TYPE=AGRICULTURE
117          KO       0       0     0.0       1      22
118          BA  1.3812
119          LG     1.0   0.258   4.186   0.469   2.565
120          UI     0.0   27.39   27.39   39.31   63.49  115.59   161.6  146.46  213.71  205.72
121          UI  230.03  230.03  230.03  207.03   191.7   205.8  165.51  147.93  146.17  106.95
122          UI   95.42    79.2   83.87   59.37   48.74   44.24   35.62   33.83   27.47    25.0
123          UI    25.0   16.79   15.54   15.54   15.54   12.15    3.42    3.42    3.42    3.42
124          UI    3.42    3.42    3.42    3.42    3.42    3.42    3.42    3.42    3.42    3.42
125          UI    3.42    3.42    3.42    3.42    3.42    3.42     0.0

126          KK      K6   CNAME   K6-K7
127          KM   COMBINE ROUTED HYDROGRAPH FROM K5 WITH RUNOFF FROM 46 @ K6
128          KO       0       0     0.0       0      22
129          HC       2

130          KK   K6-K7   CNAME      K6
131          KM   STORAGE ROUTE FROM K6 TO K7 THROUGH SPRR TRESTLE
132          KO       0       0     0.0       0      22
133          RS       1    ELEV   890.0     0.0
134          SV     0.0    0.43   43.48  173.62  410.02  410.02  410.02  410.02  410.02  410.02
135          SV  410.02  410.02  410.02  410.02  410.02  410.02  410.02  410.02  410.02  410.02
136          SE   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0
137          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
138          SQ     0.0   200.0   975.0  1120.0  1555.0  1565.0  1610.0  2150.0  2150.0  2150.0
139          SQ  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0
140          SE   890.0  891.09  893.09  893.69  894.89  894.99  895.09  895.29  895.29  895.29
141          SE  895.29  895.29  895.29  895.29  895.29  895.29  895.29  895.29  895.29  895.29
1                                        HEC-1 INPUT                                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

142          KK      65
143          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
144          KM   L=0.82     Lca=0.41     S=10.93     Kn=0.200     LAG=121
145          KM   S-GRAPH TYPE=AGRICULTURE
146          KO       0       0     0.0       1      22
147          BA  0.3756
148          LG     1.0   0.247   4.712   0.411    1.76
149          UI     0.0   11.45    15.3   32.35   64.94   69.77   92.26   96.16   96.16    81.2
150          UI   85.03   60.83   57.04   41.32   33.18    28.5   19.59   15.77   13.21   10.45
151          UI    8.88     6.5     6.5     4.4    1.43    1.43    1.43    1.43    1.43    1.43
152          UI    1.43    1.43    1.43    1.43    1.43    1.43    1.43     0.0

153          KK      K7
154          KM   COMBINE STORAGE HYDROGRAPH FROM K6 WITH RUNOFF FROM 65 @ K7
155          ZW   A=RBE B=K7 C=FLOW E=15MIN F=100y6h-ex
156          KO       0       0     0.0       0      22
157          HC       2

158          KK   RIDL
159          KM   ******************************************************************************
160          KM   **   SUB-WATERSHED L   ******************************************************
161          KM   ******************************************************************************
162          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
163          BA  0.0001
164          ZR  =QI A=RID RID B=41599 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-100-06E

165          KK  L2S-L3   CNAME     L2S
166          KM   ROUTE INFLOW FROM RID CONCENTRATED AT L2S TO L3 (CHANNEL B)
167          KO       0       0     0.0       0      22
168          RS       1    FLOW     0.0     0.0
169          RC     0.1    0.02     0.1 7457.00  0.009     0.0
170          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
171          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

172          KK      36
173          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
174          KM   L=1.85     Lca=0.93     S=36.67     Kn=0.200     LAG=178
```

```
 175          KM   S-GRAPH TYPE=AGRICULTURE
 176          KO       0       0     0.0       1      22
 177          BA  0.6838
 178          LG     1.0   0.258   3.967   0.455   5.096
 179          UI     0.0   14.17   14.17   22.08   36.12   64.69    83.2   83.17  105.19  118.66
 180          UI   119.0   119.0  116.36   99.17  105.05   95.04   74.38   80.98   56.49   51.19
 181          UI   41.31    42.9   31.56   25.16   22.88   17.98    17.5   13.42   12.93   12.13
 182          UI    8.04    8.04    8.04    8.04    3.19    1.77    1.77    1.77    1.77    1.77
 183          UI    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77
 184          UI    1.77    1.77    1.77    1.77     0.0

 185          KK      L3   CNAME   L3-L4
 186          KM   COMBINE ROUTED HYDROGRAPH FROM L2S WITH RUNOFF FROM 36 @ L3
 187          KO       0       0     0.0       0      22
 188          HC       2
1                                          HEC-1 INPUT                                                    PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 189          KK   L3-L4   CNAME      L3
 190          KM   ROUTE HYDROGRAPH FROM L3 TO L4 (CHANNEL B)
 191          KO       0       0     0.0       0      22
 192          RS       7    FLOW     0.0     0.0
 193          RC     0.1    0.02     0.1 7726.73  0.0047     0.0
 194          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 195          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 196          KK      47
 197          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 198          KM   L=1.46     Lca=0.73     S=24.60     Kn=0.200     LAG=161
 199          KM   S-GRAPH TYPE=AGRICULTURE
 200          KO       0       0     0.0       1      22
 201          BA  0.6169
 202          LG     1.0   0.271   4.499   0.411   0.105
 203          UI     0.0   14.13   14.13   25.73   43.69   78.39   77.95  107.42  110.39   118.7
 204          UI   118.7  113.43   98.92  105.54   83.18   78.99   64.89   53.48   41.57   42.52
 205          UI   30.95   24.46   21.69   17.46    15.7    12.9    12.9    8.42    8.02    8.02
 206          UI    8.02     2.1    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77
 207          UI    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77     0.0

 208          KK      L4   CNAME   L4-L5
 209          KM   COMBINE ROUTED HYDROGRAPH FROM L3 WITH RUNOFF FROM 47 @ L4
 210          KO       0       0     0.0       0      22
 211          HC       2

 212          KK   L4-L5   CNAME      L4
 213          KM   STORAGE ROUTE FROM L4 TO L5 THROUGH SPRR TRESTLE
 214          KO       0       0     0.0       0      22
 215          RS       1    ELEV   886.3     0.0
 216          SV     0.0     0.9     4.0    25.7   107.8  265.67  265.67  265.67  265.67  265.67
 217          SV  265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67
 218          SE   886.0   888.0   890.0   892.0   894.0   896.0   896.0   896.0   896.0   896.0
 219          SE   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0
 220          SQ     0.0    59.0   172.0   230.0   323.0   480.0   769.0  1218.0  1828.0  1828.0
 221          SQ  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0
 222          SE  886.29  888.09  890.09  890.99  891.79  891.99  892.19  892.39  892.59  892.59
 223          SE  892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59

 224          KK      66
 225          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 226          KM   L=0.73     Lca=0.36     S=19.24     Kn=0.200     LAG=99
 227          KM   S-GRAPH TYPE=AGRICULTURE
 228          KO       0       0     0.0       1      22
 229          BA  0.2941
 230          LG     1.0   0.249   4.471   0.385   6.037
 231          UI     0.0   10.96   18.36   48.91   66.57   87.58   92.03   85.89   79.94   62.17
 232          UI   52.27   36.46   30.89   19.44   15.19   11.84    10.0    6.36    6.22     3.7
 233          UI    1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37
 234          UI     0.0
1                                          HEC-1 INPUT                                                    PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 235          KK      L5
 236          KM   COMBINE STORAGE HYDROGRAPH FROM L4 WITH RUNOFF FROM 66 @ L5
 237          ZW   A=RBE B=L5 C=FLOW E=15MIN F=100y6h-ex
 238          KO       0       0     0.0       0      22
 239          HC       2

 240          KK   RIDM
 241          KM   ******************************************************************************
 242          KM   **   SUB-WATERSHED M   ********************************************************
 243          KM   ******************************************************************************
 244          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 245          BA  0.0001
 246          ZR  =QI A=RID RID B=47199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-100-06E

 247          KK  L2S2M1   CNAME    L2S2
 248          KM   ROUTE INFLOW FROM RID CONCENTRATED AT L2S2 TO M1 (CHANNEL A)
 249          KO       0       0     0.0       0      22
 250          RS       1    FLOW     0.0     0.0
 251          RC     0.1     0.1     0.1 9579.00  0.0030     0.0
 252          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 253          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 254          KK      37
 255          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 256          KM   L=2.36     Lca=1.18     S=30.11     Kn=0.200     LAG=222
 257          KM   S-GRAPH TYPE=AGRICULTURE
 258          KO       0       0     0.0       1      22
 259          BA  1.4211
 260          LG     1.0    0.25    4.12   0.457     0.0
 261          UI     0.0   23.61   23.61   23.61   46.77   63.19  104.27  137.98  128.23  153.35
 262          UI  177.81   198.3   198.3   198.3   198.3  191.69  165.25  165.25  182.96  139.11
 263          UI  124.21  141.65    97.7   90.14   78.24   68.08   70.88   60.42   45.07   38.97
 264          UI   38.13   29.56   29.16   25.81   21.55   21.55   21.26    13.4    13.4    13.4
 265          UI    13.4    13.4    7.55    2.95    2.95    2.95    2.95    2.95    2.95    2.95
 266          UI    2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95
 267          UI    2.95    2.95    2.95    2.95    2.95    2.95    2.95     0.0

 268          KK      M1   CNAME   M1-M2
 269          KM   COMBINE ROUTED HYDROGRAPH FROM L2S2 WITH RUNOFF FROM 37 @ M1
```

```
 270          KO       0       0     0.0       0      22
 271          HC       2

 272          KK   M1-M2   CNAME      M1
 273          KM   ROUTE HYDROGRAPH FROM M1 TO M2 (CHANNEL A)
 274          KO       0       0     0.0       0      22
 275          RS       7    FLOW     0.0     0.0
 276          RC     0.1     0.1     0.1  5783.5  0.0032     0.0
 277          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 278          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                                    PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 279          KK      48
 280          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 281          KM   L=1.10      Lca=0.55      S=16.43      Kn=0.200      LAG=139
 282          KM   S-GRAPH TYPE=AGRICULTURE
 283          KO       0       0     0.0       1      22
 284          BA  0.4997
 285          LG     1.0    0.25   4.375   0.445   1.368
 286          UI     0.0   13.26   14.05   30.21   59.66   76.06    96.1  103.26  111.37  111.37
 287          UI   97.76   97.11   83.14   74.11   57.93   46.73   37.98    35.6   23.78   20.47
 288          UI   16.38   13.76   12.11     9.9    7.53    7.53    7.21    1.66    1.66    1.66
 289          UI    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66
 290          UI    1.66    1.66     0.0

 291          KK      M2   CNAME   M2-M3
 292          KM   COMBINE ROUTED HYDROGRAPH FROM M1 WITH RUNOFF FROM 48 @ M2
 293          KO       0       0     0.0       0      22
 294          HC       2

 295          KK   M2-M3   CNAME      M2
 296          KM   ROUTE HYDROGRAPH FROM M2 TO M3 (CHANNEL A)
 297          KO       0       0     0.0       0      22
 298          RS       2    FLOW     0.0     0.0
 299          RC   0.025   0.025   0.025 4309.67  0.0050     0.0
 300          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 301          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 302          KK      67
 303          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 304          KM   L=0.82      Lca=0.41      S=25.73      Kn=0.200      LAG=102
 305          KM   S-GRAPH TYPE=PHOENIX VALLEY
 306          KO       0       0     0.0       1      22
 307          BA  0.4717
 308          LG   0.261   0.262   4.328   0.393  26.592
 309          UI     0.0   15.57   31.09   66.92   86.69  107.67  144.49  191.76  149.18  119.67
 310          UI   94.22   73.23    45.3   26.94   21.99   15.57    6.99    4.78    4.78    4.78
 311          UI    4.78     0.0

 312          KK      M3   CNAME   M3-M4
 313          KM   COMBINE ROUTED HYDROGRAPH FROM M2 WITH RUNOFF FROM 67 @ M3
 314          KO       0       0     0.0       0      22
 315          HC       2

 316          KK   M3-M4   CNAME      M3
 317          KM   STORAGE ROUTE FROM M3 TO M4 THROUGH SPRR TRESTLE
 318          KO       0       0     0.0       0      22
 319          RS       1    ELEV   884.0     0.0
 320          SV     0.0    0.28    12.7    94.1  202.02  383.38  383.38  383.38  383.38  383.38
 321          SV  383.38  383.38  383.38  383.38  383.38  383.38  383.38  383.38  383.38  383.38
 322          SE   884.0   886.0   888.0   890.0   892.0   894.0   894.0   894.0   894.0   894.0
 323          SE   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0
 324          SQ     0.0    42.0   135.0   200.0   226.0   465.0  1010.0  1703.0  1703.0  1703.0
 325          SQ  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0
 326          SE   884.0  885.09  887.09  889.19  889.29  889.49  889.69  889.89  889.89  889.89
 327          SE  889.89  889.89  889.89  889.89  889.89  889.89  889.89  889.89  889.89  889.89
1                                          HEC-1 INPUT                                                    PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 328          KK      69
 329          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 330          KM   L=0.11      Lca=0.06      S=17.52      Kn=0.200      LAG=25
 331          KM   S-GRAPH TYPE=PHOENIX VALLEY
 332          KO       0       0     0.0       1      22
 333          BA  0.1371
 334          LG   0.176   0.264   4.502   0.395  49.216
 335          UI     0.0   60.46  176.19   92.48    19.3     0.0

 336          KK      M4
 337          KM   COMBINE STORAGE HYDROGRAPH FROM M3 WITH RUNOFF FROM 69 @ M4
 338          ZW   A=RBE B=M4 C=FLOW E=15MIN F=100y6h-ex
 339          KO       0       0     0.0       0      22
 340          HC       2

 341          KK   RIDN
 342          KM   ******************************************************************************
 343          KM   **    SUB-WATERSHED N    ***************************************************
 344          KM   ******************************************************************************
 345          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 346          BA  0.0001
 347          ZR  =QI A=RID RID B=51199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-100-06E

 348          KK  N2S-N3   CNAME     N2S
 349          KM   ROUTE INPLOW FROM RID CONCENTRATED AT N2S TO N3 (CHANNEL A)
 350          KO       0       0     0.0       0      22
 351          RS       1    FLOW     0.0     0.0
 352          RC     0.1     0.1     0.1 5806.00  0.0050     0.0
 353          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 354          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 355          KK      38
 356          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 357          KM   L=1.40      Lca=0.70      S=20.72      Kn=0.200      LAG=161
 358          KM   S-GRAPH TYPE=AGRICULTURE
 359          KO       0       0     0.0       1      22
 360          BA  0.5419
 361          LG     1.0   0.249   3.963   0.466   1.066
 362          UI     0.0   12.41   12.41    22.6   38.38   68.87   68.47   94.37   96.98  104.28
 363          UI  104.28   99.64    86.9   92.71   73.07   69.39   57.01   46.98   36.52   37.35
```

```
 364          UI   27.19   21.49   19.06   15.33   13.79   11.33   11.33    7.4    7.05    7.05
 365          UI    7.05    1.84    1.55    1.55    1.55    1.55    1.55   1.55    1.55    1.55
 366          UI    1.55    1.55    1.55    1.55    1.55    1.55    1.55   1.55    1.55     0.0

 367          KK      N3   CNAME   N3-N4
 368          KM   COMBINE ROUTED HYDROGRAPH FROM N2S WITH RUNOFF FROM 38 @ N3
 369          KO       0       0     0.0       0      22
 370          HC       2
1                                          HEC-1 INPUT                                          PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 371          KK   N3-N4   CNAME      N3
 372          KM   ROUTE HYDROGRAPH FROM N3 TO N4 (CHANNEL B)
 373          KO       0       0     0.0       0      22
 374          RS       5    FLOW     0.0     0.0
 375          RC     0.1    0.02     0.1 5295.68  0.0087     0.0
 376          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 377          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 378          KK      49
 379          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 380          KM   L=1.96     Lca=0.98     S=23.51     Kn=0.200     LAG=202
 381          KM   S-GRAPH TYPE=AGRICULTURE
 382          KO       0       0     0.0       1      22
 383          BA  1.0093
 384          LG     1.0    0.25   3.954   0.417   0.658
 385          UI     0.0   18.43   18.43   21.91    38.7   60.54   96.74  109.77  111.53  139.33
 386          UI   150.8  154.78  154.78  154.78  141.02  128.98  137.67  123.61   96.74  107.67
 387          UI   80.42   70.35   59.46    52.4   57.71   37.74   32.94   29.77   25.12   22.76
 388          UI   20.55   16.82   16.82   15.07   10.46   10.46   10.46   10.46    8.07     2.3
 389          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
 390          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
 391          UI     2.3     0.0

 392          KK      N4   CNAME  N4-N5B
 393          KM   COMBINE ROUTED HYDROGRAPH FROM N3 WITH RUNOFF FROM 49 @ N4
 394          KO       0       0     0.0       0      22
 395          HC       2

 396          KK  N4-N5B   CNAME      N4
 397          KM   ROUTE HYDROGRAPH FROM N4 TO N5 (CHANNEL B)
 398          KO       0       0     0.0       0      22
 399          RS       3    FLOW     0.0     0.0
 400          RC     0.1    0.02     0.1 3866.36  0.0080     0.0
 401          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 402          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 403          KK     56B
 404          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 405          KM   L=0.71     Lca=0.32     S=32.56     Kn=0.200     LAG=85
 406          KM   S-GRAPH TYPE=AGRICULTURE
 407          KO       0       0     0.0       1      22
 408          BA  0.3335
 409          LG     0.1    0.25   3.998   0.524    80.0
 410          UI     0.0   13.21   36.42   66.04   85.35  118.84  159.02  118.04    90.4   67.67
 411          UI   40.92   22.66   16.33    10.2    4.05    4.05    4.05     0.0

 412          KK     N5B   CNAME  N5B-N6
 413          KM   COMBINE ROUTED HYDROGRAPH FROM N4 WITH RUNOFF FROM 56B @ N5B
 414          KO       0       0     0.0       0      22
 415          HC       2
1                                          HEC-1 INPUT                                          PAGE 10

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 416          KK  N5B-N6   CNAME     N5B
 417          KM   STORAGE ROUTE FROM N5B TO N6 THROUGH SPRR TRESTLE
 418          KO       0       0     0.0       0      22
 419          RS       1    ELEV  887.23     0.0
 420          SV     0.0    0.96   12.89   39.94   86.12  150.27  150.27  150.27  150.27  150.27
 421          SV  150.27  150.27  150.27  150.27  150.27  150.27  150.27  150.27  150.27  150.27
 422          SE   886.0   888.0   890.0   892.0   894.0   896.0   896.0   896.0   896.0   896.0
 423          SE   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0
 424          SQ     0.0    71.6    98.1   118.7   136.2   151.6   165.7   178.6   190.7   202.0
 425          SQ   212.8   223.0   232.8   242.1   251.2   259.9   268.3   276.5   276.5   276.5
 426          SE  887.23  889.23  889.73  890.23  890.73  891.23  891.73  892.23  892.73  893.23
 427          SE  893.73  894.23  894.73  895.23  895.73  896.23  896.73  897.23  897.23  897.23

 428          KK     56A
 429          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 430          KM   L=1.19     Lca=0.59     S=30.31     Kn=0.200     LAG=132
 431          KM   S-GRAPH TYPE=AGRICULTURE
 432          KO       0       0     0.0       1      22
 433          BA  0.4105
 434          LG     1.0    0.25   3.969   0.455  18.065
 435          UI     0.0   11.47   13.39   28.45   55.88   66.16   84.79   96.35   96.35   93.14
 436          UI   80.29   83.82   61.02   58.36   42.89   33.31   32.41   20.95   17.94   14.17
 437          UI    11.8   10.47    8.03    6.51    6.51    4.68    1.43    1.43    1.43    1.43
 438          UI    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43
 439          UI     0.0

 440          KK  N5A-N6   CNAME     N5A
 441          KM   STORAGE ROUTE FROM N5A TO N6 THROUGH SPRR TRESTLE
 442          KO       0       0     0.0       0      22
 443          RS       1    ELEV  886.0     0.0
 444          SV     0.0    0.02    8.08   35.13  100.26  100.26  100.26  100.26  100.26  100.26
 445          SV  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26
 446          SE   886.0   888.0   890.0   892.0   894.0   894.0   894.0   894.0   894.0   894.0
 447          SE   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0
 448          SQ     0.0   102.4   189.7   248.0   294.9   335.4   371.5   404.3   434.7   463.1
 449          SQ   489.9   515.2   539.4   562.6   584.8   606.2   626.9   646.9   646.9   646.9
 450          SE   886.0  887.52  888.02  888.52  889.02  889.52  890.02  890.52  891.02  891.52
 451          SE  892.02  892.52  893.02  893.52  894.02  894.52  895.02  895.52  895.52  895.52

 452          KK     70
 453          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 454          KM   L=0.68     Lca=0.34     S=1.48     Kn=0.200     LAG=152
 455          KM   S-GRAPH TYPE=AGRICULTURE
 456          KO       0       0     0.0       1      22
 457          BA  0.1406
 458          LG     1.0    0.25   4.395   0.512     0.0
```

```
 459          UI     0.0    3.41    3.41    6.68   12.76   19.73   19.85   25.86   28.66   28.66
 460          UI   28.66   24.52   25.09   21.89   18.55   16.77   13.03   10.07   10.32    7.14
 461          UI    5.77    4.95    4.21    3.44    3.12    2.67    1.94    1.94    1.94    0.99
 462          UI    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43
 463          UI    0.43    0.43    0.43    0.43    0.43    0.43     0.0
1                                            HEC-1 INPUT                                          PAGE 11

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 464          KK      N6
 465          KM   COMBINE STORAGE HYDROGRAPH FROM N5A AND N5B WITH RUNOFF FROM 70 @ N6
 466          ZW   A=RBE B=N6 C=FLOW E=15MIN F=100y6h-ex
 467          KO       0       0     0.0       0      22
 468          HC       3

 469          KK   RIDO
 470          KM   ******************************************************************************
 471          KM   **   SUB-WATERSHED O   ***********************************************************
 472          KM   ******************************************************************************
 473          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 474          BA  0.0001
 475          ZR  =QI A=RID RID B=57199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-100-06E

 476          KK  O4S-O5   CNAME     O4S
 477          KM   ROUTE INFLOW FROM RID CONCENTRATED AT O4S TO O5 (CHANNEL A)
 478          KO       0       0     0.0       0      22
 479          RS       1    FLOW     0.0     0.0
 480          RC     0.1     0.1     0.1 6325.00  0.0060     0.0
 481          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 482          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 483          KK      39
 484          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 485          KM   L=1.63     Lca=0.82     S=25.14     Kn=0.200     LAG=174
 486          KM   S-GRAPH TYPE=AGRICULTURE
 487          KO       0       0     0.0       1      22
 488          BA  0.7253
 489          LG     1.0   0.249    4.31    0.47   1.592
 490          UI     0.0   15.37   15.37   24.91   40.98   72.85   90.07   94.27  117.51  129.13
 491          UI  129.13  129.13  120.52  107.61  114.33   93.69   83.76    78.5    59.0   50.24
 492          UI   43.47   44.81   29.35   25.01   22.19   18.99   16.61   14.04   14.04    9.72
 493          UI    8.73    8.73    8.73    5.19    1.92    1.92    1.92    1.92    1.92    1.92
 494          UI    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92
 495          UI    1.92    1.92     0.0

 496          KK      O5   CNAME   O5-O6
 497          KM   COMBINE ROUTED HYDROGRAPH FROM O4S WITH RUNOFF FROM 39 @ O5
 498          KO       0       0     0.0       0      22
 499          HC       2

 500          KK   O5-O6   CNAME      O5
 501          KM   ROUTE HYDROGRAPH FROM O5 TO O6 (CHANNEL B)
 502          KO       0       0     0.0       0      22
 503          RS       4    FLOW     0.0     0.0
 504          RC     0.1    0.02     0.1 5267.87  0.0100     0.0
 505          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 506          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0
1                                            HEC-1 INPUT                                          PAGE 12

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 507          KK      50
 508          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 509          KM   L=1.98     Lca=0.99     S=26.73     Kn=0.200     LAG=199
 510          KM   S-GRAPH TYPE=AGRICULTURE
 511          KO       0       0     0.0       1      22
 512          BA  1.0018
 513          LG     1.0   0.251   4.181   0.488   2.404
 514          UI     0.0   18.57   18.57   22.94   38.99   65.02   98.44  109.42  116.01  139.75
 515          UI  155.95  155.95  155.95  155.95  136.89  129.96  138.93  116.06   98.44  106.28
 516          UI   74.44    70.3   55.29    52.9   53.78   35.44   31.12   29.51   22.93   22.93
 517          UI   18.07   16.95   16.95   12.06   10.54   10.54   10.54   10.54    3.53    2.32
 518          UI    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32
 519          UI    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32
 520          UI     0.0

 521          KK      O6   CNAME   O6-O7
 522          KM   COMBINE ROUTED HYDROGRAPH FROM O5 WITH RUNOFF FROM 50 @ O6
 523          KO       0       0     0.0       0      22
 524          HC       2

 525          KK   O6-O7   CNAME      O6
 526          KM   ROUTE HYDROGRAPH FROM O6 TO O7 (CHANNEL B)
 527          KO       0       0     0.0       0      22
 528          RS       4    FLOW     0.0     0.0
 529          RC     0.1    0.02     0.1 3578.87  0.0040     0.0
 530          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 531          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 532          KK      57
 533          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 534          KM   L=0.68     Lca=0.34     S=19.18     Kn=0.200     LAG=94
 535          KM   S-GRAPH TYPE=AGRICULTURE
 536          KO       0       0     0.0       1      22
 537          BA  0.4885
 538          LG     1.0    0.25   4.256    0.53   1.416
 539          UI     0.0   19.17   35.13   95.98  125.05  151.34   161.0  141.33  132.78  104.89
 540          UI   73.19   56.54   41.57   28.93   22.36    17.5   12.39   10.88    7.03     2.4
 541          UI     2.4     2.4     2.4     2.4     2.4     2.4     2.4     2.4     2.4     0.0

 542          KK      O7   CNAME   O7-O8
 543          KM   COMBINE ROUTED HYDROGRAPH FROM O6 WITH RUNOFF FROM 57 @ O7
 544          KO       0       0     0.0       0      22
 545          HC       2

 546          KK   O7-O8   CNAME      O7
 547          KM   STORAGE ROUTE FROM O7 TO O8 THROUGH SPRR TRESTLE
 548          KO       0       0     0.0       0      22
 549          RS       1    ELEV   891.1     0.0
 550          SV     0.0     0.2    8.52   76.65  224.48  224.48  224.48  224.48  224.48  224.48
 551          SV  224.48  224.48  224.48  224.48  224.48  224.48  224.48  224.48  224.48  224.48
 552          SE   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0
```

```
 553          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
 554          SQ     0.0    78.0    85.0   151.0   248.0   540.0   954.0  1560.0  2334.0  2334.0
 555          SQ  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0
1                                          HEC-1 INPUT                                                PAGE 13

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 556          SE   891.1   893.1   893.4   894.5   894.7   895.0   895.2   895.4   895.6   895.6
 557          SE   895.6   895.6   895.6   895.6   895.6   895.6   895.6   895.6   895.6   895.6

 558          KK      71
 559          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 560          KM   L=0.34      Lca=0.17      S=14.51      Kn=0.200      LAG=59
 561          KM   S-GRAPH TYPE=AGRICULTURE
 562          KO       0        0      0.0        1       22
 563          BA  0.1553
 564          LG     1.0    0.243   4.911   0.414   2.609
 565          UI     0.0    11.57   42.26   70.54   80.65   67.88   47.94   30.74    17.5   10.91
 566          UI    7.38     5.51    1.27    1.21    1.21    1.21    1.21    1.21     0.0

 567          KK      08   CNAME
 568          KM   COMBINE STORAGE HYDROGRAPH FROM 07 WITH RUNOFF FROM 71 @ 08
 569          ZW   A=RBE B=08 C=FLOW E=15MIN F=100y6h-ex
 570          KO       0        0      0.0        0       22
 571          HC       2

 572          KK   RIDP
 573          KM   ***********************************************************************
 574          KM   **   SUB-WATERSHED P   ***********************************************
 575          KM   ***********************************************************************
 576          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 577          BA  0.0001
 578          ZR  =QI A=RID RID B=61999 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-100-06E

 579          KK  P2S-P3   CNAME     P2S
 580          KM   ROUTE INFLOW FROM RID CONCENTRATED AT P2S TO P3 (CHANNEL A)
 581          KO       0        0      0.0        0       22
 582          RS       1     FLOW      0.0      0.0
 583          RC     0.1      0.1      0.1 8445.00  0.0070     0.0
 584          RX     0.0    250.0    500.0    750.0  1000.0  1333.3  1666.6  2000.0
 585          RY    10.0      7.5      5.0      2.5     0.0     3.3     6.6    10.0

 586          KK      40
 587          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 588          KM   L=1.83      Lca=0.91      S=31.23      Kn=0.200      LAG=182
 589          KM   S-GRAPH TYPE=AGRICULTURE
 590          KO       0        0      0.0        1       22
 591          BA  0.9761
 592          LG     1.0    0.249   4.211   0.525   0.739
 593          UI     0.0    19.78   19.78   29.61   48.14    86.9  116.44  110.94  150.61  157.12
 594          UI  166.14   166.14  166.14  142.14  139.74  151.32  103.84  112.23    90.8   75.52
 595          UI    62.1    56.05   56.55   37.76   32.26   29.17   24.43   22.48   18.06   18.06
 596          UI   14.53    11.23   11.23   11.23   10.99    2.47    2.47    2.47    2.47    2.47
 597          UI    2.47     2.47    2.47    2.47    2.47    2.47    2.47    2.47    2.47    2.47
 598          UI    2.47     2.47    2.47    2.47    2.47     0.0

 599          KK      P3   CNAME   P3-P4
 600          KM   COMBINE ROUTED HYDROGRAPH FROM P2S WITH RUNOFF FROM 40 @ P3
 601          KO       0        0      0.0        0       22
 602          HC       2
1                                          HEC-1 INPUT                                                PAGE 14

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 603          KK   P3-P4   CNAME      P3
 604          KM   ROUTE HYDROGRAPH FROM P3 TO P4 (CHANNEL B)
 605          KO       0        0      0.0        0       22
 606          RS       3     FLOW      0.0      0.0
 607          RC     0.1     0.02      0.1 5302.14   0.008     0.0
 608          RX     0.0   1000.0   1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 609          RY    10.0      0.0      0.0     1.0     1.0     0.0     0.0    10.0

 610          KK      51
 611          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 612          KM   L=1.96      Lca=0.98      S=22.98      Kn=0.200      LAG=203
 613          KM   S-GRAPH TYPE=AGRICULTURE
 614          KO       0        0      0.0        1       22
 615          BA   1.004
 616          LG     1.0     0.25   4.401   0.563   1.523
 617          UI     0.0    18.24   18.24   21.41    38.3   58.85   95.52  108.71   109.2  138.77
 618          UI  147.29    153.2   153.2   153.2  141.28  127.67  136.31  125.01   95.75  105.04
 619          UI    83.7    69.64   60.42   52.27   56.21   40.23   33.28   29.46   25.81   22.53
 620          UI    21.2    16.65   16.65   15.93   10.35   10.35   10.35   10.35    9.49    2.28
 621          UI    2.28     2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
 622          UI    2.28     2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
 623          UI    2.28      0.0

 624          KK      P4   CNAME   P4-P5
 625          KM   COMBINE ROUTED HYDROGRAPH FROM P3 WITH RUNOFF FROM 51 @ P4
 626          KO       0        0      0.0        0       22
 627          HC       2

 628          KK   P4-P5   CNAME      P4
 629          KM   ROUTE HYDROGRAPH FROM P4 TO P5 (CHANNEL A)
 630          KO       0        0      0.0        0       22
 631          RS       5     FLOW      0.0      0.0
 632          RC     0.1      0.1      0.1 2651.48  0.0030     0.0
 633          RX     0.0    250.0    500.0    750.0  1000.0  1333.3  1666.6  2000.0
 634          RY    10.0      7.5      5.0      2.5     0.0     3.3     6.6    10.0

 635          KK      58
 636          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 637          KM   L=0.50      Lca=0.25      S=15.93      Kn=0.200      LAG=77
 638          KM   S-GRAPH TYPE=AGRICULTURE
 639          KO       0        0      0.0        1       22
 640          BA  0.1897
 641          LG     1.0     0.25   4.294   0.552  11.148
 642          UI     0.0     9.09   25.11   52.16   72.06   76.34   66.54   55.11   41.43   27.69
 643          UI   18.96    12.68    9.16    6.65    5.16    2.64    1.14    1.14    1.14    1.14
 644          UI    1.14     1.14    1.14     0.0

 645          KK      P5   CNAME   P5-P6
 646          KM   COMBINE ROUTED HYDROGRAPH FROM P4 WITH RUNOFF FROM 58 @ P5
```

```
          647          KO       0       0     0.0       0      22
          648          HC       2
1                                                HEC-1 INPUT                                                          PAGE 15

         LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


          649          KK   P5-P6   CNAME      P5
          650          KM   STORAGE ROUTE FROM P5 TO P6 THROUGH SPRR TRESTLE
          651          KO       0       0     0.0       0      22
          652          RS       1    ELEV   889.1     0.0
          653          SV     0.0    1.33    6.78   36.99  130.95  286.86  286.86  286.86  286.86  286.86
          654          SV  286.86  286.86  286.86  286.86  286.86  286.86  286.86  286.86  286.86  286.86
          655          SE   888.0   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0
          656          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
          657          SQ     0.0    40.0   105.0   187.0   278.0   531.0   853.0  1198.0  1573.0  1722.0
          658          SQ  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0
          659          SE  889.11  889.61  890.11  890.61  891.11  892.11  893.11  894.11  895.11  896.11
          660          SE  897.11  897.11  897.11  897.11  897.11  897.11  897.11  897.11  897.11  897.11

          661          KK      72
          662          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
          663          KM   L=0.13     Lca=0.06     S=7.71     Km=0.200     LAG=32
          664          KM   S-GRAPH TYPE=AGRICULTURE
          665          KO       0       0     0.0       1      22
          666          BA  0.0856
          667          LG     1.0    0.23   4.468   0.424   7.937
          668          UI     0.0   24.87    74.6   66.73   31.73   12.61    6.11    1.23    1.23    1.23
          669          UI     0.0

          670          KK      P6
          671          KM   COMBINE STORAGE HYDROGRAPH FROM P5 WITH RUNOFF FROM 72 @ P6
          672          ZW   A=RBE B=P6 C=FLOW E=15MIN F=100y6h-ex
          673          KO       0       0     0.0       0      22
          674          HC       2
          675          ZZ
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	RIDKB	516.	5.25	130.	32.	11.	0.00		
+	ROUTED TO	K3SBK4	319.	5.75	127.	32.	11.	0.00		
+	HYDROGRAPH AT	RIDKA	626.	5.50	258.	70.	23.	0.00		
+	ROUTED TO	K3SAK4	319.	6.75	230.	70.	23.	0.00		
+	HYDROGRAPH AT	34	135.	6.25	67.	18.	6.	0.64		
+	3 COMBINED AT	K4	723.	6.25	416.	120.	40.	0.64		
+	ROUTED TO	K4-K5	711.	6.75	403.	120.	40.	0.64		
+	HYDROGRAPH AT	35	220.	6.75	133.	37.	12.	1.50		
+	2 COMBINED AT	K5	876.	6.75	495.	149.	50.	2.14		
+	ROUTED TO	K5-K6	826.	7.75	482.	149.	50.	2.14		
+	HYDROGRAPH AT	46	205.	6.75	121.	33.	11.	1.38		
+	2 COMBINED AT	K6	931.	7.75	531.	169.	56.	3.52		
+	ROUTED TO	K6-K7	825.	8.25	531.	169.	56.	3.52		
+	HYDROGRAPH AT	65	110.	5.75	46.	12.	4.	0.38		
+	2 COMBINED AT	K7	827.	8.25	538.	174.	58.	3.90		
+	HYDROGRAPH AT	RIDL	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	L2S-L3	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	36	134.	6.50	77.	21.	7.	0.68		
+	2 COMBINED AT	L3	134.	6.50	77.	21.	7.	0.68		
+	ROUTED TO	L3-L4	111.	8.75	71.	21.	7.	0.68		
+	HYDROGRAPH AT	47	125.	6.50	66.	17.	6.	0.62		
+	2 COMBINED AT	L4	132.	8.75	103.	33.	11.	1.30		
+	ROUTED TO	L4-L5	127.	9.00	102.	33.	11.	1.30		

+	HYDROGRAPH AT	66	114.	5.50	40.	10.	3.	0.29
+	2 COMBINED AT	L5	161.	6.00	123.	40.	13.	1.59
+	HYDROGRAPH AT	RIDM	725.	5.50	173.	43.	14.	0.00
+	ROUTED TO	L2S2M1	187.	6.75	124.	42.	14.	0.00
+	HYDROGRAPH AT	37	171.	7.00	114.	33.	11.	1.42
+	2 COMBINED AT	M1	358.	7.00	236.	75.	25.	1.42
+	ROUTED TO	M1-M2	333.	8.75	225.	75.	25.	1.42
+	HYDROGRAPH AT	48	125.	6.00	59.	15.	5.	0.50
+	2 COMBINED AT	M2	339.	8.50	232.	83.	28.	1.92
+	ROUTED TO	M2-M3	336.	9.00	231.	83.	28.	1.92
+	HYDROGRAPH AT	67	334.	5.75	100.	26.	9.	0.47
+	2 COMBINED AT	M3	334.	9.00	265.	103.	35.	2.39
+	ROUTED TO	M3-M4	195.	11.50	186.	102.	35.	2.39
+	HYDROGRAPH AT	69	292.	4.50	35.	9.	3.	0.14
+	2 COMBINED AT	M4	281.	4.50	186.	110.	38.	2.53
+	HYDROGRAPH AT	RIDN	280.	6.25	104.	26.	9.	0.00
+	ROUTED TO	N2S-N3	158.	7.25	90.	26.	9.	0.00
+	HYDROGRAPH AT	38	116.	6.50	61.	16.	5.	0.54
+	2 COMBINED AT	N3	261.	7.25	147.	42.	14.	0.54
+	ROUTED TO	N3-N4	248.	7.75	143.	42.	14.	0.54
+	HYDROGRAPH AT	49	154.	7.00	97.	27.	9.	1.01
+	2 COMBINED AT	N4	351.	8.00	211.	63.	21.	1.55
+	ROUTED TO	N4-N5B	343.	8.25	207.	63.	21.	1.55
+	HYDROGRAPH AT	56B	345.	5.50	102.	26.	9.	0.33
+	2 COMBINED AT	N5B	342.	8.25	255.	87.	29.	1.88
+	ROUTED TO	N5B-N6	189.	10.00	179.	87.	29.	1.88
+	HYDROGRAPH AT	56A	137.	5.75	63.	17.	6.	0.41
+	ROUTED TO	N5A-N6	137.	5.75	63.	17.	6.	0.41
+	HYDROGRAPH AT	70	30.	6.00	15.	4.	1.	0.14
+	3 COMBINED AT	N6	260.	6.25	214.	100.	34.	2.44
+	HYDROGRAPH AT	RIDO	191.	6.00	61.	15.	5.	0.00
+	ROUTED TO	O4S-O5	90.	7.00	52.	15.	5.	0.00
+	HYDROGRAPH AT	39	132.	6.50	74.	20.	7.	0.73
+	2 COMBINED AT	O5	221.	6.75	125.	35.	12.	0.73
+	ROUTED TO	O5-O6	211.	7.50	121.	35.	12.	0.73
+	HYDROGRAPH AT	50	147.	6.75	91.	26.	9.	1.00
+	2 COMBINED AT	O6	302.	7.25	183.	54.	18.	1.73
+	ROUTED TO	O6-O7	291.	8.25	178.	54.	18.	1.73

```
          HYDROGRAPH AT
+                    57      173.   5.50       56.       14.       5.     0.49

          2 COMBINED AT
+                    07      291.   8.25      189.       62.      21.     2.22

          ROUTED TO
+                 07-08      203.   9.25      160.       61.      20.     2.22

          HYDROGRAPH AT
+                    71       92.   5.00       19.        5.       2.     0.16

          2 COMBINED AT
+                    08      203.   9.25      160.       65.      22.     2.37

          HYDROGRAPH AT
+                  RIDP      463.   4.75       93.       27.      11.     0.00

          ROUTED TO
+                P2S-P3      110.   6.00       75.       26.      11.     0.00

          HYDROGRAPH AT
+                    40      146.   6.75       85.       23.       8.     0.98

          2 COMBINED AT
+                    P3      250.   6.50      159.       49.      19.     0.98

          ROUTED TO
+                 P3-P4      239.   7.25      152.       49.      19.     0.98

          HYDROGRAPH AT
+                    51      128.   7.00       80.       23.       8.     1.00

          2 COMBINED AT
+                    P4      322.   7.25      202.       64.      24.     1.98

          ROUTED TO
+                 P4-P5      311.   8.00      199.       64.      24.     1.98

          HYDROGRAPH AT
+                    58       92.   5.25       26.        7.       2.     0.19

          2 COMBINED AT
+                    P5      311.   8.00      201.       68.      25.     2.17

          ROUTED TO
+                 P5-P6      304.   8.00      198.       67.      25.     2.17

          HYDROGRAPH AT
+                    72       91.   4.50       12.        3.       1.     0.09

          2 COMBINED AT
+                    P6      304.   8.00      198.       70.      26.     2.26


 *** NORMAL END OF HEC-1 ***
1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998              *                                    *   HYDROLOGIC ENGINEERING CENTER      *
 *            VERSION 4.1               *                                    *         609 SECOND STREET            *
 *                                      *                                    *      DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   23MAR06  TIME  04:57:35  *                                    *         (916) 756-1104               *
 *                                      *                                    *                                      *
 ****************************************                                    ****************************************


                                        X     X  XXXXXXX   XXXXX          X
                                        X     X  X        X     X        XX
                                        X     X  X        X               X
                                        XXXXXXX  XXXX     X        XXXXX  X
                                        X     X  X        X               X
                                        X     X  X        X     X         X
                                        X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                          PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

            1           ID   Buckeye/Sun Valley ADMS - November 2004
            2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
            3           ID   100-year 6-hour
            4           ID   Existing Conditions
            5           ID   Area 1 - RID to BIC (West)
            6           ID   File Name: rbw1006ex.hc1
            7           ID   Rainfall Loss Method - Green & Ampt
            8           ID   Unit Hydrograph Method - FCDMC S-Graph
            9           ID   Channel Routing Method - Normal Depth
           10           ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
           11           ID   Existing Land Use Cutoff Date: 2000
           12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
           13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                        *DIAGRAM
           14           IT      15 02JAN94       0     400
           15           IO       3
           16           IN      15 02JAN94       0
           17           JD     3.3    0.01
                        * 6-hour distribution, pattern 1.0
```

```
 18          PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
 19          PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
 20          PC   0.962   0.972   0.983   0.991     1.0
 21          IN      15 02JAN94       0
 22          JD    3.28     0.5
             * 6-hour distribution, pattern 1.0
 23          PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
 24          PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
 25          PC   0.962   0.972   0.983   0.991     1.0
 26          IN      15 02JAN94       0
 27          JD   3.257     1.0
             * 6-hour distribution, pattern 1.4
 28          PC     0.0  0.0084   0.016   0.025  0.0334  0.0414  0.0504  0.0584  0.0664  0.0748
 29          PC   0.087  0.0994  0.1188   0.148  0.2304  0.4067  0.7778  0.8813  0.9186  0.9452
 30          PC  0.9572  0.9684  0.9798  0.9898     1.0
 31          IN      15 02JAN94       0
 32          JD   3.168     5.0
             * 6-hour distribution, pattern 2.3
 33          PC     0.0   0.011  0.0173  0.0267  0.0387   0.049  0.0593  0.0693  0.0797  0.0903
 34          PC   0.103  0.1173  0.1383  0.1827  0.2693   0.458   0.686  0.8233  0.8893  0.9293
 35          PC  0.9487   0.962  0.9743  0.9877     1.0
 36          IN      15 02JAN94       0
 37          JD   3.102    10.0
             * 6-hour distribution, pattern 2.7
 38          PC     0.0  0.0134  0.0189  0.0287  0.0443  0.0574  0.0694  0.0818  0.0949  0.1076
 39          PC  0.1223  0.1382  0.1604  0.2063  0.2902  0.4664  0.6764  0.8069  0.8765  0.9189
 40          PC  0.9471  0.9608  0.9735  0.9873     1.0

 41          KK      68
 42          KM   ******************************************************************************
 43          KM   **   SUB-WATERSHED E   ***********************************************************
 44          KM   ******************************************************************************
 45          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 46          KM   L=0.96      Lca=0.33      S=45.58      Kn=0.050      LAG=22
 47          KM   S-GRAPH TYPE=DESERT RANGELAND
 48          KO       0        0      0.0        1       22
1                                          HEC-1 INPUT                                          PAGE  2

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 49          BA  0.4130
 50          LG   0.374    0.334    4.366    0.374      0.0
 51          UI     0.0   257.36   526.31    199.5    61.33    15.58      0.0

 52          KK   E1-E2    CNAME       E1
 53          KM   STORAGE ROUTE FROM E1 TO E2 THROUGH SPRR TRESTLE
 54          KO       0        0      0.0        0       22
 55          RS       1     ELEV    871.0      0.0
 56          SV     0.0     1.39     5.84    13.36    41.09    96.81   182.04    292.0   426.27   581.71
 57          SV  756.67   957.16   1179.1   1179.1   1179.1   1179.1   1179.1   1179.1   1179.1   1179.1
 58          SE   872.0    874.0    876.0    878.0    880.0    882.0    884.0    886.0    888.0    890.0
 59          SE   892.0    894.0    896.0    896.0    896.0    896.0    896.0    896.0    896.0    896.0
 60          SQ     0.0    100.0    240.0    360.0    480.0    600.0   1020.0   2000.0   2760.0   2760.0
 61          SQ  2760.0   2760.0   2760.0   2760.0   2760.0   2760.0   2760.0   2760.0   2760.0   2760.0
 62          SE  873.07   874.07   875.07   876.07   877.07   878.07   879.07   880.07   881.07   881.07
 63          SE  881.07   881.07   881.07   881.07   881.07   881.07   881.07   881.07   881.07   881.07

 64          KK      59
 65          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 66          KM   L=0.50      Lca=0.17      S=49.34      Kn=0.200      LAG=53
 67          KM   S-GRAPH TYPE=AGRICULTURE
 68          KO       0        0      0.0        1       22
 69          BA  0.2519
 70          LG     1.0     0.23    4.174    0.497    8.088
 71          UI     0.0     22.5    84.15   139.94   135.77   109.93    62.24    38.79    21.52     13.5
 72          UI    9.12     2.19     2.19     2.19     2.19     2.19      0.0

 73          KK      E2
 74          KM   COMBINE STORAGE HYDROGRAPH FROM E1 WITH RUNOFF FROM 59 @ E2
 75          ZW   A=RSW B=E2 C=FLOW E=15MIN F=100Y6H-EX
 76          KO       0        0      0.0        0       22
 77          HC       2

 78          KK   RIDF
 79          KM   ******************************************************************************
 80          KM   **   SUB-WATERSHED F   ***********************************************************
 81          KM   ******************************************************************************
 82          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 83          BA  0.0001
 84          ZR  =QI A=RID RID B=8199 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-100-06E

 85          KK  F1S-F2    CNAME      F1S
 86          KM   ROUTE INFLOW FROM RID CONCENTRATED AT F1S TO F2 (CHANNEL A)
 87          KO       0        0      0.0        0       22
 88          RS       1     FLOW      0.0      0.0
 89          RC     0.1      0.1      0.1   3225.0    0.004      0.0
 90          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
 91          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

 92          KK      27
 93          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 94          KM   L=0.82      Lca=0.41      S=14.59      Kn=0.200      LAG=115
 95          KM   S-GRAPH TYPE=AGRICULTURE
 96          KO       0        0      0.0        1       22
 97          BA  0.2410
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 98          LG     1.0    0.246    3.979    0.567    1.418
 99          UI     0.0     7.73    11.05    25.19    43.69    53.56    61.68    64.93    61.32    56.09
100          UI   48.56    42.77    30.31    23.36     21.4    13.77     11.2     9.22     7.06     6.07
101          UI    4.39     4.39     2.56     0.97     0.97     0.97     0.97     0.97     0.97     0.97
102          UI    0.97     0.97     0.97     0.97     0.97      0.0

103          KK      F2    CNAME    F2-F3
104          KM   COMBINE ROUTED HYDROGRAPH FROM F1S WITH RUNOFF FROM 27 @ F2
105          KO       0        0      0.0        0       22
106          HC       2

107          KK   F2-F3    CNAME       F2
108          KM   ROUTE HYDROGRAPH FROM F2 TO F3 (CHANNEL A)
109          KO       0        0      0.0        0       22
110          RS       8     FLOW      0.0      0.0
```

```
 111          RC     0.1     0.1     0.1 5241.87  0.0057     0.0
 112          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 113          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 114          KK      29
 115          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 116          KM   L=1.47      Lca=0.73      S=22.92      Kn=0.200      LAG=163
 117          KM   S-GRAPH TYPE=AGRICULTURE
 118          KO       0       0     0.0       1      22
 119          BA  0.9987
 120          LG     1.0    0.25   3.977   0.548     0.0
 121          UI     0.0    22.6    22.6   40.44   67.42  122.16  127.17  170.96  171.63   189.8
 122          UI   189.8  185.58  158.17  166.76  141.69  122.98  113.44   86.27    70.6   65.75
 123          UI   56.62   40.79    36.5   28.42   27.23   20.63   20.63   15.99   12.82   12.82
 124          UI   12.82    7.09    2.82    2.82    2.82    2.82    2.82    2.82    2.82    2.82
 125          UI    2.82    2.82    2.82    2.82    2.82    2.82    2.82    2.82    2.82     0.0

 126          KK      F3   CNAME   F3-F4
 127          KM   COMBINE ROUTED HYDROGRAPH FROM F2 WITH RUNOFF FROM 29 @ F3
 128          KO       0       0     0.0       0      22
 129          HC       2

 130          KK   F3-F4   CNAME      F3
 131          KM   ROUTE HYDRPGRAPH FROM F3 TO F4 (CHANNEL A)
 132          KO       0       0     0.0       0      22
 133          RS       7    FLOW     0.0     0.0
 134          RC     0.1     0.1     0.1 5501.87  0.0058     0.0
 135          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 136          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 137          KK      41
 138          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 139          KM   L=1.54      Lca=0.77      S=23.99      Kn=0.200      LAG=168
 140          KM   S-GRAPH TYPE=AGRICULTURE
 141          KO       0       0     0.0       1      22
 142          BA  1.2021
 143          LG     1.0    0.25   3.965   0.474     0.0
 144          UI     0.0   26.39   26.39    45.2   74.92  131.88  154.05  177.32  206.14  221.65
 145          UI  221.65  221.65   192.1  189.15  190.62  138.53  151.39  105.43   94.19   76.42
 146          UI   81.61   52.05    44.8   39.98    32.6   29.54   24.09   24.09   16.95   14.98
1                                          HEC-1 INPUT                                          PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 147          UI   14.98   14.98     7.5     3.3     3.3     3.3     3.3     3.3     3.3     3.3
 148          UI     3.3     3.3     3.3     3.3     3.3     3.3     3.3     3.3     3.3     3.3
 149          UI     3.3     0.0

 150          KK      F4   CNAME  F4-F5B
 151          KM   COMBINE ROUTED HYDROGRAPH FROM F3 WITH RUNOFF FROM 41 @ F4
 152          KO       0       0     0.0       0      22
 153          HC       2

 154          KK  F4-F5B   CNAME      F4
 155          KM   ROUTE HYDRPGRAPH FROM F4 TO F5B (CHANNEL A)
 156          KO       0       0     0.0       0      22
 157          RS       4    FLOW     0.0     0.0
 158          RC     0.1     0.1     0.1 3704.65  0.0065     0.0
 159          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 160          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 161          KK     52B
 162          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 163          KM   L=0.71      Lca=0.32      S=32.56      Kn=0.200      LAG=85
 164          KM   S-GRAPH TYPE=AGRICULTURE
 165          KO       0       0     0.0       1      22
 166          BA  0.4953
 167          LG     1.0   0.251   4.087    0.53   0.349
 168          UI     0.0   21.49   47.96  115.57  153.43   180.5  170.48  157.82  118.28   85.92
 169          UI   63.75   43.62   30.66   22.85   17.91    12.2   10.93    2.69    2.69    2.69
 170          UI    2.69    2.69    2.69    2.69    2.69    2.69     0.0

 171          KK     F5B   CNAME F5B-F6B
 172          KM   COMBINE ROUTED HYDROGRAPH FROM F4 WITH RUNOFF FROM 52B @ F5B
 173          KO       0       0     0.0       0      22
 174          HC       2

 175          KK  F5BF6B   CNAME      F5B
 176          KM   STORAGE ROUTE FROM F5B TO F6B THROUGH SPRR TRESTLE
 177          KO       0       0     0.0       0      22
 178          RS       1    ELEV   886.0     0.0
 179          SV     0.0    0.08    0.94    6.13   37.02  122.46  262.93   479.0  749.83  749.83
 180          SV  749.83  749.83  749.83  749.83  749.83  749.83  749.83  749.83  749.83  749.83
 181          SE   886.0   888.0   890.0   892.0   894.0   896.0   898.0   900.0   902.0   902.0
 182          SE   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0
 183          SQ     0.0    80.0   120.0   230.0  1145.0  1980.0  2670.0  2670.0  2670.0  2670.0
 184          SQ  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0
 185          SE   886.0  887.07  888.07  889.07  890.07  891.07  892.07  892.07  892.07  892.07
 186          SE  892.07  892.07  892.07  892.07  892.07  892.07  892.07  892.07  892.07  892.07

 187          KK     60B
 188          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 189          KM   L=1.03      Lca=0.35      S=22.68      Kn=0.200      LAG=108
 190          KM   S-GRAPH TYPE=AGRICULTURE
 191          KO       0       0     0.0       1      22
 192          BA  0.5744
 193          LG     1.0   0.249   4.158   0.551   3.254
 194          UI     0.0   19.61   30.14   73.81  110.38  144.98  164.75  164.75  142.78  142.23
 195          UI  106.31   87.94    64.4   56.91    35.6   28.82   23.22   17.91   14.49   11.13
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 196          UI   11.13    3.84    2.45    2.45    2.45    2.45    2.45    2.45    2.45    2.45
 197          UI    2.45    2.45    2.45     0.0

 198          KK     F6B
 199          KM   COMBINE STORAGE HYDROGRAPH FROM F5B WITH RUNOFF FROM 60B @ F6B
 200          ZW   A=RBW B=F6B C=FLOW E=15MIN F=100Y6H-EX
 201          KO       0       0     0.0       0      22
 202          HC       2

 203          KK     52A
 204          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
```

```
 205          KM   L=0.92      Lca=0.57      S=6.91      Kn=0.200      LAG=156
 206          KM   S-GRAPH TYPE=AGRICULTURE
 207          KO       0        0      0.0        1       22
 208          BA  0.3127
 209          LG     1.0     0.25    3.966    0.439    0.364
 210          UI     0.0     7.39     7.39    14.03    25.52    42.85    41.09    54.59    61.74     62.1
 211          UI    62.1    55.89    52.16    54.02    38.81    41.05    29.04    24.79    21.13    20.13
 212          UI   13.59    11.94     9.45     8.85     6.75     6.75     4.89      4.2      4.2      4.2
 213          UI    1.32     0.92     0.92     0.92     0.92     0.92     0.92     0.92     0.92     0.92
 214          UI    0.92     0.92     0.92     0.92     0.92     0.92     0.92      0.0

 215          KK  F5AF6A   CNAME     F5A
 216          KM   STORAGE ROUTE FROM F5A TO F6A THROUGH SPRR TRESTLE
 217          KO       0        0      0.0        0       22
 218          RS       1     ELEV    894.0      0.0
 219          SV     0.0     0.02     0.64    12.92    61.76    61.76    61.76    61.76    61.76    61.76
 220          SV   61.76    61.76    61.76    61.76    61.76    61.76    61.76    61.76    61.76    61.76
 221          SE   894.0    896.0    898.0    900.0    902.0    902.0    902.0    902.0    902.0    902.0
 222          SE   902.0    902.0    902.0    902.0    902.0    902.0    902.0    902.0    902.0    902.0
 223          SQ     0.0     58.1    112.2    146.6    174.0    198.5    218.5    237.6    255.3    271.8
 224          SQ   287.4    302.2    316.3    329.7    342.7    355.2    367.2    378.9    401.2    422.3
 225          SE   894.0    896.4    896.9    897.4    897.9    898.4    898.9    899.4    899.9    900.4
 226          SE   900.9    901.4    901.9    902.4    902.9    903.4    903.9    904.4    905.4    906.4

 227          KK     60A
 228          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 229          KM   L=1.07      Lca=0.46      S=27.51      Kn=0.200      LAG=117
 230          KM   S-GRAPH TYPE=AGRICULTURE
 231          KO       0        0      0.0        1       22
 232          BA  0.4117
 233          LG     1.0    0.249    4.045    0.541    0.795
 234          UI     0.0    12.98    18.15    40.42    73.45    89.47   100.76   109.02   105.38    91.39
 235          UI   88.17    72.54    53.81    42.04    38.73    24.09    20.15    16.03    12.52    11.64
 236          UI    7.37     7.37     6.45     1.62     1.62     1.62     1.62     1.62     1.62     1.62
 237          UI    1.62     1.62     1.62     1.62     1.62      0.0

 238          KK     F6A
 239          KM   COMBINE STORAGE HYDROGRAPH FROM F5A WITH RUNOFF FROM 60A @ F6A
 240          ZW   A=RBW B=F6A C=FLOW E=15MIN F=100Y6H-EX
 241          KO       0        0      0.0        0       22
 242          HC       2
1                                          HEC-1 INPUT                                                    PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 243          KK   RIDG
 244          KM   ******************************************************************************
 245          KM   **   SUB-WATERSHED G   ***********************************************************
 246          KM   ******************************************************************************
 247          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 248          BA  0.0001
 249          ZR  =QI A=RID RID B=13399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-100-06E

 250          KK  G3S-G4   CNAME     G3S
 251          KM   ROUTE INFLOW FROM RID CONCENTRATED AT G3S TO G4 (CHANNEL A)
 252          KO       0        0      0.0        0       22
 253          RS       1     FLOW      0.0      0.0
 254          RC     0.1      0.1      0.1   4594.0    0.004      0.0
 255          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
 256          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

 257          KK      28
 258          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 259          KM   L=1.02      Lca=0.51      S=16.68      Kn=0.200      LAG=132
 260          KM   S-GRAPH TYPE=AGRICULTURE
 261          KO       0        0      0.0        1       22
 262          BA  0.3347
 263          LG     1.0    0.249    4.178    0.467    0.543
 264          UI     0.0     9.35    10.92     23.2    45.57    53.95    69.13    78.56    78.56    75.94
 265          UI   65.47    68.35    49.76    47.59    34.97    27.16    26.43    17.09    14.62    11.55
 266          UI    9.62     8.54     6.55     5.31     5.31     3.82     1.17     1.17     1.17     1.17
 267          UI    1.17     1.17     1.17     1.17     1.17     1.17     1.17     1.17     1.17     1.17
 268          UI     0.0

 269          KK      G4   CNAME    G4-G5
 270          KM   COMBINE ROUTED HYDROGRAPH FROM G3S WITH RUNOFF FROM 28 @ G4
 271          KO       0        0      0.0        0       22
 272          HC       2

 273          KK   G4-G5   CNAME      G4
 274          KM   ROUTE HYDRPGRAPH FROM G4 TO G5 (CHANNEL A)
 275          KO       0        0      0.0        0       22
 276          RS      11     FLOW      0.0      0.0
 277          RC     0.1      0.1      0.1 7127.48   0.0045      0.0
 278          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
 279          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

 280          KK      30
 281          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 282          KM   L=1.55      Lca=0.78      S=21.93      Kn=0.200      LAG=172
 283          KM   S-GRAPH TYPE=AGRICULTURE
 284          KO       0        0      0.0        1       22
 285          BA  0.9830
 286          LG     1.0     0.25    4.028    0.469    8.734
 287          UI     0.0    21.08    21.08     34.8     57.4    101.7   123.34    132.0   163.67   177.05
 288          UI  177.05   177.05   161.31   147.54   161.39   117.56   117.82    99.14    80.48    64.92
 289          UI   61.01    54.87    38.92    34.05    28.26    26.04    20.78    19.24    18.25    11.96
 290          UI   11.96    11.96    11.96     3.63     2.63     2.63     2.63     2.63     2.63     2.63
 291          UI    2.63     2.63     2.63     2.63     2.63     2.63     2.63     2.63     2.63     2.63
1                                          HEC-1 INPUT                                                    PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 292          UI    2.63     2.63      0.0

 293          KK      G5   CNAME    G5-G6
 294          KM   COMBINE ROUTED HYDROGRAPH FROM G4 WITH RUNOFF FROM 30 @ G5
 295          KO       0        0      0.0        0       22
 296          HC       2

 297          KK   G5-G6   CNAME      G5
 298          KM   ROUTE HYDRPGRAPH FROM G5 TO G6 (CHANNEL A)
 299          KO       0        0      0.0        0       22
```

```
300          RS       8    FLOW     0.0      0.0
301          RC     0.1     0.1     0.1 5820.25  0.0055     0.0
302          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
303          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

304          KK      42
305          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
306          KM   L=1.56      Lca=0.78      S=22.73      Kn=0.200      LAG=172
307          KM   S-GRAPH TYPE=AGRICULTURE
308          KO       0       0     0.0       1      22
309          BA  0.7784
310          LG     1.0    0.25   4.279   0.452   0.465
311          UI     0.0   16.69   16.69   27.56   45.45   80.53   97.66  104.52   129.6  140.19
312          UI  140.19  140.19  127.73  116.82  127.79   93.09   93.29    78.5   63.72    51.4
313          UI   48.31   43.45   30.82   26.96   22.38   20.62   16.46   15.24   14.45    9.47
314          UI    9.47    9.47    9.47    2.87    2.09    2.09    2.09    2.09    2.09    2.09
315          UI    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09
316          UI    2.09    2.09     0.0

317          KK      G6   CNAME   G6-G7
318          KM   COMBINE ROUTED HYDROGRAPH FROM G5 WITH RUNOFF FROM 42 @ G6
319          KO       0       0     0.0       0      22
320          HC       2

321          KK   G6-G7   CNAME      G6
322          KM   ROUTE HYDRPGRAPH FROM G6 TO G7 (CHANNEL A)
323          KO       0       0     0.0       0      22
324          RS       4    FLOW     0.0     0.0
325          RC     0.1     0.1     0.1 2613.05  0.0069     0.0
326          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
327          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

328          KK      53
329          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
330          KM   L=0.91      Lca=0.46      S=23.93      Kn=0.200      LAG=113
331          KM   S-GRAPH TYPE=AGRICULTURE
332          KO       0       0     0.0       1      22
333          BA  0.3385
334          LG     1.0    0.25   3.997   0.444     0.0
335          UI     0.0   11.05   16.13    37.6   62.38   76.97   90.56   92.81    85.6   80.26
336          UI   66.07   58.87   41.62   31.91   28.17   18.87   14.88   12.13   10.09    7.44
337          UI    6.27    6.27    1.84    1.38    1.38    1.38    1.38    1.38    1.38    1.38
338          UI    1.38    1.38    1.38    1.38     0.0
1                                         HEC-1 INPUT                                                    PAGE  8
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

339          KK      G7   CNAME   G7-G8
340          KM   COMBINE ROUTED HYDROGRAPH FROM G6 WITH RUNOFF FROM 53 @ G7
341          KO       0       0     0.0       0      22
342          HC       2

343          KK   G7-G8   CNAME      G7
344          KM   STORAGE ROUTE FROM G7 TO G8 THROUGH SPRR TRESTLE
345          KO       0       0     0.0       0      22
346          RS       1    ELEV   888.0     0.0
347          SV     0.0     0.6    4.25   26.94  108.66  257.97   449.6   449.6   449.6   449.6
348          SV   449.6   449.6   449.6   449.6   449.6   449.6   449.6   449.6   449.6   449.6
349          SE   888.0   890.0   892.0   894.0   896.0   898.0   900.0   900.0   900.0   900.0
350          SE   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0
351          SQ     0.0   100.0   200.0   480.0  1480.0  2060.0  2520.0  2900.0  2900.0  2900.0
352          SQ  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0
353          SE   888.0  888.07  889.07  890.07  891.07  892.07  893.07  894.07  894.07  894.07
354          SE  894.07  894.07  894.07  894.07  894.07  894.07  894.07  894.07  894.07  894.07

355          KK      61
356          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
357          KM   L=0.90      Lca=0.45      S=23.00      Kn=0.200      LAG=113
358          KM   S-GRAPH TYPE=AGRICULTURE
359          KO       0       0     0.0       1      22
360          BA  0.5081
361          LG     1.0   0.248   3.965   0.464   2.234
362          UI     0.0   16.58   24.21   56.43   93.62  115.52  135.92   139.3  128.47  120.46
363          UI   99.16   88.35   62.47    47.9   42.28   28.31   22.33   18.21   15.14   11.17
364          UI    9.41    9.41    2.76    2.07    2.07    2.07    2.07    2.07    2.07    2.07
365          UI    2.07    2.07    2.07    2.07     0.0

366          KK      G8
367          KM   COMBINE STORAGE HYDROGRAPH FROM G7 WITH RUNOFF FROM 61 @ G8
368          ZW   A=RBW B=G8 C=FLOW E=15MIN F=100Y6H-EX
369          KO       0       0     0.0       0      22
370          HC       2

371          KK   RIDH
372          KM   ***************************************************************************
373          KM   **   SUB-WATERSHED H   ***********************************************
374          KM   ***************************************************************************
375          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
376          BA  0.0001
377          ZR  =QI A=RID RID B=19799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-100-06E

378          KK  H3S-H4   CNAME     H3S
379          KM   ROUTE INFLOW FROM RID CONCENTRATED AT H3S TO H4 (CHANNEL A)
380          KO       0       0     0.0       0      22
381          RS       1    FLOW     0.0     0.0
382          RC     0.1     0.1     0.110193.17   0.005     0.0
383          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
384          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                         HEC-1 INPUT                                                    PAGE  9
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

385          KK      31
386          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
387          KM   L=1.93      Lca=0.97      S=26.40      Kn=0.200      LAG=196
388          KM   S-GRAPH TYPE=AGRICULTURE
389          KO       0       0     0.0       1      22
390          BA  1.0788
391          LG     1.0   0.249   4.018   0.456   0.852
392          UI     0.0    20.3    20.3   26.01   42.62   75.47  110.82  116.22  130.81  156.48
393          UI  170.49  170.49  170.49  170.49  143.97  142.08   158.6  111.16  110.82  106.73
394          UI   79.11   71.61    59.1   60.85   49.19   37.72   32.79   29.13   25.07   23.42
```

```
395          UI   18.53   18.53   16.79   11.52   11.52   11.52   11.52    7.81    2.54    2.54
396          UI    2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54
397          UI    2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54     0.0

398          KK      H4   CNAME   H4-H5
399          KM   COMBINE ROUTED HYDROGRAPH FROM H3S WITH RUNOFF FROM 31 @ H4
400          KO       0       0     0.0       0      22
401          HC       2

402          KK   H4-H5   CNAME      H4
403          KM   ROUTE HYDRPGRAPH FROM H4 TO H5 (CHANNEL B)
404          KO       0       0     0.0       0      22
405          RS       5    FLOW     0.0     0.0
406          RC     0.1    0.02     0.1 5382.76  0.0059     0.0
407          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
408          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

409          KK      43
410          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
411          KM   L=1.92     Lca=0.96     S=20.85     Kn=0.200     LAG=204
412          KM   S-GRAPH TYPE=AGRICULTURE
413          KO       0       0     0.0       1      22
414          BA  1.0022
415          LG     1.0    0.25   3.958   0.425    0.66
416          UI     0.0   18.12   18.12   20.99   38.04   57.93    94.1  108.05  107.28   138.7
417          UI  144.35  152.18  152.18  152.18  142.03  126.81  135.44  126.81   95.11  102.81
418          UI    87.2   69.17   61.58   52.32   54.94   42.82   33.73   29.26   26.57   22.38
419          UI   21.91   16.54   16.54   16.54   10.58   10.28   10.28   10.28   10.28    2.91
420          UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
421          UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
422          UI    2.26     0.0

423          KK      H5   CNAME   H5-H6
424          KM   COMBINE ROUTED HYDROGRAPH FROM H4 WITH RUNOFF FROM 43 @ H5
425          KO       0       0     0.0       0      22
426          HC       2

427          KK   H5-H6   CNAME      H5
428          KM   ROUTE HYDRPGRAPH FROM H5 TO H6 (CHANNEL B)
429          KO       0       0     0.0       0      22
430          RS       3    FLOW     0.0     0.0
431          RC     0.1    0.02     0.1 2887.92  0.0049     0.0
432          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
433          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0
1                                          HEC-1 INPUT                                                PAGE 10

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

434          KK      54
435          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
436          KM   L=1.20     Lca=0.60     S=12.35     Kn=0.200     LAG=157
437          KM   S-GRAPH TYPE=AGRICULTURE
438          KO       0       0     0.0       1      22
439          BA  0.3861
440          LG     1.0    0.25     4.0   0.447     0.0
441          UI     0.0    9.07    9.07   17.07   30.66   52.22    50.2    67.4   74.77   76.18
442          UI   76.18   69.41   63.49   68.13   47.62   51.29   35.97    31.2   25.88   25.91
443          UI   17.01   14.65   12.06    11.2    8.36    8.28    6.51    5.15    5.15    5.15
444          UI    2.36    1.13    1.13    1.13    1.13    1.13    1.13    1.13    1.13    1.13
445          UI    1.13    1.13    1.13    1.13    1.13    1.13    1.13     0.0

446          KK      H6   CNAME   H6-H7
447          KM   COMBINE ROUTED HYDROGRAPH FROM H5 WITH RUNOFF FROM 54 @ H6
448          KO       0       0     0.0       0      22
449          HC       2

450          KK   H6-H7   CNAME      H6
451          KM   STORAGE ROUTE FROM H6 TO H7 THROUGH SPRR TRESTLE
452          KO       0       0     0.0       0      22
453          RS       1    ELEV   890.0     0.0
454          SV     0.0    0.45   30.43  148.25  336.08  336.08  336.08  336.08  336.08  336.08
455          SV  336.08  336.08  336.08  336.08  336.08  336.08  336.08  336.08  336.08  336.08
456          SE   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0
457          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
458          SQ     0.0   185.0   720.0  1025.0  1075.0  1150.0  1355.0  1800.0  1800.0  1800.0
459          SQ  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0
460          SE   890.0  891.07  893.47  895.47  895.57  895.67  895.77  895.87  895.87  895.87
461          SE  895.87  895.87  895.87  895.87  895.87  895.87  895.87  895.87  895.87  895.87

462          KK      62
463          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
464          KM   L=0.98     Lca=0.49     S=21.54     Kn=0.200     LAG=122
465          KM   S-GRAPH TYPE=AGRICULTURE
466          KO       0       0     0.0       1      22
467          BA  0.5717
468          LG     1.0   0.249   4.203   0.444   0.473
469          UI     0.0   17.28   22.83   47.88   97.83  104.21  138.24  145.18  145.18  124.21
470          UI  130.72   91.16   89.45   63.88   49.84   45.53   30.22    24.7   20.76   15.78
471          UI   14.37    9.81    9.81    8.08    2.16    2.16    2.16    2.16    2.16    2.16
472          UI    2.16    2.16    2.16    2.16    2.16    2.16    2.16     0.0

473          KK      H7
474          KM   COMBINE STORAGE HYDROGRAPH FROM H6 WITH RUNOFF FROM 62 @ H7
475          ZW   A=RBW B=H7 C=FLOW E=15MIN F=100Y6H-EX
476          KO       0       0     0.0       0      22
477          HC       2
1                                          HEC-1 INPUT                                                PAGE 11

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

478          KK   RIDI
479          KM   ******************************************************************************
480          KM   **    SUB-WATERSHED I    ***********************************************
481          KM   ******************************************************************************
482          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
483          BA  0.0001
484          ZR  =QI A=RID RID B=24399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-100-06E

485          KK  I2S-I3   CNAME     I2S
486          KM   ROUTE INFLOW FROM RID CONCENTRATED AT I2S TO I3 (CHANNEL A)
487          KO       0       0     0.0       0      22
488          RS       1    FLOW     0.0     0.0
```

```
489          RC     0.1     0.1     0.1 8174.00   0.005     0.0
490          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
491          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

492          KK      32
493          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
494          KM   L=1.84      Lca=0.92      S=24.34      Kn=0.200      LAG=192
495          KM   S-GRAPH TYPE=AGRICULTURE
496          KO       0       0     0.0       1      22
497          BA  0.8959
498          LG     1.0   0.249     4.0   0.515   1.146
499          UI     0.0   17.21   17.21   23.11   36.91   68.18   97.57   94.68  119.26  132.99
500          UI  144.55  144.55  144.55  139.73  120.46  127.21  121.42   90.35    99.1   77.05
501          UI   65.71   54.78    48.6    53.0   32.85   29.42   27.69   21.26   21.26    16.6
502          UI   15.71   15.71   10.39    9.77    9.77    9.77    8.55    2.15    2.15    2.15
503          UI    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15
504          UI    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15     0.0

505          KK      I3   CNAME   I3-I4
506          KM   COMBINE ROUTED HYDROGRAPH FROM I2S WITH RUNOFF FROM 32 @ I3
507          KO       0       0     0.0       0      22
508          HC       2

509          KK   I3-I4   CNAME      I3
510          KM   ROUTE HYDRPGRAPH FROM I3 TO I4 (CHANNEL B)
511          KO       0       0     0.0       0      22
512          RS      10    FLOW     0.0     0.0
513          RC     0.1    0.02    0.110387.48  0.0042     0.0
514          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
515          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

516          KK      44
517          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
518          KM   L=1.97      Lca=0.98      S=22.43      Kn=0.200      LAG=205
519          KM   S-GRAPH TYPE=AGRICULTURE
520          KO       0       0     0.0       1      22
521          BA  1.0069
522          LG     1.0    0.25   4.136   0.485   5.217
523          UI     0.0   18.11   18.11    20.7   38.04    57.4    93.3  108.09  106.09  139.54
524          UI  142.37  152.15  152.15  152.15   143.7   126.8  133.98  130.92    95.1  101.27
525          UI   90.64   69.78   63.13   52.71   54.03   45.67    34.4   29.26   27.49   22.38
526          UI   22.38   16.93   16.54   16.54   11.59   10.28   10.28   10.28   10.28     4.4
1                                          HEC-1 INPUT                                                    PAGE 12

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

527          UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
528          UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
529          UI    2.26    2.26     0.0

530          KK      I4   CNAME   I4-I5
531          KM   COMBINE ROUTED HYDROGRAPH FROM I3 WITH RUNOFF FROM 44 @ I4
532          KO       0       0     0.0       0      22
533          HC       2

534          KK   I4-I5   CNAME      I4
535          KM   ROUTE HYDRPGRAPH FROM I4 TO I5 (CHANNEL A)
536          KO       0       0     0.0       0      22
537          RS       4    FLOW     0.0     0.0
538          RC     0.1     0.1     0.1 2589.37  0.0035     0.0
539          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
540          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

541          KK      55
542          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
543          KM   L=0.97      Lca=0.48      S=12.83      Kn=0.200      LAG=133
544          KM   S-GRAPH TYPE=AGRICULTURE
545          KO       0       0     0.0       1      22
546          BA  0.2627
547          LG     1.0    0.25   4.128   0.446     0.0
548          UI     0.0    7.29    8.39   17.86   34.8   41.96   53.41    61.2    61.2   59.84
549          UI    51.0   54.32   38.38   38.38   27.91   21.37   21.37   13.58   11.77     9.0
550          UI    7.84    6.65    5.51    4.14    4.14    3.58    0.91    0.91    0.91    0.91
551          UI    0.91    0.91    0.91    0.91    0.91    0.91    0.91    0.91    0.91    0.91
552          UI     0.0

553          KK      I5   CNAME   I5-I6
554          KM   COMBINE ROUTED HYDROGRAPH FROM I4 WITH RUNOFF FROM 55 @ I5
555          KO       0       0     0.0       0      22
556          HC       2

557          KK   I5-I6   CNAME      I5
558          KM   STORAGE ROUTE FROM I5 TO I6 THROUGH SPRR TRESTLE
559          KO       0       0     0.0       0      22
560          RS       1    ELEV   892.0     0.0
561          SV     0.0     0.1    25.1  124.92  273.66  273.66  273.66  273.66  273.66  273.66
562          SV  273.66  273.66  273.66  273.66  273.66  273.66  273.66  273.66  273.66  273.66
563          SE   892.0   894.0   896.0   898.0   900.0   900.0   900.0   900.0   900.0   900.0
564          SE   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0
565          SQ     0.0    60.0   150.0   221.0   400.0   830.0  1134.0  1488.0  1892.0  1892.0
566          SQ  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0
567          SE  892.00  894.08  895.18  895.88  896.08  896.28  896.38  896.48  896.58  896.58
568          SE  896.58  896.58  896.58  896.58  896.58  896.58  896.58  896.58  896.58  896.58

569          KK      63
570          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
571          KM   L=0.95      Lca=0.47      S=20.27      Kn=0.200      LAG=120
572          KM   S-GRAPH TYPE=AGRICULTURE
573          KO       0       0     0.0       1      22
574          BA  0.4994
575          LG     1.0    0.25   4.192   0.398  20.751
1                                          HEC-1 INPUT                                                    PAGE 13

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

576          UI     0.0   15.35   20.75   44.48   87.02   96.69  122.47  128.92  128.92  107.43
577          UI  111.73   82.37   73.51   54.08   44.91   35.79   25.69   20.36   16.98   14.01
578          UI   11.04    8.71    8.71    4.64    1.92    1.92    1.92    1.92    1.92    1.92
579          UI    1.92    1.92    1.92    1.92    1.92    1.92     0.0

580          KK      I6
581          KM   COMBINE STORAGE HYDROGRAPH FROM I5 WITH RUNOFF FROM 63 @ I6
582          ZW   A=RBW B=I6 C=FLOW E=15MIN F=100Y6H-EX
583          KO       0       0     0.0       0      22
```

```
584          HC       2

585          KK   RIDJ
586          KM   ******************************************************************************
587          KM   **   SUB-WATERSHED J   ******************************************************
588          KM   ******************************************************************************
589          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
590          BA  0.0001
591          ZR  =QI A=RID RID B=27599 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-100-06E

592          KK  J3S-J4   CNAME     J3S
593          KM   ROUTE INFLOW FROM RID CONCENTRATED AT J3S TO J4 (CHANNEL A)
594          KO       0       0     0.0       0      22
595          RS       1    FLOW     0.0     0.0
596          RC     0.1     0.1     0.1 8056.46   0.007     0.0
597          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
598          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

599          KK      33
600          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
601          KM   L=1.84     Lca=0.92     S=29.30     Kn=0.200     LAG=185
602          KM   S-GRAPH TYPE=AGRICULTURE
603          KO       0       0     0.0       1      22
604          BA  1.0024
605          LG     1.0   0.249   3.962    0.44   0.529
606          UI     0.0   19.98   19.98   28.99   46.91   85.21  117.85  108.17   155.0  152.26
607          UI  167.85  167.85  167.85   149.2  139.88  152.37  115.61  108.99  103.55   77.29
608          UI    67.9   57.35   62.19   40.17   34.82   32.28   24.96   24.68    19.1   18.24
609          UI   18.04   11.34   11.34   11.34   11.34    7.21     2.5     2.5     2.5     2.5
610          UI     2.5     2.5     2.5     2.5     2.5     2.5     2.5     2.5     2.5     2.5
611          UI     2.5     2.5     2.5     2.5     2.5     2.5     0.0

612          KK      J4   CNAME   J4-J5
613          KM   COMBINE ROUTED HYDROGRAPH FROM J3S WITH RUNOFF FROM 33 @ J4
614          KO       0       0     0.0       0      22
615          HC       2

616          KK   J4-J5   CNAME      J4
617          KM   ROUTE HYDRPGRAPH FROM J4 TO J5 (CHANNEL A)
618          KO       0       0     0.0       0      22
619          RS       5    FLOW     0.0     0.0
620          RC     0.1     0.1     0.1 5307.06  0.0077     0.0
621          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
622          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

623          KK     45A
624          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
625          KM   L=1.97     Lca=0.99     S=25.14     Kn=0.200     LAG=201
626          KM   S-GRAPH TYPE=AGRICULTURE
627          KO       0       0     0.0       1      22
628          BA  1.0027
629          LG     1.0    0.25   3.993   0.441   0.243
630          UI     0.0    18.4    18.4   22.16   38.63   61.78   96.59  109.53  112.56  138.24
631          UI  152.55  154.54  154.54  154.54  139.08  128.78  137.41  120.73   96.59  109.05
632          UI   76.17   70.24   57.78   51.92   58.19   35.12    32.2   29.72   24.14   22.73
633          UI   19.64    16.8    16.8   14.01   10.44   10.44   10.44   10.44    6.53     2.3
634          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
635          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
636          UI     2.3

637          KK     J5A   CNAME  J5A-5B
638          KM   COMBINE ROUTED HYDROGRAPH FROM J4 WITH RUNOFF FROM 45A @ J5A
639          KO       0       0     0.0       0      22
640          HC       2

641          KK  J5A-5B   CNAME     J5A
642          KM   ROUTE HYDRPGRAPH FROM J5A TO J5B (CHANNEL A)
643          KO       0       0     0.0       0      22
644          RS       6    FLOW     0.0     0.0
645          RC     0.1     0.1     0.1 2736.25  0.0015     0.0
646          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
647          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

648          KK     45B
649          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
650          KM   L=0.52     Lca=0.26     S=8.59     Kn=0.200     LAG=89
651          KM   S-GRAPH TYPE=AGRICULTURE
652          KO       0       0     0.0       1      22
653          BA  0.1397
654          LG     1.0    0.25   3.969   0.417  29.714
655          UI     0.0    5.79    11.9   30.23    38.5   48.58   48.11   41.75   34.63    28.1
656          UI   18.91   15.22    9.82    7.25    5.39    4.12    3.29     2.3    0.72    0.72
657          UI    0.72    0.72    0.72    0.72    0.72    0.72    0.72     0.0

658          KK     J5B   CNAME  J5B-J6
659          KM   COMBINE ROUTED HYDROGRAPH FROM J5A WITH RUNOFF FROM 45B @ J5B
660          KO       0       0     0.0       0      22
661          HC       2

662          KK  J5B-J6   CNAME     J5B
663          KM   STORAGE ROUTE FROM J5B TO J6 THROUGH SPRR TRESTLE
664          KO       0       0     0.0       0      22
665          RS       1    ELEV   892.0     0.0
666          SV     0.0   20.33   91.45  223.99  223.99  223.99  223.99  223.99  223.99  223.99
667          SV  223.99  223.99  223.99  223.99  223.99  223.99  223.99  223.99  223.99  223.99
668          SE   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
669          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
670          SQ     0.0   150.0   230.0   308.0   825.0  1144.0  1970.0  1970.0  1970.0  1970.0
671          SQ  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

672          SE   892.0  893.68  895.08  895.48  895.68  895.88  896.08  896.08  896.08  896.08
673          SE  896.08  896.08  896.08  896.08  896.08  896.08  896.08  896.08  896.08  896.08

674          KK      64
675          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
676          KM   L=0.89     Lca=0.45     S=17.94     Kn=0.200     LAG=117
677          KM   S-GRAPH TYPE=AGRICULTURE
```

```
678     KO      0      0    0.0      1     22
679     BA  0.4148
680     LG    1.0  0.248  4.357  0.445  1.184
681     UI    0.0  13.07  18.28  40.72  73.99  90.13  101.51  109.82  106.16  92.07
682     UI  88.82  73.07  54.21  42.35  39.02  24.27    20.3   16.15   12.61  11.73
683     UI   7.42   7.42   6.49   1.63   1.63   1.63    1.63    1.63    1.63   1.63
684     UI   1.63   1.63   1.63   1.63   1.63    0.0

685     KK     J6
686     KM   COMBINE STORAGE HYDROGRAPH FROM J5B WITH RUNOFF FROM 64 @ J6
687     ZW   A=RBW B=J6 C=FLOW E=15MIN P=100Y6H-EX
688     KO      0      0    0.0      0     22
689     HC      2
690     ZZ
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	68	694.	4.50	64.	16.	5.	0.41		
+	ROUTED TO	E1-E2	453.	4.75	62.	16.	5.	0.41		
+	HYDROGRAPH AT	59	169.	4.75	34.	9.	3.	0.25		
+	2 COMBINED AT	E2	589.	4.75	92.	23.	8.	0.66		
+	HYDROGRAPH AT	RIDF	288.	6.00	173.	44.	15.	0.00		
+	ROUTED TO	F1S-F2	229.	7.75	159.	44.	15.	0.00		
+	HYDROGRAPH AT	27	70.	5.75	28.	7.	2.	0.24		
+	2 COMBINED AT	F2	249.	7.50	176.	51.	17.	0.24		
+	ROUTED TO	F2-F3	239.	8.75	172.	51.	17.	0.24		
+	HYDROGRAPH AT	29	162.	6.50	86.	23.	8.	1.00		
+	2 COMBINED AT	F3	290.	8.00	218.	71.	24.	1.24		
+	ROUTED TO	F3-F4	282.	9.50	214.	71.	24.	1.24		
+	HYDROGRAPH AT	41	197.	6.50	107.	29.	10.	1.20		
+	2 COMBINED AT	F4	299.	9.75	248.	90.	30.	2.44		
+	ROUTED TO	F4-F5B	293.	10.25	246.	90.	30.	2.44		
+	HYDROGRAPH AT	52B	192.	5.25	57.	14.	5.	0.50		
+	2 COMBINED AT	F5B	291.	10.25	245.	97.	33.	2.94		
+	ROUTED TO	F5BF6B	288.	10.25	241.	96.	32.	2.94		
+	HYDROGRAPH AT	60B	174.	5.50	65.	17.	6.	0.57		
+	2 COMBINED AT	F6B	284.	10.50	241.	103.	34.	3.51		
+	HYDROGRAPH AT	52A	71.	6.25	36.	10.	3.	0.31		
+	ROUTED TO	F5AF6A	71.	6.25	36.	10.	3.	0.31		
+	HYDROGRAPH AT	60A	117.	5.75	47.	12.	4.	0.41		
+	2 COMBINED AT	F6A	163.	6.00	75.	20.	7.	0.72		
+	HYDROGRAPH AT	RIDG	565.	6.25	181.	45.	15.	0.00		
+	ROUTED TO	G3S-G4	330.	7.25	168.	45.	15.	0.00		
+	HYDROGRAPH AT	28	87.	5.75	39.	10.	3.	0.33		
+	2 COMBINED AT	G4	383.	7.25	200.	55.	18.	0.33		
+	ROUTED TO	G4-G5	351.	8.75	193.	55.	18.	0.33		
+	HYDROGRAPH AT	30	195.	6.50	110.	30.	10.	0.98		
+	2 COMBINED AT	G5	411.	8.75	254.	81.	27.	1.32		

+	ROUTED TO	G5-G6	390.	10.00	250.	81.	27.	1.32
+	HYDROGRAPH AT	42	140.	6.50	78.	21.	7.	0.78
+	2 COMBINED AT	G6	397.	10.00	272.	95.	32.	2.10
+	ROUTED TO	G6-G7	390.	10.50	271.	95.	32.	2.10
+	HYDROGRAPH AT	53	104.	5.75	40.	10.	3.	0.34
+	2 COMBINED AT	G7	390.	10.50	274.	101.	34.	2.43
+	ROUTED TO	G7-G8	387.	10.50	270.	100.	33.	2.43
+	HYDROGRAPH AT	61	159.	5.75	62.	16.	5.	0.51
+	2 COMBINED AT	G8	387.	10.50	277.	110.	37.	2.94
+	HYDROGRAPH AT	RIDH	220.	7.25	119.	30.	10.	0.00
+	ROUTED TO	H3S-H4	110.	8.75	81.	29.	10.	0.00
+	HYDROGRAPH AT	31	161.	6.75	99.	27.	9.	1.08
+	2 COMBINED AT	H4	246.	8.00	169.	57.	19.	1.08
+	ROUTED TO	H4-H5	226.	8.75	163.	56.	19.	1.08
+	HYDROGRAPH AT	43	151.	7.00	95.	27.	9.	1.00
+	2 COMBINED AT	H5	310.	8.25	214.	75.	25.	2.08
+	ROUTED TO	H5-H6	301.	8.75	212.	75.	25.	2.08
+	HYDROGRAPH AT	54	86.	6.50	44.	12.	4.	0.39
+	2 COMBINED AT	H6	311.	8.75	223.	81.	27.	2.47
+	ROUTED TO	H6-H7	312.	8.50	223.	81.	27.	2.47
+	HYDROGRAPH AT	62	158.	6.00	66.	17.	6.	0.57
+	2 COMBINED AT	H7	313.	8.50	240.	89.	30.	3.04
+	HYDROGRAPH AT	RIDI	314.	5.75	0.	0.	0.	0.00
+	ROUTED TO	I2S-I3	16.	6.00	1.	0.	0.	0.00
+	HYDROGRAPH AT	32	135.	6.75	82.	23.	8.	0.90
+	2 COMBINED AT	I3	140.	6.50	83.	23.	8.	0.90
+	ROUTED TO	I3-I4	111.	9.50	74.	23.	8.	0.90
+	HYDROGRAPH AT	44	153.	7.00	98.	28.	9.	1.01
+	2 COMBINED AT	I4	139.	9.50	121.	43.	14.	1.90
+	ROUTED TO	I4-I5	135.	10.00	119.	43.	14.	1.90
+	HYDROGRAPH AT	55	68.	6.00	31.	8.	3.	0.26
+	2 COMBINED AT	I5	147.	7.50	126.	48.	16.	2.17
+	ROUTED TO	I5-I6	125.	10.75	116.	48.	16.	2.17
+	HYDROGRAPH AT	63	192.	5.75	82.	21.	7.	0.50
+	2 COMBINED AT	I6	208.	6.00	149.	63.	21.	2.66
+	HYDROGRAPH AT	RIDJ	218.	6.00	48.	12.	4.	0.00
+	ROUTED TO	J3S-J4	68.	7.00	38.	12.	4.	0.00
+	HYDROGRAPH AT	33	163.	6.75	96.	26.	9.	1.00

```
          2 COMBINED AT
+                          J4      232.   7.00        132.        38.        13.      1.00

          ROUTED TO
+                        J4-J5     213.   8.00        128.        38.        13.      1.00

          HYDROGRAPH AT
+                         45A      149.   7.00         93.        26.         9.      1.00

          2 COMBINED AT
+                         J5A      303.   8.00        187.        57.        19.      2.01

          ROUTED TO
+                       J5A-5B     287.   8.75        183.        57.        19.      2.01

          HYDROGRAPH AT
+                         45B       77.   5.25         26.         7.         2.      0.14

          2 COMBINED AT
+                         J5B      284.   8.75        184.        61.        21.      2.14

          ROUTED TO
+                       J5B-J6     186.  10.50        164.        61.        21.      2.14

          HYDROGRAPH AT
+                          64      124.   5.75         49.        13.         4.      0.41

          2 COMBINED AT
+                          J6      186.  10.50        165.        69.        23.      2.56


 *** NORMAL END OF HEC-1 ***
1*************************************                                  *************************************
 *                                   *                                  *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                *   U.S. ARMY CORPS OF ENGINEERS    *
 *              JUN   1998           *                                  *   HYDROLOGIC ENGINEERING CENTER   *
 *            VERSION 4.1            *                                  *         609 SECOND STREET         *
 *                                   *                                  *      DAVIS, CALIFORNIA 95616      *
 *  RUN DATE   23MAR06  TIME  05:04:25  *                               *          (916) 756-1104           *
 *                                   *                                  *                                   *
 *************************************                                  *************************************


                                                  X     X  XXXXXXX   XXXXX          X
                                                  X     X  X        X     X        XX
                                                  X     X  X        X               X
                                                  XXXXXXX  XXXX     X        XXXXX  X
                                                  X     X  X        X               X
                                                  X     X  X        X     X         X
                                                  X     X  XXXXXXX   XXXXX        XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                  PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

            1           ID   Buckeye/Sun Valley ADMS - November 2004
            2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
            3           ID   100-year 6-hour
            4           ID   Existing Conditions
            5           ID   Area 1 - BIC to Gila (East)
            6           ID   File Name: bge1006ex.hc1
            7           ID   Rainfall Loss Method - Green & Ampt
            8           ID   Unit Hydrograph Method - FCDMC S-Graph
            9           ID   Channel Routing Method - Normal Depth
           10           ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
           11           ID   Existing Land Use Cutoff Date: 2000
           12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
           13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                        *DIAGRAM
           14           IT      15 02JAN94       0     400
           15           IO       3
           16           IN      15 02JAN94       0
           17           JD     3.3    0.01
                        * 6-hour distribution, pattern 1.0
           18           PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
           19           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
           20           PC   0.962   0.972   0.983   0.991     1.0
           21           IN      15 02JAN94       0
           22           JD    3.28     0.5
                        * 6-hour distribution, pattern 1.0
           23           PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
           24           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
           25           PC   0.962   0.972   0.983   0.991     1.0
           26           IN      15 02JAN94       0
           27           JD   3.257     1.0
                        * 6-hour distribution, pattern 1.4
           28           PC     0.0  0.0084   0.016   0.025  0.0334  0.0414  0.0504  0.0584  0.0664  0.0748
           29           PC   0.087  0.0994  0.1188   0.148  0.2304  0.4067  0.7778  0.8813  0.9186  0.9452
           30           PC  0.9572  0.9684  0.9798  0.9898     1.0
           31           IN      15 02JAN94       0
           32           JD   3.168     5.0
                        * 6-hour distribution, pattern 2.3
           33           PC     0.0   0.011  0.0173  0.0267  0.0387   0.049  0.0593  0.0693  0.0797  0.0903
           34           PC   0.103  0.1173  0.1383  0.1827  0.2693   0.458   0.686  0.8233  0.8893  0.9293
           35           PC  0.9487   0.962  0.9743  0.9877     1.0
           36           IN      15 02JAN94       0
           37           JD   3.102    10.0
```

```
                 * 6-hour distribution, pattern 2.7
  38             PC     0.0  0.0134  0.0189  0.0287  0.0443  0.0574  0.0694  0.0818  0.0949  0.1076
  39             PC  0.1223  0.1382  0.1604  0.2063  0.2902  0.4664  0.6764  0.8069  0.8765  0.9289
  40             PC  0.9471  0.9608  0.9735  0.9873     1.0

  41             KK    BICM
  42             KM   ******************************************************************************
  43             KM   **    SUB-WATERSHED M    ******************************************************
  44             KM   ******************************************************************************
  45             KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
  46             BA   0.001
  47             ZR  =QI A=BIC BIC B=52599 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06E
1                                          HEC-1 INPUT                                                PAGE  2

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


  48             KK  M4S6TH   CNAME     M4S
  49             KM   ROUTE INFLOW FROM BIC CONCENTRATED AT M4S TO 6TH (CHANNEL M4S-6TH)
  50             KO      0       0     0.0       0      22
  51             RS      1    FLOW     0.0     0.0
  52             RC    0.05   0.015    0.05  1950.0   0.008     0.0
  53             RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
  54             RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

  55             KK     4th
  56             KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
  57             KM   L=0.52     Lca=0.40     S=0.01     Kn=0.011     LAG=24
  58             KM   S-GRAPH TYPE=PHOENIX VALLEY
  59             KO      0       0     0.0       1      22
  60             BA  0.0819
  61             LG   0.192   0.248   5.145   0.326  55.315
  62             UI     0.0   39.02  109.68   50.31    9.67     0.0

  63             KK  TO4THS
  64             KM   HYDRPGRAPH DIVERTED TO 4THS
  65             KO      0       0     0.0       0      22
  66             DT  TO4THS     0.0     0.0
  67             DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
  68             DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
  69             DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
  70             DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

  71             KK  4TH6TH   CNAME    4thA
  72             KM   ROUTE HYDRPGRAPH FROM 4TH CONCENTRATED AT 4THA TO 6TH (CHANNEL 4TH6TH)
  73             KO      0       0     0.0       0      22
  74             RS      1    FLOW     0.0     0.0
  75             RC    0.05   0.015    0.05   872.0   0.002     0.0
  76             RX     0.0   100.0   100.0  127.49  127.51   155.0   155.0   255.0
  77             RY     2.0     0.5     0.0    0.55    0.55     0.0     0.5     2.0

  78             KK     6th
  79             KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
  80             KM   L=0.46     Lca=0.17     S=0.01     Kn=0.011     LAG=17
  81             KM   S-GRAPH TYPE=PHOENIX VALLEY
  82             KO      0       0     0.0       1      22
  83             BA  0.0571
  84             LG   0.206   0.148   7.572    0.12  51.538
  85             UI     0.0   54.83   81.61    9.82     0.0

  86             KK    6thA   CNAME  6TH8TH
  87             KM   COMBINE ROUTED HYDROGRAPH FROM 4THA WITH RUNOFF FROM 6TH @ 6THA
  88             KO      0       0     0.0       0      22
  89             HC      3

  90             KK  TO7THS
  91             KM   HYDRPGRAPH DIVERTED TO 7THS
  92             KO      0       0     0.0       0      22
  93             DT  TO7THS     0.0     0.0
  94             DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
  95             DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
1                                          HEC-1 INPUT                                                PAGE  3

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  96             DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
  97             DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

  98             KK  6TH8TH   CNAME    6thA
  99             KM   ROUTE HYDRPGRAPH FROM 6THA TO 8TH (CHANNEL 6TH8TH)
 100             KO      0       0     0.0       0      22
 101             RS      1    FLOW     0.0     0.0
 102             RC    0.05   0.015    0.05  1116.0   0.002     0.0
 103             RX     0.0   100.0   100.0  127.49  127.51   155.0   155.0   255.0
 104             RY     2.0     0.5     0.0    0.55    0.55     0.0     0.5     2.0

 105             KK     8th
 106             KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 107             KM   L=0.60     Lca=0.31     S=0.01     Kn=0.011     LAG=23
 108             KM   S-GRAPH TYPE=PHOENIX VALLEY
 109             KO      0       0     0.0       1      22
 110             BA  0.0793
 111             LG   0.241    0.15    8.77   0.074    42.7
 112             UI     0.0    41.0  110.28   43.97    7.58     0.0

 113             KK    8thA   CNAME  8TH9TH
 114             KM   COMBINE ROUTED HYDROGRAPH FROM 6THA WITH RUNOFF FROM 8TH @ 8THA
 115             KO      0       0     0.0       0      22
 116             HC      2

 117             KK   TOCEN1
 118             KM   HYDRPGRAPH DIVERTED TO CENTRA
 119             KO      0       0     0.0       0      22
 120             DT  TOCEN1     0.0     0.0
 121             DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 122             DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 123             DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 124             DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

 125             KK  8TH9TH   CNAME    8thA
 126             KM   ROUTE HYDRPGRAPH FROM 8THA TO 9TH (CHANNEL 8TH9TH)
 127             KO      0       0     0.0       0      22
 128             RS      1    FLOW     0.0     0.0
 129             RC    0.05   0.015    0.05   680.0   0.002     0.0
```

```
 130          RX     0.0   100.0   100.0  127.49  127.51   155.0   155.0   255.0
 131          RY     2.0     0.5     0.0    0.55    0.55     0.0     0.5     2.0

 132          KK    9thE
 133          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 134          KM   L=0.77      Lca=0.39      S=0.00      Kn=0.011      LAG=29
 135          KM   S-GRAPH TYPE=PHOENIX VALLEY
 136          KO       0       0     0.0       1      22
 137          BA  0.0947
 138          LG   0.173   0.154   8.731   0.083  35.396
 139          UI     0.0   31.39   99.09    80.3   25.22    5.83     0.0
1                                          HEC-1 INPUT                                                          PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 140          KK    9thW
 141          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 142          KM   L=0.54      Lca=0.32      S=0.01      Kn=0.011      LAG=22
 143          KM   S-GRAPH TYPE=PHOENIX VALLEY
 144          KO       0       0     0.0       1      22
 145          BA  0.0813
 146          LG   0.197   0.149    8.42   0.101  29.522
 147          UI     0.0   45.77  116.37   40.05    6.23     0.0

 148          KK     9th
 149          KM   COMBINE ROUTED HYDROGRAPH FROM 8THA WITH RUNOFF FROM 9THE AND 9THW @ 9TH
 150          KO       0       0     0.0       0      22
 151          HC       3

 152          KK  TOCEN2
 153          KM   HYDRPGRAPH DIVERTED TO CENTRA
 154          KO       0       0     0.0       0      22
 155          DT  TOCEN2     0.0     0.0
 156          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 157          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 158          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 159          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

 160          KK    BICN
 161          KM   ******************************************************************************
 162          KM   **   SUB-WATERSHED N-A   (DRAINS INTO SUB-WATERSHED M) *********************
 163          KM   ******************************************************************************
 164          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 165          BA   0.001
 166          ZR  =QI A=BIC BIC B=58999 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06E

 167          KK   N6S-D   CNAME     N6S
 168          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT N6S TO DRAINA (CHANNEL A)
 169          KO       0       0     0.0       0      22
 170          RS       1    FLOW     0.0     0.0
 171          RC     0.1     0.1     0.1 12189.0   0.003     0.0
 172          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 173          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 174          KK    BICO
 175          KM   ******************************************************************************
 176          KM   **   SUB-WATERSHED O (DRAINS INTO SUB-WATERSHED M) *************************
 177          KM   ******************************************************************************
 178          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 179          BA   0.001
 180          ZR  =QI A=BIC BIC B=63799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06E

 181          KK   O8SO9   CNAME     O8S
 182          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT O8S TO O9 (CHANNEL A)
 183          KO       0       0     0.0       0      22
 184          RS       1    FLOW     0.0     0.0
 185          RC     0.1     0.1     0.1  6048.0   0.004     0.0
 186          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 187          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 188          KK      93
 189          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 190          KM   L=1.21      Lca=0.60      S=17.39      Kn=0.200      LAG=148
 191          KM   S-GRAPH TYPE=AGRICULTURE
 192          KO       0       0     0.0       1      22
 193          BA  0.3774
 194          LG     1.0   0.245   4.879    0.41   9.378
 195          UI     0.0     9.4     9.4    19.0   37.89   54.24   57.18   73.55   78.99   78.99
 196          UI   77.24   65.83   70.53    53.4   54.15   37.91   32.75   26.86   26.09   17.25
 197          UI   15.19   11.72   10.73    8.59    8.51    5.34    5.34    5.34    3.78    1.18
 198          UI    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18
 199          UI    1.18    1.18    1.18    1.18    1.18     0.0

 200          KK      O9   CNAME    O9O10
 201          KM   COMBINE ROUTED HYDROGRAPH FROM O9 WITH RUNOFF FROM 93 @ O10
 202          KO       0       0     0.0       0      22
 203          HC       2

 204          KK   O9O10   CNAME      O9
 205          KM   ROUTE HYDRPGRAPH FROM O9 TO O10 (CHANNEL A)
 206          KO       0       0     0.0       0      22
 207          RS       3    FLOW     0.0     0.0
 208          RC     0.1     0.1     0.1 8757.67   0.001     0.0
 209          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 210          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 211          KK      95
 212          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 213          KM   L=1.66      Lca=0.83      S=7.84      Kn=0.200      LAG=220
 214          KM   S-GRAPH TYPE=AGRICULTURE
 215          KO       0       0     0.0       1      22
 216          BA  0.5221
 217          LG     1.0    0.15     8.2   0.118   0.728
 218          UI     0.0    8.75    8.75    8.75   17.61   23.93   39.41   52.07   46.56    58.0
 219          UI   66.98   73.51   73.51   73.51   73.51   69.43   61.26    62.9   68.12   47.05
 220          UI   46.97   50.07   35.29   33.42    27.5   24.86   27.14   19.64   16.37   14.14
 221          UI   13.38   10.81   10.81    8.74    7.99    7.99     6.9    4.97    4.97    4.97
 222          UI    4.97    4.97    1.35    1.09    1.09    1.09    1.09    1.09    1.09    1.09
 223          UI    1.09    1.09    1.09    1.09    1.09    1.09    1.09    1.09    1.09    1.09
```

```
 224          UI    1.09    1.09    1.09    1.09    1.09    1.09     0.0

 225          KK     O10   CNAME   O10DR
 226          KM   COMBINE ROUTED HYDROGRAPH FROM O9 WITH RUNOFF FROM 95 @ O10
 227          KO       0       0     0.0       0      22
 228          HC       2

 229          KK    TOP9
 230          KM   HYDRPGRAPH DIVERTED TO P9
 231          KO       0       0     0.0       0      22
 232          DT    TOP9     0.0     0.0
 233          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 234          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 235          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 236          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
1                                          HEC-1 INPUT                                          PAGE  6
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 237          KK   O10DR   CNAME     O10
 238          KM   ROUTE HYDRPGRAPH FROM O10 TO DRAINA (CHANNEL A)
 239          KO       0       0     0.0       0      22
 240          RS      13    FLOW     0.0     0.0
 241          RC     0.1     0.1     0.1 5733.05  0.0004     0.0
 242          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 243          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 244          KK  CENTRE
 245          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 246          KM   L=0.40     Lca=0.23     S=0.01     Kn=0.011     LAG=18
 247          KM   S-GRAPH TYPE=PHOENIX VALLEY
 248          KO       0       0     0.0       1      22
 249          BA  0.0692
 250          LG   0.248   0.153   6.965   0.147  35.732
 251          UI     0.0   58.22  103.23   15.09     0.0

 252          KK  FRM9TH
 253          KM   RETRIEVE HYDROGRAPH FROM 9TH
 254          KO       0       0     0.0       0      22
 255          DR  TOCEN2

 256          KK  9THCEN   CNAME
 257          KM   ROUTE HYDRPGRAPH FROM 9TH TO CENTRA (CHANNEL 9THCEN)
 258          RS       1    FLOW     0.0     0.0
 259          RC    0.05   0.015    0.05  1300.0   0.008     0.0
 260          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 261          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 262          KK  FRM8TH
 263          KM   RETRIEVE HYDROGRAPH FROM 8TH
 264          KO       0       0     0.0       0      22
 265          DR  TOCEN1

 266          KK  8THCEN   CNAME
 267          KM   ROUTE HYDRPGRAPH FROM 8TH TO CENTRA (CHANNEL 8THCEN)
 268          RS       1    FLOW     0.0     0.0
 269          RC    0.05   0.015    0.05  1967.0   0.008     0.0
 270          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 271          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 272          KK  CENTRA   CNAME  CENBEL
 273          KM   COMBINE DIVERTED HYDROGRAPHS FROM 8THA AND 9TH WITH RUNOFF FROM CENTRAL @ CEN
 274          KO       0       0     0.0       0      22
 275          HC       3

 276          KK  TOBELO
 277          KM   HYDRPGRAPH DIVERTED TO BELOAA
 278          KO       0       0     0.0       0      22
 279          DT   TODRN     0.0     0.0
 280          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 281          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 282          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 283          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
1                                          HEC-1 INPUT                                          PAGE  7
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 284          KK  CENBEL   CNAME  CENTRA
 285          KM   ROUTE HYDRPGRAPH FROM CENTRA TO BELOAA (CHANNEL CENBEL)
 286          KO       0       0     0.0       0      22
 287          RS       2    FLOW     0.0     0.0
 288          RC    0.05   0.015    0.05  2542.0   0.005     0.0
 289          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 290          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 291          KK  BELOAT
 292          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 293          KM   L=0.44     Lca=0.25     S=0.00     Kn=0.011     LAG=19
 294          KM   S-GRAPH TYPE=PHOENIX VALLEY
 295          KO       0       0     0.0       1      22
 296          BA   0.047
 297          LG    0.37   0.218   9.327   0.062   7.018
 298          UI     0.0   35.33   70.77   13.41     0.0

 299          KK  BELOAA   CNAME  BELDRN
 300          KM   COMBINE ROUTED HYDROGRAPH FROM CENTRA WITH RUNOFF FROM BELOAT @ BELOAA
 301          KO       0       0     0.0       0      22
 302          HC       2

 303          KK  BELDRN   CNAME  BELOAA
 304          KM   ROUTE HYDRPGRAPH FROM BELOAA TO DRAINA (CHANNEL BELDRN)
 305          KO       0       0     0.0       0      22
 306          RS       2    FLOW     0.0     0.0
 307          RC   0.035   0.015   0.035  1343.0  0.0011     0.0
 308          RX     0.0   108.0   120.0  131.99   132.0   144.0   156.0   264.0
 309          RY     8.0     0.0     3.0    3.24    3.24     3.0     0.0     8.0

 310          KK  BAYLIS
 311          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 312          KM   L=0.30     Lca=0.08     S=0.01     Kn=0.011     LAG=9
 313          KM   S-GRAPH TYPE=PHOENIX VALLEY
 314          KO       0       0     0.0       1      22
```

```
 315          BA  0.0155
 316          LG     0.1    0.15     9.7   0.069    80.0
 317          UI     0.0   36.19     0.0

 318          KK  DETDRN   CNAME     DET
 319          KM   ROUTE HYDROGRAPH FROM DET TO DRAINA (CHANNEL DETDRN)
 320          KO       0       0     0.0       0      22
 321          RS       1    FLOW     0.0     0.0
 322          RC    0.05    0.03    0.05  2657.0  0.0065     0.0
 323          RX     0.0    50.0   100.0   108.0   110.0   118.0   168.0   218.0
 324          RY     9.0     8.5     8.0     0.0     0.0     8.0     8.5     9.0

 325          KK      92
 326          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 327          KM   L=2.06     Lca=1.03     S=17.46     Kn=0.200     LAG=223
 328          KM   S-GRAPH TYPE=AGRICULTURE
 329          KO       0       0     0.0       1      22
 330          BA   1.014
 331          LG     1.0   0.152   8.658   0.095   5.858
1                                          HEC-1 INPUT                                                    PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 332          UI     0.0   40.65    78.1  207.32  268.02  327.77  341.43  292.11  269.54  214.08
 333          UI  145.16  120.99   73.46   57.17   43.57   35.76   23.07   23.07     8.2    5.08
 334          UI    5.08    5.08    5.08    5.08    5.08    5.08    5.08    5.08     0.0

 335          KK   DRAIN
 336          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 337          KM   L=0.59     Lca=0.26     S=0.01     Kn=0.011     LAG=20
 338          KM   S-GRAPH TYPE=PHOENIX VALLEY
 339          KO       0       0     0.0       1      22
 340          BA  0.1155
 341          LG     1.0    0.15   9.659   0.071   7.349
 342          UI     0.0   78.37   172.3   41.74     0.0

 343          KK  FRMCEN
 344          KM   RETRIEVE HYDROGRAPH FROM CENTRA
 345          KO       0       0     0.0       0      22
 346          DR   TODRN

 347          KK  CENDRN   CNAME
 348          KM   ROUTE HYDROGRAPH FROM CENTRA TO DRAINA (CHANNEL CENDRN)
 349          RS       1    FLOW     0.0     0.0
 350          RC    0.05    0.05    0.05  1888.0   0.005     0.0
 351          RX     0.0   300.0   600.0   900.0  1200.0  1500.0  1800.0  2100.0
 352          RY     1.0    0.67    0.33     0.0     0.0    0.33    0.67     1.0

 353          KK  DRAINA   CNAME   DRNM5
 354          KM   COMBINE DIVERTED HYDROGRAPH FROM CENTRA WITH ROUTED HYDROGRAPHS FROM BELOAA.
 355          KO       0       0     0.0       0      22
 356          HC       7

 357          KK   DRNM5   CNAME  DRAINA
 358          KM   ROUTE HYDROGRAPH FROM DRAINA TO M5 (CHANNEL DRNM5)
 359          KO       0       0     0.0       0      22
 360          RS       5    FLOW     0.0     0.0
 361          RC    0.05    0.05    0.05 7894.85  0.0013     0.0
 362          RX     0.0   500.0   525.0   528.0   543.0   546.0   571.0  1071.0
 363          RY     9.0     4.0     2.0     0.0     0.0     2.0     4.0     9.0

 364          KK    4thS
 365          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 366          KM   L=0.74     Lca=0.50     S=0.01     Kn=0.011     LAG=30
 367          KM   S-GRAPH TYPE=PHOENIX VALLEY
 368          KO       0       0     0.0       1      22
 369          BA  0.1451
 370          LG   0.181   0.203   6.474   0.204  37.605
 371          UI     0.0   44.97  142.41  127.57   44.49   10.45     0.0

 372          KK  FRM4TH
 373          KM   RETRIEVE HYDROGRAPH FROM 4TH
 374          KO       0       0     0.0       0      22
 375          DR  TO4THS
1                                          HEC-1 INPUT                                                    PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 376          KK   4TH4S   CNAME
 377          KM   ROUTE HYDROGRAPH FROM 4THA TO 4THSA (CHANNEL 4TH4S)
 378          RS       1    FLOW     0.0     0.0
 379          RC    0.05   0.015    0.05  2629.0   0.015     0.0
 380          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 381          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 382          KK   4thSA   CNAME  4TH7TH
 383          KM   COMBINE DIVERTED HYDROGRAPH FROM 4THA WITH RUNOFF FROM 4THS @ 4THSA
 384          KO       0       0     0.0       0      22
 385          HC       2

 386          KK  4TH7TH   CNAME   4thSA
 387          KM   ROUTE HYDROGRAPH FROM 4THSA TO 7THSA (CHANNEL 4TH7TH)
 388          KO       0       0     0.0       0      22
 389          RS       2    FLOW     0.0     0.0
 390          RC    0.05   0.015    0.05  1339.0  0.0028     0.0
 391          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 392          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 393          KK     7th
 394          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 395          KM   L=0.66     Lca=0.33     S=0.01     Kn=0.011     LAG=24
 396          KM   S-GRAPH TYPE=PHOENIX VALLEY
 397          KO       0       0     0.0       1      22
 398          BA  0.1268
 399          LG   0.252   0.261   5.114   0.312  38.171
 400          UI     0.0   60.41  169.79   77.88   14.98     0.0

 401          KK  FRM6TH
 402          KM   RETRIEVE HYDROGRAPH FROM 6THA
 403          KO       0       0     0.0       0      22
 404          DR  TO7THS

 405          KK  6TH7TH   CNAME
```

```
 406          KM   ROUTE HYDROGRAPH FROM 6THA TO 7THSA (CHANNEL 6TH7TH)
 407          RS       1    FLOW     0.0      0.0
 408          RC    0.05   0.015    0.05   3061.0  0.0059     0.0
 409          RX     0.0   100.0   100.0   111.99   112.0   124.0   124.0   224.0
 410          RY     2.0     0.5     0.0     0.24    0.24     0.0     0.5     2.0

 411          KK   7thSA   CNAME   7THM5
 412          KM   COMBINE DIVERTED HYDROGRAPH FROM 6THA WITH ROUTED HYDROGRAPH FROM 4THSA WITH
 413          KO       0       0     0.0       0      22
 414          HC       3

 415          KK   7THM5   CNAME   7thSA
 416          KM   ROUTE HYDROGRAPH FROM 7THSA TO M5 (CHANNEL 7THM5)
 417          KO       0       0     0.0       0      22
 418          RS       2    FLOW     0.0     0.0
 419          RC    0.05    0.05    0.05 5286.53  0.0023     0.0
 420          RX     0.0    25.0    28.0    31.0    46.0    49.0    52.0    77.0
 421          RY     6.0     4.0     2.0     0.0     0.0     2.0     4.0     6.0
1                                          HEC-1 INPUT                                                    PAGE 10

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 422          KK      98
 423          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 424          KM   L=1.50      Lca=0.75      S=6.69      Kn=0.200      LAG=209
 425          KM   S-GRAPH TYPE=AGRICULTURE
 426          KO       0       0     0.0       1      22
 427          BA  0.3878
 428          LG     1.0   0.174   9.082   0.078  10.556
 429          UI     0.0   14.59   24.67   66.97    88.8  117.54  122.57  113.04  108.08    79.8
 430          UI    66.8   46.99   39.56   25.34   19.48   15.08    12.7    8.28    8.28    3.72
 431          UI    1.82    1.82    1.82    1.82    1.82    1.82    1.82    1.82    1.82    1.82
 432          UI     0.0

 433          KK      M5
 434          KM   COMBINE ROUTED HYDROGRAPHs FROM 7THSA AND DRAINA WITH RUNOFF FROM 98 @ M5
 435          KO       0       0     0.0       0      22
 436          HC       3

 437          KK    BICP
 438          KM   ******************************************************************************
 439          KM   **   SUB-WATERSHED P   ******************************************************
 440          KM   ******************************************************************************
 441          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 442          BA   0.001
 443          ZR  =QI A=BIC BIC B=67395 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06E

 444          KK   P6SP7   CNAME     P6S
 445          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT P6S TO P7 (CHANNEL A)
 446          KO       0       0     0.0       0      22
 447          RS       1    FLOW     0.0     0.0
 448          RC     0.1     0.1     0.1  5100.0   0.005     0.0
 449          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 450          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 451          KK      94
 452          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 453          KM   L=1.30      Lca=0.65      S=22.37      Kn=0.200      LAG=149
 454          KM   S-GRAPH TYPE=AGRICULTURE
 455          KO       0       0     0.0       1      22
 456          BA  0.7194
 457          LG     1.0    0.15   7.304   0.157   2.203
 458          UI     0.0   17.81   17.81   35.71   70.46  102.77  107.11  138.19  149.58  149.58
 459          UI  147.91  124.65  131.59  105.71  101.03   75.79   63.54   51.25   51.33   33.33
 460          UI   28.76   23.11   21.15   16.26   16.26   10.96   10.11   10.11    8.64    2.23
 461          UI    2.23    2.23    2.23    2.23    2.23    2.23    2.23    2.23    2.23    2.23
 462          UI    2.23    2.23    2.23    2.23    2.23     0.0

 463          KK      P7   CNAME   P7-P8
 464          KM   COMBINE ROUTED HYDROGRAPH FROM P6S WITH RUNOFF FROM 94 @ P7
 465          KO       0       0     0.0       0      22
 466          HC       2
1                                          HEC-1 INPUT                                                    PAGE 11

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 467          KK   P7-P8   CNAME      P7
 468          KM   ROUTE HYDROGRAPH FROM P7 TO P8 (CHANNEL A)
 469          KO       0       0     0.0       0      22
 470          RS       6    FLOW     0.0     0.0
 471          RC     0.1     0.1     0.1 3899.99  0.0015     0.0
 472          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 473          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 474          KK      96
 475          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 476          KM   L=1.32      Lca=0.66      S=4.55      Kn=0.200      LAG=205
 477          KM   S-GRAPH TYPE=AGRICULTURE
 478          KO       0       0     0.0       1      22
 479          BA  0.9142
 480          LG     1.0    0.15   7.196   0.171   0.589
 481          UI     0.0   16.45   16.45    18.8   34.54   52.11   84.71   98.14   96.32  126.68
 482          UI  129.26  138.14  138.14  138.14  130.47  115.12  121.64  118.86   86.34   91.94
 483          UI   82.29   63.36   57.32   47.86   49.06   41.47   31.23   26.57   24.96   20.31
 484          UI   20.31   15.37   15.02   15.02   10.53    9.33    9.33    9.33    9.33     4.0
 485          UI    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06
 486          UI    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06
 487          UI    2.06    2.06     0.0

 488          KK      P8   CNAME   P8-P9
 489          KM   COMBINE ROUTED HYDROGRAPH FROM P7 WITH RUNOFF FROM 96 @ P8
 490          KO       0       0     0.0       0      22
 491          HC       2

 492          KK   P8-P9   CNAME      P8
 493          KM   ROUTE HYDROGRAPH FROM P8 TO P9 (CHANNEL A)
 494          KO       0       0     0.0       0      22
 495          RS       9    FLOW     0.0     0.0
 496          RC     0.1     0.1     0.1 6986.11  0.0012     0.0
 497          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 498          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
```

```
 499          KK      97
 500          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 501          KM   L=1.32     Lca=0.66     S=6.05     Kn=0.200     LAG=195
 502          KM   S-GRAPH TYPE=AGRICULTURE
 503          KO       0        0      0.0        1       22
 504          BA  0.5002
 505          LG     1.0    0.163    6.866    0.195    0.278
 506          UI     0.0     9.46     9.46    12.27    19.87    35.86    52.15    53.64    61.59    73.51
 507          UI   79.47    79.47    79.47    79.47    66.22    66.89     74.0    49.67    52.15    48.28
 508          UI   36.52    32.56    27.34    23.83    21.44    17.23    15.28    13.09    11.69    10.47
 509          UI    8.64     8.64      7.3     6.37     5.37     5.37     5.37     2.86     1.18     1.18
 510          UI    1.18     1.18     1.18     1.18     1.18     1.18     1.18     1.18     1.18     1.18
 511          UI    1.18     1.18     1.18     1.18     1.18     1.18     1.18     1.18     1.18      0.0
1                                              HEC-1 INPUT                                                          PAGE 12

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 512          KK   FRO10
 513          KM   RETRIEVE HYDROGRAPH FROM O10
 514          KO       0        0      0.0        0       22
 515          DR    TOP9

 516          KK  O10-P9    CNAME
 517          KM   ROUTE HYDROGRAPH FROM O10 TO P9 (CHANNEL O10-P9)
 518          RS       1     FLOW      0.0      0.0
 519          RC    0.05     0.05     0.05   1492.0    0.002      0.0
 520          RX     0.0    200.0    235.0    261.0    263.0    279.0    314.0    349.0
 521          RY    12.0     10.0      8.0      0.0      0.0      8.0     10.0     12.0

 522          KK      P9    CNAME   P9-P10
 523          KM   COMBINE ROUTED HYDROGRAPH FROM P8 WITH DIVERTED HYDROGRAPH FROM O10 WITH RUNO
 524          KO       0        0      0.0        0       22
 525          HC       3

 526          KK  P9-P10    CNAME      P9
 527          KM   ROUTE HYDROGRAPH FROM P9 TO P10 (CHANNEL A)
 528          KO       0        0      0.0        0       22
 529          RS       5     FLOW      0.0      0.0
 530          RC     0.1      0.1      0.1   3952.01   0.0048      0.0
 531          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
 532          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

 533          KK     100
 534          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 535          KM   L=1.70     Lca=0.85     S=18.83     Kn=0.200     LAG=190
 536          KM   S-GRAPH TYPE=AGRICULTURE
 537          KO       0        0      0.0        1       22
 538          BA  0.5816
 539          LG     1.0    0.228    6.243    0.251    1.187
 540          UI     0.0    11.29    11.29    15.51    24.87     45.7    65.19    60.85    82.97    85.34
 541          UI   94.82    94.82    94.82    89.56    79.02    84.02    75.73    59.27    66.61    45.77
 542          UI    43.1    33.76    32.34     31.6    21.55    18.46    17.01    13.94    13.46    10.31
 543          UI   10.31     9.45     6.41     6.41     6.41     6.41     3.74     1.41     1.41     1.41
 544          UI    1.41     1.41     1.41     1.41     1.41     1.41     1.41     1.41     1.41     1.41
 545          UI    1.41     1.41     1.41     1.41     1.41     1.41     1.41      0.0

 546          KK     P10
 547          KM   COMBINE ROUTED HYDROGRAPH FROM P9 WITH RUNOFF FROM 100 @ P10
 548          KO       0        0      0.0        0       22
 549          HC       2

 550          KK      99
 551          KM   ************************************************************************
 552          KM   **   SUB-WATERSHED N-B   ***********************************************
 553          KM   ************************************************************************
 554          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 555          KM   L=2.01     Lca=1.24     S=3.49     Kn=0.050     LAG=80
 556          KM   S-GRAPH TYPE=PHOENIX VALLEY
 557          KO       0        0      0.0        1       22
 558          BA  0.9484
 559          LG     1.0    0.334    6.022    0.216    0.014
1                                              HEC-1 INPUT                                                          PAGE 13

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 560          UI     0.0    39.92   121.66   208.16   273.54   409.44   445.57   321.29   237.94   165.13
 561          UI    81.8    57.84    37.85    12.24    12.24    12.24      0.0

 562          KK     101
 563          KM   ************************************************************************
 564          KM   **   SUB-WATERSHED Q   ***********************************************
 565          KM   ************************************************************************
 566          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 567          KM   L=1.63     Lca=0.81     S=8.59     Kn=0.200     LAG=213
 568          KM   S-GRAPH TYPE=AGRICULTURE
 569          KO       0        0      0.0        1       22
 570          BA  0.3807
 571          LG     1.0    0.149    6.963    0.172    3.947
 572          UI     0.0     6.59     6.59     6.72    13.84    19.36    31.67    39.52    35.16    50.66
 573          UI   48.72    55.36    55.36    55.36    55.36    47.98    46.14    49.41    43.25     34.6
 574          UI   38.51     29.5    25.17    22.12    19.02    19.89    16.22    12.54    10.66    10.21
 575          UI    8.14     8.14     6.53     6.02     6.02     4.89     3.74     3.74     3.74     3.74
 576          UI    3.04     0.82     0.82     0.82     0.82     0.82     0.82     0.82     0.82     0.82
 577          UI    0.82     0.82     0.82     0.82     0.82     0.82     0.82     0.82     0.82     0.82
 578          UI    0.82     0.82     0.82     0.82      0.0

 579          KK    BICK
 580          KM   ************************************************************************
 581          KM   **   SUB-WATERSHED K   ***********************************************
 582          KM   ************************************************************************
 583          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 584          BA   0.001
 585          ZR  =QI A=BIC BIC B=42799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06E

 586          KK   K7SK8    CNAME     K7S
 587          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT K7S TO K8 (CHANNEL A)
 588          KO       0        0      0.0        0       22
 589          RS       1     FLOW      0.0      0.0
 590          RC     0.1      0.1      0.1   8240.0    0.005      0.0
 591          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
 592          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

 593          KK      90
```

```
 594          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 595          KM   L=2.05      Lca=1.02      S=21.50      Kn=0.200      LAG=213
 596          KM   S-GRAPH TYPE=AGRICULTURE
 597          KO       0        0      0.0        1       22
 598          BA   1.0549
 599          LG     1.0    0.152    9.525    0.075    5.871
 600          UI     0.0    18.26    18.26    18.63    38.35    53.64    87.77    109.5    97.42   140.37
 601          UI   135.0   153.41   153.41   153.41   153.41   132.96   127.84   136.92   119.85    95.88
 602          UI  106.72    81.75    69.73    61.31    52.71    55.11    44.96    34.76     29.5    28.29
 603          UI   22.56    22.56    18.09    16.68    16.68    13.56    10.37    10.37    10.37    10.37
 604          UI    8.43     2.28     2.28     2.28     2.28     2.28     2.28     2.28     2.28     2.28
 605          UI    2.28     2.28     2.28     2.28     2.28     2.28     2.28     2.28     2.28     2.28
 606          UI    2.28     2.28     2.28     2.28      0.0
1                                             HEC-1 INPUT                                                    PAGE 14

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 607          KK      K8
 608          KM   COMBINE ROUTED HYDROGRAPH FROM K7S WITH RUNOFF FROM 90 @ K8
 609          KO       0        0      0.0        0       22
 610          HC       2

 611          KK    BICL
 612          KM   ******************************************************************************
 613          KM   **    SUB-WATERSHED L    ******************************************************
 614          KM   ******************************************************************************
 615          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 616          BA   0.001
 617          ZR  =QI A=BIC BIC B=47195 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06E

 618          KK   L5SL6   CNAME     L5S
 619          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT L5S TO L6 (CHANNEL A)
 620          KO       0        0      0.0        0       22
 621          RS       1     FLOW      0.0      0.0
 622          RC     0.1      0.1      0.1   9280.0    0.005      0.0
 623          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
 624          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

 625          KK      91
 626          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 627          KM   L=2.08      Lca=1.04      S=21.10      Kn=0.200      LAG=217
 628          KM   S-GRAPH TYPE=AGRICULTURE
 629          KO       0        0      0.0        1       22
 630          BA   1.189
 631          LG     1.0     0.15    8.293    0.113    5.191
 632          UI     0.0    20.21    20.21    20.21    41.59    57.01    93.61   121.43   106.09   140.03
 633          UI  156.16   169.74   169.74   169.74   169.74   154.65   141.45   151.68   144.39   106.09
 634          UI  111.63   106.19    79.21    74.79    60.09    56.97    62.49    38.58    35.53    32.64
 635          UI   27.78    24.96    23.83    18.45    18.45    18.45    12.54    11.47    11.47    11.47
 636          UI   11.47     7.06     2.53     2.53     2.53     2.53     2.53     2.53     2.53     2.53
 637          UI    2.53     2.53     2.53     2.53     2.53     2.53     2.53     2.53     2.53     2.53
 638          UI    2.53     2.53     2.53     2.53     2.53      0.0

 639          KK      L6
 640          KM   COMBINE ROUTED HYDROGRAPH FROM L5S WITH RUNOFF FROM 91 @ L6
 641          KO       0        0      0.0        0       22
 642          HC       2
 643          ZZ
              RUNOFF SUMMARY
                                   FLOW IN CUBIC FEET PER SECOND
                                 TIME IN HOURS,  AREA IN SQUARE MILES

                                  PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM    TIME OF
        OPERATION        STATION  FLOW    PEAK                                           AREA      STAGE     MAX STAGE
+                                                    6-HOUR     24-HOUR     72-HOUR

HYDROGRAPH AT
+                          BICM     51.   16.25        34.         9.          3.      0.00

        ROUTED TO
+                         M4S6TH    51.   16.25        34.         9.          3.      0.00

        HYDROGRAPH AT
+                           4th    184.    4.50        22.         6.          2.      0.08

        DIVERSION TO
+                         TO4THS    92.    4.50        11.         3.          1.      0.08

        HYDROGRAPH AT
+                         TO4THS    92.    4.50        11.         3.          1.      0.08

        ROUTED TO
+                         4TH6TH    80.    4.50        11.         3.          1.      0.08

        HYDROGRAPH AT
+                           6th    135.    4.50        17.         4.          1.      0.06

        3 COMBINED AT
+                          6thA    215.    4.50        34.        16.          5.      0.14

        DIVERSION TO
+                         TO7THS   108.    4.50        17.         8.          3.      0.14

        HYDROGRAPH AT
+                         TO7THS   108.    4.50        17.         8.          3.      0.14

        ROUTED TO
+                         6TH8TH    97.    4.50        17.         8.          3.      0.14

        HYDROGRAPH AT
+                           8th    193.    4.50        23.         6.          2.      0.08

        2 COMBINED AT
+                          8thA    289.    4.50        36.        13.          4.      0.22

        DIVERSION TO
+                         TOCEN1   145.    4.50        18.         7.          2.      0.22

        HYDROGRAPH AT
+                          TOCEN   145.    4.50        18.         7.          2.      0.22

        ROUTED TO
+                         8TH9TH   131.    4.50        18.         7.          2.      0.22
```

+	HYDROGRAPH AT	9thE	194.	4.50	26.	7.	2.	0.09
+	HYDROGRAPH AT	9thW	196.	4.50	22.	5.	2.	0.08
+	3 COMBINED AT	9th	520.	4.50	66.	19.	6.	0.40
+	DIVERSION TO	TOCEN2	260.	4.50	33.	9.	3.	0.40
+	HYDROGRAPH AT	TOCEN2	260.	4.50	33.	9.	3.	0.40
+	HYDROGRAPH AT	BICN	226.	9.25	211.	108.	39.	0.00
+	ROUTED TO	N6S-D	176.	15.50	168.	100.	39.	0.00
+	HYDROGRAPH AT	BICO	47.	9.25	25.	6.	2.	0.00
+	ROUTED TO	O8SO9	23.	12.00	17.	6.	2.	0.00
+	HYDROGRAPH AT	93	101.	6.00	50.	13.	4.	0.38
+	2 COMBINED AT	O9	101.	6.00	53.	19.	7.	0.38
+	ROUTED TO	O9O10	33.	12.50	32.	18.	7.	0.38
+	HYDROGRAPH AT	95	110.	7.25	73.	21.	7.	0.52
+	2 COMBINED AT	O10	108.	7.50	81.	36.	13.	0.90
+	DIVERSION TO	TOP9	54.	7.50	40.	18.	6.	0.90
+	HYDROGRAPH AT	TOP9	54.	7.50	40.	18.	6.	0.90
+	ROUTED TO	O10DR	41.	13.50	33.	17.	6.	0.90
+	HYDROGRAPH AT	CENTRE	166.	4.50	18.	5.	2.	0.07
+	HYDROGRAPH AT	FRM9TH	260.	4.50	33.	9.	3.	0.40
+	ROUTED TO	9THCEN	226.	4.50	33.	9.	3.	0.40
+	HYDROGRAPH AT	FRM8TH	145.	4.50	18.	7.	2.	0.22
+	ROUTED TO	8THCEN	120.	4.50	18.	7.	2.	0.22
+	3 COMBINED AT	CENTRA	513.	4.50	69.	21.	7.	0.07
+	DIVERSION TO	TODRN	256.	4.50	35.	10.	3.	0.07
+	HYDROGRAPH AT	TOBELO	256.	4.50	35.	10.	3.	0.07
+	ROUTED TO	CENBEL	225.	4.75	35.	10.	3.	0.07
+	HYDROGRAPH AT	BELOAT	113.	4.50	11.	3.	1.	0.05
+	2 COMBINED AT	BELOAA	290.	4.50	45.	13.	4.	0.12
+	ROUTED TO	BELDRN	279.	4.75	45.	13.	4.	0.12
+	HYDROGRAPH AT	BAYLIS	54.	4.25	5.	1.	0.	0.02
+	ROUTED TO	DETDRN	34.	4.25	5.	1.	0.	0.02
+	HYDROGRAPH AT	92	505.	5.50	166.	42.	14.	1.01
+	HYDROGRAPH AT	DRAIN	257.	4.50	21.	5.	2.	0.12
+	HYDROGRAPH AT	FRMCEN	256.	4.50	35.	10.	3.	0.07
+	ROUTED TO	CENDRN	140.	4.75	33.	10.	3.	0.07
+	7 COMBINED AT	DRAINA	718.	5.00	288.	179.	67.	2.16
+	ROUTED TO	DRNM5	557.	6.50	282.	178.	67.	2.16
+	HYDROGRAPH AT	4thS	269.	4.50	37.	9.	3.	0.15

```
+          HYDROGRAPH AT
                          FRM4TH      92.   4.50      11.       3.       1.    0.08
+          ROUTED TO
                           4TH4S      81.   4.50      11.       3.       1.    0.08
+          2 COMBINED AT
                           4thSA     349.   4.50      48.      12.       4.    0.15
+          ROUTED TO
                          4TH7TH     333.   4.75      48.      12.       4.    0.15
+          HYDROGRAPH AT
                             7th     272.   4.50      30.       8.       3.    0.13
+          HYDROGRAPH AT
                          FRM6TH     108.   4.50      17.       8.       3.    0.14
+          ROUTED TO
                          6TH7TH      85.   4.50      17.       8.       3.    0.14
+          3 COMBINED AT
                           7thSA     607.   4.50      92.      27.       9.    0.27
+          ROUTED TO
                           7THM5     474.   5.00      91.      27.       9.    0.27
+          HYDROGRAPH AT
                              98     203.   5.50      70.      18.       6.    0.39
+          3 COMBINED AT
                              M5     723.   5.25     414.     216.      81.    2.82
+          HYDROGRAPH AT
                            BICP     124.   9.25      47.      12.       4.    0.00
+          ROUTED TO
                           P6SP7      63.  10.75      40.      12.       4.    0.00
+          HYDROGRAPH AT
                              94     211.   6.25     105.      27.       9.    0.72
+          2 COMBINED AT
                              P7     211.   6.25     118.      39.      13.    0.72
+          ROUTED TO
                           P7-P8     181.   8.00     110.      39.      13.    0.72
+          HYDROGRAPH AT
                              96     182.   7.00     115.      32.      11.    0.91
+          2 COMBINED AT
                              P8     317.   8.00     198.      68.      23.    1.63
+          ROUTED TO
                           P8-P9     262.  10.50     182.      67.      23.    1.63
+          HYDROGRAPH AT
                              97     111.   6.75      68.      19.       6.    0.50
+          HYDROGRAPH AT
                           FRO10      54.   7.50      40.      18.       6.    0.90
+          ROUTED TO
                           O10-P9     54.   7.50      40.      18.       6.    0.90
+          3 COMBINED AT
                              P9     301.  10.50     217.      97.      33.    2.13
+          ROUTED TO
                           P9-P10     293.  11.25     217.      97.      33.    2.13
+          HYDROGRAPH AT
                             100     117.   6.75      70.      19.       6.    0.58
+          2 COMBINED AT
                             P10     296.  11.50     229.     109.      38.    2.72
+          HYDROGRAPH AT
                              99     470.   5.50     108.      27.       9.    0.95
+          HYDROGRAPH AT
                             101      83.   7.00      54.      15.       5.    0.38
+          HYDROGRAPH AT
                            BICK     499.   9.75     391.     126.      49.    0.00
+          ROUTED TO
                           K7SK8     400.  11.25     320.     124.      49.    0.00
+          HYDROGRAPH AT
                              90     242.   7.25     158.      45.      15.    1.05
+          2 COMBINED AT
                              K8     454.  10.50     390.     168.      63.    1.06
+          HYDROGRAPH AT
                            BICL      85.  16.25      82.      60.      38.    0.00
+          ROUTED TO
                           L5SL6      79.  19.00      76.      56.      37.    0.00
+          HYDROGRAPH AT
                              91     249.   7.25     165.      47.      16.    1.19
+          2 COMBINED AT
                              L6     264.   7.50     189.      99.      51.    1.19

 *** NORMAL END OF HEC-1 ***
1*************************************                    *************************************
 *                                   *                    *                                   *
```

```
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                    *   U.S. ARMY CORPS OF ENGINEERS      *
*              JUN   1998               *                    *   HYDROLOGIC ENGINEERING CENTER     *
*            VERSION 4.1                *                    *         609 SECOND STREET           *
*                                       *                    *      DAVIS, CALIFORNIA 95616        *
*  RUN DATE   23MAR06  TIME  05:06:26   *                    *          (916) 756-1104            *
*                                       *                    *                                     *
*****************************************                    *************************************

                                                  X     X  XXXXXXX   XXXXX          X
                                                  X     X  X        X     X        XX
                                                  X     X  X        X              X
                                                  XXXXXXX  XXXX     X        XXXXX  X
                                                  X     X  X        X              X
                                                  X     X  X        X     X        X
                                                  X     X  XXXXXXX   XXXXX        XXX

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                PAGE  1

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

        1           ID   Buckeye/Sun Valley ADMS - November 2004
        2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
        3           ID   100-year 6-hour
        4           ID   Existing Conditions
        5           ID   Area 1 - BIC to Gila (West)
        6           ID   File Name: bgw1006ex.hc1
        7           ID   Rainfall Loss Method - Green & Ampt
        8           ID   Unit Hydrograph Method - FCDMC S-Graph
        9           ID   Channel Routing Method - Normal Depth
       10           ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
       11           ID   Existing Land Use Cutoff Date: 2000
       12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
       13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                    *DIAGRAM
       14           IT      15 02JAN94       0      400
       15           IO       3
       16           IN      15 02JAN94       0
       17           JD     3.3     0.01
                    * 6-hour distribution, pattern 1.0
       18           PC     0.0    0.008    0.016    0.025    0.033    0.041     0.05    0.058    0.066    0.074
       19           PC   0.087    0.099    0.118    0.138    0.216    0.377    0.834    0.911    0.931     0.95
       20           PC   0.962    0.972    0.983    0.991      1.0
       21           IN      15 02JAN94       0
       22           JD    3.28      0.5
                    * 6-hour distribution, pattern 1.0
       23           PC     0.0    0.008    0.016    0.025    0.033    0.041     0.05    0.058    0.066    0.074
       24           PC   0.087    0.099    0.118    0.138    0.216    0.377    0.834    0.911    0.931     0.95
       25           PC   0.962    0.972    0.983    0.991      1.0
       26           IN      15 02JAN94       0
       27           JD   3.257      1.0
                    * 6-hour distribution, pattern 1.4
       28           PC     0.0   0.0084    0.016    0.025   0.0334   0.0414   0.0504   0.0584   0.0664   0.0748
       29           PC   0.087   0.0994   0.1188    0.148   0.2304   0.4067   0.7778   0.8813   0.9186   0.9452
       30           PC  0.9572   0.9684   0.9798   0.9898      1.0
       31           IN      15 02JAN94       0
       32           JD   3.168      5.0
                    * 6-hour distribution, pattern 2.3
       33           PC     0.0    0.011   0.0173   0.0267   0.0387    0.049   0.0593   0.0693   0.0797   0.0903
       34           PC   0.103   0.1173   0.1383   0.1827   0.2693    0.458    0.686   0.8233   0.8893   0.9293
       35           PC  0.9487    0.962   0.9743   0.9877      1.0
       36           IN      15 02JAN94       0
       37           JD   3.102     10.0
                    * 6-hour distribution, pattern 2.7
       38           PC     0.0   0.0134   0.0189   0.0287   0.0443   0.0574   0.0694   0.0818   0.0949   0.1076
       39           PC  0.1223   0.1382   0.1604   0.2063   0.2902   0.4664   0.6764   0.8069   0.8765   0.9189
       40           PC  0.9471   0.9608   0.9735   0.9873      1.0

       41           KK   BICE
       42           KM   ***********************************************************************************
       43           KM   **    SUB-WATERSHED E    ***********************************************************
       44           KM   ***********************************************************************************
       45           KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
       46           BA   0.0001
       47           ZR   =QI A=BIC BIC B=4395 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06E
1                                                HEC-1 INPUT                                                PAGE  2

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

       48           KK  E2S-E3   CNAME     E2S
       49           KM   ROUTE INFLOW FROM BIC CONCENTRATED AT E2S TO E3 (CHANNEL A)
       50           KO       0       0     0.0       0      22
       51           RS       1    FLOW     0.0     0.0
       52           RC     0.1     0.1     0.1  9548.74   0.003     0.0
       53           RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
       54           RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

       55           KK      84
       56           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
       57           KM   L=1.81     Lca=0.98     S=13.27     Kn=0.200     LAG=219
       58           KM   S-GRAPH TYPE=AGRICULTURE
       59           KO       0       0     0.0       1      22
       60           BA  0.8772
       61           LG     1.0   0.147   9.727   0.071   0.998
       62           UI     0.0   14.77   14.77   14.77   29.95   40.82   67.16   88.66   77.76   98.85
       63           UI  113.94  124.08  124.08  124.08  124.08  115.81   103.4  107.74  113.07   77.55
       64           UI   80.05   82.21    59.0    56.4   45.14   41.62   46.54   30.82   27.07   23.86
       65           UI   21.83   18.25   18.25   14.06   13.49   13.49   10.82    8.38    8.38    8.38
```

```
 66          UI    8.38     7.6    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85
 67          UI    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85
 68          UI    1.85    1.85    1.85    1.85    1.85    1.85     0.0

 69          KK      E3
 70          KM   COMBINE ROUTED HYDROGRAPH FROM E2S WITH RUNOFF FROM 84 @ E3
 71          KO       0       0     0.0       0      22
 72          HC       2

 73          KK  BICFB
 74          KM   ***********************************************************************
 75          KM   **   SUB-WATERSHEDS F AND G   ***********************************************
 76          KM   ***********************************************************************
 77          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 78          BA    0.01
 79          ZR  =QI A=BIC BIC B=14995 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06E

 80          KK  F6BS7B   CNAME    F6BS
 81          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT F6BS TO F7B (CHANNEL A)
 82          KO       0       0     0.0       0      22
 83          RS       1    FLOW     0.0     0.0
 84          RC     0.1     0.1     0.1 3159.78   0.007     0.0
 85          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 86          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 87          KK     85B
 88          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 89          KM   L=1.47      Lca=0.73      S=15.68      Kn=0.200      LAG=176
 90          KM   S-GRAPH TYPE=AGRICULTURE
 91          KO       0       0     0.0       1      22
 92          BA  0.7453
 93          LG     1.0   0.247   5.674   0.297   1.988
 94          UI     0.0   15.62   15.62   24.82   40.72   72.66   91.61   93.72  117.48  131.18
 95          UI  131.18  131.18  125.35  109.32  115.73  100.21   83.45   84.6   61.11   53.73
 96          UI   44.85   48.84   28.87   26.57   24.15   19.29   18.35   14.26   14.26   11.63
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 97          UI    8.86    8.86    8.86    7.85    1.95    1.95    1.95    1.95    1.95    1.95
 98          UI    1.95    1.95    1.95    1.95    1.95    1.95    1.95    1.95    1.95    1.95
 99          UI    1.95    1.95    1.95     0.0

100          KK     F7B   CNAME  F7B-F8
101          KM   COMBINE ROUTED HYDROGRAPH FROM F6BS WITH RUNOFF FROM 85B @ F7B
102          KO       0       0     0.0       0      22
103          HC       2

104          KK  F7B-F8   CNAME     F7B
105          KM   ROUTE HYDRPGRAPH FROM F7B TO F8 (CHANNEL A)
106          KO       0       0     0.0       0      22
107          RS       8    FLOW     0.0     0.0
108          RC     0.1     0.1     0.1 6483.88   0.006     0.0
109          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
110          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

111          KK    BICG
112          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
113          BA    0.01
114          ZR  =QI A=BIC BIC B=21999 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06E

115          KK  G8S-G9   CNAME     G8S
116          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT G8S TO G9 (CHANNEL A)
117          KO       0       0     0.0       0      22
118          RS       1    FLOW     0.0     0.0
119          RC     0.1     0.1     0.1 5481.53   0.005     0.0
120          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
121          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

122          KK      86
123          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
124          KM   L=1.09      Lca=0.54      S=25.78      Kn=0.200      LAG=127
125          KM   S-GRAPH TYPE=AGRICULTURE
126          KO       0       0     0.0       1      22
127          BA  0.4398
128          LG     1.0    0.15   8.108    0.11   6.815
129          UI     0.0   12.77   15.89   33.53   68.33   74.26   98.27  107.27  107.27   97.74
130          UI   93.18   80.08   72.45   51.51   42.18   37.93    27.0   20.95   16.68   14.24
131          UI   11.66    9.78    7.25    7.25    5.59     1.6     1.6     1.6     1.6     1.6
132          UI     1.6     1.6     1.6     1.6     1.6     1.6     1.6     1.6     0.0

133          KK     G9   CNAME   G9-F8
134          KM   COMBINE ROUTED HYDROGRAPH FROM G8S WITH RUNOFF FROM 86 @ G9
135          KO       0       0     0.0       0      22
136          HC       2

137          KK   G9-F8   CNAME      G9
138          KM   ROUTE HYDRPGRAPH FROM G9 TO F8 (CHANNEL A)
139          KO       0       0     0.0       0      22
140          RS      13    FLOW     0.0     0.0
141          RC     0.1     0.1     0.1 9228.08   0.004     0.0
142          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
143          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

144          KK  BICFA
145          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
146          BA  0.0001
147          ZR  =QI A=BIC BIC B=11199 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06E

148          KK  F6AS7A   CNAME    F6AS
149          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT F6AS TO F7A (CHANNEL A)
150          KO       0       0     0.0       0      22
151          RS       1    FLOW     0.0     0.0
152          RC     0.1     0.1     0.1  2921.0   0.011     0.0
153          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
154          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

155          KK     85A
156          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
157          KM   L=0.84      Lca=0.42      S=37.89      Kn=0.200      LAG=98
```

```
158          KM   S-GRAPH TYPE=AGRICULTURE
159          KO       0       0     0.0       1      22
160          BA  0.2163
161          LG     1.0   0.148   7.216   0.169   1.439
162          UI     0.0    8.14   13.77   37.36   49.55   65.58   68.39   63.07   60.31   44.52
163          UI   37.27   26.22   22.07   14.14   10.87    8.41    7.09    4.62    4.62    2.07
164          UI    1.02    1.02    1.02    1.02    1.02    1.02    1.02    1.02    1.02    1.02
165          UI     0.0

166          KK     F7A   CNAME  F7A-F8
167          KM   COMBINE ROUTED HYDROGRAPH FROM F6AS WITH RUNOFF FROM 85A @ F7A
168          KO       0       0     0.0       0      22
169          HC       2

170          KK  F7A-F8   CNAME     F7A
171          KM   ROUTE HYDRPGRAPH FROM F7A TO F8 (CHANNEL A)
172          KO       0       0     0.0       0      22
173          RS       7    FLOW     0.0     0.0
174          RC     0.1     0.1     0.110377.67   0.006     0.0
175          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
176          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

177          KK     105
178          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
179          KM   L=1.94     Lca=0.97     S=18.59     Kn=0.200     LAG=210
180          KM   S-GRAPH TYPE=AGRICULTURE
181          KO       0       0     0.0       1      22
182          BA  0.9967
183          LG     1.0    0.15   8.425   0.106   1.659
184          UI     0.0    17.5    17.5   18.66   36.76   52.93   86.38  104.76   96.79  138.98
185          UI  128.13  147.03  147.03  147.03  147.03  122.52  122.52  134.29  104.02   92.91
186          UI  101.53   70.71   66.83   54.23   49.36   55.42    34.8   31.36   28.27   24.42
187          UI   21.62   20.49   15.98   15.98   15.98   10.06    9.93    9.93    9.93    9.93
188          UI    3.74    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19
189          UI    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19
190          UI    2.19    2.19    2.19     0.0
1                                          HEC-1 INPUT                                          PAGE  5
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

191          KK     104
192          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
193          KM   L=1.95     Lca=0.98     S=13.83     Kn=0.200     LAG=223
194          KM   S-GRAPH TYPE=AGRICULTURE
195          KO       0       0     0.0       1      22
196          BA  1.0120
197          LG     1.0   0.174   6.755   0.192   0.053
198          UI     0.0   16.74   16.74   16.74    32.9   44.31    73.2   96.94   91.85  107.62
199          UI  126.44  139.17  140.58  140.58  140.58  137.46  117.15  117.15  127.87  102.94
200          UI   87.86   99.21   73.02    63.9   56.91   48.63   49.42   45.47   31.95   28.25
201          UI   27.03   21.81   20.67   19.09   15.28   15.28   15.28   10.23     9.5     9.5
202          UI     9.5     9.5    6.73    2.09    2.09    2.09    2.09    2.09    2.09    2.09
203          UI    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09
204          UI    2.09    2.09    2.09    2.09    2.09    2.09    2.09     0.0

205          KK      F8
206          KM   COMBINE ROUTED HYDROGRAPH FROM G9, F7A, AND F7B WITH RUNOFF FROM 104 AND 105
207          KO       0       0     0.0       0      22
208          HC       5

209          KK   BICH
210          KM   ******************************************************************************
211          KM   **   SUB-WATERSHED H   ******************************************************
212          KM   ******************************************************************************
213          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
214          BA    0.01
215          ZR  =QI A=BIC BIC B=24799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06E

216          KK  H7S-H8   CNAME     H7S
217          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT H7S TO H8 (CHANNEL A)
218          KO       0       0     0.0       0      22
219          RS       1    FLOW     0.0     0.0
220          RC     0.1     0.1     0.1 9426.94   0.004     0.0
221          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
222          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

223          KK      87
224          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
225          KM   L=1.87     Lca=0.93     S=22.48     Kn=0.200     LAG=197
226          KM   S-GRAPH TYPE=AGRICULTURE
227          KO       0       0     0.0       1      22
228          BA  0.9127
229          LG     1.0   0.142   9.841   0.066   1.133
230          UI     0.0   17.08   17.08   21.63   35.88    62.3   92.38   98.78  108.99  130.67
231          UI  143.51  143.51  143.51  143.51  122.78  119.59  131.61   97.98   92.38   92.49
232          UI   67.23   61.75   50.13   50.38    44.1   32.38    27.6   25.39    21.1   20.52
233          UI    15.6    15.6   15.09     9.7     9.7     9.7     9.7    7.98    2.14    2.14
234          UI    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14
235          UI    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14     0.0
1                                          HEC-1 INPUT                                          PAGE  6
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

236          KK      H8   CNAME   H8-H9
237          KM   COMBINE ROUTED HYDROGRAPH FROM H7S WITH RUNOFF FROM 87 @ H8
238          KO       0       0     0.0       0      22
239          HC       2

240          KK   H8-H9   CNAME      H8
241          KM   ROUTE HYDRPGRAPH FROM H8 TO H9 (CHANNEL A)
242          KO       0       0     0.0       0      22
243          RS       5    FLOW     0.0     0.0
244          RC     0.1     0.1     0.1 5170.32   0.005     0.0
245          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
246          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

247          KK     106
248          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
249          KM   L=2.21     Lca=1.11     S=20.78     Kn=0.200     LAG=227
250          KM   S-GRAPH TYPE=AGRICULTURE
251          KO       0       0     0.0       1      22
252          BA  1.2094
```

```
253          LG     1.0    0.15   7.597   0.146   0.441
254          UI     0.0   19.65   19.65   19.65   37.41   49.75   82.54  109.68  112.23  121.21
255          UI  152.16   154.9  165.04  165.04  165.04  165.04   141.2  137.53  147.94  134.67
256          UI  103.15  109.85  101.52   76.86   73.58   58.83   55.01   62.59   39.81   36.09
257          UI   31.74   29.65   24.27   24.27    19.8   17.94   17.94   16.41   11.15   11.15
258          UI   11.15   11.15   11.15     5.7    2.46    2.46    2.46    2.46    2.46    2.46
259          UI    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46
260          UI    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46     0.0

261          KK      H9
262          KM   COMBINE ROUTED HYDROGRAPH FROM H8 WITH RUNOFF FROM 106 @ H9    ,
263          KO       0       0     0.0       0      22
264          HC       2

265          KK   BICJ
266          KM   ******************************************************************************
267          KM   **   SUB-WATERSHED J AND I   ***********************************************
268          KM   ******************************************************************************
269          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
270          BA    0.01
271          ZR  =QI A=BIC BIC B=36399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06E

272          KK  J6S-J7   CNAME     J6S
273          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT J6S TO J7 (CHANNEL A)
274          KO       0       0     0.0       0      22
275          RS       1    FLOW     0.0     0.0
276          RC     0.1     0.1     0.1 7531.83   0.005     0.0
277          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
278          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                          PAGE  7

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

279          KK      89
280          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
281          KM   L=1.79     Lca=0.90     S=21.20     Kn=0.200     LAG=193
282          KM   S-GRAPH TYPE=AGRICULTURE
283          KO       0       0     0.0       1      22
284          BA  0.9629
285          LG     1.0   0.144   9.821   0.068   0.559
286          UI     0.0    18.4    18.4   24.43   38.93    72.1  103.35  102.26  123.64  143.73
287          UI  154.55  154.55  154.55  151.11  128.79  134.03  134.52   96.59  104.41   86.51
288          UI   70.25   60.15   52.36    57.9   35.89   32.13   29.72   23.56   22.73   18.62
289          UI    16.8    16.8   12.13   10.44   10.44   10.44   10.44    2.52     2.3     2.3
290          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
291          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     0.0

292          KK      J7   CNAME   J7-J8
293          KM   COMBINE ROUTED HYDROGRAPH FROM J6S WITH RUNOFF FROM 89 @ J7
294          KO       0       0     0.0       0      22
295          HC       2

296          KK   J7-J8   CNAME      J7
297          KM   ROUTE HYDRPGRAPH FROM J7 TO J8 (CHANNEL Outlet to Gila)
298          KO       0       0     0.0       0      22
299          RS       2    FLOW     0.0     0.0
300          RC   0.035    0.05   0.035  6030.2   0.005     0.0
301          RX     0.0     5.0    15.0    25.0    45.0    55.0    65.0    70.0
302          RY    12.0    12.0     6.0     0.0     0.0     6.0    12.0    12.0

303          KK   BICI
304          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
305          BA    0.01
306          ZR  =QI A=BIC BIC B=33399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06E

307          KK  I6S-I7   CNAME     I6S
308          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT I6S TO I7 (CHANNEL A)
309          KO       0       0     0.0       0      22
310          RS       1    FLOW     0.0     0.0
311          RC     0.1     0.1     0.1 5514.43   0.006     0.0
312          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
313          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

314          KK      88
315          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
316          KM   L=1.66     Lca=0.83     S=19.29     Kn=0.200     LAG=185
317          KM   S-GRAPH TYPE=AGRICULTURE
318          KO       0       0     0.0       1      22
319          BA  0.7650
320          LG     1.0   0.145   9.798   0.068   0.288
321          UI     0.0   15.25   15.25   22.13    35.8   65.03   89.94   82.55  118.29   116.2
322          UI   128.1   128.1   128.1  113.86  106.75  116.28   88.23   83.17   79.03   58.98
323          UI   51.82   43.77   47.46   30.66   26.58   24.63   19.05   18.84   14.58   13.92
324          UI   13.77    8.66    8.66    8.66    8.66    5.51    1.91    1.91    1.91    1.91
325          UI    1.91    1.91    1.91    1.91    1.91    1.91    1.91    1.91    1.91    1.91
326          UI    1.91    1.91    1.91    1.91    1.91    1.91     0.0
1                                          HEC-1 INPUT                                          PAGE  8

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

327          KK      I7   CNAME   I7-I8
328          KM   COMBINE ROUTED HYDROGRAPH FROM I6S WITH RUNOFF FROM 88 @ I7
329          KO       0       0     0.0       0      22
330          HC       2

331          KK   I7-I8   CNAME      I7
332          KM   ROUTE HYDRPGRAPH FROM I7 TO I8 (CHANNEL A)
333          KO       0       0     0.0       0      22
334          RS       3    FLOW     0.0     0.0
335          RC     0.1     0.1     0.1 2738.75   0.011     0.0
336          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
337          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

338          KK     102
339          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
340          KM   L=1.48     Lca=0.74     S=25.68     Kn=0.200     LAG=161
341          KM   S-GRAPH TYPE=AGRICULTURE
342          KO       0       0     0.0       1      22
343          BA  0.5197
344          LG     1.0    0.15   8.603     0.1   0.185
345          UI     0.0    11.9    11.9   21.67   36.81   66.04   65.67    90.5    93.0   100.0
346          UI   100.0   95.56   83.33   88.91   70.08   66.55   54.67   45.05   35.02   35.82
```

```
347          UI   26.07   20.61   18.27   14.71   13.22   10.87   10.87    7.09    6.76    6.76
348          UI    6.76    1.77    1.49    1.49    1.49    1.49    1.49    1.49    1.49    1.49
349          UI    1.49    1.49    1.49    1.49    1.49    1.49    1.49    1.49    1.49     0.0

350          KK      I8   CNAME   I8-J8
351          KM   COMBINE ROUTED HYDROGRAPH FROM I7 WITH RUNOFF FROM 102 @ I8
352          KO       0       0     0.0       0      22
353          HC       2

354          KK   I8-J8   CNAME      I8
355          KM   ROUTE HYDRPGRAPH FROM I8 TO J8 (CHANNEL Outlet to Gila)
356          KO       0       0     0.0       0      22
357          RS       2    FLOW     0.0     0.0
358          RC   0.035    0.05   0.035 1438.31   0.002     0.0
359          RX     0.0     5.0    15.0    25.0    45.0    55.0    65.0    70.0
360          RY    12.0    12.0     6.0     0.0     0.0     6.0    12.0    12.0

361          KK     103
362          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
363          KM   L=1.14     Lca=0.57     S=22.77     Kn=0.200     LAG=135
364          KM   S-GRAPH TYPE=AGRICULTURE
365          KO       0       0     0.0       1      22
366          BA  0.5071
367          LG     1.0   0.218   6.325   0.244   0.669
368          UI     0.0   13.85   15.53   33.16   64.73   79.27   101.4  113.87  116.37  116.37
369          UI   96.97  104.34   75.78   76.07   54.11   43.64   41.62   28.46   22.78   18.53
370          UI   16.22   12.65   12.03    7.86    7.86    7.86    2.96    1.73    1.73    1.73
371          UI    1.73    1.73    1.73    1.73    1.73    1.73    1.73    1.73    1.73    1.73
372          UI    1.73     0.0
1                                          HEC-1 INPUT                                          PAGE  9

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

373          KK      J8
374          KM   COMBINE ROUTED HYDROGRAPH FROM I8 AND J7 WITH RUNOFF FROM 103 @ J8
375          KO       0       0     0.0       0      22
376          HC       3

377          KK     107
378          KO       0       0     0.0       1      22
379          BA  0.4835
380          LG     1.0   0.181   6.695    0.21     0.0
381          UI     0.0   14.27   18.19   38.28   79.06   83.22  111.51  119.83  119.83  106.52
382          UI  104.02    85.3   78.64   55.83   44.03   42.21   26.54   22.59   17.62   14.56
383          UI   13.03    9.33     8.1     8.1    3.89    1.78    1.78    1.78    1.78    1.78
384          UI    1.78    1.78    1.78    1.78    1.78    1.78    1.78    1.78     0.0
385          ZZ
```

RUNOFF SUMMARY

FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	BICE	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	E2S-E3	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	84	192.	7.25	127.	37.	12.	0.88		
+	2 COMBINED AT	E3	192.	7.25	127.	37.	12.	0.88		
+	HYDROGRAPH AT	BICFB	295.	10.75	267.	91.	30.	0.01		
+	ROUTED TO	F6BS7B	290.	11.75	259.	91.	30.	0.01		
+	HYDROGRAPH AT	85B	149.	6.50	84.	23.	8.	0.75		
+	2 COMBINED AT	F7B	300.	11.75	270.	114.	38.	0.76		
+	ROUTED TO	F7B-F8	298.	12.75	267.	114.	38.	0.76		
+	HYDROGRAPH AT	BICG	342.	11.25	210.	61.	20.	0.01		
+	ROUTED TO	G8S-G9	253.	12.25	188.	61.	20.	0.01		
+	HYDROGRAPH AT	86	172.	6.00	75.	19.	6.	0.44		
+	2 COMBINED AT	G9	255.	12.25	190.	80.	27.	0.45		
+	ROUTED TO	G9-F8	241.	14.75	184.	79.	27.	0.45		
+	HYDROGRAPH AT	BICFA	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	F6AS7A	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	85A	99.	5.50	34.	9.	3.	0.22		
+	2 COMBINED AT	F7A	99.	5.50	34.	9.	3.	0.22		
+	ROUTED TO	F7A-F8	48.	9.00	29.	9.	3.	0.22		
	HYDROGRAPH AT									

```
+                          105      213.   7.25      137.      39.      13.     1.00
+        HYDROGRAPH AT
+                          104      173.   7.25      116.      33.      11.     1.01
+        5 COMBINED AT
+                           F8      534.  14.50      453.     257.      86.     3.43
+        HYDROGRAPH AT
+                         BICH      173.  10.50      102.      26.       9.     0.01
+        ROUTED TO
+                        H7S-H8      85.  12.75       68.      26.       9.     0.01
+        HYDROGRAPH AT
+                           87      225.   7.00      139.      39.      13.     0.91
+        2 COMBINED AT
+                           H8      225.   7.00      148.      64.      22.     0.92
+        ROUTED TO
+                        H8-H9      207.   8.25      143.      63.      22.     0.92
+        HYDROGRAPH AT
+                          106      218.   7.50      148.      43.      14.     1.21
+        2 COMBINED AT
+                           H9      389.   7.75      264.     102.      35.     2.13
+        HYDROGRAPH AT
+                         BICJ      364.  10.25      318.     136.      52.     0.01
+        ROUTED TO
+                        J6S-J7     320.  12.00      285.     134.      52.     0.01
+        HYDROGRAPH AT
+                           89      239.   7.00      145.      40.      13.     0.96
+        2 COMBINED AT
+                           J7      346.  11.75      318.     172.      65.     0.97
+        ROUTED TO
+                        J7-J8      344.  11.75      318.     172.      65.     0.97
+        HYDROGRAPH AT
+                         BICI      302.  10.25      221.      76.      25.     0.01
+        ROUTED TO
+                        I6S-I7     249.  11.75      203.      76.      25.     0.01
+        HYDROGRAPH AT
+                           88      199.   6.75      117.      32.      11.     0.76
+        2 COMBINED AT
+                           I7      270.  11.50      220.     108.      36.     0.77
+        ROUTED TO
+                        I7-I8      266.  12.00      220.     108.      36.     0.77
+        HYDROGRAPH AT
+                          102      152.   6.50       80.      21.       7.     0.52
+        2 COMBINED AT
+                           I8      313.   7.25      250.     127.      43.     1.29
+        ROUTED TO
+                        I8-J8      310.   7.25      249.     127.      43.     1.29
+        HYDROGRAPH AT
+                          103      149.   6.25       68.      17.       6.     0.51
+        3 COMBINED AT
+                           J8      618.   7.25      565.     307.     110.     2.77
+        HYDROGRAPH AT
+                          107      162.   6.00       69.      18.       6.     0.48

*** NORMAL END OF HEC-1 ***
```

D.7.3.b HEC-1 Output File for 100-Year 6-Hour (Future Conditions)

```
1*************************************                    *************************************
 *                                   *                    *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                    *   U.S. ARMY CORPS OF ENGINEERS    *
 *              JUN   1998           *                    *   HYDROLOGIC ENGINEERING CENTER   *
 *            VERSION 4.1            *                    *         609 SECOND STREET         *
 *                                   *                    *      DAVIS, CALIFORNIA 95616      *
 *  RUN DATE   22MAR06  TIME  10:46:44   *                    *          (916) 756-1104           *
 *                                   *                    *                                   *
 *************************************                    *************************************

X     X  XXXXXXX   XXXXX           X
X     X  X        X     X         XX
X     X  X        X                X
XXXXXXX  XXXX     X        XXXXX   X
X     X  X        X                X
X     X  X        X     X          X
X     X  XXXXXXX   XXXXX          XXX

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                    PAGE  1

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

        1           ID   Buckeye/Sun Valley ADMS - November 2004
        2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
        3           ID   100-year 6-hour
        4           ID   Future Conditions
        5           ID   Area 1 - FRS to RID (West)
        6           ID   File Name: frw1006fut.hc1
        7           ID   Rainfall Loss Method - Green & Ampt
        8           ID   Unit Hydrograph Method - FCDMC S-Graph
        9           ID   Channel Routing Method - Normal Depth
       10           ID   Land Use - FCDMC GIS Data: mag_genplan (2000)
       11           ID   Future Land Use Build Out Date: 2025
       12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
       13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                    *DIAGRAM
       14           IT      15 02JAN94       0     400
       15           IO       3
       16           IN      15 02JAN94       0
       17           JD   3.298    0.01
                    * 6-hour distribution, pattern 1.0
       18           PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
       19           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
       20           PC   0.962   0.972   0.983   0.991     1.0
       21           IN      15 02JAN94       0
       22           JD   3.279     0.5
                    * 6-hour distribution, pattern 1.0
       23           PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
       24           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
       25           PC   0.962   0.972   0.983   0.991     1.0
       26           IN      15 02JAN94       0
       27           JD   3.256     1.0
                    * 6-hour distribution, pattern 1.4
       28           PC     0.0  0.0084   0.016   0.025  0.0334  0.0414  0.0504  0.0584  0.0664  0.0748
       29           PC   0.087  0.0994  0.1188   0.148  0.2304  0.4067  0.7778  0.8813  0.9186  0.9452
       30           PC  0.9572  0.9684  0.9798  0.9898     1.0
       31           IN      15 02JAN94       0
       32           JD   3.167     5.0
                    * 6-hour distribution, pattern 2.3
       33           PC     0.0   0.011  0.0173  0.0267  0.0387   0.049  0.0593  0.0693  0.0797  0.0903
       34           PC   0.103  0.1173  0.1383  0.1827  0.2693   0.458   0.686  0.8233  0.8893  0.9293
       35           PC  0.9487   0.962  0.9743  0.9877     1.0
       36           IN      15 02JAN94       0
       37           JD   3.101    10.0
                    * 6-hour distribution, pattern 2.7
       38           PC     0.0  0.0134  0.0189  0.0287  0.0443  0.0574  0.0694  0.0818  0.0949  0.1076
       39           PC  0.1223  0.1382  0.1604  0.2063  0.2902  0.4664  0.6764  0.8069  0.8765  0.9189
       40           PC  0.9471  0.9608  0.9735  0.9873     1.0
                    * ***************************************************************************
                    * **    SUB-WATERSHED F   ****************************************************
                    * ***************************************************************************
1                                                HEC-1 INPUT                                                    PAGE  2

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

       41           KK     15A
       42           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
       43           KM   L=1.45     Lca=0.48     S=34.58     Kn=0.050     LAG=32
       44           KM   S-GRAPH TYPE=DESERT RANGELAND
       45           KO      0       0     0.0       1      22
       46           BA  0.5884
       47           LG   0.208    0.25   4.419   0.432  39.606
       48           UI     0.0  159.68  521.91  464.14  211.81   93.26   40.28   15.07     0.0

       49           KK   15A-O
       50           KO      0       0     0.0       0      22
       51           DT  15Aret    24.0     0.0
       52           DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
```

```
 53          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
 54          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 55          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

 56          KK   F1A-B   CNAME     F1A
 57          KM   ROUTE HYDRPGRAPH FROM F1A TO F1B (CHANNEL A)
 58          KO       0       0     0.0       0      22
 59          RS       5    FLOW     0.0     0.0
 60          RC     0.1     0.1     0.1  4678.0   0.004     0.0
 61          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 62          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 63          KK     15B
 64          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 65          KM   L=1.63     Lca=0.82     S=11.02     Kn=0.200     LAG=204
 66          KM   S-GRAPH TYPE=AGRICULTURE
 67          KO       0       0     0.0       1      22
 68          BA  0.8162
 69          LG   0.117    0.25   4.099   0.496   73.49
 70          UI     0.0   14.76   14.76   17.09   30.99   47.18   76.64    88.0   87.38  112.97
 71          UI  117.57  123.95  123.95  123.95  115.68  103.29  110.31  103.29   77.47   83.74
 72          UI   71.03   56.34   50.16   42.61   44.75   34.88   27.48   23.84   21.64   18.23
 73          UI   17.85   13.47   13.47   13.47    8.62    8.37    8.37    8.37    8.37    2.37
 74          UI    1.84    1.84    1.84    1.84    1.84    1.84    1.84    1.84    1.84    1.84
 75          UI    1.84    1.84    1.84    1.84    1.84    1.84    1.84    1.84    1.84    1.84
 76          UI    1.84     0.0

 77          KK   15B-O
 78          KO       0       0     0.0       0      22
 79          DT  15Bret    92.0     0.0
 80          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 81          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
 82          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 83          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

 84          KK     F1B
 85          KM   COMBINE ROUTED HYDROGRAPH FROM F1A WITH RUNOFF FROM 15B @ F1B
 86          ZW   A=FRW B=F1B C=FLOW E=15MIN F=100y6h-fut
 87          KO       0       0     0.0       0      22
 88          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED G   ***************************************************
             * ***********************************************************************
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 89          KK       2
 90          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 91          KM   L=2.02     Lca=0.86     S=45.95     Kn=0.050     LAG=43
 92          KM   S-GRAPH TYPE=DESERT RANGELAND
 93          KO       0       0     0.0       1      22
 94          BA  1.2330
 95          LG     0.1    0.25   3.994   0.548  74.171
 96          UI     0.0  169.22  637.96  900.62  677.78  370.08  199.82  108.84   58.92    23.5
 97          UI    23.5     0.0

 98          KK     2-O
 99          KO       0       0     0.0       0      22
100          DT    2ret   107.0     0.0
101          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
102          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
103          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
104          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

105          KK       1
106          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
107          KM   L=2.61     Lca=1.54     S=34.86     Kn=0.050     LAG=62
108          KM   S-GRAPH TYPE=DESERT RANGELAND
109          KO       0       0     0.0       1      22
110          BA  1.6264
111          LG   0.115    0.25   4.334   0.468  69.018
112          UI     0.0   96.49   378.3  680.74  834.28   747.2  509.62  334.33  217.15  147.44
113          UI   90.69   60.46   32.88    21.5    21.5    21.5     0.0

114          KK     1-O
115          KO       0       0     0.0       0      22
116          DT    1ret   142.0     0.0
117          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
118          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
119          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
120          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

121          KK      G2   CNAME   G2-G3
122          KM   COMBINE RUNOFF HYDROGRAPH FROM 1 AND 2 @ G2
123          KO       0       0     0.0       0      22
124          HC       2

125          KK   G2-G3   CNAME      G2
126          KM   ROUTE HYDRPGRAPH FROM G1 TO G2 (CHANNEL A)
127          KO       0       0     0.0       0      22
128          RS       7    FLOW     0.0     0.0
129          RC     0.1     0.1     0.1  3231.1   0.005     0.0
130          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
131          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


132          KK      16
133          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
134          KM   L=2.00     Lca=1.37     S=24.99     Kn=0.050     LAG=57
135          KM   S-GRAPH TYPE=PHOENIX VALLEY
136          KO       0       0     0.0       1      22
137          BA  0.9506
138          LG     0.1    0.25   4.398    0.44    80.0
139          UI     0.0   72.32  253.63  387.42  637.63   477.5  314.11  154.95   79.28   36.56
140          UI   17.22   17.22     0.0

141          KK    16-O
142          KO       0       0     0.0       0      22
143          DT   16ret    63.0     0.0
```

```
144          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
145          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
146          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
147          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

148          KK      G3
149          KM   COMBINE ROUTED HYDROGRAPH FROM G2 WITH RUNOFF FROM 16 @ G3
150          ZW   A=FRW B=G3 C=FLOW E=15MIN F=100y6h-fut
151          KO       0       0     0.0       0      22
152          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED H   ***********************************************
             * ***********************************************************************

153          KK       4
154          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
155          KM   L=1.38     Lca=0.74     S=40.65     Kn=0.050     LAG=36
156          KM   S-GRAPH TYPE=DESERT RANGELAND
157          KO       0       0     0.0       1      22
158          BA  0.5493
159          LG   0.143    0.25   4.023   0.619  52.665
160          UI     0.0  113.24  399.98  445.83  240.22  115.51   55.22   25.12    12.5     0.0

161          KK     4-O
162          KO       0       0     0.0       0      22
163          DT    4ret    34.0     0.0
164          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
165          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
166          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
167          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

168          KK   H1-H2   CNAME      H1
169          KM   ROUTE HYDRPGRAPH FROM H1 TO H2 (CHANNEL C)
170          KO       0       0     0.0       0      22
171          RS       2    FLOW     0.0     0.0
172          RC   0.035   0.035   0.035 5802.98  0.0050     0.0
173          RX     0.0     2.0    12.0   112.0   212.0   312.0   412.0   512.0
174          RY     5.0     5.0     0.0     1.0     2.0     3.0     4.0     5.0
1                                          HEC-1 INPUT                                    PAGE  5

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

175          KK       3
176          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
177          KM   L=2.04     Lca=1.39     S=39.22     Kn=0.050     LAG=53
178          KM   S-GRAPH TYPE=DESERT RANGELAND
179          KO       0       0     0.0       1      22
180          BA  1.6478
181          LG   0.23    0.25   4.028   0.538  43.956
182          UI     0.0  141.45  544.37  909.46  962.94   667.1  407.91  246.66  151.83   89.96
183          UI   55.64   25.48   25.48     0.0

184          KK     3-O
185          KO       0       0     0.0       0      22
186          DT    3ret   110.0     0.0
187          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
188          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
189          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
190          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

191          KK      H2   CNAME   H2-H3
192          KM   COMBINE ROUTED HYDROGRAPH FROM H1 WITH RUNOFF FROM 3 @ H2
193          KO       0       0     0.0       0      22
194          HC       2

195          KK   H2-H3   CNAME      H2
196          KM   ROUTE HYDRPGRAPH FROM H2 TO H3 (CHANNEL B)
197          KO       0       0     0.0       0      22
198          RS       2    FLOW     0.0     0.0
199          RC     0.1    0.02     0.1 3094.41   0.007     0.0
200          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
201          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

202          KK      17
203          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
204          KM   L=1.43     Lca=0.71     S=16.84     Kn=0.200     LAG=169
205          KM   S-GRAPH TYPE=AGRICULTURE
206          KO       0       0     0.0       1      22
207          BA  0.6065
208          LG   0.25    0.25   4.017   0.429    45.0
209          UI     0.0   13.23   13.23   22.46   37.19   65.58   77.31   86.16   104.9  111.17
210          UI  111.17  111.17   97.58   93.45   98.99   69.48   77.29   53.37   48.38   38.62
211          UI   40.28   28.19   22.96   20.73   16.35   15.44   12.08   12.08    9.24    7.51
212          UI    7.51    7.51    4.86    1.65    1.65    1.65    1.65    1.65    1.65    1.65
213          UI    1.65    1.65    1.65    1.65    1.65    1.65    1.65    1.65    1.65    1.65
214          UI    1.65     0.0

215          KK    17-O
216          KO       0       0     0.0       0      22
217          DT   17ret    50.0     0.0
218          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
219          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
220          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
221          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
1                                          HEC-1 INPUT                                    PAGE  6

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

222          KK      H3
223          KM   COMBINE ROUTED HYDROGRAPH FROM H2 WITH RUNOFF FROM 17 @ H3
224          ZW   A=FRW B=H3 C=FLOW E=15MIN F=100y6h-fut
225          KO       0       0     0.0       0      22
226          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED I   ***********************************************
             * ***********************************************************************

227          KK      5A
228          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
229          KM   L=1.75     Lca=1.16     S=49.05     Kn=0.050     LAG=45
230          KM   S-GRAPH TYPE=DESERT RANGELAND
231          KO       0       0     0.0       1      22
```

```
 232          BA  1.1721
 233          LG   0.194    0.25   4.333   0.471  45.554
 234          UI     0.0  144.96  551.31  816.54  667.55  378.63  210.18  117.93   66.22   28.93
 235          UI   21.34   21.34

 236          KK    5A-O
 237          KO       0       0     0.0       0      22
 238          DT   5Aret    55.0     0.0
 239          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 240          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
 241          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 242          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

 243          KK  I1AI2A   CNAME     I1A
 244          KM   ROUTE HYDRPGRAPH FROM I1A TO I2A (CHANNEL B)
 245          KO       0       0     0.0       0      22
 246          RS       3    FLOW     0.0     0.0
 247          RC     0.1    0.02     0.1 3507.57   0.005     0.0
 248          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 249          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 250          KK      18
 251          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 252          KM   L=1.81     Lca=0.75     S=30.99     Kn=0.200     LAG=168
 253          KM   S-GRAPH TYPE=AGRICULTURE
 254          KO       0       0     0.0       1      22
 255          BA  0.7963
 256          LG   0.25    0.25   4.134   0.467  39.845
 257          UI     0.0   17.48   17.48   29.94   49.63   87.36  102.05  117.46  136.55  146.83
 258          UI  146.83  146.83  127.25  125.29  126.27   91.77  100.28   69.84   62.39   50.62
 259          UI   54.06   34.48   29.67   26.48   21.59   19.56   15.96   15.96   11.23    9.92
 260          UI    9.92    9.92    4.97    2.18    2.18    2.18    2.18    2.18    2.18    2.18
 261          UI    2.18    2.18    2.18    2.18    2.18    2.18    2.18    2.18    2.18    2.18
 262          UI    2.18     0.0
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 263          KK    18-O
 264          KO       0       0     0.0       0      22
 265          DT   18ret    59.0     0.0
 266          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 267          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
 268          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 269          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

 270          KK     I2A
 271          KM   COMBINE ROUTED HYDROGRAPH FROM I1A WITH RUNOFF FROM 18 @ I2A
 272          ZW   A=FRW B=I2A C=FLOW E=15MIN F=100y6h-fut
 273          KO       0       0     0.0       0      22
 274          HC       2

 275          KK      5B
 276          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 277          KM   L=1.73     Lca=1.08     S=38.66     Kn=0.050     LAG=46
 278          KM   S-GRAPH TYPE=DESERT RANGELAND
 279          KO       0       0     0.0       1      22
 280          BA  0.5758
 281          LG   0.145    0.25   4.606   0.387  47.212
 282          UI     0.0   67.57  258.59  391.25   331.8   192.8  107.92   61.59   34.35   17.29
 283          UI   10.26   10.26     0.0

 284          KK    5B-O
 285          KO       0       0     0.0       0      22
 286          DT   5Bret    28.0     0.0
 287          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 288          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
 289          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 290          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

 291          KK  1B-I2B   CNAME     I1B
 292          KM   ROUTE HYDRPGRAPH FROM I1B TO I2B (CHANNEL A)
 293          KO       0       0     0.0       0      22
 294          RS       1    FLOW     0.0     0.0
 295          RC     0.1     0.1     0.1 4972.04  0.0047     0.0
 296          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 297          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 298          KK      19
 299          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 300          KM   L=1.51     Lca=0.76     S=18.49     Kn=0.200     LAG=174
 301          KM   S-GRAPH TYPE=AGRICULTURE
 302          KO       0       0     0.0       1      22
 303          BA  0.5356
 304          LG   0.25    0.25   3.962   0.418  44.773
 305          UI     0.0   11.35   11.35    18.4   30.26    53.8   66.51   69.61   86.78   95.36
 306          UI   95.36   95.36    89.0   79.47   84.42   69.18   61.85   57.97   43.57    37.1
 307          UI    32.1   33.09   21.67   18.47   16.39   14.02   12.27   10.37   10.37    7.18
 308          UI    6.44    6.44    6.44    3.83    1.42    1.42    1.42    1.42    1.42    1.42
 309          UI    1.42    1.42    1.42    1.42    1.42    1.42    1.42    1.42    1.42    1.42
 310          UI    1.42    1.42     0.0
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 311          KK    19-O
 312          KO       0       0     0.0       0      22
 313          DT   19ret    45.0     0.0
 314          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 315          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
 316          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 317          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

 318          KK     I2B
 319          KM   COMBINE ROUTED HYDROGRAPH FROM I1B WITH RUNOFF FROM 19 @ I2B
 320          ZW   A=FRW B=I2B C=FLOW E=15MIN F=100y6h-fut
 321          KO       0       0     0.0       0      22
 322          HC       2
 323          ZZ
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

+	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	15A	889.	4.50	137.	35.	12.	0.59		
+	DIVERSION TO	15Aret	452.	4.25	48.	12.	4.	0.59		
+	HYDROGRAPH AT	15A-O	765.	4.75	90.	22.	7.	0.59		
+	ROUTED TO	F1A-B	320.	5.75	89.	22.	7.	0.59		
+	HYDROGRAPH AT	15B	316.	7.00	208.	61.	20.	0.82		
+	DIVERSION TO	15Bret	316.	7.00	183.	46.	15.	0.82		
+	HYDROGRAPH AT	15B-O	153.	9.25	54.	14.	5.	0.82		
+	2 COMBINED AT	F1B	321.	5.75	129.	37.	12.	1.40		
+	HYDROGRAPH AT	2	1605.	4.75	357.	90.	30.	1.23		
+	DIVERSION TO	2ret	1605.	4.75	216.	54.	18.	1.23		
+	HYDROGRAPH AT	2-O	1089.	5.00	145.	36.	12.	1.23		
+	HYDROGRAPH AT	1	1584.	5.00	449.	115.	38.	1.63		
+	DIVERSION TO	1ret	1584.	5.00	286.	72.	24.	1.63		
+	HYDROGRAPH AT	1-O	1047.	5.50	173.	43.	14.	1.63		
+	2 COMBINED AT	G2	1516.	5.50	298.	74.	25.	2.86		
+	ROUTED TO	G2-G3	1282.	6.00	297.	74.	25.	2.86		
+	HYDROGRAPH AT	16	1228.	5.00	291.	74.	25.	0.95		
+	DIVERSION TO	16ret	1007.	4.75	127.	32.	11.	0.95		
+	HYDROGRAPH AT	16-O	1120.	5.00	168.	42.	14.	0.95		
+	2 COMBINED AT	G3	1511.	6.00	444.	111.	37.	3.81		
+	HYDROGRAPH AT	4	755.	4.75	137.	35.	12.	0.55		
+	DIVERSION TO	4ret	744.	4.50	69.	17.	6.	0.55		
+	HYDROGRAPH AT	4-O	645.	4.75	70.	17.	6.	0.55		
+	ROUTED TO	H1-H2	321.	5.25	70.	17.	6.	0.55		
+	HYDROGRAPH AT	3	1460.	5.00	361.	91.	30.	1.65		
+	DIVERSION TO	3ret	1456.	4.75	222.	55.	18.	1.65		
+	HYDROGRAPH AT	3-O	978.	5.25	144.	36.	12.	1.65		
+	2 COMBINED AT	H2	1089.	5.25	196.	49.	16.	2.20		
+	ROUTED TO	H2-H3	843.	5.75	195.	49.	16.	2.20		
+	HYDROGRAPH AT	17	238.	6.50	136.	38.	13.	0.61		
+	DIVERSION TO	17ret	238.	6.50	100.	25.	8.	0.61		
+	HYDROGRAPH AT	17-O	156.	8.00	47.	12.	4.	0.61		
+	2 COMBINED AT	H3	812.	5.75	223.	57.	19.	2.80		
+	HYDROGRAPH AT	5A	1309.	4.75	274.	69.	23.	1.17		
+	DIVERSION TO	5Aret	1046.	4.50	111.	28.	9.	1.17		
+	HYDROGRAPH AT	5A-O	1099.	5.00	166.	41.	14.	1.17		
	ROUTED TO									

```
+                    I1AI2A      802.   5.50        165.        41.        14.      1.17

         HYDROGRAPH AT
+                       18      292.   6.50        166.        46.        15.      0.80

         DIVERSION TO
+                    18ret      292.   6.50        119.        30.        10.      0.80

         HYDROGRAPH AT
+                     18-O      198.   7.75         62.        16.         5.      0.80

         2 COMBINED AT
+                      I2A      802.   5.50        217.        56.        19.      1.97

         HYDROGRAPH AT
+                       5B      728.   4.75        146.        37.        12.      0.58

         DIVERSION TO
+                    5Bret      564.   4.50         56.        14.         5.      0.58

         HYDROGRAPH AT
+                     5B-O      611.   5.00         91.        23.         8.      0.58

         ROUTED TO
+                   1B-I2B      195.   5.50         83.        23.         8.      0.58

         HYDROGRAPH AT
+                       19      207.   6.50        121.        33.        11.      0.54

         DIVERSION TO
+                    19ret      207.   6.50         90.        23.         8.      0.54

         HYDROGRAPH AT
+                     19-O      136.   8.00         41.        11.         4.      0.54

         2 COMBINED AT
+                      I2B      217.   8.00        116.        33.        11.      1.11

1****************************************                    ****************************************
 *                                      *                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *            JUN   1998                *                    *   HYDROLOGIC ENGINEERING CENTER      *
 *          VERSION 4.1                 *                    *          609 SECOND STREET           *
 *                                      *                    *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   22MAR06  TIME  10:48:59  *                    *           (916) 756-1104             *
 *                                      *                    *                                      *
 ****************************************                    ****************************************

                                                  X     X  XXXXXXX   XXXXX          X
                                                  X     X  X        X     X        XX
                                                  X     X  X        X              X
                                                  XXXXXXX  XXXX     X        XXXXX  X
                                                  X     X  X        X              X
                                                  X     X  X        X     X        X
                                                  X     X  XXXXXXX   XXXXX        XXX

          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                    PAGE  1

         LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

           1           ID   Buckeye/Sun Valley ADMS - November 2004
           2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
           3           ID   100-year 6-hour
           4           ID   Future Conditions
           5           ID   Area 1 - FRS to RID (East)
           6           ID   File Name: fre1006fut.hc1
           7           ID   Rainfall Loss Method - Green & Ampt
           8           ID   Unit Hydrograph Method - FCDMC S-Graph
           9           ID   Channel Routing Method - Normal Depth
          10           ID   Land Use - FCDMC GIS Data: mag_genplan (2000)
          11           ID   Future Land Use Build Out Date: 2025
          12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
          13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                       *DIAGRAM
          14           IT      15 02JAN94       0     400
          15           IO       3
          16           IN      15 02JAN94       0
          17           JD   3.298    0.01
                       * 6-hour distribution, pattern 1.0
          18           PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
          19           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
          20           PC   0.962   0.972   0.983   0.991     1.0
          21           IN      15 02JAN94       0
          22           JD   3.279     0.5
                       * 6-hour distribution, pattern 1.0
          23           PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
          24           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
          25           PC   0.962   0.972   0.983   0.991     1.0
          26           IN      15 02JAN94       0
          27           JD   3.256     1.0
                       * 6-hour distribution, pattern 1.4
          28           PC     0.0  0.0084   0.016   0.025  0.0334  0.0414  0.0504  0.0584  0.0664  0.0748
          29           PC   0.087  0.0994  0.1188   0.148  0.2304  0.4067  0.7778  0.8813  0.9186  0.9452
          30           PC  0.9572  0.9684  0.9798  0.9898     1.0
          31           IN      15 02JAN94       0
          32           JD   3.167     5.0
                       * 6-hour distribution, pattern 2.3
          33           PC     0.0   0.011  0.0173  0.0267  0.0387   0.049  0.0593  0.0693  0.0797  0.0903
```

```
 34          PC   0.103  0.1173  0.1383  0.1827  0.2693   0.458   0.686  0.8233  0.8893  0.9293
 35          PC  0.9487   0.962  0.9743  0.9877     1.0
 36          IN      15 02JAN94       0
 37          JD   3.101    10.0
             * 6-hour distribution, pattern 2.7
 38          PC     0.0  0.0134  0.0189  0.0287  0.0443  0.0574  0.0694  0.0818  0.0949  0.1076
 39          PC  0.1223  0.1382  0.1604  0.2063  0.2902  0.4664  0.6764  0.8069  0.8765  0.9189
 40          PC  0.9471  0.9608  0.9735  0.9873     1.0
             * ***************************************************************************
             * **   SUB-WATERSHED J   ***************************************************
             * ***************************************************************************
1                                          HEC-1 INPUT                                          PAGE  2

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 41          KK       6
 42          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 43          KM   L=0.50     Lca=0.35     S=88.18     Kn=0.050     LAG=16
 44          KM   S-GRAPH TYPE=DESERT RANGELAND
 45          KO       0        0     0.0       1      22
 46          BA  0.3175
 47          LG     0.1    0.25   5.257   0.315  48.903
 48          UI     0.0  367.81  364.77   72.06     0.0

 49          KK     6-O
 50          KO       0        0     0.0       0      22
 51          DT    6ret    15.0     0.0
 52          DI     0.0  2000.0
 53          DQ     0.0  2000.0

 54          KK   J1-J2   CNAME      J1
 55          KM   ROUTE HYDRPGRAPH FROM J1 TO J2 (CHANNEL A)
 56          KO       0        0     0.0       0      22
 57          RS       4     FLOW     0.0     0.0
 58          RC   0.035    0.035   0.035 4135.69   0.004     0.0
 59          RX     0.0    250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 60          RY    10.0      7.5     5.0     2.5     0.0     3.3     6.6    10.0

 61          KK       8
 62          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 63          KM   L=1.22     Lca=0.56     S=14.80     Kn=0.050     LAG=37
 64          KM   S-GRAPH TYPE=DESERT RANGELAND
 65          KO       0        0     0.0       1      22
 66          BA  0.4136
 67          LG   0.147     0.25   4.104   0.501  54.051
 68          UI     0.0    80.26  286.14  333.87  188.89   92.75   45.37   21.43    9.16    9.16
 69          UI     0.0

 70          KK     8-O
 71          KO       0        0     0.0       0      22
 72          DT    8ret    25.0     0.0
 73          DI     0.0  2000.0
 74          DQ     0.0  2000.0

 75          KK      J2   CNAME   J2-J3
 76          KM   COMBINE ROUTED HYDROGRAPH FROM J1 WITH RUNOFF FROM 8 @ J2
 77          KO       0        0     0.0       0      22
 78          HC       2

 79          KK   J2-J3   CNAME      J2
 80          KM   ROUTE HYDRPGRAPH FROM J2 TO J3 (CHANNEL B)
 81          KO       0        0     0.0       0      22
 82          RS       3     FLOW     0.0     0.0
 83          RC     0.1     0.02     0.1 3195.75   0.008     0.0
 84          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 85          RY    10.0      0.0     0.0     1.0     1.0     0.0     0.0    10.0
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 86          KK      20
 87          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 88          KM   L=1.57     Lca=0.79     S=16.56     Kn=0.200     LAG=183
 89          KM   S-GRAPH TYPE=AGRICULTURE
 90          KO       0        0     0.0       1      22
 91          BA  0.6645
 92          LG    0.25     0.25   3.974    0.44    45.0
 93          UI     0.0    13.39   13.39   19.84   32.21   58.26   78.88   74.24  102.61  104.94
 94          UI  112.49   112.49  112.49   97.49   93.74  105.07   70.56   74.86   64.48   51.13
 95          UI    43.2    37.84   40.14   25.57   22.34   20.44   16.54   15.85   12.23   12.23
 96          UI   10.59     7.6     7.6     7.6     7.6    2.62    1.67    1.67    1.67    1.67
 97          UI    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67
 98          UI    1.67    1.67    1.67    1.67    1.67     0.0

 99          KK    20-O
100          KO       0        0     0.0       0      22
101          DT   20ret    55.0     0.0
102          DI     0.0  2000.0
103          DQ     0.0  2000.0

104          KK      J3
105          KM   COMBINE ROUTED HYDROGRAPH FROM J2 WITH RUNOFF FROM 20 @ J3
106          ZW   A=FRE B=J3 C=FLOW E=15MIN F=100y6h-fut
107          KO       0        0     0.0       0      22
108          HC       2
             * ***************************************************************************
             * **   SUB-WATERSHED K   ***************************************************
             * ***************************************************************************

109          KK       7
110          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
111          KM   L=0.74     Lca=0.30     S=73.02     Kn=0.050     LAG=18
112          KM   S-GRAPH TYPE=DESERT RANGELAND
113          KO       0        0     0.0       1      22
114          BA  0.4459
115          LG     0.1    0.25   4.134   0.467  71.438
116          UI     0.0  416.62  556.92   138.6   30.54     0.0

117          KK     7-O
118          KO       0        0     0.0       0      22
119          DT    7ret    37.0     0.0
120          DI     0.0  2000.0
```

```
 121          DQ     0.0  2000.0

 122          KK   K1-K2   CNAME      K1
 123          KM   ROUTE HYDRPGRAPH FROM K1 TO K2 (CHANNEL A)
 124          KO       0       0     0.0       0      22
 125          RS       3    FLOW     0.0     0.0
 126          RC   0.035   0.035   0.035  4162.2   0.011     0.0
 127          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 128          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                                    PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 129          KK       9
 130          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 131          KM   L=0.79      Lca=0.41      S=57.09      Kn=0.050      LAG=22
 132          KM   S-GRAPH TYPE=DESERT RANGELAND
 133          KO       0       0     0.0       1      22
 134          BA  0.6124
 135          LG     0.1    0.25   3.984   0.443    80.0
 136          UI     0.0  381.65  780.49  295.85   90.95    23.1     0.0

 137          KK     9-O
 138          KO       0       0     0.0       0      22
 139          DT    9ret    47.0     0.0
 140          DI     0.0  2000.0
 141          DQ     0.0  2000.0

 142          KK      K2   CNAME   K2-K3
 143          KM   COMBINE ROUTED HYDROGRAPH FROM K1 WITH RUNOFF FROM 9 @ K2
 144          KO       0       0     0.0       0      22
 145          HC       2

 146          KK   K2-K3   CNAME      K2
 147          KM   ROUTE HYDRPGRAPH FROM K2 TO K3 (CHANNEL A)
 148          KO       0       0     0.0       0      22
 149          RS       3    FLOW     0.0     0.0
 150          RC     0.1     0.1     0.1 2881.52   0.009     0.0
 151          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 152          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 153          KK     21B
 154          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 155          KM   L=1.02      Lca=0.51      S=24.58      Kn=0.200      LAG=122
 156          KM   S-GRAPH TYPE=AGRICULTURE
 157          KO       0       0     0.0       1      22
 158          BA  0.2728
 159          LG    0.25    0.25   4.001   0.551    45.0
 160          UI     0.0    8.25    10.9   22.84   46.68   49.72   65.96   69.27   69.27   59.27
 161          UI   62.38   43.49   42.68   30.48   23.78   21.73   14.42   11.79     9.9    7.53
 162          UI    6.86    4.68    4.68    3.85    1.03    1.03    1.03    1.03    1.03    1.03
 163          UI    1.03    1.03    1.03    1.03    1.03    1.03    1.03     0.0

 164          KK   21B-O
 165          KO       0       0     0.0       0      22
 166          DT  21Bret    22.0     0.0
 167          DI     0.0  2000.0
 168          DQ     0.0  2000.0

 169          KK     21A
 170          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 171          KM   L=1.43      Lca=0.71      S=39.92      Kn=0.200      LAG=144
 172          KM   S-GRAPH TYPE=AGRICULTURE
 173          KO       0       0     0.0       1      22
 174          BA  0.3660
 175          LG   0.198    0.25   3.998   0.567  57.034
 176          UI     0.0    9.37    9.37   19.83   40.15   53.93   61.02   74.01   78.73   78.73
1                                          HEC-1 INPUT                                                    PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 177          UI   73.49   65.61   68.76   49.43   50.09   36.19   29.11   28.02   20.17    15.8
 178          UI   13.32   11.58    8.92    8.56    6.38    5.32    5.32    4.82    1.17    1.17
 179          UI    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17
 180          UI    1.17    1.17    1.17    1.17

 181          KK   21A-O
 182          KO       0       0     0.0       0      22
 183          DT  21Aret    36.0     0.0
 184          DI     0.0  2000.0
 185          DQ     0.0  2000.0

 186          KK      K3
 187          KM   COMBINE ROUTED HYDROGRAPH FROM K2 WITH RUNOFF FROM 21A AND 21B @ K3
 188          ZW   A=FRE B=K3 C=FLOW E=15MIN F=100y6h-fut
 189          KO       0       0     0.0       0      22
 190          HC       3
              * ***********************************************************************
              * **   SUB-WATERSHED L   ***********************************************
              * ***********************************************************************

 191          KK      10
 192          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 193          KM   L=1.77      Lca=1.27      S=46.29      Kn=0.050      LAG=47
 194          KM   S-GRAPH TYPE=PHOENIX VALLEY
 195          KO       0       0     0.0       1      22
 196          BA  1.1737
 197          LG   0.196    0.25   4.152   0.425  40.672
 198          UI     0.0  140.53  441.72   791.7  810.58  481.45  203.27   99.52   26.14   25.79
 199          UI     0.0

 200          KK    10-O
 201          KO       0       0     0.0       0      22
 202          DT   10ret    72.0     0.0
 203          DI     0.0  2000.0
 204          DQ     0.0  2000.0

 205          KK   L1-L2   CNAME      L1
 206          KM   ROUTE HYDRPGRAPH FROM L1 TO L2 (CHANNEL B)
 207          KO       0       0     0.0       0      22
 208          RS       4    FLOW     0.0     0.0
 209          RC     0.1    0.02     0.1 2843.85    0.01     0.0
 210          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
```

```
 211          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 212          KK      22
 213          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 214          KM   L=1.54      Lca=0.77      S=18.14      Kn=0.200      LAG=178
 215          KM   S-GRAPH TYPE=AGRICULTURE
 216          KO       0       0     0.0       1      22
 217          BA  0.5572
 218          LG    0.25    0.25   4.002   0.475    30.0
 219          UI     0.0   11.54   11.54   17.99   29.44   52.71    67.8   67.77   85.72   96.69
 220          UI   96.97   96.97   94.81   80.81    85.6   77.44   60.61   65.99   46.03   41.71
 221          UI   33.66   34.96   25.72    20.5   18.65   14.65   14.26   10.94   10.54    9.89
 222          UI    6.55    6.55    6.55    6.55     2.6    1.44    1.44    1.44    1.44    1.44
1                                          HEC-1 INPUT                                                    PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 223          UI    1.44    1.44    1.44    1.44    1.44    1.44    1.44    1.44    1.44    1.44
 224          UI    1.44    1.44    1.44    1.44     0.0

 225          KK    22-O
 226          KO       0       0     0.0       0      22
 227          DT   22ret    40.0     0.0
 228          DI     0.0  2000.0
 229          DQ     0.0  2000.0

 230          KK      L2
 231          KM   COMBINE ROUTED HYDROGRAPH FROM L1 WITH RUNOFF FROM 22 @ L2
 232          ZW   A=FRE B=L2 C=FLOW E=15MIN F=100y6h-fut
 233          KO       0       0     0.0       0      22
 234          HC       2
              * ******************************************************************************
              * **   SUB-WATERSHED N   ***********************************************************
              * ******************************************************************************

 235          KK     11C
 236          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 237          KM   L=0.99      Lca=0.31      S=54.38      Kn=0.050      LAG=22
 238          KM   S-GRAPH TYPE=PHOENIX VALLEY
 239          KO       0       0     0.0       1      22
 240          BA  0.3431
 241          LG   0.249    0.25   3.978    0.41   30.445
 242          UI     0.0  193.16  491.17  169.06   26.28     0.0

 243          KK   11C-O
 244          KO       0       0     0.0       0      22
 245          DT  11Cret    15.0     0.0
 246          DI     0.0  2000.0
 247          DQ     0.0  2000.0

 248          KK  N1C-N2   CNAME     N1C
 249          KM   ROUTE HYDRPGRAPH FROM N1C TO N2 (CHANNEL A)
 250          KO       0       0     0.0       0      22
 251          RS       3    FLOW     0.0     0.0
 252          RC     0.1     0.1     0.1 3084.31    0.01     0.0
 253          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 254          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 255          KK     11A
 256          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 257          KM   L=0.57      Lca=0.33      S=83.95      Kn=0.050      LAG=16
 258          KM   S-GRAPH TYPE=PHOENIX VALLEY
 259          KO       0       0     0.0       1      22
 260          BA  0.5711
 261          LG   0.213    0.25   5.202   0.287   32.631
 262          UI     0.0   634.0  753.85   79.75     0.0
1                                          HEC-1 INPUT                                                    PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 263          KK   11A-O
 264          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 265          KO       0       0     0.0       0      22
 266          DT  11Aret    38.23     0.0
 267          DI     0.0  2000.0
 268          DQ     0.0  2000.0

 269          KK  N1A-1B   CNAME     N1A
 270          KM   ROUTE HYDRPGRAPH FROM N1A TO N1B (CHANNEL N1A-N1B)
 271          KO       0       0     0.0       0      22
 272          RS       4    FLOW     0.0     0.0
 273          RC    0.05    0.05    0.05  6236.1   0.009     0.0
 274          RX    10.0    16.0    26.0    56.0   106.0   197.0   289.0   380.0
 275          RY  1032.0  1032.0  1030.0  1028.0  1030.0 1030.67 1031.33  1032.0

 276          KK     11B
 277          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 278          KM   L=1.39      Lca=0.62      S=41.81      Kn=0.050      LAG=34
 279          KM   S-GRAPH TYPE=PHOENIX VALLEY
 280          KO       0       0     0.0       1      22
 281          BA  0.5806
 282          LG   0.238    0.25    4.28   0.395   34.039
 283          UI     0.0   139.8  417.05  566.92  261.85   79.39   20.36     0.0

 284          KK   11B-O
 285          KO       0       0     0.0       0      22
 286          DT  11Bret    33.0     0.0
 287          DI     0.0  2000.0
 288          DQ     0.0  2000.0

 289          KK     N1B   CNAME  N1B-N2
 290          KM   COMBINE ROUTED HYDROGRAPH FROM N1A WITH RUNOFF FROM 11B @ N1B
 291          KO       0       0     0.0       0      22
 292          HC       2

 293          KK  N1B-N2   CNAME     N1B
 294          KM   ROUTE HYDRPGRAPH FROM N1B TO N2 (CHANNEL B)
 295          KO       0       0     0.0       0      22
 296          RS       8    FLOW     0.0     0.0
 297          RC     0.1    0.02     0.1 6966.87   0.003     0.0
 298          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 299          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0
```

```
300          KK      23
301          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
302          KM   L=1.32      Lca=0.66      S=15.92      Kn=0.200      LAG=161
303          KM   S-GRAPH TYPE=AGRICULTURE
304          KO       0        0      0.0        1       22
305          BA  0.5238
306          LG    0.25     0.25    3.965    0.438     30.0
307          UI     0.0     12.0     12.0    21.84     37.1    66.56    66.18    91.21    93.73   100.79
308          UI  100.79    96.31    83.99    89.62    70.63    67.07     55.1    45.41     35.3     36.1
309          UI   26.28    20.77    18.42    14.82    13.33    10.95    10.95     7.15     6.81     6.81
310          UI    6.81     1.78      1.5      1.5      1.5      1.5      1.5      1.5      1.5      1.5
1                                          HEC-1 INPUT                                                          PAGE  8

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

311          UI     1.5      1.5      1.5      1.5      1.5      1.5      1.5      1.5      1.5      0.0

312          KK    23-O
313          KO       0        0      0.0        0       22
314          DT   23ret     35.0      0.0
315          DI     0.0   2000.0
316          DQ     0.0   2000.0

317          KK      N2
318          KM   COMBINE ROUTED HYDROGRAPH FROM N1C AND N1B WITH RUNOFF FROM 23 @ N2
319          ZW   A=PRE B=N2 C=FLOW E=15MIN F=100yGh-fut
320          KO       0        0      0.0        0       22
321          HC       3
             * ***********************************************************************
             * **   SUB-WATERSHED O   ***********************************************
             * ***********************************************************************

322          KK      12
323          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
324          KM   L=0.96      Lca=0.41      S=83.03      Kn=0.050      LAG=22
325          KM   S-GRAPH TYPE=PHOENIX VALLEY
326          KO       0        0      0.0        1       22
327          BA  0.7364
328          LG   0.238     0.25    4.502    0.382   39.822
329          UI     0.0   414.56  1054.13   362.82     56.4      0.0

330          KK    12-O
331          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
332          KO       0        0      0.0        0       22
333          DT   12ret    49.02      0.0
334          DI     0.0   2000.0
335          DQ     0.0   2000.0

336          KK   O1-O2    CNAME      O1
337          KM   ROUTE HYDRPGRAPH FROM O1 TO O2 (CHANNEL A)
338          KO       0        0      0.0        0       22
339          RS       2     FLOW      0.0      0.0
340          RC   0.035    0.035    0.035   2743.8    0.013      0.0
341          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
342          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

343          KK      13
344          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
345          KM   L=0.52      Lca=0.26      S=71.20      Kn=0.050      LAG=15
346          KM   S-GRAPH TYPE=PHOENIX VALLEY
347          KO       0        0      0.0        1       22
348          BA  0.5012
349          LG    0.25     0.25     5.14    0.299     45.0
350          UI     0.0   646.99   594.12      0.0
1                                          HEC-1 INPUT                                                          PAGE  9

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

351          KK    13-O
352          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
353          KO       0        0      0.0        0       22
354          DT   13ret    41.08      0.0
355          DI     0.0   2000.0
356          DQ     0.0   2000.0

357          KK      O2    CNAME    O2-O3
358          KM   COMBINE ROUTED HYDROGRAPH FROM O1 WITH RUNOFF FROM 13 @ O2
359          KO       0        0      0.0        0       22
360          HC       2

361          KK   O2-O3    CNAME      O2
362          KM   ROUTE HYDRPGRAPH FROM O2 TO O3 (CHANNEL A)
363          KO       0        0      0.0        0       22
364          RS       2     FLOW      0.0      0.0
365          RC   0.025    0.025    0.025  2814.95    0.011      0.0
366          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
367          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

368          KK      24
369          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
370          KM   L=0.53      Lca=0.27      S=56.27      Kn=0.050      LAG=16
371          KM   S-GRAPH TYPE=DESERT RANGELAND
372          KO       0        0      0.0        1       22
373          BA  0.4891
374          LG     0.3     0.25    4.586    0.329      5.0
375          UI     0.0   566.65   561.96   111.02      0.0

376          KK      O3    CNAME    O3-O4
377          KM   COMBINE ROUTED HYDROGRAPH FROM O2 WITH RUNOFF FROM 24 @ O3
378          KO       0        0      0.0        0       22
379          HC       2

380          KK   O3-O4    CNAME      O3
381          KM   ROUTE HYDRPGRAPH FROM O3 TO O4 (CHANNEL A)
382          KO       0        0      0.0        0       22
383          RS       7     FLOW      0.0      0.0
384          RC     0.1      0.1      0.1  4482.81    0.002      0.0
385          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
386          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

387          KK      25
388          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
389          KM   L=1.05      Lca=0.52      S=10.49      Kn=0.050      LAG=37
```

```
 390          KM   S-GRAPH TYPE=PHOENIX VALLEY
 391          KO       0       0     0.0       1      22
 392          BA  0.2742
 393          LG     0.3    0.25    4.14   0.396     5.0
              * 25
 394          UI     0.0   55.33  162.01  264.09  147.51   51.88   16.57    7.65     0.0
1                                          HEC-1 INPUT                                                    PAGE 10

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 395          KK      O4
 396          KM   COMBINE ROUTED HYDROGRAPH FROM O3 WITH RUNOFF FROM 25 @ O4
 397          ZW   A=PRE B=O4 C=FLOW E=15MIN F=100y6h-fut
 398          KO       0       0     0.0       0      22
 399          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED P   ***************************************************
              * ***********************************************************************


 400          KK     14A
 401          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 402          KM   L=1.33      Lca=0.71      S=67.87      Kn=0.050      LAG=32
 403          KM   S-GRAPH TYPE=PHOENIX VALLEY
 404          KO       0       0     0.0       1      22
 405          BA  0.6923
 406          LG   0.232    0.25   4.262   0.393   39.38
 407          UI     0.0  188.49   580.0  653.03  260.73   74.32   22.34     0.0

 408          KK   14A-O
 409          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 410          KO       0       0     0.0       0      22
 411          DT  14Aret   41.08     0.0
 412          DI     0.0  2000.0
 413          DQ     0.0  2000.0

 414          KK  P1A-1B   CNAME     P1A
 415          KM   ROUTE HYDRPGRAPH FROM P1A TO P1B (CHANNEL A)
 416          KO       0       0     0.0       0      22
 417          RS       3    FLOW     0.0     0.0
 418          RC   0.035   0.035   0.035 3128.61    0.01     0.0
 419          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 420          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 421          KK     14B
 422          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 423          KM   L=0.59      Lca=0.30      S=54.00      Kn=0.050      LAG=17
 424          KM   S-GRAPH TYPE=DESERT RANGELAND
 425          KO       0       0     0.0       1      22
 426          BA  0.5015
 427          LG    0.25    0.25   4.185   0.409  41.516
 428          UI     0.0  521.46  605.68  135.03   28.39     0.0

 429          KK   14B-O
 430          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 431          KO       0       0     0.0       0      22
 432          DT  14Bret   30.68     0.0
 433          DI     0.0  2000.0
 434          DQ     0.0  2000.0
1                                          HEC-1 INPUT                                                    PAGE 11

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 435          KK     P1B   CNAME  P1B-P2
 436          KM   COMBINE ROUTED HYDROGRAPH FROM P1A WITH RUNOFF FROM 14B @ P1B
 437          KO       0       0     0.0       0      22
 438          HC       2

 439          KK  P1B-P2   CNAME     P1B
 440          KM   ROUTE HYDRPGRAPH FROM P1B TO P2 (CHANNEL A)
 441          KO       0       0     0.0       0      22
 442          RS       4    FLOW     0.0     0.0
 443          RC   0.025   0.025   0.025 4031.58   0.007     0.0
 444          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 445          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 446          KK      26
 447          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 448          KM   L=0.76      Lca=0.38      S=39.29      Kn=0.050      LAG=22
 449          KM   S-GRAPH TYPE=PHOENIX VALLEY
 450          KO       0       0     0.0       1      22
 451          BA  0.5244
 452          LG     0.3    0.25   4.048   0.393     5.0
 453          UI     0.0  295.23   750.7  258.38   40.17     0.0

 454          KK      P2   CNAME    zzz6
 455          KM   COMBINE ROUTED HYDROGRAPH FROM P1B WITH RUNOFF FROM 26 @ P2
 456          ZW   A=PRE B=P2 C=FLOW E=15MIN F=100y6h-fut
 457          KO       0       0     0.0       0      22
 458          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED Q   ***************************************************
              * ***********************************************************************

 459          KK      83
 460          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 461          KM   L=1.72      Lca=0.93      S=64.69      Kn=0.050      LAG=39
 462          KM   S-GRAPH TYPE=DESERT RANGELAND
 463          KO       0       0     0.0       1      22
 464          BA  0.6752
 465          LG   0.235    0.25   5.438   0.256  31.621
 466          UI     0.0  115.92  423.38  535.16  330.25  168.58    85.8   44.93   16.84   14.19
 467          UI     0.0

 468          KK    83-O
 469          KO       0       0     0.0       0      22
 470          DT   83ret   31.99     0.0
 471          DI     0.0  2000.0
 472          DQ     0.0  2000.0
 473          ZZ

                                        RUNOFF SUMMARY
                                  FLOW IN CUBIC FEET PER SECOND
```

TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	6	676.	4.25	83.	21.	7.	0.32		
+	DIVERSION TO	6ret	304.	4.25	30.	8.	3.	0.32		
+	HYDROGRAPH AT	6-O	602.	4.50	53.	13.	4.	0.32		
+	ROUTED TO	J1-J2	376.	5.00	53.	13.	4.	0.32		
+	HYDROGRAPH AT	8	595.	4.75	108.	27.	9.	0.41		
+	DIVERSION TO	8ret	568.	4.50	50.	13.	4.	0.41		
+	HYDROGRAPH AT	8-O	553.	4.75	59.	15.	5.	0.41		
+	2 COMBINED AT	J2	764.	4.75	108.	27.	9.	0.73		
+	ROUTED TO	J2-J3	571.	5.25	108.	27.	9.	0.73		
+	HYDROGRAPH AT	20	240.	6.75	145.	41.	14.	0.66		
+	DIVERSION TO	20ret	240.	6.75	110.	28.	9.	0.66		
+	HYDROGRAPH AT	20-O	158.	8.25	50.	13.	4.	0.66		
+	2 COMBINED AT	J3	602.	5.25	153.	41.	14.	1.40		
+	HYDROGRAPH AT	7	944.	4.50	132.	33.	11.	0.45		
+	DIVERSION TO	7ret	873.	4.25	75.	19.	6.	0.45		
+	HYDROGRAPH AT	7-O	759.	4.50	58.	14.	5.	0.45		
+	ROUTED TO	K1-K2	450.	5.00	58.	14.	5.	0.45		
+	HYDROGRAPH AT	9	1324.	4.50	191.	48.	16.	0.61		
+	DIVERSION TO	9ret	973.	4.25	95.	24.	8.	0.61		
+	HYDROGRAPH AT	9-O	1022.	4.50	97.	24.	8.	0.61		
+	2 COMBINED AT	K2	941.	4.75	149.	37.	12.	1.06		
+	ROUTED TO	K2-K3	773.	5.25	149.	37.	12.	1.06		
+	HYDROGRAPH AT	21B	140.	5.75	62.	16.	5.	0.27		
+	DIVERSION TO	21Bret	140.	5.75	44.	11.	4.	0.27		
+	HYDROGRAPH AT	21B-O	89.	6.75	21.	5.	2.	0.27		
+	HYDROGRAPH AT	21A	175.	6.00	90.	24.	8.	0.37		
+	DIVERSION TO	21Aret	175.	6.00	72.	18.	6.	0.37		
+	HYDROGRAPH AT	21A-O	86.	7.75	24.	6.	2.	0.37		
+	3 COMBINED AT	K3	773.	5.25	185.	47.	16.	1.70		
+	HYDROGRAPH AT	10	1325.	4.75	268.	68.	23.	1.17		
+	DIVERSION TO	10ret	1325.	4.75	145.	36.	12.	1.17		
+	HYDROGRAPH AT	10-O	1139.	5.00	125.	31.	10.	1.17		
+	ROUTED TO	L1-L2	945.	5.50	125.	31.	10.	1.17		
+	HYDROGRAPH AT	22	185.	6.50	108.	30.	10.	0.56		
+	DIVERSION TO	22ret	185.	6.50	80.	20.	7.	0.56		
+	HYDROGRAPH AT	22-O	120.	8.25	38.	10.	3.	0.56		

```
+          2 COMBINED AT
                      L2      945.   5.50      152.      40.      13.     1.73
+          HYDROGRAPH AT
                     11C      741.   4.50       77.      19.       6.     0.34
+          DIVERSION TO
                  11Cret      439.   4.25       30.       8.       3.     0.34
+          HYDROGRAPH AT
                   11C-O      693.   4.50       47.      12.       4.     0.34
+          ROUTED TO
                  N1C-N2      269.   5.00       47.      12.       4.     0.34
+          HYDROGRAPH AT
                     11A     1133.   4.25      134.      34.      11.     0.57
+          DIVERSION TO
                  11Aret     1133.   4.25       77.      19.       6.     0.57
+          HYDROGRAPH AT
                   11A-O      988.   4.50       57.      14.       5.     0.57
+          ROUTED TO
                  N1A-1B      359.   5.00       57.      14.       5.     0.57
+          HYDROGRAPH AT
                     11B      895.   4.75      132.      33.      11.     0.58
+          DIVERSION TO
                  11Bret      786.   4.50       67.      17.       6.     0.58
+          HYDROGRAPH AT
                   11B-O      792.   4.75       66.      16.       5.     0.58
+          2 COMBINED AT
                     N1B      752.   4.75      111.      28.       9.     1.15
+          ROUTED TO
                  N1B-N2      371.   6.50      106.      28.       9.     1.15
+          HYDROGRAPH AT
                      23      195.   6.25      107.      29.      10.     0.52
+          DIVERSION TO
                   23ret      195.   6.25       71.      18.       6.     0.52
+          HYDROGRAPH AT
                   23-O      140.   7.50       44.      11.       4.     0.52
+          3 COMBINED AT
                      N2      366.   6.50      169.      45.      15.     2.02
+          HYDROGRAPH AT
                      12     1494.   4.50      173.      43.      14.     0.74
+          DIVERSION TO
                   12ret      953.   4.25       99.      25.       8.     0.74
+          HYDROGRAPH AT
                   12-O      741.   4.50       75.      19.       6.     0.74
+          ROUTED TO
                  O1-O2      649.   4.75       75.      19.       6.     0.74
+          HYDROGRAPH AT
                      13     1134.   4.25      123.      31.      10.     0.50
+          DIVERSION TO
                   13ret     1134.   4.25       83.      21.       7.     0.50
+          HYDROGRAPH AT
                   13-O      725.   4.50       41.      10.       3.     0.50
+          2 COMBINED AT
                      O2      721.   4.75      104.      26.       9.     1.24
+          ROUTED TO
                  O2-O3      702.   5.00      104.      26.       9.     1.24
+          HYDROGRAPH AT
                      24      899.   4.25       89.      22.       7.     0.49
+          2 COMBINED AT
                      O3      773.   4.50      175.      44.      15.     1.73
+          ROUTED TO
                  O3-O4      572.   6.00      173.      44.      15.     1.73
+          HYDROGRAPH AT
                      25      388.   4.75       49.      12.       4.     0.27
+          2 COMBINED AT
                      O4      569.   6.00      210.      54.      18.     2.00
+          HYDROGRAPH AT
                     14A     1029.   4.50      163.      41.      14.     0.69
+          DIVERSION TO
                  14Aret      982.   4.50       83.      21.       7.     0.69
+          HYDROGRAPH AT
                   14A-O     1014.   4.75       81.      20.       7.     0.69
+          ROUTED TO
                  P1A-1B      695.   5.00       81.      20.       7.     0.69
+          HYDROGRAPH AT
                     14B      948.   4.50      122.      31.      10.     0.50
+          DIVERSION TO
                  14Bret      934.   4.25       62.      15.       5.     0.50
```

+	HYDROGRAPH AT	14B-O	948.	4.50	61.	15.	5.	0.50
+	2 COMBINED AT	P1B	728.	4.50	130.	32.	11.	1.19
+	ROUTED TO	P1B-P2	666.	5.00	130.	32.	11.	1.19
+	HYDROGRAPH AT	26	1041.	4.50	93.	23.	8.	0.52
+	2 COMBINED AT	P2	834.	4.50	203.	51.	17.	1.72
+	HYDROGRAPH AT	83	902.	4.75	157.	39.	13.	0.68
+	DIVERSION TO	83ret	802.	4.50	65.	16.	5.	0.68
+	HYDROGRAPH AT	83-O	853.	4.75	93.	23.	8.	0.68

*** NORMAL END OF HEC-1 ***

.3RUNOFF SUMMARY

FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	68	880.	4.50	116.	29.	10.	0.41		
+	DIVERSION TO	68ret	620.	4.25	58.	15.	5.	0.41		
+	HYDROGRAPH AT	68-O	639.	4.50	58.	15.	5.	0.41		
+	ROUTED TO	E1-E2	423.	4.75	58.	15.	5.	0.41		
+	HYDROGRAPH AT	59	223.	4.75	46.	12.	4.	0.25		
+	2 COMBINED AT	E2	618.	4.75	102.	25.	8.	0.66		
+	HYDROGRAPH AT	RIDF	242.	7.00	153.	39.	13.	0.00		
+	ROUTED TO	F1S-F2	193.	8.75	140.	39.	13.	0.00		
+	HYDROGRAPH AT	27	162.	5.75	71.	19.	6.	0.24		
+	DIVERSION TO	27ret	162.	5.75	54.	14.	5.	0.24		
+	HYDROGRAPH AT	27-O	90.	6.75	21.	5.	2.	0.24		
+	2 COMBINED AT	F2	218.	8.25	161.	44.	15.	0.24		
+	ROUTED TO	F2-F3	215.	9.50	153.	44.	15.	0.24		
+	HYDROGRAPH AT	29	482.	6.25	278.	77.	26.	1.00		
+	DIVERSION TO	29ret	482.	6.25	242.	61.	20.	1.00		
+	HYDROGRAPH AT	29-O	206.	8.50	62.	16.	5.	1.00		
+	2 COMBINED AT	F3	377.	8.75	212.	60.	20.	1.24		
+	ROUTED TO	F3-F4	331.	10.25	200.	60.	20.	1.24		
+	HYDROGRAPH AT	41	566.	6.50	332.	93.	31.	1.20		
+	DIVERSION TO	41ret	566.	6.50	280.	71.	24.	1.20		
+	HYDROGRAPH AT	41-O	273.	8.25	85.	22.	7.	1.20		
+	2 COMBINED AT	F4	401.	10.25	252.	78.	26.	2.44		
+	ROUTED TO	F4-F5B	383.	11.00	246.	78.	26.	2.44		
+	HYDROGRAPH AT	52B	431.	5.25	150.	39.	13.	0.50		
+	DIVERSION TO	52Bret	431.	5.25	115.	29.	10.	0.50		
+	HYDROGRAPH AT	52B-O	224.	6.25	41.	10.	3.	0.50		

+	2 COMBINED AT F5B	380.	11.00	245.	86.	29.	2.94
+	ROUTED TO 5B-F6B	379.	11.00	244.	85.	28.	2.94
+	HYDROGRAPH AT 60B	350.	5.50	143.	38.	13.	0.57
+	DIVERSION TO 60Bret	350.	5.50	107.	27.	9.	0.57
+	HYDROGRAPH AT 60B-O	194.	6.75	44.	11.	4.	0.57
+	2 COMBINED AT F6B	379.	11.00	244.	92.	31.	3.51
+	HYDROGRAPH AT 52A	164.	6.25	90.	25.	8.	0.31
+	DIVERSION TO 52Aret	164.	6.25	76.	19.	6.	0.31
+	HYDROGRAPH AT 52A-O	83.	8.00	22.	6.	2.	0.31
+	ROUTED TO 5A-F6A	82.	8.25	22.	6.	2.	0.31
+	HYDROGRAPH AT 60A	229.	5.75	100.	26.	9.	0.41
+	DIVERSION TO 60Aret	229.	5.75	71.	18.	6.	0.41
+	HYDROGRAPH AT 60A-O	153.	6.75	34.	9.	3.	0.41
+	2 COMBINED AT F6A	147.	6.75	52.	14.	5.	0.72
+	HYDROGRAPH AT RIDG	269.	7.00	91.	23.	8.	0.00
+	ROUTED TO G3S-G4	146.	8.25	82.	23.	8.	0.00
+	HYDROGRAPH AT 28	202.	5.75	98.	26.	9.	0.33
+	DIVERSION TO 28ret	202.	5.75	78.	20.	7.	0.33
+	HYDROGRAPH AT 28-O	109.	7.25	27.	7.	2.	0.33
+	2 COMBINED AT G4	214.	7.50	109.	30.	10.	0.33
+	ROUTED TO G4-G5	190.	10.25	102.	30.	10.	0.33
+	HYDROGRAPH AT 30	459.	6.50	272.	76.	25.	0.98
+	DIVERSION TO 30ret	459.	6.50	224.	56.	19.	0.98
+	HYDROGRAPH AT 30-O	266.	8.25	76.	20.	7.	0.98
+	2 COMBINED AT G5	265.	10.00	165.	48.	16.	1.32
+	ROUTED TO G5-G6	246.	11.50	155.	48.	16.	1.32
+	HYDROGRAPH AT 42	367.	6.50	217.	61.	20.	0.78
+	DIVERSION TO 42ret	367.	6.50	182.	46.	15.	0.78
+	HYDROGRAPH AT 42-O	189.	8.25	57.	15.	5.	0.78
+	2 COMBINED AT G6	268.	11.50	184.	60.	20.	2.10
+	ROUTED TO G6-G7	263.	12.00	181.	60.	20.	2.10
+	HYDROGRAPH AT 53	232.	5.75	101.	27.	9.	0.34
+	DIVERSION TO 53ret	232.	5.75	79.	20.	7.	0.34
+	HYDROGRAPH AT 53-O	116.	7.00	29.	7.	2.	0.34
+	2 COMBINED AT G7	264.	12.00	182.	65.	22.	2.43
+	ROUTED TO G7-G8	264.	12.00	182.	65.	22.	2.43
+	HYDROGRAPH AT 61	314.	5.75	135.	35.	12.	0.51
+	DIVERSION TO 61ret	314.	5.75	95.	24.	8.	0.51

+	HYDROGRAPH AT	61-O	200.	6.75	47.	12.	4.	0.51
+	2 COMBINED AT	G8	265.	12.00	183.	74.	25.	2.94
+	HYDROGRAPH AT	RIDH	169.	6.50	93.	23.	8.	0.00
+	ROUTED TO	H3S-H4	75.	10.00	59.	23.	8.	0.00
+	HYDROGRAPH AT	31	373.	6.75	237.	68.	23.	1.08
+	DIVERSION TO	31ret	373.	6.75	192.	48.	16.	1.08
+	HYDROGRAPH AT	31-O	221.	8.50	75.	20.	7.	1.08
+	2 COMBINED AT	H4	276.	8.75	133.	43.	14.	1.08
+	ROUTED TO	H4-H5	238.	9.75	130.	43.	14.	1.08
+	HYDROGRAPH AT	43	357.	7.00	233.	68.	23.	1.00
+	DIVERSION TO	43ret	357.	7.00	195.	49.	16.	1.00
+	HYDROGRAPH AT	43-O	204.	9.00	70.	19.	6.	1.00
+	2 COMBINED AT	H5	318.	10.00	180.	57.	19.	2.08
+	ROUTED TO	H5-H6	309.	10.50	174.	57.	19.	2.08
+	HYDROGRAPH AT	54	201.	6.25	111.	31.	10.	0.39
+	DIVERSION TO	54ret	201.	6.25	90.	23.	8.	0.39
+	HYDROGRAPH AT	54-O	103.	8.00	30.	8.	3.	0.39
+	2 COMBINED AT	H6	317.	10.50	181.	62.	21.	2.47
+	ROUTED TO	H6-H7	317.	10.50	181.	62.	21.	2.47
+	HYDROGRAPH AT	62	367.	5.75	169.	45.	15.	0.57
+	DIVERSION TO	62ret	367.	5.75	135.	34.	11.	0.57
+	HYDROGRAPH AT	62-O	179.	7.25	45.	11.	4.	0.57
+	2 COMBINED AT	H7	316.	10.75	190.	70.	24.	3.04
+	HYDROGRAPH AT	RIDI	198.	6.25	0.	0.	0.	0.00
+	ROUTED TO	I2S-I3	0.	0.00	0.	0.	0.	0.00
+	HYDROGRAPH AT	32	278.	6.75	172.	49.	16.	0.90
+	DIVERSION TO	32ret	278.	6.75	125.	31.	10.	0.90
+	HYDROGRAPH AT	32-O	188.	8.25	67.	18.	6.	0.90
+	2 COMBINED AT	I3	188.	8.25	67.	18.	6.	0.90
+	ROUTED TO	I3-I4	91.	11.75	58.	18.	6.	0.90
+	HYDROGRAPH AT	44	283.	7.00	183.	53.	18.	1.01
+	DIVERSION TO	44ret	283.	7.00	135.	34.	11.	1.01
+	HYDROGRAPH AT	44-O	191.	8.50	72.	19.	6.	1.01
+	2 COMBINED AT	I4	156.	9.00	94.	31.	10.	1.90
+	ROUTED TO	I4-I5	123.	10.00	89.	31.	10.	1.90
+	HYDROGRAPH AT	55	158.	5.75	77.	21.	7.	0.26
+	DIVERSION TO	55ret	158.	5.75	62.	16.	5.	0.26
+	HYDROGRAPH AT	55-O	78.	7.50	20.	5.	2.	0.26

```
          2 COMBINED AT
+                     I5      130.  10.00       91.       35.       12.      2.17
          ROUTED TO
+                   I5-I6      91.  11.00       85.       35.       12.      2.17
          HYDROGRAPH AT
+                     63      328.   5.75      149.       40.       13.      0.50
          DIVERSION TO
+                  63ret      328.   5.75      101.       25.        8.      0.50
          HYDROGRAPH AT
+                   63-O      223.   6.75       57.       14.        5.      0.50
          2 COMBINED AT
+                     I6      198.   6.75      106.       46.       15.      2.66
          HYDROGRAPH AT
+                   RIDJ      157.   6.25       26.        7.        2.      0.00
          ROUTED TO
+                 J3S-J4       38.   7.00       20.        7.        2.      0.00
          HYDROGRAPH AT
+                     33      374.   6.75      230.       65.       22.      1.00
          DIVERSION TO
+                  33ret      374.   6.75      184.       46.       15.      1.00
          HYDROGRAPH AT
+                   33-O      225.   8.50       71.       19.        6.      1.00
          2 COMBINED AT
+                     J4      247.   8.50       88.       25.        8.      1.00
          ROUTED TO
+                   J4-J5      183.   9.75       86.       25.        8.      1.00
          HYDROGRAPH AT
+                    45A      346.   7.00      224.       65.       22.      1.00
          DIVERSION TO
+                 45Aret      346.   7.00      188.       47.       16.      1.00
          HYDROGRAPH AT
+                  45A-O      198.   8.75       66.       17.        6.      1.00
          2 COMBINED AT
+                    J5A      265.  10.00      134.       38.       13.      2.01
          ROUTED TO
+                 J5A-5B      228.  11.00      128.       38.       13.      2.01
          HYDROGRAPH AT
+                    45B      118.   5.25       43.       11.        4.      0.14
          DIVERSION TO
+                 45Bret      118.   5.25       26.        7.        2.      0.14
          HYDROGRAPH AT
+                  45B-O       86.   6.00       18.        5.        2.      0.14
          2 COMBINED AT
+                    J5B      227.  11.25      128.       42.       14.      2.14
          ROUTED TO
+                 J5B-J6      155.  12.75      117.       42.       14.      2.14
          HYDROGRAPH AT
+                     64      276.   5.75      123.       33.       11.      0.41
          DIVERSION TO
+                  64ret      276.   5.75       99.       25.        8.      0.41
          HYDROGRAPH AT
+                   64-O      149.   7.00       32.        8.        3.      0.41
          2 COMBINED AT
+                     J6      155.  12.50      116.       48.       16.      2.56

 *** NORMAL END OF HEC-1 ***
1****************************************                    ****************************************
 *                                      *                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998              *                    *   HYDROLOGIC ENGINEERING CENTER      *
 *            VERSION 4.1               *                    *          609 SECOND STREET           *
 *                                      *                    *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   23MAR06  TIME  04:55:11  *                    *           (916) 756-1104             *
 *                                      *                    *                                      *
 ****************************************                    ****************************************

                                        X     X  XXXXXXX   XXXXX          X
                                        X     X  X        X     X        XX
                                        X     X  X        X               X
                                        XXXXXXX  XXXX     X        XXXXX  X
                                        X     X  X        X               X
                                        X     X  X        X     X         X
                                        X     X  XXXXXXX   XXXXX        XXX

          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
```

```
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                        HEC-1 INPUT                                          PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID   Buckeye/Sun Valley ADMS - November 2004
  2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
  3           ID   100-year 6-hour
  4           ID   Future Conditions
  5           ID   Area 1 - RID to BIC (East)
  6           ID   File Name: rbe1006fut.hc1
  7           ID   Rainfall Loss Method - Green & Ampt
  8           ID   Unit Hydrograph Method - FCDMC S-Graph
  9           ID   Channel Routing Method - Normal Depth
 10           ID   Land Use - FCDMC GIS Data: mag_genplan (2000)
 11           ID   Future Land Use Build Out Date: 2025
 12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
 13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
              *DIAGRAM
 14           IT      15 02JAN94       0     400
 15           IO       3
 16           IN      15 02JAN94       0
 17           JD     3.3     0.01
              * 6-hour distribution, pattern 1.0
 18           PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
 19           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
 20           PC   0.962   0.972   0.983   0.991     1.0
 21           IN      15 02JAN94       0
 22           JD    3.28     0.5
              * 6-hour distribution, pattern 1.0
 23           PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
 24           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
 25           PC   0.962   0.972   0.983   0.991     1.0
 26           IN      15 02JAN94       0
 27           JD   3.257     1.0
              * 6-hour distribution, pattern 1.4
 28           PC     0.0  0.0084   0.016   0.025  0.0334  0.0414  0.0504  0.0584  0.0664  0.0748
 29           PC   0.087  0.0994  0.1188   0.148  0.2304  0.4067  0.7778  0.8813  0.9186  0.9452
 30           PC  0.9572  0.9684  0.9798  0.9898     1.0
 31           IN      15 02JAN94       0
 32           JD   3.168     5.0
              * 6-hour distribution, pattern 2.3
 33           PC     0.0   0.011  0.0173  0.0267  0.0387   0.049  0.0593  0.0693  0.0797  0.0903
 34           PC   0.103  0.1173  0.1383  0.1827  0.2693   0.458   0.686  0.8233  0.8893  0.9293
 35           PC  0.9487   0.962  0.9743  0.9877     1.0
 36           IN      15 02JAN94       0
 37           JD   3.102    10.0
              * 6-hour distribution, pattern 2.7
 38           PC     0.0  0.0134  0.0189  0.0287  0.0443  0.0574  0.0694  0.0818  0.0949  0.1076
 39           PC  0.1223  0.1382  0.1604  0.2063  0.2902  0.4664  0.6764  0.8069  0.8765  0.9189
 40           PC  0.9471  0.9608  0.9735  0.9873     1.0
              * ***********************************************************************
              * **   SUB-WATERSHED K   ***************************************************
              * ***********************************************************************
1                                        HEC-1 INPUT                                          PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 41           KK   RIDKB
 42           KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 43           BA  0.0001
 44           ZR  #QI A=RID RID B=38999 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-100-06F

 45           KK  K3SBK4   CNAME    K3SB
 46           KM   ROUTE INFLOW FROM RID CONCENTRATED AT K3SB TO K4 (CHANNEL A)
 47           KO       0       0     0.0       0      22
 48           RS       1    FLOW     0.0     0.0
 49           RC     0.1     0.1     0.1 3026.00  0.0090     0.0
 50           RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 51           RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 52           KK   RIDKA
 53           KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 54           BA  0.0001
 55           ZR  #QI A=RID RID B=35599 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-100-06F

 56           KK  K3SAK4   CNAME    K3SA
 57           KM   ROUTE INFLOW FROM RID CONCENTRATED AT K3SA TO K4 (CHANNEL A)
 58           KO       0       0     0.0       0      22
 59           RS       1    FLOW     0.0     0.0
 60           RC     0.1     0.1     0.1 4868.00  0.0049     0.0
 61           RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 62           RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 63           KK      34
 64           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 65           KM   L=1.23     Lca=0.62     S=19.48     Kn=0.200     LAG=148
 66           KM   S-GRAPH TYPE=AGRICULTURE
 67           KO       0       0     0.0       1      22
 68           BA  0.6373
 69           LG   0.266    0.25   3.994    0.46  26.762
 70           UI     0.0   15.88   15.88   32.09   63.99    91.6   96.57  124.21   133.4   133.4
 71           UI  130.44  111.17  119.11   90.18   91.45   64.03    55.3   45.36   44.06   29.14
 72           UI   25.65    19.8   18.12    14.5   14.37    9.01    9.01    9.01    6.39    1.99
 73           UI    1.99    1.99    1.99    1.99    1.99    1.99    1.99    1.99    1.99    1.99
 74           UI    1.99    1.99    1.99    1.99    1.99     0.0

 75           KK    34-O
 76           KO       0       0     0.0       0      22
 77           DT   34ret    40.0     0.0
 78           DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 79           DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 80           DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 81           DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 82           KK      K4   CNAME   K4-K5
 83           KM   COMBINE ROUTED HYDROGRAPH FROM K3SA AND K3SB WITH RUNOFF FROM 34 @ K4
 84           KO       0       0     0.0       0      22
 85           HC       3
1                                        HEC-1 INPUT                                          PAGE  3
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  86          KK   K4-K5   CNAME      K4
  87          KM   ROUTE HYDRPGRAPH FROM K4 TO K5 (CHANNEL B)
  88          KO       0       0     0.0       0      22
  89          RS       7    FLOW     0.0     0.0
  90          RC     0.1    0.02     0.1 5283.85   0.008     0.0
  91          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
  92          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

  93          KK      35
  94          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
  95          KM   L=1.96     Lca=0.98     S=33.61     Kn=0.200     LAG=190
  96          KM   S-GRAPH TYPE=AGRICULTURE
  97          KO       0       0     0.0       1      22
  98          BA  1.5042
  99          LG   0.197    0.25   3.978   0.449  52.272
 100          UI     0.0    29.2    29.2   40.11   64.31  118.19   168.6  157.36  214.59  220.72
 101          UI  245.24  245.24  245.24  231.62  204.37  217.31  195.85  153.28  172.28  118.39
 102          UI  111.47   87.32   83.63   81.72   55.74   47.73   43.98   36.07   34.81   26.66
 103          UI   26.66   24.44   16.57   16.57   16.57   16.57    9.68    3.65    3.65    3.65
 104          UI    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65
 105          UI    3.65    3.65    3.65    3.65    3.65    3.65    3.65     0.0

 106          KK    35-O
 107          KO       0       0     0.0       0      22
 108          DT   35ret   128.0     0.0
 109          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 110          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 111          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 112          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 113          KK      K5   CNAME   K5-K6
 114          KM   COMBINE ROUTED HYDROGRAPH FROM K4 WITH RUNOFF FROM 35 @ K5
 115          KO       0       0     0.0       0      22
 116          HC       2

 117          KK   K5-K6   CNAME      K5
 118          KM   ROUTE HYDRPGRAPH FROM K5 TO K6 (CHANNEL B)
 119          KO       0       0     0.0       0      22
 120          RS       7    FLOW     0.0     0.0
 121          RC     0.1    0.02     0.1 6533.09   0.006     0.0
 122          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 123          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 124          KK      46
 125          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 126          KM   L=1.79     Lca=0.89     S=25.18     Kn=0.200     LAG=186
 127          KM   S-GRAPH TYPE=AGRICULTURE
 128          KO       0       0     0.0       1      22
 129          BA  1.3812
 130          LG   0.191    0.25   4.186   0.431  49.223
 131          UI     0.0   27.39   27.39   39.31   63.49  115.59   161.6  146.46  213.71  205.72
 132          UI  230.03  230.03  230.03  207.03   191.7   205.8  165.51  147.93  146.17  106.95
 133          UI   95.42    79.2   83.87   59.37   48.74   44.24   35.62   33.83   27.47    25.0
 134          UI    25.0   16.79   15.54   15.54   15.54   12.15    3.42    3.42    3.42    3.42
1                                          HEC-1 INPUT                                          PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 135          UI    3.42    3.42    3.42    3.42    3.42    3.42    3.42    3.42    3.42    3.42
 136          UI    3.42    3.42    3.42    3.42    3.42    3.42     0.0

 137          KK    46-O
 138          KO       0       0     0.0       0      22
 139          DT   46ret   115.0     0.0
 140          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 141          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 142          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 143          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 144          KK      K6   CNAME   K6-K7
 145          KM   COMBINE ROUTED HYDROGRAPH FROM K5 WITH RUNOFF FROM 46 @ K6
 146          KO       0       0     0.0       0      22
 147          HC       2

 148          KK   K6-K7   CNAME      K6
 149          KM   STORAGE ROUTE FROM K6 TO K7 THROUGH SPRR TRESTLE
 150          KO       0       0     0.0       0      22
 151          RS       1    ELEV   890.0     0.0
 152          SV     0.0    0.43   43.48  173.62  410.02  410.02  410.02  410.02  410.02  410.02
 153          SV  410.02  410.02  410.02  410.02  410.02  410.02  410.02  410.02  410.02  410.02
 154          SE   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0
 155          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
 156          SQ     0.0   200.0   975.0  1120.0  1555.0  1565.0  1610.0  2150.0  2150.0  2150.0
 157          SQ  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0
 158          SE   890.0  891.09  893.09  893.69  894.89  894.99  895.09  895.29  895.29  895.29
 159          SE  895.29  895.29  895.29  895.29  895.29  895.29  895.29  895.29  895.29  895.29

 160          KK      65
 161          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 162          KM   L=0.82     Lca=0.41     S=10.93     Kn=0.200     LAG=121
 163          KM   S-GRAPH TYPE=AGRICULTURE
 164          KO       0       0     0.0       1      22
 165          BA  0.3756
 166          LG     0.1    0.25   4.712   0.374    80.0
 167          UI     0.0   11.45    15.3   32.35   64.94   69.77   92.26   96.16   96.16    81.2
 168          UI   85.03   60.83   57.04   41.32   33.18    28.5   19.59   15.77   13.21   10.45
 169          UI    8.88     6.5     6.5     4.4    1.43    1.43    1.43    1.43    1.43    1.43
 170          UI    1.43    1.43    1.43    1.43    1.43    1.43    1.43     0.0

 171          KK    65-O
 172          KO       0       0     0.0       0      22
 173          DT   65ret    42.0     0.0
 174          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 175          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 176          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 177          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 178          KK      K7
 179          KM   COMBINE STORAGE HYDROGRAPH FROM K6 WITH RUNOFF FROM 65 @ K7
 180          ZW   A=RBE B=K7 C=FLOW E=15MIN F=100y6h-fut
```

```
 181          KO       0       0     0.0       0      22
 182          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED L   ***********************************************
              * ***********************************************************************
1                                          HEC-1 INPUT                                                    PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 183          KK    RIDL
 184          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 185          BA  0.0001
 186          ZR  =QI A=RID RID B=41599 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-100-06F

 187          KK  L2S-L3   CNAME     L2S
 188          KM   ROUTE INFLOW FROM RID CONCENTRATED AT L2S TO L3 (CHANNEL B)
 189          KO       0       0     0.0       0      22
 190          RS       1    FLOW     0.0     0.0
 191          RC     0.1    0.02     0.1 7457.00   0.009     0.0
 192          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 193          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 194          KK      36
 195          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 196          KM   L=1.85     Lca=0.93     S=36.67     Kn=0.200     LAG=178
 197          KM   S-GRAPH TYPE=AGRICULTURE
 198          KO       0       0     0.0       1      22
 199          BA  0.6838
 200          LG   0.251    0.25   3.967   0.427  36.844
 201          UI     0.0   14.17   14.17   22.08   36.12   64.69    83.2   83.17  105.19  118.66
 202          UI   119.0   119.0  116.36   99.17  105.05   95.04   74.38   80.98   56.49   51.19
 203          UI   41.31    42.9   31.56   25.16   22.88   17.98    17.5   13.42   12.93   12.13
 204          UI    8.04    8.04    8.04    8.04    3.19    1.77    1.77    1.77    1.77    1.77
 205          UI    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77
 206          UI    1.77    1.77    1.77    1.77     0.0

 207          KK    36-0
 208          KO       0       0     0.0       0      22
 209          DT   36ret    48.0     0.0
 210          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 211          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 212          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 213          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 214          KK      L3   CNAME   L3-L4
 215          KM   COMBINE ROUTED HYDROGRAPH FROM L2S WITH RUNOFF FROM 36 @ L3
 216          KO       0       0     0.0       0      22
 217          HC       2

 218          KK   L3-L4   CNAME      L3
 219          KM   ROUTE HYDROGRAPH FROM L3 TO L4 (CHANNEL B)
 220          KO       0       0     0.0       0      22
 221          RS      11    FLOW     0.0     0.0
 222          RC     0.1    0.02     0.1 7726.73   0.005     0.0
 223          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 224          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 225          KK      47
 226          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 227          KM   L=1.46     Lca=0.73     S=24.60     Kn=0.200     LAG=161
 228          KM   S-GRAPH TYPE=AGRICULTURE
 229          KO       0       0     0.0       1      22
 230          BA  0.6169
1                                          HEC-1 INPUT                                                    PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 231          LG   0.235    0.25   4.499   0.387  34.953
 232          UI     0.0   14.13   14.13   25.73   43.69   78.39   77.95  107.42  110.39   118.7
 233          UI   118.7  113.43   98.92  105.54   83.18   78.99   64.89   53.48   41.57   42.52
 234          UI   30.95   24.46   21.69   17.46    15.7    12.9    12.9    8.42    8.02    8.02
 235          UI    8.02     2.1    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77
 236          UI    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77     0.0

 237          KK    47-0
 238          KO       0       0     0.0       0      22
 239          DT   47ret    45.0     0.0
 240          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 241          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 242          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 243          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 244          KK      L4   CNAME   L4-L5
 245          KM   COMBINE ROUTED HYDROGRAPH FROM L3 WITH RUNOFF FROM 47 @ L4
 246          KO       0       0     0.0       0      22
 247          HC       2

 248          KK   L4-L5   CNAME      L4
 249          KM   STORAGE ROUTE FROM L4 TO L5 THROUGH SPRR TRESTLE
 250          KO       0       0     0.0       0      22
 251          RS       1    ELEV  886.29     0.0
 252          SV     0.0     0.9     4.0    25.7   107.8  265.67  265.67  265.67  265.67  265.67
 253          SV  265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67
 254          SE   886.0   888.0   890.0   892.0   894.0   896.0   896.0   896.0   896.0   896.0
 255          SE   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0
 256          SQ     0.0    59.0   172.0   230.0   323.0   480.0   769.0  1218.0  1828.0  1828.0
 257          SQ  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0
 258          SE  886.29  888.09  890.09  890.99  891.79  891.99  892.19  892.39  892.59  892.59
 259          SE  892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59

 260          KK      66
 261          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 262          KM   L=0.73     Lca=0.36     S=19.24     Kn=0.200     LAG=99
 263          KM   S-GRAPH TYPE=AGRICULTURE
 264          KO       0       0     0.0       1      22
 265          BA  0.2941
 266          LG   0.101    0.25   4.471   0.367  79.734
 267          UI     0.0   10.96   18.36   48.91   66.57   87.58   92.03   85.89   79.94   62.17
 268          UI   52.27   36.46   30.89   19.44   15.19   11.84    10.0    6.36    6.22     3.7
 269          UI    1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37
 270          UI     0.0

 271          KK    66-0
```

```
 272          KO       0       0     0.0       0      22
 273          DT   66ret    31.0     0.0
 274          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 275          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 276          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 277          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
1                                          HEC-1 INPUT                                                PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 278          KK      L5
 279          KM   COMBINE STORAGE HYDROGRAPH FROM L4 WITH RUNOFF FROM 66 @ L5
 280          ZW   A=RBE B=L5 C=FLOW E=15MIN F=100y6h-fut
 281          KO       0       0     0.0       0      22
 282          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED M   ***********************************************
              * ***********************************************************************


 283          KK    RIDM
 284          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 285          BA  0.0001
 286          ZR  =QI A=RID RID B=47199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-100-06F

 287          KK  L2S2M1   CNAME    L2S2
 288          KM   ROUTE INFLOW FROM RID CONCENTRATED AT L2S2 TO M1 (CHANNEL A)
 289          KO       0       0     0.0       0      22
 290          RS       1    FLOW     0.0     0.0
 291          RC     0.1     0.1     0.1 9579.00  0.0030     0.0
 292          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 293          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 294          KK      37
 295          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 296          KM   L=2.36     Lca=1.18     S=30.11     Kn=0.200     LAG=222
 297          KM   S-GRAPH TYPE=AGRICULTURE
 298          KO       0       0     0.0       1      22
 299          BA  1.4211
 300          LG   0.248    0.25    4.12   0.419  41.529
 301          UI     0.0   23.61   23.61   23.61   46.77   63.19  104.27  137.98  128.23  153.35
 302          UI  177.81   198.3   198.3   198.3   198.3  191.69  165.25  165.25  182.96  139.11
 303          UI  124.21  141.65    97.7   90.14   78.24   68.08   70.88   60.42   45.07   38.97
 304          UI   38.13   29.56   29.16   25.81   21.55   21.55   21.26    13.4    13.4    13.4
 305          UI    13.4    13.4    7.55    2.95    2.95    2.95    2.95    2.95    2.95    2.95
 306          UI    2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95
 307          UI    2.95    2.95    2.95    2.95    2.95    2.95    2.95     0.0

 308          KK    37-O
 309          KO       0       0     0.0       0      22
 310          DT   37ret   110.0     0.0
 311          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 312          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 313          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 314          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 315          KK      M1   CNAME   M1-M2
 316          KM   COMBINE ROUTED HYDROGRAPH FROM L2S2 WITH RUNOFF FROM 37 @ M1
 317          KO       0       0     0.0       0      22
 318          HC       2
1                                          HEC-1 INPUT                                                PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 319          KK   M1-M2   CNAME      M1
 320          KM   ROUTE HYDROGRAPH FROM M1 TO M2 (CHANNEL A)
 321          KO       0       0     0.0       0      22
 322          RS      10    FLOW     0.0     0.0
 323          RC     0.1     0.1     0.1  5783.5   0.003     0.0
 324          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 325          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 326          KK      48
 327          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 328          KM   L=1.10     Lca=0.55     S=16.43     Kn=0.200     LAG=139
 329          KM   S-GRAPH TYPE=AGRICULTURE
 330          KO       0       0     0.0       1      22
 331          BA  0.4997
 332          LG   0.211    0.25   4.375   0.389  42.963
 333          UI     0.0   13.26   14.05   30.21   59.66   76.06    96.1  103.26  111.37  111.37
 334          UI   97.76   97.11   83.14   74.11   57.93   46.73   37.98    35.6   23.78   20.47
 335          UI   16.38   13.76   12.11     9.9    7.53    7.53    7.21    1.66    1.66    1.66
 336          UI    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66
 337          UI    1.66    1.66     0.0

 338          KK    48-O
 339          KO       0       0     0.0       0      22
 340          DT   48ret    43.0     0.0
 341          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 342          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 343          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 344          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 345          KK      M2   CNAME   M2-M3
 346          KM   COMBINE ROUTED HYDROGRAPH FROM M1 WITH RUNOFF FROM 48 @ M2
 347          KO       0       0     0.0       0      22
 348          HC       2

 349          KK   M2-M3   CNAME      M2
 350          KM   ROUTE HYDROGRAPH FROM M2 TO M3 (CHANNEL A)
 351          KO       0       0     0.0       0      22
 352          RS       3    FLOW     0.0     0.0
 353          RC   0.025   0.025   0.025 4309.67   0.005     0.0
 354          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 355          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 356          KK      67
 357          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 358          KM   L=0.82     Lca=0.41     S=25.73     Kn=0.200     LAG=102
 359          KM   S-GRAPH TYPE=PHOENIX VALLEY
 360          KO       0       0     0.0       1      22
 361          BA  0.4717
 362          LG    0.21    0.25   4.328   0.412   26.19
```

```
363          UI     0.0   15.57   31.09   66.92   86.69  107.67  144.49  191.76  149.18  119.67
364          UI   94.22   73.23    45.3   26.94   21.99   15.57    6.99    4.78    4.78    4.78
365          UI    4.78     0.0
1                                          HEC-1 INPUT                                                    PAGE  9

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


366          KK      M3   CNAME   M3-M4
367          KM   COMBINE ROUTED HYDROGRAPH FROM M2 WITH RUNOFF FROM 67 @ M3
368          KO       0       0     0.0       0      22
369          HC       2

370          KK   M3-M4   CNAME      M3
371          KM   STORAGE ROUTE FROM M3 TO M4 THROUGH SPRR TRESTLE
372          KO       0       0     0.0       0      22
373          RS       1    ELEV   884.0     0.0
374          SV     0.0    0.28    12.7    94.1  202.02  383.38  383.38  383.38  383.38  383.38
375          SV  383.38  383.38  383.38  383.38  383.38  383.38  383.38  383.38  383.38  383.38
376          SE   884.0   886.0   888.0   890.0   892.0   894.0   894.0   894.0   894.0   894.0
377          SE   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0
378          SQ     0.0    42.0   135.0   200.0   226.0   465.0  1010.0  1703.0  1703.0  1703.0
379          SQ  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0
380          SE   884.0  885.09  887.09  889.19  889.29  889.49  889.69  889.89  889.89  889.89
381          SE  889.89  889.89  889.89  889.89  889.89  889.89  889.89  889.89  889.89  889.89

382          KK      69
383          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
384          KM   L=0.11     Lca=0.06     S=17.52     Kn=0.200     LAG=25
385          KM   S-GRAPH TYPE=PHOENIX VALLEY
386          KO       0       0     0.0       1      22
387          BA  0.1371
388          LG     0.1    0.25   4.502   0.453  43.971
389          UI     0.0   60.46  176.19   92.48    19.3     0.0

390          KK      M4
391          KM   COMBINE STORAGE HYDROGRAPH FROM M3 WITH RUNOFF FROM 69 @ M4
392          ZW   A=RBE B=M4 C=FLOW E=15MIN F=100y6h-fut
393          KO       0       0     0.0       0      22
394          HC       2
             * ******************************************************************************
             * **   SUB-WATERSHED N   ********************************************************
             * ******************************************************************************

395          KK    RIDN
396          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
397          BA  0.0001
398          ZR  =QI A=RID RID B=51199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-100-06F

399          KK  N2S-N3   CNAME     N2S
400          KM   ROUTE INFLOW FROM RID CONCENTRATED AT N2S TO N3 (CHANNEL A)
401          KO       0       0     0.0       0      22
402          RS       1    FLOW     0.0     0.0
403          RC     0.1     0.1     0.1 5806.00  0.0050     0.0
404          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
405          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                                    PAGE 10

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


406          KK      38
407          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
408          KM   L=1.40     Lca=0.70     S=20.72     Kn=0.200     LAG=161
409          KM   S-GRAPH TYPE=AGRICULTURE
410          KO       0       0     0.0       1      22
411          BA  0.5419
412          LG    0.25    0.25   3.963   0.435    30.0
413          UI     0.0   12.41   12.41    22.6   38.38   68.87   68.47   94.37   96.98  104.28
414          UI  104.28   99.64    86.9   92.71   73.07   69.39   57.01   46.98   36.52   37.35
415          UI   27.19   21.49   19.06   15.33   13.79   11.33   11.33     7.4    7.05    7.05
416          UI    7.05    1.84    1.55    1.55    1.55    1.55    1.55    1.55    1.55    1.55
417          UI    1.55    1.55    1.55    1.55    1.55    1.55    1.55    1.55    1.55     0.0

418          KK    38-O
419          KO       0       0     0.0       0      22
420          DT   38ret    37.0     0.0
421          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
422          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
423          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
424          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

425          KK      N3   CNAME   N3-N4
426          KM   COMBINE ROUTED HYDROGRAPH FROM N2S WITH RUNOFF FROM 38 @ N3
427          KO       0       0     0.0       0      22
428          HC       2

429          KK   N3-N4   CNAME      N3
430          KM   ROUTE HYDROGRAPH FROM N3 TO N4 (CHANNEL B)
431          KO       0       0     0.0       0      22
432          RS       8    FLOW     0.0     0.0
433          RC     0.1    0.02     0.1 5295.68   0.009     0.0
434          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
435          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

436          KK      49
437          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
438          KM   L=1.96     Lca=0.98     S=23.51     Kn=0.200     LAG=202
439          KM   S-GRAPH TYPE=AGRICULTURE
440          KO       0       0     0.0       1      22
441          BA  1.0093
442          LG    0.25    0.25   3.954   0.409  36.233
443          UI     0.0   18.43   18.43   21.91    38.7   60.54   96.74  109.77  111.53  139.33
444          UI   150.8  154.78  154.78  154.78  141.02  128.98  137.67  123.61   96.74  107.67
445          UI   80.42   70.35   59.46    52.4   57.71   37.74   32.94   29.77   25.12   22.76
446          UI   20.55   16.82   16.82   15.07   10.46   10.46   10.46   10.46    8.07     2.3
447          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
448          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
449          UI     2.3     0.0
1                                          HEC-1 INPUT                                                    PAGE 11

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
450          KK    49-O
451          KO       0       0     0.0       0      22
452          DT   49ret    73.0     0.0
453          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
454          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
455          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
456          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

457          KK      N4   CNAME  N4-N5B
458          KM   COMBINE ROUTED HYDROGRAPH FROM N3 WITH RUNOFF FROM 49 @ N4
459          KO       0       0     0.0       0      22
460          HC       2

461          KK  N4-N5B   CNAME      N4
462          KM   ROUTE HYDROGRAPH FROM N4 TO N5 (CHANNEL B)
463          KO       0       0     0.0       0      22
464          RS       6    FLOW     0.0     0.0
465          RC     0.1    0.02     0.1 3866.36   0.008     0.0
466          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
467          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

468          KK     56B
469          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
470          KM   L=0.71      Lca=0.32      S=32.56      Kn=0.200      LAG=85
471          KM   S-GRAPH TYPE=AGRICULTURE
472          KO       0       0     0.0       1      22
473          BA  0.3335
474          LG     0.1    0.25   3.998   0.503    80.0
475          UI     0.0   13.21   36.42   68.04   85.35  118.84  159.02  118.04    90.4   67.67
476          UI   40.92   22.66   16.33    10.2    4.05    4.05    4.05     0.0

477          KK     N5B   CNAME  N5B-N6
478          KM   COMBINE ROUTED HYDROGRAPH FROM N4 WITH RUNOFF FROM 56B @ N5B
479          KO       0       0     0.0       0      22
480          HC       2

481          KK  N5B-N6   CNAME     N5B
482          KM   STORAGE ROUTE FROM N5B TO N6 THROUGH SPRR TRESTLE
483          KO       0       0     0.0       0      22
484          RS       1    ELEV  887.23     0.0
485          SV     0.0    0.96   12.89   39.94   86.12  150.27  150.27  150.27  150.27  150.27
486          SV  150.27  150.27  150.27  150.27  150.27  150.27  150.27  150.27  150.27  150.27
487          SE   886.0   888.0   890.0   892.0   894.0   896.0   896.0   896.0   896.0   896.0
488          SE   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0
489          SQ     0.0    71.6    98.1   118.7   136.2   151.7   165.7   178.6   190.7   202.0
490          SQ   212.8   223.0   232.8   242.1   251.2   259.9   268.3   276.5   276.5   276.5
491          SE  887.23  889.23  889.73  890.23  890.73  891.23  891.73  892.23  892.73  893.23
492          SE  893.73  894.23  894.73  895.23  895.73  896.23  896.73  897.23  897.23  897.23
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

493          KK     56A
494          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
495          KM   L=1.19      Lca=0.59      S=30.31      Kn=0.200      LAG=132
496          KM   S-GRAPH TYPE=AGRICULTURE
497          KO       0       0     0.0       1      22
498          BA  0.4105
499          LG     0.1    0.25   3.969   0.441    80.0
500          UI     0.0   11.47   13.39   28.45   55.88   66.16   84.79   96.35   96.35   93.14
501          UI   80.29   83.82   61.02   58.36   42.89   33.31   32.41   20.95   17.94   14.17
502          UI    11.8   10.47    8.03    6.51    6.51    4.68    1.43    1.43    1.43    1.43
503          UI    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43
504          UI     0.0

505          KK    56A-O
506          KO       0       0     0.0       0      22
507          DT   56Aret    43.0     0.0
508          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
509          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
510          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
511          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

512          KK  N5A-N6   CNAME     N5A
513          KM   STORAGE ROUTE FROM N5A TO N6 THROUGH SPRR TRESTLE
514          KO       0       0     0.0       0      22
515          RS       1    ELEV  886.0     0.0
516          SV     0.0    0.02    8.08   35.13  100.26  100.26  100.26  100.26  100.26  100.26
517          SV  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26
518          SE   886.0   888.0   890.0   892.0   894.0   894.0   894.0   894.0   894.0   894.0
519          SE   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0
520          SQ     0.0   102.4   189.7   248.0   294.9   335.4   371.5   404.3   434.7   463.1
521          SQ   489.9   515.2   539.4   562.6   584.8   606.2   626.9   646.9   646.9   646.9
522          SE   886.0  887.52  888.02  888.52  889.02  889.52  890.02  890.52  891.02  891.52
523          SE  892.02  892.52  893.02  893.52  894.02  894.52  895.02  895.52  895.52  895.52

524          KK      70
525          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
526          KM   L=0.68      Lca=0.34      S=1.48      Kn=0.200      LAG=152
527          KM   S-GRAPH TYPE=AGRICULTURE
528          KO       0       0     0.0       1      22
529          BA  0.1406
530          LG     0.1    0.25   4.395   0.461    80.0
531          UI     0.0    3.41    3.41    6.68   12.76   19.73   19.85   25.86   28.66   28.66
532          UI   28.66   24.52   25.09   21.89   18.55   16.77   13.03   10.07   10.32    7.14
533          UI    5.77    4.95    4.21    3.44    3.12    2.67    1.94    1.94    1.94    0.99
534          UI    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43
535          UI    0.43    0.43    0.43    0.43    0.43    0.43     0.0

536          KK    70-O
537          KO       0       0     0.0       0      22
538          DT   70ret    17.0     0.0
539          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
540          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
541          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
542          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

543          KK      N6
544          KM   COMBINE STORAGE HYDROGRAPH FROM N5A AND N5B WITH RUNOFF FROM 70 @ N6
```

```
545          ZW   A=RBE B=N6 C=FLOW E=15MIN F=100y6h-fut
546          KO       0       0     0.0       0      22
547          HC       3
             * ***********************************************************************************
             * **   SUB-WATERSHED O   ***********************************************************
             * ***********************************************************************************

548          KK    RIDO
549          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
550          BA  0.0001
551          ZR  =QI A=RID RID B=57199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-100-06F

552          KK  O4S-O5   CNAME     O4S
553          KM   ROUTE INFLOW FROM RID CONCENTRATED AT O4S TO O5 (CHANNEL A)
554          KO       0       0     0.0       0      22
555          RS       1    FLOW     0.0     0.0
556          RC     0.1     0.1     0.1 6325.00  0.0060     0.0
557          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
558          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

559          KK      39
560          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
561          KM   L=1.63      Lca=0.82      S=25.14      Kn=0.200      LAG=174
562          KM   S-GRAPH TYPE=AGRICULTURE
563          KO       0       0     0.0       1      22
564          BA  0.7253
565          LG   0.257    0.25    4.31   0.407  26.629
566          UI     0.0   15.37   15.37   24.91   40.98   72.85   90.07   94.27  117.51  129.13
567          UI  129.13  129.13  120.52  107.61  114.33   93.69   83.76    78.5    59.0   50.24
568          UI   43.47   44.81   29.35   25.01   22.19   18.99   16.61   14.04   14.04    9.72
569          UI    8.73    8.73    8.73    5.19    1.92    1.92    1.92    1.92    1.92    1.92
570          UI    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92
571          UI    1.92    1.92     0.0

572          KK    39-O
573          KO       0       0     0.0       0      22
574          DT  39-ret    45.0     0.0
575          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
576          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
577          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
578          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

579          KK      O5   CNAME   O5-O6
580          KM   COMBINE ROUTED HYDROGRAPH FROM O4S WITH RUNOFF FROM 39 @ O5
581          KO       0       0     0.0       0      22
582          HC       2
1                                          HEC-1 INPUT                                          PAGE 14

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

583          KK   O5-O6   CNAME      O5
584          KM   ROUTE HYDROGRAPH FROM O5 TO O6 (CHANNEL B)
585          KO       0       0     0.0       0      22
586          RS       7    FLOW     0.0     0.0
587          RC     0.1    0.02     0.1 5267.87    0.01     0.0
588          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
589          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

590          KK      50
591          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
592          KM   L=1.98      Lca=0.99      S=26.73      Kn=0.200      LAG=199
593          KM   S-GRAPH TYPE=AGRICULTURE
594          KO       0       0     0.0       1      22
595          BA  1.0018
596          LG   0.262    0.25    4.181   0.427  31.555
597          UI     0.0   18.57   18.57   22.94   38.99   65.02   98.44  109.42  116.01  139.75
598          UI  155.95  155.95  155.95  155.95  136.89  129.96  138.93  116.06   98.44  106.28
599          UI   74.44    70.3   55.29    52.9   53.78   35.44   31.12   29.51   22.93   22.93
600          UI   18.07   16.95   16.95   12.06   10.54   10.54   10.54   10.54    3.53    2.32
601          UI    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32
602          UI    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32
603          UI     0.0

604          KK    50-O
605          KO       0       0     0.0       0      22
606          DT   50ret    70.0     0.0
607          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
608          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
609          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
610          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

611          KK      O6   CNAME   O6-O7
612          KM   COMBINE ROUTED HYDROGRAPH FROM O5 WITH RUNOFF FROM 50 @ O6
613          KO       0       0     0.0       0      22
614          HC       2

615          KK   O6-O7   CNAME      O6
616          KM   ROUTE HYDROGRAPH FROM O6 TO O7 (CHANNEL B)
617          KO       0       0     0.0       0      22
618          RS       6    FLOW     0.0     0.0
619          RC     0.1    0.02     0.1 3578.87   0.004     0.0
620          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
621          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

622          KK      57
623          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
624          KM   L=0.68      Lca=0.34      S=19.18      Kn=0.200      LAG=94
625          KM   S-GRAPH TYPE=AGRICULTURE
626          KO       0       0     0.0       1      22
627          BA  0.4885
628          LG     0.1    0.25    4.256   0.482    80.0
629          UI     0.0   19.17   35.13   95.98  125.05  151.34   161.0  141.33  132.78  104.89
630          UI   73.19   56.54   41.57   28.93   22.36    17.5   12.39   10.88    7.03     2.4
631          UI     2.4     2.4     2.4     2.4     2.4     2.4     2.4     2.4     2.4     0.0
1                                          HEC-1 INPUT                                          PAGE 15

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

632          KK    57-O
633          KO       0       0     0.0       0      22
634          DT   57ret    54.0     0.0
635          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
```

```
636          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
637          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
638          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

639          KK      07   CNAME   07-08
640          KM   COMBINE ROUTED HYDROGRAPH FROM 06 WITH RUNOFF FROM 57 @ 07
641          KO       0       0     0.0       0      22
642          HC       2

643          KK   07-08   CNAME      07
644          KM   STORAGE ROUTE FROM 07 TO 08 THROUGH SPRR TRESTLE
645          KO       0       0     0.0       0      22
646          RS       1    ELEV   891.1     0.0
647          SV     0.0     0.2    8.52   76.65  224.48  224.48  224.48  224.48  224.48  224.48
648          SV  224.48  224.48  224.48  224.48  224.48  224.48  224.48  224.48  224.48  224.48
649          SE   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0
650          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
651          SQ     0.0    78.0    85.0   151.0   248.0   540.0   954.0  1560.0  2334.0  2334.0
652          SQ  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0
653          SE   891.1   893.1   893.4   894.5   894.7   895.0   895.2   895.4   895.6   895.6
654          SE   895.6   895.6   895.6   895.6   895.6   895.6   895.6   895.6   895.6   895.6

655          KK      71
656          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
657          KM   L=0.34     Lca=0.17     S=14.51     Kn=0.200     LAG=59
658          KM   S-GRAPH TYPE=AGRICULTURE
659          KO       0       0     0.0       1      22
660          BA  0.1553
661          LG     0.1    0.25   4.911    0.37    80.0
662          UI     0.0   11.57   42.26   70.54   80.65   67.88   47.94   30.74    17.5   10.91
663          UI    7.38    5.51    1.27    1.21    1.21    1.21    1.21    1.21     0.0

664          KK    71-O
665          KO       0       0     0.0       0      22
666          DT   71ret    16.0     0.0
667          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
668          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
669          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
670          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

671          KK      08   CNAME
672          KM   COMBINE STORAGE HYDROGRAPH FROM 07 WITH RUNOFF FROM 71 @ 08
673          ZW   A=RBE B=08 C=FLOW E=15MIN F=100y6h-fut
674          KO       0       0     0.0       0      22
675          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED P   ***********************************************
             * ***********************************************************************
1                                          HEC-1 INPUT                                                    PAGE 16

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


676          KK    RIDP
677          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
678          BA  0.0001
679          ZR  =QI A=RID RID B=61999 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-100-06F

680          KK  P2S-P3   CNAME     P2S
681          KM   ROUTE INFLOW FROM RID CONCENTRATED AT P2S TO P3 (CHANNEL A)
682          KO       0       0     0.0       0      22
683          RS       1    FLOW     0.0     0.0
684          RC     0.1     0.1     0.1 8445.00  0.0070     0.0
685          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
686          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

687          KK      40
688          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
689          KM   L=1.83     Lca=0.91     S=31.23     Kn=0.200     LAG=182
690          KM   S-GRAPH TYPE=AGRICULTURE
691          KO       0       0     0.0       1      22
692          BA  0.9761
693          LG    0.25    0.25   4.211   0.448  29.895
694          UI     0.0   19.78   19.78   29.61   48.14    86.9  116.44  110.94  150.61  157.12
695          UI  166.14  166.14  166.14  142.14  139.74  151.32  103.84  112.23    90.8   75.52
696          UI    62.1   56.05   56.55   37.76   32.26   29.17   24.43   22.48   18.06   18.06
697          UI   14.53   11.23   11.23   11.23   10.99    2.47    2.47    2.47    2.47    2.47
698          UI    2.47    2.47    2.47    2.47    2.47    2.47    2.47    2.47    2.47    2.47
699          UI    2.47    2.47    2.47    2.47    2.47     0.0

700          KK    40-O
701          KO       0       0     0.0       0      22
702          DT   40rat    70.0     0.0
703          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
704          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
705          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
706          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

707          KK      P3   CNAME   P3-P4
708          KM   COMBINE ROUTED HYDROGRAPH FROM P2S WITH RUNOFF FROM 40 @ P3
709          KO       0       0     0.0       0      22
710          HC       2

711          KK   P3-P4   CNAME      P3
712          KM   ROUTE HYDROGRAPH FROM P3 TO P4 (CHANNEL B)
713          KO       0       0     0.0       0      22
714          RS       8    FLOW     0.0     0.0
715          RC     0.1    0.02     0.1 5302.14   0.008     0.0
716          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
717          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

718          KK      51
719          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
720          KM   L=1.96     Lca=0.98     S=22.98     Kn=0.200     LAG=203
721          KM   S-GRAPH TYPE=AGRICULTURE
722          KO       0       0     0.0       1      22
723          BA   1.004
1                                          HEC-1 INPUT                                                    PAGE 17

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

724          LG   0.263    0.25   4.401   0.435  34.246
725          UI     0.0   18.24   18.24   21.41    38.3   58.85   95.52  108.71   109.2  138.77
726          UI  147.29   153.2   153.2   153.2  141.28  127.67  136.31  125.01   95.75  105.04
```

```
727          UI    83.7   69.64   60.42   52.27   56.21   40.23   33.28   29.46   25.81   22.53
728          UI    21.2   16.65   16.65   15.93   10.35   10.35   10.35   10.35    9.49    2.28
729          UI    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
730          UI    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
731          UI    2.28     0.0

732          KK    51-O
733          KO       0       0     0.0       0      22
734          DT   51ret    78.0     0.0
735          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
736          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
737          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
738          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

739          KK      P4   CNAME   P4-P5
740          KM   COMBINE ROUTED HYDROGRAPH FROM P3 WITH RUNOFF FROM 51 @ P4
741          KO       0       0     0.0       0      22
742          HC       2

743          KK   P4-P5   CNAME      P4
744          KM   ROUTE HYDROGRAPH FROM P4 TO P5 (CHANNEL A)
745          KO       0       0     0.0       0      22
746          RS       6    FLOW     0.0     0.0
747          RC     0.1     0.1     0.1 2651.48   0.003     0.0
748          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
749          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

750          KK      58
751          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
752          KM   L=0.50      Lca=0.25      S=15.93      Kn=0.200      LAG=77
753          KM   S-GRAPH TYPE=AGRICULTURE
754          KO       0       0     0.0       1      22
755          BA  0.1897
756          LG     0.1    0.25   4.294   0.498    80.0
757          UI     0.0    9.09   25.11   52.16   72.06   76.34   66.54   55.11   41.43   27.69
758          UI   18.96   12.68    9.16    6.65    5.16    2.64    1.14    1.14    1.14    1.14
759          UI    1.14    1.14    1.14     0.0

760          KK    58-O
761          KO       0       0     0.0       0      22
762          DT   58ret    20.0     0.0
763          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
764          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
765          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
766          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

767          KK      P5   CNAME   P5-P6
768          KM   COMBINE ROUTED HYDROGRAPH FROM P4 WITH RUNOFF FROM 58 @ P5
769          KO       0       0     0.0       0      22
770          HC       2
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

771          KK   P5-P6   CNAME      P5
772          KM   STORAGE ROUTE FROM P5 TO P6 THROUGH SPRR TRESTLE
773          KO       0       0     0.0       0      22
774          RS       1    ELEV  889.11     0.0
775          SV     0.0    1.33    6.78   36.99  130.95  286.86  286.86  286.86  286.86  286.86
776          SV  286.86  286.86  286.86  286.86  286.86  286.86  286.86  286.86  286.86  286.86
777          SE   888.0   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0
778          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
779          SQ     0.0    40.0   105.0   187.0   278.0   531.0   853.0  1198.0  1573.0  1722.0
780          SQ  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0
781          SE  889.11  889.61  890.11  890.61  891.11  892.11  893.11  894.11  895.11  896.11
782          SE  897.11  897.11  897.11  897.11  897.11  897.11  897.11  897.11  897.11  897.11

783          KK      72
784          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
785          KM   L=0.13      Lca=0.06      S=7.71      Kn=0.200      LAG=32
786          KM   S-GRAPH TYPE=AGRICULTURE
787          KO       0       0     0.0       1      22
788          BA  0.0856
789          LG     0.1    0.25   4.468   0.401    80.0
790          UI     0.0   24.87    74.6   66.73   31.73   12.61    6.11    1.23    1.23    1.23
791          UI     0.0

792          KK    72-O
793          KO       0       0     0.0       0      22
794          DT   72ret     8.0     0.0
795          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
796          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
797          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
798          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

799          KK      P6
800          KM   COMBINE STORAGE HYDROGRAPH FROM P5 WITH RUNOFF FROM 72 @ P6
801          ZW   A=RBE B=P6 C=FLOW E=15MIN F=100y6h-fut
802          KO       0       0     0.0       0      22
803          HC       2
804          ZZ
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

```
                          PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
OPERATION      STATION    FLOW    PEAK                                           AREA      STAGE     MAX STAGE
+                                             6-HOUR     24-HOUR     72-HOUR

HYDROGRAPH AT
+                RIDKB     393.    5.50        123.        31.         10.       0.00

ROUTED TO
+               K3SBK4     244.    6.00        118.        31.         10.       0.00

HYDROGRAPH AT
+                RIDKA     489.    5.75        227.        65.         22.       0.00

ROUTED TO
+               K3SAK4     227.    7.00        198.        65.         22.       0.00

HYDROGRAPH AT
+                  34      243.    6.00        124.        33.         11.       0.64
```

```
+                DIVERSION TO
                      34ret     243.   6.00      81.     20.      7.    0.64
+                HYDROGRAPH AT
                       34-O     172.   7.25      51.     13.      4.    0.64
+                3 COMBINED AT
                         K4     569.   7.00     359.    109.     36.    0.64
+                ROUTED TO
                      K4-K5     538.   7.75     349.    109.     36.    0.64
+                HYDROGRAPH AT
                         35     525.   6.75     328.     94.     31.    1.50
+                DIVERSION TO
                      35ret     525.   6.75     256.     65.     22.    1.50
+                HYDROGRAPH AT
                       35-O     320.   8.50     112.     29.     10.    1.50
+                2 COMBINED AT
                         K5     733.   8.50     437.    133.     44.    2.14
+                ROUTED TO
                      K5-K6     679.   9.50     423.    133.     44.    2.14
+                HYDROGRAPH AT
                         46     484.   6.75     298.     85.     28.    1.38
+                DIVERSION TO
                      46ret     484.   6.75     230.     58.     19.    1.38
+                HYDROGRAPH AT
                       46-O     296.   8.50     102.     27.      9.    1.38
+                2 COMBINED AT
                         K6     806.   9.50     492.    152.     51.    3.52
+                ROUTED TO
                      K6-K7     746.   9.75     492.    152.     51.    3.52
+                HYDROGRAPH AT
                         65     245.   5.75     112.     30.     10.    0.38
+                DIVERSION TO
                      65ret     245.   5.75      85.     21.      7.    0.38
+                HYDROGRAPH AT
                       65-O     147.   7.00      34.      9.      3.    0.38
+                2 COMBINED AT
                         K7     749.   9.75     502.    157.     53.    3.90
+                HYDROGRAPH AT
                       RIDL       0.   0.00       0.      0.      0.    0.00
+                ROUTED TO
                     L2S-L3       0.   0.00       0.      0.      0.    0.00
+                HYDROGRAPH AT
                         36     240.   6.50     142.     40.     13.    0.68
+                DIVERSION TO
                      36ret     240.   6.50      97.     24.      8.    0.68
+                HYDROGRAPH AT
                       36-O     188.   7.75      59.     15.      5.    0.68
+                2 COMBINED AT
                         L3     188.   7.75      59.     15.      5.    0.68
+                ROUTED TO
                      L3-L4      95.  10.25      53.     15.      5.    0.68
+                HYDROGRAPH AT
                         47     238.   6.25     131.     36.     12.    0.62
+                DIVERSION TO
                      47ret     238.   6.25      91.     23.      8.    0.62
+                HYDROGRAPH AT
                       47-O     167.   7.50      50.     13.      4.    0.62
+                2 COMBINED AT
                         L4     130.   7.75      83.     25.      8.    1.30
+                ROUTED TO
                      L4-L5     115.   8.25      82.     25.      8.    1.30
+                HYDROGRAPH AT
                         66     227.   5.50      89.     23.      8.    0.29
+                DIVERSION TO
                      66ret     227.   5.50      63.     16.      5.    0.29
+                HYDROGRAPH AT
                       66-O     146.   6.25      31.      8.      3.    0.29
+                2 COMBINED AT
                         L5     137.   8.00      94.     31.     10.    1.59
+                HYDROGRAPH AT
                       RIDM     455.   5.75      99.     25.      8.    0.00
+                ROUTED TO
                     L2S2M1      89.   7.25      65.     24.      8.    0.00
+                HYDROGRAPH AT
                         37     400.   7.25     273.     82.     27.    1.42
+                DIVERSION TO
                      37ret     400.   7.25     219.     55.     18.    1.42
```

```
+                HYDROGRAPH AT
                        37-O      244.   9.25        98.       26.        9.      1.42
+                2 COMBINED AT
                          M1      312.   9.25       150.       50.       17.      1.42
+                ROUTED TO
                       M1-M2      247.  11.00       147.       50.       17.      1.42
+                HYDROGRAPH AT
                          48      236.   6.00       117.       31.       10.      0.50
+                DIVERSION TO
                       48ret      236.   6.00        87.       22.        7.      0.50
+                HYDROGRAPH AT
                        48-O      157.   7.25        37.        9.        3.      0.50
+                2 COMBINED AT
                          M2      234.  11.25       151.       55.       19.      1.92
+                ROUTED TO
                       M2-M3      230.  11.50       150.       55.       19.      1.92
+                HYDROGRAPH AT
                          67      334.   5.75       100.       26.        9.      0.47
+                2 COMBINED AT
                          M3      275.   5.75       150.       76.       26.      2.39
+                ROUTED TO
                       M3-M4      159.  13.25       139.       75.       26.      2.39
+                HYDROGRAPH AT
                          69      285.   4.50        33.        8.        3.      0.14
+                2 COMBINED AT
                          M4      269.   4.50       138.       82.       28.      2.53
+                HYDROGRAPH AT
                        RIDN      280.   6.75       112.       28.        9.      0.00
+                ROUTED TO
                      N2S-N3      155.   8.00        96.       28.        9.      0.00
+                HYDROGRAPH AT
                          38      202.   6.25       110.       30.       10.      0.54
+                DIVERSION TO
                       38ret      202.   6.25        75.       19.        6.      0.54
+                HYDROGRAPH AT
                        38-O      145.   7.50        44.       11.        4.      0.54
+                2 COMBINED AT
                          N3      293.   7.50       139.       39.       13.      0.54
+                ROUTED TO
                       N3-N4      283.   8.50       136.       39.       13.      0.54
+                HYDROGRAPH AT
                          49      307.   7.00       198.       57.       19.      1.01
+                DIVERSION TO
                       49ret      307.   7.00       146.       37.       12.      1.01
+                HYDROGRAPH AT
                        49-O      208.   8.25        76.       20.        7.      1.01
+                2 COMBINED AT
                          N4      439.   8.75       197.       55.       18.      1.55
+                ROUTED TO
                      N4-N5B      419.   9.25       193.       55.       18.      1.55
+                HYDROGRAPH AT
                         56B      346.   5.50       103.       26.        9.      0.33
+                2 COMBINED AT
                         N5B      402.   9.25       193.       79.       27.      1.88
+                ROUTED TO
                      N5B-N6      172.  11.50       159.       79.       27.      1.88
+                HYDROGRAPH AT
                         56A      247.   5.75       121.       32.       11.      0.41
+                DIVERSION TO
                      56Aret      247.   5.75        87.       22.        7.      0.41
+                HYDROGRAPH AT
                        56A-O      169.   7.00        42.       11.        4.      0.41
+                ROUTED TO
                      N5A-N6      168.   7.00        42.       11.        4.      0.41
+                HYDROGRAPH AT
                          70       75.   6.25        40.       11.        4.      0.14
+                DIVERSION TO
                       70ret       75.   6.25        34.        9.        3.      0.14
+                HYDROGRAPH AT
                        70-O       36.   8.00        10.        3.        1.      0.14
+                3 COMBINED AT
                          N6      269.   7.25       183.       89.       30.      2.44
+                HYDROGRAPH AT
                        RIDO      438.   6.00       142.       36.       12.      0.00
+                ROUTED TO
                      O4S-O5      236.   7.00       125.       36.       12.      0.00
```

```
+          HYDROGRAPH AT
                     39      240.    6.50      138.      38.      13.     0.73
+          DIVERSION TO
                 39-ret      240.    6.50       91.      23.       8.     0.73
+          HYDROGRAPH AT
                   39-O      177.    7.75       59.      15.       5.     0.73
+          2 COMPINED AT
                     05      394.    7.50      182.      51.      17.     0.73
+          ROUTED TO
                  05-06      358.    8.50      179.      51.      17.     0.73
+          HYDROGRAPH AT
                     50      294.    6.75      186.      53.      18.     1.00
+          DIVERSION TO
                 50ret       294.    6.75      141.      35.      12.     1.00
+          HYDROGRAPH AT
                   50-O      196.    8.50       69.      18.       6.     1.00
+          2 COMBINED AT
                     06      446.    8.75      226.      64.      21.     1.73
+          ROUTED TO
                  06-07      430.    9.25      220.      64.      21.     1.73
+          HYDROGRAPH AT
                     57      386.    5.50      147.      38.      13.     0.49
+          DIVERSION TO
                 57ret       386.    5.50      109.      27.       9.     0.49
+          HYDROGRAPH AT
                   57-O      212.    6.25       45.      11.       4.     0.49
+          2 COMBINED AT
                     07      405.    9.25      228.      72.      24.     2.22
+          ROUTED TO
                  07-08      296.   10.25      197.      72.      24.     2.22
+          HYDROGRAPH AT
                     71      181.    5.00       48.      12.       4.     0.16
+          DIVERSION TO
                 71ret       181.    5.00       32.       8.       3.     0.16
+          HYDROGRAPH AT
                   71-O      114.    5.50       17.       4.       1.     0.16
+          2 COMBINED AT
                     08      296.   10.25      197.      76.      25.     2.37
+          HYDROGRAPH AT
                   RIDP      623.    5.00      179.      48.      18.     0.00
+          ROUTED TO
                 P2S-P3      266.    6.00      150.      48.      18.     0.00
+          HYDROGRAPH AT
                     40      304.    6.75      182.      51.      17.     0.98
+          DIVERSION TO
                 40ret       304.    6.75      141.      35.      12.     0.98
+          HYDROGRAPH AT
                   40-O      199.    8.25       59.      16.       5.     0.98
+          2 COMBINED AT
                     P3      332.    8.25      201.      63.      23.     0.98
+          ROUTED TO
                  P3-P4      282.    9.25      194.      63.      23.     0.98
+          HYDROGRAPH AT
                     51      292.    7.00      188.      54.      18.     1.00
+          DIVERSION TO
                 51ret       292.    7.00      156.      39.      13.     1.00
+          HYDROGRAPH AT
                   51-O      167.    8.75       56.      15.       5.     1.00
+          2 COMBINED AT
                     P4      316.    9.50      224.      73.      27.     1.98
+          ROUTED TO
                  P4-P5      302.   10.00      219.      72.      27.     1.98
+          HYDROGRAPH AT
                     58      178.    5.25       58.      15.       5.     0.19
+          DIVERSION TO
                 58ret       178.    5.25       40.      10.       3.     0.19
+          HYDROGRAPH AT
                   58-O      102.    6.00       19.       5.       2.     0.19
+          2 COMBINED AT
                     P5      293.   10.25      220.      76.      28.     2.17
+          ROUTED TO
                  P5-P6      288.   10.25      219.      76.      28.     2.17
+          HYDROGRAPH AT
                     72      154.    4.50       27.       7.       2.     0.09
+          DIVERSION TO
                 72ret       154.    4.50       16.       4.       1.     0.09
```

```
          HYDROGRAPH AT
+                        72-O       96.    4.75        11.        3.        1.      0.09

          2 COMBINED AT
+                         P6      288.   10.25       219.       78.       28.      2.26


 *** NORMAL END OF HEC-1 ***

1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998              *                                    *   HYDROLOGIC ENGINEERING CENTER      *
 *            VERSION 4.1               *                                    *         609 SECOND STREET            *
 *                                      *                                    *      DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   23MAR06  TIME  05:06:42  *                                    *          (916) 756-1104              *
 *                                      *                                    *                                      *
 ****************************************                                    ****************************************


                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X        XX
                                                X     X  X        X              X
                                                XXXXXXX  XXXX     X        XXXXX  X
                                                X     X  X        X              X
                                                X     X  X        X     X        X
                                                X     X  XXXXXXX   XXXXX        XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                    PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

            1           ID   Buckeye/Sun Valley ADMS - November 2004
            2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
            3           ID   100-year 6-hour
            4           ID   Future Conditions
            5           ID   Area 1 - BIC to Gila (West)
            6           ID   File Name: bgw1006fut.hc1
            7           ID   Rainfall Loss Method - Green & Ampt
            8           ID   Unit Hydrograph Method - FCDMC S-Graph
            9           ID   Channel Routing Method - Normal Depth
           10           ID   Land Use - FCDMC GIS Data: mag_genplan (2000)
           11           ID   Future Land Use Build Out Date: 2025
           12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
           13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                        *DIAGRAM
           14           IT      15 02JAN94       0     400
           15           IO       3
           16           IN      15 02JAN94       0
           17           JD     3.3     0.01
                        * 6-hour distribution, pattern 1.0
           18           PC     0.0    0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
           19           PC   0.087    0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
           20           PC   0.962    0.972   0.983   0.991     1.0
           21           IN      15 02JAN94       0
           22           JD    3.28     0.5
                        * 6-hour distribution, pattern 1.0
           23           PC     0.0    0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
           24           PC   0.087    0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
           25           PC   0.962    0.972   0.983   0.991     1.0
           26           IN      15 02JAN94       0
           27           JD   3.257      1.0
                        * 6-hour distribution, pattern 1.4
           28           PC     0.0  0.0084   0.016   0.025  0.0334  0.0414  0.0504  0.0584  0.0664  0.0748
           29           PC   0.087  0.0994  0.1188   0.148  0.2304  0.4067  0.7778  0.8813  0.9186  0.9452
           30           PC  0.9572  0.9684  0.9798  0.9898     1.0
           31           IN      15 02JAN94       0
           32           JD   3.168     5.0
                        * 6-hour distribution, pattern 2.3
           33           PC     0.0   0.011  0.0173  0.0267  0.0387   0.049  0.0593  0.0693  0.0797  0.0903
           34           PC   0.103  0.1173  0.1383  0.1827  0.2693   0.458   0.686  0.8233  0.8893  0.9293
           35           PC  0.9487   0.962  0.9743  0.9877     1.0
           36           IN      15 02JAN94       0
           37           JD   3.102    10.0
                        * 6-hour distribution, pattern 2.7
           38           PC     0.0  0.0134  0.0189  0.0287  0.0443  0.0574  0.0694  0.0818  0.0949  0.1076
           39           PC  0.1223  0.1382  0.1604  0.2063  0.2902  0.4664  0.6764  0.8069  0.8765  0.9189
           40           PC  0.9471  0.9608  0.9735  0.9873     1.0
                        * ***************************************************************************
                        * **   SUB-WATERSHED E   ****************************************************
                        * ***************************************************************************
1                                                   HEC-1 INPUT                                                    PAGE  2

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


           41           KK   BICE
           42           KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
           43           BA  0.0001
           44           ZR  =QI A=BIC BIC B=4395 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06F

           45           KK  E2S-E3   CNAME     E2S
           46           KM   ROUTE INFLOW FROM BIC CONCENTRATED AT E2S TO E3 (CHANNEL A)
           47           KO       0       0     0.0       0      22
           48           RS       1    FLOW     0.0     0.0
           49           RC     0.1     0.1     0.1 9548.74   0.003     0.0
```

```
 50          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 51          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 52          KK      84
 53          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 54          KM   L=1.81      Lca=0.98      S=13.27      Kn=0.200      LAG=219
 55          KM   S-GRAPH TYPE=AGRICULTURE
 56          KO       0        0     0.0       0      22
 57          BA  0.8772
 58          LG     0.1   0.149   9.712   0.075     5.0
 59          UI     0.0   14.77   14.77   14.77   29.95   40.82   67.16   88.66   77.76   98.85
 60          UI  113.94  124.08  124.08  124.08  124.08  115.81   103.4  107.74  113.07   77.55
 61          UI   80.05   82.21    59.0    56.4   45.14   41.62   46.54   30.82   27.07   23.86
 62          UI   21.83   18.25   18.25   14.06   13.49   13.49   10.82    8.38    8.38    8.38
 63          UI    8.38     7.6    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85
 64          UI    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85
 65          UI    1.85    1.85    1.85    1.85    1.85    1.85     0.0

 66          KK    84-O
 67          KO       0        0     0.0       0      22
 68          DT   84ret    45.0     0.0
 69          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 70          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 71          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 72          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 73          KK      E3
 74          KM   COMBINE ROUTED HYDROGRAPH FROM E2S WITH RUNOFF FROM 84 @ E3
 75          KO       0        0     0.0       0      22
 76          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHEDS F AND G   ***********************************************
             * ***********************************************************************

 77          KK   BICFB
 78          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 79          BA    0.01
 80          ZR  =QI A=BIC BIC B=14995 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06F
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 81          KK  F6BS7B   CNAME    F6BS
 82          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT F6BS TO F7B (CHANNEL A)
 83          KO       0        0     0.0       0      22
 84          RS       1     FLOW     0.0     0.0
 85          RC     0.1      0.1     0.1 3159.78   0.007     0.0
 86          RX     0.0    250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 87          RY    10.0      7.5     5.0     2.5     0.0     3.3     6.6    10.0

 88          KK      85B
 89          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 90          KM   L=1.47      Lca=0.73      S=15.68      Kn=0.200      LAG=176
 91          KM   S-GRAPH TYPE=AGRICULTURE
 92          KO       0        0     0.0       0      22
 93          BA  0.7453
 94          LG   0.292    0.25   5.706   0.207     5.0
 95          UI     0.0   15.62   15.62   24.82   40.72   72.66   91.61   93.72  117.48  131.18
 96          UI  131.18  131.18  125.35  109.32  115.73  100.21   83.45    84.6   61.11   53.73
 97          UI   44.85   48.84   29.87   26.57   24.15   19.29   18.35   14.26   14.26   11.63
 98          UI    8.86    8.86    8.86    7.85    1.95    1.95    1.95    1.95    1.95    1.95
 99          UI    1.95    1.95    1.95    1.95    1.95    1.95    1.95    1.95    1.95    1.95
100          UI    1.95    1.95    1.95     0.0

101          KK   85B-O
102          KO       0        0     0.0       0      22
103          DT  85Bret    35.0     0.0
104          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
105          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
106          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
107          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

108          KK     F7B   CNAME  F7B-F8
109          KM   COMBINE ROUTED HYDROGRAPH FROM F6BS WITH RUNOFF FROM 85B @ F7B
110          KO       0        0     0.0       0      22
111          HC       2

112          KK  F7B-F8   CNAME     F7B
113          KM   ROUTE HYDRPGRAPH FROM F7B TO F8 (CHANNEL A)
114          KO       0        0     0.0       0      22
115          RS      13     FLOW     0.0     0.0
116          RC     0.1      0.1     0.1 6483.88   0.006     0.0
117          RX     0.0    250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
118          RY    10.0      7.5     5.0     2.5     0.0     3.3     6.6    10.0

119          KK   BICG
120          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
121          BA    0.01
122          ZR  =QI A=BIC BIC B=21999 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06F

123          KK  G8S-G9   CNAME     G8S
124          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT G8S TO G9 (CHANNEL A)
125          KO       0        0     0.0       0      22
126          RS       1     FLOW     0.0     0.0
127          RC     0.1      0.1     0.1 5481.53   0.005     0.0
128          RX     0.0    250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
1                                          HEC-1 INPUT                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

129          RY    10.0      7.5     5.0     2.5     0.0     3.3     6.6    10.0

130          KK      86
131          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
132          KM   L=1.09      Lca=0.54      S=25.78      Kn=0.200      LAG=127
133          KM   S-GRAPH TYPE=AGRICULTURE
134          KO       0        0     0.0       0      22
135          BA  0.4398
136          LG     0.3    0.15   7.988   0.083     5.0
137          UI     0.0   12.77   15.89   33.53   68.33   74.26   98.27  107.27  107.27   97.74
138          UI   93.18   80.08   72.45   51.51   42.18   37.93    27.0   20.95   16.68   14.24
139          UI   11.66    9.78    7.25    7.25    5.59     1.6     1.6     1.6     1.6     1.6
140          UI     1.6     1.6     1.6     1.6     1.6     1.6     1.6     1.6     0.0
```

```
141          KK    86-O
142          KO       0       0     0.0       0      22
143          DT   86ret     4.0     0.0
144          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
145          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
146          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
147          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

148          KK      G9   CNAME   G9-F8
149          KM   COMBINE ROUTED HYDROGRAPH FROM G8S WITH RUNOFF FROM 86 @ G9
150          KO       0       0     0.0       0      22
151          HC       2

152          KK   G9-F8   CNAME      G9
153          KM   ROUTE HYDROGRAPH FROM G9 TO F8 (CHANNEL A)
154          KO       0       0     0.0       0      22
155          RS      13    FLOW     0.0     0.0
156          RC     0.1     0.1     0.1 9228.08   0.004     0.0
157          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
158          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

159          KK  BICFA
160          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
161          BA  0.0001
162          ZR  =QI A=BIC BIC B=11199 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06F

163          KK  F6AS7A   CNAME    F6AS
164          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT F6AS TO F7A (CHANNEL A)
165          KO       0       0     0.0       0      22
166          RS       1    FLOW     0.0     0.0
167          RC     0.1     0.1     0.1  2921.0   0.011     0.0
168          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
169          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

170          KK     85A
171          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
172          KM   L=0.84     Lca=0.42     S=37.89     Kn=0.200     LAG=98
173          KM   S-GRAPH TYPE=AGRICULTURE
174          KO       0       0     0.0       0      22
175          BA  0.2163
176          LG     0.1    0.15   7.439   0.161     5.0
1                                        HEC-1 INPUT                                                    PAGE  5

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

177          UI     0.0    8.14   13.77   37.36   49.55   65.58   68.39   63.07   60.31   44.52
178          UI   37.27   26.22   22.07   14.14   10.87    8.41    7.09    4.62    4.62    2.07
179          UI    1.02    1.02    1.02    1.02    1.02    1.02    1.02    1.02    1.02    1.02
180          UI     0.0

181          KK   85A-O
182          KO       0       0     0.0       0      22
183          DT  85Aret    10.0     0.0
184          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
185          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
186          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
187          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

188          KK     F7A   CNAME  F7A-F8
189          KM   COMBINE ROUTED HYDROGRAPH FROM F6AS WITH RUNOFF FROM 85A @ F7A
190          KO       0       0     0.0       0      22
191          HC       2

192          KK  F7A-F8   CNAME     F7A
193          KM   ROUTE HYDROGRAPH FROM F7A TO F8 (CHANNEL A)
194          KO       0       0     0.0       0      22
195          RS      17    FLOW     0.0     0.0
196          RC     0.1     0.1     0.110377.67   0.006     0.0
197          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
198          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

199          KK     105
200          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
201          KM   L=1.94     Lca=0.97     S=18.59     Kn=0.200     LAG=210
202          KM   S-GRAPH TYPE=AGRICULTURE
203          KO       0       0     0.0       1      22
204          BA  0.9967
205          LG     0.3    0.15   8.482    0.07     5.0
206          UI     0.0    17.5    17.5   18.66   36.76   52.93   86.38  104.76   96.79  138.98
207          UI  128.13  147.03  147.03  147.03  147.03  122.52  122.52  134.29  104.02   92.91
208          UI  101.53   70.71   66.83   54.23   49.36   55.42    34.8   31.36   28.27   24.42
209          UI   21.62   20.49   15.98   15.98   15.98   10.06    9.93    9.93    9.93    9.93
210          UI    3.74    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19
211          UI    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19
212          UI    2.19    2.19    2.19     0.0

213          KK   105-O
214          KO       0       0     0.0       0      22
215          DT  105ret    55.0     0.0
216          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
217          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
218          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
219          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

220          KK     104
221          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
222          KM   L=1.95     Lca=0.98     S=13.83     Kn=0.200     LAG=223
223          KM   S-GRAPH TYPE=AGRICULTURE
224          KO       0       0     0.0       1      22
225          BA  1.0120
1                                        HEC-1 INPUT                                                    PAGE  6

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

226          LG   0.146   0.174   6.763   0.182     5.0
227          UI     0.0   16.74   16.74   16.74    32.9   44.31    73.2   96.94   91.85  107.62
228          UI  126.44  139.17  140.58  140.58  140.58  137.46  117.15  117.15  127.87  102.94
229          UI   87.86   99.21   73.02    63.9   56.91   48.63   49.42   45.47   31.95   28.25
230          UI   27.03   21.81   20.67   19.09   15.28   15.28   15.28   10.23     9.5     9.5
231          UI     9.5     9.5    6.73    2.09    2.09    2.09    2.09    2.09    2.09    2.09
232          UI    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09
233          UI    2.09    2.09    2.09    2.09    2.09    2.09    2.09     0.0
```

```
 234          KK   104-O
 235          KO       0       0     0.0       0      22
 236          DT  104ret    50.0     0.0
 237          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 238          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 239          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 240          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 241          KK      P8
 242          KM   COMBINE ROUTED HYDROGRAPH FROM G9, F7A, AND F7B WITH RUNOFF FROM 104 AND 105
 243          KO       0       0     0.0       0      22
 244          HC       5
              * ***********************************************************************
              * **   SUB-WATERSHED H   ***********************************************
              * ***********************************************************************

 245          KK   BICH
 246          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 247          BA    0.01
 248          ZR  =QI A=BIC BIC B=24799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06F

 249          KK  H7S-H8   CNAME     H7S
 250          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT H7S TO H8 (CHANNEL A)
 251          KO       0       0     0.0       0      22
 252          RS       1    FLOW     0.0     0.0
 253          RC     0.1     0.1     0.1 9426.94   0.004     0.0
 254          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 255          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 256          KK      87
 257          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 258          KM   L=1.87     Lca=0.93     S=22.48     Kn=0.200     LAG=197
 259          KM   S-GRAPH TYPE=AGRICULTURE
 260          KO       0       0     0.0       0      22
 261          BA  0.9127
 262          LG     0.3   0.143   9.843   0.045     5.0
 263          UI     0.0   17.08   17.08   21.63   35.88    62.3   92.38   98.78  108.99  130.67
 264          UI  143.51  143.51  143.51  143.51  122.78  119.59  131.61   97.98   92.38   92.49
 265          UI   67.23   61.75   50.13   50.38    44.1   32.38    27.6   25.39    21.1   20.52
 266          UI    15.6    15.6   15.09     9.7     9.7     9.7     9.7    7.98    2.14    2.14
 267          UI    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14
 268          UI    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14     0.0
1                                          HEC-1 INPUT                                          PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 269          KK    87-O
 270          KO       0       0     0.0       0      22
 271          DT   87ret    45.0     0.0
 272          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 273          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 274          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 275          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 276          KK      H8   CNAME   H8-H9
 277          KM   COMBINE ROUTED HYDROGRAPH FROM H7S WITH RUNOFF FROM 87 @ H8
 278          KO       0       0     0.0       0      22
 279          HC       2

 280          KK   H8-H9   CNAME      H8
 281          KM   ROUTE HYDRPGRAPH FROM H8 TO H9 (CHANNEL A)
 282          KO       0       0     0.0       0      22
 283          RS      10    FLOW     0.0     0.0
 284          RC     0.1     0.1     0.1 5170.32   0.005     0.0
 285          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 286          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 287          KK     106
 288          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 289          KM   L=2.21     Lca=1.11     S=20.78     Kn=0.200     LAG=227
 290          KM   S-GRAPH TYPE=AGRICULTURE
 291          KO       0       0     0.0       1      22
 292          BA  1.2094
 293          LG   0.244    0.15   7.622   0.112     5.0
 294          UI     0.0   19.65   19.65   19.65   37.41   49.75   82.54  109.68  112.23  121.21
 295          UI  152.16   154.9  165.04  165.04  165.04  165.04   141.2  137.53  147.94  134.67
 296          UI  103.15  109.85  101.52   76.86   73.58   58.83   55.01   62.59   39.81   36.09
 297          UI   31.74   29.65   24.27   24.27    19.8   17.94   17.94   16.41   11.15   11.15
 298          UI   11.15   11.15   11.15     5.7    2.46    2.46    2.46    2.46    2.46    2.46
 299          UI    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46
 300          UI    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46     0.0

 301          KK   106-O
 302          KO       0       0     0.0       0      22
 303          DT  106ret    60.0     0.0
 304          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 305          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 306          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 307          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 308          KK      H9
 309          KM   COMBINE ROUTED HYDROGRAPH FROM H8 WITH RUNOFF FROM 106 @ H9
 310          KO       0       0     0.0       0      22
 311          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED J AND I   *****************************************
              * ***********************************************************************
1                                          HEC-1 INPUT                                          PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 312          KK   BICJ
 313          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 314          BA    0.01
 315          ZR  =QI A=BIC BIC B=36399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06F

 316          KK  J6S-J7   CNAME     J6S
 317          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT J6S TO J7 (CHANNEL A)
 318          KO       0       0     0.0       0      22
 319          RS       1    FLOW     0.0     0.0
 320          RC     0.1     0.1     0.1 7531.83   0.005     0.0
 321          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
```

```
 322          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 323          KK      89
 324          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 325          KM   L=1.79     Lca=0.90     S=21.20     Kn=0.200     LAG=193
 326          KM   S-GRAPH TYPE=AGRICULTURE
 327          KO       0       0     0.0       0      22
 328          BA  0.9629
 329          LG    0.25   0.145   9.804   0.054    45.0
 330          UI     0.0    18.4    18.4   24.43   38.93    72.1  103.35  102.26  123.64  143.73
 331          UI  154.55  154.55  154.55  151.11  128.79  134.03  134.52   96.59  104.41   86.51
 332          UI   70.25   60.15   52.36    57.9   35.89   32.13   29.72   23.56   22.73   18.62
 333          UI    16.8    16.8   12.13   10.44   10.44   10.44   10.44    2.52     2.3     2.3
 334          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
 335          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     0.0

 336          KK    89-O
 337          KO       0       0     0.0       0      22
 338          DT   89ret    30.0     0.0
 339          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 340          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 341          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 342          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 343          KK      J7   CNAME   J7-J8
 344          KO       0       0     0.0       0      22
 345          HC       2

 346          KK   J7-J8   CNAME      J7
 347          KM   ROUTE HYDRPGRAPH FROM J7 TO J8 (CHANNEL Outlet to Gila)
 348          KO       0       0     0.0       0      22
 349          RS       8    FLOW     0.0     0.0
 350          RC   0.035    0.05   0.035  6030.2   0.005     0.0
 351          RX     0.0     5.0    15.0    25.0    45.0    55.0    65.0    70.0
 352          RY    12.0    12.0     6.0     0.0     0.0     6.0    12.0    12.0

 353          KK   BICI
 354          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 355          BA    0.01
 356          ZR   =QI A=BIC BIC B=33399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06F
1                                          HEC-1 INPUT                                                    PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 357          KK  I6S-I7   CNAME     I6S
 358          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT I6S TO I7 (CHANNEL A)
 359          KO       0       0     0.0       0      22
 360          RS       1    FLOW     0.0     0.0
 361          RC     0.1     0.1     0.1 5514.43   0.006     0.0
 362          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 363          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 364          KK      88
 365          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 366          KM   L=1.66     Lca=0.83     S=19.29     Kn=0.200     LAG=185
 367          KM   S-GRAPH TYPE=AGRICULTURE
 368          KO       0       0     0.0       0      22
 369          BA  0.7650
 370          LG     0.3   0.143   9.838   0.045     5.0
 371          UI     0.0   15.25   15.25   22.13    35.8   65.03   89.94   82.55  118.29   116.2
 372          UI   128.1   128.1   128.1  113.86  106.75  116.28   88.23   83.17   79.03   58.98
 373          UI   51.82   43.77   47.46   30.66   26.58   24.63   19.05   18.84   14.58   13.92
 374          UI   13.77    8.66    8.66    8.66    8.66    5.51    1.91    1.91    1.91    1.91
 375          UI    1.91    1.91    1.91    1.91    1.91    1.91    1.91    1.91    1.91    1.91
 376          UI    1.91    1.91    1.91    1.91    1.91    1.91     0.0

 377          KK    88-O
 378          KO       0       0     0.0       0      22
 379          DT   88ret    40.0     0.0
 380          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 381          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 382          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 383          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 384          KK      I7   CNAME   I7-I8
 385          KM   COMBINE ROUTED HYDROGRAPH FROM I6S WITH RUNOFF FROM 88 @ I7
 386          KO       0       0     0.0       0      22
 387          HC       2

 388          KK   I7-I8   CNAME      I7
 389          KM   ROUTE HYDRPGRAPH FROM I7 TO I8 (CHANNEL A)
 390          KO       0       0     0.0       0      22
 391          RS       6    FLOW     0.0     0.0
 392          RC     0.1     0.1     0.1 2738.75   0.011     0.0
 393          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 394          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 395          KK     102
 396          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 397          KM   L=1.48     Lca=0.74     S=25.68     Kn=0.200     LAG=161
 398          KM   S-GRAPH TYPE=AGRICULTURE
 399          KO       0       0     0.0       1      22
 400          BA  0.5197
 401          LG     0.3    0.15   8.585   0.068     5.0
 402          UI     0.0    11.9    11.9   21.67   36.81   66.04   65.67    90.5    93.0   100.0
 403          UI   100.0   95.56   83.33   88.91   70.08   66.55   54.67   45.05   35.02   35.82
 404          UI   26.07   20.61   18.27   14.71   13.22   10.87   10.87    7.09    6.76    6.76
 405          UI    6.76    1.77    1.49    1.49    1.49    1.49    1.49    1.49    1.49    1.49
1                                          HEC-1 INPUT                                                    PAGE 10

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 406          UI    1.49    1.49    1.49    1.49    1.49    1.49    1.49    1.49    1.49     0.0

 407          KK   102-O
 408          KO       0       0     0.0       0      22
 409          DT  102ret    28.0     0.0
 410          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 411          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 412          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 413          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 414          KK      I8   CNAME   I8-J8
```

```
415          KM   COMBINE ROUTED HYDROGRAPH FROM I7 WITH RUNOFF FROM 102 @ I8
416          KO       0       0     0.0       0      22
417          HC       2

418          KK   I8-J8   CNAME      I8
419          KM   ROUTE HYDRPGRAPH FROM I8 TO J8 (CHANNEL Outlet to Gila)
420          KO       0       0     0.0       0      22
421          RS       2    FLOW     0.0     0.0
422          RC   0.035    0.05   0.035 1438.31   0.002     0.0
423          RX     0.0     5.0    15.0    25.0    45.0    55.0    65.0    70.0
424          RY    12.0    12.0     6.0     0.0     0.0     6.0    12.0    12.0

425          KK     103
426          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
427          KM   L=1.14     Lca=0.57     S=22.77     Kn=0.200     LAG=135
428          KM   S-GRAPH TYPE=AGRICULTURE
429          KO       0       0     0.0       1      22
430          BA  0.5071
431          LG    0.25   0.209    6.41   0.187    45.0
432          UI     0.0   13.85   15.53   33.16   64.73   79.27   101.4  113.87  116.37  116.37
433          UI   96.97  104.34   75.78   76.07   54.11   43.64   41.62   28.46   22.78   18.53
434          UI   16.22   12.65   12.03    7.86    7.86    7.86    2.96    1.73    1.73    1.73
435          UI    1.73    1.73    1.73    1.73    1.73    1.73    1.73    1.73    1.73    1.73
436          UI    1.73     0.0

437          KK   103-O
438          KO       0       0     0.0       0      22
439          DT  103ret    41.0     0.0
440          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
441          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
442          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
443          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

444          KK      J8
445          KM   COMBINE ROUTED HYDROGRAPH FROM I8 AND J7 WITH RUNOFF FROM 103 @ J8
446          KO       0       0     0.0       0      22
447          HC       3

448          KK     107
449          KO       0       0     0.0       1      22
450          BA  0.4835
451          LG   0.202   0.179   6.711   0.177     5.0
452          UI     0.0   14.27   18.19   38.28   79.06   83.22  111.51  119.83  119.83  106.52
453          UI  104.02    85.3   78.64   55.83   44.03   42.21   26.54   22.59   17.62   14.56
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

454          UI   13.03    9.33     8.1     8.1    3.89    1.78    1.78    1.78    1.78    1.78
455          UI    1.78    1.78    1.78    1.78    1.78    1.78    1.78    1.78     0.0

456          KK   107-O
457          KO       0       0     0.0       0      22
458          DT  107ret    26.0     0.0
459          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
460          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
461          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
462          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
463          ZZ
```

RUNOFF SUMMARY

FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	BICE	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	E2S-E3	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	84	278.	7.00	185.	53.	18.	0.88		
+	DIVERSION TO	84ret	278.	7.00	91.	23.	8.	0.88		
+	HYDROGRAPH AT	84-O	256.	7.50	115.	31.	10.	0.88		
+	2 COMBINED AT	E3	256.	7.50	115.	31.	10.	0.88		
+	HYDROGRAPH AT	BICFB	185.	13.75	135.	36.	12.	0.01		
+	ROUTED TO	F6BS7B	169.	14.50	126.	36.	12.	0.01		
+	HYDROGRAPH AT	85B	232.	6.50	132.	36.	12.	0.75		
+	DIVERSION TO	85Bret	232.	6.50	71.	18.	6.	0.75		
+	HYDROGRAPH AT	85B-O	199.	7.25	70.	18.	6.	0.75		
+	2 COMBINED AT	F7B	199.	7.25	129.	54.	18.	0.76		
+	ROUTED TO	F7B-F8	169.	16.25	125.	54.	18.	0.76		
+	HYDROGRAPH AT	BICG	50.	14.50	28.	7.	2.	0.01		
+	ROUTED TO	G8S-G9	31.	16.25	22.	7.	2.	0.01		
+	HYDROGRAPH AT	86	232.	5.75	102.	26.	9.	0.44		

+	DIVERSION TO	86ret	92.	4.75	8.	2.	1.	0.44
+	HYDROGRAPH AT	86-O	232.	5.75	95.	24.	8.	0.44
+	2 COMBINED AT	G9	232.	5.75	95.	31.	10.	0.45
+	ROUTED TO	G9-F8	173.	8.75	87.	31.	10.	0.45
+	HYDROGRAPH AT	BICFA	0.	0.00	0.	0.	0.	0.00
+	ROUTED TO	F6AS7A	0.	0.00	0.	0.	0.	0.00
+	HYDROGRAPH AT	85A	140.	5.50	49.	12.	4.	0.22
+	DIVERSION TO	85Aret	136.	5.25	20.	5.	2.	0.22
+	HYDROGRAPH AT	85A-O	130.	5.75	29.	7.	2.	0.22
+	2 COMBINED AT	F7A	130.	5.75	29.	7.	2.	0.22
+	ROUTED TO	F7A-F8	58.	9.75	27.	7.	2.	0.22
+	HYDROGRAPH AT	105	321.	7.00	207.	59.	20.	1.00
+	DIVERSION TO	105ret	321.	7.00	111.	28.	9.	1.00
+	HYDROGRAPH AT	105-O	280.	7.75	119.	31.	10.	1.00
+	HYDROGRAPH AT	104	269.	7.25	181.	53.	18.	1.01
+	DIVERSION TO	104ret	269.	7.25	101.	25.	8.	1.01
+	HYDROGRAPH AT	104-O	231.	8.00	102.	27.	9.	1.01
+	5 COMBINED AT	F8	576.	8.25	339.	136.	46.	3.43
+	HYDROGRAPH AT	BICH	0.	0.00	0.	0.	0.	0.01
+	ROUTED TO	H7S-H8	0.	0.00	0.	0.	0.	0.01
+	HYDROGRAPH AT	87	327.	6.75	203.	57.	19.	0.91
+	DIVERSION TO	87ret	327.	6.75	91.	23.	8.	0.91
+	HYDROGRAPH AT	87-O	315.	7.25	130.	34.	11.	0.91
+	2 COMBINED AT	H8	315.	7.25	130.	34.	11.	0.92
+	ROUTED TO	H8-H9	269.	9.00	123.	34.	11.	0.92
+	HYDROGRAPH AT	106	341.	7.25	231.	68.	23.	1.21
+	DIVERSION TO	106ret	341.	7.25	121.	30.	10.	1.21
+	HYDROGRAPH AT	106-O	331.	8.00	139.	37.	12.	1.21
+	2 COMBINED AT	H9	482.	8.75	247.	68.	23.	2.13
+	HYDROGRAPH AT	BICJ	224.	12.75	186.	81.	32.	0.01
+	ROUTED TO	J6S-J7	186.	14.25	164.	80.	32.	0.01
+	HYDROGRAPH AT	89	393.	6.75	245.	70.	23.	0.96
+	DIVERSION TO	89ret	393.	6.75	161.	40.	13.	0.96
+	HYDROGRAPH AT	89-O	322.	7.75	113.	29.	10.	0.96
+	2 COMBINED AT	J7	326.	7.75	191.	109.	42.	0.97
+	ROUTED TO	J7-J8	346.	8.50	188.	108.	42.	0.97
+	HYDROGRAPH AT	BICI	90.	14.25	74.	22.	7.	0.01
+	ROUTED TO	I6S-I7	74.	16.50	63.	22.	7.	0.01

```
          HYDROGRAPH AT
+                    88      292.   6.75        174.        48.        16.      0.76
          DIVERSION TO
+                 88ret      291.   6.50         81.        20.         7.      0.76
          HYDROGRAPH AT
+                  88-O      281.   7.00        106.        28.         9.      0.76
          2 COMBINED AT
+                    I7      281.   7.00        107.        50.        17.      0.77
          ROUTED TO
+                 I7-I8      266.   7.75        105.        50.        17.      0.77
          HYDROGRAPH AT
+                   102      222.   6.25        118.        32.        11.      0.52
          DIVERSION TO
+                102ret      222.   6.25         56.        14.         5.      0.52
          HYDROGRAPH AT
+                 102-O      209.   6.75         68.        17.         6.      0.52
          2 COMBINED AT
+                    I8      386.   7.75        163.        65.        22.      1.29
          ROUTED TO
+                 I8-J8      391.   8.00        162.        65.        22.      1.29
          HYDROGRAPH AT
+                   103      267.   6.00        128.        34.        11.      0.51
          DIVERSION TO
+                103ret      267.   6.00         83.        21.         7.      0.51
          HYDROGRAPH AT
+                 103-O      198.   6.75         53.        13.         4.      0.51
          3 COMBINED AT
+                    J8      682.   8.50        342.       180.        66.      2.77
          HYDROGRAPH AT
+                   107      237.   5.75        102.        26.         9.      0.48
          DIVERSION TO
+                107ret      237.   5.75         52.        13.         4.      0.48
          HYDROGRAPH AT
+                 107-O      200.   6.50         52.        13.         4.      0.48
```

```
1*************************************
 *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
 *          JUN   1998               *
 *        VERSION 4.1                *
 *                                   *
 *  RUN DATE   23MAR06  TIME  05:04:41  *
 *                                   *
 *************************************
```

```
*************************************
*                                   *
*    U.S. ARMY CORPS OF ENGINEERS   *
*    HYDROLOGIC ENGINEERING CENTER  *
*          609 SECOND STREET        *
*       DAVIS, CALIFORNIA 95616     *
*           (916) 756-1104          *
*                                   *
*************************************
```

```
X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X               X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X               X
X     X  X        X     X         X
X     X  XXXXXXX   XXXXX         XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

```
1                                          HEC-1 INPUT                                                    PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

             1          ID   Buckeye/Sun Valley ADMS - November 2004
             2          ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
             3          ID   100-year 6-hour
             4          ID   Future Conditions
             5          ID   Area 1 - BIC to Gila (East)
             6          ID   File Name: bge1006fut.hc1
             7          ID   Rainfall Loss Method - Green & Ampt
             8          ID   Unit Hydrograph Method - FCDMC S-Graph
             9          ID   Channel Routing Method - Normal Depth
            10          ID   Land Use - FCDMC GIS Data: mag_genplan (2000)
            11          ID   Future Land Use Build Out Date: 2025
            12          ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
            13          ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                        *DIAGRAM
            14          IT       15 02JAN94       0     400
            15          IO        3
            16          IN       15 02JAN94       0
            17          JD      3.3     0.01
                        * 6-hour distribution, pattern 1.0
            18          PC      0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
            19          PC    0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
            20          PC    0.962   0.972   0.983   0.991     1.0
            21          IN       15 02JAN94       0
```

```
 22          JD    3.28      0.5
             * 6-hour distribution, pattern 1.0
 23          PC     0.0   0.008   0.016   0.025   0.033   0.041    0.05   0.058   0.066   0.074
 24          PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931    0.95
 25          PC   0.962   0.972   0.983   0.991     1.0
 26          IN      15 02JAN94       0
 27          JD   3.257     1.0
             * 6-hour distribution, pattern 1.4
 28          PC     0.0  0.0084   0.016   0.025  0.0334  0.0414  0.0504  0.0584  0.0664  0.0748
 29          PC   0.087  0.0994  0.1188   0.148  0.2304  0.4067  0.7778  0.8813  0.9186  0.9452
 30          PC  0.9572  0.9684  0.9798  0.9898     1.0
 31          IN      15 02JAN94       0
 32          JD   3.168     5.0
             * 6-hour distribution, pattern 2.3
 33          PC     0.0   0.011  0.0173  0.0267  0.0387   0.049  0.0593  0.0693  0.0797  0.0903
 34          PC   0.103  0.1173  0.1383  0.1827  0.2693   0.458   0.686  0.8233  0.8893  0.9293
 35          PC  0.9487   0.962  0.9743  0.9877     1.0
 36          IN      15 02JAN94       0
 37          JD   3.102    10.0
             * 6-hour distribution, pattern 2.7
 38          PC     0.0  0.0134  0.0189  0.0287  0.0443  0.0574  0.0694  0.0818  0.0949  0.1076
 39          PC  0.1223  0.1382  0.1604  0.2063  0.2902  0.4664  0.6764  0.8069  0.8765  0.9189
 40          PC  0.9471  0.9608  0.9735  0.9873     1.0
             * ***********************************************************************************
             * **   SUB-WATERSHED M   ***********************************************************
             * ***********************************************************************************
1                                          HEC-1 INPUT                                          PAGE  2

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 41          KK    BICM
 42          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 43          BA   0.001
 44          ZR  =QI A=BIC BIC B=52599 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06F

 45          KK  M4S6TH   CNAME     M4S
 46          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT M4S TO 6TH (CHANNEL M4S-6TH)
 47          KO       0       0     0.0       0      22
 48          RS       1    FLOW     0.0     0.0
 49          RC    0.05   0.015    0.05  1950.0   0.008     0.0
 50          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 51          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 52          KK     4th
 53          KM   THE POLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 54          KM   L=0.52     Lca=0.40     S=0.01     Kn=0.011     LAG=24
 55          KM   S-GRAPH TYPE=PHOENIX VALLEY
 56          KO       0       0     0.0       1      22
 57          BA  0.0819
 58          LG   0.159    0.25   5.145   0.347  59.505
 59          UI     0.0   39.02  109.68   50.31    9.67     0.0

 60          KK   TO6th
 61          KM   HYDRPGRAPH DIVERTED TO 4THS
 62          KO       0       0     0.0       0      22
 63          DT  TO4THS     0.0     0.0
 64          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 65          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 66          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 67          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

 68          KK  4TH6TH   CNAME    4thA
 69          KM   ROUTE HYDRPGRAPH FROM 4TH CONCENTRATED AT 4THA TO 6TH (CHANNEL 4TH6TH)
 70          KO       0       0     0.0       0      22
 71          RS       1    FLOW     0.0     0.0
 72          RC    0.05   0.015    0.05  900.28   0.002     0.0
 73          RX     0.0   100.0   100.0  127.49  127.51   155.0   155.0   255.0
 74          RY     2.0     0.5     0.0    0.55    0.55     0.0     0.5     2.0

 75          KK     6th
 76          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 77          KM   L=0.46     Lca=0.17     S=0.01     Kn=0.011     LAG=17
 78          KM   S-GRAPH TYPE=PHOENIX VALLEY
 79          KO       0       0     0.0       1      22
 80          BA  0.0571
 81          LG   0.208    0.15   7.572   0.123  43.141
 82          UI     0.0   54.83   81.61    9.82     0.0

 83          KK    6thA   CNAME  6TH8TH
 84          KM   COMBINE ROUTED HYDROGRAPH FROM 4THA WITH RUNOFF FROM 6TH @ 6THA
 85          KO       0       0     0.0       0      22
 86          HC       3
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 87          KK   TO8TH
 88          KM   HYDRPGRAPH DIVERTED TO 7THS
 89          KO       0       0     0.0       0      22
 90          DT  TO7THS     0.0     0.0
 91          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 92          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 93          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 94          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

 95          KK  6TH8TH   CNAME    6thA
 96          KM   ROUTE HYDRPGRAPH FROM 6THA TO 8TH (CHANNEL 6TH8TH)
 97          KO       0       0     0.0       0      22
 98          RS       1    FLOW     0.0     0.0
 99          RC    0.05   0.015    0.05 1120.51   0.002     0.0
100          RX     0.0   100.0   100.0  127.49  127.51   155.0   155.0   255.0
101          RY     2.0     0.5     0.0    0.55    0.55     0.0     0.5     2.0

102          KK     8th
103          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
104          KM   L=0.60     Lca=0.31     S=0.01     Kn=0.011     LAG=23
105          KM   S-GRAPH TYPE=PHOENIX VALLEY
106          KO       0       0     0.0       1      22
107          BA  0.0793
108          LG   0.235    0.15    8.77   0.075    35.0
109          UI     0.0   41.0  110.28   43.97    7.58     0.0
```

```
 110          KK    8thA   CNAME  8TH9TH
 111          KM   COMBINE ROUTED HYDROGRAPH FROM 6THA WITH RUNOFF FROM 8TH @ 8THA
 112          KO       0       0     0.0       0      22
 113          HC       2

 114          KK   TO9TH
 115          KM   HYDRPGRAPH DIVERTED TO CENTRA
 116          KO       0       0     0.0       0      22
 117          DT  TOCEN1     0.0     0.0
 118          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 119          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 120          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 121          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

 122          KK  8TH9TH   CNAME    8thA
 123          KM   ROUTE HYDRPGRAPH FROM 8THA TO 9TH (CHANNEL 8TH9TH)
 124          KO       0       0     0.0       0      22
 125          RS       1    FLOW     0.0     0.0
 126          RC    0.05   0.015    0.05  702.41   0.002     0.0
 127          RX     0.0   100.0   100.0  127.49  127.51   155.0   155.0   255.0
 128          RY     2.0     0.5     0.0    0.55    0.55     0.0     0.5     2.0

 129          KK    9thE
 130          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 131          KM   L=0.77     Lca=0.39     S=0.00     Kn=0.011     LAG=29
 132          KM   S-GRAPH TYPE=PHOENIX VALLEY
 133          KO       0       0     0.0       1      22
 134          BA  0.0947
1                                        HEC-1 INPUT                                                    PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 135          LG   0.151    0.15   8.731   0.088  31.799
 136          UI     0.0   31.39   99.09    80.3   25.22    5.83     0.0

 137          KK    9thW
 138          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 139          KM   L=0.54     Lca=0.32     S=0.01     Kn=0.011     LAG=22
 140          KM   S-GRAPH TYPE=PHOENIX VALLEY
 141          KO       0       0     0.0       1      22
 142          BA  0.0813
 143          LG   0.143    0.15    8.42   0.105   14.13
 144          UI     0.0   45.77  116.37   40.05    6.23     0.0

 145          KK     9th
 146          KM   COMBINE ROUTED HYDROGRAPH FROM 8THA WITH RUNOFF FROM 9THE AND 9THW @ 9TH
 147          KO       0       0     0.0       0      22
 148          HC       3

 149          KK   TODET
 150          KM   HYDRPGRAPH DIVERTED TO CENTRA
 151          KO       0       0     0.0       0      22
 152          DT  TOCEN2     0.0     0.0
 153          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 154          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 155          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 156          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
              * ***********************************************************************
              * **   SUB-WATERSHED N-A   (DRAINS INTO SUB-WATERSHED M) **********************
              * ***********************************************************************

 157          KK    BICN
 158          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 159          BA   0.001
 160          ZR  =QI A=BIC BIC B=58999 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06F

 161          KK   N6S-D   CNAME     N6S
 162          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT N6S TO DRAINA (CHANNEL A)
 163          KO       0       0     0.0       0      22
 164          RS       1    FLOW     0.0     0.0
 165          RC     0.1     0.1     0.1 12189.0   0.003     0.0
 166          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 167          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
              * ***********************************************************************
              * **   SUB-WATERSHED O (DRAINS INTO SUB-WATERSHED M) **************************
              * ***********************************************************************

 168          KK    BICO
 169          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 170          BA   0.001
 171          ZR  =QI A=BIC BIC B=63799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06F
1                                        HEC-1 INPUT                                                    PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 172          KK   O8SO9   CNAME     O8S
 173          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT O8S TO O9 (CHANNEL A)
 174          KO       0       0     0.0       0      22
 175          RS       1    FLOW     0.0     0.0
 176          RC     0.1     0.1     0.1  6048.0   0.004     0.0
 177          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 178          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 179          KK      93
 180          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 181          KM   L=1.21     Lca=0.60     S=17.39     Kn=0.200     LAG=148
 182          KM   S-GRAPH TYPE=AGRICULTURE
 183          KO       0       0     0.0       1      22
 184          BA  0.3774
 185          LG    0.26    0.25   4.879   0.323  31.085
 186          UI     0.0     9.4     9.4    19.0   37.89   54.24   57.18   73.55   78.99   78.99
 187          UI   77.24   65.83   70.53    53.4   54.15   37.91   32.75   26.86   26.09   17.25
 188          UI   15.19   11.72   10.73    8.59    8.51    5.34    5.34    5.34    3.78    1.18
 189          UI    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18
 190          UI    1.18    1.18    1.18    1.18    1.18     0.0

 191          KK    93-O
 192          KO       0       0     0.0       0      22
 193          DT   93ret    26.0     0.0
 194          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 195          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 196          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 197          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
```

```
 198          KK      09   CNAME   09010
 199          KM   COMBINE ROUTED HYDROGRAPH FROM 09 WITH RUNOFF FROM 93 @ 010
 200          KO       0       0     0.0       0      22
 201          HC       2

 202          KK   09010   CNAME      09
 203          KM   ROUTE HYDRPGRAPH FROM 09 TO 010 (CHANNEL A)
 204          KO       0       0     0.0       0      22
 205          RS      26    FLOW     0.0     0.0
 206          RC     0.1     0.1     0.1 8757.67   0.001     0.0
 207          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 208          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 209          KK      95
 210          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 211          KM   L=1.66     Lca=0.83     S=7.84     Kn=0.200     LAG=220
 212          KM   S-GRAPH TYPE=AGRICULTURE
 213          KO       0       0     0.0       1      22
 214          BA  0.5221
 215          LG    0.25    0.15     8.2   0.093  36.112
 216          UI     0.0    8.75    8.75    8.75   17.61   23.93   39.41   52.07   46.56    58.0
 217          UI   66.98   73.51   73.51   73.51   73.51   69.43   61.26    62.9   68.12   47.05
 218          UI   46.97   50.07   35.29   33.42    27.5   24.86   27.14   19.64   16.37   14.14
 219          UI   13.38   10.81   10.81    8.74    7.99    7.99     6.9    4.97    4.97    4.97
 220          UI    4.97    4.97    1.35    1.09    1.09    1.09    1.09    1.09    1.09    1.09
1                                          HEC-1 INPUT                                          PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 221          UI    1.09    1.09    1.09    1.09    1.09    1.09    1.09    1.09    1.09    1.09
 222          UI    1.09    1.09    1.09    1.09    1.09    1.09     0.0

 223          KK    95-O
 224          KO       0       0     0.0       0      22
 225          DT   95ret    42.0     0.0
 226          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 227          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 228          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 229          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 230          KK     010   CNAME   010DR
 231          KM   COMBINE ROUTED HYDROGRAPH FROM 09 WITH RUNOFF FROM 95 @ 010
 232          KO       0       0     0.0       0      22
 233          HC       2

 234          KK   TODRN
 235          KM   HYDRPGRAPH DIVERTED TO P9
 236          KO       0       0     0.0       0      22
 237          DT    TOP9     0.0     0.0
 238          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 239          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 240          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 241          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

 242          KK  010DRN   CNAME     010
 243          KM   ROUTE HYDRPGRAPH FROM 010 TO DRAINA (CHANNEL A)
 244          KO       0       0     0.0       0      22
 245          RS      26    FLOW     0.0     0.0
 246          RC     0.1     0.1     0.1 5733.05  0.0003     0.0
 247          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 248          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 249          KK  CENTRE
 250          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 251          KM   L=0.40     Lca=0.23     S=0.01     Kn=0.011     LAG=18
 252          KM   S-GRAPH TYPE=PHOENIX VALLEY
 253          KO       0       0     0.0       1      22
 254          BA  0.0692
 255          LG   0.246   0.153   6.965   0.148   31.22
 256          UI     0.0   58.22  103.23   15.09     0.0

 257          KK  FRM9TH
 258          KM   RETRIEVE HYDROGRAPH FROM 9TH
 259          KO       0       0     0.0       0      22
 260          DR  TOCEN2

 261          KK  9THCEN   CNAME
 262          KM   ROUTE HYDRPGRAPH FROM 9TH TO CENTRA (CHANNEL 9THCEN)
 263          RS       1    FLOW     0.0     0.0
 264          RC    0.05   0.015    0.05  1300.0   0.008     0.0
 265          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 266          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0
1                                          HEC-1 INPUT                                          PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 267          KK  FRM8TH
 268          KM   RETRIEVE HYDROGRAPH FROM 8TH
 269          KO       0       0     0.0       0      22
 270          DR  TOCEN1

 271          KK  8THCEN   CNAME
 272          KM   ROUTE HYDRPGRAPH FROM 8TH TO CENTRA (CHANNEL 8THCEN)
 273          RS       1    FLOW     0.0     0.0
 274          RC    0.05   0.015    0.05  1967.0   0.007     0.0
 275          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 276          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 277          KK  CENTRA   CNAME  CENBEL
 278          KM   COMBINE DIVERTED HYDROGRAPHS FROM 8THA AND 9TH WITH RUNOFF FROM CENTRAL @ CEN
 279          KO       0       0     0.0       0      22
 280          HC       3

 281          KK  TOBELO
 282          KM   HYDRPGRAPH DIVERTED TO BELOAA
 283          KO       0       0     0.0       0      22
 284          DT   TODRN     0.0     0.0
 285          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 286          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 287          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 288          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
```

```
 289          KK  CENBEL   CNAME  CENTRA
 290          KM   ROUTE HYDRPGRAPH FROM CENTRA TO BELOAA (CHANNEL CENBEL)
 291          KO       0       0     0.0       0      22
 292          RS       2    FLOW     0.0     0.0
 293          RC    0.05   0.015    0.05 2520.78   0.005     0.0
 294          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 295          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 296          KK  BELOAT
 297          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 298          KM   L=0.44     Lca=0.25     S=0.00     Kn=0.011     LAG=19
 299          KM   S-GRAPH TYPE=PHOENIX VALLEY
 300          KO       0       0     0.0       1      22
 301          BA  0.0470
 302          LG   0.237    0.15   9.327   0.064  34.386
 303          UI     0.0   35.33   70.77   13.41     0.0

 304          KK  BELOAA   CNAME  BELDRN
 305          KM   COMBINE ROUTED HYDROGRAPH FROM CENTRA WITH RUNOFF FROM BELOAT @ BELOAA
 306          KO       0       0     0.0       0      22
 307          HC       2

 308          KK  BELDRN   CNAME  BELOAA
 309          KM   ROUTE HYDRPGRAPH FROM BELOAA TO DRAINA (CHANNEL BELDRN)
 310          KO       0       0     0.0       0      22
 311          RS       2    FLOW     0.0     0.0
 312          RC   0.035   0.015   0.035 1391.66   0.001     0.0
 313          RX     0.0   108.0   120.0  131.99   132.0   144.0   156.0   264.0
1                                          HEC-1 INPUT                                                    PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 314          RY     8.0     0.0     3.0    3.24    3.24     3.0     0.0     8.0

 315          KK  BAYLIS
 316          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 317          KM   L=0.30     Lca=0.08     S=0.01     Kn=0.011     LAG=9
 318          KM   S-GRAPH TYPE=PHOENIX VALLEY
 319          KO       0       0     0.0       1      22
 320          BA  0.0155
 321          LG     0.1    0.15     9.7   0.069    80.0
 322          UI     0.0   36.19     0.0

 323          KK  DETDRN   CNAME     DET
 324          KM   ROUTE HYDROGRAPH FROM DET TO DRAINA (CHANNEL DETDRN)
 325          KO       0       0     0.0       0      22
 326          RS       1    FLOW     0.0     0.0
 327          RC    0.05    0.03    0.05 2655.17   0.007     0.0
 328          RX     0.0    50.0   100.0   108.0   110.0   118.0   168.0   218.0
 329          RY     9.0     8.5     8.0     0.0     0.0     8.0     8.5     9.0

 330          KK      92
 331          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 332          KM   L=2.06     Lca=1.03     S=17.46     Kn=0.200     LAG=223
 333          KM   S-GRAPH TYPE=AGRICULTURE
 334          KO       0       0     0.0       1      22
 335          BA  1.0140
 336          LG   0.229    0.15   8.658   0.079  42.566
 337          UI     0.0   40.65    78.1  207.32  268.02  327.77  341.43  292.11  269.54  214.08
 338          UI  145.16  120.99   73.46   57.17   43.57   35.76   23.07   23.07     8.2    5.08
 339          UI    5.08    5.08    5.08    5.08    5.08    5.08    5.08    5.08     0.0

 340          KK    92-0
 341          KO       0       0     0.0       0      22
 342          DT   92ret    65.0     0.0
 343          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 344          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 345          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 346          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 347          KK   DRAIN
 348          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 349          KM   L=0.59     Lca=0.26     S=0.01     Kn=0.011     LAG=20
 350          KM   S-GRAPH TYPE=PHOENIX VALLEY
 351          KO       0       0     0.0       1      22
 352          BA  0.1155
 353          LG   0.242    0.15   9.659   0.059  32.685
 354          UI     0.0   78.37   172.3   41.74     0.0

 355          KK  FRMCEN
 356          KM   RETRIEVE HYDROGRAPH FROM CENTRA
 357          KO       0       0     0.0       0      22
 358          DR   TODRN
1                                          HEC-1 INPUT                                                    PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 359          KK  CENDRN   CNAME
 360          KM   ROUTE HYDROGRAPH FROM CENTRA TO DRAINA (CHANNEL CENDRN)
 361          RS       1    FLOW     0.0     0.0
 362          RC    0.05    0.05    0.05  1888.0   0.005     0.0
 363          RX     0.0   300.0   600.0   900.0  1200.0  1500.0  1800.0  2100.0
 364          RY     1.0    0.67    0.33     0.0     0.0    0.33    0.67     1.0

 365          KK  DRAINA   CNAME   DRNM5
 366          KM   COMBINE DIVERTED HYDROGRAPH FROM CENTRA WITH ROUTED HYDROGRAPHS FROM BELOAA,
 367          KO       0       0     0.0       0      22
 368          HC       7

 369          KK   DRNM5   CNAME  DRAINA
 370          KM   ROUTE HYDROGRAPH FROM DRAINA TO M5 (CHANNEL DRNM5)
 371          KO       0       0     0.0       0      22
 372          RS       8    FLOW     0.0     0.0
 373          RC    0.05    0.05    0.05 7894.85   0.001     0.0
 374          RX     0.0   500.0   525.0   528.0   543.0   546.0   571.0  1071.0
 375          RY     9.0     4.0     2.0     0.0     0.0     2.0     4.0     9.0

 376          KK    4thS
 377          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 378          KM   L=0.74     Lca=0.50     S=0.01     Kn=0.011     LAG=30
 379          KM   S-GRAPH TYPE=PHOENIX VALLEY
 380          KO       0       0     0.0       1      22
 381          BA  0.1451
```

```
382          LG   0.166   0.203   6.474   0.206  36.974
383          UI     0.0   44.97  142.41  127.57   44.49   10.45     0.0

384          KK  FRM4TH
385          KM   RETRIEVE HYDROGRAPH FROM 4TH
386          KO       0       0     0.0       0      22
387          DR  TO4THS

388          KK   4TH4S   CNAME
389          KM   ROUTE HYDROGRAPH FROM 4THA TO 4THSA (CHANNEL 4TH4S)
390          RS       1    FLOW     0.0     0.0
391          RC    0.05   0.015    0.05  2629.0   0.015     0.0
392          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
393          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

394          KK   4thSA   CNAME  4TH7TH
395          KM   COMBINE DIVERTED HYDROGRAPH FROM 4THA WITH RUNOFF FROM 4THS @ 4THSA
396          KO       0       0     0.0       0      22
397          HC       2

398          KK  4TH7TH   CNAME   4thSA
399          KM   ROUTE HYDROGRAPH FROM 4THSA TO 7THSA (CHANNEL 4TH7TH)
400          KO       0       0     0.0       0      22
401          RS       2    FLOW     0.0     0.0
402          RC    0.05   0.015    0.05 1378.54   0.003     0.0
403          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
404          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0
1                                          HEC-1 INPUT                                                    PAGE 10

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

405          KK     7th
406          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
407          KM   L=0.66     Lca=0.33     S=0.01     Kn=0.011     LAG=24
408          KM   S-GRAPH TYPE=PHOENIX VALLEY
409          KO       0       0     0.0       1      22
410          BA  0.1268
411          LG   0.248    0.25   5.114   0.311  29.143
412          UI     0.0   60.41  169.79   77.88   14.98     0.0

413          KK  FRM6TH
414          KM   RETRIEVE HYDROGRAPH FROM 6THA
415          KO       0       0     0.0       0      22
416          DR  TO7THS

417          KK  6TH7TH   CNAME
418          KM   ROUTE HYDROGRAPH FROM 6THA TO 7THSA (CHANNEL 6TH7TH)
419          RS       1    FLOW     0.0     0.0
420          RC    0.05   0.015    0.05  3061.0  0.0059     0.0
421          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
422          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

423          KK   7thSA   CNAME   7THM5
424          KM   COMBINE DIVERTED HYDROGRAPH FROM 6THA WITH ROUTED HYDROGRAPH FROM 4THSA WITH
425          KO       0       0     0.0       0      22
426          HC       3

427          KK   7THM5   CNAME   7thSA
428          KM   ROUTE HYDROGRAPH FROM 7THSA TO M5 (CHANNEL 7THM5)
429          KO       0       0     0.0       0      22
430          RS       3    FLOW     0.0     0.0
431          RC    0.05    0.05    0.05 5286.53   0.002     0.0
432          RX     0.0    25.0    28.0    31.0    46.0    49.0    52.0    77.0
433          RY     6.0     4.0     2.0     0.0     0.0     2.0     4.0     6.0

434          KK      98
435          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
436          KM   L=1.50     Lca=0.75     S=6.69     Kn=0.200     LAG=209
437          KM   S-GRAPH TYPE=AGRICULTURE
438          KO       0       0     0.0       1      22
439          BA  0.3878
440          LG    0.19    0.15   9.082   0.073  38.285
441          UI     0.0   14.59   24.67   66.97   88.8  117.54  122.57  113.04  108.08    79.8
442          UI    66.8   46.99   39.56   25.34   19.48   15.08    12.7    8.28    8.28    3.72
443          UI    1.82    1.82    1.82    1.82    1.82    1.82    1.82    1.82    1.82    1.82
444          UI     0.0

445          KK    98-O
446          KO       0       0     0.0       0      22
447          DT   98ret    26.0     0.0
448          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
449          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
450          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
451          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
1                                          HEC-1 INPUT                                                    PAGE 11

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

452          KK      M5
453          KM   COMBINE ROUTED HYDROGRAPHs FROM 7THSA AND DRAINA WITH RUNOFF FROM 98 @ M5
454          KO       0       0     0.0       0      22
455          HC       3
             * ***********************************************************************
             * **   SUB-WATERSHED P   ***********************************************
             * ***********************************************************************

456          KK    BICP
457          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
458          BA   0.001
459          ZR  =QI A=BIC BIC B=67395 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06F

460          KK   P6SP7   CNAME     P6S
461          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT P6S TO P7 (CHANNEL A)
462          KO       0       0     0.0       0      22
463          RS       1    FLOW     0.0     0.0
464          RC     0.1     0.1     0.1  5100.0   0.005     0.0
465          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
466          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

467          KK      94
468          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
469          KM   L=1.30     Lca=0.65     S=22.37     Kn=0.200     LAG=149
```

```
470          KM   S-GRAPH TYPE=AGRICULTURE
471          KO       0       0     0.0       1      22
472          BA  0.7194
473          LG   0.249    0.15   7.304   0.126   43.87
474          UI     0.0   17.81   17.81   35.71   70.46  102.77  107.11  138.19  149.58  149.58
475          UI  147.91  124.65  131.59  105.71  101.03   75.79   63.54   51.25   51.33   33.33
476          UI   28.76   23.11   21.15   16.26   16.26   10.96   10.11   10.11    8.64    2.23
477          UI    2.23    2.23    2.23    2.23    2.23    2.23    2.23    2.23    2.23    2.23
478          UI    2.23    2.23    2.23    2.23    2.23     0.0

479          KK    94-O
480          KO       0       0     0.0       0      22
481          DT   94ret    58.0     0.0
482          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
483          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
484          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
485          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

486          KK      P7   CNAME   P7-P8
487          KM   COMBINE ROUTED HYDROGRAPH FROM P6S WITH RUNOFF FROM 94 @ P7
488          KO       0       0     0.0       0      22
489          HC       2

490          KK   P7-P8   CNAME      P7
491          KM   ROUTE HYDROGRAPH FROM P7 TO P8 (CHANNEL A)
492          KO       0       0     0.0       0      22
493          RS      10    FLOW     0.0     0.0
494          RC     0.1     0.1     0.1 3899.99   0.002     0.0
495          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
496          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                                PAGE 12

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

497          KK      96
498          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
499          KM   L=1.32     Lca=0.66     S=4.55     Kn=0.200     LAG=205
500          KM   S-GRAPH TYPE=AGRICULTURE
501          KO       0       0     0.0       1      22
502          BA  0.9142
503          LG     0.3    0.15   7.196   0.114     5.0
504          UI     0.0   16.45   16.45    18.8   34.54   52.11   84.71   98.14   96.32  126.68
505          UI  129.26  138.14  138.14  138.14  130.47  115.12  121.64  118.86   86.34   91.94
506          UI   82.29   63.36   57.32   47.86   49.06   41.47   31.23   26.57   24.96   20.31
507          UI   20.31   15.37   15.02   15.02   10.53    9.33    9.33    9.33    9.33     4.0
508          UI    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06
509          UI    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06
510          UI    2.06    2.06     0.0

511          KK    96-O
512          KO       0       0     0.0       0      22
513          DT   96ret    50.0     0.0
514          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
515          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
516          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
517          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

518          KK      P8   CNAME   P8-P9
519          KM   COMBINE ROUTED HYDROGRAPH FROM P7 WITH RUNOFF FROM 96 @ P8
520          KO       0       0     0.0       0      22
521          HC       2

522          KK   P8-P9   CNAME      P8
523          KM   ROUTE HYDROGRAPH FROM P8 TO P9 (CHANNEL A)
524          KO       0       0     0.0       0      22
525          RS      12    FLOW     0.0     0.0
526          RC     0.1     0.1     0.1 6986.11   0.001     0.0
527          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
528          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

529          KK      97
530          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
531          KM   L=1.32     Lca=0.66     S=6.05     Kn=0.200     LAG=195
532          KM   S-GRAPH TYPE=AGRICULTURE
533          KO       0       0     0.0       1      22
534          BA  0.5002
535          LG     0.3   0.163   6.866    0.13     5.0
536          UI     0.0    9.46    9.46   12.27   19.87   35.86   52.15   53.64   61.59   73.51
537          UI   79.47   79.47   79.47   79.47   66.22   66.89    74.0   49.67   52.15   48.28
538          UI   36.52   32.56   27.34   28.83   21.44   17.23   15.28   13.09   11.69   10.47
539          UI    8.64    8.64     7.3    5.37    5.37    5.37    5.37    2.86    1.18    1.18
540          UI    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18
541          UI    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18     0.0
1                                          HEC-1 INPUT                                                PAGE 13

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

542          KK    97-O
543          KO       0       0     0.0       0      22
544          DT   97ret    30.0     0.0
545          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
546          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
547          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
548          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

549          KK   FRO10
550          KM   RETRIEVE HYDROGRAPH FROM O10
551          KO       0       0     0.0       0      22
552          DR    TOP9

553          KK  O10-P9   CNAME
554          KM   ROUTE HYDROGRAPH FROM O10 TO P9 (CHANNEL O10-P9)
555          RS       1    FLOW     0.0     0.0
556          RC    0.05    0.05    0.05  1492.0   0.002     0.0
557          RX     0.0   200.0   235.0   251.0   263.0   279.0   314.0   349.0
558          RY    12.0    10.0     8.0     0.0     0.0     8.0    10.0    12.0

559          KK      P9   CNAME  P9-P10
560          KM   COMBINE ROUTED HYDROGRAPH FROM P8 WITH DIVERTED HYDROGRAPH FROM O10 WITH RUNO
561          KO       0       0     0.0       0      22
562          HC       3
```

```
563          KK  P9-P10   CNAME      P9
564          KM   ROUTE HYDROGRAPH FROM P9 TO P10 (CHANNEL A)
565          KO       0       0     0.0       0      22
566          RS       5    FLOW     0.0     0.0
567          RC     0.1     0.1     0.1 3952.01   0.005     0.0
568          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
569          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

570          KK     100
571          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
572          KM   L=1.70     Lca=0.85     S=18.83     Kn=0.200     LAG=190
573          KM   S-GRAPH TYPE=AGRICULTURE
574          KO       0       0     0.0       1      22
575          BA  0.5816
576          LG     0.1   0.226   6.243   0.26     5.0
577          UI     0.0   11.29   11.29   15.51   24.87    45.7   65.19   60.85   82.97   85.34
578          UI   94.82   94.82   94.82   89.56   79.02   84.02   75.73   59.27   66.61   45.77
579          UI    43.1   33.76   32.34    31.6   21.55   18.46   17.01   13.94   13.46   10.31
580          UI   10.31    9.45    6.41    6.41    6.41    6.41    3.74    1.41    1.41    1.41
581          UI    1.41    1.41    1.41    1.41    1.41    1.41    1.41    1.41    1.41    1.41
582          UI    1.41    1.41    1.41    1.41    1.41    1.41    1.41     0.0

583          KK   100-O
584          KO       0       0     0.0       0      22
585          DT  100ret    25.0     0.0
586          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
587          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
588          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
589          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
1                                          HEC-1 INPUT                                          PAGE 14

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


590          KK     P10
591          KM   COMBINE ROUTED HYDROGRAPH FROM P9 WITH RUNOFF FROM 100 @ P10
592          KO       0       0     0.0       0      22
593          HC       2
             * ******************************************************************************
             * **   SUB-WATERSHED N-B   ***********************************************
             * ******************************************************************************

594          KK      99
595          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
596          KM   L=2.01     Lca=1.24     S=3.49     Kn=0.050     LAG=80
597          KM   S-GRAPH TYPE=PHOENIX VALLEY
598          KO       0       0     0.0       1      22
599          BA  0.9484
600          LG   0.107   0.248   6.022   0.276  11.109
601          UI     0.0   39.92  121.66  208.16  273.54  409.44  445.57  321.29  237.94  165.13
602          UI    81.8   57.84   37.85   12.24   12.24   12.24     0.0

603          KK    99-O
604          KO       0       0     0.0       0      22
605          DT   99ret    42.0     0.0
606          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
607          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
608          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
609          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
             * ******************************************************************************
             * **   SUB-WATERSHED Q   ***************************************************
             * ******************************************************************************

610          KK     101
611          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
612          KM   L=1.63     Lca=0.81     S=8.59     Kn=0.200     LAG=213
613          KM   S-GRAPH TYPE=AGRICULTURE
614          KO       0       0     0.0       1      22
615          BA  0.3807
616          LG   0.157   0.154   6.963    0.16     5.0
617          UI     0.0    6.59    6.59    6.72   13.84   19.36   31.67   39.52   35.16   50.66
618          UI   48.72   55.36   55.36   55.36   55.36   47.98   46.14   49.41   43.25    34.6
619          UI   38.51    29.5   25.17   22.12   19.02   19.89   16.22   12.54   10.65   10.21
620          UI    8.14    8.14    6.53    6.02    6.02    4.89    3.74    3.74    3.74    3.74
621          UI    3.04    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82
622          UI    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82
623          UI    0.82    0.82    0.82    0.82     0.0

624          KK   101-O
625          KO       0       0     0.0       0      22
626          DT  101ret    18.0     0.0
627          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
628          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
629          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
630          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
             * ******************************************************************************
             * **   SUB-WATERSHED K   ***************************************************
             * ******************************************************************************
1                                          HEC-1 INPUT                                          PAGE 15

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


631          KK    BICK
632          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
633          BA   0.001
634          ZR  =QI A=BIC BIC B=42799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06F

635          KK   K7SK8   CNAME     K7S
636          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT K7S TO K8 (CHANNEL A)
637          KO       0       0     0.0       0      22
638          RS       1    FLOW     0.0     0.0
639          RC     0.1     0.1     0.1  8240.0   0.005     0.0
640          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
641          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

642          KK      90
643          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
644          KM   L=2.05     Lca=1.02     S=21.50     Kn=0.200     LAG=213
645          KM   S-GRAPH TYPE=AGRICULTURE
646          KO       0       0     0.0       1      22
647          BA  1.0549
648          LG    0.16    0.15   9.525   0.063  57.603
649          UI     0.0   18.26   18.26   18.63   38.35   53.64   87.77   109.5   97.42  140.37
```

```
 650          UI   135.0  153.41  153.41  153.41  153.41  132.96  127.84  136.92  119.85   95.88
 651          UI  106.72   81.75   69.73   61.31   52.71   55.11   44.96   34.76    29.5   28.29
 652          UI   22.56   22.56   18.09   16.68   16.68   13.56   10.37   10.37   10.37   10.37
 653          UI    8.43    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
 654          UI    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
 655          UI    2.28    2.28    2.28    2.28     0.0

 656          KK    90-O
 657          KO       0       0     0.0       0      22
 658          DT   90ret    95.0     0.0
 659          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 660          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 661          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 662          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 663          KK      K8
 664          KM   COMBINE ROUTED HYDROGRAPH FROM K7S WITH RUNOFF FROM 90 @ K8
 665          KO       0       0     0.0       0      22
 666          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED L   ***********************************************
              * ***********************************************************************

 667          KK    BICL
 668          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 669          BA   0.001
 670          ZR  =QI A=BIC BIC B=47195 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-06F
1                                          HEC-1 INPUT                                          PAGE 16

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 671          KK   L5SL6   CNAME     L5S
 672          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT L5S TO L6 (CHANNEL A)
 673          KO       0       0     0.0       0      22
 674          RS       1    FLOW     0.0     0.0
 675          RC     0.1     0.1     0.1  9280.0   0.005     0.0
 676          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 677          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 678          KK      91
 679          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 680          KM   L=2.08     Lca=1.04     S=21.10     Kn=0.200     LAG=217
 681          KM   S-GRAPH TYPE=AGRICULTURE
 682          KO       0       0     0.0       1      22
 683          BA  1.1890
 684          LG    0.26    0.15   8.293   0.086   23.16
 685          UI     0.0   20.21   20.21   20.21   41.59   57.01   93.61  121.43  106.09  140.03
 686          UI  156.16  169.74  169.74  169.74  169.74  154.65  141.45  151.68  144.39  106.09
 687          UI  111.63  106.19   79.21   74.79   60.09   56.97   62.49   38.58   35.53   32.64
 688          UI   27.78   24.96   23.83   18.45   18.45   18.45   12.54   11.47   11.47   11.47
 689          UI   11.47    7.06    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53
 690          UI    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53
 691          UI    2.53    2.53    2.53    2.53    2.53     0.0

 692          KK    91-O
 693          KO       0       0     0.0       0      22
 694          DT   91ret    70.0     0.0
 695          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 696          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 697          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 698          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 699          KK      L6
 700          KM   COMBINE ROUTED HYDROGRAPH FROM L5S WITH RUNOFF FROM 91 @ L6
 701          KO       0       0     0.0       0      22
 702          HC       2
 703          ZZ
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	BICM	1.	17.00	0.	0.	0.	0.00		
+	ROUTED TO	M4S6TH	1.	17.25	0.	0.	0.	0.00		
+	HYDROGRAPH AT	4th	185.	4.50	23.	6.	2.	0.08		
+	DIVERSION TO	TO4THS	93.	4.50	11.	3.	1.	0.08		
+	HYDROGRAPH AT	TO6th	93.	4.50	11.	3.	1.	0.08		
+	ROUTED TO	4TH6TH	80.	4.50	11.	3.	1.	0.08		
+	HYDROGRAPH AT	6th	134.	4.50	16.	4.	1.	0.06		
+	3 COMBINED AT	6thA	214.	4.50	27.	7.	2.	0.14		
+	DIVERSION TO	TO7THS	107.	4.50	14.	3.	1.	0.14		
+	HYDROGRAPH AT	TO8TH	107.	4.50	14.	3.	1.	0.14		
+	ROUTED TO	6TH8TH	96.	4.50	14.	3.	1.	0.14		
+	HYDROGRAPH AT	8th	191.	4.50	22.	5.	2.	0.08		
	2 COMBINED AT									

+		8thA	287.	4.50	35.	9.	3.	0.22
+	DIVERSION TO	TOCEN1	144.	4.50	18.	4.	1.	0.22
+	HYDROGRAPH AT	TO9TH	144.	4.50	18.	4.	1.	0.22
+	ROUTED TO	8TH9TH	130.	4.50	18.	4.	1.	0.22
+	HYDROGRAPH AT	9thE	193.	4.50	26.	6.	2.	0.09
+	HYDROGRAPH AT	9thW	194.	4.50	20.	5.	2.	0.08
+	3 COMBINED AT	9th	516.	4.50	63.	16.	5.	0.40
+	DIVERSION TO	TOCEN2	258.	4.50	32.	8.	3.	0.40
+	HYDROGRAPH AT	TODET	258.	4.50	32.	8.	3.	0.40
+	HYDROGRAPH AT	BICN	203.	11.25	193.	99.	35.	0.00
+	ROUTED TO	M6S-D	158.	16.75	153.	92.	35.	0.00
+	HYDROGRAPH AT	BICO	49.	11.00	29.	8.	3.	0.00
+	ROUTED TO	08S09	27.	13.25	21.	8.	3.	0.00
+	HYDROGRAPH AT	93	160.	6.00	82.	22.	7.	0.38
+	DIVERSION TO	93ret	160.	6.00	52.	13.	4.	0.38
+	HYDROGRAPH AT	93-O	127.	7.00	34.	9.	3.	0.38
+	2 COMBINED AT	O9	127.	7.00	42.	17.	6.	0.38
+	ROUTED TO	O9O10	44.	13.75	31.	16.	6.	0.38
+	HYDROGRAPH AT	95	181.	7.00	122.	36.	12.	0.52
+	DIVERSION TO	95ret	181.	7.00	84.	21.	7.	0.52
+	HYDROGRAPH AT	95-O	153.	8.50	55.	15.	5.	0.52
+	2 COMBINED AT	O10	148.	8.50	60.	29.	10.	0.90
+	DIVERSION TO	TOP9	74.	8.50	30.	14.	5.	0.90
+	HYDROGRAPH AT	TODRN	74.	8.50	30.	14.	5.	0.90
+	ROUTED TO	O10DRN	29.	16.25	22.	13.	5.	0.90
+	HYDROGRAPH AT	CENTRE	165.	4.50	18.	4.	1.	0.07
+	HYDROGRAPH AT	FRM9TH	258.	4.50	32.	8.	3.	0.40
+	ROUTED TO	9THCEN	223.	4.50	32.	8.	3.	0.40
+	HYDROGRAPH AT	FRM8TH	144.	4.50	18.	4.	1.	0.22
+	ROUTED TO	8THCEN	117.	4.50	18.	4.	1.	0.22
+	3 COMBINED AT	CENTRA	506.	4.50	67.	17.	6.	0.07
+	DIVERSION TO	TODRN	253.	4.50	34.	8.	3.	0.07
+	HYDROGRAPH AT	TOBELO	253.	4.50	34.	8.	3.	0.07
+	ROUTED TO	CENBEL	223.	4.75	34.	8.	3.	0.07
+	HYDROGRAPH AT	BELOAT	117.	4.50	13.	3.	1.	0.05
+	2 COMBINED AT	BELOAA	292.	4.50	46.	12.	4.	0.12
+	ROUTED TO	BELDRN	278.	4.75	46.	12.	4.	0.12
+	HYDROGRAPH AT	BAYLIS	54.	4.25	5.	1.	0.	0.02
	ROUTED TO							

```
+                    DETDRN     35.   4.25      5.      1.      0.    0.02
      HYDROGRAPH AT
+                        92    760.   5.50    276.    71.     24.    1.01
      DIVERSION TO
+                     92ret    749.   5.25    131.    33.     11.    1.01
      HYDROGRAPH AT
+                      92-O    690.   5.75    154.    39.     13.    1.01
      HYDROGRAPH AT
+                     DRAIN    288.   4.50     32.     8.      3.    0.12
      HYDROGRAPH AT
+                    FRMCEN    253.   4.50     34.     8.      3.    0.07
      ROUTED TO
+                    CENDRN    137.   4.75     32.     8.      3.    0.07
      7 COMBINED AT
+                    DRAINA    760.   5.75    264.   159.     61.    2.16
      ROUTED TO
+                     DRNM5    498.   7.50    261.   158.     61.    2.16
      HYDROGRAPH AT
+                      4thS    268.   4.50     37.     9.      3.    0.15
      HYDROGRAPH AT
+                    FRM4TH     93.   4.50     11.     3.      1.    0.08
      ROUTED TO
+                     4TH4S     82.   4.50     11.     3.      1.    0.08
      2 COMBINED AT
+                     4thSA    350.   4.50     48.    12.      4.    0.15
      ROUTED TO
+                    4TH7TH    334.   4.75     48.    12.      4.    0.15
      HYDROGRAPH AT
+                       7th    267.   4.50     29.     7.      2.    0.13
      HYDROGRAPH AT
+                    FRM6TH    107.   4.50     14.     3.      1.    0.14
      ROUTED TO
+                    6TH7TH     85.   4.50     14.     3.      1.    0.14
      3 COMBINED AT
+                     7thSA    603.   4.50     90.    23.      8.    0.27
      ROUTED TO
+                     7THM5    481.   5.00     89.    23.      8.    0.27
      HYDROGRAPH AT
+                        98    290.   5.50    106.    27.      9.    0.39
      DIVERSION TO
+                     98ret    289.   5.50     52.    13.      4.    0.39
      HYDROGRAPH AT
+                      98-O    266.   5.75     57.    14.      5.    0.39
      3 COMBINED AT
+                        M5    578.   6.00    383.   189.     71.    2.82
      HYDROGRAPH AT
+                      BICP    136.  10.75     61.    15.      5.    0.00
      ROUTED TO
+                     P6SP7     81.  12.00     52.    15.      5.    0.00
      HYDROGRAPH AT
+                        94    355.   6.00    185.    50.     17.    0.72
      DIVERSION TO
+                     94ret    355.   6.00    117.    29.     10.    0.72
      HYDROGRAPH AT
+                      94-O    297.   7.00     80.    21.      7.    0.72
      2 COMBINED AT
+                        P7    297.   7.00    108.    36.     12.    0.72
      ROUTED TO
+                     P7-P8    192.   9.00     98.    36.     12.    0.72
      HYDROGRAPH AT
+                        96    285.   7.00    181.    51.     17.    0.91
      DIVERSION TO
+                     96ret    285.   7.00    101.    25.      8.    0.91
      HYDROGRAPH AT
+                      96-O    248.   7.75     99.    26.      9.    0.91
      2 COMBINED AT
+                        P8    337.   8.75    176.    59.     20.    1.63
      ROUTED TO
+                     P8-P9    233.  12.25    151.    58.     20.    1.63
      HYDROGRAPH AT
+                        97    165.   6.75    101.    28.      9.    0.50
      DIVERSION TO
+                     97ret    165.   6.75     60.    15.      5.    0.50
      HYDROGRAPH AT
+                      97-O    141.   8.00     50.    13.      4.    0.50
      HYDROGRAPH AT
```

```
+                    FRO10     74.   8.50     30.     14.     5.    0.90
+        ROUTED TO
                     O10-P9    65.   8.75     29.     14.     5.    0.90
+        3 COMBINED AT
                       P9     250.  12.25    169.     81.    28.    2.13
+        ROUTED TO
                     P9-P10   236.  13.25    167.     80.    28.    2.13
+        HYDROGRAPH AT
                       100    171.   6.75    103.     28.     9.    0.58
+        DIVERSION TO
                     100ret   171.   6.75     50.     13.     4.    0.58
+        HYDROGRAPH AT
                     100-O    158.   7.25     61.     16.     5.    0.58
+        2 COMBINED AT
                       P10    232.  13.25    167.     90.    31.    2.72
+        HYDROGRAPH AT
                        99    695.   5.50    179.     45.    15.    0.95
+        DIVERSION TO
                     99ret    672.   5.25     85.     21.     7.    0.95
+        HYDROGRAPH AT
                      99-O    674.   5.50     95.     24.     8.    0.95
+        HYDROGRAPH AT
                       101    116.   7.00     76.     22.     7.    0.38
+        DIVERSION TO
                     101ret   116.   7.00     36.      9.     3.    0.38
+        HYDROGRAPH AT
                     101-O    112.   7.50     47.     13.     4.    0.38
+        HYDROGRAPH AT
                      BICK    462.  11.00    349.    111.    42.    0.00
+        ROUTED TO
                     K7SK8    363.  12.75    284.    110.    42.    0.00
+        HYDROGRAPH AT
                        90    406.   7.00    272.     80.    27.    1.05
+        DIVERSION TO
                     90ret    406.   7.00    191.     48.    16.    1.05
+        HYDROGRAPH AT
                      90-O    338.   8.25    121.     32.    11.    1.05
+        2 COMBINED AT
                        K8    404.  12.50    346.    141.    52.    1.06
+        HYDROGRAPH AT
                      BICL     66.  11.25     62.     45.    26.    0.00
+        ROUTED TO
                     L5SL6     60.  18.50     58.     42.    25.    0.00
+        HYDROGRAPH AT
                        91    388.   7.00    259.     75.    25.    1.19
+        DIVERSION TO
                     91ret    388.   7.00    141.     35.    12.    1.19
+        HYDROGRAPH AT
                      91-O    346.   7.75    150.     40.    13.    1.19
+        2 COMBINED AT
                        L6    356.   7.75    182.     82.    39.    1.19

*** NORMAL END OF HEC-1 ***
```

D.7.4 ..... HEC-1 Output File 100-Year 24-Hour

D.7.4.a HEC-1 Output File for 100-Year 24-Hour (Existing Conditions)

```
1*************************************
 *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)*
 *            JUN   1998             *
 *          VERSION 4.1              *
 *                                   *
 *  RUN DATE   22MAR06  TIME  10:49:14*
 *                                   *
 *************************************

*************************************
*                                   *
*   U.S. ARMY CORPS OF ENGINEERS    *
*   HYDROLOGIC ENGINEERING CENTER   *
*         609 SECOND STREET         *
*      DAVIS, CALIFORNIA 95616      *
*          (916) 756-1104           *
*                                   *
*************************************

X     X  XXXXXXX   XXXXX          X
```

```
X     X  X        X     X         XX
X     X  X        X                X
XXXXXXX  XXXX     X        XXXXX   X
X     X  X        X                X
X     X  X        X     X          X
X     X  XXXXXXX   XXXXX          XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

```
1                                          HEC-1 INPUT                                                    PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

   1          ID   Buckeye/Sun Valley ADMS - November 2004
   2          ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
   3          ID   100-year 24-hour
   4          ID   Existing Conditions
   5          ID   Area 1 - FRS to RID (East)
   6          ID   File Name: fre10024ex.hc1
   7          ID   Rainfall Loss Method - Green & Ampt
   8          ID   Unit Hydrograph Method - FCDMC S-Graph
   9          ID   Channel Routing Method - Normal Depth
  10          ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
  11          ID   Existing Land Use Cutoff Date: 2000
  12          ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
  13          ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
              *DIAGRAM
  14          IT      15 02JAN94       0     400
  15          IO       3
  16          IN      15 02JAN94       0
  17          JD     4.1    0.01
              * 24-hour distribution
  18          PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
  19          PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
  20          PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
  21          PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
  22          PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
  23          PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
  24          PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
  25          PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
  26          PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
  27          PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
  28          IN      15 02JAN94       0
  29          JD   3.895    10.0
              * 24-hour distribution
  30          PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
  31          PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
  32          PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
  33          PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
  34          PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
  35          PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
  36          PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
  37          PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
  38          PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
  39          PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
  40          IN      15 02JAN94       0
  41          JD   3.764    20.0
              * 24-hour distribution
  42          PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
  43          PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
  44          PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
  45          PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
  46          PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
  47          PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
  48          PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
  49          PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
  50          PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
  51          PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
1                                          HEC-1 INPUT                                                    PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  52          KK       6
  53          KM   ******************************************************************************
  54          KM   **   SUB-WATERSHED J   ***********************************************************
  55          KM   ******************************************************************************
  56          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
  57          KM   L=0.50      Lca=0.35      S=88.18      Kn=0.050      LAG=16
  58          KM   S-GRAPH TYPE=DESERT RANGELAND
  59          KO       0        0     0.0        1       22
  60          BA  0.3175
  61          LG   0.327    0.359   5.257   0.239   8.065
  62          UI     0.0   367.81  364.77   72.06     0.0

  63          KK   J1-J2   CNAME      J1
  64          KM   ROUTE HYDRPGRAPH FROM J1 TO J2 (CHANNEL A)
  65          KO       0        0     0.0        0       22
  66          RS       3     FLOW     0.0      0.0
  67          RC   0.035    0.035   0.035 4135.69   0.004     0.0
  68          RX     0.0    250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
  69          RY    10.0      7.5     5.0     2.5     0.0     3.3     6.6    10.0

  70          KK       8
  71          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
  72          KM   L=1.22      Lca=0.56      S=14.80      Kn=0.050      LAG=37
  73          KM   S-GRAPH TYPE=DESERT RANGELAND
  74          KO       0        0     0.0        1       22
  75          BA  0.4136
  76          LG   0.277    0.319   4.104   0.445  23.066
  77          UI     0.0    80.26  286.14  333.87  188.89   92.75   45.37   21.43    9.16    9.16
  78          UI     0.0

  79          KK      J2   CNAME   J2-J3
```

```
 80          KM   COMBINE ROUTED HYDROGRAPH FROM J1 WITH RUNOFF FROM 8 @ J2
 81          KO       0       0     0.0       0      22
 82          HC       2

 83          KK   J2-J3   CNAME      J2
 84          KM   ROUTE HYDRPGRAPH FROM J2 TO J3 (CHANNEL B)
 85          KO       0       0     0.0       0      22
 86          RS       2    FLOW     0.0     0.0
 87          RC     0.1    0.02     0.1 3195.75   0.008     0.0
 88          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 89          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 90          KK      20
 91          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 92          KM   L=1.57     Lca=0.79     S=16.56     Kn=0.200     LAG=183
 93          KM   S-GRAPH TYPE=AGRICULTURE
 94          KO       0       0     0.0       1      22
 95          BA  0.6645
 96          LG     1.0   0.252   3.974   0.479   0.015
 97          UI     0.0   13.39   13.39   19.84   32.21   58.26   78.88   74.24  102.61  104.94
 98          UI  112.49  112.49  112.49   97.49   93.74  105.07   70.56   74.86   64.48   51.13
 99          UI    43.2   37.84   40.14   25.57   22.34   20.44   16.54   15.85   12.23   12.23
100          UI   10.59     7.6     7.6     7.6     7.6    2.62    1.67    1.67    1.67    1.67
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

101          UI    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67
102          UI    1.67    1.67    1.67    1.67    1.67     0.0

103          KK      J3
104          KM   COMBINE ROUTED HYDROGRAPH FROM J2 WITH RUNOFF FROM 20 @ J3
105          ZW   A=FRE B=J3 C=FLOW E=15MIN F=100y24h-ex
106          KO       0       0     0.0       0      22
107          HC       2

108          KK       7
109          KM   ******************************************************************************
110          KM   **   SUB-WATERSHED K   ***********************************************************
111          KM   ******************************************************************************
112          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
113          KM   L=0.74     Lca=0.30     S=73.02     Kn=0.050     LAG=18
114          KM   S-GRAPH TYPE=DESERT RANGELAND
115          KO       0       0     0.0       1      22
116          BA  0.4459
117          LG   0.336   0.345   4.134     0.4   4.384
118          UI     0.0  416.62  556.92   138.6   30.54     0.0

119          KK   K1-K2   CNAME      K1
120          KM   ROUTE HYDRPGRAPH FROM K1 TO K2 (CHANNEL A)
121          KO       0       0     0.0       0      22
122          RS       2    FLOW     0.0     0.0
123          RC   0.035   0.035   0.035  4162.2   0.011     0.0
124          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
125          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

126          KK       9
127          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
128          KM   L=0.79     Lca=0.41     S=57.09     Kn=0.050     LAG=22
129          KM   S-GRAPH TYPE=DESERT RANGELAND
130          KO       0       0     0.0       1      22
131          BA  0.6124
132          LG   0.327    0.34   3.984   0.411   7.241
133          UI     0.0  381.65  780.49  295.85   90.95    23.1     0.0

134          KK      K2   CNAME   K2-K3
135          KM   COMBINE ROUTED HYDROGRAPH FROM K1 WITH RUNOFF FROM 9 @ K2
136          KO       0       0     0.0       0      22
137          HC       2

138          KK   K2-K3   CNAME      K2
139          KM   ROUTE HYDRPGRAPH FROM K2 TO K3 (CHANNEL A)
140          KO       0       0     0.0       0      22
141          RS       3    FLOW     0.0     0.0
142          RC     0.1     0.1     0.1 2881.52   0.009     0.0
143          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
144          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

145          KK     21B
146          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
147          KM   L=1.02     Lca=0.51     S=24.58     Kn=0.200     LAG=122
148          KM   S-GRAPH TYPE=AGRICULTURE
149          KO       0       0     0.0       1      22
150          BA  0.2728
151          LG     1.0    0.25   4.001   0.692     0.0
152          UI     0.0    8.25    10.9   22.84   46.68   49.72   65.96   69.27   69.27   59.27
153          UI   62.38   43.49   42.68   30.48   23.78   21.73   14.42   11.79     9.9    7.53
154          UI    6.86    4.68    4.68    3.85    1.03    1.03    1.03    1.03    1.03    1.03
155          UI    1.03    1.03    1.03    1.03    1.03    1.03    1.03     0.0

156          KK     21A
157          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
158          KM   L=1.43     Lca=0.71     S=39.92     Kn=0.200     LAG=144
159          KM   S-GRAPH TYPE=AGRICULTURE
160          KO       0       0     0.0       1      22
161          BA  0.3660
162          LG     1.0   0.277   3.998   0.641     0.0
163          UI     0.0    9.37    9.37   19.83   40.15   53.93   61.02   74.01   78.73   78.73
164          UI   73.49   65.61   68.76   49.43   50.09   36.19   29.11   28.02   20.17    15.8
165          UI   13.32   11.58    8.92    8.56    6.38    5.32    5.32    4.82    1.17    1.17
166          UI    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17
167          UI    1.17    1.17    1.17    1.17

168          KK      K3
169          KM   COMBINE ROUTED HYDROGRAPH FROM K2 WITH RUNOFF FROM 21A AND 21B @ K3
170          ZW   A=FRE B=K3 C=FLOW E=15MIN F=100y24h-ex
171          KO       0       0     0.0       0      22
172          HC       3

173          KK      10
```

```
 174          KM   ******************************************************************************
 175          KM   **   SUB-WATERSHED L   ***********************************************************
 176          KM   ******************************************************************************
 177          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 178          KM   L=1.77     Lca=1.27     S=46.29     Kn=0.050     LAG=47
 179          KM   S-GRAPH TYPE=PHOENIX VALLEY
 180          KO       0        0     0.0        1       22
 181          BA  1.1737
 182          LG   0.299   0.312   4.152   0.403  10.872
 183          UI     0.0  140.53  441.72   791.7  810.58  481.45  203.27   99.52   26.14   25.79
 184          UI     0.0

 185          KK   L1-L2   CNAME      L1
 186          KM   ROUTE HYDRPGRAPH FROM L1 TO L2 (CHANNEL B)
 187          KO       0        0     0.0        0       22
 188          RS       3     FLOW     0.0      0.0
 189          RC     0.1     0.02     0.1 2843.85    0.01     0.0
 190          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 191          RY    10.0      0.0     0.0     1.0     1.0     0.0     0.0    10.0
1                                          HEC-1 INPUT                                          PAGE  5
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 192          KK      22
 193          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 194          KM   L=1.54     Lca=0.77     S=18.14     Kn=0.200     LAG=178
 195          KM   S-GRAPH TYPE=AGRICULTURE
 196          KO       0        0     0.0        1       22
 197          BA  0.5572
 198          LG     1.0     0.25   4.002    0.55   0.185
 199          UI     0.0    11.54   11.54   17.99   29.44   52.71    67.8   67.77   85.72   96.69
 200          UI   96.97    96.97   94.81   80.81    85.6   77.44   60.61   65.99   46.03   41.71
 201          UI   33.66    34.96   25.72    20.5   18.65   14.65   14.26   10.94   10.54    9.89
 202          UI    6.55     6.55    6.55    6.55     2.6    1.44    1.44    1.44    1.44    1.44
 203          UI    1.44     1.44    1.44    1.44    1.44    1.44    1.44    1.44    1.44    1.44
 204          UI    1.44     1.44    1.44    1.44     0.0

 205          KK      L2
 206          KM   COMBINE ROUTED HYDROGRAPH FROM L1 WITH RUNOFF FROM 22 @ L2
 207          ZW   A=PRE B=L2 C=FLOW E=15MIN F=100y24h-ex
 208          KO       0        0     0.0        0       22
 209          HC       2

 210          KK     11C
 211          KM   ******************************************************************************
 212          KM   **   SUB-WATERSHED N   ***********************************************************
 213          KM   ******************************************************************************
 214          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 215          KM   L=0.99     Lca=0.31     S=54.38     Kn=0.050     LAG=22
 216          KM   S-GRAPH TYPE=PHOENIX VALLEY
 217          KO       0        0     0.0        1       22
 218          BA  0.3431
 219          LG    0.35     0.35   3.978     0.4     0.0
 220          UI     0.0   193.16  491.17  169.06   26.28     0.0

 221          KK  N1C-N2   CNAME     N1C
 222          KM   ROUTE HYDRPGRAPH FROM N1C TO N2 (CHANNEL A)
 223          KO       0        0     0.0        0       22
 224          RS       3     FLOW     0.0      0.0
 225          RC     0.1      0.1     0.1 3084.31    0.01     0.0
 226          RX     0.0    250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 227          RY    10.0      7.5     5.0     2.5     0.0     3.3     6.6    10.0

 228          KK     11A
 229          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 230          KM   L=0.57     Lca=0.33     S=83.95     Kn=0.050     LAG=16
 231          KM   S-GRAPH TYPE=PHOENIX VALLEY
 232          KO       0        0     0.0        1       22
 233          BA  0.5711
 234          LG    0.32    0.356   5.202   0.244   9.658
 235          UI     0.0   634.0  753.85   79.75     0.0
1                                          HEC-1 INPUT                                          PAGE  6
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 236          KK   11A-O
 237          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 238          KO       0        0     0.0        0       22
 239          DT  11Aret   38.23     0.0
 240          DI     0.0  2000.0
 241          DQ     0.0  2000.0

 242          KK  N1A-1B   CNAME     N1A
 243          KM   ROUTE HYDRPGRAPH FROM N1A TO N1B (CHANNEL N1A-N1B)
 244          KO       0        0     0.0        0       22
 245          RS       3     FLOW     0.0      0.0
 246          RC    0.05     0.05    0.05  6236.1   0.009     0.0
 247          RX    10.0     16.0    26.0    56.0   106.0   197.0   289.0   380.0
 248          RY  1032.0  1032.0  1030.0  1028.0  1030.0 1030.67 1031.33  1032.0

 249          KK     11B
 250          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 251          KM   L=1.39     Lca=0.62     S=41.81     Kn=0.050     LAG=34
 252          KM   S-GRAPH TYPE=PHOENIX VALLEY
 253          KO       0        0     0.0        1       22
 254          BA  0.5806
 255          LG    0.35     0.35    4.28   0.363     0.0
 256          UI     0.0    139.8  417.05  566.92  261.85   79.39   20.36     0.0

 257          KK     N1B   CNAME  N1B-N2
 258          KM   COMBINE ROUTED HYDROGRAPH FROM N1A WITH RUNOFF FROM 11B @ N1B
 259          KO       0        0     0.0        0       22
 260          HC       2

 261          KK  N1B-N2   CNAME     N1B
 262          KM   ROUTE HYDRPGRAPH FROM N1B TO N2 (CHANNEL B)
 263          KO       0        0     0.0        0       22
 264          RS       6     FLOW     0.0      0.0
 265          RC     0.1     0.02     0.1 6966.87   0.003     0.0
 266          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 267          RY    10.0      0.0     0.0     1.0     1.0     0.0     0.0    10.0
```

```
 268          KK      23
 269          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 270          KM   L=1.32     Lca=0.66     S=15.92     Kn=0.200     LAG=161
 271          KM   S-GRAPH TYPE=AGRICULTURE
 272          KO       0        0     0.0       1      22
 273          BA  0.5238
 274          LG     1.0    0.248   3.965   0.472    0.99
 275          UI     0.0     12.0    12.0   21.84    37.1   66.56   66.18   91.21   93.73  100.79
 276          UI  100.79    96.31   83.99   89.61   70.63   67.07    55.1   45.41    35.3    36.1
 277          UI   26.28    20.77   18.42   14.82   13.33   10.95   10.95    7.15    6.81    6.81
 278          UI    6.81     1.78     1.5     1.5     1.5     1.5     1.5     1.5     1.5     1.5
 279          UI     1.5      1.5     1.5     1.5     1.5     1.5     1.5     1.5     1.5     0.0
1                                          HEC-1 INPUT                                          PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 280          KK      N2
 281          KM   COMBINE ROUTED HYDROGRAPH FROM N1C AND N1B WITH RUNOFF FROM 23 @ N2
 282          ZW   A=FRE B=N2 C=FLOW E=15MIN F=100y24h-ex
 283          KO       0        0     0.0       0      22
 284          HC       3

 285          KK      12
 286          KM   ******************************************************************************
 287          KM   **   SUB-WATERSHED O   ***********************************************************
 288          KM   ******************************************************************************
 289          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 290          KM   L=0.96     Lca=0.41     S=83.03     Kn=0.050     LAG=22
 291          KM   S-GRAPH TYPE=PHOENIX VALLEY
 292          KO       0        0     0.0       1      22
 293          BA  0.7364
 294          LG   0.338    0.345   4.502   0.333   3.945
 295          UI     0.0   414.56 1054.13  362.82    56.4     0.0

 296          KK    12-O
 297          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 298          KO       0        0     0.0       0      22
 299          DT   12ret   49.02     0.0
 300          DI     0.0  2000.0
 301          DQ     0.0  2000.0

 302          KK   O1-O2   CNAME      O1
 303          KM   ROUTE HYDROGRAPH FROM O1 TO O2 (CHANNEL A)
 304          KO       0        0     0.0       0      22
 305          RS       3     FLOW     0.0     0.0
 306          RC   0.035    0.035   0.035  2743.8   0.013     0.0
 307          RX     0.0    250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 308          RY    10.0      7.5     5.0     2.5     0.0     3.3     6.6    10.0

 309          KK      13
 310          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 311          KM   L=0.52     Lca=0.26     S=71.20     Kn=0.050     LAG=15
 312          KM   S-GRAPH TYPE=PHOENIX VALLEY
 313          KO       0        0     0.0       1      22
 314          BA  0.5012
 315          LG    0.35    0.364    5.14   0.247     0.0
 316          UI     0.0   646.99  594.12     0.0

 317          KK    13-O
 318          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 319          KO       0        0     0.0       0      22
 320          DT   13ret   41.08     0.0
 321          DI     0.0  2000.0
 322          DQ     0.0  2000.0
1                                          HEC-1 INPUT                                          PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 323          KK      O2   CNAME   O2-O3
 324          KM   COMBINE ROUTED HYDROGRAPH FROM O1 WITH RUNOFF FROM 13 @ O2
 325          KO       0        0     0.0       0      22
 326          HC       2

 327          KK   O2-O3   CNAME      O2
 328          KM   ROUTE HYDROGRAPH FROM O2 TO O3 (CHANNEL A)
 329          KO       0        0     0.0       0      22
 330          RS       2     FLOW     0.0     0.0
 331          RC   0.025    0.025   0.025 2814.95   0.011     0.0
 332          RX     0.0    250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 333          RY    10.0      7.5     5.0     2.5     0.0     3.3     6.6    10.0

 334          KK      24
 335          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 336          KM   L=0.53     Lca=0.27     S=56.27     Kn=0.050     LAG=16
 337          KM   S-GRAPH TYPE=DESERT RANGELAND
 338          KO       0        0     0.0       1      22
 339          BA  0.4891
 340          LG   0.312    0.276   4.586   0.365  11.258
 341          UI     0.0   566.65  561.96  111.02     0.0

 342          KK      O3   CNAME   O3-O4
 343          KM   COMBINE ROUTED HYDROGRAPH FROM O2 WITH RUNOFF FROM 24 @ O3
 344          KO       0        0     0.0       0      22
 345          HC       2

 346          KK   O3-O4   CNAME      O3
 347          KM   ROUTE HYDROGRAPH FROM O3 TO O4 (CHANNEL A)
 348          KO       0        0     0.0       0      22
 349          RS       7     FLOW     0.0     0.0
 350          RC     0.1      0.1     0.1 4482.81   0.002     0.0
 351          RX     0.0    250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 352          RY    10.0      7.5     5.0     2.5     0.0     3.3     6.6    10.0

 353          KK      25
 354          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 355          KM   L=1.05     Lca=0.52     S=10.49     Kn=0.050     LAG=37
 356          KM   S-GRAPH TYPE=PHOENIX VALLEY
 357          KO       0        0     0.0       1      22
 358          BA  0.2742
 359          LG     1.0    0.285    4.14    0.39   1.288
 360          UI     0.0    55.33  162.01  264.09  147.51   51.88   16.57    7.65     0.0
```

```
 361          KK      O4
 362          KM   COMBINE ROUTED HYDROGRAPH FROM O3 WITH RUNOFF FROM 25 @ O4
 363          ZW   A=FRE B=O4 C=FLOW E=15MIN F=100y24h-ex
 364          KO       0       0     0.0       0      22
 365          HC       2
1                                          HEC-1 INPUT                                                    PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 366          KK     14A
 367          KM   ******************************************************************************
 368          KM   **   SUB-WATERSHED P   ***********************************************************
 369          KM   ******************************************************************************
 370          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 371          KM   L=1.33      Lca=0.71      S=67.87      Kn=0.050      LAG=32
 372          KM   S-GRAPH TYPE=PHOENIX VALLEY
 373          KO       0       0     0.0       1      22
 374          BA  0.6923
 375          LG   0.335   0.344   4.262   0.368   4.726
 376          UI     0.0  188.49   580.0  653.03  260.73   74.32   22.34     0.0

 377          KK   14A-O
 378          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 379          KO       0       0     0.0       0      22
 380          DT  14Aret   41.08     0.0
 381          DI     0.0  2000.0
 382          DQ     0.0  2000.0

 383          KK  P1A-1B   CNAME     P1A
 384          KM   ROUTE HYDRPGRAPH FROM P1A TO P1B (CHANNEL A)
 385          KO       0       0     0.0       0      22
 386          RS       3    FLOW     0.0     0.0
 387          RC   0.035   0.035   0.035 3128.61    0.01     0.0
 388          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 389          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 390          KK     14B
 391          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 392          KM   L=0.59      Lca=0.30      S=54.00      Kn=0.050      LAG=17
 393          KM   S-GRAPH TYPE=DESERT RANGELAND
 394          KO       0       0     0.0       1      22
 395          BA  0.5015
 396          LG    0.36   0.344   4.185   0.385     0.0
 397          UI     0.0  521.46  605.68  135.03   28.39     0.0

 398          KK   14B-O
 399          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 400          KO       0       0     0.0       0      22
 401          DT  14Bret   30.68     0.0
 402          DI     0.0  2000.0
 403          DQ     0.0  2000.0

 404          KK     P1B   CNAME  P1B-P2
 405          KM   COMBINE ROUTED HYDROGRAPH FROM P1A WITH RUNOFF FROM 14B @ P1B
 406          KO       0       0     0.0       0      22
 407          HC       2

 408          KK  P1B-P2   CNAME     P1B
 409          KM   ROUTE HYDRPGRAPH FROM P1B TO P2 (CHANNEL A)
 410          KO       0       0     0.0       0      22
 411          RS       2    FLOW     0.0     0.0
 412          RC   0.025   0.025   0.025 4031.58   0.007     0.0
 413          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
1                                          HEC-1 INPUT                                                    PAGE 10

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 414          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 415          KK      26
 416          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 417          KM   L=0.76      Lca=0.38      S=39.29      Kn=0.050      LAG=22
 418          KM   S-GRAPH TYPE=PHOENIX VALLEY
 419          KO       0       0     0.0       1      22
 420          BA  0.5244
 421          LG   0.304    0.26   4.048     0.4  13.801
 422          UI     0.0  295.23   750.7  258.38   40.17     0.0

 423          KK      P2   CNAME    zzz6
 424          KM   COMBINE ROUTED HYDROGRAPH FROM P1B WITH RUNOFF FROM 26 @ P2
 425          ZW   A=FRE B=P2 C=FLOW E=15MIN F=100y24h-ex
 426          KO       0       0     0.0       0      22
 427          HC       2

 428          KK      83
 429          KM   ******************************************************************************
 430          KM   **   SUB-WATERSHED Q   ***********************************************************
 431          KM   ******************************************************************************
 432          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 433          KM   L=1.72      Lca=0.93      S=64.69      Kn=0.050      LAG=39
 434          KM   S-GRAPH TYPE=DESERT RANGELAND
 435          KO       0       0     0.0       1      22
 436          BA  0.6752
 437          LG   0.341   0.375   5.438   0.214   2.801
 438          UI     0.0  115.92  423.38  535.16  330.25  168.58    85.8   44.93   16.84   14.19
 439          UI     0.0

 440          KK    83-O
 441          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 442          KO       0       0     0.0       0      22
 443          DT   83ret   31.99     0.0
 444          DI     0.0  2000.0
 445          DQ     0.0  2000.0
 446          ZZ
                                                  RUNOFF SUMMARY
                                        FLOW IN CUBIC FEET PER SECOND
                                      TIME IN HOURS,  AREA IN SQUARE MILES

                                PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
      OPERATION       STATION   FLOW     PEAK                                          AREA      STAGE     MAX STAGE
+                                                    6-HOUR     24-HOUR     72-HOUR

      HYDROGRAPH AT
```

```
+                    6      440.  12.25      44.      12.      4.     0.32
+   ROUTED TO
+                 J1-J2     277.  12.75      44.      12.      4.     0.32
+   HYDROGRAPH AT
+                    8      366.  12.75      64.      19.      6.     0.41
+   2 COMBINED AT
+                   J2      638.  12.75     108.      31.     10.     0.73
+   ROUTED TO
+                 J2-J3     462.  13.25     107.      31.     10.     0.73
+   HYDROGRAPH AT
+                   20       91.  14.50      53.      14.      5.     0.66
+   2 COMBINED AT
+                   J3      505.  13.25     158.      45.     15.     1.40
+   HYDROGRAPH AT
+                    7      521.  12.50      53.      14.      5.     0.45
+   ROUTED TO
+                 K1-K2     393.  12.75      53.      14.      5.     0.45
+   HYDROGRAPH AT
+                    9      754.  12.50      76.      20.      7.     0.61
+   2 COMBINED AT
+                   K2     1043.  12.50     128.      34.     11.     1.06
+   ROUTED TO
+                 K2-K3     730.  13.00     128.      34.     11.     1.06
+   HYDROGRAPH AT
+                  21B       48.  13.75      20.       5.      2.     0.27
+   HYDROGRAPH AT
+                  21A       55.  14.00      27.       7.      2.     0.37
+   3 COMBINED AT
+                   K3      784.  13.00     173.      46.     15.     1.70
+   HYDROGRAPH AT
+                   10      894.  12.75     156.      43.     14.     1.17
+   ROUTED TO
+                 L1-L2     813.  13.25     156.      43.     14.     1.17
+   HYDROGRAPH AT
+                   22       75.  14.50      43.      12.      4.     0.56
+   2 COMBINED AT
+                   L2      850.  13.25     196.      54.     18.     1.73
+   HYDROGRAPH AT
+                  11C      460.  12.50      38.      10.      3.     0.34
+   ROUTED TO
+                N1C-N2     229.  13.00      38.      10.      3.     0.34
+   HYDROGRAPH AT
+                  11A      787.  12.25      82.      22.      7.     0.57
+   DIVERSION TO
+               11Aret      787.  12.25      75.      19.      6.     0.57
+   HYDROGRAPH AT
+                11A-O       82.  12.75      10.       3.      1.     0.57
+   ROUTED TO
+                N1A-1B      27.  13.50       9.       3.      1.     0.57
+   HYDROGRAPH AT
+                  11B      547.  12.75      65.      16.      5.     0.58
+   2 COMBINED AT
+                  N1B      546.  12.75      73.      19.      6.     1.15
+   ROUTED TO
+                N1B-N2     194.  14.25      68.      19.      6.     1.15
+   HYDROGRAPH AT
+                   23       85.  14.25      45.      12.      4.     0.52
+   3 COMBINED AT
+                   N2      296.  14.25     145.      40.     13.     2.02
+   HYDROGRAPH AT
+                   12     1028.  12.50      91.      24.      8.     0.74
+   DIVERSION TO
+               12ret     1028.  12.50      91.      24.      8.     0.74
+   HYDROGRAPH AT
+                12-O        0.  24.25       0.       0.      0.     0.74
+   ROUTED TO
+                O1-O2       0.  24.75       0.       0.      0.     0.74
+   HYDROGRAPH AT
+                   13      731.  12.25      60.      15.      5.     0.50
+   DIVERSION TO
+               13ret      731.  12.25      60.      15.      5.     0.50
+   HYDROGRAPH AT
+                13-O        0.   0.00       0.       0.      0.     0.50
+   2 COMBINED AT
+                   O2       0.  24.75       0.       0.      0.     1.24
    ROUTED TO
```

```
+                        02-03        0.   25.00        0.        0.        0.      1.24
          HYDROGRAPH AT
+                           24      652.   12.25       67.       18.        6.      0.49
          2 COMBINED AT
+                           03      643.   12.25       66.       18.        6.      1.73
          ROUTED TO
+                        03-04      222.   13.75       65.       18.        6.      1.73
          HYDROGRAPH AT
+                           25      226.   12.75       26.        7.        2.      0.27
          2 COMBINED AT
+                           04      229.   13.75       90.       24.        8.      2.00
          HYDROGRAPH AT
+                          14A      643.   12.50       85.       22.        7.      0.69
          DIVERSION TO
+                       14Aret      643.   12.50       81.       21.        7.      0.69
          HYDROGRAPH AT
+                        14A-0       32.   13.25        5.        1.        0.      0.69
          ROUTED TO
+                       P1A-1B       19.   13.75        5.        1.        0.      0.69
          HYDROGRAPH AT
+                          14B      557.   12.25       56.       14.        5.      0.50
          DIVERSION TO
+                       14Bret      557.   12.25       56.       14.        5.      0.50
          HYDROGRAPH AT
+                        14B-0        0.    0.00        0.        0.        0.      0.50
          2 COMBINED AT
+                          P1B       19.   13.75        5.        1.        0.      1.19
          ROUTED TO
+                       P1B-P2       11.   14.25        4.        1.        0.      1.19
          HYDROGRAPH AT
+                           26      768.   12.50       75.       21.        7.      0.52
          2 COMBINED AT
+                           P2      759.   12.50       77.       22.        7.      1.72
          HYDROGRAPH AT
+                           83      599.   12.75       90.       23.        8.      0.68
          DIVERSION TO
+                        83ret      599.   12.75       64.       16.        5.      0.68
          HYDROGRAPH AT
+                         83-0      247.   13.00       27.        7.        2.      0.68

 *** NORMAL END OF HEC-1 ***

1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998              *                                    *   HYDROLOGIC ENGINEERING CENTER      *
 *            VERSION 4.1               *                                    *         609 SECOND STREET            *
 *                                      *                                    *      DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   22MAR06  TIME  10:45:28  *                                    *          (916) 756-1104              *
 *                                      *                                    *                                      *
 ****************************************                                    ****************************************

                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X        XX
                                                X     X  X        X               X
                                                XXXXXXX  XXXX     X        XXXXX  X
                                                X     X  X        X               X
                                                X     X  X        X     X         X
                                                X     X  XXXXXXX   XXXXX        XXX

          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                    PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

            1           ID   Buckeye/Sun Valley ADMS - November 2004
            2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
            3           ID   100-year 24-hour
            4           ID   Existing Conditions
            5           ID   Area 1 - FRS to RID (West)
            6           ID   File Name: frw10024ex.hc1
            7           ID   Rainfall Loss Method - Green & Ampt
            8           ID   Unit Hydrograph Method - FCDMC S-Graph
            9           ID   Channel Routing Method - Normal Depth
           10           ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
           11           ID   Existing Land Use Build Out Date: 2000
           12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
           13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
```

```
                *DIAGRAM
 14             IT      15 02JAN94       0     400
 15             IO       3
 16             IN      15 02JAN94       0
 17             JD     4.1    0.01
                * 24-hour distribution
 18             PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
 19             PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 20             PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 21             PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 22             PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 23             PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 24             PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 25             PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 26             PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 27             PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
 28             IN      15 02JAN94       0
 29             JD   3.895    10.0
                * 24-hour distribution
 30             PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
 31             PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 32             PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 33             PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 34             PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 35             PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 36             PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 37             PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 38             PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 39             PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
 40             IN      15 02JAN94       0
 41             JD   3.764    20.0
                * 24-hour distribution
 42             PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
 43             PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 44             PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 45             PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 46             PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 47             PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 48             PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 49             PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 50             PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 51             PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
1                                          HEC-1 INPUT                                          PAGE  2

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 52             KK     15A
 53             KM   ***********************************************************************
 54             KM   **   SUB-WATERSHED F   ***********************************************
 55             KM   ***********************************************************************
 56             KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 57             KM   L=1.45      Lca=0.48      S=34.58      Kn=0.050      LAG=32
 58             KM   S-GRAPH TYPE=DESERT RANGELAND
 59             KO       0        0     0.0        1       22
 60             BA  0.5884
 61             LG   0.358    0.324   4.419   0.391   2.373
 62             UI     0.0   159.68  521.91  464.14  211.81   93.26   40.28   15.07     0.0

 63             KK  F1A-1B   CNAME     F1A
 64             KM   ROUTE HYDRPGRAPH FROM F1A TO F1B (CHANNEL A)
 65             KO       0        0     0.0        0       22
 66             RS       6     FLOW     0.0      0.0
 67             RC     0.1      0.1     0.1 4677.52  0.0039     0.0
 68             RX     0.0    250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 69             RY    10.0      7.5     5.0     2.5     0.0     3.3     6.6    10.0

 70             KK     15B
 71             KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 72             KM   L=1.63      Lca=0.82      S=11.02      Kn=0.200      LAG=204
 73             KM   S-GRAPH TYPE=AGRICULTURE
 74             KO       0        0     0.0        1       22
 75             BA  0.8162
 76             LG     1.0    0.249   4.099   0.541   0.367
 77             UI     0.0    14.76   14.76   17.09   30.99   47.18   76.64    88.0   87.38  112.97
 78             UI  117.57   123.95  123.95  123.95  115.68  103.29  110.31  103.29   77.47   83.74
 79             UI   71.03    56.34   50.16   42.61   44.75   34.88   27.48   23.84   21.64   18.23
 80             UI   17.85    13.47   13.47   13.47    8.62    8.37    8.37    8.37    8.37    2.37
 81             UI    1.84     1.84    1.84    1.84    1.84    1.84    1.84    1.84    1.84    1.84
 82             UI    1.84     1.84    1.84    1.84    1.84    1.84    1.84    1.84    1.84    1.84
 83             UI    1.84      0.0

 84             KK      F1B
 85             KM   COMBINE ROUTED HYDROGRAPH FROM F1A WITH RUNOFF FROM 15B @ F1B
 86             ZW   A=FRW B=F1B C=FLOW E=15MIN F=100y24h-ex
 87             KO       0        0     0.0        0       22
 88             HC       2

 89             KK       2
 90             KM   ***********************************************************************
 91             KM   **   SUB-WATERSHED G   ***********************************************
 92             KM   ***********************************************************************
 93             KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 94             KM   L=2.02      Lca=0.86      S=45.95      Kn=0.050      LAG=43
 95             KM   S-GRAPH TYPE=DESERT RANGELAND
 96             KO       0        0     0.0        1       22
 97             BA  1.2330
 98             LG   0.338    0.339   3.994   0.443   5.585
 99             UI     0.0   169.22  637.96  900.62  677.78  370.08  199.82  108.84   58.92    23.5
100             UI    23.5      0.0
1                                          HEC-1 INPUT                                          PAGE  3

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

101             KK       1
102             KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
103             KM   L=2.61      Lca=1.54      S=34.86      Kn=0.050      LAG=62
104             KM   S-GRAPH TYPE=DESERT RANGELAND
105             KO       0        0     0.0        1       22
106             BA  1.6264
107             LG   0.347    0.329   4.334   0.398   5.884
108             UI     0.0    96.49   378.3  680.74  834.28   747.2  509.62  334.33  217.15  147.44
109             UI   90.69    60.46   32.88    21.5    21.5    21.5     0.0
```

```
 110          KK      G2   CNAME   G2-G3
 111          KM   COMBINE RUNOFF HYDROGRAPH FROM 1 AND 2 @ G2
 112          KO       0       0     0.0       0      22
 113          HC       2

 114          KK   G2-G3   CNAME      G2
 115          KM   ROUTE HYDRPGRAPH FROM G1 TO G2 (CHANNEL A)
 116          KO       0       0     0.0       0      22
 117          RS       9    FLOW     0.0     0.0
 118          RC     0.1     0.1     0.1  3231.1  0.0050     0.0
 119          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 120          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 121          KK      16
 122          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 123          KM   L=2.00      Lca=1.37     S=24.99     Kn=0.050     LAG=57
 124          KM   S-GRAPH TYPE=PHOENIX VALLEY
 125          KO       0       0     0.0       1      22
 126          BA  0.9506
 127          LG   0.208    0.25   4.398   0.438  45.683
 128          UI     0.0   72.32  253.63  387.42  637.63   477.5  314.11  154.95   79.28   36.56
 129          UI   17.22   17.22     0.0

 130          KK      G3
 131          KM   COMBINE ROUTED HYDROGRAPH FROM G2 WITH RUNOFF FROM 16 @ G3
 132          ZW   A=FRW B=G3 C=FLOW E=15MIN F=100y24h-ex
 133          KO       0       0     0.0       0      22
 134          HC       2

 135          KK       4
 136          KM   ******************************************************************************
 137          KM   **   SUB-WATERSHED H   ******************************************************
 138          KM   ******************************************************************************
 139          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 140          KM   L=1.38      Lca=0.74     S=40.65     Kn=0.050     LAG=36
 141          KM   S-GRAPH TYPE=DESERT RANGELAND
 142          KO       0       0     0.0       1      22
 143          BA  0.5493
 144          LG   0.306   0.332   4.023   0.485  14.545
 145          UI     0.0  113.24  399.98  445.83  240.22  115.51   55.22   25.12    12.5     0.0
1                                          HEC-1 INPUT                                                PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 146          KK   H1-H2   CNAME      H1
 147          KM   ROUTE HYDRPGRAPH FROM H1 TO H2 (CHANNEL C)
 148          KO       0       0     0.0       0      22
 149          RS       2    FLOW     0.0     0.0
 150          RC   0.035   0.035   0.035 5802.98  0.0050     0.0
 151          RX     0.0     2.0    12.0   112.0   212.0   312.0   412.0   512.0
 152          RY     5.0     5.0     0.0     1.0     2.0     3.0     4.0     5.0

 153          KK       3
 154          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 155          KM   L=2.04      Lca=1.39     S=39.22     Kn=0.050     LAG=53
 156          KM   S-GRAPH TYPE=DESERT RANGELAND
 157          KO       0       0     0.0       1      22
 158          BA  1.6478
 159          LG     1.0   0.298   4.027   0.546    4.13
 160          UI     0.0  141.45  544.37  909.46  962.94   667.1  407.91  246.66  151.83   89.96
 161          UI   55.64   25.48   25.48     0.0

 162          KK      H2   CNAME   H2-H3
 163          KM   COMBINE ROUTED HYDROGRAPH FROM H1 WITH RUNOFF FROM 3 @ H2
 164          KO       0       0     0.0       0      22
 165          HC       2

 166          KK   H2-H3   CNAME      H2
 167          KM   ROUTE HYDRPGRAPH FROM H2 TO H3 (CHANNEL B)
 168          KO       0       0     0.0       0      22
 169          RS       2    FLOW     0.0     0.0
 170          RC     0.1    0.02     0.1 3094.41   0.007     0.0
 171          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 172          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 173          KK      17
 174          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 175          KM   L=1.43      Lca=0.71     S=16.84     Kn=0.200     LAG=169
 176          KM   S-GRAPH TYPE=AGRICULTURE
 177          KO       0       0     0.0       1      22
 178          BA  0.6065
 179          LG     1.0    0.25   4.017   0.464   0.168
 180          UI     0.0   13.23   13.23   22.46   37.19   65.58   77.31   86.16   104.5  111.17
 181          UI  111.17  111.17   97.58   93.45   98.99   69.48   77.29   53.37   48.38   38.62
 182          UI   40.28   28.19   22.96   20.73   16.35   15.44   12.08   12.08    9.24    7.51
 183          UI    7.51    7.51    4.86    1.65    1.65    1.65    1.65    1.65    1.65    1.65
 184          UI    1.65    1.65    1.65    1.65    1.65    1.65    1.65    1.65    1.65    1.65
 185          UI    1.65     0.0

 186          KK      H3
 187          KM   COMBINE ROUTED HYDROGRAPH FROM H2 WITH RUNOFF FROM 17 @ H3
 188          ZW   A=FRW B=H3 C=FLOW E=15MIN F=100y24h-ex
 189          KO       0       0     0.0       0      22
 190          HC       2
1                                          HEC-1 INPUT                                                PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 191          KK      5A
 192          KM   ******************************************************************************
 193          KM   **   SUB-WATERSHED I   ******************************************************
 194          KM   ******************************************************************************
 195          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 196          KM   L=1.75      Lca=1.16     S=49.05     Kn=0.050     LAG=45
 197          KM   S-GRAPH TYPE=DESERT RANGELAND
 198          KO       0       0     0.0       1      22
 199          BA  1.1721
 200          LG   0.333   0.342   4.333   0.387   5.983
 201          UI     0.0  144.96  551.31  816.54  667.55  378.63  210.18  117.93   66.22   28.93
 202          UI   21.34   21.34
```

```
203          KK  I1AI2A   CNAME     I1A
204          KM   ROUTE HYDRPGRAPH FROM I1A TO I2A (CHANNEL B)
205          KO      0       0     0.0       0      22
206          RS      3    FLOW     0.0     0.0
207          RC    0.1    0.02     0.1 3507.57  0.0046     0.0
208          RX    0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
209          RY   10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

210          KK     18
211          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
212          KM   L=1.81     Lca=0.75     S=30.99     Kn=0.200     LAG=168
213          KM   S-GRAPH TYPE=AGRICULTURE
214          KO      0       0     0.0       1      22
215          BA  0.7963
216          LG    1.0   0.291   4.134   0.479   0.124
217          UI    0.0   17.48   17.48   29.94   49.63   87.36  102.05  117.46  136.55  146.83
218          UI  146.83  146.83  127.25  125.29  126.27   91.77  100.28   69.84   62.39   50.62
219          UI   54.06   34.48   29.67   26.48   21.59   19.56   15.96   15.96   11.23    9.92
220          UI    9.92    9.92    4.97    2.18    2.18    2.18    2.18    2.18    2.18    2.18
221          UI    2.18    2.18    2.18    2.18    2.18    2.18    2.18    2.18    2.18    2.18
222          UI    2.18     0.0

223          KK     I2A
224          KM   COMBINE ROUTED HYDROGRAPH FROM I1A WITH RUNOFF FROM 18 @ I2A
225          ZW   A=FRW B=I2A C=FLOW E=15MIN F=100y24h-ex
226          KO      0       0     0.0       0      22
227          HC      2

228          KK      5B
229          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
230          KM   L=1.73     Lca=1.08     S=38.66     Kn=0.050     LAG=46
231          KM   S-GRAPH TYPE=DESERT RANGELAND
232          KO      0       0     0.0       1      22
233          BA  0.5758
234          LG   0.318   0.336   4.606   0.319  10.551
235          UI    0.0   67.57  258.59  391.25   331.8   192.8  107.92   61.59   34.35   17.29
236          UI   10.26   10.26     0.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

237          KK  I1BI2B   CNAME     I1B
238          KM   ROUTE HYDRPGRAPH FROM I1B TO I2B (CHANNEL A)
239          KO      0       0     0.0       0      22
240          RS      1    FLOW     0.0     0.0
241          RC    0.1     0.1     0.1 4972.04  0.0047     0.0
242          RX    0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
243          RY   10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

244          KK     19
245          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
246          KM   L=1.51     Lca=0.76     S=18.49     Kn=0.200     LAG=174
247          KM   S-GRAPH TYPE=AGRICULTURE
248          KO      0       0     0.0       1      22
249          BA  0.5356
250          LG    1.0   0.249   3.962   0.435   0.567
251          UI    0.0   11.35   11.35    18.4   30.26    53.8   66.51   69.61   86.78   95.36
252          UI   95.36   95.36    89.0   79.47   84.42   69.18   61.85   57.97   43.57    37.1
253          UI   32.1   33.09   21.67   18.47   16.39   14.02   12.27   10.37   10.37    7.18
254          UI   6.44    6.44    6.44    3.83    1.42    1.42    1.42    1.42    1.42    1.42
255          UI   1.42    1.42    1.42    1.42    1.42    1.42    1.42    1.42    1.42    1.42
256          UI   1.42    1.42     0.0

257          KK     I2B
258          KM   COMBINE ROUTED HYDROGRAPH FROM I1B WITH RUNOFF FROM 19 @ I2B
259          ZW   A=FRW B=I2B C=FLOW E=15MIN F=100y24h-ex
260          KO      0       0     0.0       0      22
261          HC      2
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	15A	539.	12.50	68.	17.	6.	0.59		
+	ROUTED TO	F1A-1B	254.	13.75	67.	17.	6.	0.59		
+	HYDROGRAPH AT	15B	95.	15.00	60.	17.	6.	0.82		
+	2 COMBINED AT	F1B	318.	13.75	126.	34.	11.	1.40		
+	HYDROGRAPH AT	2	895.	12.75	144.	38.	13.	1.23		
+	HYDROGRAPH AT	1	876.	13.00	196.	52.	17.	1.63		
+	2 COMBINED AT	G2	1633.	12.75	338.	89.	30.	2.86		
+	ROUTED TO	G2-G3	1518.	13.50	337.	89.	30.	2.86		
+	HYDROGRAPH AT	16	836.	13.00	190.	61.	20.	0.95		
+	2 COMBINED AT	G3	2149.	13.25	522.	149.	50.	3.81		
+	HYDROGRAPH AT	4	448.	12.75	73.	21.	7.	0.55		
+	ROUTED TO	H1-H2	306.	13.00	72.	21.	7.	0.55		
	HYDROGRAPH AT									

```
+                          3      733.  13.00       142.       38.       13.      1.65
        2 COMBINED AT
+                         H2     1030.  13.00       213.       58.       19.      2.20
        ROUTED TO
+                      H2-H3      866.  13.25       212.       58.       19.      2.20
        HYDROGRAPH AT
+                         17       92.  14.50        50.       14.        5.      0.61
        2 COMBINED AT
+                         H3      916.  13.25       260.       71.       24.      2.80
        HYDROGRAPH AT
+                         5A      849.  12.75       143.       38.       13.      1.17
        ROUTED TO
+                      I1AI2A     648.  13.25       142.       38.       13.      1.17
        HYDROGRAPH AT
+                         18      113.  14.50        62.       17.        6.      0.80
        2 COMBINED AT
+                        I2A      710.  13.25       202.       54.       18.      1.97
        HYDROGRAPH AT
+                         5B      447.  12.75        80.       22.        7.      0.58
        ROUTED TO
+                      I1BI2B     168.  13.50        73.       22.        7.      0.58
        HYDROGRAPH AT
+                         19       82.  14.50        46.       13.        4.      0.54
        2 COMBINED AT
+                        I2B      223.  13.50       118.       34.       11.      1.11


 *** NORMAL END OF HEC-1 ***
   262          ZZ

1*****************************************                    *****************************************
 *                                       *                    *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                    *    U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998               *                    *    HYDROLOGIC ENGINEERING CENTER      *
 *            VERSION 4.1                *                    *          609 SECOND STREET            *
 *                                       *                    *       DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   23MAR06  TIME  04:55:33   *                    *           (916) 756-1104              *
 *                                       *                    *                                       *
 *****************************************                    *****************************************


                                        X     X  XXXXXXX   XXXXX           X
                                        X     X  X        X     X         XX
                                        X     X  X        X               X
                                        XXXXXXX  XXXX     X        XXXXX  X
                                        X     X  X        X               X
                                        X     X  X        X     X         X
                                        X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                    PAGE  1

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          1           ID   Buckeye/Sun Valley ADMS - November 2004
          2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
          3           ID   100-year 24-hour
          4           ID   Existing Conditions
          5           ID   Area 1 - RID to BIC (East)
          6           ID   File Name: rbe10024ex.hcl
          7           ID   Rainfall Loss Method - Green & Ampt
          8           ID   Unit Hydrograph Method - FCDMC S-Graph
          9           ID   Channel Routing Method - Normal Depth
         10           ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
         11           ID   Existing Land Use Cutoff Date: 2000
         12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
         13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                      *DIAGRAM
         14           IT      15 02JAN94       0     400
         15           IO       3
         16           IN      15 02JAN94       0
         17           JD     4.1    0.01
                      * 24-hour distribution
         18           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
         19           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
         20           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
         21           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
         22           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
         23           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
         24           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
         25           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
         26           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
         27           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
         28           IN      15 02JAN94       0
         29           JD   3.895    10.0
                      * 24-hour distribution
         30           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
```

```
 31          PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 32          PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 33          PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 34          PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 35          PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 36          PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 37          PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 38          PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 39          PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
 40          IN      15 02JAN94       0
 41          JD   3.764    20.0
             * 24-hour distribution
 42          PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
 43          PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 44          PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 45          PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 46          PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 47          PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 48          PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 49          PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 50          PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 51          PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
1                                          HEC-1 INPUT                                          PAGE  2

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 52          KK   RIDKB
 53          KM   ***********************************************************************
 54          KM   **   SUB-WATERSHED K   ***************************************************
 55          KM   ***********************************************************************
 56          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 57          BA  0.0001
 58          ZR  =QI A=RID RID B=38999 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID100-24E

 59          KK  K3SBK4   CNAME    K3SB
 60          KM   ROUTE INFLOW FROM RID CONCENTRATED AT K3SB TO K4 (CHANNEL A)
 61          KO       0       0     0.0       0      22
 62          RS       1    FLOW     0.0     0.0
 63          RC     0.1     0.1     0.1 3026.00  0.0090     0.0
 64          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 65          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 66          KK   RIDKA
 67          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 68          BA  0.0001
 69          ZR  =QI A=RID RID B=35599 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID100-24E

 70          KK  K3SAK4   CNAME    K3SA
 71          KM   ROUTE INFLOW FROM RID CONCENTRATED AT K3SA TO K4 (CHANNEL A)
 72          KO       0       0     0.0       0      22
 73          RS       1    FLOW     0.0     0.0
 74          RC     0.1     0.1     0.1 4868.00  0.0049     0.0
 75          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 76          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 77          KK      34
 78          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 79          KM   L=1.23     Lca=0.62     S=19.48     Kn=0.200     LAG=148
 80          KM   S-GRAPH TYPE=AGRICULTURE
 81          KO       0       0     0.0       1      22
 82          BA  0.6373
 83          LG     1.0   0.245   3.994   0.565    2.07
 84          UI     0.0   15.88   15.88   32.09   63.99    91.6   96.57  124.21   133.4   133.4
 85          UI  130.44  111.17  119.11   90.18   91.45   64.03    55.3   45.36   44.06   29.14
 86          UI   25.65    19.8   18.12    14.5   14.37    9.01    9.01    9.01    6.39    1.99
 87          UI    1.99    1.99    1.99    1.99    1.99    1.99    1.99    1.99    1.99    1.99
 88          UI    1.99    1.99    1.99    1.99    1.99     0.0

 89          KK      K4   CNAME   K4-K5
 90          KM   COMBINE ROUTED HYDROGRAPH FROM K3SA AND K3SB WITH RUNOFF FROM 34 @ K4
 91          KO       0       0     0.0       0      22
 92          HC       3

 93          KK   K4-K5   CNAME      K4
 94          KM   ROUTE HYDRPGRAPH FROM K4 TO K5 (CHANNEL B)
 95          KO       0       0     0.0       0      22
 96          RS       5    FLOW     0.0     0.0
 97          RC     0.1    0.02     0.1 5283.85  0.0080     0.0
 98          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 99          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

100          KK      35
101          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
102          KM   L=1.96     Lca=0.98     S=33.61     Kn=0.200     LAG=190
103          KM   S-GRAPH TYPE=AGRICULTURE
104          KO       0       0     0.0       1      22
105          BA  1.5042
106          LG     1.0    0.25   3.978   0.486   3.315
107          UI     0.0    29.2    29.2   40.11   64.31  118.19   168.6  157.36  214.59  220.72
108          UI  245.24  245.24  245.24  231.62  204.37  217.31  195.85  153.28  172.28  118.39
109          UI  111.47   87.32   83.63   81.72   55.74   47.73   43.98   36.07   34.81   26.66
110          UI   26.66   24.44   16.57   16.57   16.57   16.57    9.68    3.65    3.65    3.65
111          UI    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65
112          UI    3.65    3.65    3.65    3.65    3.65    3.65    3.65     0.0

113          KK      K5   CNAME   K5-K6
114          KM   COMBINE ROUTED HYDROGRAPH FROM K4 WITH RUNOFF FROM 35 @ K5
115          KO       0       0     0.0       0      22
116          HC       2

117          KK   K5-K6   CNAME      K5
118          KM   ROUTE HYDRPGRAPH FROM K5 TO K6 (CHANNEL B)
119          KO       0       0     0.0       0      22
120          RS       5    FLOW     0.0     0.0
121          RC     0.1    0.02     0.1 6533.09   0.006     0.0
122          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
123          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

124          KK      46
```

```
125          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
126          KM   L=1.79     Lca=0.89     S=25.18     Kn=0.200     LAG=186
127          KM   S-GRAPH TYPE=AGRICULTURE
128          KO       0        0      0.0        1       22
129          BA  1.3812
130          LG     1.0    0.258    4.186    0.469    2.565
131          UI     0.0    27.39    27.39    39.31    63.49   115.59    161.6   146.46   213.71   205.72
132          UI  230.03   230.03   230.03   207.03    191.7    205.8   165.51   147.93   146.17   106.95
133          UI   95.42     79.2    83.87    59.37    48.74    44.24    35.62    33.83    27.47     25.0
134          UI    25.0    16.79    15.54    15.54    15.54    12.15     3.42     3.42     3.42     3.42
135          UI    3.42     3.42     3.42     3.42     3.42     3.42     3.42     3.42     3.42     3.42
136          UI    3.42     3.42     3.42     3.42     3.42     3.42      0.0

137          KK      K6   CNAME   K6-K7
138          KM   COMBINE ROUTED HYDROGRAPH FROM K5 WITH RUNOFF FROM 46 @ K6
139          KO       0        0      0.0        0       22
140          HC       2

141          KK   K6-K7   CNAME      K6
142          KM   STORAGE ROUTE FROM K6 TO K7 THROUGH SPRR TRESTLE
143          KO       0        0      0.0        0       22
144          RS       1     ELEV    890.0      0.0
145          SV     0.0     0.43    43.48   173.62   410.02   410.02   410.02   410.02   410.02   410.02
146          SV  410.02   410.02   410.02   410.02   410.02   410.02   410.02   410.02   410.02   410.02
147          SE   890.0    892.0    894.0    896.0    898.0    898.0    898.0    898.0    898.0    898.0
148          SE   898.0    898.0    898.0    898.0    898.0    898.0    898.0    898.0    898.0    898.0
1                                                HEC-1 INPUT                                                PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

149          SQ     0.0    200.0    975.0   1120.0   1555.0   1565.0   1610.0   2150.0   2150.0   2150.0
150          SQ  2150.0   2150.0   2150.0   2150.0   2150.0   2150.0   2150.0   2150.0   2150.0   2150.0
151          SE   890.0   891.09   893.09   893.69   894.89   894.99   895.09   895.29   895.29   895.29
152          SE  895.29   895.29   895.29   895.29   895.29   895.29   895.29   895.29   895.29   895.29

153          KK      65
154          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
155          KM   L=0.82     Lca=0.41     S=10.93     Kn=0.200     LAG=121
156          KM   S-GRAPH TYPE=AGRICULTURE
157          KO       0        0      0.0        1       22
158          BA  0.3756
159          LG     1.0    0.247    4.712    0.411     1.76
160          UI     0.0    11.45     15.3    32.35    64.94    69.77    92.26    96.16    96.16     81.2
161          UI   85.03    60.83    57.04    41.32    33.18     28.5    19.59    15.77    13.21    10.45
162          UI    8.88      6.5      6.5      4.4     1.43     1.43     1.43     1.43     1.43     1.43
163          UI    1.43     1.43     1.43     1.43     1.43     1.43     1.43      0.0

164          KK       K7
165          KM   COMBINE STORAGE HYDROGRAPH FROM K6 WITH RUNOFF FROM 65 @ K7
166          ZW   A=RBE B=K7 C=FLOW E=15MIN F=100y24h-ex
167          KO       0        0      0.0        0       22
168          HC       2

169          KK   RIDL
170          KM   ******************************************************************************
171          KM   **    SUB-WATERSHED L    ***********************************************************
172          KM   ******************************************************************************
173          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
174          BA  0.0001
175          ZR  =QI A=RID RID B=41599 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID100-24E

176          KK  L2S-L3   CNAME     L2S
177          KM   ROUTE INFLOW FROM RID CONCENTRATED AT L2S TO L3 (CHANNEL B)
178          KO       0        0      0.0        0       22
179          RS       1     FLOW      0.0      0.0
180          RC     0.1     0.02      0.1  7457.00    0.009      0.0
181          RX     0.0   1000.0   1006.0   1010.0   1050.0   1054.0   1060.0   2060.0
182          RY    10.0      0.0      0.0      1.0      1.0      0.0      0.0     10.0

183          KK      36
184          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
185          KM   L=1.85     Lca=0.93     S=36.67     Kn=0.200     LAG=178
186          KM   S-GRAPH TYPE=AGRICULTURE
187          KO       0        0      0.0        1       22
188          BA  0.6838
189          LG     1.0    0.258    3.967    0.455    5.096
190          UI     0.0    14.17    14.17    22.08    36.12    64.69     83.2    83.17   105.19   118.66
191          UI   119.0    119.0   116.36    99.17   105.05    95.04    74.38    80.98    56.49    51.19
192          UI   41.31     42.9    31.56    25.16    22.88    17.98     17.5    13.42    12.93    12.13
193          UI    8.04     8.04     8.04     8.04     3.19     1.77     1.77     1.77     1.77     1.77
194          UI    1.77     1.77     1.77     1.77     1.77     1.77     1.77     1.77     1.77     1.77
195          UI    1.77     1.77     1.77     1.77      0.0
1                                                HEC-1 INPUT                                                PAGE  5

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

196          KK      L3   CNAME   L3-L4
197          KM   COMBINE ROUTED HYDROGRAPH FROM L2S WITH RUNOFF FROM 36 @ L3
198          KO       0        0      0.0        0       22
199          HC       2

200          KK   L3-L4   CNAME      L3
201          KM   ROUTE HYDROGRAPH FROM L3 TO L4 (CHANNEL B)
202          KO       0        0      0.0        0       22
203          RS       7     FLOW      0.0      0.0
204          RC     0.1     0.02      0.1  7726.73   0.0047      0.0
205          RX     0.0   1000.0   1006.0   1010.0   1050.0   1054.0   1060.0   2060.0
206          RY    10.0      0.0      0.0      1.0      1.0      0.0      0.0     10.0

207          KK      47
208          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
209          KM   L=1.46     Lca=0.73     S=24.60     Kn=0.200     LAG=161
210          KM   S-GRAPH TYPE=AGRICULTURE
211          KO       0        0      0.0        1       22
212          BA  0.6169
213          LG     1.0    0.271    4.499    0.411    0.105
214          UI     0.0    14.13    14.13    25.73    43.69    78.39    77.95   107.42   110.39    118.7
215          UI   118.7   113.43    98.92   105.54    83.18    78.99    64.89    53.48    41.57    42.52
216          UI   30.95    24.46    21.69    17.46     15.7     12.9     12.9     8.42     8.02     8.02
217          UI    8.02      2.1     1.77     1.77     1.77     1.77     1.77     1.77     1.77     1.77
218          UI    1.77     1.77     1.77     1.77     1.77     1.77     1.77     1.77     1.77      0.0

219          KK      L4   CNAME   L4-L5
```

```
 220          KM   COMBINE ROUTED HYDROGRAPH FROM L3 WITH RUNOFF FROM 47 @ L4
 221          KO       0       0     0.0       0      22
 222          HC       2

 223          KK   L4-L5   CNAME      L4
 224          KM   STORAGE ROUTE FROM L4 TO L5 THROUGH SPRR TRESTLE
 225          KO       0       0     0.0       0      22
 226          RS       1    ELEV   886.3     0.0
 227          SV     0.0     0.9     4.0    25.7   107.8  265.67  265.67  265.67  265.67  265.67
 228          SV  265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67
 229          SE   886.0   888.0   890.0   892.0   894.0   896.0   896.0   896.0   896.0   896.0
 230          SE   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0
 231          SQ     0.0    59.0   172.0   230.0   323.0   480.0   769.0  1218.0  1828.0  1828.0
 232          SQ  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0
 233          SE  886.29  888.09  890.09  890.99  891.79  891.99  892.19  892.39  892.59  892.59
 234          SE  892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59

 235          KK      66
 236          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 237          KM   L=0.73     Lca=0.36     S=19.24     Kn=0.200     LAG=99
 238          KM   S-GRAPH TYPE=AGRICULTURE
 239          KO       0       0     0.0       1      22
 240          BA  0.2941
 241          LG     1.0   0.249   4.471   0.385   6.037
 242          UI     0.0   10.96   18.36   48.91   66.57   87.58   92.03   85.89   79.94   62.17
 243          UI   52.27   36.46   30.89   19.44   15.19   11.84    10.0    6.36    6.22     3.7
 244          UI    1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37
1                                          HEC-1 INPUT                                                    PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 245          UI     0.0

 246          KK      L5
 247          KM   COMBINE STORAGE HYDROGRAPH FROM L4 WITH RUNOFF FROM 66 @ L5
 248          ZW   A=RBE B=L5 C=FLOW E=15MIN F=100y24h-ex
 249          KO       0       0     0.0       0      22
 250          HC       2

 251          KK   RIDM
 252          KM   ******************************************************************************
 253          KM   **   SUB-WATERSHED M   ***********************************************************
 254          KM   ******************************************************************************
 255          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 256          BA  0.0001
 257          ZR  =QI A=RID RID B=47199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID100-24E

 258          KK  L2S2M1   CNAME    L2S2
 259          KM   ROUTE INFLOW FROM RID CONCENTRATED AT L2S2 TO M1 (CHANNEL A)
 260          KO       0       0     0.0       0      22
 261          RS       1    FLOW     0.0     0.0
 262          RC     0.1     0.1     0.1 9579.00  0.0030     0.0
 263          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 264          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 265          KK      37
 266          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 267          KM   L=2.36     Lca=1.18     S=30.11     Kn=0.200     LAG=222
 268          KM   S-GRAPH TYPE=AGRICULTURE
 269          KO       0       0     0.0       1      22
 270          BA  1.4211
 271          LG     1.0    0.25    4.12   0.457     0.0
 272          UI     0.0   23.61   23.61   23.61   46.77   63.19  104.27  137.98  128.23  153.35
 273          UI  177.81   198.3   198.3   198.3   198.3  191.69  165.25  165.25  182.96  139.11
 274          UI  124.21  141.65    97.7   90.14   78.24   68.08   70.88   60.42   45.07   38.97
 275          UI   38.13   29.56   29.16   25.81   21.55   21.55   21.26    13.4    13.4    13.4
 276          UI    13.4    13.4    7.55    2.95    2.95    2.95    2.95    2.95    2.95    2.95
 277          UI    2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95
 278          UI    2.95    2.95    2.95    2.95    2.95    2.95    2.95     0.0

 279          KK      M1   CNAME   M1-M2
 280          KM   COMBINE ROUTED HYDROGRAPH FROM L2S2 WITH RUNOFF FROM 37 @ M1
 281          KO       0       0     0.0       0      22
 282          HC       2

 283          KK   M1-M2   CNAME      M1
 284          KM   ROUTE HYDROGRAPH FROM M1 TO M2 (CHANNEL A)
 285          KO       0       0     0.0       0      22
 286          RS       7    FLOW     0.0     0.0
 287          RC     0.1     0.1     0.1  5783.5  0.0032     0.0
 288          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 289          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                                    PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 290          KK      48
 291          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 292          KM   L=1.10     Lca=0.55     S=16.43     Kn=0.200     LAG=139
 293          KM   S-GRAPH TYPE=AGRICULTURE
 294          KO       0       0     0.0       1      22
 295          BA  0.4997
 296          LG     1.0    0.25   4.375   0.445   1.368
 297          UI     0.0   13.26   14.05   30.21   59.66   76.06    96.1  103.26  111.37  111.37
 298          UI   97.76   97.11   83.14   74.11   57.93   46.73   37.98    35.6   23.78   20.47
 299          UI   16.38   13.76   12.11     9.9    7.53    7.53    7.21    1.66    1.66    1.66
 300          UI    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66
 301          UI    1.66    1.66     0.0

 302          KK      M2   CNAME   M2-M3
 303          KM   COMBINE ROUTED HYDROGRAPH FROM M1 WITH RUNOFF FROM 48 @ M2
 304          KO       0       0     0.0       0      22
 305          HC       2

 306          KK   M2-M3   CNAME      M2
 307          KM   ROUTE HYDROGRAPH FROM M2 TO M3 (CHANNEL A)
 308          KO       0       0     0.0       0      22
 309          RS       2    FLOW     0.0     0.0
 310          RC   0.025   0.025   0.025 4309.67  0.0050     0.0
 311          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 312          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 313          KK      67
```

```
 314          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 315          KM   L=0.82     Lca=0.41     S=25.73     Kn=0.200     LAG=102
 316          KM   S-GRAPH TYPE=PHOENIX VALLEY
 317          KO       0        0     0.0        1       22
 318          BA  0.4717
 319          LG   0.261    0.262    4.328    0.393   26.592
 320          UI     0.0    15.57    31.09    66.92    86.69   107.67   144.49   191.76   149.18   119.67
 321          UI   94.22    73.23     45.3    26.94    21.99    15.57     6.99     4.78     4.78     4.78
 322          UI    4.78      0.0

 323          KK      M3   CNAME   M3-M4
 324          KM   COMBINE ROUTED HYDROGRAPH FROM M2 WITH RUNOFF FROM 67 @ M3
 325          KO       0        0     0.0        0       22
 326          HC       2

 327          KK   M3-M4   CNAME      M3
 328          KM   STORAGE ROUTE FROM M3 TO M4 THROUGH SPRR TRESTLE
 329          KO       0        0     0.0        0       22
 330          RS       1     ELEV   884.0      0.0
 331          SV     0.0     0.28    12.7     94.1   202.02   383.38   383.38   383.38   383.38   383.38
 332          SV  383.38   383.38   383.38   383.38   383.38   383.38   383.38   383.38   383.38   383.38
 333          SE   884.0    886.0    888.0    890.0    892.0    894.0    894.0    894.0    894.0    894.0
 334          SE   894.0    894.0    894.0    894.0    894.0    894.0    894.0    894.0    894.0    894.0
 335          SQ     0.0     42.0    135.0    200.0    226.0    465.0   1010.0   1703.0   1703.0   1703.0
 336          SQ  1703.0   1703.0   1703.0   1703.0   1703.0   1703.0   1703.0   1703.0   1703.0   1703.0
 337          SE   884.0   885.09   887.09   889.19   889.29   889.49   889.69   889.89   889.89   889.89
 338          SE  889.89   889.89   889.89   889.89   889.89   889.89   889.89   889.89   889.89   889.89
1                                              HEC-1 INPUT                                                    PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 339          KK      69
 340          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 341          KM   L=0.11     Lca=0.06     S=17.52     Kn=0.200     LAG=25
 342          KM   S-GRAPH TYPE=PHOENIX VALLEY
 343          KO       0        0     0.0        1       22
 344          BA  0.1371
 345          LG   0.176    0.264    4.502    0.395   49.216
 346          UI     0.0    60.46   176.19    92.48    19.3      0.0

 347          KK      M4
 348          KM   COMBINE STORAGE HYDROGRAPH FROM M3 WITH RUNOFF FROM 69 @ M4
 349          ZW   A=RBE B=M4 C=FLOW E=15MIN F=100y24h-ex
 350          KO       0        0     0.0        0       22
 351          HC       2

 352          KK   RIDN
 353          KM   ***********************************************************************
 354          KM   **   SUB-WATERSHED N   ***********************************************
 355          KM   ***********************************************************************
 356          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 357          BA  0.0001
 358          ZR  =QI A=RID RID B=51199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID100-24E

 359          KK  N2S-N3   CNAME     N2S
 360          KM   ROUTE INFLOW FROM RID CONCENTRATED AT N2S TO N3 (CHANNEL A)
 361          KO       0        0     0.0        0       22
 362          RS       1     FLOW     0.0      0.0
 363          RC     0.1      0.1     0.1   5806.00   0.0050      0.0
 364          RX     0.0    250.0   500.0    750.0   1000.0   1333.3   1666.6   2000.0
 365          RY    10.0      7.5     5.0      2.5      0.0      3.3      6.6     10.0

 366          KK      38
 367          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 368          KM   L=1.40     Lca=0.70     S=20.72     Kn=0.200     LAG=161
 369          KM   S-GRAPH TYPE=AGRICULTURE
 370          KO       0        0     0.0        1       22
 371          BA  0.5419
 372          LG     1.0    0.249    3.963    0.466    1.066
 373          UI     0.0    12.41    12.41     22.6    38.38    68.87    68.47    94.37    96.98   104.28
 374          UI  104.28    99.64     86.9    92.71    73.07    69.39    57.01    46.98    36.52    37.35
 375          UI   27.19    21.49    19.06    15.33    13.79    11.33    11.33      7.4     7.05     7.05
 376          UI    7.05     1.84     1.55     1.55     1.55     1.55     1.55     1.55     1.55     1.55
 377          UI    1.55     1.55     1.55     1.55     1.55     1.55     1.55     1.55     1.55      0.0

 378          KK      N3   CNAME   N3-N4
 379          KM   COMBINE ROUTED HYDROGRAPH FROM N2S WITH RUNOFF FROM 38 @ N3
 380          KO       0        0     0.0        0       22
 381          HC       2
1                                              HEC-1 INPUT                                                    PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 382          KK   N3-N4   CNAME      N3
 383          KM   ROUTE HYDROGRAPH FROM N3 TO N4 (CHANNEL B)
 384          KO       0        0     0.0        0       22
 385          RS       5     FLOW     0.0      0.0
 386          RC     0.1     0.02     0.1   5295.68   0.0087      0.0
 387          RX     0.0   1000.0   1006.0   1010.0   1050.0   1054.0   1060.0   2060.0
 388          RY    10.0      0.0     0.0      1.0      1.0      0.0      0.0     10.0

 389          KK      49
 390          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 391          KM   L=1.96     Lca=0.98     S=23.51     Kn=0.200     LAG=202
 392          KM   S-GRAPH TYPE=AGRICULTURE
 393          KO       0        0     0.0        1       22
 394          BA  1.0093
 395          LG     1.0     0.25    3.954    0.417    0.658
 396          UI     0.0    18.43    18.43    21.91     38.7    60.54    96.74   109.77   111.53   139.33
 397          UI   150.8   154.78   154.78   154.78   141.02   128.98   137.67   123.61    96.74   107.67
 398          UI   80.42    70.35    59.46     52.4    57.71    37.74    32.94    29.77    25.12    22.76
 399          UI   20.55    16.82    16.82    15.07    10.46    10.46    10.46    10.46     8.07      2.3
 400          UI     2.3      2.3      2.3      2.3      2.3      2.3      2.3      2.3      2.3      2.3
 401          UI     2.3      2.3      2.3      2.3      2.3      2.3      2.3      2.3      2.3      2.3
 402          UI     2.3      0.0

 403          KK      N4   CNAME  N4-N5B
 404          KM   COMBINE ROUTED HYDROGRAPH FROM N3 WITH RUNOFF FROM 49 @ N4
 405          KO       0        0     0.0        0       22
 406          HC       2

 407          KK  N4-N5B   CNAME      N4
```

```
408          KM   ROUTE HYDROGRAPH FROM N4 TO N5 (CHANNEL B)
409          KO       0       0     0.0       0      22
410          RS       3    FLOW     0.0     0.0
411          RC     0.1    0.02     0.1 3866.36  0.0080     0.0
412          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
413          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

414          KK     56B
415          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
416          KM   L=0.71     Lca=0.32     S=32.56     Kn=0.200     LAG=85
417          KM   S-GRAPH TYPE=AGRICULTURE
418          KO       0       0     0.0       1      22
419          BA  0.3335
420          LG     0.1    0.25   3.998   0.524    80.0
421          UI     0.0   13.21   36.42   66.04   85.35  118.84  159.02  118.04    90.4   67.67
422          UI   40.92   22.66   16.33    10.2    4.05    4.05    4.05     0.0

423          KK     N5B   CNAME  N5B-N6
424          KM   COMBINE ROUTED HYDROGRAPH FROM N4 WITH RUNOFF FROM 56B @ N5B
425          KO       0       0     0.0       0      22
426          HC       2
1                                        HEC-1 INPUT                                                    PAGE 10

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

427          KK  N5B-N6   CNAME     N5B
428          KM   STORAGE ROUTE FROM N5B TO N6 THROUGH SPRR TRESTLE
429          KO       0       0     0.0       0      22
430          RS       1    ELEV  887.23     0.0
431          SV     0.0    0.96   12.89   39.94   86.12  150.27  150.27  150.27  150.27  150.27
432          SV  150.27  150.27  150.27  150.27  150.27  150.27  150.27  150.27  150.27  150.27
433          SE   886.0   888.0   890.0   892.0   894.0   896.0   896.0   896.0   896.0   896.0
434          SE   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0
435          SQ     0.0    71.6    98.1   118.7   136.2   151.6   165.7   178.6   190.7   202.0
436          SQ   212.8   223.0   232.8   242.1   251.2   259.9   268.3   276.5   276.5   276.5
437          SE  887.23  889.23  889.73  890.23  890.73  891.23  891.73  892.23  892.73  893.23
438          SE  893.73  894.23  894.73  895.23  895.73  896.23  896.73  897.23  897.23  897.23

439          KK     56A
440          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
441          KM   L=1.19     Lca=0.59     S=30.31     Kn=0.200     LAG=132
442          KM   S-GRAPH TYPE=AGRICULTURE
443          KO       0       0     0.0       1      22
444          BA  0.4105
445          LG     1.0    0.25   3.969   0.455  18.065
446          UI     0.0   11.47   13.39   28.45   55.88   66.16   84.79   96.35   96.35   93.14
447          UI   80.29   83.82   61.02   58.36   42.89   33.31   32.41   20.95   17.94   14.17
448          UI    11.8   10.47    8.03    6.51    6.51    4.68    1.43    1.43    1.43    1.43
449          UI    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43
450          UI     0.0

451          KK  N5A-N6   CNAME     N5A
452          KM   STORAGE ROUTE FROM N5A TO N6 THROUGH SPRR TRESTLE
453          KO       0       0     0.0       0      22
454          RS       1    ELEV  886.0     0.0
455          SV     0.0    0.02    8.08   35.13  100.26  100.26  100.26  100.26  100.26  100.26
456          SV  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26
457          SE   886.0   888.0   890.0   892.0   894.0   894.0   894.0   894.0   894.0   894.0
458          SE   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0
459          SQ     0.0   102.4   189.7   248.0   294.9   335.4   371.5   404.3   434.7   463.1
460          SQ   489.9   515.2   539.4   562.6   584.8   606.2   626.9   646.9   646.9   646.9
461          SE   886.0  887.52  888.02  888.52  889.02  889.52  890.02  890.52  891.02  891.52
462          SE  892.02  892.52  893.02  893.52  894.02  894.52  895.02  895.52  895.52  895.52

463          KK      70
464          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
465          KM   L=0.68     Lca=0.34     S=1.48     Kn=0.200     LAG=152
466          KM   S-GRAPH TYPE=AGRICULTURE
467          KO       0       0     0.0       1      22
468          BA  0.1406
469          LG     1.0    0.25   4.395   0.512     0.0
470          UI     0.0    3.41    3.41    6.68   12.76   19.73   19.85   25.86   28.66   28.66
471          UI   28.66   24.52   25.09   21.89   18.55   16.77   13.03   10.07   10.32    7.14
472          UI    5.77    4.95    4.21    3.44    3.12    2.67    1.94    1.94    1.94    0.99
473          UI    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43
474          UI    0.43    0.43    0.43    0.43    0.43    0.43     0.0
1                                        HEC-1 INPUT                                                    PAGE 11

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

475          KK      N6
476          KM   COMBINE STORAGE HYDROGRAPH FROM N5A AND N5B WITH RUNOFF FROM 70 @ N6
477          ZW   A=RBE B=N6 C=FLOW E=15MIN F=100y24h-ex
478          KO       0       0     0.0       0      22
479          HC       3

480          KK   RIDO
481          KM   ***********************************************************************
482          KM   **   SUB-WATERSHED O   ***********************************************
483          KM   ***********************************************************************
484          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
485          BA  0.0001
486          ZR  =QI A=RID RJD B=57199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID100-24E

487          KK  O4S-O5   CNAME     O4S
488          KM   ROUTE INFLOW FROM RID CONCENTRATED AT O4S TO O5 (CHANNEL A)
489          KO       0       0     0.0       0      22
490          RS       1    FLOW     0.0     0.0
491          RC     0.1     0.1     0.1 6325.00  0.0060     0.0
492          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
493          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

494          KK      39
495          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
496          KM   L=1.63     Lca=0.82     S=25.14     Kn=0.200     LAG=174
497          KM   S-GRAPH TYPE=AGRICULTURE
498          KO       0       0     0.0       1      22
499          BA  0.7253
500          LG     1.0   0.249    4.31    0.47   1.592
501          UI     0.0   15.37   15.37   24.91   40.98   72.85   90.07   94.27  117.51  129.13
502          UI  129.13  129.13  120.52  107.61  114.33   93.69   83.76    78.5    59.0   50.24
503          UI   43.47   44.81   29.35   25.01   22.19   18.99   16.61   14.04   14.04    9.72
```

```
 504          UI    8.73    8.73    8.73    5.19    1.92    1.92    1.92    1.92    1.92    1.92
 505          UI    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92
 506          UI    1.92    1.92     0.0

 507          KK      O5   CNAME   O5-O6
 508          KM   COMBINE ROUTED HYDROGRAPH FROM O4S WITH RUNOFF FROM 39 @ O5
 509          KO       0       0     0.0       0      22
 510          HC       2

 511          KK   O5-O6   CNAME      O5
 512          KM   ROUTE HYDROGRAPH FROM O5 TO O6 (CHANNEL B)
 513          KO       0       0     0.0       0      22
 514          RS       4    FLOW     0.0     0.0
 515          RC     0.1    0.02     0.1 5267.87  0.0100     0.0
 516          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 517          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0
1                                          HEC-1 INPUT                                                PAGE 12

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 518          KK      50
 519          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 520          KM   L=1.98     Lca=0.99     S=26.73     Kn=0.200     LAG=199
 521          KM   S-GRAPH TYPE=AGRICULTURE
 522          KO       0       0     0.0       1      22
 523          BA  1.0018
 524          LG     1.0   0.251   4.181   0.488   2.404
 525          UI     0.0   18.57   18.57   22.94   38.99   65.02   98.44  109.42  116.01  139.75
 526          UI  155.95  155.95  155.95  155.95  136.89  129.96  138.93  116.06   98.44  106.28
 527          UI   74.44    70.3   55.29    52.9   53.78   35.44   31.12   29.51   22.93   22.93
 528          UI   18.07   16.95   16.95   12.06   10.54   10.54   10.54   10.54    3.53    2.32
 529          UI    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32
 530          UI    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32
 531          UI     0.0

 532          KK      O6   CNAME   O6-O7
 533          KM   COMBINE ROUTED HYDROGRAPH FROM O5 WITH RUNOFF FROM 50 @ O6
 534          KO       0       0     0.0       0      22
 535          HC       2

 536          KK   O6-O7   CNAME      O6
 537          KM   ROUTE HYDROGRAPH FROM O6 TO O7 (CHANNEL B)
 538          KO       0       0     0.0       0      22
 539          RS       4    FLOW     0.0     0.0
 540          RC     0.1    0.02     0.1 3578.87  0.0040     0.0
 541          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 542          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 543          KK      57
 544          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 545          KM   L=0.68     Lca=0.34     S=19.18     Kn=0.200     LAG=94
 546          KM   S-GRAPH TYPE=AGRICULTURE
 547          KO       0       0     0.0       1      22
 548          BA  0.4885
 549          LG     1.0    0.25   4.256    0.53   1.416
 550          UI     0.0   19.17   35.13   95.98  125.05  151.34   161.0  141.33  132.78  104.89
 551          UI   73.19   56.54   41.57   28.93   22.36    17.5   12.39   10.88    7.03     2.4
 552          UI     2.4     2.4     2.4     2.4     2.4     2.4     2.4     2.4     2.4     0.0

 553          KK      O7   CNAME   O7-O8
 554          KM   COMBINE ROUTED HYDROGRAPH FROM O6 WITH RUNOFF FROM 57 @ O7
 555          KO       0       0     0.0       0      22
 556          HC       2

 557          KK   O7-O8   CNAME      O7
 558          KM   STORAGE ROUTE FROM O7 TO O8 THROUGH SPRR TRESTLE
 559          KO       0       0     0.0       0      22
 560          RS       1    ELEV   891.1     0.0
 561          SV     0.0     0.2    8.52   76.65  224.48  224.48  224.48  224.48  224.48  224.48
 562          SV  224.48  224.48  224.48  224.48  224.48  224.48  224.48  224.48  224.48  224.48
 563          SE   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0
 564          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
 565          SQ     0.0    78.0    85.0   151.0   248.0   540.0   954.0  1560.0  2334.0  2334.0
 566          SQ  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0
1                                          HEC-1 INPUT                                                PAGE 13

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 567          SE   891.1   893.1   893.4   894.5   894.7   895.0   895.2   895.4   895.6   895.6
 568          SE   895.6   895.6   895.6   895.6   895.6   895.6   895.6   895.6   895.6   895.6

 569          KK      71
 570          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 571          KM   L=0.34     Lca=0.17     S=14.51     Kn=0.200     LAG=59
 572          KM   S-GRAPH TYPE=AGRICULTURE
 573          KO       0       0     0.0       1      22
 574          BA  0.1553
 575          LG     1.0   0.243   4.911   0.414   2.609
 576          UI     0.0   11.57   42.26   70.54   80.65   67.88   47.94   30.74    17.5   10.91
 577          UI    7.38    5.51    1.27    1.21    1.21    1.21    1.21    1.21     0.0

 578          KK      O8   CNAME
 579          KM   COMBINE STORAGE HYDROGRAPH FROM O7 WITH RUNOFF FROM 71 @ O8
 580          ZW   A=RBE B=O8 C=FLOW E=15MIN F=100y24h-ex
 581          KO       0       0     0.0       0      22
 582          HC       2

 583          KK   RIDP
 584          KM   ******************************************************************************
 585          KM   **   SUB-WATERSHED P   ********************************************************
 586          KM   ******************************************************************************
 587          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 588          BA  0.0001
 589          ZR  =QI A=RID RID B=61999 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID100-24E

 590          KK  P2S-P3   CNAME     P2S
 591          KM   ROUTE INFLOW FROM RID CONCENTRATED AT P2S TO P3 (CHANNEL A)
 592          KO       0       0     0.0       0      22
 593          RS       1    FLOW     0.0     0.0
 594          RC     0.1     0.1     0.1 8445.00  0.0070     0.0
 595          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 596          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
```

```
          KK      40
          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
          KM   L=1.83      Lca=0.91      S=31.23      Kn=0.200      LAG=182
          KM   S-GRAPH TYPE=AGRICULTURE
          KO       0        0      0.0        1       22
          BA  0.9761
          LG     1.0    0.249    4.211    0.525    0.739
          UI     0.0    19.78    19.78    29.61    48.14     86.9   116.44   110.94   150.61   157.12
          UI  166.14   166.14   166.14   142.14   139.74   151.32   103.84   112.23     90.8    75.52
          UI    62.1    56.05    56.55    37.76    32.26    29.17    24.43    22.48    18.06    18.06
          UI   14.53    11.23    11.23    11.23    10.99     2.47     2.47     2.47     2.47     2.47
          UI    2.47     2.47     2.47     2.47     2.47     2.47     2.47     2.47     2.47     2.47
          UI    2.47     2.47     2.47     2.47     2.47      0.0

          KK      P3   CNAME   P3-P4
          KM   COMBINE ROUTED HYDROGRAPH FROM P2S WITH RUNOFF FROM 40 @ P3
          KO       0        0      0.0        0       22
          HC       2
1                                        HEC-1 INPUT                                                    PAGE 14

     LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          KK   P3-P4   CNAME      P3
          KM   ROUTE HYDROGRAPH FROM P3 TO P4 (CHANNEL B)
          KO       0        0      0.0        0       22
          RS       3     FLOW      0.0      0.0
          RC     0.1     0.02      0.1  5302.14    0.008      0.0
          RX     0.0   1000.0   1006.0   1010.0   1050.0   1054.0   1060.0   2060.0
          RY    10.0      0.0      0.0      1.0      1.0      0.0      0.0     10.0

          KK      51
          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
          KM   L=1.96      Lca=0.98      S=22.98      Kn=0.200      LAG=203
          KM   S-GRAPH TYPE=AGRICULTURE
          KO       0        0      0.0        1       22
          BA   1.004
          LG     1.0     0.25    4.401    0.563    1.523
          UI     0.0    18.24    18.24    21.41     38.3    58.85    95.52   108.71    109.2   138.77
          UI  147.29    153.2    153.2    153.2   141.28   127.67   136.31   125.01    95.75   105.04
          UI    83.7    69.64    60.42    52.27    56.21    40.23    33.28    29.46    25.81    22.53
          UI    21.2    16.65    16.65    15.93    10.35    10.35    10.35    10.35     9.49     2.28
          UI    2.28     2.28     2.28     2.28     2.28     2.28     2.28     2.28     2.28     2.28
          UI    2.28     2.28     2.28     2.28     2.28     2.28     2.28     2.28     2.28     2.28
          UI    2.28      0.0

          KK      P4   CNAME   P4-P5
          KM   COMBINE ROUTED HYDROGRAPH FROM P3 WITH RUNOFF FROM 51 @ P4
          KO       0        0      0.0        0       22
          HC       2

          KK   P4-P5   CNAME      P4
          KM   ROUTE HYDROGRAPH FROM P4 TO P5 (CHANNEL A)
          KO       0        0      0.0        0       22
          RS       5     FLOW      0.0      0.0
          RC     0.1      0.1      0.1  2651.48   0.0030      0.0
          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

          KK      58
          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
          KM   L=0.50      Lca=0.25      S=15.93      Kn=0.200      LAG=77
          KM   S-GRAPH TYPE=AGRICULTURE
          KO       0        0      0.0        1       22
          BA  0.1897
          LG     1.0     0.25    4.294    0.552   11.148
          UI     0.0     9.09    25.11    52.16    72.06    76.34    66.54    55.11    41.43    27.69
          UI   18.96    12.68     9.16     6.65     5.16     2.64     1.14     1.14     1.14     1.14
          UI    1.14     1.14     1.14      0.0

          KK      P5   CNAME   P5-P6
          KM   COMBINE ROUTED HYDROGRAPH FROM P4 WITH RUNOFF FROM 58 @ P5
          KO       0        0      0.0        0       22
          HC       2
1                                        HEC-1 INPUT                                                    PAGE 15

     LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          KK   P5-P6   CNAME      P5
          KM   STORAGE ROUTE FROM P5 TO P6 THROUGH SPRR TRESTLE
          KO       0        0      0.0        0       22
          RS       1     ELEV    889.1      0.0
          SV     0.0     1.33     6.78    36.99   130.95   286.86   286.86   286.86   286.86   286.86
          SV  286.86   286.86   286.86   286.86   286.86   286.86   286.86   286.86   286.86   286.86
          SE   888.0    890.0    892.0    894.0    896.0    898.0    898.0    898.0    898.0    898.0
          SE   898.0    898.0    898.0    898.0    898.0    898.0    898.0    898.0    898.0    898.0
          SQ     0.0     40.0    105.0    187.0    278.0    531.0    853.0   1198.0   1573.0   1722.0
          SQ  1980.0   1980.0   1980.0   1980.0   1980.0   1980.0   1980.0   1980.0   1980.0   1980.0
          SE  889.11   889.61   890.11   890.61   891.11   892.11   893.11   894.11   895.11   896.11
          SE  897.11   897.11   897.11   897.11   897.11   897.11   897.11   897.11   897.11   897.11

          KK      72
          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
          KM   L=0.13      Lca=0.06      S=7.71      Kn=0.200      LAG=32
          KM   S-GRAPH TYPE=AGRICULTURE
          KO       0        0      0.0        1       22
          BA  0.0856
          LG     1.0     0.23    4.468    0.424    7.937
          UI     0.0    24.87     74.6    66.73    31.73    12.61     6.11     1.23     1.23     1.23
          UI     0.0

          KK      P6
          KM   COMBINE STORAGE HYDROGRAPH FROM P5 WITH RUNOFF FROM 72 @ P6
          ZW   A=RBE B=P6 C=FLOW E=15MIN F=100y24h-ex
          KO       0        0      0.0        0       22
          HC       2
          ZZ

                                RUNOFF SUMMARY
                                     FLOW IN CUBIC FEET PER SECOND
                                TIME IN HOURS,  AREA IN SQUARE MILES

                           PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
```

	OPERATION	STATION	FLOW	PEAK	6-HOUR	24-HOUR	72-HOUR	AREA	STAGE	MAX STAGE
+	HYDROGRAPH AT	RIDKB	441.	13.25	117.	29.	10.	0.00		
+	ROUTED TO	K3SBK4	267.	14.00	114.	29.	10.	0.00		
+	HYDROGRAPH AT	RIDKA	521.	13.50	243.	71.	24.	0.00		
+	ROUTED TO	K3SAK4	291.	15.00	215.	70.	24.	0.00		
+	HYDROGRAPH AT	34	106.	14.25	53.	14.	5.	0.64		
+	3 COMBINED AT	K4	616.	14.25	373.	114.	39.	0.64		
+	ROUTED TO	K4-K5	603.	14.75	361.	113.	39.	0.64		
+	HYDROGRAPH AT	35	209.	14.75	127.	36.	12.	1.50		
+	2 COMBINED AT	K5	809.	14.75	472.	149.	51.	2.14		
+	ROUTED TO	K5-K6	767.	15.75	462.	149.	51.	2.14		
+	HYDROGRAPH AT	46	192.	14.75	114.	32.	11.	1.38		
+	2 COMBINED AT	K6	934.	15.75	541.	180.	61.	3.52		
+	ROUTED TO	K6-K7	827.	16.50	541.	180.	61.	3.52		
+	HYDROGRAPH AT	65	83.	13.75	35.	9.	3.	0.38		
+	2 COMBINED AT	K7	838.	16.50	558.	188.	64.	3.90		
+	HYDROGRAPH AT	RIDL	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	L2S-L3	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	36	108.	14.75	63.	18.	6.	0.68		
+	2 COMBINED AT	L3	108.	14.75	63.	18.	6.	0.68		
+	ROUTED TO	L3-L4	86.	17.25	57.	18.	6.	0.68		
+	HYDROGRAPH AT	47	98.	14.25	52.	14.	5.	0.62		
+	2 COMBINED AT	L4	115.	16.75	95.	31.	10.	1.30		
+	ROUTED TO	L4-L5	111.	17.00	94.	31.	10.	1.30		
+	HYDROGRAPH AT	66	87.	13.50	31.	8.	3.	0.29		
+	2 COMBINED AT	L5	154.	14.00	118.	39.	13.	1.59		
+	HYDROGRAPH AT	RIDM	598.	13.50	140.	35.	12.	0.00		
+	ROUTED TO	L2S2M1	145.	15.00	97.	34.	12.	0.00		
+	HYDROGRAPH AT	37	161.	14.75	108.	31.	10.	1.42		
+	2 COMBINED AT	M1	305.	15.00	203.	65.	22.	1.42		
+	ROUTED TO	M1-M2	286.	16.75	193.	65.	22.	1.42		
+	HYDROGRAPH AT	48	94.	14.00	44.	12.	4.	0.50		
+	2 COMBINED AT	M2	303.	16.75	207.	75.	26.	1.92		
+	ROUTED TO	M2-M3	299.	17.00	207.	75.	26.	1.92		
+	HYDROGRAPH AT	67	245.	13.75	79.	24.	8.	0.47		
+	2 COMBINED AT	M3	312.	17.00	246.	96.	33.	2.39		
+	ROUTED TO	M3-M4	185.	19.50	180.	96.	33.	2.39		
+	HYDROGRAPH AT	69	214.	12.50	29.	9.	3.	0.14		

+	2 COMBINED AT	M4	271.	12.50	183.	104.	36.	2.53
+	HYDROGRAPH AT	RIDN	214.	14.50	80.	20.	7.	0.00
+	ROUTED TO	N2S-N3	117.	15.50	68.	20.	7.	0.00
+	HYDROGRAPH AT	38	88.	14.25	47.	13.	4.	0.54
+	2 COMBINED AT	N3	194.	15.25	112.	32.	11.	0.54
+	ROUTED TO	N3-N4	183.	16.00	108.	32.	11.	0.54
+	HYDROGRAPH AT	49	134.	15.00	84.	24.	8.	1.01
+	2 COMBINED AT	N4	300.	16.00	184.	56.	19.	1.55
+	ROUTED TO	N4-N5B	289.	16.25	180.	56.	19.	1.55
+	HYDROGRAPH AT	56B	260.	13.50	88.	30.	10.	0.33
+	2 COMBINED AT	N5B	311.	16.25	232.	84.	29.	1.88
+	ROUTED TO	N5B-N6	181.	18.25	172.	84.	29.	1.88
+	HYDROGRAPH AT	56A	105.	14.00	51.	15.	5.	0.41
+	ROUTED TO	N5A-N6	105.	14.00	51.	15.	5.	0.41
+	HYDROGRAPH AT	70	23.	14.00	11.	3.	1.	0.14
+	3 COMBINED AT	N6	248.	14.25	209.	102.	35.	2.44
+	HYDROGRAPH AT	RIDO	131.	14.00	39.	10.	3.	0.00
+	ROUTED TO	O4S-O5	56.	15.00	32.	10.	3.	0.00
+	HYDROGRAPH AT	39	107.	14.50	60.	17.	6.	0.73
+	2 COMBINED AT	O5	161.	14.75	91.	26.	9.	0.73
+	ROUTED TO	O5-O6	146.	15.75	88.	26.	9.	0.73
+	HYDROGRAPH AT	50	129.	15.00	81.	23.	8.	1.00
+	2 COMBINED AT	O6	257.	16.00	163.	49.	16.	1.73
+	ROUTED TO	O6-O7	249.	16.25	159.	49.	16.	1.73
+	HYDROGRAPH AT	57	127.	13.50	42.	11.	4.	0.49
+	2 COMBINED AT	O7	256.	16.25	178.	59.	20.	2.22
+	ROUTED TO	O7-O8	181.	17.75	149.	59.	20.	2.22
+	HYDROGRAPH AT	71	70.	13.00	15.	4.	1.	0.16
+	2 COMBINED AT	O8	181.	17.75	150.	63.	21.	2.37
+	HYDROGRAPH AT	RIDP	402.	12.75	72.	23.	11.	0.00
+	ROUTED TO	P2S-P3	83.	13.50	57.	22.	10.	0.00
+	HYDROGRAPH AT	40	129.	14.75	75.	21.	7.	0.98
+	2 COMBINED AT	P3	201.	14.50	132.	43.	17.	0.98
+	ROUTED TO	P3-P4	193.	15.25	125.	43.	17.	0.98
+	HYDROGRAPH AT	51	117.	15.00	74.	21.	7.	1.00
+	2 COMBINED AT	P4	307.	15.25	194.	63.	24.	1.98
+	ROUTED TO	P4-P5	296.	16.00	191.	63.	24.	1.98
+	HYDROGRAPH AT	58	68.	13.25	20.	6.	2.	0.19

```
          2 COMBINED AT
+                          P5       298.   16.00        195.        68.        26.       2.17

          ROUTED TO
+                        P5-P6      297.   16.00        195.        68.        26.       2.17

          HYDROGRAPH AT
+                          72        70.   12.50          9.         3.         1.       0.09

          2 COMBINED AT
+                          P6       297.   16.00        195.        70.        27.       2.26


 *** NORMAL END OF HEC-1 ***
      1****************************************
 *                                            *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)        *
 *              JUN   1998                    *
 *            VERSION 4.1                     *
 *                                            *
 *  RUN DATE   23MAR06  TIME  04:58:40        *
 *                                            *
 **********************************************

                                                  ************************************
                                                  *                                  *
                                                  *   U.S. ARMY CORPS OF ENGINEERS   *
                                                  *   HYDROLOGIC ENGINEERING CENTER  *
                                                  *         609 SECOND STREET        *
                                                  *      DAVIS, CALIFORNIA 95616     *
                                                  *          (916) 756-1104          *
                                                  *                                  *
                                                  ************************************

                                  X     X  XXXXXXX   XXXXX           X
                                  X     X  X        X     X         XX
                                  X     X  X        X                X
                                  XXXXXXX  XXXX     X        XXXXX   X
                                  X     X  X        X                X
                                  X     X  X        X     X          X
                                  X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                    PAGE  1

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          1           ID   Buckeye/Sun Valley ADMS - November 2004
          2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
          3           ID   100-year 24-hour
          4           ID   Existing Conditions
          5           ID   Area 1 - RID to BIC (West)
          6           ID   File Name: rbw10024ex.hc1
          7           ID   Rainfall Loss Method - Green & Ampt
          8           ID   Unit Hydrograph Method - FCDMC S-Graph
          9           ID   Channel Routing Method - Normal Depth
         10           ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
         11           ID   Existing Land Use Cutoff Date: 2000
         12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
         13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                      *DIAGRAM
         14           IT      15 02JAN94       0     400
         15           IO       3
         16           IN      15 02JAN94       0
         17           JD     4.1    0.01
                      * 24-hour distribution
         18           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
         19           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
         20           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
         21           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
         22           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
         23           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
         24           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
         25           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
         26           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
         27           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
         28           IN      15 02JAN94       0
         29           JD   3.895    10.0
                      * 24-hour distribution
         30           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
         31           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
         32           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
         33           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
         34           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
         35           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
         36           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
         37           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
         38           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
         39           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
         40           IN      15 02JAN94       0
         41           JD   3.764    20.0
                      * 24-hour distribution
         42           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
         43           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
         44           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
         45           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
         46           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
         47           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
         48           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
         49           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
         50           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
         51           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
1                                                   HEC-1 INPUT                                                    PAGE  2

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


         52           KK      68
```

```
 53          KM   ******************************************************************************
 54          KM   **   SUB-WATERSHED E   ******************************************************
 55          KM   ******************************************************************************
 56          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 57          KM   L=0.96      Lca=0.33      S=45.58      Kn=0.050      LAG=22
 58          KM   S-GRAPH TYPE=DESERT RANGELAND
 59          KO       0        0      0.0        1       22
 60          BA  0.4130
 61          LG   0.374    0.334    4.366    0.374     0.0
 62          UI     0.0   257.36   526.31    199.5   61.33    15.58     0.0

 63          KK   E1-E2    CNAME       E1
 64          KM   STORAGE ROUTE FROM E1 TO E2 THROUGH SPRR TRESTLE
 65          KO       0        0      0.0        0       22
 66          RS       1     ELEV    871.0      0.0
 67          SV     0.0     1.39     5.84    13.36    41.09    96.81   182.04    292.0   426.27   581.71
 68          SV  756.67   957.16   1179.1   1179.1   1179.1   1179.1   1179.1   1179.1   1179.1   1179.1
 69          SE   872.0    874.0    876.0    878.0    880.0    882.0    884.0    886.0    888.0    890.0
 70          SE   892.0    894.0    896.0    896.0    896.0    896.0    896.0    896.0    896.0    896.0
 71          SQ     0.0    100.0    240.0    360.0    480.0    600.0   1020.0   2000.0   2760.0   2760.0
 72          SQ  2760.0   2760.0   2760.0   2760.0   2760.0   2760.0   2760.0   2760.0   2760.0   2760.0
 73          SE  873.07   874.07   875.07   876.07   877.07   878.07   879.07   880.07   881.07   881.07
 74          SE  881.07   881.07   881.07   881.07   881.07   881.07   881.07   881.07   881.07   881.07

 75          KK      59
 76          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 77          KM   L=0.50      Lca=0.17      S=49.34      Kn=0.200      LAG=53
 78          KM   S-GRAPH TYPE=AGRICULTURE
 79          KO       0        0      0.0        1       22
 80          BA  0.2519
 81          LG     1.0     0.23    4.174    0.497    8.088
 82          UI     0.0     22.5    84.15   139.94   135.77   109.93    62.24    38.79    21.52     13.5
 83          UI    9.12     2.19     2.19     2.19     2.19     2.19      0.0

 84          KK      E2
 85          KM   COMBINE STORAGE HYDROGRAPH FROM E1 WITH RUNOFF FROM 59 @ E2
 86          ZW   A=RBW B=E2 C=FLOW E=15MIN F=100Y24H-EX
 87          KO       0        0      0.0        0       22
 88          HC       2

 89          KK   RIDF
 90          KM   ******************************************************************************
 91          KM   **   SUB-WATERSHED F   ******************************************************
 92          KM   ******************************************************************************
 93          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 94          BA  0.0001
 95          ZR   =QI A=RID RID B=8199 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID100-24E
1                                          HEC-1 INPUT                                          PAGE  3
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 96          KK  F1S-F2   CNAME      F1S
 97          KM   ROUTE INFLOW FROM RID CONCENTRATED AT F1S TO F2 (CHANNEL A)
 98          KO       0        0      0.0        0       22
 99          RS       1     FLOW      0.0      0.0
100          RC     0.1      0.1      0.1   3225.0    0.004      0.0
101          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
102          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

103          KK      27
104          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
105          KM   L=0.82      Lca=0.41      S=14.59      Kn=0.200      LAG=115
106          KM   S-GRAPH TYPE=AGRICULTURE
107          KO       0        0      0.0        1       22
108          BA  0.2410
109          LG     1.0    0.246    3.979    0.567    1.418
110          UI     0.0     7.73    11.05    25.19    43.69    53.56    61.68    64.93    61.32    56.09
111          UI   48.56    42.77    30.31    23.36     21.4    13.77     11.2     9.22     7.06     6.07
112          UI    4.39     4.39     2.56     0.97     0.97     0.97     0.97     0.97     0.97     0.97
113          UI    0.97     0.97     0.97     0.97     0.97      0.0

114          KK      F2   CNAME   F2-F3
115          KM   COMBINE ROUTED HYDROGRAPH FROM F1S WITH RUNOFF FROM 27 @ F2
116          KO       0        0      0.0        0       22
117          HC       2

118          KK   F2-F3   CNAME      F2
119          KM   ROUTE HYDROGRAPH FROM F2 TO F3 (CHANNEL A)
120          KO       0        0      0.0        0       22
121          RS       8     FLOW      0.0      0.0
122          RC     0.1      0.1      0.1  5241.87   0.0057      0.0
123          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
124          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

125          KK      29
126          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
127          KM   L=1.47      Lca=0.73      S=22.92      Kn=0.200      LAG=163
128          KM   S-GRAPH TYPE=AGRICULTURE
129          KO       0        0      0.0        1       22
130          BA  0.9987
131          LG     1.0     0.25    3.977    0.548      0.0
132          UI     0.0     22.6     22.6    40.44    67.42   122.16   127.17   170.96   171.63    189.8
133          UI   189.8   185.58   158.17   166.76   141.69   122.98   113.44    86.27     70.6    65.75
134          UI   56.62    40.79     36.5    28.42    27.23    20.63    20.63    15.99    12.82    12.82
135          UI   12.82     7.09     2.82     2.82     2.82     2.82     2.82     2.82     2.82     2.82
136          UI    2.82     2.82     2.82     2.82     2.82     2.82     2.82     2.82     2.82      0.0

137          KK      F3   CNAME   F3-F4
138          KM   COMBINE ROUTED HYDROGRAPH FROM F2 WITH RUNOFF FROM 29 @ F3
139          KO       0        0      0.0        0       22
140          HC       2
1                                          HEC-1 INPUT                                          PAGE  4
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

141          KK   F3-F4   CNAME      F3
142          KM   ROUTE HYDROGRAPH FROM F3 TO F4 (CHANNEL A)
143          KO       0        0      0.0        0       22
144          RS       7     FLOW      0.0      0.0
145          RC     0.1      0.1      0.1  5501.87   0.0058      0.0
146          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
147          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0
```

```
148          KK      41
149          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
150          KM   L=1.54      Lca=0.77      S=23.99      Kn=0.200      LAG=168
151          KM   S-GRAPH TYPE=AGRICULTURE
152          KO       0        0      0.0        1       22
153          BA  1.2021
154          LG     1.0     0.25    3.965    0.474      0.0
155          UI     0.0    26.39    26.39     45.2    74.92   131.88   154.05   177.32   206.14   221.65
156          UI  221.65   221.65    152.1   189.15   190.62   138.53   151.39   105.43    94.19    76.42
157          UI   81.61    52.05    44.8    39.98     32.6    29.54    24.09    24.09    16.95    14.98
158          UI   14.98    14.98      7.5      3.3      3.3      3.3      3.3      3.3      3.3      3.3
159          UI     3.3      3.3      3.3      3.3      3.3      3.3      3.3      3.3      3.3      3.3
160          UI     3.3      0.0

161          KK      F4   CNAME  F4-F5B
162          KM   COMBINE ROUTED HYDROGRAPH FROM F3 WITH RUNOFF FROM 41 @ F4
163          KO       0        0      0.0        0       22
164          HC       2

165          KK  F4-F5B   CNAME      F4
166          KM   ROUTE HYDRPGRAPH FROM F4 TO F5B (CHANNEL A)
167          KO       0        0      0.0        0       22
168          RS       4     FLOW      0.0      0.0
169          RC     0.1      0.1      0.1  3704.65   0.0065      0.0
170          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
171          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

172          KK     52B
173          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
174          KM   L=0.71      Lca=0.32      S=32.56      Kn=0.200      LAG=85
175          KM   S-GRAPH TYPE=AGRICULTURE
176          KO       0        0      0.0        1       22
177          BA  0.4953
178          LG     1.0    0.251    4.087     0.53    0.349
179          UI     0.0    21.49    47.96   115.57   153.43    180.5   170.48   157.82   118.28    85.92
180          UI   63.75    43.62    30.66    22.85    17.91     12.2    10.93     2.69     2.69     2.69
181          UI    2.69     2.69     2.69     2.69     2.69     2.69      0.0

182          KK     F5B   CNAME F5B-F6B
183          KM   COMBINE ROUTED HYDROGRAPH FROM F4 WITH RUNOFF FROM 52B @ F5B
184          KO       0        0      0.0        0       22
185          HC       2
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

186          KK  F5BF6B   CNAME     F5B
187          KM   STORAGE ROUTE FROM F5B TO F6B THROUGH SPRR TRESTLE
188          KO       0        0      0.0        0       22
189          RS       1     ELEV    886.0      0.0
190          SV     0.0     0.08     0.94     6.13    37.02   122.46   262.93    479.0   749.83   749.83
191          SV  749.83   749.83   749.83   749.83   749.83   749.83   749.83   749.83   749.83   749.83
192          SE   886.0    888.0    890.0    892.0    894.0    896.0    898.0    900.0    902.0    902.0
193          SE   902.0    902.0    902.0    902.0    902.0    902.0    902.0    902.0    902.0    902.0
194          SQ     0.0     80.0    120.0    230.0   1145.0   1980.0   2670.0   2670.0   2670.0   2670.0
195          SQ  2670.0   2670.0   2670.0   2670.0   2670.0   2670.0   2670.0   2670.0   2670.0   2670.0
196          SE   886.0   887.07   888.07   889.07   890.07   891.07   892.07   892.07   892.07   892.07
197          SE  892.07   892.07   892.07   892.07   892.07   892.07   892.07   892.07   892.07   892.07

198          KK     60B
199          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
200          KM   L=1.03      Lca=0.35      S=22.68      Kn=0.200      LAG=108
201          KM   S-GRAPH TYPE=AGRICULTURE
202          KO       0        0      0.0        1       22
203          BA  0.5744
204          LG     1.0    0.249    4.158    0.551    3.254
205          UI     0.0    19.61    30.14    73.81   110.38   144.98   164.75   164.75   142.78   142.23
206          UI  106.31    87.94    64.4     56.91     35.6    28.82    23.22    17.91    14.49    11.13
207          UI   11.13     3.84     2.45     2.45     2.45     2.45     2.45     2.45     2.45     2.45
208          UI    2.45     2.45     2.45      0.0

209          KK     F6B
210          KM   COMBINE STORAGE HYDROGRAPH FROM F5B WITH RUNOFF FROM 60B @ F6B
211          ZW   A=RBW B=F6B C=FLOW E=15MIN F=100Y24H-EX
212          KO       0        0      0.0        0       22
213          HC       2

214          KK     52A
215          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
216          KM   L=0.92      Lca=0.57      S=6.91      Kn=0.200      LAG=156
217          KM   S-GRAPH TYPE=AGRICULTURE
218          KO       0        0      0.0        1       22
219          BA  0.3127
220          LG     1.0     0.25    3.966    0.439    0.364
221          UI     0.0     7.39     7.39    14.03    25.52    42.85    41.09    54.59    61.74     62.1
222          UI    62.1    55.89    52.16    54.02    38.81    41.05    29.04    24.79    21.13    20.13
223          UI   13.59    11.94     9.45     8.85     6.75     6.75     4.89      4.2      4.2      4.2
224          UI    1.32     0.92     0.92     0.92     0.92     0.92     0.92     0.92     0.92     0.92
225          UI    0.92     0.92     0.92     0.92     0.92     0.92     0.92      0.0

226          KK  F5AF6A   CNAME     F5A
227          KM   STORAGE ROUTE FROM F5A TO F6A THROUGH SPRR TRESTLE
228          KO       0        0      0.0        0       22
229          RS       1     ELEV    894.0      0.0
230          SV     0.0     0.02     0.64    12.91    61.76    61.76    61.76    61.76    61.76    61.76
231          SV   61.76    61.76    61.76    61.76    61.76    61.76    61.76    61.76    61.76    61.76
232          SE   894.0    896.0    898.0    900.0    902.0    902.0    902.0    902.0    902.0    902.0
233          SE   902.0    902.0    902.0    902.0    902.0    902.0    902.0    902.0    902.0    902.0
234          SQ     0.0     58.1    112.2    146.6    174.0    198.5    218.5    237.6    255.3    271.8
235          SQ   287.4    302.2    316.3    329.7    342.7    355.2    367.2    378.9    401.2    422.3
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

236          SE   894.0    896.4    896.9    897.4    897.9    898.4    898.9    899.4    899.9    900.4
237          SE   900.9    901.4    901.9    902.4    902.9    903.4    903.9    904.4    905.4    906.4

238          KK     60A
239          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
240          KM   L=1.07      Lca=0.46      S=27.51      Kn=0.200      LAG=117
241          KM   S-GRAPH TYPE=AGRICULTURE
242          KO       0        0      0.0        1       22
```

```
243          BA  0.4117
244          LG     1.0    0.249    4.045    0.541    0.795
245          UI     0.0    12.98    18.15    40.42    73.45    89.47   100.76   109.02   105.38    91.39
246          UI   88.17    72.54    53.81    42.04    38.73    24.09    20.15    16.03    12.52    11.64
247          UI    7.37     7.37     6.45     1.62     1.62     1.62     1.62     1.62     1.62     1.62
248          UI    1.62     1.62     1.62     1.62     1.62      0.0

249          KK     F6A
250          KM   COMBINE STORAGE HYDROGRAPH FROM F5A WITH RUNOFF FROM 60A @ F6A
251          ZW   A=RBW B=F6A C=FLOW E=15MIN F=100Y24H-EX
252          KO       0        0      0.0        0       22
253          HC       2

254          KK   RIDG
255          KM   ******************************************************************************
256          KM   **    SUB-WATERSHED G    ***********************************************************
257          KM   ******************************************************************************
258          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
259          BA  0.0001
260          ZR  =QI A=RID RID B=13399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID100-24E

261          KK  G3S-G4   CNAME     G3S
262          KM   ROUTE INFLOW FROM RID CONCENTRATED AT G3S TO G4 (CHANNEL A)
263          KO       0        0      0.0        0       22
264          RS       1     FLOW      0.0      0.0
265          RC     0.1      0.1      0.1   4594.0    0.004      0.0
266          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
267          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

268          KK      28
269          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
270          KM   L=1.02      Lca=0.51      S=16.68      Kn=0.200      LAG=132
271          KM   S-GRAPH TYPE=AGRICULTURE
272          KO       0        0      0.0        1       22
273          BA  0.3347
274          LG     1.0    0.249    4.178    0.467    0.543
275          UI     0.0     9.35    10.92     23.2    45.57    53.95    69.13    78.56    78.56    75.94
276          UI   65.47    68.35    49.76    47.59    34.97    27.16    26.43    27.09    14.62    11.55
277          UI    9.62     8.54     6.55     5.31     5.31     3.82     1.17     1.17     1.17     1.17
278          UI    1.17     1.17     1.17     1.17     1.17     1.17     1.17     1.17     1.17     1.17
279          UI     0.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

280          KK      G4   CNAME   G4-G5
281          KM   COMBINE ROUTED HYDROGRAPH FROM G3S WITH RUNOFF FROM 28 @ G4
282          KO       0        0      0.0        0       22
283          HC       2

284          KK   G4-G5   CNAME      G4
285          KM   ROUTE HYDRPGRAPH FROM G4 TO G5 (CHANNEL A)
286          KO       0        0      0.0        0       22
287          RS      11     FLOW      0.0      0.0
288          RC     0.1      0.1      0.1 7127.48   0.0045      0.0
289          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
290          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

291          KK      30
292          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
293          KM   L=1.55      Lca=0.78      S=21.93      Kn=0.200      LAG=172
294          KM   S-GRAPH TYPE=AGRICULTURE
295          KO       0        0      0.0        1       22
296          BA  0.9830
297          LG     1.0     0.25    4.028    0.469    8.734
298          UI     0.0    21.08    21.08     34.8     57.4    101.7   123.34    132.0   163.67   177.05
299          UI  177.05   177.05   161.31   147.54   161.39   117.56   117.82    99.14    80.48    64.92
300          UI   61.01    54.87    38.92    34.05    28.26    26.04    20.78    19.24    18.25    11.96
301          UI   11.96    11.96    11.96     3.63     2.63     2.63     2.63     2.63     2.63     2.63
302          UI    2.63     2.63     2.63     2.63     2.63     2.63     2.63     2.63     2.63     2.63
303          UI    2.63     2.63      0.0

304          KK      G5   CNAME   G5-G6
305          KM   COMBINE ROUTED HYDROGRAPH FROM G4 WITH RUNOFF FROM 30 @ G5
306          KO       0        0      0.0        0       22
307          HC       2

308          KK   G5-G6   CNAME      G5
309          KM   ROUTE HYDRPGRAPH FROM G5 TO G6 (CHANNEL A)
310          KO       0        0      0.0        0       22
311          RS       8     FLOW      0.0      0.0
312          RC     0.1      0.1      0.1 5820.25   0.0055      0.0
313          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
314          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

315          KK      42
316          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
317          KM   L=1.56      Lca=0.78      S=22.73      Kn=0.200      LAG=172
318          KM   S-GRAPH TYPE=AGRICULTURE
319          KO       0        0      0.0        1       22
320          BA  0.7784
321          LG     1.0     0.25    4.279    0.452    0.465
322          UI     0.0    16.69    16.69    27.56    45.45    80.53    97.66   104.52    129.6   140.19
323          UI  140.19   140.19   127.73   116.82   127.79    93.09    93.29     78.5    63.72     51.4
324          UI   48.31    43.45    30.82    26.96    22.38    20.62    16.46    15.24    14.45     9.47
325          UI    9.47     9.47     9.47     2.87     2.09     2.09     2.09     2.09     2.09     2.09
326          UI    2.09     2.09     2.09     2.09     2.09     2.09     2.09     2.09     2.09     2.09
327          UI    2.09     2.09      0.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

328          KK      G6   CNAME   G6-G7
329          KM   COMBINE ROUTED HYDROGRAPH FROM G5 WITH RUNOFF FROM 42 @ G6
330          KO       0        0      0.0        0       22
331          HC       2

332          KK   G6-G7   CNAME      G6
333          KM   ROUTE HYDRPGRAPH FROM G6 TO G7 (CHANNEL A)
334          KO       0        0      0.0        0       22
335          RS       4     FLOW      0.0      0.0
336          RC     0.1      0.1      0.1 2613.05   0.0069      0.0
```

```
 337          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 338          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 339          KK      53
 340          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 341          KM   L=0.91      Lca=0.46      S=23.93      Kn=0.200      LAG=113
 342          KM   S-GRAPH TYPE=AGRICULTURE
 343          KO       0        0     0.0       1      22
 344          BA  0.3385
 345          LG     1.0     0.25   3.997   0.444     0.0
 346          UI     0.0    11.05   16.13    37.6   62.38   76.97   90.56   92.81    85.6   80.26
 347          UI   66.07    58.87   41.62   31.91   28.17   18.87   14.88   12.13   10.09    7.44
 348          UI    6.27     6.27    1.84    1.38    1.38    1.38    1.38    1.38    1.38    1.38
 349          UI    1.38     1.38    1.38    1.38     0.0

 350          KK      G7   CNAME   G7-G8
 351          KM   COMBINE ROUTED HYDROGRAPH FROM G6 WITH RUNOFF FROM 53 @ G7
 352          KO       0        0     0.0       0      22
 353          HC       2

 354          KK   G7-G8   CNAME      G7
 355          KM   STORAGE ROUTE FROM G7 TO G8 THROUGH SPRR TRESTLE
 356          KO       0        0     0.0       0      22
 357          RS       1     ELEV   888.0     0.0
 358          SV     0.0      0.6    4.25   26.94  108.66  257.97   449.6   449.6   449.6   449.6
 359          SV   449.6    449.6   449.6   449.6   449.6   449.6   449.6   449.6   449.6   449.6
 360          SE   888.0    890.0   892.0   894.0   896.0   898.0   900.0   900.0   900.0   900.0
 361          SE   900.0    900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0
 362          SQ     0.0    100.0   200.0   480.0  1480.0  2060.0  2520.0  2900.0  2900.0  2900.0
 363          SQ  2900.0   2900.0  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0  2900.0
 364          SE   888.0   888.07  889.07  890.07  891.07  892.07  893.07  894.07  894.07  894.07
 365          SE  894.07   894.07  894.07  894.07  894.07  894.07  894.07  894.07  894.07  894.07

 366          KK      61
 367          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 368          KM   L=0.90      Lca=0.45      S=23.00      Kn=0.200      LAG=113
 369          KM   S-GRAPH TYPE=AGRICULTURE
 370          KO       0        0     0.0       1      22
 371          BA  0.5081
 372          LG     1.0    0.248   3.965   0.464   2.234
 373          UI     0.0    16.58   24.21   56.43   93.62  115.52  135.92   139.3  128.47  120.46
 374          UI   99.16    88.35   62.47    47.9   42.28   28.31   22.33   18.21   15.14   11.17
 375          UI    9.41     9.41    2.76    2.07    2.07    2.07    2.07    2.07    2.07    2.07
 376          UI    2.07     2.07    2.07    2.07     0.0
1                                          HEC-1 INPUT                                          PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 377          KK      G8
 378          KM   COMBINE STORAGE HYDROGRAPH FROM G7 WITH RUNOFF FROM 61 @ G8
 379          ZW   A=RBW B=G8 C=FLOW E=15MIN F=100Y24H-EX
 380          KO       0        0     0.0       0      22
 381          HC       2

 382          KK   RIDH
 383          KM   ***********************************************************************
 384          KM   **   SUB-WATERSHED H   ***********************************************
 385          KM   ***********************************************************************
 386          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 387          BA  0.0001
 388          ZR  =QI A=RID RID B=19799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID100-24E

 389          KK  H3S-H4   CNAME     H3S
 390          KM   ROUTE INFLOW FROM RID CONCENTRATED AT H3S TO H4 (CHANNEL A)
 391          KO       0        0     0.0       0      22
 392          RS       1     FLOW     0.0     0.0
 393          RC     0.1      0.1    0.110193.17   0.005     0.0
 394          RX     0.0    250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 395          RY    10.0      7.5     5.0     2.5     0.0     3.3     6.6    10.0

 396          KK      31
 397          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 398          KM   L=1.93      Lca=0.97      S=26.40      Kn=0.200      LAG=196
 399          KM   S-GRAPH TYPE=AGRICULTURE
 400          KO       0        0     0.0       1      22
 401          BA  1.0788
 402          LG     1.0    0.249   4.018   0.456   0.852
 403          UI     0.0     20.3    20.3   26.01   42.62   75.47  110.82  116.22  130.81  156.48
 404          UI  170.49   170.49  170.49  170.49  143.97  142.08   158.6  111.16  110.82  106.73
 405          UI   79.11    71.61    59.1   60.85   49.19   37.72   32.79   29.13   25.07   23.42
 406          UI   18.53    18.53   16.79   11.52   11.52   11.52   11.52    7.81    2.54    2.54
 407          UI    2.54     2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54
 408          UI    2.54     2.54    2.54    2.54    2.54    2.54    2.54    2.54    2.54     0.0

 409          KK      H4   CNAME   H4-H5
 410          KM   COMBINE ROUTED HYDROGRAPH FROM H3S WITH RUNOFF FROM 31 @ H4
 411          KO       0        0     0.0       0      22
 412          HC       2

 413          KK   H4-H5   CNAME      H4
 414          KM   ROUTE HYDRPGRAPH FROM H4 TO H5 (CHANNEL B)
 415          KO       0        0     0.0       0      22
 416          RS       5     FLOW     0.0     0.0
 417          RC     0.1     0.02     0.1 5382.76  0.0059     0.0
 418          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 419          RY    10.0      0.0     0.0     1.0     1.0     0.0     0.0    10.0
1                                          HEC-1 INPUT                                          PAGE 10

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 420          KK      43
 421          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 422          KM   L=1.92      Lca=0.96      S=20.85      Kn=0.200      LAG=204
 423          KM   S-GRAPH TYPE=AGRICULTURE
 424          KO       0        0     0.0       1      22
 425          BA  1.0022
 426          LG     1.0     0.25   3.958   0.425    0.66
 427          UI     0.0    18.12   18.12   20.99   38.04   57.93    94.1  108.05  107.28   138.7
 428          UI  144.35   152.18  152.18  152.18  142.03  126.81  135.44  126.81   95.11  102.81
 429          UI    87.2    69.17   61.58   52.32   54.94   42.82   33.73   29.26   26.57   22.38
 430          UI   21.91    16.54   16.54   16.54   10.58   10.28   10.28   10.28   10.28    2.91
 431          UI    2.26     2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
```

```
432          UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
433          UI    2.26     0.0

434          KK      H5   CNAME   H5-H6
435          KM   COMBINE ROUTED HYDROGRAPH FROM H4 WITH RUNOFF FROM 43 @ H5
436          KO       0       0     0.0       0      22
437          HC       2

438          KK   H5-H6   CNAME      H5
439          KM   ROUTE HYDRPGRAPH FROM H5 TO H6 (CHANNEL B)
440          KO       0       0     0.0       0      22
441          RS       3    FLOW     0.0     0.0
442          RC     0.1    0.02     0.1 2887.92  0.0049     0.0
443          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
444          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

445          KK      54
446          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
447          KM   L=1.20     Lca=0.60     S=12.35     Kn=0.200     LAG=157
448          KM   S-GRAPH TYPE=AGRICULTURE
449          KO       0       0     0.0       1      22
450          BA  0.3861
451          LG     1.0    0.25     4.0   0.447     0.0
452          UI     0.0    9.07    9.07   17.07   30.66   52.22    50.2    67.4   74.77   76.18
453          UI   76.18   69.41   63.49   68.13   47.62   51.29   35.97    31.2   25.88   25.91
454          UI   17.01   14.65   12.06    11.2    8.36    8.28    6.51    5.15    5.15    5.15
455          UI    2.36    1.13    1.13    1.13    1.13    1.13    1.13    1.13    1.13    1.13
456          UI    1.13    1.13    1.13    1.13    1.13    1.13    1.13     0.0

457          KK      H6   CNAME   H6-H7
458          KM   COMBINE ROUTED HYDROGRAPH FROM H5 WITH RUNOFF FROM 54 @ H6
459          KO       0       0     0.0       0      22
460          HC       2

461          KK   H6-H7   CNAME      H6
462          KM   STORAGE ROUTE FROM H6 TO H7 THROUGH SPRR TRESTLE
463          KO       0       0     0.0       0      22
464          RS       1    ELEV   890.0     0.0
465          SV     0.0    0.45   30.43  148.25  336.08  336.08  336.08  336.08  336.08  336.08
466          SV  336.08  336.08  336.08  336.08  336.08  336.08  336.08  336.08  336.08  336.08
467          SE   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0
468          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

469          SQ     0.0   185.0   720.0  1025.0  1075.0  1150.0  1355.0  1800.0  1800.0  1800.0
470          SQ  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0
471          SE   890.0  891.07  893.47  895.47  895.57  895.67  895.77  895.87  895.87  895.87
472          SE  895.87  895.87  895.87  895.87  895.87  895.87  895.87  895.87  895.87  895.87

473          KK      62
474          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
475          KM   L=0.98     Lca=0.49     S=21.54     Kn=0.200     LAG=122
476          KM   S-GRAPH TYPE=AGRICULTURE
477          KO       0       0     0.0       1      22
478          BA  0.5717
479          LG     1.0   0.249   4.203   0.444   0.473
480          UI     0.0   17.28   22.83   47.88   97.83  104.21  138.24  145.18  145.18  124.21
481          UI  130.72   91.16   89.45   63.88   49.84   45.53   30.22    24.7   20.76   15.78
482          UI   14.37    9.81    9.81    8.08    2.16    2.16    2.16    2.16    2.16    2.16
483          UI    2.16    2.16    2.16    2.16    2.16    2.16    2.16     0.0

484          KK      H7
485          KM   COMBINE STORAGE HYDROGRAPH FROM H6 WITH RUNOFF FROM 62 @ H7
486          ZW   A=RBW B=H7 C=FLOW E=15MIN F=100Y24H-EX
487          KO       0       0     0.0       0      22
488          HC       2

489          KK   RIDI
490          KM   ******************************************************************************
491          KM   **   SUB-WATERSHED I   ***********************************************************
492          KM   ******************************************************************************
493          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
494          BA  0.0001
495          ZR  =QI A=RID RID B=24399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID100-24E

496          KK  I2S-I3   CNAME     I2S
497          KM   ROUTE INFLOW FROM RID CONCENTRATED AT I2S TO I3 (CHANNEL A)
498          KO       0       0     0.0       0      22
499          RS       1    FLOW     0.0     0.0
500          RC     0.1     0.1     0.1 8174.00   0.005     0.0
501          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
502          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

503          KK      32
504          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
505          KM   L=1.84     Lca=0.92     S=24.34     Kn=0.200     LAG=192
506          KM   S-GRAPH TYPE=AGRICULTURE
507          KO       0       0     0.0       1      22
508          BA  0.8959
509          LG     1.0   0.249     4.0   0.515   1.146
510          UI     0.0   17.21   17.21   23.11   36.91   68.18   97.57   94.68  119.26  132.99
511          UI  144.55  144.55  144.55  139.73  120.46  127.21  121.42   90.35    99.1   77.05
512          UI   65.71   54.78    48.6    53.0   32.85   29.42   27.69   21.26   21.26    16.6
513          UI   15.71   15.71   10.39    9.77    9.77    9.77    8.55    2.15    2.15    2.15
514          UI    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15
515          UI    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15     0.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

516          KK      I3   CNAME   I3-I4
517          KM   COMBINE ROUTED HYDROGRAPH FROM I2S WITH RUNOFF FROM 32 @ I3
518          KO       0       0     0.0       0      22
519          HC       2

520          KK   I3-I4   CNAME      I3
521          KM   ROUTE HYDRPGRAPH FROM I3 TO I4 (CHANNEL B)
522          KO       0       0     0.0       0      22
523          RS      10    FLOW     0.0     0.0
524          RC     0.1    0.02     0.110387.48  0.0042     0.0
525          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
```

```
526          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

527          KK      44
528          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
529          KM   L=1.97      Lca=0.98      S=22.43      Kn=0.200      LAG=205
530          KM   S-GRAPH TYPE=AGRICULTURE
531          KO       0       0     0.0       1      22
532          BA  1.0069
533          LG     1.0    0.25   4.136   0.485   5.217
534          UI     0.0   18.11   18.11    20.7   38.04    57.4    93.3  108.09  106.09  139.54
535          UI  142.37  152.15  152.15  152.15   143.7   126.8  133.98  130.92    95.1  101.27
536          UI   90.64   69.78   63.13   52.71   54.03   45.67    34.4   29.26   27.49   22.38
537          UI   22.38   16.93   16.54   16.54   11.59   10.28   10.28   10.28   10.28     4.4
538          UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
539          UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
540          UI    2.26    2.26     0.0

541          KK      I4   CNAME   I4-I5
542          KM   COMBINE ROUTED HYDROGRAPH FROM I3 WITH RUNOFF FROM 44 @ I4
543          KO       0       0     0.0       0      22
544          HC       2

545          KK   I4-I5   CNAME      I4
546          KM   ROUTE HYDRPGRAPH FROM I4 TO I5 (CHANNEL A)
547          KO       0       0     0.0       0      22
548          RS       4    FLOW     0.0     0.0
549          RC     0.1     0.1     0.1 2589.37  0.0035     0.0
550          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
551          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

552          KK      55
553          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
554          KM   L=0.97      Lca=0.48      S=12.83      Kn=0.200      LAG=133
555          KM   S-GRAPH TYPE=AGRICULTURE
556          KO       0       0     0.0       1      22
557          BA  0.2627
558          LG     1.0    0.25   4.128   0.446     0.0
559          UI     0.0    7.29    8.39   17.86    34.8   41.96   53.41    61.2    61.2   59.84
560          UI    51.0   54.32   38.38   38.38   27.91   21.37   21.37   13.58   11.77     9.0
561          UI    7.84    6.65    5.51    4.14    4.14    3.58    0.91    0.91    0.91    0.91
562          UI    0.91    0.91    0.91    0.91    0.91    0.91    0.91    0.91    0.91    0.91
563          UI     0.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

564          KK      I5   CNAME   I5-I6
565          KM   COMBINE ROUTED HYDROGRAPH FROM I4 WITH RUNOFF FROM 55 @ I5
566          KO       0       0     0.0       0      22
567          HC       2

568          KK   I5-I6   CNAME      I5
569          KM   STORAGE ROUTE FROM I5 TO I6 THROUGH SPRR TRESTLE
570          KO       0       0     0.0       0      22
571          RS       1    ELEV   892.0     0.0
572          SV     0.0     0.1    25.1  124.92  273.66  273.66  273.66  273.66  273.66  273.66
573          SV  273.66  273.66  273.66  273.66  273.66  273.66  273.66  273.66  273.66  273.66
574          SE   892.0   894.0   896.0   898.0   900.0   900.0   900.0   900.0   900.0   900.0
575          SE   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0
576          SQ     0.0    60.0   150.0   221.0   400.0   830.0  1134.0  1488.0  1892.0  1892.0
577          SQ  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0
578          SE  892.00  894.08  895.18  895.88  896.08  896.28  896.38  896.48  896.58  896.58
579          SE  896.58  896.58  896.58  896.58  896.58  896.58  896.58  896.58  896.58  896.58

580          KK      63
581          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
582          KM   L=0.95      Lca=0.47      S=20.27      Kn=0.200      LAG=120
583          KM   S-GRAPH TYPE=AGRICULTURE
584          KO       0       0     0.0       1      22
585          BA  0.4994
586          LG     1.0    0.25   4.192   0.398  20.751
587          UI     0.0   15.35   20.75   44.48   87.02   96.69  122.47  128.92  128.92  107.43
588          UI  111.73   82.37   73.51   54.08   44.91   35.79   25.69   20.36   16.98   14.01
589          UI   11.04    8.71    8.71    4.64    1.92    1.92    1.92    1.92    1.92    1.92
590          UI    1.92    1.92    1.92    1.92    1.92    1.92     0.0

591          KK      I6
592          KM   COMBINE STORAGE HYDROGRAPH FROM I5 WITH RUNOFF FROM 63 @ I6
593          ZW   A=RBW B=I6 C=FLOW E=15MIN F=100Y24H-EX
594          KO       0       0     0.0       0      22
595          HC       2

596          KK   RIDJ
597          KM   ******************************************************************************
598          KM   **   SUB-WATERSHED J   ********************************************************
599          KM   ******************************************************************************
600          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
601          BA  0.0001
602          ZR  =QI A=RID RID B=27599 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID100-24E

603          KK  J3S-J4   CNAME     J3S
604          KM   ROUTE INFLOW FROM RID CONCENTRATED AT J3S TO J4 (CHANNEL A)
605          KO       0       0     0.0       0      22
606          RS       1    FLOW     0.0     0.0
607          RC     0.1     0.1     0.1 8056.46   0.007     0.0
608          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
609          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

610          KK      33
611          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
612          KM   L=1.84      Lca=0.92      S=29.30      Kn=0.200      LAG=185
613          KM   S-GRAPH TYPE=AGRICULTURE
614          KO       0       0     0.0       1      22
615          BA  1.0024
616          LG     1.0   0.249   3.962    0.44   0.529
617          UI     0.0   19.98   19.98   28.99   46.91   85.21  117.85  108.17   155.0  152.26
618          UI  167.85  167.85  167.85   149.2  139.88  152.37  115.61  108.99  103.55   77.29
619          UI    67.9   57.35   62.19   40.17   34.82   32.28   24.96   24.68    19.1   18.24
620          UI   18.04   11.34   11.34   11.34   11.34    7.21     2.5     2.5     2.5     2.5
```

```
 621          UI     2.5     2.5     2.5     2.5     2.5     2.5     2.5     2.5     2.5     2.5
 622          UI     2.5     2.5     2.5     2.5     2.5     2.5     0.0

 623          KK      J4   CNAME   J4-J5
 624          KM   COMBINE ROUTED HYDROGRAPH FROM J3S WITH RUNOFF FROM 33 @ J4
 625          KO       0       0     0.0       0      22
 626          HC       2

 627          KK   J4-J5   CNAME      J4
 628          KM   ROUTE HYDROGRAPH FROM J4 TO J5 (CHANNEL A)
 629          KO       0       0     0.0       0      22
 630          RS       5    FLOW     0.0     0.0
 631          RC     0.1     0.1     0.1 5307.06  0.0077     0.0
 632          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 633          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 634          KK     45A
 635          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 636          KM   L=1.97     Lca=0.99     S=25.14     Kn=0.200     LAG=201
 637          KM   S-GRAPH TYPE=AGRICULTURE
 638          KO       0       0     0.0       1      22
 639          BA  1.0027
 640          LG     1.0    0.25   3.993   0.441   0.243
 641          UI     0.0    18.4    18.4   22.16   38.63   61.78   96.59  109.53  112.56  138.24
 642          UI  152.55  154.54  154.54  154.54  139.08  128.78  137.41  120.73   96.59  109.05
 643          UI   76.17   70.24   57.78   51.92   58.19   35.12    32.2   29.72   24.14   22.73
 644          UI   19.64    16.8    16.8   14.01   10.44   10.44   10.44   10.44    6.53     2.3
 645          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
 646          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
 647          UI     2.3

 648          KK     J5A   CNAME  J5A-5B
 649          KM   COMBINE ROUTED HYDROGRAPH FROM J4 WITH RUNOFF FROM 45A @ J5A
 650          KO       0       0     0.0       0      22
 651          HC       2

 652          KK  J5A-5B   CNAME     J5A
 653          KM   ROUTE HYDROGRAPH FROM J5A TO J5B (CHANNEL A)
 654          KO       0       0     0.0       0      22
 655          RS       6    FLOW     0.0     0.0
 656          RC     0.1     0.1     0.1 2736.25  0.0015     0.0
 657          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 658          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                          PAGE 15

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 659          KK     45B
 660          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 661          KM   L=0.52     Lca=0.26     S=8.59     Kn=0.200     LAG=89
 662          KM   S-GRAPH TYPE=AGRICULTURE
 663          KO       0       0     0.0       1      22
 664          BA  0.1397
 665          LG     1.0    0.25   3.969   0.417  29.714
 666          UI     0.0    5.79    11.9   30.23    38.5   48.58   48.11   41.75   34.63    28.1
 667          UI   18.91   15.22    9.82    7.25    5.39    4.12    3.29     2.3    0.72    0.72
 668          UI    0.72    0.72    0.72    0.72    0.72    0.72    0.72     0.0

 669          KK     J5B   CNAME  J5B-J6
 670          KM   COMBINE ROUTED HYDROGRAPH FROM J5A WITH RUNOFF FROM 45B @ J5B
 671          KO       0       0     0.0       0      22
 672          HC       2

 673          KK  J5B-J6   CNAME     J5B
 674          KM   STORAGE ROUTE FROM J5B TO J6 THROUGH SPRR TRESTLE
 675          KO       0       0     0.0       0      22
 676          RS       1    ELEV   892.0     0.0
 677          SV     0.0   20.33   91.45  223.99  223.99  223.99  223.99  223.99  223.99  223.99
 678          SV  223.99  223.99  223.99  223.99  223.99  223.99  223.99  223.99  223.99  223.99
 679          SE   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
 680          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
 681          SQ     0.0   150.0   230.0   308.0   825.0  1144.0  1970.0  1970.0  1970.0  1970.0
 682          SQ  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0
 683          SE   892.0  893.68  895.08  895.48  895.68  895.88  896.08  896.08  896.08  896.08
 684          SE  896.08  896.08  896.08  896.08  896.08  896.08  896.08  896.08  896.08  896.08

 685          KK      64
 686          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 687          KM   L=0.89     Lca=0.45     S=17.94     Kn=0.200     LAG=117
 688          KM   S-GRAPH TYPE=AGRICULTURE
 689          KO       0       0     0.0       1      22
 690          BA  0.4148
 691          LG     1.0   0.348   4.357   0.445   1.184
 692          UI     0.0   13.07   18.28   40.72   73.99   90.13  101.51  109.82  106.16   92.07
 693          UI   88.82   73.07   54.21   42.35   39.02   24.27    20.3   16.15   12.61   11.73
 694          UI    7.42    7.42    6.49    1.63    1.63    1.63    1.63    1.63    1.63    1.63
 695          UI    1.63    1.63    1.63    1.63    1.63     0.0

 696          KK      J6
 697          KM   COMBINE STORAGE HYDROGRAPH FROM J5B WITH RUNOFF FROM 64 @ J6
 698          ZW   A=RBW B=J6 C=FLOW E=15MIN F=100Y24H-EX
 699          KO       0       0     0.0       0      22
 700          HC       2
 701          ZZ
                                        RUNOFF SUMMARY
                                  FLOW IN CUBIC FEET PER SECOND
                                TIME IN HOURS,  AREA IN SQUARE MILES

                          PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM    TIME OF
      OPERATION   STATION  FLOW    PEAK                                          AREA      STAGE    MAX STAGE
+                                                6-HOUR     24-HOUR     72-HOUR
      HYDROGRAPH AT
+                     68    499.   12.50          46.         12.          4.      0.41
      ROUTED TO
+                  E1-E2    343.   12.50          45.         11.          4.      0.41
      HYDROGRAPH AT
+                     59    126.   12.75          27.          7.          2.      0.25
      2 COMBINED AT
+                     E2    465.   12.75          71.         18.          6.      0.66
```

+	HYDROGRAPH AT	RIDF	285.	14.00	180.	46.	15.	0.00
+	ROUTED TO	F1S-F2	231.	15.75	165.	46.	15.	0.00
+	HYDROGRAPH AT	27	51.	13.75	20.	5.	2.	0.24
+	2 COMBINED AT	F2	245.	15.50	176.	51.	17.	0.24
+	ROUTED TO	F2-F3	236.	17.00	172.	51.	17.	0.24
+	HYDROGRAPH AT	29	145.	14.25	77.	20.	7.	1.00
+	2 COMBINED AT	F3	285.	16.75	215.	72.	24.	1.24
+	ROUTED TO	F3-F4	279.	17.75	212.	72.	24.	1.24
+	HYDROGRAPH AT	41	179.	14.25	98.	26.	9.	1.20
+	2 COMBINED AT	F4	317.	17.00	264.	97.	32.	2.44
+	ROUTED TO	F4-F5B	310.	18.00	262.	97.	32.	2.44
+	HYDROGRAPH AT	52B	141.	13.25	42.	10.	3.	0.50
+	2 COMBINED AT	F5B	312.	18.00	265.	107.	36.	2.94
+	ROUTED TO	F5BF6B	311.	18.00	265.	107.	36.	2.94
+	HYDROGRAPH AT	60B	132.	13.50	50.	13.	4.	0.57
+	2 COMBINED AT	F6B	314.	18.00	281.	120.	40.	3.51
+	HYDROGRAPH AT	52A	53.	14.25	28.	7.	2.	0.31
+	ROUTED TO	F5AF6A	53.	14.50	28.	7.	2.	0.31
+	HYDROGRAPH AT	60A	86.	13.75	34.	9.	3.	0.41
+	2 COMBINED AT	F6A	133.	14.00	61.	16.	5.	0.72
+	HYDROGRAPH AT	RIDG	550.	14.25	184.	46.	15.	0.00
+	ROUTED TO	G3S-G4	332.	15.25	171.	46.	15.	0.00
+	HYDROGRAPH AT	28	65.	13.75	29.	8.	3.	0.33
+	2 COMBINED AT	G4	371.	15.25	193.	54.	18.	0.33
+	ROUTED TO	G4-G5	340.	17.00	186.	54.	18.	0.33
+	HYDROGRAPH AT	30	168.	14.50	97.	29.	10.	0.98
+	2 COMBINED AT	G5	404.	16.75	247.	81.	27.	1.32
+	ROUTED TO	G5-G6	383.	18.00	244.	81.	27.	1.32
+	HYDROGRAPH AT	42	115.	14.50	64.	17.	6.	0.78
+	2 COMBINED AT	G6	400.	18.00	275.	98.	33.	2.10
+	ROUTED TO	G6-G7	394.	18.50	274.	98.	33.	2.10
+	HYDROGRAPH AT	53	78.	13.75	30.	8.	3.	0.34
+	2 COMBINED AT	G7	395.	18.50	279.	105.	35.	2.43
+	ROUTED TO	G7-G8	395.	18.50	279.	105.	35.	2.43
+	HYDROGRAPH AT	61	119.	13.75	47.	12.	4.	0.51
+	2 COMBINED AT	G8	397.	18.50	290.	117.	39.	2.94
+	HYDROGRAPH AT	RIDH	281.	15.00	128.	32.	11.	0.00
+	ROUTED TO	H3S-H4	120.	16.50	89.	31.	11.	0.00

+ HYDROGRAPH AT	31	143.	15.00	88.	25.	8.	1.08
+ 2 COMBINED AT	H4	246.	16.00	165.	56.	19.	1.08
+ ROUTED TO	H4-H5	225.	16.75	160.	56.	19.	1.08
+ HYDROGRAPH AT	43	131.	15.00	83.	23.	8.	1.00
+ 2 COMBINED AT	H5	324.	16.25	222.	78.	27.	2.08
+ ROUTED TO	H5-H6	315.	16.75	221.	78.	27.	2.08
+ HYDROGRAPH AT	54	64.	14.25	33.	9.	3.	0.39
+ 2 COMBINED AT	H6	336.	16.75	239.	86.	29.	2.47
+ ROUTED TO	H6-H7	337.	16.50	239.	86.	29.	2.47
+ HYDROGRAPH AT	62	121.	13.75	51.	13.	4.	0.57
+ 2 COMBINED AT	H7	353.	16.50	269.	99.	33.	3.04
+ HYDROGRAPH AT	RIDI	120.	14.00	0.	0.	0.	0.00
+ ROUTED TO	I2S-I3	10.	14.25	1.	0.	0.	0.00
+ HYDROGRAPH AT	32	116.	14.75	70.	20.	7.	0.90
+ 2 COMBINED AT	I3	122.	14.50	71.	20.	7.	0.90
+ ROUTED TO	I3-I4	87.	18.25	63.	20.	7.	0.90
+ HYDROGRAPH AT	44	134.	15.00	87.	26.	9.	1.01
+ 2 COMBINED AT	I4	135.	18.00	122.	45.	15.	1.90
+ ROUTED TO	I4-I5	132.	18.50	121.	45.	15.	1.90
+ HYDROGRAPH AT	55	52.	13.75	23.	6.	2.	0.26
+ 2 COMBINED AT	I5	152.	15.25	131.	51.	17.	2.17
+ ROUTED TO	I5-I6	128.	19.00	120.	51.	17.	2.17
+ HYDROGRAPH AT	63	147.	13.75	67.	20.	7.	0.50
+ 2 COMBINED AT	I6	202.	13.75	157.	70.	24.	2.66
+ HYDROGRAPH AT	RIDJ	157.	14.00	36.	9.	3.	0.00
+ ROUTED TO	J3S-J4	51.	15.00	28.	9.	3.	0.00
+ HYDROGRAPH AT	33	142.	14.75	84.	23.	8.	1.00
+ 2 COMBINED AT	J4	193.	15.00	110.	32.	11.	1.00
+ ROUTED TO	J4-J5	177.	16.00	106.	32.	11.	1.00
+ HYDROGRAPH AT	45A	130.	15.00	81.	23.	8.	1.00
+ 2 COMBINED AT	J5A	289.	16.00	178.	54.	18.	2.01
+ ROUTED TO	J5A-5B	273.	16.75	175.	54.	18.	2.01
+ HYDROGRAPH AT	45B	59.	13.25	22.	7.	2.	0.14
+ 2 COMBINED AT	J5B	277.	16.75	180.	60.	20.	2.14
+ ROUTED TO	J5B-J6	183.	18.50	164.	60.	20.	2.14
+ HYDROGRAPH AT	64	92.	13.75	37.	10.	3.	0.41
+ 2 COMBINED AT	J6	185.	18.50	168.	69.	23.	2.56

```
 *** NORMAL END OF HEC-1 ***
1****************************************
 *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
 *              JUN   1998              *
 *            VERSION 4.1               *
 *                                      *
 *  RUN DATE   19JUL06  TIME  15:03:43  *
 *                                      *
 ****************************************

                                                    ************************************
                                                    *                                  *
                                                    *   U.S. ARMY CORPS OF ENGINEERS   *
                                                    *   HYDROLOGIC ENGINEERING CENTER  *
                                                    *         609 SECOND STREET        *
                                                    *      DAVIS, CALIFORNIA 95616     *
                                                    *          (916) 756-1104          *
                                                    *                                  *
                                                    ************************************

                                        X     X  XXXXXXX   XXXXX          X
                                        X     X  X        X     X        XX
                                        X     X  X        X              X
                                        XXXXXXX  XXXX     X        XXXXX X
                                        X     X  X        X              X
                                        X     X  X        X     X        X
                                        X     X  XXXXXXX   XXXXX        XXX


        THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

        THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
        THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
        NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
        DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
        KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                    PAGE  1

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

        1           ID   Buckeye/Sun Valley ADMS - November 2004
        2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
        3           ID   100-year 24-hour
        4           ID   Existing Conditions
        5           ID   Area 1 - BIC to Gila (East)
        6           ID   File Name: bge10024ex.hc1
        7           ID   Rainfall Loss Method - Green & Ampt
        8           ID   Unit Hydrograph Method - FCDMC S-Graph
        9           ID   Channel Routing Method - Normal Depth
       10           ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
       11           ID   Existing Land Use Cutoff Date: 2000
       12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
       13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                    *DIAGRAM
       14           IT      15 02JAN94       0      400
       15           IO       3
       16           IN      15 02JAN94       0
       17           JD     4.1     0.01
                    * 24-hour distribution
       18           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
       19           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
       20           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
       21           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
       22           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
       23           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
       24           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
       25           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
       26           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
       27           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
       28           IN      15 02JAN94       0
       29           JD   3.895    10.0
                    * 24-hour distribution
       30           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
       31           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
       32           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
       33           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
       34           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
       35           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
       36           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
       37           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
       38           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
       39           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
       40           IN      15 02JAN94       0
       41           JD   3.764    20.0
                    * 24-hour distribution
       42           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
       43           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
       44           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
       45           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
       46           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
       47           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
       48           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
       49           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
       50           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
       51           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
1                                                   HEC-1 INPUT                                                    PAGE  2

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


       52           KK    BICM
       53           KM   ******************************************************************************
       54           KM   **    SUB-WATERSHED M   ******************************************************
       55           KM   ******************************************************************************
       56           KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
       57           BA   0.001
       58           ZR  =QI A=BIC BIC B=52599 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC100-24E

       59           KK  M4S6TH   CNAME     M4S
       60           KM   ROUTE INFLOW FROM BIC CONCENTRATED AT M4S TO 6TH (CHANNEL M4S-6TH)
       61           KO       0       0     0.0       0      22
       62           RS       1    FLOW     0.0     0.0
       63           RC    0.05   0.015    0.05  1950.0   0.008     0.0
       64           RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
       65           RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0
```

```
 66          KK     4th
 67          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 68          KM   L=0.52      Lca=0.40      S=0.01      Kn=0.011      LAG=24
 69          KM   S-GRAPH TYPE=PHOENIX VALLEY
 70          KO       0        0      0.0        1       22
 71          BA  0.0819
 72          LG   0.192    0.248    5.145    0.326   55.315
 73          UI     0.0    39.02   109.68    50.31     9.67      0.0

 74          KK  TO4THS
 75          KM   HYDRPGRAPH DIVERTED TO 4THS
 76          KO       0        0      0.0        0       22
 77          DT  TO4THS      0.0      0.0
 78          DI     0.0    100.0   1000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 79          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 80          DQ     0.0     50.0    500.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0
 81          DQ  1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0

 82          KK  4TH6TH    CNAME     4thA
 83          KM   ROUTE HYDRPGRAPH FROM 4TH CONCENTRATED AT 4THA TO 6TH (CHANNEL 4TH6TH)
 84          KO       0        0      0.0        0       22
 85          RS       1     FLOW      0.0      0.0
 86          RC    0.05    0.015     0.05    872.0    0.002      0.0
 87          RX     0.0    100.0    100.0   127.49   127.51    155.0    155.0    255.0
 88          RY     2.0      0.5      0.0     0.55     0.55      0.0      0.5      2.0

 89          KK     6th
 90          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 91          KM   L=0.46      Lca=0.17      S=0.01      Kn=0.011      LAG=17
 92          KM   S-GRAPH TYPE=PHOENIX VALLEY
 93          KO       0        0      0.0        1       22
 94          BA  0.0571
 95          LG   0.206    0.148    7.572     0.12   51.538
 96          UI     0.0    54.83    81.61     9.82      0.0
1                                          HEC-1 INPUT                                                    PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 97          KK    6thA    CNAME   6TH8TH
 98          KM   COMBINE ROUTED HYDROGRAPH FROM 4THA WITH RUNOFF FROM 6TH @ 6THA
 99          KO       0        0      0.0        0       22
100          HC       3

101          KK  TO7THS
102          KM   HYDRPGRAPH DIVERTED TO 7THS
103          KO       0        0      0.0        0       22
104          DT  TO7THS      0.0      0.0
105          DI     0.0    100.0   1000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
106          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
107          DQ     0.0     50.0    500.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0
108          DQ  1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0

109          KK  6TH8TH    CNAME     6thA
110          KM   ROUTE HYDRPGRAPH FROM 6THA TO 8TH (CHANNEL 6TH8TH)
111          KO       0        0      0.0        0       22
112          RS       1     FLOW      0.0      0.0
113          RC    0.05    0.015     0.05   1116.0    0.002      0.0
114          RX     0.0    100.0    100.0   127.49   127.51    155.0    155.0    255.0
115          RY     2.0      0.5      0.0     0.55     0.55      0.0      0.5      2.0

116          KK     8th
117          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
118          KM   L=0.60      Lca=0.31      S=0.01      Kn=0.011      LAG=23
119          KM   S-GRAPH TYPE=PHOENIX VALLEY
120          KO       0        0      0.0        1       22
121          BA  0.0793
122          LG   0.241     0.15     8.77    0.074     42.7
123          UI     0.0     41.0   110.28    43.97     7.58      0.0

124          KK    8thA    CNAME   8TH9TH
125          KM   COMBINE ROUTED HYDROGRAPH FROM 6THA WITH RUNOFF FROM 8TH @ 8THA
126          KO       0        0      0.0        0       22
127          HC       2

128          KK   TOCEN1
129          KM   HYDRPGRAPH DIVERTED TO CENTRA
130          KO       0        0      0.0        0       22
131          DT  TOCEN1      0.0      0.0
132          DI     0.0    100.0   1000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
133          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
134          DQ     0.0     50.0    500.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0
135          DQ  1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0   1000.0

136          KK  8TH9TH    CNAME     8thA
137          KM   ROUTE HYDRPGRAPH FROM 8THA TO 9TH (CHANNEL 8TH9TH)
138          KO       0        0      0.0        0       22
139          RS       1     FLOW      0.0      0.0
140          RC    0.05    0.015     0.05    680.0    0.002      0.0
141          RX     0.0    100.0    100.0   127.49   127.51    155.0    155.0    255.0
142          RY     2.0      0.5      0.0     0.55     0.55      0.0      0.5      2.0
1                                          HEC-1 INPUT                                                    PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

143          KK     9thE
144          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
145          KM   L=0.77      Lca=0.39      S=0.00      Kn=0.011      LAG=29
146          KM   S-GRAPH TYPE=PHOENIX VALLEY
147          KO       0        0      0.0        1       22
148          BA  0.0947
149          LG   0.173    0.154    8.731    0.083   35.396
150          UI     0.0    31.39    99.09     80.3    25.22     5.83      0.0

151          KK     9thW
152          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
153          KM   L=0.54      Lca=0.32      S=0.01      Kn=0.011      LAG=22
154          KM   S-GRAPH TYPE=PHOENIX VALLEY
155          KO       0        0      0.0        1       22
156          BA  0.0813
157          LG   0.197    0.149    8.42    0.101   29.522
158          UI     0.0    45.77   116.37    40.05     6.23      0.0
```

```
159          KK     9th
160          KM   COMBINE ROUTED HYDROGRAPH FROM 8THA WITH RUNOFF FROM 9THE AND 9THW @ 9TH
161          KO       0       0     0.0       0      22
162          HC       3

163          KK  TOCEN2
164          KM   HYDRPGRAPH DIVERTED TO CENTRA
165          KO       0       0     0.0       0      22
166          DT  TOCEN2     0.0     0.0
167          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
168          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
169          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
170          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

171          KK    BICN
172          KM   ******************************************************************************
173          KM   **   SUB-WATERSHED N-A   (DRAINS INTO SUB-WATERSHED M) ********************
174          KM   ******************************************************************************
175          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
176          BA   0.001
177          ZR  =QI A=BIC BIC B=58999 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC100-24E

178          KK   N6S-D   CNAME     N6S
179          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT N6S TO DRAINA (CHANNEL A)
180          KO       0       0     0.0       0      22
181          RS       1    FLOW     0.0     0.0
182          RC     0.1     0.1     0.1 12189.0   0.003     0.0
183          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
184          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

185          KK    BICO
186          KM   ******************************************************************************
187          KM   **   SUB-WATERSHED O (DRAINS INTO SUB-WATERSHED M) ************************
188          KM   ******************************************************************************
189          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
190          BA   0.001
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

191          ZR  =QI A=BIC BIC B=63799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC100-24E

192          KK   O8SO9   CNAME     O8S
193          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT O8S TO O9 (CHANNEL A)
194          KO       0       0     0.0       0      22
195          RS       1    FLOW     0.0     0.0
196          RC     0.1     0.1     0.1  6048.0   0.004     0.0
197          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
198          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

199          KK      93
200          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
201          KM   L=1.21     Lca=0.60     S=17.39     Kn=0.200     LAG=148
202          KM   S-GRAPH TYPE=AGRICULTURE
203          KO       0       0     0.0       1      22
204          BA  0.3774
205          LG     1.0   0.245   4.879    0.41   9.378
206          UI     0.0     9.4     9.4    19.0   37.89   54.24   57.18   73.55   78.99   78.99
207          UI   77.24   65.83   70.53    53.4   54.15   37.91   32.75   26.86   26.09   17.25
208          UI   15.19   11.72   10.73    8.59    8.51    5.34    5.34    5.34    3.78    1.18
209          UI    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18
210          UI    1.18    1.18    1.18    1.18    1.18     0.0

211          KK     O9   CNAME   O9O10
212          KM   COMBINE ROUTED HYDROGRAPH FROM O9 WITH RUNOFF FROM 93 @ O10
213          KO       0       0     0.0       0      22
214          HC       2

215          KK   O9O10   CNAME      O9
216          KM   ROUTE HYDRPGRAPH FROM O9 TO O10 (CHANNEL A)
217          KO       0       0     0.0       0      22
218          RS       3    FLOW     0.0     0.0
219          RC     0.1     0.1     0.1 8757.67   0.001     0.0
220          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
221          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

222          KK      95
223          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
224          KM   L=1.66     Lca=0.83     S=7.84     Kn=0.200     LAG=220
225          KM   S-GRAPH TYPE=AGRICULTURE
226          KO       0       0     0.0       1      22
227          BA  0.5221
228          LG     1.0    0.15     8.2   0.118   0.728
229          UI     0.0    8.75    8.75    8.75   17.61   23.93   39.41   52.07   46.56    58.0
230          UI   66.98   73.51   73.51   73.51   73.51   69.43   61.26    62.9   68.12   47.05
231          UI   46.97   50.07   35.29   33.42    27.5   24.86   27.14   19.64   16.37   14.14
232          UI   13.38   10.81   10.81    8.74    7.99    7.99     6.9    4.97    4.97    4.97
233          UI    4.97    4.97    1.35    1.09    1.09    1.09    1.09    1.09    1.09    1.09
234          UI    1.09    1.09    1.09    1.09    1.09    1.09    1.09    1.09    1.09    1.09
235          UI    1.09    1.09    1.09    1.09    1.09    1.09     0.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

236          KK     O10   CNAME   O10DR
237          KM   COMBINE ROUTED HYDROGRAPH FROM O9 WITH RUNOFF FROM 95 @ O10
238          KO       0       0     0.0       0      22
239          HC       2

240          KK    TOP9
241          KM   HYDRPGRAPH DIVERTED TO P9
242          KO       0       0     0.0       0      22
243          DT    TOP9     0.0     0.0
244          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
245          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
246          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
247          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

248          KK   O10DR   CNAME     O10
249          KM   ROUTE HYDRPGRAPH FROM O10 TO DRAINA (CHANNEL A)
250          KO       0       0     0.0       0      22
251          RS      13    FLOW     0.0     0.0
```

```
252          RC     0.1     0.1     0.1 5733.05  0.0004     0.0
253          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
254          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

255          KK  CENTRE
256          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
257          KM   L=0.40     Lca=0.23     S=0.01     Kn=0.011     LAG=18
258          KM   S-GRAPH TYPE=PHOENIX VALLEY
259          KO       0       0     0.0       1      22
260          BA  0.0692
261          LG   0.248   0.153   6.965   0.147  35.732
262          UI     0.0   58.22  103.23   15.09     0.0

263          KK  FRM9TH
264          KM   RETRIEVE HYDROGRAPH FROM 9TH
265          KO       0       0     0.0       0      22
266          DR  TOCEN2

267          KK  9THCEN   CNAME
268          KM   ROUTE HYDRPGRAPH FROM 9TH TO CENTRA (CHANNEL 9THCEN)
269          RS       1    FLOW     0.0     0.0
270          RC    0.05   0.015    0.05  1300.0   0.008     0.0
271          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
272          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

273          KK  FRM8TH
274          KM   RETRIEVE HYDROGRAPH FROM 8TH
275          KO       0       0     0.0       0      22
276          DR  TOCEN1

277          KK  8THCEN   CNAME
278          KM   ROUTE HYDRPGRAPH FROM 8TH TO CENTRA (CHANNEL 8THCEN)
279          RS       1    FLOW     0.0     0.0
280          RC    0.05   0.015    0.05  1967.0   0.008     0.0
281          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
282          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0
1                                        HEC-1 INPUT                                                    PAGE  7

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

283          KK  CENTRA   CNAME  CENBEL
284          KM   COMBINE DIVERTED HYDROGRAPHS FROM 8THA AND 9TH WITH RUNOFF FROM CENTRAL @ CEN
285          KO       0       0     0.0       0      22
286          HC       3

287          KK  TOBELO
288          KM   HYDRPGRAPH DIVERTED TO BELOAA
289          KO       0       0     0.0       0      22
290          DT   TODRN     0.0     0.0
291          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
292          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
293          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
294          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

295          KK  CENBEL   CNAME  CENTRA
296          KM   ROUTE HYDRPGRAPH FROM CENTRA TO BELOAA (CHANNEL CENBEL)
297          KO       0       0     0.0       0      22
298          RS       2    FLOW     0.0     0.0
299          RC    0.05   0.015    0.05  2542.0   0.005     0.0
300          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
301          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

302          KK  BELOAT
303          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
304          KM   L=0.44     Lca=0.25     S=0.00     Kn=0.011     LAG=19
305          KM   S-GRAPH TYPE=PHOENIX VALLEY
306          KO       0       0     0.0       1      22
307          BA   0.047
308          LG    0.37   0.218   9.327   0.062   7.018
309          UI     0.0   35.33   70.77   13.41     0.0

310          KK  BELOAA   CNAME  BELDRN
311          KM   COMBINE ROUTED HYDROGRAPH FROM CENTRA WITH RUNOFF FROM BELOAT @ BELOAA
312          KO       0       0     0.0       0      22
313          HC       2

314          KK  BELDRN   CNAME  BELOAA
315          KM   ROUTE HYDRPGRAPH FROM BELOAA TO DRAINA (CHANNEL BELDRN)
316          KO       0       0     0.0       0      22
317          RS       2    FLOW     0.0     0.0
318          RC   0.035   0.015   0.035  1343.0  0.0011     0.0
319          RX     0.0   108.0   120.0  131.99   132.0   144.0   156.0   264.0
320          RY     8.0     0.0     3.0    3.24    3.24     3.0     0.0     8.0

321          KK  BAYLIS
322          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
323          KM   L=0.30     Lca=0.08     S=0.01     Kn=0.011     LAG=9
324          KM   S-GRAPH TYPE=PHOENIX VALLEY
325          KO       0       0     0.0       1      22
326          BA  0.0155
327          LG     0.1    0.15     9.7   0.069    80.0
328          UI     0.0   36.19     0.0
1                                        HEC-1 INPUT                                                    PAGE  8

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

329          KK  DETDRN   CNAME     DET
330          KM   ROUTE HYDROGRAPH FROM DET TO DRAINA (CHANNEL DETDRN)
331          KO       0       0     0.0       0      22
332          RS       1    FLOW     0.0     0.0
333          RC    0.05    0.03    0.05  2657.0  0.0065     0.0
334          RX     0.0    50.0   100.0   108.0   110.0   118.0   168.0   218.0
335          RY     9.0     8.5     8.0     0.0     0.0     8.0     8.5     9.0

336          KK      92
337          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
338          KM   L=2.06     Lca=1.03     S=17.46     Kn=0.200     LAG=223
339          KM   S-GRAPH TYPE=AGRICULTURE
340          KO       0       0     0.0       1      22
341          BA   1.014
342          LG     1.0   0.152   8.658   0.095   5.858
343          UI     0.0   40.65    78.1  207.32  268.02  327.77  341.43  292.11  269.54  214.08
```

```
 344          UI  145.16  120.99   73.46   57.17   43.57   35.76   23.07   23.07     8.2    5.08
 345          UI    5.08    5.08    5.08    5.08    5.08    5.08    5.08    5.08     0.0

 346          KK   DRAIN
 347          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 348          KM   L=0.59      Lca=0.26     S=0.01      Kn=0.011     LAG=20
 349          KM   S-GRAPH TYPE=PHOENIX VALLEY
 350          KO       0       0     0.0       1      22
 351          BA  0.1155
 352          LG     1.0    0.15   9.659   0.071   7.349
 353          UI     0.0   78.37   172.3   41.74     0.0

 354          KK  FRMCEN
 355          KM   RETRIEVE HYDROGRAPH FROM CENTRA
 356          KO       0       0     0.0       0      22
 357          DR   TODRN

 358          KK  CENDRN   CNAME
 359          KM   ROUTE HYDROGRAPH FROM CENTRA TO DRAINA (CHANNEL CENDRN)
 360          RS       1    FLOW     0.0     0.0
 361          RC    0.05    0.05    0.05  1888.0   0.005     0.0
 362          RX     0.0   300.0   600.0   900.0  1200.0  1500.0  1800.0  2100.0
 363          RY     1.0    0.67    0.33     0.0     0.0    0.33    0.67     1.0

 364          KK  DRAINA   CNAME   DRNM5
 365          KM   COMBINE DIVERTED HYDROGRAPH FROM CENTRA WITH ROUTED HYDROGRAPHS FROM BELOAA,
 366          KO       0       0     0.0       0      22
 367          HC       7

 368          KK   DRNM5   CNAME  DRAINA
 369          KM   ROUTE HYDROGRAPH FROM DRAINA TO M5 (CHANNEL DRNM5)
 370          KO       0       0     0.0       0      22
 371          RS       5    FLOW     0.0     0.0
 372          RC    0.05    0.05    0.05 7894.85  0.0013     0.0
 373          RX     0.0   500.0   525.0   528.0   543.0   546.0   571.0  1071.0
 374          RY     9.0     4.0     2.0     0.0     0.0     2.0     4.0     9.0
1                                          HEC-1 INPUT                                                PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 375          KK    4thS
 376          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 377          KM   L=0.74      Lca=0.50     S=0.01      Kn=0.011     LAG=30
 378          KM   S-GRAPH TYPE=PHOENIX VALLEY
 379          KO       0       0     0.0       1      22
 380          BA  0.1451
 381          LG   0.181   0.203   6.474   0.204  37.605
 382          UI     0.0   44.97  142.41  127.57   44.49   10.45     0.0

 383          KK  FRM4TH
 384          KM   RETRIEVE HYDROGRAPH FROM 4TH
 385          KO       0       0     0.0       0      22
 386          DR  TO4THS

 387          KK   4TH4S   CNAME
 388          KM   ROUTE HYDROGRAPH FROM 4THA TO 4THSA (CHANNEL 4TH4S)
 389          RS       1    FLOW     0.0     0.0
 390          RC    0.05   0.015    0.05  2629.0   0.015     0.0
 391          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 392          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 393          KK   4thSA   CNAME  4TH7TH
 394          KM   COMBINE DIVERTED HYDROGRAPH FROM 4THA WITH RUNOFF FROM 4THS @ 4THSA
 395          KO       0       0     0.0       0      22
 396          HC       2

 397          KK  4TH7TH   CNAME   4thSA
 398          KM   ROUTE HYDROGRAPH FROM 4THSA TO 7THSA (CHANNEL 4TH7TH)
 399          KO       0       0     0.0       0      22
 400          RS       2    FLOW     0.0     0.0
 401          RC    0.05   0.015    0.05  1339.0  0.0028     0.0
 402          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 403          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 404          KK     7th
 405          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 406          KM   L=0.66      Lca=0.33     S=0.01      Kn=0.011     LAG=24
 407          KM   S-GRAPH TYPE=PHOENIX VALLEY
 408          KO       0       0     0.0       1      22
 409          BA  0.1268
 410          LG   0.252   0.261   5.114   0.312  38.171
 411          UI     0.0   60.41  169.79   77.88   14.98     0.0

 412          KK  FRM6TH
 413          KM   RETRIEVE HYDROGRAPH FROM 6THA
 414          KO       0       0     0.0       0      22
 415          DR  TO7THS

 416          KK  6TH7TH   CNAME
 417          KM   ROUTE HYDROGRAPH FROM 6THA TO 7THSA (CHANNEL 6TH7TH)
 418          RS       1    FLOW     0.0     0.0
 419          RC    0.05   0.015    0.05  3061.0  0.0059     0.0
 420          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 421          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0
1                                          HEC-1 INPUT                                                PAGE 10

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 422          KK   7thSA   CNAME   7THM5
 423          KM   COMBINE DIVERTED HYDROGRAPH FROM 6THA WITH ROUTED HYDROGRAPH FROM 4THSA WITH
 424          KO       0       0     0.0       0      22
 425          HC       3

 426          KK   7THM5   CNAME   7thSA
 427          KM   ROUTE HYDROGRAPH FROM 7THSA TO M5 (CHANNEL 7THM5)
 428          KO       0       0     0.0       0      22
 429          RS       2    FLOW     0.0     0.0
 430          RC    0.05    0.05    0.05 5286.53  0.0023     0.0
 431          RX     0.0    25.0    28.0    31.0    46.0    49.0    52.0    77.0
 432          RY     6.0     4.0     2.0     0.0     0.0     2.0     4.0     6.0

 433          KK      98
```

```
434          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
435          KM   L=1.50     Lca=0.75     S=6.69     Kn=0.200     LAG=209
436          KM   S-GRAPH TYPE=AGRICULTURE
437          KO       0        0     0.0        1       22
438          BA  0.3878
439          LG     1.0    0.174    9.082    0.078   10.556
440          UI     0.0    14.59    24.67    66.97     88.8   117.54   122.57   113.04   108.08     79.8
441          UI    66.8    46.99    39.56    25.34    19.48    15.08     12.7     8.28     8.28     3.72
442          UI    1.82     1.82     1.82     1.82     1.82     1.82     1.82     1.82     1.82     1.82
443          UI     0.0

444          KK      M5
445          KM   COMBINE ROUTED HYDROGRAPHs FROM 7THSA AND DRAINA WITH RUNOFF FROM 98 @ M5
446          KO       0        0     0.0        0       22
447          HC       3

448          KK    BICP
449          KM   ***********************************************************************
450          KM   **    SUB-WATERSHED P    ***********************************************
451          KM   ***********************************************************************
452          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
453          BA   0.001
454          ZR  =QI A=BIC BIC B=67395 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC100-24E

455          KK   P6SP7   CNAME      P6S
456          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT P6S TO P7 (CHANNEL A)
457          KO       0        0     0.0        0       22
458          RS       1     FLOW     0.0      0.0
459          RC     0.1      0.1     0.1   5100.0    0.005      0.0
460          RX     0.0    250.0   500.0    750.0   1000.0   1333.3   1666.6   2000.0
461          RY    10.0      7.5     5.0      2.5      0.0      3.3      6.6     10.0

462          KK      94
463          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
464          KM   L=1.30     Lca=0.65     S=22.37     Kn=0.200     LAG=149
465          KM   S-GRAPH TYPE=AGRICULTURE
466          KO       0        0     0.0        1       22
467          BA  0.7194
468          LG     1.0     0.15   7.304    0.157    2.203
469          UI     0.0    17.81   17.81    35.71    70.46   102.77   107.11   138.19   149.58   149.58
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

470          UI  147.91   124.65   131.59   105.71   101.03    75.79    63.54    51.25    51.33    33.33
471          UI   28.76    23.11    21.15    16.26    16.26    10.96    10.11    10.11     8.64     2.23
472          UI    2.23     2.23     2.23     2.23     2.23     2.23     2.23     2.23     2.23     2.23
473          UI    2.23     2.23     2.23     2.23     2.23      0.0

474          KK      P7   CNAME   P7-P8
475          KM   COMBINE ROUTED HYDROGRAPH FROM P6S WITH RUNOFF FROM 94 @ P7
476          KO       0        0     0.0        0       22
477          HC       2

478          KK   P7-P8   CNAME      P7
479          KM   ROUTE HYDROGRAPH FROM P7 TO P8 (CHANNEL A)
480          KO       0        0     0.0        0       22
481          RS       6     FLOW     0.0      0.0
482          RC     0.1      0.1     0.1  3899.99   0.0015      0.0
483          RX     0.0    250.0   500.0    750.0   1000.0   1333.3   1666.6   2000.0
484          RY    10.0      7.5     5.0      2.5      0.0      3.3      6.6     10.0

485          KK      96
486          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
487          KM   L=1.32     Lca=0.66     S=4.55     Kn=0.200     LAG=205
488          KM   S-GRAPH TYPE=AGRICULTURE
489          KO       0        0     0.0        1       22
490          BA  0.9142
491          LG     1.0     0.15   7.196    0.171    0.589
492          UI     0.0    16.45   16.45     18.8    34.54    52.11    84.71    98.14    96.32   126.68
493          UI  129.26   138.14   138.14   138.14   130.47   115.12   121.64   118.86    86.34    91.94
494          UI   82.29    63.36    57.32    47.86    49.06    41.47    31.23    26.57    24.96    20.31
495          UI   20.31    15.37    15.02    15.02    10.53     9.33     9.33     9.33     9.33      4.0
496          UI    2.06     2.06     2.06     2.06     2.06     2.06     2.06     2.06     2.06     2.06
497          UI    2.06     2.06     2.06     2.06     2.06     2.06     2.06     2.06     2.06     2.06
498          UI    2.06     2.06      0.0

499          KK      P8   CNAME   P8-P9
500          KM   COMBINE ROUTED HYDROGRAPH FROM P7 WITH RUNOFF FROM 96 @ P8
501          KO       0        0     0.0        0       22
502          HC       2

503          KK   P8-P9   CNAME      P8
504          KM   ROUTE HYDROGRAPH FROM P8 TO P9 (CHANNEL A)
505          KO       0        0     0.0        0       22
506          RS       9     FLOW     0.0      0.0
507          RC     0.1      0.1     0.1  6986.11   0.0012      0.0
508          RX     0.0    250.0   500.0    750.0   1000.0   1333.3   1666.6   2000.0
509          RY    10.0      7.5     5.0      2.5      0.0      3.3      6.6     10.0

510          KK      97
511          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
512          KM   L=1.32     Lca=0.66     S=6.05     Kn=0.200     LAG=195
513          KM   S-GRAPH TYPE=AGRICULTURE
514          KO       0        0     0.0        1       22
515          BA  0.5002
516          LG     1.0    0.163   6.866    0.195    0.278
517          UI     0.0     9.46    9.46    12.27    19.87    35.86    52.15    53.64    61.59    73.51
518          UI   79.47    79.47   79.47    79.47    66.22    66.89     74.0    49.67    52.15    48.28
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

519          UI   36.52    32.56    27.34    28.83    21.44    17.23    15.28    13.09    11.69    10.47
520          UI    8.64     8.64      7.3     5.37     5.37     5.37     5.37     2.86     1.18     1.18
521          UI    1.18     1.18     1.18     1.18     1.18     1.18     1.18     1.18     1.18     1.18
522          UI    1.18     1.18     1.18     1.18     1.18     1.18     1.18     1.18     1.18      0.0

523          KK   FRO10
524          KM   RETRIEVE HYDROGRAPH FROM O10
525          KO       0        0     0.0        0       22
526          DR    TOP9

527          KK  O10-P9   CNAME
```

```
528          KM   ROUTE HYDROGRAPH FROM O10 TO P9 (CHANNEL O10-P9)
529          RS      1    FLOW     0.0     0.0
530          RC    0.05    0.05    0.05  1492.0   0.002     0.0
531          RX     0.0   200.0   235.0   251.0   263.0   279.0   314.0   349.0
532          RY    12.0    10.0     8.0     0.0     0.0     8.0    10.0    12.0

533          KK      P9   CNAME  P9-P10
534          KM   COMBINE ROUTED HYDROGRAPH FROM P8 WITH DIVERTED HYDROGRAPH FROM O10 WITH RUNO
535          KO       0       0     0.0       0      22
536          HC       3

537          KK  P9-P10   CNAME      P9
538          KM   ROUTE HYDROGRAPH FROM P9 TO P10 (CHANNEL A)
539          KO       0       0     0.0       0      22
540          RS       5    FLOW     0.0     0.0
541          RC     0.1     0.1     0.1 3952.01  0.0048     0.0
542          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
543          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

544          KK     100
545          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
546          KM   L=1.70      Lca=0.85      S=18.83      Kn=0.200      LAG=190
547          KM   S-GRAPH TYPE=AGRICULTURE
548          KO       0       0     0.0       1      22
549          BA  0.5816
550          LG     1.0   0.228   6.243   0.251   1.187
551          UI     0.0   11.29   11.29   15.51   24.87    45.7   65.19   60.85   82.97   85.34
552          UI   94.82   94.82   94.82   89.56   79.02   84.02   75.73   59.27   66.61   45.77
553          UI    43.1   33.76   32.34    31.6   21.55   18.46   17.01   13.94   13.46   10.31
554          UI   10.31    9.45    6.41    6.41    6.41    6.41    3.74    1.41    1.41    1.41
555          UI    1.41    1.41    1.41    1.41    1.41    1.41    1.41    1.41    1.41    1.41
556          UI    1.41    1.41    1.41    1.41    1.41    1.41    1.41     0.0

557          KK     P10
558          KM   COMBINE ROUTED HYDROGRAPH FROM P9 WITH RUNOFF FROM 100 @ P10
559          KO       0       0     0.0       0      22
560          HC       2

561          KK      99
562          KM   ***********************************************************************
563          KM   **   SUB-WATERSHED N-B   ***********************************************
564          KM   ***********************************************************************
565          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
566          KM   L=2.01      Lca=1.24      S=3.49      Kn=0.050      LAG=80
1                                          HEC-1 INPUT                                          PAGE 13

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

567          KM   S-GRAPH TYPE=PHOENIX VALLEY
568          KO       0       0     0.0       1      22
569          BA  0.9484
570          LG     1.0   0.334   6.022   0.216   0.014
571          UI     0.0   39.92  121.66  208.16  273.54  409.44  445.57  321.29  237.94  165.13
572          UI    81.8   57.84   37.85   12.24   12.24   12.24     0.0

573          KK     101
574          KM   ***********************************************************************
575          KM   **   SUB-WATERSHED Q   ***********************************************
576          KM   ***********************************************************************
577          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
578          KM   L=1.63      Lca=0.81      S=8.59      Kn=0.200      LAG=213
579          KM   S-GRAPH TYPE=AGRICULTURE
580          KO       0       0     0.0       1      22
581          BA  0.3807
582          LG     1.0   0.149   6.963   0.172   3.947
583          UI     0.0    6.59    6.59    6.72   13.84   19.36   31.67   39.52   35.16   50.66
584          UI   48.72   55.36   55.36   55.36   55.36   47.98   46.14   49.41   43.25    34.6
585          UI   38.51    29.5   25.17   22.12   19.02   19.89   16.22   12.54   10.65   10.21
586          UI    8.14    8.14    6.53    6.02    6.02    4.89    3.74    3.74    3.74    3.74
587          UI    3.04    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82
588          UI    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82
589          UI    0.82    0.82    0.82    0.82     0.0

590          KK    BICK
591          KM   ***********************************************************************
592          KM   **   SUB-WATERSHED K   ***********************************************
593          KM   ***********************************************************************
594          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
595          BA   0.001
596          ZR  =QI A=BIC BIC B=42799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC100-24E

597          KK   K7SK8   CNAME     K7S
598          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT K7S TO K8 (CHANNEL A)
599          KO       0       0     0.0       0      22
600          RS       1    FLOW     0.0     0.0
601          RC     0.1     0.1     0.1  8240.0   0.005     0.0
602          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
603          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

604          KK      90
605          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
606          KM   L=2.05      Lca=1.02      S=21.50      Kn=0.200      LAG=213
607          KM   S-GRAPH TYPE=AGRICULTURE
608          KO       0       0     0.0       1      22
609          BA  1.0549
610          LG     1.0   0.152   9.525   0.075   5.871
611          UI     0.0   18.26   18.26   18.63   38.35   53.64   87.77   109.5   97.42  140.37
612          UI   135.0  153.41  153.41  153.41  153.41  132.96  127.84  136.92  119.85   95.88
613          UI  106.72   81.75   69.73   61.31   52.71   55.11   44.96   34.76    29.5   28.29
614          UI   22.56   22.56   18.09   16.68   16.68   13.56   10.37   10.37   10.37   10.37
615          UI    8.43    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
616          UI    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
617          UI    2.28    2.28    2.28    2.28     0.0
1                                          HEC-1 INPUT                                          PAGE 14

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


618          KK      K8
619          KM   COMBINE ROUTED HYDROGRAPH FROM K7S WITH RUNOFF FROM 90 @ K8
620          KO       0       0     0.0       0      22
621          HC       2

622          KK    BICL
```

```
623   KM   ***********************************************************************
624   KM   **   SUB-WATERSHED L   ***************************************************
625   KM   ***********************************************************************
626   KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
627   BA   0.001
628   ZR  =QI A=BIC BIC B=47195 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC100-24E

629   KK   L5SL6   CNAME     L5S
630   KM   ROUTE INFLOW FROM BIC CONCENTRATED AT L5S TO L6 (CHANNEL A)
631   KO       0       0     0.0       0      22
632   RS       1    FLOW     0.0     0.0
633   RC     0.1     0.1     0.1  9280.0   0.005     0.0
634   RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
635   RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

636   KK      91
637   KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
638   KM   L=2.08      Lca=1.04      S=21.10      Kn=0.200      LAG=217
639   KM   S-GRAPH TYPE=AGRICULTURE
640   KO       0       0     0.0       1      22
641   BA   1.189
642   LG     1.0    0.15   8.293   0.113   5.191
643   UI     0.0   20.21   20.21   20.21   41.59   57.01   93.61  121.43  106.09  140.03
644   UI  156.16  169.74  169.74  169.74  169.74  154.65  141.45  151.68  144.39  106.09
645   UI  111.63  106.19   79.21   74.79   60.09   56.97   62.49   38.58   35.53   32.64
646   UI   27.78   24.96   23.83   18.45   18.45   18.45   12.54   11.47   11.47   11.47
647   UI   11.47    7.06    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53
648   UI    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53
649   UI    2.53    2.53    2.53    2.53    2.53     0.0

650   KK      L6
651   KM   COMBINE ROUTED HYDROGRAPH FROM L5S WITH RUNOFF FROM 91 @ L6
652   KO       0       0     0.0       0      22
653   HC       2
654   ZZ
HYDROGRAPH AT
+                BICM      52.   23.75        33.        8.        3.     0.00

        ROUTED TO
+               M4S6TH      52.   24.00        33.        8.        3.     0.00

        HYDROGRAPH AT
+                 4th     136.   12.50        18.        6.        2.     0.08

        DIVERSION TO
+               TO4THS      68.   12.50         9.        3.        1.     0.08

        HYDROGRAPH AT
+               TO4THS      68.   12.50         9.        3.        1.     0.08

        ROUTED TO
+               4TH6TH      59.   12.50         9.        3.        1.     0.08

        HYDROGRAPH AT
+                 6th     101.   12.50        14.        4.        1.     0.06

        3 COMBINED AT
+                6thA     159.   12.50        34.       16.        5.     0.14

        DIVERSION TO
+               TO7THS      79.   12.50        17.        8.        3.     0.14

        HYDROGRAPH AT
+               TO7THS      79.   12.50        17.        8.        3.     0.14

        ROUTED TO
+               6TH8TH      71.   12.50        17.        8.        3.     0.14

        HYDROGRAPH AT
+                 8th     144.   12.50        19.        6.        2.     0.08

        2 COMBINED AT
+                8thA     214.   12.50        31.       13.        5.     0.22

        DIVERSION TO
+               TOCEN1     107.   12.50        15.        7.        2.     0.22

        HYDROGRAPH AT
+                TOCEN     107.   12.50        15.        7.        2.     0.22

        ROUTED TO
+               8TH9TH      98.   12.50        15.        7.        2.     0.22

        HYDROGRAPH AT
+                9thE     145.   12.50        22.        7.        2.     0.09

        HYDROGRAPH AT
+                9thW     147.   12.50        18.        5.        2.     0.08

        3 COMBINED AT
+                 9th     385.   12.50        55.       18.        6.     0.40

        DIVERSION TO
+               TOCEN2     193.   12.50        27.        9.        3.     0.40

        HYDROGRAPH AT
+               TOCEN2     193.   12.50        27.        9.        3.     0.40

        HYDROGRAPH AT
+                 BICN     228.   17.25       216.      112.       49.     0.00

        ROUTED TO
+               N6S-D     180.   23.00       171.      104.       47.     0.00

        HYDROGRAPH AT
+                 BICO      47.   17.25        26.        6.        2.     0.00

        ROUTED TO
+               OBSO9      23.   20.00        18.        6.        2.     0.00

        HYDROGRAPH AT
+                  93      77.   14.25        40.       11.        4.     0.38

        2 COMBINED AT
```

```
+                    09      77.  14.25      43.      17.      6.    0.38
+   ROUTED TO
                  09010      28.  22.25      27.      16.      6.    0.38
+   HYDROGRAPH AT
                     95      96.  15.25      64.      18.      6.    0.52
+   2 COMBINED AT
                    010      99.  15.50      73.      34.     12.    0.90
+   DIVERSION TO
                   TOP9      49.  15.50      37.      17.      6.    0.90
+   HYDROGRAPH AT
                   TOP9      49.  15.50      37.      17.      6.    0.90
+   ROUTED TO
                  010DR      37.  21.50      30.      16.      6.    0.90
+   HYDROGRAPH AT
                 CENTRE     123.  12.50      15.       5.      2.    0.07
+   HYDROGRAPH AT
                 FRM9TH     193.  12.50      27.       9.      3.    0.40
+   ROUTED TO
                 9THCEN     167.  12.50      27.       9.      3.    0.40
+   HYDROGRAPH AT
                 FRM8TH     107.  12.50      15.       7.      2.    0.22
+   ROUTED TO
                 8THCEN      91.  12.50      15.       7.      2.    0.22
+   3 COMBINED AT
                 CENTRA     384.  12.50      58.      20.      7.    0.07
+   DIVERSION TO
                  TODRN     192.  12.50      29.      10.      3.    0.07
+   HYDROGRAPH AT
                 TOBELO     192.  12.50      29.      10.      3.    0.07
+   ROUTED TO
                 CENBEL     169.  12.75      29.      10.      3.    0.07
+   HYDROGRAPH AT
                 BELOAT      85.  12.50       9.       2.      1.    0.05
+   2 COMBINED AT
                 BELOAA     218.  12.50      38.      13.      4.    0.12
+   ROUTED TO
                 BELDRN     208.  12.75      38.      13.      4.    0.12
+   HYDROGRAPH AT
                 BAYLIS      41.  12.25       4.       1.      0.    0.02
+   ROUTED TO
                 DETDRN      25.  12.25       4.       1.      0.    0.02
+   HYDROGRAPH AT
                     92     457.  13.50     155.      41.     14.    1.01
+   HYDROGRAPH AT
                  DRAIN     196.  12.50      19.       5.      2.    0.12
+   HYDROGRAPH AT
                 FRMCEN     192.  12.50      29.      10.      3.    0.07
+   ROUTED TO
                 CENDRN     101.  13.00      29.      10.      3.    0.07
+   7 COMBINED AT
                 DRAINA     660.  13.00     275.     180.     75.    2.16
+   ROUTED TO
                  DRNM5     516.  14.50     269.     179.     75.    2.16
+   HYDROGRAPH AT
                    4thS     199.  12.50      30.       9.      3.    0.15
+   HYDROGRAPH AT
                 FRM4TH      68.  12.50       9.       3.      1.    0.08
+   ROUTED TO
                   4TH4S      60.  12.50       9.       3.      1.    0.08
+   2 COMBINED AT
                   4thSA     259.  12.50      39.      12.      4.    0.15
+   ROUTED TO
                 4TH7TH     245.  12.75      39.      12.      4.    0.15
+   HYDROGRAPH AT
                     7th     200.  12.50      25.       8.      3.    0.13
+   HYDROGRAPH AT
                 FRM6TH      79.  12.50      17.       8.      3.    0.14
+   ROUTED TO
                 6TH7TH      64.  12.50      17.       8.      3.    0.14
+   3 COMBINED AT
                   7thSA     445.  12.50      75.      27.      9.    0.27
+   ROUTED TO
                  7THM5     354.  13.00      74.      27.      9.    0.27
+   HYDROGRAPH AT
                     98     174.  13.50      63.      17.      6.    0.39
    3 COMBINED AT
```

```
+                          M5      671.  13.25      393.      218.      88.     2.82
          HYDROGRAPH AT
+                        BICP      123.  17.25       49.       12.       4.     0.00
          ROUTED TO
+                       P6SP7       64.  18.75       42.       12.       4.     0.00
          HYDROGRAPH AT
+                          94      184.  14.25       92.       25.       8.     0.72
          2 COMBINED AT
+                          P7      184.  14.25      106.       37.      12.     0.72
          ROUTED TO
+                       P7-P8      156.  16.00       99.       37.      12.     0.72
          HYDROGRAPH AT
+                          96      163.  15.00      103.       29.      10.     0.91
          2 COMBINED AT
+                          P8      296.  16.00      186.       65.      22.     1.63
          ROUTED TO
+                       P8-P9      242.  18.75      171.       64.      22.     1.63
          HYDROGRAPH AT
+                          97       90.  15.00       55.       15.       5.     0.50
          HYDROGRAPH AT
+                       FRO10       49.  15.50       37.       17.       6.     0.90
          ROUTED TO
+                      O10-P9       49.  15.50       36.       17.       6.     0.90
          3 COMBINED AT
+                          P9      285.  18.50      208.       95.      33.     2.13
          ROUTED TO
+                      P9-P10      278.  19.25      207.       95.      33.     2.13
          HYDROGRAPH AT
+                         100       92.  14.75       55.       15.       5.     0.58
          2 COMBINED AT
+                         P10      286.  19.25      224.      109.      38.     2.72
          HYDROGRAPH AT
+                          99      399.  13.50       92.       23.       8.     0.95
          HYDROGRAPH AT
+                         101       69.  15.25       45.       13.       4.     0.38
          HYDROGRAPH AT
+                        BICK      510.  17.75      409.      136.      56.     0.00
          ROUTED TO
+                       K7SK8      416.  19.25      338.      134.      55.     0.00
          HYDROGRAPH AT
+                          90      226.  15.25      149.       44.      15.     1.05
          2 COMBINED AT
+                          K8      467.  18.50      405.      175.      69.     1.06
          HYDROGRAPH AT
+                        BICL       82.  23.75       79.       60.      45.     0.00
          ROUTED TO
+                       L5SL6       76.  26.50       74.       57.      44.     0.00
          HYDROGRAPH AT
+                          91      230.  15.25      153.       46.      15.     1.19
          2 COMBINED AT
+                          L6      252.  15.25      183.       97.      57.     1.19

 *** NORMAL END OF HEC-1 ***
1*************************************                                  ************************************
 *                                   *                                  *                                  *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)*                                  *   U.S. ARMY CORPS OF ENGINEERS   *
 *             JUN   1998            *                                  *   HYDROLOGIC ENGINEERING CENTER  *
 *           VERSION 4.1             *                                  *         609 SECOND STREET        *
 *                                   *                                  *      DAVIS, CALIFORNIA 95616     *
 *  RUN DATE   23MAR06  TIME  05:07:01*                                  *          (916) 756-1104          *
 *                                   *                                  *                                  *
 *************************************                                  ************************************

                                                  X     X  XXXXXXX   XXXXX           X
                                                  X     X  X        X     X         XX
                                                  X     X  X        X                X
                                                  XXXXXXX  XXXX     X        XXXXX   X
                                                  X     X  X        X                X
                                                  X     X  X        X     X          X
                                                  X     X  XXXXXXX   XXXXX         XXX

          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                          HEC-1 INPUT                                          PAGE  1
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID   Buckeye/Sun Valley ADMS - November 2004
  2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
  3           ID   100-year 24-hour
  4           ID   Existing Conditions
  5           ID   Area 1 - BIC to Gila (West)
  6           ID   File Name: bgw10024ex.hc1
  7           ID   Rainfall Loss Method - Green & Ampt
  8           ID   Unit Hydrograph Method - FCDMC S-Graph
  9           ID   Channel Routing Method - Normal Depth
 10           ID   Land Use - FCDMC GIS Data: mag_landuse (2000)
 11           ID   Existing Land Use Cutoff Date: 2000
 12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
 13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
              *DIAGRAM
 14           IT      15 02JAN94       0     400
 15           IO       3
 16           IN      15 02JAN94       0
 17           JD     4.1     0.01
              * 24-hour distribution
 18           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
 19           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 20           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 21           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 22           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 23           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 24           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 25           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 26           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 27           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
 28           IN      15 02JAN94       0
 29           JD   3.895    10.0
              * 24-hour distribution
 30           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
 31           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 32           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 33           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 34           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 35           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 36           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 37           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 38           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 39           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
 40           IN      15 02JAN94       0
 41           JD   3.764    20.0
              * 24-hour distribution
 42           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
 43           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 44           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 45           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 46           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 47           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 48           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 49           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 50           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 51           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
1                                          HEC-1 INPUT                                          PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 52           KK   BICE
 53           KM   ******************************************************************************
 54           KM   **   SUB-WATERSHED E   ******************************************************
 55           KM   ******************************************************************************
 56           KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 57           BA  0.0001
 58           ZR  =QI A=BIC BIC B=4395 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC100-24E

 59           KK  E2S-E3   CNAME     E2S
 60           KM   ROUTE INFLOW FROM BIC CONCENTRATED AT E2S TO E3 (CHANNEL A)
 61           KO       0       0     0.0       0      22
 62           RS       1    FLOW     0.0     0.0
 63           RC     0.1     0.1     0.1 9548.74   0.003     0.0
 64           RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 65           RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 66           KK      84
 67           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 68           KM   L=1.81     Lca=0.98     S=13.27     Kn=0.200     LAG=219
 69           KM   S-GRAPH TYPE=AGRICULTURE
 70           KO       0       0     0.0       1      22
 71           BA  0.8772
 72           LG     1.0   0.147   9.727   0.071   0.998
 73           UI     0.0   14.77   14.77   14.77   29.95   40.82   67.16   88.66   77.76   98.85
 74           UI  113.94  124.08  124.08  124.08  124.08  115.81  103.4  107.74  113.07   77.55
 75           UI   80.05   82.21    59.0    56.4   45.14   41.62   46.54   30.82   27.07   23.86
 76           UI   21.83   18.25   18.25   14.06   13.49   13.49   10.82    8.38    8.38    8.38
 77           UI    8.38     7.6    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85
 78           UI    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85
 79           UI    1.85    1.85    1.85    1.85    1.85    1.85     0.0

 80           KK      E3
 81           KM   COMBINE ROUTED HYDROGRAPH FROM E2S WITH RUNOFF FROM 84 @ E3
 82           KO       0       0     0.0       0      22
 83           HC       2

 84           KK  BICFB
 85           KM   ******************************************************************************
 86           KM   **   SUB-WATERSHEDS F AND G   ***********************************************
 87           KM   ******************************************************************************
 88           KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 89           BA    0.01
 90           ZR  =QI A=BIC BIC B=14995 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC100-24E

 91           KK  F6BS7B   CNAME    F6BS
 92           KM   ROUTE INFLOW FROM BIC CONCENTRATED AT F6BS TO F7B (CHANNEL A)
 93           KO       0       0     0.0       0      22
 94           RS       1    FLOW     0.0     0.0
 95           RC     0.1     0.1     0.1 3159.78   0.007     0.0
 96           RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 97           RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
```

```
1                                          HEC-1 INPUT                                                          PAGE  3

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


   98           KK     85B
   99           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
  100           KM   L=1.47      Lca=0.73      S=15.68      Kn=0.200      LAG=176
  101           KM   S-GRAPH TYPE=AGRICULTURE
  102           KO       0        0      0.0        1       22
  103           BA  0.7453
  104           LG     1.0    0.247    5.674    0.297    1.988
  105           UI     0.0    15.62    15.62    24.82    40.72    72.66    91.61    93.72   117.48   131.18
  106           UI  131.18   131.18   125.35   109.32   115.73   100.21    83.45    84.6    61.11    53.73
  107           UI   44.85    48.84    29.87    26.57    24.15    19.29    18.35    14.26    14.26    11.63
  108           UI    8.86     8.86     8.86     7.85     1.95     1.95     1.95     1.95     1.95     1.95
  109           UI    1.95     1.95     1.95     1.95     1.95     1.95     1.95     1.95     1.95     1.95
  110           UI    1.95     1.95     1.95      0.0

  111           KK     F7B   CNAME  F7B-F8
  112           KM   COMBINE ROUTED HYDROGRAPH FROM F6BS WITH RUNOFF FROM 85B @ F7B
  113           KO       0        0      0.0        0       22
  114           HC       2

  115           KK  F7B-F8   CNAME      F7B
  116           KM   ROUTE HYDRPGRAPH FROM F7B TO F8 (CHANNEL A)
  117           KO       0        0      0.0        0       22
  118           RS       8     FLOW      0.0      0.0
  119           RC     0.1      0.1      0.1 6483.88    0.006      0.0
  120           RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
  121           RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

  122           KK   BICG
  123           KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
  124           BA    0.01
  125           ZR  =QI A=BIC BIC B=21999 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC100-24E

  126           KK  G8S-G9   CNAME      G8S
  127           KM   ROUTE INFLOW FROM BIC CONCENTRATED AT G8S TO G9 (CHANNEL A)
  128           KO       0        0      0.0        0       22
  129           RS       1     FLOW      0.0      0.0
  130           RC     0.1      0.1      0.1 5481.53    0.005      0.0
  131           RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
  132           RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

  133           KK      86
  134           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
  135           KM   L=1.09      Lca=0.54      S=25.78      Kn=0.200      LAG=127
  136           KM   S-GRAPH TYPE=AGRICULTURE
  137           KO       0        0      0.0        1       22
  138           BA  0.4398
  139           LG     1.0    0.15    8.108    0.11    6.815
  140           UI     0.0    12.77    15.89    33.53    68.33    74.26    98.27   107.27   107.27    97.74
  141           UI   93.18    80.08    72.45    51.51    42.18    37.93    27.0     20.95    16.68    14.24
  142           UI   11.66     9.78     7.25     7.25     5.59     1.6      1.6      1.6      1.6      1.6
  143           UI     1.6      1.6      1.6      1.6      1.6      1.6      1.6      1.6      0.0
1                                          HEC-1 INPUT                                                          PAGE  4

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


  144           KK      G9   CNAME   G9-F8
  145           KM   COMBINE ROUTED HYDROGRAPH FROM G8S WITH RUNOFF FROM 86 @ G9
  146           KO       0        0      0.0        0       22
  147           HC       2

  148           KK   G9-F8   CNAME      G9
  149           KM   ROUTE HYDRPGRAPH FROM G9 TO F8 (CHANNEL A)
  150           KO       0        0      0.0        0       22
  151           RS      13     FLOW      0.0      0.0
  152           RC     0.1      0.1      0.1 9228.08    0.004      0.0
  153           RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
  154           RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

  155           KK  BICFA
  156           KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
  157           BA  0.0001
  158           ZR  =QI A=BIC BIC B=11199 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC100-24E

  159           KK  F6AS7A   CNAME    F6AS
  160           KM   ROUTE INFLOW FROM BIC CONCENTRATED AT F6AS TO F7A (CHANNEL A)
  161           KO       0        0      0.0        0       22
  162           RS       1     FLOW      0.0      0.0
  163           RC     0.1      0.1      0.1 2921.0    0.011      0.0
  164           RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
  165           RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

  166           KK     85A
  167           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
  168           KM   L=0.84      Lca=0.42      S=37.89      Kn=0.200      LAG=98
  169           KM   S-GRAPH TYPE=AGRICULTURE
  170           KO       0        0      0.0        1       22
  171           BA  0.2163
  172           LG     1.0    0.148    7.216    0.169    1.439
  173           UI     0.0     8.14    13.77    37.36    49.55    65.58    68.39    63.07    60.31    44.52
  174           UI   37.27    26.22    22.07    14.14    10.87     8.41     7.09     4.62     4.62     2.07
  175           UI    1.02     1.02     1.02     1.02     1.02     1.02     1.02     1.02     1.02     1.02
  176           UI     0.0

  177           KK     F7A   CNAME  F7A-F8
  178           KM   COMBINE ROUTED HYDROGRAPH FROM F6AS WITH RUNOFF FROM 85A @ F7A
  179           KO       0        0      0.0        0       22
  180           HC       2

  181           KK  F7A-F8   CNAME      F7A
  182           KM   ROUTE HYDRPGRAPH FROM F7A TO F8 (CHANNEL A)
  183           KO       0        0      0.0        0       22
  184           RS       7     FLOW      0.0      0.0
  185           RC     0.1      0.1      0.110377.67    0.006      0.0
  186           RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
  187           RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0
1                                          HEC-1 INPUT                                                          PAGE  5

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
188          KK     105
189          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
190          KM   L=1.94      Lca=0.97      S=18.59      Kn=0.200      LAG=210
191          KM   S-GRAPH TYPE=AGRICULTURE
192          KO       0        0      0.0        1       22
193          BA  0.9967
194          LG     1.0     0.15    8.425    0.106    1.659
195          UI     0.0     17.5     17.5    18.66    36.76    52.93    86.38   104.76    96.79   138.98
196          UI  128.13   147.03   147.03   147.03   147.03   122.52   122.52   134.29   104.02    92.91
197          UI  101.53    70.71    66.83    54.23    49.36    55.42    34.8    31.36    28.27    24.42
198          UI   21.62    20.49    15.98    15.98    15.98    10.06     9.93     9.93     9.93     9.93
199          UI    3.74     2.19     2.19     2.19     2.19     2.19     2.19     2.19     2.19     2.19
200          UI    2.19     2.19     2.19     2.19     2.19     2.19     2.19     2.19     2.19     2.19
201          UI    2.19     2.19     2.19      0.0

202          KK     104
203          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
204          KM   L=1.95      Lca=0.98      S=13.83      Kn=0.200      LAG=223
205          KM   S-GRAPH TYPE=AGRICULTURE
206          KO       0        0      0.0        1       22
207          BA  1.0120
208          LG     1.0    0.174    6.755    0.192    0.053
209          UI     0.0    16.74    16.74    16.74     32.9    44.31     73.2    96.94    91.85   107.62
210          UI  126.44   139.17   140.58   140.58   140.58   137.46   117.15   117.15   127.87   102.94
211          UI   87.86    99.21    73.02     63.9    56.91    48.63    49.42    45.47    31.95    28.25
212          UI   27.03    21.81    20.67    19.09    15.28    15.28    15.28    10.23      9.5      9.5
213          UI     9.5      9.5     6.73     2.09     2.09     2.09     2.09     2.09     2.09     2.09
214          UI    2.09     2.09     2.09     2.09     2.09     2.09     2.09     2.09     2.09     2.09
215          UI    2.09     2.09     2.09     2.09     2.09     2.09     2.09      0.0

216          KK      F8
217          KM   COMBINE ROUTED HYDROGRAPH FROM G9, F7A, AND F7B WITH RUNOFF FROM 104 AND 105
218          KO       0        0      0.0        0       22
219          HC       5

220          KK   BICH
221          KM   ***********************************************************************
222          KM   **   SUB-WATERSHED H   ***********************************************
223          KM   ***********************************************************************
224          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
225          BA    0.01
226          ZR  =QI A=BIC BIC B=24799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC100-24E

227          KK  H7S-H8    CNAME     H7S
228          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT H7S TO H8 (CHANNEL A)
229          KO       0        0      0.0        0       22
230          RS       1     FLOW      0.0      0.0
231          RC     0.1      0.1      0.1 9426.94    0.004      0.0
232          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
233          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0
1                                          HEC-1 INPUT                                                    PAGE  6
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

234          KK      87
235          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
236          KM   L=1.87      Lca=0.93      S=22.48      Kn=0.200      LAG=197
237          KM   S-GRAPH TYPE=AGRICULTURE
238          KO       0        0      0.0        1       22
239          BA  0.9127
240          LG     1.0    0.142    9.841    0.066    1.133
241          UI     0.0    17.08    17.08    21.63    35.88     62.3    92.38    98.78   108.99   130.67
242          UI  143.51   143.51   143.51   143.51   122.78   119.59   131.61    97.98    92.38    92.49
243          UI   67.23    61.75    50.13    50.38     44.1    32.38     27.6    25.39     21.1    20.52
244          UI    15.6     15.6    15.09      9.7      9.7      9.7      9.7     7.98     2.14     2.14
245          UI    2.14     2.14     2.14     2.14     2.14     2.14     2.14     2.14     2.14     2.14
246          UI    2.14     2.14     2.14     2.14     2.14     2.14     2.14     2.14     2.14      0.0

247          KK      H8    CNAME    H8-H9
248          KM   COMBINE ROUTED HYDROGRAPH FROM H7S WITH RUNOFF FROM 87 @ H8
249          KO       0        0      0.0        0       22
250          HC       2

251          KK   H8-H9    CNAME      H8
252          KM   ROUTE HYDRPGRAPH FROM H8 TO H9 (CHANNEL A)
253          KO       0        0      0.0        0       22
254          RS       5     FLOW      0.0      0.0
255          RC     0.1      0.1      0.1 5170.32    0.005      0.0
256          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
257          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

258          KK     106
259          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
260          KM   L=2.21      Lca=1.11      S=20.78      Kn=0.200      LAG=227
261          KM   S-GRAPH TYPE=AGRICULTURE
262          KO       0        0      0.0        1       22
263          BA  1.2094
264          LG     1.0     0.15    7.597    0.146    0.441
265          UI     0.0    19.65    19.65    19.65    37.41    49.75    82.54   109.68   112.23   121.21
266          UI  152.16    154.9   165.04   165.04   165.04   165.04    141.2   137.53   147.94   134.67
267          UI  103.15   109.85   101.52    76.86    73.58    58.83    55.01    62.59    39.81    36.09
268          UI   31.74    29.65    24.27    24.27     19.8    17.94    17.94    16.41    11.15    11.15
269          UI   11.15    11.15    11.15      5.7     2.46     2.46     2.46     2.46     2.46     2.46
270          UI    2.46     2.46     2.46     2.46     2.46     2.46     2.46     2.46     2.46     2.46
271          UI    2.46     2.46     2.46     2.46     2.46     2.46     2.46     2.46      0.0

272          KK      H9
273          KM   COMBINE ROUTED HYDROGRAPH FROM H8 WITH RUNOFF FROM 106 @ H9
274          KO       0        0      0.0        0       22
275          HC       2

276          KK   BICJ
277          KM   ***********************************************************************
278          KM   **   SUB-WATERSHED J AND I   *******************************************
279          KM   ***********************************************************************
280          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
281          BA    0.01
282          ZR  =QI A=BIC BIC B=36399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC100-24E
1                                          HEC-1 INPUT                                                    PAGE  7
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
283          KK  J6S-J7   CNAME     J6S
284          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT J6S TO J7 (CHANNEL A)
285          KO       0       0     0.0       0      22
286          RS       1    FLOW     0.0     0.0
287          RC     0.1     0.1     0.1 7531.83   0.005     0.0
288          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
289          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

290          KK      89
291          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
292          KM   L=1.79     Lca=0.90     S=21.20     Kn=0.200     LAG=193
293          KM   S-GRAPH TYPE=AGRICULTURE
294          KO       0       0     0.0       1      22
295          BA  0.9629
296          LG     1.0   0.144   9.821   0.068   0.559
297          UI     0.0    18.4    18.4   24.43   38.93    72.1  103.35  102.26  123.64  143.73
298          UI  154.55  154.55  154.55  151.11  128.79  134.03  134.52   96.59  104.41   86.51
299          UI   70.25   60.15   52.36    57.9   35.89   32.13   29.72   23.56   22.73   18.62
300          UI    16.8    16.8   12.13   10.44   10.44   10.44   10.44    2.52     2.3     2.3
301          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
302          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     0.0

303          KK      J7   CNAME   J7-J8
304          KM   COMBINE ROUTED HYDROGRAPH FROM J6S WITH RUNOFF FROM 89 @ J7
305          KO       0       0     0.0       0      22
306          HC       2

307          KK   J7-J8   CNAME      J7
308          KM   ROUTE HYDROGRAPH FROM J7 TO J8 (CHANNEL Outlet to Gila)
309          KO       0       0     0.0       0      22
310          RS       2    FLOW     0.0     0.0
311          RC   0.035    0.05   0.035  6030.2   0.005     0.0
312          RX     0.0     5.0    15.0    25.0    45.0    55.0    65.0    70.0
313          RY    12.0    12.0     6.0     0.0     0.0     6.0    12.0    12.0

314          KK   BICI
315          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
316          BA    0.01
317          ZR  =QI A=BIC BIC B=33399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC100-24E

318          KK  I6S-I7   CNAME     I6S
319          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT I6S TO I7 (CHANNEL A)
320          KO       0       0     0.0       0      22
321          RS       1    FLOW     0.0     0.0
322          RC     0.1     0.1     0.1 5514.43   0.006     0.0
323          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
324          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

325          KK      88
326          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
327          KM   L=1.66     Lca=0.83     S=19.29     Kn=0.200     LAG=185
328          KM   S-GRAPH TYPE=AGRICULTURE
329          KO       0       0     0.0       1      22
330          BA  0.7650
1                                        HEC-1 INPUT                                                    PAGE  8

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

331          LG     1.0   0.145   9.798   0.068   0.288
332          UI     0.0   15.25   15.25   22.13    35.8   65.03   89.94   82.55  118.29   116.2
333          UI   128.1   128.1   128.1  113.86  106.75  116.28   88.23   83.17   79.03   58.98
334          UI   51.82   43.77   47.46   30.66   26.58   24.63   19.05   18.84   14.58   13.92
335          UI   13.77    8.66    8.66    8.66    8.66    5.51    1.91    1.91    1.91    1.91
336          UI    1.91    1.91    1.91    1.91    1.91    1.91    1.91    1.91    1.91    1.91
337          UI    1.91    1.91    1.91    1.91    1.91    1.91     0.0

338          KK      I7   CNAME   I7-I8
339          KM   COMBINE ROUTED HYDROGRAPH FROM I6S WITH RUNOFF FROM 88 @ I7
340          KO       0       0     0.0       0      22
341          HC       2

342          KK   I7-I8   CNAME      I7
343          KM   ROUTE HYDROGRAPH FROM I7 TO I8 (CHANNEL A)
344          KO       0       0     0.0       0      22
345          RS       3    FLOW     0.0     0.0
346          RC     0.1     0.1     0.1 2738.75   0.011     0.0
347          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
348          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

349          KK     102
350          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
351          KM   L=1.48     Lca=0.74     S=25.68     Kn=0.200     LAG=161
352          KM   S-GRAPH TYPE=AGRICULTURE
353          KO       0       0     0.0       1      22
354          BA  0.5197
355          LG     1.0    0.15   8.603     0.1   0.185
356          UI     0.0    11.9    11.9   21.67   36.81   66.04   65.67    90.5    93.0   100.0
357          UI   100.0   95.56   83.33   88.91   70.08   66.55   54.67   45.05   35.02   35.82
358          UI   26.07   20.61   18.27   14.71   13.22   10.87   10.87    7.09    6.76    6.76
359          UI    6.76    1.77    1.49    1.49    1.49    1.49    1.49    1.49    1.49    1.49
360          UI    1.49    1.49    1.49    1.49    1.49    1.49    1.49    1.49    1.49     0.0

361          KK      I8   CNAME   I8-J8
362          KM   COMBINE ROUTED HYDROGRAPH FROM I7 WITH RUNOFF FROM 102 @ I8
363          KO       0       0     0.0       0      22
364          HC       2

365          KK   I8-J8   CNAME      I8
366          KM   ROUTE HYDROGRAPH FROM I8 TO J8 (CHANNEL Outlet to Gila)
367          KO       0       0     0.0       0      22
368          RS       2    FLOW     0.0     0.0
369          RC   0.035    0.05   0.035 1438.31   0.002     0.0
370          RX     0.0     5.0    15.0    25.0    45.0    55.0    65.0    70.0
371          RY    12.0    12.0     6.0     0.0     0.0     6.0    12.0    12.0

372          KK     103
373          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
374          KM   L=1.14     Lca=0.57     S=22.77     Kn=0.200     LAG=135
375          KM   S-GRAPH TYPE=AGRICULTURE
376          KO       0       0     0.0       1      22
377          BA  0.5071
378          LG     1.0   0.218   6.325   0.244   0.669
```

```
  379          UI     0.0   13.85   15.53   33.16   64.73   79.27   101.4  113.87  116.37  116.37
1                                                HEC-1 INPUT                                          PAGE  9

 LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  380          UI   96.97  104.34   75.78   76.07   54.11   43.64   41.62   28.46   22.78   18.53
  381          UI   16.22   12.65   12.03    7.86    7.86    7.86    2.96    1.73    1.73    1.73
  382          UI    1.73    1.73    1.73    1.73    1.73    1.73    1.73    1.73    1.73    1.73
  383          UI    1.73     0.0

  384          KK      J8
  385          KM   COMBINE ROUTED HYDROGRAPH FROM I8 AND J7 WITH RUNOFF FROM 103 @ J8
  386          KO       0       0     0.0       0      22
  387          HC       3

  388          KK     107
  389          KO       0       0     0.0       1      22
  390          BA  0.4835
  391          LG     1.0   0.181   6.695    0.21     0.0
  392          UI     0.0   14.27   18.19   38.28   79.06   83.22  111.51  119.83  119.83  106.52
  393          UI  104.02    85.3   78.64   55.83   44.03   42.21   26.54   22.59   17.62   14.56
  394          UI   13.03    9.33     8.1     8.1    3.89    1.78    1.78    1.78    1.78    1.78
  395          UI    1.78    1.78    1.78    1.78    1.78    1.78    1.78    1.78     0.0
  396          ZZ
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	BICE	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	E2S-E3	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	84	179.	15.25	119.	35.	12.	0.88		
+	2 COMBINED AT	E3	179.	15.25	119.	35.	12.	0.88		
+	HYDROGRAPH AT	BICFB	260.	20.25	248.	93.	31.	0.01		
+	ROUTED TO	F6BS7B	259.	21.25	243.	93.	31.	0.01		
+	HYDROGRAPH AT	85B	121.	14.50	69.	19.	6.	0.75		
+	2 COMBINED AT	F7B	263.	20.25	250.	112.	37.	0.76		
+	ROUTED TO	F7B-F8	261.	21.75	248.	112.	37.	0.76		
+	HYDROGRAPH AT	BICG	168.	20.75	144.	45.	15.	0.01		
+	ROUTED TO	G8S-G9	151.	22.00	128.	45.	15.	0.01		
+	HYDROGRAPH AT	86	147.	13.75	66.	18.	6.	0.44		
+	2 COMBINED AT	G9	153.	22.00	130.	62.	21.	0.45		
+	ROUTED TO	G9-F8	148.	24.50	126.	62.	21.	0.45		
+	HYDROGRAPH AT	BICFA	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	F6AS7A	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	85A	82.	13.50	28.	7.	2.	0.22		
+	2 COMBINED AT	F7A	82.	13.50	28.	7.	2.	0.22		
+	ROUTED TO	F7A-F8	39.	17.00	24.	7.	2.	0.22		
+	HYDROGRAPH AT	105	196.	15.25	127.	36.	12.	1.00		
+	HYDROGRAPH AT	104	156.	15.25	104.	30.	10.	1.01		
+	5 COMBINED AT	F8	508.	16.50	397.	244.	82.	3.43		
+	HYDROGRAPH AT	BICH	130.	18.25	77.	20.	7.	0.01		
+	ROUTED TO	H7S-H8	60.	21.00	50.	19.	7.	0.01		
+	HYDROGRAPH AT	87	212.	15.00	131.	37.	12.	0.91		
+	2 COMBINED AT	H8	212.	15.00	137.	55.	19.	0.92		
+	ROUTED TO	H8-H9	195.	16.25	131.	55.	19.	0.92		

```
+        HYDROGRAPH AT
                      106      202.  15.50      137.      40.      13.     1.21
+        2 COMBINED AT
                       H9      376.  15.75      253.      94.      32.     2.13
+        HYDROGRAPH AT
                     BICJ      345.  18.00      298.     126.      46.     0.01
+        ROUTED TO
                    J6S-J7     299.  19.75      266.     124.      46.     0.01
+        HYDROGRAPH AT
                       89      224.  15.00      137.      38.      13.     0.96
+        2 COMBINED AT
                       J7      324.  19.50      299.     160.      59.     0.97
+        ROUTED TO
                     J7-J8     323.  19.75      299.     160.      59.     0.97
+        HYDROGRAPH AT
                     BICI      261.  18.50      200.      70.      23.     0.01
+        ROUTED TO
                    I6S-I7     220.  19.75      183.      70.      23.     0.01
+        HYDROGRAPH AT
                       88      186.  14.75      110.      30.      10.     0.76
+        2 COMBINED AT
                       I7      237.  19.50      199.     100.      33.     0.77
+        ROUTED TO
                     I7-I8     235.  20.00      198.     100.      33.     0.77
+        HYDROGRAPH AT
                      102      134.  14.25       71.      19.       6.     0.52
+        2 COMBINED AT
                       I8      294.  15.25      226.     118.      40.     1.29
+        ROUTED TO
                     I8-J8     293.  15.00      226.     118.      40.     1.29
+        HYDROGRAPH AT
                      103      115.  14.00       52.      14.       5.     0.51
+        3 COMBINED AT
                       J8      609.  15.25      531.     290.     103.     2.77
+        HYDROGRAPH AT
                      107      129.  13.75       55.      14.       5.     0.48

*** NORMAL END OF HEC-1 ***
```

D.7.4.b HEC-1 Output File for 100-Year 24-Hour (Future Conditions)

```
1****************************************
*                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*              JUN  1998               *
*           VERSION 4.1                *
*                                      *
*  RUN DATE   22MAR06  TIME  10:46:06  *
*                                      *
****************************************
```

```
****************************************
*                                      *
*    U.S. ARMY CORPS OF ENGINEERS      *
*    HYDROLOGIC ENGINEERING CENTER     *
*          609 SECOND STREET           *
*       DAVIS, CALIFORNIA 95616        *
*          (916) 756-1104              *
*                                      *
****************************************
```

```
X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX   XXXXX         XXX
```

```
THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                        HEC-1 INPUT                                        PAGE  1

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          1           ID   Buckeye/Sun Valley ADMS - November 2004
          2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
          3           ID   100-year 24-hour
          4           ID   Future Conditions
          5           ID   Area 1 - FRS to RID (West)
          6           ID   File Name: frw10024fut.hc1
          7           ID   Rainfall Loss Method - Green & Ampt
          8           ID   Unit Hydrograph Method - FCDMC S-Graph
```

```
 9          ID   Channel Routing Method - Normal Depth
10          ID   Land Use - FCDMC GIS Data: mag_genplan (2000)
11          ID   Future Land Use Build Out Date: 2025
12          ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
13          ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
            *DIAGRAM
14          IT      15 02JAN94       0     400
15          IO       3
16          IN      15 02JAN94       0
17          JD     4.1    0.01
            * 24-hour distribution
18          PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
19          PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
20          PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
21          PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
22          PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
23          PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
24          PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
25          PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
26          PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
27          PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
28          IN      15 02JAN94       0
29          JD   3.895    10.0
            * 24-hour distribution
30          PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
31          PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
32          PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
33          PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
34          PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
35          PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
36          PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
37          PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
38          PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
39          PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
40          IN      15 02JAN94       0
41          JD   3.764    20.0
            * 24-hour distribution
42          PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
43          PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
44          PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
45          PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
46          PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
47          PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
48          PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
49          PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
50          PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
51          PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
            * ***********************************************************************
            * **   SUB-WATERSHED F   ***********************************************
            * ***********************************************************************
1                                   HEC-1 INPUT                                          PAGE  2

      LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

52          KK     15A
53          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
54          KM   L=1.45      Lca=0.48      S=34.58      Kn=0.050      LAG=32
55          KM   S-GRAPH TYPE=DESERT RANGELAND
56          KO       0        0     0.0        1       22
57          BA  0.5884
58          LG   0.208     0.25   4.419   0.432  39.606
59          UI     0.0   159.68  521.91  464.14  211.81   93.26   40.28   15.07     0.0

60          KK   15A-O
61          KO       0        0     0.0        0       22
62          DT  15Aret     24.0     0.0
63          DI     0.0   2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
64          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
65          DQ     0.0   2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
66          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

67          KK   F1A-B   CNAME     F1A
68          KM   ROUTE HYDRPGRAPH FROM F1A TO F1B (CHANNEL A)
69          KO       0        0     0.0        0       22
70          RS       5     FLOW     0.0      0.0
71          RC     0.1      0.1     0.1   4678.0    0.004     0.0
72          RX     0.0    250.0   500.0    750.0   1000.0  1333.3  1666.6  2000.0
73          RY    10.0      7.5     5.0      2.5      0.0     3.3     6.6    10.0

74          KK     15B
75          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
76          KM   L=1.63      Lca=0.82      S=11.02      Kn=0.200      LAG=204
77          KM   S-GRAPH TYPE=AGRICULTURE
78          KO       0        0     0.0        1       22
79          BA  0.8162
80          LG   0.117     0.25   4.099   0.496   73.49
81          UI     0.0    14.76   14.76   17.09   30.99   47.18   76.64    88.0   87.38  112.97
82          UI  117.57   123.95  123.95  123.95  115.68  103.29  110.31  103.29   77.47   83.74
83          UI   71.03    56.34   50.16   42.61   44.75   34.88   27.48   23.84   21.64   18.23
84          UI   17.85    13.47   13.47   13.47    8.62    8.37    8.37    8.37    8.37    2.37
85          UI    1.84     1.84    1.84    1.84    1.84    1.84    1.84    1.84    1.84    1.84
86          UI    1.84     1.84    1.84    1.84    1.84    1.84    1.84    1.84    1.84    1.84
87          UI    1.84      0.0

88          KK   15B-O
89          KO       0        0     0.0        0       22
90          DT  15Bret     92.0     0.0
91          DI     0.0   2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
92          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
93          DQ     0.0   2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
94          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

95          KK     F1B
96          KM   COMBINE ROUTED HYDROGRAPH FROM F1A WITH RUNOFF FROM 15B @ F1B
97          2W   A=FRW B=F1B C=FLOW E=15MIN F=100y24h-fut
98          KO       0        0     0.0        0       22
99          HC       2
            * ***********************************************************************
            * **   SUB-WATERSHED G   ***********************************************
            * ***********************************************************************
1                                   HEC-1 INPUT                                          PAGE  3

      LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
100          KK       2
101          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
102          KM   L=2.02     Lca=0.86     S=45.95     Kn=0.050     LAG=43
103          KM   S-GRAPH TYPE=DESERT RANGELAND
104          KO       0       0     0.0       1      22
105          BA  1.2330
106          LG     0.1    0.25   3.994   0.548  74.171
107          UI     0.0  169.22  637.96  900.62  677.78  370.08  199.82  108.84   58.92    23.5
108          UI    23.5     0.0

109          KK     2-O
110          KO       0       0     0.0       0      22
111          DT    2ret   107.0     0.0
112          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
113          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
114          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
115          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

116          KK       1
117          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
118          KM   L=2.61     Lca=1.54     S=34.86     Kn=0.050     LAG=62
119          KM   S-GRAPH TYPE=DESERT RANGELAND
120          KO       0       0     0.0       1      22
121          BA  1.6264
122          LG   0.115    0.25   4.334   0.468  69.018
123          UI     0.0   96.49   378.3  680.74  834.28   747.2  509.62  334.33  217.15  147.44
124          UI   90.69   60.46   32.88    21.5    21.5    21.5     0.0

125          KK     1-O
126          KO       0       0     0.0       0      22
127          DT    1ret   142.0     0.0
128          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
129          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
130          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
131          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

132          KK      G2   CNAME   G2-G3
133          KM   COMBINE RUNOFF HYDROGRAPH FROM 1 AND 2 @ G2
134          KO       0       0     0.0       0      22
135          HC       2

136          KK   G2-G3   CNAME      G2
137          KM   ROUTE HYDROGRAPH FROM G1 TO G2 (CHANNEL A)
138          KO       0       0     0.0       0      22
139          RS       7    FLOW     0.0     0.0
140          RC     0.1     0.1     0.1  3231.1   0.005     0.0
141          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
142          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                                PAGE  4
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

143          KK      16
144          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
145          KM   L=2.00     Lca=1.37     S=24.99     Kn=0.050     LAG=57
146          KM   S-GRAPH TYPE=PHOENIX VALLEY
147          KO       0       0     0.0       1      22
148          BA  0.9506
149          LG     0.1    0.25   4.398    0.44    80.0
150          UI     0.0   72.32  253.63  387.42  637.63   477.5  314.11  154.95   79.28   36.56
151          UI   17.22   17.22     0.0

152          KK    16-O
153          KO       0       0     0.0       0      22
154          DT   16ret    63.0     0.0
155          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
156          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
157          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
158          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

159          KK      G3
160          KM   COMBINE ROUTED HYDROGRAPH FROM G2 WITH RUNOFF FROM 16 @ G3
161          ZW   A=FRW B=G3 C=FLOW E=15MIN F=100y24h-fut
162          KO       0       0     0.0       0      22
163          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED H   ***********************************************
             * ***********************************************************************

164          KK       4
165          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
166          KM   L=1.38     Lca=0.74     S=40.65     Kn=0.050     LAG=36
167          KM   S-GRAPH TYPE=DESERT RANGELAND
168          KO       0       0     0.0       1      22
169          BA  0.5493
170          LG   0.143    0.25   4.023   0.619  52.665
171          UI     0.0  113.24  399.98  445.83  240.22  115.51   55.22   25.12    12.5     0.0

172          KK     4-O
173          KO       0       0     0.0       0      22
174          DT    4ret    34.0     0.0
175          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
176          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
177          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
178          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

179          KK   H1-H2   CNAME      H1
180          KM   ROUTE HYDROGRAPH FROM H1 TO H2 (CHANNEL C)
181          KO       0       0     0.0       0      22
182          RS       2    FLOW     0.0     0.0
183          RC   0.035   0.035   0.035 5802.98  0.0050     0.0
184          RX     0.0     2.0    12.0   112.0   212.0   312.0   412.0   512.0
185          RY     5.0     5.0     0.0     1.0     2.0     3.0     4.0     5.0
1                                          HEC-1 INPUT                                                PAGE  5
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

186          KK       3
187          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
188          KM   L=2.04     Lca=1.39     S=39.22     Kn=0.050     LAG=53
```

```
 189          KM   S-GRAPH TYPE=DESERT RANGELAND
 190          KO       0       0     0.0       1      22
 191          BA  1.6478
 192          LG    0.23    0.25   4.028   0.538  43.956
 193          UI     0.0  141.45  544.37  909.46  962.94   667.1  407.91  246.66  151.83   89.96
 194          UI   55.64   25.48   25.48     0.0

 195          KK     3-O
 196          KO       0       0     0.0       0      22
 197          DT    3ret   110.0     0.0
 198          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 199          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
 200          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 201          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

 202          KK      H2   CNAME   H2-H3
 203          KM   COMBINE ROUTED HYDROGRAPH FROM H1 WITH RUNOFF FROM 3 @ H2
 204          KO       0       0     0.0       0      22
 205          HC       2

 206          KK   H2-H3   CNAME      H2
 207          KM   ROUTE HYDRPGRAPH FROM H2 TO H3 (CHANNEL B)
 208          KO       0       0     0.0       0      22
 209          RS       2    FLOW     0.0     0.0
 210          RC     0.1    0.02     0.1 3094.41   0.007     0.0
 211          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 212          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 213          KK      17
 214          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 215          KM   L=1.43     Lca=0.71     S=16.84     Kn=0.200     LAG=169
 216          KM   S-GRAPH TYPE=AGRICULTURE
 217          KO       0       0     0.0       1      22
 218          BA  0.6065
 219          LG    0.25    0.25   4.017   0.429    45.0
 220          UI     0.0   13.23   13.23   22.46   37.19   65.58   77.31   86.16   104.5  111.17
 221          UI  111.17  111.17   97.58   93.45   98.99   69.48   77.29   53.37   48.38   38.62
 222          UI   40.28   28.19   22.96   20.73   16.35   15.44   12.08   12.08    9.24    7.51
 223          UI    7.51    7.51    4.86    1.65    1.65    1.65    1.65    1.65    1.65    1.65
 224          UI    1.65    1.65    1.65    1.65    1.65    1.65    1.65    1.65    1.65    1.65
 225          UI    1.65     0.0

 226          KK    17-O
 227          KO       0       0     0.0       0      22
 228          DT   17ret    50.0     0.0
 229          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 230          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
 231          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 232          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
1                                          HEC-1 INPUT                                          PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 233          KK      H3
 234          KM   COMBINE ROUTED HYDROGRAPH FROM H2 WITH RUNOFF FROM 17 @ H3
 235          ZW   A=FRW B=H3 C=FLOW E=15MIN F=100y24h-fut
 236          KO       0       0     0.0       0      22
 237          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED I   ***************************************************
              * ***********************************************************************

 238          KK      5A
 239          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 240          KM   L=1.75     Lca=1.16     S=49.05     Kn=0.050     LAG=45
 241          KM   S-GRAPH TYPE=DESERT RANGELAND
 242          KO       0       0     0.0       1      22
 243          BA  1.1721
 244          LG   0.194    0.25   4.333   0.471  45.554
 245          UI     0.0  144.96  551.31  816.54  667.55  378.63  210.18  117.93   66.22   28.93
 246          UI   21.34   21.34

 247          KK    5A-O
 248          KO       0       0     0.0       0      22
 249          DT   5Aret    55.0     0.0
 250          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 251          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
 252          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 253          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

 254          KK  I1AI2A   CNAME     I1A
 255          KM   ROUTE HYDRPGRAPH FROM I1A TO I2A (CHANNEL B)
 256          KO       0       0     0.0       0      22
 257          RS       3    FLOW     0.0     0.0
 258          RC     0.1    0.02     0.1 3507.57   0.005     0.0
 259          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 260          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 261          KK      18
 262          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 263          KM   L=1.81     Lca=0.75     S=30.99     Kn=0.200     LAG=168
 264          KM   S-GRAPH TYPE=AGRICULTURE
 265          KO       0       0     0.0       1      22
 266          BA  0.7963
 267          LG    0.25    0.25   4.134   0.467  39.845
 268          UI     0.0   17.48   17.48   29.94   49.63   87.36  102.05  117.46  136.55  146.83
 269          UI  146.83  146.83  127.25  125.29  126.27   91.77  100.28   69.84   62.39   50.62
 270          UI   54.06   34.48   29.67   26.48   21.59   19.56   15.96   15.96   11.23    9.92
 271          UI    9.92    9.92    4.97    2.18    2.18    2.18    2.18    2.18    2.18    2.18
 272          UI    2.18    2.18    2.18    2.18    2.18    2.18    2.18    2.18    2.18    2.18
 273          UI    2.18     0.0
1                                          HEC-1 INPUT                                          PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 274          KK    18-O
 275          KO       0       0     0.0       0      22
 276          DT   18ret    59.0     0.0
 277          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 278          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
 279          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 280          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
```

```
 281          KK     I2A
 282          KM   COMBINE ROUTED HYDROGRAPH FROM I1A WITH RUNOFF FROM 18 @ I2A
 283          ZW   A=FRW B=I2A C=FLOW E=15MIN F=100y24h-fut
 284          KO       0       0     0.0       0      22
 285          HC       2

 286          KK      5B
 287          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 288          KM   L=1.73      Lca=1.08      S=38.66      Kn=0.050      LAG=46
 289          KM   S-GRAPH TYPE=DESERT RANGELAND
 290          KO       0       0     0.0       1      22
 291          BA  0.5758
 292          LG   0.145    0.25   4.606   0.387  47.212
 293          UI     0.0   67.57  258.59  391.25   331.8   192.8  107.92   61.59   34.35   17.29
 294          UI   10.26   10.26     0.0

 295          KK    5B-O
 296          KO       0       0     0.0       0      22
 297          DT   5Bret    23.0     0.0
 298          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 299          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
 300          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 301          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

 302          KK  1B-I2B   CNAME     I1B
 303          KM   ROUTE HYDROGRAPH FROM I1B TO I2B (CHANNEL A)
 304          KO       0       0     0.0       0      22
 305          RS       1    FLOW     0.0     0.0
 306          RC     0.1     0.1     0.1 4972.04  0.0047     0.0
 307          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 308          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 309          KK      19
 310          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 311          KM   L=1.51      Lca=0.76      S=18.49      Kn=0.200      LAG=174
 312          KM   S-GRAPH TYPE=AGRICULTURE
 313          KO       0       0     0.0       1      22
 314          BA  0.5356
 315          LG    0.25    0.25   3.962   0.418  44.773
 316          UI     0.0   11.35   11.35    18.4   30.26    53.8   66.51   69.61   86.78   95.36
 317          UI   95.36   95.36    89.0   79.47   84.42   69.18   61.85   57.97   43.57    37.1
 318          UI    32.1   33.09   21.67   18.47   16.39   14.02   12.27   10.37   10.37    7.18
 319          UI    6.44    6.44    6.44    3.83    1.42    1.42    1.42    1.42    1.42    1.42
 320          UI    1.42    1.42    1.42    1.42    1.42    1.42    1.42    1.42    1.42    1.42
 321          UI    1.42    1.42     0.0
1                                          HEC-1 INPUT                                          PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 322          KK    19-O
 323          KO       0       0     0.0       0      22
 324          DT   19ret    45.0     0.0
 325          DI     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 326          DI  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0
 327          DQ     0.0  2500.0  5000.0  7500.0 10000.0 12500.0 15000.0 17500.0 20000.0 22500.0
 328          DQ  25000. 27500.0 30000.0 32500.0 35000.0 37500.0 40000.0 42500.0 45000.0 47500.0

 329          KK     I2B
 330          KM   COMBINE ROUTED HYDROGRAPH FROM I1B WITH RUNOFF FROM 19 @ I2B
 331          ZW   A=FRW B=I2B C=FLOW E=15MIN F=100y24h-fut
 332          KO       0       0     0.0       0      22
 333          HC       2
 334          ZZ                                                                                    1
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

+	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	15A	662.	12.50	111.	35.	12.	0.59		
+	DIVERSION TO	15Aret	331.	12.25	41.	12.	4.	0.59		
+	HYDROGRAPH AT	15A-O	560.	12.75	83.	23.	8.	0.59		
+	ROUTED TO	F1A-B	242.	14.00	77.	23.	8.	0.59		
+	HYDROGRAPH AT	15B	261.	15.00	184.	69.	23.	0.82		
+	DIVERSION TO	15Bret	261.	15.00	158.	46.	15.	0.82		
+	HYDROGRAPH AT	15B-O	150.	17.25	73.	24.	8.	0.82		
+	2 COMBINED AT	F1B	242.	14.00	123.	47.	16.	1.40		
+	HYDROGRAPH AT	2	1310.	12.75	309.	105.	35.	1.23		
+	DIVERSION TO	2ret	1205.	12.75	185.	54.	18.	1.23		
+	HYDROGRAPH AT	2-O	1034.	13.00	172.	52.	17.	1.23		
+	HYDROGRAPH AT	1	1303.	13.00	394.	133.	44.	1.63		
+	DIVERSION TO	1ret	1303.	13.00	247.	72.	24.	1.63		
+	HYDROGRAPH AT	1-O	887.	13.50	206.	62.	21.	1.63		

```
+          2 COMBINED AT
                      G2     1336.  13.50      372.      112.      37.      2.86
+          ROUTED TO
                    G2-G3    1257.  14.00      360.      112.      37.      2.86
+          HYDROGRAPH AT
                      16      974.  13.00      251.       86.      29.      0.95
+          DIVERSION TO
                   16ret      535.  12.50      102.       32.      11.      0.95
+          HYDROGRAPH AT
                    16-O      974.  13.00      189.       55.      18.      0.95
+          2 COMBINED AT
                      G3     1499.  14.00      532.      165.      55.      3.81
+          HYDROGRAPH AT
                       4      554.  12.75      114.       37.      12.      0.55
+          DIVERSION TO
                    4ret      543.  12.50       58.       17.       6.      0.55
+          HYDROGRAPH AT
                     4-O      499.  12.75       70.       20.       7.      0.55
+          ROUTED TO
                    H1-H2     240.  13.50       67.       20.       7.      0.55
+          HYDROGRAPH AT
                       3     1231.  13.00      314.      101.      34.      1.65
+          DIVERSION TO
                    3ret     1228.  12.75      197.       55.      18.      1.65
+          HYDROGRAPH AT
                     3-O      909.  13.25      155.       45.      15.      1.65
+          2 COMBINED AT
                      H2     1128.  13.25      220.       65.      22.      2.20
+          ROUTED TO
                    H2-H3     791.  13.75      213.       65.      22.      2.20
+          HYDROGRAPH AT
                      17      186.  14.50      113.       39.      13.      0.61
+          DIVERSION TO
                   17ret      186.  14.50       89.       25.       8.      0.61
+          HYDROGRAPH AT
                    17-O      106.  16.25       45.       14.       5.      0.61
+          2 COMBINED AT
                      H3      791.  13.75      247.       78.      26.      2.80
+          HYDROGRAPH AT
                      5A     1067.  12.75      233.       75.      25.      1.17
+          DIVERSION TO
                   5Aret      826.  12.50       93.       28.       9.      1.17
+          HYDROGRAPH AT
                    5A-O      981.  12.75      168.       47.      16.      1.17
+          ROUTED TO
                   I1AI2A     676.  13.50      161.       47.      16.      1.17
+          HYDROGRAPH AT
                      18      232.  14.50      140.       47.      16.      0.80
+          DIVERSION TO
                   18ret      232.  14.50      106.       30.      10.      0.80
+          HYDROGRAPH AT
                    18-O      162.  16.00       58.       18.       6.      0.80
+          2 COMBINED AT
                     I2A      676.  13.50      207.       65.      22.      1.97
+          HYDROGRAPH AT
                      5B      537.  12.75      119.       38.      13.      0.58
+          DIVERSION TO
                   5Bret      416.  12.50       47.       14.       5.      0.58
+          HYDROGRAPH AT
                    5B-O      485.  12.75       86.       24.       8.      0.58
+          ROUTED TO
                   1B-I2B     152.  13.75       76.       24.       8.      0.58
+          HYDROGRAPH AT
                      19      161.  14.50      100.       34.      11.      0.54
+          DIVERSION TO
                   19ret      161.  14.50       80.       23.       8.      0.54
+          HYDROGRAPH AT
                    19-O       92.  16.25       38.       12.       4.      0.54
+          2 COMBINED AT
                     I2B      150.  13.75      102.       35.      12.      1.11

 *** NORMAL END OF HEC-1 ***

1*************************************                    *************************************
 *                                   *                    *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                    *   U.S. ARMY CORPS OF ENGINEERS    *
```

```
*              JUN   1998              *                                    *    HYDROLOGIC ENGINEERING CENTER    *
*            VERSION 4.1               *                                    *          609 SECOND STREET          *
*                                      *                                    *       DAVIS, CALIFORNIA 95616       *
*  RUN DATE   22MAR06  TIME  10:49:31  *                                    *          (916) 756-1104          *
*                                      *                                    *                                  *
****************************************                                    ************************************

                                        X     X  XXXXXXX   XXXXX           X
                                        X     X  X        X     X         XX
                                        X     X  X        X               X
                                        XXXXXXX  XXXX     X        XXXXX  X
                                        X     X  X        X               X
                                        X     X  X        X     X         X
                                        X     X  XXXXXXX   XXXXX         XXX

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN/77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                    PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID   Buckeye/Sun Valley ADMS - November 2004
  2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
  3           ID   100-year 24-hour
  4           ID   Future Conditions
  5           ID   Area 1 - FRS to RID (East)
  6           ID   File Name: fre10024fut.hc1
  7           ID   Rainfall Loss Method - Green & Ampt
  8           ID   Unit Hydrograph Method - FCDMC S-Graph
  9           ID   Channel Routing Method - Normal Depth
 10           ID   Land Use - FCDMC GIS Data: mag_genplan (2000)
 11           ID   Future Land Use Cutoff Date: 2025
 12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
 13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
              ^DIAGRAM
 14           IT      15 02JAN94       0     400
 15           IO       3
 16           IN      15 02JAN94       0
 17           JD     4.1     0.01
              * 24-hour distribution
 18           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
 19           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 20           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 21           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 22           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 23           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 24           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 25           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 26           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 27           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
 28           IN      15 02JAN94       0
 29           JD   3.895    10.0
              * 24-hour distribution
 30           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
 31           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 32           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 33           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 34           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 35           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 36           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 37           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 38           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 39           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
 40           IN      15 02JAN94       0
 41           JD   3.764    20.0
              * 24-hour distribution
 42           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
 43           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 44           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 45           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 46           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 47           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 48           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 49           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 50           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 51           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
              * ******************************************************************************
              * **   SUB-WATERSHED J   ***********************************************************
              * ******************************************************************************
1                                                HEC-1 INPUT                                                    PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 52           KK       6
 53           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 54           KM   L=0.50     Lca=0.35     S=88.18     Kn=0.050     LAG=16
 55           KM   S-GRAPH TYPE=DESERT RANGELAND
 56           KO       0        0     0.0       1      22
 57           BA  0.3175
 58           LG     0.1     0.25   5.257   0.315  48.903
 59           UI     0.0   367.81  364.77   72.06     0.0

 60           KK     6-O
 61           KO       0        0     0.0       0      22
 62           DT    6ret     15.0     0.0
 63           DI     0.0   2000.0
 64           DQ     0.0   2000.0

 65           KK   J1-J2   CNAME      J1
```

```
 66          KM   ROUTE HYDRPGRAPH FROM J1 TO J2 (CHANNEL A)
 67          KO       0       0     0.0       0      22
 68          RS       4    FLOW     0.0     0.0
 69          RC   0.035   0.035   0.035 4135.69   0.004     0.0
 70          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 71          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 72          KK       8
 73          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 74          KM   L=1.22     Lca=0.56     S=14.80     Kn=0.050     LAG=37
 75          KM   S-GRAPH TYPE=DESERT RANGELAND
 76          KO       0       0     0.0       1      22
 77          BA  0.4136
 78          LG   0.147    0.25   4.104   0.501  54.051
 79          UI     0.0   80.26  286.14  333.87  188.89   92.75   45.37   21.43    9.16    9.16
 80          UI     0.0

 81          KK     8-O
 82          KO       0       0     0.0       0      22
 83          DT    8ret    25.0     0.0
 84          DI     0.0  2000.0
 85          DQ     0.0  2000.0

 86          KK      J2   CNAME   J2-J3
 87          KM   COMBINE ROUTED HYDROGRAPH FROM J1 WITH RUNOFF FROM 8 @ J2
 88          KO       0       0     0.0       0      22
 89          HC       2

 90          KK   J2-J3   CNAME      J2
 91          KM   ROUTE HYDRPGRAPH FROM J2 TO J3 (CHANNEL B)
 92          KO       0       0     0.0       0      22
 93          RS       3    FLOW     0.0     0.0
 94          RC     0.1    0.02     0.1 3195.75   0.008     0.0
 95          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 96          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0
1                                          HEC-1 INPUT                                                    PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 97          KK      20
 98          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 99          KM   L=1.57     Lca=0.79     S=16.56     Kn=0.200     LAG=183
100          KM   S-GRAPH TYPE=AGRICULTURE
101          KO       0       0     0.0       1      22
102          BA  0.6645
103          LG    0.25    0.25   3.974    0.44    45.0
104          UI     0.0   13.39   13.39   19.84   32.21   58.26   78.88   74.24  102.61  104.94
105          UI  112.49  112.49  112.49   97.49   93.74  105.07   70.56   74.86   64.48   51.13
106          UI    43.2   37.84   40.14   25.57   22.34   20.44   16.54   15.85   12.23   12.23
107          UI   10.59     7.6     7.6     7.6     7.6    2.62    1.67    1.67    1.67    1.67
108          UI    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67    1.67
109          UI    1.67    1.67    1.67    1.67    1.67     0.0

110          KK    20-O
111          KO       0       0     0.0       0      22
112          DT   20ret    55.0     0.0
113          DI     0.0  2000.0
114          DQ     0.0  2000.0

115          KK      J3
116          KM   COMBINE ROUTED HYDROGRAPH FROM J2 WITH RUNOFF FROM 20 @ J3
117          ZW   A=PRE B=J3 C=FLOW E=15MIN F=100y24h-fut
118          KO       0       0     0.0       0      22
119          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED K   ***********************************************
             * ***********************************************************************

120          KK       7
121          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
122          KM   L=0.74     Lca=0.30     S=73.02     Kn=0.050     LAG=18
123          KM   S-GRAPH TYPE=DESERT RANGELAND
124          KO       0       0     0.0       1      22
125          BA  0.4459
126          LG     0.1    0.25   4.134   0.467  71.438
127          UI     0.0  416.62  556.92   138.6   30.54     0.0

128          KK     7-O
129          KO       0       0     0.0       0      22
130          DT    7ret    37.0     0.0
131          DI     0.0  2000.0
132          DQ     0.0  2000.0

133          KK   K1-K2   CNAME      K1
134          KM   ROUTE HYDRPGRAPH FROM K1 TO K2 (CHANNEL A)
135          KO       0       0     0.0       0      22
136          RS       3    FLOW     0.0     0.0
137          RC   0.035   0.035   0.035  4162.2   0.011     0.0
138          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
139          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                                    PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


140          KK       9
141          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
142          KM   L=0.79     Lca=0.41     S=57.09     Kn=0.050     LAG=22
143          KM   S-GRAPH TYPE=DESERT RANGELAND
144          KO       0       0     0.0       1      22
145          BA  0.6124
146          LG     0.1    0.25   3.984   0.443    80.0
147          UI     0.0  381.65  780.49  295.85   90.95    23.1     0.0

148          KK     9-O
149          KO       0       0     0.0       0      22
150          DT    9ret    47.0     0.0
151          DI     0.0  2000.0
152          DQ     0.0  2000.0

153          KK      K2   CNAME   K2-K3
154          KM   COMBINE ROUTED HYDROGRAPH FROM K1 WITH RUNOFF FROM 9 @ K2
155          KO       0       0     0.0       0      22
```

```
 156          HC       2

 157          KK   K2-K3   CNAME      K2
 158          KM   ROUTE HYDRPGRAPH FROM K2 TO K3 (CHANNEL A)
 159          KO       0       0     0.0       0      22
 160          RS       3    FLOW     0.0     0.0
 161          RC     0.1     0.1     0.1 2881.52   0.009     0.0
 162          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 163          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 164          KK     21B
 165          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 166          KM   L=1.02      Lca=0.51      S=24.58      Kn=0.200      LAG=122
 167          KM   S-GRAPH TYPE=AGRICULTURE
 168          KO       0       0     0.0       1      22
 169          BA  0.2728
 170          LG    0.25    0.25   4.001   0.551    45.0
 171          UI     0.0    8.25    10.9   22.84   46.68   49.72   65.96   69.27   69.27   59.27
 172          UI   62.38   43.49   42.68   30.48   23.78   21.73   14.42   11.79     9.9    7.53
 173          UI    6.86    4.68    4.68    3.85    1.03    1.03    1.03    1.03    1.03    1.03
 174          UI    1.03    1.03    1.03    1.03    1.03    1.03    1.03     0.0

 175          KK   21B-O
 176          KO       0       0     0.0       0      22
 177          DT  21Bret    22.0     0.0
 178          DI     0.0  2000.0
 179          DQ     0.0  2000.0

 180          KK     21A
 181          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 182          KM   L=1.43      Lca=0.71      S=39.92      Kn=0.200      LAG=144
 183          KM   S-GRAPH TYPE=AGRICULTURE
 184          KO       0       0     0.0       1      22
 185          BA  0.3660
 186          LG   0.198    0.25   3.998   0.567  57.034
 187          UI     0.0    9.37    9.37   19.83   40.15   53.93   61.02   74.01   78.73   78.73
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 188          UI   73.49   65.61   68.76   49.43   50.09   36.19   29.11   28.02   20.17    15.8
 189          UI   13.32   11.58    8.92    8.56    6.38    5.32    5.32    4.82    1.17    1.17
 190          UI    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17
 191          UI    1.17    1.17    1.17    1.17

 192          KK   21A-O
 193          KO       0       0     0.0       0      22
 194          DT  21Aret    36.0     0.0
 195          DI     0.0  2000.0
 196          DQ     0.0  2000.0

 197          KK      K3
 198          KM   COMBINE ROUTED HYDROGRAPH FROM K2 WITH RUNOFF FROM 21A AND 21B @ K3
 199          ZW   A=FRE B=K3 C=FLOW E=15MIN F=100y24h-fut
 200          KO       0       0     0.0       0      22
 201          HC       3
              * ******************************************************************************
              * **   SUB-WATERSHED L   ********************************************************
              * ******************************************************************************

 202          KK      10
 203          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 204          KM   L=1.77      Lca=1.27      S=46.29      Kn=0.050      LAG=47
 205          KM   S-GRAPH TYPE=PHOENIX VALLEY
 206          KO       0       0     0.0       1      22
 207          BA  1.1737
 208          LG   0.196    0.25   4.152   0.425  40.672
 209          UI     0.0  140.53  441.72   791.7  810.58  481.45  203.27   99.52   26.14   25.79
 210          UI     0.0

 211          KK    10-O
 212          KO       0       0     0.0       0      22
 213          DT   10ret    72.0     0.0
 214          DI     0.0  2000.0
 215          DQ     0.0  2000.0

 216          KK   L1-L2   CNAME      L1
 217          KM   ROUTE HYDRPGRAPH FROM L1 TO L2 (CHANNEL B)
 218          KO       0       0     0.0       0      22
 219          RS       4    FLOW     0.0     0.0
 220          RC     0.1    0.02     0.1 2843.85    0.01     0.0
 221          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 222          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 223          KK      22
 224          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 225          KM   L=1.54      Lca=0.77      S=18.14      Kn=0.200      LAG=178
 226          KM   S-GRAPH TYPE=AGRICULTURE
 227          KO       0       0     0.0       1      22
 228          BA  0.5572
 229          LG    0.25    0.25   4.002   0.475    30.0
 230          UI     0.0   11.54   11.54   17.99   29.44   52.71    67.8   67.77   85.72   96.69
 231          UI   96.97   96.97   94.81   80.81    85.6   77.44   60.61   65.99   46.03   41.71
 232          UI   33.66   34.96   25.72    20.5   18.65   14.65   14.26   10.94   10.54    9.89
 233          UI    6.55    6.55    6.55    6.55     2.6    1.44    1.44    1.44    1.44    1.44
1                                          HEC-1 INPUT                                          PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 234          UI    1.44    1.44    1.44    1.44    1.44    1.44    1.44    1.44    1.44    1.44
 235          UI    1.44    1.44    1.44    1.44     0.0

 236          KK    22-O
 237          KO       0       0     0.0       0      22
 238          DT   22ret    40.0     0.0
 239          DI     0.0  2000.0
 240          DQ     0.0  2000.0

 241          KK      L2
 242          KM   COMBINE ROUTED HYDROGRAPH FROM L1 WITH RUNOFF FROM 22 @ L2
 243          ZW   A=FRE B=L2 C=FLOW E=15MIN F=100y24h-fut
 244          KO       0       0     0.0       0      22
 245          HC       2
              * ******************************************************************************
```

```
                 * **   SUB-WATERSHED N   ***********************************************
                 * ******************************************************************************

 246             KK     11C
 247             KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 248             KM   L=0.99      Lca=0.31      S=54.38      Kn=0.050      LAG=22
 249             KM   S-GRAPH TYPE=PHOENIX VALLEY
 250             KO       0        0      0.0        1       22
 251             BA  0.3431
 252             LG   0.249    0.25   3.978    0.41  30.445
 253             UI     0.0  193.16  491.17  169.06   26.28     0.0

 254             KK   11C-O
 255             KO       0        0      0.0        0       22
 256             DT  11Cret    15.0      0.0
 257             DI     0.0  2000.0
 258             DQ     0.0  2000.0

 259             KK  N1C-N2   CNAME     N1C
 260             KM   ROUTE HYDRPGRAPH FROM N1C TO N2 (CHANNEL A)
 261             KO       0        0      0.0        0       22
 262             RS       3     FLOW      0.0      0.0
 263             RC     0.1      0.1      0.1 3084.31    0.01     0.0
 264             RX     0.0    250.0    500.0    750.0  1000.0  1333.3  1666.6  2000.0
 265             RY    10.0      7.5      5.0      2.5     0.0     3.3     6.6    10.0

 266             KK     11A
 267             KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 268             KM   L=0.57      Lca=0.33      S=83.95      Kn=0.050      LAG=16
 269             KM   S-GRAPH TYPE=PHOENIX VALLEY
 270             KO       0        0      0.0        1       22
 271             BA  0.5711
 272             LG   0.213    0.25   5.202   0.287  32.631
 273             UI     0.0   634.0  753.85   79.75     0.0
1                                              HEC-1 INPUT                                                    PAGE  7
LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 274             KK   11A-O
 275             KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 276             KO       0        0      0.0        0       22
 277             DT  11Aret    38.23      0.0
 278             DI     0.0  2000.0
 279             DQ     0.0  2000.0

 280             KK  N1A-1B   CNAME     N1A
 281             KM   ROUTE HYDRPGRAPH FROM N1A TO N1B (CHANNEL N1A-N1B)
 282             KO       0        0      0.0        0       22
 283             RS       4     FLOW      0.0      0.0
 284             RC    0.05     0.05     0.05   6236.1   0.009     0.0
 285             RX    10.0     16.0     26.0     56.0   106.0   197.0   289.0   380.0
 286             RY  1032.0   1032.0   1030.0   1028.0  1030.0 1030.67 1031.33  1032.0

 287             KK     11B
 288             KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 289             KM   L=1.39      Lca=0.62      S=41.81      Kn=0.050      LAG=34
 290             KM   S-GRAPH TYPE=PHOENIX VALLEY
 291             KO       0        0      0.0        1       22
 292             BA  0.5806
 293             LG   0.238    0.25    4.28   0.395  34.039
 294             UI     0.0   139.8  417.05  566.92  261.85   79.39   20.36     0.0

 295             KK   11B-O
 296             KO       0        0      0.0        0       22
 297             DT  11Bret    33.0      0.0
 298             DI     0.0  2000.0
 299             DQ     0.0  2000.0

 300             KK     N1B   CNAME  N1B-N2
 301             KM   COMBINE ROUTED HYDROGRAPH FROM N1A WITH RUNOFF FROM 11B @ N1B
 302             KO       0        0      0.0        0       22
 303             HC       2

 304             KK  N1B-N2   CNAME     N1B
 305             KM   ROUTE HYDRPGRAPH FROM N1B TO N2 (CHANNEL B)
 306             KO       0        0      0.0        0       22
 307             RS       8     FLOW      0.0      0.0
 308             RC     0.1     0.02      0.1 6966.87   0.003     0.0
 309             RX     0.0  1000.0   1006.0   1010.0  1050.0  1054.0  1060.0  2060.0
 310             RY    10.0      0.0      0.0      1.0     1.0     0.0     0.0    10.0

 311             KK      23
 312             KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 313             KM   L=1.32      Lca=0.66      S=15.92      Kn=0.200      LAG=161
 314             KM   S-GRAPH TYPE=AGRICULTURE
 315             KO       0        0      0.0        1       22
 316             BA  0.5238
 317             LG    0.25     0.25    3.965   0.438    30.0
 318             UI     0.0     12.0     12.0   21.84    37.1   66.56   66.18   91.21   93.73  100.79
 319             UI  100.79    96.31    83.99   89.61   70.63   67.07    55.1   45.41    35.3    36.1
 320             UI   26.28    20.77    18.42   14.82   13.33   10.95   10.95    7.15    6.81    6.81
 321             UI    6.81     1.78      1.5     1.5     1.5     1.5     1.5     1.5     1.5     1.5
1                                              HEC-1 INPUT                                                    PAGE  8
LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 322             UI     1.5      1.5      1.5      1.5     1.5     1.5     1.5     1.5     1.5     0.0

 323             KK    23-O
 324             KO       0        0      0.0        0       22
 325             DT   23ret    35.0      0.0
 326             DI     0.0  2000.0
 327             DQ     0.0  2000.0

 328             KK      N2
 329             KM   COMBINE ROUTED HYDROGRAPH FROM N1C AND N1B WITH RUNOFF FROM 23 @ N2
 330             ZW   A=FRE B=N2 C=FLOW E=15MIN F=100y24h-fut
 331             KO       0        0      0.0        0       22
 332             HC       3
                 * ******************************************************************************
                 * **   SUB-WATERSHED O   ***********************************************
                 * ******************************************************************************
```

```
 333          KK      12
 334          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 335          KM   L=0.96      Lca=0.41      S=83.03      Kn=0.050      LAG=22
 336          KM   S-GRAPH TYPE=PHOENIX VALLEY
 337          KO       0        0      0.0        1       22
 338          BA  0.7364
 339          LG   0.238    0.25   4.502   0.382  39.822
 340          UI     0.0  414.56 1054.13  362.82    56.4     0.0

 341          KK    12-O
 342          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 343          KO       0        0      0.0        0       22
 344          DT   12ret   49.02      0.0
 345          DI     0.0  2000.0
 346          DQ     0.0  2000.0

 347          KK   O1-O2   CNAME      O1
 348          KM   ROUTE HYDRPGRAPH FROM O1 TO O2 (CHANNEL A)
 349          KO       0        0      0.0        0       22
 350          RS       2     FLOW      0.0      0.0
 351          RC   0.035    0.035    0.035  2743.8    0.013      0.0
 352          RX     0.0    250.0    500.0    750.0  1000.0  1333.3  1666.6  2000.0
 353          RY    10.0      7.5      5.0      2.5     0.0     3.3     6.6    10.0

 354          KK      13
 355          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 356          KM   L=0.52      Lca=0.26      S=71.20      Kn=0.050      LAG=15
 357          KM   S-GRAPH TYPE=PHOENIX VALLEY
 358          KO       0        0      0.0        1       22
 359          BA  0.5012
 360          LG    0.25     0.25     5.14   0.299     45.0
 361          UI     0.0  646.99  594.12     0.0
1                                          HEC-1 INPUT                                                    PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 362          KK    13-O
 363          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 364          KO       0        0      0.0        0       22
 365          DT   13ret   41.08      0.0
 366          DI     0.0  2000.0
 367          DQ     0.0  2000.0

 368          KK      O2   CNAME   O2-O3
 369          KM   COMBINE ROUTED HYDROGRAPH FROM O1 WITH RUNOFF FROM 13 @ O2
 370          KO       0        0      0.0        0       22
 371          HC       2

 372          KK   O2-O3   CNAME      O2
 373          KM   ROUTE HYDRPGRAPH FROM O2 TO O3 (CHANNEL A)
 374          KO       0        0      0.0        0       22
 375          RS       2     FLOW      0.0      0.0
 376          RC   0.025    0.025   0.025 2814.95    0.011      0.0
 377          RX     0.0    250.0    500.0    750.0  1000.0  1333.3  1666.6  2000.0
 378          RY    10.0      7.5      5.0      2.5     0.0     3.3     6.6    10.0

 379          KK      24
 380          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 381          KM   L=0.53      Lca=0.27      S=56.27      Kn=0.050      LAG=16
 382          KM   S-GRAPH TYPE=DESERT RANGELAND
 383          KO       0        0      0.0        1       22
 384          BA  0.4891
 385          LG     0.3     0.25   4.586   0.329      5.0
 386          UI     0.0  566.65  561.96  111.02      0.0

 387          KK      O3   CNAME   O3-O4
 388          KM   COMBINE ROUTED HYDROGRAPH FROM O2 WITH RUNOFF FROM 24 @ O3
 389          KO       0        0      0.0        0       22
 390          HC       2

 391          KK   O3-O4   CNAME      O3
 392          KM   ROUTE HYDRPGRAPH FROM O3 TO O4 (CHANNEL A)
 393          KO       0        0      0.0        0       22
 394          RS       7     FLOW      0.0      0.0
 395          RC     0.1      0.1      0.1 4482.81    0.002      0.0
 396          RX     0.0    250.0    500.0    750.0  1000.0  1333.3  1666.6  2000.0
 397          RY    10.0      7.5      5.0      2.5     0.0     3.3     6.6    10.0

 398          KK      25
 399          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 400          KM   L=1.05      Lca=0.52      S=10.49      Kn=0.050      LAG=37
 401          KM   S-GRAPH TYPE=PHOENIX VALLEY
 402          KO       0        0      0.0        1       22
 403          BA  0.2742
 404          LG     0.3     0.25    4.14   0.396      5.0
              * 25
 405          UI     0.0   55.33  162.01  264.09  147.51   51.88   16.57    7.65     0.0
1                                          HEC-1 INPUT                                                    PAGE 10

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 406          KK      O4
 407          KM   COMBINE ROUTED HYDROGRAPH FROM O3 WITH RUNOFF FROM 25 @ O4
 408          ZW   A=PRE B=O4 C=FLOW E=15MIN F=100y24h-fut
 409          KO       0        0      0.0        0       22
 410          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED P   ***********************************************
              * ***********************************************************************

 411          KK     14A
 412          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 413          KM   L=1.33      Lca=0.71      S=67.87      Kn=0.050      LAG=32
 414          KM   S-GRAPH TYPE=PHOENIX VALLEY
 415          KO       0        0      0.0        1       22
 416          BA  0.6923
 417          LG   0.232    0.25   4.262   0.393   39.38
 418          UI     0.0  188.49   580.0  653.03  260.73   74.32   22.34     0.0

 419          KK   14A-O
 420          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
 421          KO       0        0      0.0        0       22
```

```
422          DT  14Aret   41.08     0.0
423          DI     0.0  2000.0
424          DQ     0.0  2000.0

425          KK  P1A-1B   CNAME     P1A
426          KM   ROUTE HYDRPGRAPH FROM P1A TO P1B (CHANNEL A)
427          KO       0       0     0.0       0      22
428          RS       3    FLOW     0.0     0.0
429          RC   0.035   0.035   0.035 3128.61    0.01     0.0
430          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
431          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

432          KK     14B
433          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
434          KM   L=0.59      Lca=0.30      S=54.00      Kn=0.050      LAG=17
435          KM   S-GRAPH TYPE=DESERT RANGELAND
436          KO       0       0     0.0       1      22
437          BA  0.5015
438          LG    0.25    0.25   4.185   0.409  41.516
439          UI     0.0  521.46  605.68  135.03   28.39     0.0

440          KK   14B-O
441          KM   HYDROGRAPH DIVERTED TO RETENTION BASINS
442          KO       0       0     0.0       0      22
443          DT  14Bret   30.68     0.0
444          DI     0.0  2000.0
445          DQ     0.0  2000.0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

446          KK     P1B   CNAME  P1B-P2
447          KM   COMBINE ROUTED HYDROGRAPH FROM P1A WITH RUNOFF FROM 14B @ P1B
448          KO       0       0     0.0       0      22
449          HC       2

450          KK  P1B-P2   CNAME     P1B
451          KM   ROUTE HYDRPGRAPH FROM P1B TO P2 (CHANNEL A)
452          KO       0       0     0.0       0      22
453          RS       4    FLOW     0.0     0.0
454          RC   0.025   0.025   0.025 4031.58   0.007     0.0
455          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
456          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

457          KK      26
458          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
459          KM   L=0.76      Lca=0.38      S=39.29      Kn=0.050      LAG=22
460          KM   S-GRAPH TYPE=PHOENIX VALLEY
461          KO       0       0     0.0       1      22
462          BA  0.5244
463          LG     0.3    0.25   4.048   0.393     5.0
464          UI     0.0  295.23   750.7  258.38   40.17     0.0

465          KK      P2   CNAME    zzz6
466          KM   COMBINE ROUTED HYDROGRAPH FROM P1B WITH RUNOFF FROM 26 @ P2
467          ZW   A=PRE B=P2 C=FLOW E=15MIN F=100y24h-fut
468          KO       0       0     0.0       0      22
469          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED Q   ******************************************************
             * ***********************************************************************

470          KK      83
471          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
472          KM   L=1.72      Lca=0.93      S=64.69      Kn=0.050      LAG=39
473          KM   S-GRAPH TYPE=DESERT RANGELAND
474          KO       0       0     0.0       1      22
475          BA  0.6752
476          LG   0.235    0.25   5.438   0.256  31.621
477          UI     0.0  115.92  423.38  535.16  330.25  168.58    85.8   44.93   16.84   14.19
478          UI     0.0

479          KK    83-O
480          KO       0       0     0.0       0      22
481          DT   83ret   31.99     0.0
482          DI     0.0  2000.0
483          DQ     0.0  2000.0
484          ZZ
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	6	499.	12.25	67.	22.	7.	0.32		
+	DIVERSION TO	6ret	164.	12.25	25.	8.	3.	0.32		
+	HYDROGRAPH AT	6-O	433.	12.50	50.	14.	5.	0.32		
+	ROUTED TO	J1-J2	283.	13.00	49.	14.	5.	0.32		
+	HYDROGRAPH AT	8	432.	12.75	89.	29.	10.	0.41		
+	DIVERSION TO	8ret	390.	12.50	43.	13.	4.	0.41		
+	HYDROGRAPH AT	8-O	420.	12.75	58.	17.	6.	0.41		
+	2 COMBINED AT	J2	625.	12.75	106.	30.	10.	0.73		
+	ROUTED TO	J2-J3	438.	13.50	103.	30.	10.	0.73		

+	HYDROGRAPH AT	20	190.	14.75	122.	42.	14.	0.66
+	DIVERSION TO	20ret	190.	14.75	98.	28.	9.	0.66
+	HYDROGRAPH AT	20-O	119.	16.50	48.	15.	5.	0.66
+	2 COMBINED AT	J3	434.	13.50	135.	45.	15.	1.40
+	HYDROGRAPH AT	7	683.	12.50	111.	38.	13.	0.45
+	DIVERSION TO	7ret	642.	12.25	63.	19.	6.	0.45
+	HYDROGRAPH AT	7-O	587.	12.50	64.	19.	6.	0.45
+	ROUTED TO	K1-K2	342.	13.00	63.	19.	6.	0.45
+	HYDROGRAPH AT	9	999.	12.50	162.	56.	19.	0.61
+	DIVERSION TO	9ret	711.	12.25	78.	24.	8.	0.61
+	HYDROGRAPH AT	9-O	950.	12.50	110.	32.	11.	0.61
+	2 COMBINED AT	K2	985.	12.50	171.	51.	17.	1.06
+	ROUTED TO	K2-K3	651.	13.25	165.	51.	17.	1.06
+	HYDROGRAPH AT	21B	107.	13.75	52.	17.	6.	0.27
+	DIVERSION TO	21Bret	107.	13.75	39.	11.	4.	0.27
+	HYDROGRAPH AT	21B-O	57.	15.00	20.	6.	2.	0.27
+	HYDROGRAPH AT	21A	136.	14.00	77.	26.	9.	0.37
+	DIVERSION TO	21Aret	136.	14.00	63.	18.	6.	0.37
+	HYDROGRAPH AT	21A-O	66.	16.00	27.	8.	3.	0.37
+	3 COMBINED AT	K3	651.	13.25	201.	65.	22.	1.70
+	HYDROGRAPH AT	10	1073.	12.75	225.	71.	24.	1.17
+	DIVERSION TO	10ret	1069.	12.75	128.	36.	12.	1.17
+	HYDROGRAPH AT	10-O	897.	13.00	122.	35.	12.	1.17
+	ROUTED TO	L1-L2	709.	13.50	118.	35.	12.	1.17
+	HYDROGRAPH AT	22	142.	14.50	87.	29.	10.	0.56
+	DIVERSION TO	22ret	142.	14.50	73.	20.	7.	0.56
+	HYDROGRAPH AT	22-O	69.	16.75	29.	9.	3.	0.56
+	2 COMBINED AT	L2	709.	13.50	139.	43.	14.	1.73
+	HYDROGRAPH AT	11C	535.	12.50	60.	18.	6.	0.34
+	DIVERSION TO	11Cret	327.	12.25	27.	8.	3.	0.34
+	HYDROGRAPH AT	11C-O	484.	12.50	39.	11.	4.	0.34
+	ROUTED TO	N1C-N2	179.	13.25	38.	11.	4.	0.34
+	HYDROGRAPH AT	11A	862.	12.25	107.	32.	11.	0.57
+	DIVERSION TO	11Aret	862.	12.25	70.	19.	6.	0.57
+	HYDROGRAPH AT	11A-O	564.	12.50	46.	13.	4.	0.57
+	ROUTED TO	N1A-1B	218.	13.25	44.	13.	4.	0.57
+	HYDROGRAPH AT	11B	659.	12.75	105.	32.	11.	0.58
+	DIVERSION TO	11Bret	585.	12.50	60.	17.	6.	0.58

```
                HYDROGRAPH AT
+                       11B-O      491.  12.75      56.      16.      5.     0.58
                2 COMBINED AT
+                         N1B      565.  12.75      99.      29.     10.     1.15
                ROUTED TO
+                     N1B-N2      238.  14.50      87.      29.     10.     1.15
                HYDROGRAPH AT
+                          23      148.  14.25      85.      27.      9.     0.52
                DIVERSION TO
+                      23ret      148.  14.25      64.      18.      6.     0.52
                HYDROGRAPH AT
+                       23-O       91.  15.75      33.      10.      3.     0.52
                3 COMBINED AT
+                          N2      259.  14.50     144.      48.     16.     2.02
                HYDROGRAPH AT
+                          12     1175.  12.50     141.      44.     15.     0.74
                DIVERSION TO
+                      12ret      731.  12.25      89.      25.      8.     0.74
                HYDROGRAPH AT
+                       12-O      479.  12.50      68.      20.      7.     0.74
                ROUTED TO
+                     O1-O2      401.  12.75      67.      20.      7.     0.74
                HYDROGRAPH AT
+                          13      844.  12.25     100.      32.     11.     0.50
                DIVERSION TO
+                      13ret      844.  12.25      75.      21.      7.     0.50
                HYDROGRAPH AT
+                       13-O      352.  12.50      37.      11.      4.     0.50
                2 COMBINED AT
+                          O2      478.  12.75     102.      30.     10.     1.24
                ROUTED TO
+                     O2-O3      486.  13.00     101.      30.     10.     1.24
                HYDROGRAPH AT
+                          24      667.  12.25      65.      17.      6.     0.49
                2 COMBINED AT
+                          O3      676.  12.50     161.      47.     16.     1.73
                ROUTED TO
+                     O3-O4      439.  14.00     152.      47.     16.     1.73
                HYDROGRAPH AT
+                          25      279.  12.75      36.       9.      3.     0.27
                2 COMBINED AT
+                          O4      440.  14.00     180.      56.     19.     2.00
                HYDROGRAPH AT
+                         14A      787.  12.50     133.      42.     14.     0.69
                DIVERSION TO
+                      14Aret      767.  12.50      73.      21.      7.     0.69
                HYDROGRAPH AT
+                       14A-O      728.  12.75      74.      21.      7.     0.69
                ROUTED TO
+                     P1A-1B      464.  13.00      73.      21.      7.     0.69
                HYDROGRAPH AT
+                         14B      697.  12.25      98.      31.     10.     0.50
                DIVERSION TO
+                      14Bret      693.  12.25      54.      15.      5.     0.50
                HYDROGRAPH AT
+                       14B-O      632.  12.50      54.      15.      5.     0.50
                2 COMBINED AT
+                         P1B      618.  12.50     125.      36.     12.     1.19
                ROUTED TO
+                     P1B-P2      506.  13.00     123.      36.     12.     1.19
                HYDROGRAPH AT
+                          26      752.  12.50      68.      18.      6.     0.52
                2 COMBINED AT
+                          P2      798.  12.50     186.      53.     18.     1.72
                HYDROGRAPH AT
+                          83      686.  12.75     126.      38.     13.     0.68
                DIVERSION TO
+                      83ret      616.  12.50      57.      16.      5.     0.68
                HYDROGRAPH AT
+                       83-O      617.  12.75      81.      22.      7.     0.68

 *** NORMAL END OF HEC-1 ***
1*************************************                    *************************************
 *                                   *                    *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                    *   U.S. ARMY CORPS OF ENGINEERS    *
 *             JUN  1998             *                    *   HYDROLOGIC ENGINEERING CENTER   *
 *           VERSION 4.1             *                    *         609 SECOND STREET         *
```

```
*                                    *                                        *      DAVIS, CALIFORNIA 95616      *
*  RUN DATE   23MAR06  TIME  04:59:09  *                                        *         (916) 756-1104          *
*                                    *                                        *                                  *
**************************************                                        ************************************

                                        X     X  XXXXXXX   XXXXX          X
                                        X     X  X        X     X        XX
                                        X     X  X        X               X
                                        XXXXXXX  XXXX     X       XXXXX   X
                                        X     X  X        X               X
                                        X     X  X        X     X         X
                                        X     X  XXXXXXX   XXXXX         XXX

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                          HEC-1 INPUT                                                    PAGE  1

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

    1           ID   Buckeye/Sun Valley ADMS - November 2004
    2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
    3           ID   100-year 24-hour
    4           ID   Future Conditions
    5           ID   Area 1 - RID to BIC (West)
    6           ID   File Name: rbw10024fut.hc1
    7           ID   Rainfall Loss Method - Green & Ampt
    8           ID   Unit Hydrograph Method - FCDMC S-Graph
    9           ID   Channel Routing Method - Normal Depth
   10           ID   Land Use - FCDMC GIS Data: mag_genplan (2000)
   11           ID   Future Land Use Build Out Date: 2025
   12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
   13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                *DIAGRAM
   14           IT      15 02JAN94       0      400
   15           IO       3
   16           IN      15 02JAN94       0
   17           JD     4.1    0.01
                * 24-hour distribution
   18           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
   19           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
   20           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
   21           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
   22           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
   23           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
   24           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
   25           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
   26           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
   27           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
   28           IN      15 02JAN94       0
   29           JD   3.895    10.0
                * 24-hour distribution
   30           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
   31           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
   32           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
   33           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
   34           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
   35           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
   36           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
   37           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
   38           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
   39           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
   40           IN      15 02JAN94       0
   41           JD   3.764    20.0
                * 24-hour distribution
   42           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
   43           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
   44           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
   45           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
   46           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
   47           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
   48           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
   49           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
   50           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
   51           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
                * ***********************************************************************************
                * **   SUB-WATERSHED E   ***********************************************************
                * ***********************************************************************************
1                                          HEC-1 INPUT                                                    PAGE  2

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

   52           KK      68
   53           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
   54           KM   L=0.96     Lca=0.33     S=45.58     Kn=0.050     LAG=22
   55           KM   S-GRAPH TYPE=DESERT RANGELAND
   56           KO       0       0     0.0       1      22
   57           BA  0.4130
   58           LG     0.1    0.25   4.366   0.494  64.324
   59           UI     0.0  257.36  526.31   199.5   61.33   15.58     0.0

   60           KK    68-O
   61           KO       0       0     0.0       0      22
   62           DT   68ret    29.0     0.0
   63           DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
   64           DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
   65           DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
   66           DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

   67           KK   E1-E2   CNAME      E1
```

```
 68          KM   STORAGE ROUTE FROM E1 TO E2 THROUGH SPRR TRESTLE
 69          KO      0       0     0.0       0      22
 70          RS      1    ELEV  873.07     0.0
 71          SV    0.0    1.39    5.84   13.36   41.09   96.81  182.04   292.0  426.27  581.71
 72          SV 756.67  957.16  1179.1  1179.1  1179.1  1179.1  1179.1  1179.1  1179.1  1179.1
 73          SE  872.0   874.0   876.0   878.0   880.0   882.0   884.0   886.0   888.0   890.0
 74          SE  892.0   894.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0
 75          SQ    0.0   100.0   240.0   360.0   480.0   600.0  1020.0  2000.0  2760.0  2760.0
 76          SQ 2760.0  2760.0  2760.0  2760.0  2760.0  2760.0  2760.0  2760.0  2760.0  2760.0
 77          SE 873.07  874.07  875.07  876.07  877.07  878.07  879.07  880.07  881.07  881.07
 78          SE 881.07  881.07  881.07  881.07  881.07  881.07  881.07  881.07  881.07  881.07

 79          KK     59
 80          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 81          KM   L=0.50     Lca=0.17     S=49.34     Kn=0.200     LAG=53
 82          KM   S-GRAPH TYPE=AGRICULTURE
 83          KO      0       0     0.0       1      22
 84          BA  0.2519
 85          LG    0.1    0.25   4.174   0.523  13.272
 86          UI    0.0    22.5   84.15  139.94  135.77  109.93   62.24   38.79   21.52    13.5
 87          UI   9.12    2.19    2.19    2.19    2.19    2.19     0.0

 88          KK     E2
 89          KM   COMBINE STORAGE HYDROGRAPH FROM E1 WITH RUNOFF FROM 59 @ E2
 90          ZW   A=RBW B=E2 C=FLOW E=15MIN F=100Y24H-FUT
 91          KO      0       0     0.0       0      22
 92          HC      2
             * ***********************************************************************
             * **   SUB-WATERSHED F   ***************************************************
             * ***********************************************************************
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 93          KK   RIDF
 94          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 95          BA  0.0001
 96          ZR  =QI A=RID RID B=8199 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-100-24F

 97          KK  F1S-F2   CNAME     F1S
 98          KM   ROUTE INFLOW FROM RID CONCENTRATED AT F1S TO F2 (CHANNEL A)
 99          KO      0       0     0.0       0      22
100          RS      1    FLOW     0.0     0.0
101          RC    0.1     0.1     0.1  3225.0   0.004     0.0
102          RX    0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
103          RY   10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

104          KK     27
105          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
106          KM   L=0.82     Lca=0.41     S=14.59     Kn=0.200     LAG=115
107          KM   S-GRAPH TYPE=AGRICULTURE
108          KO      0       0     0.0       1      22
109          BA  0.2410
110          LG    0.1    0.25   3.979   0.522    80.0
111          UI    0.0    7.73   11.05   25.19   43.69   53.56   61.68   64.93   61.32   56.09
112          UI  48.56   42.77   30.31   23.36    21.4   13.77    11.2    9.22    7.06    6.07
113          UI   4.39    4.39    2.56    0.97    0.97    0.97    0.97    0.97    0.97    0.97
114          UI   0.97    0.97    0.97    0.97    0.97     0.0

115          KK   27-O
116          KO      0       0     0.0       0      22
117          DT  27ret    27.0     0.0
118          DI    0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
119          DI 2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
120          DQ    0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
121          DQ 2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

122          KK     F2   CNAME   F2-F3
123          KM   COMBINE ROUTED HYDROGRAPH FROM F1S WITH RUNOFF FROM 27 @ F2
124          KO      0       0     0.0       0      22
125          HC      2

126          KK   F2-F3   CNAME     F2
127          KM   ROUTE HYDRPGRAPH FROM F2 TO F3 (CHANNEL A)
128          KO      0       0     0.0       0      22
129          RS     10    FLOW     0.0     0.0
130          RC    0.1     0.1     0.1 5241.87   0.006     0.0
131          RX    0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
132          RY   10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

133          KK     29
134          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
135          KM   L=1.47     Lca=0.73     S=22.92     Kn=0.200     LAG=163
136          KM   S-GRAPH TYPE=AGRICULTURE
137          KO      0       0     0.0       1      22
138          BA  0.9987
139          LG    0.1    0.25   3.977   0.507    80.0
140          UI    0.0    22.6    22.6   40.44   67.42  122.16  127.17  170.96  171.63   189.8
1                                          HEC-1 INPUT                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

141          UI  189.8  185.58  158.17  166.76  141.69  122.98  113.44   86.27    70.6   65.75
142          UI  56.62   40.79    36.5   28.42   27.23   20.63   20.63   15.99   12.82   12.82
143          UI  12.82    7.09    2.82    2.82    2.82    2.82    2.82    2.82    2.82    2.82
144          UI   2.82    2.82    2.82    2.82    2.82    2.82    2.82    2.82    2.82     0.0

145          KK   29-O
146          KO      0       0     0.0       0      22
147          DT  29ret   121.0     0.0
148          DI    0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
149          DI 2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
150          DQ    0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
151          DQ 2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

152          KK     F3   CNAME   F3-F4
153          KM   COMBINE ROUTED HYDROGRAPH FROM F2 WITH RUNOFF FROM 29 @ F3
154          KO      0       0     0.0       0      22
155          HC      2

156          KK   F3-F4   CNAME     F3
157          KM   ROUTE HYDRPGRAPH FROM F3 TO F4 (CHANNEL A)
158          KO      0       0     0.0       0      22
```

```
159          RS       7    FLOW     0.0     0.0
160          RC     0.1     0.1     0.1 5501.87   0.006     0.0
161          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
162          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

163          KK      41
164          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
165          KM   L=1.54      Lca=0.77      S=23.99      Kn=0.200      LAG=168
166          KM   S-GRAPH TYPE=AGRICULTURE
167          KO       0       0     0.0       1      22
168          BA  1.2021
169          LG     0.1    0.25   3.965   0.454    80.0
170          UI     0.0   26.39   26.39    45.2   74.92  131.88  154.05  177.32  206.14  221.65
171          UI  221.65  221.65   192.1  189.15  190.62  138.53  151.39  105.43   94.19   76.42
172          UI   81.61   52.05    44.8   39.98    32.6   29.54   24.09   24.09   16.95   14.98
173          UI   14.98   14.98     7.5     3.3     3.3     3.3     3.3     3.3     3.3     3.3
174          UI     3.3     3.3     3.3     3.3     3.3     3.3     3.3     3.3     3.3     3.3
175          UI     3.3     0.0

176          KK    41-O
177          KO       0       0     0.0       0      22
178          DT   41ret   140.0     0.0
179          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
180          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
181          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
182          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

183          KK      F4   CNAME   F4-F5B
184          KM   COMBINE ROUTED HYDROGRAPH FROM F3 WITH RUNOFF FROM 41 @ F4
185          KO       0       0     0.0       0      22
186          HC       2
1                                          HEC-1 INPUT                                                          PAGE  5

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

187          KK  F4-F5B   CNAME      F4
188          KM   ROUTE HYDRPGRAPH FROM F4 TO F5B (CHANNEL A)
189          KO       0       0     0.0       0      22
190          RS       6    FLOW     0.0     0.0
191          RC     0.1     0.1     0.1 3704.65   0.006     0.0
192          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
193          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

194          KK     52B
195          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
196          KM   L=0.71      Lca=0.32      S=32.56      Kn=0.200      LAG=85
197          KM   S-GRAPH TYPE=AGRICULTURE
198          KO       0       0     0.0       1      22
199          BA  0.4953
200          LG     0.1    0.25   4.087   0.492    80.0
201          UI     0.0   21.49   47.96  115.57  153.43   180.5  170.48  157.82  118.28   85.92
202          UI   63.75   43.62   30.66   22.85   17.91    12.2   10.93    2.69    2.69    2.69
203          UI    2.69    2.69    2.69    2.69    2.69    2.69     0.0

204          KK   52B-O
205          KO       0       0     0.0       0      22
206          DT  52Bret    57.0     0.0
207          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
208          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
209          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
210          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

211          KK     F5B   CNAME F5B-F6B
212          KM   COMBINE ROUTED HYDROGRAPH FROM F4 WITH RUNOFF FROM 52B @ F5B
213          KO       0       0     0.0       0      22
214          HC       2

215          KK  5B-F6B   CNAME     F5B
216          KM   STORAGE ROUTE FROM F5B TO F6B THROUGH SPRR TRESTLE
217          KO       0       0     0.0       0      22
218          RS       1    ELEV   886.0     0.0
219          SV     0.0    0.08    0.94    6.13   37.02  122.46  262.93   479.0  749.83  749.83
220          SV  749.83  749.83  749.83  749.83  749.83  749.83  749.83  749.83  749.83  749.83
221          SE   886.0   888.0   890.0   892.0   894.0   896.0   898.0   900.0   902.0   902.0
222          SE   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0
223          SQ     0.0    80.0   120.0   230.0  1145.0  1980.0  2670.0  2670.0  2670.0  2670.0
224          SQ  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0  2670.0
225          SE   886.0  887.07  888.07  889.07  890.07  891.07  892.07  892.07  892.07  892.07
226          SE  892.07  892.07  892.07  892.07  892.07  892.07  892.07  892.07  892.07  892.07

227          KK     60B
228          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
229          KM   L=1.03      Lca=0.35      S=22.68      Kn=0.200      LAG=108
230          KM   S-GRAPH TYPE=AGRICULTURE
231          KO       0       0     0.0       1      22
232          BA  0.5744
233          LG   0.101    0.25   4.158   0.551   55.37
234          UI     0.0   19.61   30.14   73.81  110.38  144.98  164.75  164.75  142.78  142.23
235          UI  106.31   87.94    64.4   56.91    35.6   28.82   23.22   17.91   14.49   11.13
1                                          HEC-1 INPUT                                                          PAGE  6

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

236          UI   11.13    3.84    2.45    2.45    2.45    2.45    2.45    2.45    2.45    2.45
237          UI    2.45    2.45    2.45     0.0

238          KK   60B-O
239          KO       0       0     0.0       0      22
240          DT  60Bret    53.0     0.0
241          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
242          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
243          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
244          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

245          KK     F6B
246          KM   COMBINE STORAGE HYDROGRAPH FROM F5B WITH RUNOFF FROM 60B @ F6B
247          ZW   A=RBW B=F6B C=FLOW E=15MIN F=100Y24H-FUT
248          KO       0       0     0.0       0      22
249          HC       2

250          KK     52A
251          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
252          KM   L=0.92      Lca=0.57      S=6.91      Kn=0.200      LAG=156
```

```
 253          KM   S-GRAPH TYPE=AGRICULTURE
 254          KO       0       0     0.0       1      22
 255          BA  0.3127
 256          LG     0.1    0.25   3.966   0.427    80.0
 257          UI     0.0    7.39    7.39   14.03   25.52   42.85   41.09   54.59   61.74    62.1
 258          UI    62.1   55.89   52.16   54.02   38.81   41.05   29.04   24.79   21.13   20.13
 259          UI   13.59   11.94    9.45    8.85    6.75    6.75    4.89     4.2     4.2     4.2
 260          UI    1.32    0.92    0.92    0.92    0.92    0.92    0.92    0.92    0.92    0.92
 261          UI    0.92    0.92    0.92    0.92    0.92    0.92    0.92     0.0

 262          KK   52A-O
 263          KO       0       0     0.0       0      22
 264          DT  52Aret    38.0     0.0
 265          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 266          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 267          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 268          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 269          KK  5A-F6A   CNAME     F5A
 270          KM   STORAGE ROUTE FROM F5A TO F6A THROUGH SPRR TRESTLE
 271          KO       0       0     0.0       0      22
 272          RS       1    ELEV   894.0     0.0
 273          SV     0.0    0.02    0.64   12.91   61.76   61.76   61.76   61.76   61.76   61.76
 274          SV   61.76   61.76   61.76   61.76   61.76   61.76   61.76   61.76   61.76   61.76
 275          SE   894.0   896.0   898.0   900.0   902.0   902.0   902.0   902.0   902.0   902.0
 276          SE   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0   902.0
 277          SQ     0.0    58.1   112.2   146.6   174.0   198.5   218.5   237.6   255.3   271.8
 278          SQ   287.4   302.2   316.3   329.7   342.7   355.2   367.2   378.9   401.2   422.3
 279          SE   894.0   896.4   896.9   897.4   897.9   898.4   898.9   899.4   899.9   900.4
 280          SE   900.9   901.4   901.9   902.4   902.9   903.4   903.9   904.4   905.4   906.4
1                                          HEC-1 INPUT                                          PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 281          KK     60A
 282          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 283          KM   L=1.07     Lca=0.46     S=27.51     Kn=0.200     LAG=117
 284          KM   S-GRAPH TYPE=AGRICULTURE
 285          KO       0       0     0.0       1      22
 286          BA  0.4117
 287          LG     0.1    0.25   4.045   0.535   50.188
 288          UI     0.0   12.98   18.15   40.42   73.45   89.47  100.76  109.02  105.38   91.39
 289          UI   88.17   72.54   53.81   42.04   38.73   24.09   20.15   16.03   12.52   11.64
 290          UI    7.37    7.37    6.45    1.62    1.62    1.62    1.62    1.62    1.62    1.62
 291          UI    1.62    1.62    1.62    1.62    1.62     0.0

 292          KK   60A-O
 293          KO       0       0     0.0       0      22
 294          DT  60Aret    35.0     0.0
 295          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 296          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 297          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 298          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 299          KK     F6A
 300          KM   COMBINE STORAGE HYDROGRAPH FROM F5A WITH RUNOFF FROM 60A @ F6A
 301          ZW   A=RBW B=F6A C=FLOW E=15MIN F=100Y24H-FUT
 302          KO       0       0     0.0       0      22
 303          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED G   ***********************************************
              * ***********************************************************************

 304          KK    RIDG
 305          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 306          BA  0.0001
 307          ZR  =QI A=RID RID B=13399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-100-24F

 308          KK  G3S-G4   CNAME     G3S
 309          KM   ROUTE INFLOW FROM RID CONCENTRATED AT G3S TO G4 (CHANNEL A)
 310          KO       0       0     0.0       0      22
 311          RS       1    FLOW     0.0     0.0
 312          RC     0.1     0.1     0.1  4594.0   0.004     0.0
 313          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 314          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 315          KK      28
 316          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 317          KM   L=1.02     Lca=0.51     S=16.68     Kn=0.200     LAG=132
 318          KM   S-GRAPH TYPE=AGRICULTURE
 319          KO       0       0     0.0       1      22
 320          BA  0.3347
 321          LG     0.1    0.25   4.178   0.441    80.0
 322          UI     0.0    9.35   10.92    23.2   45.57   53.95   69.13   78.56   78.56   75.94
 323          UI   65.47   68.35   49.76   47.59   34.97   27.16   26.43   17.09   14.62   11.55
 324          UI    9.62    8.54    6.55    5.31    5.31    3.82    1.17    1.17    1.17    1.17
 325          UI    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17    1.17
 326          UI     0.0
1                                          HEC-1 INPUT                                          PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 327          KK    28-O
 328          KO       0       0     0.0       0      22
 329          DT   28ret    39.0     0.0
 330          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 331          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 332          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 333          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 334          KK      G4   CNAME   G4-G5
 335          KM   COMBINE ROUTED HYDROGRAPH FROM G3S WITH RUNOFF FROM 28 @ G4
 336          KO       0       0     0.0       0      22
 337          HC       2

 338          KK   G4-G5   CNAME      G4
 339          KM   ROUTE HYDRPGRAPH FROM G4 TO G5 (CHANNEL A)
 340          KO       0       0     0.0       0      22
 341          RS      15    FLOW     0.0     0.0
 342          RC     0.1     0.1     0.1 7127.48   0.004     0.0
 343          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 344          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
```

```
 345          KK      30
 346          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 347          KM   L=1.55      Lca=0.78      S=21.93      Kn=0.200      LAG=172
 348          KM   S-GRAPH TYPE=AGRICULTURE
 349          KO       0        0      0.0        1       22
 350          BA  0.9830
 351          LG     0.1     0.25    4.028     0.45     80.0
 352          UI     0.0    21.08    21.08     34.8     57.4    101.7   123.34    132.0   163.67   177.05
 353          UI  177.05   177.05   161.31   147.54   161.39   117.56   117.82    99.14    80.48    64.92
 354          UI   61.01    54.87    38.92    34.05    28.26    26.04    20.78    19.24    18.25    11.96
 355          UI   11.96    11.96    11.96     3.63     2.63     2.63     2.63     2.63     2.63     2.63
 356          UI    2.63     2.63     2.63     2.63     2.63     2.63     2.63     2.63     2.63     2.63
 357          UI    2.63     2.63      0.0

 358          KK    30-O
 359          KO       0        0      0.0        0       22
 360          DT   30ret    112.0      0.0
 361          DI     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 362          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 363          DQ     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 364          DQ  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0

 365          KK      G5   CNAME   G5-G6
 366          KM   COMBINE ROUTED HYDROGRAPH FROM G4 WITH RUNOFF FROM 30 @ G5
 367          KO       0        0      0.0        0       22
 368          HC       2

 369          KK   G5-G6   CNAME      G5
 370          KM   ROUTE HYDROGRAPH FROM G5 TO G6 (CHANNEL A)
 371          KO       0        0      0.0        0       22
 372          RS       9     FLOW      0.0      0.0
 373          RC     0.1      0.1      0.1  5820.25    0.005      0.0
 374          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
1                                                HEC-1 INPUT                                                    PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 375          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

 376          KK      42
 377          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 378          KM   L=1.56      Lca=0.78      S=22.73      Kn=0.200      LAG=172
 379          KM   S-GRAPH TYPE=AGRICULTURE
 380          KO       0        0      0.0        1       22
 381          BA  0.7784
 382          LG     0.1     0.25    4.279    0.425     80.0
 383          UI     0.0    16.69    16.69    27.56    45.45    80.53    97.66   104.52    129.6   140.19
 384          UI  140.19   140.19   127.73   116.82   127.79    93.09    93.29     78.5    63.72     51.4
 385          UI   48.31    43.45    30.82    26.96    22.38    20.62    16.46    15.24    14.45     9.47
 386          UI    9.47     9.47     9.47     2.87     2.09     2.09     2.09     2.09     2.09     2.09
 387          UI    2.09     2.09     2.09     2.09     2.09     2.09     2.09     2.09     2.09     2.09
 388          UI    2.09     2.09      0.0

 389          KK    42-O
 390          KO       0        0      0.0        0       22
 391          DT   42ret     91.0      0.0
 392          DI     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 393          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 394          DQ     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 395          DQ  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0

 396          KK      G6   CNAME   G6-G7
 397          KM   COMBINE ROUTED HYDROGRAPH FROM G5 WITH RUNOFF FROM 42 @ G6
 398          KO       0        0      0.0        0       22
 399          HC       2

 400          KK   G6-G7   CNAME      G6
 401          KM   ROUTE HYDROGRAPH FROM G6 TO G7 (CHANNEL A)
 402          KO       0        0      0.0        0       22
 403          RS       4     FLOW      0.0      0.0
 404          RC     0.1      0.1      0.1  2613.05    0.007      0.0
 405          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
 406          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

 407          KK      53
 408          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 409          KM   L=0.91      Lca=0.46      S=23.93      Kn=0.200      LAG=113
 410          KM   S-GRAPH TYPE=AGRICULTURE
 411          KO       0        0      0.0        1       22
 412          BA  0.3385
 413          LG     0.1     0.25    3.997    0.429     80.0
 414          UI     0.0    11.05    16.13     37.6    62.38    76.97    90.56    92.81     85.6    80.26
 415          UI   66.07    58.87    41.62    31.91    28.17    18.87    14.88    12.13    10.09     7.44
 416          UI    6.27     6.27     1.84     1.38     1.38     1.38     1.38     1.38     1.38     1.38
 417          UI    1.38     1.38     1.38     1.38      0.0

 418          KK    53-O
 419          KO       0        0      0.0        0       22
 420          DT   53ret     39.0      0.0
 421          DI     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 422          DI  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
 423          DQ     0.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0
1                                                HEC-1 INPUT                                                    PAGE 10

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 424          DQ  2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0   2000.0

 425          KK      G7   CNAME   G7-G8
 426          KM   COMBINE ROUTED HYDROGRAPH FROM G6 WITH RUNOFF FROM 53 @ G7
 427          KO       0        0      0.0        0       22
 428          HC       2

 429          KK   G7-G8   CNAME      G7
 430          KM   STORAGE ROUTE FROM G7 TO G8 THROUGH SPRR TRESTLE
 431          KO       0        0      0.0        0       22
 432          RS       1     ELEV    888.0      0.0
 433          SV     0.0      0.6     4.25    26.94   108.66   257.97    449.6    449.6    449.6    449.6
 434          SV   449.6    449.6    449.6    449.6    449.6    449.6    449.6    449.6    449.6    449.6
 435          SE   888.0    890.0    892.0    894.0    896.0    898.0    900.0    900.0    900.0    900.0
 436          SE   900.0    900.0    900.0    900.0    900.0    900.0    900.0    900.0    900.0    900.0
 437          SQ     0.0    100.0    200.0    480.0   1480.0   2060.0   2520.0   2900.0   2900.0   2900.0
 438          SQ  2900.0   2900.0   2900.0   2900.0   2900.0   2900.0   2900.0   2900.0   2900.0   2900.0
```

```
 439          SE   888.0  888.07  889.07  890.07  891.07  892.07  893.07  894.07  894.07  894.07
 440          SE  894.07  894.07  894.07  894.07  894.07  894.07  894.07  894.07  894.07  894.07

 441          KK      61
 442          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 443          KM   L=0.90      Lca=0.45      S=23.00      Kn=0.200      LAG=113
 444          KM   S-GRAPH TYPE=AGRICULTURE
 445          KO       0        0      0.0        1       22
 446          BA  0.5081
 447          LG   0.101     0.25    3.965    0.457   60.155
 448          UI     0.0    16.58    24.21    56.43    93.62  115.52  135.92   139.3  128.47  120.46
 449          UI   99.16    88.35    62.47     47.9    42.28   28.31   22.33   18.21   15.14   11.17
 450          UI    9.41     9.41     2.76     2.07     2.07    2.07    2.07    2.07    2.07    2.07
 451          UI    2.07     2.07     2.07     2.07      0.0

 452          KK    61-O
 453          KO       0        0      0.0        0       22
 454          DT   61rot     47.0      0.0
 455          DI     0.0   2000.0   2000.0   2000.0   2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 456          DI  2000.0   2000.0   2000.0   2000.0   2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 457          DQ     0.0   2000.0   2000.0   2000.0   2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 458          DQ  2000.0   2000.0   2000.0   2000.0   2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 459          KK      G8
 460          KM   COMBINE STORAGE HYDROGRAPH FROM G7 WITH RUNOFF FROM 61 @ G8
 461          ZW   A=RBW B=G8 C=FLOW E=15MIN F=100Y24H-FUT
 462          KO       0        0      0.0        0       22
 463          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED H    ***********************************************
              * ***********************************************************************

 464          KK    RIDH
 465          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 466          BA  0.0001
 467          ZR   =QI A=RID RID B=19799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-100-24F
1                                          HEC-1 INPUT                                          PAGE 11

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 468          KK  H3S-H4   CNAME     H3S
 469          KM   ROUTE INFLOW FROM RID CONCENTRATED AT H3S TO H4 (CHANNEL A)
 470          KO       0        0      0.0        0       22
 471          RS       1     FLOW      0.0      0.0
 472          RC     0.1      0.1     0.110193.17    0.005      0.0
 473          RX     0.0    250.0    500.0    750.0   1000.0   1333.3   1666.6   2000.0
 474          RY    10.0      7.5      5.0      2.5      0.0      3.3      6.6     10.0

 475          KK      31
 476          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 477          KM   L=1.93      Lca=0.97      S=26.40      Kn=0.200      LAG=196
 478          KM   S-GRAPH TYPE=AGRICULTURE
 479          KO       0        0      0.0        1       22
 480          BA  1.0788
 481          LG   0.212     0.25    4.018    0.427   50.883
 482          UI     0.0     20.3     20.3    26.01    42.62   75.47  110.82  116.22  130.81  156.48
 483          UI  170.49   170.49   170.49   170.49   143.97  142.08   158.6  111.16  110.82  106.73
 484          UI   79.11    71.61     59.1    60.85    49.19   37.72   32.79   29.13   25.07   23.42
 485          UI   18.53    18.53    16.79    11.52    11.52   11.52   11.52    7.81    2.54    2.54
 486          UI    2.54     2.54     2.54     2.54     2.54    2.54    2.54    2.54    2.54    2.54
 487          UI    2.54     2.54     2.54     2.54     2.54    2.54    2.54    2.54    2.54     0.0

 488          KK    31-O
 489          KO       0        0      0.0        0       22
 490          DT   31ret     96.0      0.0
 491          DI     0.0   2000.0   2000.0   2000.0   2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 492          DI  2000.0   2000.0   2000.0   2000.0   2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 493          DQ     0.0   2000.0   2000.0   2000.0   2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 494          DQ  2000.0   2000.0   2000.0   2000.0   2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 495          KK      H4   CNAME   H4-H5
 496          KM   COMBINE ROUTED HYDROGRAPH FROM H3S WITH RUNOFF FROM 31 @ H4
 497          KO       0        0      0.0        0       22
 498          HC       2

 499          KK   H4-H5   CNAME      H4
 500          KM   ROUTE HYDRFGRAPH FROM H4 TO H5 (CHANNEL B)
 501          KO       0        0      0.0        0       22
 502          RS       7     FLOW      0.0      0.0
 503          RC     0.1     0.02      0.1 5382.76    0.006      0.0
 504          RX     0.0   1000.0   1006.0   1010.0   1050.0   1054.0   1060.0   2060.0
 505          RY    10.0      0.0      0.0      1.0      1.0      0.0      0.0     10.0

 506          KK      43
 507          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 508          KM   L=1.92      Lca=0.96      S=20.85      Kn=0.200      LAG=204
 509          KM   S-GRAPH TYPE=AGRICULTURE
 510          KO       0        0      0.0        1       22
 511          BA  1.0022
 512          LG   0.163     0.25    3.958    0.413   59.167
 513          UI     0.0    18.12    18.12    20.99    38.04   57.93    94.1  108.05  107.28   138.7
 514          UI  144.35   152.18   152.18   152.18   142.03  126.81  135.44  126.81   95.11  102.81
 515          UI    87.2    69.17    61.58    52.32    54.94   42.82   33.73   29.26   26.57   22.38
 516          UI   21.91    16.54    16.54    16.54    10.58   10.28   10.28   10.28   10.28    2.91
1                                          HEC-1 INPUT                                          PAGE 12

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 517          UI    2.26     2.26     2.26     2.26     2.26    2.26    2.26    2.26    2.26    2.26
 518          UI    2.26     2.26     2.26     2.26     2.26    2.26    2.26    2.26    2.26    2.26
 519          UI    2.26      0.0

 520          KK    43-O
 521          KO       0        0      0.0        0       22
 522          DT   43ret     98.0      0.0
 523          DI     0.0   2000.0   2000.0   2000.0   2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 524          DI  2000.0   2000.0   2000.0   2000.0   2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 525          DQ     0.0   2000.0   2000.0   2000.0   2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 526          DQ  2000.0   2000.0   2000.0   2000.0   2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 527          KK      H5   CNAME   H5-H6
 528          KM   COMBINE ROUTED HYDROGRAPH FROM H4 WITH RUNOFF FROM 43 @ H5
 529          KO       0        0      0.0        0       22
```

```
530          HC       2

531          KK   H5-H6   CNAME      H5
532          KM   ROUTE HYDROGRAPH FROM H5 TO H6 (CHANNEL B)
533          KO       0       0     0.0       0      22
534          RS       4    FLOW     0.0     0.0
535          RC     0.1    0.02     0.1 2887.92   0.005     0.0
536          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
537          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

538          KK      54
539          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
540          KM   L=1.20      Lca=0.60      S=12.35      Kn=0.200      LAG=157
541          KM   S-GRAPH TYPE=AGRICULTURE
542          KO       0       0     0.0       1      22
543          BA  0.3861
544          LG     0.1    0.25     4.0   0.432    80.0
545          UI     0.0    9.07    9.07   17.07   30.66   52.22    50.2    67.4   74.77   76.18
546          UI   76.18   69.41   63.49   68.13   47.62   51.29   35.97    31.2   25.88   25.91
547          UI   17.01   14.65   12.06    11.2    8.36    8.28    6.51    5.15    5.15    5.15
548          UI    2.36    1.13    1.13    1.13    1.13    1.13    1.13    1.13    1.13    1.13
549          UI    1.13    1.13    1.13    1.13    1.13    1.13    1.13     0.0

550          KK    54-O
551          KO       0       0     0.0       0      22
552          DT   54ret    45.0     0.0
553          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
554          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
555          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
556          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

557          KK      H6   CNAME   H6-H7
558          KM   COMBINE ROUTED HYDROGRAPH FROM H5 WITH RUNOFF FROM 54 @ H6
559          KO       0       0     0.0       0      22
560          HC       2
1                                        HEC-1 INPUT                                                    PAGE 13

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

561          KK   H6-H7   CNAME      H6
562          KM   STORAGE ROUTE FROM H6 TO H7 THROUGH SPRR TRESTLE
563          KO       0       0     0.0       0      22
564          RS       1    ELEV   890.0     0.0
565          SV     0.0    0.45   30.43  148.25  336.08  336.08  336.08  336.08  336.08  336.08
566          SV  336.08  336.08  336.08  336.08  336.08  336.08  336.08  336.08  336.08  336.08
567          SE   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0
568          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
569          SQ     0.0   185.0   720.0  1025.0  1075.0  1150.0  1355.0  1800.0  1800.0  1800.0
570          SQ  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0  1800.0
571          SE   890.0  891.07  893.47  895.47  895.57  895.67  895.77  895.87  895.87  895.87
572          SE  895.87  895.87  895.87  895.87  895.87  895.87  895.87  895.87  895.87  895.87

573          KK      62
574          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
575          KM   L=0.98      Lca=0.49      S=21.54      Kn=0.200      LAG=122
576          KM   S-GRAPH TYPE=AGRICULTURE
577          KO       0       0     0.0       1      22
578          BA  0.5717
579          LG   0.101    0.25   4.203   0.421  79.778
580          UI     0.0   17.28   22.83   47.88   97.83  104.21  138.24  145.18  145.18  124.21
581          UI  130.72   91.16   89.45   63.88   49.84   45.53   30.22    24.7   20.76   15.78
582          UI   14.37    9.81    9.81    8.08    2.16    2.16    2.16    2.16    2.16    2.16
583          UI    2.16    2.16    2.16    2.16    2.16    2.16    2.16     0.0

584          KK    62-O
585          KO       0       0     0.0       0      22
586          DT   62ret    67.0     0.0
587          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
588          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
589          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
590          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

591          KK      H7
592          KM   COMBINE STORAGE HYDROGRAPH FROM H6 WITH RUNOFF FROM 62 @ H7
593          ZW   A=RBW B=H7 C=FLOW E=15MIN F=100Y24H-FUT
594          KO       0       0     0.0       0      22
595          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED I   ***********************************************
             * ***********************************************************************

596          KK    RIDI
597          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
598          BA  0.0001
599          ZR  =QI A=RID RID B=24399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-100-24F

600          KK  I2S-I3   CNAME     I2S
601          KM   ROUTE INFLOW FROM RID CONCENTRATED AT I2S TO I3 (CHANNEL A)
602          KO       0       0     0.0       0      22
603          RS       1    FLOW     0.0     0.0
604          RC     0.1     0.1     0.1 8174.00   0.005     0.0
605          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
606          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                        HEC-1 INPUT                                                    PAGE 14

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

607          KK      32
608          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
609          KM   L=1.84      Lca=0.92      S=24.34      Kn=0.200      LAG=192
610          KM   S-GRAPH TYPE=AGRICULTURE
611          KO       0       0     0.0       1      22
612          BA  0.8959
613          LG    0.25    0.25     4.0   0.457  34.049
614          UI     0.0   17.21   17.21   23.11   36.91   68.18   97.57   94.68  119.26  132.99
615          UI  144.55  144.55  144.55  139.73  120.46  127.21  121.42   90.35    99.1   77.05
616          UI   65.71   54.78    48.6    53.0   32.85   29.42   27.69   21.26   21.26    16.6
617          UI   15.71   15.71   10.39    9.77    9.77    9.77    8.55    2.15    2.15    2.15
618          UI    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15
619          UI    2.15    2.15    2.15    2.15    2.15    2.15    2.15    2.15     0.0

620          KK    32-O
```

```
 621          KO       0       0     0.0       0      22
 622          DT   32ret    62.0     0.0
 623          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 624          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 625          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 626          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 627          KK      I3   CNAME   I3-I4
 628          KM   COMBINE ROUTED HYDROGRAPH FROM I2S WITH RUNOFF FROM 32 @ I3
 629          KO       0       0     0.0       0      22
 630          HC       2

 631          KK   I3-I4   CNAME      I3
 632          KM   ROUTE HYDRPGRAPH FROM I3 TO I4 (CHANNEL B)
 633          KO       0       0     0.0       0      22
 634          RS      15    FLOW     0.0     0.0
 635          RC     0.1    0.02     0.110387.48   0.004     0.0
 636          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 637          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 638          KK      44
 639          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 640          KM   L=1.97     Lca=0.98     S=22.43     Kn=0.200     LAG=205
 641          KM   S-GRAPH TYPE=AGRICULTURE
 642          KO       0       0     0.0       1      22
 643          BA  1.0069
 644          LG    0.25    0.25   4.136   0.433    30.0
 645          UI     0.0   18.11   18.11    20.7   38.04    57.4    93.3  108.09  106.09  139.54
 646          UI  142.37  152.15  152.15  152.15   143.7   126.8  133.98  130.92    95.1  101.27
 647          UI   90.64   69.78   63.13   52.71   54.03   45.67    34.4   29.26   27.49   22.38
 648          UI   22.38   16.93   16.54   16.54   11.59   10.28   10.28   10.28   10.28     4.4
 649          UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
 650          UI    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26    2.26
 651          UI    2.26    2.26     0.0
1                                                HEC-1 INPUT                                          PAGE 15

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 652          KK    44-O
 653          KO       0       0     0.0       0      22
 654          DT   44ret    67.0     0.0
 655          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 656          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 657          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 658          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 659          KK      I4   CNAME   I4-I5
 660          KM   COMBINE ROUTED HYDROGRAPH FROM I3 WITH RUNOFF FROM 44 @ I4
 661          KO       0       0     0.0       0      22
 662          HC       2

 663          KK   I4-I5   CNAME      I4
 664          KM   ROUTE HYDRPGRAPH FROM I4 TO I5 (CHANNEL A)
 665          KO       0       0     0.0       0      22
 666          RS       5    FLOW     0.0     0.0
 667          RC     0.1     0.1     0.1 2589.37   0.003     0.0
 668          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 669          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 670          KK      55
 671          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 672          KM   L=0.97     Lca=0.48     S=12.83     Kn=0.200     LAG=133
 673          KM   S-GRAPH TYPE=AGRICULTURE
 674          KO       0       0     0.0       1      22
 675          BA  0.2627
 676          LG     0.1    0.25   4.128   0.426    80.0
 677          UI     0.0    7.29    8.39   17.86    34.8   41.96   53.41    61.2    61.2   59.84
 678          UI    51.0   54.32   38.38   38.38   27.91   21.37   21.37   13.58   11.77     9.0
 679          UI    7.84    6.65    5.51    4.14    4.14    3.58    0.91    0.91    0.91    0.91
 680          UI    0.91    0.91    0.91    0.91    0.91    0.91    0.91    0.91    0.91    0.91
 681          UI     0.0

 682          KK    55-O
 683          KO       0       0     0.0       0      22
 684          DT   55ret    31.0     0.0
 685          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 686          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 687          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 688          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 689          KK      I5   CNAME   I5-I6
 690          KM   COMBINE ROUTED HYDROGRAPH FROM I4 WITH RUNOFF FROM 55 @ I5
 691          KO       0       0     0.0       0      22
 692          HC       2

 693          KK   I5-I6   CNAME      I5
 694          KM   STORAGE ROUTE FROM I5 TO I6 THROUGH SPRR TRESTLE
 695          KO       0       0     0.0       0      22
 696          RS       1    ELEV   892.0     0.0
 697          SV     0.0     0.1    25.1  124.92  273.66  273.66  273.66  273.66  273.66  273.66
 698          SV  273.66  273.66  273.66  273.66  273.66  273.66  273.66  273.66  273.66  273.66
 699          SE   892.0   894.0   896.0   898.0   900.0   900.0   900.0   900.0   900.0   900.0
1                                                HEC-1 INPUT                                          PAGE 16

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 700          SE   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0   900.0
 701          SQ     0.0    60.0   150.0   221.0   400.0   830.0  1134.0  1488.0  1892.0  1892.0
 702          SQ  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0  1892.0
 703          SE   892.0  894.08  895.18  895.88  896.08  896.28  896.38  896.48  896.58  896.58
 704          SE  896.58  896.58  896.58  896.58  896.58  896.58  896.58  896.58  896.58  896.58

 705          KK      63
 706          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 707          KM   L=0.95     Lca=0.47     S=20.27     Kn=0.200     LAG=120
 708          KM   S-GRAPH TYPE=AGRICULTURE
 709          KO       0       0     0.0       1      22
 710          BA  0.4394
 711          LG     0.1    0.25   4.192   0.389    80.0
 712          UI     0.0   15.35   20.75   44.48   87.02   96.69  122.47  128.92  128.92  107.43
 713          UI  111.73   82.37   73.51   54.08   44.91   35.79   25.69   20.36   16.98   14.01
 714          UI   11.04    8.71    8.71    4.64    1.92    1.92    1.92    1.92    1.92    1.92
 715          UI    1.92    1.92    1.92    1.92    1.92    1.92     0.0
```

```
716          KK    63-O
717          KO       0       0     0.0       0      22
718          DT   63ret    50.0     0.0
719          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
720          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
721          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
722          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

723          KK      I6
724          KM   COMBINE STORAGE HYDROGRAPH FROM I5 WITH RUNOFF FROM 63 @ I6
725          ZW   A=RBW B=I6 C=FLOW E=15MIN F=100Y24H-FUT
726          KO       0       0     0.0       0      22
727          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED J   ***********************************************
             * ***********************************************************************

728          KK    RIDJ
729          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
730          BA  0.0001
731          2R  =QI A=RID RID B=27599 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=RID-100-24F

732          KK  J3S-J4   CNAME     J3S
733          KM   ROUTE INFLOW FROM RID CONCENTRATED AT J3S TO J4 (CHANNEL A)
734          KO       0       0     0.0       0      22
735          RS       1    FLOW     0.0     0.0
736          RC     0.1     0.1     0.1 8056.46   0.007     0.0
737          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
738          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

739          KK      33
740          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
741          KM   L=1.84     Lca=0.92     S=29.30     Kn=0.200     LAG=185
742          KM   S-GRAPH TYPE=AGRICULTURE
743          KO       0       0     0.0       1      22
744          BA  1.0024
745          LG   0.179    0.25   3.962   0.422  53.624
1                                   HEC-1 INPUT                                                    PAGE 17

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

746          UI     0.0   19.98   19.98   28.99   46.91   85.21  117.85  108.17   155.0  152.26
747          UI  167.85  167.85  167.85   149.2  139.88  152.37  115.61  108.99  103.55   77.29
748          UI    67.9   57.35   62.19   40.17   34.82   32.28   24.96   24.68    19.1   18.24
749          UI   18.04   11.34   11.34   11.34   11.34    7.21     2.5     2.5     2.5     2.5
750          UI     2.5     2.5     2.5     2.5     2.5     2.5     2.5     2.5     2.5     2.5
751          UI     2.5     2.5     2.5     2.5     2.5     2.5     0.0

752          KK    33-O
753          KO       0       0     0.0       0      22
754          DT   33ret    92.0     0.0
755          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
756          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
757          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
758          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

759          KK      J4   CNAME   J4-J5
760          KM   COMBINE ROUTED HYDROGRAPH FROM J3S WITH RUNOFF FROM 33 @ J4
761          KO       0       0     0.0       0      22
762          HC       2

763          KK   J4-J5   CNAME      J4
764          KM   ROUTE HYDRPGRAPH FROM J4 TO J5 (CHANNEL A)
765          KO       0       0     0.0       0      22
766          RS       7    FLOW     0.0     0.0
767          RC     0.1     0.1     0.1 5307.06   0.008     0.0
768          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
769          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

770          KK     45A
771          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
772          KM   L=1.97     Lca=0.99     S=25.14     Kn=0.200     LAG=201
773          KM   S-GRAPH TYPE=AGRICULTURE
774          KO       0       0     0.0       1      22
775          BA  1.0027
776          LG   0.181    0.25   3.993   0.422  52.917
777          UI     0.0    18.4    18.4   22.16   38.63   61.78   96.59  109.53  112.56  138.24
778          UI  152.55  154.54  154.54  154.54  139.08  128.78  137.41  120.73   96.59  109.05
779          UI   76.17   70.24   57.78   51.92   58.19   35.12    32.2   29.72   24.14   22.73
780          UI   19.64    16.8    16.8   14.01   10.44   10.44   10.44   10.44    6.53     2.3
781          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
782          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
783          UI     2.3

784          KK   45A-O
785          KO       0       0     0.0       0      22
786          DT  45Aret    94.0     0.0
787          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
788          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
789          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
790          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
1                                   HEC-1 INPUT                                                    PAGE 18

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

791          KK     J5A   CNAME  J5A-5B
792          KM   COMBINE ROUTED HYDROGRAPH FROM J4 WITH RUNOFF FROM 45A @ J5A
793          KO       0       0     0.0       0      22
794          HC       2

795          KK  J5A-5B   CNAME     J5A
796          KM   ROUTE HYDRPGRAPH FROM J5A TO J5B (CHANNEL A)
797          KO       0       0     0.0       0      22
798          RS       6    FLOW     0.0     0.0
799          RC     0.1     0.1     0.1 2736.25   0.001     0.0
800          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
801          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

802          KK     45B
803          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
804          KM   L=0.52     Lca=0.26     S=8.59     Kn=0.200     LAG=89
805          KM   S-GRAPH TYPE=AGRICULTURE
```

```
806          KO       0       0     0.0       1      22
807          BA  0.1397
808          LG     0.1    0.25   3.969   0.413    80.0
809          UI     0.0    5.79    11.9   30.23    38.5   48.58   48.11   41.75   34.63    28.1
810          UI   18.91   15.22    9.82    7.25    5.39    4.12    3.29     2.3    0.72    0.72
811          UI    0.72    0.72    0.72    0.72    0.72    0.72    0.72     0.0

812          KK   45B-O
813          KO       0       0     0.0       0      22
814          DT  45Brot    13.0     0.0
815          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
816          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
817          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
818          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

819          KK     J5B   CNAME  J5B-J6
820          KM   COMBINE ROUTED HYDROGRAPH FROM J5A WITH RUNOFF FROM 45B @ J5B
821          KO       0       0     0.0       0      22
822          HC       2

823          KK  J5B-J6   CNAME     J5B
824          KM   STORAGE ROUTE FROM J5B TO J6 THROUGH SPRR TRESTLE
825          KO       0       0     0.0       0      22
826          RS       1    ELEV   892.0     0.0
827          SV     0.0   20.33   91.45  223.99  223.99  223.99  223.99  223.99  223.99  223.99
828          SV  223.99  223.99  223.99  223.99  223.99  223.99  223.99  223.99  223.99  223.99
829          SE   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
830          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
831          SQ     0.0   150.0   230.0   308.0   825.0  1144.0  1970.0  1970.0  1970.0  1970.0
832          SQ  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0  1970.0
833          SE   892.0  893.68  895.08  895.48  895.68  895.88  896.08  896.08  896.08  896.08
834          SE  896.08  896.08  896.08  896.08  896.08  896.08  896.08  896.08  896.08  896.08
1                                                HEC-1 INPUT                                          PAGE 19

        LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


835          KK      64
836          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
837          KM   L=0.89     Lca=0.45     S=17.94     Kn=0.200     LAG=117
838          KM   S-GRAPH TYPE=AGRICULTURE
839          KO       0       0     0.0       1      22
840          BA  0.4148
841          LG   0.101    0.25   4.357   0.417  79.714
842          UI     0.0   13.07   18.28   40.72   73.99   90.13  101.51  109.82  106.16   92.07
843          UI   88.82   73.07   54.21   42.35   39.02   24.27    20.3   16.15   12.61   11.73
844          UI    7.42    7.42    6.49    1.63    1.63    1.63    1.63    1.63    1.63    1.63
845          UI    1.63    1.63    1.63    1.63    1.63     0.0

846          KK    64-O
847          KO       0       0     0.0       0      22
848          DT   64ret    49.0     0.0
849          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
850          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
851          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
852          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

853          KK      J6
854          KM   COMBINE STORAGE HYDROGRAPH FROM J5B WITH RUNOFF FROM 64 @ J6
855          ZW   A=RBW B=J6 C=FLOW E=15MIN F=100Y24H-FUT
856          KO       0       0     0.0       0      22
857          HC       2
858          ZZ
1
                                          RUNOFF SUMMARY
                                   FLOW IN CUBIC FEET PER SECOND
                                  TIME IN HOURS,  AREA IN SQUARE MILES

                                   PEAK    TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
        OPERATION        STATION   FLOW     PEAK                                           AREA      STAGE     MAX STAGE
+                                                        6-HOUR     24-HOUR     72-HOUR

HYDROGRAPH AT
+                           68     638.    12.50          97.         32.         11.      0.41

        DIVERSION TO
+                        68ret     454.    12.25          49.         15.          5.      0.41

        HYDROGRAPH AT
+                         68-O     519.    12.50          62.         18.          6.      0.41

        ROUTED TO
+                         E1-E2    356.    12.75          62.         18.          6.      0.41

        HYDROGRAPH AT
+                           59     159.    12.75          35.         10.          3.      0.25

        2 COMBINED AT
+                           E2     511.    12.75          94.         27.          9.      0.66

        HYDROGRAPH AT
+                         RIDF     286.    14.00         180.         46.         15.      0.00

        ROUTED TO
+                        F1S-F2    231.    15.75         164.         46.         15.      0.00

        HYDROGRAPH AT
+                           27     126.    13.75          62.         22.          7.      0.24

        DIVERSION TO
+                        27ret     126.    13.75          47.         14.          5.      0.24

        HYDROGRAPH AT
+                         27-O      74.    15.00          27.          9.          3.      0.24

        2 COMBINED AT
+                           F2     284.    15.50         191.         54.         18.      0.24

        ROUTED TO
+                        F2-F3     279.    16.50         185.         54.         18.      0.24

        HYDROGRAPH AT
+                           29     396.    14.50         247.         89.         30.      1.00
```

+	DIVERSION TO	29ret	396.	14.50	208.	61.	20.	1.00
+	HYDROGRAPH AT	29-O	202.	16.50	92.	30.	10.	1.00
+	2 COMBINED AT	F3	479.	16.50	274.	84.	28.	1.24
+	ROUTED TO	F3-F4	423.	17.75	263.	84.	28.	1.24
+	HYDROGRAPH AT	41	467.	14.50	296.	108.	36.	1.20
+	DIVERSION TO	41ret	467.	14.50	241.	71.	24.	1.20
+	HYDROGRAPH AT	41-O	281.	16.25	120.	39.	13.	1.20
+	2 COMBINED AT	F4	565.	17.75	361.	121.	40.	2.44
+	ROUTED TO	F4-F5B	541.	18.50	355.	121.	40.	2.44
+	HYDROGRAPH AT	52B	324.	13.25	130.	45.	15.	0.50
+	DIVERSION TO	52Bret	324.	13.25	99.	29.	10.	0.50
+	HYDROGRAPH AT	52B-O	163.	14.25	52.	17.	6.	0.50
+	2 COMBINED AT	F5B	562.	18.50	373.	137.	46.	2.94
+	ROUTED TO	5B-F6B	570.	18.50	373.	137.	46.	2.94
+	HYDROGRAPH AT	60B	266.	13.50	121.	41.	14.	0.57
+	DIVERSION TO	60Bret	266.	13.50	94.	27.	9.	0.57
+	HYDROGRAPH AT	60B-O	133.	15.00	46.	14.	5.	0.57
+	2 COMBINED AT	F6B	591.	18.50	390.	150.	50.	3.51
+	HYDROGRAPH AT	52A	130.	14.25	79.	28.	10.	0.31
+	DIVERSION TO	52Aret	130.	14.25	65.	19.	6.	0.31
+	HYDROGRAPH AT	52A-O	68.	16.25	30.	10.	3.	0.31
+	ROUTED TO	5A-F6A	67.	16.25	30.	10.	3.	0.31
+	HYDROGRAPH AT	60A	174.	13.75	83.	28.	9.	0.41
+	DIVERSION TO	60Aret	174.	13.75	62.	18.	6.	0.41
+	HYDROGRAPH AT	60A-O	100.	15.00	34.	10.	3.	0.41
+	2 COMBINED AT	F6A	108.	16.25	60.	19.	6.	0.72
+	HYDROGRAPH AT	RIDG	553.	14.25	185.	46.	15.	0.00
+	ROUTED TO	G3S-G4	333.	15.25	171.	46.	15.	0.00
+	HYDROGRAPH AT	28	158.	14.00	86.	30.	10.	0.33
+	DIVERSION TO	28ret	158.	14.00	67.	20.	7.	0.33
+	HYDROGRAPH AT	28-O	89.	15.50	35.	11.	4.	0.33
+	2 COMBINED AT	G4	419.	15.50	203.	57.	19.	0.33
+	ROUTED TO	G4-G5	378.	17.25	192.	57.	19.	0.33
+	HYDROGRAPH AT	30	375.	14.50	241.	88.	30.	0.98
+	DIVERSION TO	30ret	375.	14.50	193.	56.	19.	0.98
+	HYDROGRAPH AT	30-O	244.	16.25	103.	33.	11.	0.98
+	2 COMBINED AT	G5	540.	17.00	291.	90.	30.	1.32
+	ROUTED TO	G5-G6	501.	18.25	279.	90.	30.	1.32

```
+       HYDROGRAPH AT
                  42      298.  14.50      191.      70.      24.     0.78
+       DIVERSION TO
               42ret      298.  14.50      157.      46.      15.     0.78
+       HYDROGRAPH AT
                42-O      177.  16.25       78.      25.       8.     0.78
+       2 COMBINED AT
                  G6      580.  18.25      332.     114.      38.     2.10
+       ROUTED TO
               G6-G7      565.  18.75      332.     114.      38.     2.10
+       HYDROGRAPH AT
                  53      179.  13.75       88.      31.      10.     0.34
+       DIVERSION TO
               53ret      179.  13.75       68.      20.       7.     0.34
+       HYDROGRAPH AT
                53-O      102.  15.00       37.      11.       4.     0.34
+       2 COMBINED AT
                  G7      582.  18.75      346.     124.      42.     2.43
+       ROUTED TO
               G7-G8      584.  18.75      346.     124.      42.     2.43
+       HYDROGRAPH AT
                  61      239.  13.75      114.      38.      13.     0.51
+       DIVERSION TO
               61ret      239.  13.75       83.      24.       8.     0.51
+       HYDROGRAPH AT
                61-O      164.  14.75       49.      15.       5.     0.51
+       2 COMBINED AT
                  G8      604.  18.75      363.     139.      46.     2.94
+       HYDROGRAPH AT
                RIDH      280.  15.00      127.      32.      11.     0.00
+       ROUTED TO
               H3S-H4     121.  16.50       88.      31.      11.     0.00
+       HYDROGRAPH AT
                  31      305.  15.00      205.      73.      25.     1.08
+       DIVERSION TO
               31ret      305.  15.00      170.      48.      16.     1.08
+       HYDROGRAPH AT
                31-O      203.  16.75       81.      26.       9.     1.08
+       2 COMBINED AT
                  H4      323.  16.75      163.      57.      19.     1.08
+       ROUTED TO
               H4-H5      274.  18.00      160.      57.      19.     1.08
+       HYDROGRAPH AT
                  43      293.  15.00      204.      74.      25.     1.00
+       DIVERSION TO
               43ret      293.  15.00      171.      49.      16.     1.00
+       HYDROGRAPH AT
                43-O      188.  17.00       82.      26.       9.     1.00
+       2 COMBINED AT
                  H5      403.  17.75      238.      82.      28.     2.08
+       ROUTED TO
               H5-H6      394.  18.25      233.      82.      28.     2.08
+       HYDROGRAPH AT
                  54      159.  14.25       97.      35.      12.     0.39
+       DIVERSION TO
               54ret      159.  14.25       78.      23.       8.     0.39
+       HYDROGRAPH AT
                54-O       95.  16.00       40.      13.       4.     0.39
+       2 COMBINED AT
                  H6      429.  18.25      255.      94.      32.     2.47
+       ROUTED TO
               H6-H7      410.  18.50      256.      94.      32.     2.47
+       HYDROGRAPH AT
                  62      286.  13.75      147.      52.      17.     0.57
+       DIVERSION TO
               62ret      286.  13.75      116.      34.      11.     0.57
+       HYDROGRAPH AT
                62-O      160.  15.25       59.      18.       6.     0.57
+       2 COMBINED AT
                  H7      441.  18.50      282.     111.      37.     3.04
+       HYDROGRAPH AT
                RIDI        0.   0.00        0.       0.       0.     0.00
+       ROUTED TO
               I2S-I3       0.   0.00        0.       0.       0.     0.00
+       HYDROGRAPH AT
                  32      222.  14.75      145.      49.      16.     0.90
```

+ DIVERSION TO	32ret	222.	14.75	112.	31.	10.	0.90
+ HYDROGRAPH AT	32-O	156.	16.50	60.	18.	6.	0.90
+ 2 COMBINED AT	I3	156.	16.50	60.	18.	6.	0.90
+ ROUTED TO	I3-I4	76.	21.00	51.	18.	6.	0.90
+ HYDROGRAPH AT	44	229.	15.00	154.	52.	18.	1.01
+ DIVERSION TO	44ret	229.	15.00	122.	34.	11.	1.01
+ HYDROGRAPH AT	44-O	160.	16.75	62.	19.	6.	1.01
+ 2 COMBINED AT	I4	159.	16.75	93.	36.	12.	1.90
+ ROUTED TO	I4-I5	112.	18.00	88.	36.	12.	1.90
+ HYDROGRAPH AT	55	124.	14.00	68.	24.	8.	0.26
+ DIVERSION TO	55ret	124.	14.00	54.	16.	5.	0.26
+ HYDROGRAPH AT	55-O	71.	15.50	27.	9.	3.	0.26
+ 2 COMBINED AT	I5	133.	18.00	100.	44.	15.	2.17
+ ROUTED TO	I5-I6	99.	22.50	92.	44.	15.	2.17
+ HYDROGRAPH AT	63	255.	13.75	130.	45.	15.	0.50
+ DIVERSION TO	63ret	255.	13.75	86.	25.	8.	0.50
+ HYDROGRAPH AT	63-O	187.	14.75	67.	21.	7.	0.50
+ 2 COMBINED AT	I6	184.	14.75	122.	64.	21.	2.66
+ HYDROGRAPH AT	RIDJ	164.	14.00	37.	9.	3.	0.00
+ ROUTED TO	J3S-J4	52.	15.00	29.	9.	3.	0.00
+ HYDROGRAPH AT	33	305.	14.75	199.	70.	24.	1.00
+ DIVERSION TO	33ret	305.	14.75	162.	46.	15.	1.00
+ HYDROGRAPH AT	33-O	195.	16.50	78.	25.	8.	1.00
+ 2 COMBINED AT	J4	227.	16.50	97.	34.	11.	1.00
+ ROUTED TO	J4-J5	171.	18.00	96.	34.	11.	1.00
+ HYDROGRAPH AT	45A	283.	15.00	194.	70.	24.	1.00
+ DIVERSION TO	45Aret	283.	15.00	165.	47.	16.	1.00
+ HYDROGRAPH AT	45A-O	156.	17.00	73.	23.	8.	1.00
+ 2 COMBINED AT	J5A	291.	18.00	166.	56.	19.	2.01
+ ROUTED TO	J5A-5B	256.	19.00	159.	56.	19.	2.01
+ HYDROGRAPH AT	45B	90.	13.25	37.	13.	4.	0.14
+ DIVERSION TO	45Bret	90.	13.25	22.	7.	2.	0.14
+ HYDROGRAPH AT	45B-O	70.	14.00	21.	6.	2.	0.14
+ 2 COMBINED AT	J5B	262.	19.00	164.	62.	21.	2.14
+ ROUTED TO	J5B-J6	173.	20.75	149.	62.	21.	2.14
+ HYDROGRAPH AT	64	214.	13.75	107.	38.	13.	0.41
+ DIVERSION TO	64ret	214.	13.75	85.	25.	8.	0.41
+ HYDROGRAPH AT	64-O	112.	15.25	42.	13.	4.	0.41

```
          2 COMBINED AT
+                          J6       190.   20.25         163.         74.         25.       2.56

 *** NORMAL END OF HEC-1 ***

1*************************************                                                  *************************************
 *                                   *                                                  *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                                              *    U.S. ARMY CORPS OF ENGINEERS     *
 *              JUN   1998           *                                                  *    HYDROLOGIC ENGINEERING CENTER    *
 *            VERSION 4.1            *                                                  *          609 SECOND STREET          *
 *                                   *                                                  *       DAVIS, CALIFORNIA 95616       *
 *  RUN DATE   23MAR06  TIME  04:55:58   *                                              *          (916) 756-1104           *
 *                                   *                                                  *                                   *
 *************************************                                                  *************************************

                                                  X     X  XXXXXXX   XXXXX           X
                                                  X     X  X        X     X         XX
                                                  X     X  X        X               X
                                                  XXXXXXX  XXXX     X        XXXXX  X
                                                  X     X  X        X               X
                                                  X     X  X        X     X         X
                                                  X     X  XXXXXXX   XXXXX         XXX

        THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

        THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
        THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
        NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
        DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
        KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                          PAGE  1

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          1           ID   Buckeye/Sun Valley ADMS - November 2004
          2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
          3           ID   100-year 24-hour
          4           ID   Future Conditions
          5           ID   Area 1 - RID to BIC (East)
          6           ID   File Name: rbe10024fut.hc1
          7           ID   Rainfall Loss Method - Green & Ampt
          8           ID   Unit Hydrograph Method - FCDMC S-Graph
          9           ID   Channel Routing Method - Normal Depth
         10           ID   Land Use - FCDMC GIS Data: mag_genplan (2000)
         11           ID   Future Land Use Build Our Date: 2025
         12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
         13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                      *DIAGRAM
         14           IT      15 02JAN94       0      400
         15           IO       3
         16           IN      15 02JAN94       0
         17           JD     4.1    0.01
                      * 24-hour distribution
         18           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
         19           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
         20           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
         21           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
         22           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
         23           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
         24           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
         25           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
         26           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
         27           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
         28           IN      15 02JAN94       0
         29           JD   3.895    10.0
                      * 24-hour distribution
         30           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
         31           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
         32           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
         33           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
         34           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
         35           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
         36           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
         37           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
         38           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
         39           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
         40           IN      15 02JAN94       0
         41           JD   3.764    20.0
                      * 24-hour distribution
         42           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
         43           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
         44           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
         45           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
         46           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
         47           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
         48           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
         49           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
         50           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
         51           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
                      * ***********************************************************************************
                      * **   SUB-WATERSHED K   ************************************************************
                      * ***********************************************************************************
1                                                   HEC-1 INPUT                                                          PAGE  2

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

         52           KK   RIDKB
         53           KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
         54           BA  0.0001
         55           ZR  =QI A=RID RID B=38999 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-100-24F

         56           KK  K3SBK4   CNAME    K3SB
         57           KM   ROUTE INFLOW FROM RID CONCENTRATED AT K3SB TO K4 (CHANNEL A)
```

```
 58          KO       0       0     0.0       0      22
 59          RS       1    FLOW     0.0     0.0
 60          RC     0.1     0.1     0.1 3026.00  0.0090     0.0
 61          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 62          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 63          KK   RIDKA
 64          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 65          BA  0.0001
 66          ZR  =QI A=RID RID B=35599 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-100-24F

 67          KK  K3SAK4   CNAME    K3SA
 68          KM   ROUTE INFLOW FROM RID CONCENTRATED AT K3SA TO K4 (CHANNEL A)
 69          KO       0       0     0.0       0      22
 70          RS       1    FLOW     0.0     0.0
 71          RC     0.1     0.1     0.1 4868.00  0.0049     0.0
 72          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 73          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 74          KK      34
 75          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 76          KM   L=1.23     Lca=0.62     S=19.48     Kn=0.200     LAG=148
 77          KM   S-GRAPH TYPE=AGRICULTURE
 78          KO       0       0     0.0       1      22
 79          BA  0.6373
 80          LG   0.266    0.25   3.994    0.46  26.762
 81          UI     0.0   15.88   15.88   32.09   63.99    91.6   96.57  124.21   133.4   133.4
 82          UI  130.44  111.17  119.11   90.18   91.45   64.03    55.3   45.36   44.06   29.14
 83          UI   25.65    19.8   18.12    14.5   14.37    9.01    9.01    9.01    6.39    1.99
 84          UI    1.99    1.99    1.99    1.99    1.99    1.99    1.99    1.99    1.99    1.99
 85          UI    1.99    1.99    1.99    1.99    1.99     0.0

 86          KK    34-O
 87          KO       0       0     0.0       0      22
 88          DT   34ret    40.0     0.0
 89          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 90          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 91          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 92          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 93          KK      K4   CNAME   K4-K5
 94          KM   COMBINE ROUTED HYDROGRAPH FROM K3SA AND K3SB WITH RUNOFF FROM 34 @ K4
 95          KO       0       0     0.0       0      22
 96          HC       3
1                                          HEC-1 INPUT                                                    PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 97          KK   K4-K5   CNAME      K4
 98          KM   ROUTE HYDRPGRAPH FROM K4 TO K5 (CHANNEL B)
 99          KO       0       0     0.0       0      22
100          RS       7    FLOW     0.0     0.0
101          RC     0.1    0.02     0.1 5283.85   0.008     0.0
102          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
103          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

104          KK      35
105          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
106          KM   L=1.96     Lca=0.98     S=33.61     Kn=0.200     LAG=190
107          KM   S-GRAPH TYPE=AGRICULTURE
108          KO       0       0     0.0       1      22
109          BA  1.5042
110          LG   0.197    0.25   3.978   0.449  52.272
111          UI     0.0    29.2    29.2   40.11   64.31  118.19   168.6  157.36  214.59  220.72
112          UI  245.24  245.24  245.24  231.62  204.37  217.31  195.85  153.28  172.28  118.39
113          UI  111.47   87.32   83.63   81.72   55.74   47.73   43.98   36.07   34.81   26.66
114          UI   26.66   24.44   16.57   16.57   16.57   16.57    9.68    3.65    3.65    3.65
115          UI    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65    3.65
116          UI    3.65    3.65    3.65    3.65    3.65    3.65    3.65     0.0

117          KK    35-O
118          KO       0       0     0.0       0      22
119          DT   35ret   128.0     0.0
120          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
121          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
122          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
123          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

124          KK      K5   CNAME   K5-K6
125          KM   COMBINE ROUTED HYDROGRAPH FROM K4 WITH RUNOFF FROM 35 @ K5
126          KO       0       0     0.0       0      22
127          HC       2

128          KK   K5-K6   CNAME      K5
129          KM   ROUTE HYDRPGRAPH FROM K5 TO K6 (CHANNEL B)
130          KO       0       0     0.0       0      22
131          RS       7    FLOW     0.0     0.0
132          RC     0.1    0.02     0.1 6533.09   0.006     0.0
133          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
134          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

135          KK      46
136          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
137          KM   L=1.79     Lca=0.89     S=25.18     Kn=0.200     LAG=186
138          KM   S-GRAPH TYPE=AGRICULTURE
139          KO       0       0     0.0       1      22
140          BA  1.3812
141          LG   0.191    0.25   4.186   0.431  49.223
142          UI     0.0   27.39   27.39   39.31   63.49  115.59   161.6  146.46  213.71  205.72
143          UI  230.03  230.03  230.03  207.03   191.7   205.8  165.51  147.93  146.17  106.95
144          UI   95.42    79.2   83.87   59.37   48.74   44.24   35.62   33.83   27.47    25.0
145          UI    25.0   16.79   15.54   15.54   15.54   12.15    3.42    3.42    3.42    3.42
1                                          HEC-1 INPUT                                                    PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

146          UI    3.42    3.42    3.42    3.42    3.42    3.42    3.42    3.42    3.42    3.42
147          UI    3.42    3.42    3.42    3.42    3.42    3.42     0.0

148          KK    46-O
149          KO       0       0     0.0       0      22
150          DT   46ret   115.0     0.0
151          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
```

```
152          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
153          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
154          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

155          KK      K6   CNAME   K6-K7
156          KM   COMBINE ROUTED HYDROGRAPH FROM K5 WITH RUNOFF FROM 46 @ K6
157          KO       0       0     0.0       0      22
158          HC       2

159          KK   K6-K7   CNAME      K6
160          KM   STORAGE ROUTE FROM K6 TO K7 THROUGH SPRR TRESTLE
161          KO       0       0     0.0       0      22
162          RS       1    ELEV   890.0     0.0
163          SV     0.0    0.43   43.48  173.62  410.02  410.02  410.02  410.02  410.02  410.02
164          SV  410.02  410.02  410.02  410.02  410.02  410.02  410.02  410.02  410.02  410.02
165          SE   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0
166          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
167          SQ     0.0   200.0   975.0  1120.0  1555.0  1565.0  1610.0  2150.0  2150.0  2150.0
168          SQ  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0  2150.0
169          SE   890.0  891.09  893.09  893.69  894.89  894.99  895.09  895.29  895.29  895.29
170          SE  895.29  895.29  895.29  895.29  895.29  895.29  895.29  895.29  895.29  895.29

171          KK      65
172          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
173          KM   L=0.82     Lca=0.41     S=10.93     Kn=0.200     LAG=121
174          KM   S-GRAPH TYPE=AGRICULTURE
175          KO       0       0     0.0       1      22
176          BA  0.3756
177          LG     0.1    0.25   4.712   0.374    80.0
178          UI     0.0   11.45    15.3   32.35   64.94   69.77   92.26   96.16   96.16    81.2
179          UI   85.03   60.83   57.04   41.32   33.18    28.5   19.59   15.77   13.21   10.45
180          UI    8.88     6.5     6.5     4.4    1.43    1.43    1.43    1.43    1.43    1.43
181          UI    1.43    1.43    1.43    1.43    1.43    1.43    1.43     0.0

182          KK    65-O
183          KO       0       0     0.0       0      22
184          DT   65ret    42.0     0.0
185          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
186          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
187          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
188          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

189          KK      K7
190          KM   COMBINE STORAGE HYDROGRAPH FROM K6 WITH RUNOFF FROM 65 @ K7
191          ZW   A=RBE B=K7 C=FLOW E=15MIN F=100y24h-fut
192          KO       0       0     0.0       0      22
193          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED L   ***********************************************
             * ***********************************************************************
1                                          HEC-1 INPUT                                          PAGE  5

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

194          KK    RIDL
195          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
196          BA  0.0001
197          ZR  =QI A=RID RID B=41599 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-100-24F

198          KK  L2S-L3   CNAME     L2S
199          KM   ROUTE INFLOW FROM RID CONCENTRATED AT L2S TO L3 (CHANNEL B)
200          KO       0       0     0.0       0      22
201          RS       1    FLOW     0.0     0.0
202          RC     0.1    0.02     0.1 7457.00   0.009     0.0
203          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
204          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

205          KK      36
206          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
207          KM   L=1.85     Lca=0.93     S=36.67     Kn=0.200     LAG=178
208          KM   S-GRAPH TYPE=AGRICULTURE
209          KO       0       0     0.0       1      22
210          BA  0.6838
211          LG   0.251    0.25   3.967   0.427  36.844
212          UI     0.0   14.17   14.17   22.08   36.12   64.69    83.2   83.17  105.19  118.66
213          UI   119.0   119.0  116.36   99.17  105.05   95.04   74.38   80.98   56.49   51.19
214          UI   41.31    42.9   31.56   25.16   22.88   17.98    17.5   13.42   12.93   12.13
215          UI    8.04    8.04    8.04    8.04    3.19    1.77    1.77    1.77    1.77    1.77
216          UI    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77
217          UI    1.77    1.77    1.77    1.77     0.0

218          KK    36-O
219          KO       0       0     0.0       0      22
220          DT   36ret    48.0     0.0
221          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
222          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
223          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
224          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

225          KK      L3   CNAME   L3-L4
226          KM   COMBINE ROUTED HYDROGRAPH FROM L2S WITH RUNOFF FROM 36 @ L3
227          KO       0       0     0.0       0      22
228          HC       2

229          KK   L3-L4   CNAME      L3
230          KM   ROUTE HYDROGRAPH FROM L3 TO L4 (CHANNEL B)
231          KO       0       0     0.0       0      22
232          RS      11    FLOW     0.0     0.0
233          RC     0.1    0.02     0.1 7726.73   0.005     0.0
234          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
235          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

236          KK      47
237          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
238          KM   L=1.46     Lca=0.73     S=24.60     Kn=0.200     LAG=161
239          KM   S-GRAPH TYPE=AGRICULTURE
240          KO       0       0     0.0       1      22
241          BA  0.6169
1                                          HEC-1 INPUT                                          PAGE  6

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

242          LG   0.235    0.25   4.499   0.387  34.953
```

```
243          UI     0.0   14.13   14.13   25.73   43.69   78.39   77.95  107.42  110.39   118.7
244          UI   118.7  113.43   98.92  105.54   83.18   78.99   64.89   53.48   41.57   42.52
245          UI   30.95   24.46   21.69   17.46    15.7    12.9    12.9    8.42    8.02    8.02
246          UI    8.02     2.1    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77
247          UI    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77    1.77     0.0

248          KK    47-O
249          KO       0       0     0.0       0      22
250          DT   47ret    45.0     0.0
251          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
252          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
253          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
254          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

255          KK      L4   CNAME   L4-L5
256          KM   COMBINE ROUTED HYDROGRAPH FROM L3 WITH RUNOFF FROM 47 @ L4
257          KO       0       0     0.0       0      22
258          HC       2

259          KK   L4-L5   CNAME      L4
260          KM   STORAGE ROUTE FROM L4 TO L5 THROUGH SPRR TRESTLE
261          KO       0       0     0.0       0      22
262          RS       1    ELEV  886.29     0.0
263          SV     0.0     0.9     4.0    25.7   107.8  265.67  265.67  265.67  265.67  265.67
264          SV  265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67  265.67
265          SE   886.0   888.0   890.0   892.0   894.0   896.0   896.0   896.0   896.0   896.0
266          SE   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0
267          SQ     0.0    59.0   172.0   230.0   323.0   480.0   769.0  1218.0  1828.0  1828.0
268          SQ  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0  1828.0
269          SE  886.29  888.09  890.09  890.99  891.79  891.99  892.19  892.39  892.59  892.59
270          SE  892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59  892.59

271          KK      66
272          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
273          KM   L=0.73     Lca=0.36     S=19.24     Kn=0.200     LAG=99
274          KM   S-GRAPH TYPE=AGRICULTURE
275          KO       0       0     0.0       1      22
276          BA  0.2941
277          LG   0.101    0.25   4.471   0.367  79.734
278          UI     0.0   10.96   18.36   48.91   66.57   87.58   92.03   85.89   79.94   62.17
279          UI   52.27   36.46   30.89   19.44   15.19   11.84    10.0    6.36    6.22     3.7
280          UI    1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37    1.37
281          UI     0.0

282          KK    66-O
283          KO       0       0     0.0       0      22
284          DT   66ret    31.0     0.0
285          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
286          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
287          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
288          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
1                                          HEC-1 INPUT                                          PAGE  7

       LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

289          KK      L5
290          KM   COMBINE STORAGE HYDROGRAPH FROM L4 WITH RUNOFF FROM 66 @ L5
291          ZW   A=RBE B=L5 C=FLOW E=15MIN F=100y24h-fut
292          KO       0       0     0.0       0      22
293          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED M   ***********************************************
             * ***********************************************************************

294          KK    RIDM
295          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
296          BA  0.0001
297          ZR  =QI A=RID RID B=47199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-100-24F

298          KK  L2S2M1   CNAME    L2S2
299          KM   ROUTE INFLOW FROM RID CONCENTRATED AT L2S2 TO M1 (CHANNEL A)
300          KO       0       0     0.0       0      22
301          RS       1    FLOW     0.0     0.0
302          RC     0.1     0.1     0.1 9579.00  0.0030     0.0
303          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
304          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

305          KK      37
306          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
307          KM   L=2.36     Lca=1.18     S=30.11     Kn=0.200     LAG=222
308          KM   S-GRAPH TYPE=AGRICULTURE
309          KO       0       0     0.0       1      22
310          BA  1.4211
311          LG   0.248    0.25    4.12   0.419  41.529
312          UI     0.0   23.61   23.61   23.61   46.77   63.19  104.27  137.98  128.23  153.35
313          UI  177.81   198.3   198.3   198.3   198.3  191.69  165.25  165.25  182.96  139.11
314          UI  124.21  141.65    97.7   90.14   78.24   68.08   70.88   60.42   45.07   38.97
315          UI   38.13   29.56   29.16   25.81   21.55   21.55   21.26    13.4    13.4    13.4
316          UI    13.4    13.4    7.55    2.95    2.95    2.95    2.95    2.95    2.95    2.95
317          UI    2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95    2.95
318          UI    2.95    2.95    2.95    2.95    2.95    2.95    2.95     0.0

319          KK    37-O
320          KO       0       0     0.0       0      22
321          DT   37ret   110.0     0.0
322          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
323          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
324          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
325          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

326          KK      M1   CNAME   M1-M2
327          KM   COMBINE ROUTED HYDROGRAPH FROM L2S2 WITH RUNOFF FROM 37 @ M1
328          KO       0       0     0.0       0      22
329          HC       2
1                                          HEC-1 INPUT                                          PAGE  8

       LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

330          KK   M1-M2   CNAME      M1
331          KM   ROUTE HYDROGRAPH FROM M1 TO M2 (CHANNEL A)
332          KO       0       0     0.0       0      22
333          RS      10    FLOW     0.0     0.0
```

```
 334          RC     0.1     0.1     0.1  5783.5   0.003     0.0
 335          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 336          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 337          KK      48
 338          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 339          KM   L=1.10      Lca=0.55      S=16.43      Kn=0.200      LAG=139
 340          KM   S-GRAPH TYPE=AGRICULTURE
 341          KO       0       0     0.0       1      22
 342          BA  0.4997
 343          LG   0.211    0.25   4.375   0.389  42.963
 344          UI     0.0   13.26   14.05   30.21   59.66   76.06    96.1  103.26  111.37  111.37
 345          UI   97.76   97.11   83.14   74.11   57.93   46.73   37.98    35.6   23.78   20.47
 346          UI   16.38   13.76   12.11     9.9    7.53    7.53    7.21    1.66    1.66    1.66
 347          UI    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66    1.66
 348          UI    1.66    1.66     0.0

 349          KK    48-O
 350          KO       0       0     0.0       0      22
 351          DT   48ret    43.0     0.0
 352          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 353          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 354          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 355          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 356          KK      M2   CNAME   M2-M3
 357          KM   COMBINE ROUTED HYDROGRAPH FROM M1 WITH RUNOFF FROM 48 @ M2
 358          KO       0       0     0.0       0      22
 359          HC       2

 360          KK   M2-M3   CNAME      M2
 361          KM   ROUTE HYDROGRAPH FROM M2 TO M3 (CHANNEL A)
 362          KO       0       0     0.0       0      22
 363          RS       3    FLOW     0.0     0.0
 364          RC   0.025   0.025   0.025 4309.67   0.005     0.0
 365          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 366          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 367          KK      67
 368          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 369          KM   L=0.82      Lca=0.41      S=25.73      Kn=0.200      LAG=102
 370          KM   S-GRAPH TYPE=PHOENIX VALLEY
 371          KO       0       0     0.0       1      22
 372          BA  0.4717
 373          LG    0.21    0.25   4.328   0.412   26.19
 374          UI     0.0   15.57   31.09   66.92   86.69  107.67  144.49  191.76  149.18  119.67
 375          UI   94.22   73.23    45.3   26.94   21.99   15.57    6.99    4.78    4.78    4.78
 376          UI    4.78     0.0
1                                          HEC-1 INPUT                                          PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 377          KK      M3   CNAME   M3-M4
 378          KM   COMBINE ROUTED HYDROGRAPH FROM M2 WITH RUNOFF FROM 67 @ M3
 379          KO       0       0     0.0       0      22
 380          HC       2

 381          KK   M3-M4   CNAME      M3
 382          KM   STORAGE ROUTE FROM M3 TO M4 THROUGH SPRR TRESTLE
 383          KO       0       0     0.0       0      22
 384          RS       1    ELEV   884.0     0.0
 385          SV     0.0    0.28    12.7    94.1  202.02  383.38  383.38  383.38  383.38  383.38
 386          SV  383.38  383.38  383.38  383.38  383.38  383.38  383.38  383.38  383.38  383.38
 387          SE   884.0   886.0   888.0   890.0   892.0   894.0   894.0   894.0   894.0   894.0
 388          SE   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0
 389          SQ     0.0    42.0   135.0   200.0   226.0   465.0  1010.0  1703.0  1703.0  1703.0
 390          SQ  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0  1703.0
 391          SE   884.0  885.09  887.09  889.19  889.29  889.49  889.69  889.89  889.89  889.89
 392          SE  889.89  889.89  889.89  889.89  889.89  889.89  889.89  889.89  889.89  889.89

 393          KK      69
 394          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 395          KM   L=0.11      Lca=0.06      S=17.52      Kn=0.200      LAG=25
 396          KM   S-GRAPH TYPE=PHOENIX VALLEY
 397          KO       0       0     0.0       1      22
 398          BA  0.1371
 399          LG     0.1    0.25   4.502   0.453  43.971
 400          UI     0.0   60.46  176.19   92.48    19.3     0.0

 401          KK      M4
 402          KM   COMBINE STORAGE HYDROGRAPH FROM M3 WITH RUNOFF FROM 69 @ M4
 403          ZW   A=RBE B=M4 C=FLOW E=15MIN F=100y24h-fut
 404          KO       0       0     0.0       0      22
 405          HC       2
              * ******************************************************************************
              * **   SUB-WATERSHED N   ***********************************************************
              * ******************************************************************************

 406          KK    RIDN
 407          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
 408          BA  0.0001
 409          ZR  =QI A=RID RID B=51199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-100-24F

 410          KK  N2S-N3   CNAME     N2S
 411          KM   ROUTE INFLOW FROM RID CONCENTRATED AT N2S TO N3 (CHANNEL A)
 412          KO       0       0     0.0       0      22
 413          RS       1    FLOW     0.0     0.0
 414          RC     0.1     0.1     0.1 5806.00  0.0050     0.0
 415          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 416          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                          PAGE 10

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 417          KK      38
 418          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 419          KM   L=1.40      Lca=0.70      S=20.72      Kn=0.200      LAG=161
 420          KM   S-GRAPH TYPE=AGRICULTURE
 421          KO       0       0     0.0       1      22
 422          BA  0.5419
 423          LG    0.25    0.25   3.963   0.435    30.0
 424          UI     0.0   12.41   12.41    22.6   38.38   68.87   68.47   94.37   96.98  104.28
```

```
 425          UI  104.28   99.64    86.9   92.71   73.07   69.39   57.01   46.98   36.52   37.35
 426          UI   27.19   21.49   19.06   15.33   13.79   11.33   11.33     7.4    7.05    7.05
 427          UI    7.05    1.84    1.55    1.55    1.55    1.55    1.55    1.55    1.55    1.55
 428          UI    1.55    1.55    1.55    1.55    1.55    1.55    1.55    1.55    1.55     0.0

 429          KK    38-O
 430          KO       0       0     0.0       0      22
 431          DT   38ret    37.0     0.0
 432          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 433          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 434          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 435          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 436          KK      N3   CNAME   N3-N4
 437          KM   COMBINE ROUTED HYDROGRAPH FROM N2S WITH RUNOFF FROM 38 @ N3
 438          KO       0       0     0.0       0      22
 439          HC       2

 440          KK   N3-N4   CNAME      N3
 441          KM   ROUTE HYDROGRAPH FROM N3 TO N4 (CHANNEL B)
 442          KO       0       0     0.0       0      22
 443          RS       8    FLOW     0.0     0.0
 444          RC     0.1    0.02     0.1 5295.68   0.009     0.0
 445          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 446          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 447          KK      49
 448          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 449          KM   L=1.96      Lca=0.98      S=23.51      Kn=0.200      LAG=202
 450          KM   S-GRAPH TYPE=AGRICULTURE
 451          KO       0       0     0.0       1      22
 452          BA  1.0093
 453          LG    0.25    0.25   3.954   0.409  36.233
 454          UI     0.0   18.43   18.43   21.91    38.7   60.54   96.74  109.77  111.53  139.33
 455          UI   150.8  154.78  154.78  154.78  141.02  128.98  137.67  123.61   96.74  107.67
 456          UI   80.42   70.35   59.46    52.4   57.71   37.74   32.94   29.77   25.12   22.76
 457          UI   20.55   16.82   16.82   15.07   10.46   10.46   10.46   10.46    8.07     2.3
 458          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
 459          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
 460          UI     2.3     0.0
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 461          KK    49-O
 462          KO       0       0     0.0       0      22
 463          DT   49ret    73.0     0.0
 464          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 465          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 466          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 467          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 468          KK      N4   CNAME  N4-N5B
 469          KM   COMBINE ROUTED HYDROGRAPH FROM N3 WITH RUNOFF FROM 49 @ N4
 470          KO       0       0     0.0       0      22
 471          HC       2

 472          KK  N4-N5B   CNAME      N4
 473          KM   ROUTE HYDROGRAPH FROM N4 TO N5 (CHANNEL B)
 474          KO       0       0     0.0       0      22
 475          RS       6    FLOW     0.0     0.0
 476          RC     0.1    0.02     0.1 3866.36   0.008     0.0
 477          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
 478          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

 479          KK     56B
 480          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 481          KM   L=0.71      Lca=0.32      S=32.56      Kn=0.200      LAG=85
 482          KM   S-GRAPH TYPE=AGRICULTURE
 483          KO       0       0     0.0       1      22
 484          BA  0.3335
 485          LG     0.1    0.25   3.998   0.503    80.0
 486          UI     0.0   13.21   36.42   66.04   85.35  118.84  159.02  118.04    90.4   67.67
 487          UI   40.92   22.66   16.33    10.2    4.05    4.05    4.05     0.0

 488          KK     N5B   CNAME  N5B-N6
 489          KM   COMBINE ROUTED HYDROGRAPH FROM N4 WITH RUNOFF FROM 56B @ N5B
 490          KO       0       0     0.0       0      22
 491          HC       2

 492          KK  N5B-N6   CNAME     N5B
 493          KM   STORAGE ROUTE FROM N5B TO N6 THROUGH SPRR TRESTLE
 494          KO       0       0     0.0       0      22
 495          RS       1    ELEV  887.23     0.0
 496          SV     0.0    0.96   12.89   39.94   86.12  150.27  150.27  150.27  150.27  150.27
 497          SV  150.27  150.27  150.27  150.27  150.27  150.27  150.27  150.27  150.27  150.27
 498          SE   886.0   888.0   890.0   892.0   894.0   896.0   896.0   896.0   896.0   896.0
 499          SE   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0   896.0
 500          SQ     0.0    71.6    98.1   118.7   136.2   151.6   165.7   178.6   190.7   202.0
 501          SQ   212.8   223.0   232.8   242.1   251.2   259.9   268.3   276.5   276.5   276.5
 502          SE  887.23  889.23  889.73  890.23  890.73  891.23  891.73  892.23  892.73  893.23
 503          SE  893.73  894.23  894.73  895.23  895.73  896.23  896.73  897.23  897.23  897.23
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 504          KK     56A
 505          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 506          KM   L=1.19      Lca=0.59      S=30.31      Kn=0.200      LAG=132
 507          KM   S-GRAPH TYPE=AGRICULTURE
 508          KO       0       0     0.0       1      22
 509          BA  0.4105
 510          LG     0.1    0.25   3.969   0.441    80.0
 511          UI     0.0   11.47   13.39   28.45   55.88   66.16   84.79   96.35   96.35   93.14
 512          UI   80.29   83.82   61.02   58.36   42.89   33.31   32.41   20.95   17.94   14.17
 513          UI    11.8   10.47    8.03    6.51    6.51    4.68    1.43    1.43    1.43    1.43
 514          UI    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43    1.43
 515          UI     0.0

 516          KK    56A-O
 517          KO       0       0     0.0       0      22
 518          DT  56Aret    43.0     0.0
```

```
519          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
520          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
521          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
522          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

523          KK  N5A-N6   CNAME     N5A
524          KM   STORAGE ROUTE FROM N5A TO N6 THROUGH SPRR TRESTLE
525          KO       0       0     0.0       0      22
526          RS       1    ELEV   886.0     0.0
527          SV     0.0    0.02    8.08   35.13  100.26  100.26  100.26  100.26  100.26  100.26
528          SV  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26  100.26
529          SE   886.0   888.0   890.0   892.0   894.0   894.0   894.0   894.0   894.0   894.0
530          SE   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0   894.0
531          SQ     0.0   102.4   189.7   248.0   294.9   335.4   371.5   404.3   434.7   463.1
532          SQ   489.9   515.2   539.4   562.6   584.8   606.2   626.9   646.9   646.9   646.9
533          SE   886.0  887.52  888.02  888.52  889.02  889.52  890.02  890.52  891.02  891.52
534          SE  892.02  892.52  893.02  893.52  894.02  894.52  895.02  895.52  895.52  895.52

535          KK      70
536          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
537          KM   L=0.68      Lca=0.34     S=1.48      Kn=0.200     LAG=152
538          KM   S-GRAPH TYPE=AGRICULTURE
539          KO       0       0     0.0       1      22
540          BA  0.1406
541          LG     0.1    0.25   4.395   0.461    80.0
542          UI     0.0    3.41    3.41    6.68   12.76   19.73   19.85   25.86   28.66   28.66
543          UI   28.66   24.52   25.09   21.89   18.55   16.77   13.03   10.07   10.32    7.14
544          UI    5.77    4.95    4.21    3.44    3.12    2.67    1.94    1.94    1.94    0.99
545          UI    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43    0.43
546          UI    0.43    0.43    0.43    0.43    0.43    0.43     0.0

547          KK    70-O
548          KO       0       0     0.0       0      22
549          DT   70ret    17.0     0.0
550          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
551          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
552          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
553          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
1                                          HEC-1 INPUT                                          PAGE 13

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


554          KK      N6
555          KM   COMBINE STORAGE HYDROGRAPH FROM N5A AND N5B WITH RUNOFF FROM 70 @ N6
556          ZW   A=RBE B=N6 C=FLOW E=15MIN F=100y24h-fut
557          KO       0       0     0.0       0      22
558          HC       3
             * ***********************************************************************
             * **   SUB-WATERSHED O   ***************************************************
             * ***********************************************************************

559          KK    RIDO
560          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
561          BA  0.0001
562          ZR  =QI A=RID RID B=57199 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-100-24F

563          KK  O4S-O5   CNAME     O4S
564          KM   ROUTE INFLOW FROM RID CONCENTRATED AT O4S TO O5 (CHANNEL A)
565          KO       0       0     0.0       0      22
566          RS       1    FLOW     0.0     0.0
567          RC     0.1     0.1     0.1 6325.00  0.0060     0.0
568          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
569          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

570          KK      39
571          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
572          KM   L=1.63      Lca=0.82     S=25.14      Kn=0.200     LAG=174
573          KM   S-GRAPH TYPE=AGRICULTURE
574          KO       0       0     0.0       1      22
575          BA  0.7253
576          LG   0.257    0.25    4.31   0.407  26.629
577          UI     0.0   15.37   15.37   24.91   40.98   72.85   90.07   94.27  117.51  129.13
578          UI  129.13  129.13  120.52  107.61  114.33   93.69   83.76    78.5    59.0   50.24
579          UI   43.47   44.81   29.35   25.01   22.19   18.99   16.61   14.04   14.04    9.72
580          UI    8.73    8.73    8.73    5.19    1.92    1.92    1.92    1.92    1.92    1.92
581          UI    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92    1.92
582          UI    1.92    1.92     0.0

583          KK    39-O
584          KO       0       0     0.0       0      22
585          DT  39-ret    45.0     0.0
586          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
587          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
588          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
589          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

590          KK      O5   CNAME   O5-O6
591          KM   COMBINE ROUTED HYDROGRAPH FROM O4S WITH RUNOFF FROM 39 @ O5
592          KO       0       0     0.0       0      22
593          HC       2
1                                          HEC-1 INPUT                                          PAGE 14

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


594          KK   O5-O6   CNAME      O5
595          KM   ROUTE HYDROGRAPH FROM O5 TO O6 (CHANNEL B)
596          KO       0       0     0.0       0      22
597          RS       7    FLOW     0.0     0.0
598          RC     0.1    0.02     0.1 5267.87    0.01     0.0
599          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
600          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

601          KK      50
602          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
603          KM   L=1.98      Lca=0.99     S=26.73      Kn=0.200     LAG=199
604          KM   S-GRAPH TYPE=AGRICULTURE
605          KO       0       0     0.0       1      22
606          BA  1.0018
607          LG   0.262    0.25   4.181   0.427  31.555
608          UI     0.0   18.57   18.57   22.94   38.99   65.02   98.44  109.42  116.01  139.75
609          UI  155.95  155.95  155.95  155.95  136.89  129.96  138.93  116.06   98.44  106.28
610          UI   74.44    70.3   55.29    52.9   53.78   35.44   31.12   29.51   22.93   22.93
```

```
611          UI   18.07   16.95   16.95   12.06   10.54   10.54   10.54   10.54    3.53    2.32
612          UI    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32
613          UI    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32    2.32
614          UI     0.0

615          KK    50-O
616          KO       0       0     0.0       0      22
617          DT   50ret    70.0     0.0
618          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
619          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
620          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
621          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

622          KK      O6   CNAME   O6-O7
623          KM   COMBINE ROUTED HYDROGRAPH FROM O5 WITH RUNOFF FROM 50 @ O6
624          KO       0       0     0.0       0      22
625          HC       2

626          KK   O6-O7   CNAME      O6
627          KM   ROUTE HYDROGRAPH FROM O6 TO O7 (CHANNEL B)
628          KO       0       0     0.0       0      22
629          RS       6    FLOW     0.0     0.0
630          RC     0.1    0.02     0.1 3578.87   0.004     0.0
631          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
632          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

633          KK      57
634          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
635          KM   L=0.68     Lca=0.34     S=19.18     Kn=0.200     LAG=94
636          KM   S-GRAPH TYPE=AGRICULTURE
637          KO       0       0     0.0       1      22
638          BA  0.4885
639          LG     0.1    0.25   4.256   0.482    80.0
640          UI     0.0   19.17   35.13   95.98  125.05  151.34   161.0  141.33  132.78  104.89
641          UI   73.19   56.54   41.57   28.93   22.36    17.5   12.39   10.88    7.03     2.4
642          UI     2.4     2.4     2.4     2.4     2.4     2.4     2.4     2.4     2.4     0.0
1                                          HEC-1 INPUT                                          PAGE 15

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


643          KK    57-O
644          KO       0       0     0.0       0      22
645          DT   57ret    54.0     0.0
646          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
647          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
648          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
649          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

650          KK      O7   CNAME   O7-O8
651          KM   COMBINE ROUTED HYDROGRAPH FROM O6 WITH RUNOFF FROM 57 @ O7
652          KO       0       0     0.0       0      22
653          HC       2

654          KK   O7-O8   CNAME      O7
655          KM   STORAGE ROUTE FROM O7 TO O8 THROUGH SPRR TRESTLE
656          KO       0       0     0.0       0      22
657          RS       1    ELEV   891.1     0.0
658          SV     0.0     0.2    8.52   76.65  224.48  224.48  224.48  224.48  224.48  224.48
659          SV  224.48  224.48  224.48  224.48  224.48  224.48  224.48  224.48  224.48  224.48
660          SE   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0   898.0
661          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
662          SQ     0.0    78.0    85.0   151.0   248.0   540.0   954.0  1560.0  2334.0  2334.0
663          SQ  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0  2334.0
664          SE   891.1   893.1   893.4   894.5   894.7   895.0   895.2   895.4   895.6   895.6
665          SE   895.6   895.6   895.6   895.6   895.6   895.6   895.6   895.6   895.6   895.6

666          KK      71
667          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
668          KM   L=0.34     Lca=0.17     S=14.51     Kn=0.200     LAG=59
669          KM   S-GRAPH TYPE=AGRICULTURE
670          KO       0       0     0.0       1      22
671          BA  0.1553
672          LG     0.1    0.25   4.911    0.37    80.0
673          UI     0.0   11.57   42.26   70.54   80.65   67.88   47.94   30.74    17.5   10.91
674          UI    7.38    5.51    1.27    1.21    1.21    1.21    1.21    1.21     0.0

675          KK    71-O
676          KO       0       0     0.0       0      22
677          DT   71ret    16.0     0.0
678          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
679          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
680          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
681          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

682          KK      O8   CNAME
683          KM   COMBINE STORAGE HYDROGRAPH FROM O7 WITH RUNOFF FROM 71 @ O8
684          ZW   A=RBE B=O8 C=FLOW E=15MIN F=100y24h-fut
685          KO       0       0     0.0       0      22
686          HC       2
             * ******************************************************************************
             * **   SUB-WATERSHED P   ********************************************************
             * ******************************************************************************
1                                          HEC-1 INPUT                                          PAGE 16

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


687          KK    RIDP
688          KM   FALSE BASIN TO SIMULATE INFLOW FROM RID
689          BA  0.0001
690          ZR  =QI A=RID RID B=61999 LAT STRUCT C=FLOW-WEIR D=01JAN1994 E=15MIN F=RID-100-24F

691          KK  P2S-P3   CNAME     P2S
692          KM   ROUTE INFLOW FROM RID CONCENTRATED AT P2S TO P3 (CHANNEL A)
693          KO       0       0     0.0       0      22
694          RS       1    FLOW     0.0     0.0
695          RC     0.1     0.1     0.1 8445.00  0.0070     0.0
696          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
697          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

698          KK      40
699          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
700          KM   L=1.83     Lca=0.91     S=31.23     Kn=0.200     LAG=182
```

```
701          KM   S-GRAPH TYPE=AGRICULTURE
702          KO       0       0     0.0       1      22
703          BA  0.9761
704          LG    0.25    0.25   4.211   0.448  29.895
705          UI     0.0   19.78   19.78   29.61   48.14    86.9  116.44  110.94  150.61  157.12
706          UI  166.14  166.14  166.14  142.14  139.74  151.32  103.84  112.23    90.8   75.52
707          UI    62.1   56.05   56.55   37.76   32.26   29.17   24.43   22.48   18.06   18.06
708          UI   14.53   11.23   11.23   11.23   10.99    2.47    2.47    2.47    2.47    2.47
709          UI    2.47    2.47    2.47    2.47    2.47    2.47    2.47    2.47    2.47    2.47
710          UI    2.47    2.47    2.47    2.47    2.47     0.0

711          KK    40-O
712          KO       0       0     0.0       0      22
713          DT   40ret    70.0     0.0
714          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
715          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
716          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
717          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

718          KK      P3   CNAME   P3-P4
719          KM   COMBINE ROUTED HYDROGRAPH FROM P2S WITH RUNOFF FROM 40 @ P3
720          KO       0       0     0.0       0      22
721          HC       2

722          KK   P3-P4   CNAME      P3
723          KM   ROUTE HYDROGRAPH FROM P3 TO P4 (CHANNEL B)
724          KO       0       0     0.0       0      22
725          RS       8    FLOW     0.0     0.0
726          RC     0.1    0.02     0.1 5302.14   0.008     0.0
727          RX     0.0  1000.0  1006.0  1010.0  1050.0  1054.0  1060.0  2060.0
728          RY    10.0     0.0     0.0     1.0     1.0     0.0     0.0    10.0

729          KK      51
730          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
731          KM   L=1.96     Lca=0.98     S=22.98     Kn=0.200     LAG=203
732          KM   S-GRAPH TYPE=AGRICULTURE
733          KO       0       0     0.0       1      22
734          BA   1.004
1                                        HEC-1 INPUT                                          PAGE 17

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

735          LG   0.263    0.25   4.401   0.435  34.246
736          UI     0.0   18.24   18.24   21.41    38.3   58.85   95.52  108.71   109.2  138.77
737          UI  147.29   153.2   153.2   153.2  141.28  127.67  136.31  125.01   95.75  105.04
738          UI    83.7   69.64   60.42   52.27   56.21   40.23   33.28   29.46   25.81   22.53
739          UI    21.2   16.65   16.65   15.93   10.35   10.35   10.35   10.35    9.49    2.28
740          UI    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
741          UI    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
742          UI    2.28     0.0

743          KK    51-O
744          KO       0       0     0.0       0      22
745          DT   51ret    78.0     0.0
746          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
747          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
748          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
749          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

750          KK      P4   CNAME   P4-P5
751          KM   COMBINE ROUTED HYDROGRAPH FROM P3 WITH RUNOFF FROM 51 @ P4
752          KO       0       0     0.0       0      22
753          HC       2

754          KK   P4-P5   CNAME      P4
755          KM   ROUTE HYDROGRAPH FROM P4 TO P5 (CHANNEL A)
756          KO       0       0     0.0       0      22
757          RS       6    FLOW     0.0     0.0
758          RC     0.1     0.1     0.1 2651.48   0.003     0.0
759          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
760          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

761          KK      58
762          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
763          KM   L=0.50     Lca=0.25     S=15.93     Kn=0.200     LAG=77
764          KM   S-GRAPH TYPE=AGRICULTURE
765          KO       0       0     0.0       1      22
766          BA  0.1897
767          LG     0.1    0.25   4.294   0.498    80.0
768          UI     0.0    9.09   25.11   52.16   72.06   76.34   66.54   55.11   41.43   27.69
769          UI   18.96   12.68    9.16    6.65    5.16    2.64    1.14    1.14    1.14    1.14
770          UI    1.14    1.14    1.14     0.0

771          KK    58-O
772          KO       0       0     0.0       0      22
773          DT   58ret    20.0     0.0
774          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
775          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
776          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
777          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

778          KK      P5   CNAME   P5-P6
779          KM   COMBINE ROUTED HYDROGRAPH FROM P4 WITH RUNOFF FROM 58 @ P5
780          KO       0       0     0.0       0      22
781          HC       2
1                                        HEC-1 INPUT                                          PAGE 18

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

782          KK   P5-P6   CNAME      P5
783          KM   STORAGE ROUTE FROM P5 TO P6 THROUGH SPRR TRESTLE
784          KO       0       0     0.0       0      22
785          RS       1    ELEV  889.11     0.0
786          SV     0.0    1.33    6.78   36.99  130.95  286.86  286.86  286.86  286.86  286.86
787          SV  286.86  286.86  286.86  286.86  286.86  286.86  286.86  286.86  286.86  286.86
788          SE   888.0   890.0   892.0   894.0   896.0   898.0   898.0   898.0   898.0   898.0
789          SE   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0   898.0
790          SQ     0.0    40.0   105.0   187.0   278.0   531.0   853.0  1198.0  1573.0  1722.0
791          SQ  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0  1980.0
792          SE  889.11  889.61  890.11  890.61  891.11  892.11  893.11  894.11  895.11  896.11
793          SE  897.11  897.11  897.11  897.11  897.11  897.11  897.11  897.11  897.11  897.11

794          KK      72
```

```
795          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
796          KM   L=0.13      Lca=0.06      S=7.71      Kn=0.200      LAG=32
797          KM   S-GRAPH TYPE=AGRICULTURE
798          KO       0       0     0.0       1      22
799          BA  0.0856
800          LG     0.1    0.25   4.468   0.401    80.0
801          UI     0.0   24.87    74.6   66.73   31.73   12.61    6.11    1.23    1.23    1.23
802          UI     0.0

803          KK    72-O
804          KO       0       0     0.0       0      22
805          DT   72ret     8.0     0.0
806          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
807          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
808          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
809          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

810          KK      P6
811          KM   COMBINE STORAGE HYDROGRAPH FROM P5 WITH RUNOFF FROM 72 @ P6
812          ZW   A=RBE B=P6 C=FLOW E=15MIN F=100y24h-fut
813          KO       0       0     0.0       0      22
814          HC       2                                                                          RUNOFF
815          ZZ
SUMMARY
```

FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	RIDKB	441.	13.25	116.	29.	10.	0.00		
+	ROUTED TO	K3SBK4	266.	14.00	113.	29.	10.	0.00		
+	HYDROGRAPH AT	RIDKA	521.	13.50	242.	68.	23.	0.00		
+	ROUTED TO	K3SAK4	291.	15.00	214.	68.	23.	0.00		
+	HYDROGRAPH AT	34	186.	14.25	100.	31.	11.	0.64		
+	DIVERSION TO	34ret	186.	14.25	74.	20.	7.	0.64		
+	HYDROGRAPH AT	34-O	128.	15.50	39.	11.	4.	0.64		
+	3 COMBINED AT	K4	541.	15.50	358.	108.	36.	0.64		
+	ROUTED TO	K4-K5	507.	16.00	346.	108.	36.	0.64		
+	HYDROGRAPH AT	35	437.	14.75	290.	103.	35.	1.50		
+	DIVERSION TO	35ret	437.	14.75	225.	65.	22.	1.50		
+	HYDROGRAPH AT	35-O	314.	16.50	127.	40.	13.	1.50		
+	2 COMBINED AT	K5	782.	16.50	456.	147.	49.	2.14		
+	ROUTED TO	K5-K6	710.	17.25	441.	147.	49.	2.14		
+	HYDROGRAPH AT	46	401.	14.75	261.	92.	31.	1.38		
+	DIVERSION TO	46ret	401.	14.75	204.	58.	19.	1.38		
+	HYDROGRAPH AT	46-O	269.	16.50	111.	35.	12.	1.38		
+	2 COMBINED AT	K6	884.	17.25	546.	180.	60.	3.52		
+	ROUTED TO	K6-K7	815.	17.75	546.	180.	60.	3.52		
+	HYDROGRAPH AT	65	190.	13.75	98.	34.	12.	0.38		
+	DIVERSION TO	65ret	190.	13.75	73.	21.	7.	0.38		
+	HYDROGRAPH AT	65-O	127.	15.00	43.	13.	4.	0.38		
+	2 COMBINED AT	K7	841.	17.75	576.	193.	65.	3.90		
+	HYDROGRAPH AT	RIDL	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	L2S-L3	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	36	188.	14.75	117.	39.	13.	0.68		
+	DIVERSION TO	36ret	188.	14.75	87.	24.	8.	0.68		
+	HYDROGRAPH AT	36-O	132.	16.00	51.	15.	5.	0.68		

```
+          2 COMBINED AT
                      L3      132.  16.00      51.      15.       5.    0.68
+          ROUTED TO
                    L3-L4      78.  19.25      45.      15.       5.    0.68
+          HYDROGRAPH AT
                      47      183.  14.25     107.      35.      12.    0.62
+          DIVERSION TO
                   47ret      183.  14.25      82.      23.       8.    0.62
+          HYDROGRAPH AT
                    47-O      110.  16.00      41.      12.       4.    0.62
+          2 COMBINED AT
                      L4      109.  16.00      75.      27.       9.    1.30
+          ROUTED TO
                    L4-L5      98.  19.50      75.      27.       9.    1.30
+          HYDROGRAPH AT
                      66      174.  13.50      77.      27.       9.    0.29
+          DIVERSION TO
                   66ret      174.  13.50      54.      16.       5.    0.29
+          HYDROGRAPH AT
                    66-O      113.  14.50      37.      11.       4.    0.29
+          2 COMBINED AT
                      L5      123.  16.25      93.      38.      13.    1.59
+          HYDROGRAPH AT
                    RIDM      598.  13.50     140.      35.      12.    0.00
+          ROUTED TO
                  L2S2M1      145.  15.00      98.      34.      12.    0.00
+          HYDROGRAPH AT
                      37      335.  15.25     239.      86.      29.    1.42
+          DIVERSION TO
                   37ret      335.  15.25     196.      55.      18.    1.42
+          HYDROGRAPH AT
                    37-O      239.  17.25     101.      32.      11.    1.42
+          2 COMBINED AT
                      M1      329.  17.25     173.      66.      22.    1.42
+          ROUTED TO
                    M1-M2     250.  19.00     169.      65.      22.    1.42
+          HYDROGRAPH AT
                      48      180.  14.00      96.      31.      11.    0.50
+          DIVERSION TO
                   48ret      180.  14.00      78.      22.       7.    0.50
+          HYDROGRAPH AT
                    48-O       90.  15.75      32.      10.       3.    0.50
+          2 COMBINED AT
                      M2      264.  19.00     191.      75.      25.    1.92
+          ROUTED TO
                    M2-M3     259.  19.50     190.      75.      25.    1.92
+          HYDROGRAPH AT
                      67      244.  13.75      79.      24.       8.    0.47
+          2 COMBINED AT
                      M3      264.  19.50     197.      94.      33.    2.39
+          ROUTED TO
                    M3-M4     172.  21.50     168.      94.      33.    2.39
+          HYDROGRAPH AT
                      69      208.  12.50      27.       9.       3.    0.14
+          2 COMBINED AT
                      M4      262.  12.50     169.     102.      36.    2.53
+          HYDROGRAPH AT
                    RIDN      214.  14.50      80.      20.       7.    0.00
+          ROUTED TO
                  N2S-N3      117.  15.50      68.      20.       7.    0.00
+          HYDROGRAPH AT
                      38      153.  14.25      88.      28.      10.    0.54
+          DIVERSION TO
                   38ret      153.  14.25      68.      19.       6.    0.54
+          HYDROGRAPH AT
                    38-O       91.  16.00      33.      10.       3.    0.54
+          2 COMBINED AT
                      N3      199.  16.00      99.      30.      10.    0.54
+          ROUTED TO
                    N3-N4     186.  16.75      96.      30.      10.    0.54
+          HYDROGRAPH AT
                      49      249.  15.00     167.      57.      19.    1.01
+          DIVERSION TO
                   49ret      249.  15.00     132.      37.      12.    1.01
+          HYDROGRAPH AT
                    49-O      176.  16.75      70.      21.       7.    1.01
```

+	2 COMBINED AT	N4	357.	16.75	162.	51.	17.	1.55
+	ROUTED TO	N4-N5B	325.	17.50	159.	51.	17.	1.55
+	HYDROGRAPH AT	56B	261.	13.50	88.	30.	10.	0.33
+	2 COMBINED AT	N5B	341.	17.50	172.	78.	27.	1.88
+	ROUTED TO	N5B-N6	160.	19.50	148.	78.	27.	1.88
+	HYDROGRAPH AT	56A	194.	14.00	105.	37.	13.	0.41
+	DIVERSION TO	56Aret	194.	14.00	74.	22.	7.	0.41
+	HYDROGRAPH AT	56A-O	143.	15.00	51.	16.	5.	0.41
+	ROUTED TO	N5A-N6	143.	15.00	51.	16.	5.	0.41
+	HYDROGRAPH AT	70	60.	14.25	36.	13.	4.	0.14
+	DIVERSION TO	70ret	60.	14.25	29.	9.	3.	0.14
+	HYDROGRAPH AT	70-O	32.	16.00	14.	4.	1.	0.14
+	3 COMBINED AT	N6	257.	15.00	188.	97.	33.	2.44
+	HYDROGRAPH AT	RIDO	130.	14.00	39.	10.	3.	0.00
+	ROUTED TO	O4S-O5	55.	15.00	32.	10.	3.	0.00
+	HYDROGRAPH AT	39	186.	14.50	112.	36.	12.	0.73
+	DIVERSION TO	39-ret	186.	14.50	83.	23.	8.	0.73
+	HYDROGRAPH AT	39-O	128.	16.00	46.	14.	5.	0.73
+	2 COMBINED AT	O5	173.	16.00	73.	23.	8.	0.73
+	ROUTED TO	O5-O6	128.	17.25	72.	23.	8.	0.73
+	HYDROGRAPH AT	50	237.	15.00	157.	53.	18.	1.00
+	DIVERSION TO	50ret	237.	15.00	128.	35.	12.	1.00
+	HYDROGRAPH AT	50-O	163.	16.75	60.	18.	6.	1.00
+	2 COMBINED AT	O6	256.	16.75	128.	41.	14.	1.73
+	ROUTED TO	O6-O7	238.	18.00	125.	41.	14.	1.73
+	HYDROGRAPH AT	57	294.	13.50	127.	44.	15.	0.49
+	DIVERSION TO	57ret	294.	13.50	94.	27.	9.	0.49
+	HYDROGRAPH AT	57-O	171.	14.50	56.	17.	6.	0.49
+	2 COMBINED AT	O7	265.	17.75	146.	58.	19.	2.22
+	ROUTED TO	O7-O8	148.	19.50	135.	58.	19.	2.22
+	HYDROGRAPH AT	71	135.	13.00	42.	14.	5.	0.16
+	DIVERSION TO	71ret	135.	13.00	28.	8.	3.	0.16
+	HYDROGRAPH AT	71-O	91.	13.50	21.	6.	2.	0.16
+	2 COMBINED AT	O8	153.	19.50	139.	64.	21.	2.37
+	HYDROGRAPH AT	RIDP	400.	12.75	71.	22.	10.	0.00
+	ROUTED TO	P2S-P3	82.	13.50	56.	21.	9.	0.00
+	HYDROGRAPH AT	40	244.	14.75	152.	50.	17.	0.98
+	DIVERSION TO	40ret	244.	14.75	128.	35.	12.	0.98

```
          HYDROGRAPH AT
+                    40-O      125.  16.75      50.      15.      5.     0.98
          2 COMBINED AT
+                      P3      170.  16.75      91.      37.     15.     0.98
          ROUTED TO
+                   P3-P4      132.  18.25      89.      37.     15.     0.98
          HYDROGRAPH AT
+                      51      237.  15.00     160.      55.     19.     1.00
          DIVERSION TO
+                   51ret      237.  15.00     141.      39.     13.     1.00
          HYDROGRAPH AT
+                    51-O      111.  17.50      51.      16.      5.     1.00
          2 COMBINED AT
+                      P4      225.  18.00     133.      52.     20.     1.98
          ROUTED TO
+                   P4-P5      214.  18.75     133.      52.     20.     1.98
          HYDROGRAPH AT
+                      58      134.  13.25      50.      17.      6.     0.19
          DIVERSION TO
+                   58ret      134.  13.25      35.      10.      3.     0.19
          HYDROGRAPH AT
+                    58-O       85.  14.00      24.       7.      2.     0.19
          2 COMBINED AT
+                      P5      222.  18.75     140.      59.     22.     2.17
          ROUTED TO
+                   P5-P6      217.  19.00     140.      59.     22.     2.17
          HYDROGRAPH AT
+                      72      113.  12.50      23.       8.      3.     0.09
          DIVERSION TO
+                   72rot      113.  12.50      14.       4.      1.     0.09
          HYDROGRAPH AT
+                    72-O       84.  12.75      13.       4.      1.     0.09
          2 COMBINED AT
+                      P6      219.  19.00     143.      62.     23.     2.26

 *** NORMAL END OF HEC-1 ***

1****************************************                    ****************************************
 *                                      *                    *                                      *
 *   PLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *             JUN   1998               *                    *   HYDROLOGIC ENGINEERING CENTER      *
 *           VERSION 4.1                *                    *         609 SECOND STREET            *
 *                                      *                    *      DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   23MAR06  TIME  05:07:23  *                    *         (916) 756-1104               *
 *                                      *                    *                                      *
 ****************************************                    ****************************************

                                                  X     X  XXXXXXX   XXXXX          X
                                                  X     X  X        X     X        XX
                                                  X     X  X        X              X
                                                  XXXXXXX  XXXX     X        XXXXX  X
                                                  X     X  X        X              X
                                                  X     X  X        X     X        X
                                                  X     X  XXXXXXX   XXXXX        XXX

          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                  PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

            1           ID   Buckeye/Sun Valley ADMS - November 2004
            2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
            3           ID   100-year 24-hour
            4           ID   Future Conditions
            5           ID   Area 1 - BIC to Gila (West)
            6           ID   File Name: bgw10024fut.hc1
            7           ID   Rainfall Loss Method - Green & Ampt
            8           ID   Unit Hydrograph Method - FCDMC S-Graph
            9           ID   Channel Routing Method - Normal Depth
           10           ID   Land Use - FCDMC GIS Data: mag_genplan (2000)
           11           ID   Future Land Use Build Out Date: 2025
           12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
           13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                        *DIAGRAM
           14           IT      15 02JAN94       0     400
           15           IO       3
           16           IN      15 02JAN94       0
           17           JD     4.1    0.01
                        * 24-hour distribution
           18           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
```

```
 19          PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 20          PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 21          PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 22          PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 23          PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 24          PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 25          PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 26          PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 27          PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
 28          IN      15 02JAN94       0
 29          JD   3.895    10.0
             * 24-hour distribution
 30          PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
 31          PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 32          PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 33          PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 34          PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 35          PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 36          PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 37          PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 38          PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 39          PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
 40          IN      15 02JAN94       0
 41          JD   3.764    20.0
             * 24-hour distribution
 42          PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
 43          PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
 44          PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
 45          PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
 46          PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 47          PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 48          PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 49          PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
 50          PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
 51          PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
             * ************************************************************************
             * **   SUB-WATERSHED E   ***************************************************
             * ************************************************************************
1                                          HEC-1 INPUT                                          PAGE  2

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 52          KK   BICE
 53          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 54          BA  0.0001
 55          ZR  =QI A=BIC BIC B=4395 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-24F

 56          KK  E2S-E3   CNAME     E2S
 57          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT E2S TO E3 (CHANNEL A)
 58          KO       0       0     0.0       0      22
 59          RS       1    FLOW     0.0     0.0
 60          RC     0.1     0.1     0.1 9548.74   0.003     0.0
 61          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 62          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 63          KK      84
 64          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 65          KM   L=1.81      Lca=0.98      S=13.27      Kn=0.200      LAG=219
 66          KM   S-GRAPH TYPE=AGRICULTURE
 67          KO       0       0     0.0       0      22
 68          BA  0.8772
 69          LG     0.1   0.149   9.712   0.075     5.0
 70          UI     0.0   14.77   14.77   14.77   29.95   40.82   67.16   88.66   77.76   98.85
 71          UI  113.94  124.08  124.08  124.08  124.08  115.81   103.4  107.74  113.07   77.55
 72          UI   80.05   82.21    59.0    56.4   45.14   41.62   46.54   30.82   27.07   23.86
 73          UI   21.83   18.25   18.25   14.06   13.49   13.49   10.82    8.38    8.38    8.38
 74          UI    8.38     7.6    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85
 75          UI    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85    1.85
 76          UI    1.85    1.85    1.85    1.85    1.85    1.85     0.0

 77          KK    84-O
 78          KO       0       0     0.0       0      22
 79          DT   84ret    45.0     0.0
 80          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 81          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 82          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 83          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 84          KK      E3
 85          KM   COMBINE ROUTED HYDROGRAPH FROM E2S WITH RUNOFF FROM 84 @ E3
 86          KO       0       0     0.0       0      22
 87          HC       2
             * ************************************************************************
             * **   SUB-WATERSHEDS F AND G   ********************************************
             * ************************************************************************

 88          KK   BICFB
 89          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 90          BA    0.01
 91          ZR  =QI A=BIC BIC B=14995 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-24F
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 92          KK  F6BS7B   CNAME    F6BS
 93          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT F6BS TO F7B (CHANNEL A)
 94          KO       0       0     0.0       0      22
 95          RS       1    FLOW     0.0     0.0
 96          RC     0.1     0.1     0.1 3159.78   0.007     0.0
 97          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 98          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 99          KK     85B
100          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
101          KM   L=1.47      Lca=0.73      S=15.68      Kn=0.200      LAG=176
102          KM   S-GRAPH TYPE=AGRICULTURE
103          KO       0       0     0.0       0      22
104          BA  0.7453
105          LG   0.292    0.25   5.706   0.207     5.0
106          UI     0.0   15.62   15.62   24.82   40.72   72.66   91.61   93.72  117.48  131.18
107          UI  131.18  131.18  125.35  109.32  115.73  100.21   83.45    84.6   61.11   53.73
108          UI   44.85   48.84   29.87   26.57   24.15   19.29   18.35   14.26   14.26   11.63
```

```
109          UI    8.86    8.86    8.86    7.85    1.95    1.95    1.95    1.95    1.95    1.95
110          UI    1.95    1.95    1.95    1.95    1.95    1.95    1.95    1.95    1.95    1.95
111          UI    1.95    1.95    1.95     0.0

112          KK   85B-O
113          KO       0       0     0.0       0      22
114          DT  85Bret    35.0     0.0
115          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
116          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
117          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
118          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

119          KK     F7B   CNAME  F7B-F8
120          KM   COMBINE ROUTED HYDROGRAPH FROM F6BS WITH RUNOFF FROM 85B @ F7B
121          KO       0       0     0.0       0      22
122          HC       2

123          KK  F7B-F8   CNAME     F7B
124          KM   ROUTE HYDRPGRAPH FROM F7B TO F8 (CHANNEL A)
125          KO       0       0     0.0       0      22
126          RS      13    FLOW     0.0     0.0
127          RC     0.1     0.1     0.1 6483.88   0.006     0.0
128          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
129          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

130          KK   BICG
131          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
132          BA    0.01
133          ZR  =QI A=BIC BIC B=21999 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-24F

134          KK  G8S-G9   CNAME     G8S
135          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT G8S TO G9 (CHANNEL A)
136          KO       0       0     0.0       0      22
137          RS       1    FLOW     0.0     0.0
138          RC     0.1     0.1     0.1 5481.53   0.005     0.0
139          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
1                                        HEC-1 INPUT                                          PAGE  4
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

140          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

141          KK      86
142          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
143          KM   L=1.09      Lca=0.54     S=25.78      Kn=0.200     LAG=127
144          KM   S-GRAPH TYPE=AGRICULTURE
145          KO       0       0     0.0       0      22
146          BA  0.4398
147          LG     0.3    0.15   7.988   0.083     5.0
148          UI     0.0   12.77   15.89   33.53   68.33   74.26   98.27  107.27  107.27   97.74
149          UI   93.18   80.08   72.45   51.51   42.18   37.93   27.0   20.95   16.68   14.24
150          UI   11.66    9.78    7.25    7.25    5.59     1.6     1.6     1.6     1.6     1.6
151          UI     1.6     1.6     1.6     1.6     1.6     1.6     1.6     1.6     0.0

152          KK    86-O
153          KO       0       0     0.0       0      22
154          DT   86ret     4.0     0.0
155          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
156          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
157          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
158          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

159          KK      G9   CNAME   G9-F8
160          KM   COMBINE ROUTED HYDROGRAPH FROM G8S WITH RUNOFF FROM 86 @ G9
161          KO       0       0     0.0       0      22
162          HC       2

163          KK   G9-F8   CNAME      G9
164          KM   ROUTE HYDRPGRAPH FROM G9 TO F8 (CHANNEL A)
165          KO       0       0     0.0       0      22
166          RS      13    FLOW     0.0     0.0
167          RC     0.1     0.1     0.1 9228.08   0.004     0.0
168          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
169          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

170          KK  BICFA
171          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
172          BA  0.0001
173          ZR  =QI A=BIC BIC B=11199 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-24F

174          KK  F6AS7A   CNAME    F6AS
175          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT F6AS TO F7A (CHANNEL A)
176          KO       0       0     0.0       0      22
177          RS       1    FLOW     0.0     0.0
178          RC     0.1     0.1     0.1 2921.0   0.011     0.0
179          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
180          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

181          KK     85A
182          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
183          KM   L=0.84      Lca=0.42     S=37.89      Kn=0.200     LAG=98
184          KM   S-GRAPH TYPE=AGRICULTURE
185          KO       0       0     0.0       0      22
186          BA  0.2163
187          LG     0.1    0.15   7.439   0.161     5.0
1                                        HEC-1 INPUT                                          PAGE  5
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

188          UI     0.0    8.14   13.77   37.36   49.55   65.58   68.39   63.07   60.31   44.52
189          UI   37.27   26.22   22.07   14.14   10.87    8.41    7.09    4.62    4.62    2.07
190          UI    1.02    1.02    1.02    1.02    1.02    1.02    1.02    1.02    1.02    1.02
191          UI     0.0

192          KK   85A-O
193          KO       0       0     0.0       0      22
194          DT  85Aret    10.0     0.0
195          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
196          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
197          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
198          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

199          KK     F7A   CNAME  F7A-F8
200          KM   COMBINE ROUTED HYDROGRAPH FROM F6AS WITH RUNOFF FROM 85A @ F7A
```

```
 201          KO       0       0     0.0       0      22
 202          HC       2

 203          KK  F7A-F8   CNAME     F7A
 204          KM   ROUTE HYDROGRAPH FROM F7A TO F8 (CHANNEL A)
 205          KO       0       0     0.0       0      22
 206          RS      17    FLOW     0.0     0.0
 207          RC     0.1     0.1     0.110377.67   0.006     0.0
 208          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 209          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 210          KK     105
 211          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 212          KM   L=1.94     Lca=0.97     S=18.59     Kn=0.200     LAG=210
 213          KM   S-GRAPH TYPE=AGRICULTURE
 214          KO       0       0     0.0       1      22
 215          BA  0.9967
 216          LG     0.3    0.15   8.482    0.07     5.0
 217          UI     0.0    17.5    17.5   18.66   36.76   52.93   86.38  104.76   96.79  138.98
 218          UI  128.13  147.03  147.03  147.03  147.03  122.52  122.52  134.29  104.02   92.91
 219          UI  101.53   70.71   66.83   54.23   49.36   55.42   34.8   31.36   28.27   24.42
 220          UI   21.62   20.49   15.98   15.98   15.98   10.06    9.93    9.93    9.93    9.93
 221          UI    3.74    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19
 222          UI    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19    2.19
 223          UI    2.19    2.19    2.19     0.0

 224          KK   105-O
 225          KO       0       0     0.0       0      22
 226          DT  105ret    55.0     0.0
 227          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 228          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 229          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 230          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 231          KK     104
 232          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 233          KM   L=1.95     Lca=0.98     S=13.83     Kn=0.200     LAG=223
 234          KM   S-GRAPH TYPE=AGRICULTURE
 235          KO       0       0     0.0       1      22
 236          BA  1.0120
1                                          HEC-1 INPUT                                                    PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 237          LG   0.146   0.174   6.763   0.182     5.0
 238          UI     0.0   16.74   16.74   16.74    32.9   44.31    73.2   96.94   91.85  107.62
 239          UI  126.44  139.17  140.58  140.58  140.58  137.46  117.15  117.15  127.87  102.94
 240          UI   87.86   99.21   73.02    63.9   56.91   48.63   49.42   45.47   31.95   28.25
 241          UI   27.03   21.81   20.67   19.09   15.28   15.28   15.28   10.23     9.5     9.5
 242          UI     9.5     9.5    6.73    2.09    2.09    2.09    2.09    2.09    2.09    2.09
 243          UI    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09    2.09
 244          UI    2.09    2.09    2.09    2.09    2.09    2.09    2.09     0.0

 245          KK   104-O
 246          KO       0       0     0.0       0      22
 247          DT  104ret    50.0     0.0
 248          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 249          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 250          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 251          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 252          KK      F8
 253          KM   COMBINE ROUTED HYDROGRAPH FROM G9, F7A, AND F7B WITH RUNOFF FROM 104 AND 105
 254          KO       0       0     0.0       0      22
 255          HC       5
              * ***********************************************************************
              * **   SUB-WATERSHED H   ***********************************************
              * ***********************************************************************

 256          KK   BICH
 257          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 258          BA    0.01
 259          ZR  =QI A=BIC BIC B=24799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-24F

 260          KK  H7S-H8   CNAME     H7S
 261          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT H7S TO H8 (CHANNEL A)
 262          KO       0       0     0.0       0      22
 263          RS       1    FLOW     0.0     0.0
 264          RC     0.1     0.1     0.1 9426.94   0.004     0.0
 265          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 266          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 267          KK      87
 268          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 269          KM   L=1.87     Lca=0.93     S=22.48     Kn=0.200     LAG=197
 270          KM   S-GRAPH TYPE=AGRICULTURE
 271          KO       0       0     0.0       0      22
 272          BA  0.9127
 273          LG     0.3   0.143   9.843   0.045     5.0
 274          UI     0.0   17.08   17.08   21.63   35.88    62.3   92.38   98.78  108.99  130.67
 275          UI  143.51  143.51  143.51  143.51  122.78  119.59  131.61   97.98   92.38   92.49
 276          UI   67.23   61.75   50.13   50.38    44.1   32.38    27.6   25.39    21.1   20.52
 277          UI    15.6    15.6   15.09     9.7     9.7     9.7     9.7    7.98    2.14    2.14
 278          UI    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14
 279          UI    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14    2.14     0.0
1                                          HEC-1 INPUT                                                    PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 280          KK    87-O
 281          KO       0       0     0.0       0      22
 282          DT   87ret    49.0     0.0
 283          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 284          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 285          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 286          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 287          KK      H8   CNAME    H8-H9
 288          KM   COMBINE ROUTED HYDROGRAPH FROM H7S WITH RUNOFF FROM 87 @ H8
 289          KO       0       0     0.0       0      22
 290          HC       2

 291          KK   H8-H9   CNAME      H8
```

```
292          KM   ROUTE HYDRPGRAPH FROM H8 TO H9 (CHANNEL A)
293          KO       0       0     0.0       0      22
294          RS      10    FLOW     0.0     0.0
295          RC     0.1     0.1     0.1 5170.32   0.005     0.0
296          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
297          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

298          KK     106
299          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
300          KM   L=2.21      Lca=1.11      S=20.78      Kn=0.200      LAG=227
301          KM   S-GRAPH TYPE=AGRICULTURE
302          KO       0       0     0.0       1      22
303          BA  1.2094
304          LG   0.244    0.15   7.622   0.112     5.0
305          UI     0.0   19.65   19.65   19.65   37.41   49.75   82.54  109.68  112.23  121.21
306          UI  152.16   154.9  165.04  165.04  165.04  165.04  141.2  137.53  147.94  134.67
307          UI  103.15  109.85  101.52   76.86   73.58   58.83   55.01   62.59   39.81   36.09
308          UI   31.74   29.65   24.27   24.27    19.8   17.94   17.94   16.41   11.15   11.15
309          UI   11.15   11.15   11.15     5.7    2.46    2.46    2.46    2.46    2.46    2.46
310          UI    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46
311          UI    2.46    2.46    2.46    2.46    2.46    2.46    2.46    2.46     0.0

312          KK   106-O
313          KO       0       0     0.0       0      22
314          DT  106ret    60.0     0.0
315          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
316          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
317          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
318          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

319          KK      H9
320          KM   COMBINE ROUTED HYDROGRAPH FROM H8 WITH RUNOFF FROM 106 @ H9
321          KO       0       0     0.0       0      22
322          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED J AND I  ***********************************************
             * ***********************************************************************
1                                        HEC-1 INPUT                                          PAGE  8

       LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

323          KK   BICJ
324          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
325          BA    0.01
326          ZR  =QI A=BIC BIC B=36399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-24F

327          KK  J6S-J7   CNAME     J6S
328          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT J6S TO J7 (CHANNEL A)
329          KO       0       0     0.0       0      22
330          RS       1    FLOW     0.0     0.0
331          RC     0.1     0.1     0.1 7531.83   0.005     0.0
332          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
333          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

334          KK      89
335          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
336          KM   L=1.79      Lca=0.90      S=21.20      Kn=0.200      LAG=193
337          KM   S-GRAPH TYPE=AGRICULTURE
338          KO       0       0     0.0       0      22
339          BA  0.9629
340          LG    0.25   0.145   9.804   0.054    45.0
341          UI     0.0    18.4    18.4   24.43   38.93    72.1  103.35  102.26  123.64  143.73
342          UI  154.55  154.55  154.55  151.11  128.79  134.03  134.52   96.59  104.41   86.51
343          UI   70.25   60.15   52.36    57.9   35.89   32.13   29.72   23.56   22.73   18.62
344          UI    16.8    16.8   12.13   10.44   10.44   10.44   10.44    2.52     2.3     2.3
345          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3
346          UI     2.3     2.3     2.3     2.3     2.3     2.3     2.3     2.3     0.0

347          KK    89-O
348          KO       0       0     0.0       0      22
349          DT   89ret    80.0     0.0
350          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
351          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
352          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
353          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

354          KK      J7   CNAME   J7-J8
355          KO       0       0     0.0       0      22
356          HC       2

357          KK   J7-J8   CNAME      J7
358          KM   ROUTE HYDRPGRAPH FROM J7 TO J8 (CHANNEL Outlet to Gila)
359          KO       0       0     0.0       0      22
360          RS       8    FLOW     0.0     0.0
361          RC   0.035    0.05   0.035  6030.2   0.005     0.0
362          RX     0.0     5.0    15.0    25.0    45.0    55.0    65.0    70.0
363          RY    12.0    12.0     6.0     0.0     0.0     6.0    12.0    12.0

364          KK   BICI
365          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
366          BA    0.01
367          ZR  =QI A=BIC BIC B=33399 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-24F
1                                        HEC-1 INPUT                                          PAGE  9

       LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

368          KK  I6S-I7   CNAME     I6S
369          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT I6S TO I7 (CHANNEL A)
370          KO       0       0     0.0       0      22
371          RS       1    FLOW     0.0     0.0
372          RC     0.1     0.1     0.1 5514.43   0.006     0.0
373          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
374          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

375          KK      88
376          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
377          KM   L=1.66      Lca=0.83      S=19.29      Kn=0.200      LAG=185
378          KM   S-GRAPH TYPE=AGRICULTURE
379          KO       0       0     0.0       0      22
380          BA  0.7650
381          LG     0.3   0.143   9.838   0.045     5.0
382          UI     0.0   15.25   15.25   22.13    35.8   65.03   89.94   82.55  118.29   116.2
```

```
383          UI   128.1   128.1   128.1  113.86  106.75  116.28   88.23   83.17   79.03   58.98
384          UI   51.82   43.77   47.46   30.66   26.58   24.63   19.05   18.84   14.58   13.92
385          UI   13.77    8.66    8.66    8.66    8.66    5.51    1.91    1.91    1.91    1.91
386          UI    1.91    1.91    1.91    1.91    1.91    1.91    1.91    1.91    1.91    1.91
387          UI    1.91    1.91    1.91    1.91    1.91    1.91     0.0

388          KK    88-O
389          KO       0       0     0.0       0      22
390          DT   88ret    40.0     0.0
391          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
392          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
393          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
394          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

395          KK      I7   CNAME   I7-I8
396          KM   COMBINE ROUTED HYDROGRAPH FROM I6S WITH RUNOFF FROM 88 @ I7
397          KO       0       0     0.0       0      22
398          HC       2

399          KK   I7-I8   CNAME      I7
400          KM   ROUTE HYDRPGRAPH FROM I7 TO I8 (CHANNEL A)
401          KO       0       0     0.0       0      22
402          RS       6    FLOW     0.0     0.0
403          RC     0.1     0.1     0.1 2738.75   0.011     0.0
404          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
405          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

406          KK     102
407          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
408          KM   L=1.48     Lca=0.74     S=25.68     Kn=0.200     LAG=161
409          KM   S-GRAPH TYPE=AGRICULTURE
410          KO       0       0     0.0       1      22
411          BA  0.5197
412          LG     0.3    0.15   8.585   0.068     5.0
413          UI     0.0    11.9    11.9   21.67   36.81   66.04   65.67    90.5    93.0   100.0
414          UI   100.0   95.56   83.33   88.91   70.08   66.55   54.67   45.05   35.02   35.82
415          UI   26.07   20.61   18.27   14.71   13.22   10.87   10.87    7.09    6.76    6.76
416          UI    6.76    1.77    1.49    1.49    1.49    1.49    1.49    1.49    1.49    1.49
1                                          HEC-1 INPUT                                          PAGE 10

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

417          UI    1.49    1.49    1.49    1.49    1.49    1.49    1.49    1.49    1.49     0.0

418          KK   102-O
419          KO       0       0     0.0       0      22
420          DT  102ret    28.0     0.0
421          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
422          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
423          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
424          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

425          KK      I8   CNAME   I8-J8
426          KM   COMBINE ROUTED HYDROGRAPH FROM I7 WITH RUNOFF FROM 102 @ I8
427          KO       0       0     0.0       0      22
428          HC       2

429          KK   I8-J8   CNAME      I8
430          KM   ROUTE HYDRPGRAPH FROM I8 TO J8 (CHANNEL Outlet to Gila)
431          KO       0       0     0.0       0      22
432          RS       2    FLOW     0.0     0.0
433          RC   0.035    0.05   0.035 1438.31   0.002     0.0
434          RX     0.0     5.0    15.0    25.0    45.0    55.0    65.0    70.0
435          RY    12.0    12.0     6.0     0.0     0.0     6.0    12.0    12.0

436          KK     103
437          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
438          KM   L=1.14     Lca=0.57     S=22.77     Kn=0.200     LAG=135
439          KM   S-GRAPH TYPE=AGRICULTURE
440          KO       0       0     0.0       1      22
441          BA  0.5071
442          LG    0.25   0.209    6.41   0.187    45.0
443          UI     0.0   13.85   15.53   33.16   64.73   79.27   101.4  113.87  116.37  116.37
444          UI   96.97  104.34   75.78   76.07   54.11   43.64   41.62   28.46   22.78   18.53
445          UI   16.22   12.65   12.03    7.86    7.86    7.86    2.96    1.73    1.73    1.73
446          UI    1.73    1.73    1.73    1.73    1.73    1.73    1.73    1.73    1.73    1.73
447          UI    1.73     0.0

448          KK   103-O
449          KO       0       0     0.0       0      22
450          DT  103ret    41.0     0.0
451          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
452          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
453          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
454          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

455          KK      J8
456          KM   COMBINE ROUTED HYDROGRAPH FROM I8 AND J7 WITH RUNOFF FROM 103 @ J8
457          KO       0       0     0.0       0      22
458          HC       3

459          KK     107
460          KO       0       0     0.0       1      22
461          BA  0.4835
462          LG   0.202   0.179   6.711   0.177     5.0
463          UI     0.0   14.27   18.19   38.28   79.06   83.22  111.51  119.83  119.83  106.52
464          UI  104.02    85.3   78.64   55.83   44.03   42.21   26.54   22.59   17.62   14.56
1                                          HEC-1 INPUT                                          PAGE 11

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

465          UI   13.03    9.33     8.1     8.1    3.89    1.78    1.78    1.78    1.78    1.78
466          UI    1.78    1.78    1.78    1.78    1.78    1.78    1.78    1.78     0.0

467          KK   107-O
468          KO       0       0     0.0       0      22
469          DT  107ret    26.0     0.0
470          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
471          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
472          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
473          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
474          ZZ

                                           RUNOFF SUMMARY
```

FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	BICE	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	E2S-E3	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	84	227.	15.25	153.	46.	15.	0.88		
+	DIVERSION TO	84ret	227.	15.25	89.	23.	8.	0.88		
+	HYDROGRAPH AT	84-O	202.	16.25	84.	23.	8.	0.88		
+	2 COMBINED AT	E3	202.	16.25	84.	23.	8.	0.88		
+	HYDROGRAPH AT	BICFB	322.	20.75	289.	100.	33.	0.01		
+	ROUTED TO	F6BS7B	309.	22.00	278.	100.	33.	0.01		
+	HYDROGRAPH AT	85B	179.	14.50	103.	29.	10.	0.75		
+	DIVERSION TO	85Bret	179.	14.50	69.	18.	6.	0.75		
+	HYDROGRAPH AT	85B-O	134.	15.75	42.	11.	4.	0.75		
+	2 COMBINED AT	F7B	313.	22.00	282.	111.	37.	0.76		
+	ROUTED TO	F7B-F8	312.	23.25	279.	111.	37.	0.76		
+	HYDROGRAPH AT	BICG	314.	21.50	206.	60.	20.	0.01		
+	ROUTED TO	G8S-G9	231.	23.00	182.	60.	20.	0.01		
+	HYDROGRAPH AT	86	184.	14.00	84.	22.	7.	0.44		
+	DIVERSION TO	86ret	72.	12.75	8.	2.	1.	0.44		
+	HYDROGRAPH AT	86-O	184.	14.00	79.	20.	7.	0.44		
+	2 COMBINED AT	G9	232.	23.00	183.	80.	27.	0.45		
+	ROUTED TO	G9-F8	221.	25.50	174.	79.	27.	0.45		
+	HYDROGRAPH AT	BICFA	0.	0.00	0.	0.	0.	0.00		
+	ROUTED TO	F6AS7A	0.	0.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	85A	103.	13.50	37.	10.	3.	0.22		
+	DIVERSION TO	85Aret	103.	13.50	20.	5.	2.	0.22		
+	HYDROGRAPH AT	85A-O	90.	14.00	18.	5.	2.	0.22		
+	2 COMBINED AT	F7A	90.	14.00	18.	5.	2.	0.22		
+	ROUTED TO	F7A-F8	32.	18.25	16.	5.	2.	0.22		
+	HYDROGRAPH AT	105	269.	15.25	177.	52.	17.	1.00		
+	DIVERSION TO	105ret	269.	15.25	109.	28.	9.	1.00		
+	HYDROGRAPH AT	105-O	235.	16.25	90.	24.	8.	1.00		
+	HYDROGRAPH AT	104	209.	15.25	141.	42.	14.	1.01		
+	DIVERSION TO	104ret	209.	15.25	99.	25.	8.	1.01		
+	HYDROGRAPH AT	104-O	152.	16.75	62.	17.	6.	1.01		
+	5 COMBINED AT	F8	522.	25.25	438.	233.	78.	3.43		
+	HYDROGRAPH AT	BICH	93.	21.25	57.	15.	5.	0.01		
+	ROUTED TO	H7S-H8	43.	23.75	36.	14.	5.	0.01		

```
+          HYDROGRAPH AT
                    87      281.  15.00      180.      52.      17.     0.91
+          DIVERSION TO
                 87ret      279.  14.75       89.      23.       8.     0.91
+          HYDROGRAPH AT
                  87-O      253.  15.50      110.      29.      10.     0.91
+          2 COMBINED AT
                    H8      253.  15.50      111.      43.      15.     0.92
+          ROUTED TO
                 H8-H9      219.  17.25      105.      43.      15.     0.92
+          HYDROGRAPH AT
                   106      277.  15.50      190.      57.      19.     1.21
+          DIVERSION TO
               106ret      277.  15.50      119.      30.      10.     1.21
+          HYDROGRAPH AT
                 106-O      243.  16.50       98.      27.       9.     1.21
+          2 COMBINED AT
                    H9      400.  17.25      198.      69.      23.     2.13
+          HYDROGRAPH AT
                  BICJ      283.  20.25      241.     116.      45.     0.01
+          ROUTED TO
                 J6S-J7      240.  22.25      218.     113.      45.     0.01
+          HYDROGRAPH AT
                    89      329.  15.00      217.      73.      25.     0.96
+          DIVERSION TO
                 89ret      329.  15.00      145.      40.      13.     0.96
+          HYDROGRAPH AT
                  89-O      282.  16.00      113.      34.      11.     0.96
+          2 COMBINED AT
                    J7      286.  16.00      245.     146.      56.     0.97
+          ROUTED TO
                 J7-J8      296.  16.50      245.     145.      56.     0.97
+          HYDROGRAPH AT
                  BICI      166.  21.00      143.      53.      18.     0.01
+          ROUTED TO
                 I6S-I7      142.  23.25      127.      52.      18.     0.01
+          HYDROGRAPH AT
                    88      249.  14.75      154.      44.      15.     0.76
+          DIVERSION TO
                 88ret      249.  14.75       79.      20.       7.     0.76
+          HYDROGRAPH AT
                  88-O      223.  15.50       89.      24.       8.     0.76
+          2 COMBINED AT
                    I7      223.  15.50      132.      76.      25.     0.77
+          ROUTED TO
                 I7-I8      220.  16.25      132.      76.      25.     0.77
+          HYDROGRAPH AT
                   102      181.  14.50      100.      27.       9.     0.52
+          DIVERSION TO
               102ret      181.  14.50       56.      14.       5.     0.52
+          HYDROGRAPH AT
                 102-O      158.  15.25       51.      13.       4.     0.52
+          2 COMBINED AT
                    I8      309.  16.00      138.      88.      30.     1.29
+          ROUTED TO
                 I8-J8      316.  16.25      138.      88.      30.     1.29
+          HYDROGRAPH AT
                   103      206.  14.00      107.      35.      12.     0.51
+          DIVERSION TO
               103ret      206.  14.00       74.      21.       7.     0.51
+          HYDROGRAPH AT
                 103-O      139.  15.00       47.      14.       5.     0.51
+          3 COMBINED AT
                    J8      635.  16.50      378.     245.      90.     2.77
+          HYDROGRAPH AT
                   107      175.  13.75       77.      20.       7.     0.48
+          DIVERSION TO
               107ret      175.  13.75       52.      13.       4.     0.48
+          HYDROGRAPH AT
                 107-O      112.  15.00       28.       7.       2.     0.48

 *** NORMAL END OF HEC-1 ***

1*************************************                 *************************************
 *                                   *                 *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                 *   U.S. ARMY CORPS OF ENGINEERS    *
 *              JUN   1998           *                 *   HYDROLOGIC ENGINEERING CENTER   *
```

```
*          VERSION 4.1                *                                          *        609 SECOND STREET        *
*                                     *                                          *      DAVIS, CALIFORNIA 95616    *
*  RUN DATE   23MAR06  TIME  05:04:05 *                                          *          (916) 756-1104         *
*                                     *                                          *                                 *
***************************************                                          *********************************
```

```
X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X               X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X               X
X     X  X        X     X         X
X     X  XXXXXXX   XXXXX         XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

```
1                                          HEC-1 INPUT                                                    PAGE  1

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

        1           ID   Buckeye/Sun Valley ADMS - November 2004
        2           ID   PBS&J - Modelers: Jacob Lesue & Wen Chen
        3           ID   100-year 24-hour
        4           ID   Future Conditions
        5           ID   Area 1 - BIC to Gila (East)
        6           ID   File Name: bge10024fut.hc1
        7           ID   Rainfall Loss Method - Green & Ampt
        8           ID   Unit Hydrograph Method - FCDMC S-Graph
        9           ID   Channel Routing Method - Normal Depth
       10           ID   Land Use - FCDMC GIS Data: mag_genplan (2000)
       11           ID   Future Land Use Build Out Date: 2025
       12           ID   Soil Data - USDA SCS Soil Survey (1972 & 1981)
       13           ID   Units - L(mi)   Lca(mi)   S(ft/mi)   LAG(min)
                    *DIAGRAM
       14           IT      15 02JAN94       0      400
       15           IO       3
       16           IN      15 02JAN94       0
       17           JD     4.1    0.01
                    * 24-hour distribution
       18           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
       19           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
       20           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
       21           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
       22           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
       23           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
       24           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
       25           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
       26           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
       27           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
       28           IN      15 02JAN94       0
       29           JD   3.895    10.0
                    * 24-hour distribution
       30           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
       31           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
       32           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
       33           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
       34           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
       35           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
       36           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
       37           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
       38           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
       39           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
       40           IN      15 02JAN94       0
       41           JD   3.764    20.0
                    * 24-hour distribution
       42           PC     0.0   0.002   0.005   0.008   0.011   0.014   0.017    0.02   0.023   0.026
       43           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056    0.06
       44           PC   0.064   0.068   0.072   0.076    0.08   0.085    0.09   0.095     0.1   0.105
       45           PC    0.11   0.115    0.12   0.126   0.133    0.14   0.147   0.155   0.163   0.172
       46           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
       47           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
       48           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
       49           PC   0.913   0.918   0.922   0.926    0.93   0.934   0.938   0.942   0.946    0.95
       50           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977    0.98
       51           PC   0.983   0.986   0.989   0.992   0.995   0.998     1.0
                    * ***********************************************************************
                    * **   SUB-WATERSHED M   ***********************************************
                    * ***********************************************************************
1                                          HEC-1 INPUT                                                    PAGE  2

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


       52           KK    BICM
       53           KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
       54           BA   0.001
       55           ZR  =QI A=BIC BIC B=52599 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-24F

       56           KK  M4S6TH   CNAME     M4S
       57           KM   ROUTE INFLOW FROM BIC CONCENTRATED AT M4S TO 6TH (CHANNEL M4S-6TH)
       58           KO       0       0     0.0       0      22
       59           RS       1    FLOW     0.0     0.0
       60           RC    0.05   0.015    0.05  1950.0   0.008     0.0
       61           RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
       62           RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

       63           KK     4th
       64           KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
       65           KM   L=0.52     Lca=0.40     S=0.01     Kn=0.011     LAG=24
       66           KM   S-GRAPH TYPE=PHOENIX VALLEY
```

```
 67          KO       0       0     0.0       1      22
 68          BA  0.0819
 69          LG   0.159    0.25   5.145   0.347  59.505
 70          UI     0.0   39.02  109.68   50.31    9.67     0.0

 71          KK   TO6th
 72          KM   HYDRPGRAPH DIVERTED TO 4THS
 73          KO       0       0     0.0       0      22
 74          DT  TO4THS     0.0     0.0
 75          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 76          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 77          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 78          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

 79          KK  4TH6TH   CNAME    4thA
 80          KM   ROUTE HYDRPGRAPH FROM 4TH CONCENTRATED AT 4THA TO 6TH (CHANNEL 4TH6TH)
 81          KO       0       0     0.0       0      22
 82          RS       1    FLOW     0.0     0.0
 83          RC    0.05   0.015    0.05  900.28   0.002     0.0
 84          RX     0.0   100.0   100.0  127.49  127.51   155.0   155.0   255.0
 85          RY     2.0     0.5     0.0    0.55    0.55     0.0     0.5     2.0

 86          KK     6th
 87          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 88          KM   L=0.46     Lca=0.17     S=0.01     Kn=0.011     LAG=17
 89          KM   S-GRAPH TYPE=PHOENIX VALLEY
 90          KO       0       0     0.0       1      22
 91          BA  0.0571
 92          LG   0.208    0.15   7.572   0.123  43.141
 93          UI     0.0   54.83   81.61    9.82     0.0

 94          KK    6thA   CNAME  6TH8TH
 95          KM   COMBINE ROUTED HYDROGRAPH FROM 4THA WITH RUNOFF FROM 6TH @ 6THA
 96          KO       0       0     0.0       0      22
 97          HC       3
1                                          HEC-1 INPUT                                                    PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 98          KK   TO8TH
 99          KM   HYDRPGRAPH DIVERTED TO 7THS
100          KO       0       0     0.0       0      22
101          DT  TO7THS     0.0     0.0
102          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
103          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
104          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
105          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

106          KK  6TH8TH   CNAME    6thA
107          KM   ROUTE HYDRPGRAPH FROM 6THA TO 8TH (CHANNEL 6TH8TH)
108          KO       0       0     0.0       0      22
109          RS       1    FLOW     0.0     0.0
110          RC    0.05   0.015    0.05 1120.51   0.002     0.0
111          RX     0.0   100.0   100.0  127.49  127.51   155.0   155.0   255.0
112          RY     2.0     0.5     0.0    0.55    0.55     0.0     0.5     2.0

113          KK     8th
114          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
115          KM   L=0.60     Lca=0.31     S=0.01     Kn=0.011     LAG=23
116          KM   S-GRAPH TYPE=PHOENIX VALLEY
117          KO       0       0     0.0       1      22
118          BA  0.0793
119          LG   0.235    0.15    8.77   0.075    35.0
120          UI     0.0   41.0  110.28   43.97    7.58     0.0

121          KK    8thA   CNAME  8TH9TH
122          KM   COMBINE ROUTED HYDROGRAPH FROM 6THA WITH RUNOFF FROM 8TH @ 8THA
123          KO       0       0     0.0       0      22
124          HC       2

125          KK   TO9TH
126          KM   HYDRPGRAPH DIVERTED TO CENTRA
127          KO       0       0     0.0       0      22
128          DT  TOCEN1     0.0     0.0
129          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
130          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
131          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
132          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

133          KK  8TH9TH   CNAME    8thA
134          KM   ROUTE HYDRPGRAPH FROM 8THA TO 9TH (CHANNEL 8TH9TH)
135          KO       0       0     0.0       0      22
136          RS       1    FLOW     0.0     0.0
137          RC    0.05   0.015    0.05  702.41   0.002     0.0
138          RX     0.0   100.0   100.0  127.49  127.51   155.0   155.0   255.0
139          RY     2.0     0.5     0.0    0.55    0.55     0.0     0.5     2.0

140          KK     9thE
141          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
142          KM   L=0.77     Lca=0.39     S=0.00     Kn=0.011     LAG=29
143          KM   S-GRAPH TYPE=PHOENIX VALLEY
144          KO       0       0     0.0       1      22
145          BA  0.0947
1                                          HEC-1 INPUT                                                    PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

146          LG   0.151    0.15   8.731   0.088  31.799
147          UI     0.0   31.39   99.09    80.3   25.22    5.83     0.0

148          KK     9thW
149          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
150          KM   L=0.54     Lca=0.32     S=0.01     Kn=0.011     LAG=22
151          KM   S-GRAPH TYPE=PHOENIX VALLEY
152          KO       0       0     0.0       1      22
153          BA  0.0813
154          LG   0.143    0.15    8.42   0.105   14.13
155          UI     0.0   45.77  116.37   40.05    6.23     0.0

156          KK     9th
157          KM   COMBINE ROUTED HYDROGRAPH FROM 8THA WITH RUNOFF FROM 9THE AND 9THW @ 9TH
158          KO       0       0     0.0       0      22
159          HC       3
```

```
160          KK   TODET
161          KM   HYDRPGRAPH DIVERTED TO CENTRA
162          KO       0       0     0.0       0      22
163          DT  TOCEN2     0.0     0.0
164          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
165          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
166          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
167          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
             * ***********************************************************************
             * **   SUB-WATERSHED N-A   (DRAINS INTO SUB-WATERSHED M) **********************
             * ***********************************************************************

168          KK    BICN
169          KM   FALSE BASIN TO SIMULATE INPLOW FROM BIC
170          BA   0.001
171          ZR  =QI A=BIC BIC B=58999 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-24F

172          KK   N6S-D   CNAME     N6S
173          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT N6S TO DRAINA (CHANNEL A)
174          KO       0       0     0.0       0      22
175          RS       1    FLOW     0.0     0.0
176          RC     0.1     0.1     0.1 12189.0   0.003     0.0
177          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
178          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
             * ***********************************************************************
             * **   SUB-WATERSHED O (DRAINS INTO SUB-WATERSHED M) **********************
             * ***********************************************************************

179          KK    BICO
180          KM   FALSE BASIN TO SIMULATE INPLOW FROM BIC
181          BA   0.001
182          ZR  =QI A=BIC BIC B=63799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-24F
1                                          HEC-1 INPUT                                          PAGE  5

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

183          KK   O8SO9   CNAME     O8S
184          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT O8S TO O9 (CHANNEL A)
185          KO       0       0     0.0       0      22
186          RS       1    FLOW     0.0     0.0
187          RC     0.1     0.1     0.1  6048.0   0.004     0.0
188          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
189          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

190          KK      93
191          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
192          KM   L=1.21      Lca=0.60      S=17.39      Kn=0.200      LAG=148
193          KM   S-GRAPH TYPE=AGRICULTURE
194          KO       0       0     0.0       1      22
195          BA  0.3774
196          LG    0.26    0.25   4.879   0.323  31.085
197          UI     0.0     9.4     9.4    19.0   37.89   54.24   57.18   73.55   78.99   78.99
198          UI   77.24   65.83   70.53    53.4   54.15   37.91   32.75   26.86   26.09   17.25
199          UI   15.19   11.72   10.73    8.59    8.51    5.34    5.34    5.34    3.78    1.18
200          UI    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18
201          UI    1.18    1.18    1.18    1.18    1.18     0.0

202          KK    93-O
203          KO       0       0     0.0       0      22
204          DT   93ret    26.0     0.0
205          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
206          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
207          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
208          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

209          KK      09   CNAME   O9O10
210          KM   COMBINE ROUTED HYDROGRAPH FROM O9 WITH RUNOFF FROM 93 @ O10
211          KO       0       0     0.0       0      22
212          HC       2

213          KK   O9O10   CNAME      O9
214          KM   ROUTE HYDRPGRAPH FROM O9 TO O10 (CHANNEL A)
215          KO       0       0     0.0       0      22
216          RS      26    FLOW     0.0     0.0
217          RC     0.1     0.1     0.1 8757.67   0.001     0.0
218          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
219          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

220          KK      95
221          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
222          KM   L=1.66      Lca=0.83      S=7.84      Kn=0.200      LAG=220
223          KM   S-GRAPH TYPE=AGRICULTURE
224          KO       0       0     0.0       1      22
225          BA  0.5221
226          LG    0.25    0.15     8.2   0.093  36.112
227          UI     0.0    8.75    8.75    8.75   17.61   23.93   39.41   52.07   46.56    58.0
228          UI   66.98   73.51   73.51   73.51   73.51   69.43   61.26    62.9   68.12   47.05
229          UI   46.97   50.07   35.29   33.42    27.5   24.86   27.14   19.64   16.37   14.14
230          UI   13.38   10.81   10.81    8.74    7.99    7.99     6.9    4.97    4.97    4.97
231          UI    4.97    4.97    1.35    1.09    1.09    1.09    1.09    1.09    1.09    1.09
1                                          HEC-1 INPUT                                          PAGE  6

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

232          UI    1.09    1.09    1.09    1.09    1.09    1.09    1.09    1.09    1.09    1.09
233          UI    1.09    1.09    1.09    1.09    1.09    1.09     0.0

234          KK    95-O
235          KO       0       0     0.0       0      22
236          DT   95ret    42.0     0.0
237          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
238          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
239          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
240          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

241          KK     O10   CNAME   O10DR
242          KM   COMBINE ROUTED HYDROGRAPH FROM O9 WITH RUNOFF FROM 95 @ O10
243          KO       0       0     0.0       0      22
244          HC       2

245          KK   TODRN
246          KM   HYDRPGRAPH DIVERTED TO P9
```

```
 247          KO       0       0     0.0       0      22
 248          DT    TOP9     0.0     0.0
 249          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 250          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 251          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 252          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

 253          KK  O10DRN   CNAME     O10
 254          KM   ROUTE HYDRPGRAPH FROM O10 TO DRAINA (CHANNEL A)
 255          KO       0       0     0.0       0      22
 256          RS      26    FLOW     0.0     0.0
 257          RC     0.1     0.1     0.1 5733.05  0.0003     0.0
 258          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 259          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 260          KK  CENTRE
 261          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 262          KM   L=0.40     Lca=0.23     S=0.01     Kn=0.011     LAG=18
 263          KM   S-GRAPH TYPE=PHOENIX VALLEY
 264          KO       0       0     0.0       1      22
 265          BA  0.0692
 266          LG   0.246   0.153   6.965   0.148   31.22
 267          UI     0.0   58.22  103.23   15.09     0.0

 268          KK  FRM9TH
 269          KM   RETRIEVE HYDROGRAPH FROM 9TH
 270          KO       0       0     0.0       0      22
 271          DR  TOCEN2

 272          KK  9THCEN   CNAME
 273          KM   ROUTE HYDRPGRAPH FROM 9TH TO CENTRA (CHANNEL 9THCEN)
 274          RS       1    FLOW     0.0     0.0
 275          RC    0.05   0.015    0.05  1300.0   0.008     0.0
 276          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 277          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0
1                                          HEC-1 INPUT                                                    PAGE  7
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 278          KK  FRM8TH
 279          KM   RETRIEVE HYDROGRAPH FROM 8TH
 280          KO       0       0     0.0       0      22
 281          DR  TOCEN1

 282          KK  8THCEN   CNAME
 283          KM   ROUTE HYDRPGRAPH FROM 8TH TO CENTRA (CHANNEL 8THCEN)
 284          RS       1    FLOW     0.0     0.0
 285          RC    0.05   0.015    0.05  1967.0   0.007     0.0
 286          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 287          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 288          KK  CENTRA   CNAME  CENBEL
 289          KM   COMBINE DIVERTED HYDROGRAPHS FROM 8THA AND 9TH WITH RUNOFF FROM CENTRAL @ CEN
 290          KO       0       0     0.0       0      22
 291          HC       3

 292          KK  TOBELO
 293          KM   HYDRPGRAPH DIVERTED TO BELOAA
 294          KO       0       0     0.0       0      22
 295          DT   TODRN     0.0     0.0
 296          DI     0.0   100.0  1000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 297          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 298          DQ     0.0    50.0   500.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0
 299          DQ  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0  1000.0

 300          KK  CENBEL   CNAME  CENTRA
 301          KM   ROUTE HYDRPGRAPH FROM CENTRA TO BELOAA (CHANNEL CENBEL)
 302          KO       0       0     0.0       0      22
 303          RS       2    FLOW     0.0     0.0
 304          RC    0.05   0.015    0.05 2520.78   0.005     0.0
 305          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 306          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 307          KK  BELOAT
 308          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 309          KM   L=0.44     Lca=0.25     S=0.00     Kn=0.011     LAG=19
 310          KM   S-GRAPH TYPE=PHOENIX VALLEY
 311          KO       0       0     0.0       1      22
 312          BA  0.0470
 313          LG   0.237    0.15   9.327   0.064   34.386
 314          UI     0.0   35.33   70.77   13.41     0.0

 315          KK  BELOAA   CNAME  BELDRN
 316          KM   COMBINE ROUTED HYDROGRAPH FROM CENTRA WITH RUNOFF FROM BELOAT @ BELOAA
 317          KO       0       0     0.0       0      22
 318          HC       2

 319          KK  BELDRN   CNAME  BELOAA
 320          KM   ROUTE HYDRPGRAPH FROM BELOAA TO DRAINA (CHANNEL BELDRN)
 321          KO       0       0     0.0       0      22
 322          RS       2    FLOW     0.0     0.0
 323          RC   0.035   0.015   0.035 1391.66   0.001     0.0
 324          RX     0.0   108.0   120.0  131.99   132.0   144.0   156.0   264.0
1                                          HEC-1 INPUT                                                    PAGE  8
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 325          RY     8.0     0.0     3.0    3.24    3.24     3.0     0.0     8.0

 326          KK  BAYLIS
 327          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 328          KM   L=0.30     Lca=0.08     S=0.01     Kn=0.011     LAG=9
 329          KM   S-GRAPH TYPE=PHOENIX VALLEY
 330          KO       0       0     0.0       1      22
 331          BA  0.0155
 332          LG     0.1    0.15     9.7   0.069    80.0
 333          UI     0.0   36.19     0.0

 334          KK  DETDRN   CNAME     DET
 335          KM   ROUTE HYDROGRAPH FROM DET TO DRAINA (CHANNEL DETDRN)
 336          KO       0       0     0.0       0      22
 337          RS       1    FLOW     0.0     0.0
 338          RC    0.05    0.03    0.05 2655.17   0.007     0.0
```

```
 339          RX     0.0    50.0   100.0   108.0   110.0   118.0   168.0   218.0
 340          RY     9.0     8.5     8.0     0.0     0.0     8.0     8.5     9.0

 341          KK      92
 342          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 343          KM   L=2.06      Lca=1.03      S=17.46      Kn=0.200      LAG=223
 344          KM   S-GRAPH TYPE=AGRICULTURE
 345          KO      0       0     0.0       1      22
 346          BA  1.0140
 347          LG   0.229    0.15   8.658   0.079  42.566
 348          UI     0.0   40.65    78.1  207.32  268.02  327.77  341.43  292.11  269.54  214.08
 349          UI  145.16  120.99   73.46   57.17   43.57   35.76   23.07   23.07     8.2    5.08
 350          UI    5.08    5.08    5.08    5.08    5.08    5.08    5.08    5.08     0.0

 351          KK    92-O
 352          KO      0       0     0.0       0      22
 353          DT   92ret    65.0     0.0
 354          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 355          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 356          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 357          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 358          KK   DRAIN
 359          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 360          KM   L=0.59      Lca=0.26      S=0.01      Kn=0.011      LAG=20
 361          KM   S-GRAPH TYPE=PHOENIX VALLEY
 362          KO      0       0     0.0       1      22
 363          BA  0.1155
 364          LG   0.242    0.15   9.659   0.059  32.685
 365          UI     0.0   78.37   172.3   41.74     0.0

 366          KK  FRMCEN
 367          KM   RETRIEVE HYDROGRAPH FROM CENTRA
 368          KO      0       0     0.0       0      22
 369          DR   TODRN
1                                          HEC-1 INPUT                                                    PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 370          KK  CENDRN   CNAME
 371          KM   ROUTE HYDROGRAPH FROM CENTRA TO DRAINA (CHANNEL CENDRN)
 372          RS      1    FLOW     0.0     0.0
 373          RC    0.05    0.05    0.05  1888.0   0.005     0.0
 374          RX     0.0   300.0   600.0   900.0  1200.0  1500.0  1800.0  2100.0
 375          RY     1.0    0.67    0.33     0.0     0.0    0.33    0.67     1.0

 376          KK  DRAINA   CNAME   DRNM5
 377          KM   COMBINE DIVERTED HYDROGRAPH FROM CENTRA WITH ROUTED HYDROGRAPHS FROM BELOAA,
 378          KO      0       0     0.0       0      22
 379          HC      7

 380          KK   DRNM5   CNAME  DRAINA
 381          KM   ROUTE HYDROGRAPH FROM DRAINA TO M5 (CHANNEL DRNM5)
 382          KO      0       0     0.0       0      22
 383          RS      8    FLOW     0.0     0.0
 384          RC    0.05    0.05    0.05 7894.85   0.001     0.0
 385          RX     0.0   500.0   525.0   528.0   543.0   546.0   571.0  1071.0
 386          RY     9.0     4.0     2.0     0.0     0.0     2.0     4.0     9.0

 387          KK    4thS
 388          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 389          KM   L=0.74      Lca=0.50      S=0.01      Kn=0.011      LAG=30
 390          KM   S-GRAPH TYPE=PHOENIX VALLEY
 391          KO      0       0     0.0       1      22
 392          BA  0.1451
 393          LG   0.166   0.203   6.474   0.206  36.974
 394          UI     0.0   44.97  142.41  127.57   44.49   10.45     0.0

 395          KK  FRM4TH
 396          KM   RETRIEVE HYDROGRAPH FROM 4TH
 397          KO      0       0     0.0       0      22
 398          DR  TO4THS

 399          KK   4TH4S   CNAME
 400          KM   ROUTE HYDROGRAPH FROM 4THA TO 4THSA (CHANNEL 4TH4S)
 401          RS      1    FLOW     0.0     0.0
 402          RC    0.05   0.015    0.05  2629.0   0.015     0.0
 403          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 404          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 405          KK   4thSA   CNAME  4TH7TH
 406          KM   COMBINE DIVERTED HYDROGRAPH FROM 4THA WITH RUNOFF FROM 4THS @ 4THSA
 407          KO      0       0     0.0       0      22
 408          HC      2

 409          KK  4TH7TH   CNAME   4thSA
 410          KM   ROUTE HYDROGRAPH FROM 4THSA TO 7THSA (CHANNEL 4TH7TH)
 411          KO      0       0     0.0       0      22
 412          RS      2    FLOW     0.0     0.0
 413          RC    0.05   0.015    0.05 1378.54   0.003     0.0
 414          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 415          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0
1                                          HEC-1 INPUT                                                    PAGE 10

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 416          KK     7th
 417          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 418          KM   L=0.66      Lca=0.33      S=0.01      Kn=0.011      LAG=24
 419          KM   S-GRAPH TYPE=PHOENIX VALLEY
 420          KO      0       0     0.0       1      22
 421          BA  0.1268
 422          LG   0.248    0.25   5.114   0.311  29.143
 423          UI     0.0   60.41  169.79   77.88   14.98     0.0

 424          KK  FRM6TH
 425          KM   RETRIEVE HYDROGRAPH FROM 6THA
 426          KO      0       0     0.0       0      22
 427          DR  TO7THS

 428          KK  6TH7TH   CNAME
 429          KM   ROUTE HYDROGRAPH FROM 6THA TO 7THSA (CHANNEL 6TH7TH)
```

```
 430          RS       1    FLOW     0.0     0.0
 431          RC    0.05   0.015    0.05  3061.0  0.0059     0.0
 432          RX     0.0   100.0   100.0  111.99   112.0   124.0   124.0   224.0
 433          RY     2.0     0.5     0.0    0.24    0.24     0.0     0.5     2.0

 434          KK   7thSA   CNAME   7THM5
 435          KM   COMBINE DIVERTED HYDROGRAPH FROM 6THA WITH ROUTED HYDROGRAPH FROM 4THSA WITH
 436          KO       0       0     0.0       0      22
 437          HC       3

 438          KK   7THM5   CNAME   7thSA
 439          KM   ROUTE HYDROGRAPH FROM 7THSA TO M5 (CHANNEL 7THM5)
 440          KO       0       0     0.0       0      22
 441          RS       3    FLOW     0.0     0.0
 442          RC    0.05    0.05    0.05 5286.53   0.002     0.0
 443          RX     0.0    25.0    28.0    31.0    46.0    49.0    52.0    77.0
 444          RY     6.0     4.0     2.0     0.0     0.0     2.0     4.0     6.0

 445          KK      98
 446          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 447          KM   L=1.50     Lca=0.75     S=6.69     Kn=0.200     LAG=209
 448          KM   S-GRAPH TYPE=AGRICULTURE
 449          KO       0       0     0.0       1      22
 450          BA  0.3878
 451          LG    0.19    0.15   9.082   0.073  38.285
 452          UI     0.0   14.59   24.67   66.97   88.8  117.54  122.57  113.04  108.08    79.8
 453          UI    66.8   46.99   39.56   25.34  19.48   15.08    12.7    8.28    8.28    3.72
 454          UI    1.82    1.82    1.82    1.82   1.82    1.82    1.82    1.82    1.82    1.82
 455          UI     0.0

 456          KK    98-O
 457          KO       0       0     0.0       0      22
 458          DT   98ret    26.0     0.0
 459          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 460          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 461          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 462          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
1                                          HEC-1 INPUT                                          PAGE 11

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 463          KK      M5
 464          KM   COMBINE ROUTED HYDROGRAPHs FROM 7THSA AND DRAINA WITH RUNOFF FROM 98 @ M5
 465          KO       0       0     0.0       0      22
 466          HC       3
              * ***********************************************************************
              * **   SUB-WATERSHED P   ***********************************************
              * ***********************************************************************

 467          KK    BICP
 468          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
 469          BA   0.001
 470          ZR  =QI A=BIC BIC B=67395 LAT STRUCT C=FLOW-WEIR D=02JAN1994 S=15MIN F=BIC-100-24F

 471          KK   P6SP7   CNAME     P6S
 472          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT P6S TO P7 (CHANNEL A)
 473          KO       0       0     0.0       0      22
 474          RS       1    FLOW     0.0     0.0
 475          RC     0.1     0.1     0.1  5100.0   0.005     0.0
 476          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 477          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 478          KK      94
 479          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 480          KM   L=1.30     Lca=0.65     S=22.37     Kn=0.200     LAG=149
 481          KM   S-GRAPH TYPE=AGRICULTURE
 482          KO       0       0     0.0       1      22
 483          BA  0.7194
 484          LG   0.249    0.15   7.304   0.126   43.87
 485          UI     0.0   17.81   17.81   35.71   70.46  102.77  107.11  138.19  149.58  149.58
 486          UI  147.91  124.65  131.59  105.71  101.03   75.79   63.54   51.25   51.33   33.33
 487          UI   28.76   23.11   21.15   16.26   16.26   10.96   10.11   10.11    8.64    2.23
 488          UI    2.23    2.23    2.23    2.23    2.23    2.23    2.23    2.23    2.23    2.23
 489          UI    2.23    2.23    2.23    2.23    2.23     0.0

 490          KK    94-O
 491          KO       0       0     0.0       0      22
 492          DT   94ret    58.0     0.0
 493          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 494          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 495          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 496          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 497          KK      P7   CNAME   P7-P8
 498          KM   COMBINE ROUTED HYDROGRAPH FROM P6S WITH RUNOFF FROM 94 @ P7
 499          KO       0       0     0.0       0      22
 500          HC       2

 501          KK   P7-P8   CNAME      P7
 502          KM   ROUTE HYDROGRAPH FROM P7 TO P8 (CHANNEL A)
 503          KO       0       0     0.0       0      22
 504          RS      10    FLOW     0.0     0.0
 505          RC     0.1     0.1     0.1 3899.99   0.002     0.0
 506          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 507          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0
1                                          HEC-1 INPUT                                          PAGE 12

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 508          KK      96
 509          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 510          KM   L=1.32     Lca=0.66     S=4.55     Kn=0.200     LAG=205
 511          KM   S-GRAPH TYPE=AGRICULTURE
 512          KO       0       0     0.0       1      22
 513          BA  0.9142
 514          LG     0.3    0.15   7.196   0.114     5.0
 515          UI     0.0   16.45   16.45    18.8   34.54   52.11   84.71   98.14   96.32  126.68
 516          UI  129.26  138.14  138.14  138.14  130.47  115.12  121.64  118.86   86.34   91.94
 517          UI   82.29   63.36   57.32   47.86   49.06   41.47   31.23   26.57   24.96   20.31
 518          UI   20.31   15.37   15.02   15.02   10.53    9.33    9.33    9.33    9.33     4.0
 519          UI    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06
 520          UI    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06    2.06
```

```
 521          UI    2.06    2.06     0.0

 522          KK    96-O
 523          KO       0       0     0.0       0      22
 524          DT   96ret    50.0     0.0
 525          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 526          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 527          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 528          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 529          KK      P8   CNAME   P8-P9
 530          KM   COMBINE ROUTED HYDROGRAPH FROM 97 WITH RUNOFF FROM 96 @ P8
 531          KO       0       0     0.0       0      22
 532          HC       2

 533          KK   P8-P9   CNAME      P8
 534          KM   ROUTE HYDROGRAPH FROM P8 TO P9 (CHANNEL A)
 535          KO       0       0     0.0       0      22
 536          RS      12    FLOW     0.0     0.0
 537          RC     0.1     0.1     0.1 6986.11   0.001     0.0
 538          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 539          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 540          KK      97
 541          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 542          KM   L=1.32     Lca=0.66     S=6.05     Kn=0.200     LAG=195
 543          KM   S-GRAPH TYPE=AGRICULTURE
 544          KO       0       0     0.0       1      22
 545          BA  0.5002
 546          LG     0.3   0.163   6.866    0.13     5.0
 547          UI     0.0    9.46    9.46   12.27   19.87   35.86   52.15   53.64   61.59   73.51
 548          UI   79.47   79.47   79.47   79.47   66.22   66.89    74.0   49.67   52.15   48.28
 549          UI   36.52   32.56   27.34   28.83   21.44   17.23   15.28   13.09   11.69   10.47
 550          UI    8.64    8.64     7.3    5.37    5.37    5.37    5.37    2.86    1.18    1.18
 551          UI    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18
 552          UI    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18    1.18     0.0
1                                          HEC-1 INPUT                                          PAGE 13

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 553          KK    97-O
 554          KO       0       0     0.0       0      22
 555          DT   97ret    30.0     0.0
 556          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 557          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 558          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 559          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

 560          KK   FRO10
 561          KM   RETRIEVE HYDROGRAPH FROM O10
 562          KO       0       0     0.0       0      22
 563          DR    TOP9

 564          KK  O10-P9   CNAME
 565          KM   ROUTE HYDROGRAPH FROM O10 TO P9 (CHANNEL O10-P9)
 566          RS       1    FLOW     0.0     0.0
 567          RC    0.05    0.05    0.05  1492.0   0.002     0.0
 568          RX     0.0   200.0   235.0   251.0   263.0   279.0   314.0   349.0
 569          RY    12.0    10.0     8.0     0.0     0.0     8.0    10.0    12.0

 570          KK      P9   CNAME  P9-P10
 571          KM   COMBINE ROUTED HYDROGRAPH FROM P8 WITH DIVERTED HYDROGRAPH FROM O10 WITH RUNO
 572          KO       0       0     0.0       0      22
 573          HC       3

 574          KK  P9-P10   CNAME      P9
 575          KM   ROUTE HYDROGRAPH FROM P9 TO P10 (CHANNEL A)
 576          KO       0       0     0.0       0      22
 577          RS       5    FLOW     0.0     0.0
 578          RC     0.1     0.1     0.1 3952.01   0.005     0.0
 579          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
 580          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

 581          KK     100
 582          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 583          KM   L=1.70     Lca=0.85     S=18.83     Kn=0.200     LAG=190
 584          KM   S-GRAPH TYPE=AGRICULTURE
 585          KO       0       0     0.0       1      22
 586          BA  0.5816
 587          LG     0.1   0.226   6.243    0.26     5.0
 588          UI     0.0   11.29   11.29   15.51   24.87    45.7   65.19   60.85   82.97   85.34
 589          UI   94.82   94.82   94.82   89.56   79.02   84.02   75.73   59.27   66.61   45.77
 590          UI    43.1   33.76   32.34    31.6   21.55   18.46   17.01   13.94   13.46   10.31
 591          UI   10.31    9.45    6.41    6.41    6.41    6.41    3.74    1.41    1.41    1.41
 592          UI    1.41    1.41    1.41    1.41    1.41    1.41    1.41    1.41    1.41    1.41
 593          UI    1.41    1.41    1.41    1.41    1.41    1.41    1.41     0.0

 594          KK   100-O
 595          KO       0       0     0.0       0      22
 596          DT  100ret    25.0     0.0
 597          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 598          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 599          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
 600          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
1                                          HEC-1 INPUT                                          PAGE 14

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 601          KK     P10
 602          KM   COMBINE ROUTED HYDROGRAPH FROM P9 WITH RUNOFF FROM 100 @ P10
 603          KO       0       0     0.0       0      22
 604          HC       2
              * ***********************************************************************
              * **   SUB-WATERSHED N-B   ***********************************************
              * ***********************************************************************

 605          KK      99
 606          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 607          KM   L=2.01     Lca=1.24     S=3.49     Kn=0.050     LAG=80
 608          KM   S-GRAPH TYPE=PHOENIX VALLEY
 609          KO       0       0     0.0       1      22
 610          BA  0.9484
```

```
611          LG   0.107   0.248   6.022   0.276  11.109
612          UI     0.0   39.92  121.66  208.16  273.54  409.44  445.57  321.29  237.94  165.13
613          UI    81.8   57.84   37.85   12.24   12.24   12.24     0.0

614          KK    99-O
615          KO       0       0     0.0       0      22
616          DT   99ret    42.0     0.0
617          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
618          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
619          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
620          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
             * ***********************************************************************
             * **   SUB-WATERSHED Q   ***********************************************
             * ***********************************************************************

621          KK     101
622          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
623          KM   L=1.63      Lca=0.81     S=8.59      Kn=0.200      LAG=213
624          KM   S-GRAPH TYPE=AGRICULTURE
625          KO       0       0     0.0       1      22
626          BA  0.3807
627          LG   0.157   0.154   6.963    0.16     5.0
628          UI     0.0    6.59    6.59    6.72   13.84   19.36   31.67   39.52   35.16   50.66
629          UI   48.72   55.36   55.36   55.36   55.36   47.98   46.14   49.41   43.25    34.6
630          UI   38.51    29.5   25.17   22.12   19.02   19.89   16.22   12.54   10.65   10.21
631          UI    8.14    8.14    6.53    6.02    6.02    4.89    3.74    3.74    3.74    3.74
632          UI    3.04    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82
633          UI    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82    0.82
634          UI    0.82    0.82    0.82    0.82     0.0

635          KK   101-O
636          KO       0       0     0.0       0      22
637          DT  101ret    18.0     0.0
638          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
639          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
640          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
641          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
             * ***********************************************************************
             * **   SUB-WATERSHED K   ***********************************************
             * ***********************************************************************
1                                          HEC-1 INPUT                                          PAGE 15

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

642          KK    BICK
643          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
644          BA   0.001
645          ZR  =QI A=BIC BIC B=42799 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-24F

646          KK   K7SK8   CNAME     K7S
647          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT K7S TO K8 (CHANNEL A)
648          KO       0       0     0.0       0      22
649          RS       1    FLOW     0.0     0.0
650          RC     0.1     0.1     0.1  8240.0   0.005     0.0
651          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
652          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

653          KK      90
654          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
655          KM   L=2.05      Lca=1.02     S=21.50     Kn=0.200      LAG=213
656          KM   S-GRAPH TYPE=AGRICULTURE
657          KO       0       0     0.0       1      22
658          BA  1.0549
659          LG    0.16    0.15   9.525   0.063  57.603
660          UI     0.0   18.26   18.26   18.63   38.35   53.64   87.77   109.5   97.42  140.37
661          UI   135.0  153.41  153.41  153.41  153.41  132.96  127.84  136.92  119.85   95.88
662          UI  106.72   81.75   69.73   61.31   52.71   55.11   44.96   34.76    29.5   28.29
663          UI   22.56   22.56   18.09   16.68   16.68   13.56   10.37   10.37   10.37   10.37
664          UI    8.43    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
665          UI    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28    2.28
666          UI    2.28    2.28    2.28    2.28     0.0

667          KK    90-O
668          KO       0       0     0.0       0      22
669          DT   90ret    95.0     0.0
670          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
671          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
672          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
673          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

674          KK      K8
675          KM   COMBINE ROUTED HYDROGRAPH FROM K7S WITH RUNOFF FROM 90 @ K8
676          KO       0       0     0.0       0      22
677          HC       2
             * ***********************************************************************
             * **   SUB-WATERSHED L   ***********************************************
             * ***********************************************************************

678          KK    BICL
679          KM   FALSE BASIN TO SIMULATE INFLOW FROM BIC
680          BA   0.001
681          ZR  =QI A=BIC BIC B=47195 LAT STRUCT C=FLOW-WEIR D=02JAN1994 E=15MIN F=BIC-100-24F
1                                          HEC-1 INPUT                                          PAGE 16

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

682          KK   L5SL6   CNAME     L5S
683          KM   ROUTE INFLOW FROM BIC CONCENTRATED AT L5S TO L6 (CHANNEL A)
684          KO       0       0     0.0       0      22
685          RS       1    FLOW     0.0     0.0
686          RC     0.1     0.1     0.1  9280.0   0.005     0.0
687          RX     0.0   250.0   500.0   750.0  1000.0  1333.3  1666.6  2000.0
688          RY    10.0     7.5     5.0     2.5     0.0     3.3     6.6    10.0

689          KK      91
690          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
691          KM   L=2.08      Lca=1.04     S=21.10     Kn=0.200      LAG=217
692          KM   S-GRAPH TYPE=AGRICULTURE
693          KO       0       0     0.0       1      22
694          BA  1.1890
695          LG    0.26    0.15   8.293   0.086  23.16
696          UI     0.0   20.21   20.21   20.21   41.59   57.01   93.61  121.43  106.09  140.03
```

```
697          UI  156.16  169.74  169.74  169.74  169.74  154.65  141.45  151.68  144.39  106.09
698          UI  111.63  106.19   79.21   74.79   60.09   56.97   62.49   38.58   35.53   32.64
699          UI   27.78   24.96   23.83   18.45   18.45   18.45   12.54   11.47   11.47   11.47
700          UI   11.47    7.06    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53
701          UI    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53    2.53
702          UI    2.53    2.53    2.53    2.53    2.53     0.0

703          KK    91-O
704          KO       0       0     0.0       0      22
705          DT   91ret    70.0     0.0
706          DI     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
707          DI  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
708          DQ     0.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0
709          DQ  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0  2000.0

710          KK      L6
711          KM   COMBINE ROUTED HYDROGRAPH FROM L5S WITH RUNOFF FROM 91 @ L6
712          KO       0       0     0.0       0      22
713          HC       2
714          ZZ
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	BICM	44.	25.50	27.	7.	2.	0.00		
+	ROUTED TO	M4S6TH	43.	25.50	26.	7.	2.	0.00		
+	HYDROGRAPH AT	4th	137.	12.50	19.	6.	2.	0.08		
+	DIVERSION TO	TO4THS	68.	12.50	9.	3.	1.	0.08		
+	HYDROGRAPH AT	TO6th	68.	12.50	9.	3.	1.	0.08		
+	ROUTED TO	4TH6TH	59.	12.50	9.	3.	1.	0.08		
+	HYDROGRAPH AT	6th	100.	12.50	13.	4.	1.	0.06		
+	3 COMBINED AT	6thA	158.	12.50	27.	14.	5.	0.14		
+	DIVERSION TO	TO7THS	79.	12.50	13.	7.	2.	0.14		
+	HYDROGRAPH AT	TO8TH	79.	12.50	13.	7.	2.	0.14		
+	ROUTED TO	6TH8TH	71.	12.50	13.	7.	2.	0.14		
+	HYDROGRAPH AT	8th	143.	12.50	19.	6.	2.	0.08		
+	2 COMBINED AT	8thA	213.	12.50	30.	12.	4.	0.22		
+	DIVERSION TO	TOCEN1	106.	12.50	15.	6.	2.	0.22		
+	HYDROGRAPH AT	TO9TH	106.	12.50	15.	6.	2.	0.22		
+	ROUTED TO	8TH9TH	96.	12.50	15.	6.	2.	0.22		
+	HYDROGRAPH AT	9thE	144.	12.50	22.	6.	2.	0.09		
+	HYDROGRAPH AT	9thW	145.	12.50	16.	4.	1.	0.08		
+	3 COMBINED AT	9th	381.	12.50	52.	16.	6.	0.40		
+	DIVERSION TO	TOCEN2	191.	12.50	26.	8.	3.	0.40		
+	HYDROGRAPH AT	TODET	191.	12.50	26.	8.	3.	0.40		
+	HYDROGRAPH AT	BICN	213.	20.25	200.	105.	38.	0.00		
+	ROUTED TO	N6S-D	168.	25.25	159.	97.	38.	0.00		
+	HYDROGRAPH AT	BICO	33.	20.00	16.	4.	1.	0.00		
+	ROUTED TO	O8SO9	14.	22.75	11.	4.	1.	0.00		
+	HYDROGRAPH AT	93	121.	14.25	66.	21.	7.	0.38		
+	DIVERSION TO	93ret	121.	14.25	48.	13.	4.	0.38		
+	HYDROGRAPH AT	93-O	83.	15.50	26.	8.	3.	0.38		
+	2 COMBINED AT	O9	83.	15.50	28.	12.	4.	0.38		

+	ROUTED TO	09010	29.	23.25	21.	11.	4.	0.38
+	HYDROGRAPH AT	95	148.	15.25	104.	35.	12.	0.52
+	DIVERSION TO	95ret	148.	15.25	77.	21.	7.	0.52
+	HYDROGRAPH AT	95-O	107.	16.75	48.	15.	5.	0.52
+	2 COMBINED AT	O10	106.	16.75	50.	25.	9.	0.90
+	DIVERSION TO	TOP9	53.	16.75	25.	12.	4.	0.90
+	HYDROGRAPH AT	TODRN	53.	16.75	25.	12.	4.	0.90
+	ROUTED TO	O10DRN	23.	25.00	19.	11.	4.	0.90
+	HYDROGRAPH AT	CENTRE	123.	12.50	15.	4.	1.	0.07
+	HYDROGRAPH AT	FRM9TH	191.	12.50	26.	8.	3.	0.40
+	ROUTED TO	9THCEN	165.	12.50	26.	8.	3.	0.40
+	HYDROGRAPH AT	FRM8TH	106.	12.50	15.	6.	2.	0.22
+	ROUTED TO	8THCEN	88.	12.50	15.	6.	2.	0.22
+	3 COMBINED AT	CENTRA	380.	12.50	56.	19.	6.	0.07
+	DIVERSION TO	TODRN	190.	12.50	28.	9.	3.	0.07
+	HYDROGRAPH AT	TOBELO	190.	12.50	28.	9.	3.	0.07
+	ROUTED TO	CENBEL	167.	12.75	28.	9.	3.	0.07
+	HYDROGRAPH AT	BELOAT	88.	12.50	11.	3.	1.	0.05
+	2 COMBINED AT	BELOAA	219.	12.50	39.	12.	4.	0.12
+	ROUTED TO	BELDRN	206.	12.75	39.	12.	4.	0.12
+	HYDROGRAPH AT	BAYLIS	41.	12.25	4.	1.	0.	0.02
+	ROUTED TO	DETDRN	26.	12.25	4.	1.	0.	0.02
+	HYDROGRAPH AT	92	609.	13.50	238.	74.	25.	1.01
+	DIVERSION TO	92ret	598.	13.25	117.	33.	11.	1.01
+	HYDROGRAPH AT	92-O	556.	13.75	148.	41.	14.	1.01
+	HYDROGRAPH AT	DRAIN	215.	12.50	27.	8.	3.	0.12
+	HYDROGRAPH AT	FRMCEN	190.	12.50	28.	9.	3.	0.07
+	ROUTED TO	CENDRN	99.	13.00	27.	9.	3.	0.07
+	7 COMBINED AT	DRAINA	640.	13.75	247.	168.	65.	2.16
+	ROUTED TO	DRNM5	432.	15.50	243.	167.	65.	2.16
+	HYDROGRAPH AT	4thS	199.	12.50	30.	9.	3.	0.15
+	HYDROGRAPH AT	FRM4TH	68.	12.50	9.	3.	1.	0.08
+	ROUTED TO	4TH4S	60.	12.50	9.	3.	1.	0.08
+	2 COMBINED AT	4thSA	259.	12.50	39.	12.	4.	0.15
+	ROUTED TO	4TH7TH	246.	12.75	39.	12.	4.	0.15
+	HYDROGRAPH AT	7th	196.	12.50	23.	7.	2.	0.13
+	HYDROGRAPH AT	FRM6TH	79.	12.50	13.	7.	2.	0.14
+	ROUTED TO	6TH7TH	64.	12.50	13.	7.	2.	0.14

+	3 COMBINED AT	7thSA	442.	12.50	73.	25.	9.	0.27
+	ROUTED TO	7THM5	360.	13.00	73.	25.	9.	0.27
+	HYDROGRAPH AT	98	224.	13.50	91.	28.	9.	0.39
+	DIVERSION TO	98ret	224.	13.50	47.	13.	4.	0.39
+	HYDROGRAPH AT	98-O	200.	14.00	53.	15.	5.	0.39
+	3 COMBINED AT	M5	506.	14.00	354.	203.	78.	2.82
+	HYDROGRAPH AT	BICP	64.	20.00	21.	5.	2.	0.00
+	ROUTED TO	P6SP7	29.	21.50	17.	5.	2.	0.00
+	HYDROGRAPH AT	94	283.	14.25	157.	51.	17.	0.72
+	DIVERSION TO	94ret	283.	14.25	105.	29.	10.	0.72
+	HYDROGRAPH AT	94-O	217.	15.25	74.	22.	7.	0.72
+	2 COMBINED AT	P7	217.	15.25	77.	27.	9.	0.72
+	ROUTED TO	P7-P8	144.	17.25	70.	27.	9.	0.72
+	HYDROGRAPH AT	96	230.	15.00	148.	43.	14.	0.91
+	DIVERSION TO	96ret	230.	15.00	99.	25.	8.	0.91
+	HYDROGRAPH AT	96-O	189.	16.25	66.	18.	6.	0.91
+	2 COMBINED AT	P8	268.	17.00	132.	44.	15.	1.63
+	ROUTED TO	P8-P9	176.	20.75	112.	44.	15.	1.63
+	HYDROGRAPH AT	97	128.	15.00	79.	23.	8.	0.50
+	DIVERSION TO	97ret	128.	15.00	59.	15.	5.	0.50
+	HYDROGRAPH AT	97-O	85.	16.50	28.	8.	3.	0.50
+	HYDROGRAPH AT	FRO10	53.	16.75	25.	12.	4.	0.90
+	ROUTED TO	O10-P9	50.	17.25	25.	12.	4.	0.90
+	3 COMBINED AT	P9	198.	20.75	133.	62.	21.	2.13
+	ROUTED TO	P9-P10	185.	22.00	131.	62.	21.	2.13
+	HYDROGRAPH AT	100	126.	14.75	76.	22.	7.	0.58
+	DIVERSION TO	100ret	126.	14.75	49.	13.	4.	0.58
+	HYDROGRAPH AT	100-O	97.	16.00	35.	9.	3.	0.58
+	2 COMBINED AT	P10	187.	22.00	134.	70.	24.	2.72
+	HYDROGRAPH AT	99	545.	13.50	142.	39.	13.	0.95
+	DIVERSION TO	99ret	538.	13.25	81.	21.	7.	0.95
+	HYDROGRAPH AT	99-O	407.	13.75	67.	18.	6.	0.95
+	HYDROGRAPH AT	101	87.	15.25	57.	17.	6.	0.38
+	DIVERSION TO	101ret	87.	15.25	36.	9.	3.	0.38
+	HYDROGRAPH AT	101-O	76.	16.25	29.	8.	3.	0.38
+	HYDROGRAPH AT	BICK	512.	19.00	413.	141.	54.	0.00
+	ROUTED TO	K7SK8	415.	20.75	342.	139.	53.	0.00
+	HYDROGRAPH AT	90	342.	15.25	241.	86.	29.	1.05

```
          DIVERSION TO
+                    90ret     342.  15.25      169.      48.      16.     1.05
          HYDROGRAPH AT
+                     90-O     286.  16.25      129.      40.      13.     1.05
          2 COMBINED AT
+                       K8     482.  20.50      416.     179.      67.     1.06
          HYDROGRAPH AT
+                     BICL      77.  25.75       75.      57.      35.     0.00
          ROUTED TO
+                    L5SL6      72.  28.50       71.      54.      35.     0.00
          HYDROGRAPH AT
+                       91     324.  15.25      222.      72.      24.     1.19
          DIVERSION TO
+                    91ret     324.  15.25      132.      35.      12.     1.19
          HYDROGRAPH AT
+                     91-O     290.  16.25      129.      37.      12.     1.19
          2 COMBINED AT
+                       L6     310.  16.25      166.      90.      47.     1.19

*** NORMAL END OF HEC-1 ***
```

E. Hydraulic Analysis Supporting Documentation

E.1 Roughness Coefficient Estimation

E.1.1 Roosevelt Irrigation Ditch (RID) Roughness Coefficients

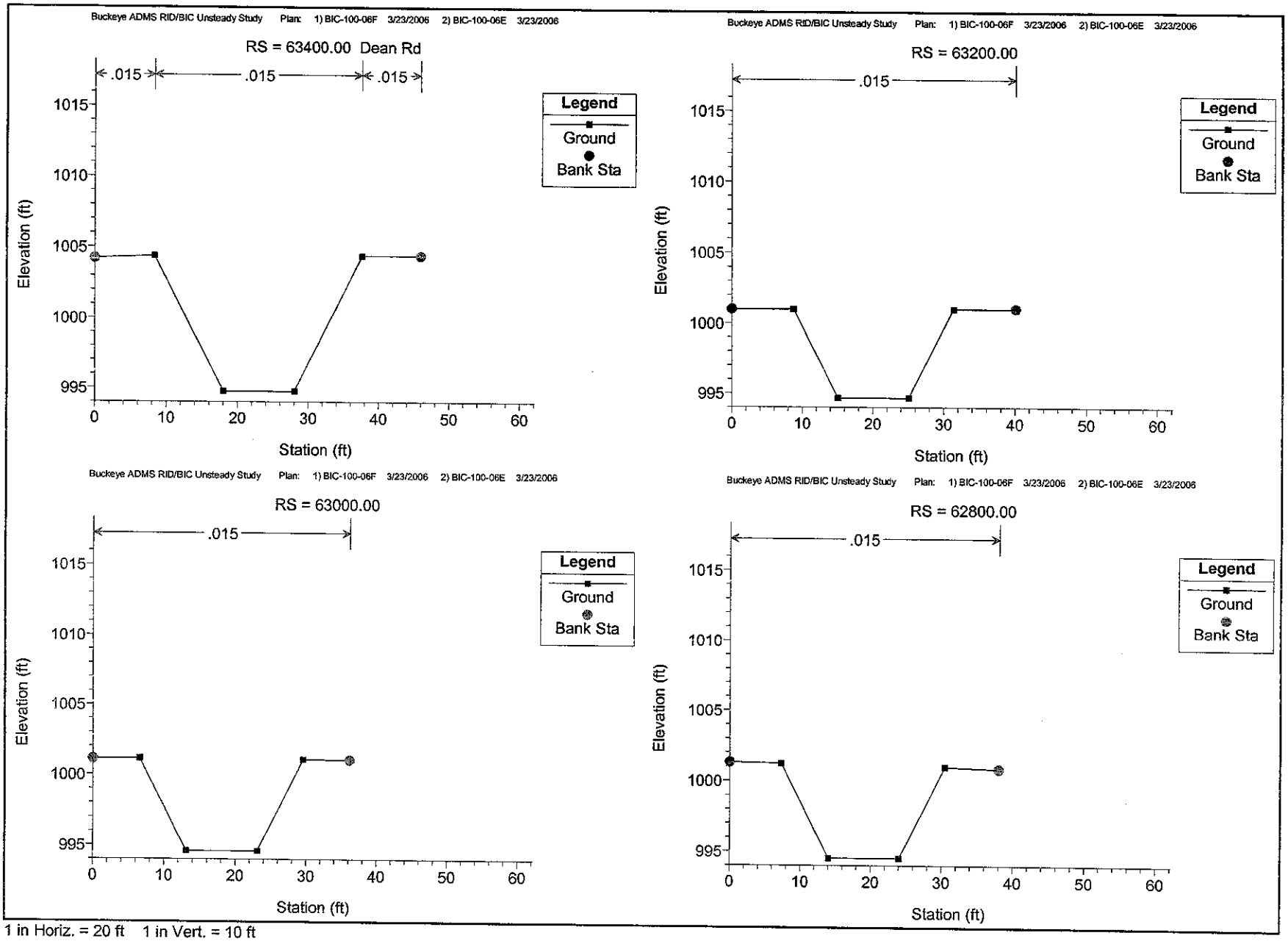
The roughness coefficients for the RID were determined to be 0.015 for the left overbank, main channel, and right overbank over the entire length of the RIC.

E.1.2 Buckeye Irrigation Canal Roughness Coefficients

The roughness coefficients for the BIC were determined to be 0.04 for the left and right overbanks and 0.03 for the main channel for the entire length of the BIC.

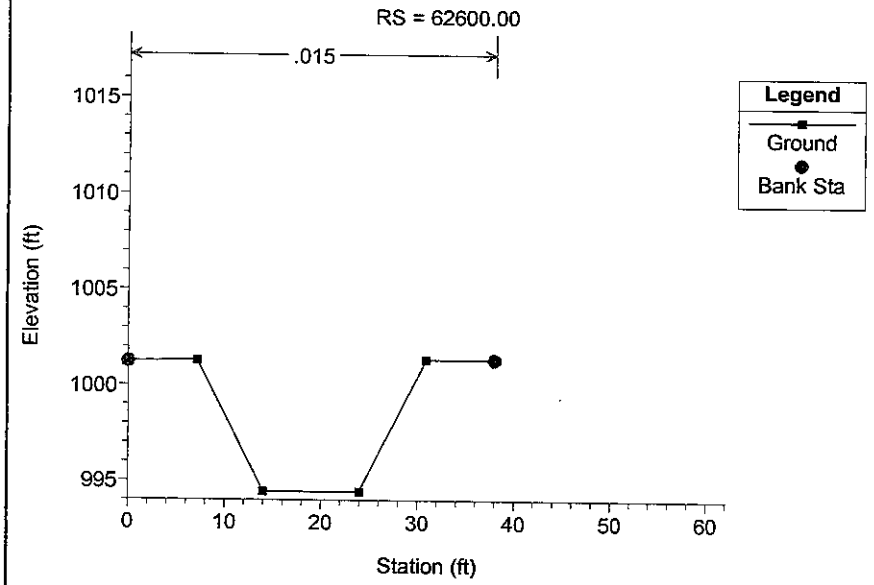
E.2 Cross Section Plots

E.2.1 Roosevelt Irrigation Ditch Cross-Sections

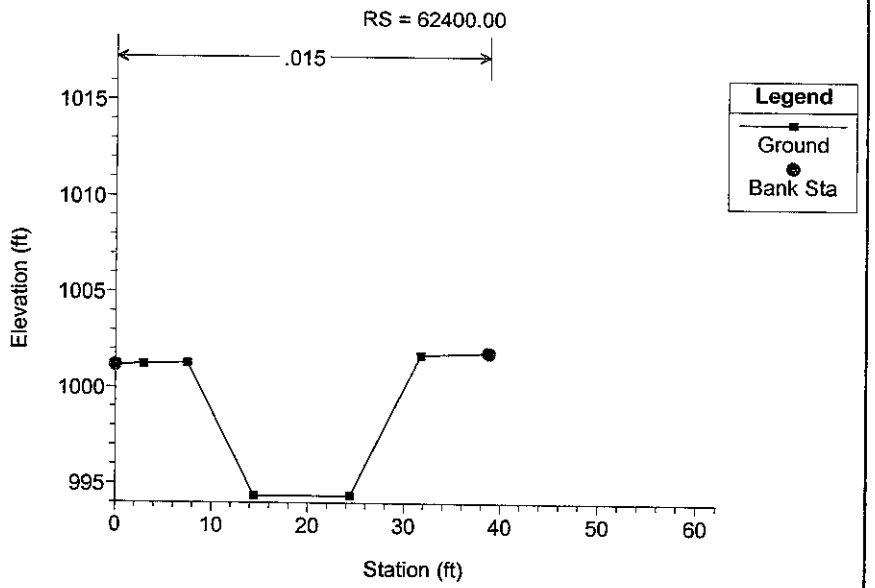


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

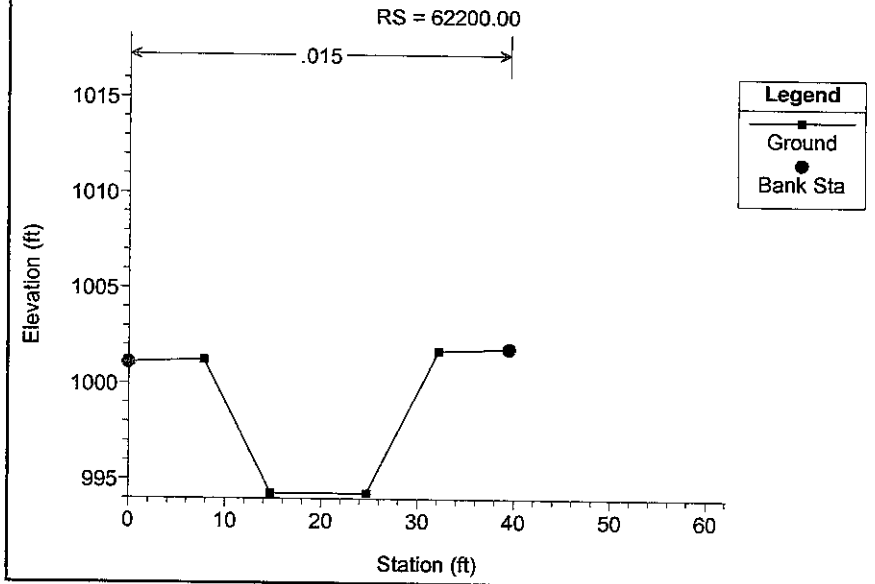
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



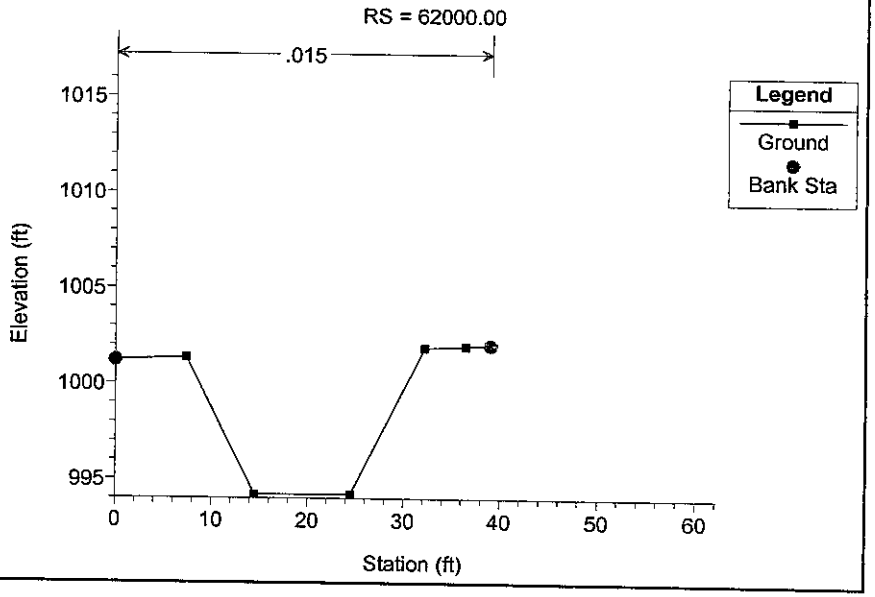
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



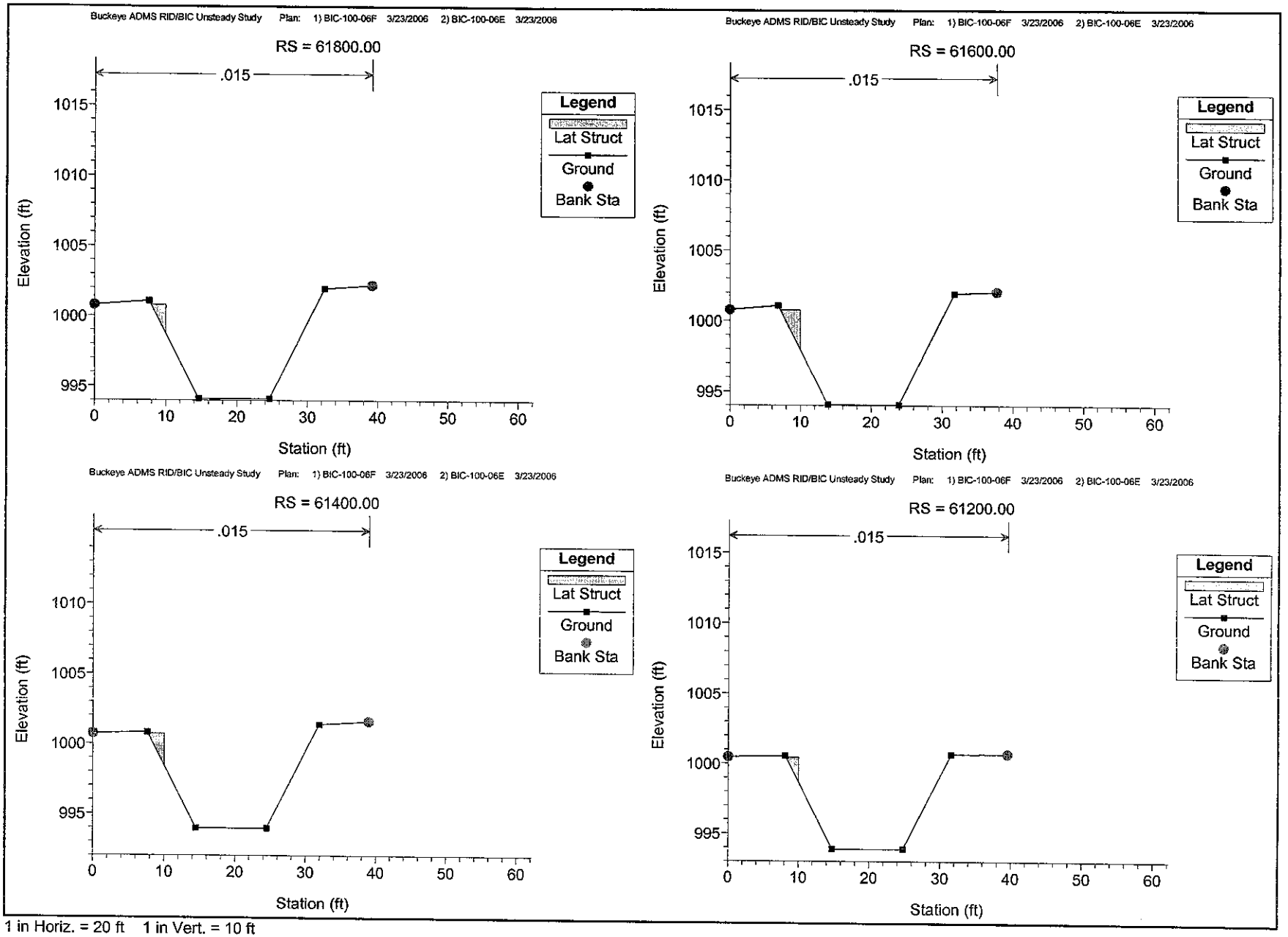
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

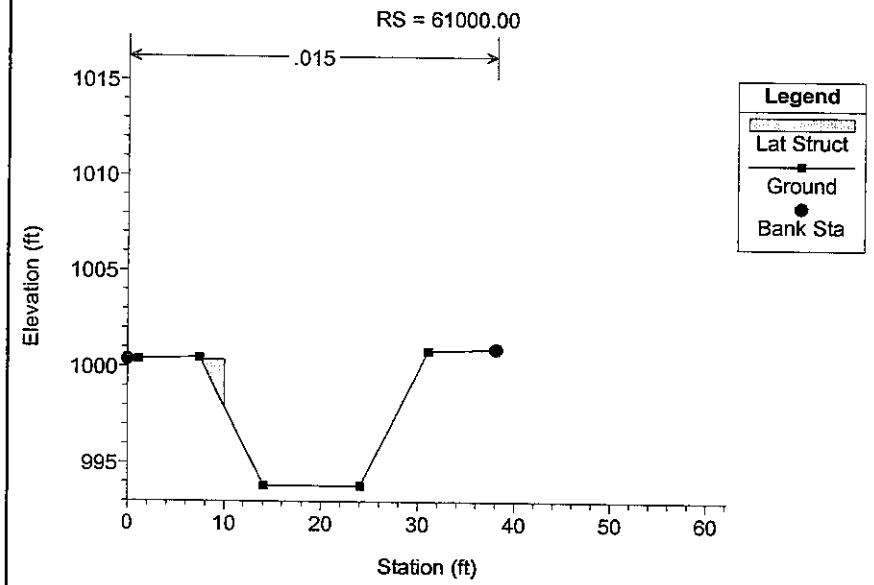


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

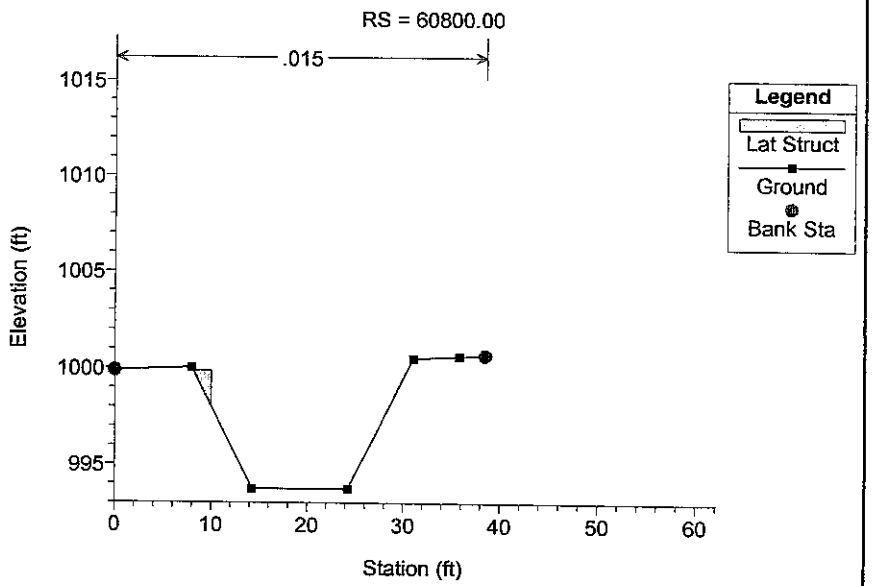


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

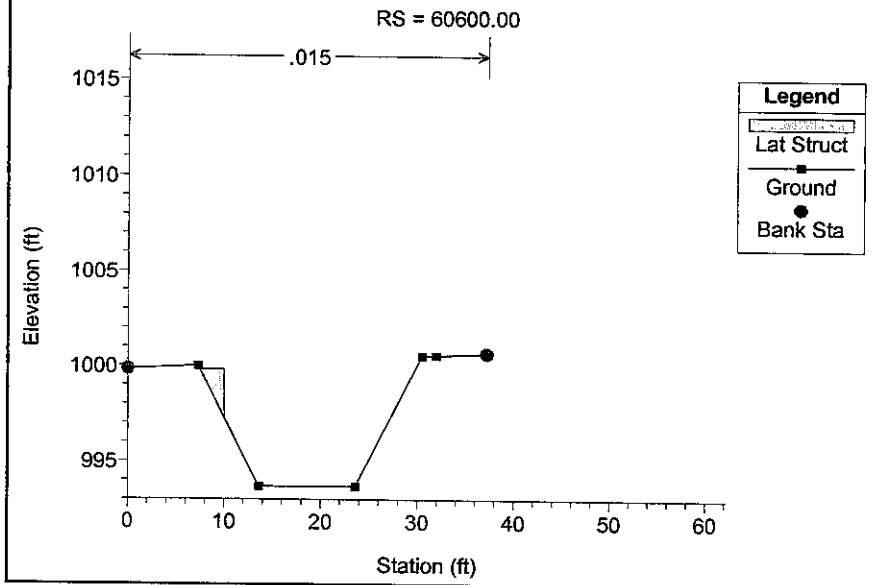
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



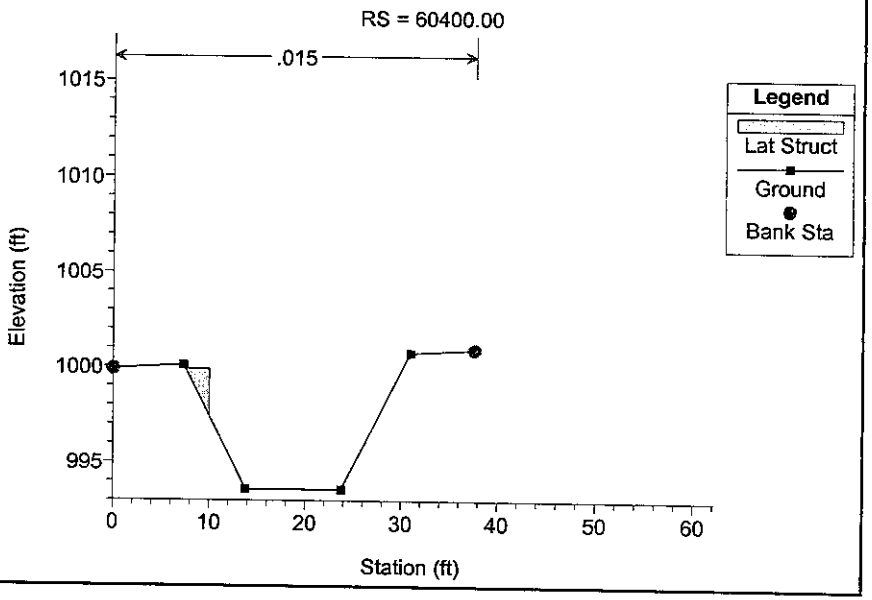
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



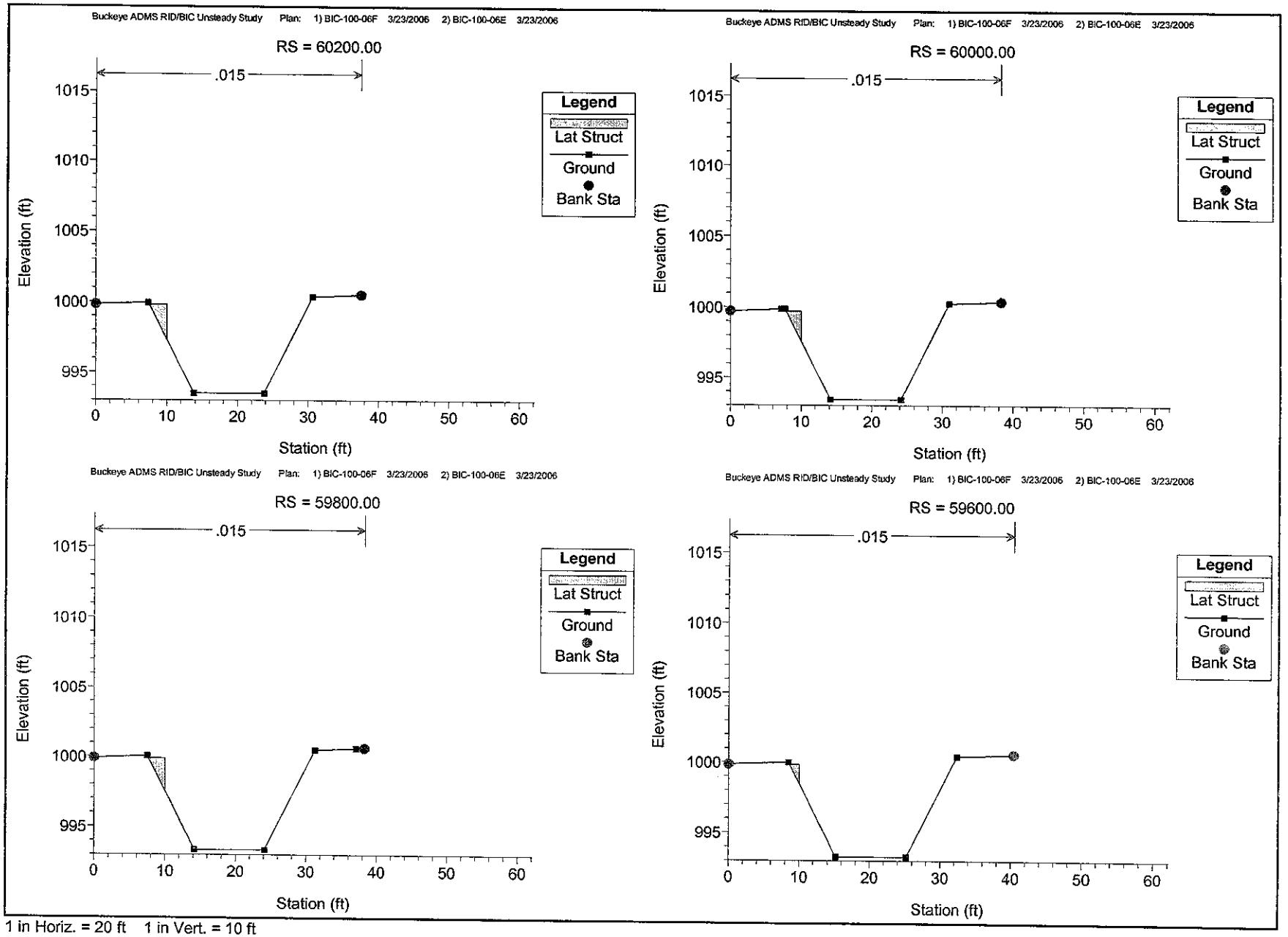
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

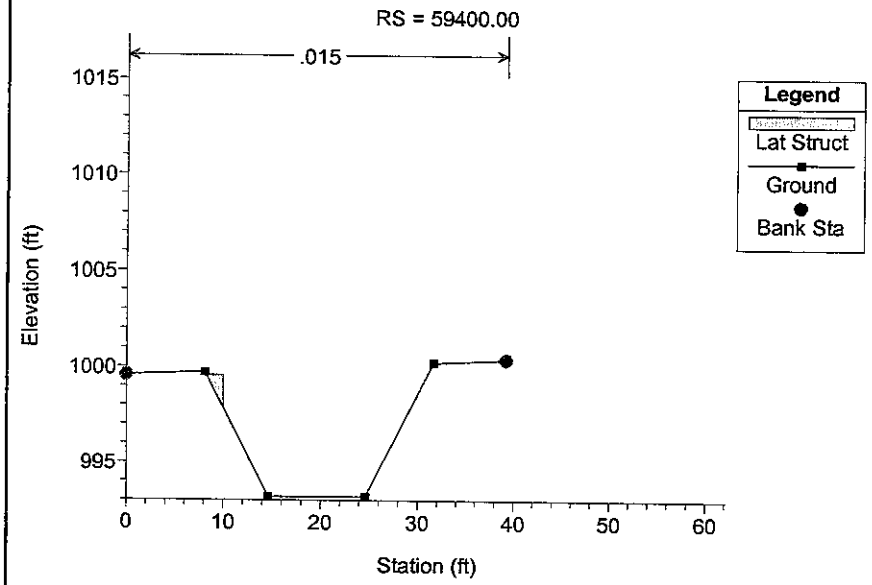


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

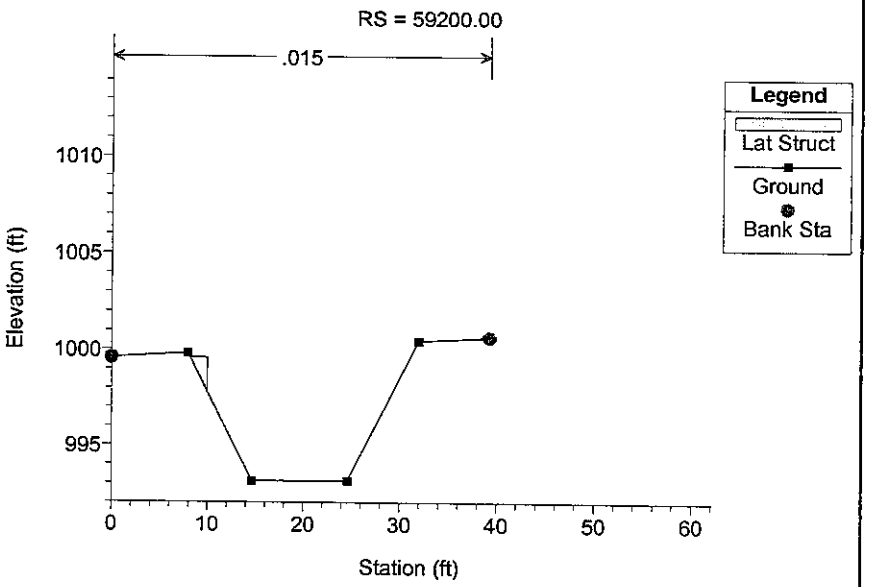


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

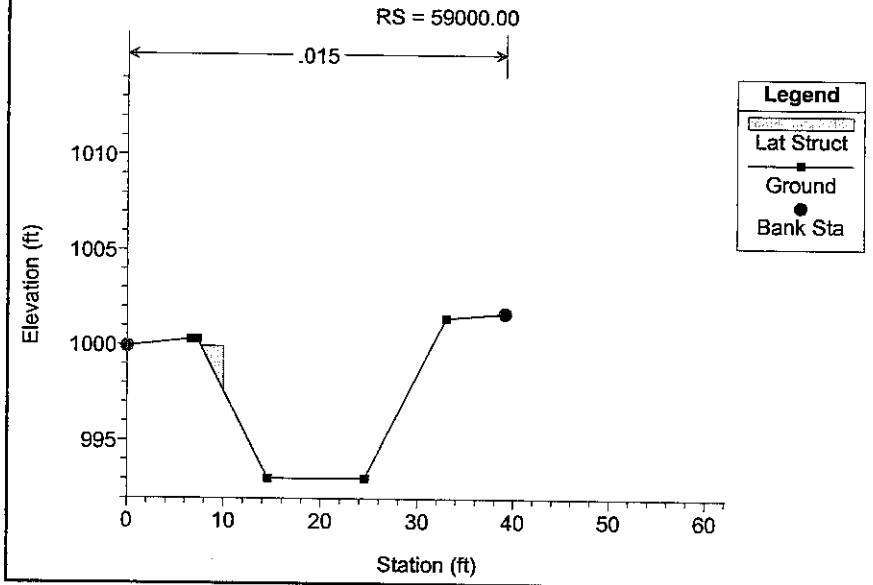
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



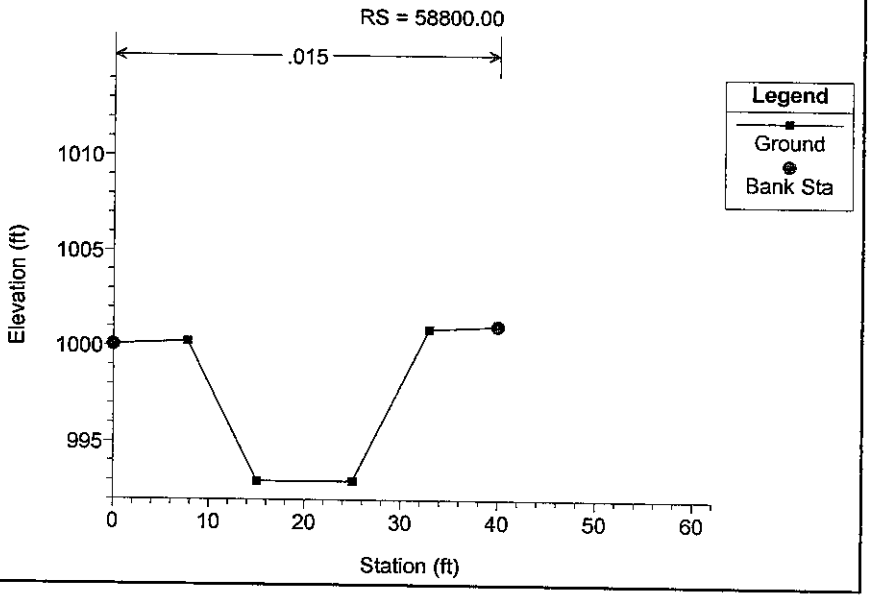
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



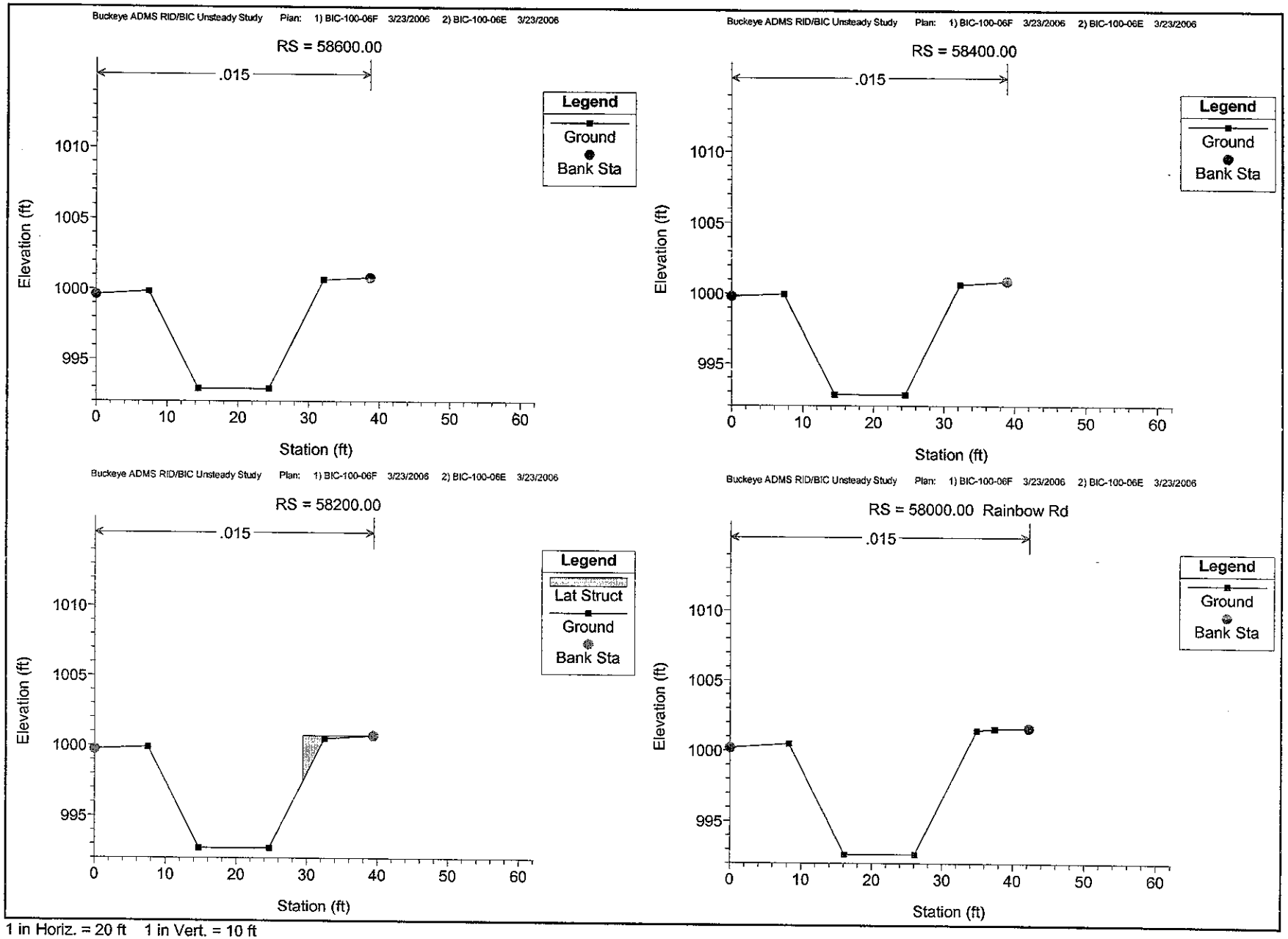
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



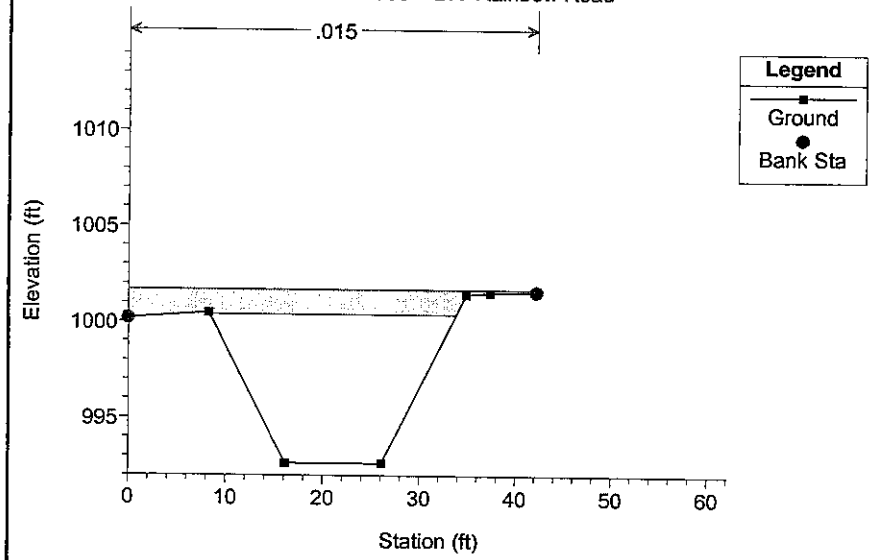
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

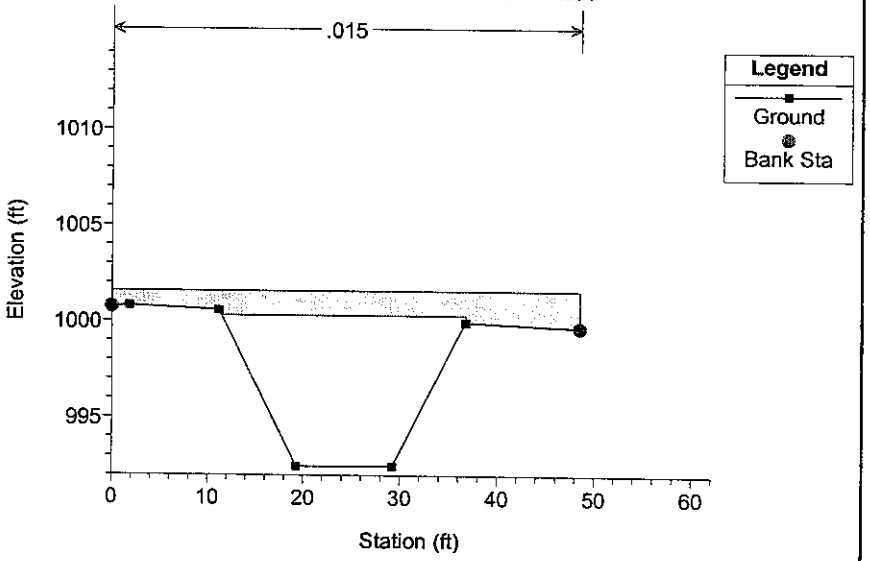
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 57900 BR Rainbow Road



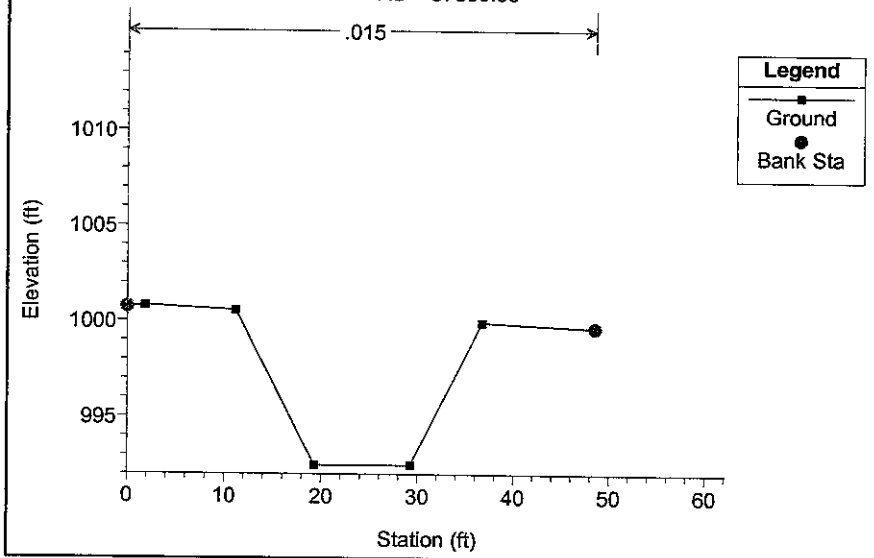
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 57900 BR Rainbow Road



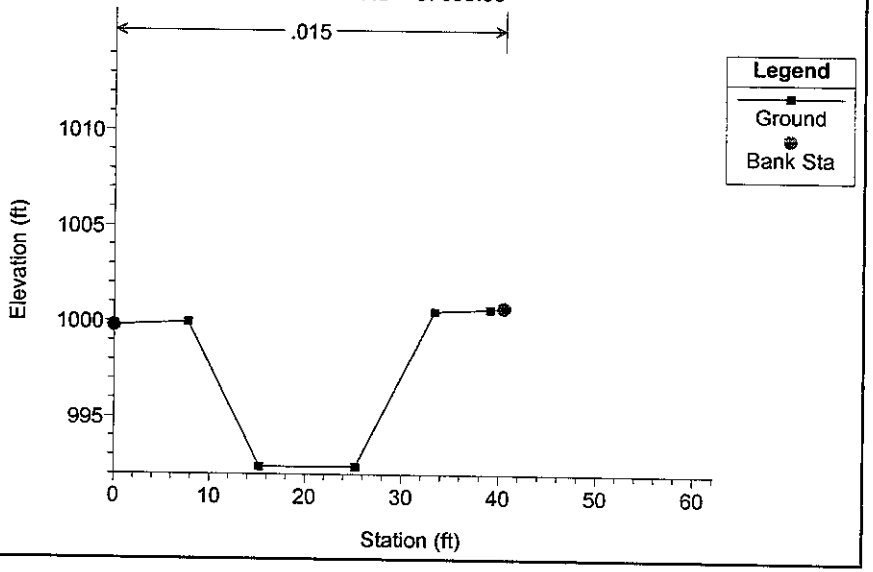
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 57800.00

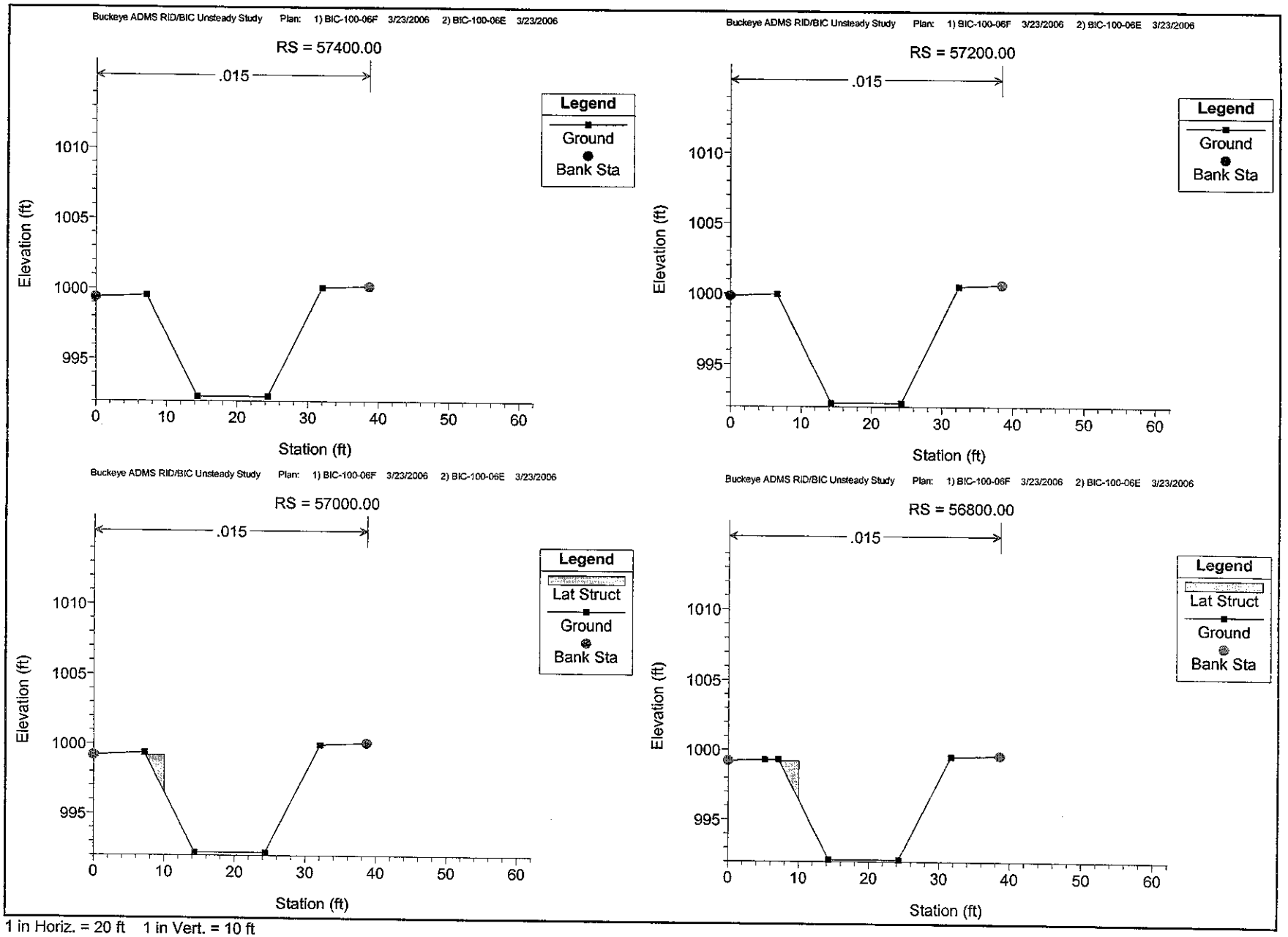


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 57600.00



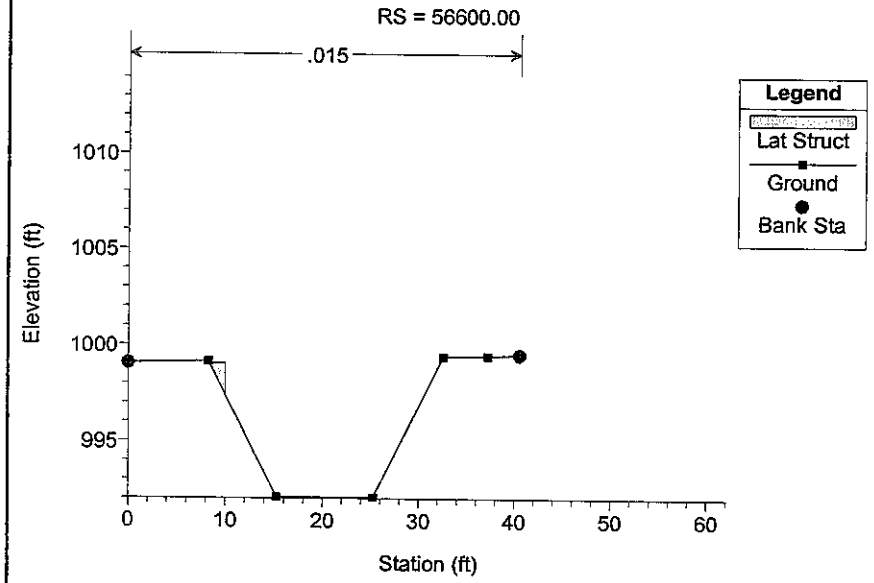
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

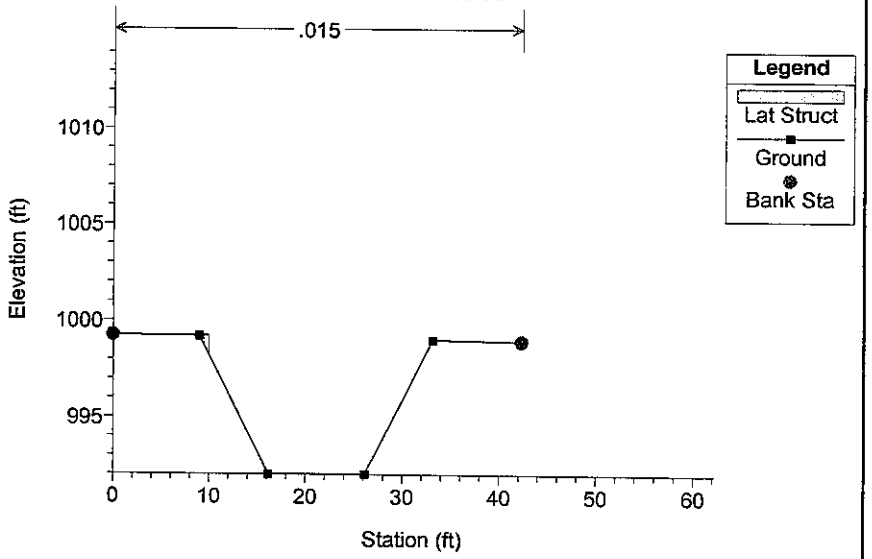
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 56600.00



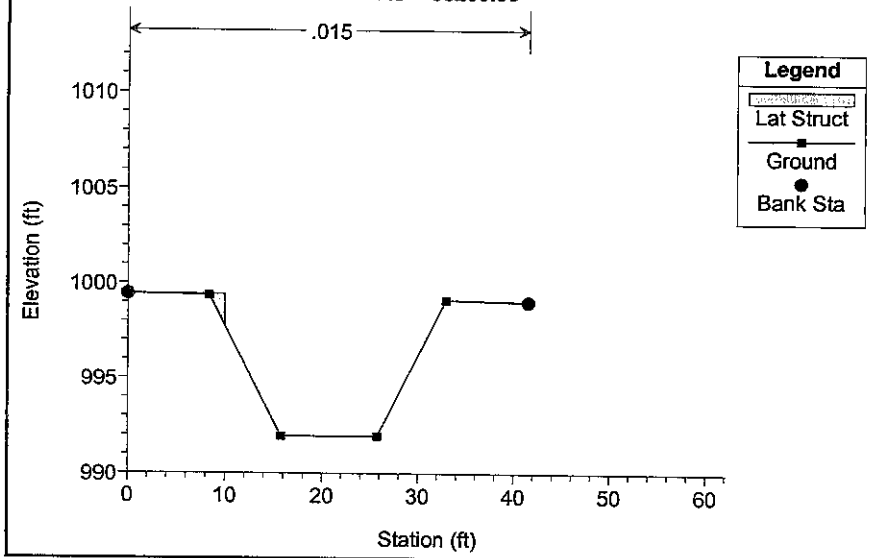
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 56400.00



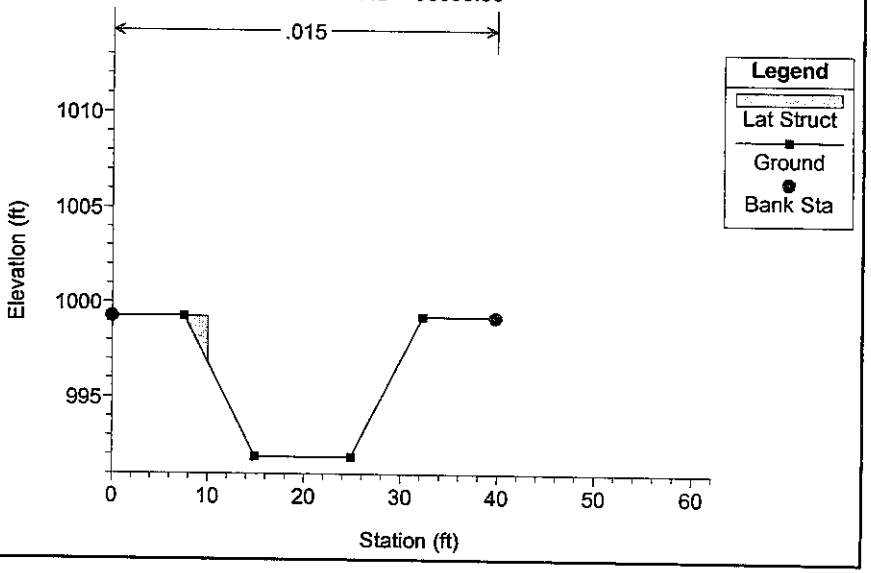
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 56200.00

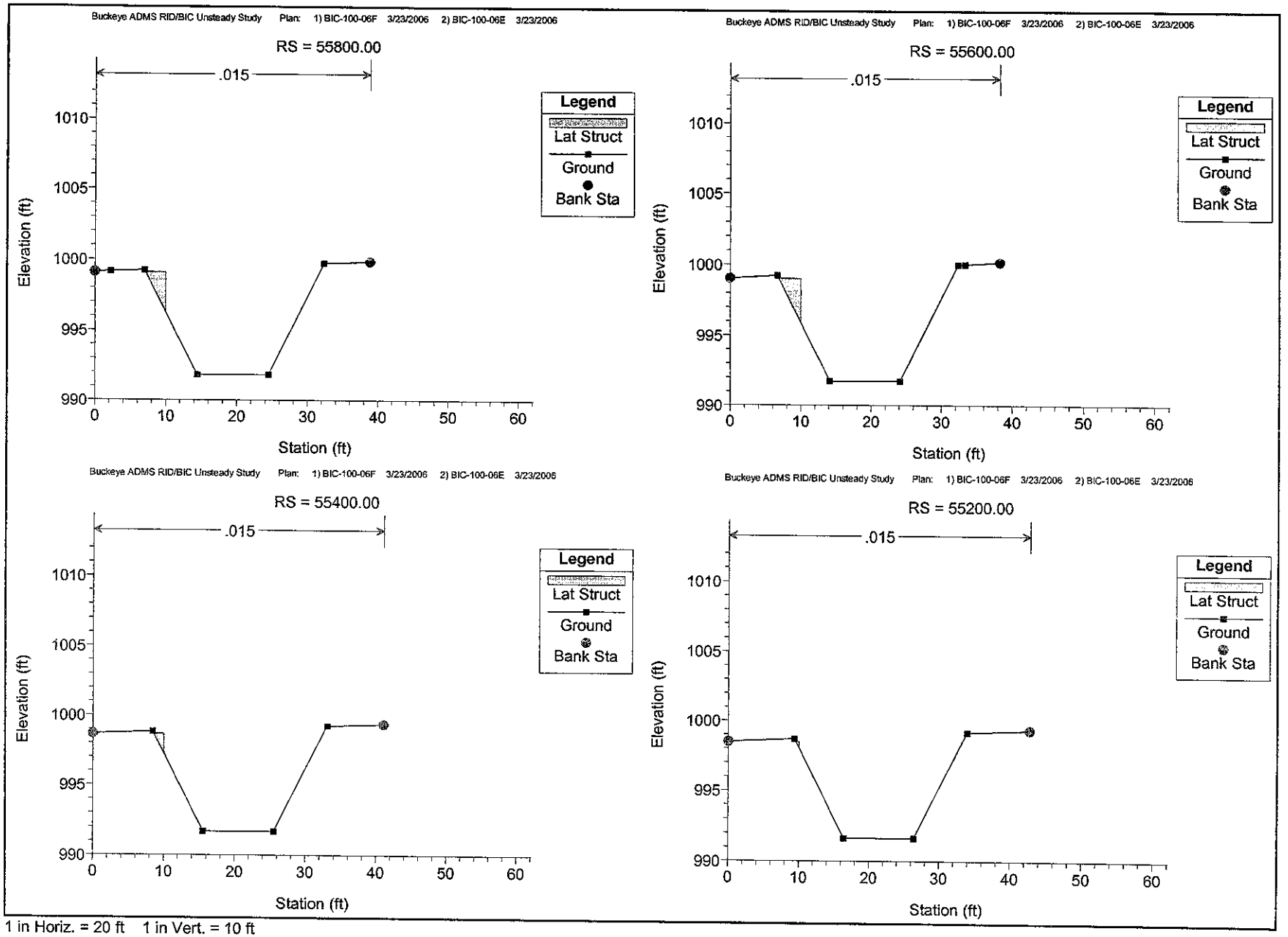


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 56000.00

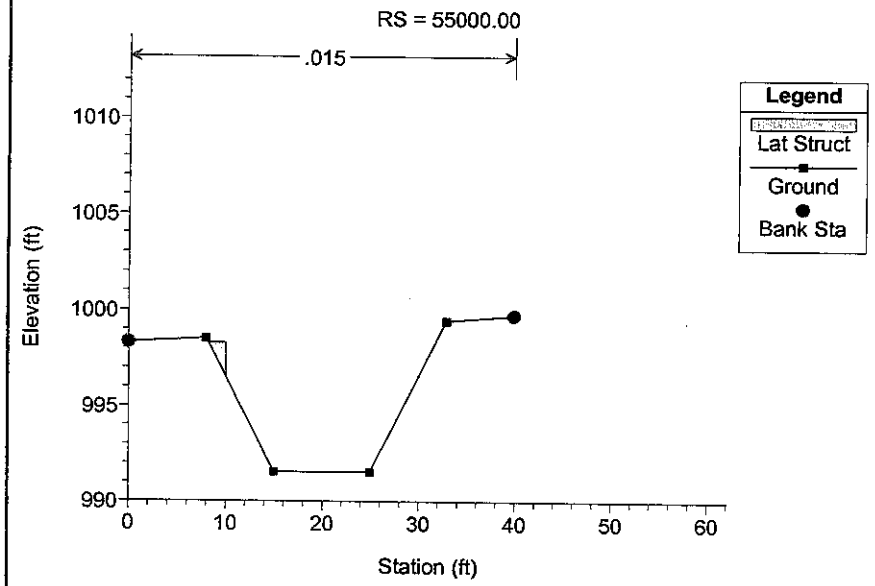


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

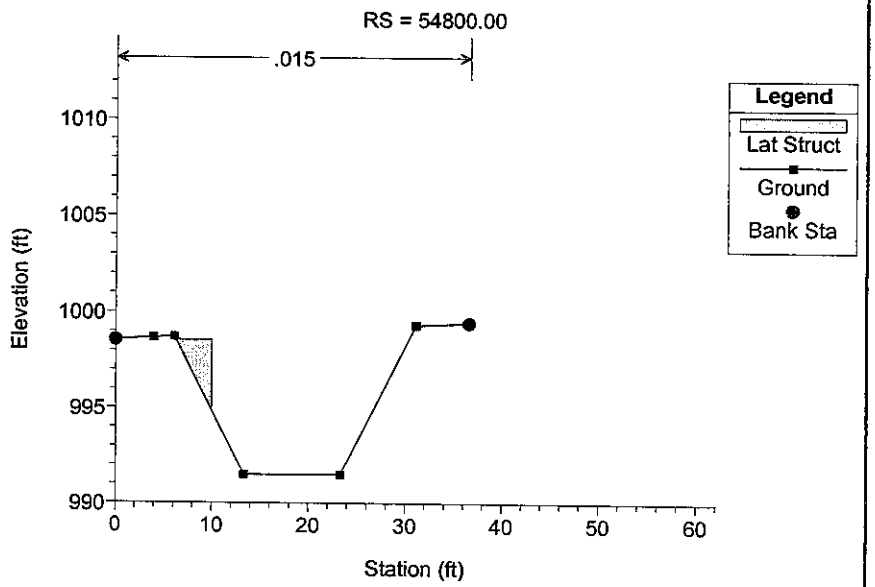


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

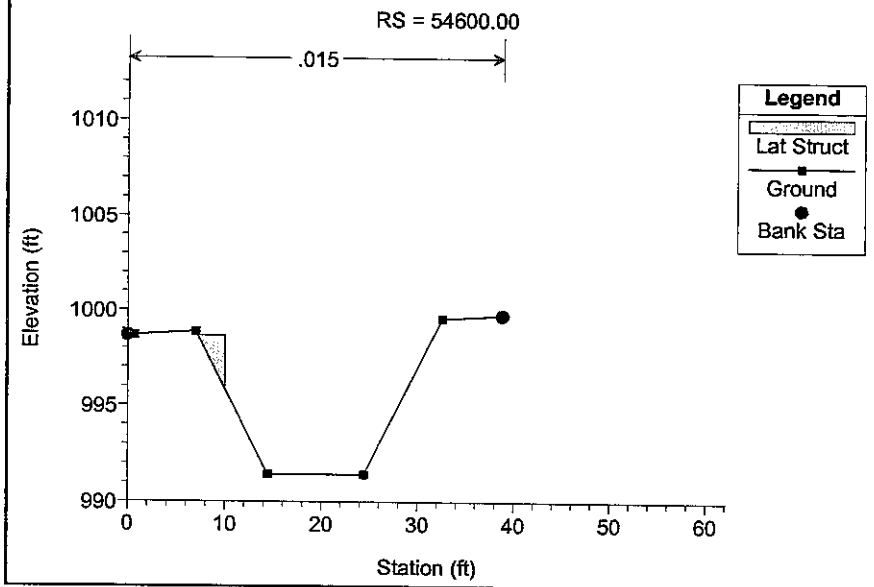
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



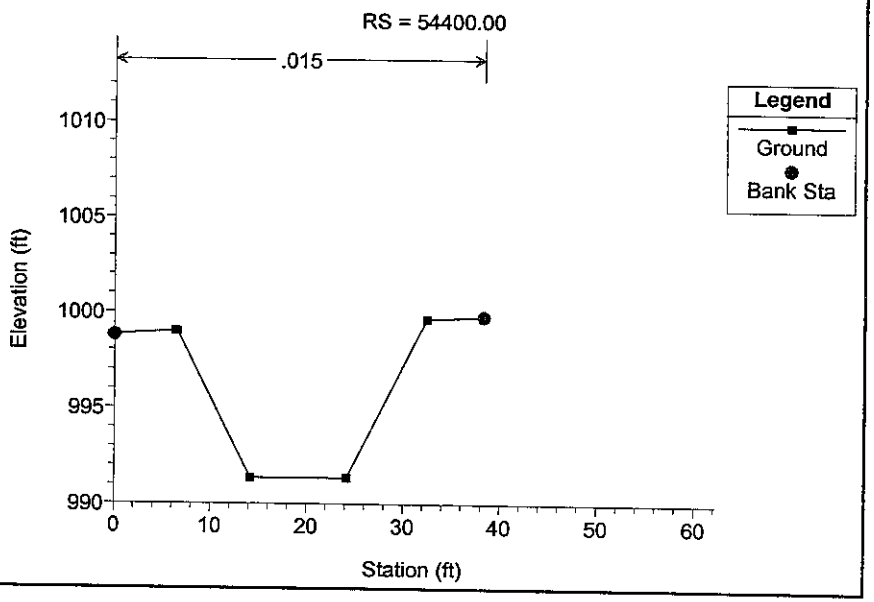
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



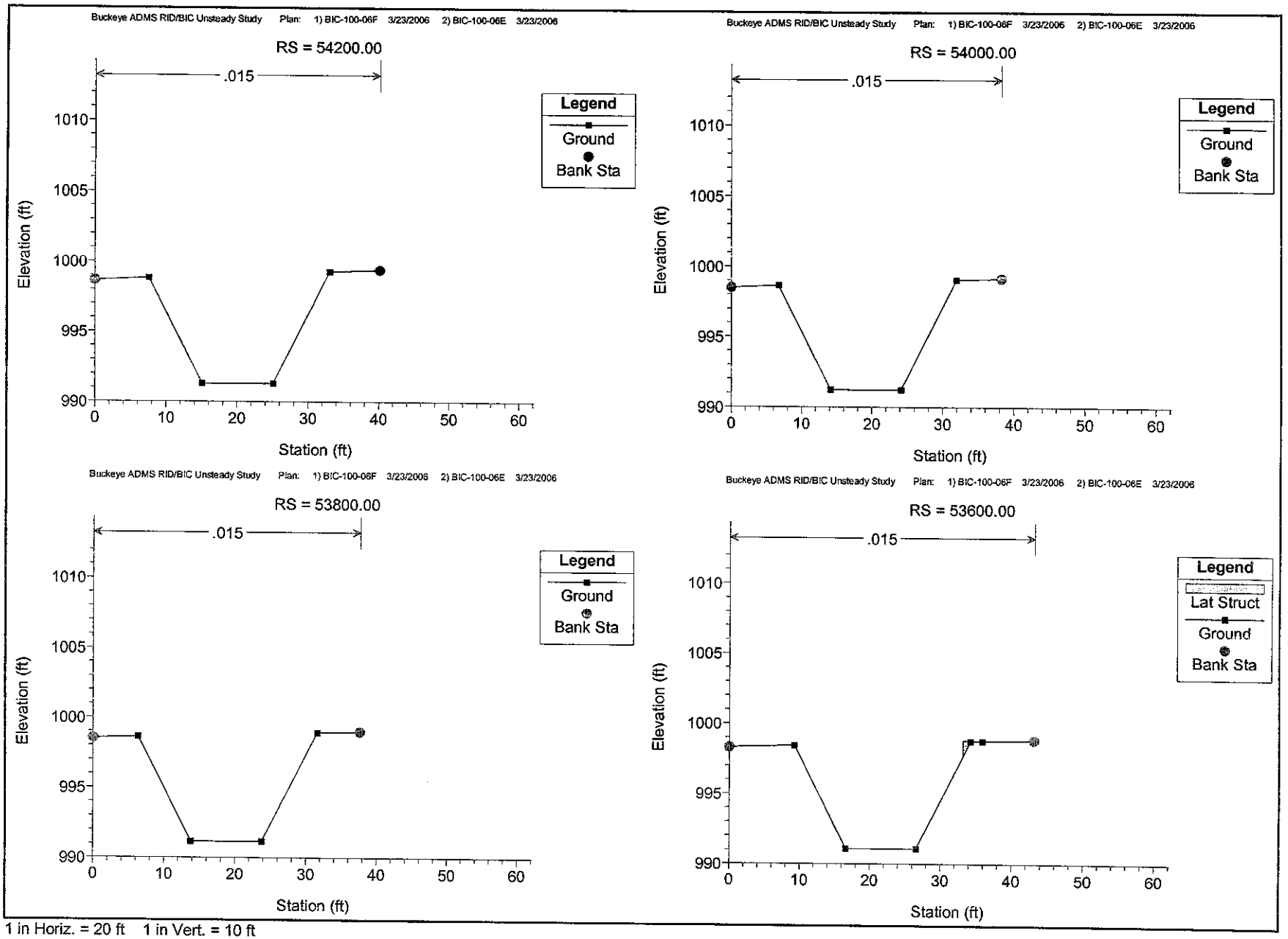
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



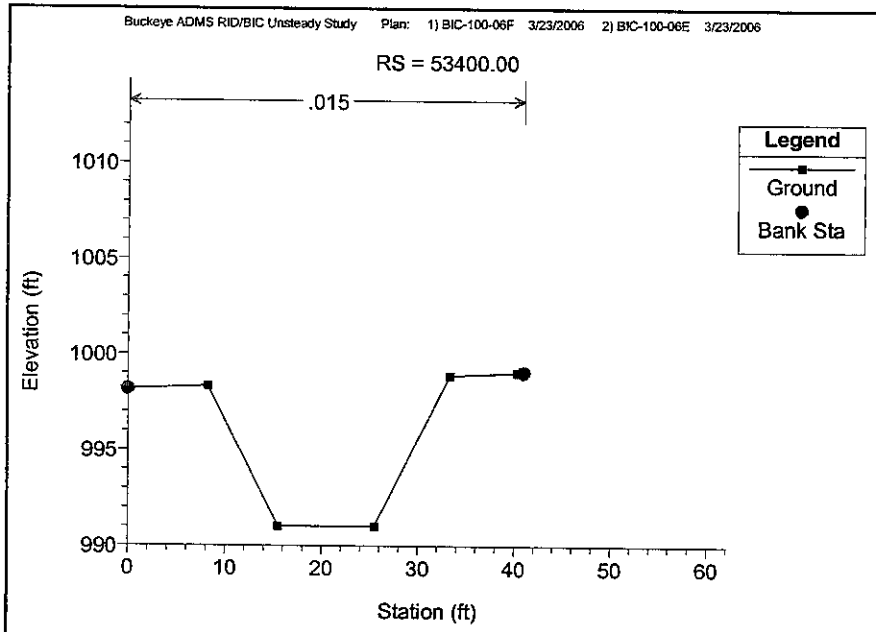
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

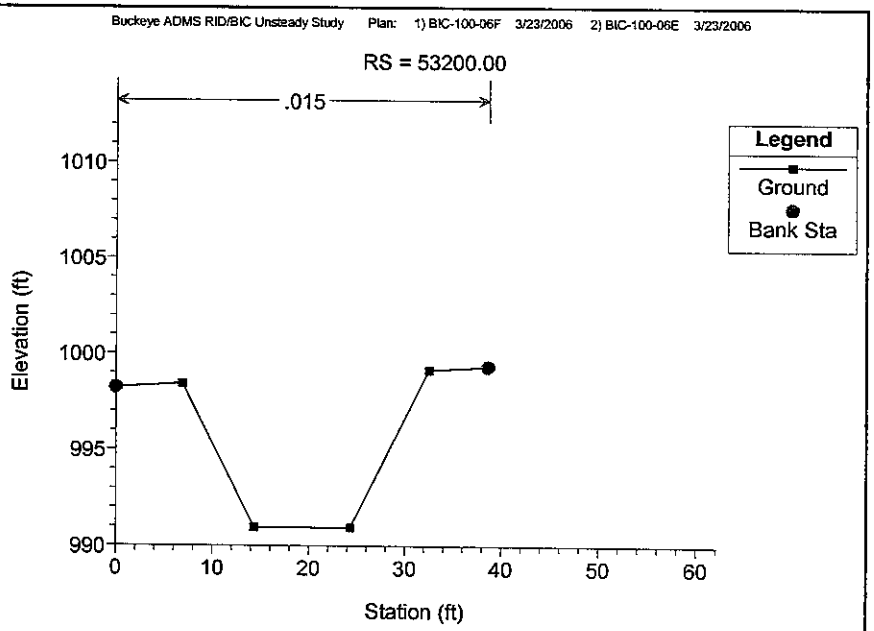


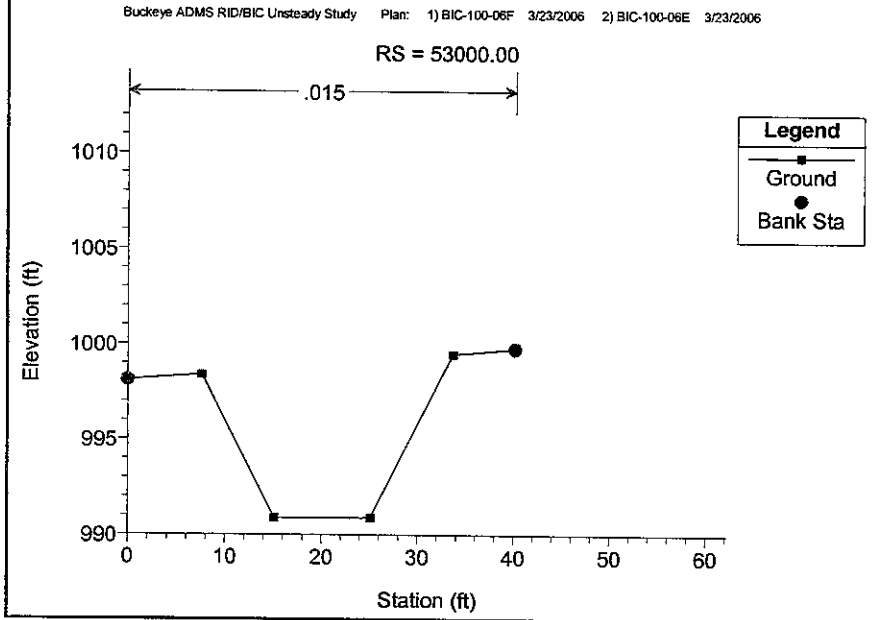
1 in Horiz. = 20 ft 1 in Vert. = 10 ft

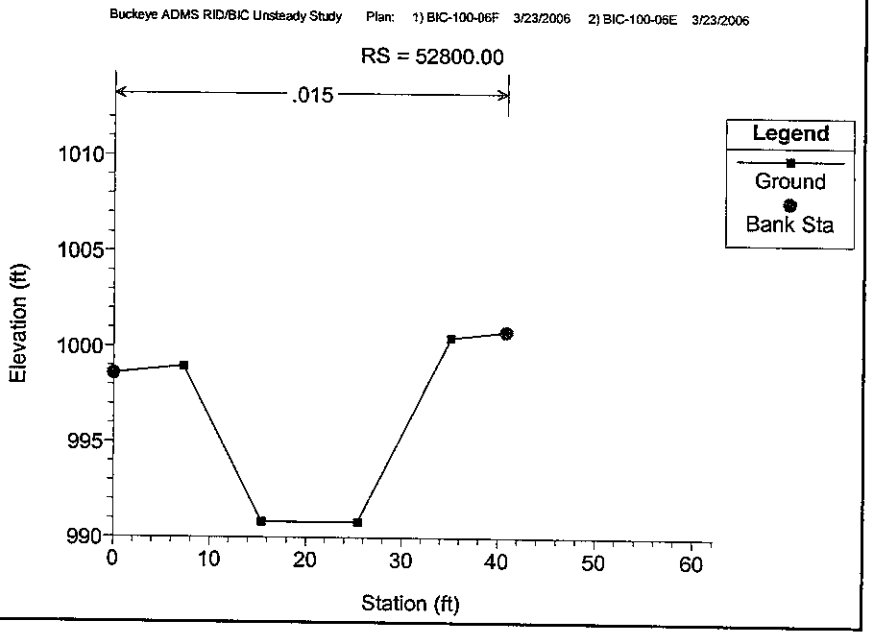


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

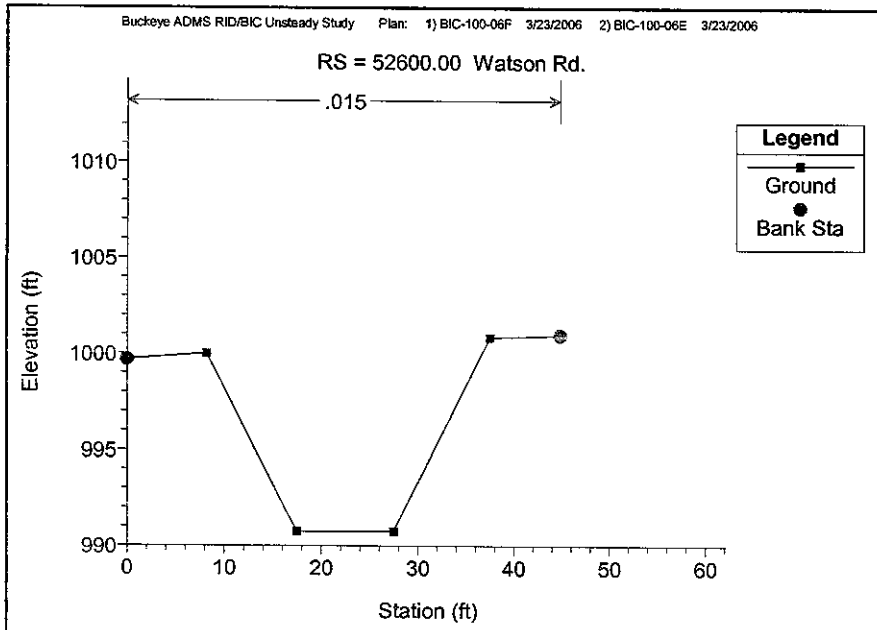


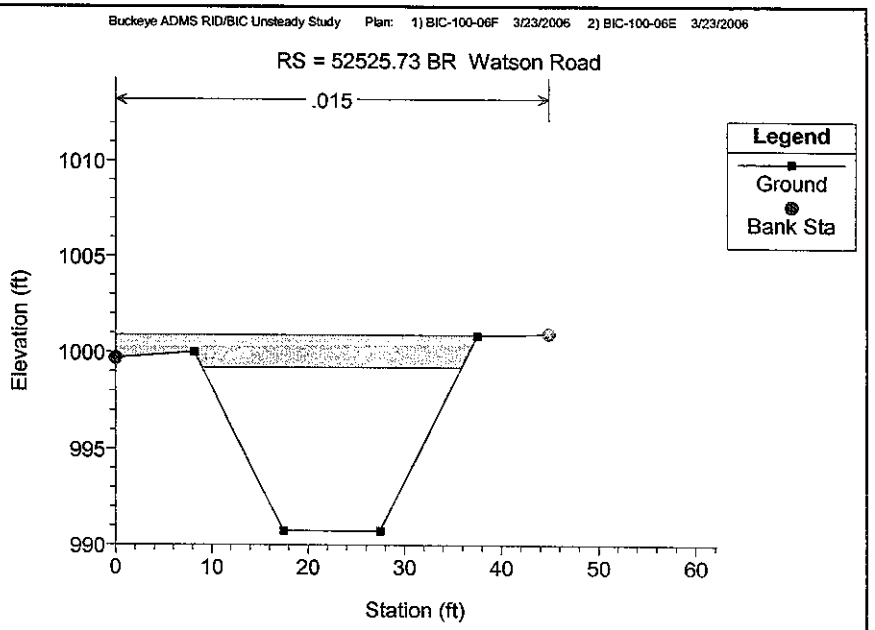


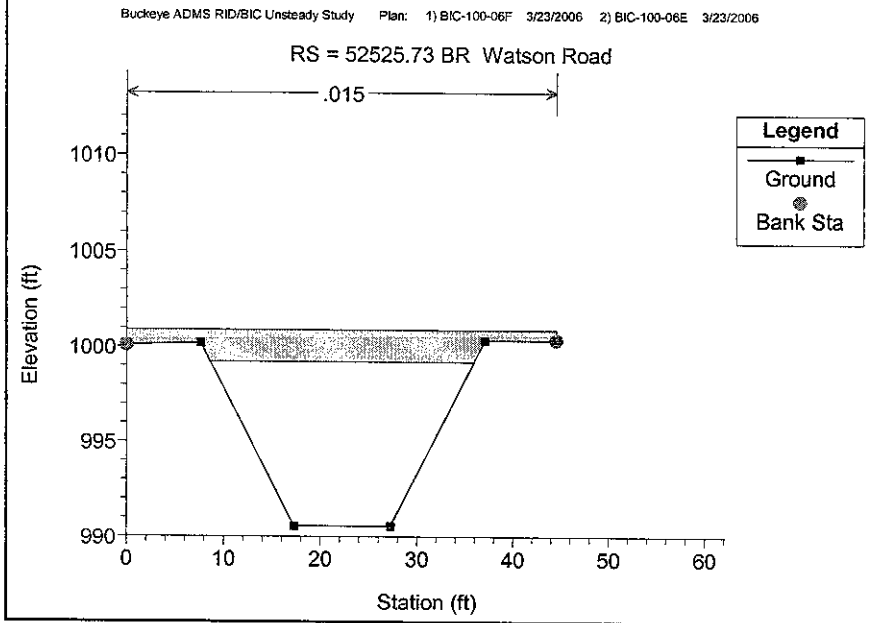


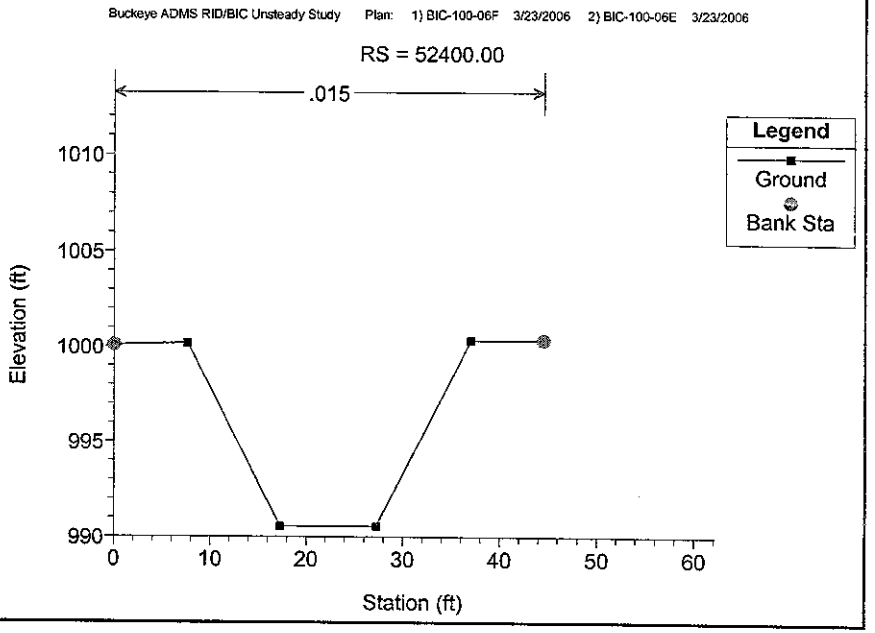


1 in Horiz. = 20 ft 1 in Vert. = 10 ft



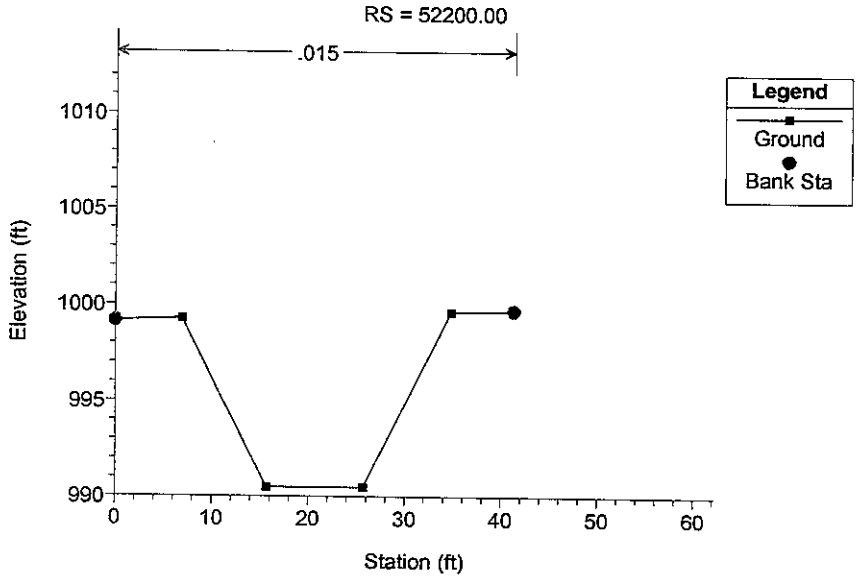




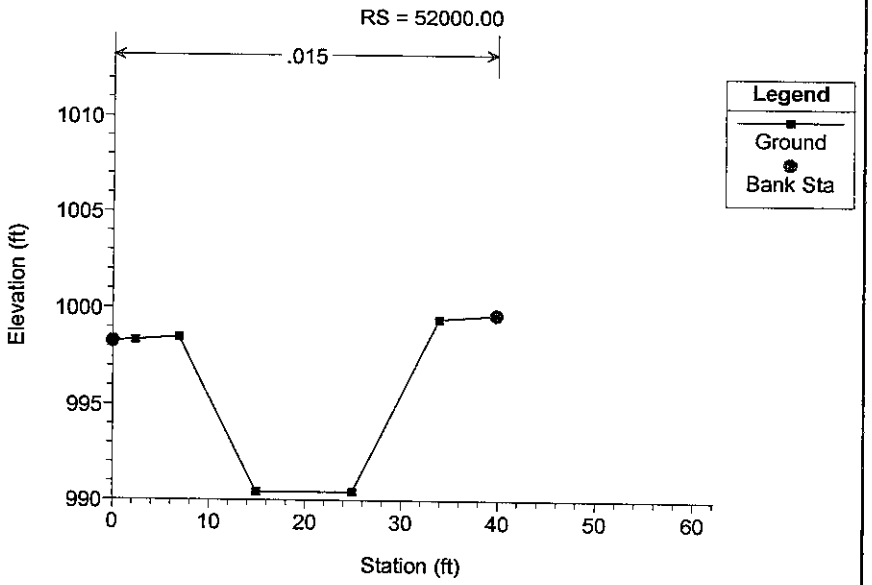


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

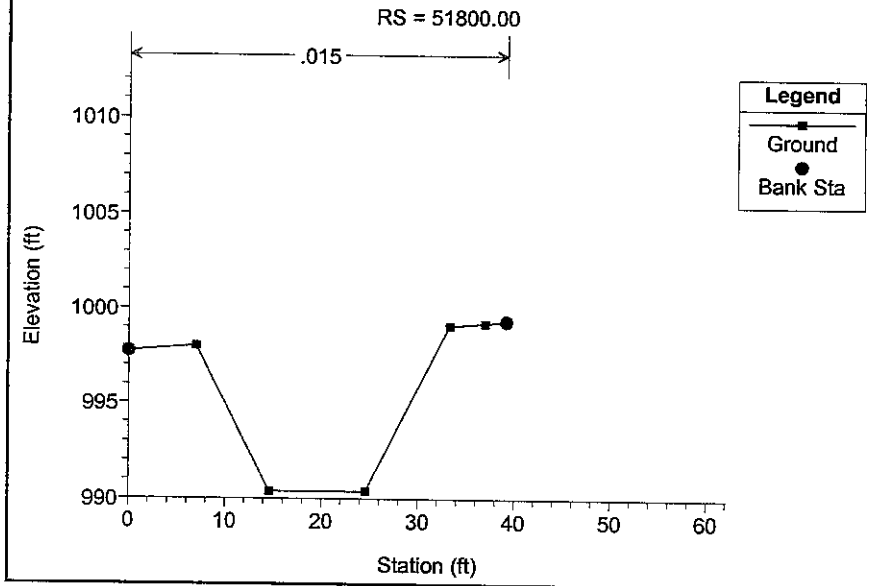
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



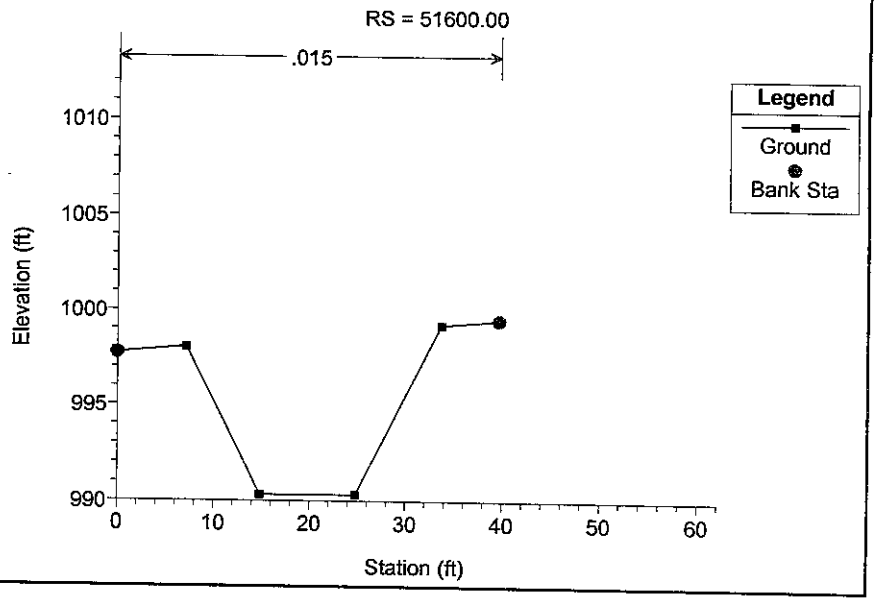
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



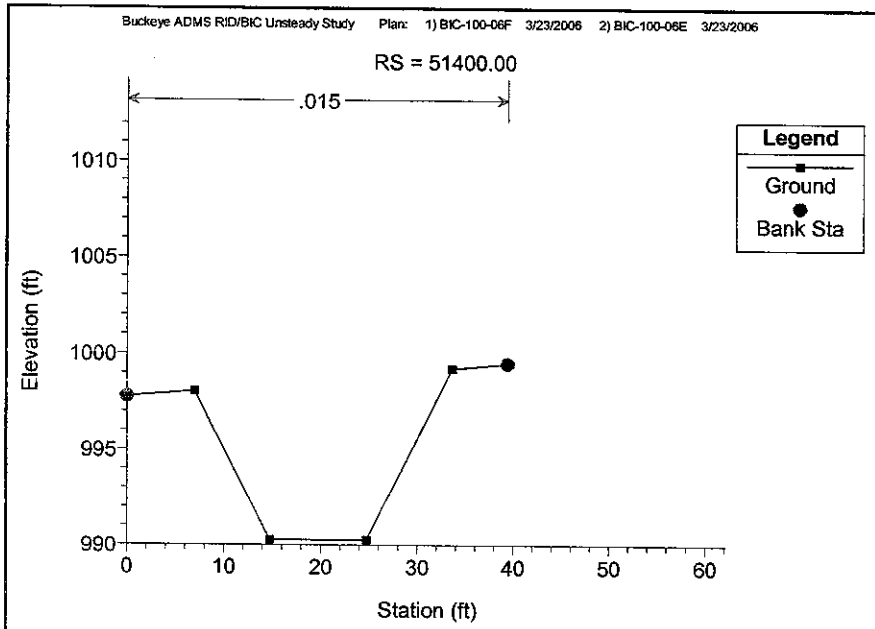
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

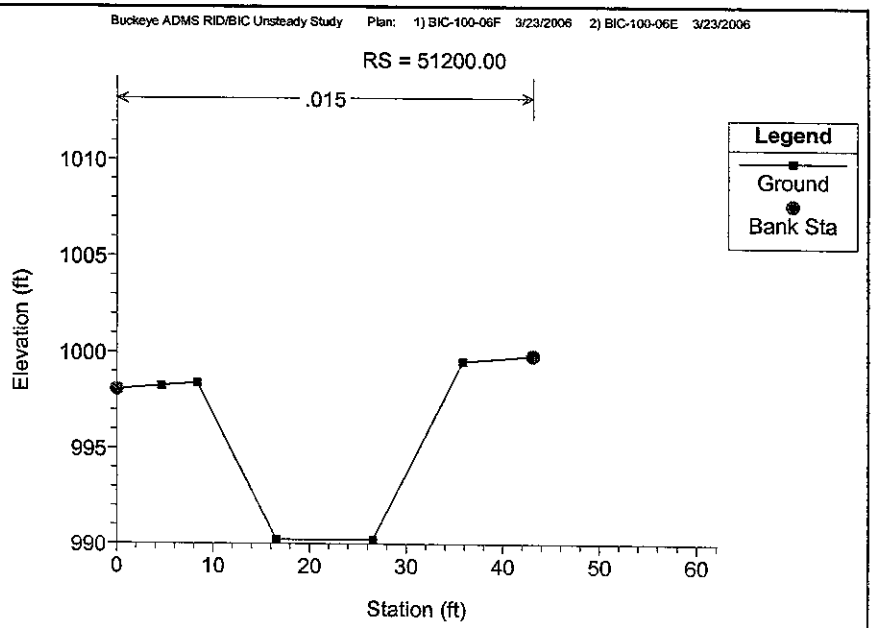


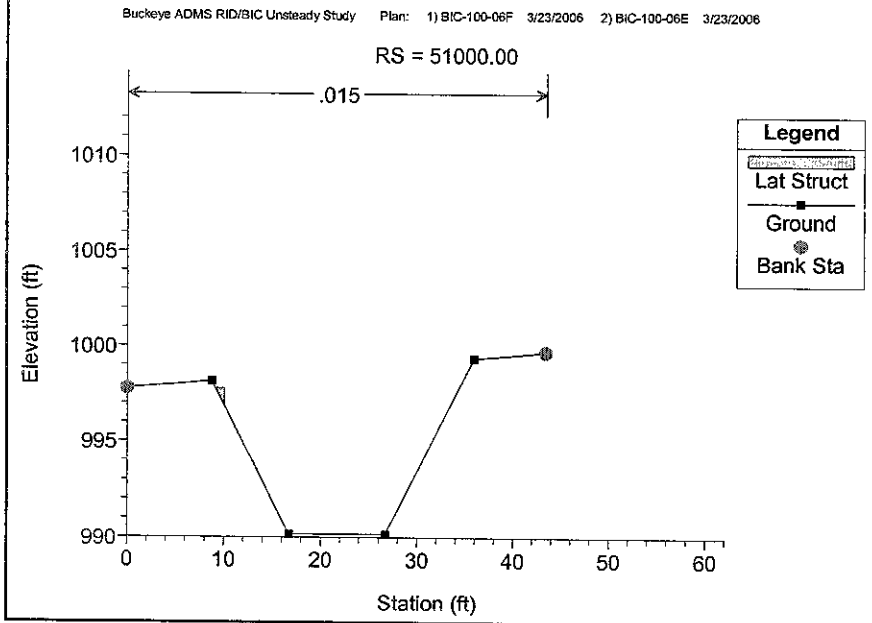
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

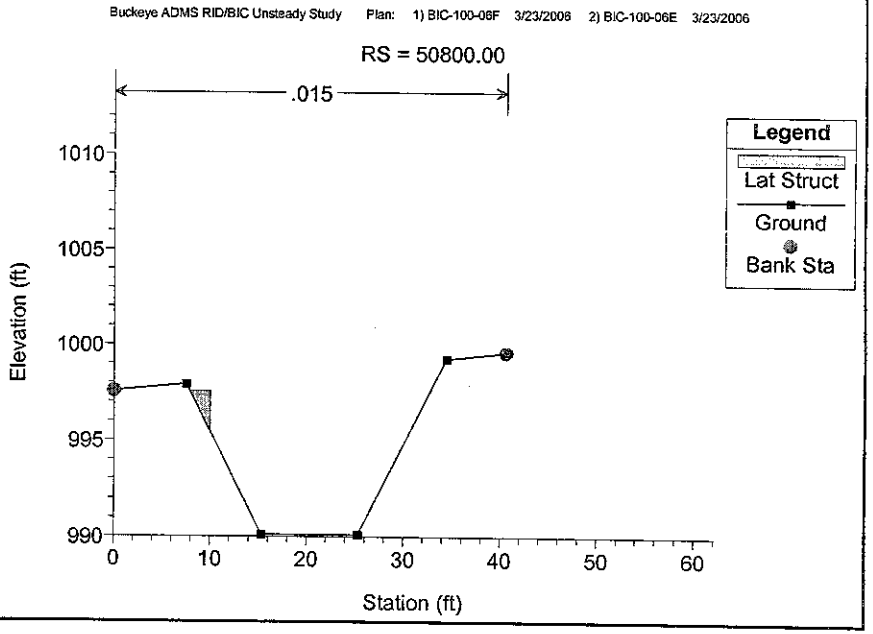


1 in Horiz. = 20 ft 1 in Vert. = 10 ft



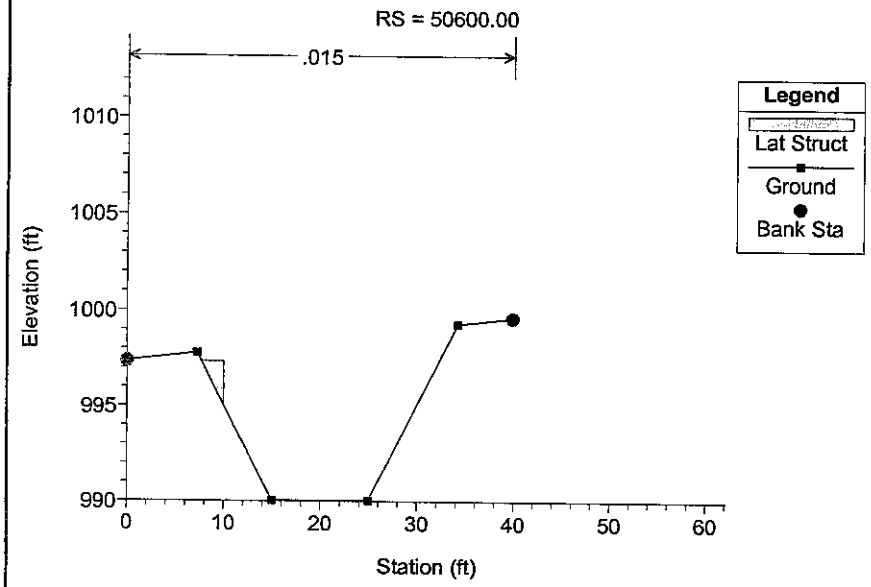




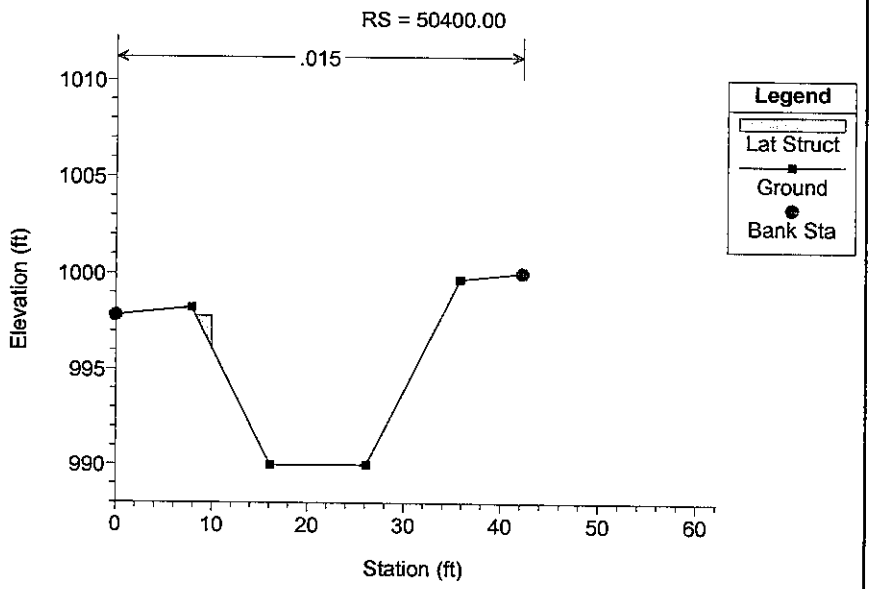


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

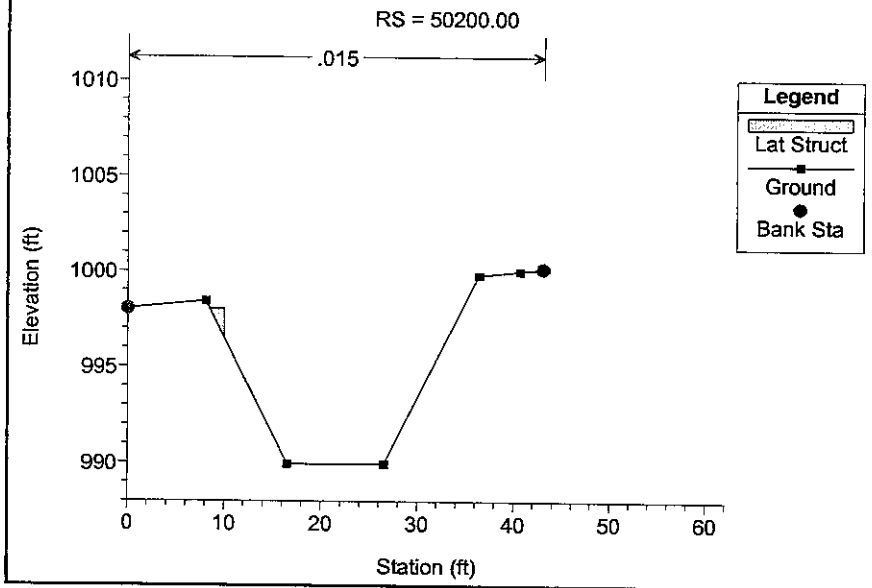
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



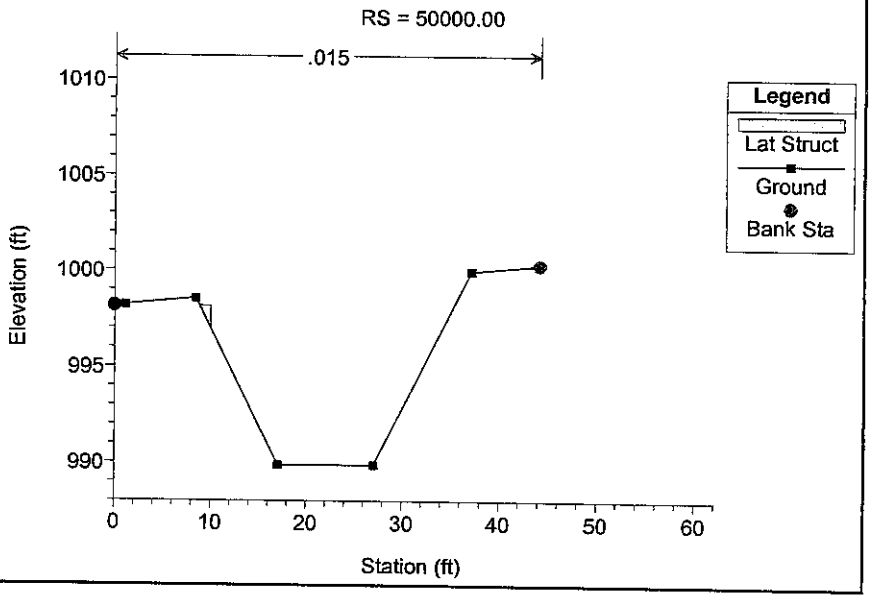
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



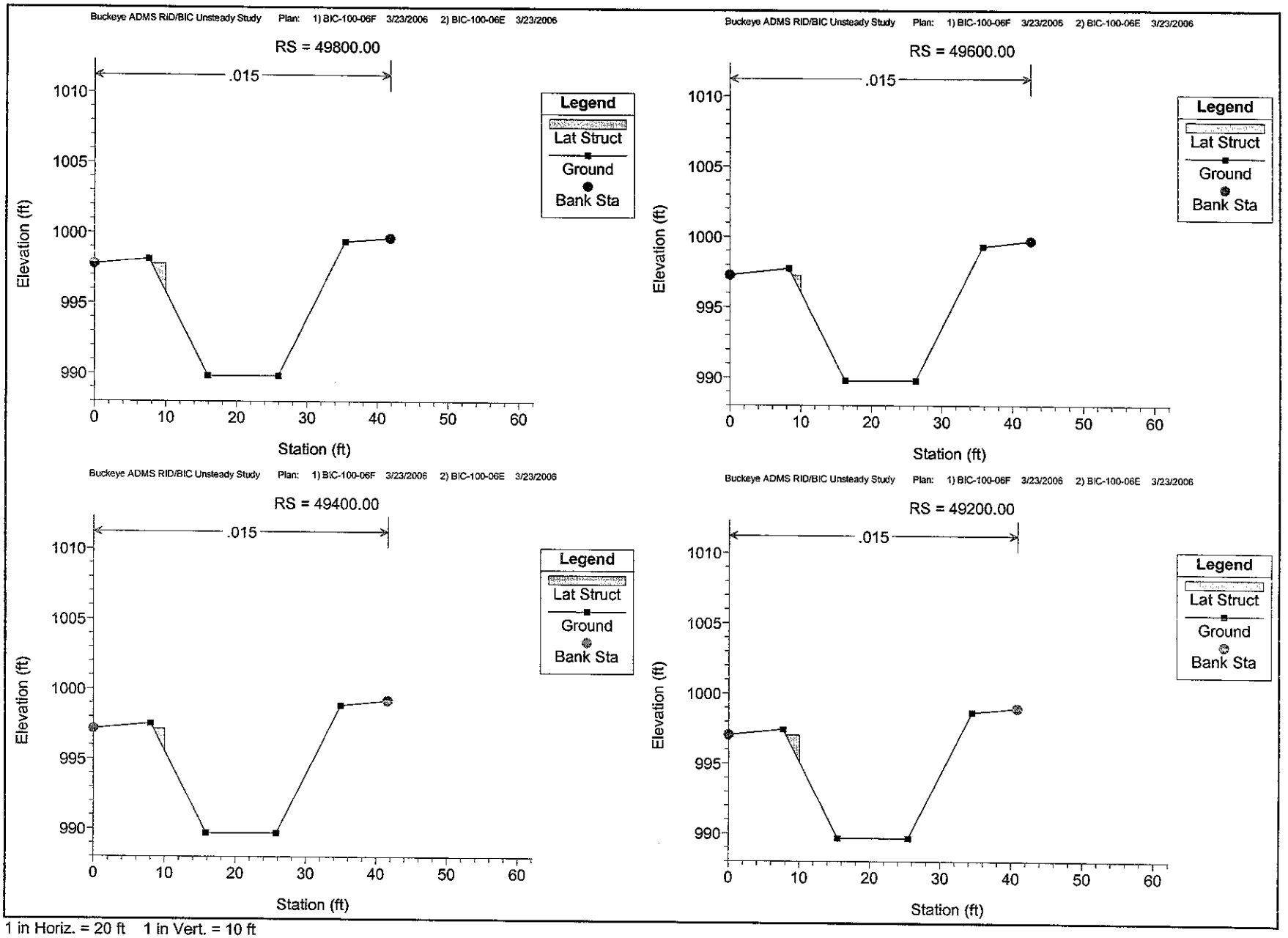
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

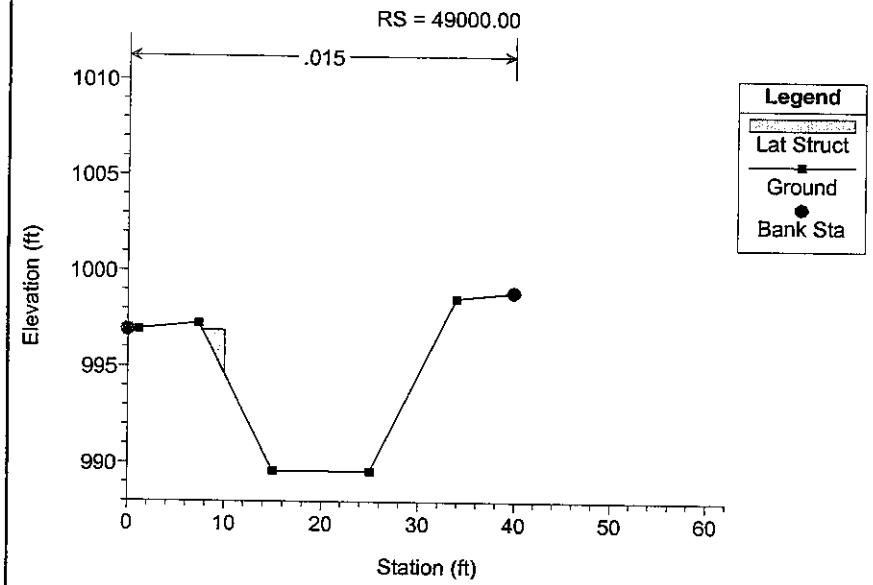


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

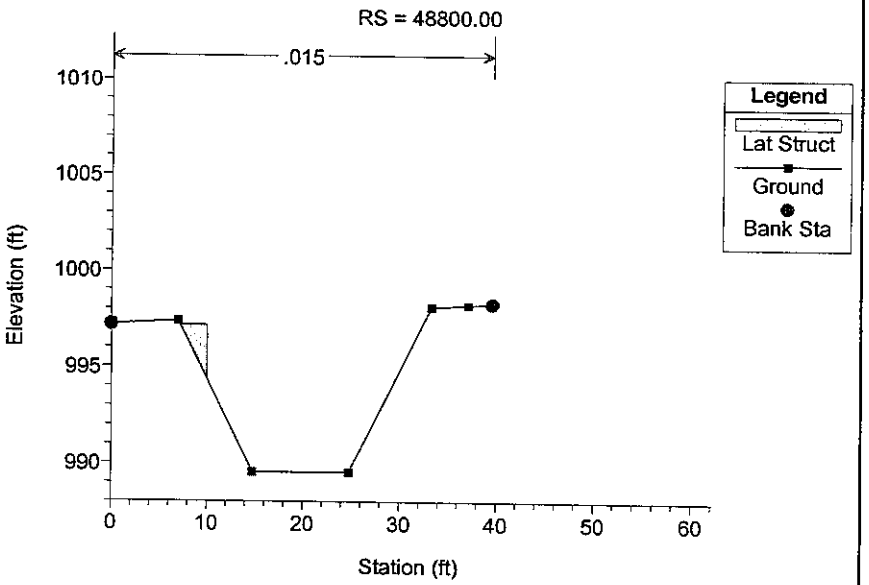


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

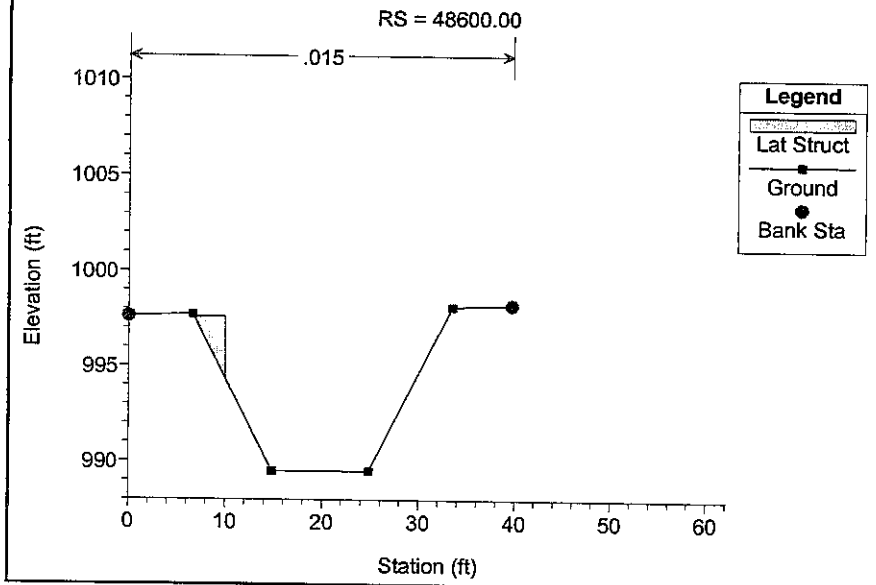
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



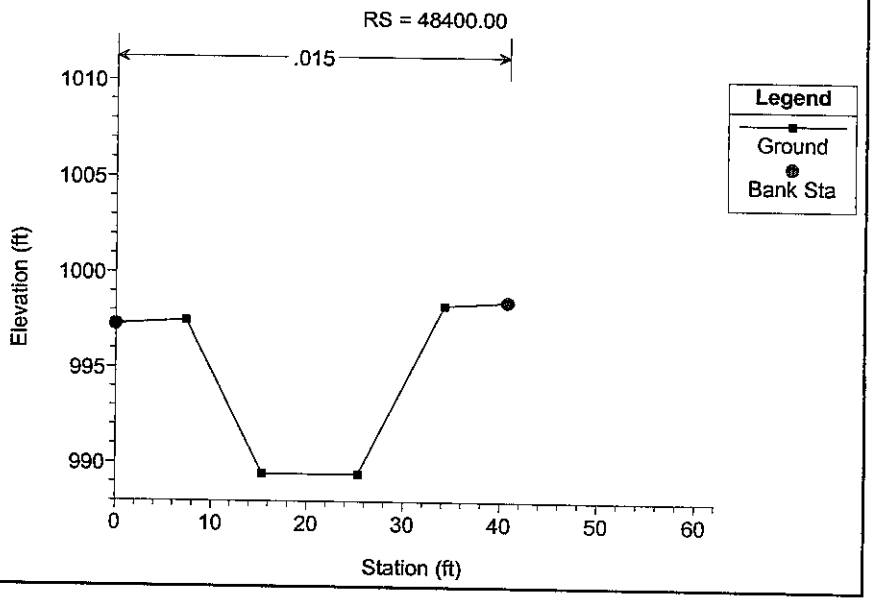
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



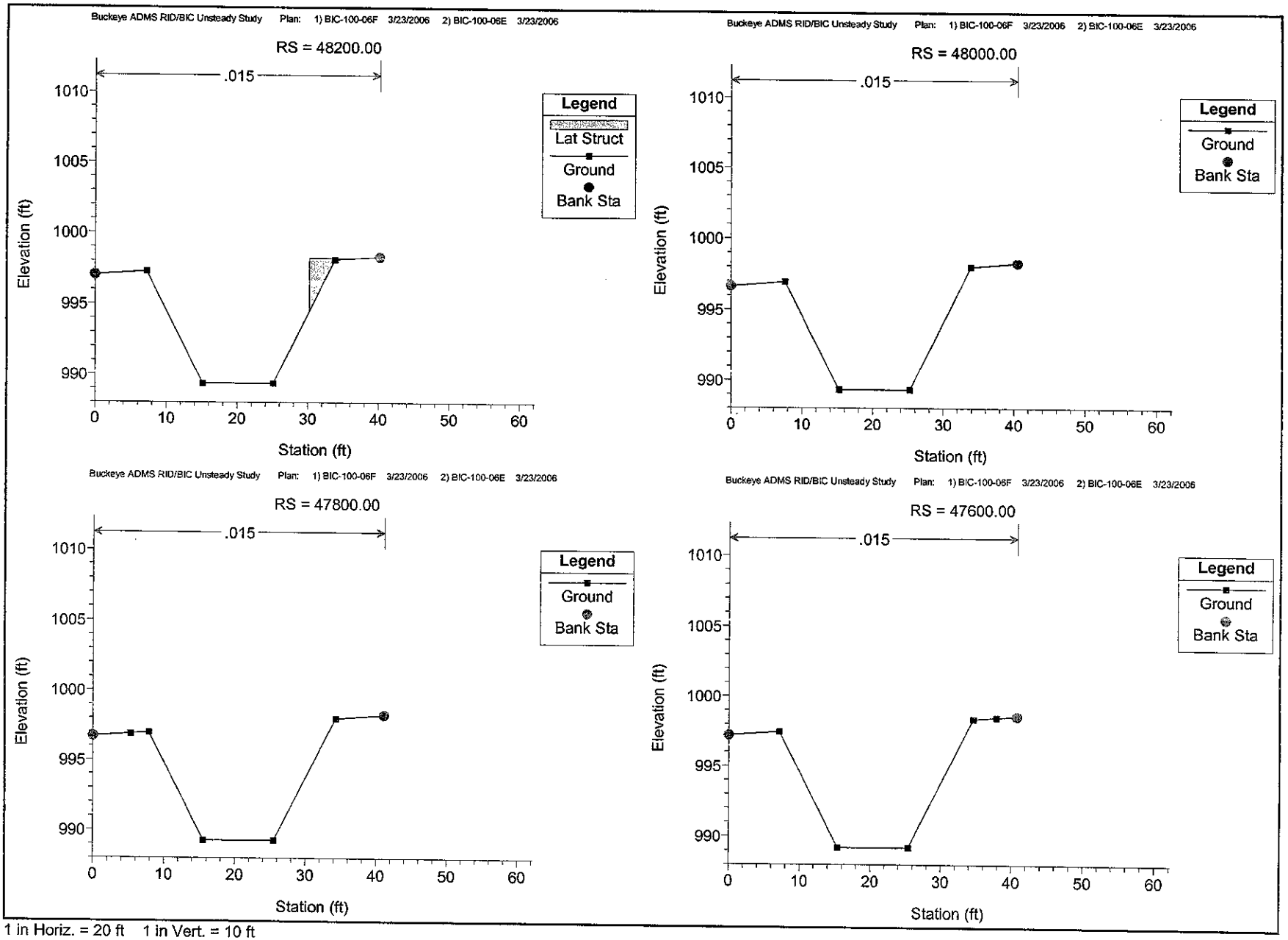
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



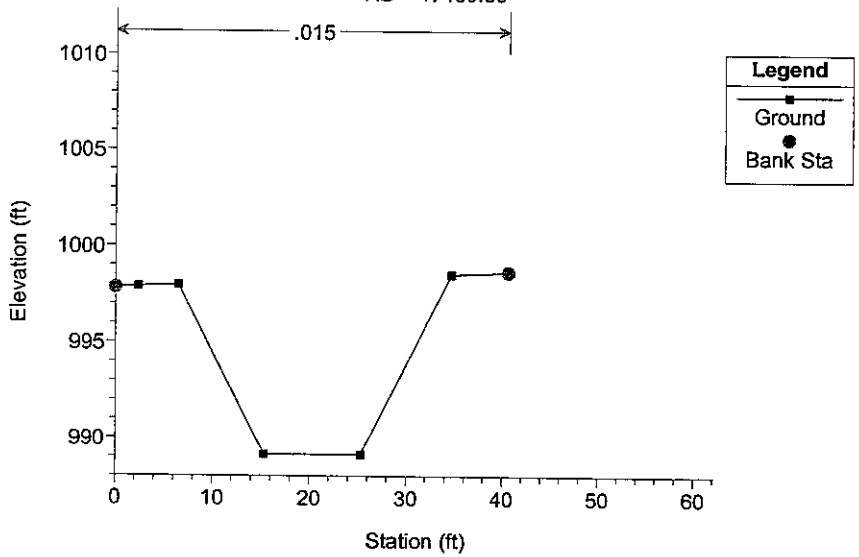
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

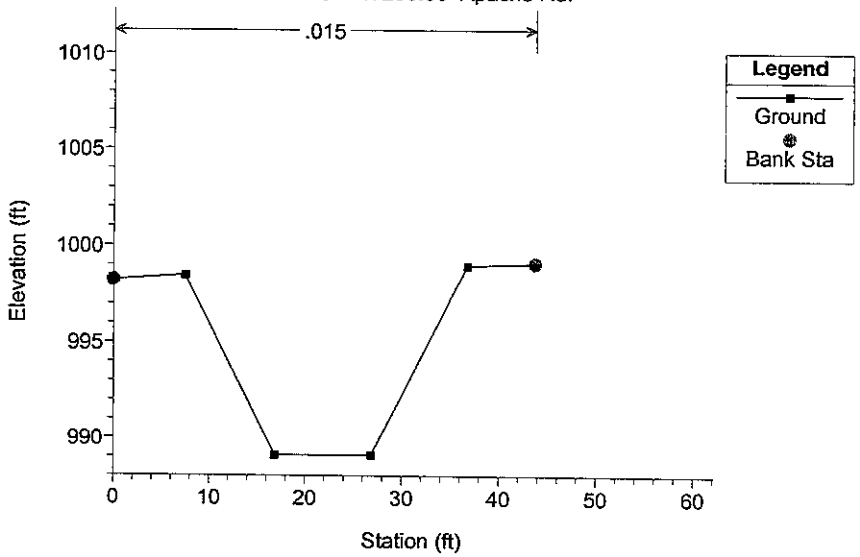
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 47400.00



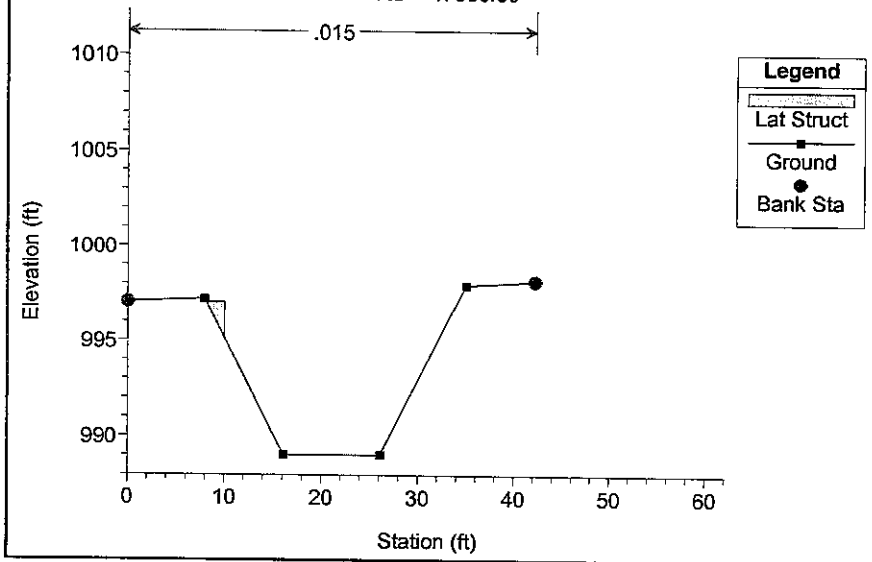
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 47200.00 Apache Rd.



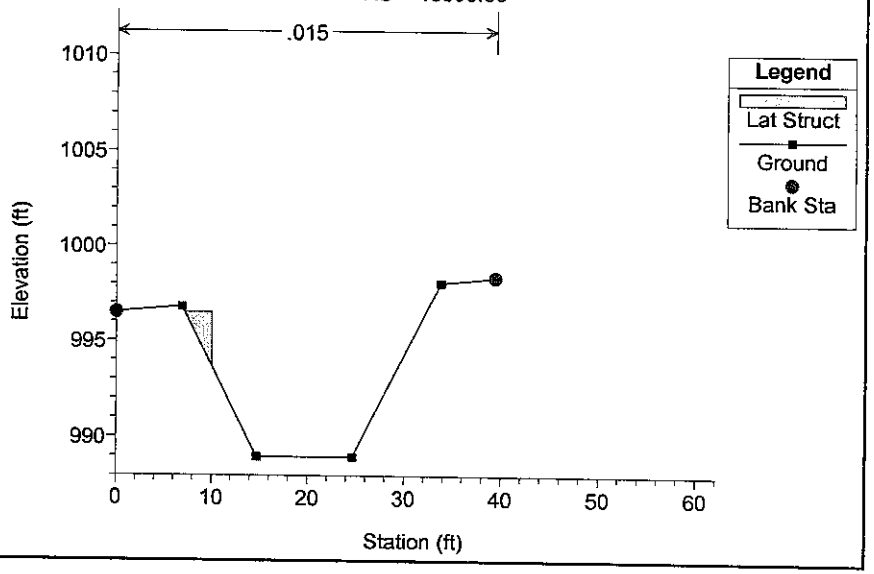
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 47000.00

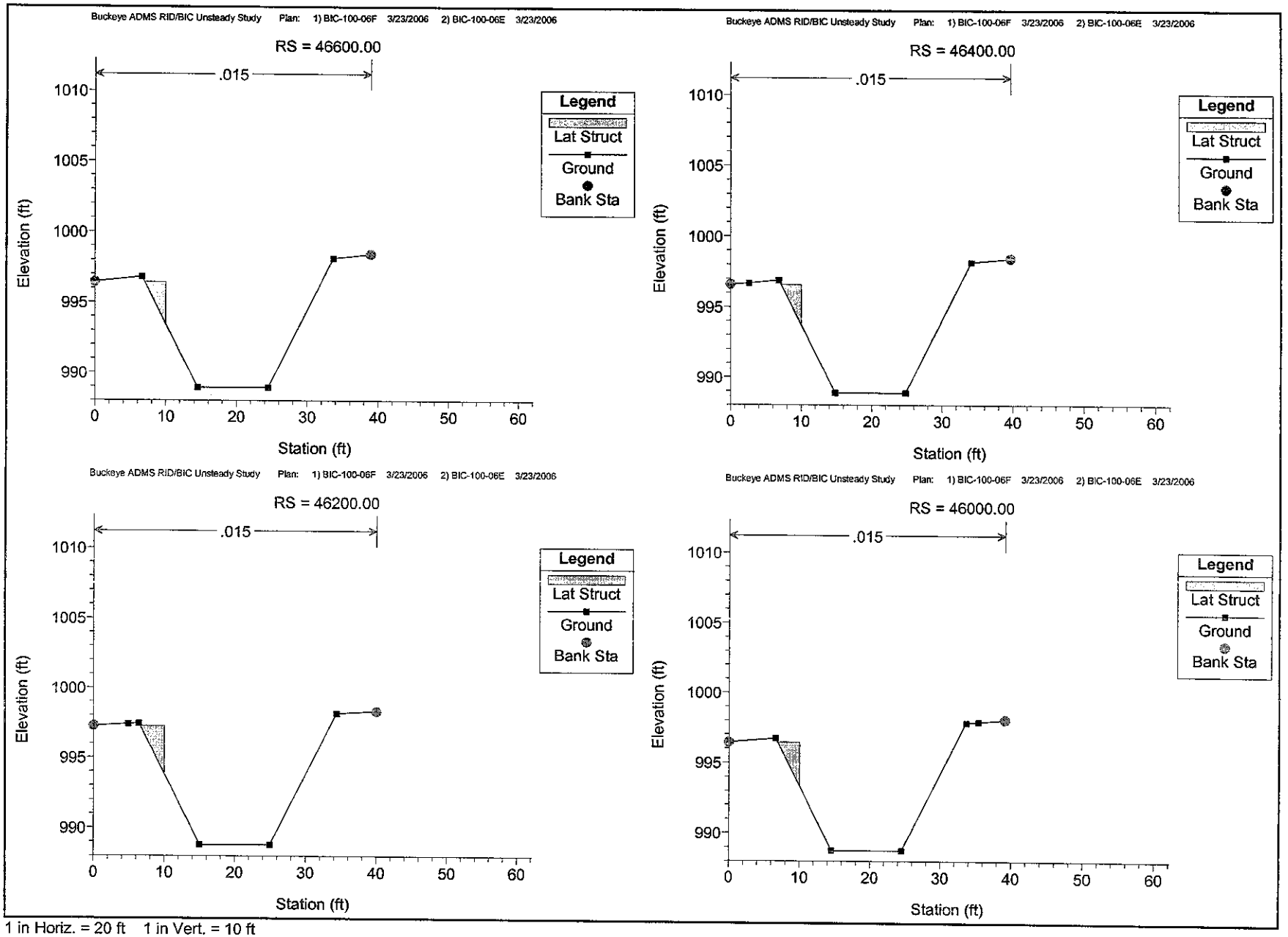


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 46800.00

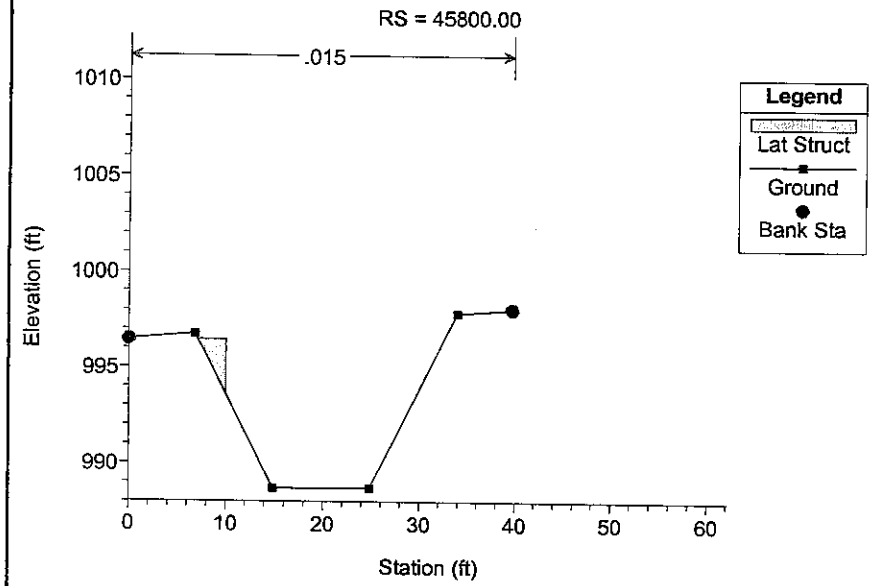


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

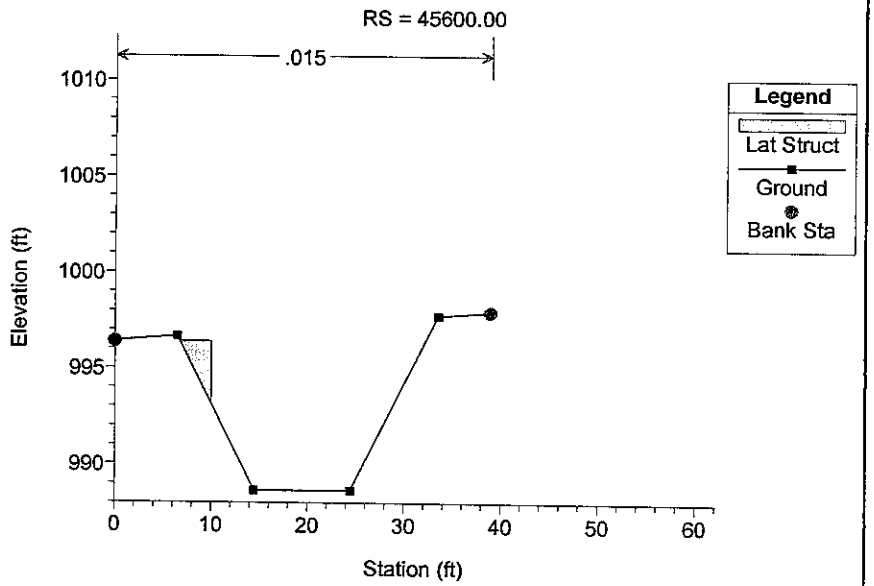


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

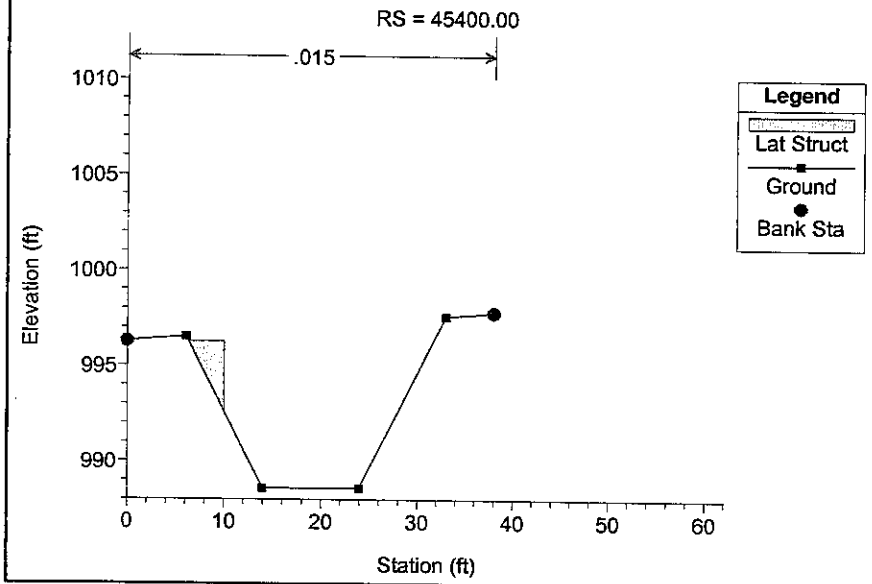
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



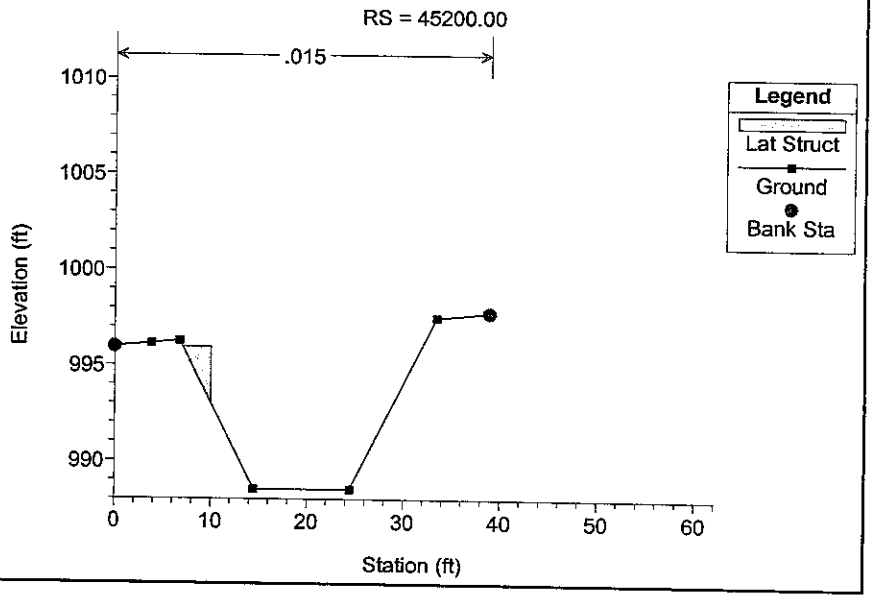
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



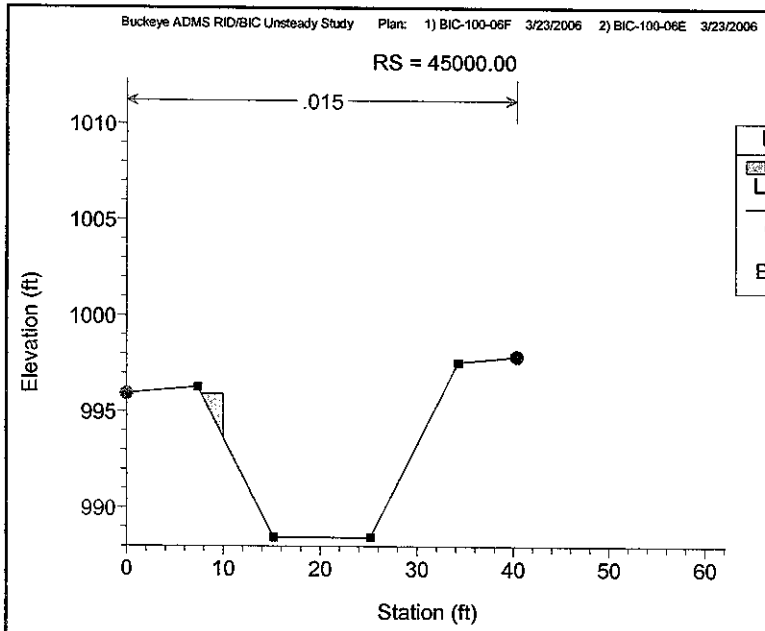
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

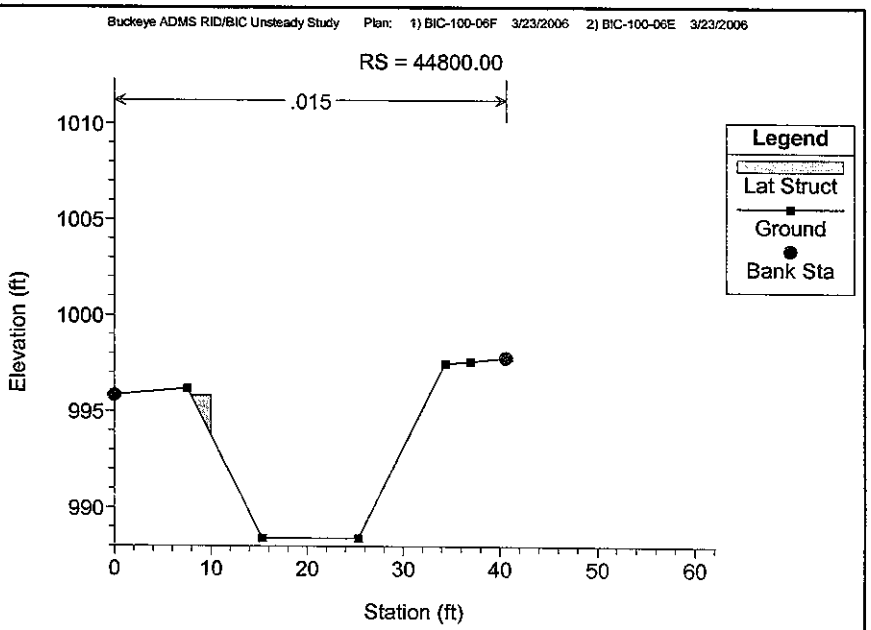


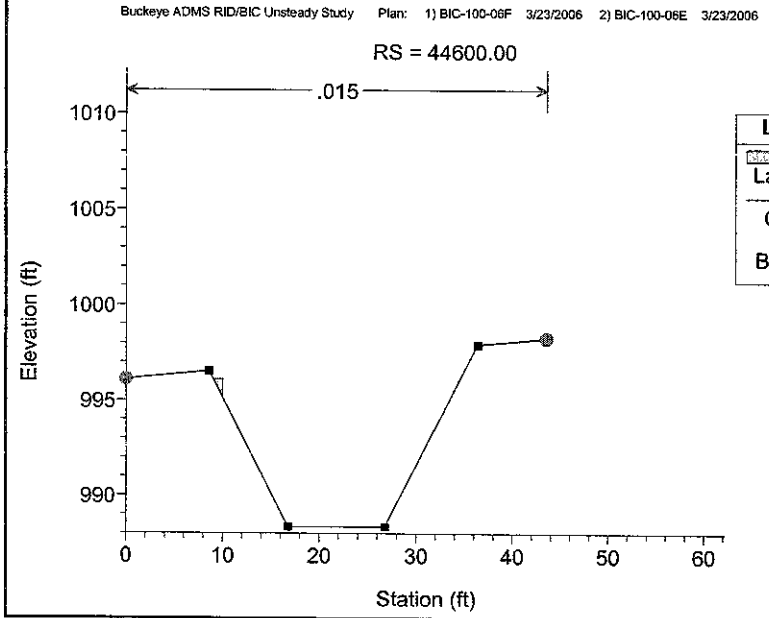
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

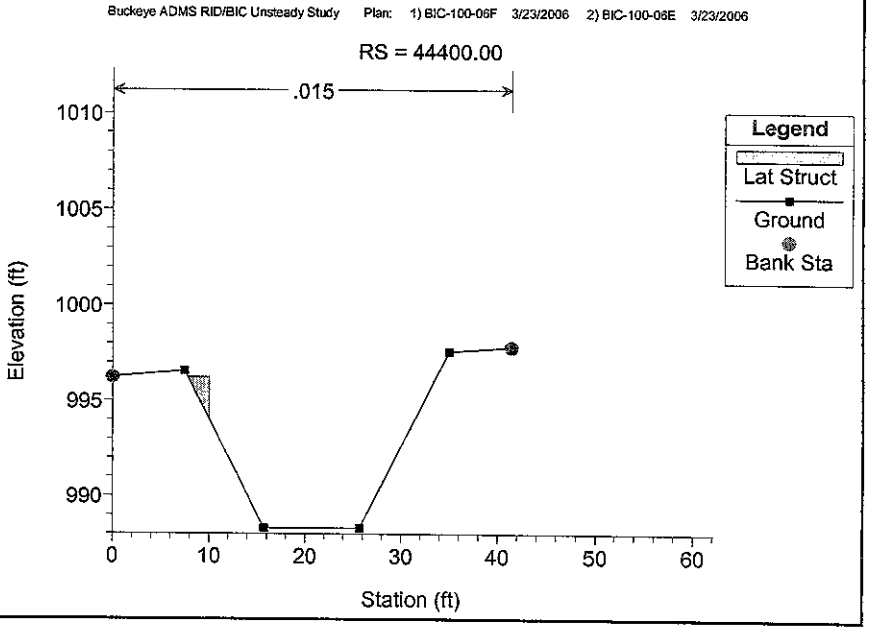


1 in Horiz. = 20 ft 1 in Vert. = 10 ft



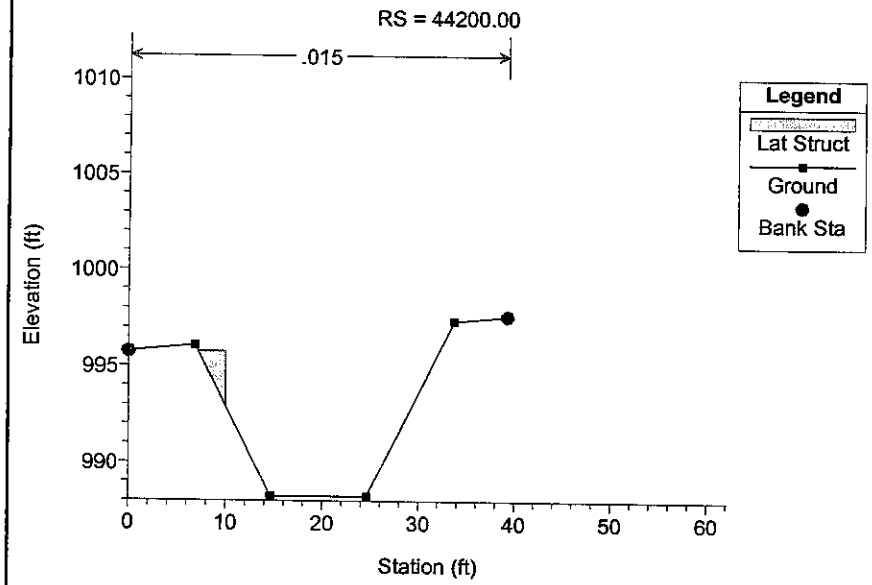




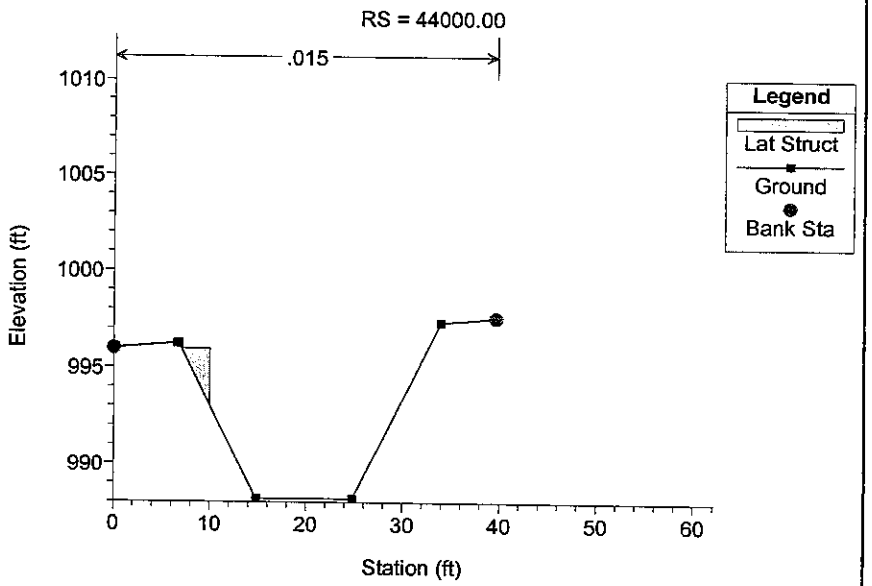


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

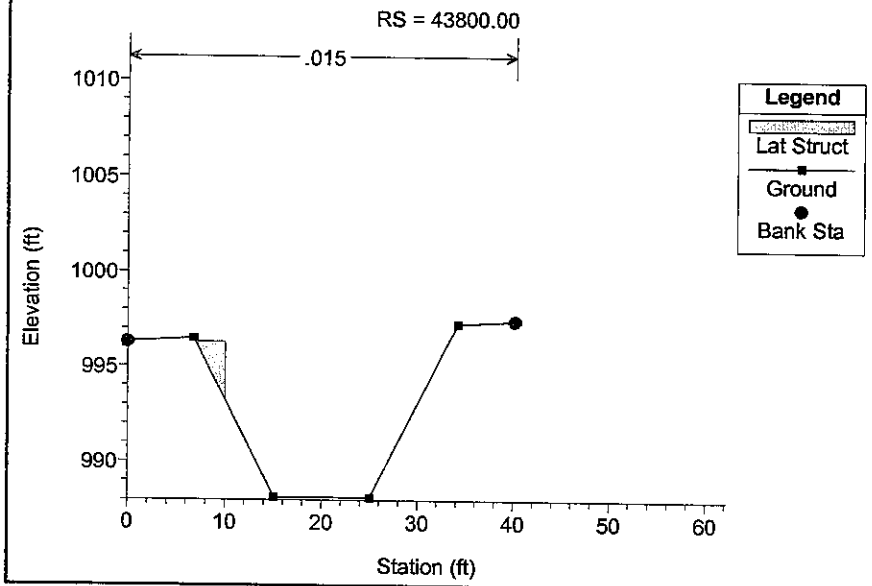
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



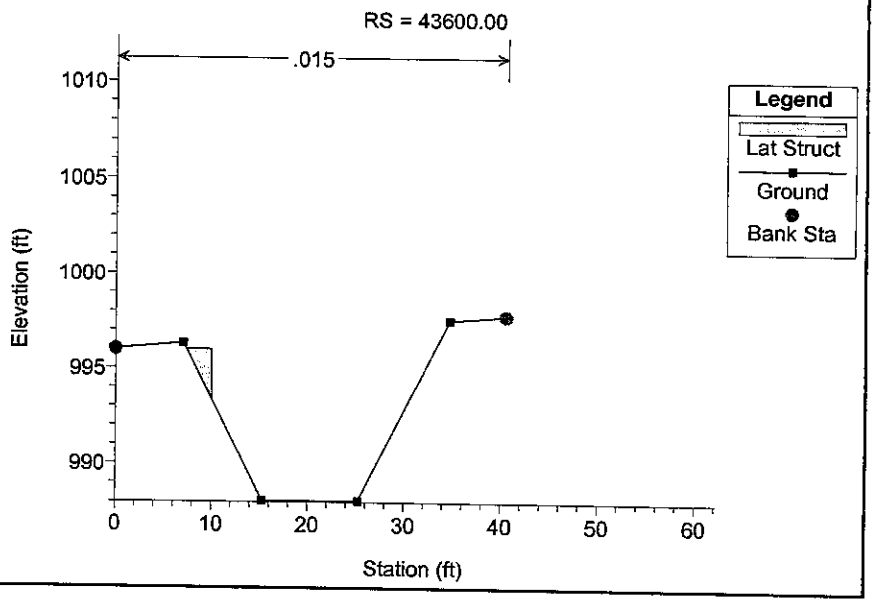
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



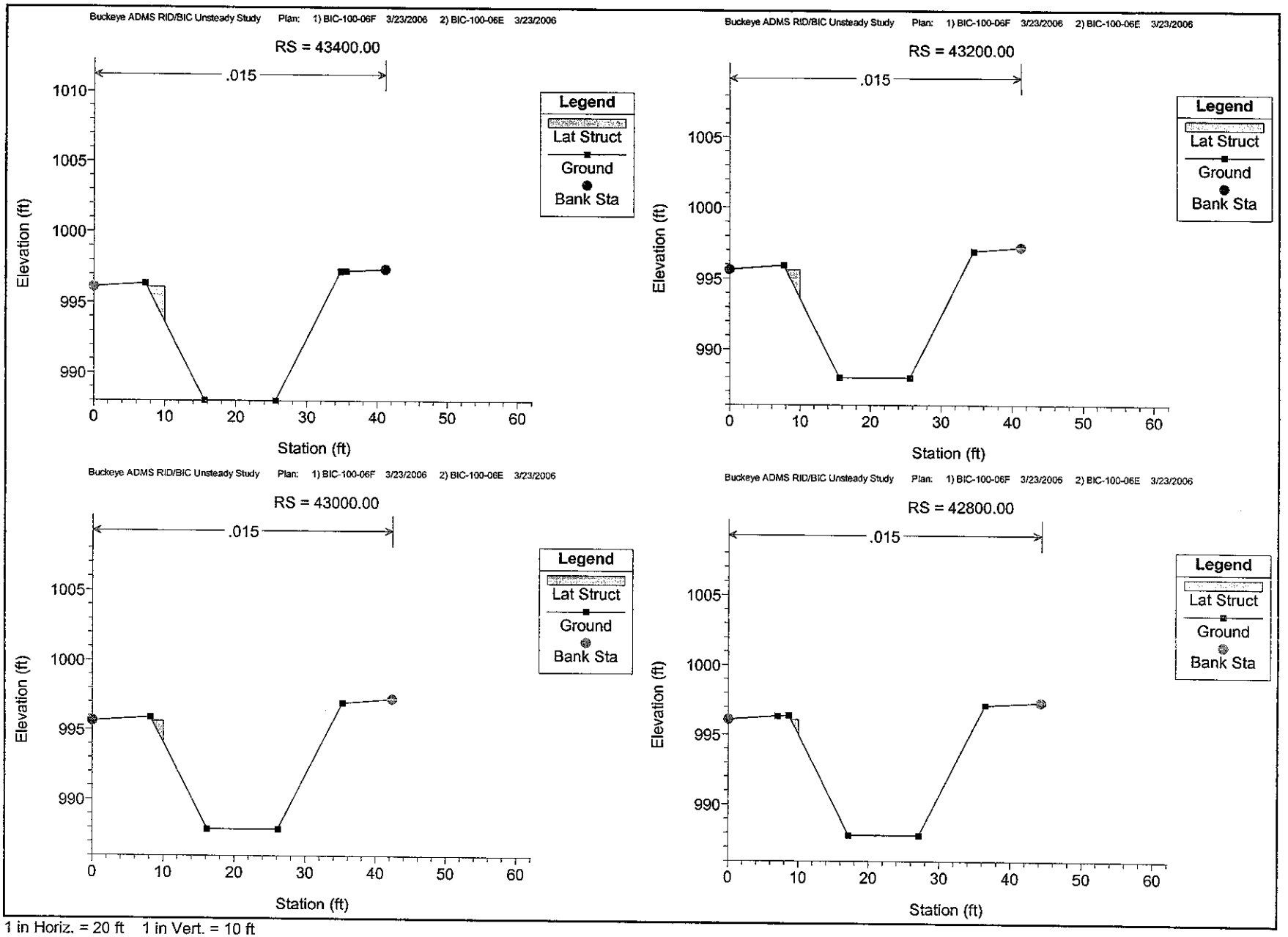
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



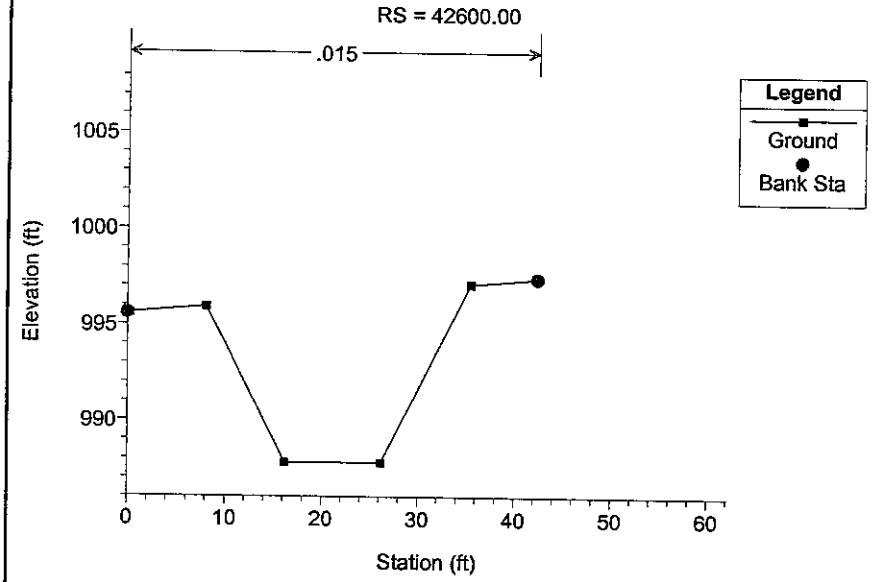
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

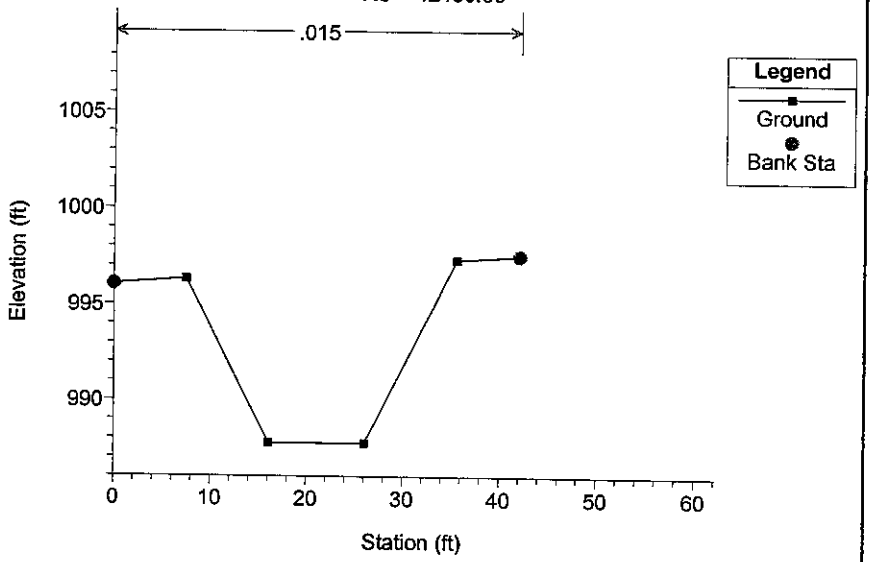
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 42600.00



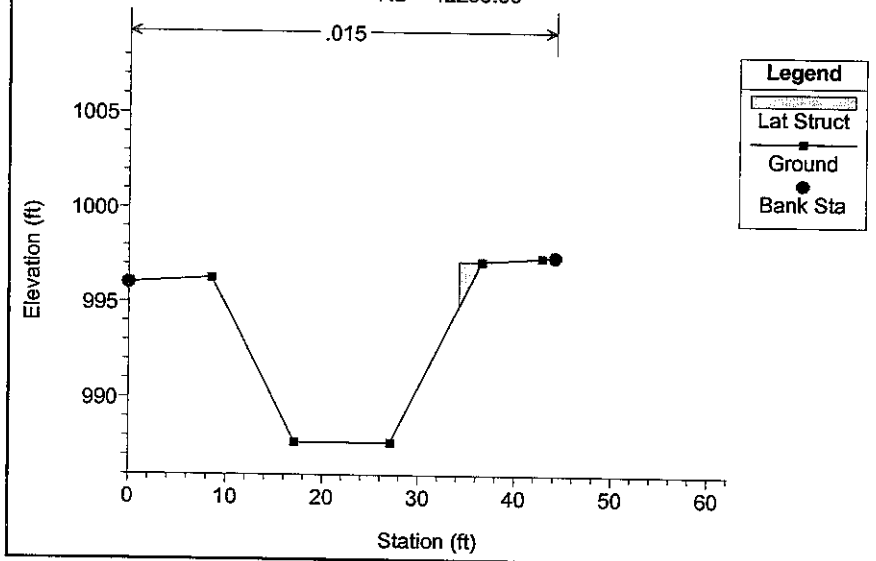
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 42400.00



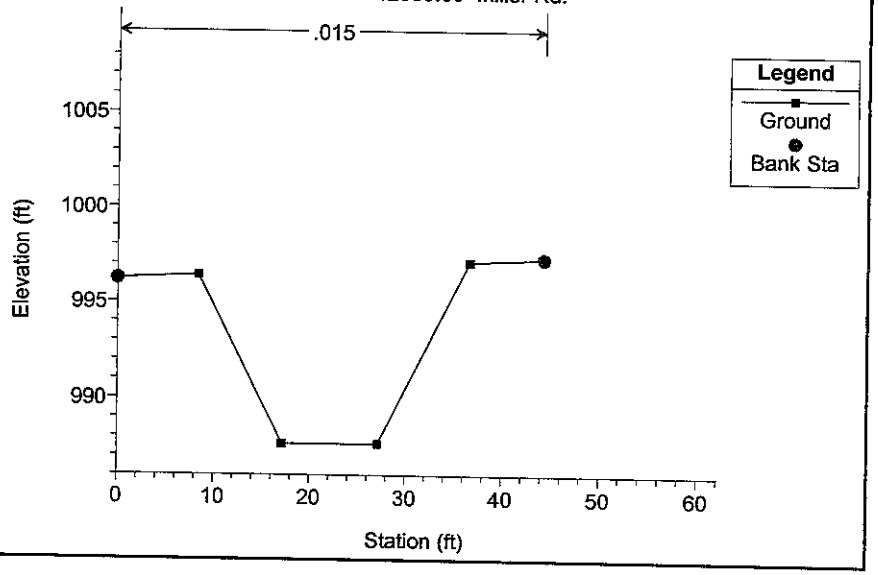
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 42200.00

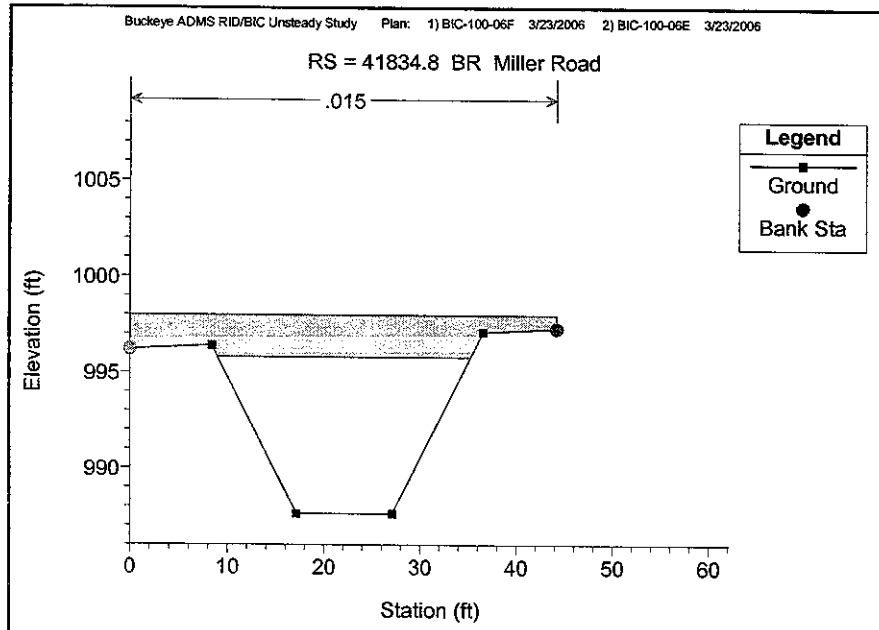


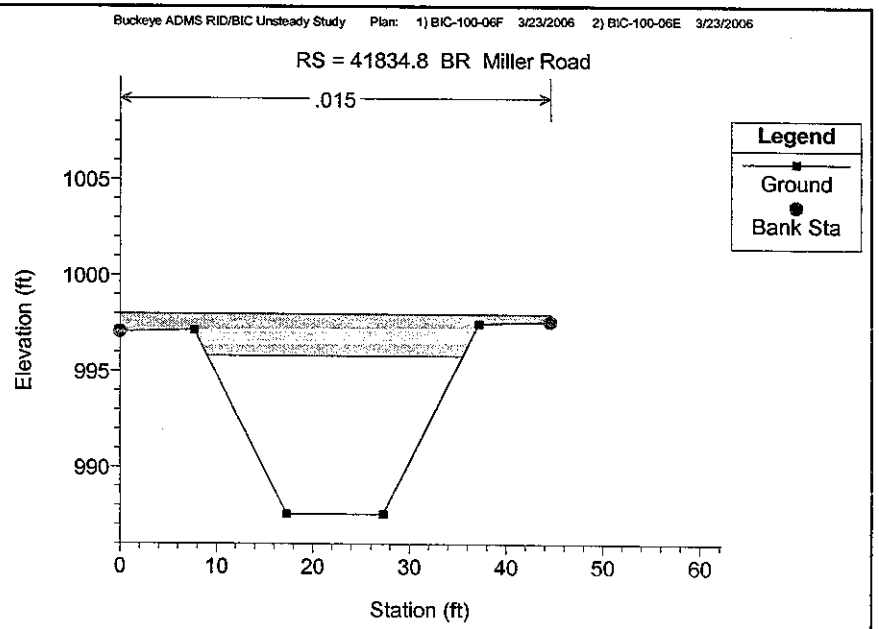
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

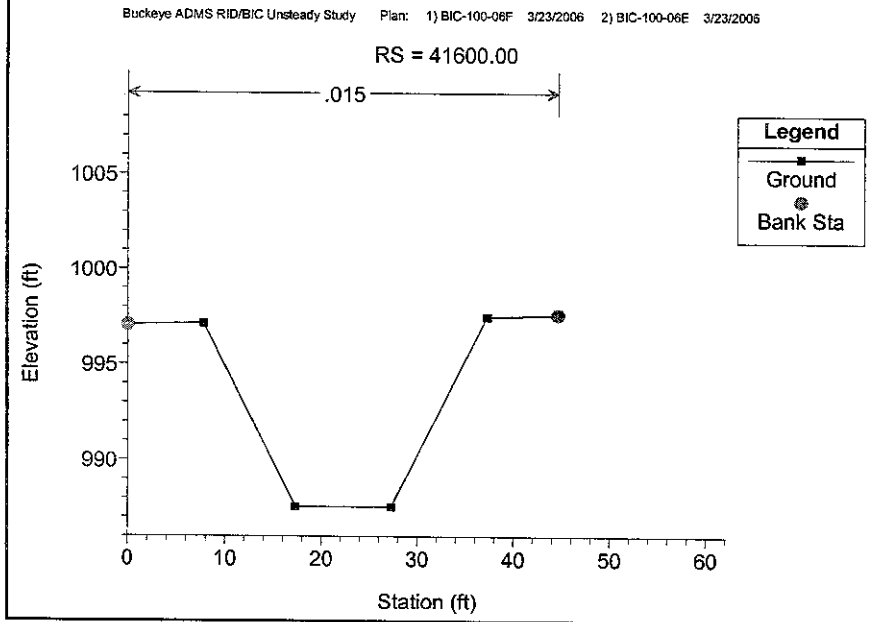
RS = 42000.00 Miller Rd.

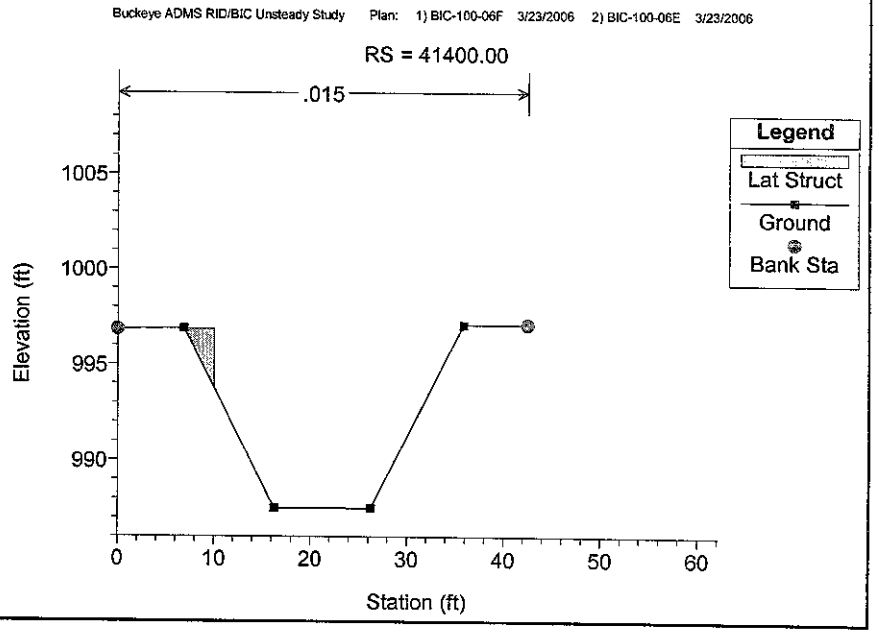


1 in Horiz. = 20 ft 1 in Vert. = 10 ft



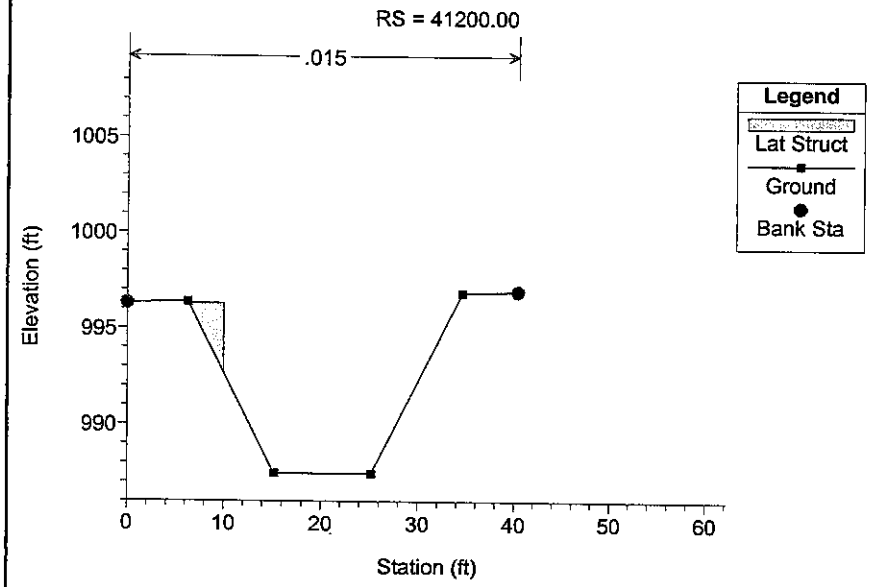




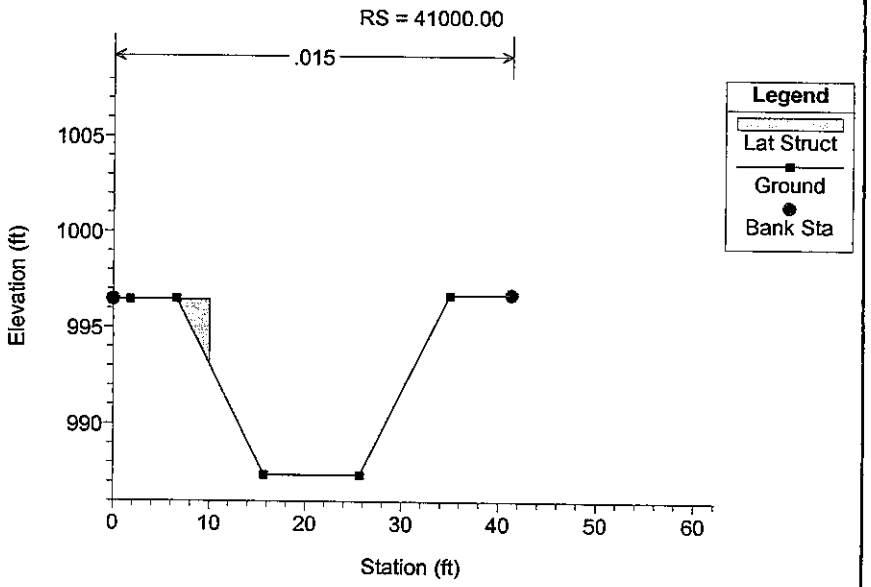


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

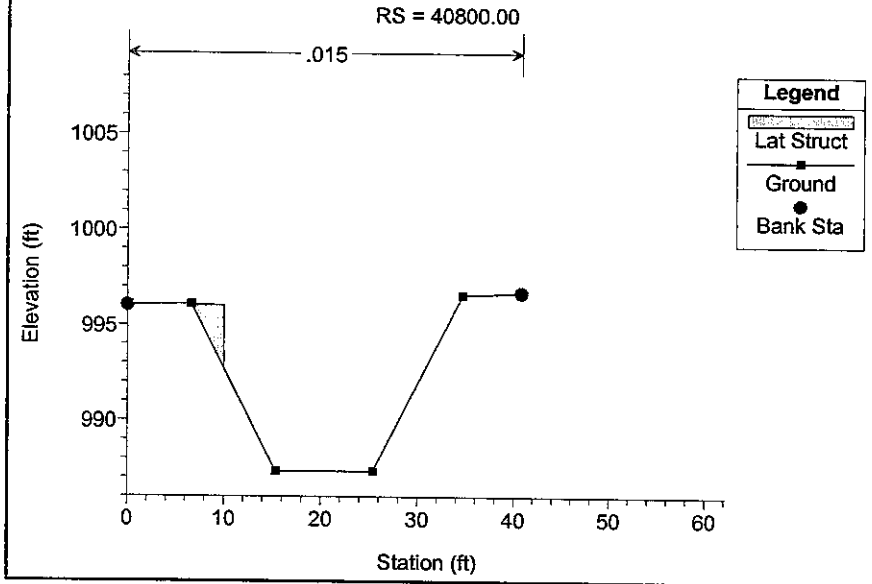
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



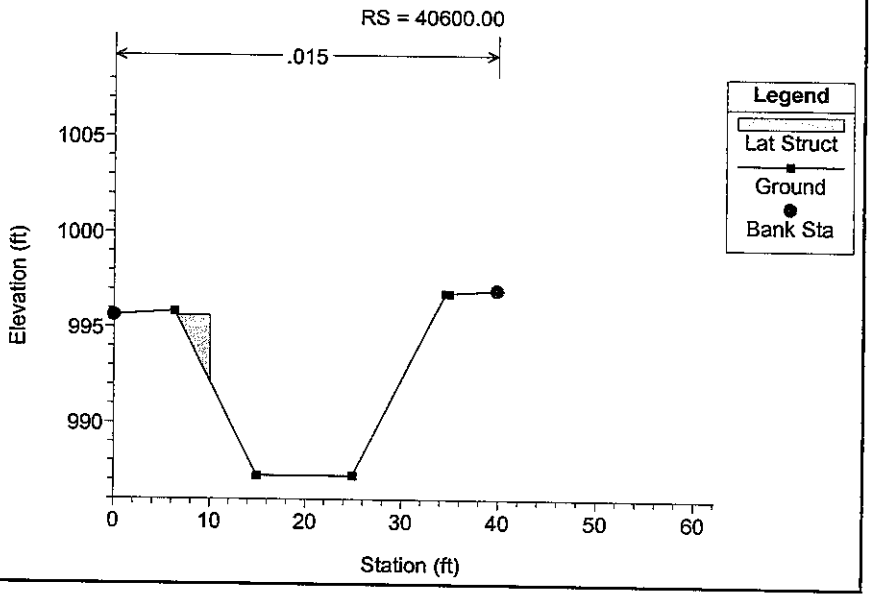
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



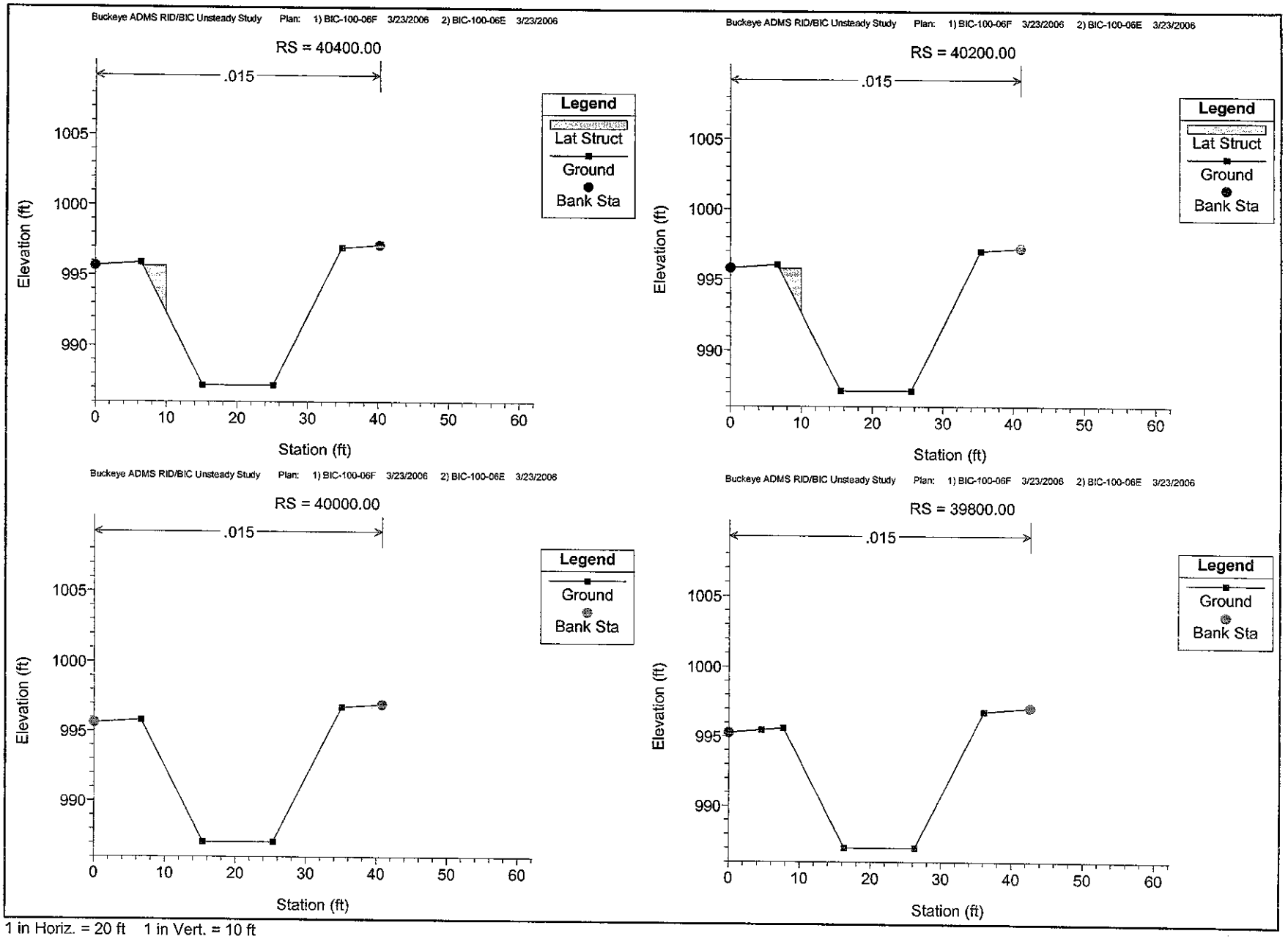
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



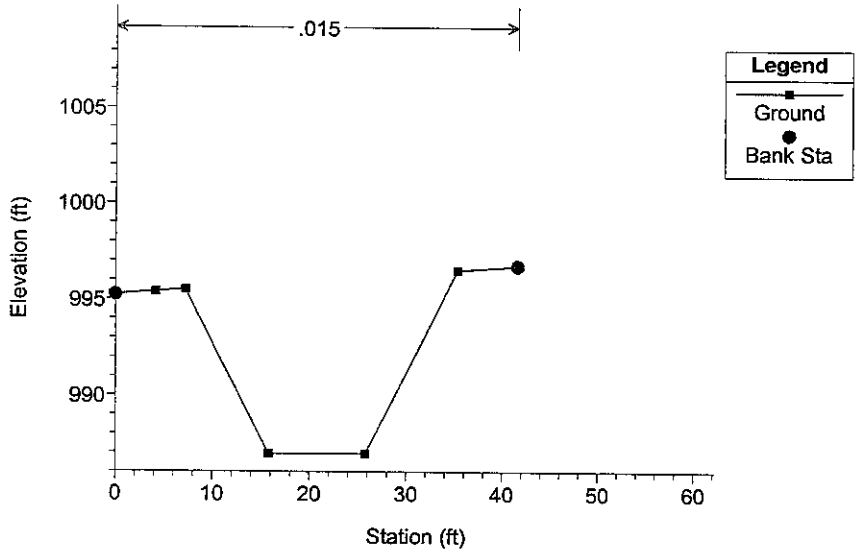
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

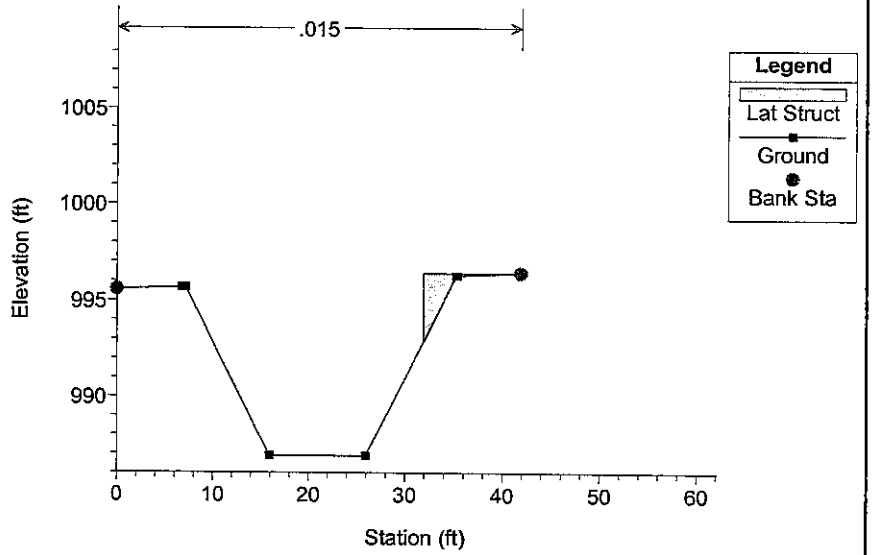
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 39600.00



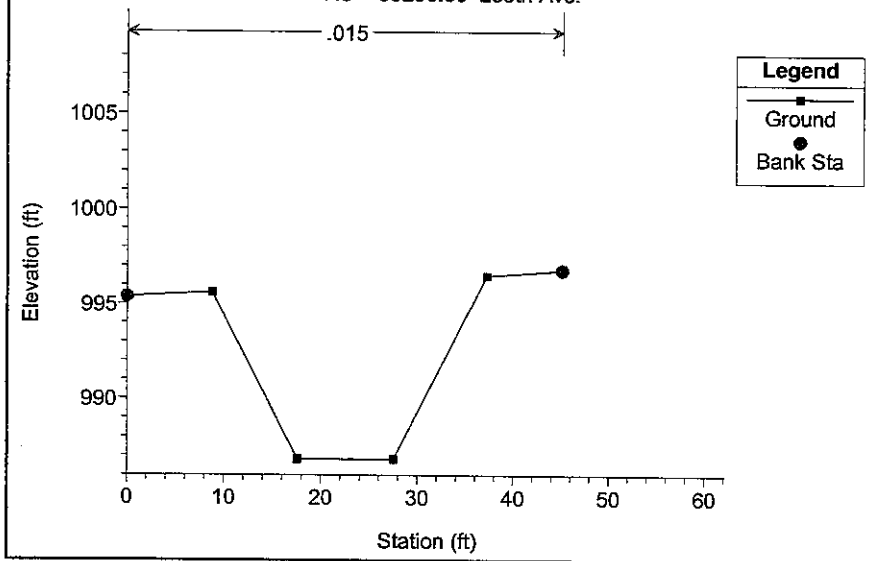
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 39400.00



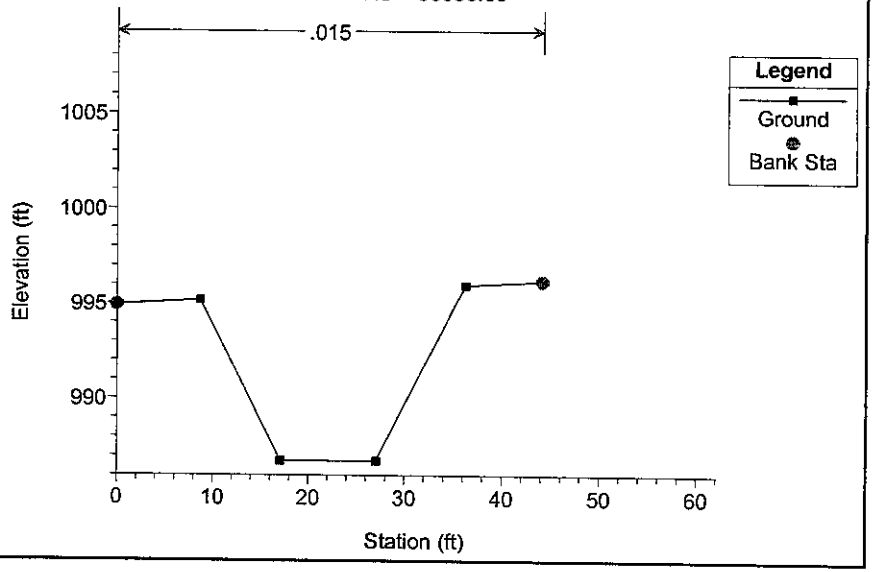
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 39200.00 255th Ave.

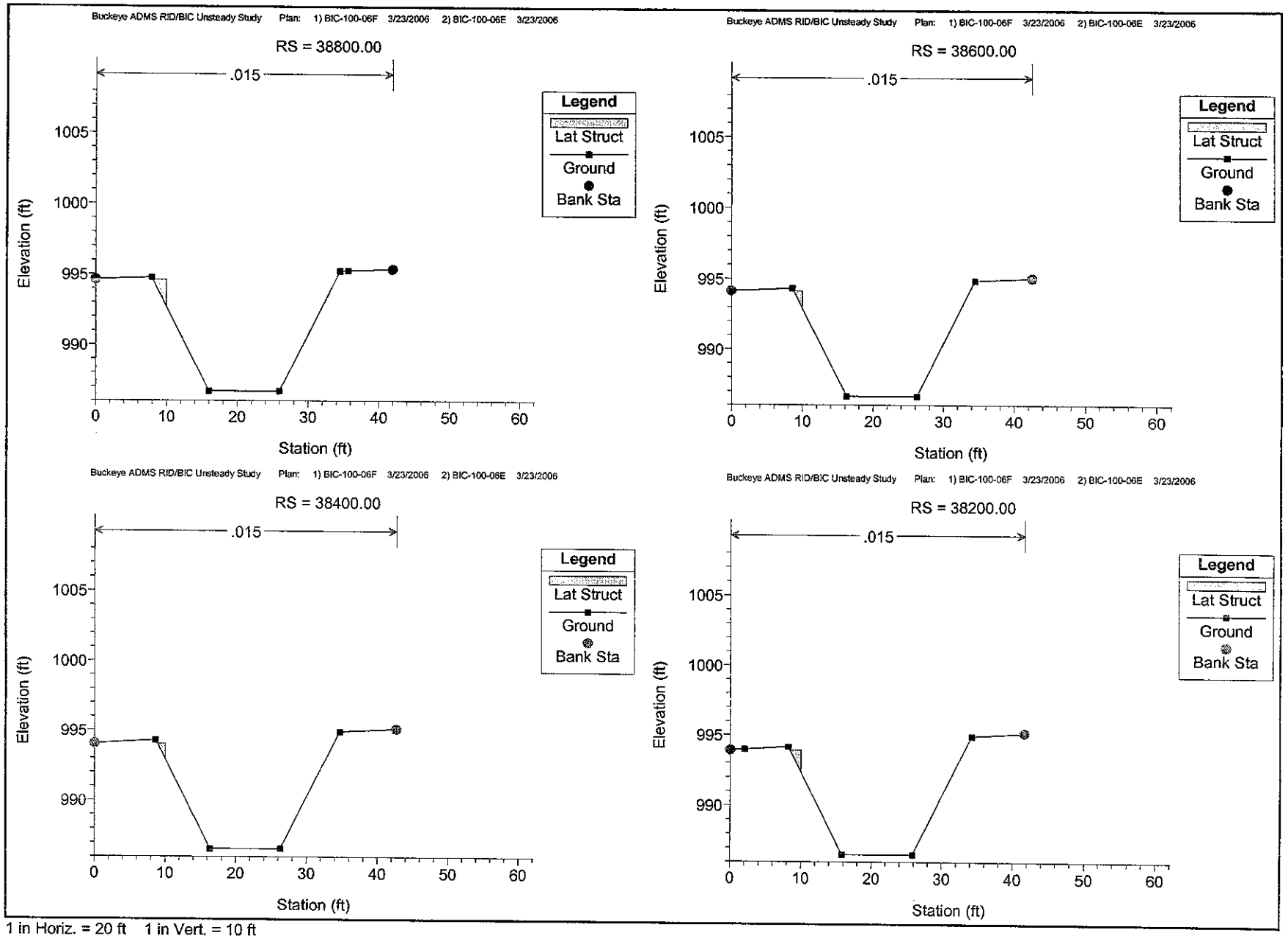


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 39000.00



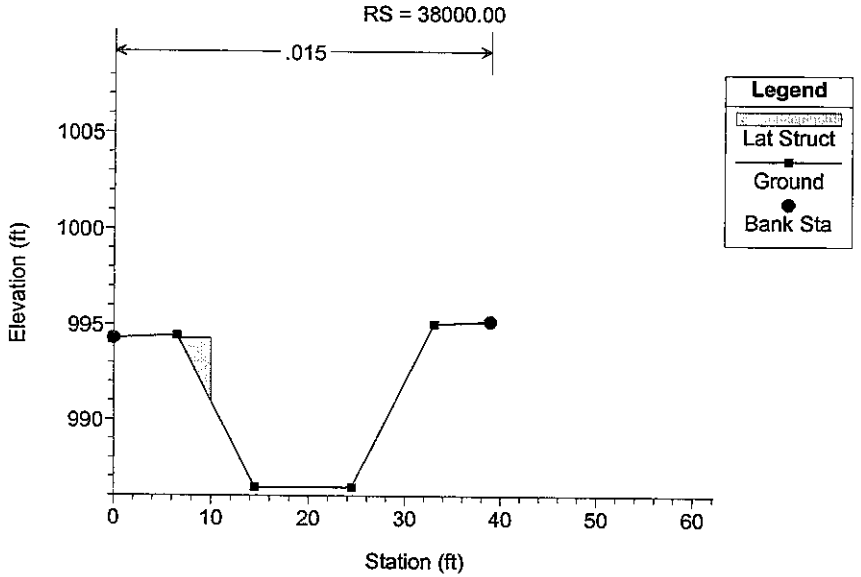
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

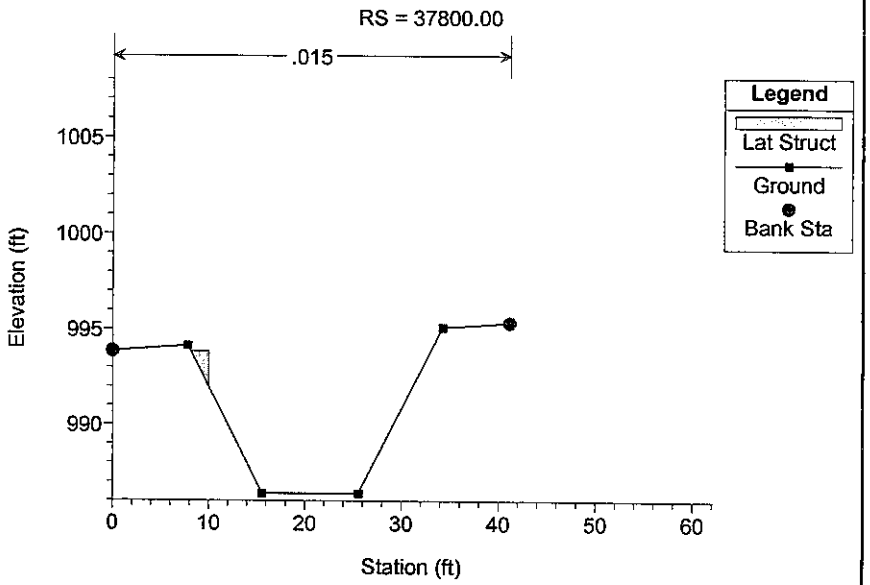
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 38000.00



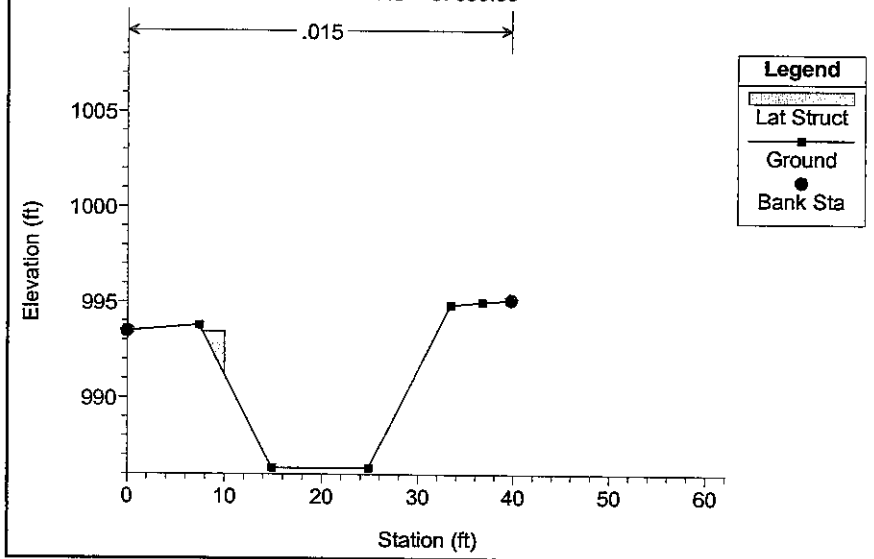
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 37800.00



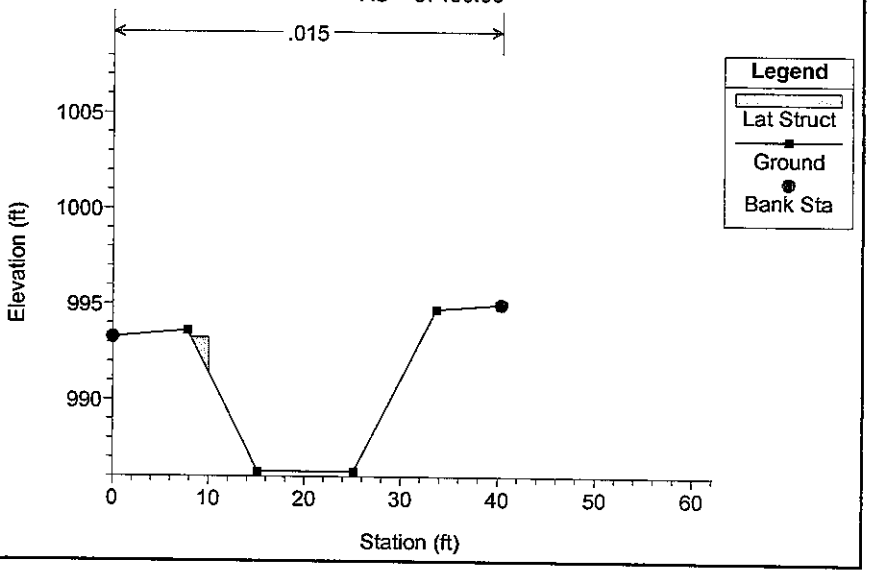
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 37600.00

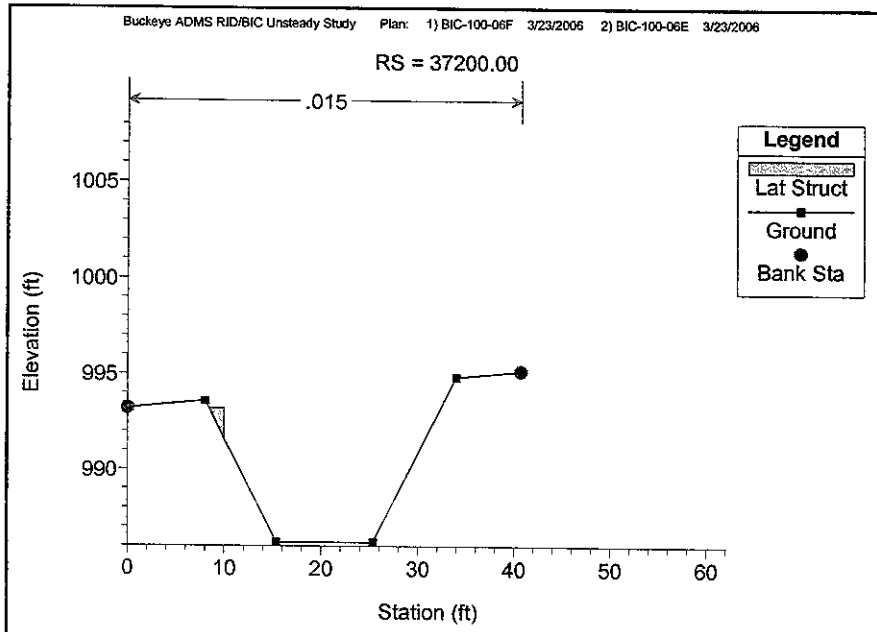


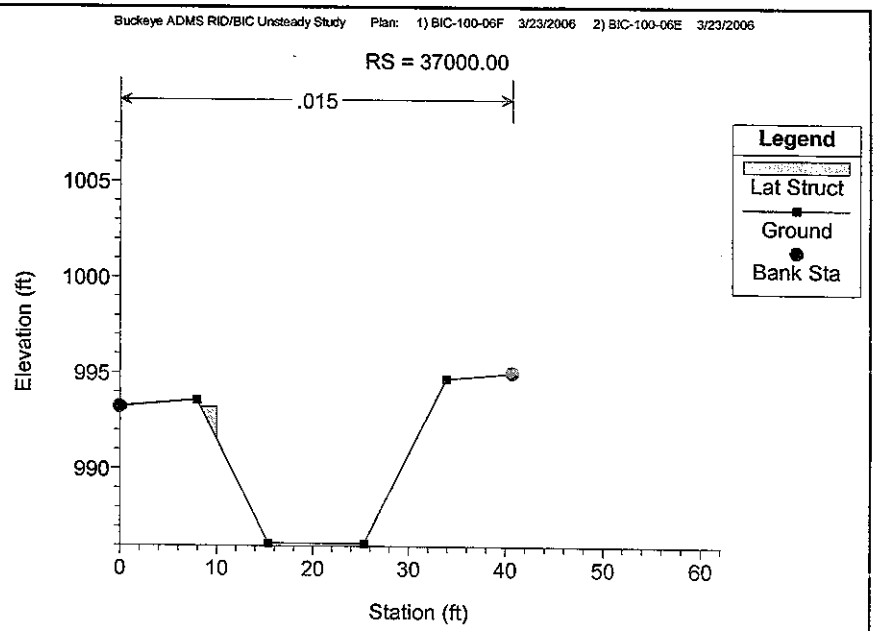
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

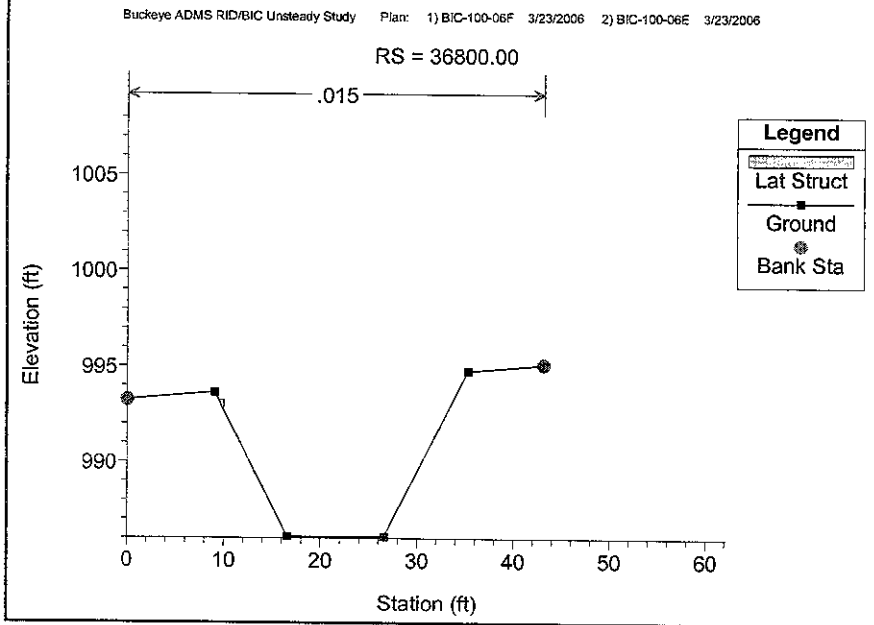
RS = 37400.00

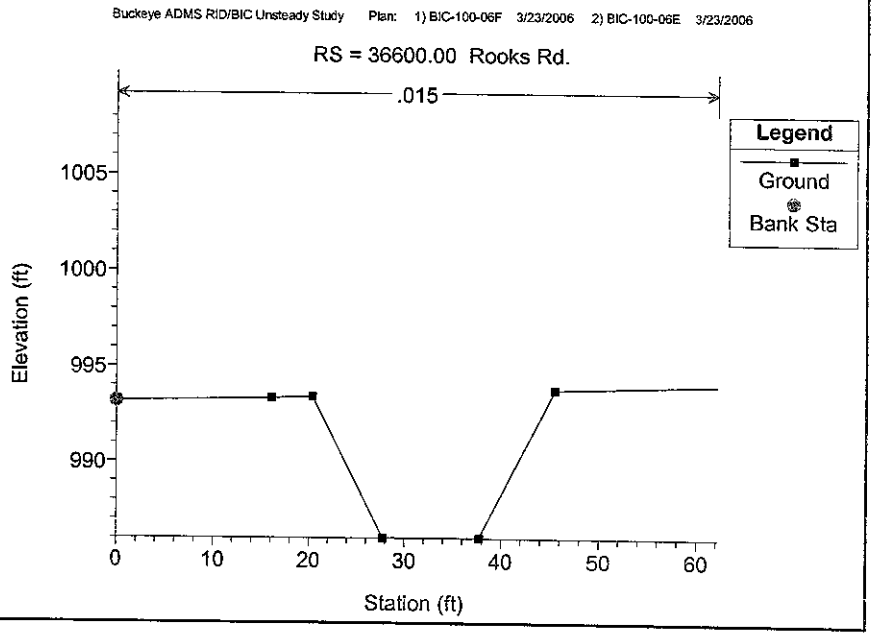


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

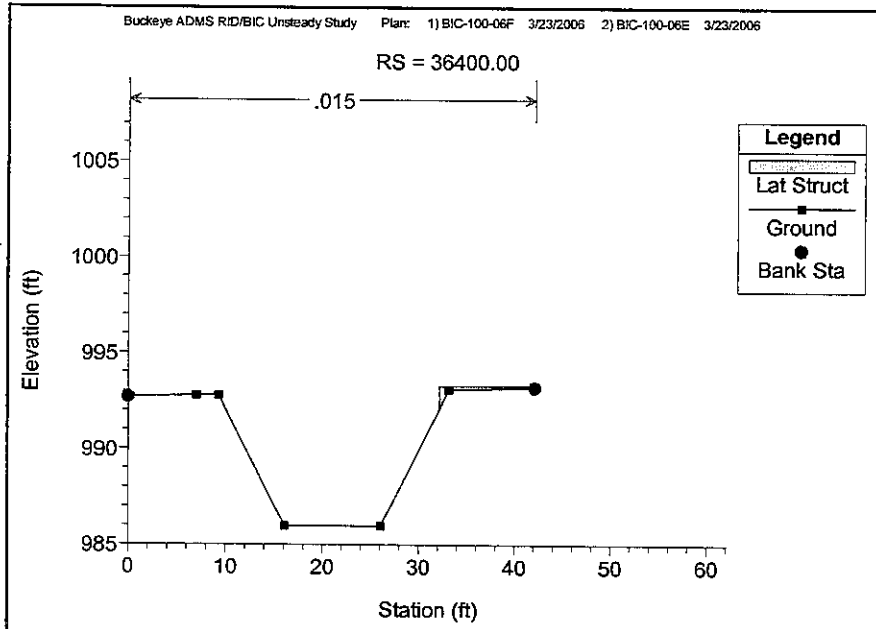


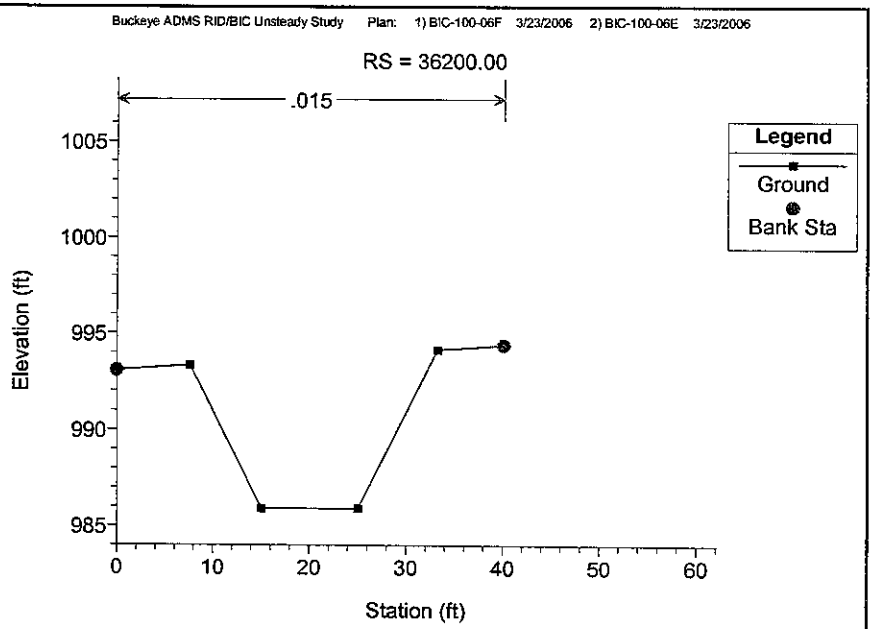


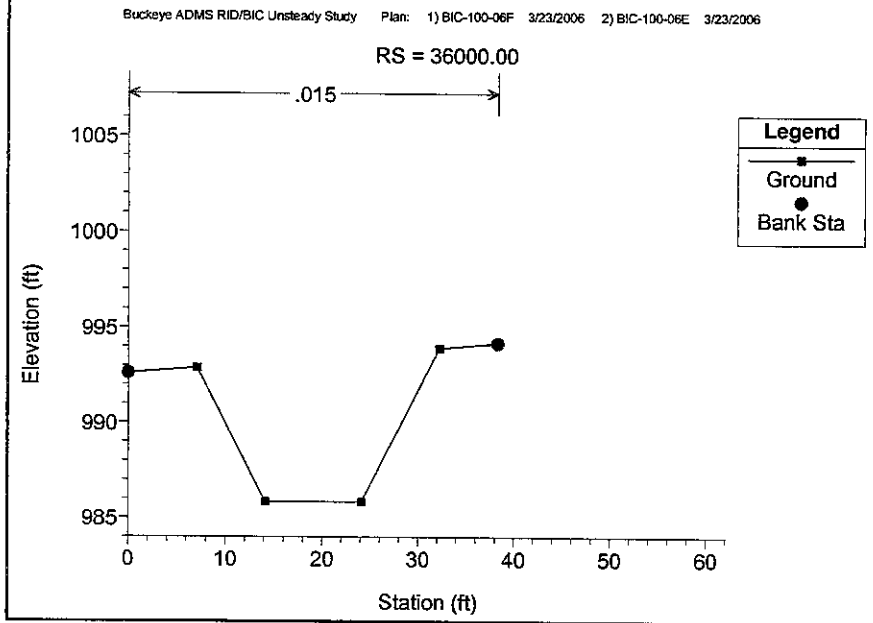


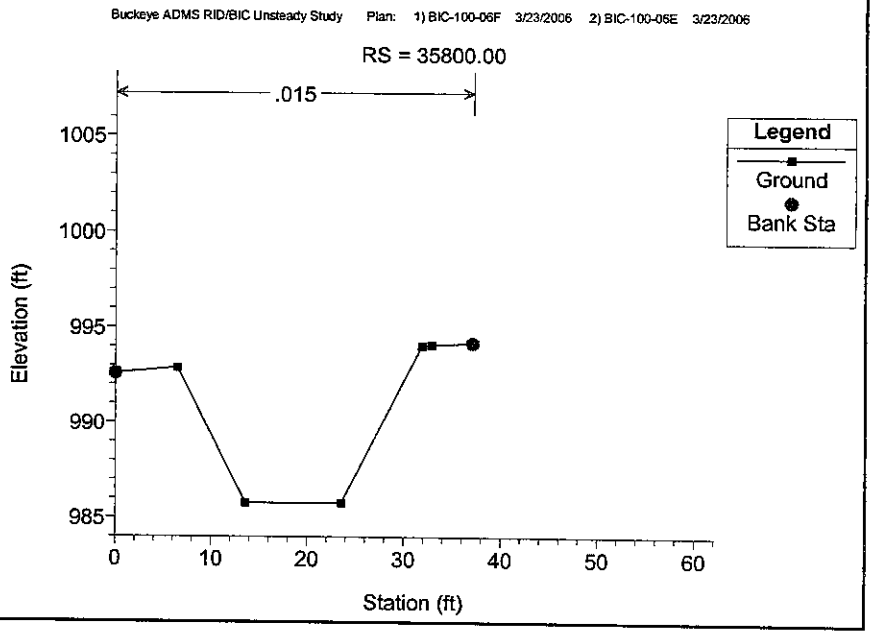


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

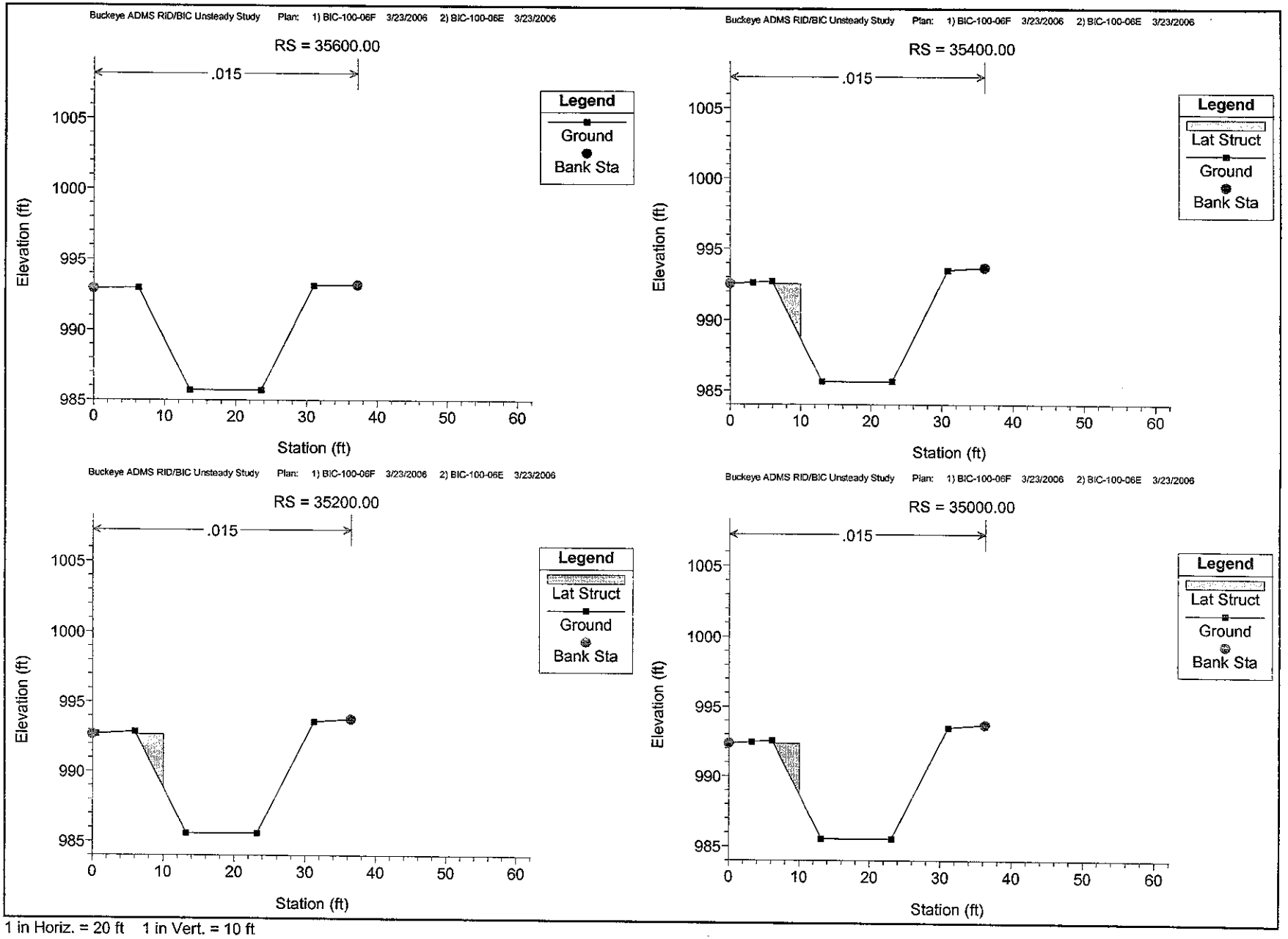








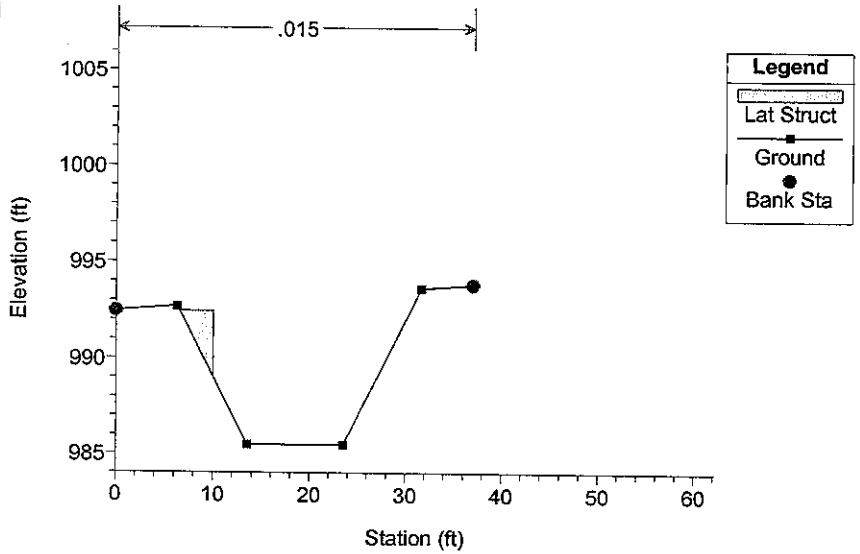
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

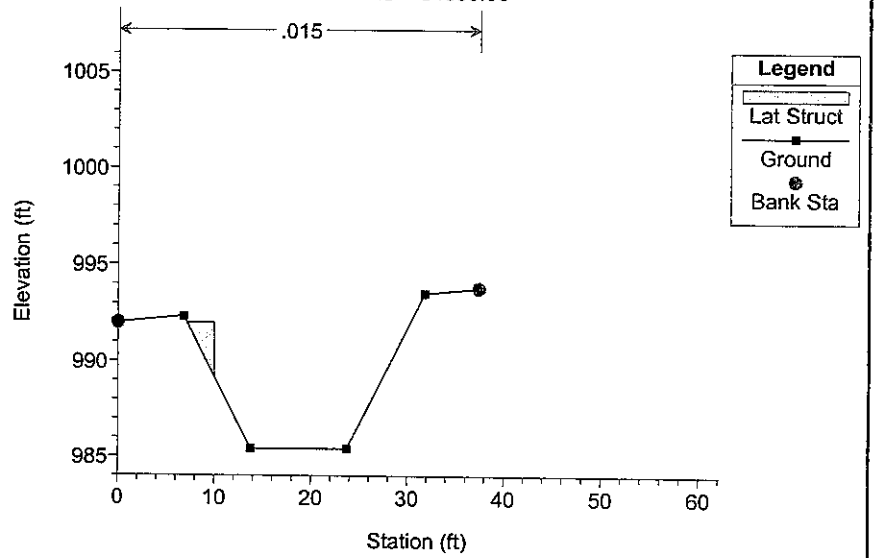
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 34800.00



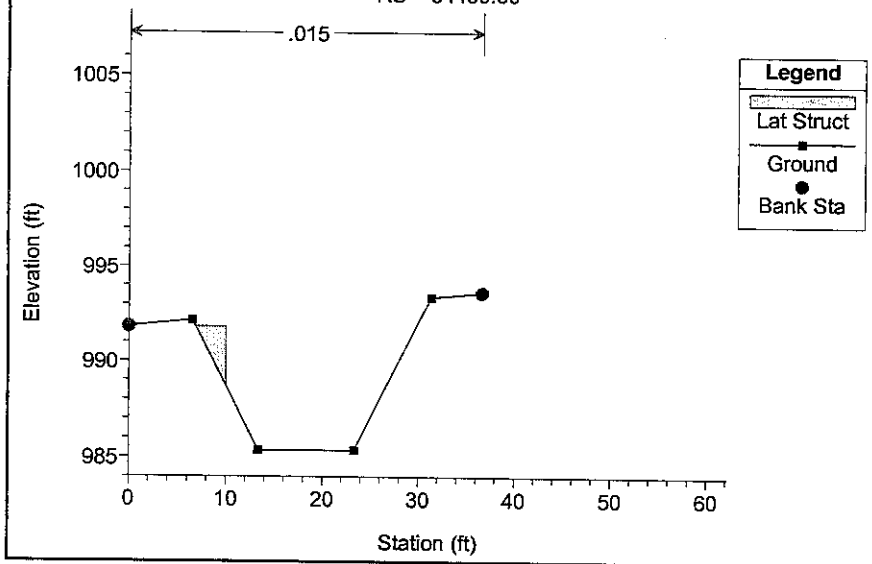
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 34600.00



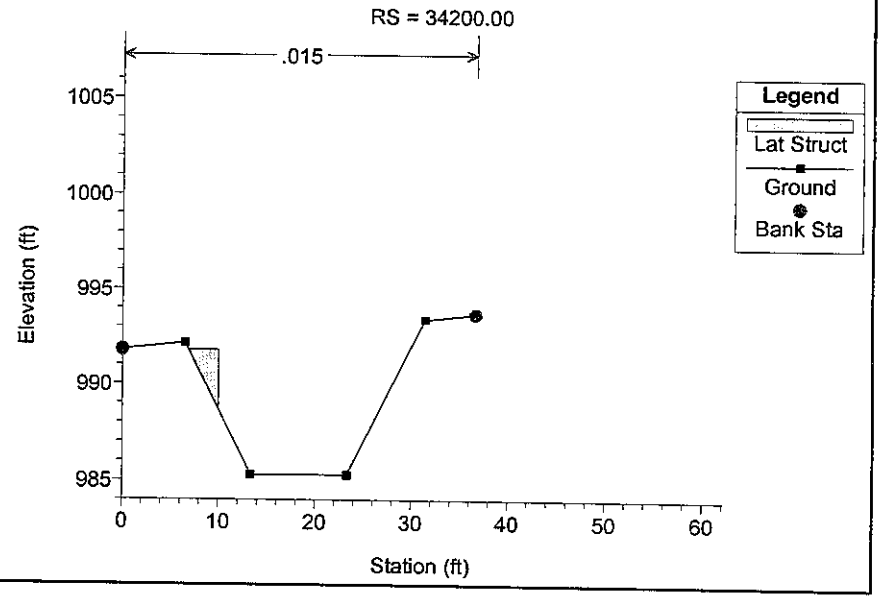
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 34400.00



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

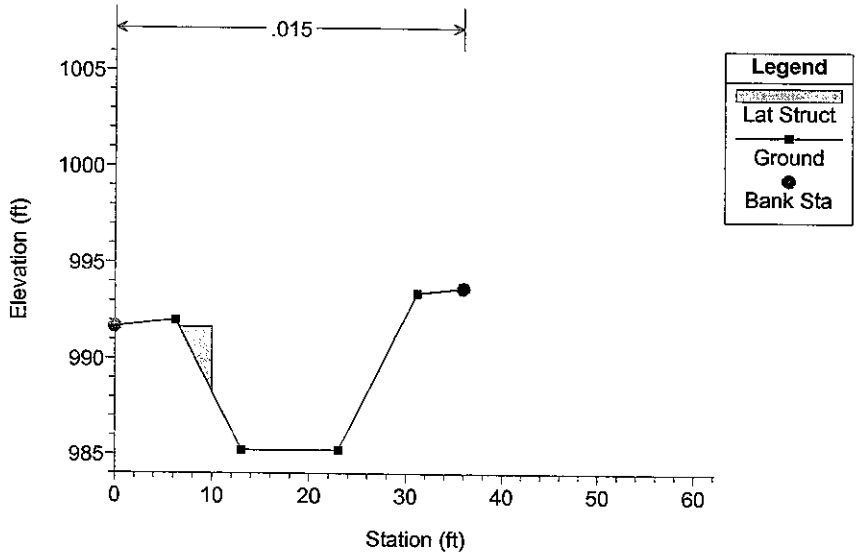
RS = 34200.00



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

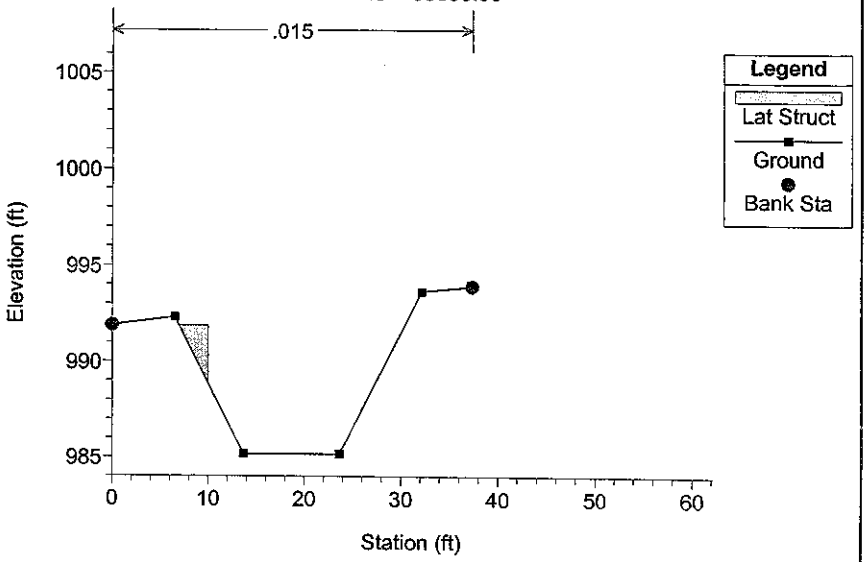
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 34000.00



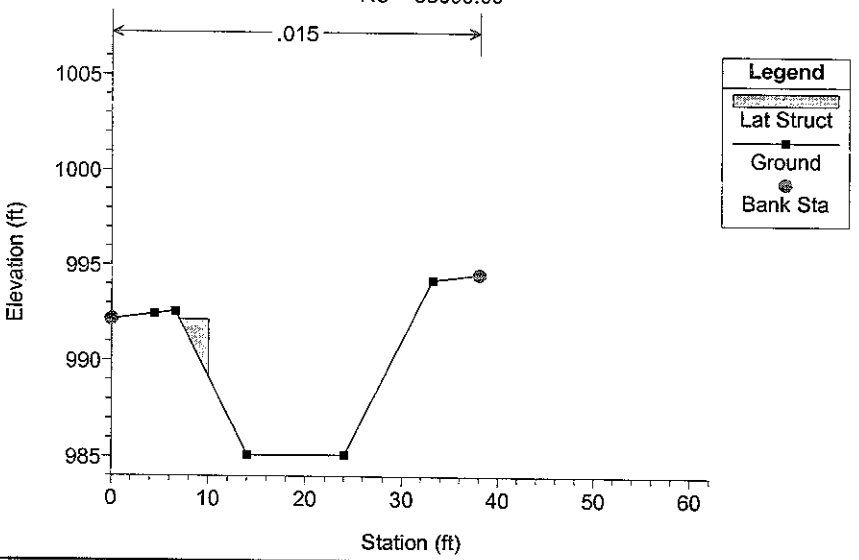
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 33800.00



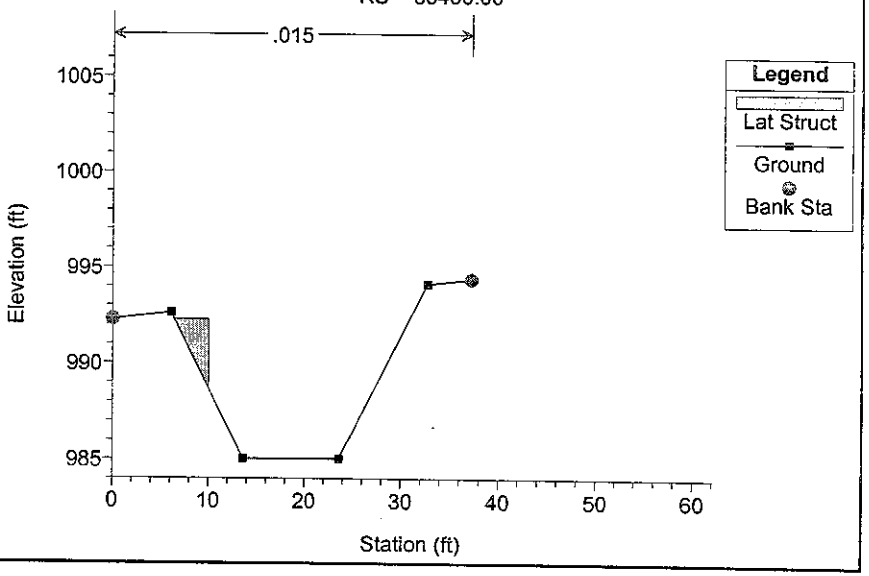
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 33600.00

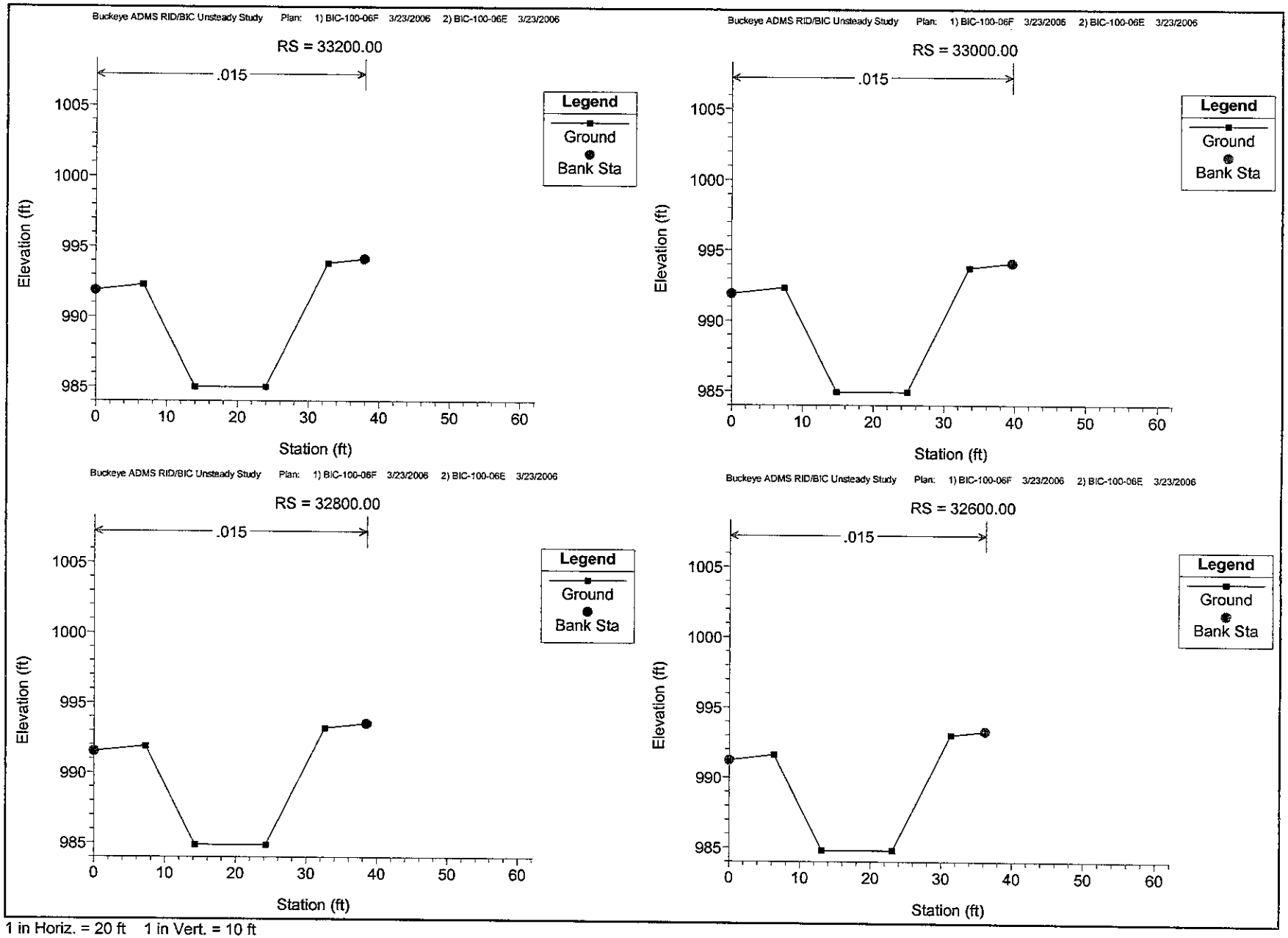


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

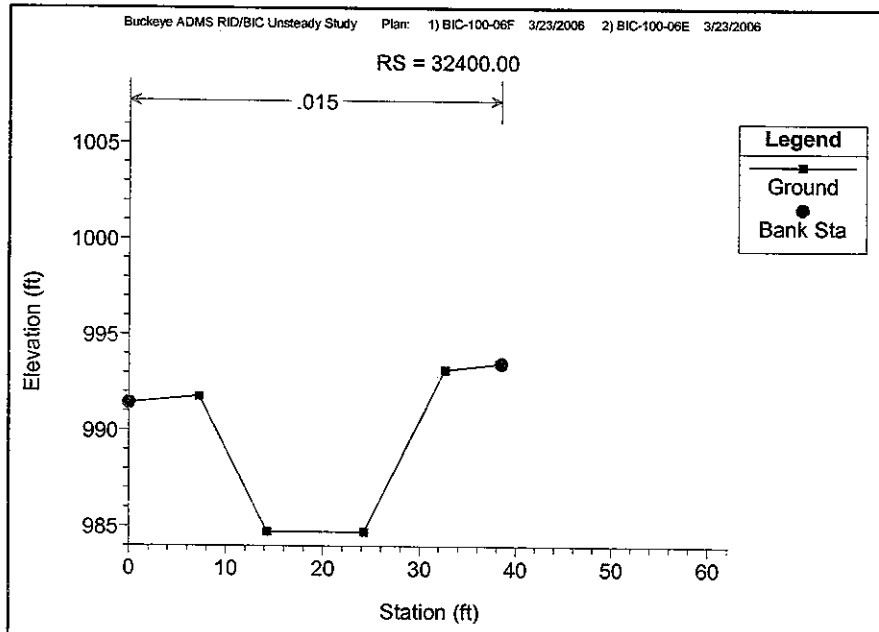
RS = 33400.00

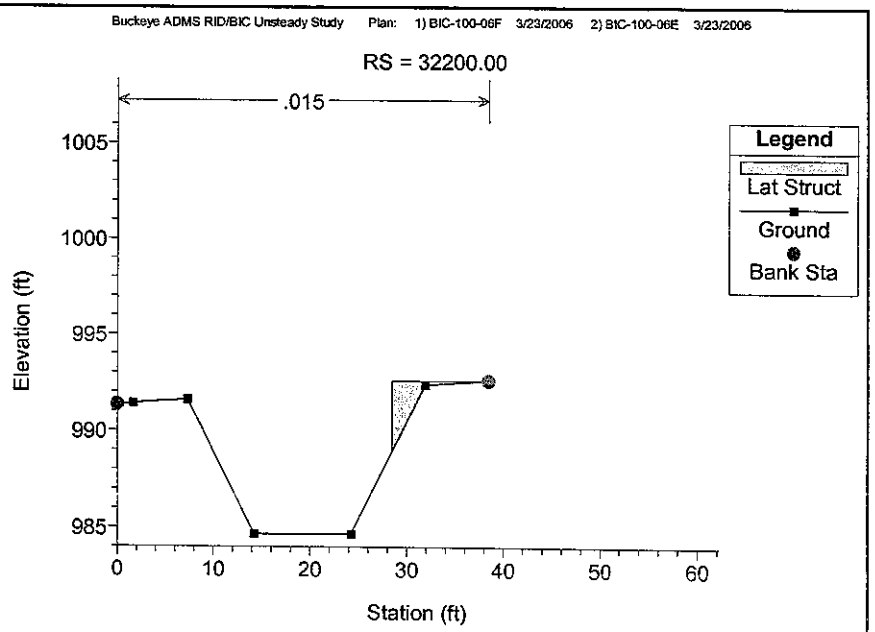


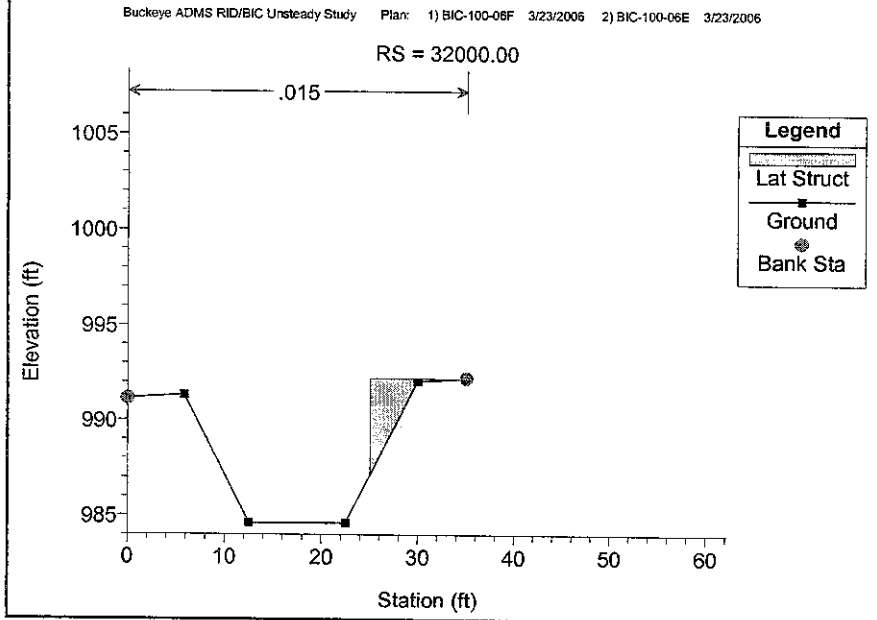
1 in Horiz. = 20 ft 1 in Vert. = 10 ft

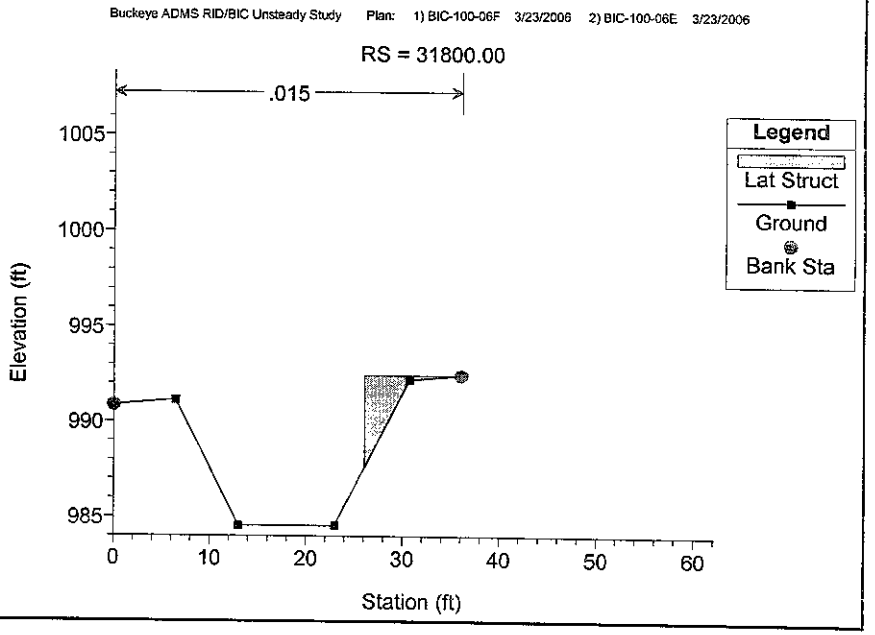


1 in Horiz. = 20 ft 1 in Vert. = 10 ft





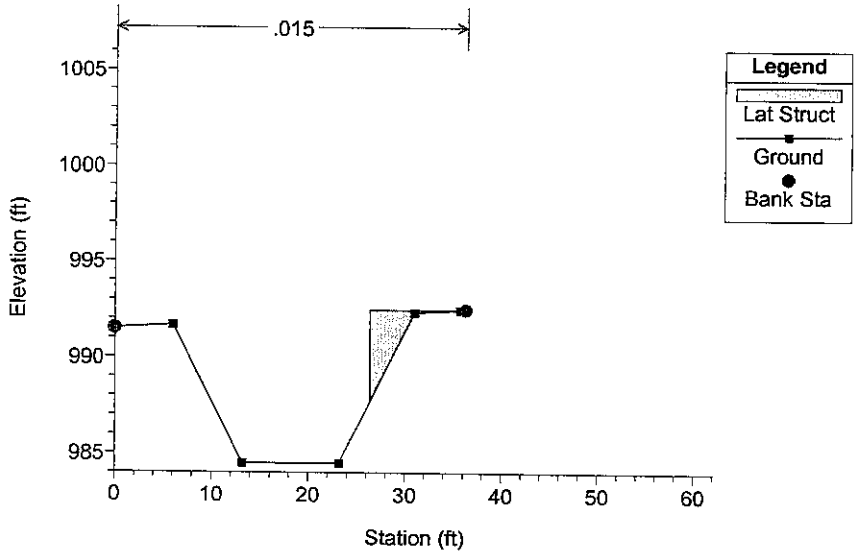




1 in Horiz. = 20 ft 1 in Vert. = 10 ft

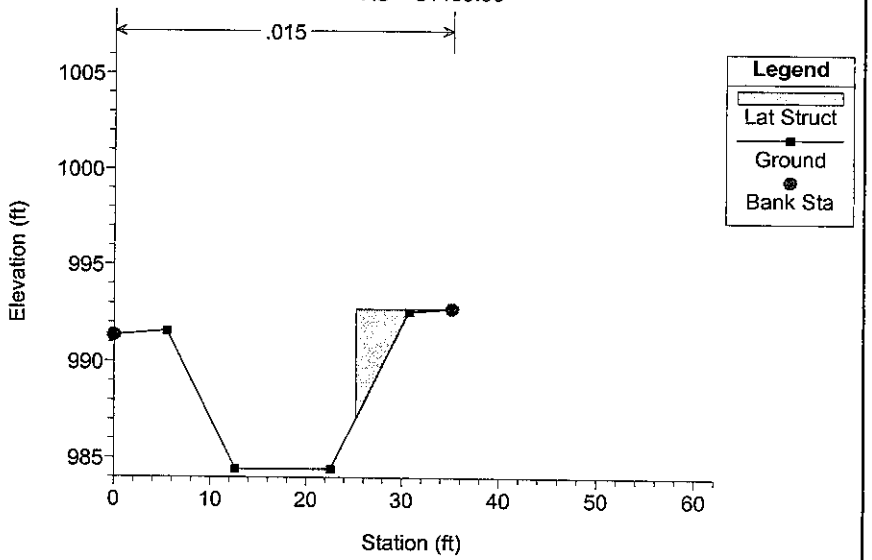
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 31600.00



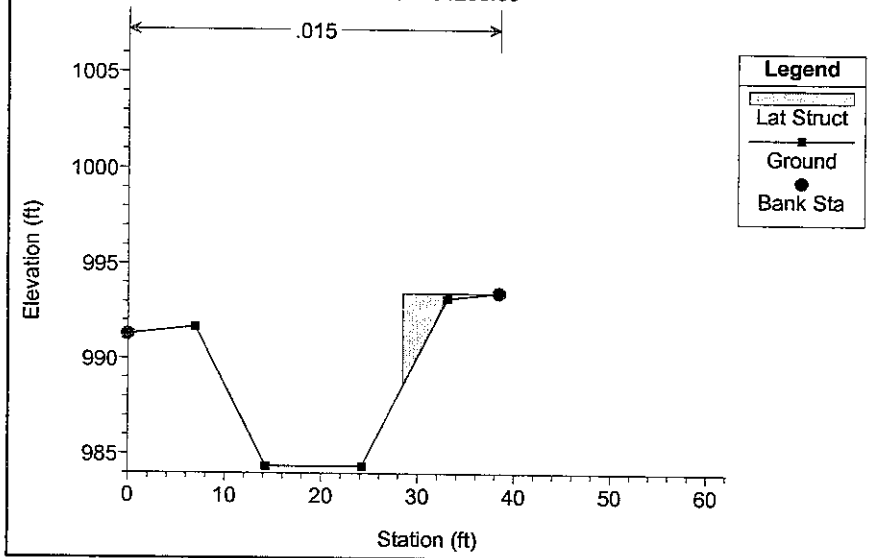
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 31400.00



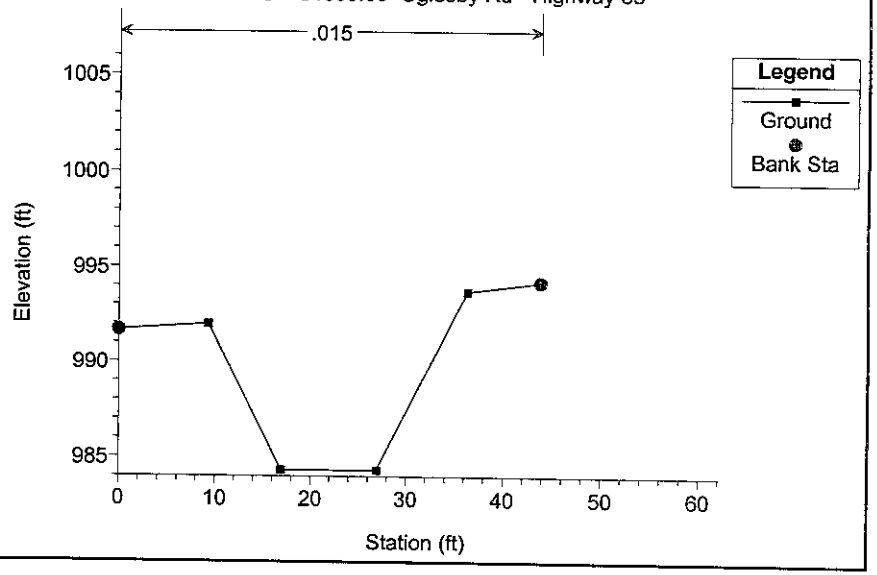
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 31200.00

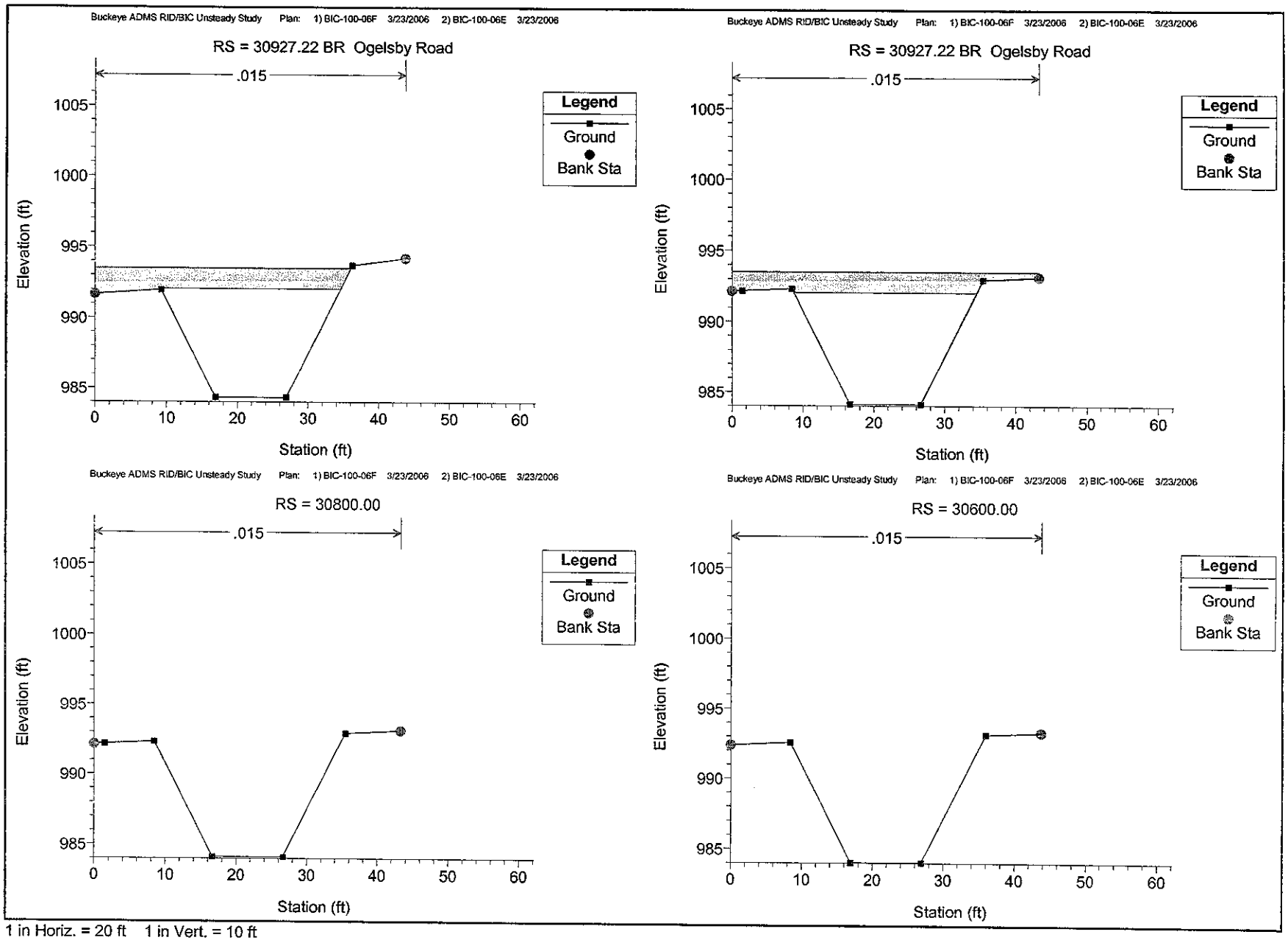


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 31000.00 Oglesby Rd - Highway 85



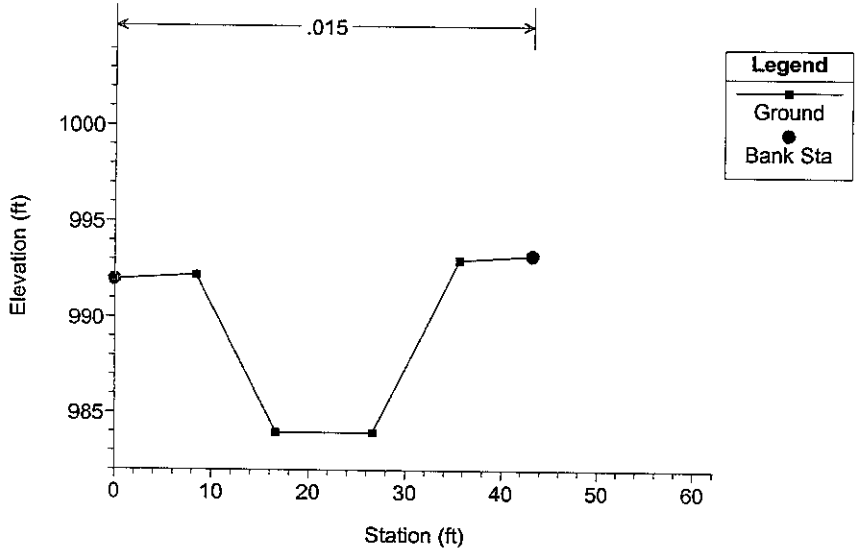
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

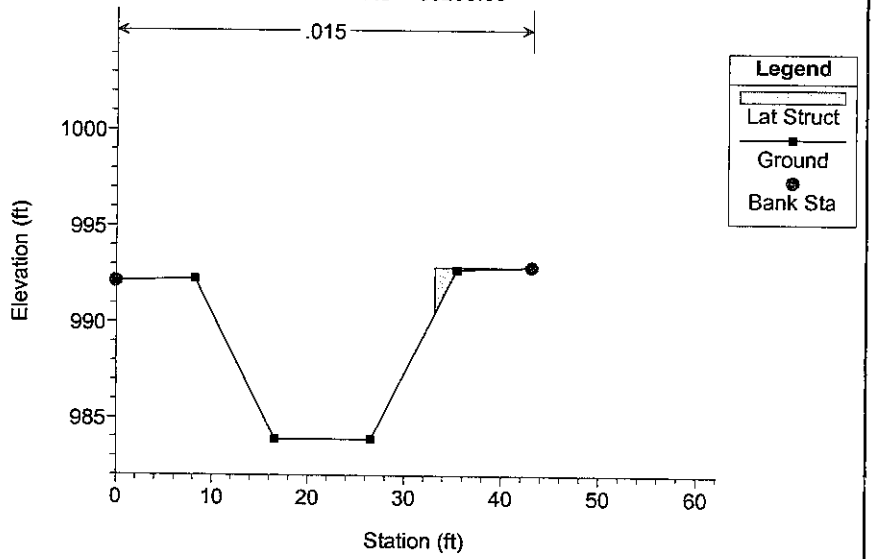
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 30400.00



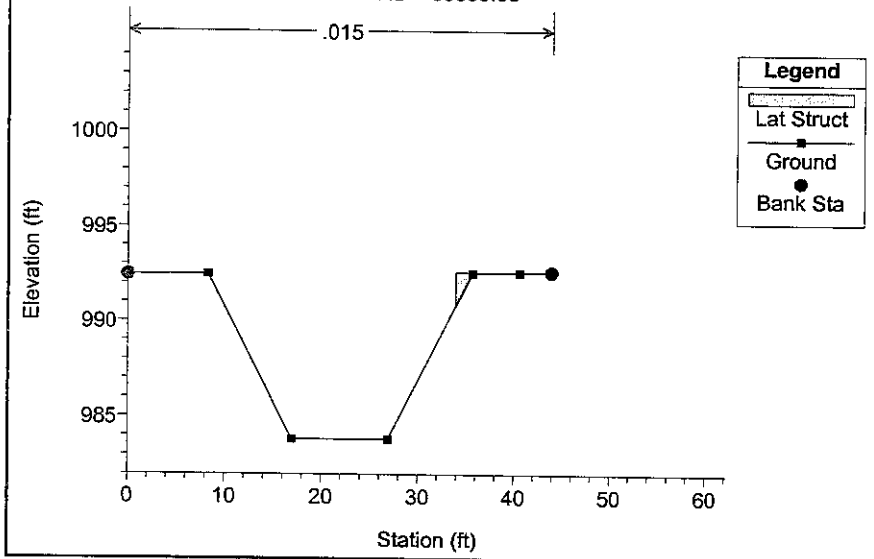
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 30200.00



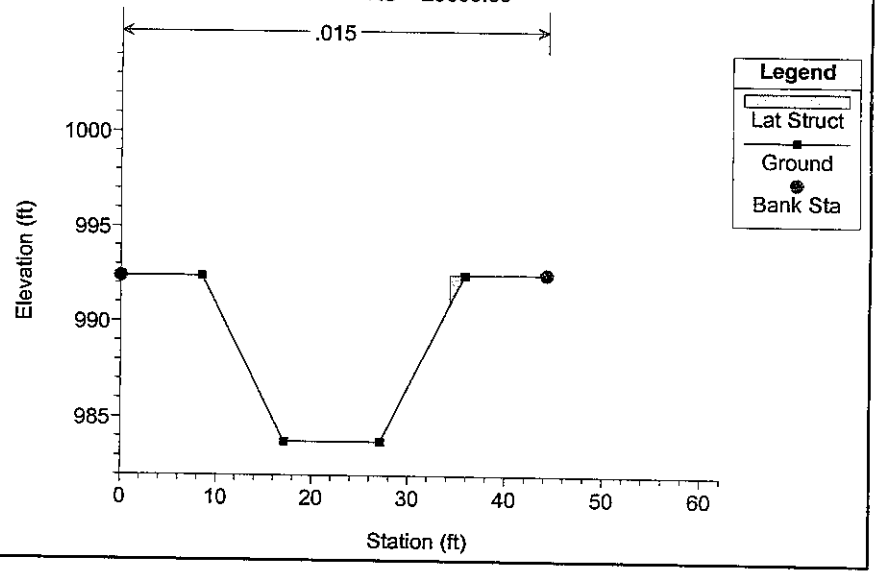
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 30000.00

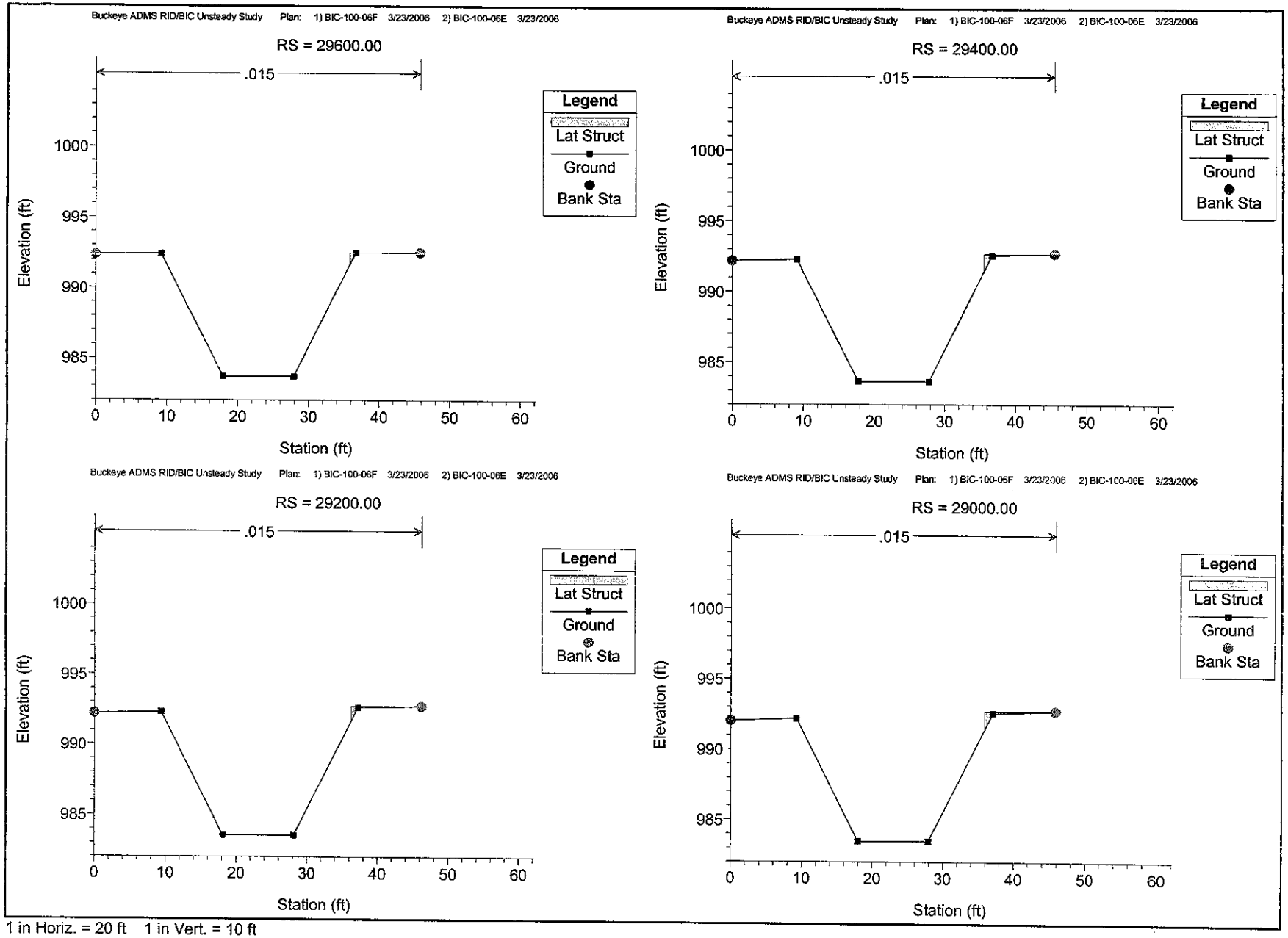


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 29800.00



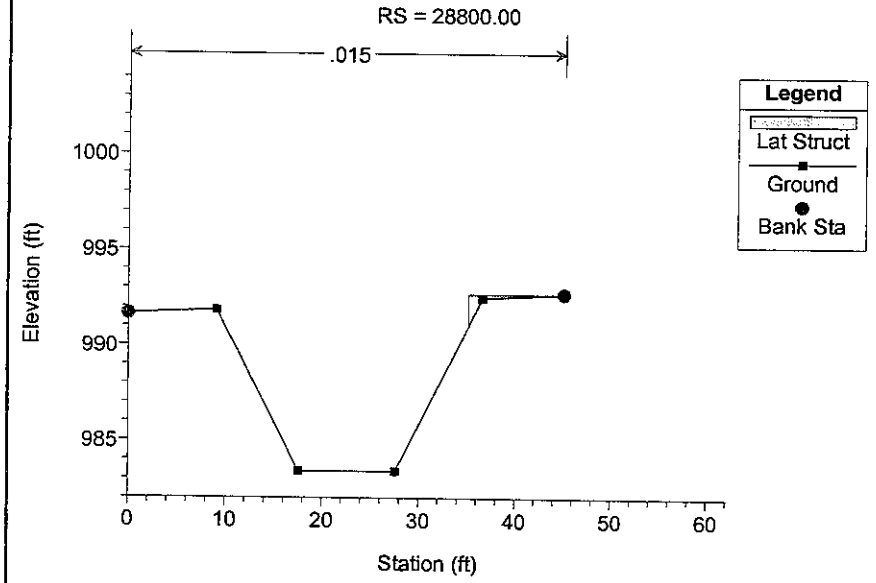
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

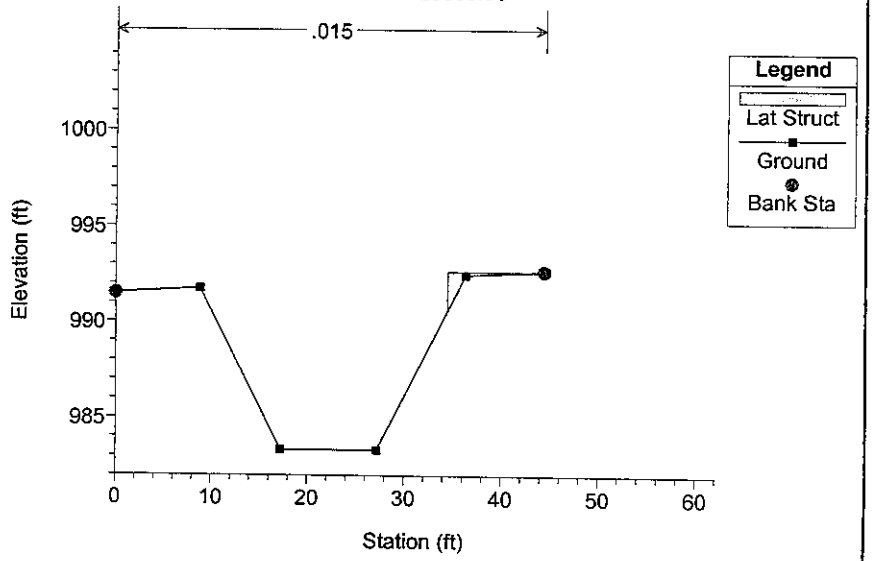
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 28800.00



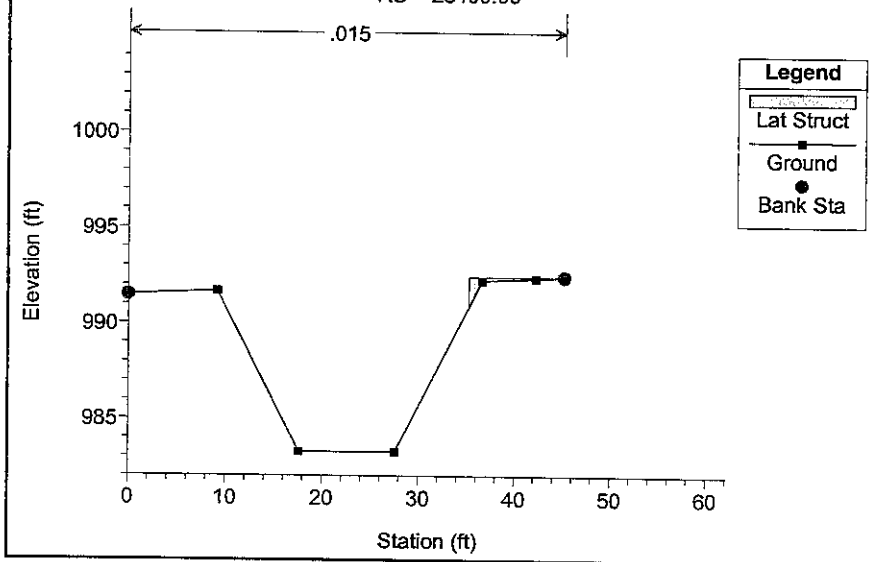
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 28600.00



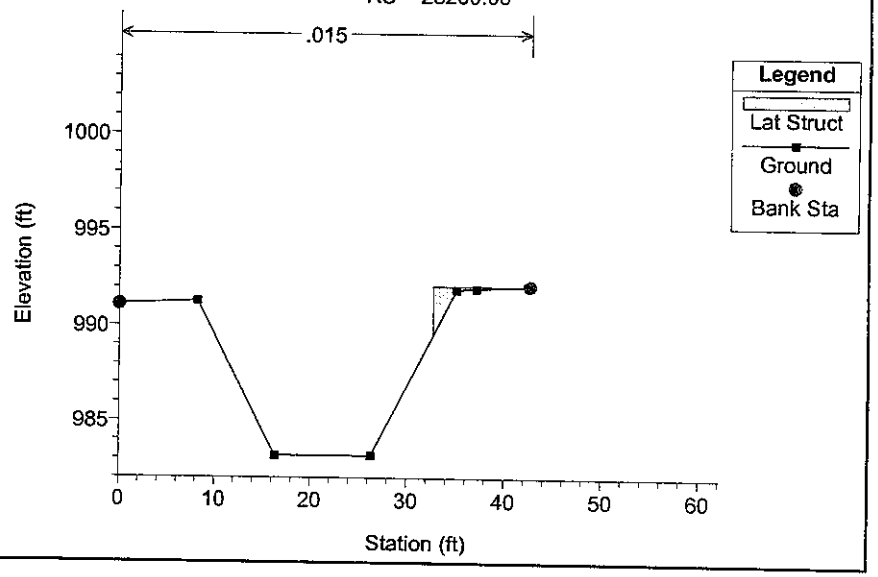
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 28400.00



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

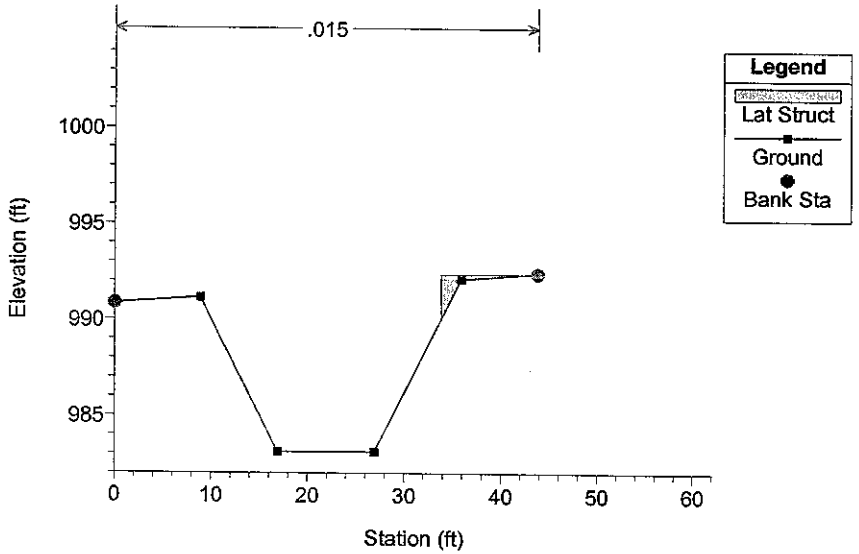
RS = 28200.00



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

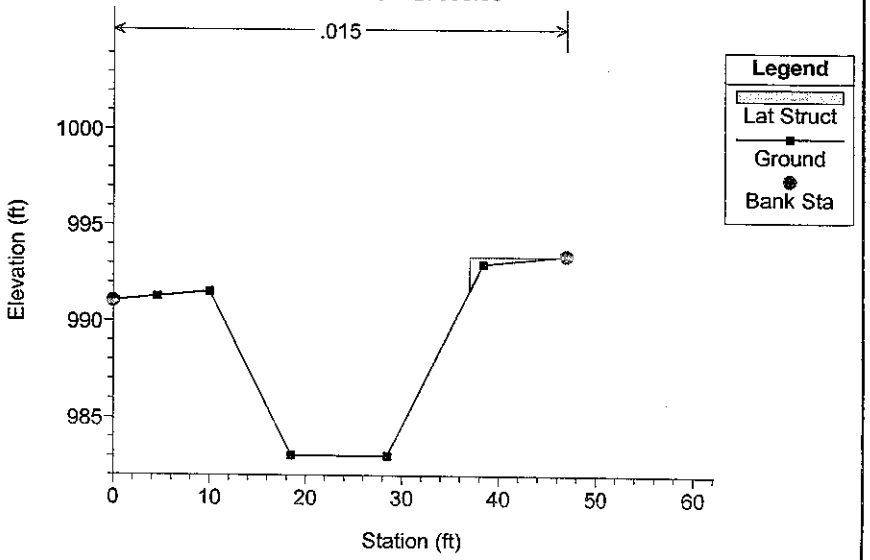
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 28000.00



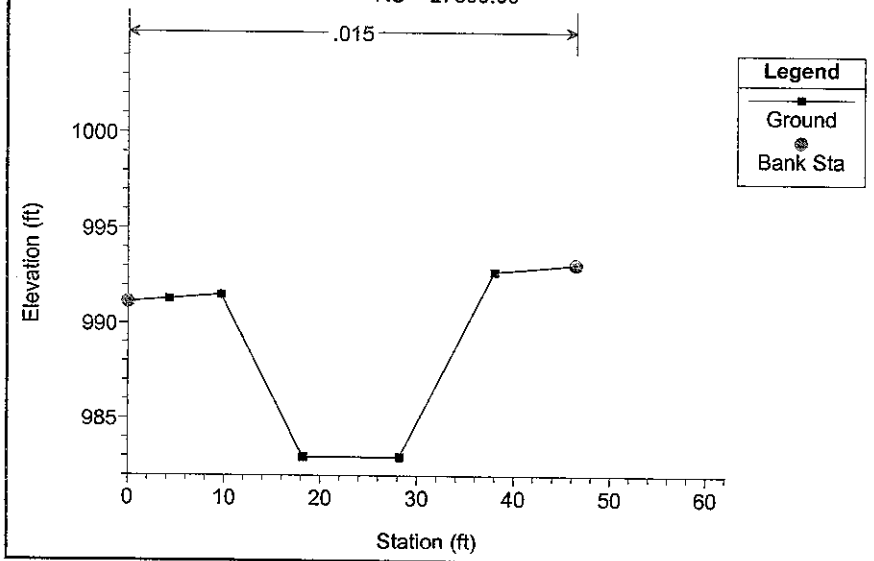
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 27800.00



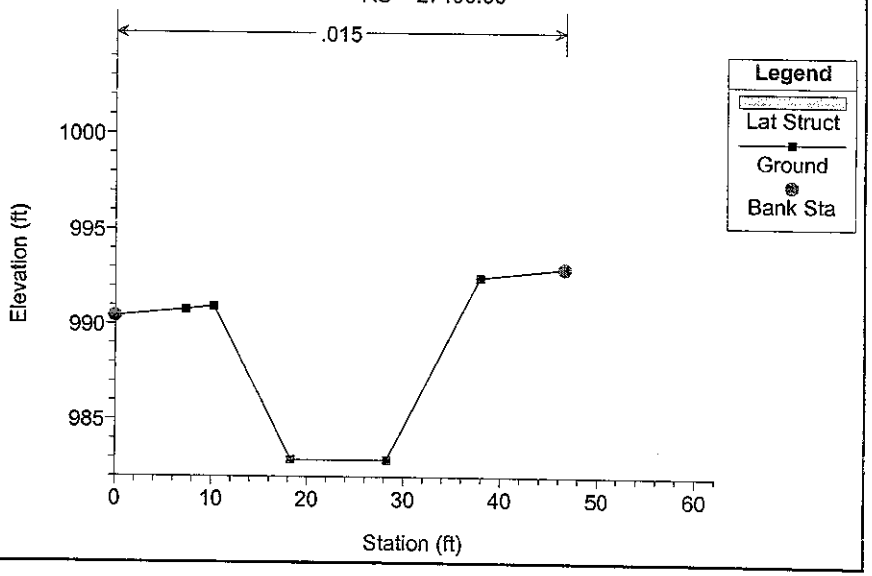
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 27600.00



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

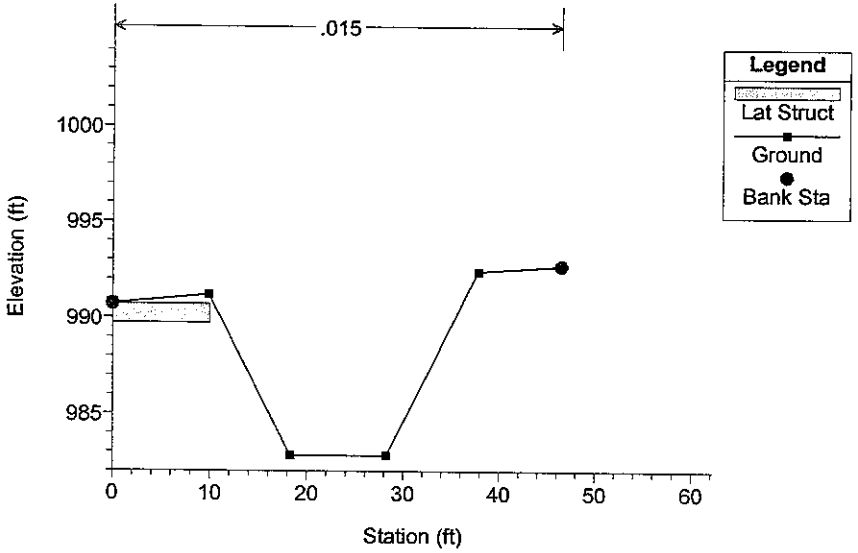
RS = 27400.00



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

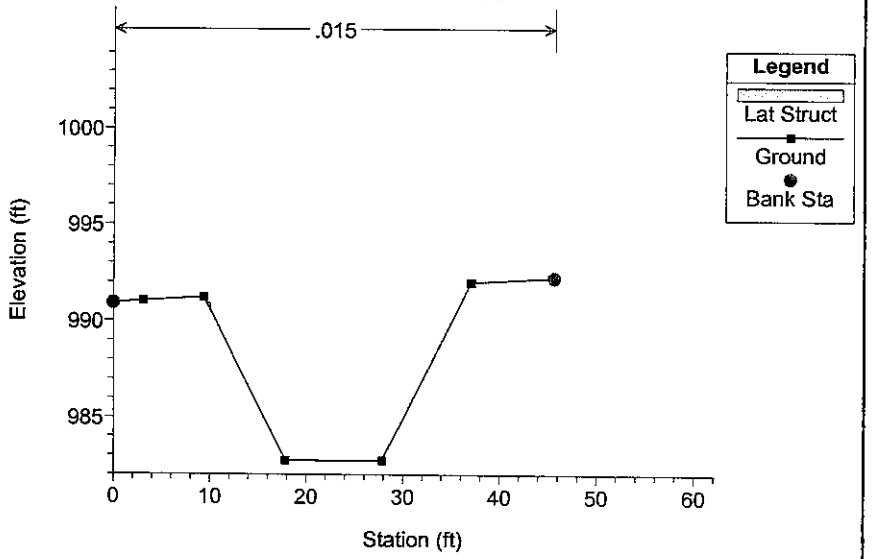
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 27200.00



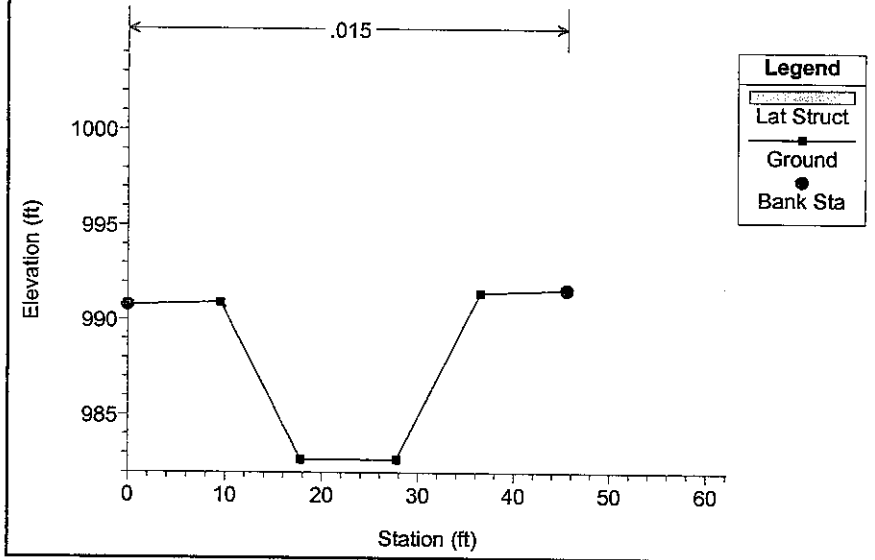
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 27000.00



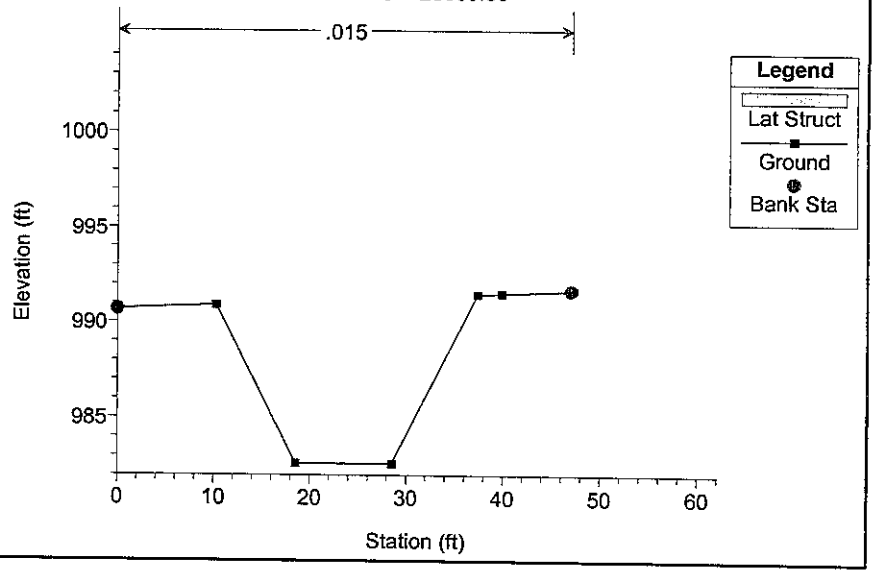
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 26800.00

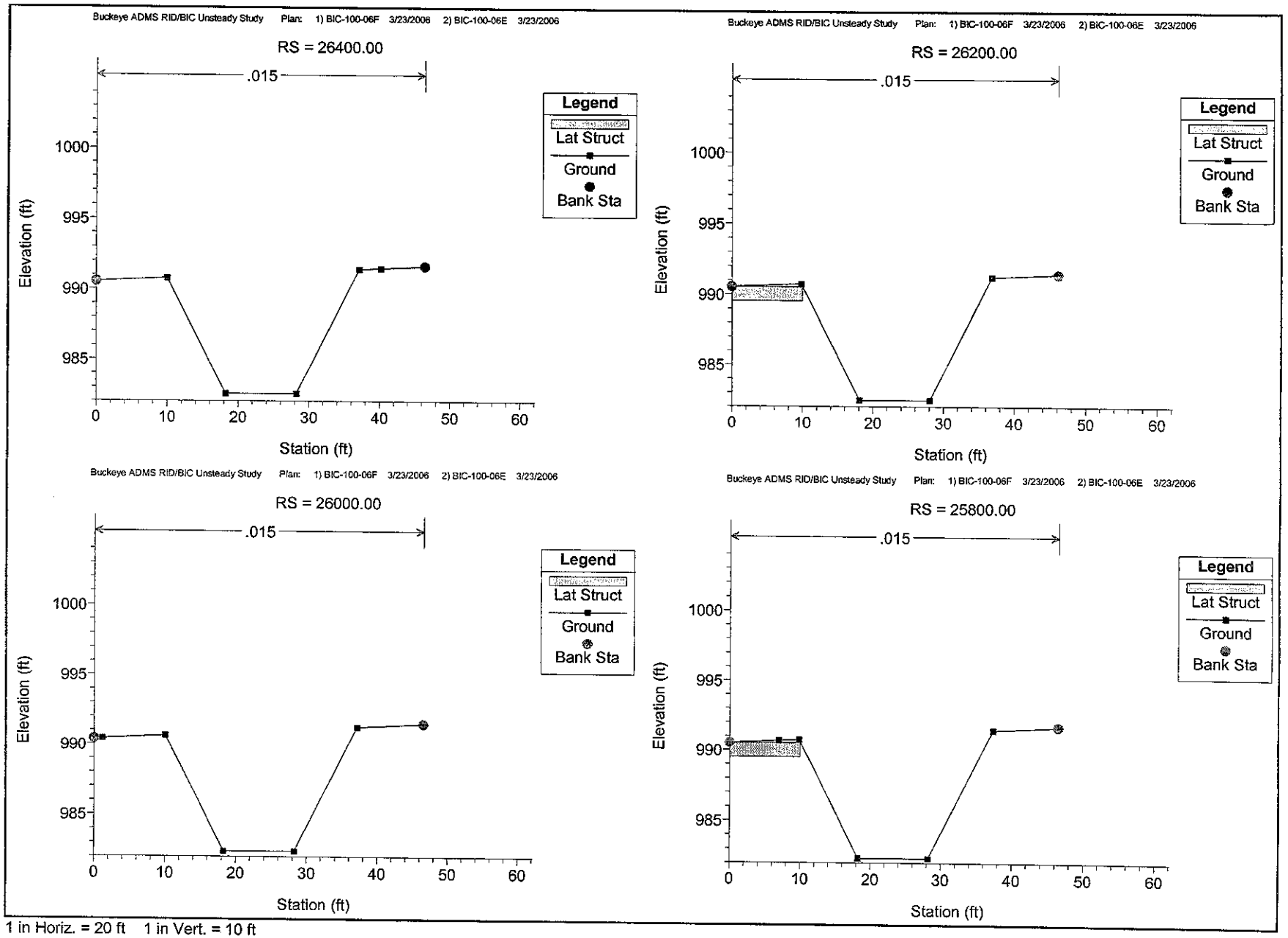


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 26600.00



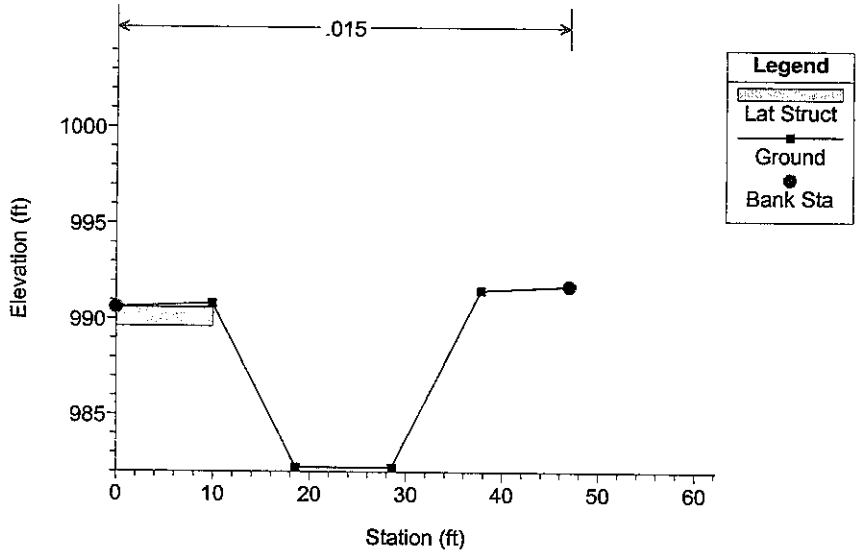
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

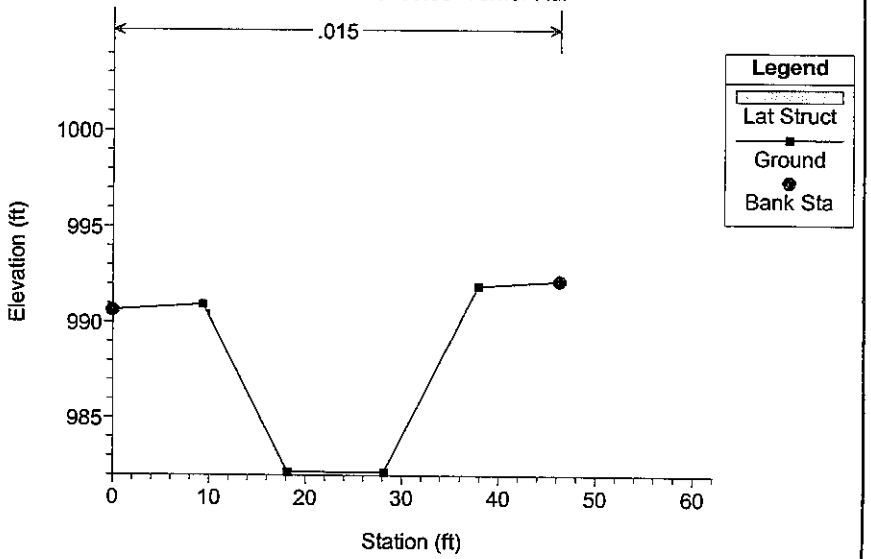
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 25600.00



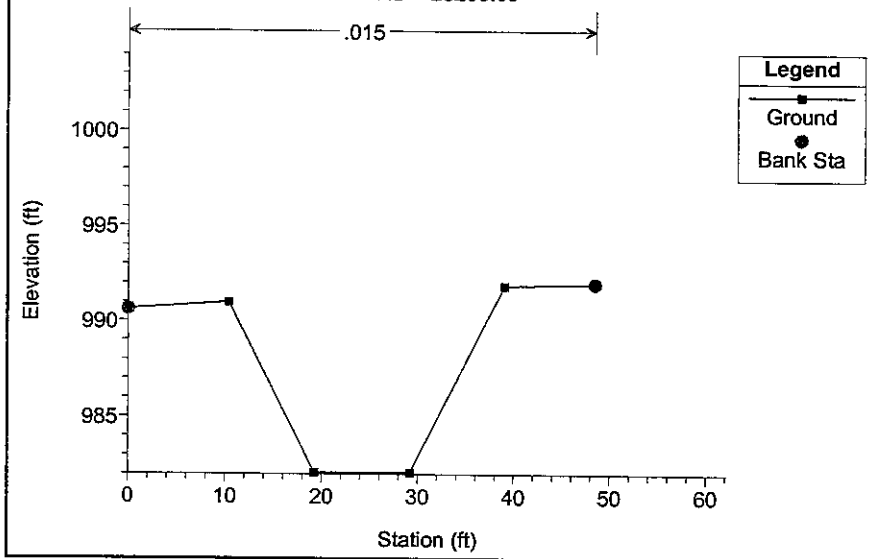
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 25400.00 Turner Rd.



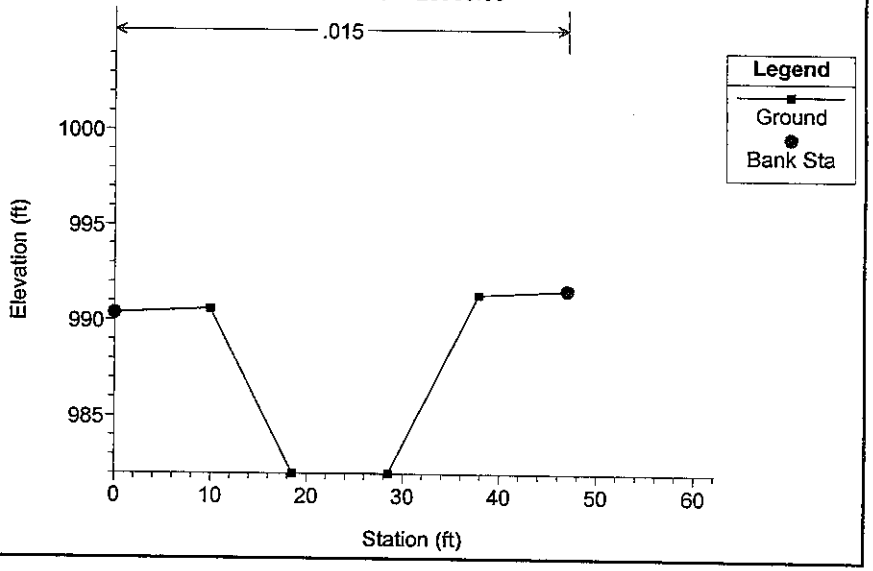
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 25200.00

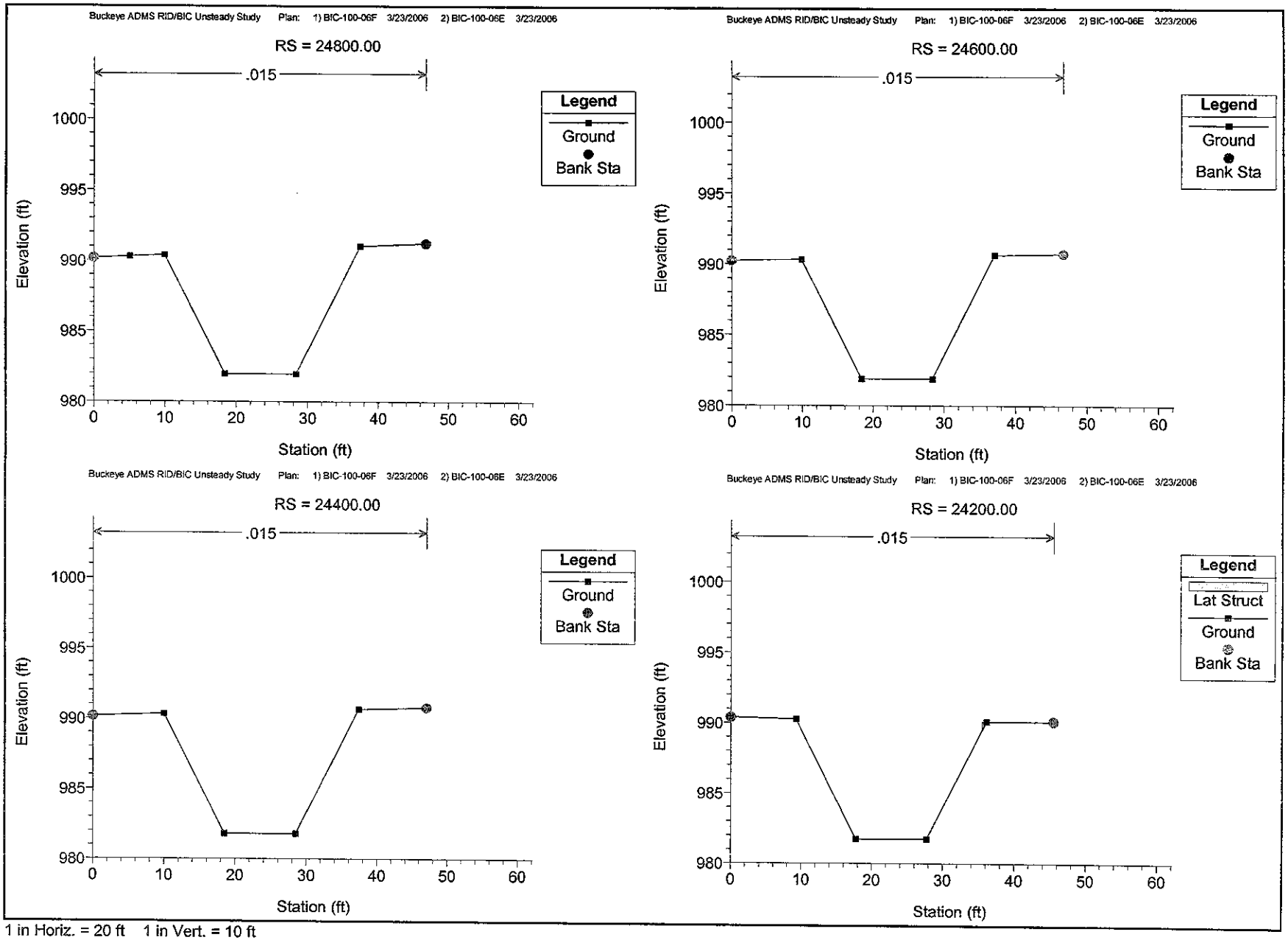


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 25000.00



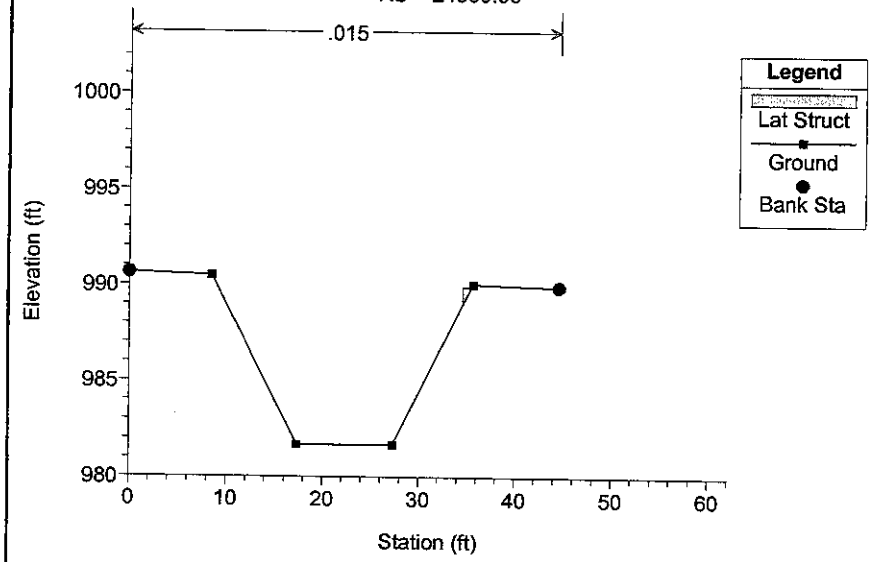
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

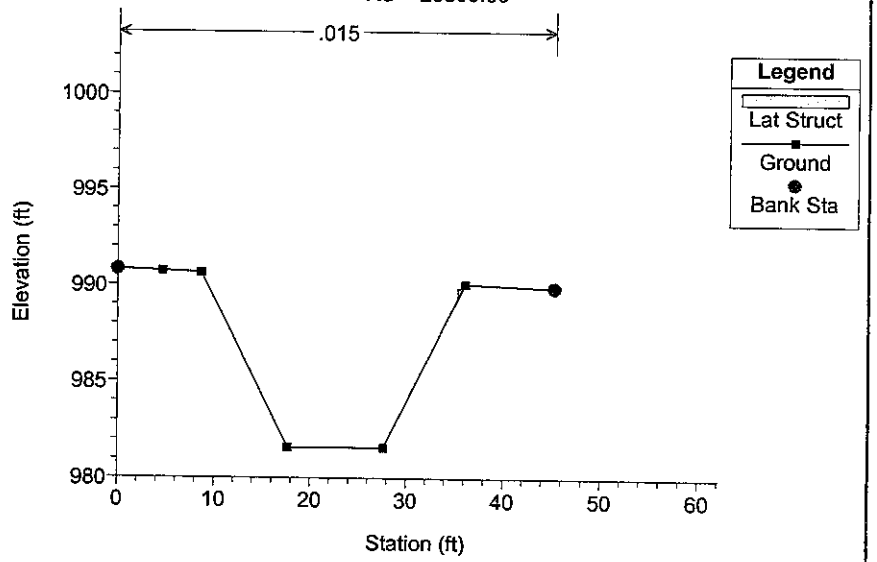
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 24000.00



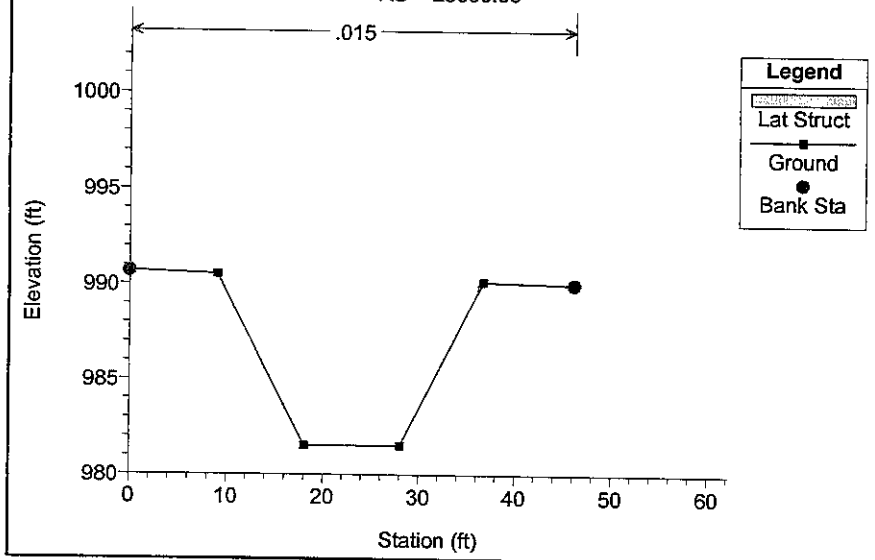
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 23800.00



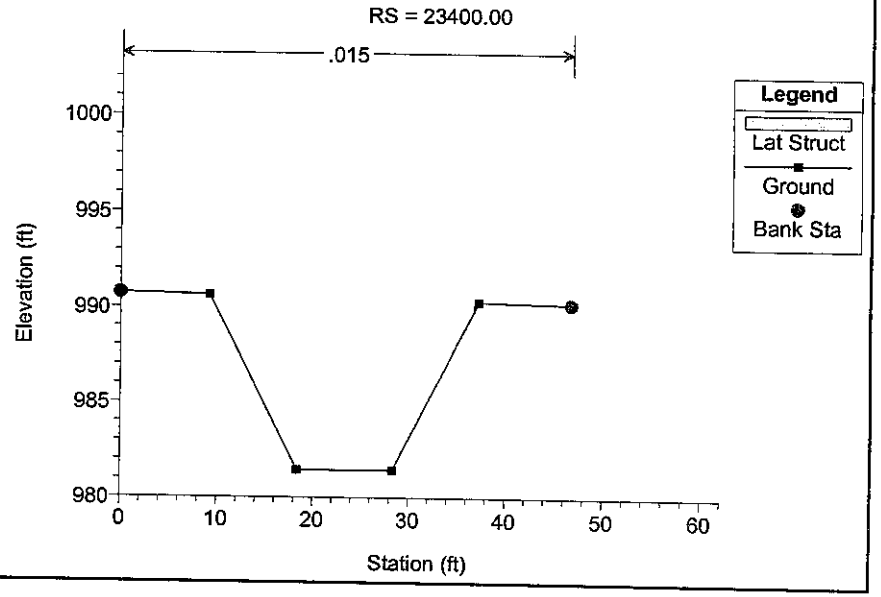
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 23600.00



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

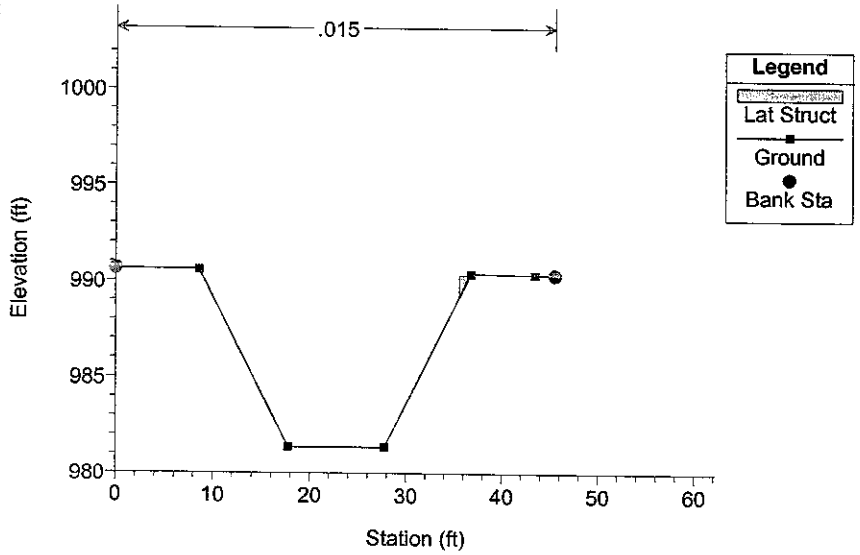
RS = 23400.00



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

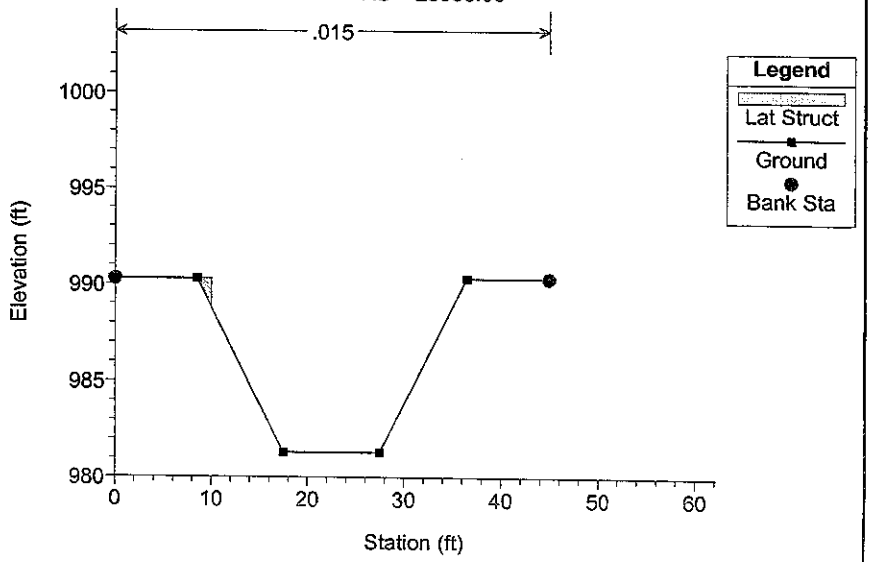
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 23200.00



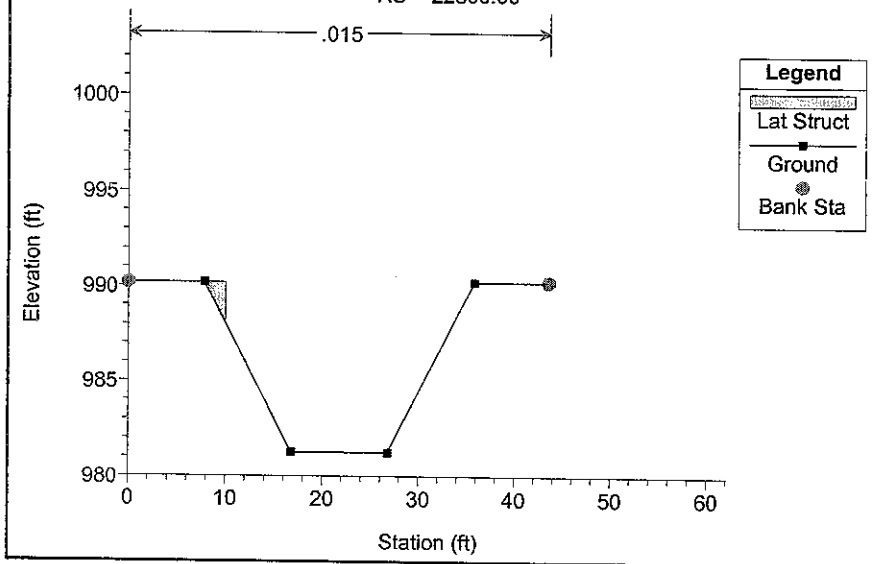
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 23000.00



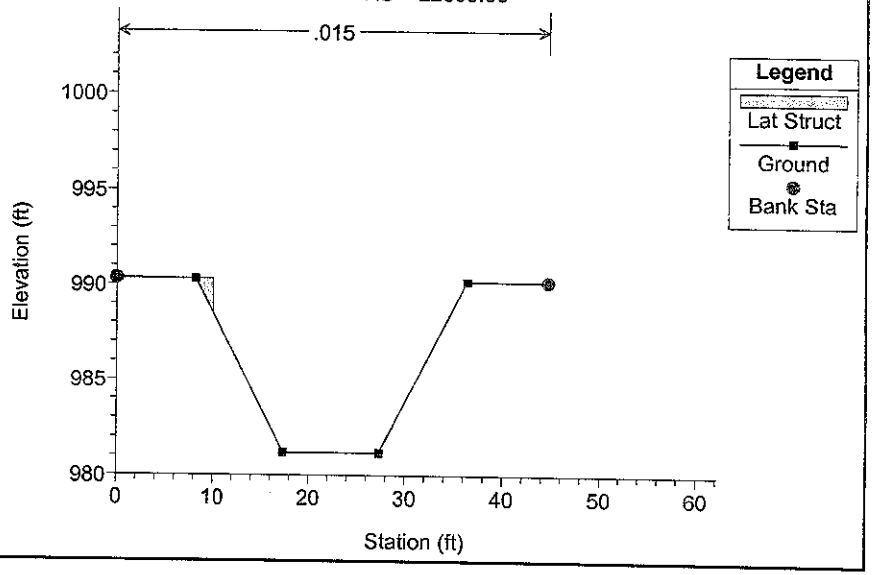
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 22800.00

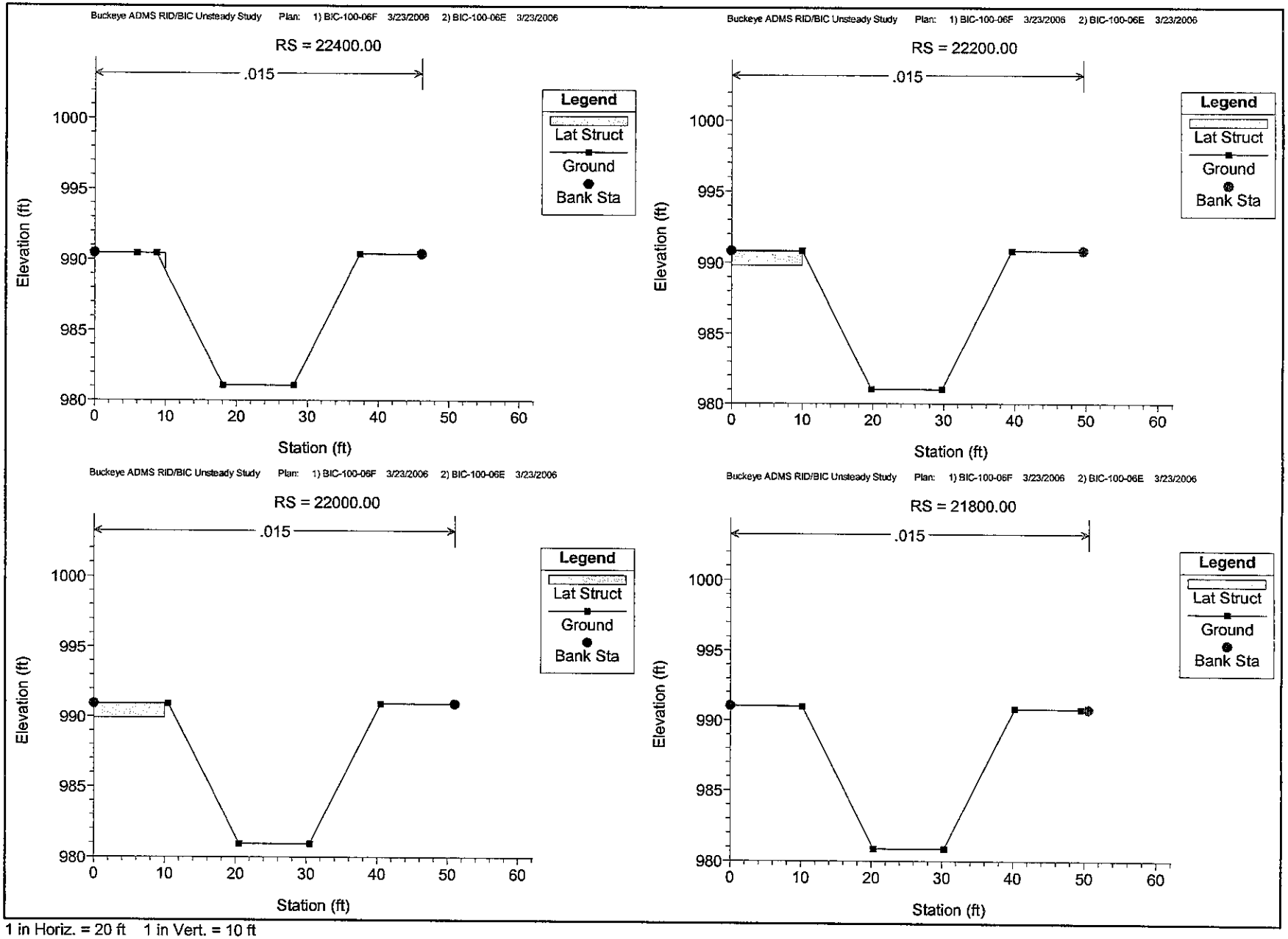


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 22600.00



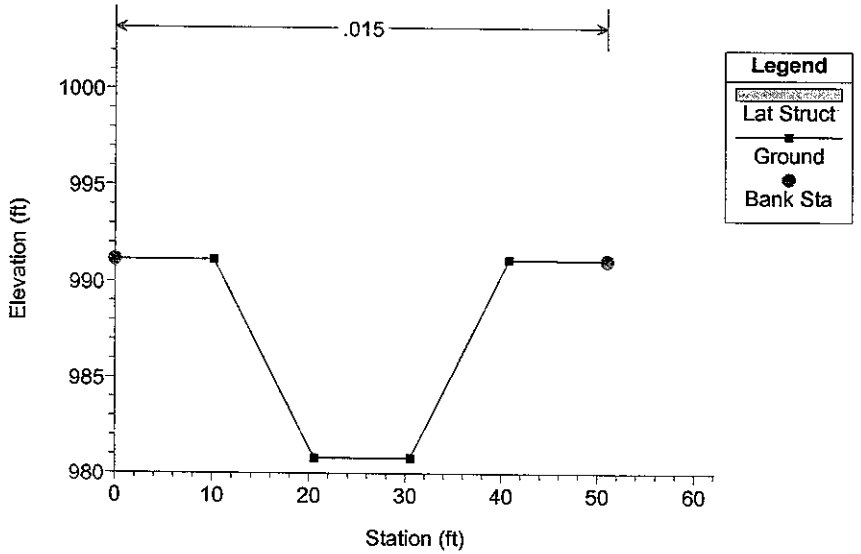
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

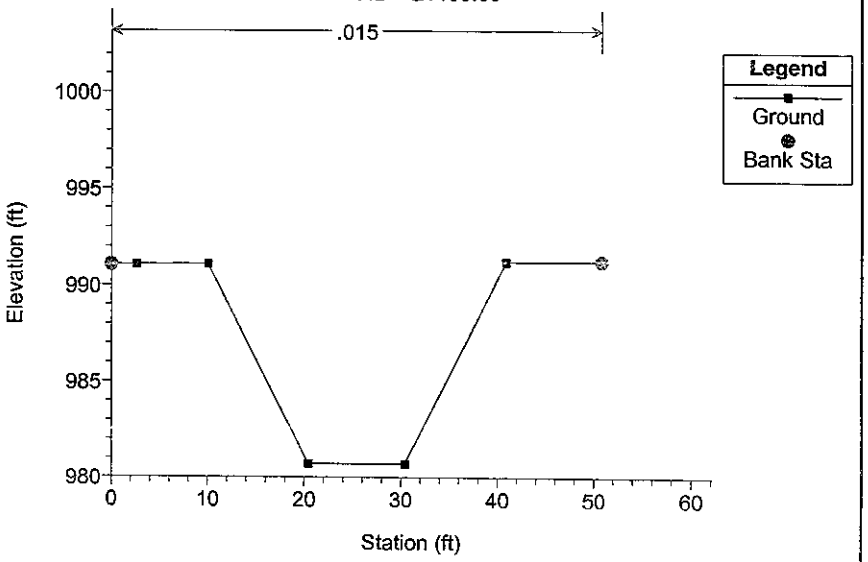
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 21600.00



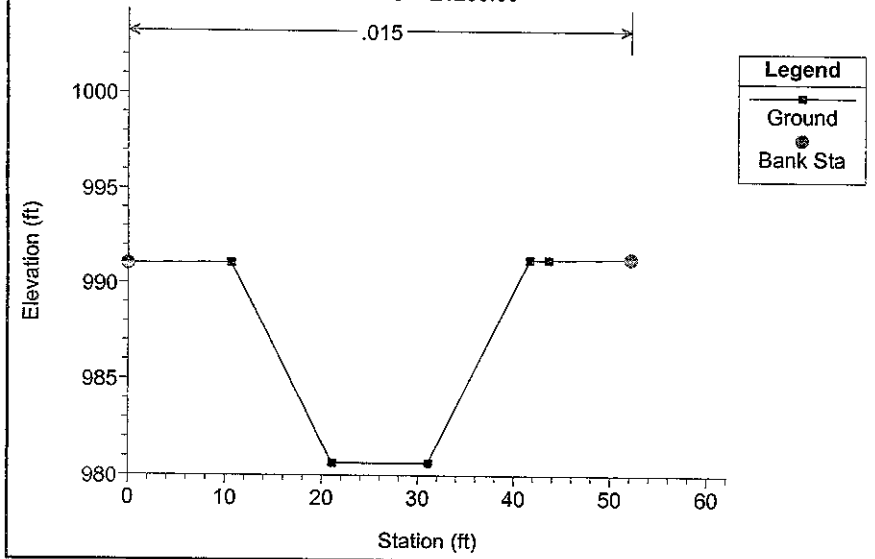
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 21400.00



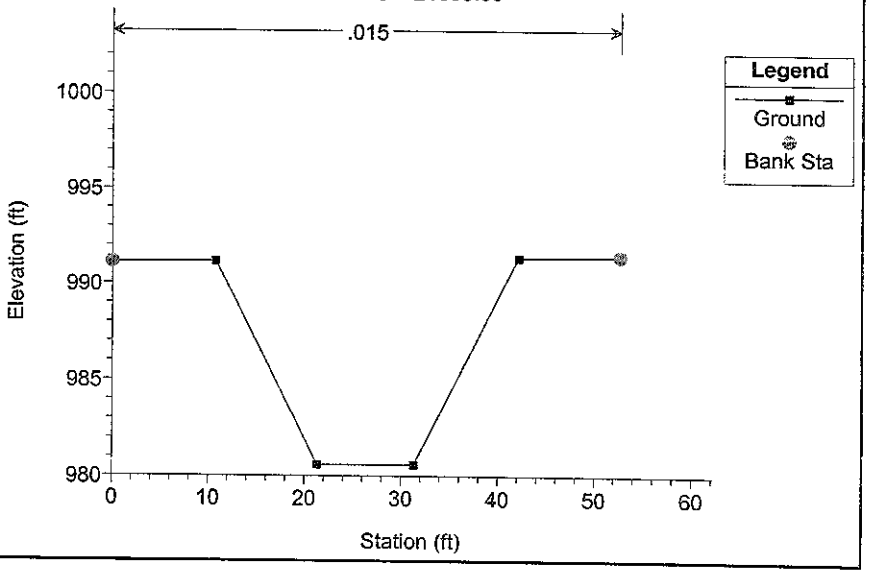
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 21200.00



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

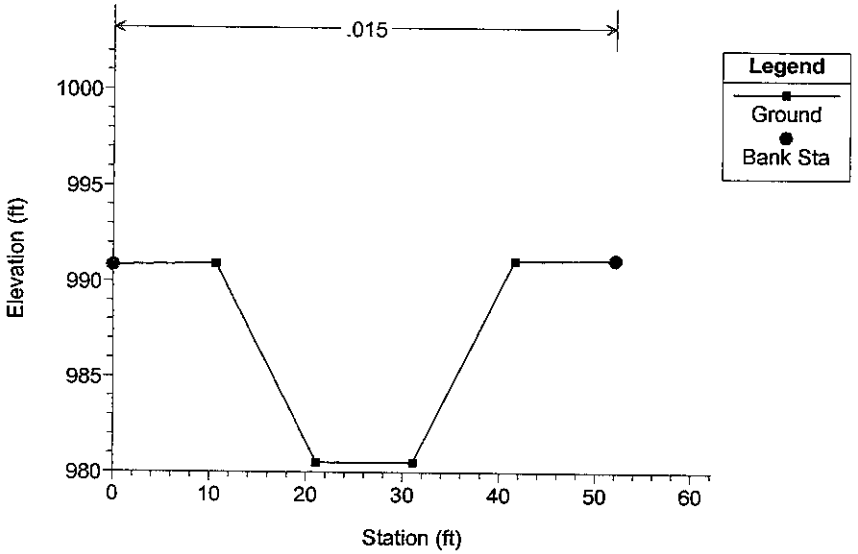
RS = 21000.00



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

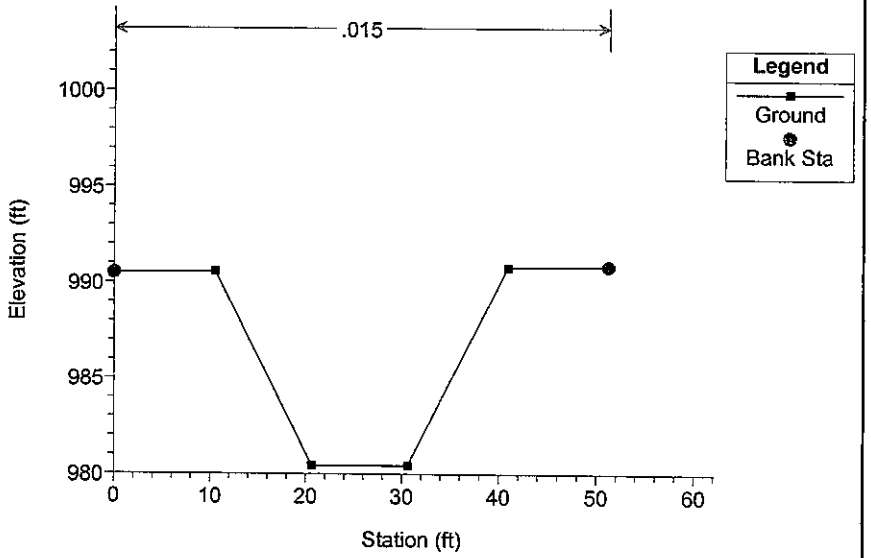
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 20800.00



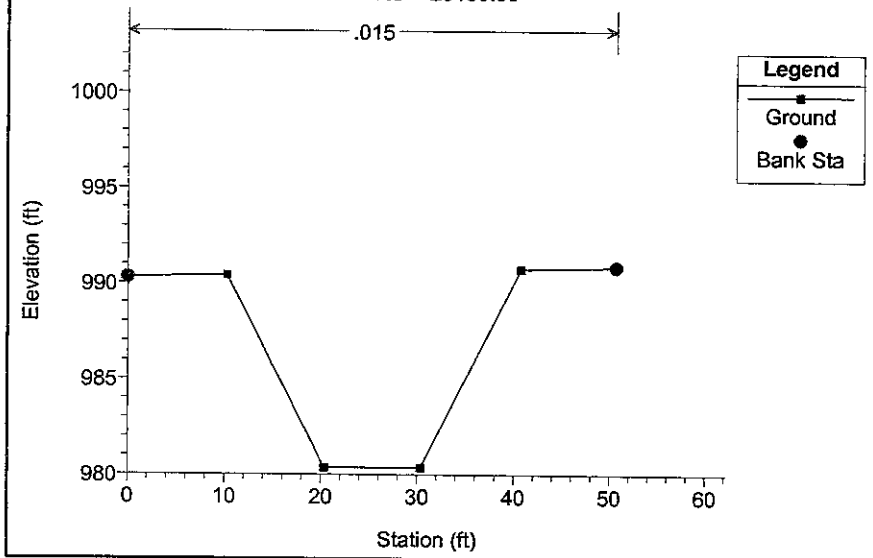
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 20600.00



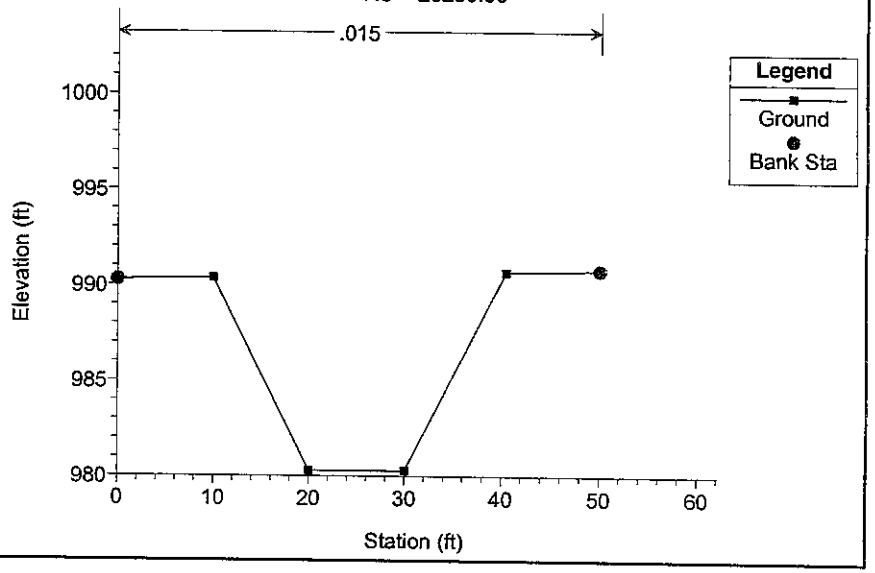
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 20400.00

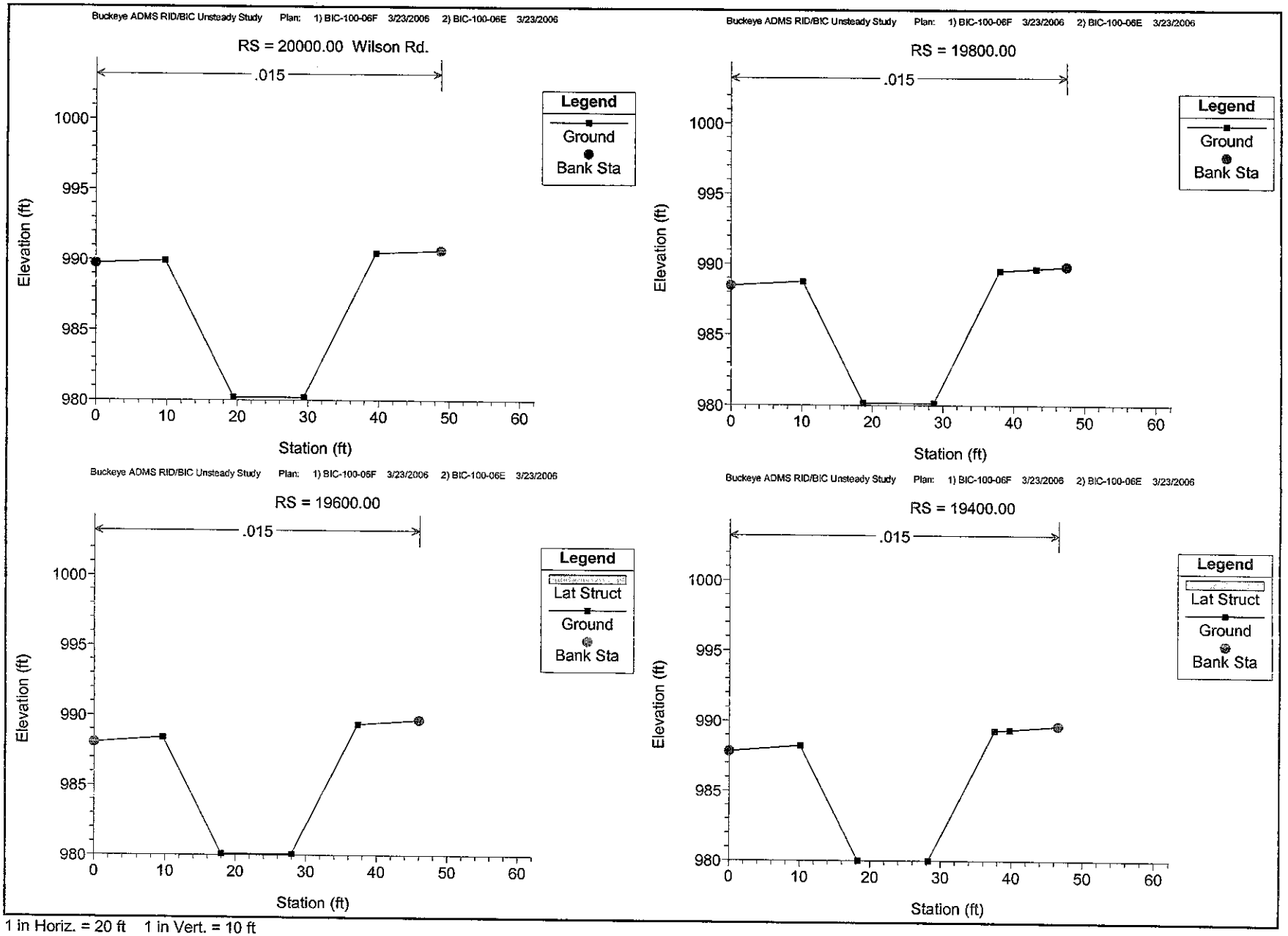


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 20200.00

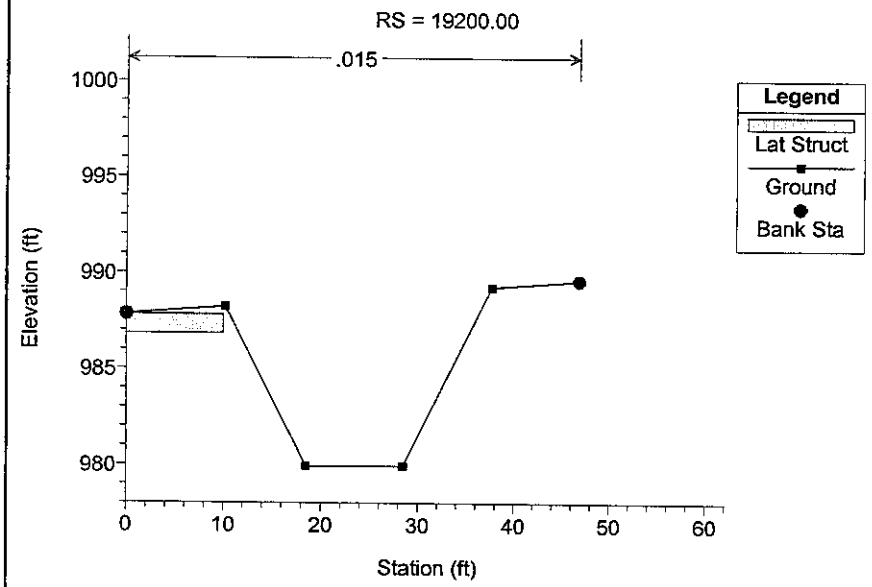


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

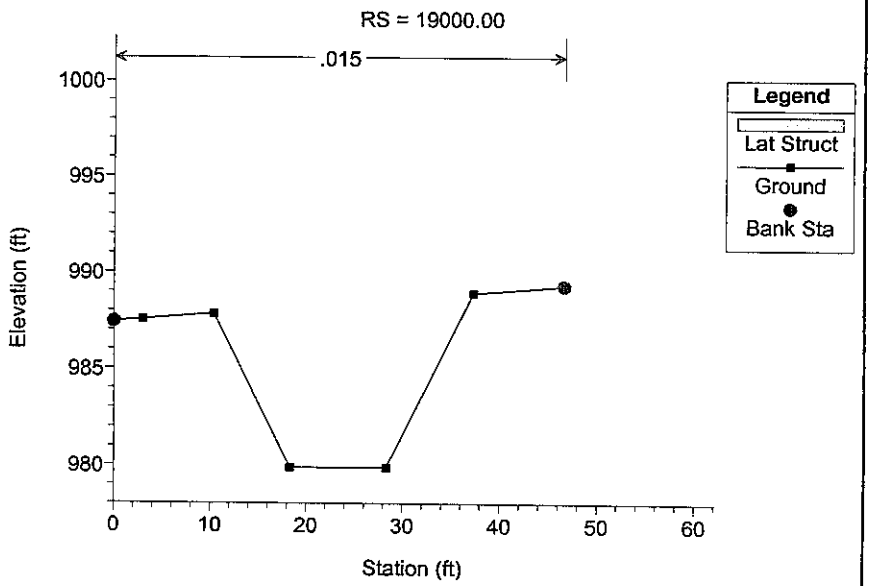


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

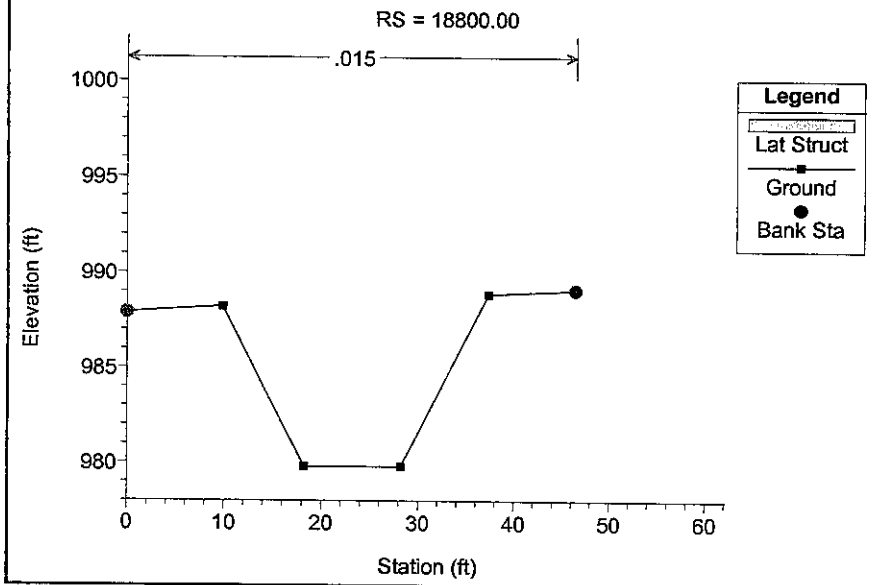
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



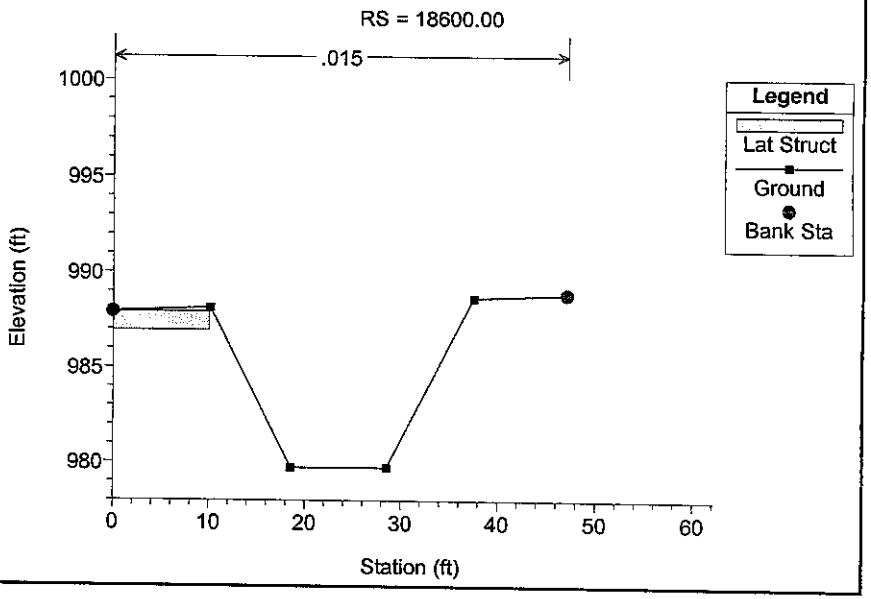
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



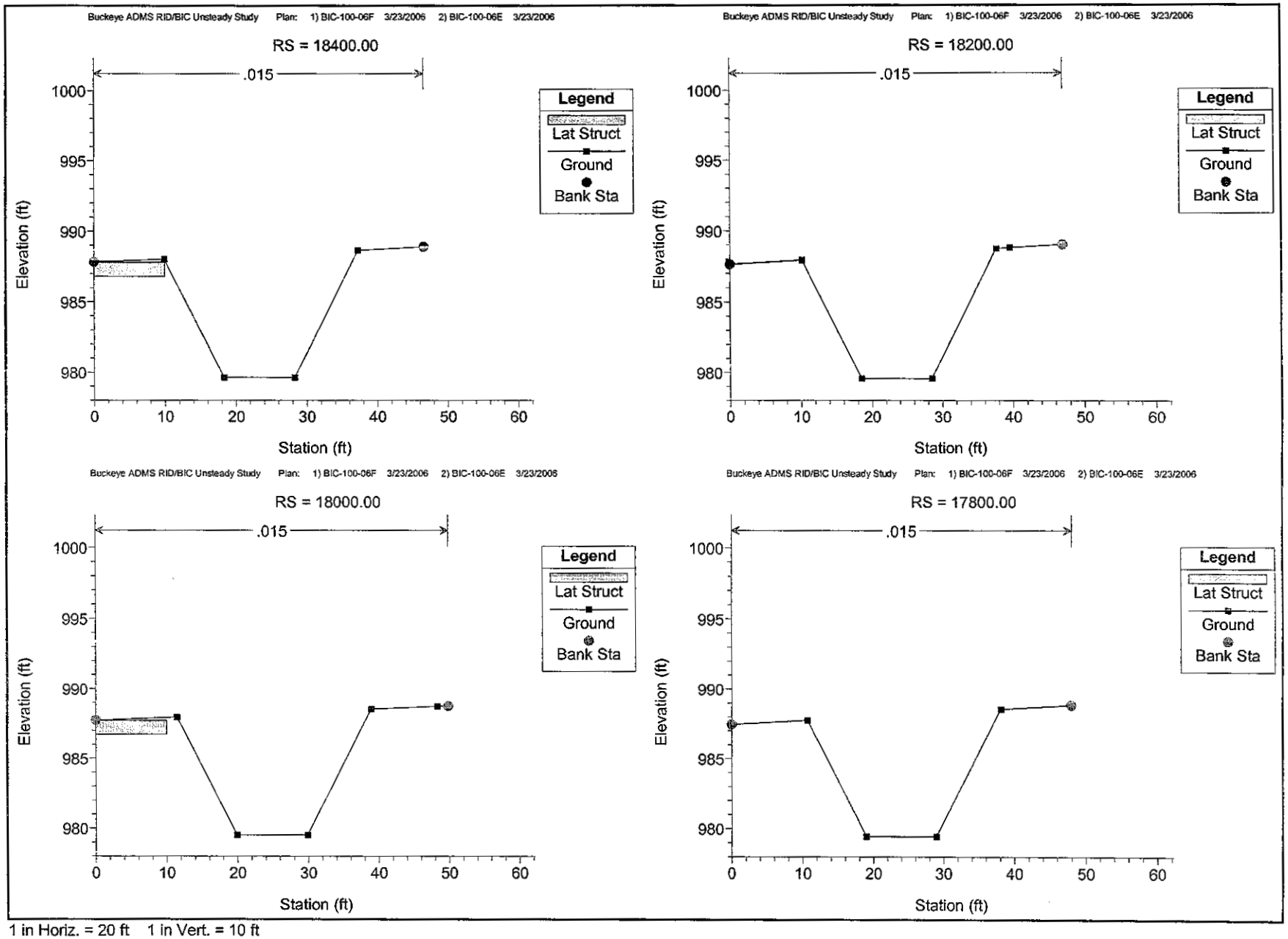
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006



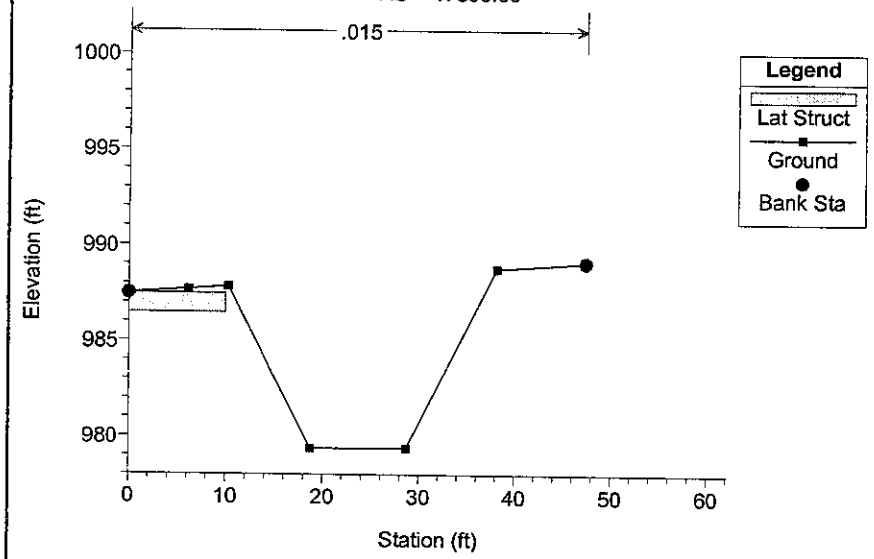
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

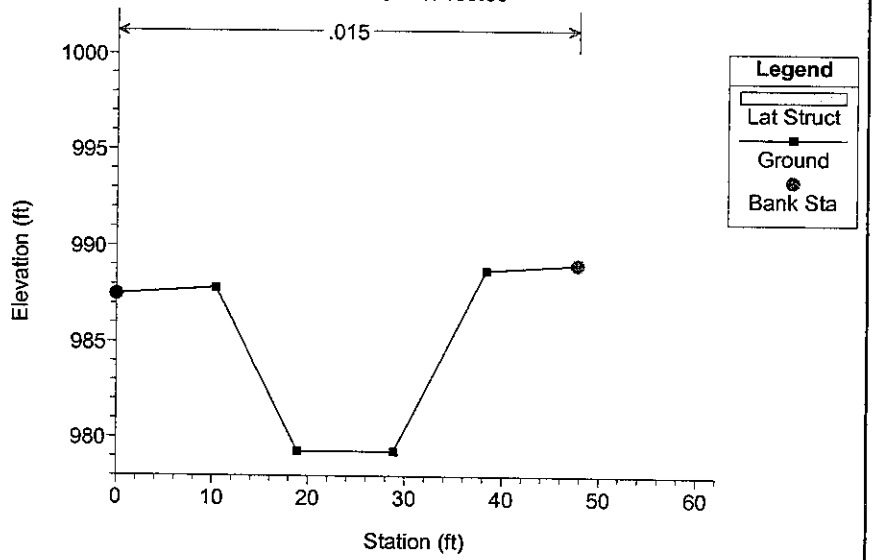
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 17600.00



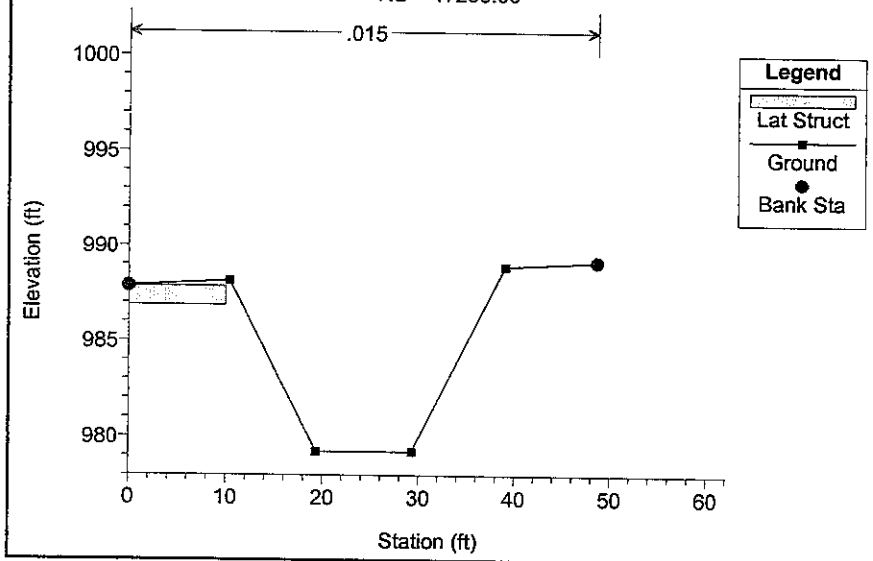
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 17400.00



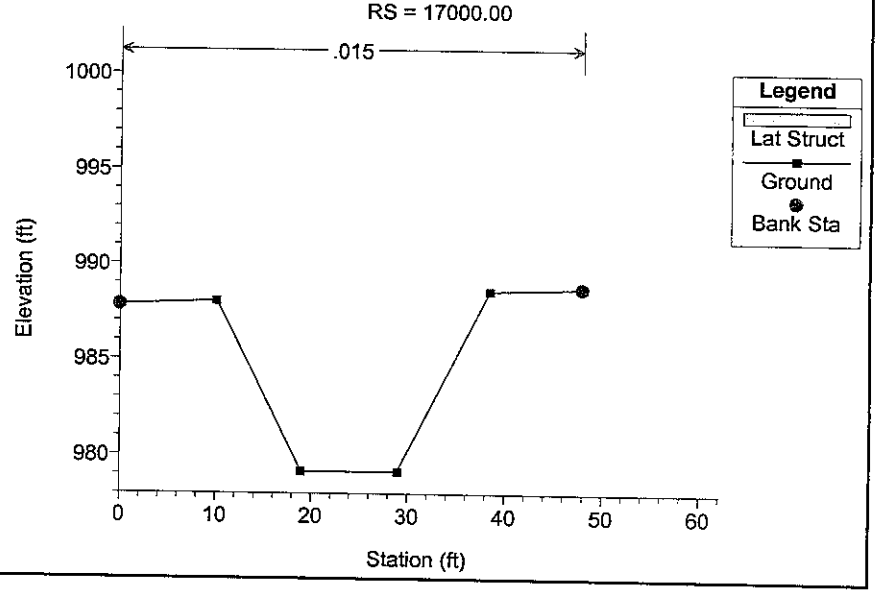
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 17200.00

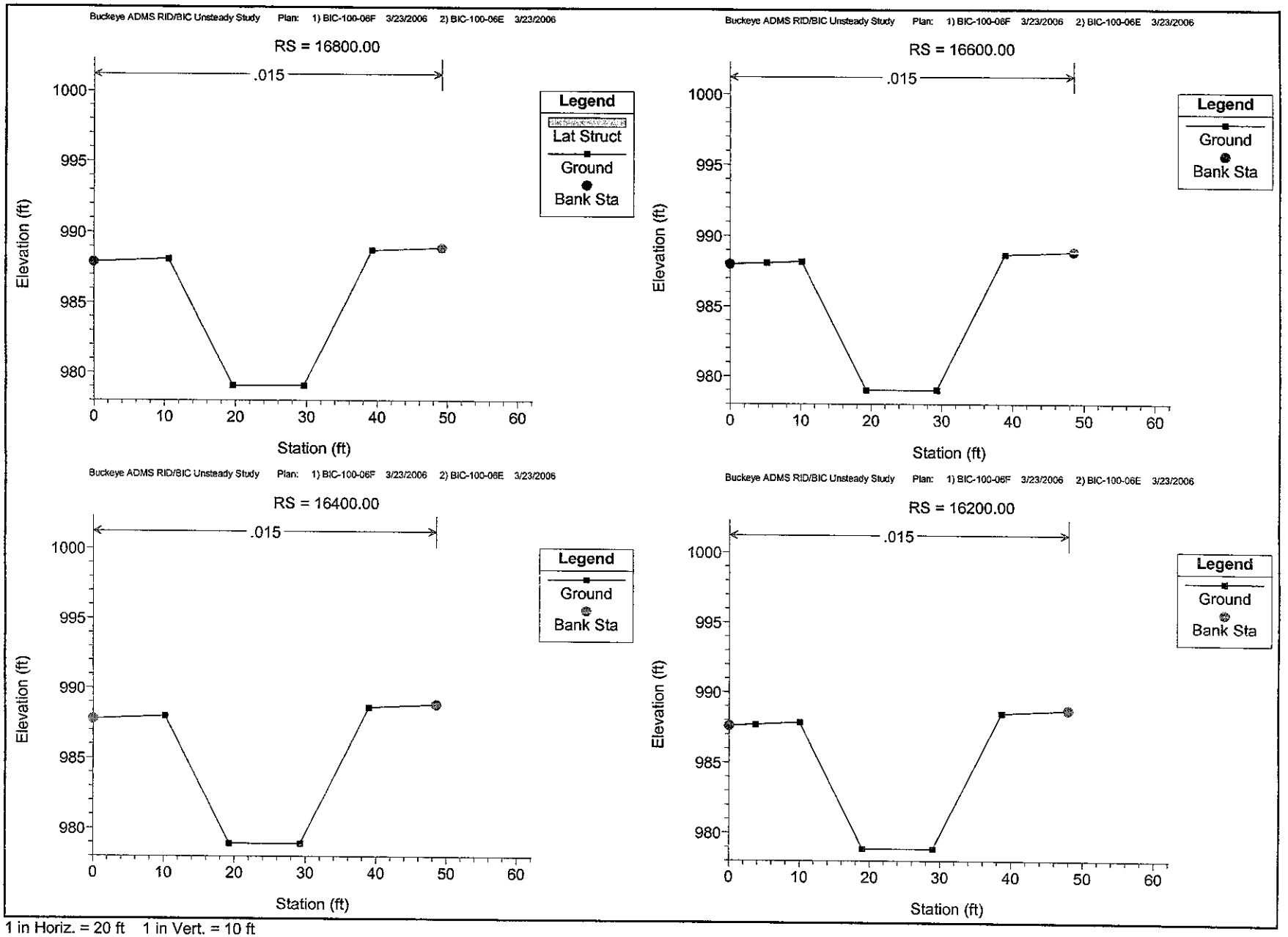


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 17000.00



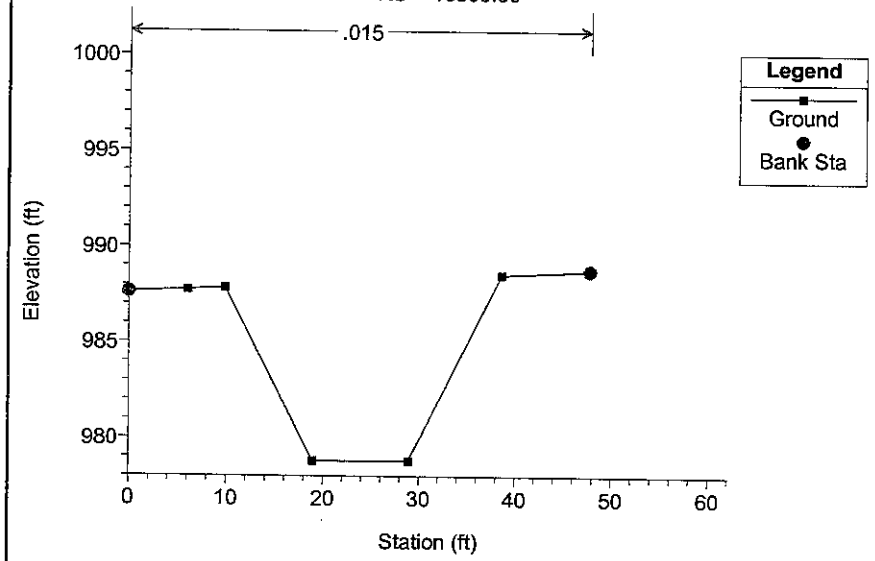
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

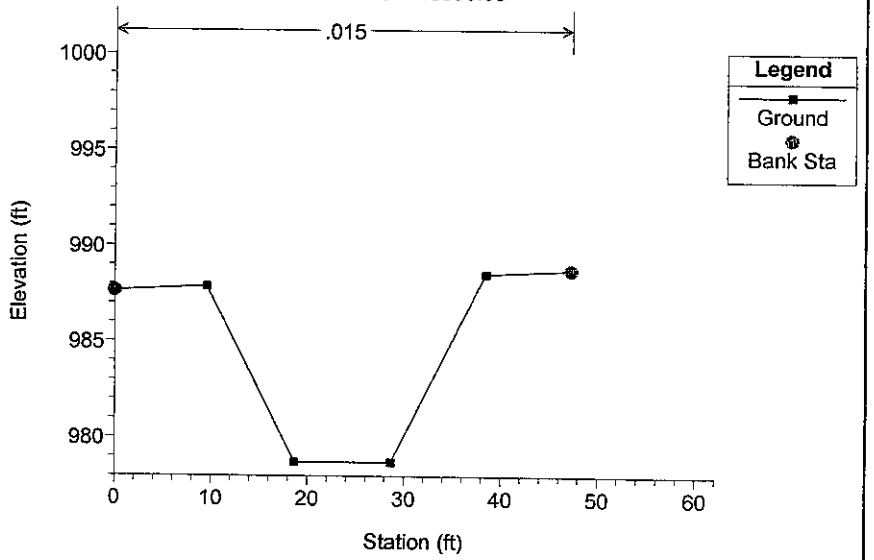
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 16000.00



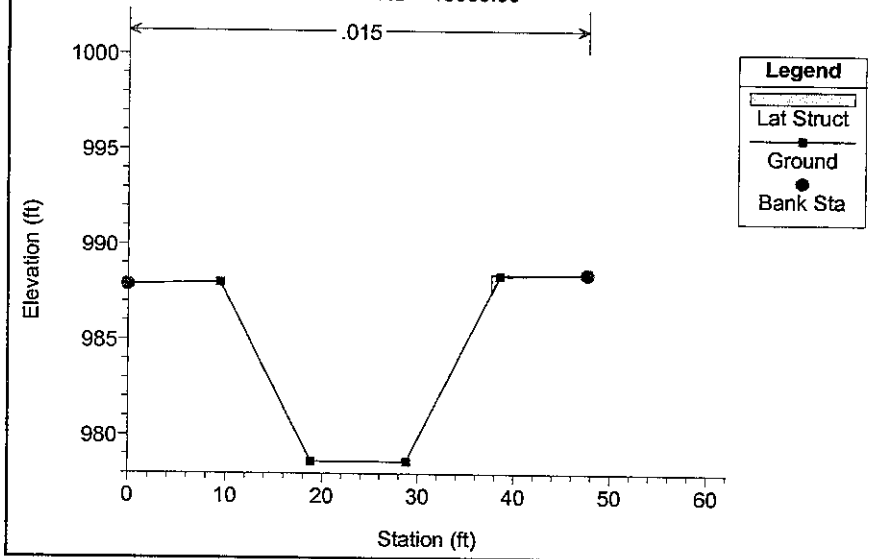
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 15800.00



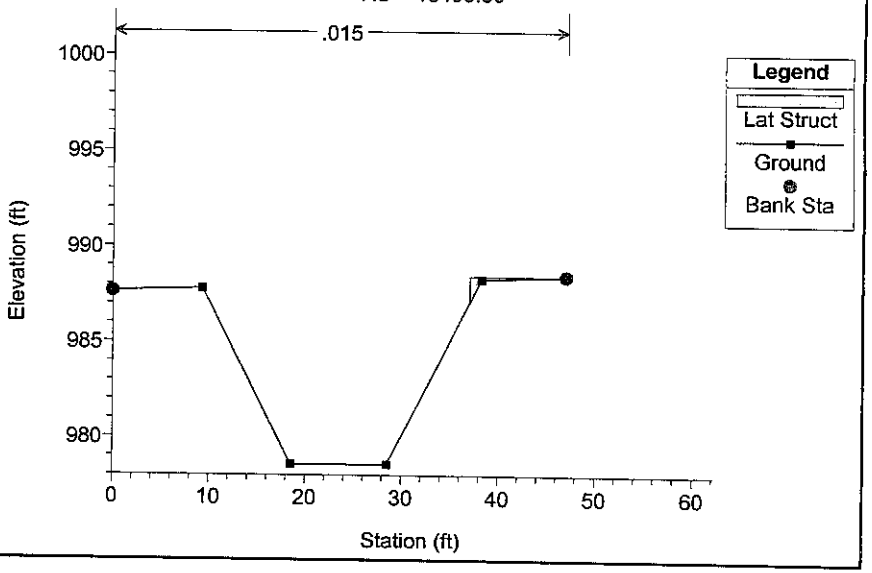
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 15600.00



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

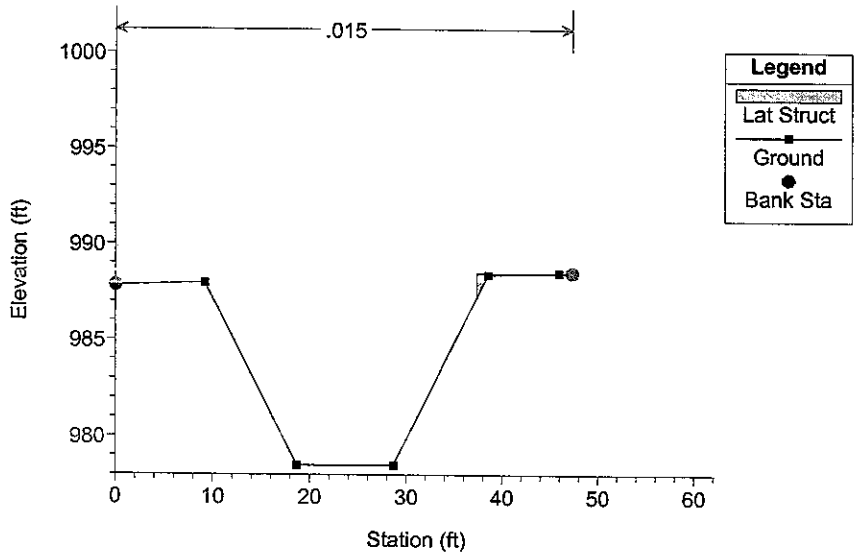
RS = 15400.00



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

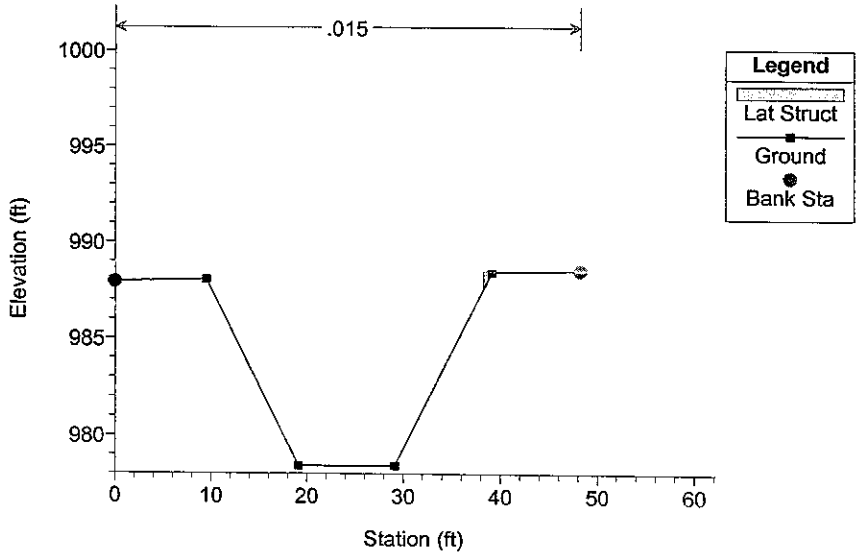
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 15200.00



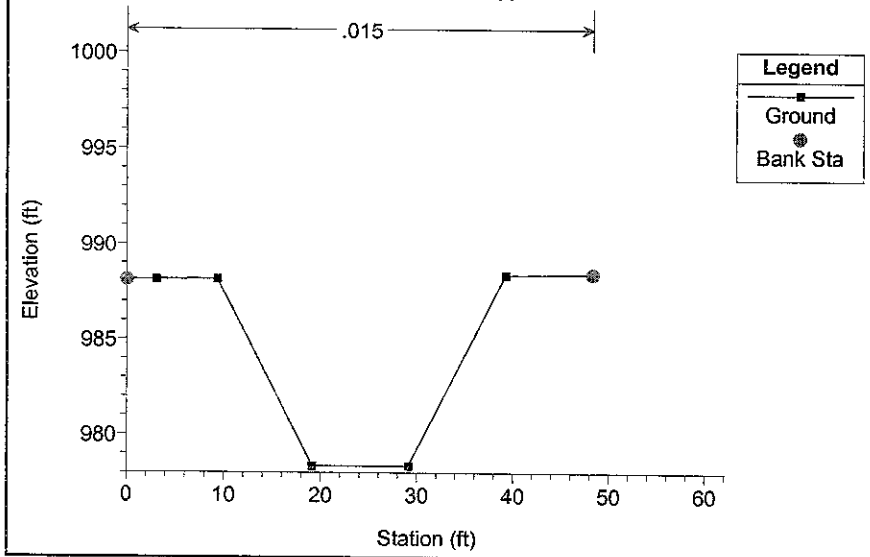
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 15000.00



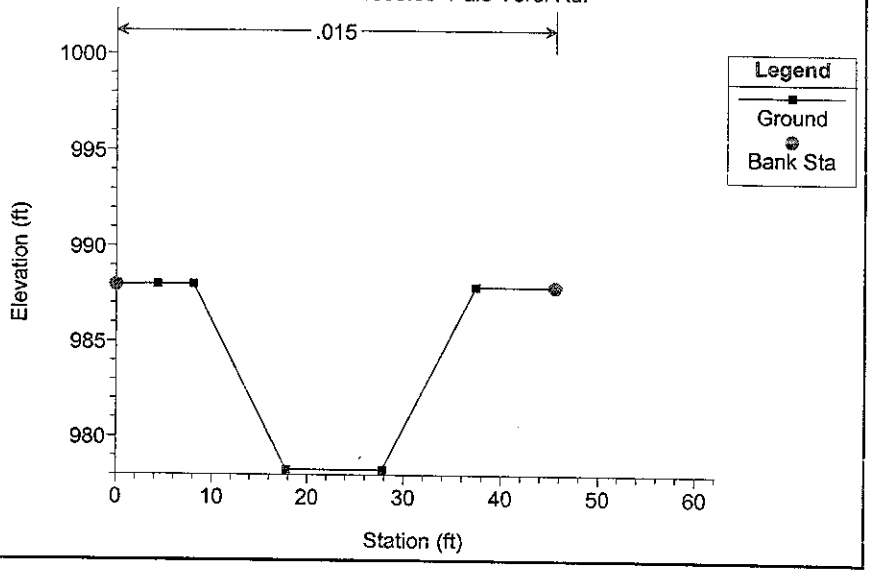
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 14800.00



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

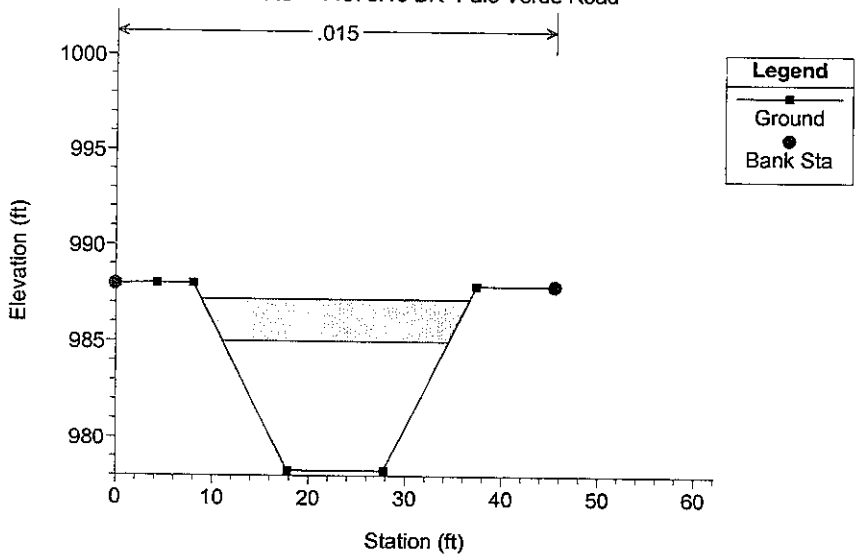
RS = 14600.00 Palo Verdi Rd.



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

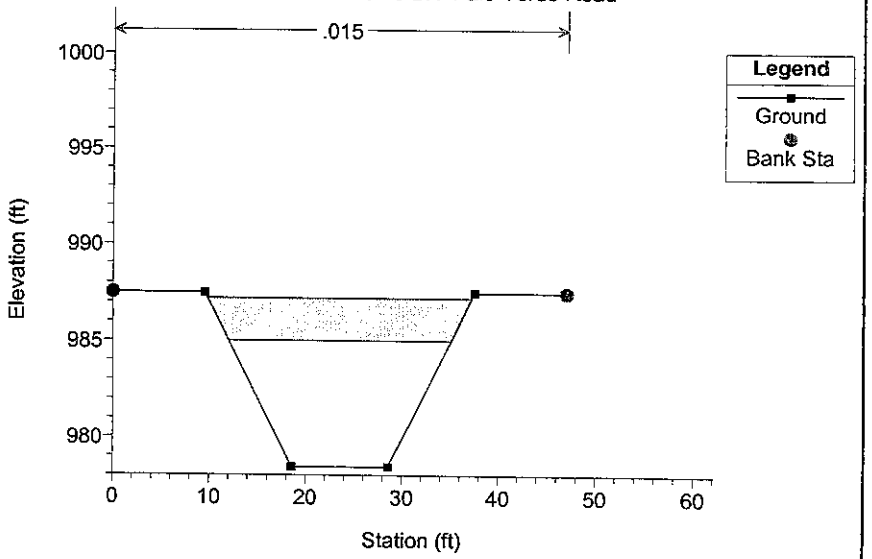
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 14578.46 BR Palo Verde Road



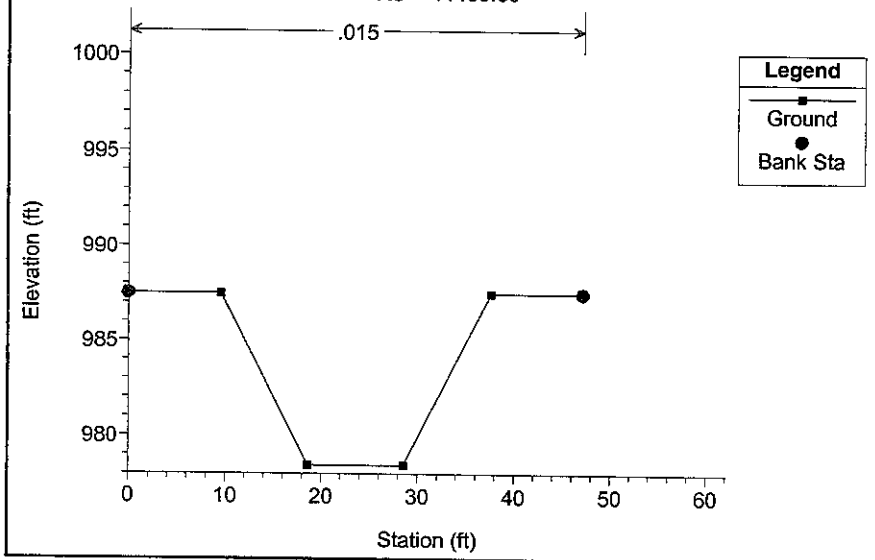
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 14578.46 BR Palo Verde Road



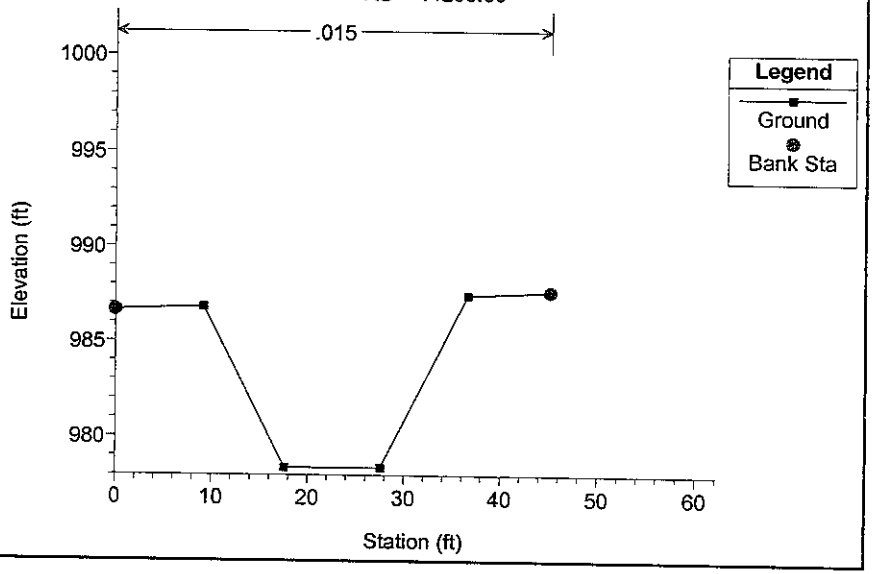
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 14400.00



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

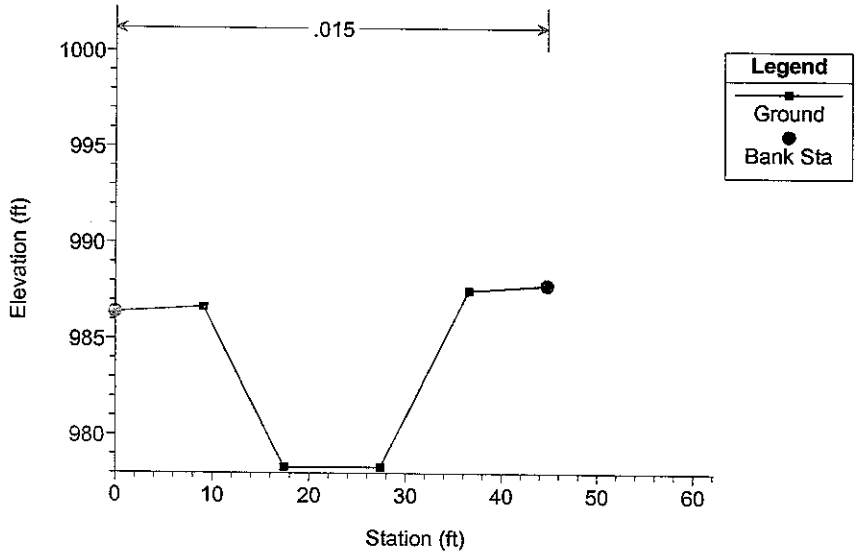
RS = 14200.00



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

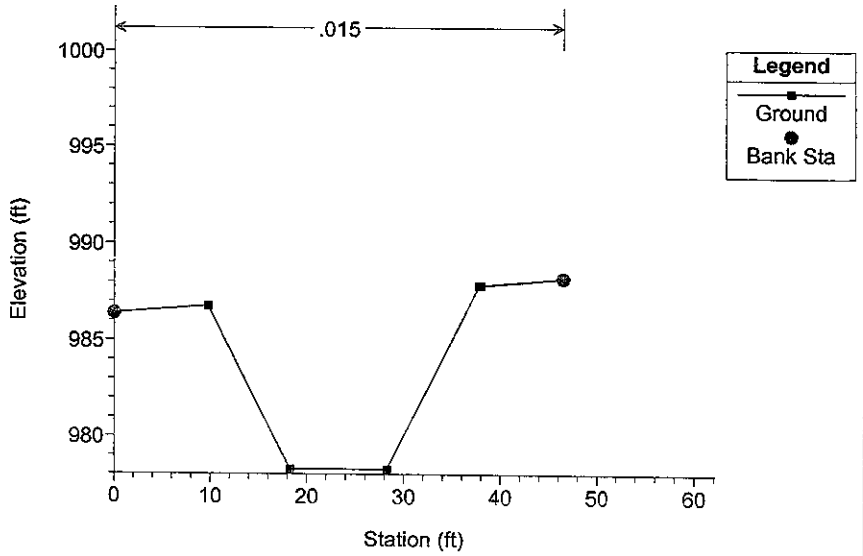
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 14000.00



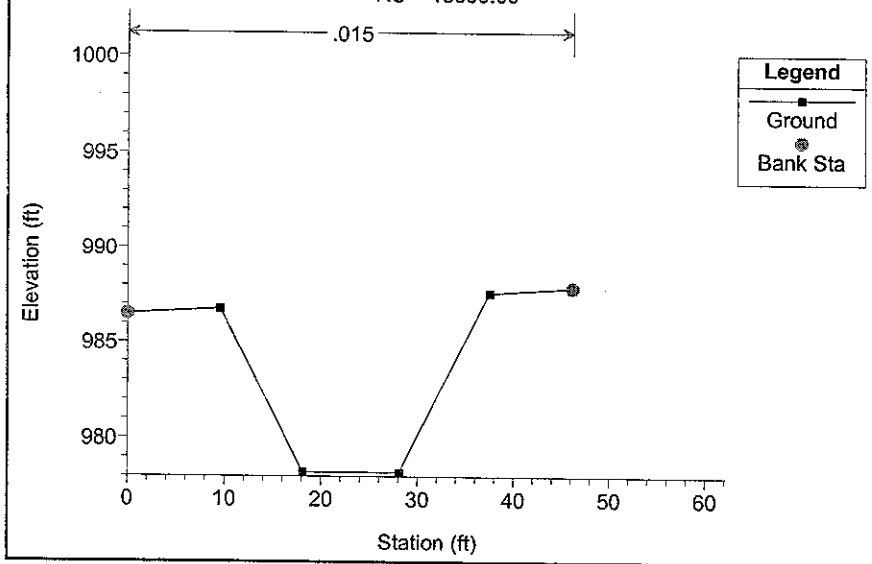
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 13800.00



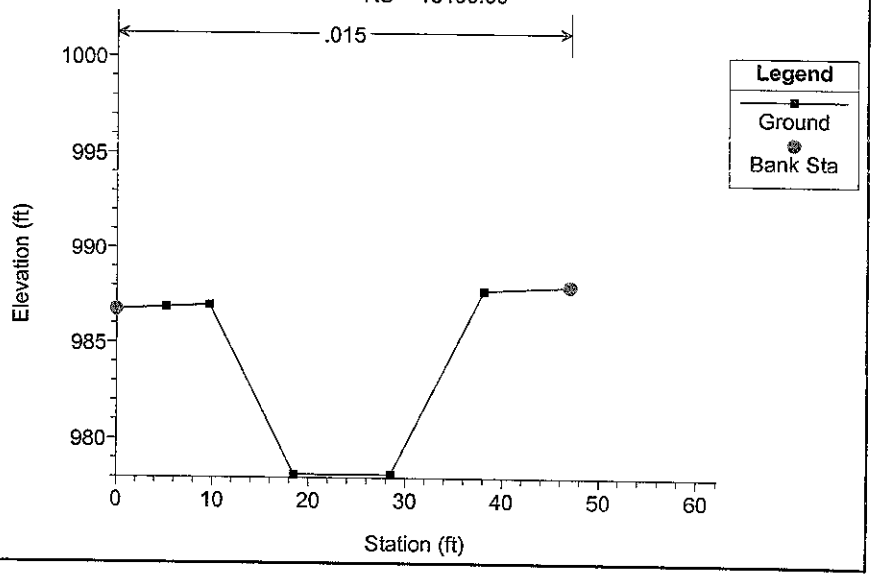
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 13600.00



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

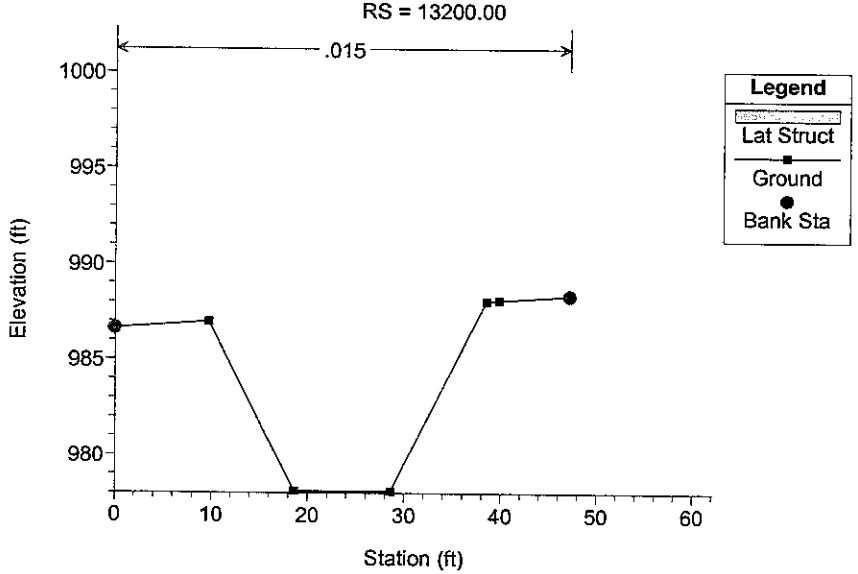
RS = 13400.00



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

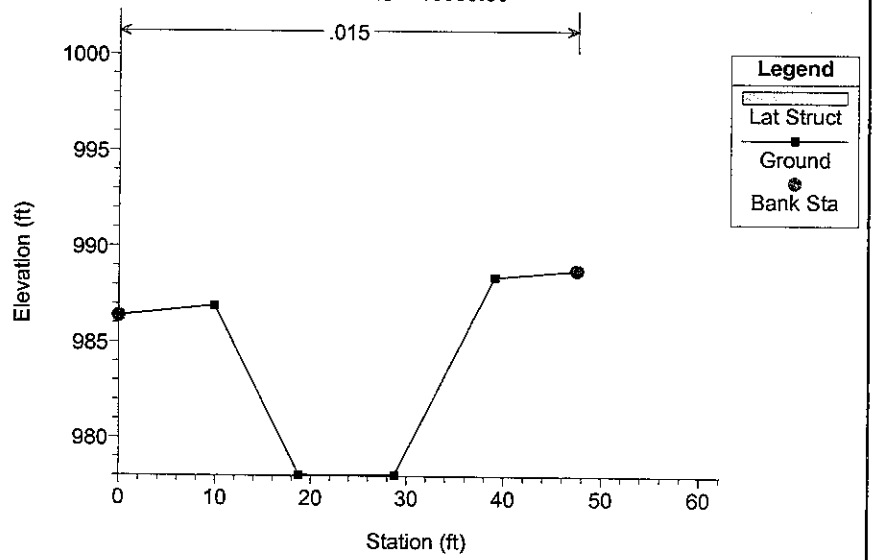
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 13200.00



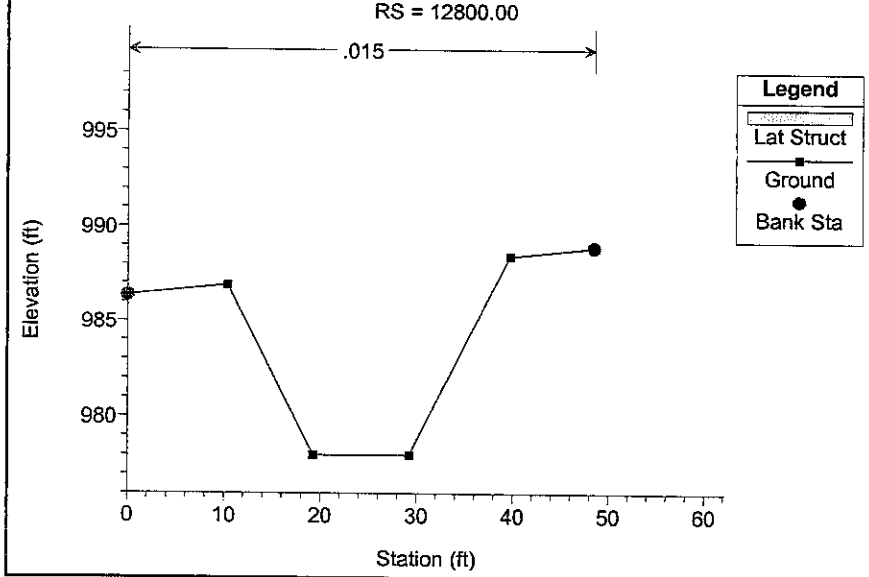
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 13000.00



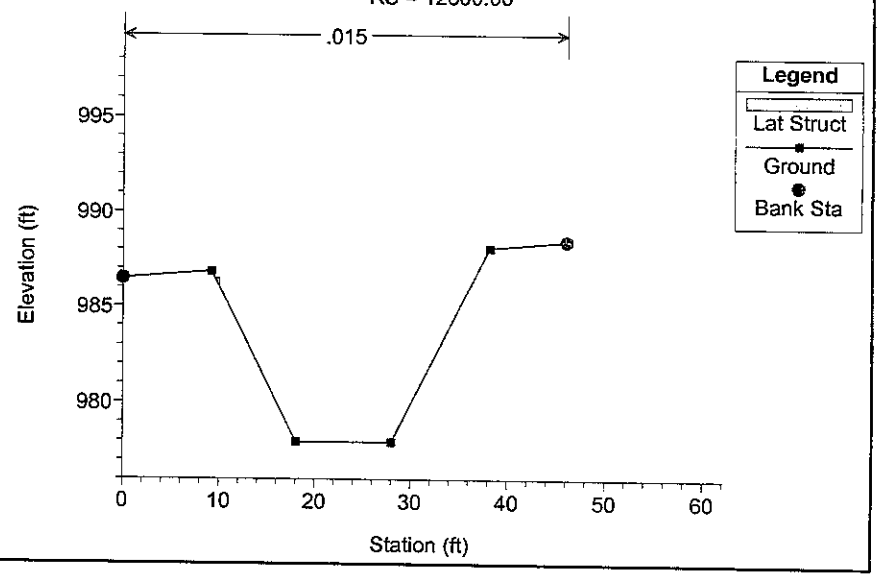
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 12800.00

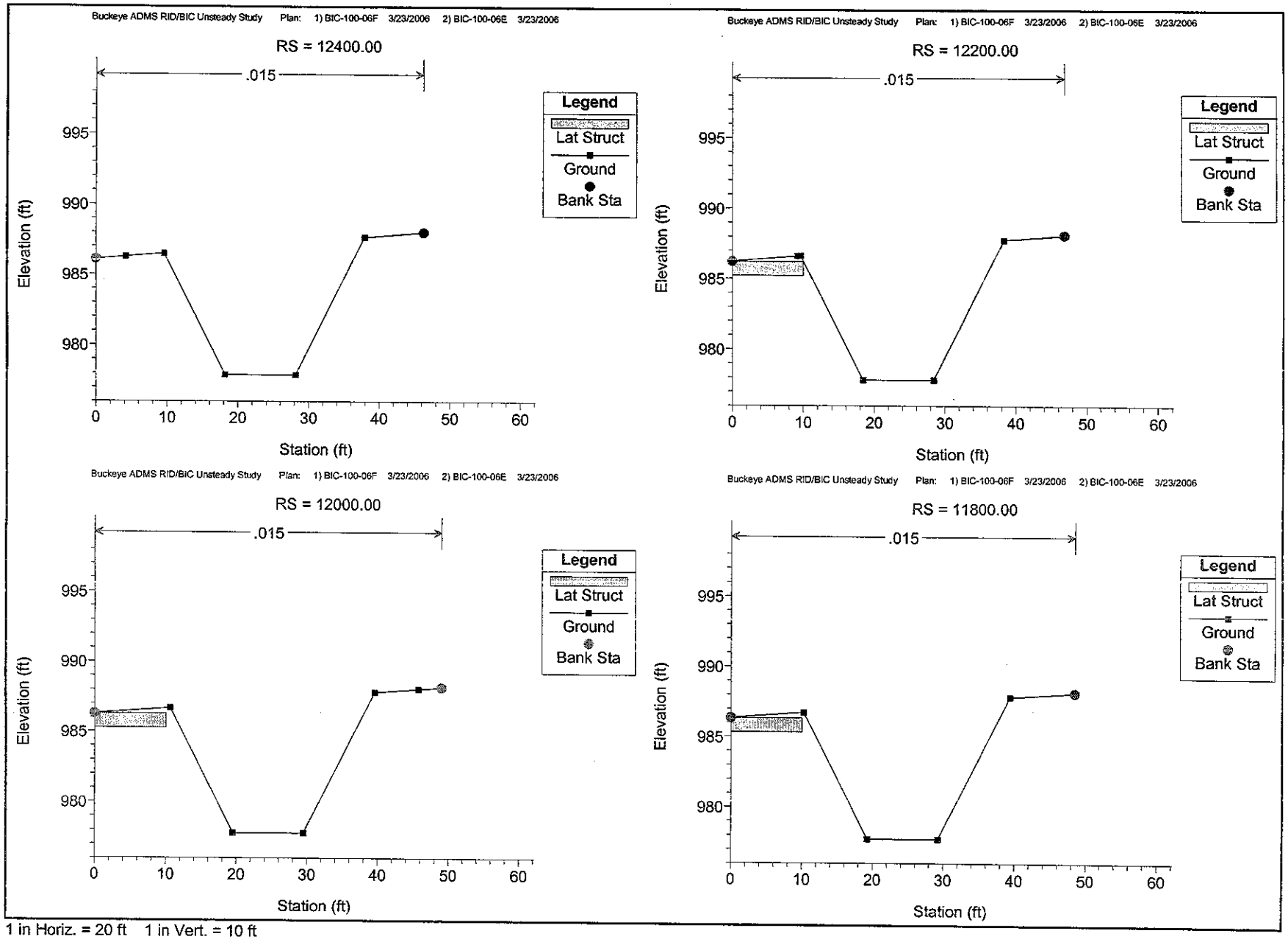


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 12600.00



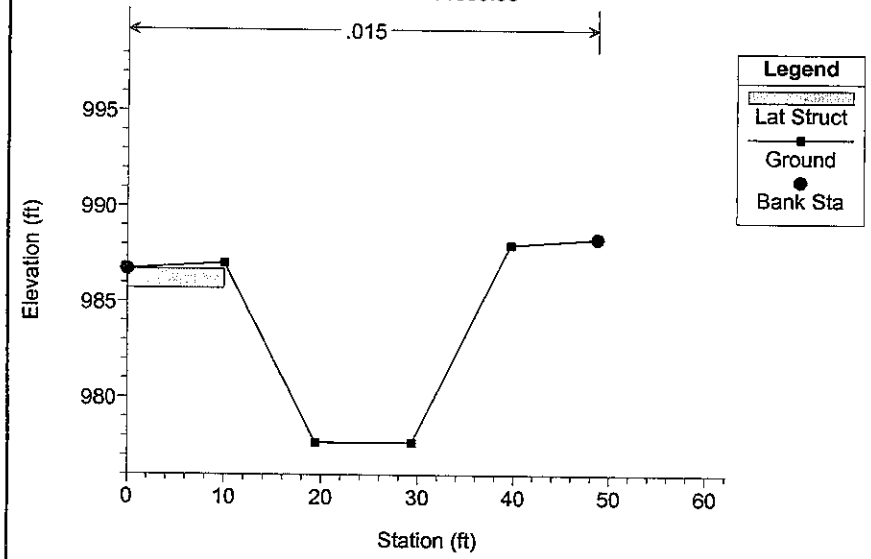
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

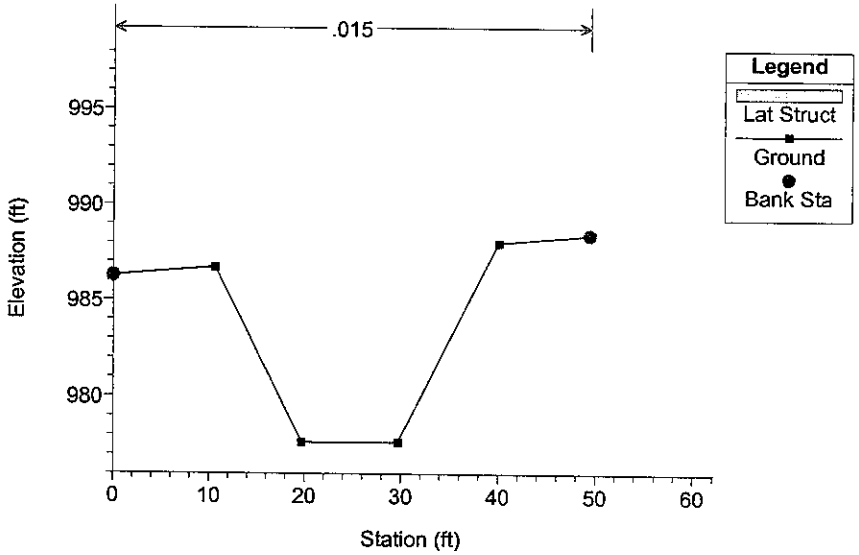
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 11600.00



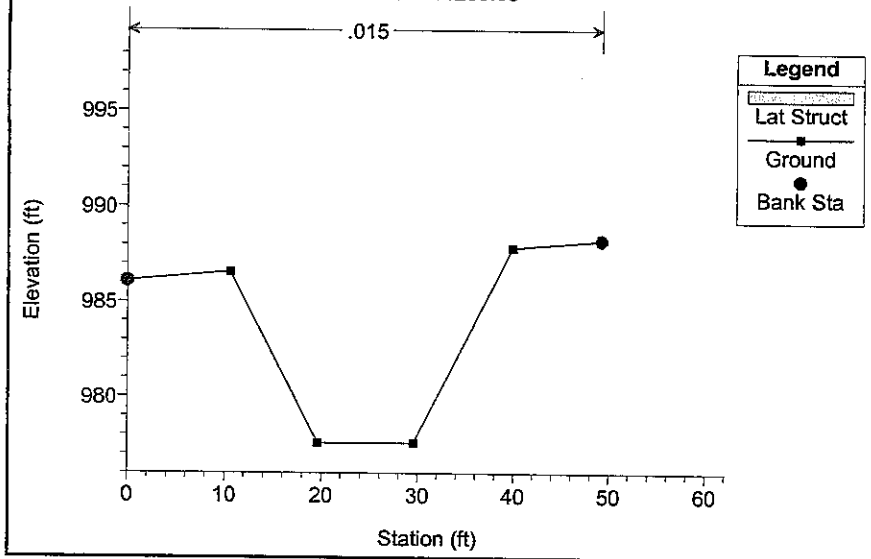
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 11400.00



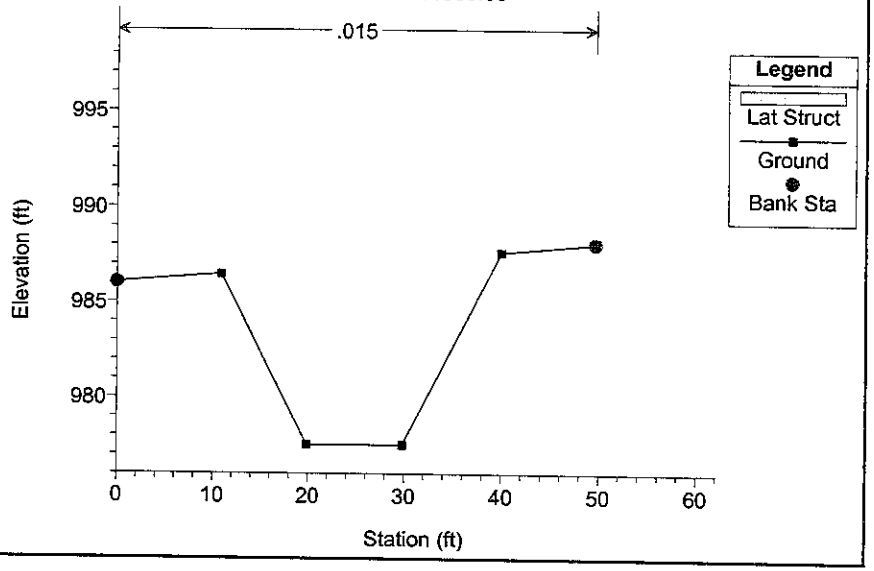
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 11200.00

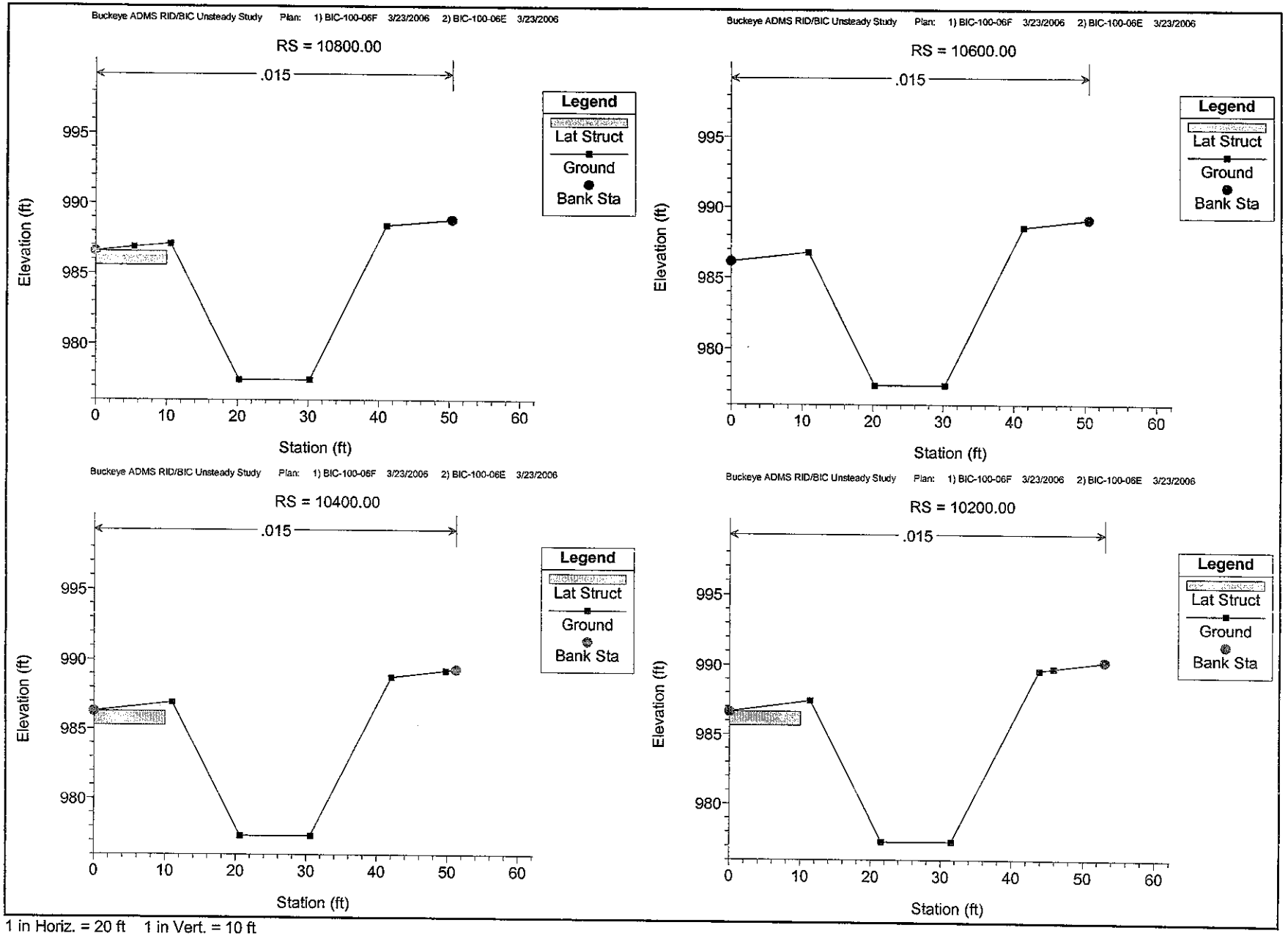


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 11000.00



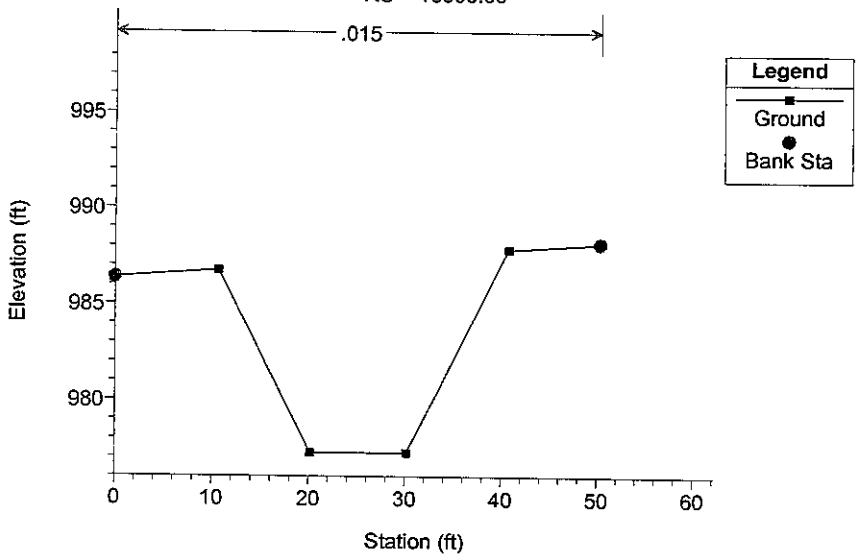
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

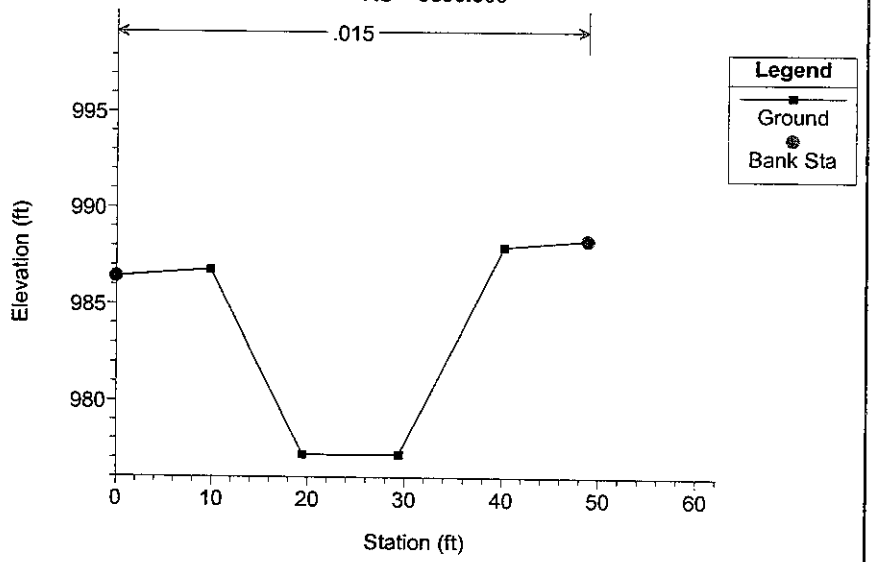
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 10000.00



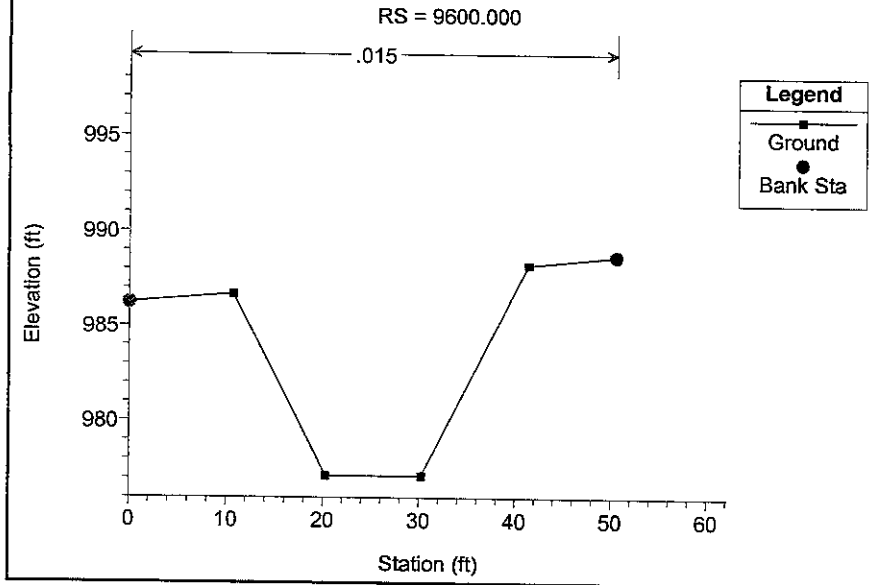
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 9800.000



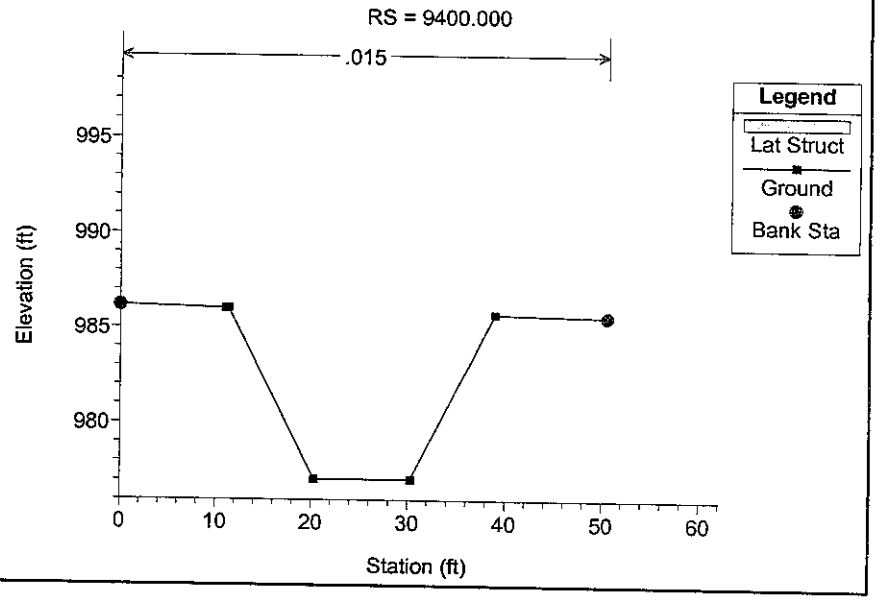
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 9600.000



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

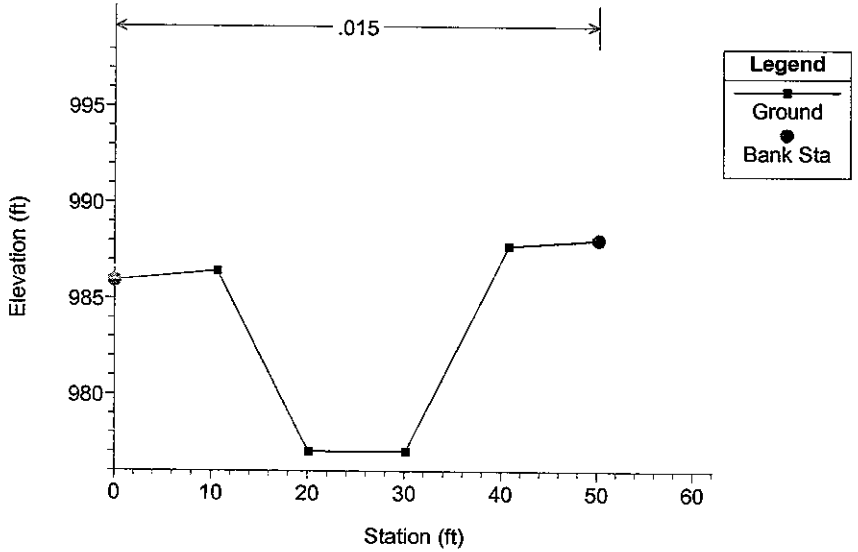
RS = 9400.000



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

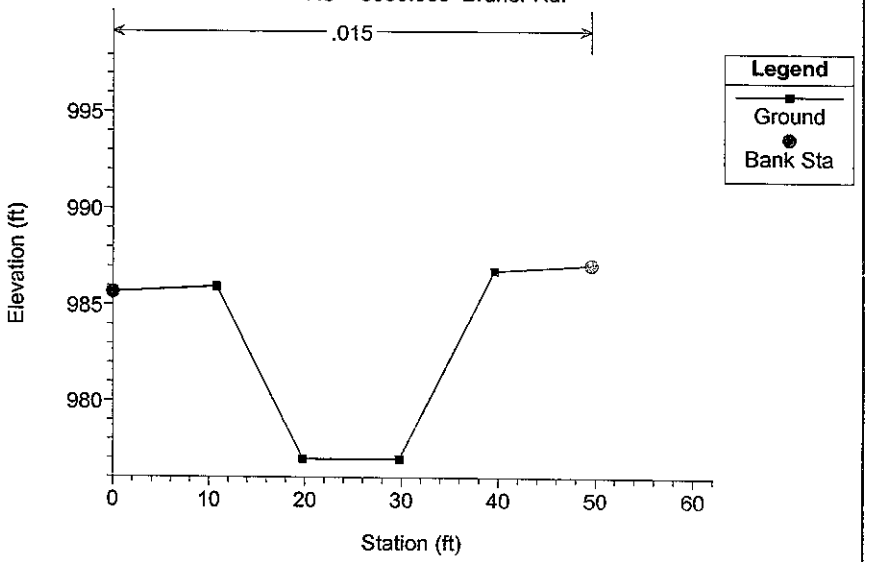
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 9200.000



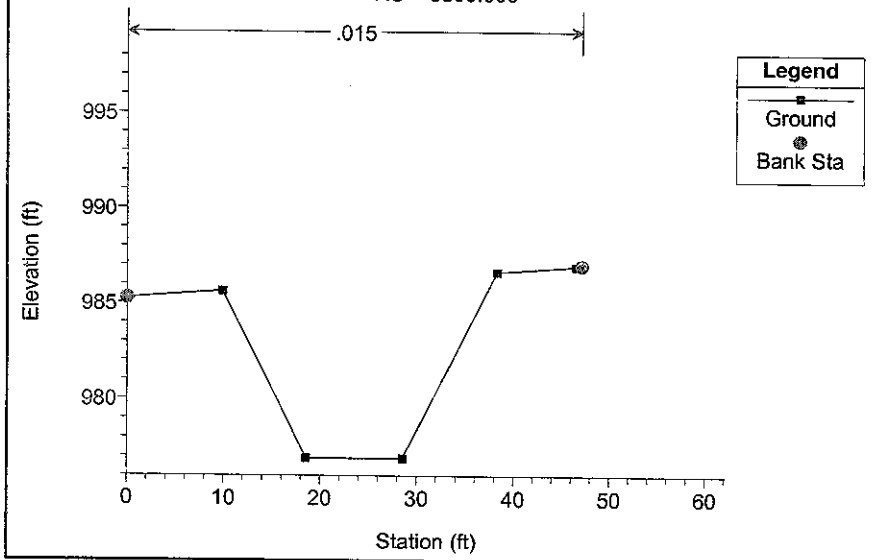
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 9000.000 Bruner Rd.



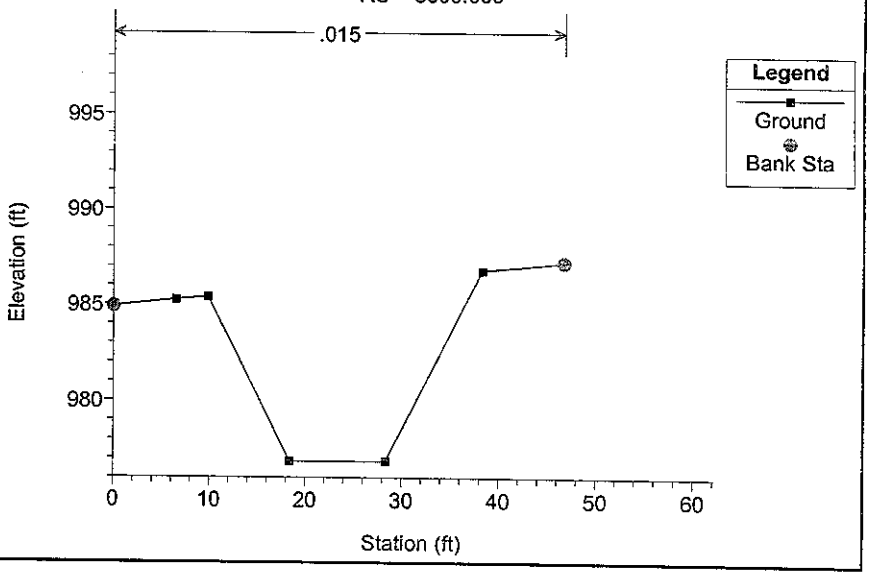
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 8800.000



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

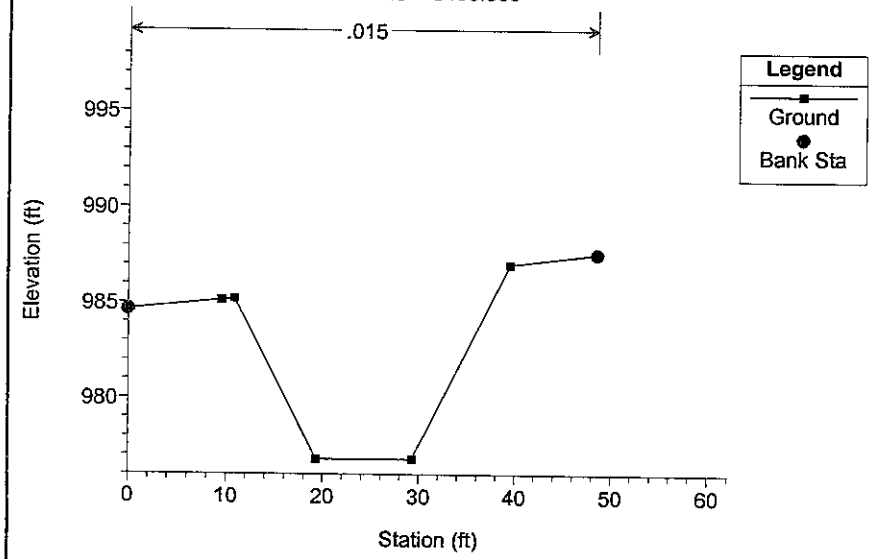
RS = 8600.000



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

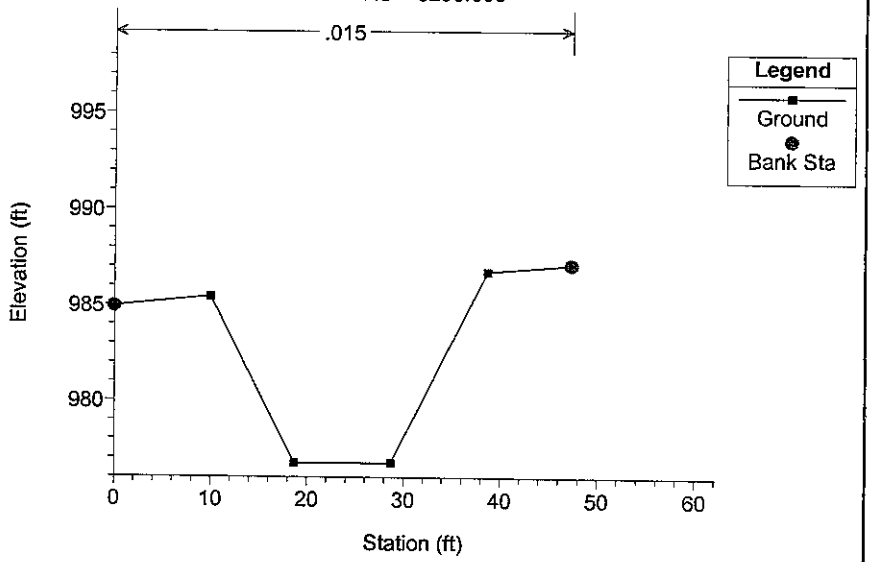
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 8400.000



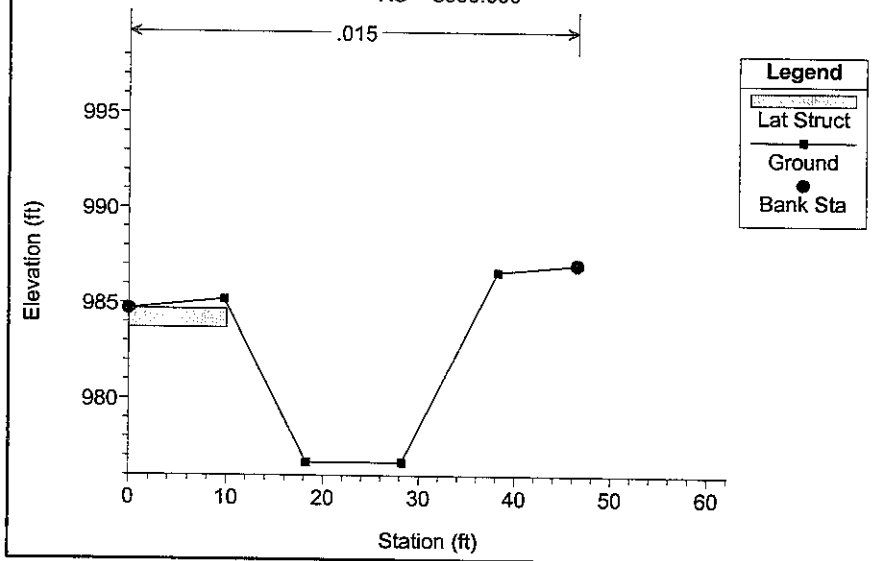
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 8200.000



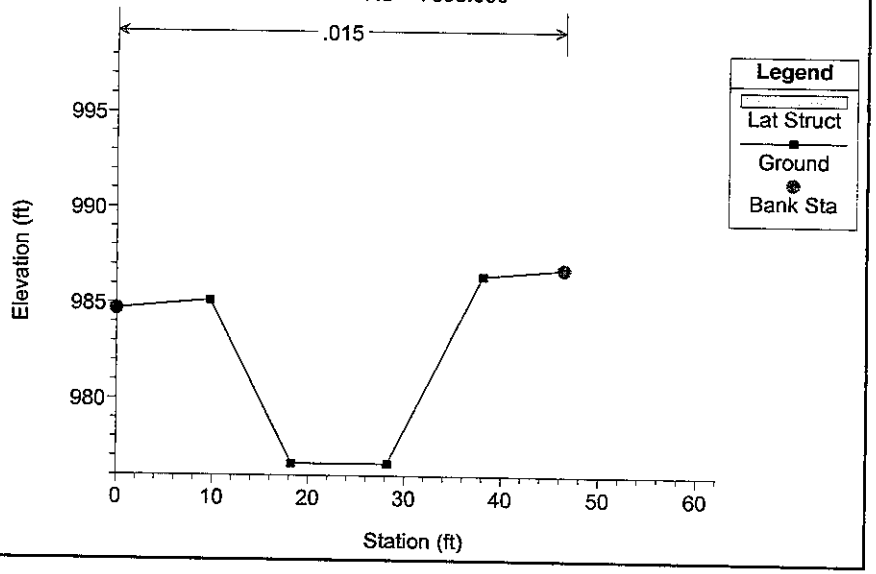
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 8000.000

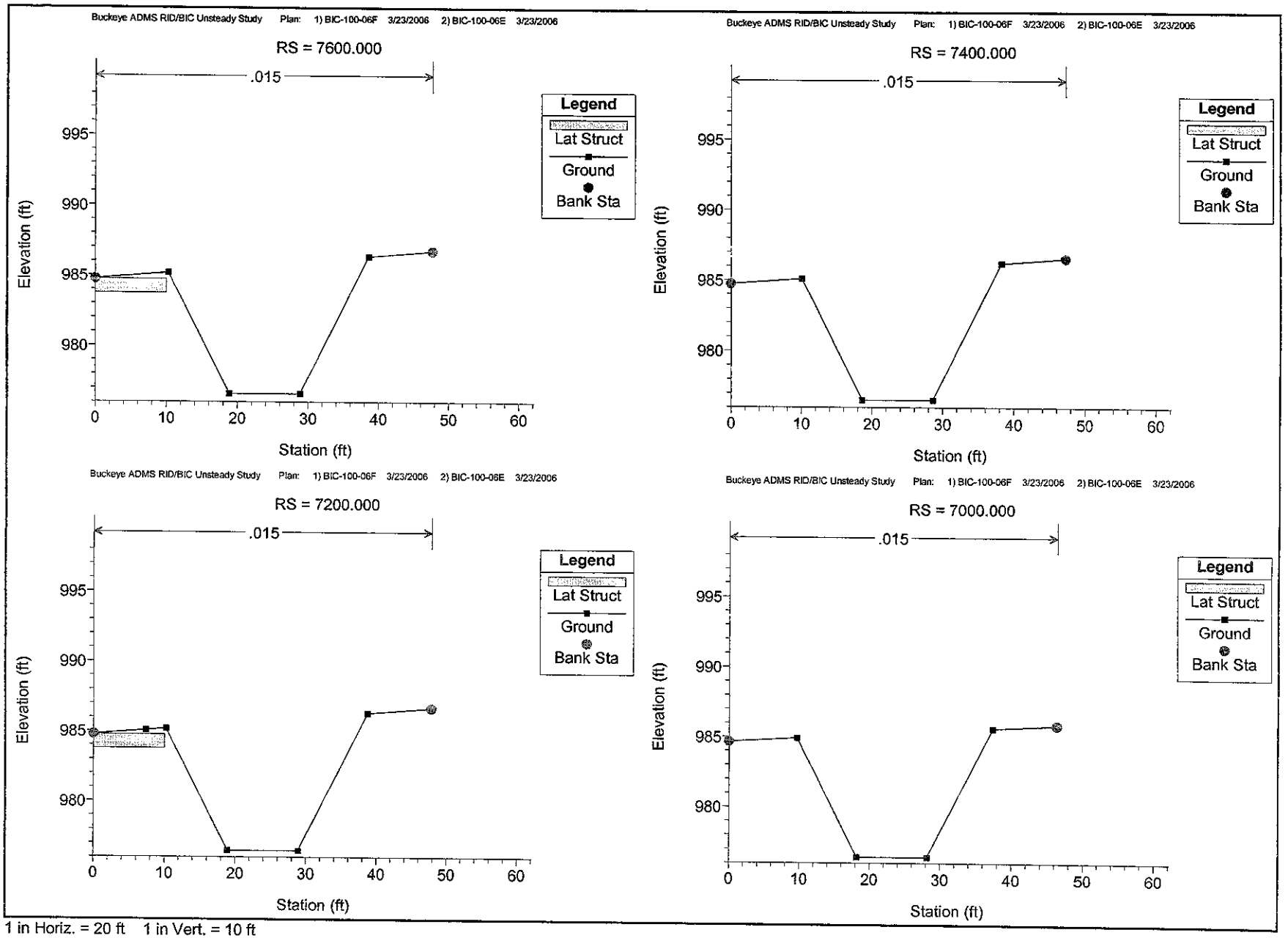


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 7800.000



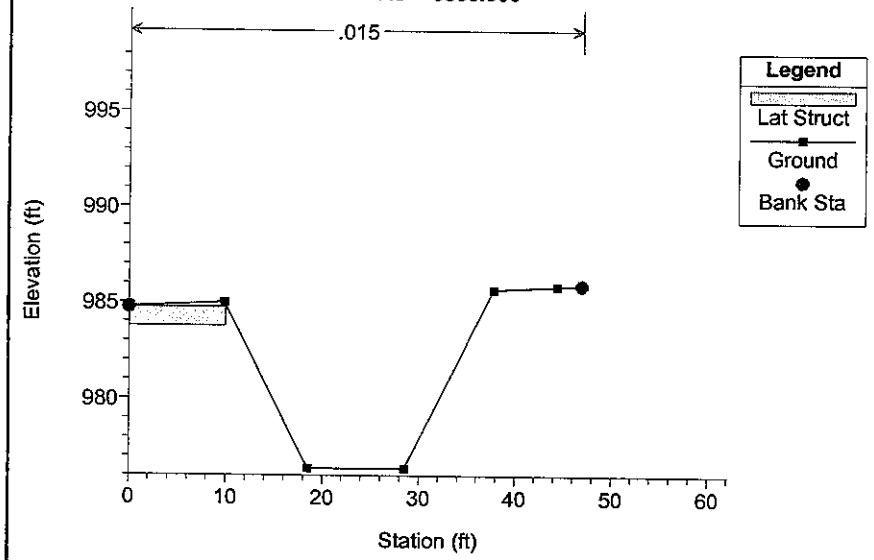
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

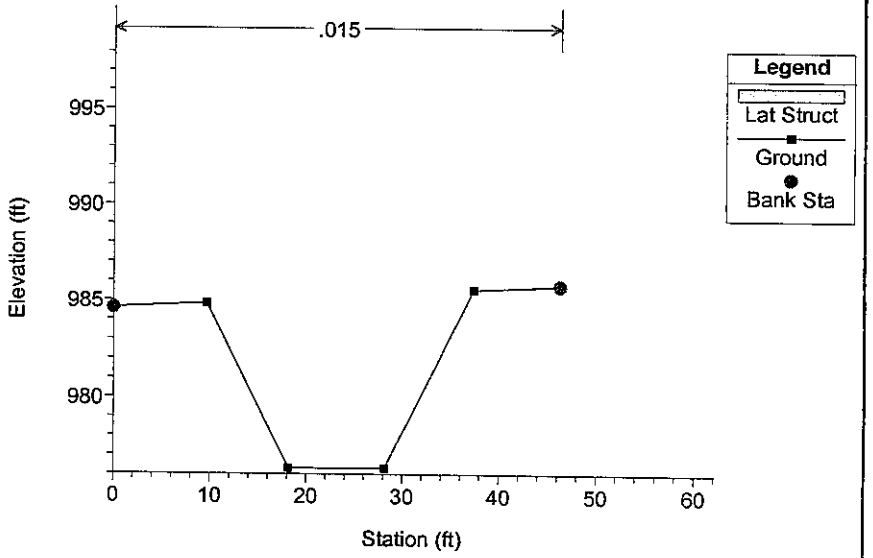
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 6800.000



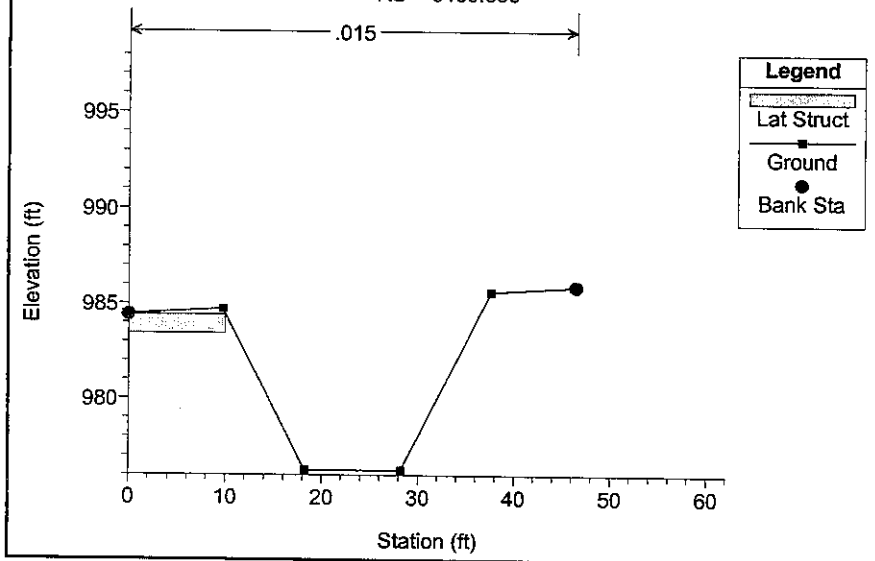
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 6600.000



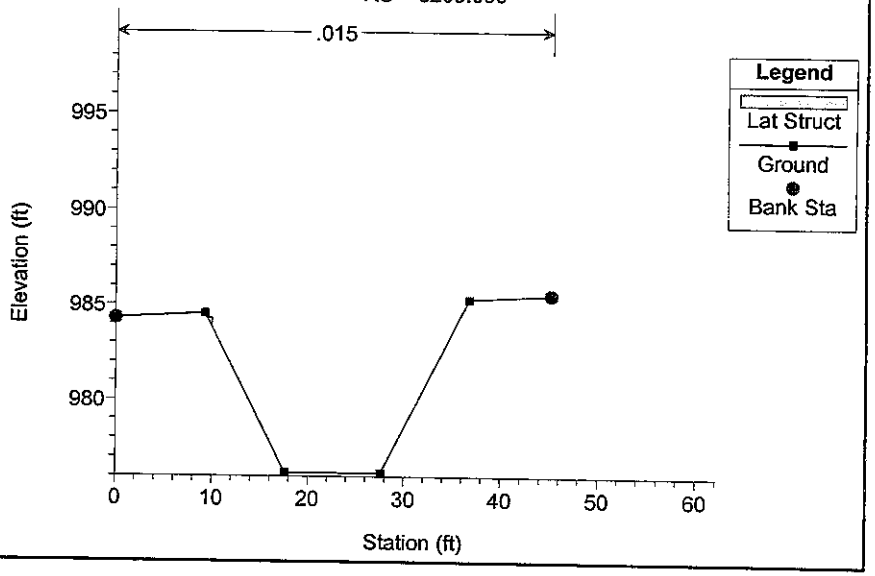
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 6400.000

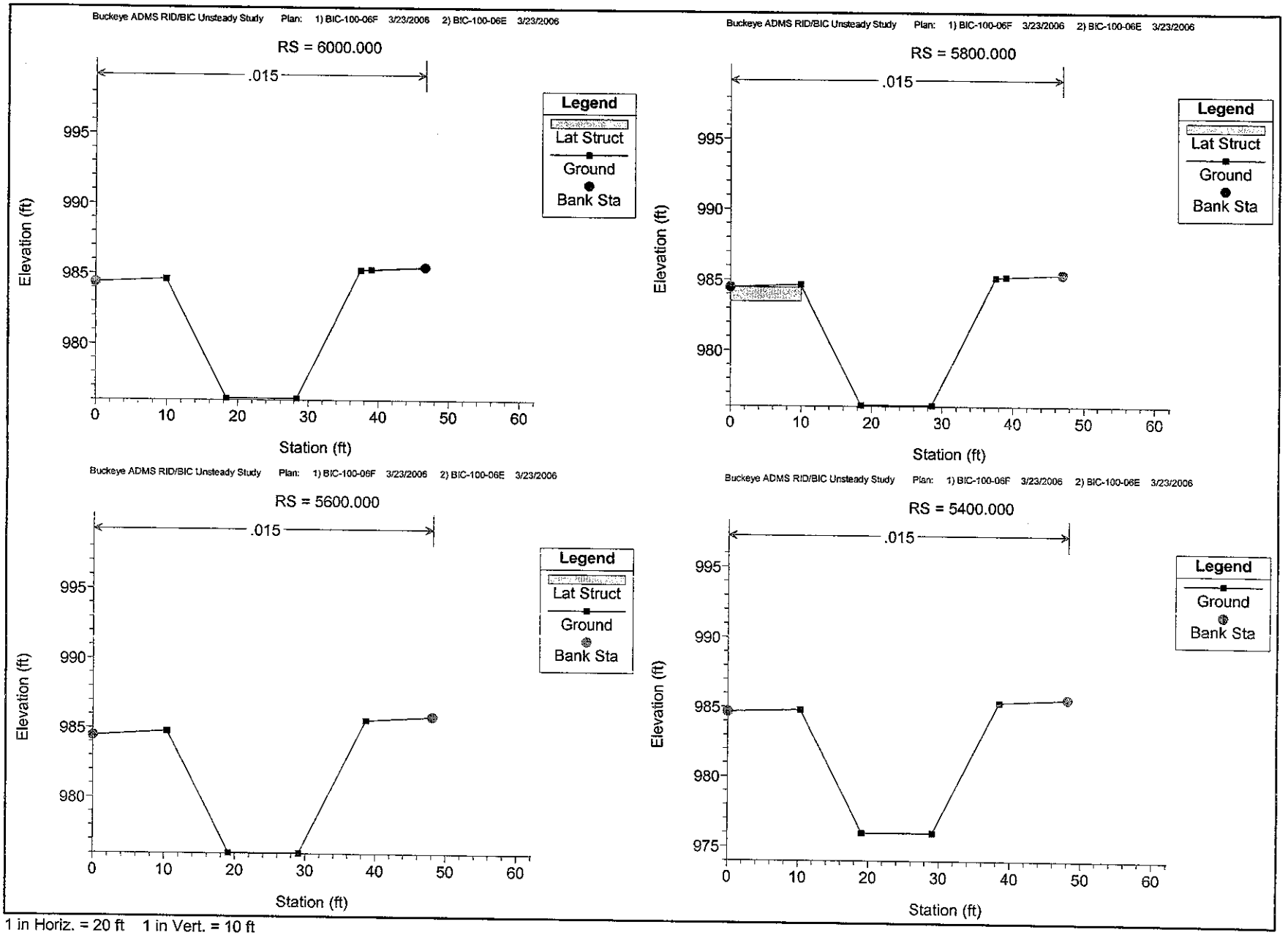


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 6200.000



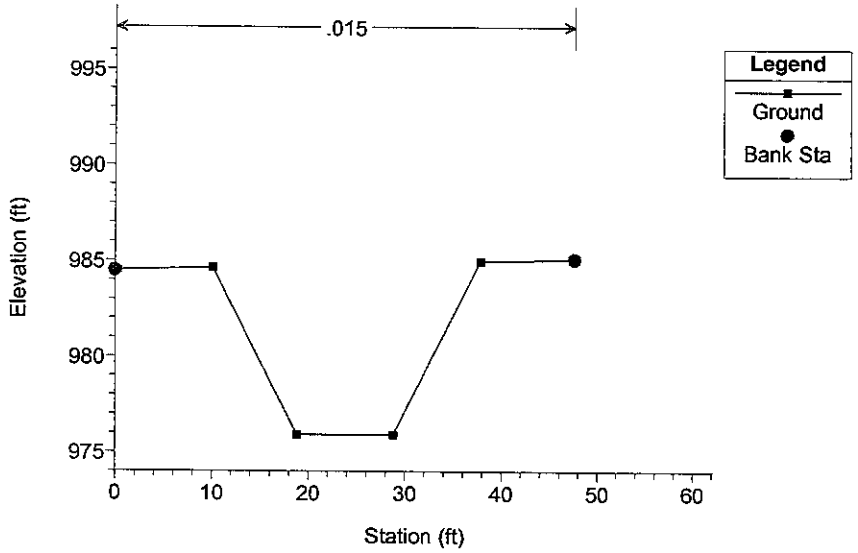
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

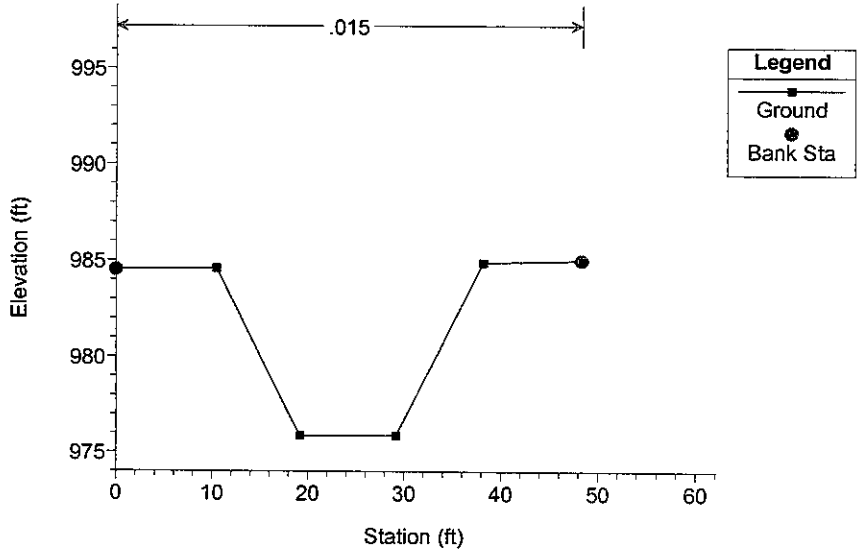
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 5200.000



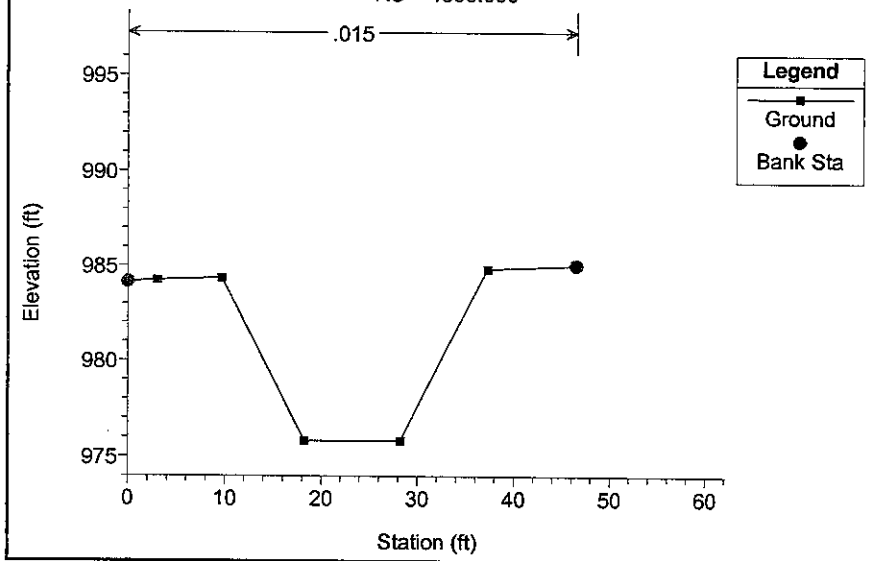
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 5000.000



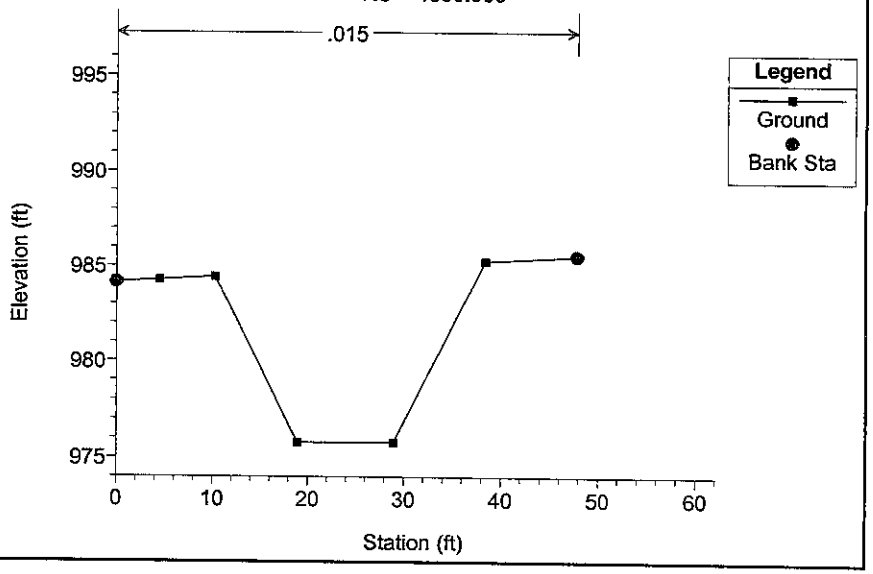
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 4800.000



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

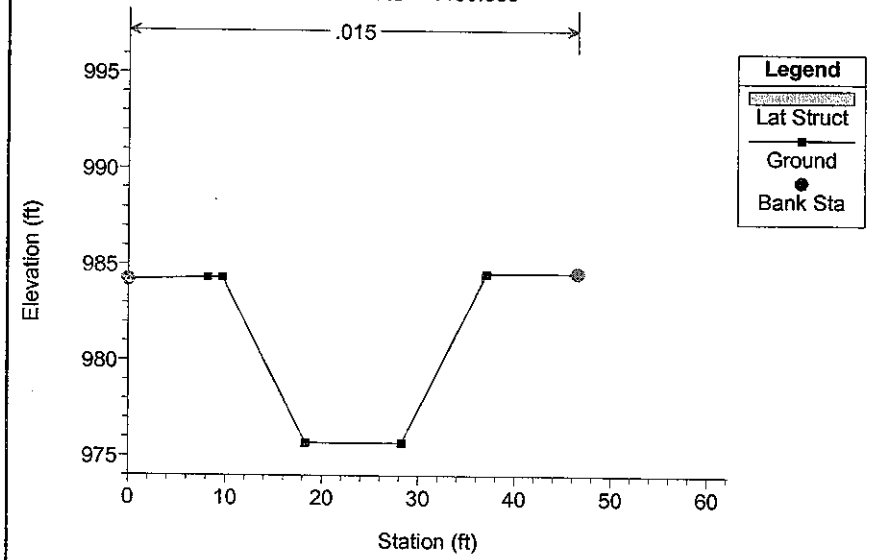
RS = 4600.000



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

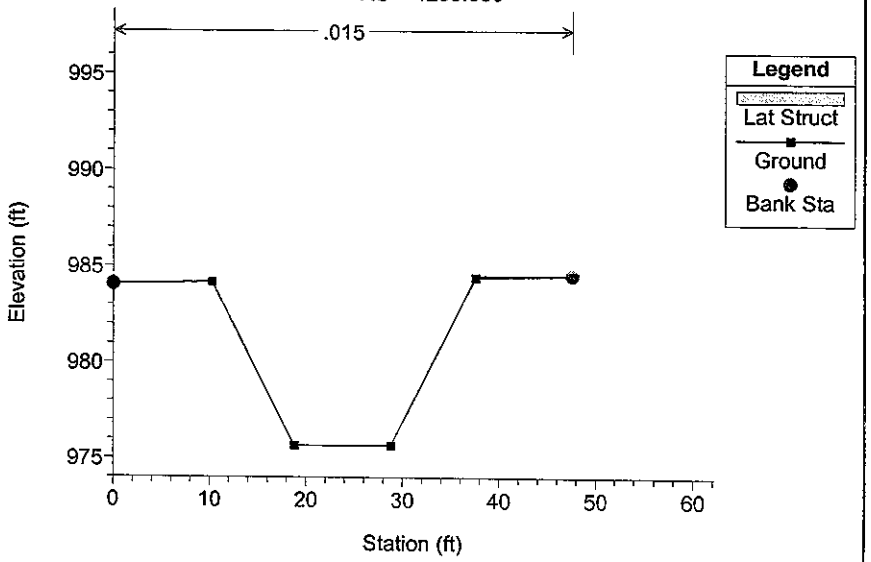
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 4400.000



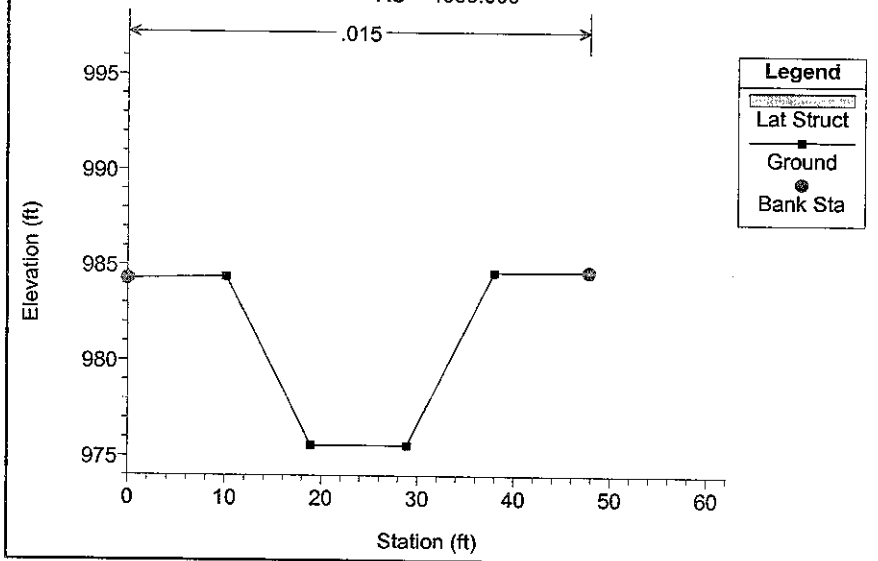
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 4200.000



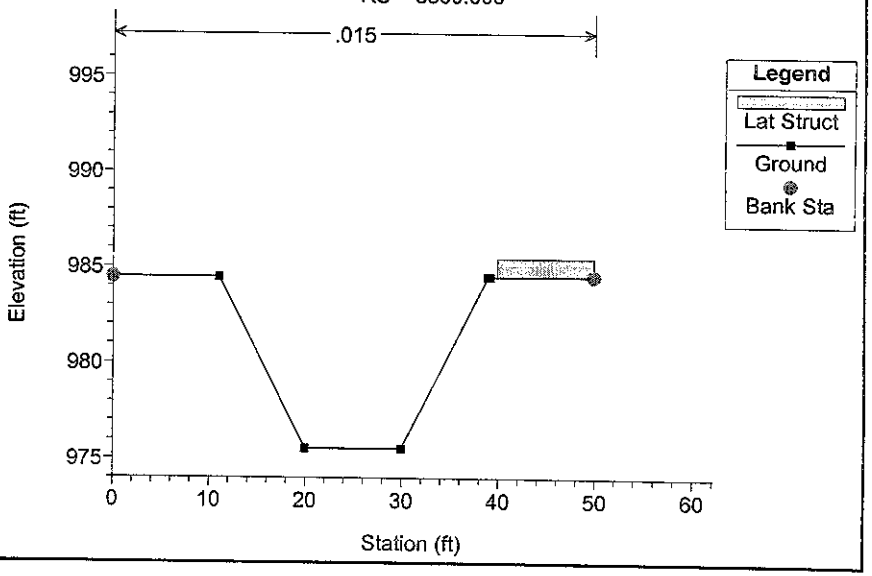
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 4000.000



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

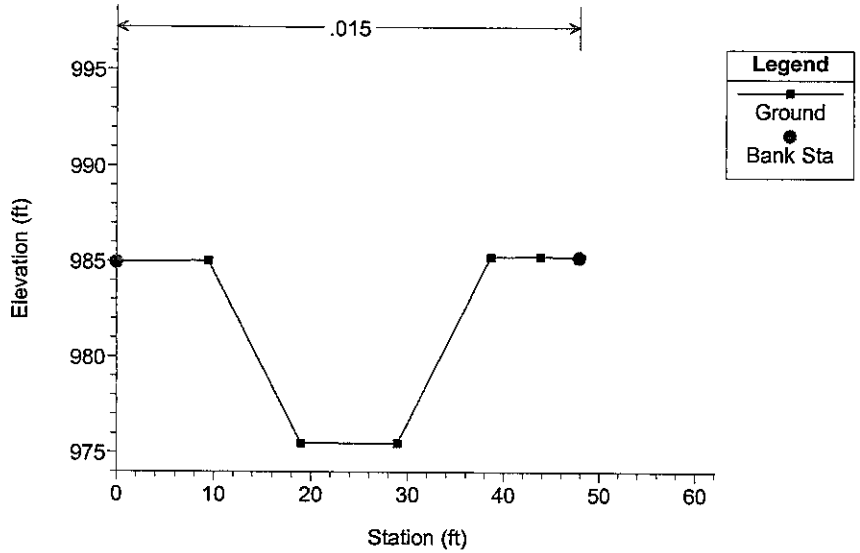
RS = 3800.000



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

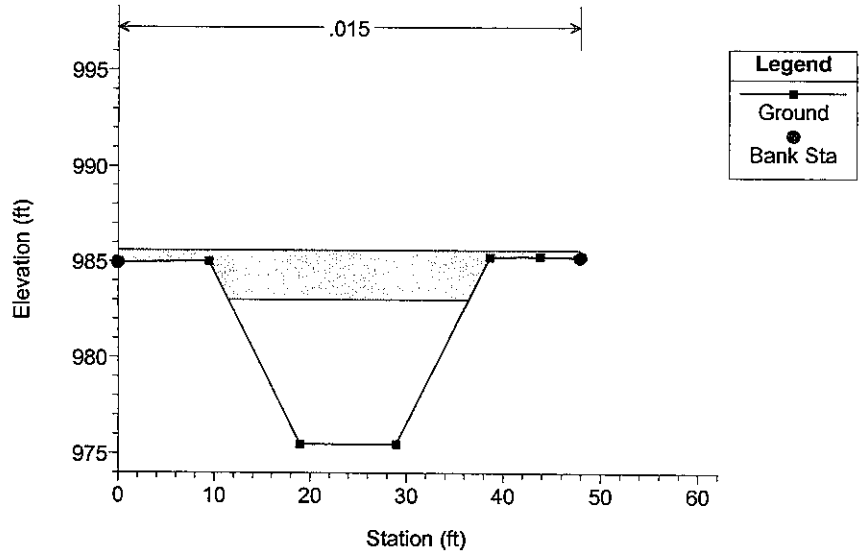
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 3600.000 Johnson Rd.



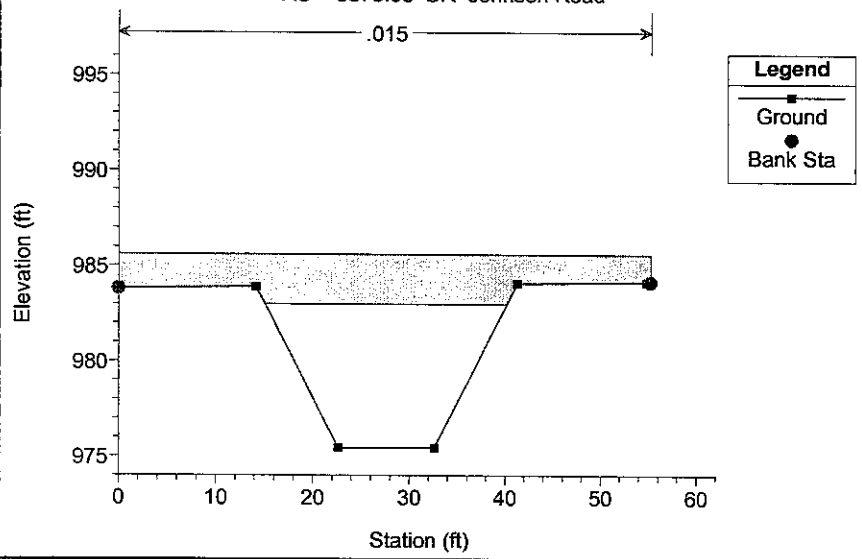
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 3573.98 BR Johnson Road



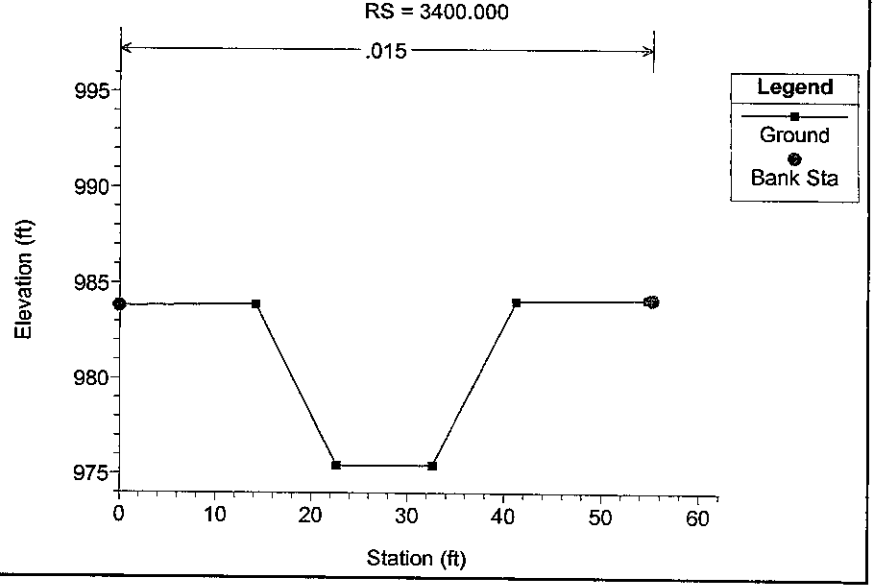
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 3573.98 BR Johnson Road

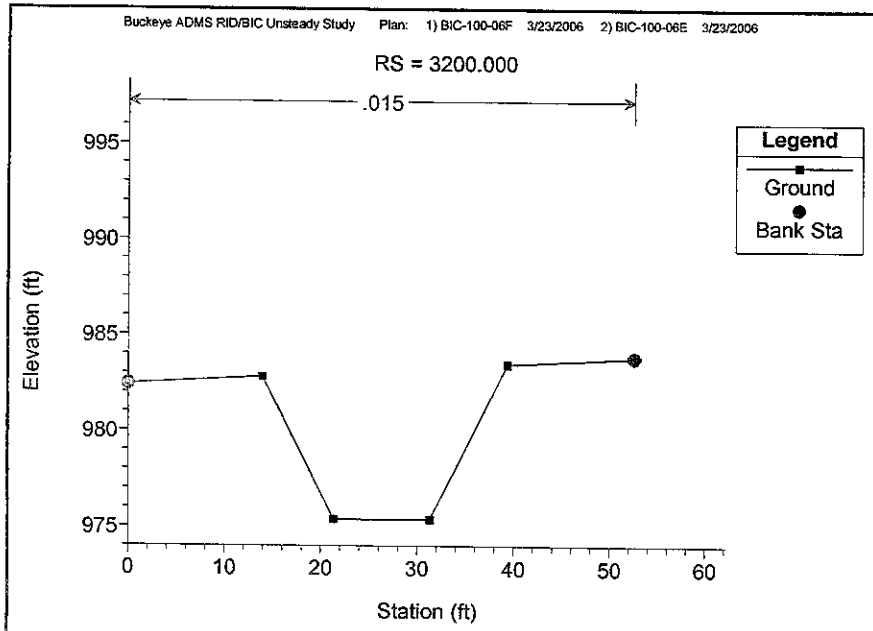


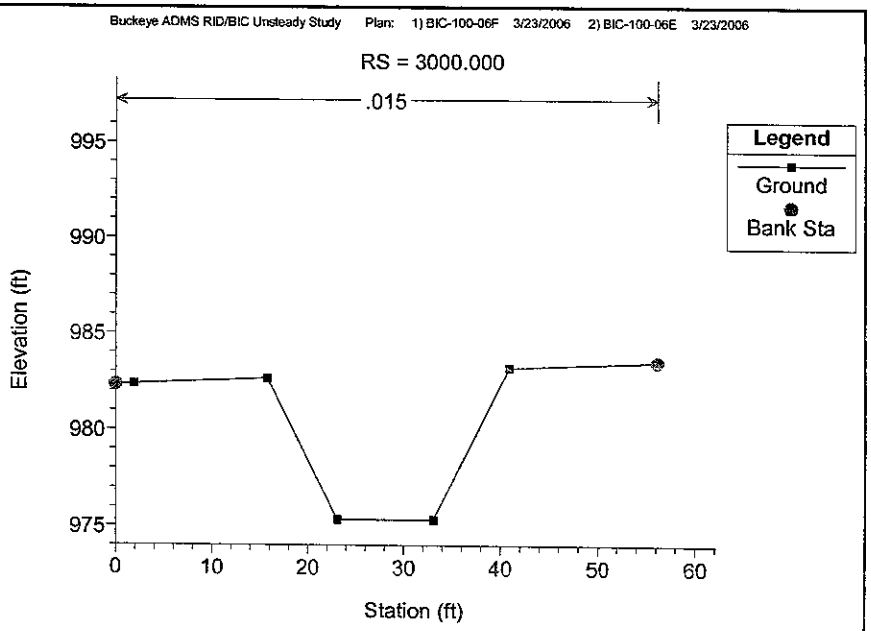
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) BIC-100-06F 3/23/2006 2) BIC-100-06E 3/23/2006

RS = 3400.000



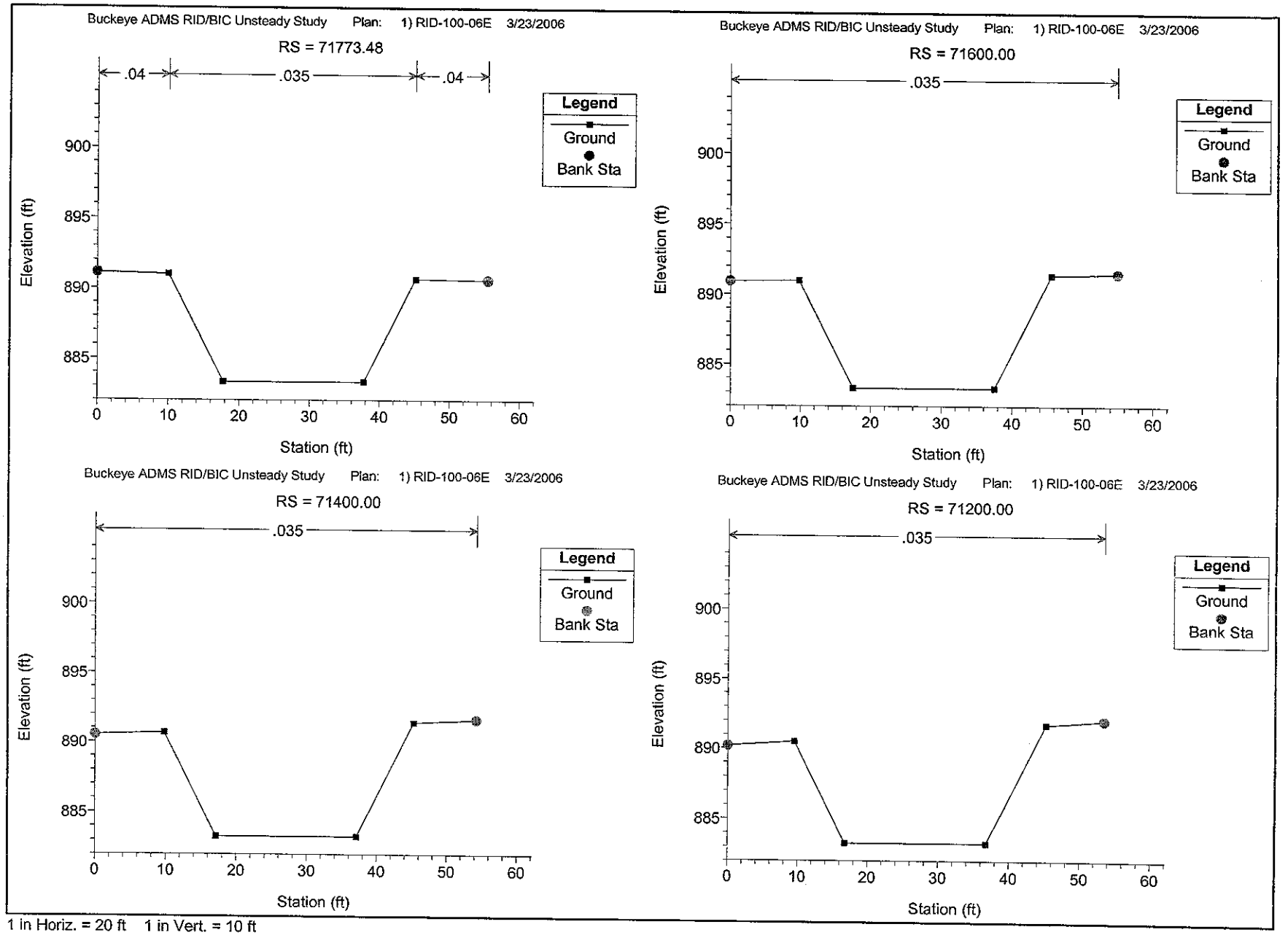
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



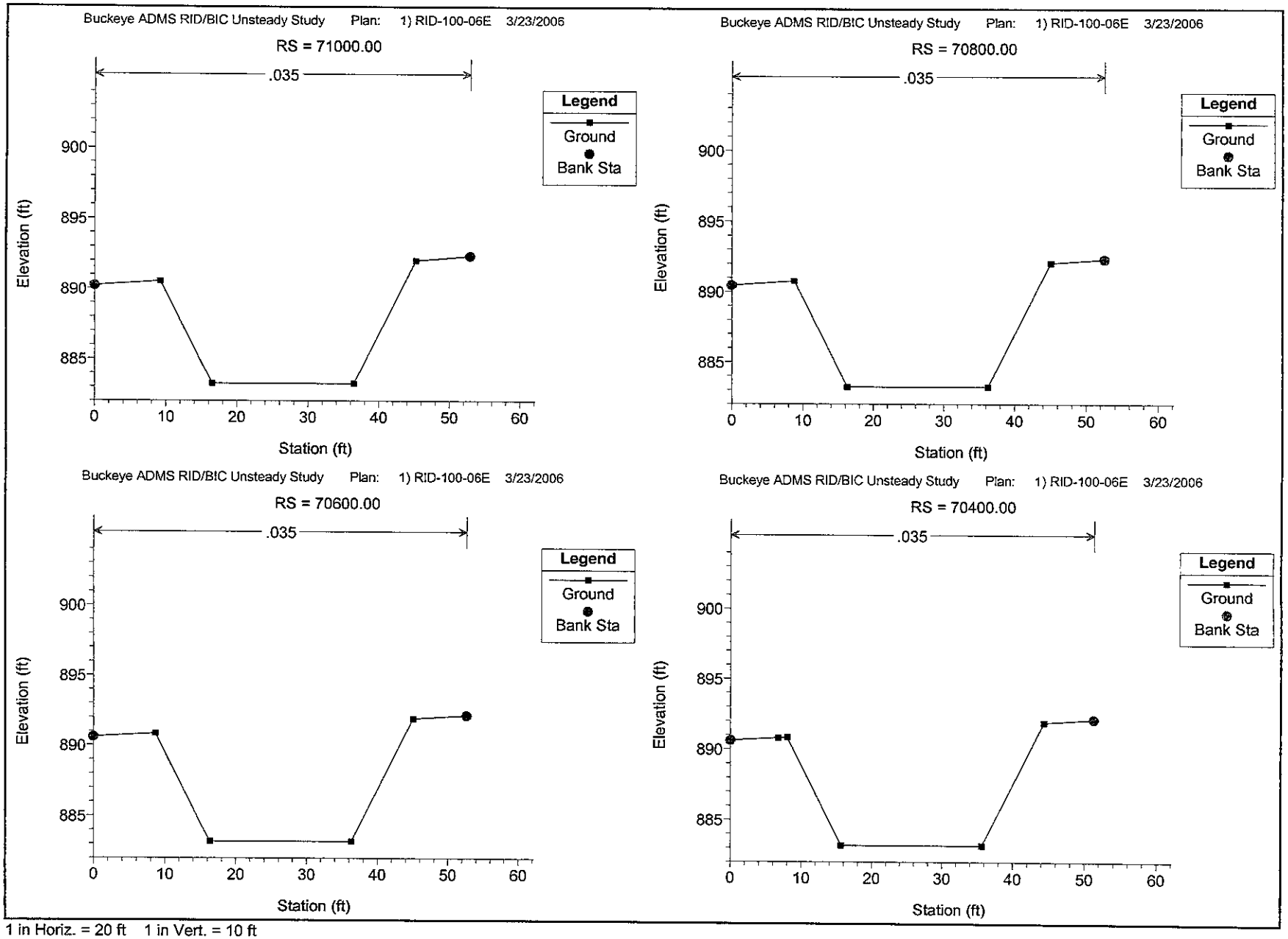


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

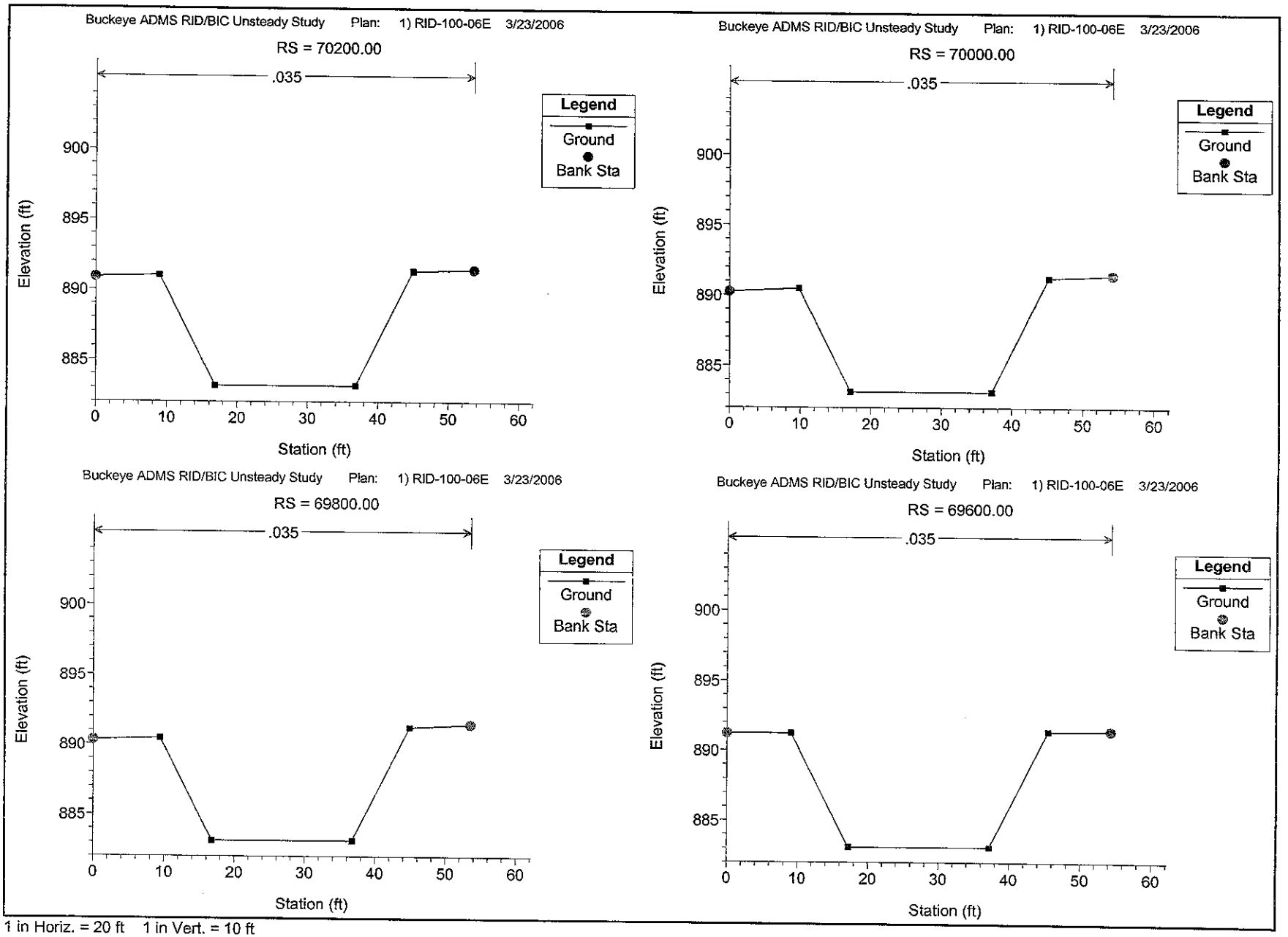
3.2.2 Buckeye Irrigation Canal Cross-Sections



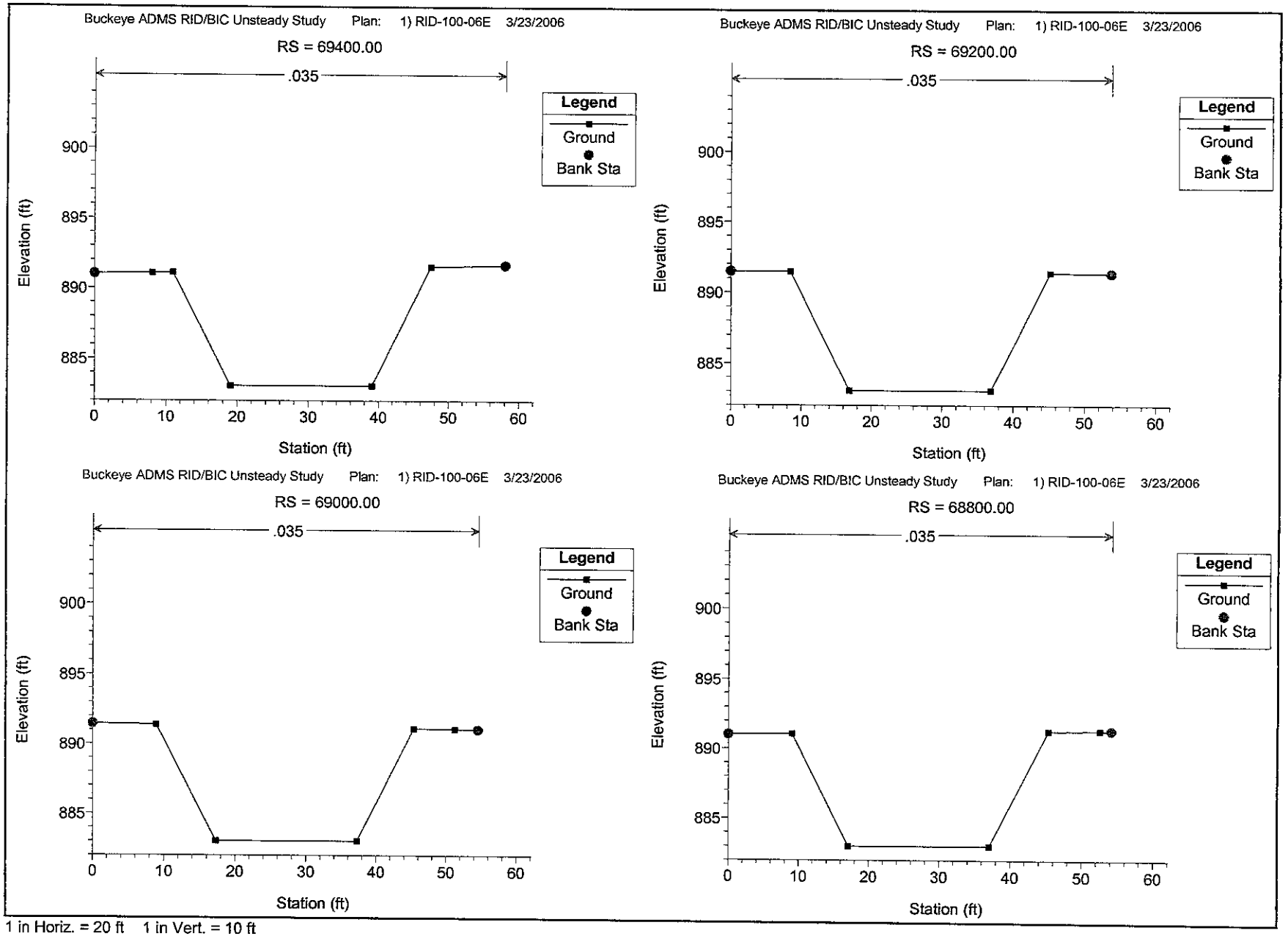
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



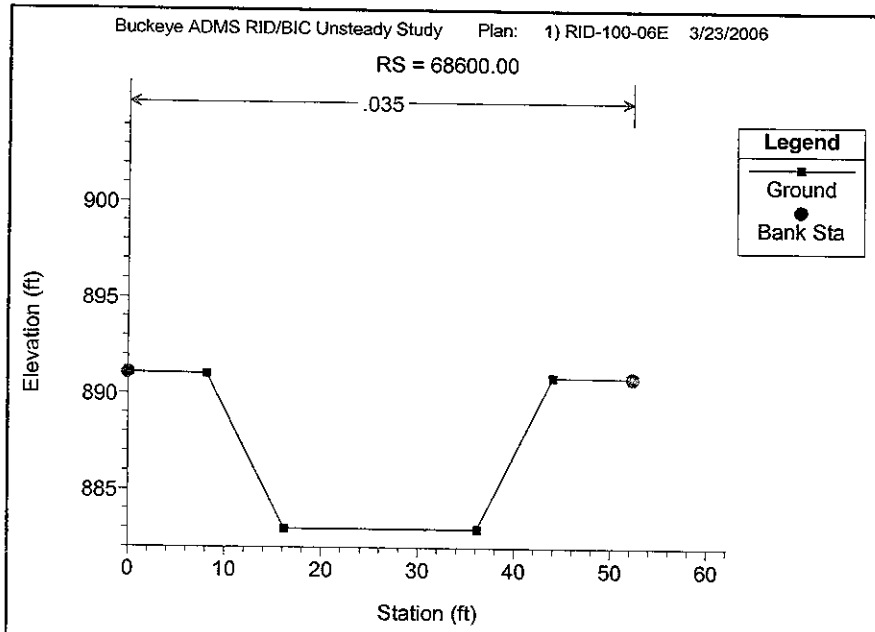
1 in Horiz. = 20 ft 1 in Vert. = 10 ft

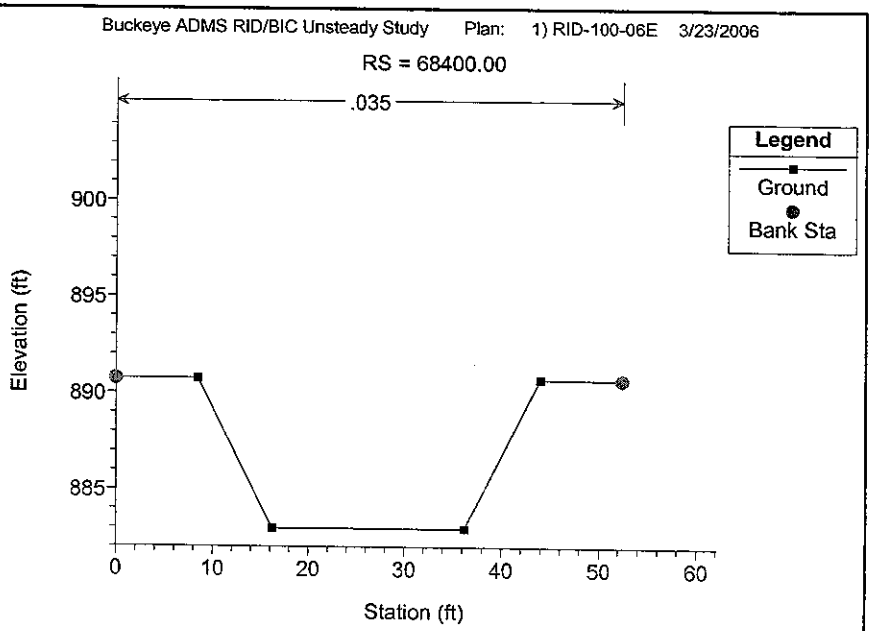


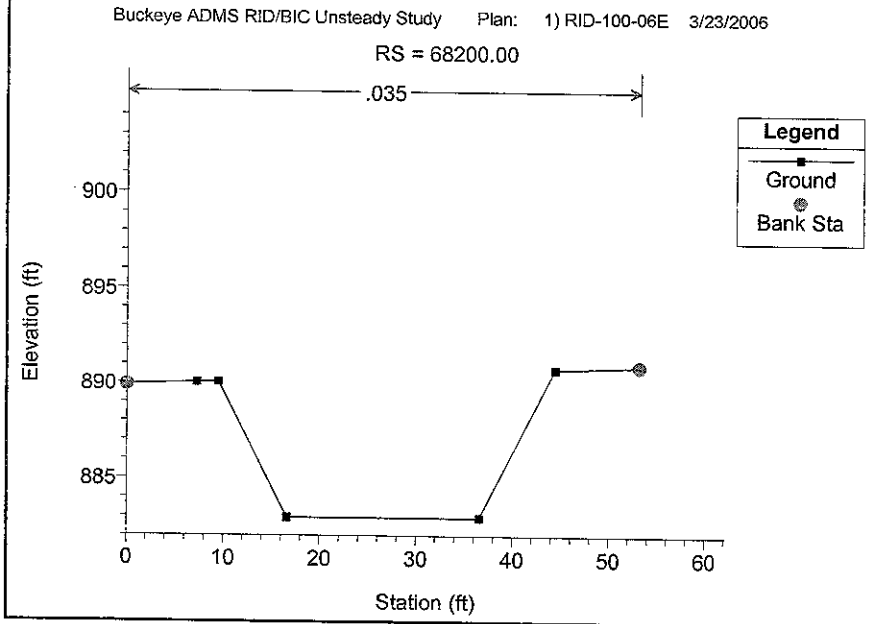
1 in Horiz. = 20 ft 1 in Vert. = 10 ft

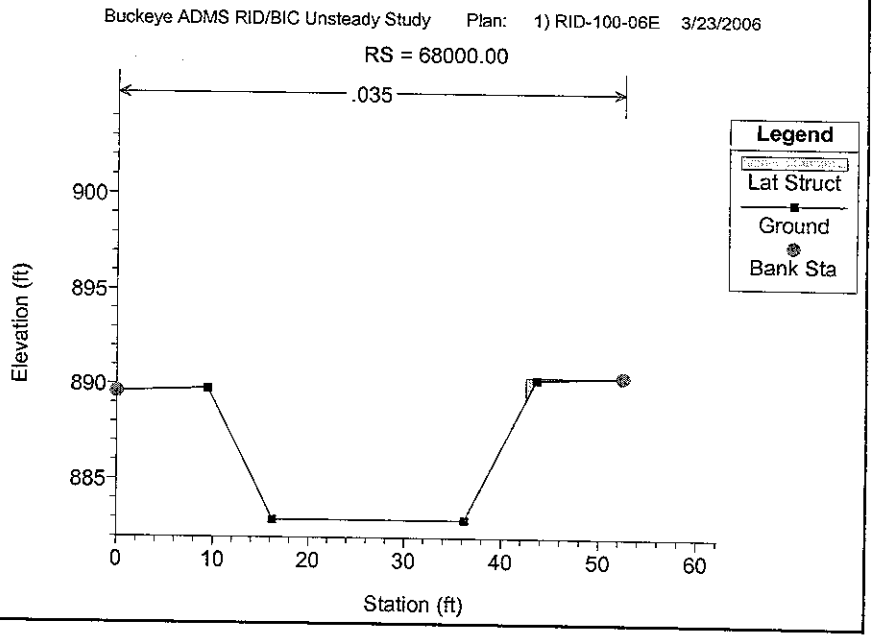


1 in Horiz. = 20 ft 1 in Vert. = 10 ft





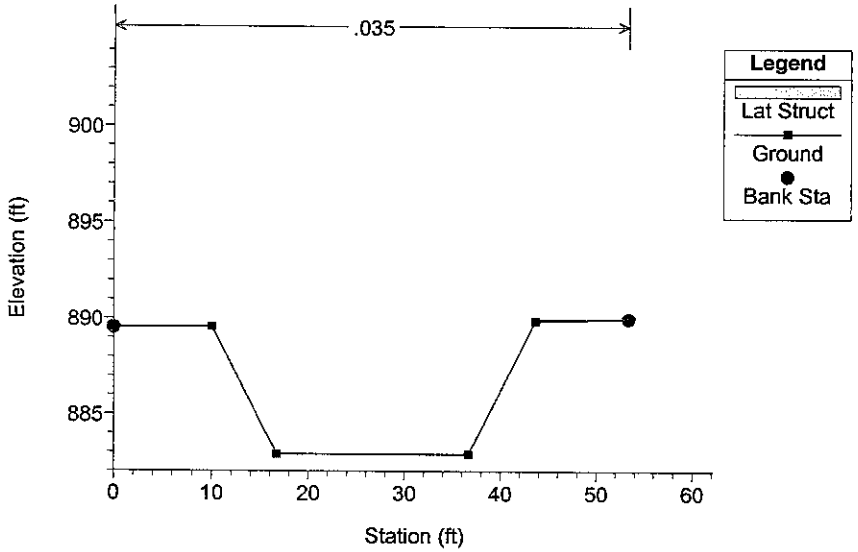




1 in Horiz. = 20 ft 1 in Vert. = 10 ft

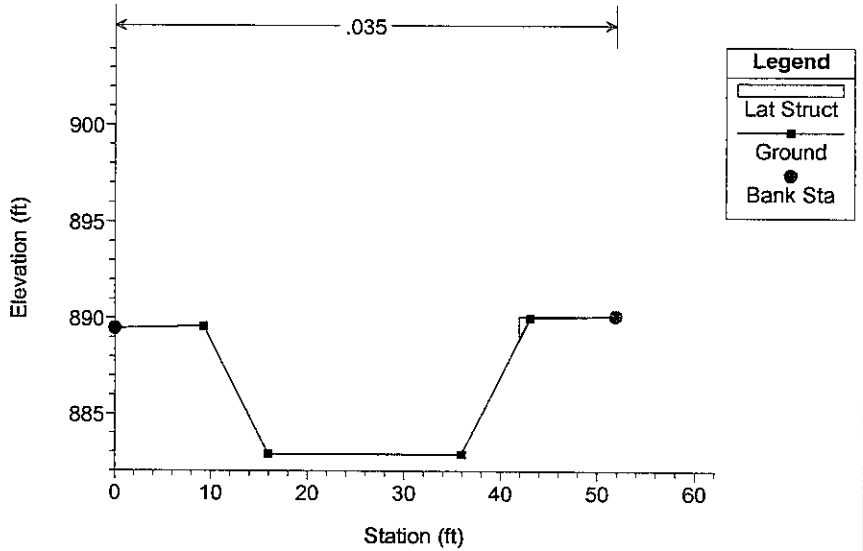
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 67800.00



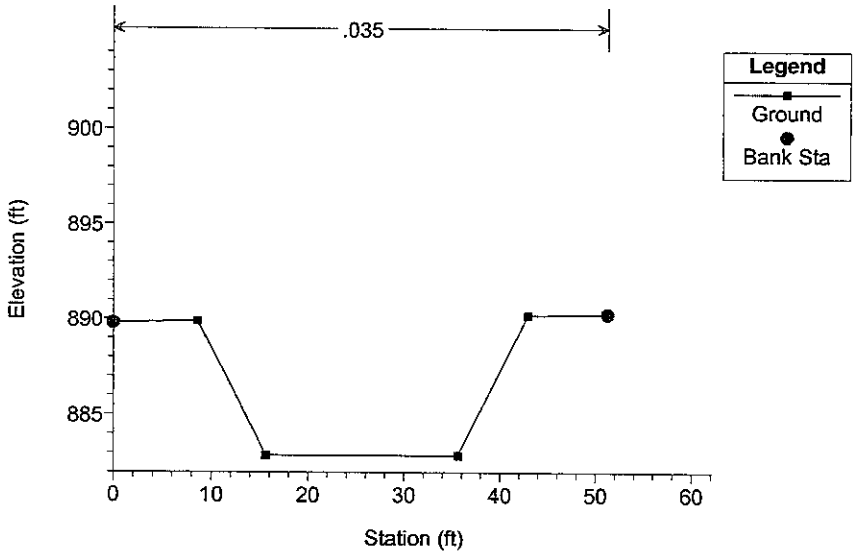
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 67600.00



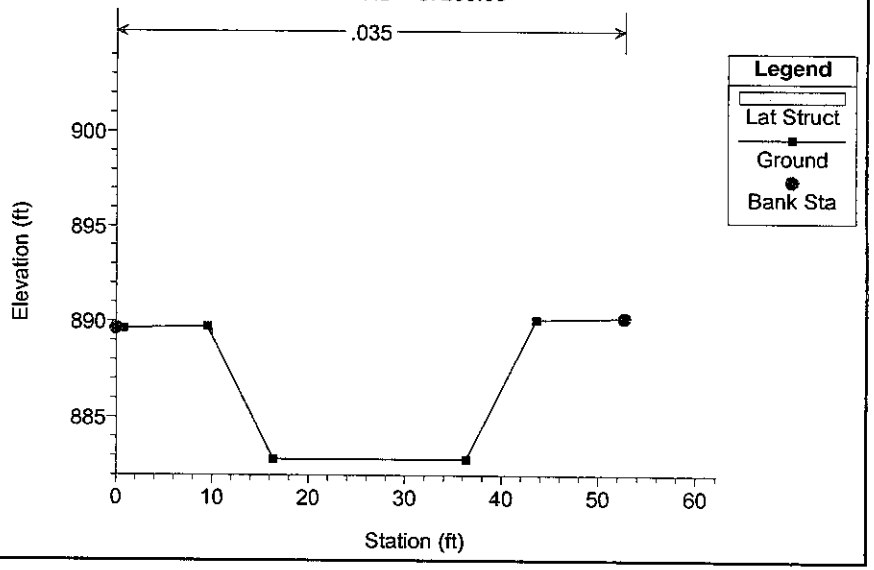
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 67400.00

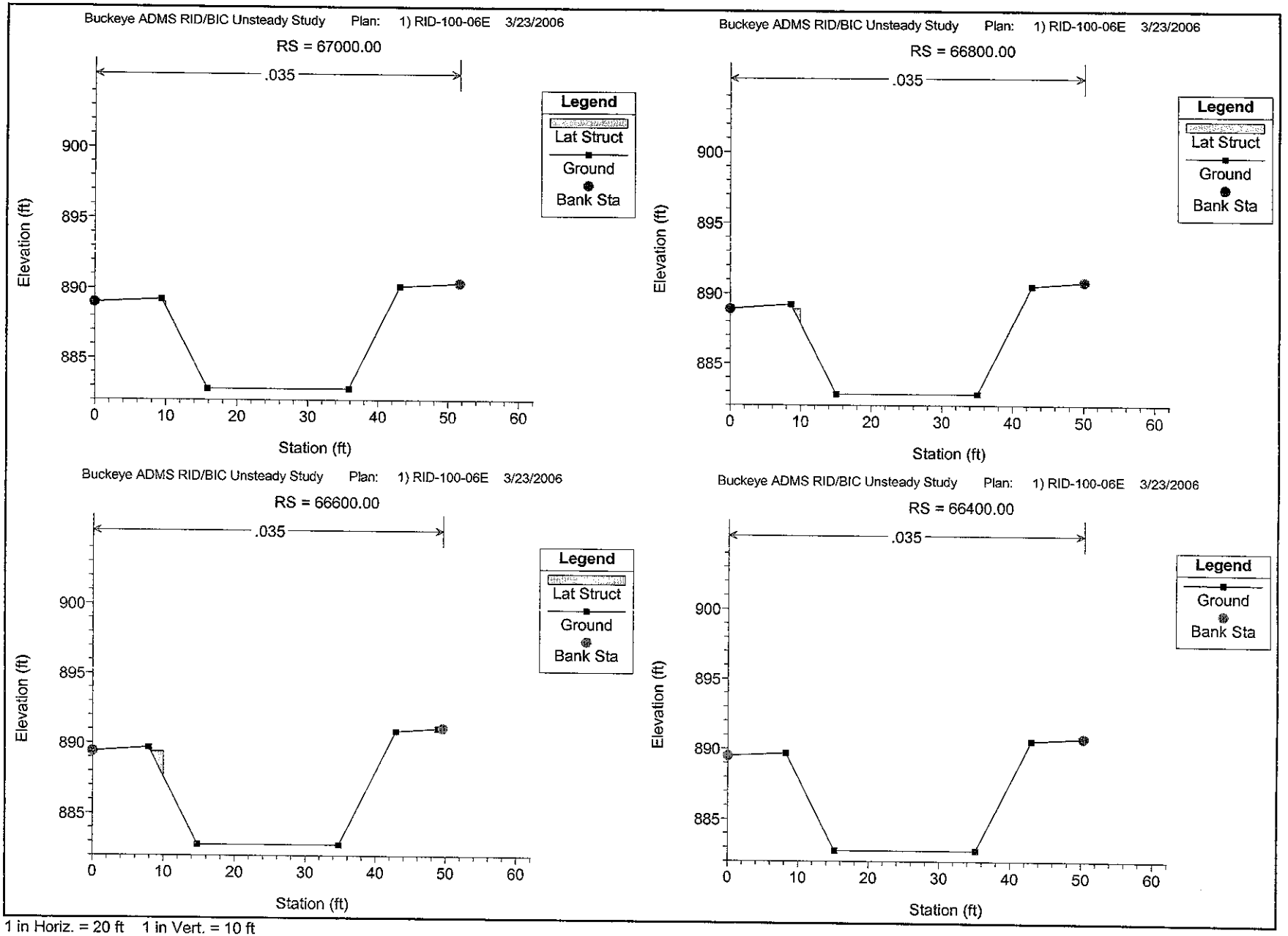


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

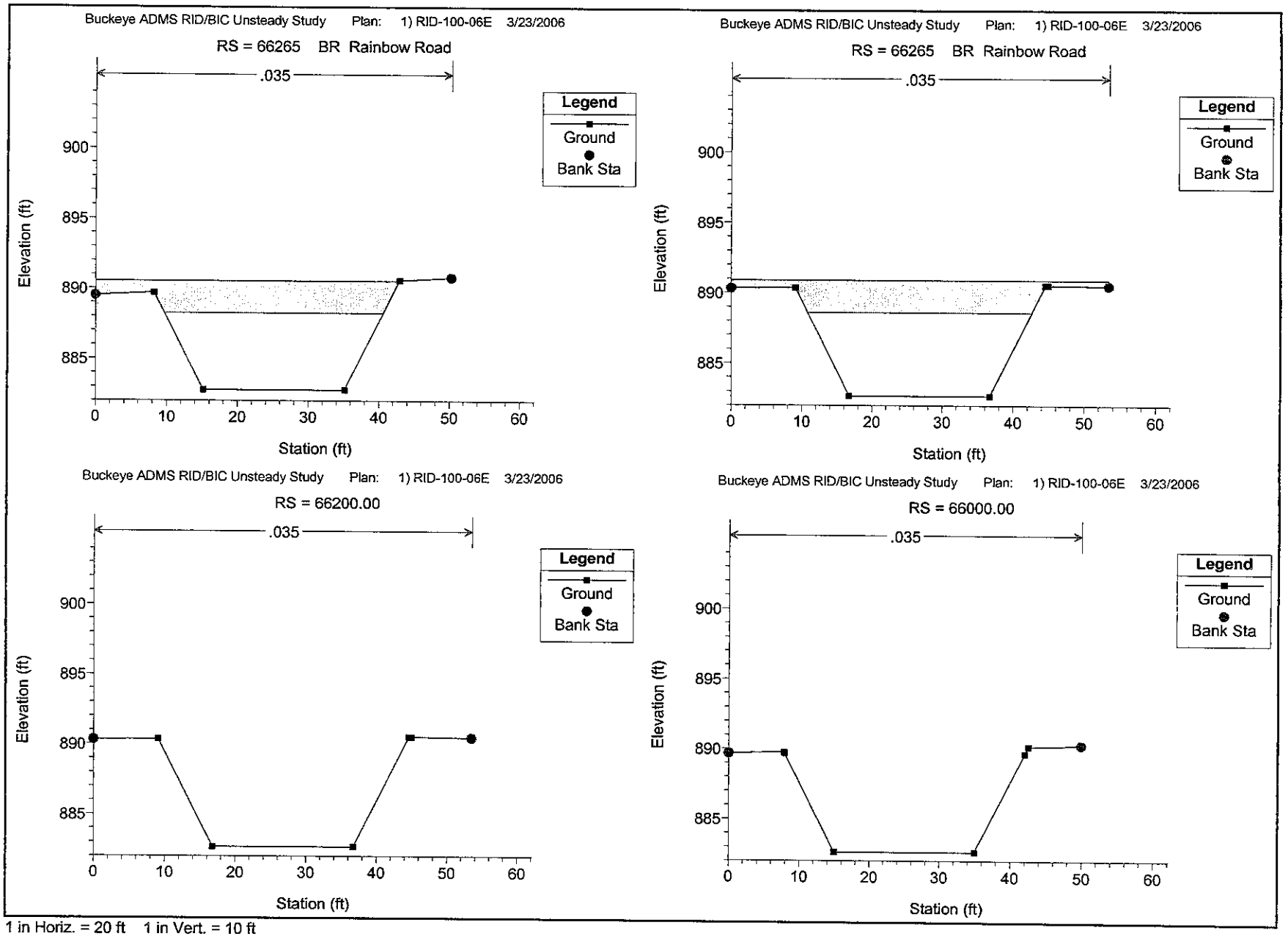
RS = 67200.00



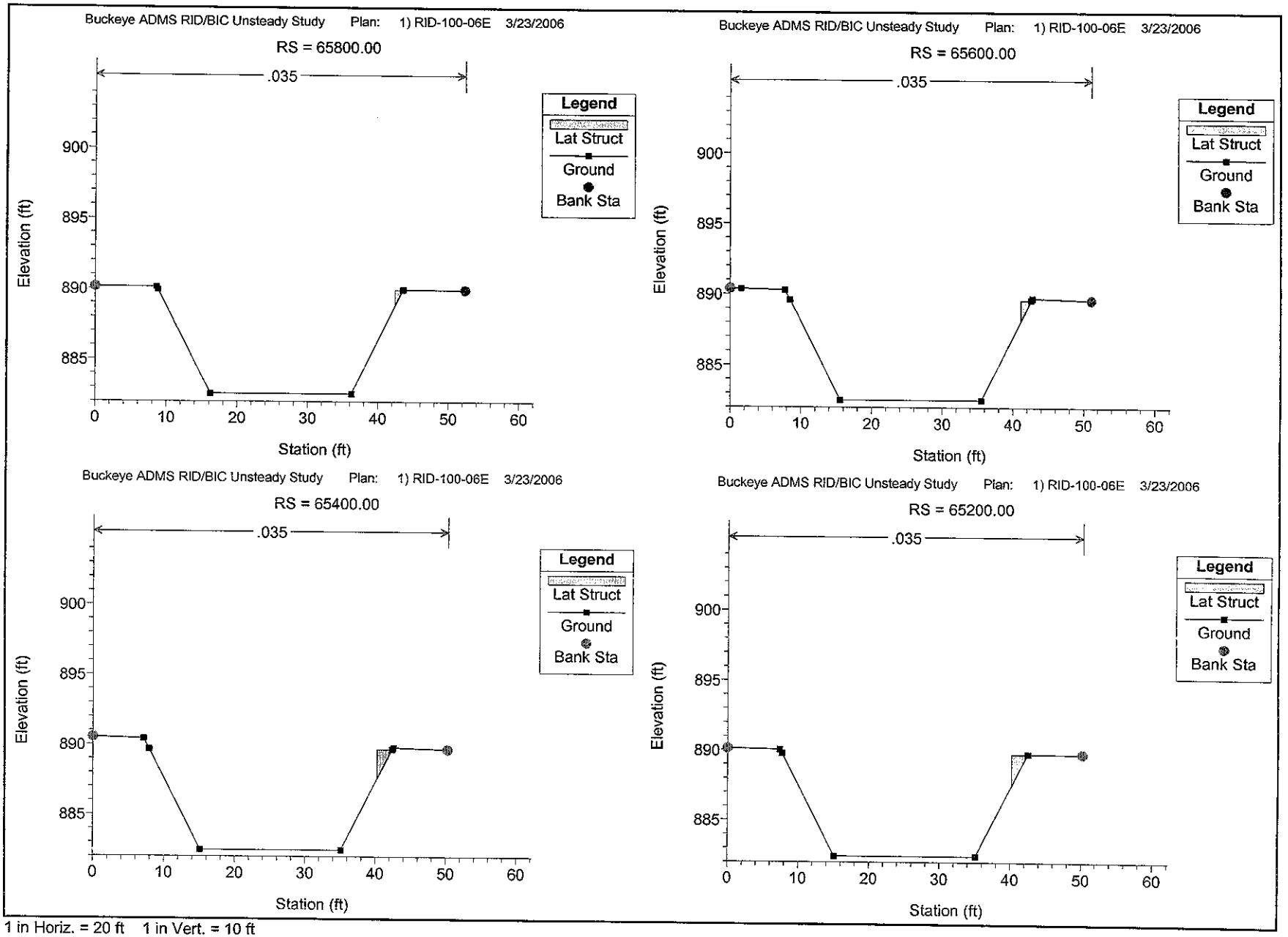
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



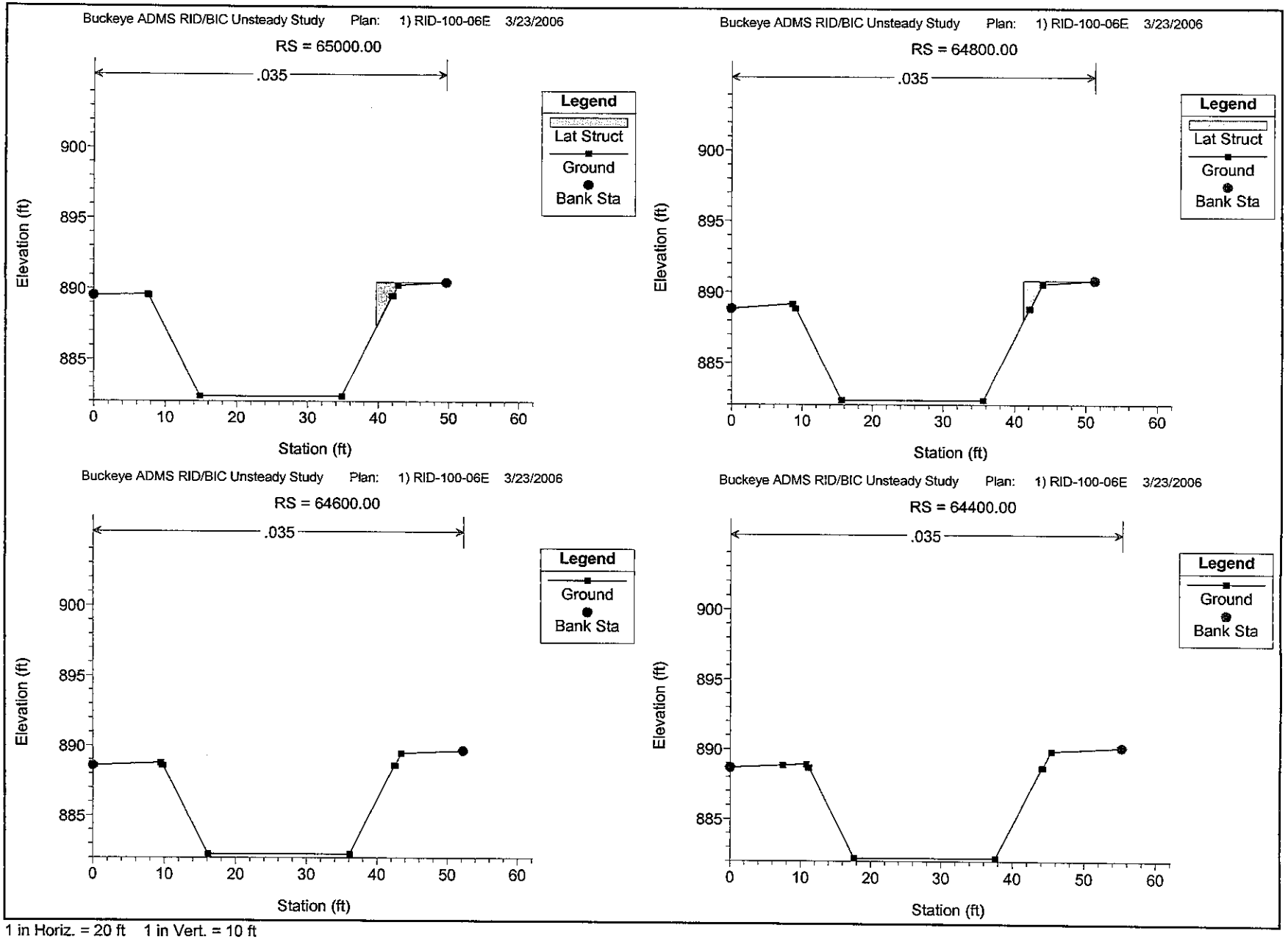
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



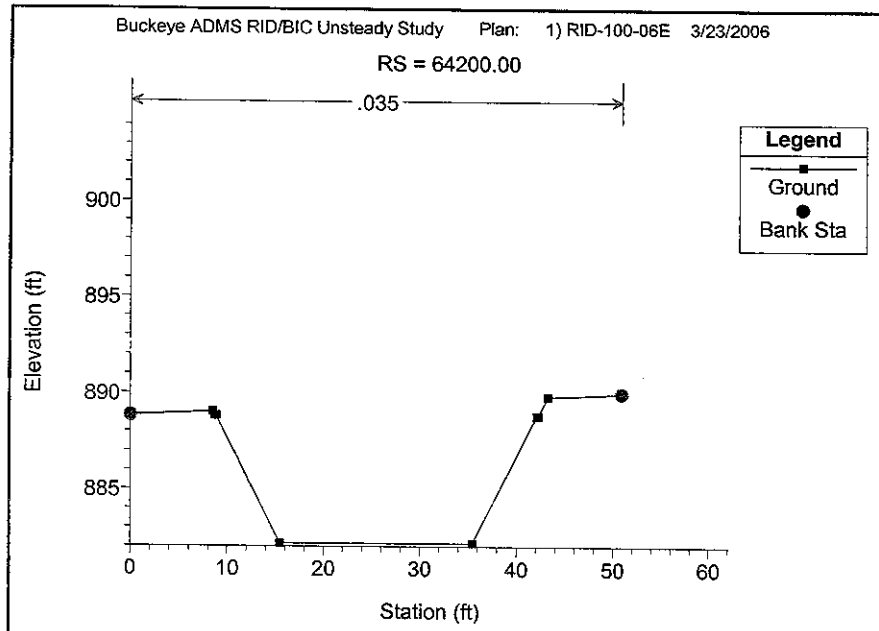
1 in Horiz. = 20 ft 1 in Vert. = 10 ft

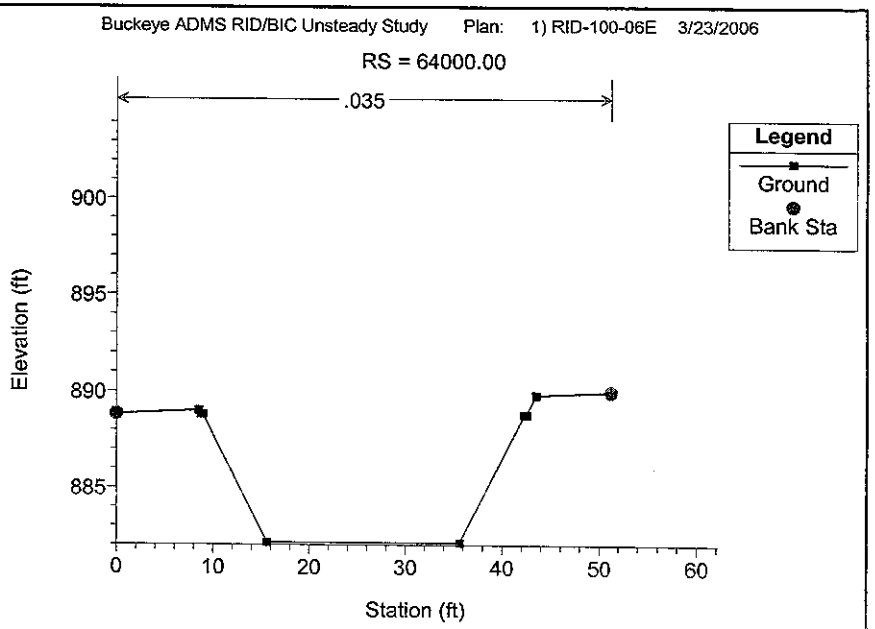


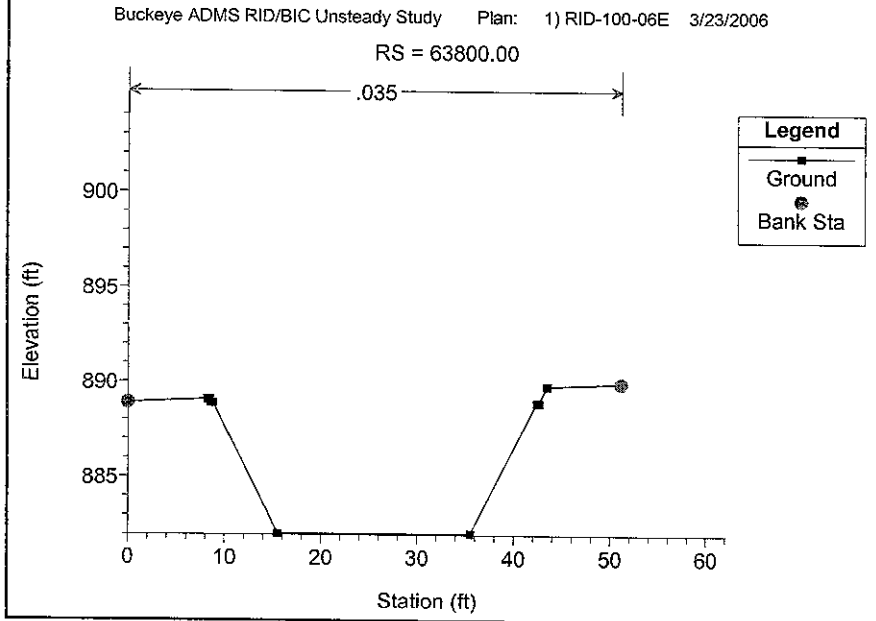
1 in Horiz. = 20 ft 1 in Vert. = 10 ft

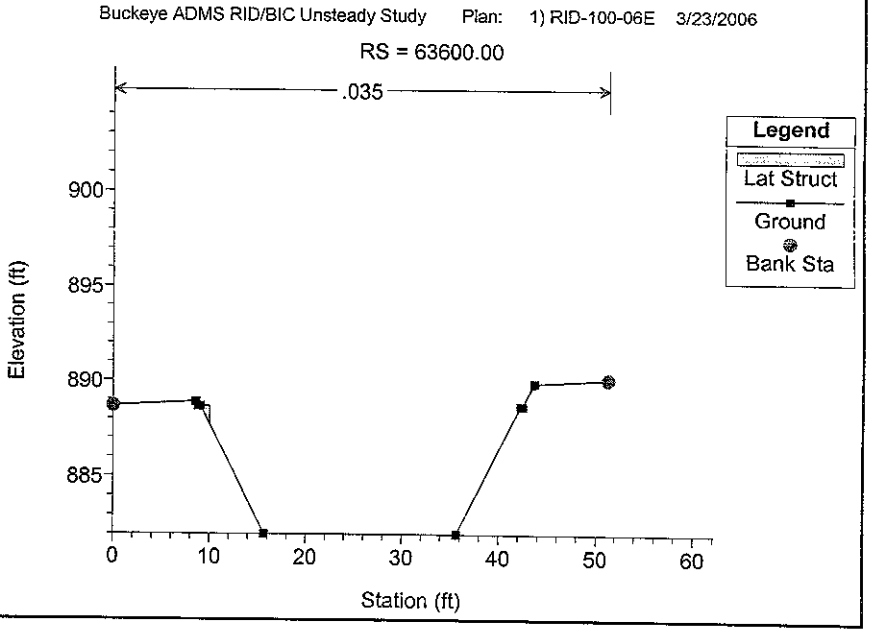


1 in Horiz. = 20 ft 1 in Vert. = 10 ft





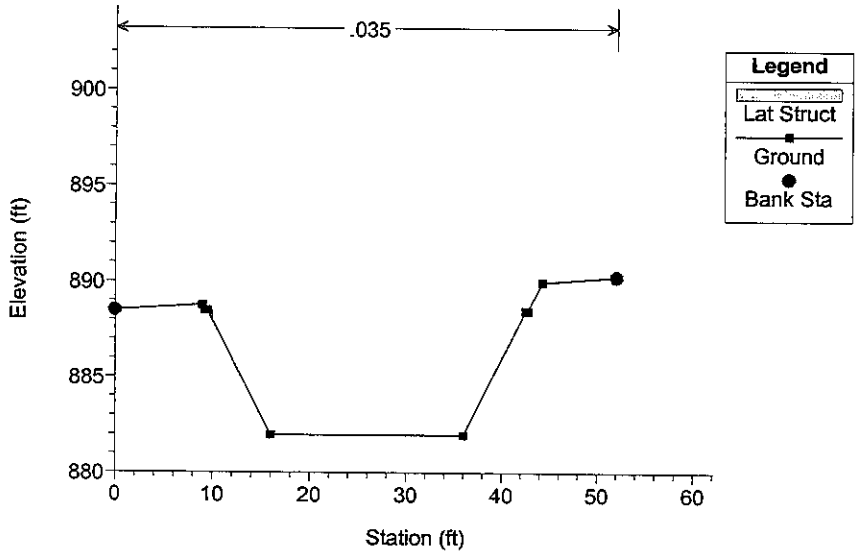




1 in Horiz. = 20 ft 1 in Vert. = 10 ft

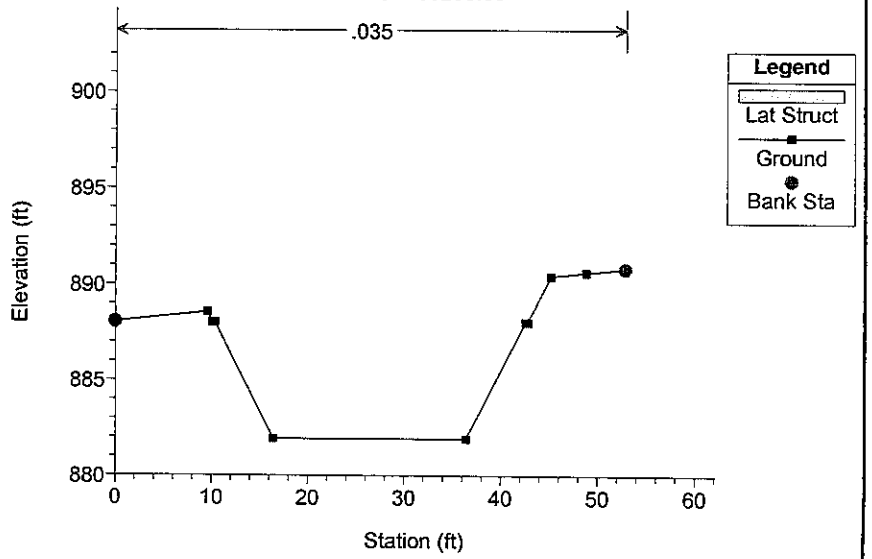
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 63400.00



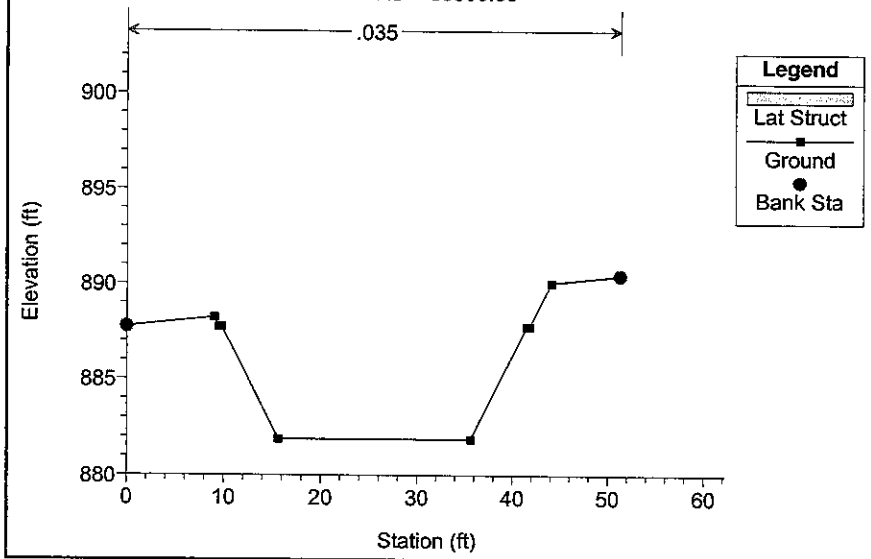
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 63200.00



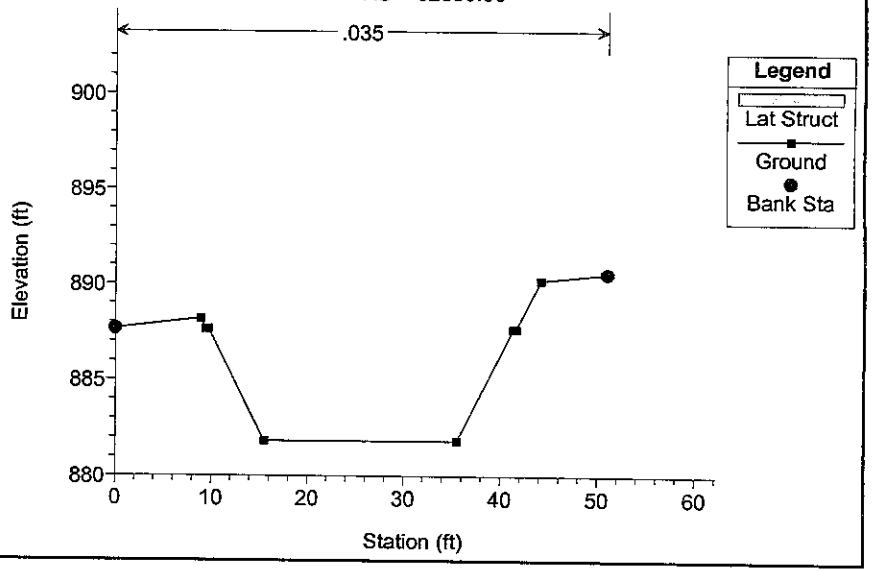
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 63000.00

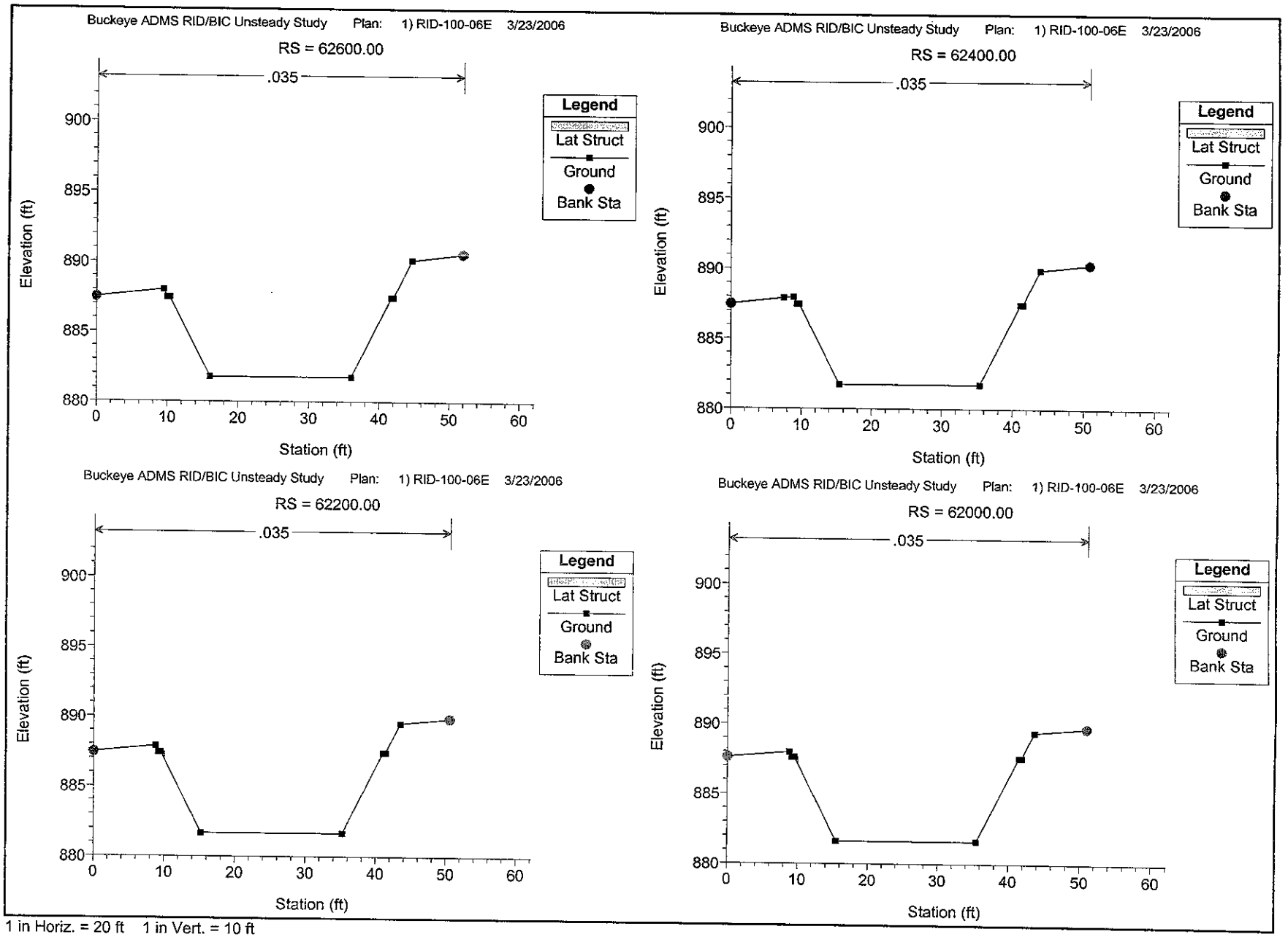


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

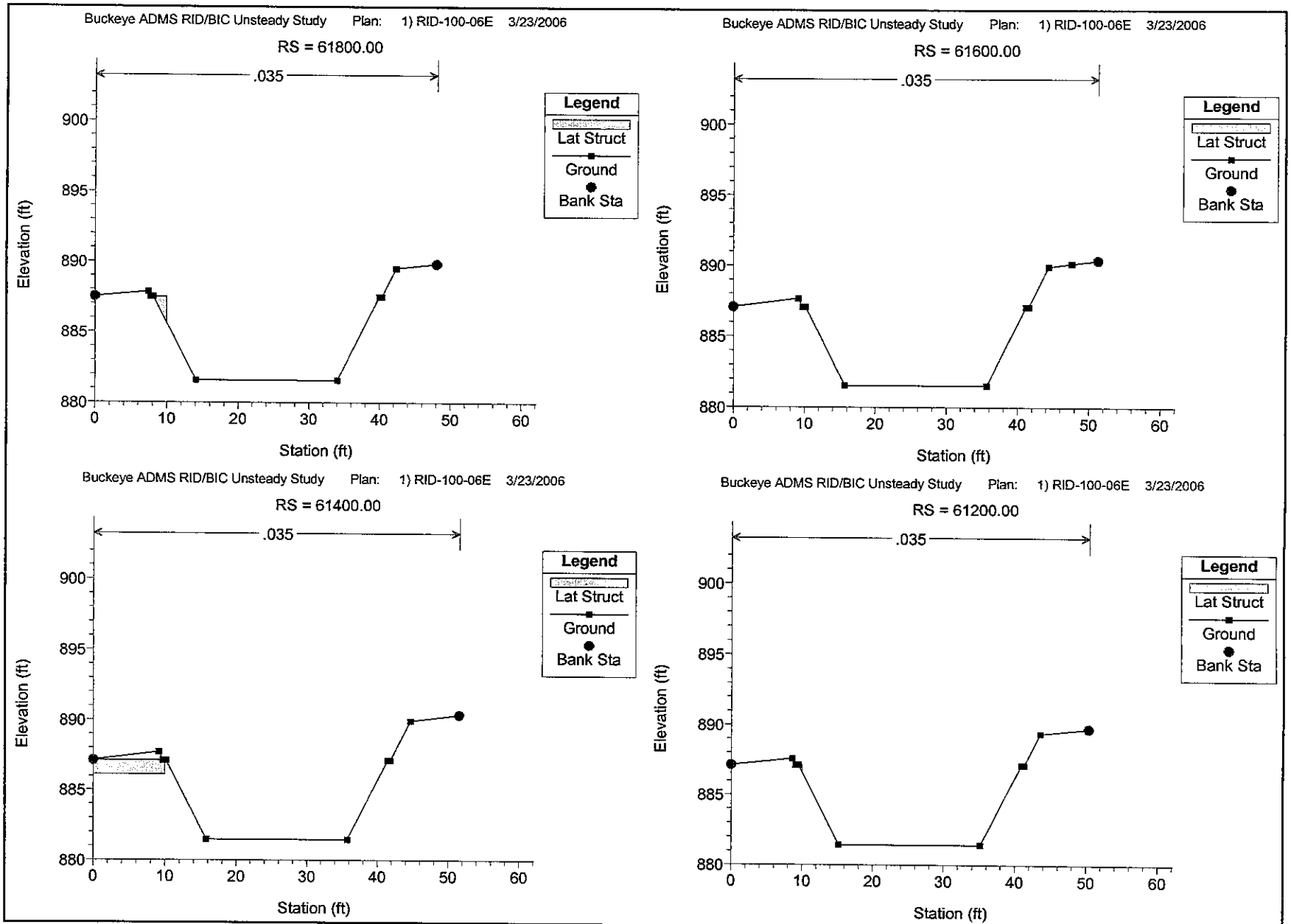
RS = 62800.00



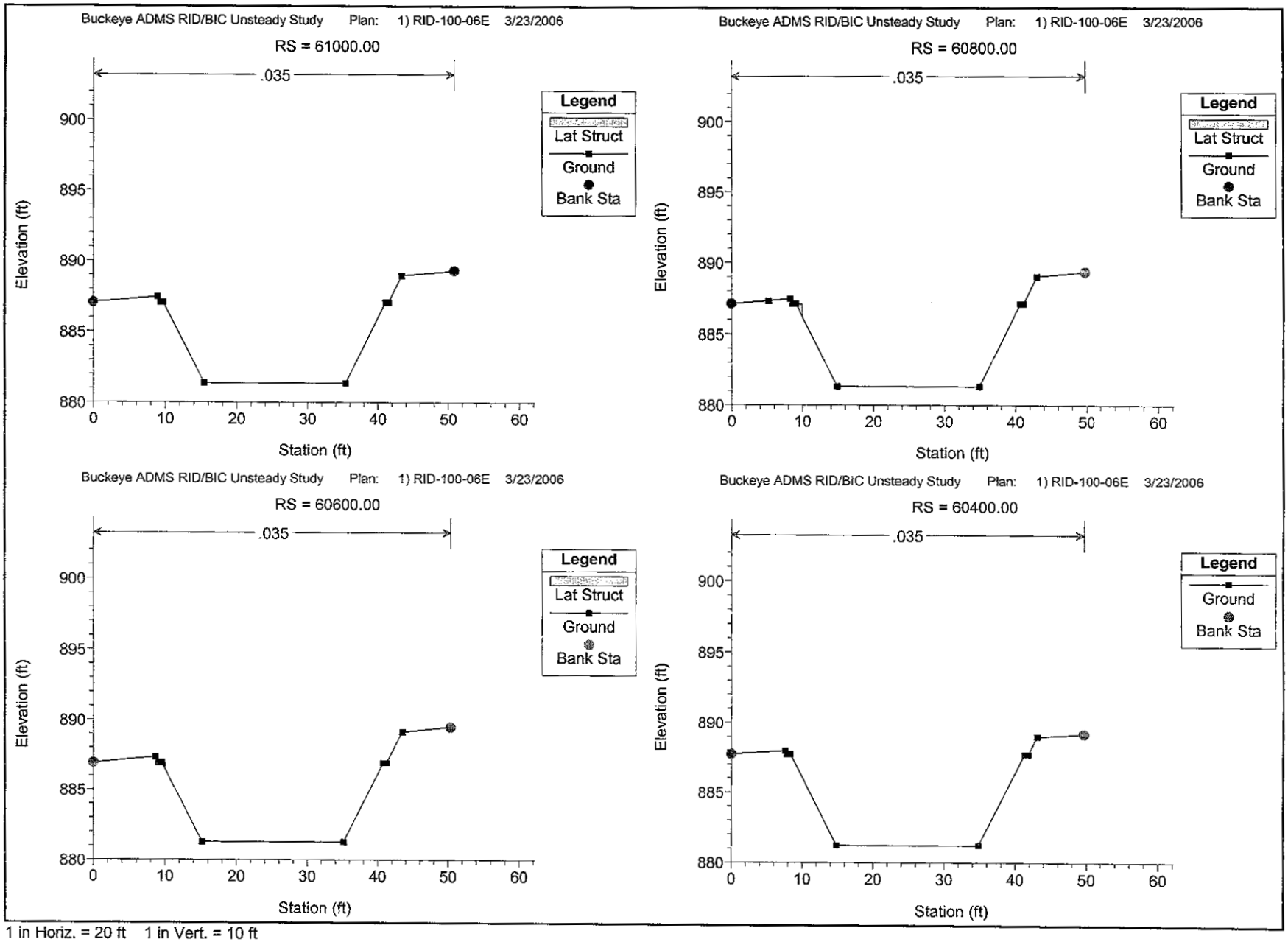
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



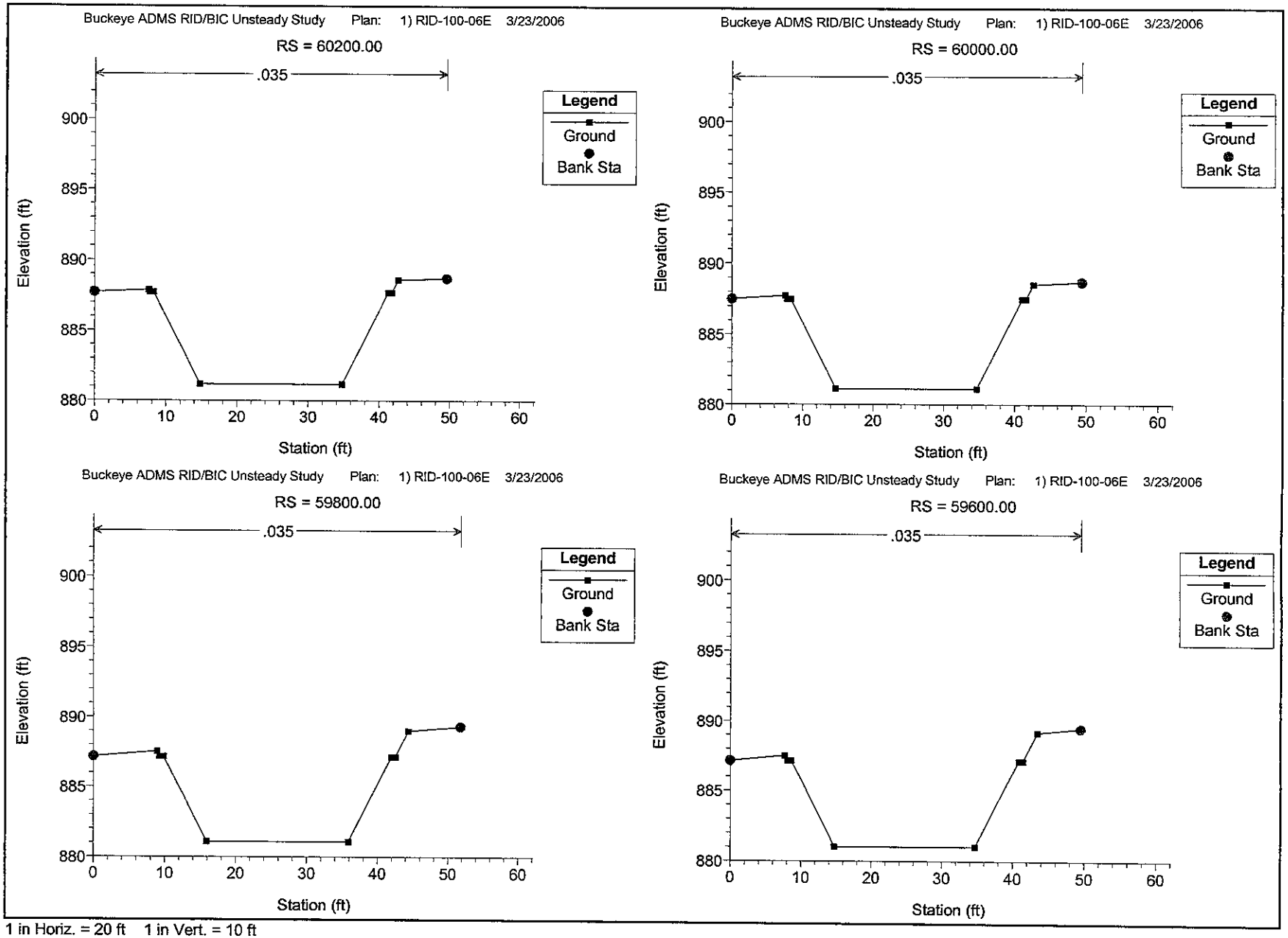
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



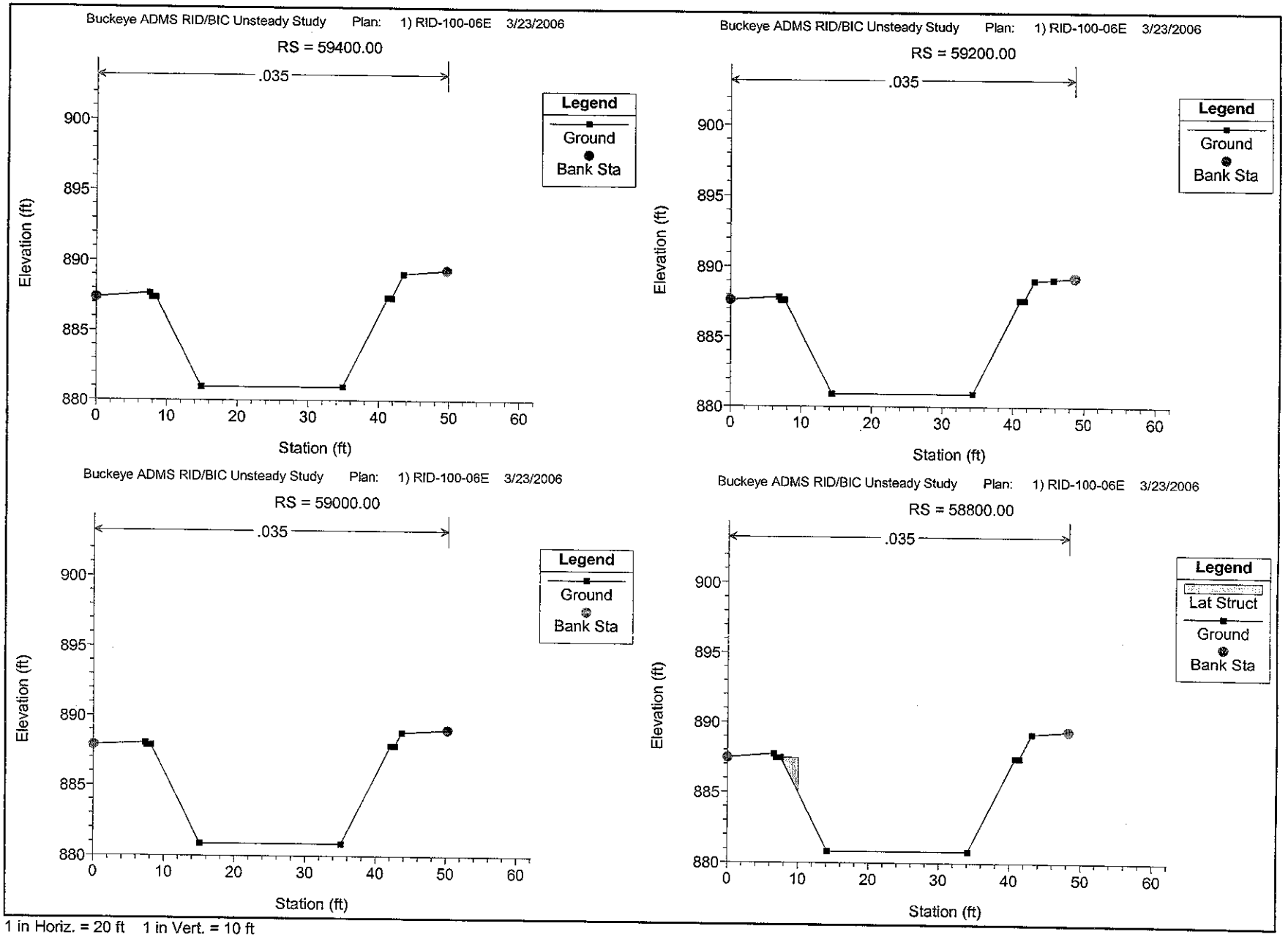
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



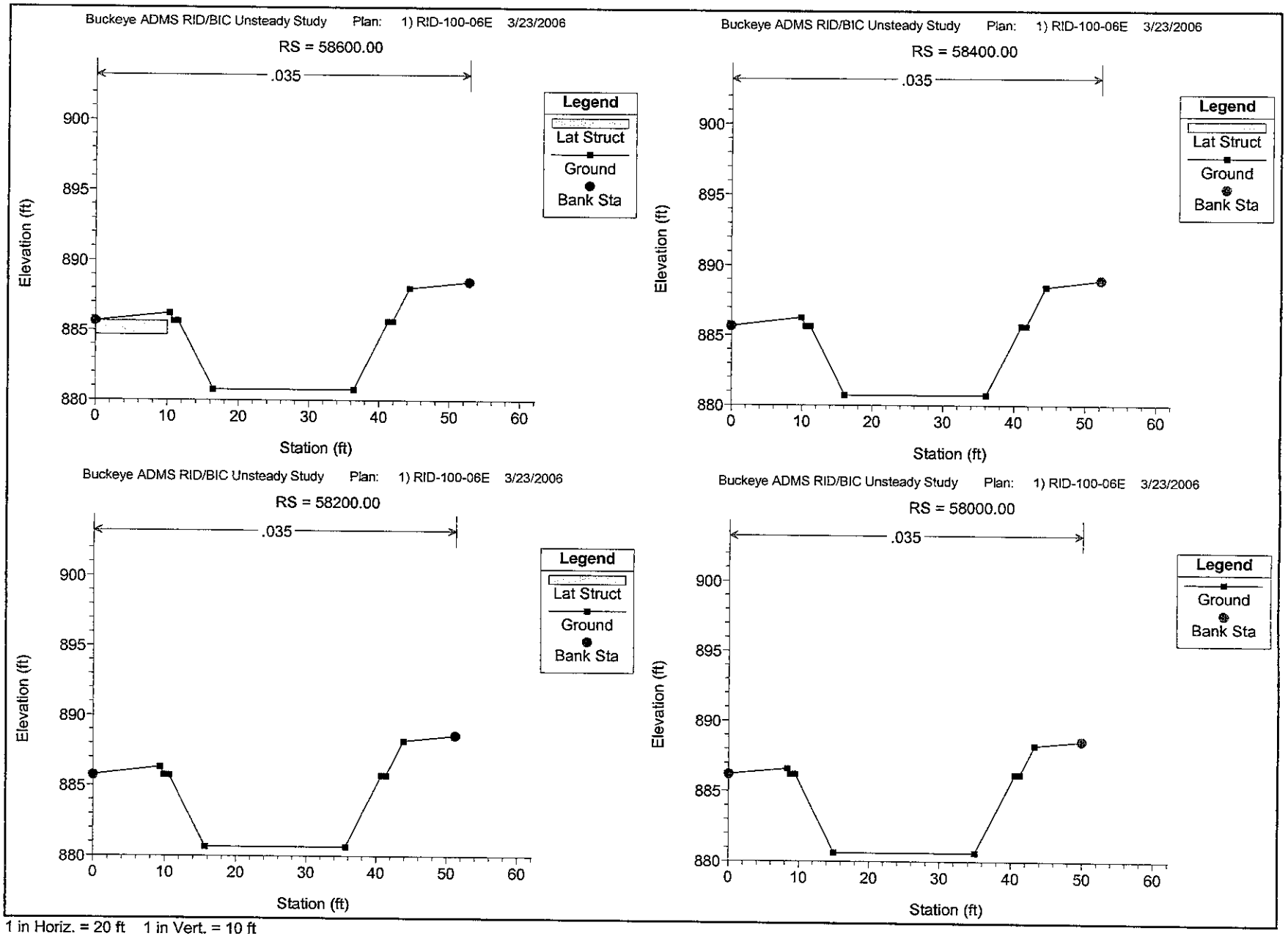
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



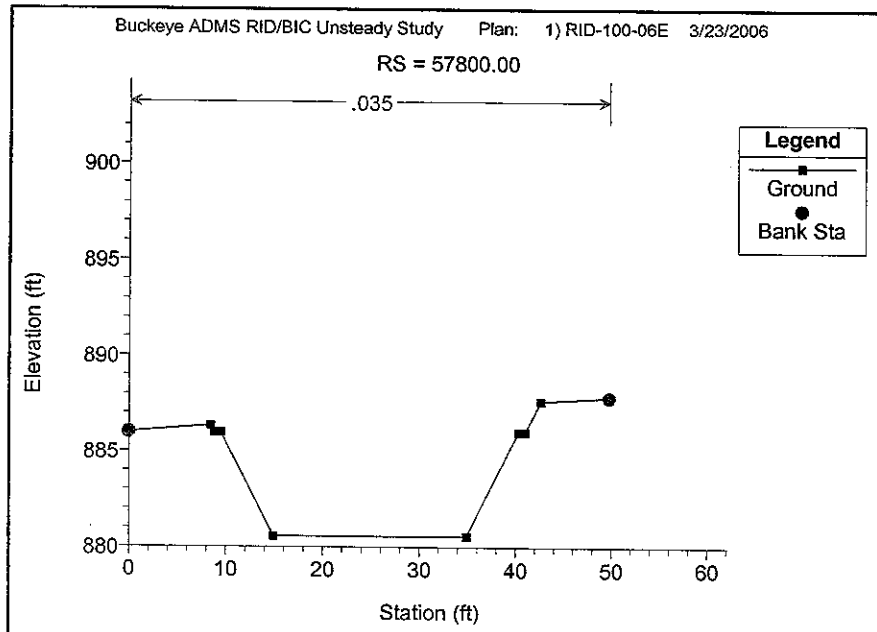
1 in Horiz. = 20 ft 1 in Vert. = 10 ft

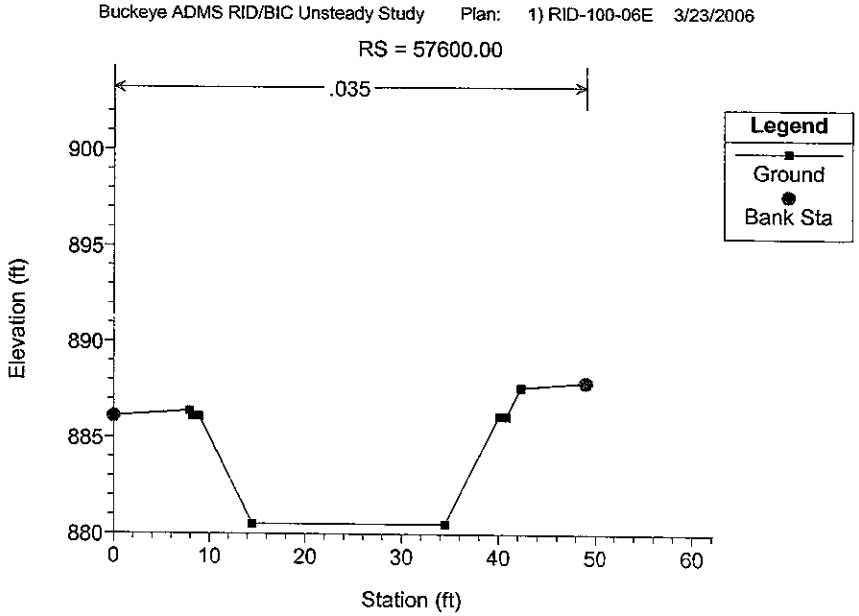


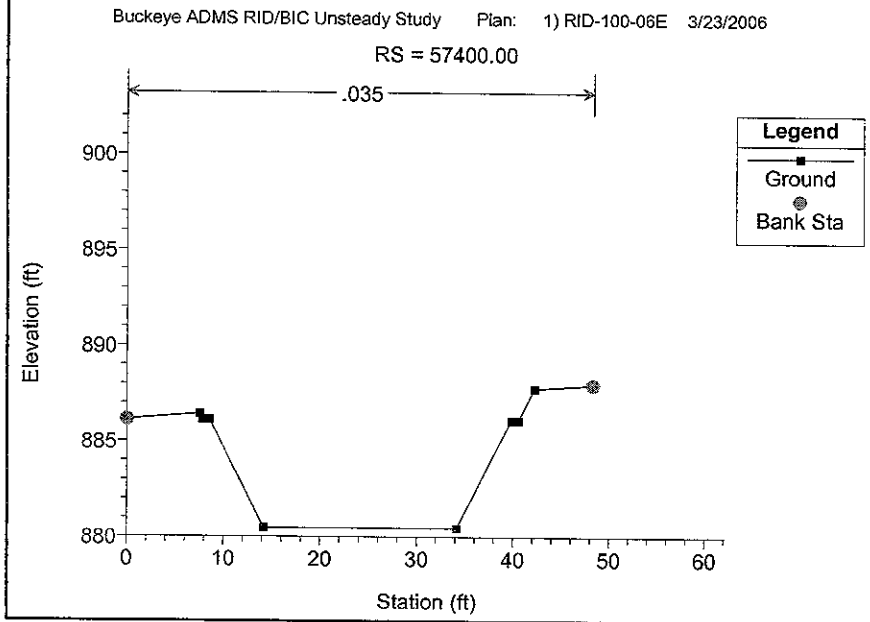
1 in Horiz. = 20 ft 1 in Vert. = 10 ft

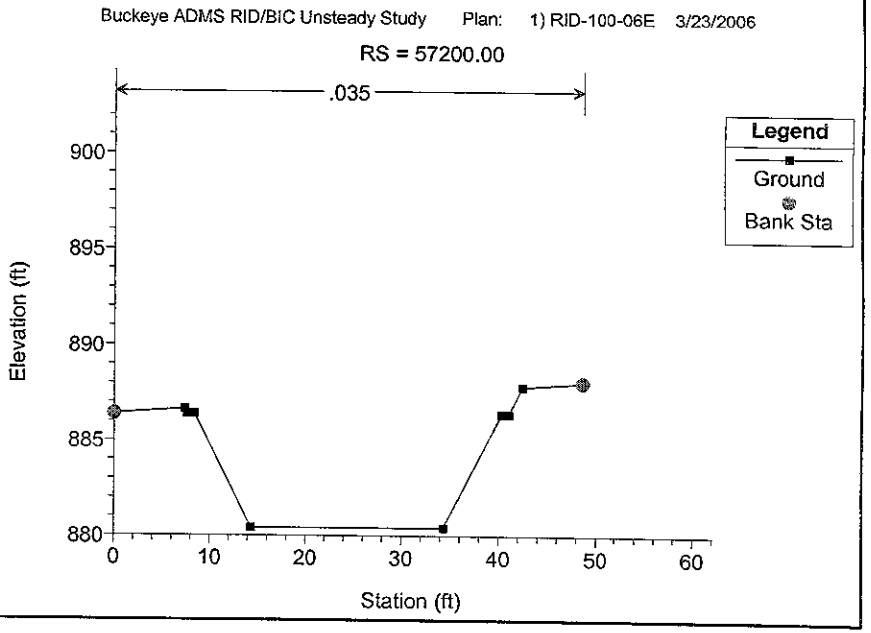


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

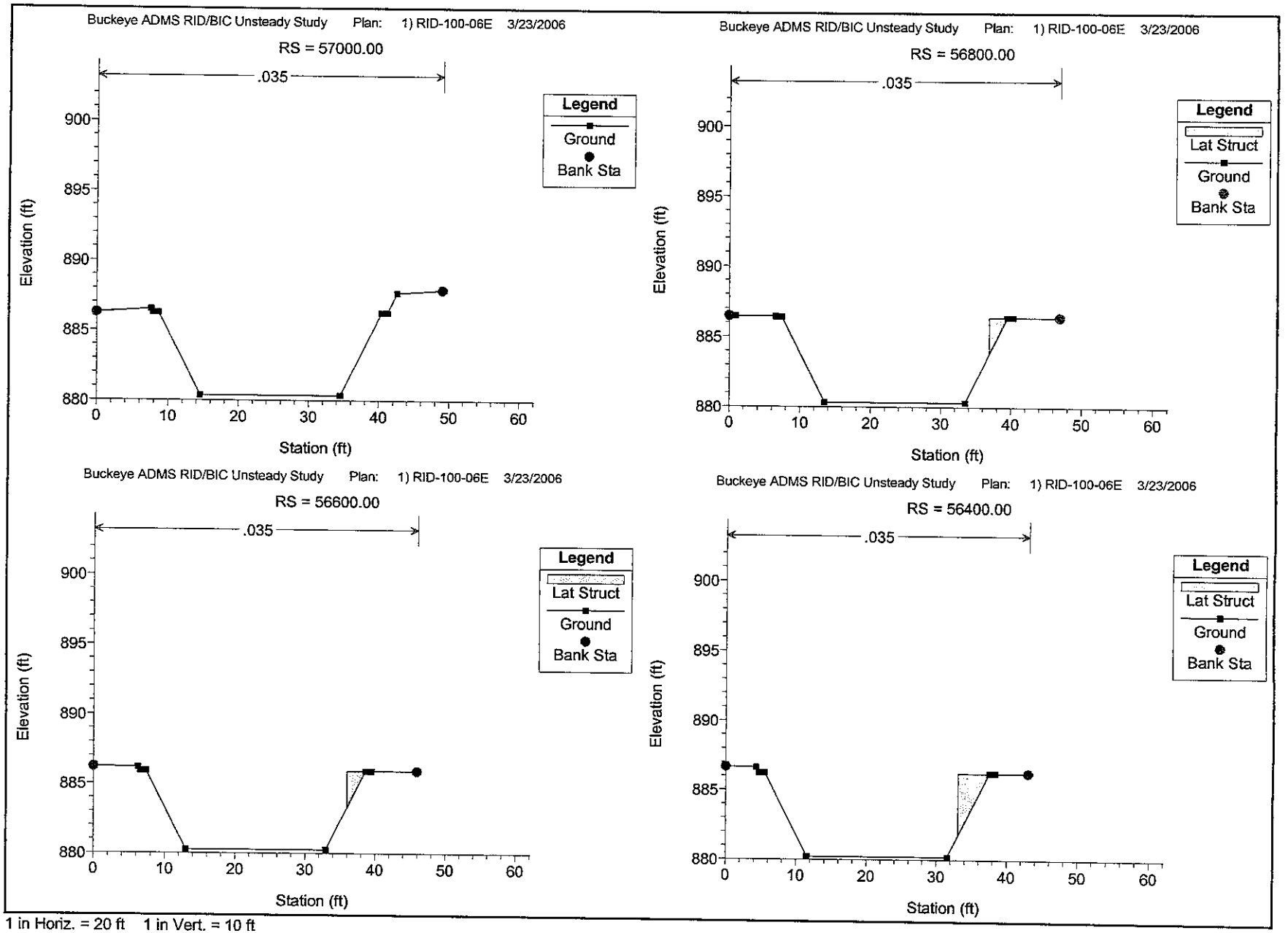




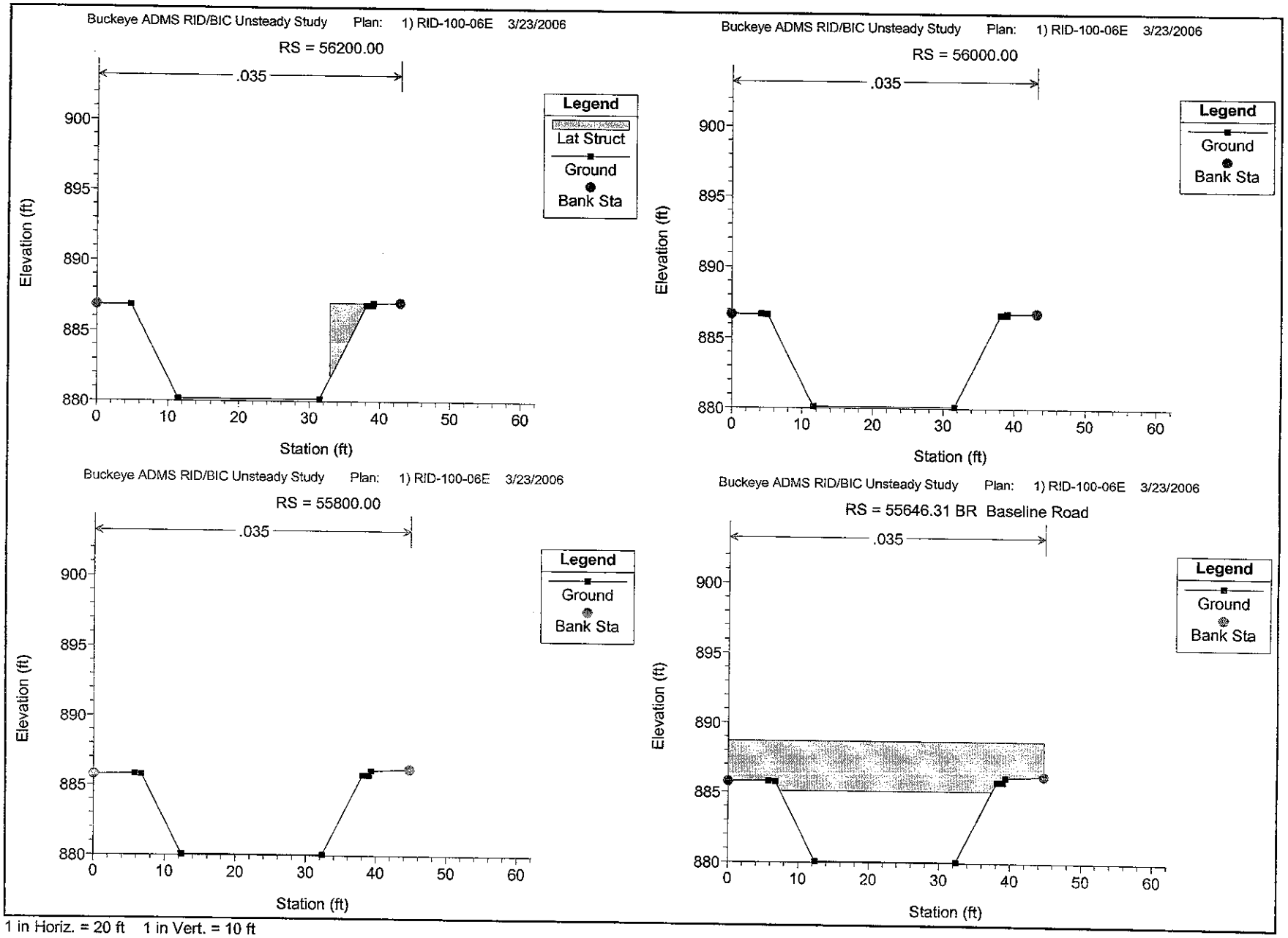




1 in Horiz. = 20 ft 1 in Vert. = 10 ft



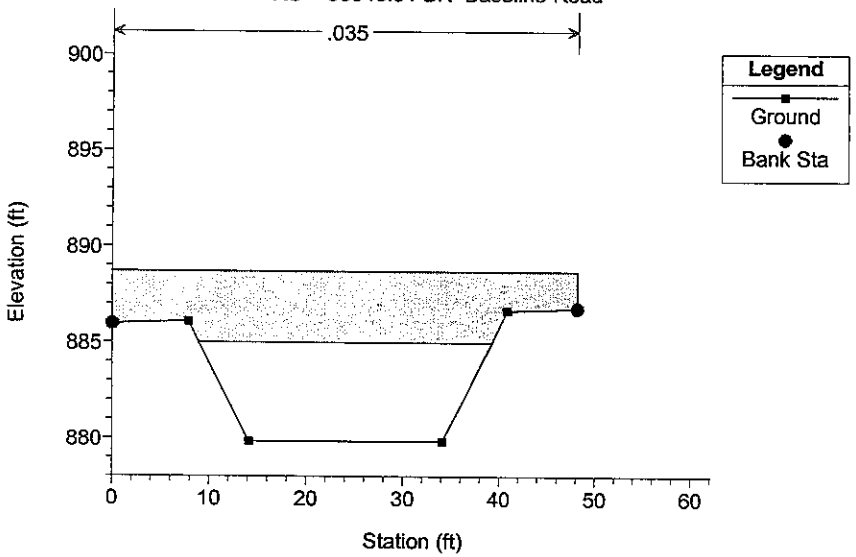
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

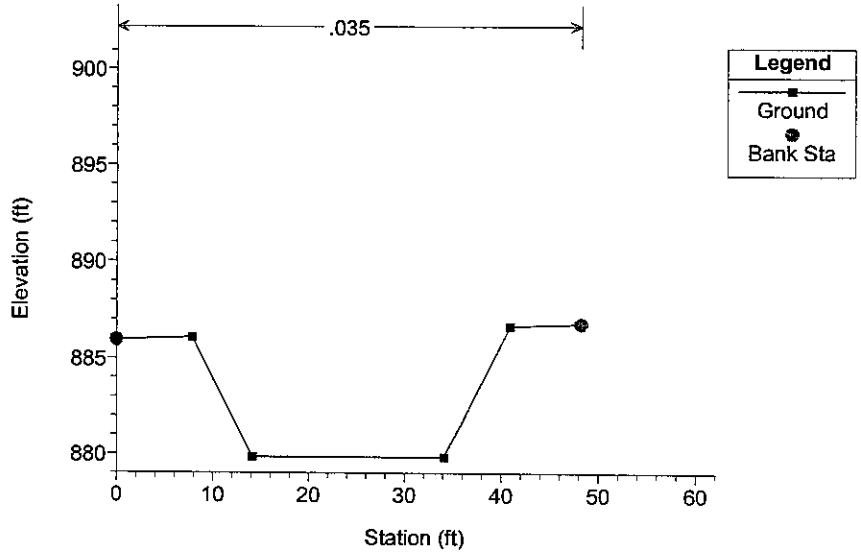
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 55646.31 BR Baseline Road



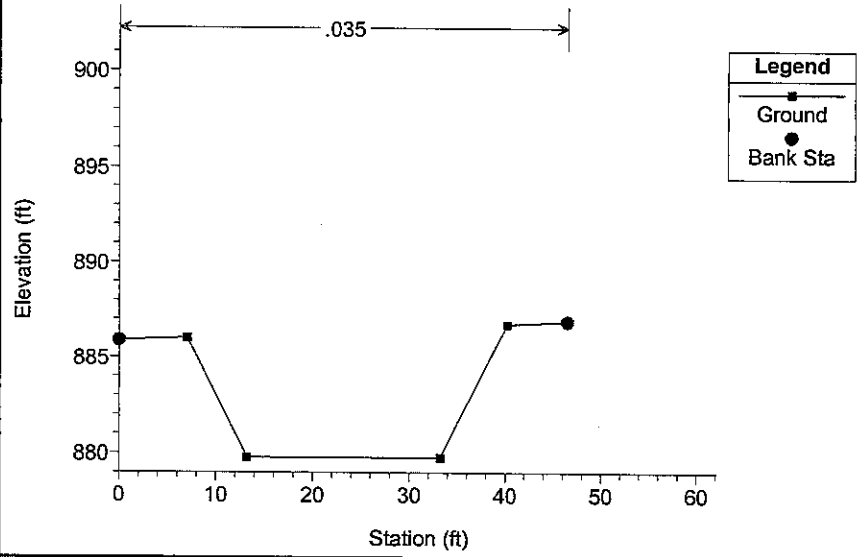
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 55400.00



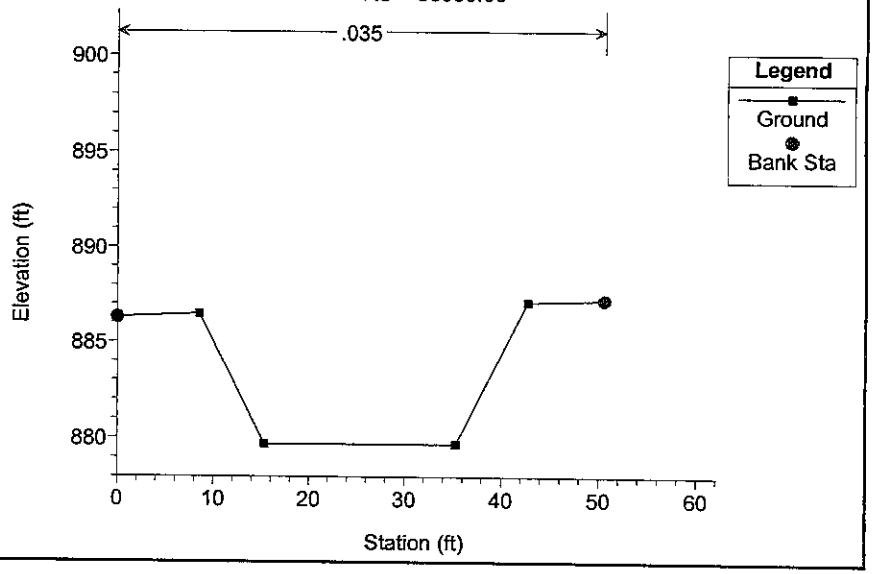
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 55200.00



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

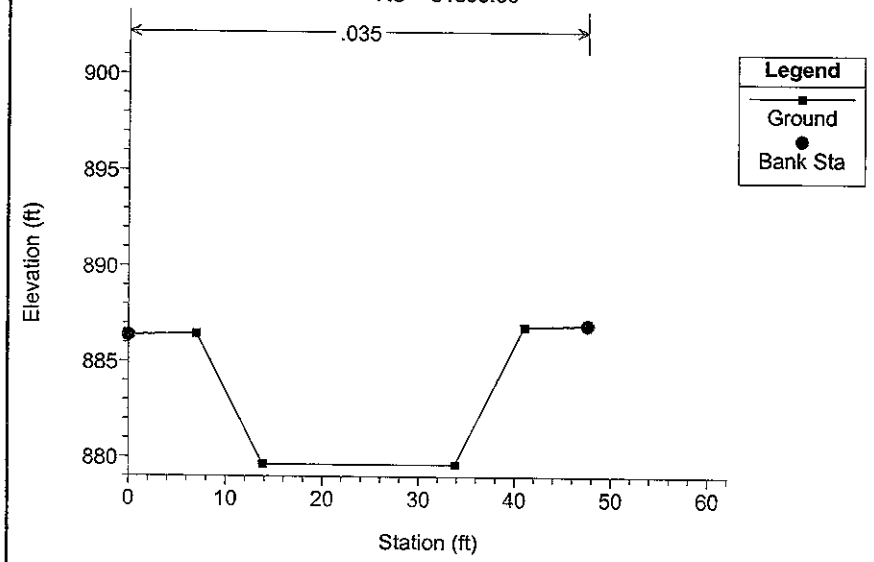
RS = 55000.00



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

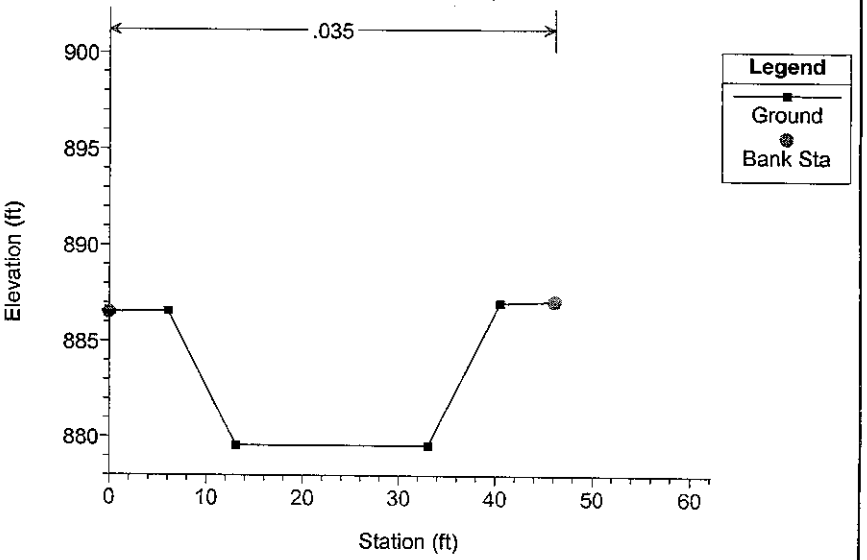
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 54800.00



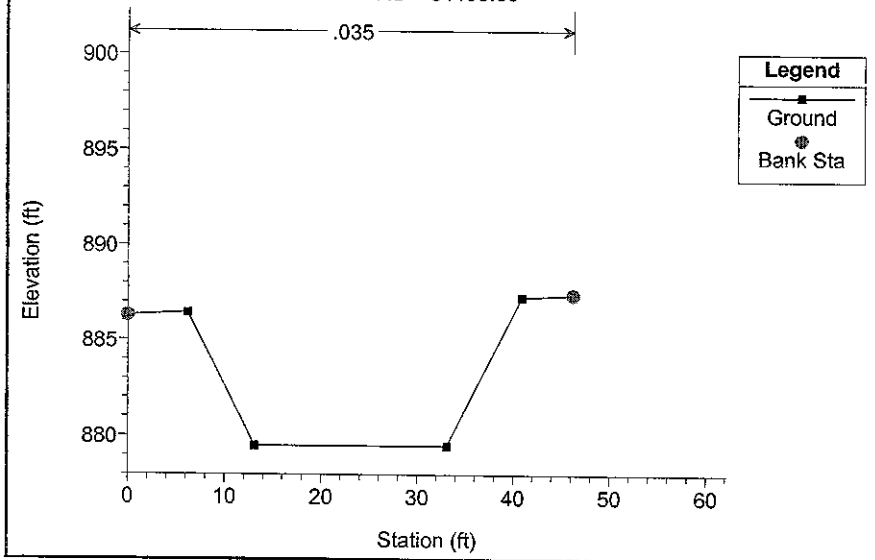
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 54600.00



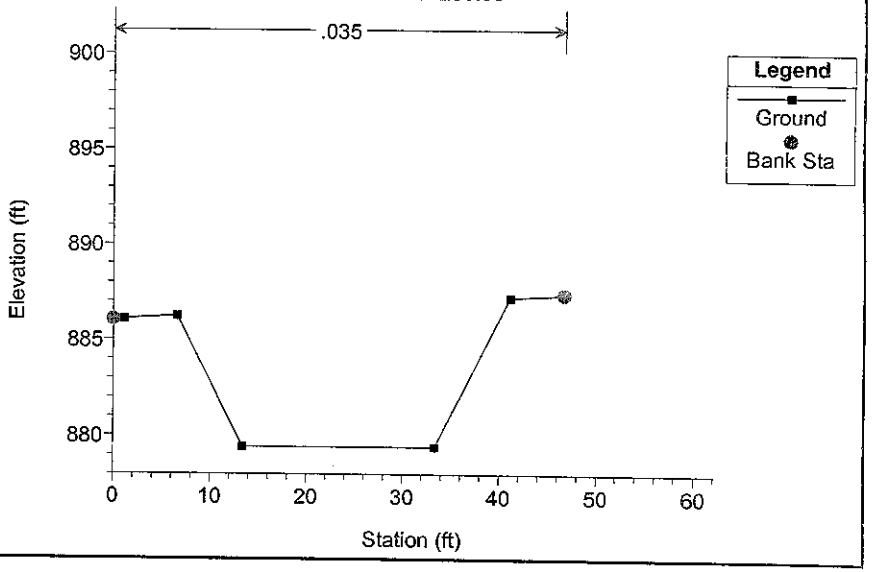
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 54400.00



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

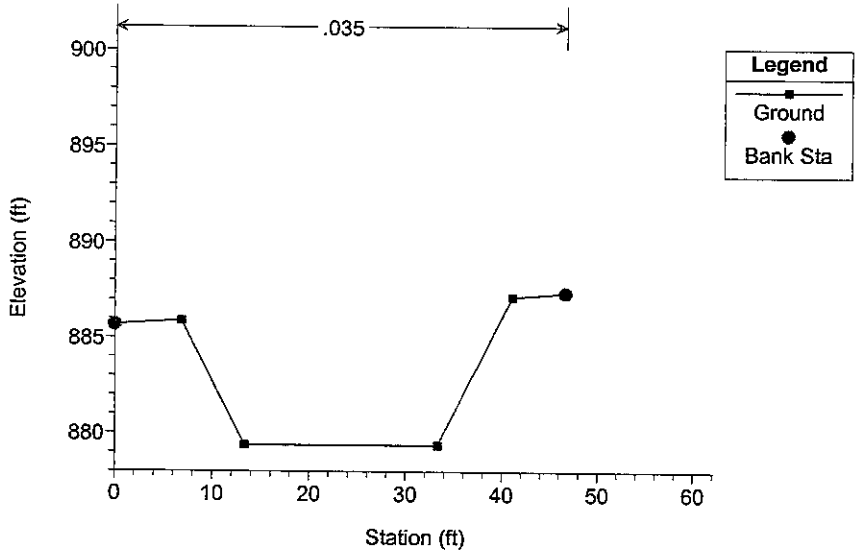
RS = 54200.00



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

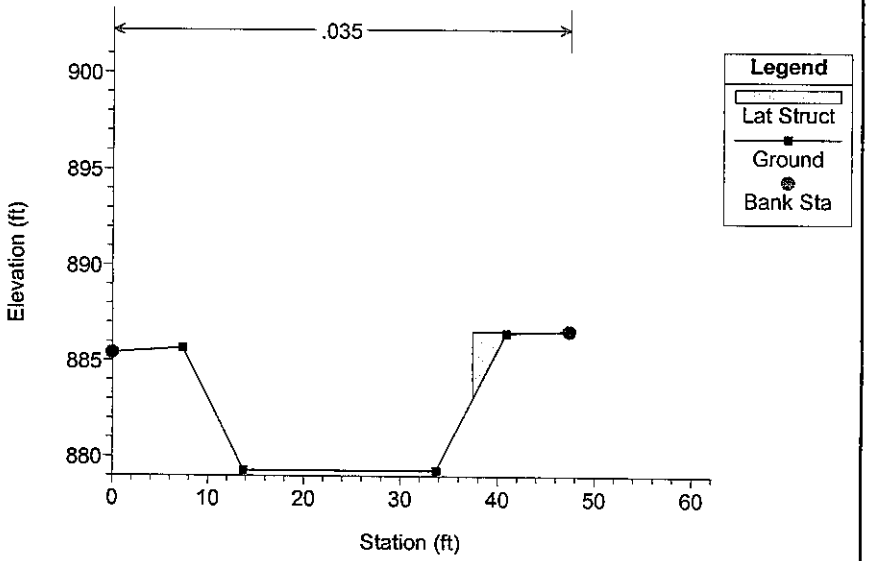
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 54000.00



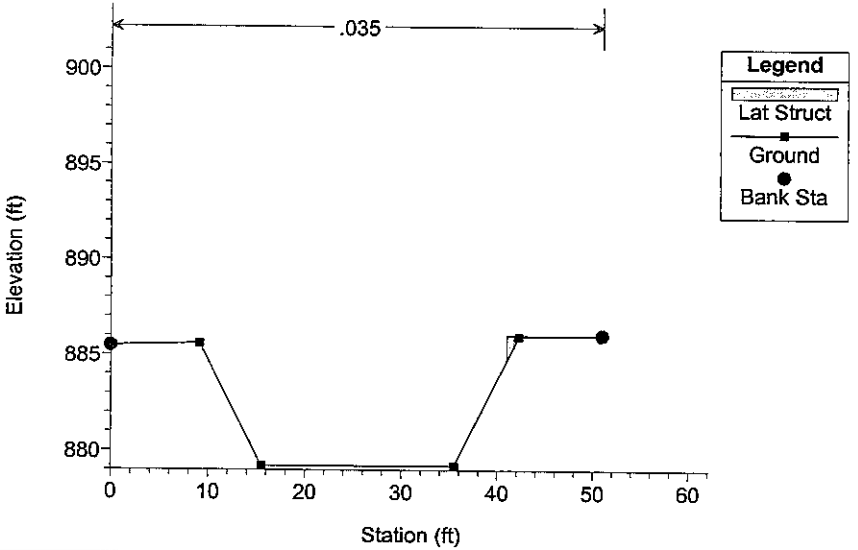
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 53800.00



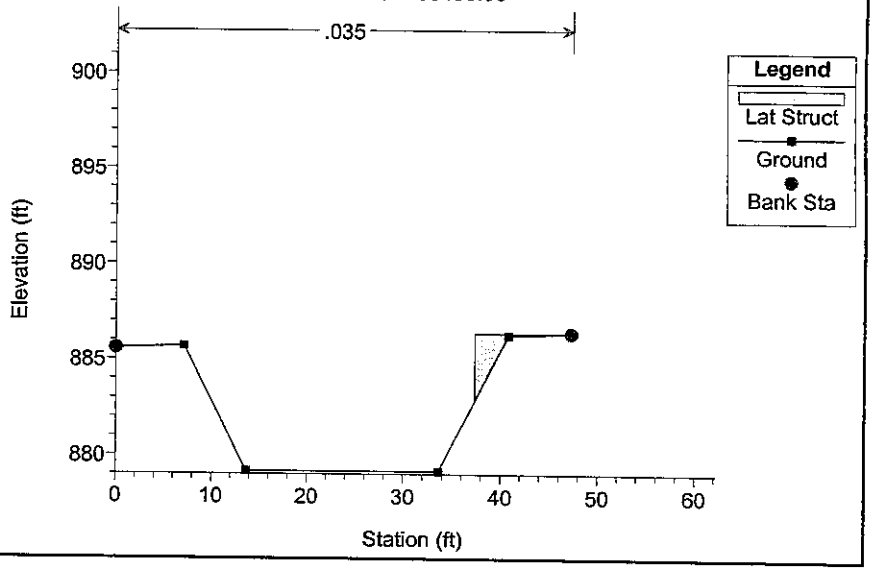
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 53600.00



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

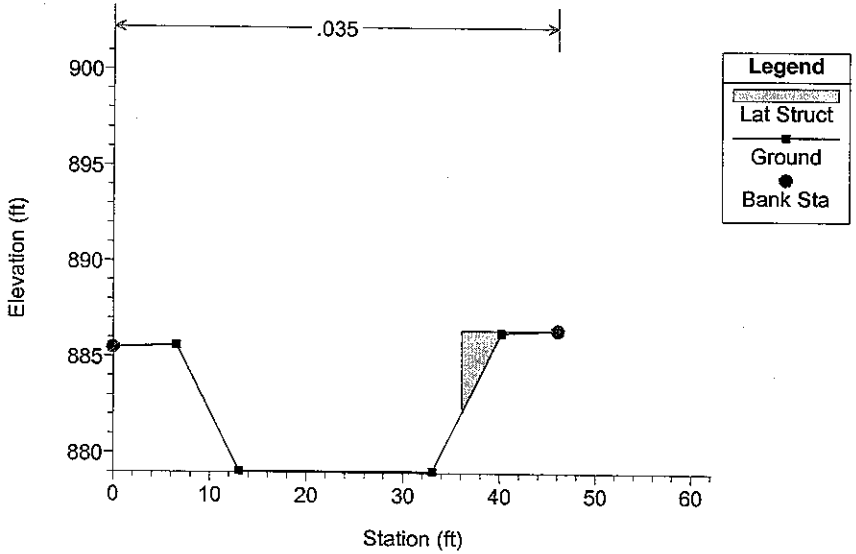
RS = 53400.00



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

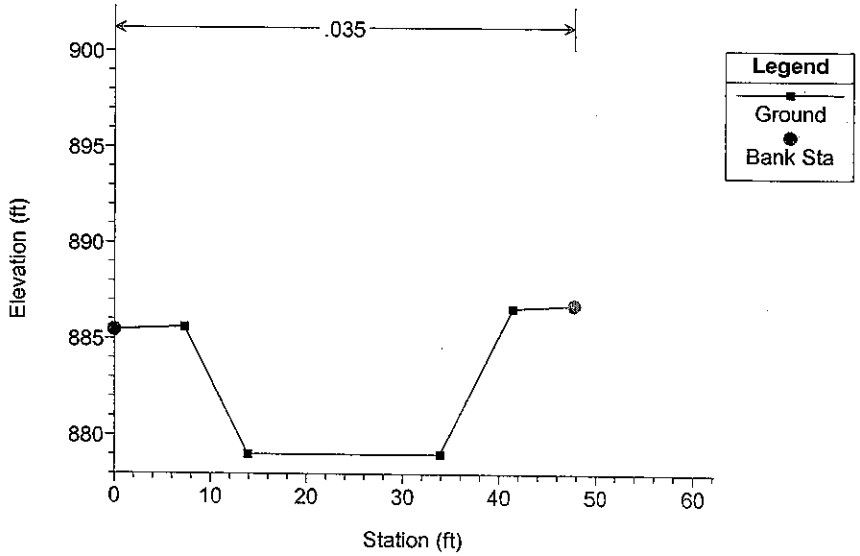
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 53200.00



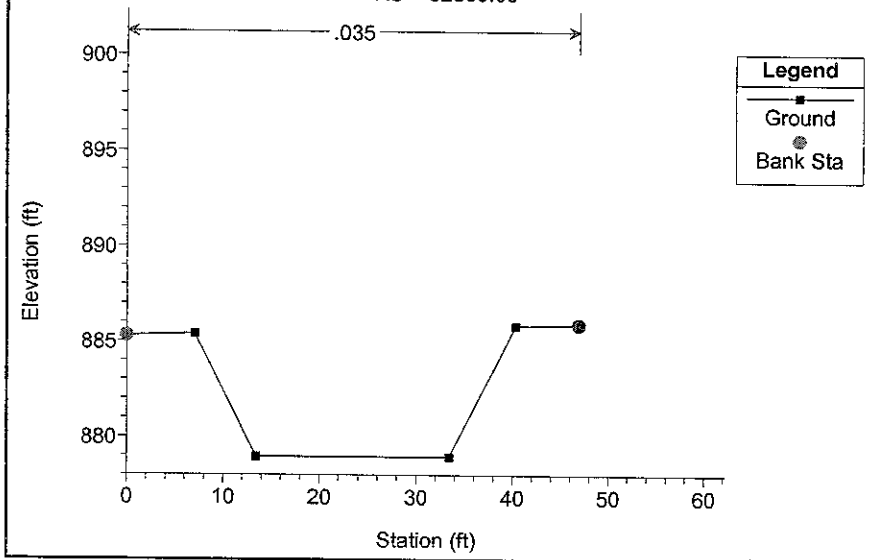
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 53000.00



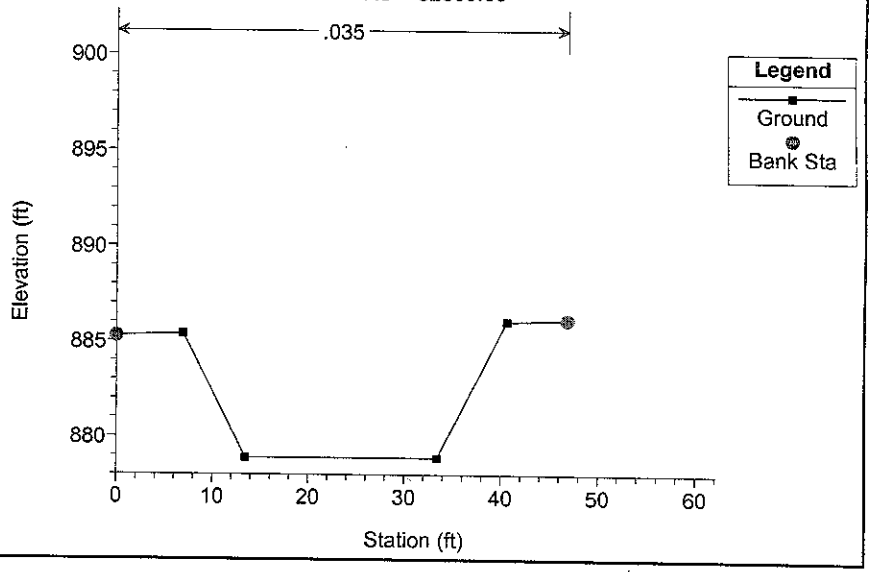
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 52800.00



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

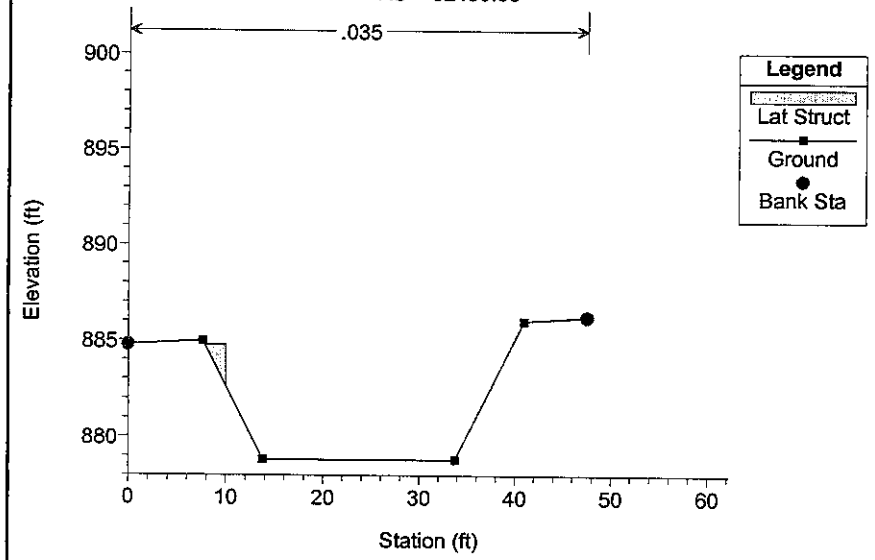
RS = 52600.00



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

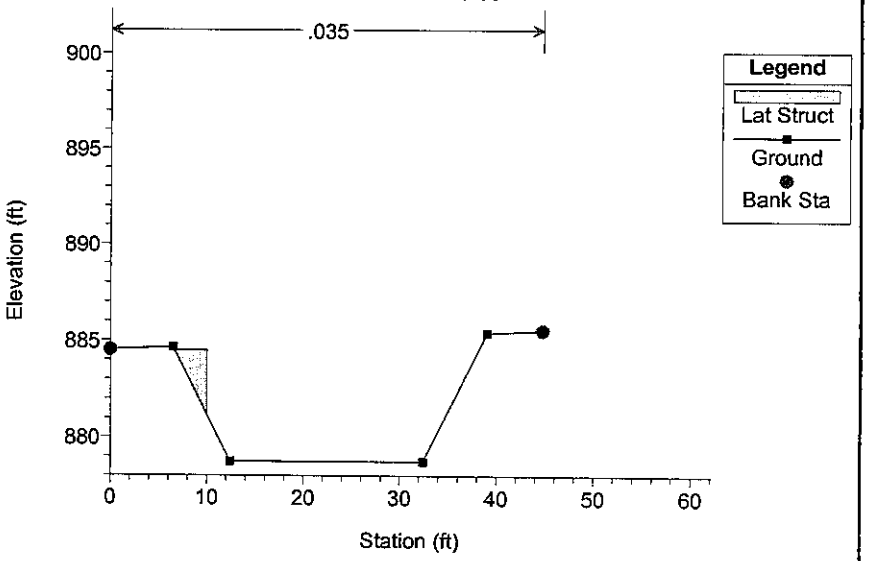
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 52400.00



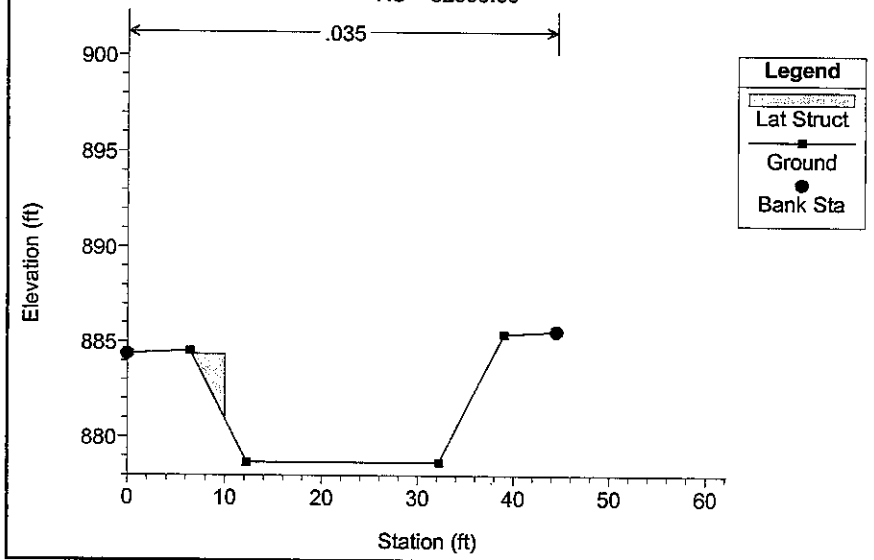
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 52200.00



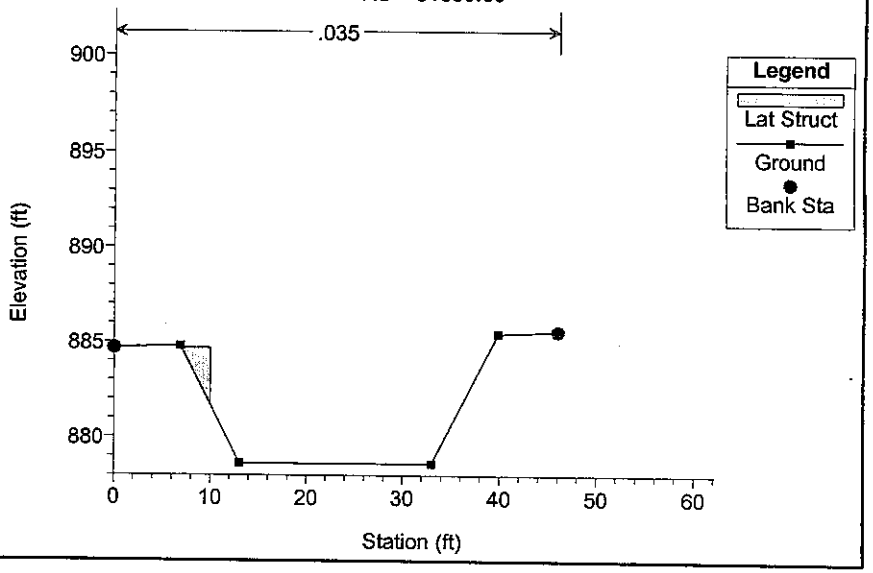
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 52000.00

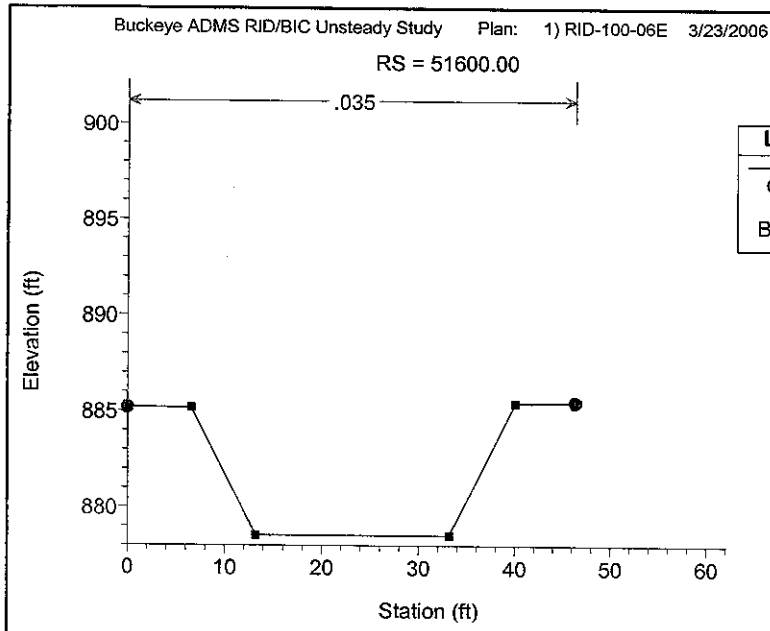


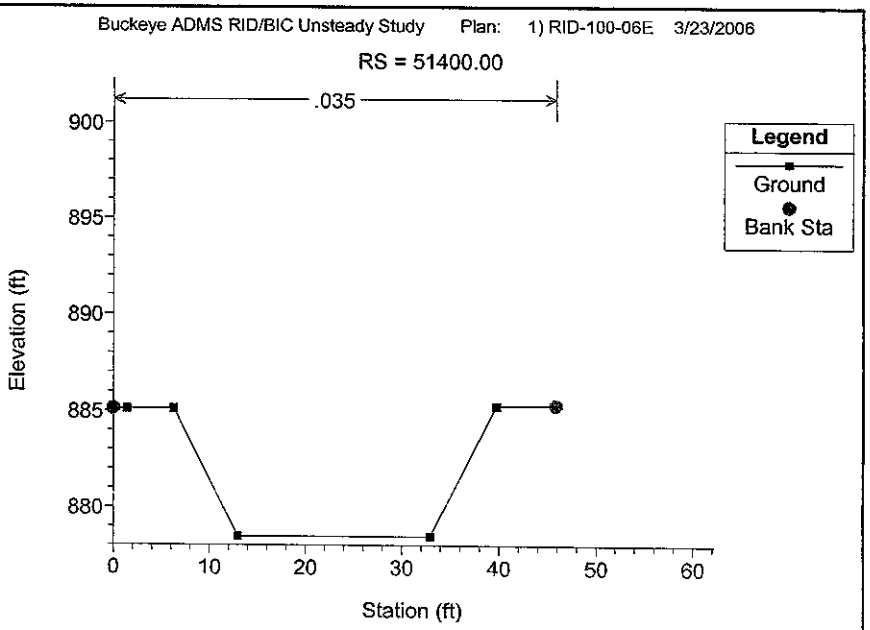
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

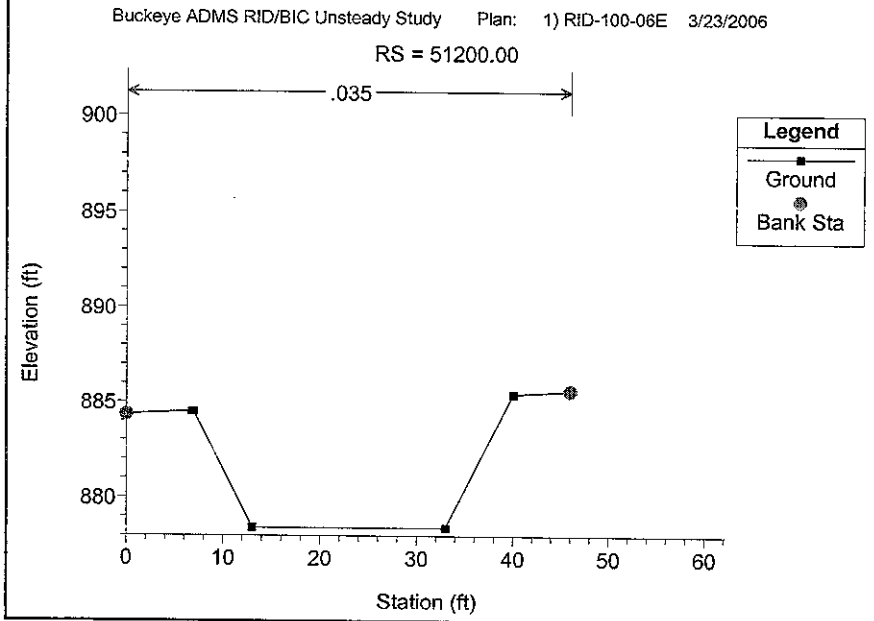
RS = 51800.00

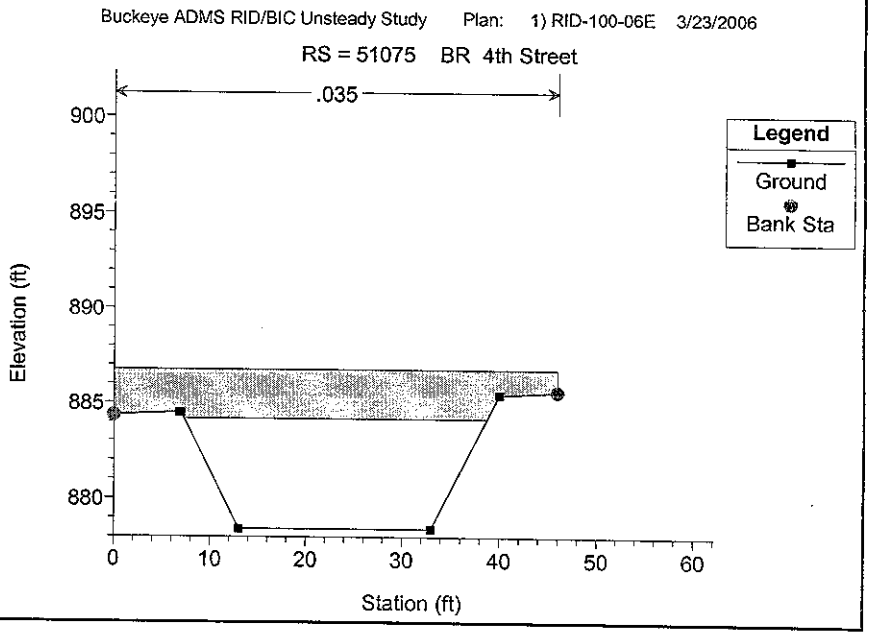


1 in Horiz. = 20 ft 1 in Vert. = 10 ft





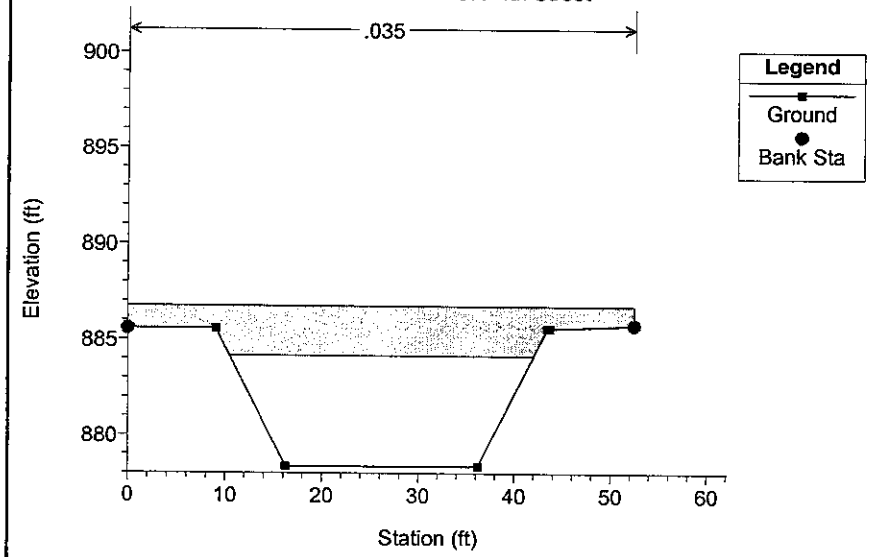




1 in Horiz. = 20 ft 1 in Vert. = 10 ft

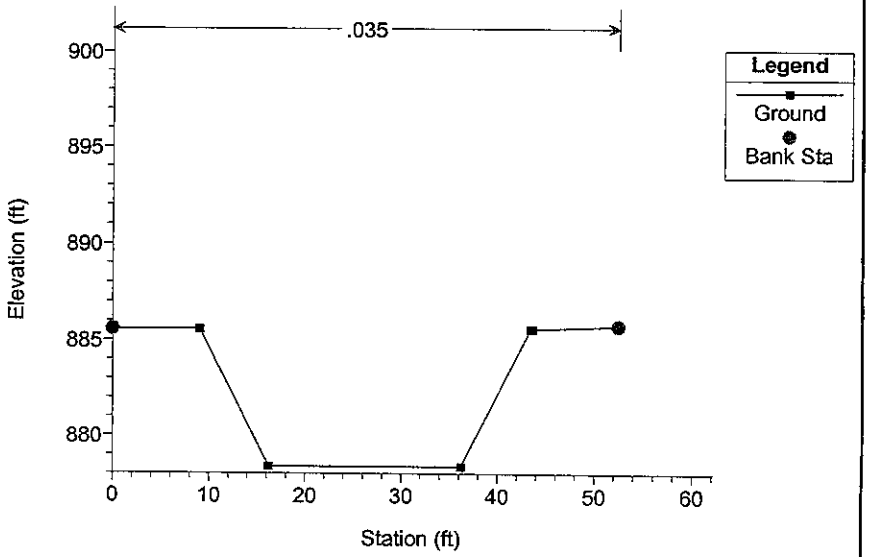
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 51075 BR 4th Street



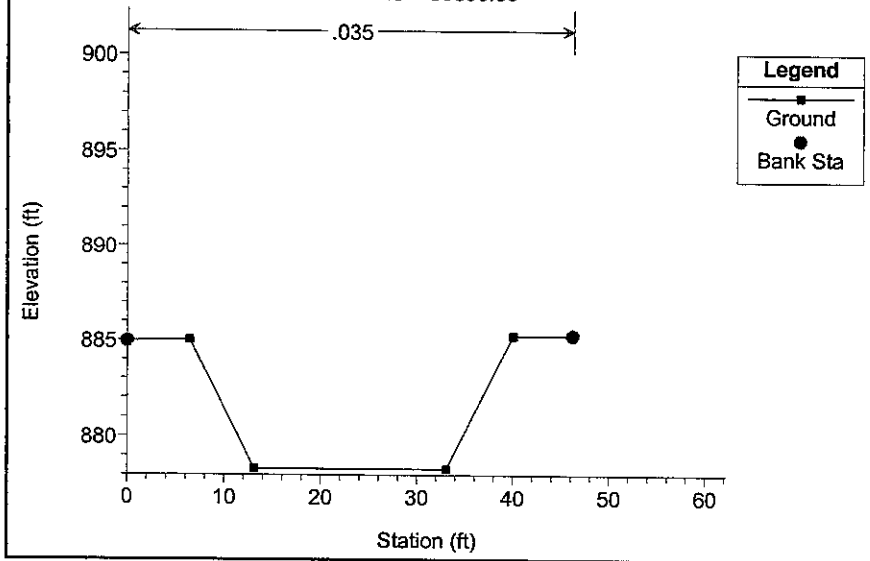
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 51000.00



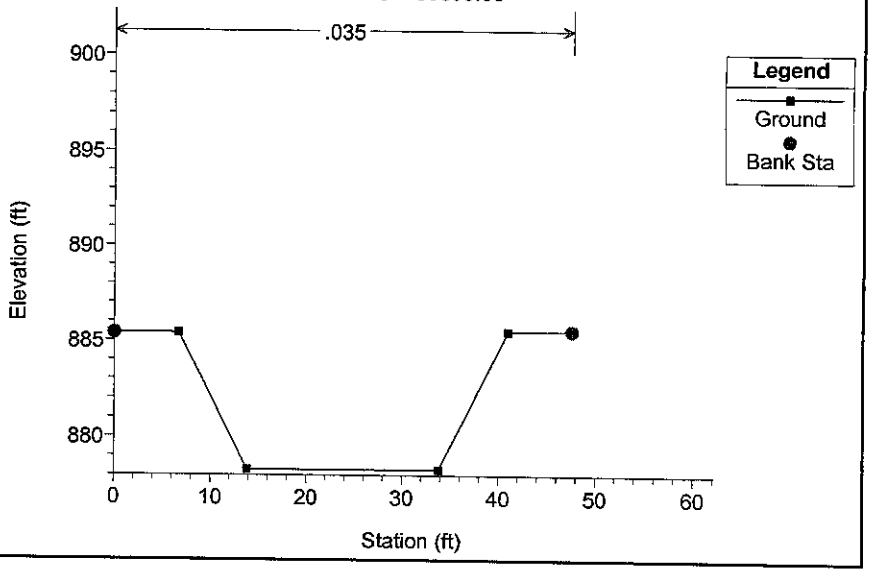
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 50800.00

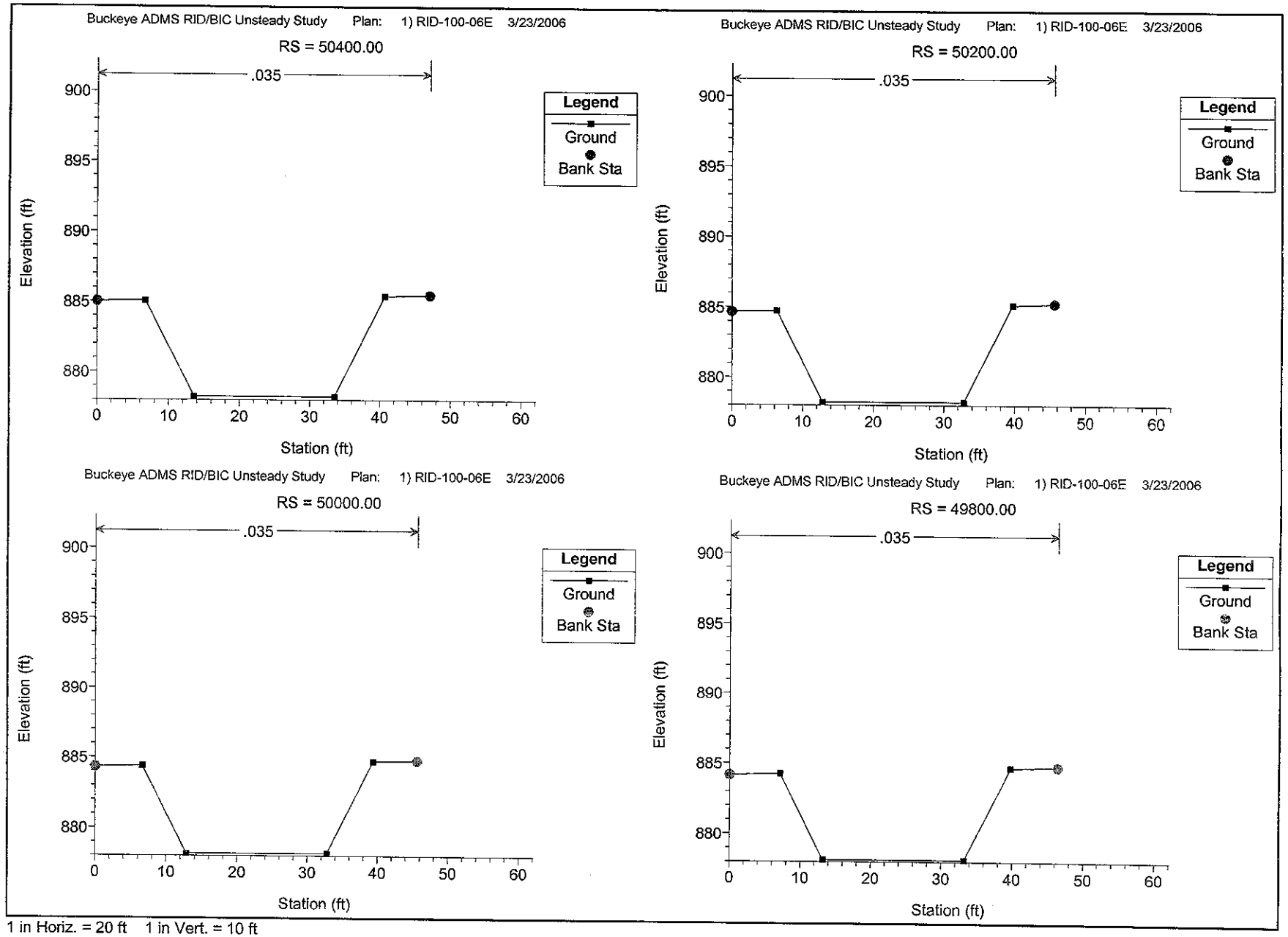


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

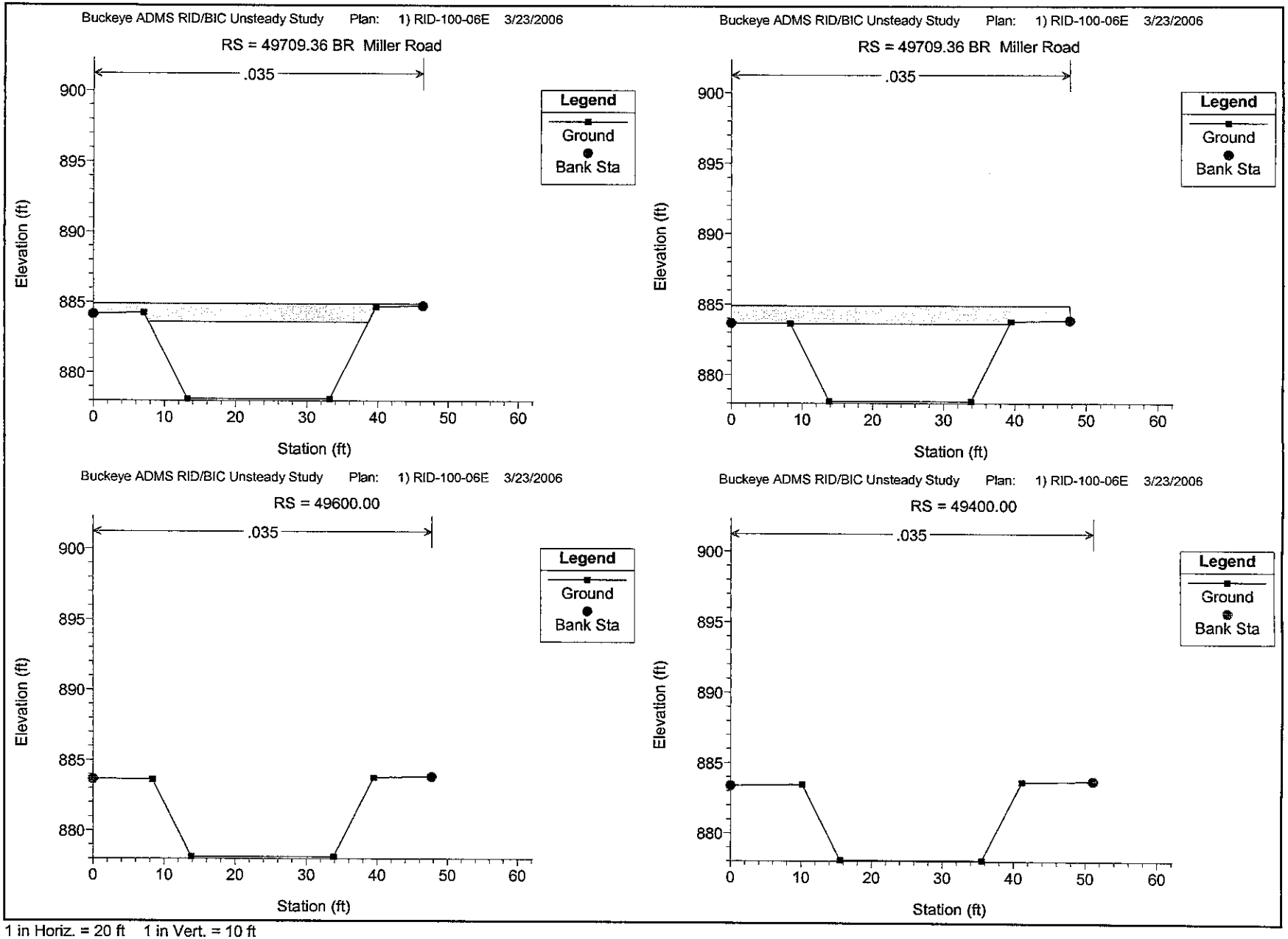
RS = 50600.00



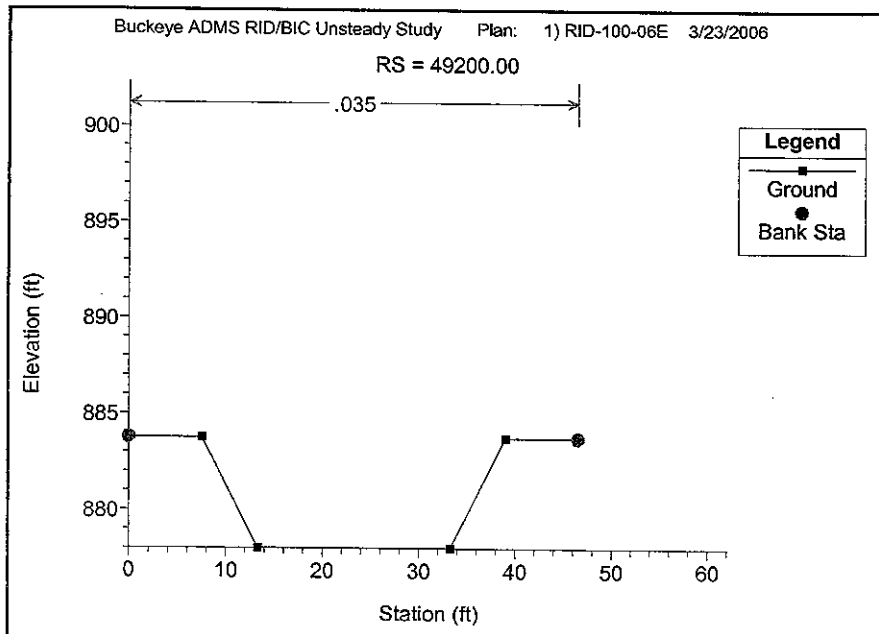
1 in Horiz. = 20 ft 1 in Vert. = 10 ft

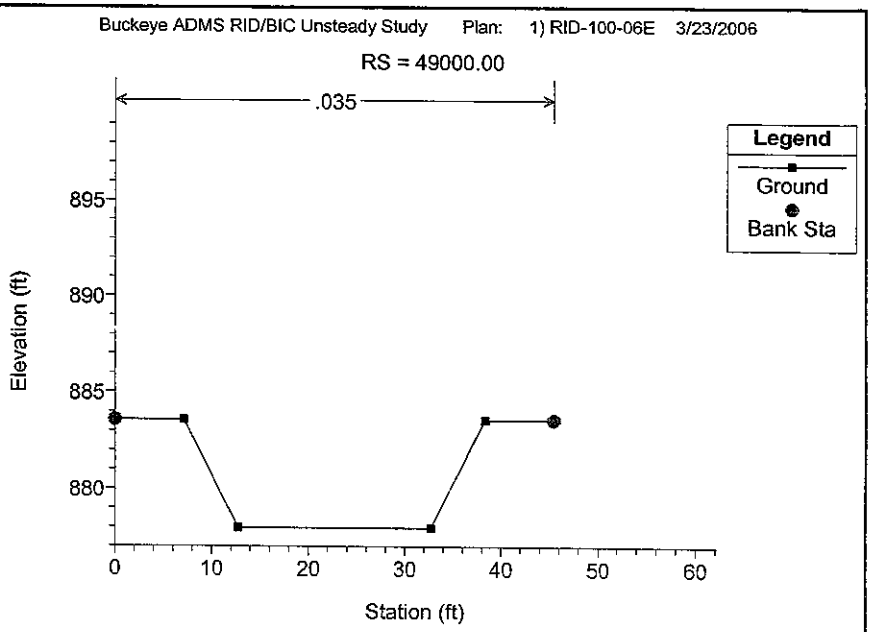


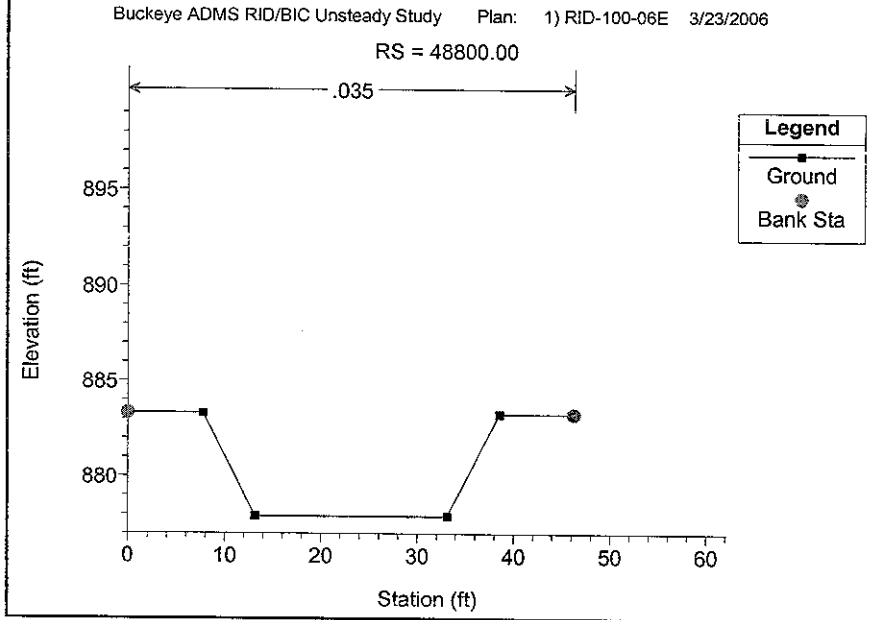
1 in Horiz. = 20 ft 1 in Vert. = 10 ft

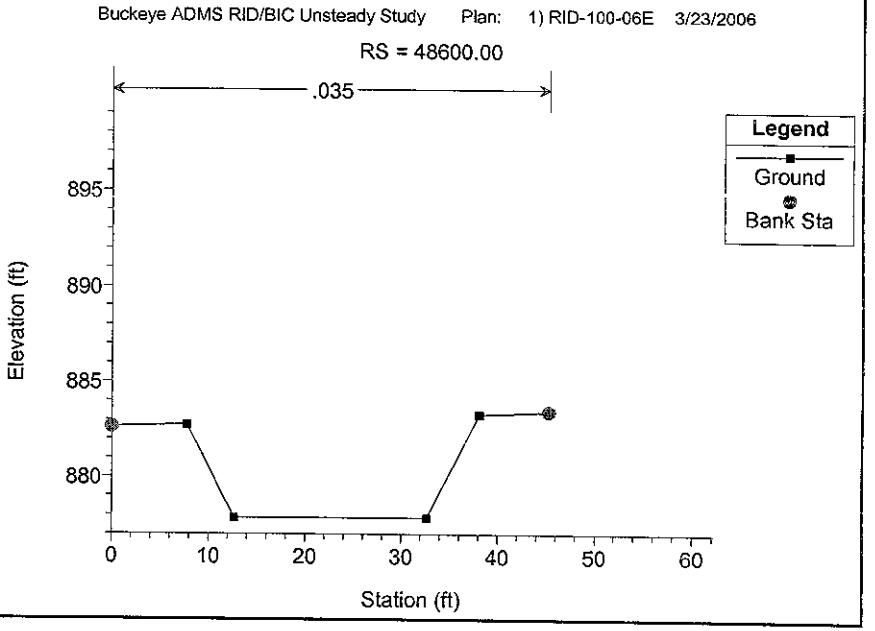


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

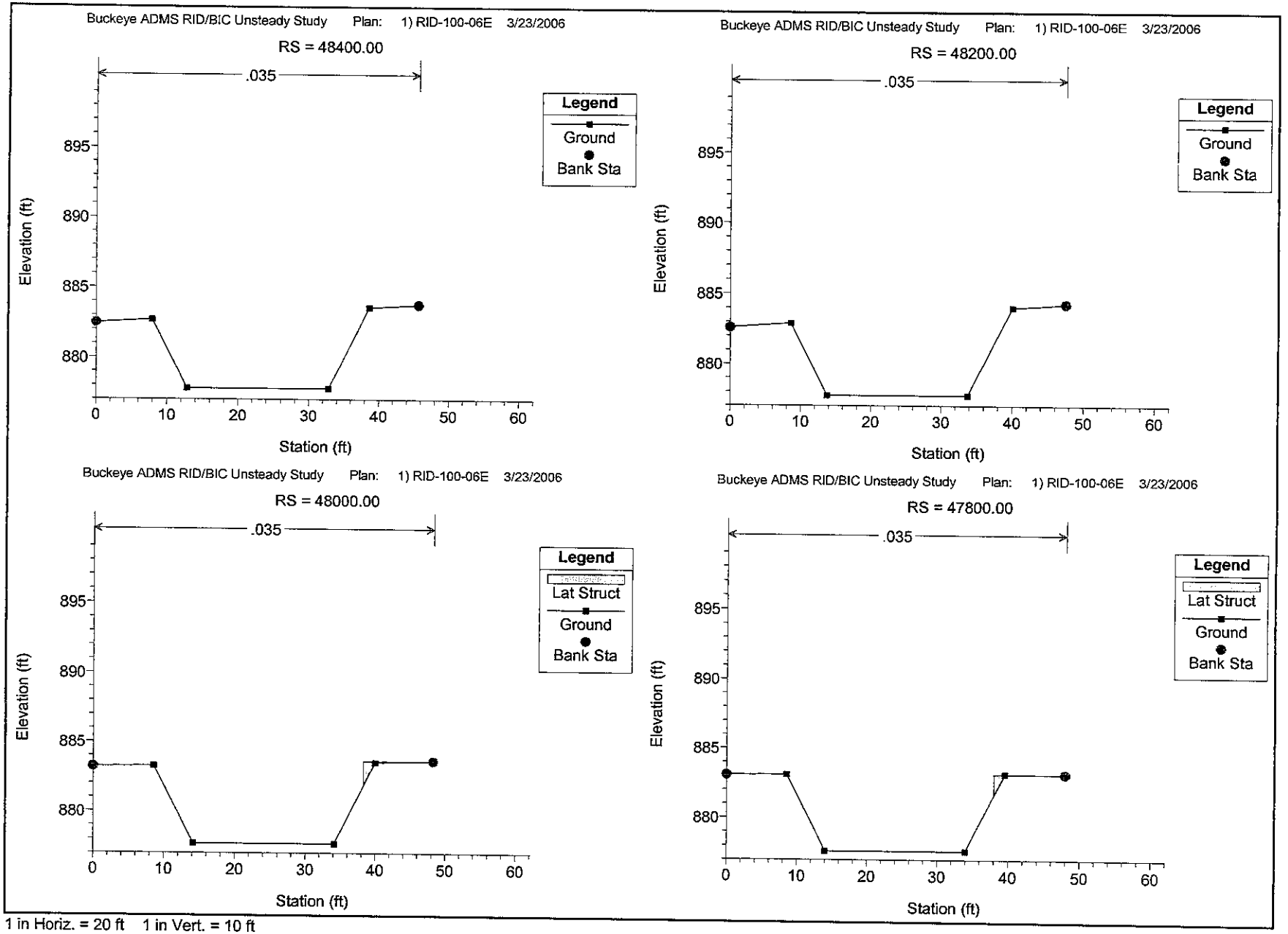




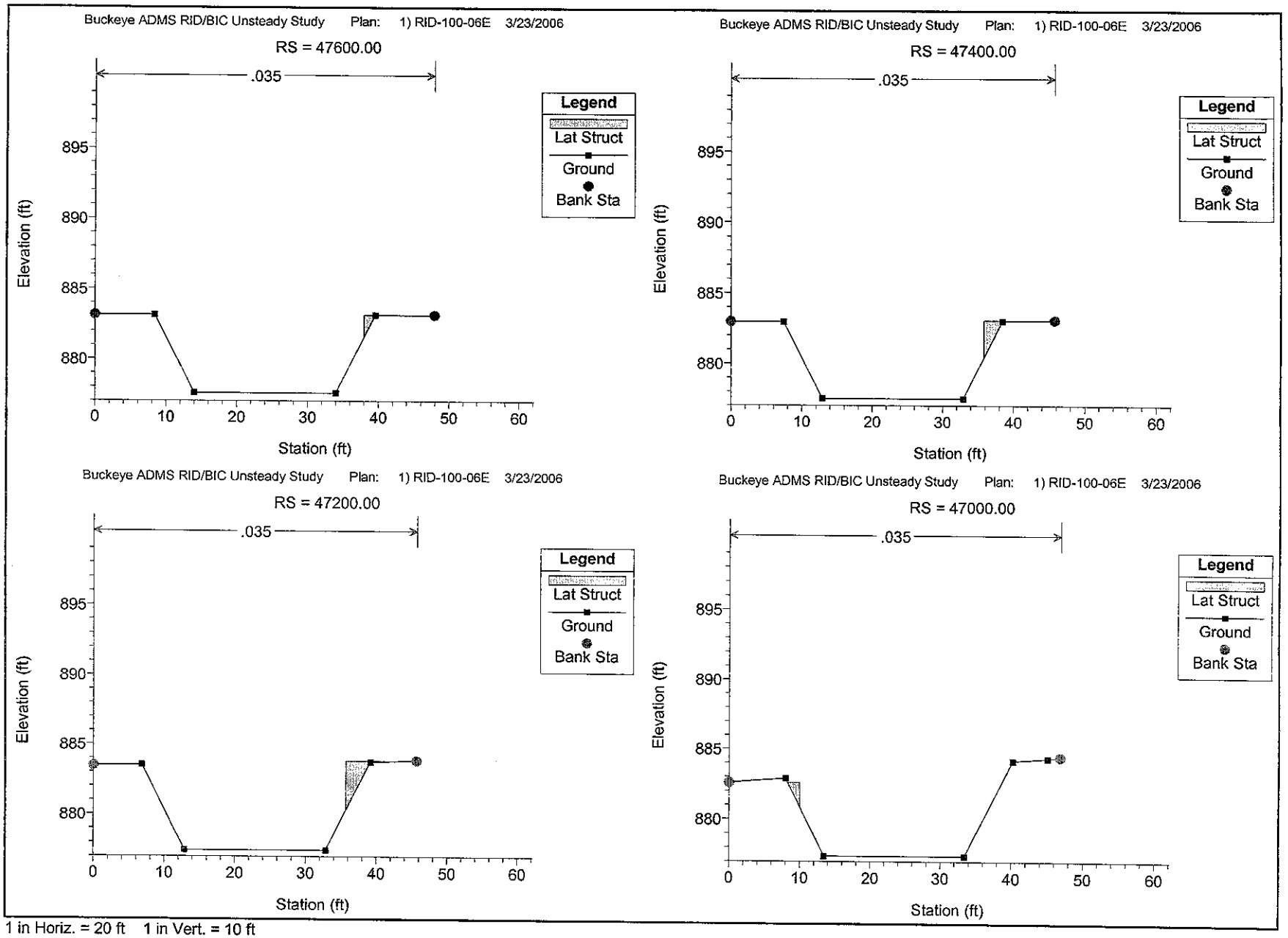




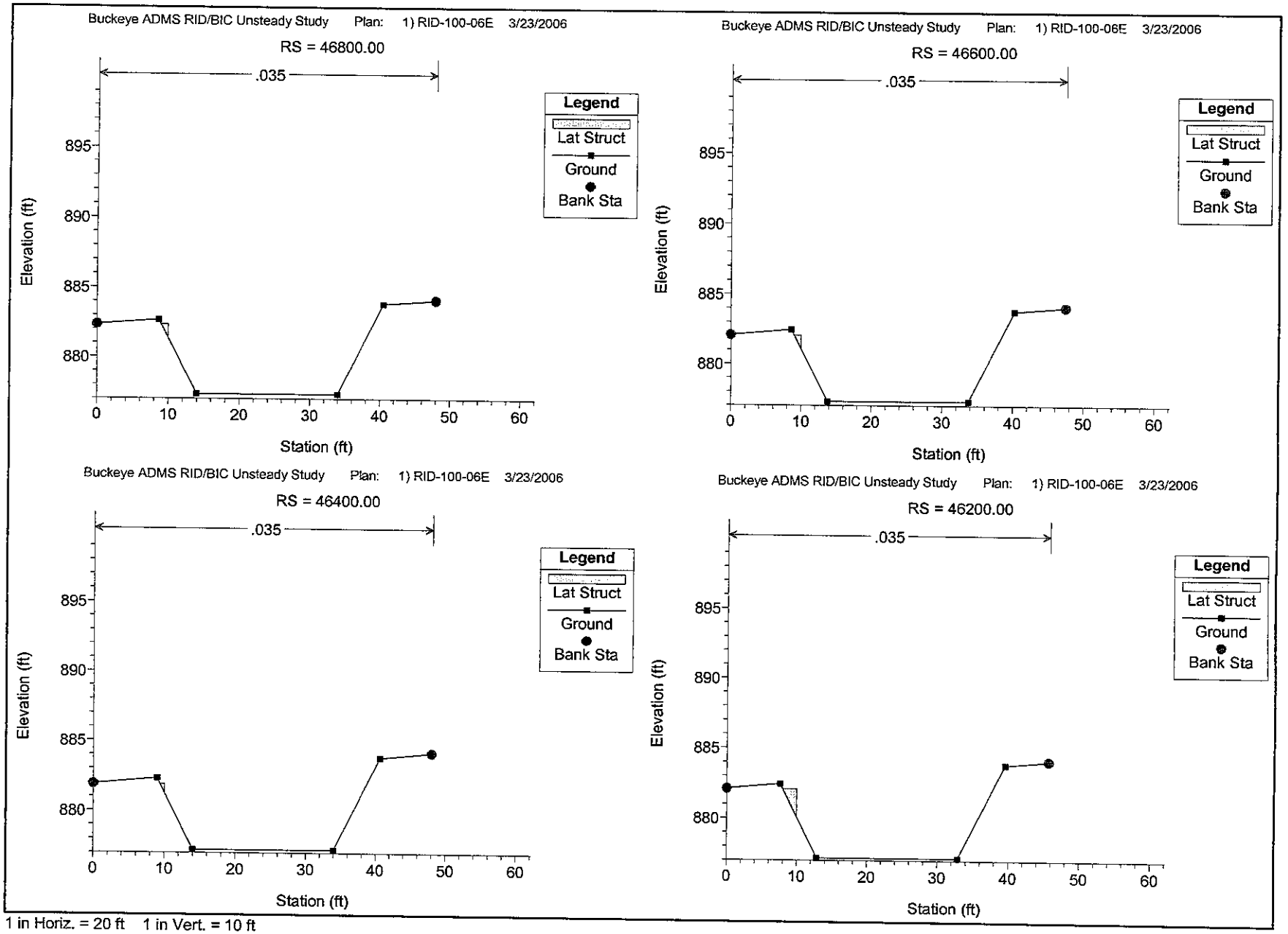
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



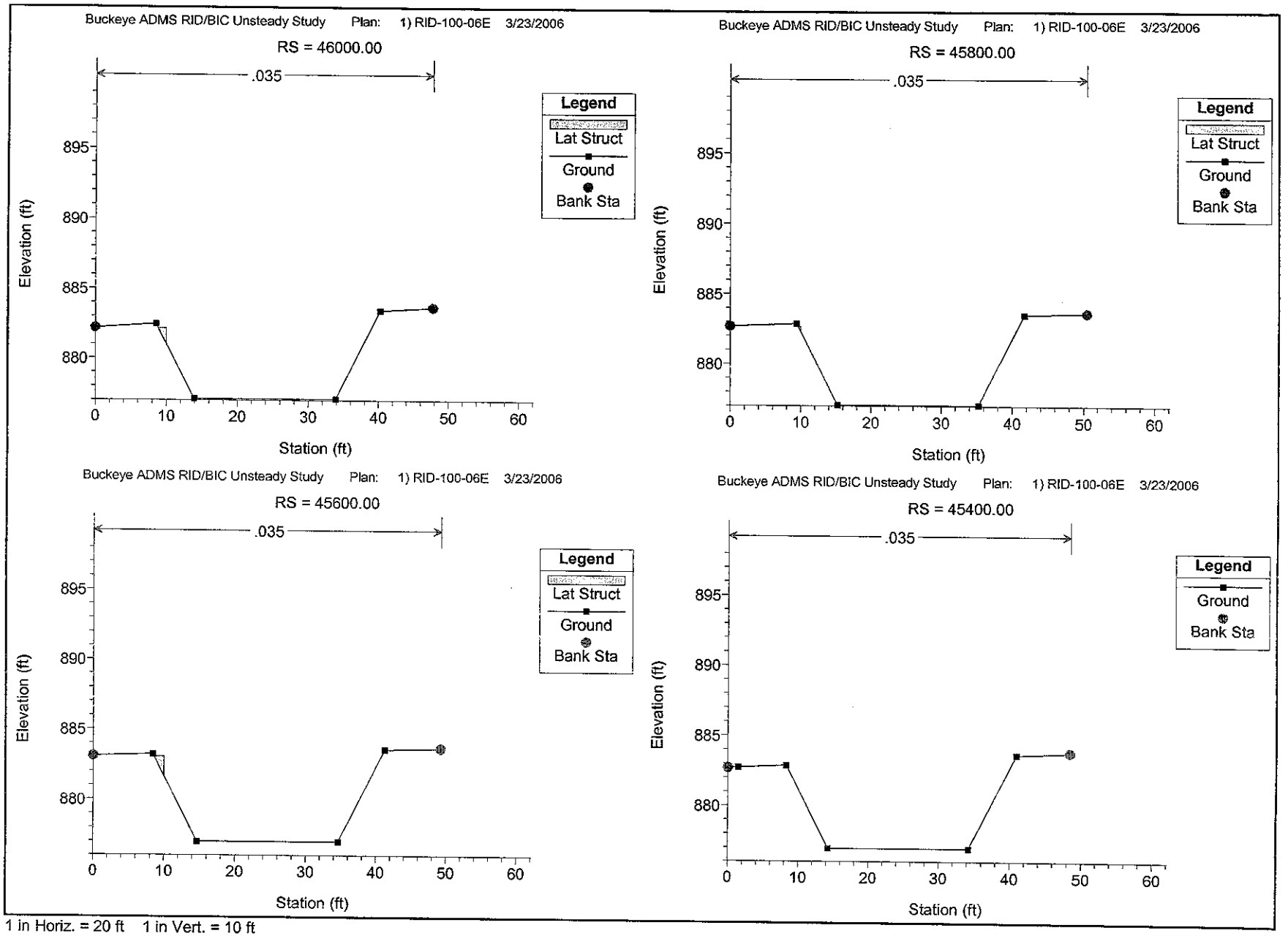
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft



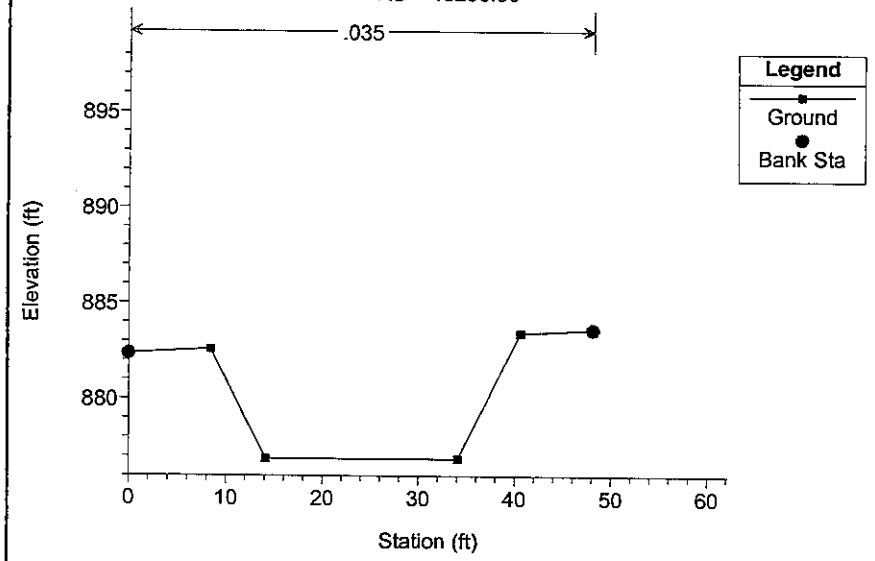
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

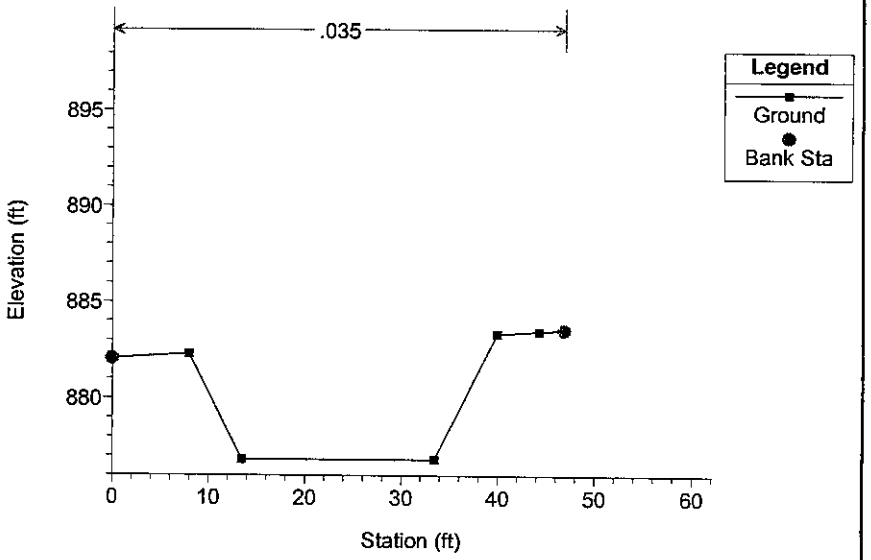
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 45200.00



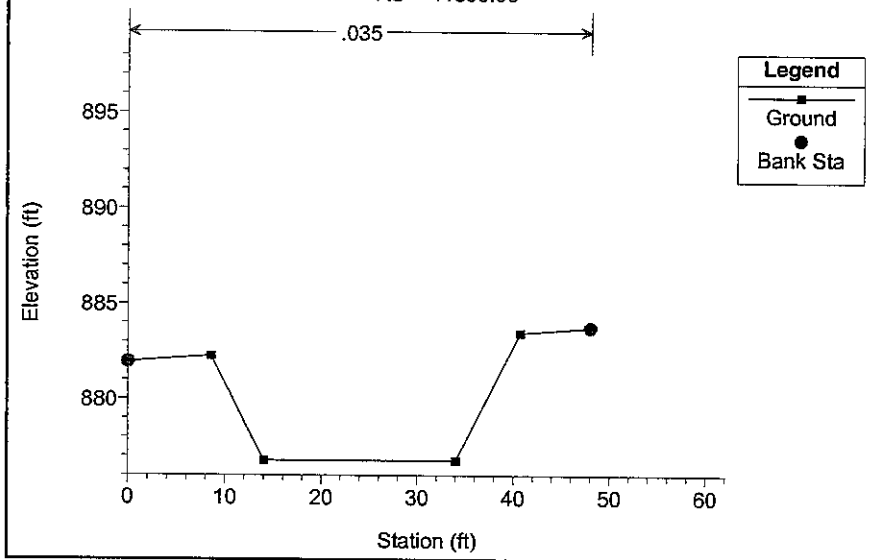
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 45000.00



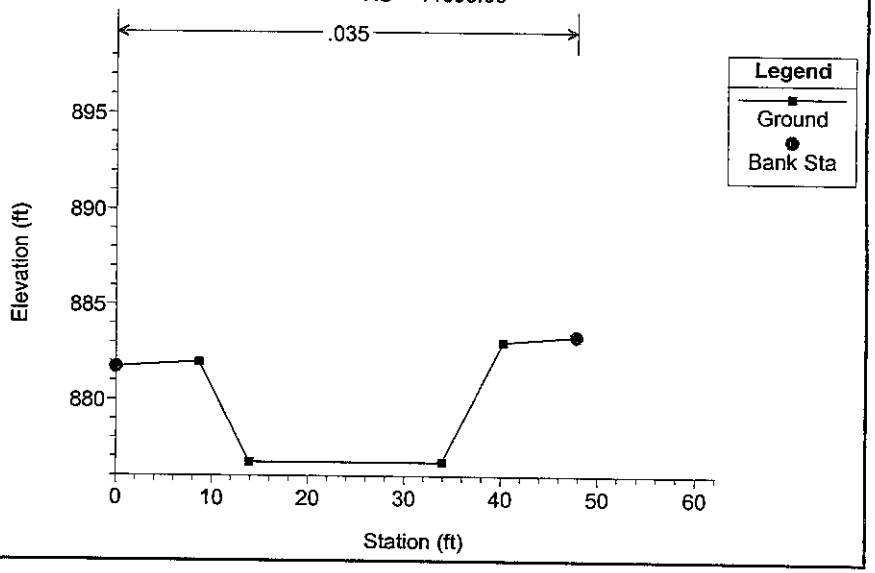
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 44800.00

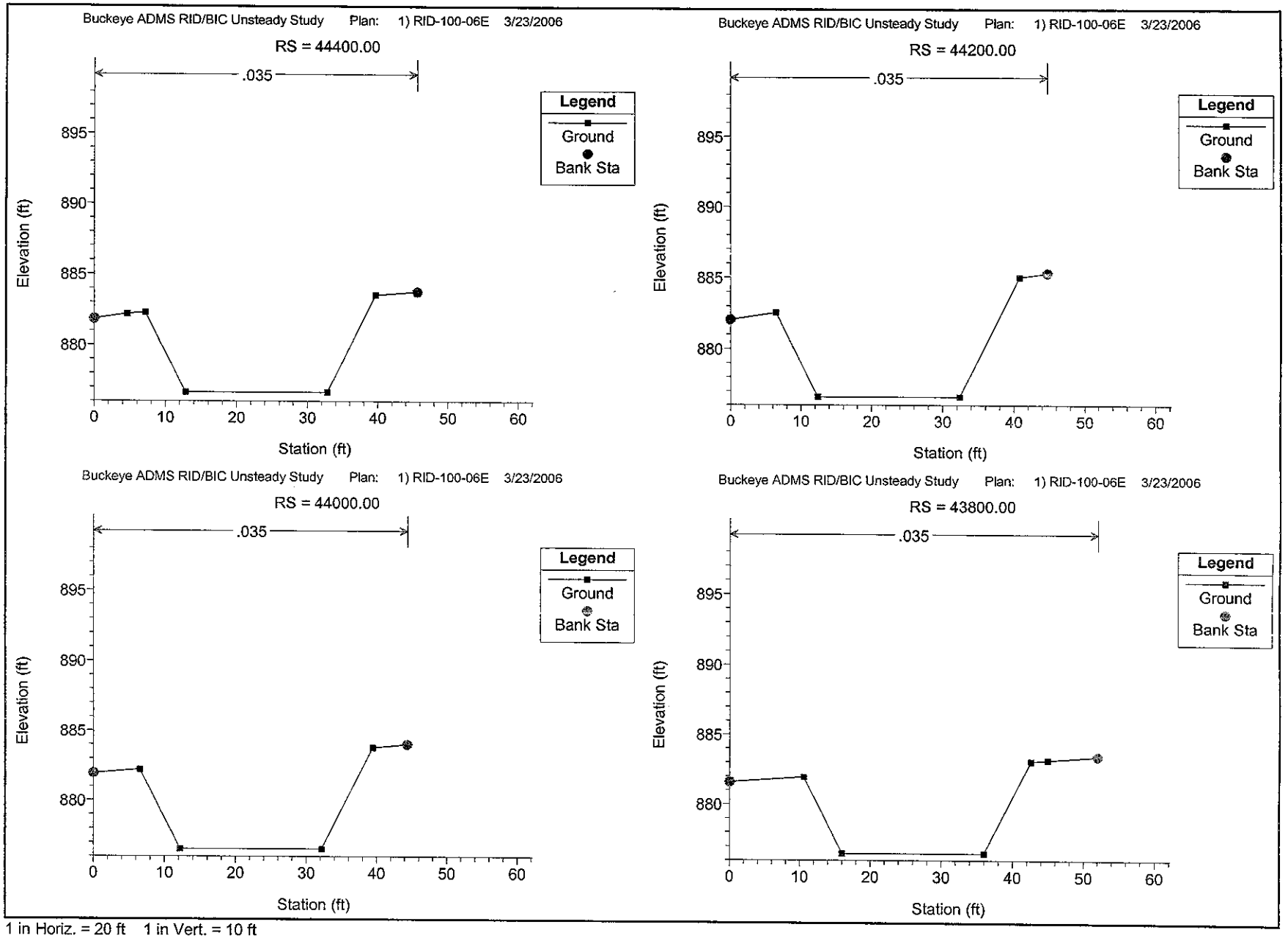


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

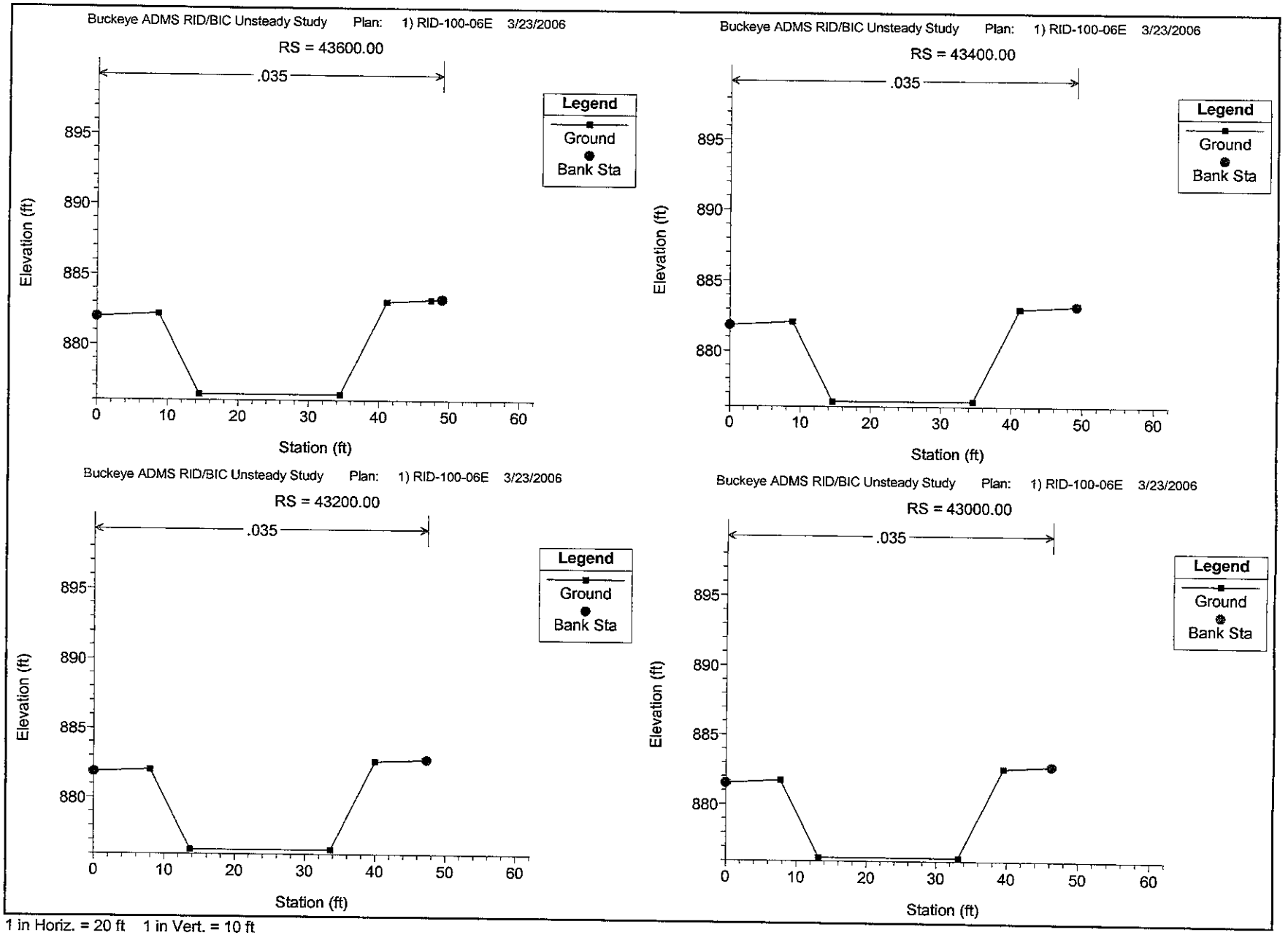
RS = 44600.00



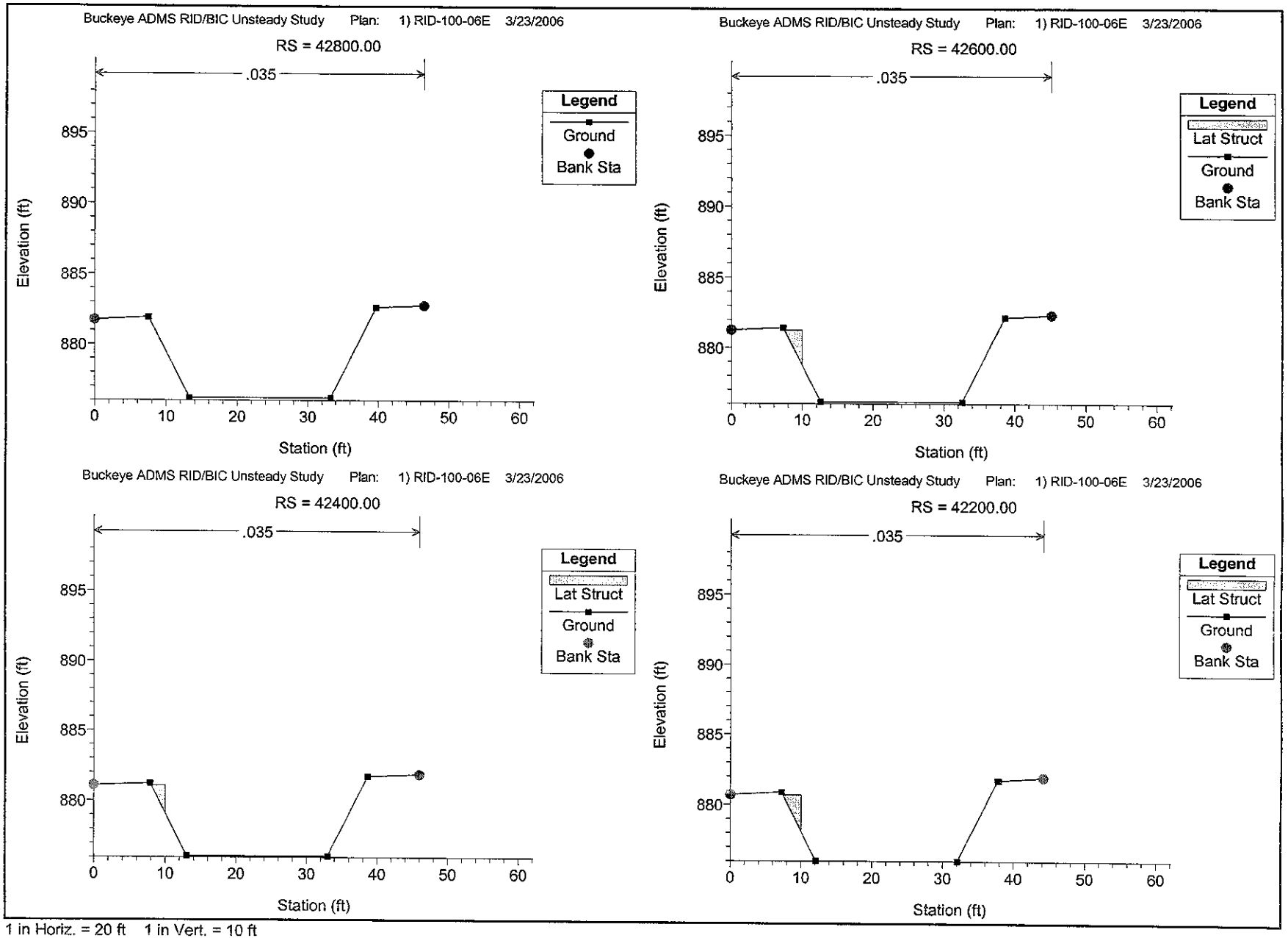
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft



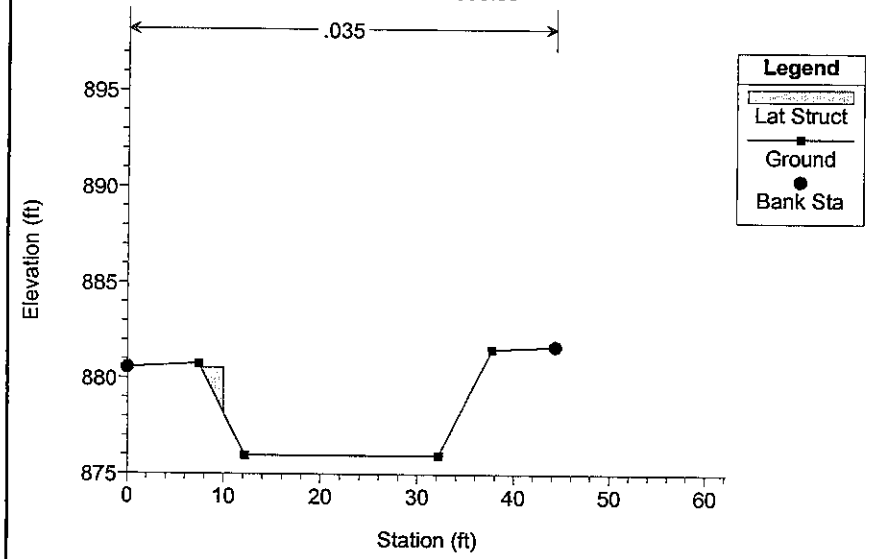
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

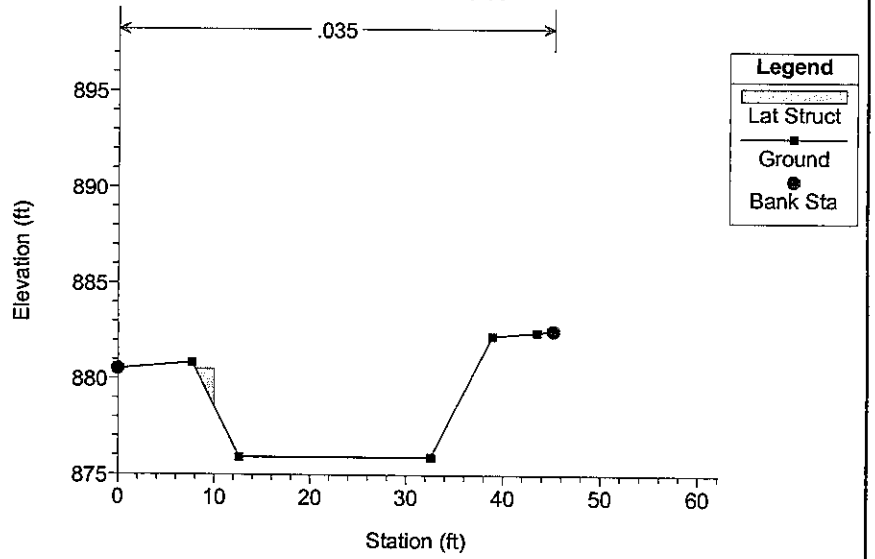
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 42000.00



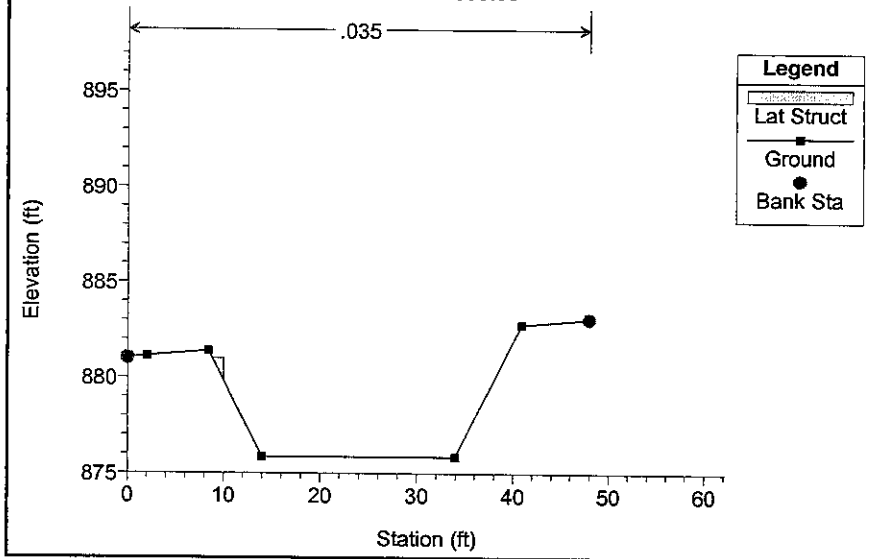
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 41800.00



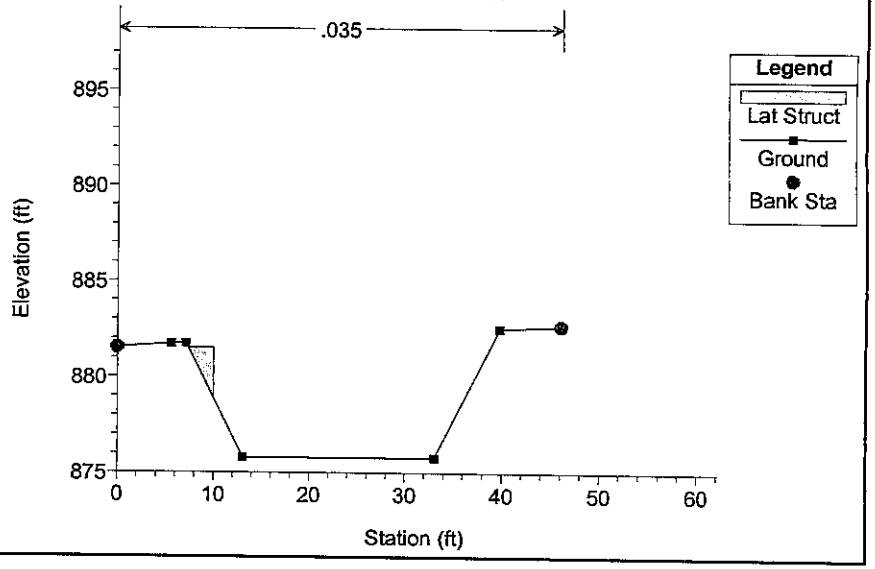
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 41600.00

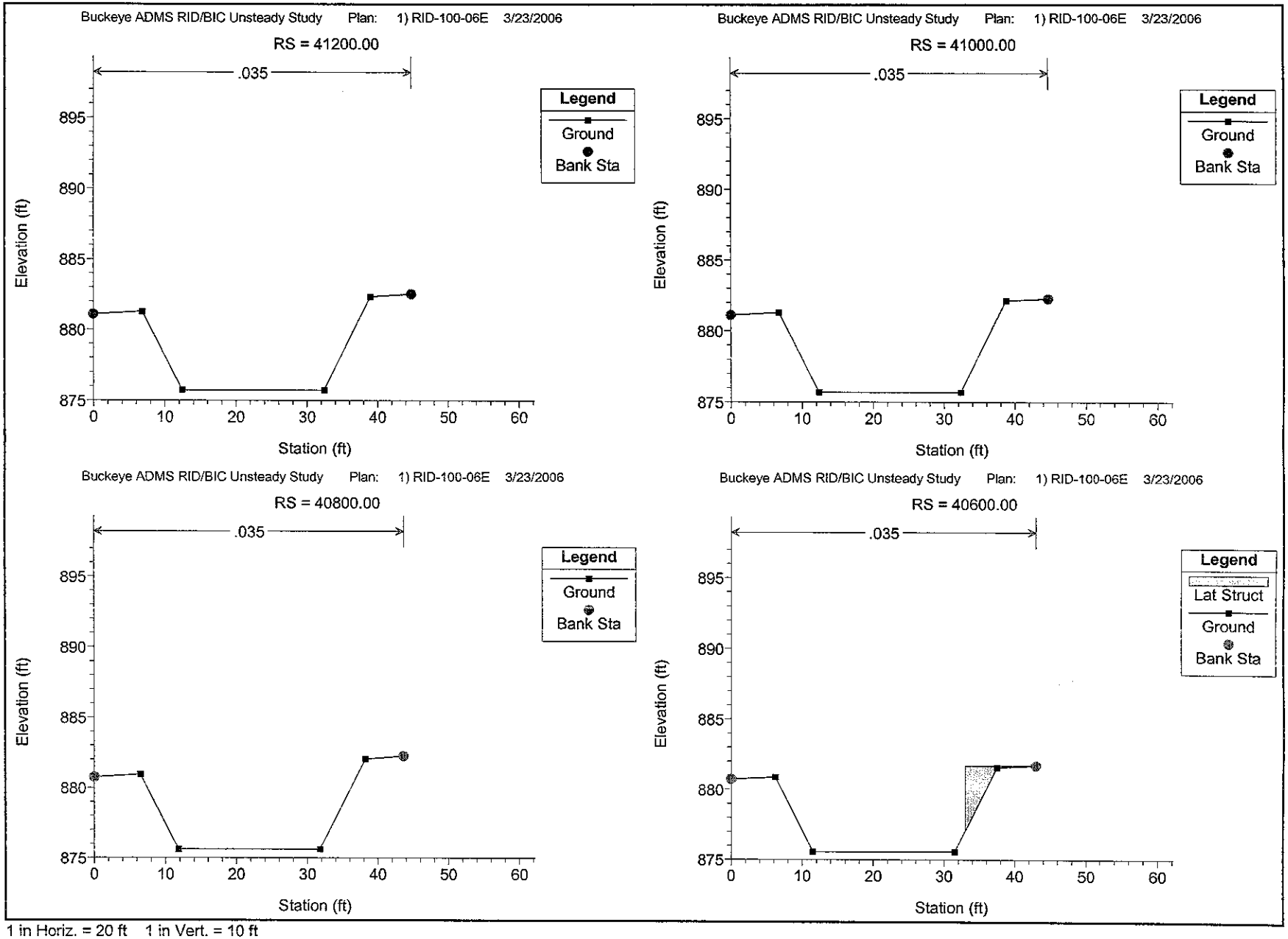


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 41400.00



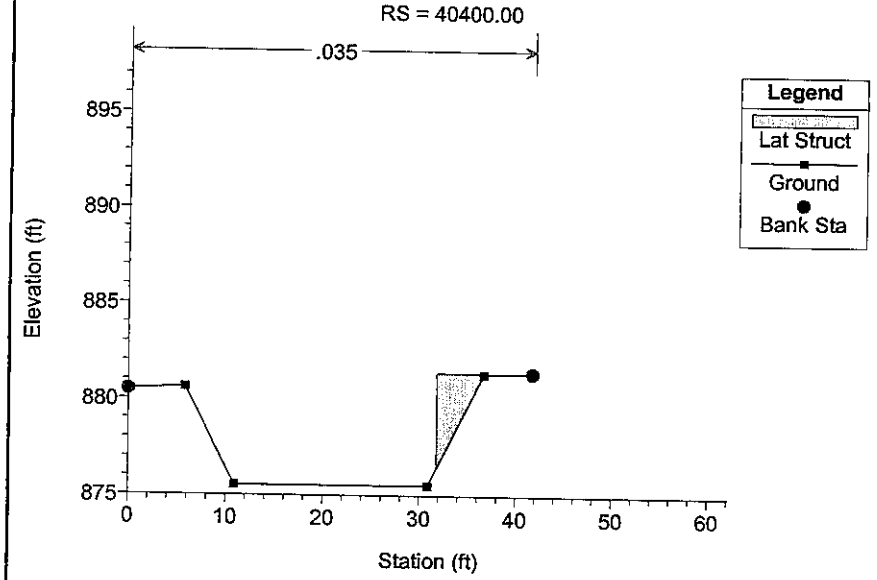
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

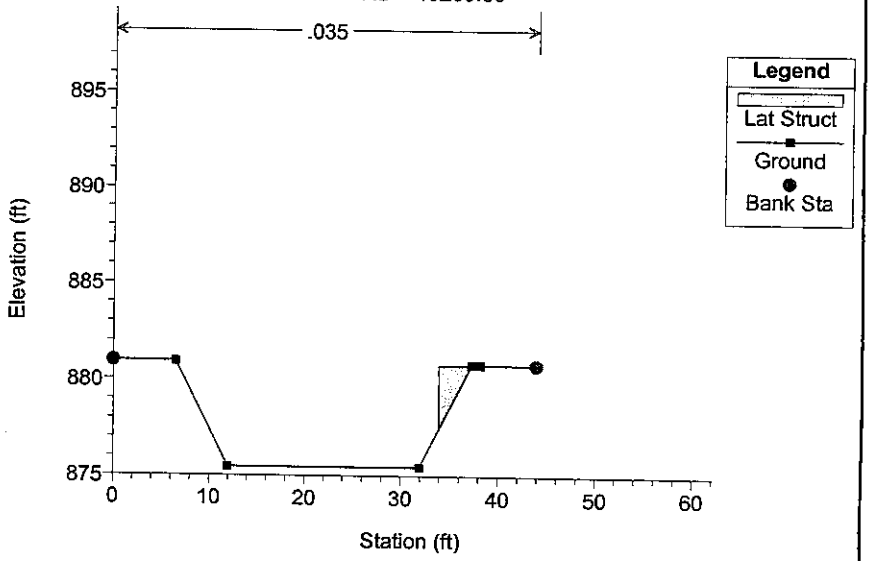
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 40400.00



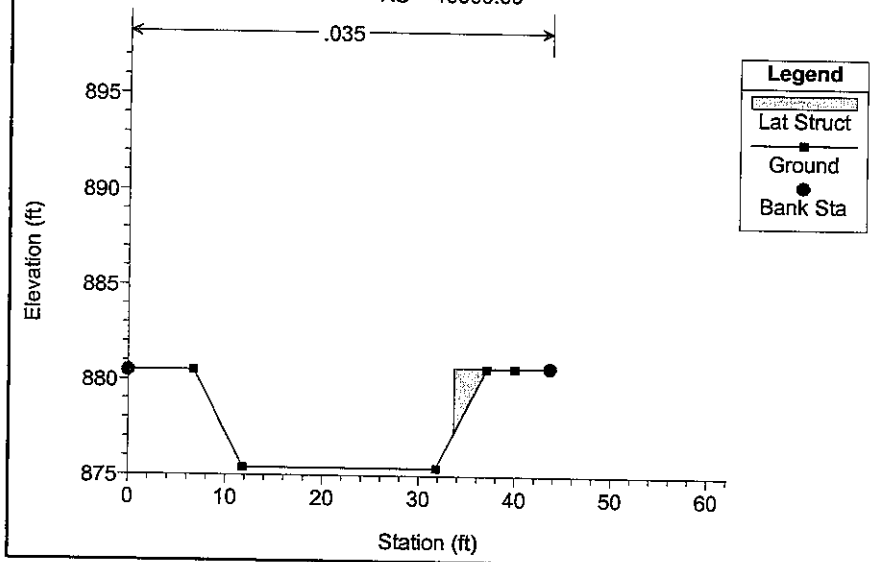
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 40200.00



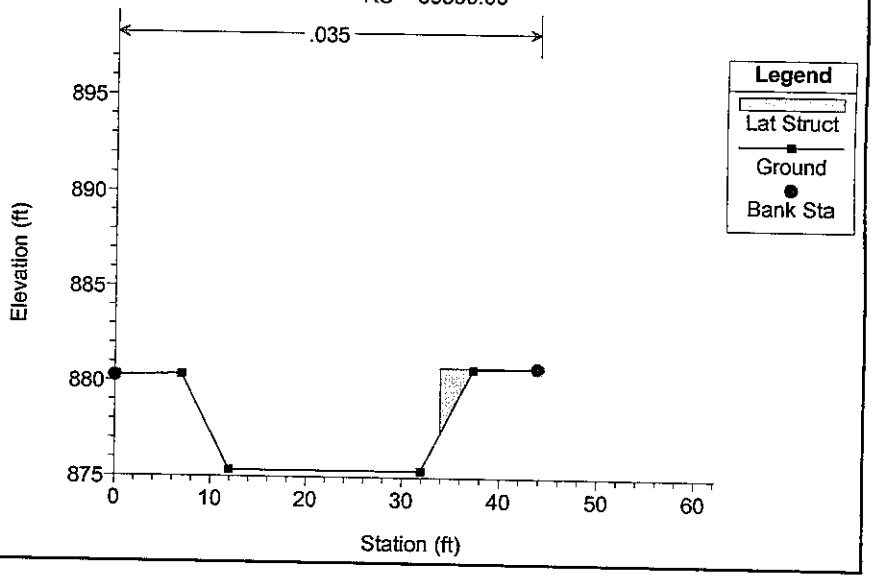
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 40000.00



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

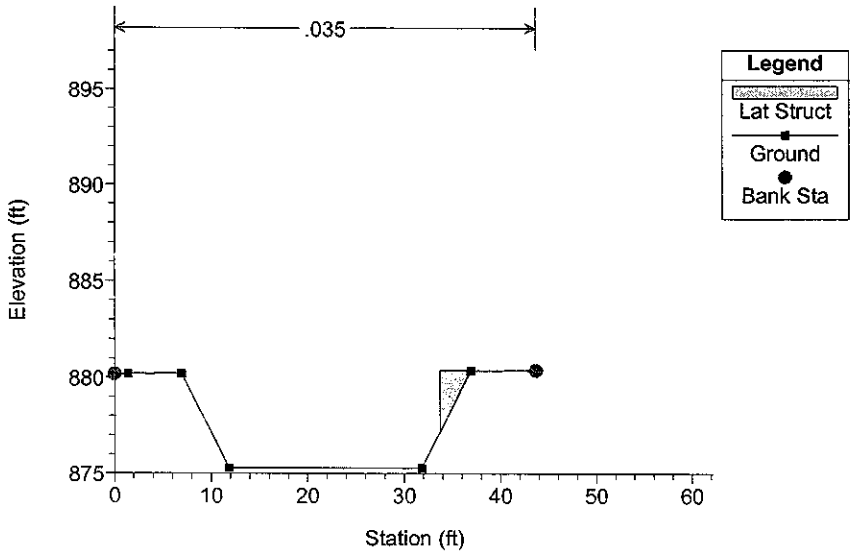
RS = 39800.00



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

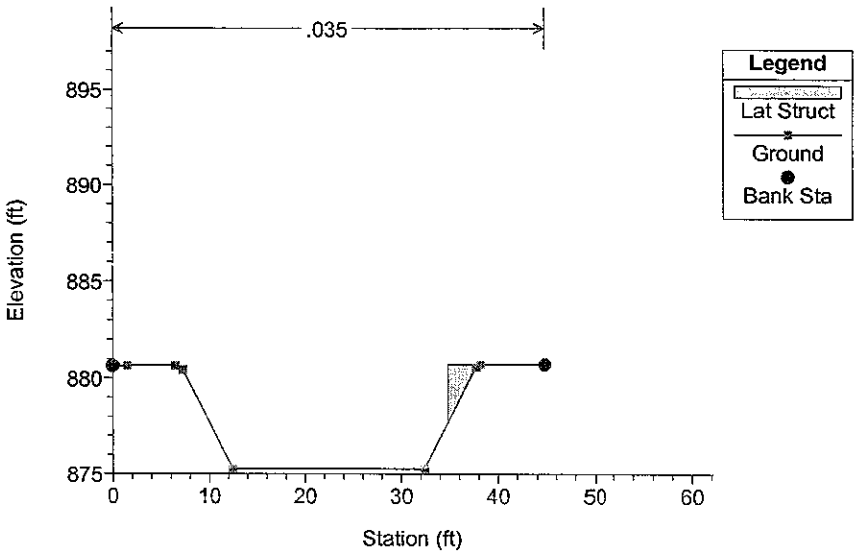
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 39600.00



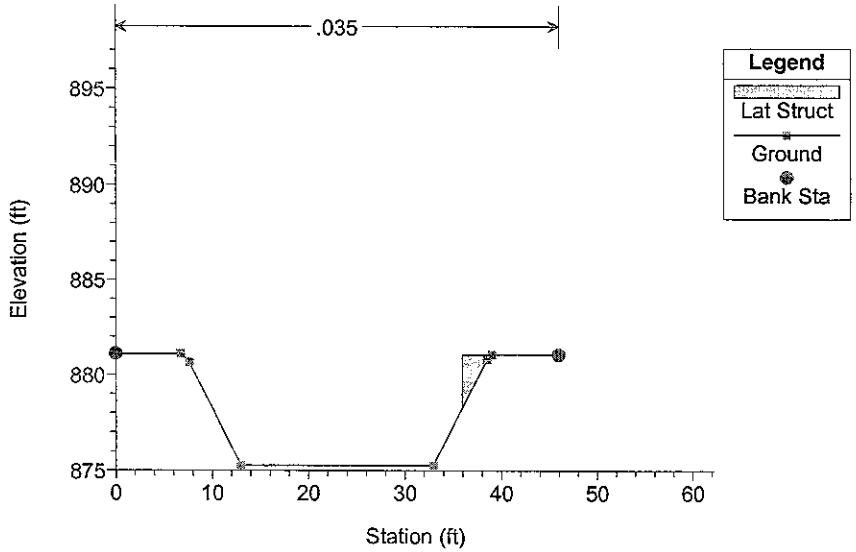
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 39550.*



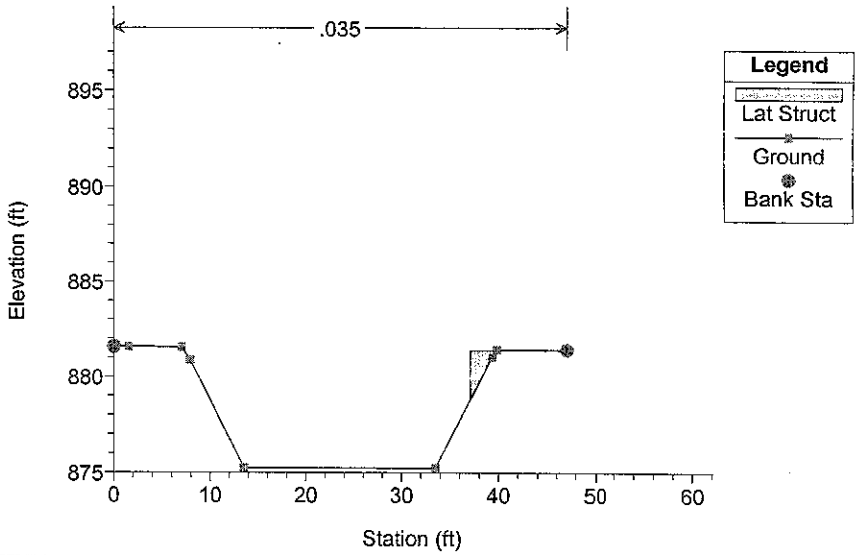
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 39500.*



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

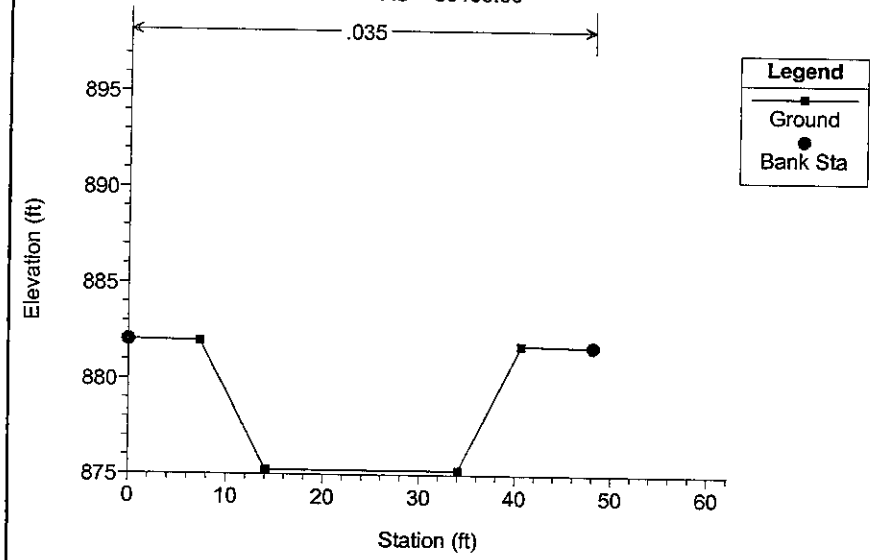
RS = 39450.*



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

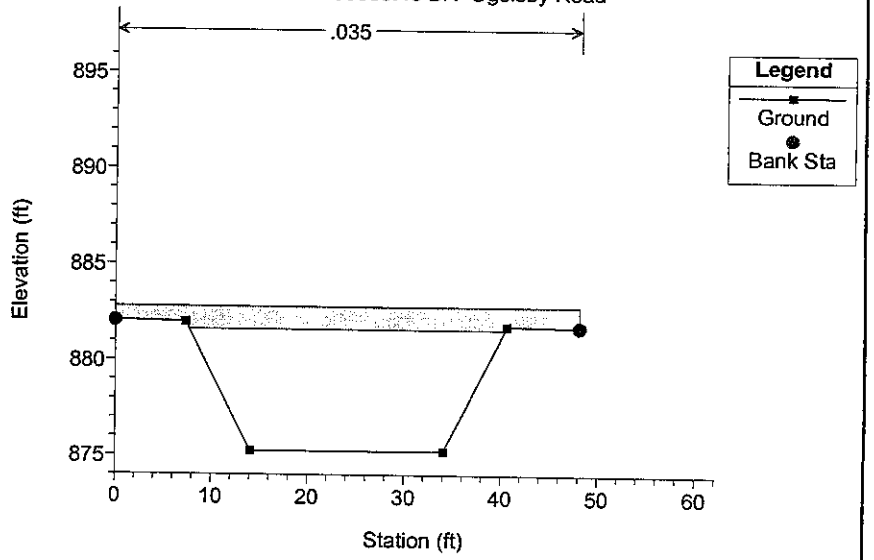
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 39400.00



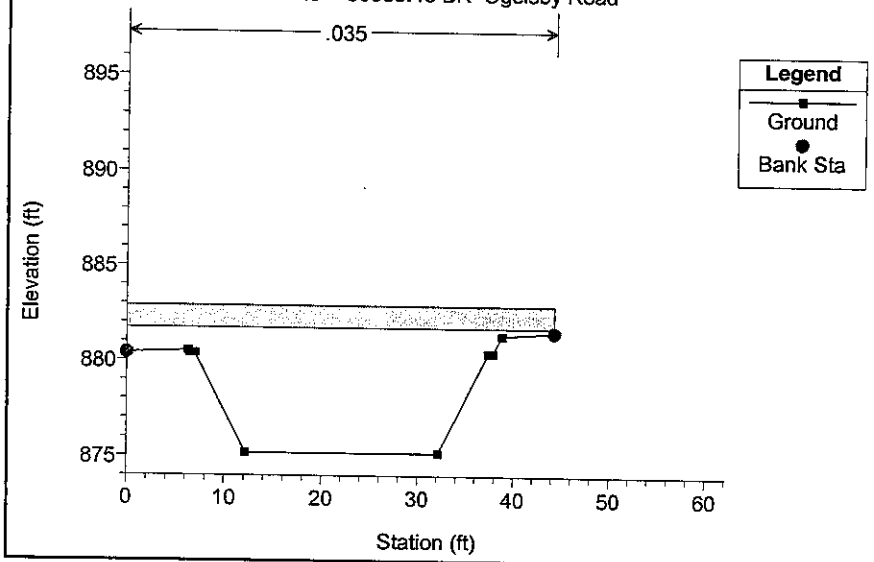
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 39383.46 BR Ogelsby Road



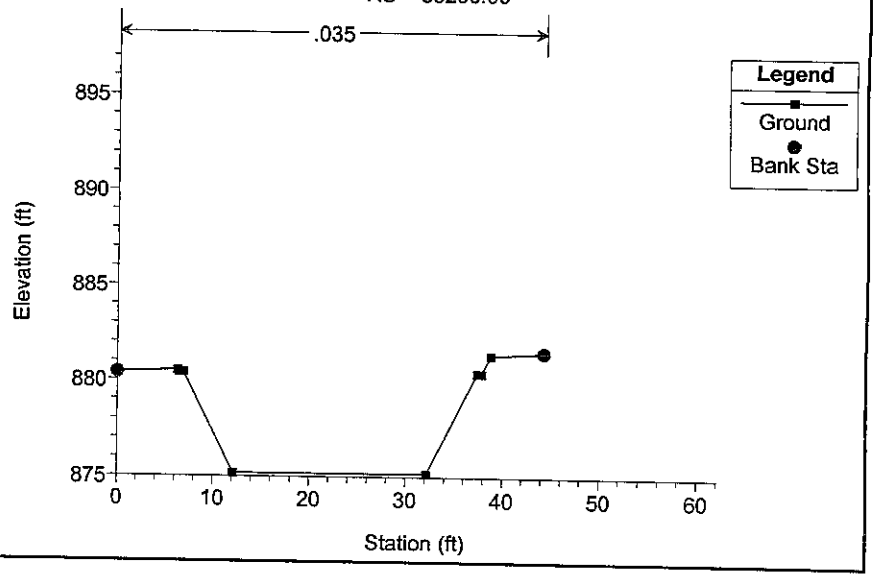
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 39383.46 BR Ogelsby Road

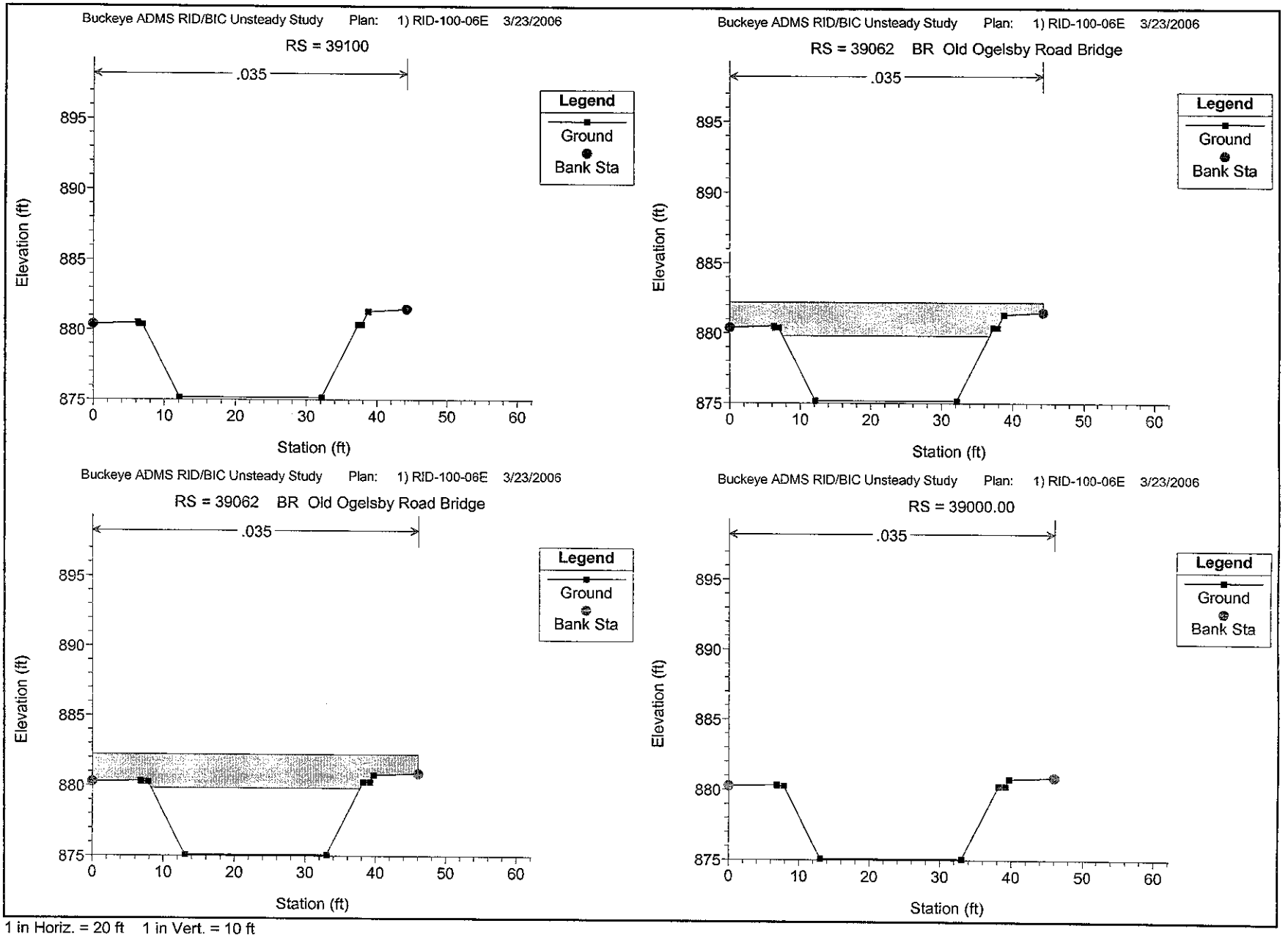


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 39200.00



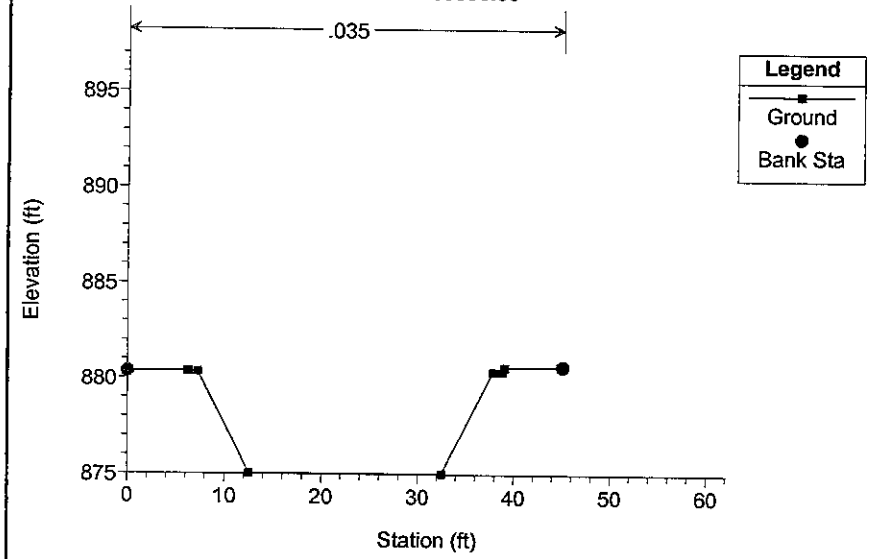
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

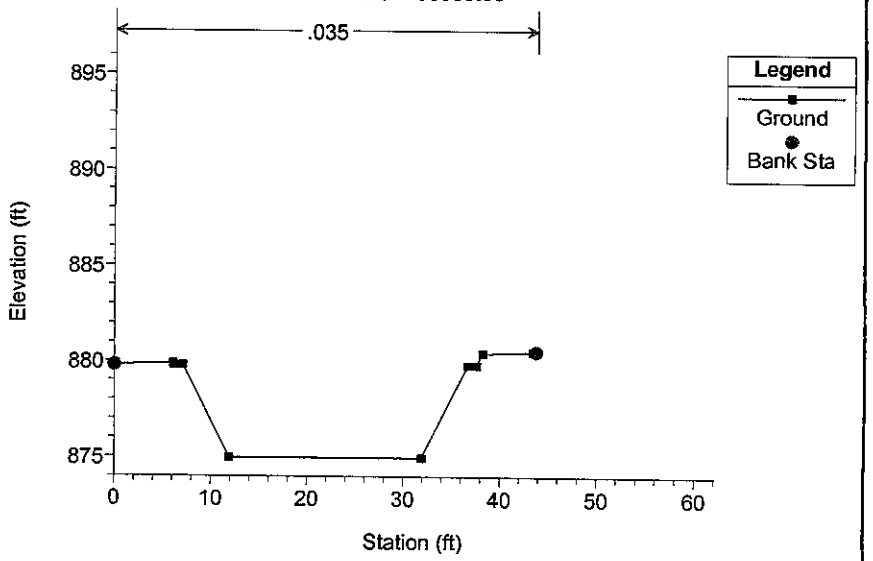
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 38800.00



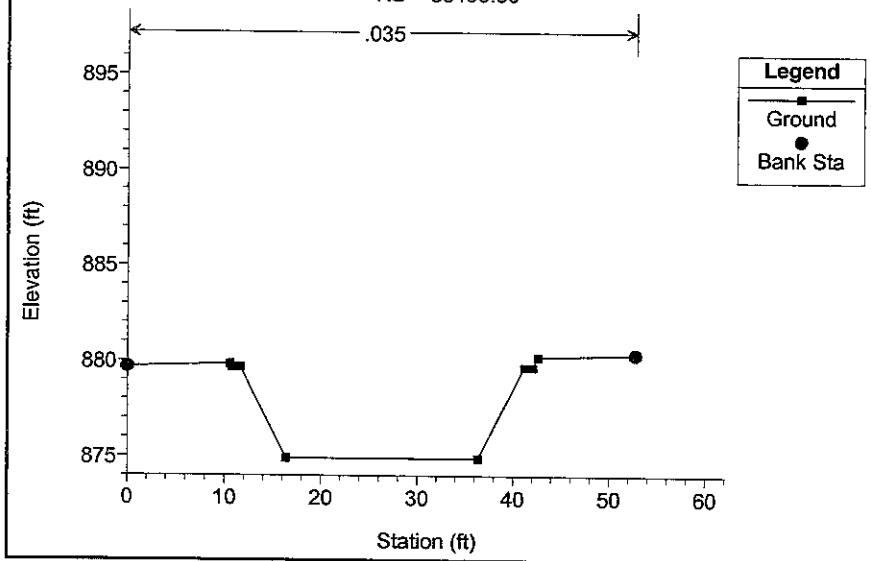
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 38600.00



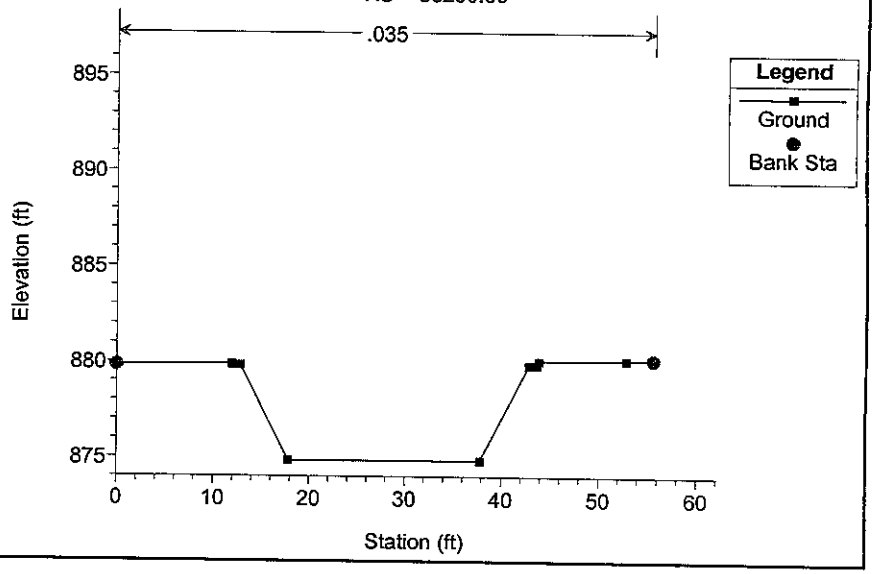
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 38400.00

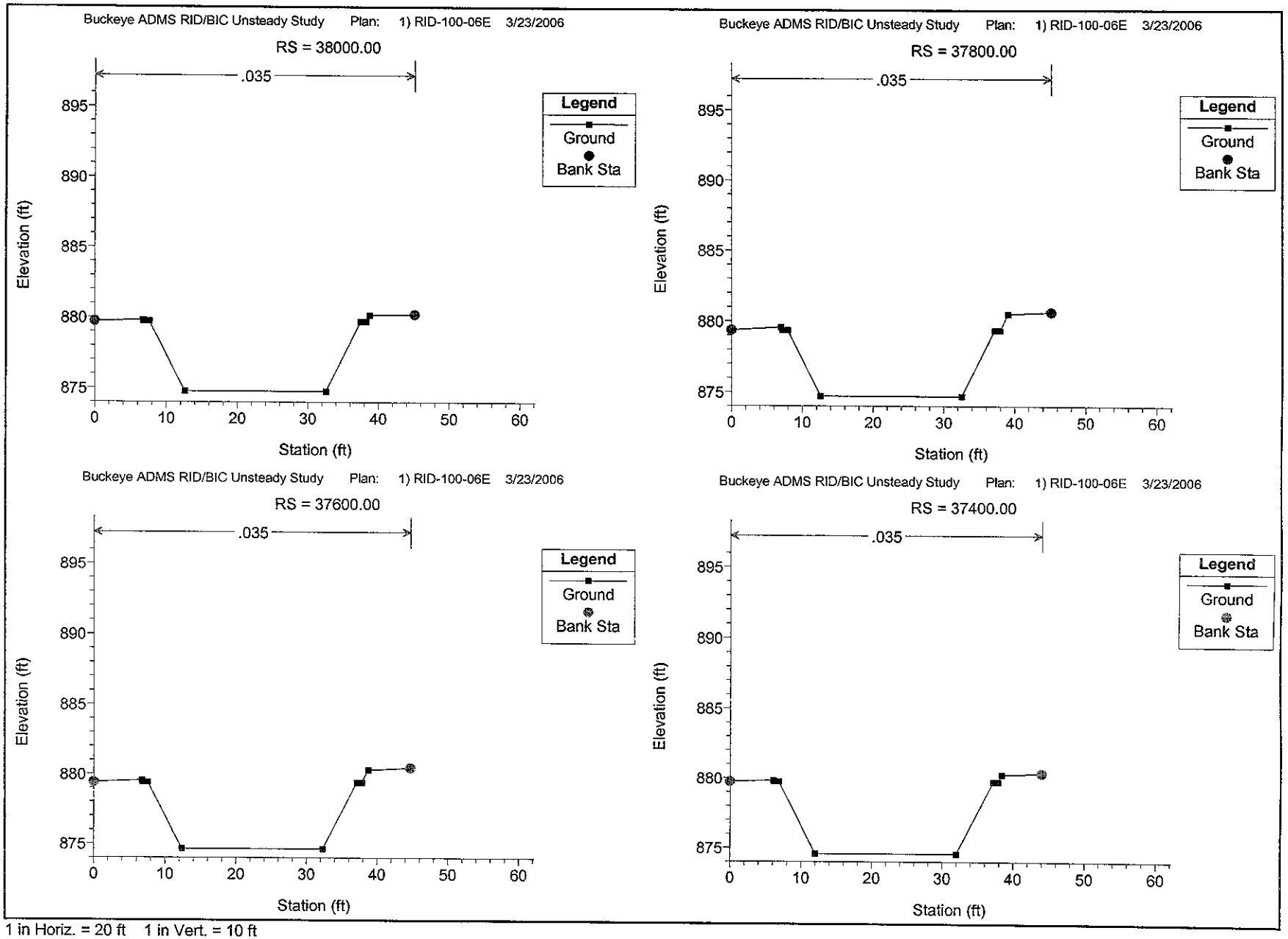


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 38200.00



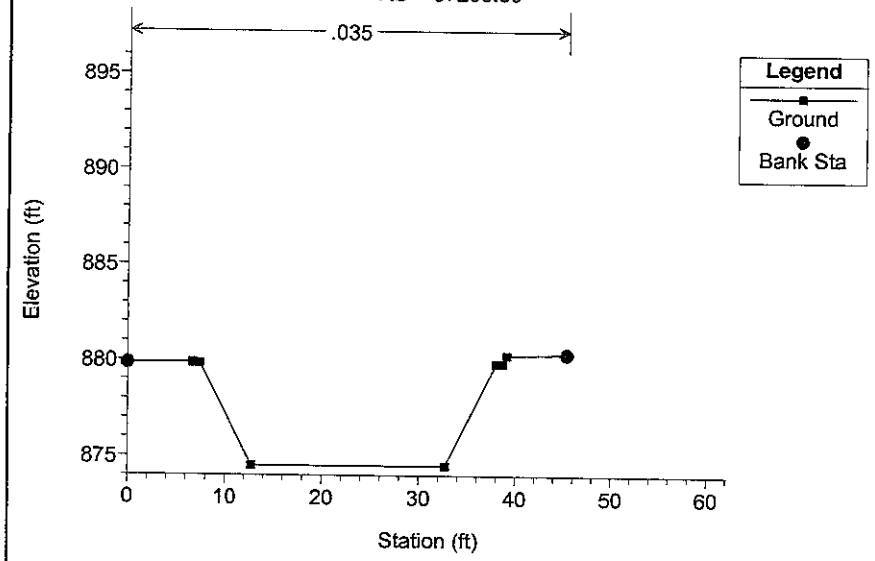
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

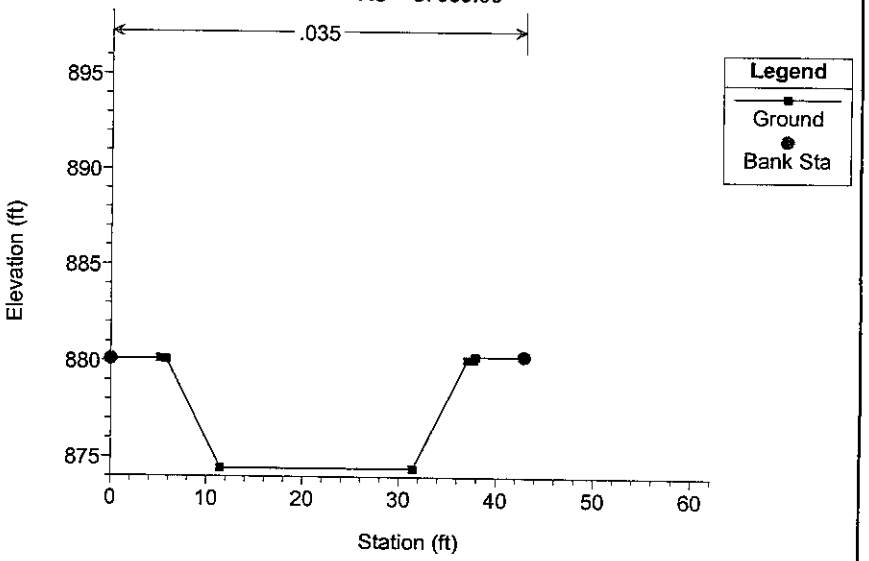
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 37200.00



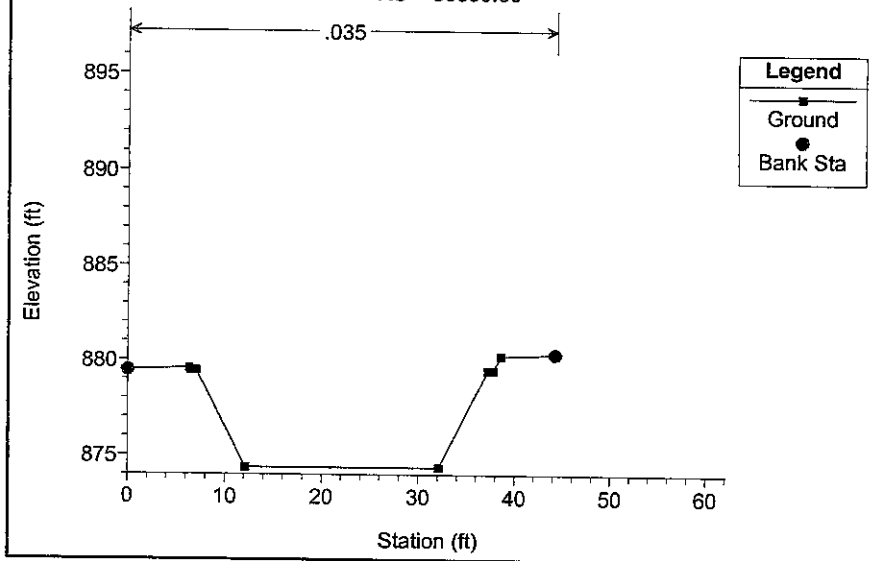
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 37000.00



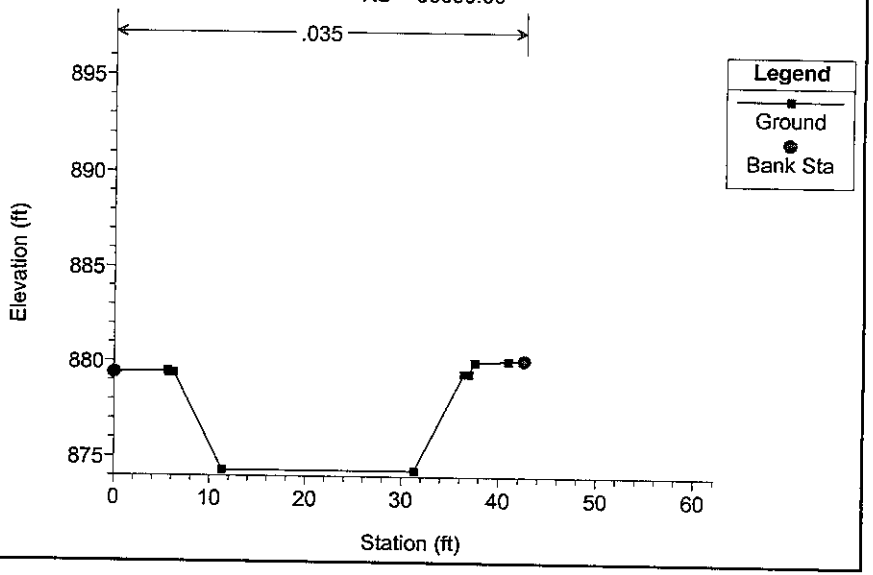
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 36800.00

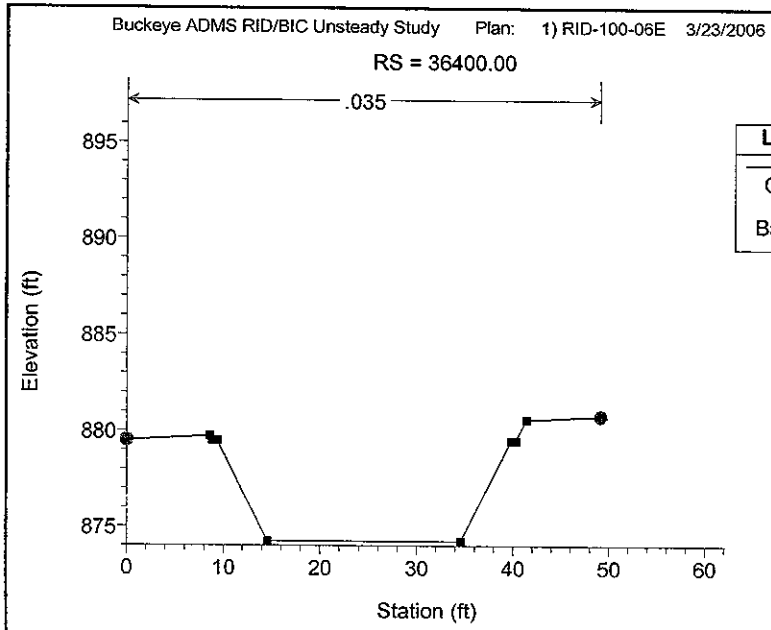


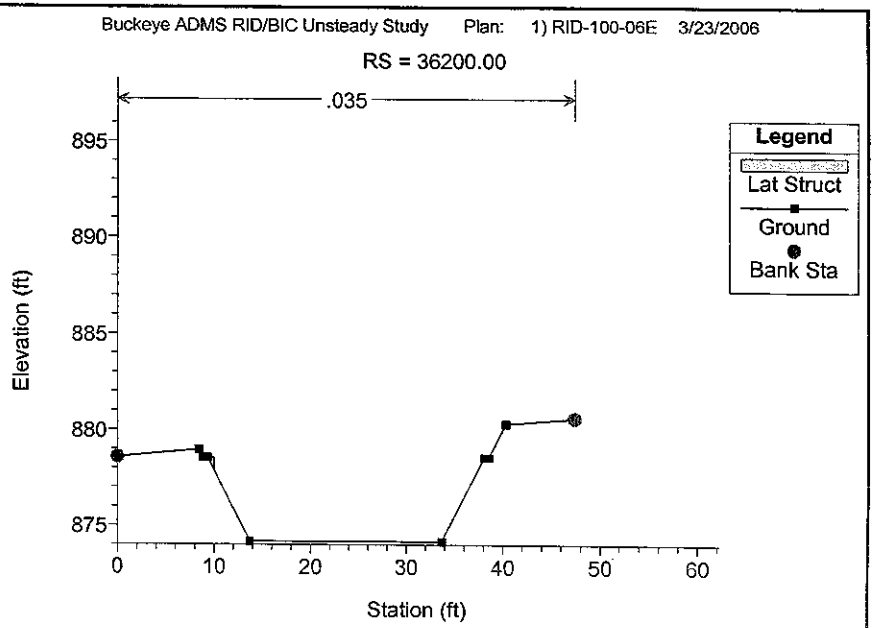
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

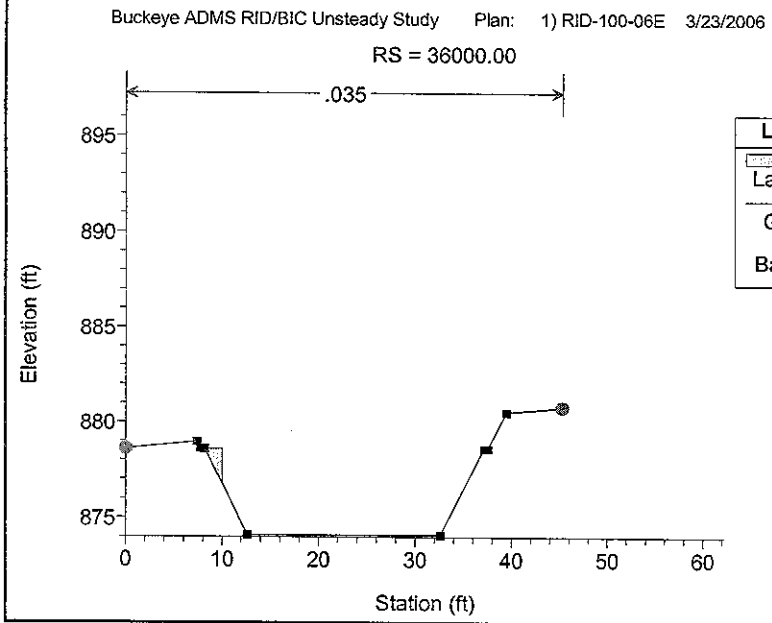
RS = 36600.00

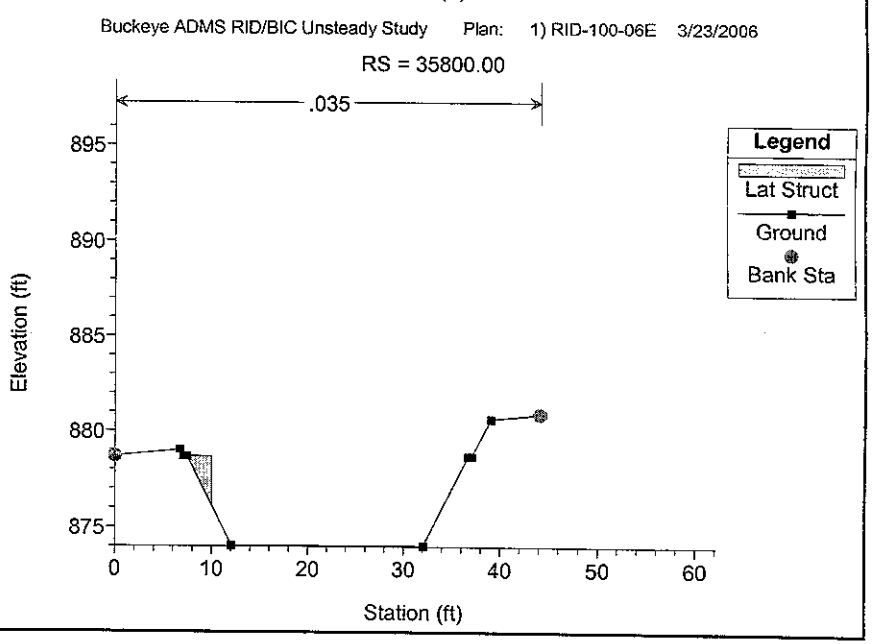


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

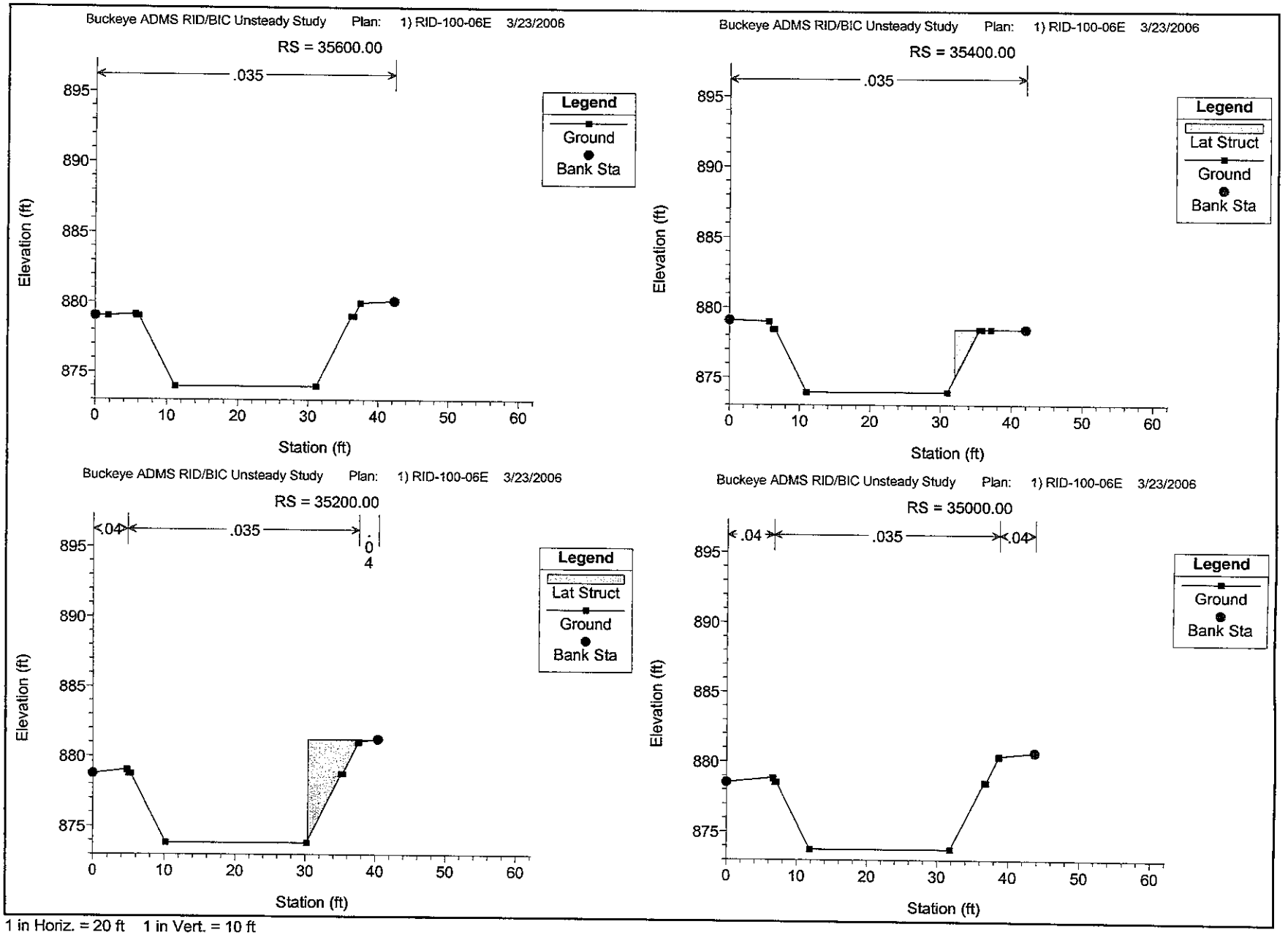




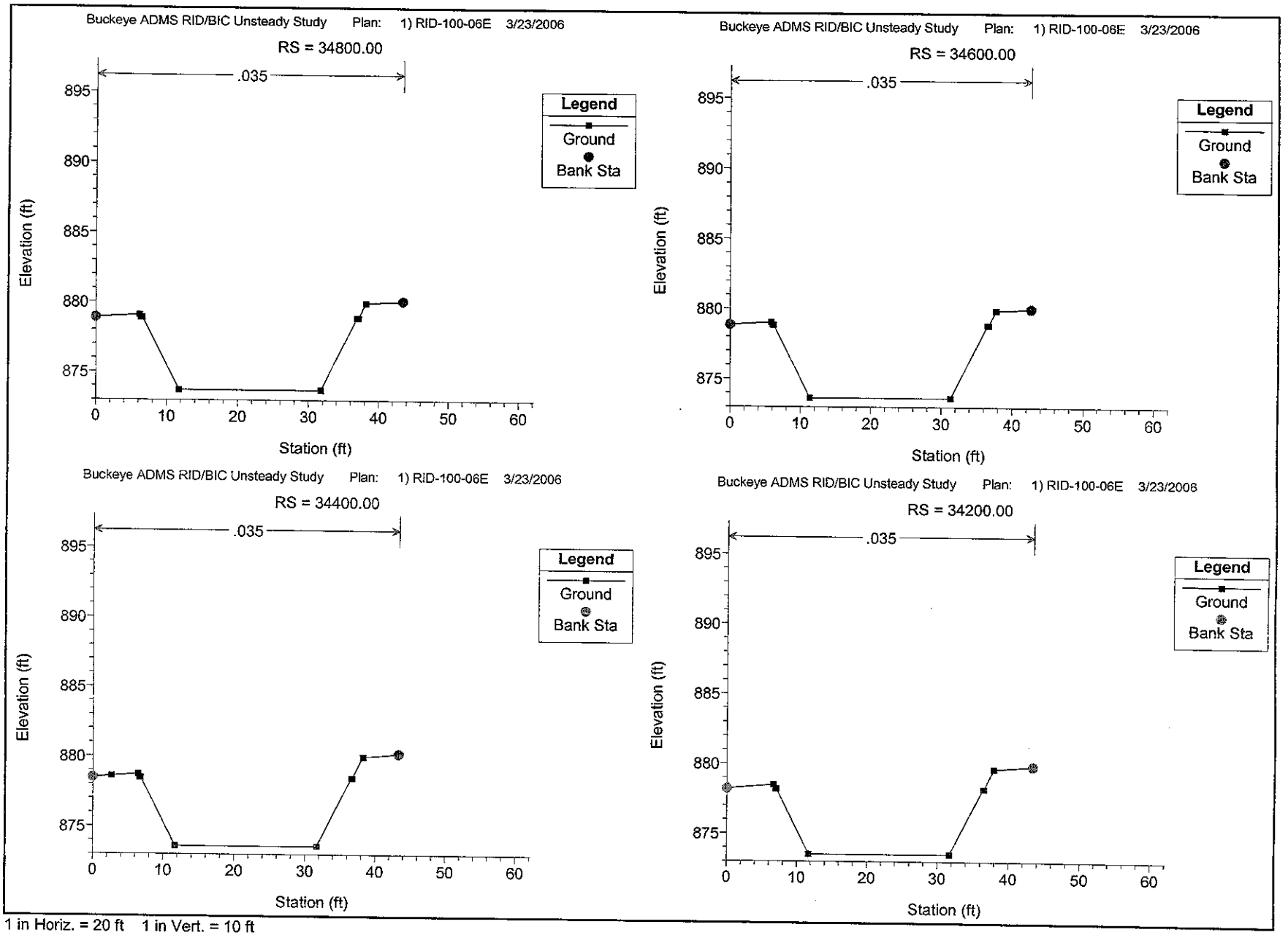




1 in Horiz. = 20 ft 1 in Vert. = 10 ft



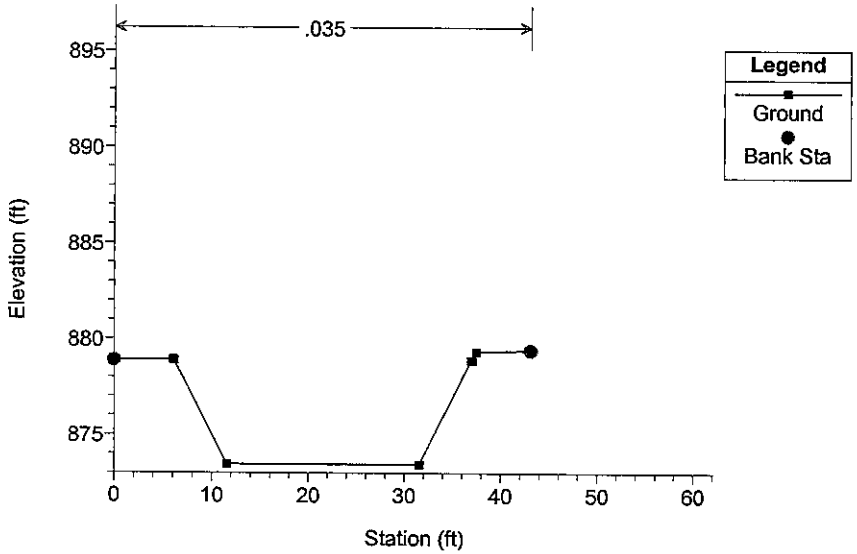
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

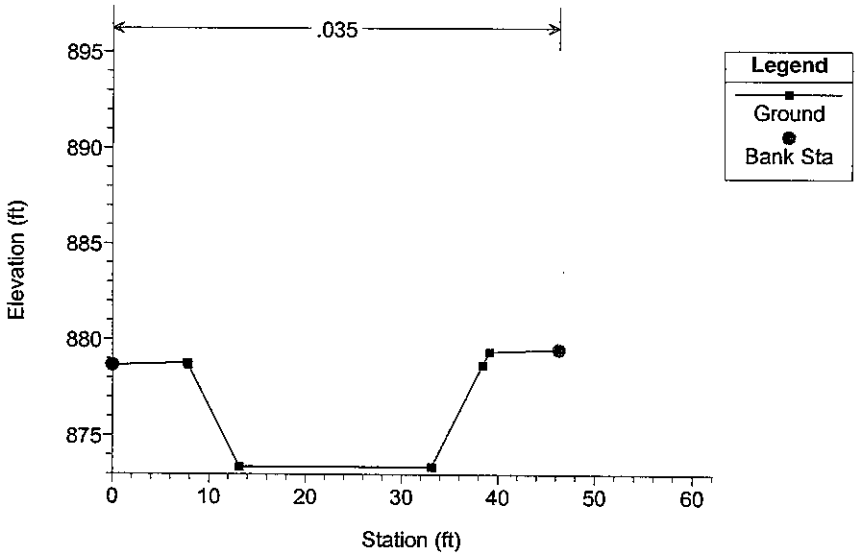
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 34000.00



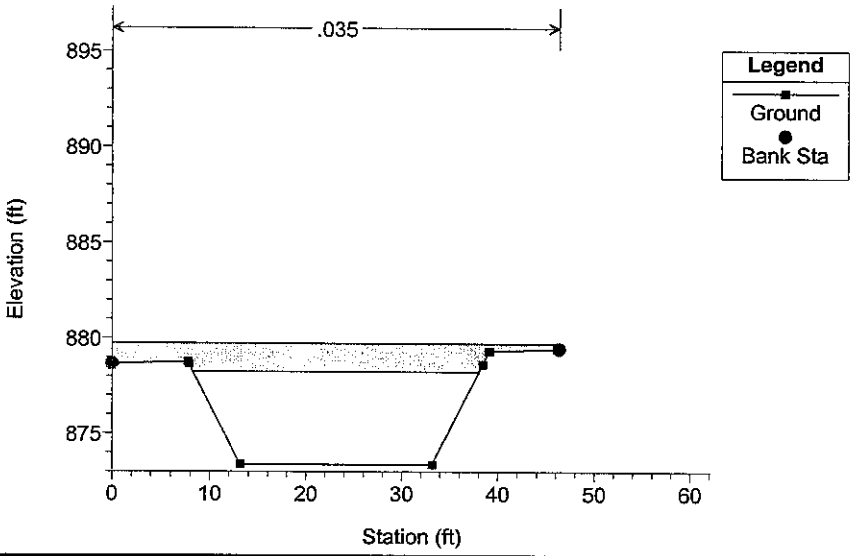
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 33800.00



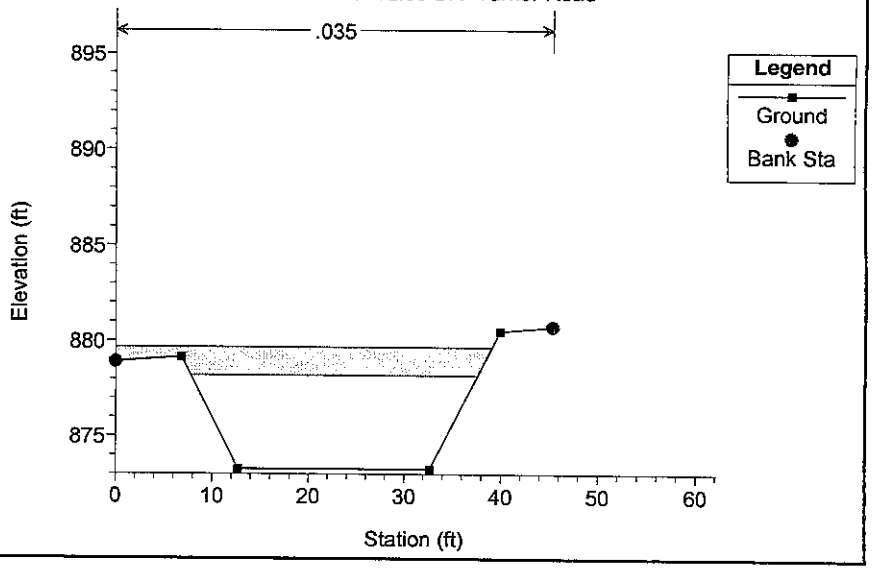
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 33712.00 BR Turner Road

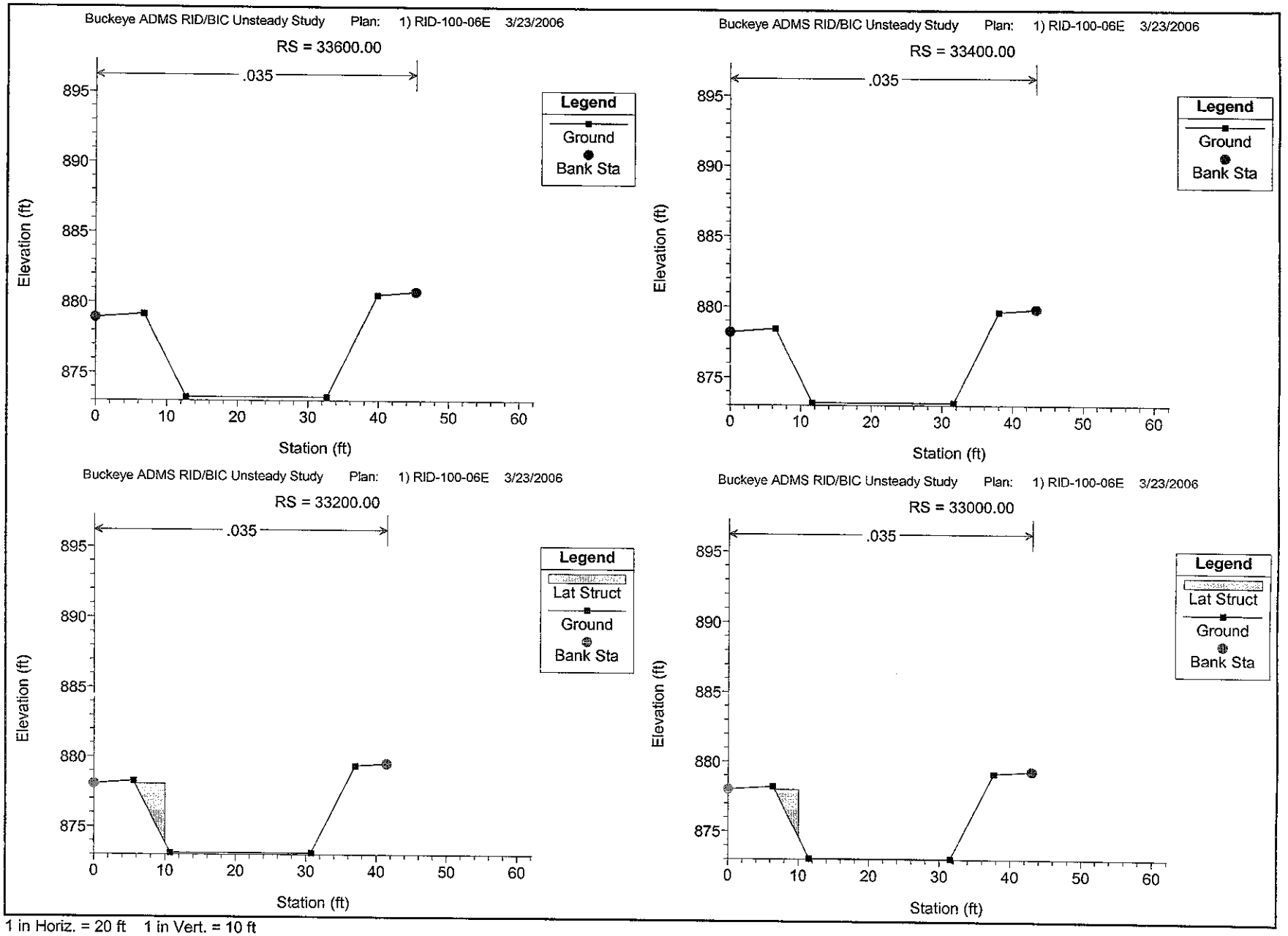


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 33712.00 BR Turner Road



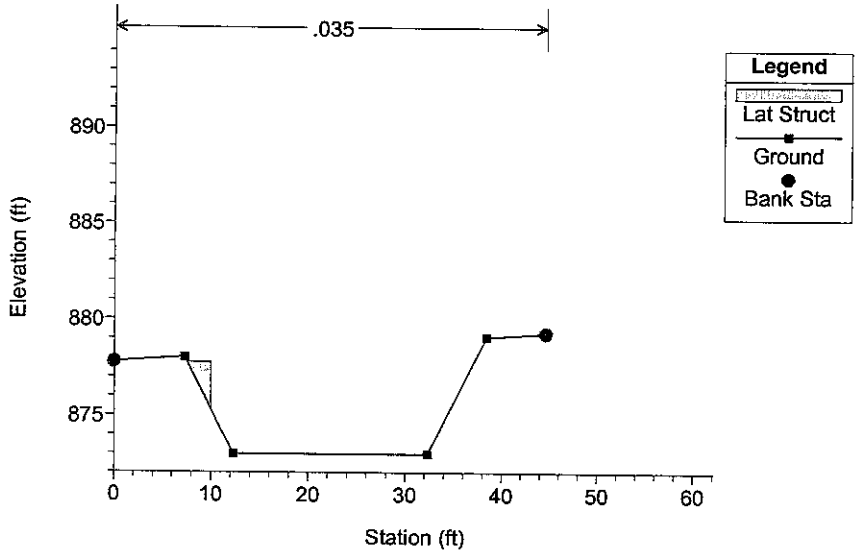
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

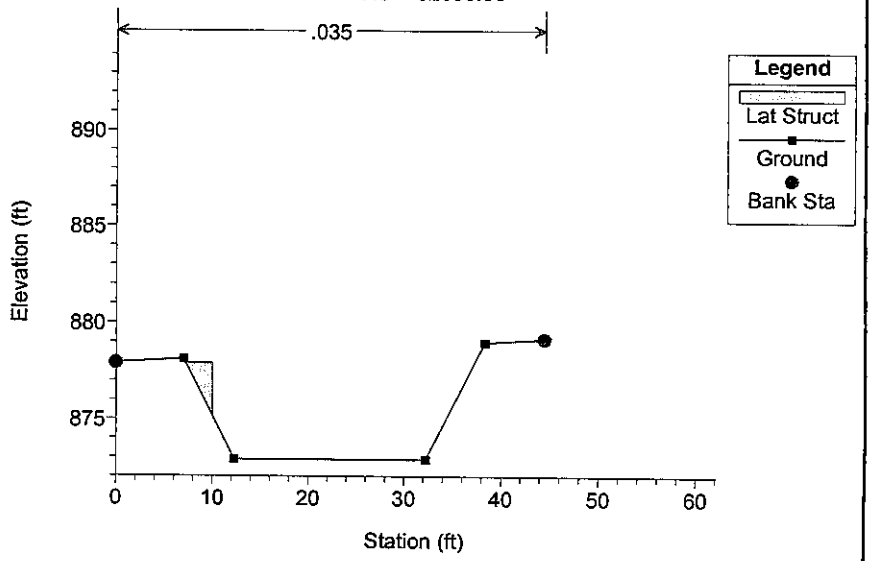
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 32800.00



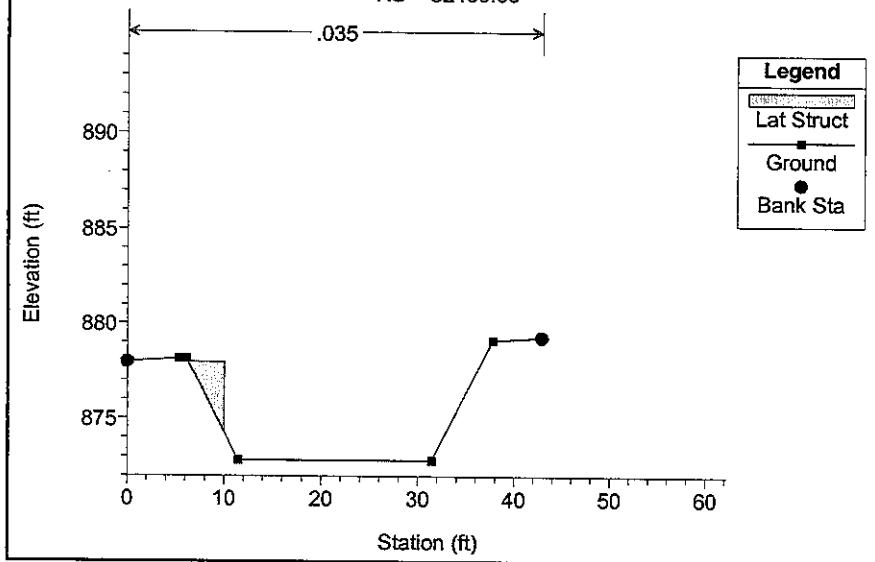
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 32600.00



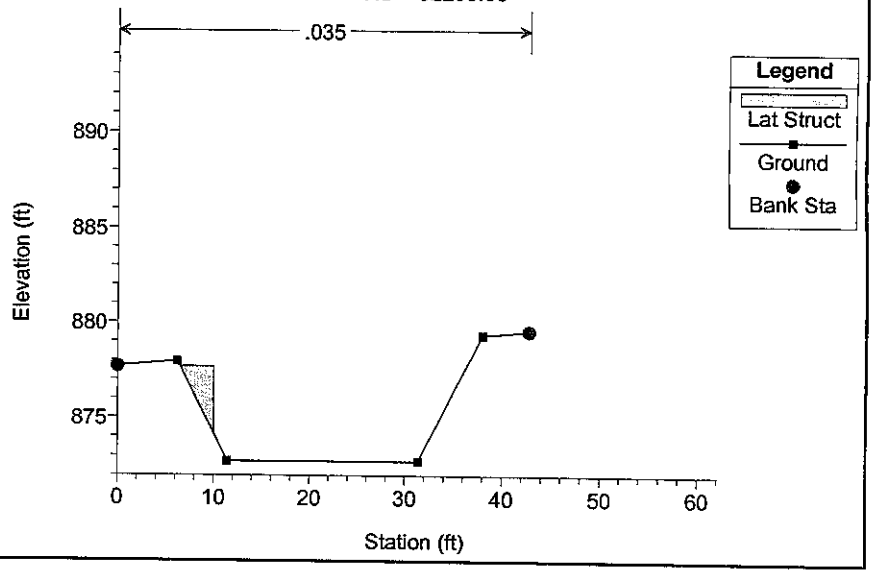
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 32400.00

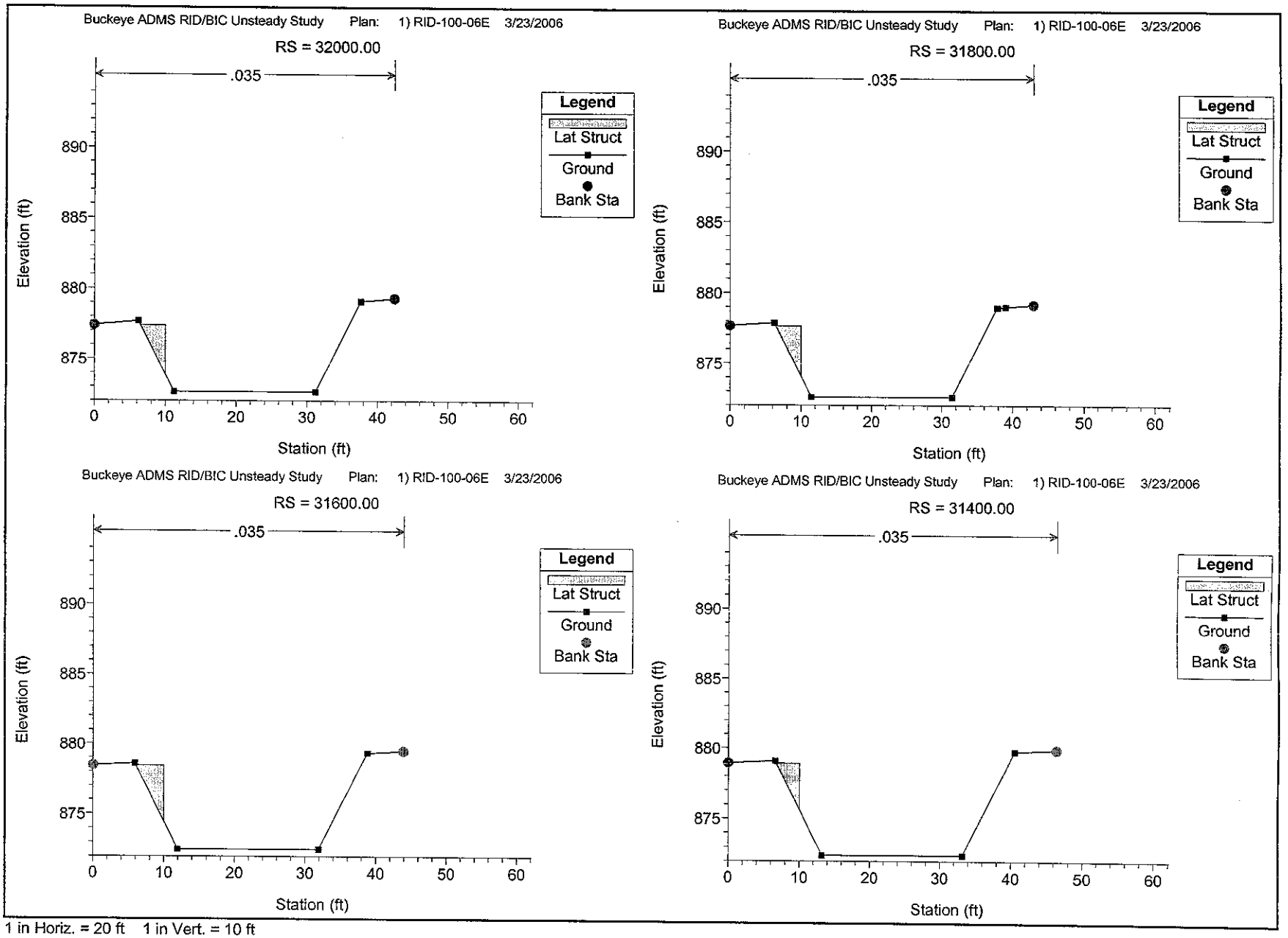


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 32200.00



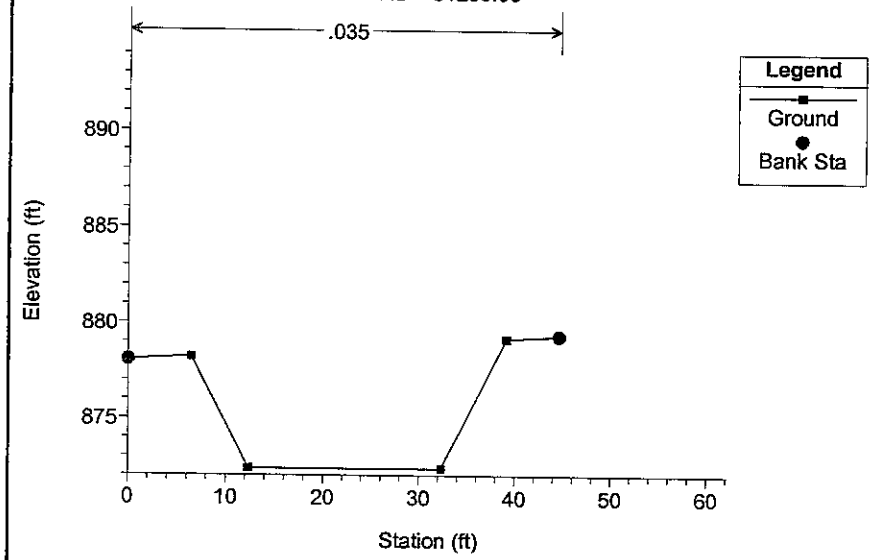
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

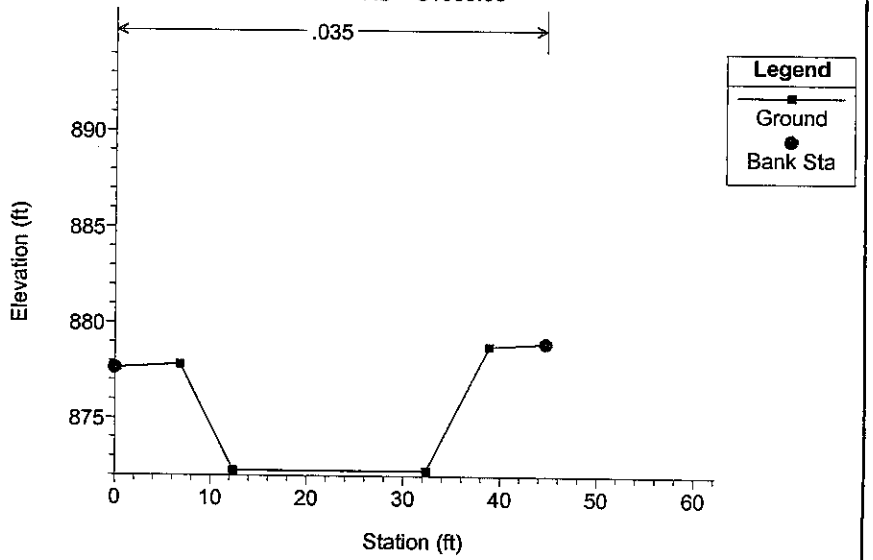
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 31200.00



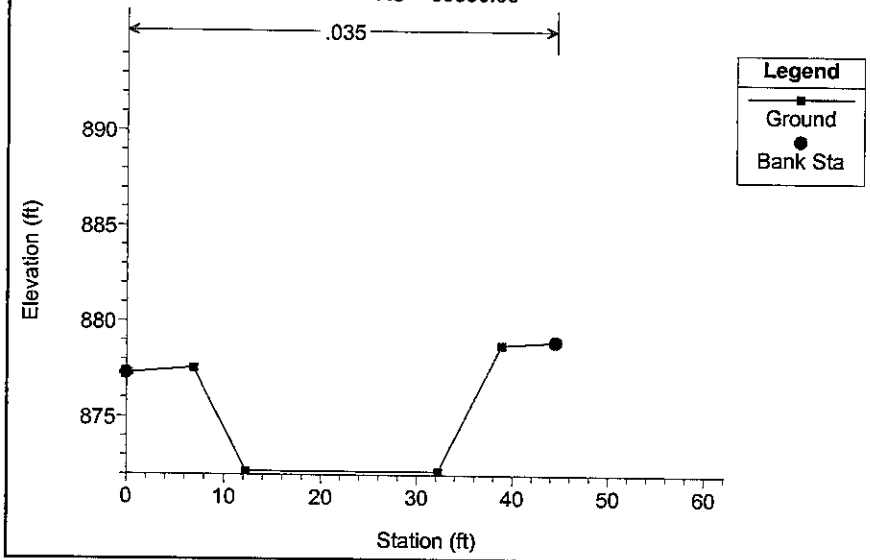
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 31000.00



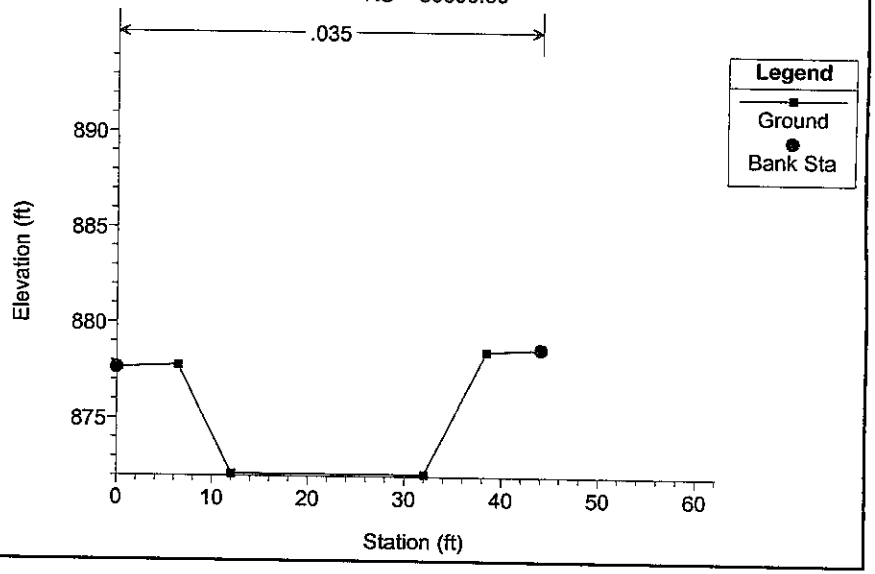
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 30800.00



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

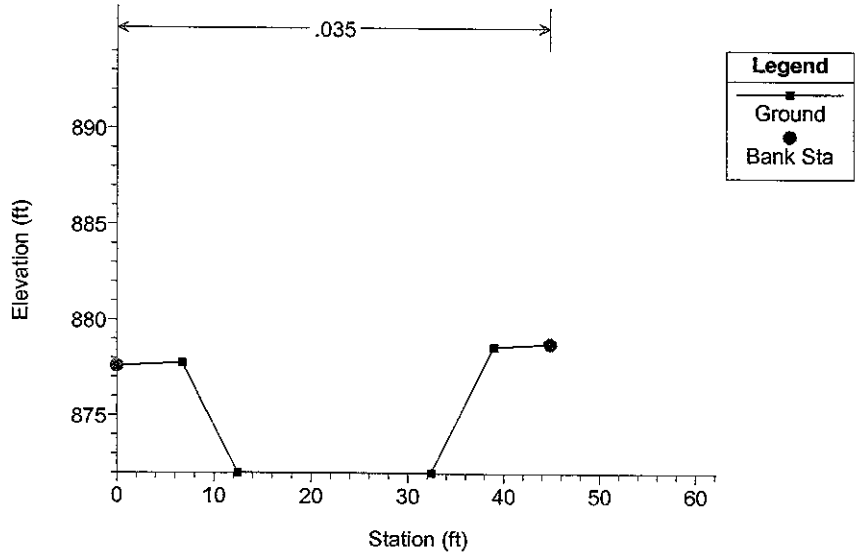
RS = 30600.00



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

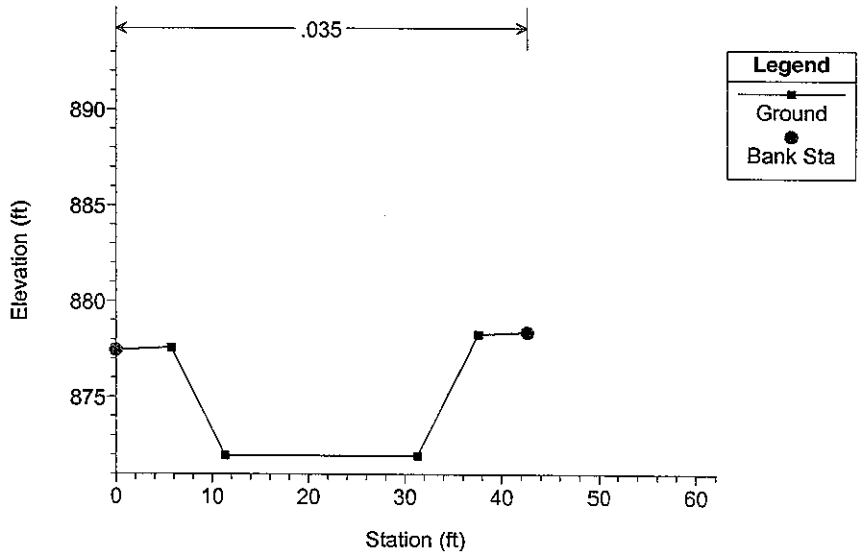
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 30400.00



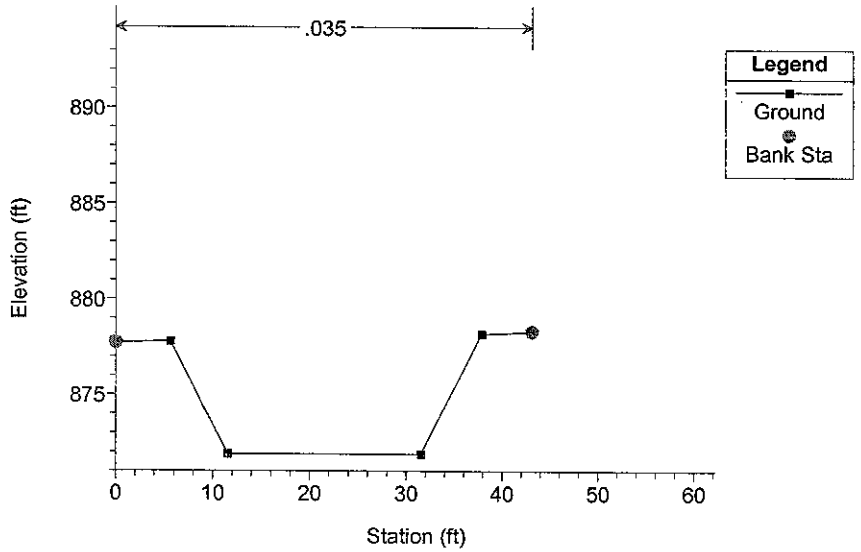
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 30200.00



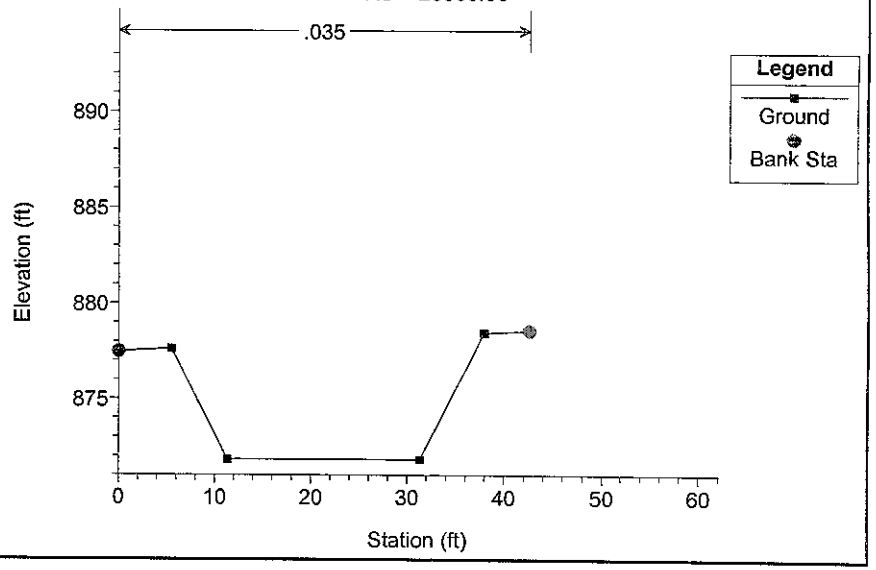
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 30000.00



Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

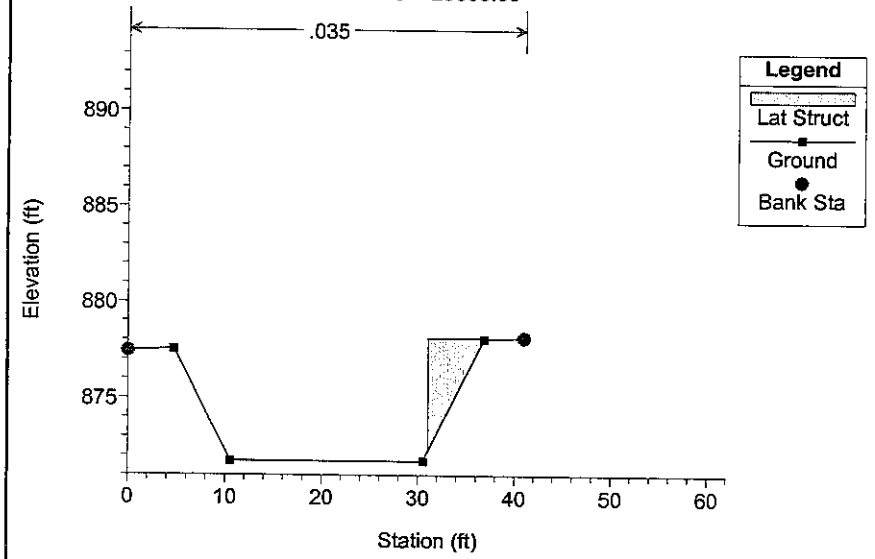
RS = 29800.00



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

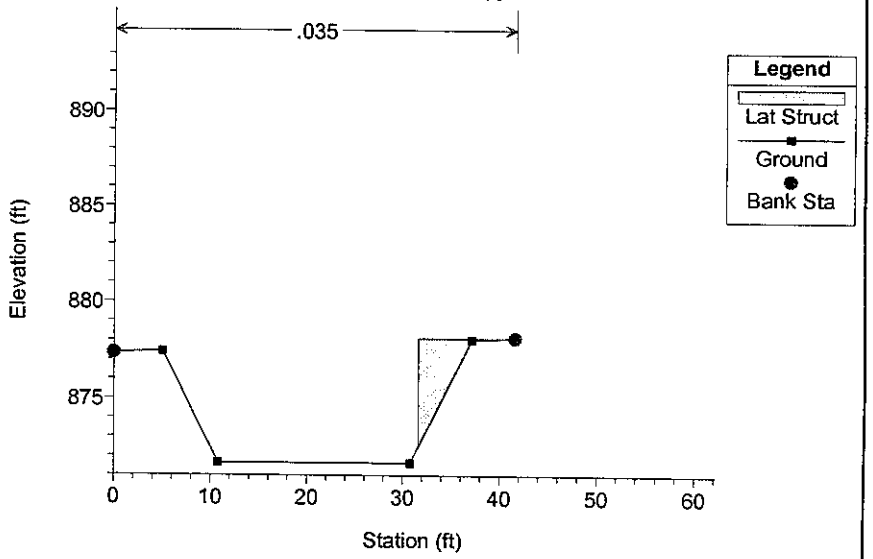
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 29600.00



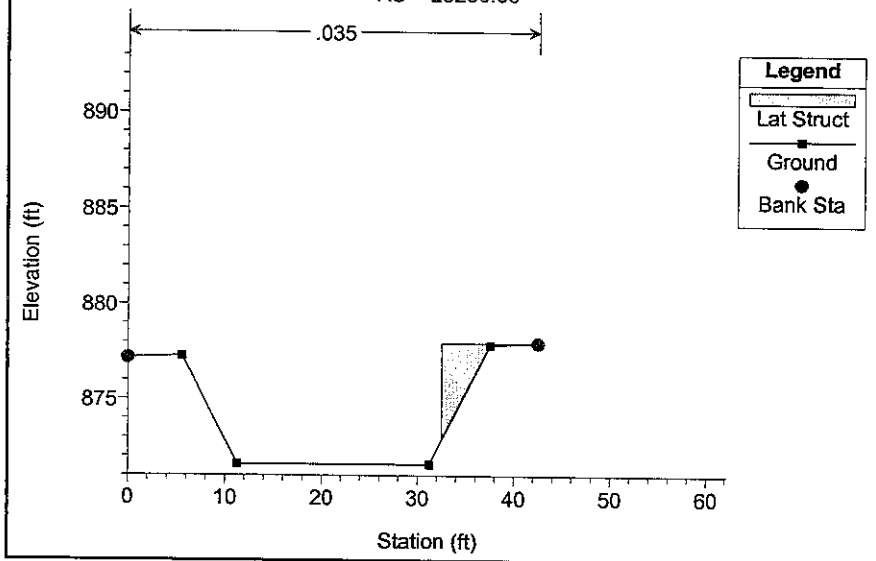
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 29400.00



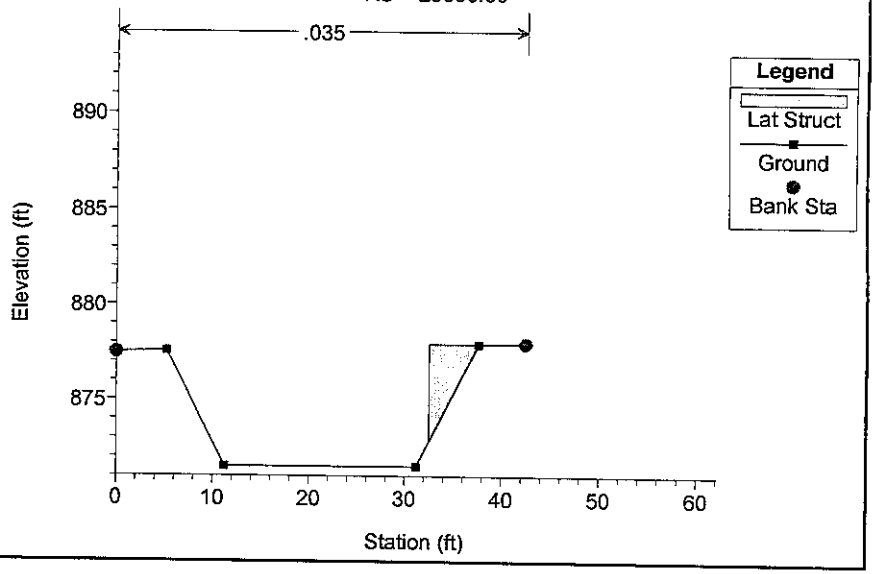
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 29200.00

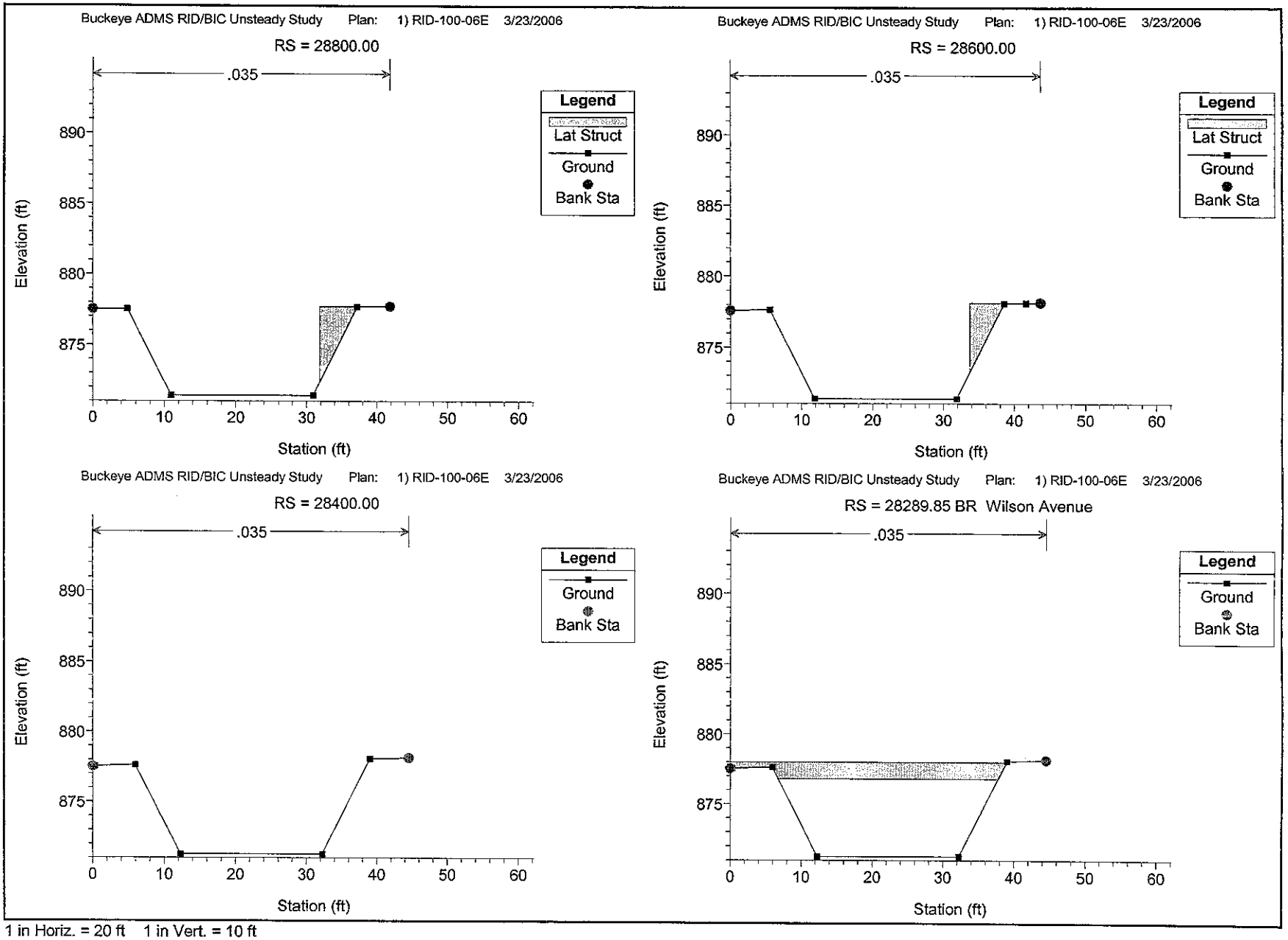


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 29000.00



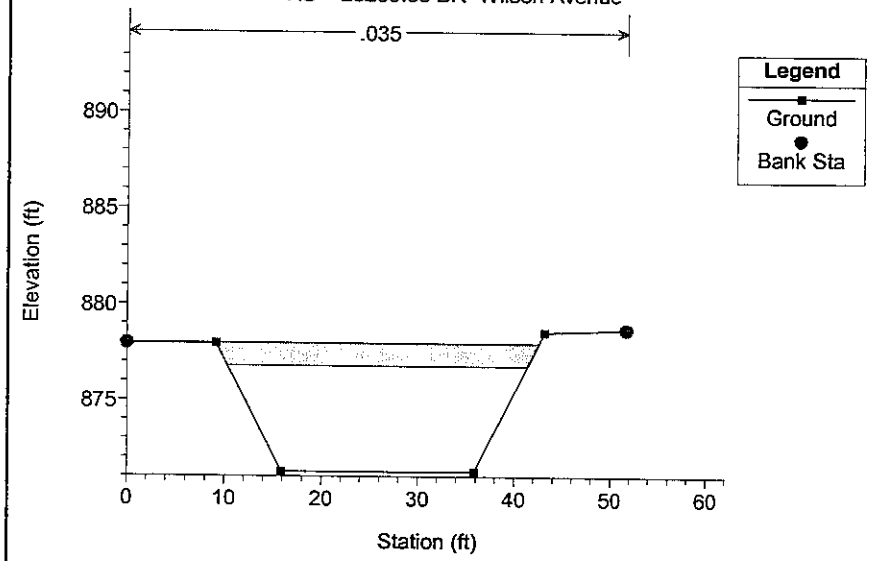
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

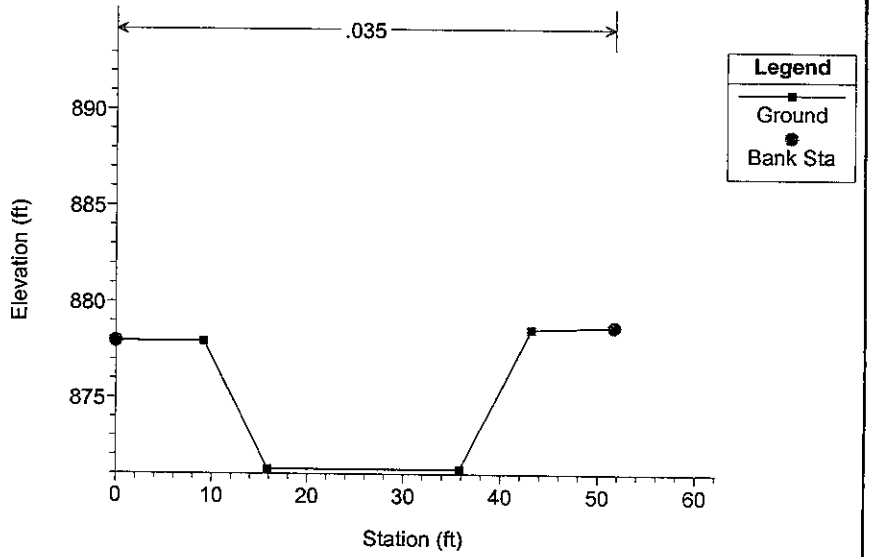
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 28289.85 BR Wilson Avenue



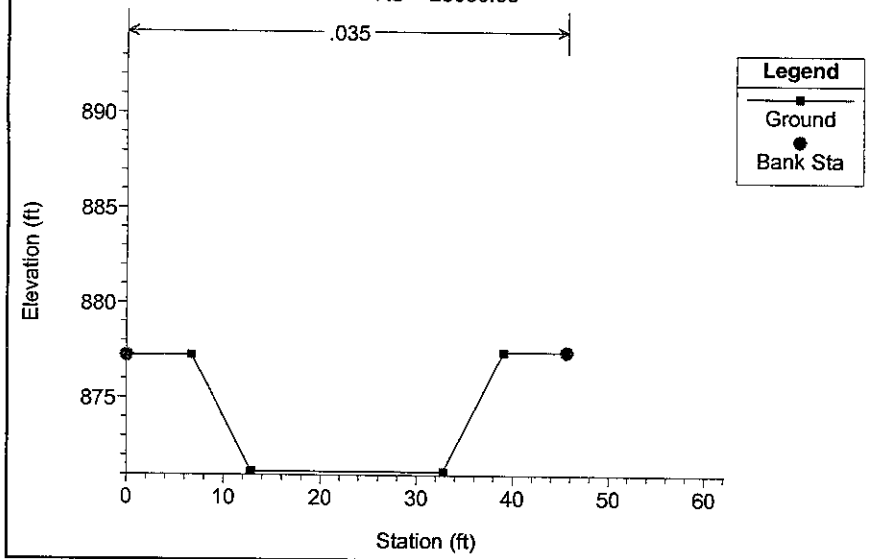
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 28200.00



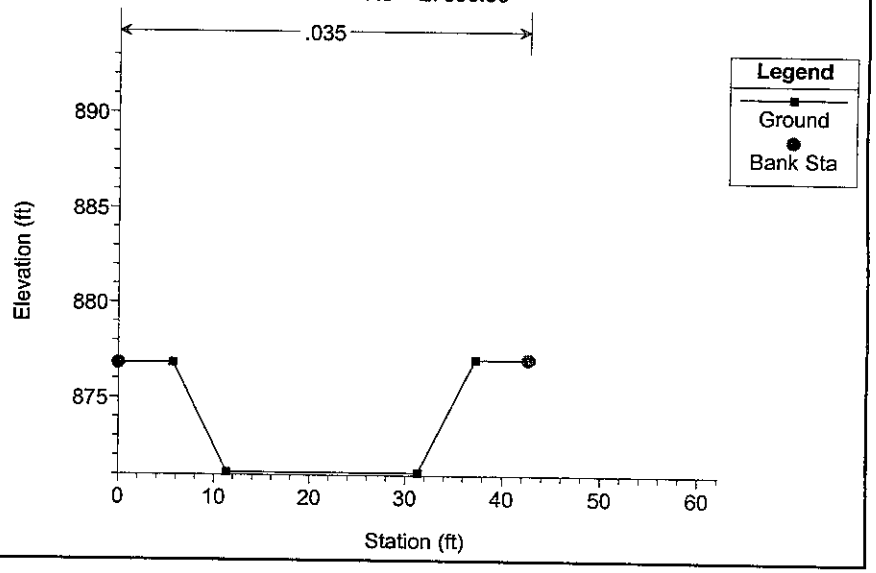
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 28000.00

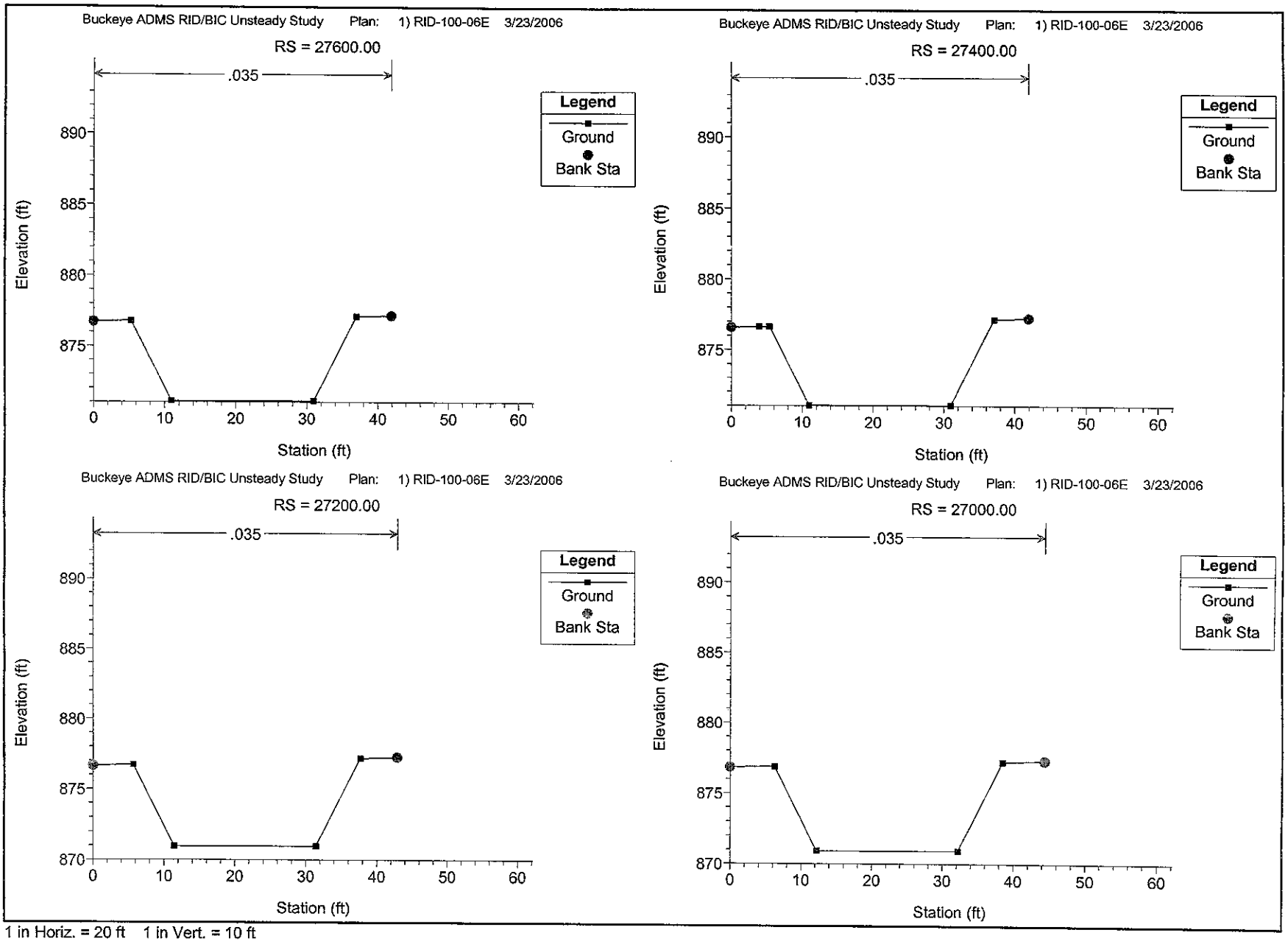


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 27800.00



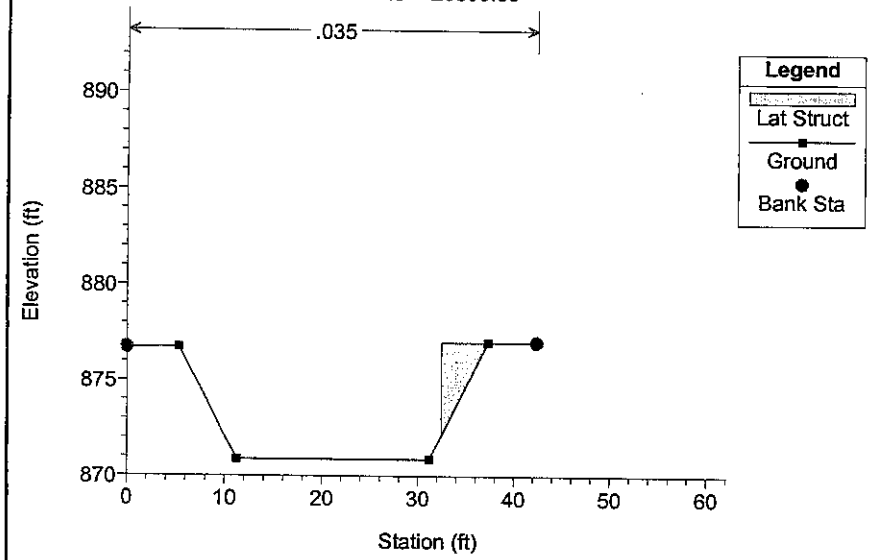
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

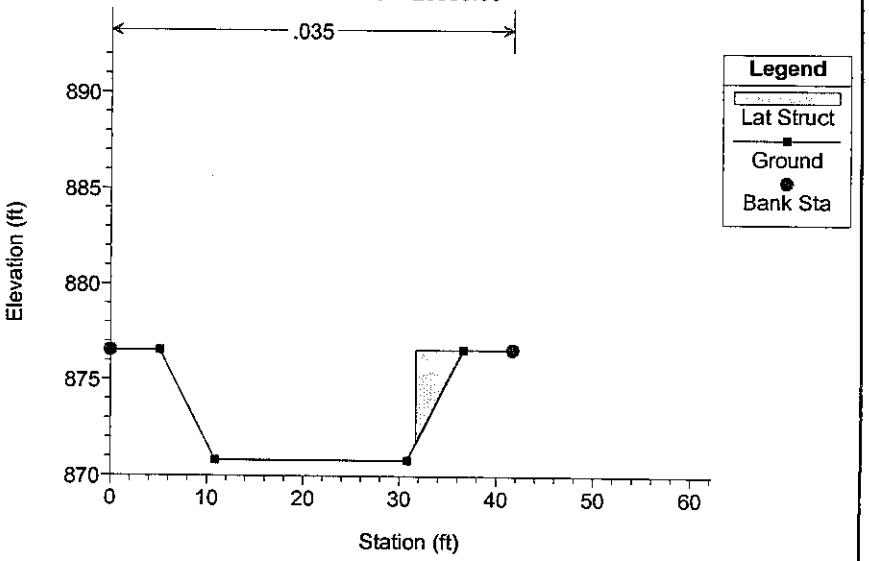
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 26800.00



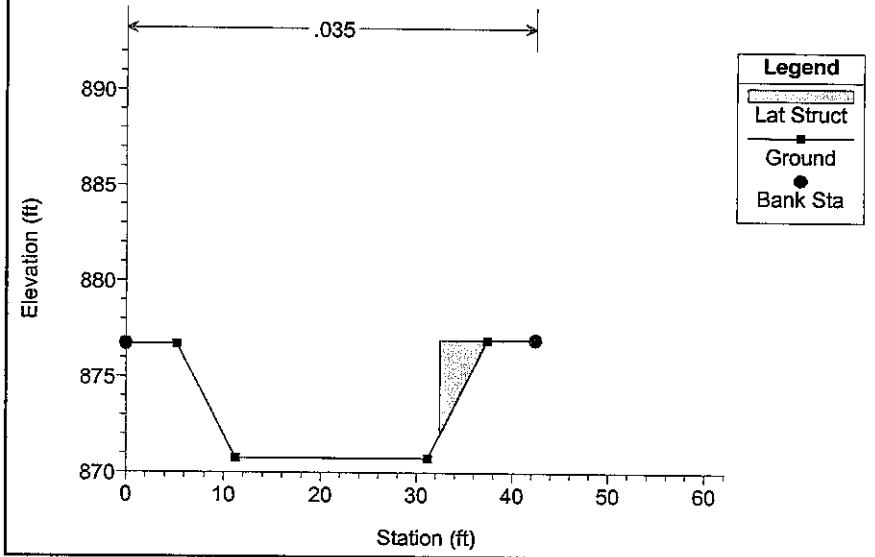
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 26600.00



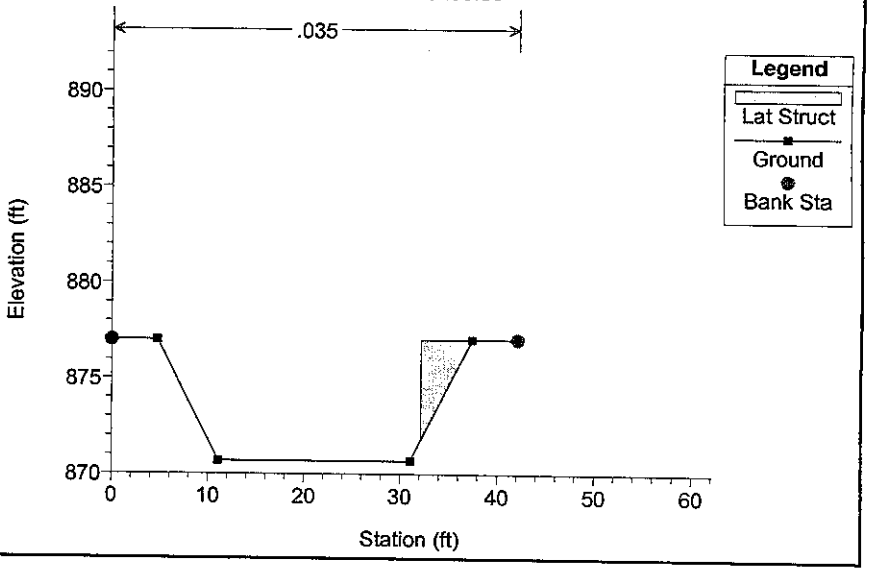
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 26400.00

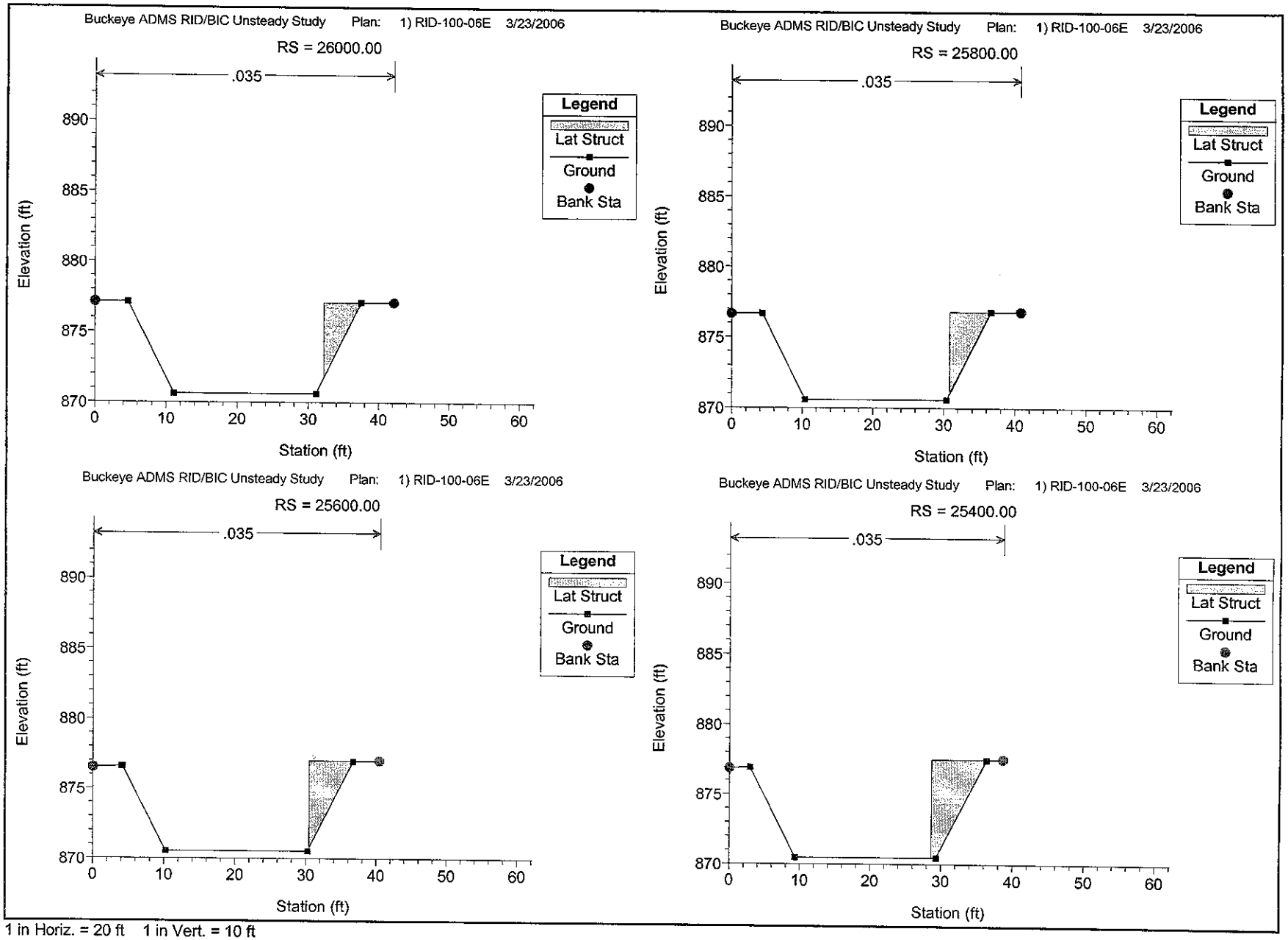


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

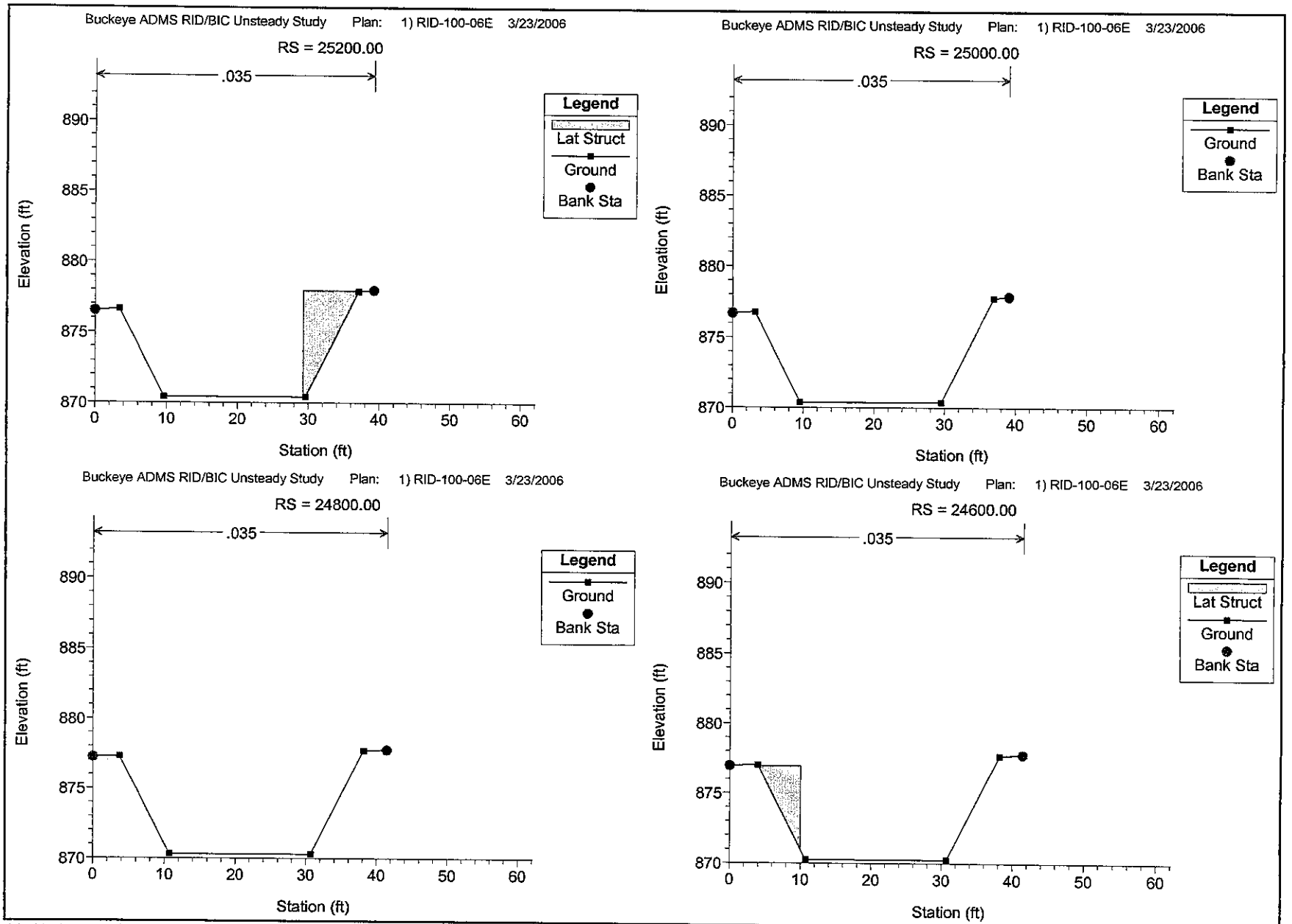
RS = 26200.00



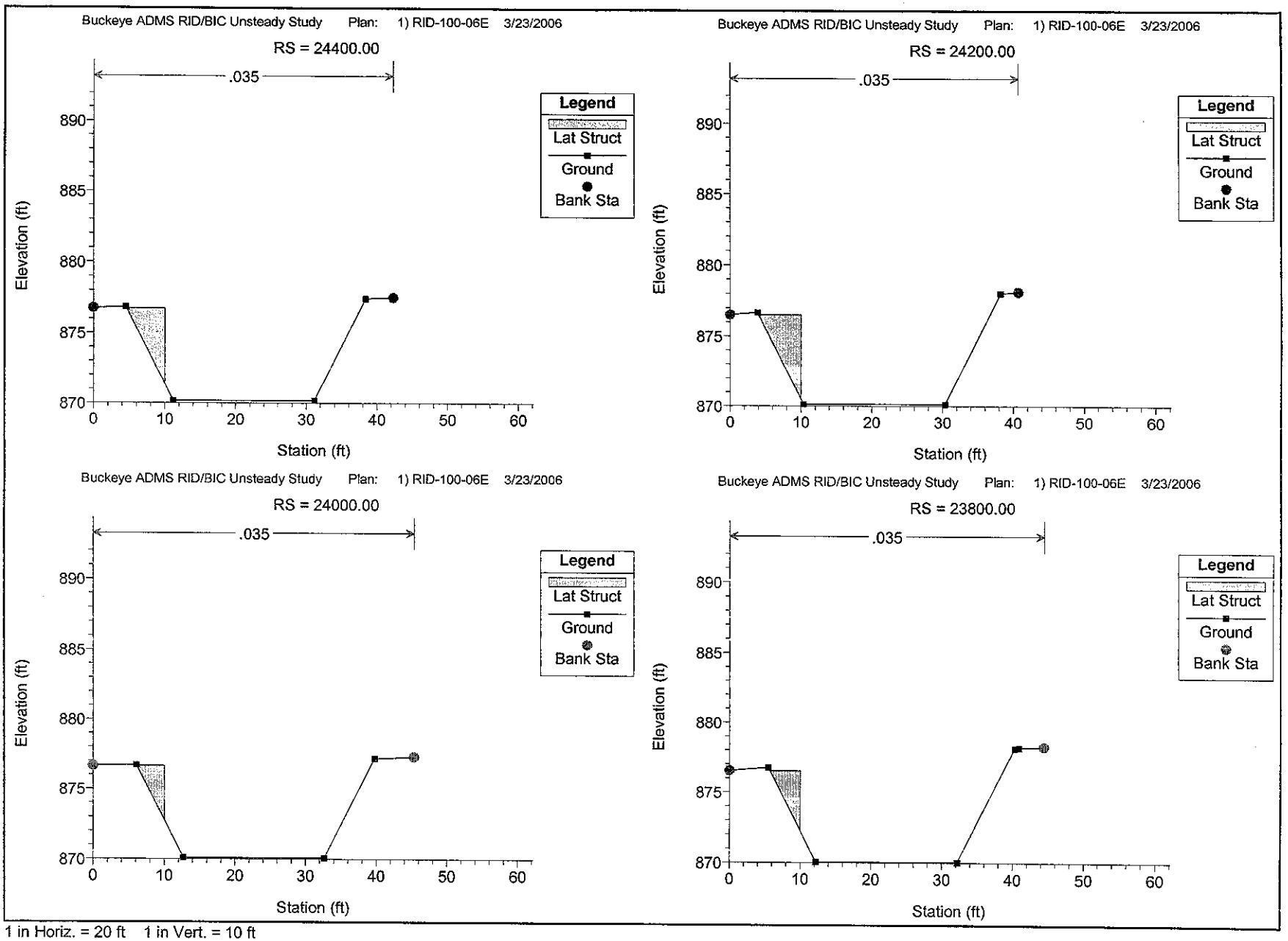
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft



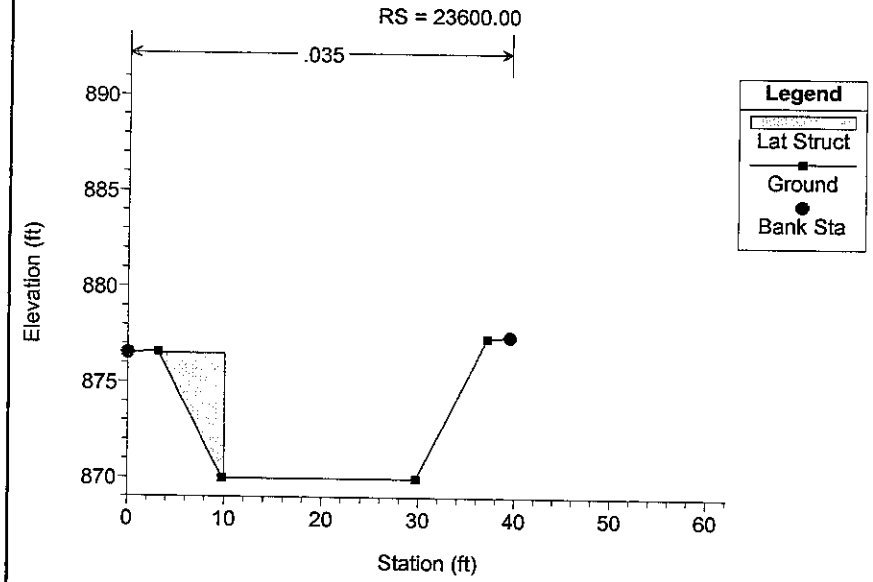
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

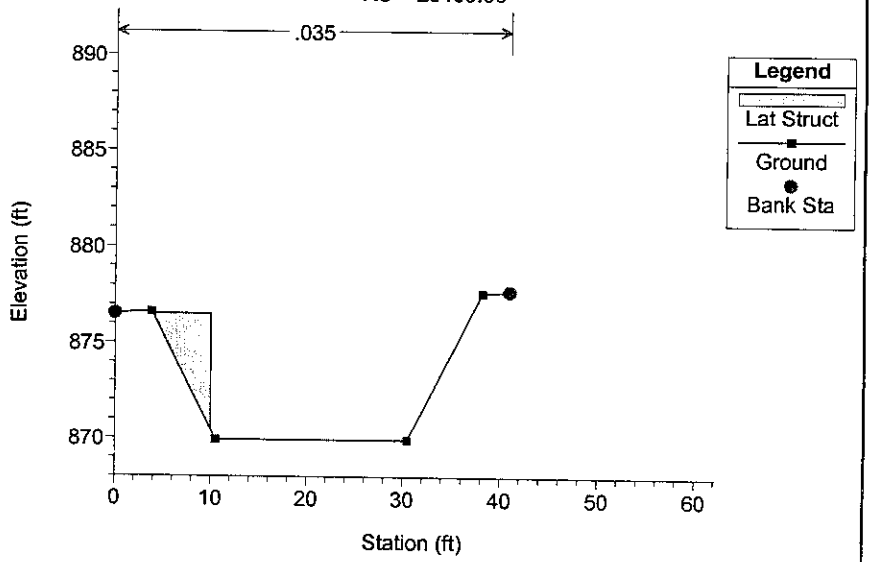
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 23600.00



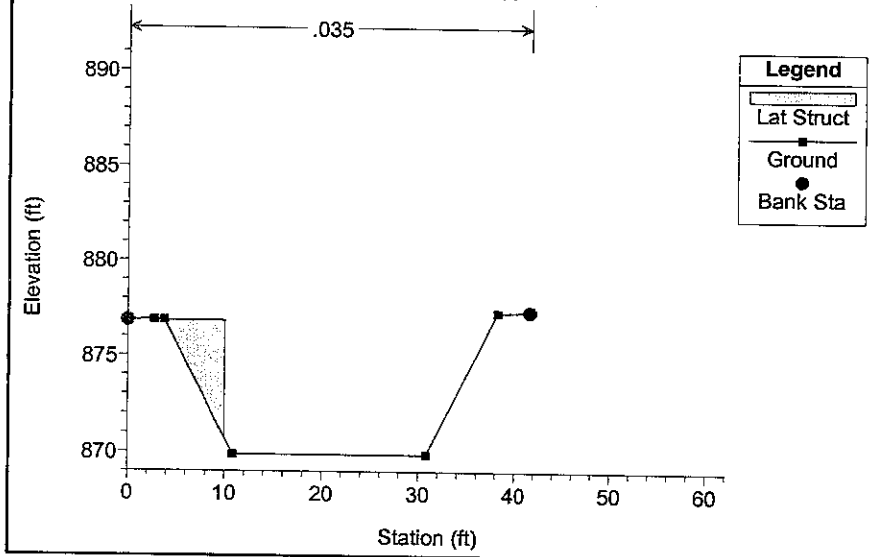
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 23400.00



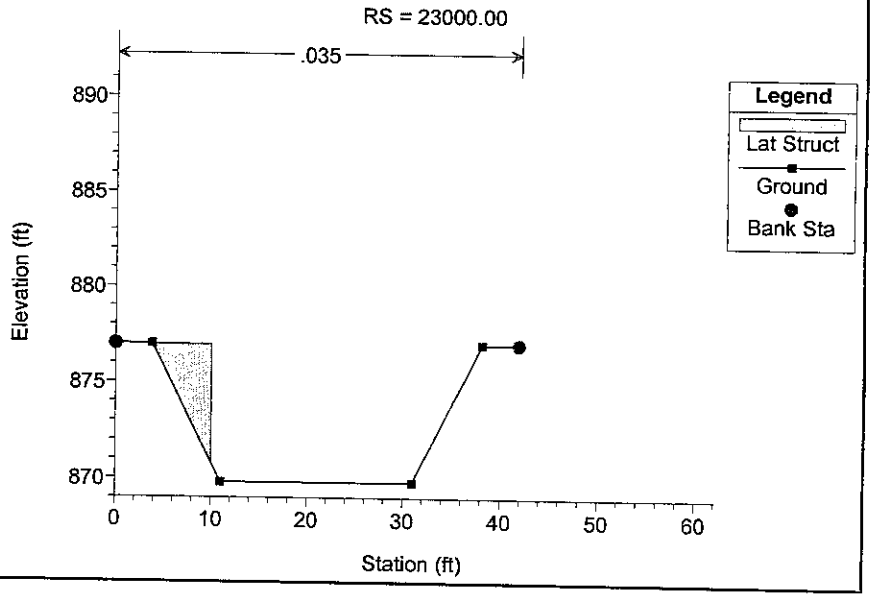
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 23200.00

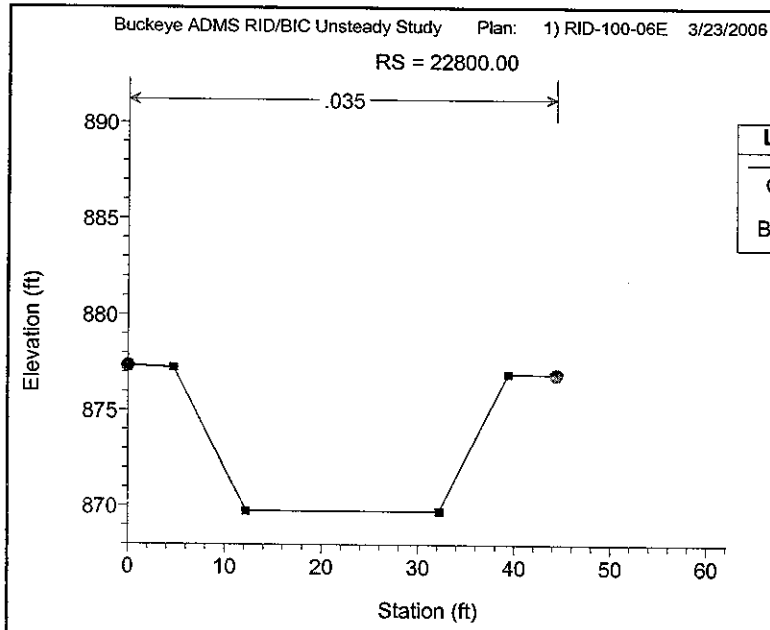


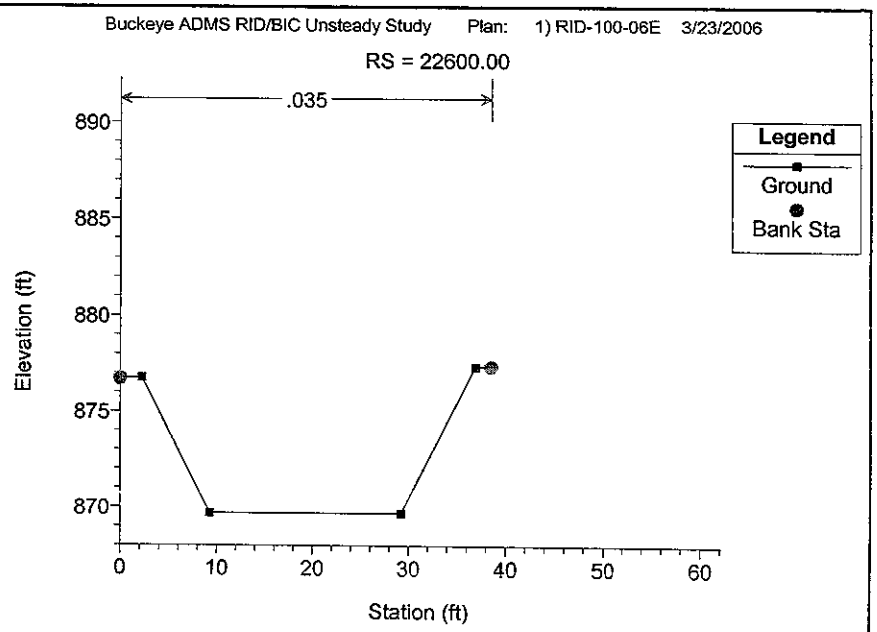
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

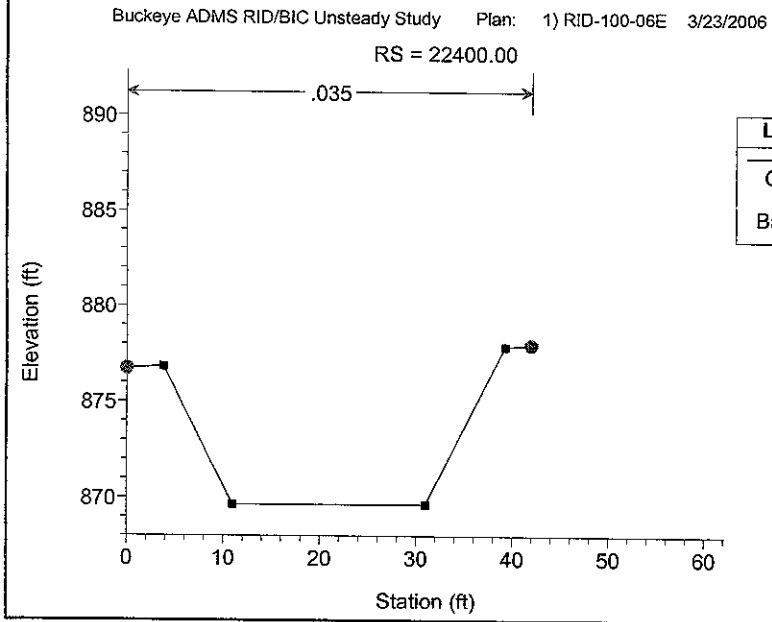
RS = 23000.00

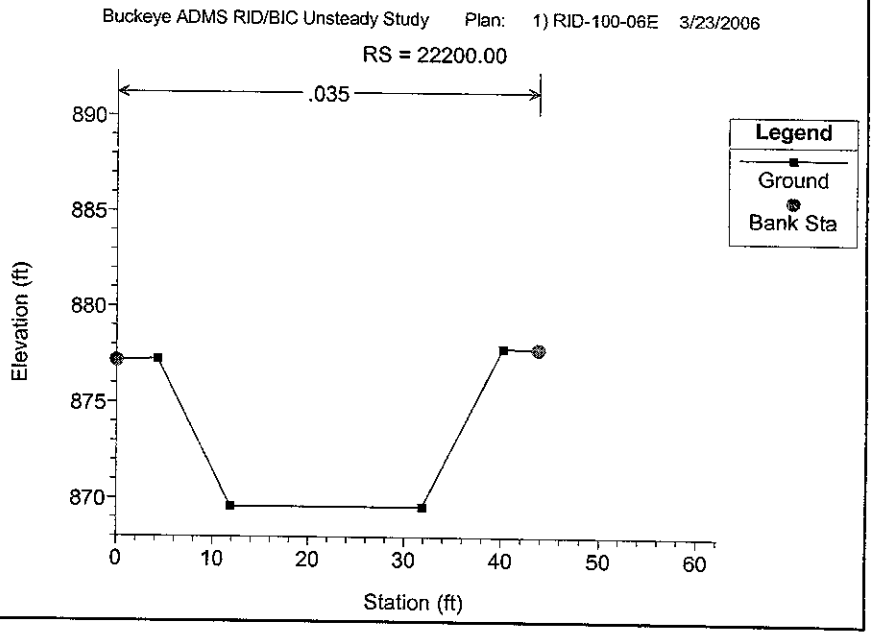


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

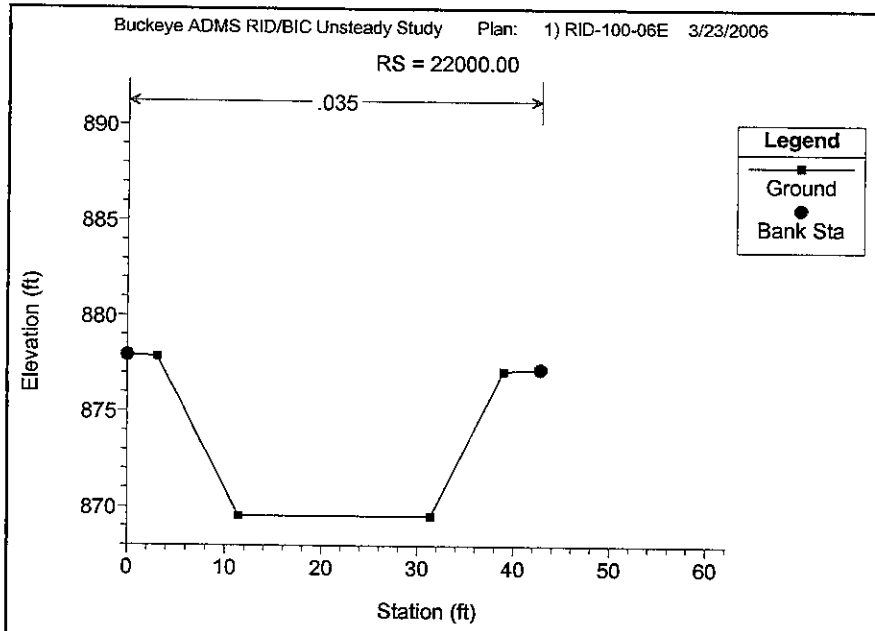


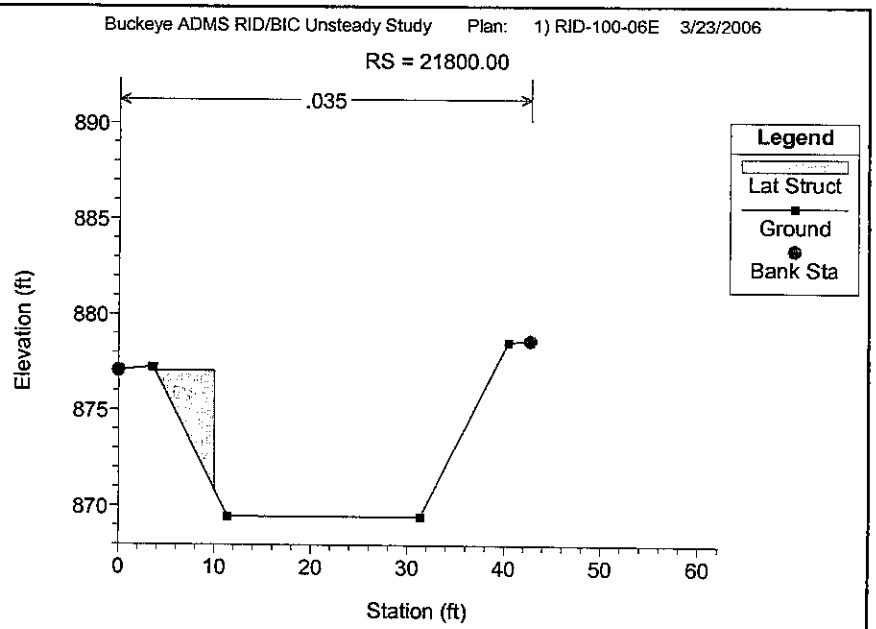


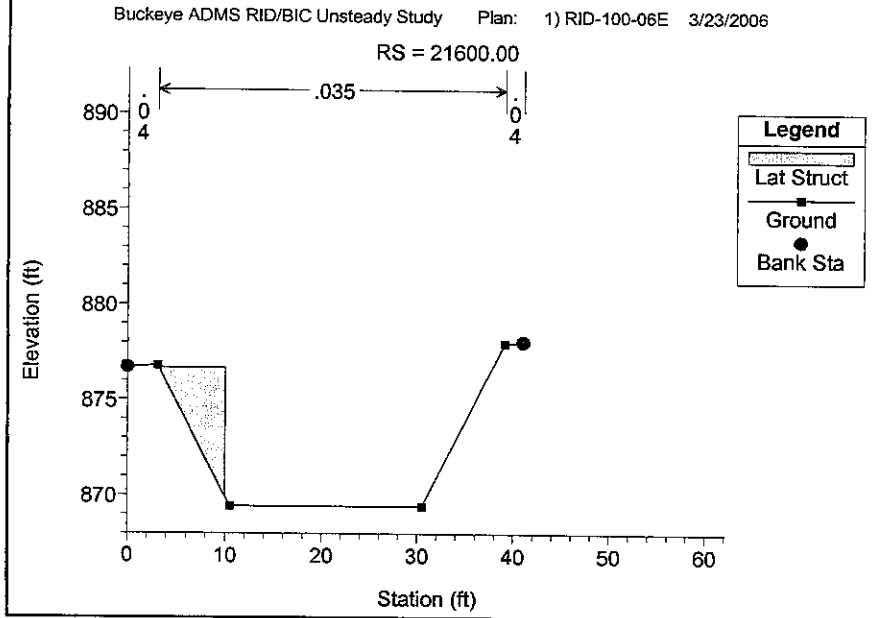


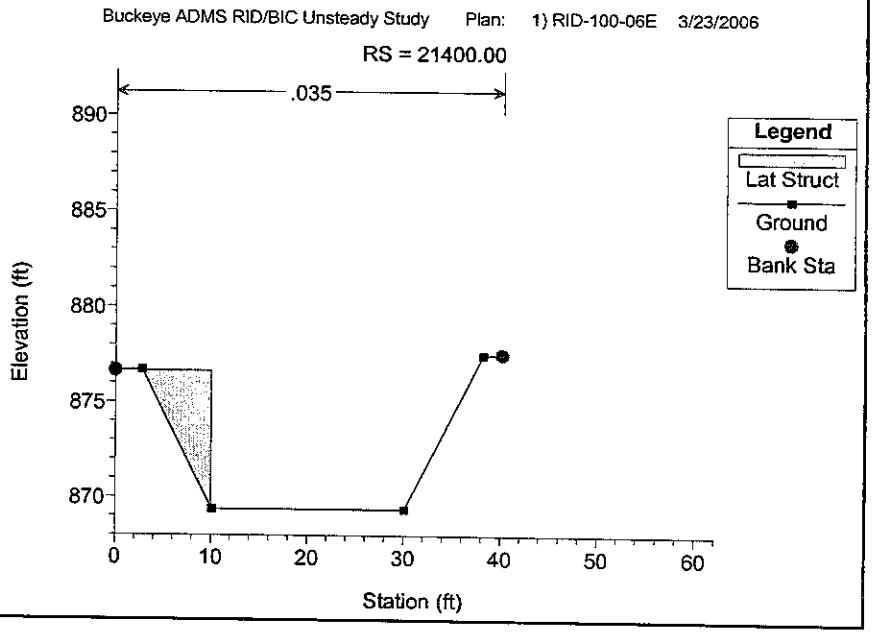


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

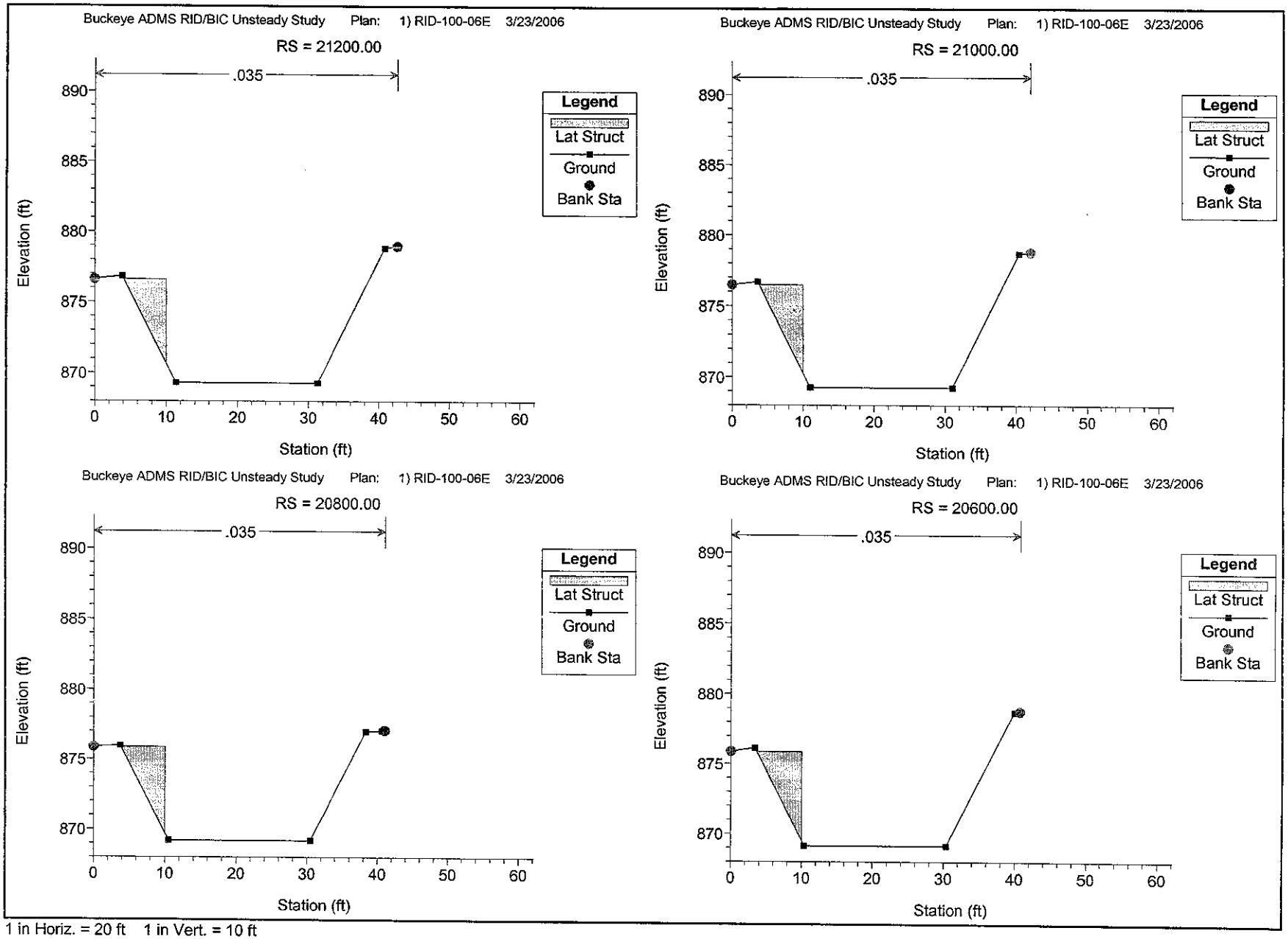








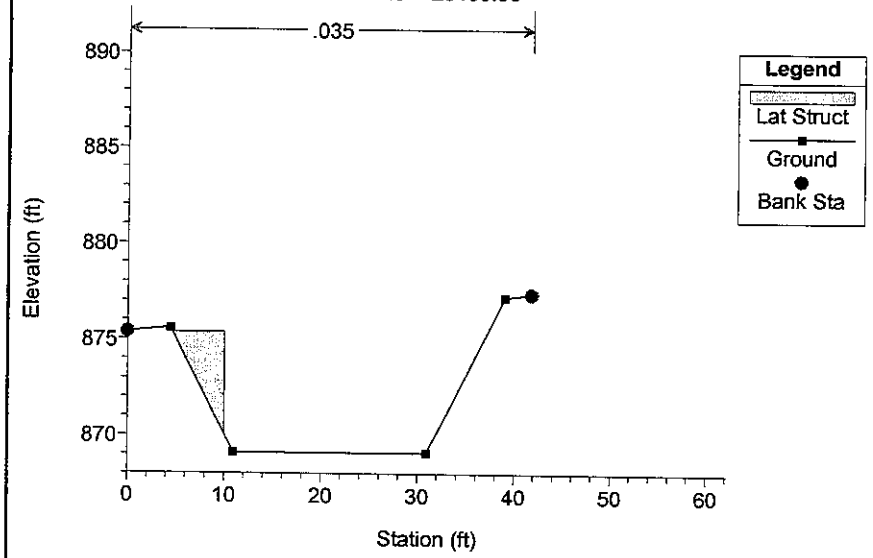
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

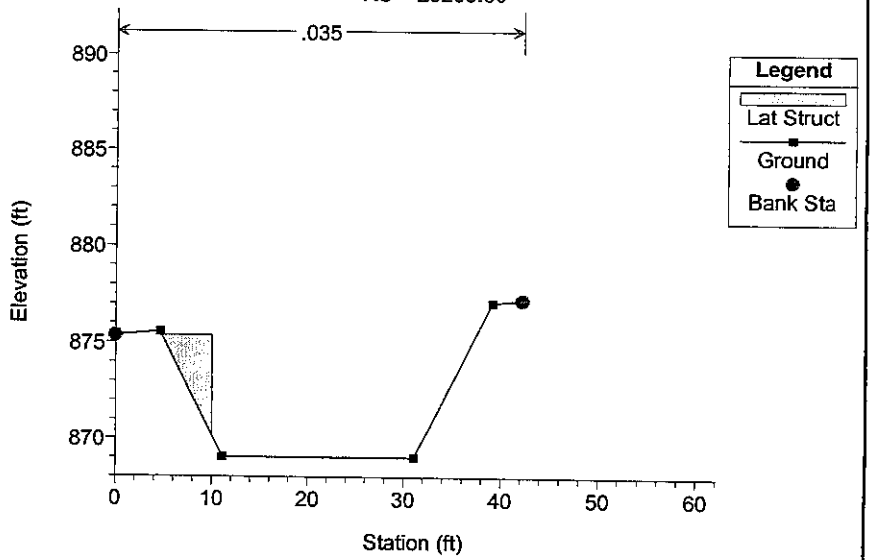
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 20400.00



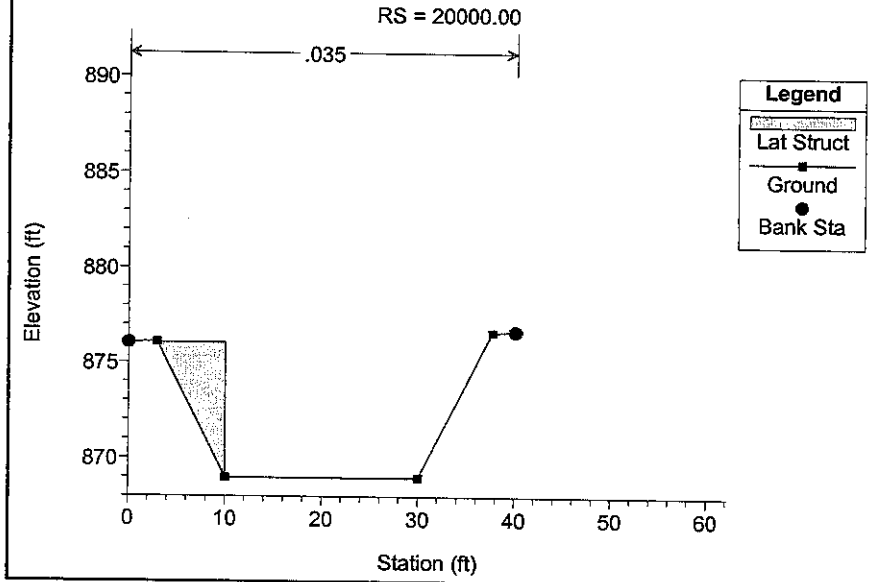
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 20200.00



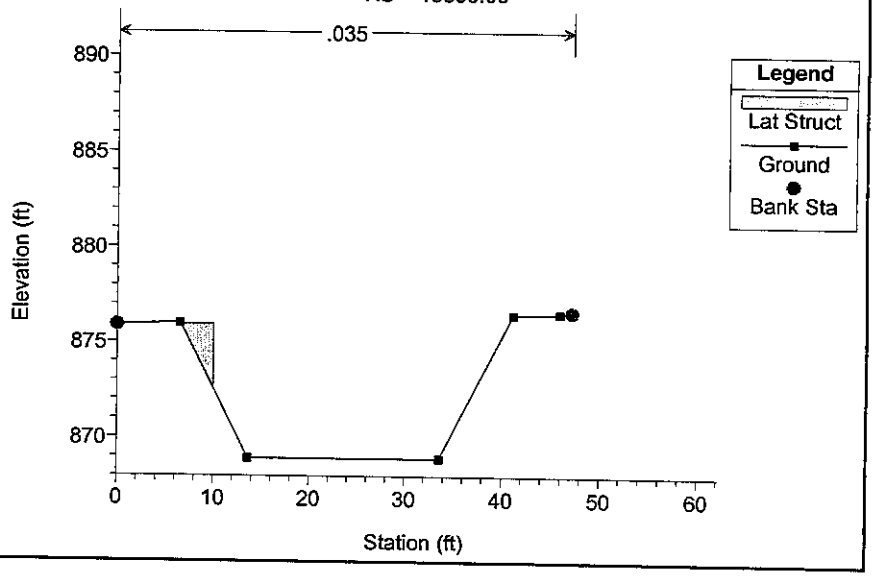
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 20000.00

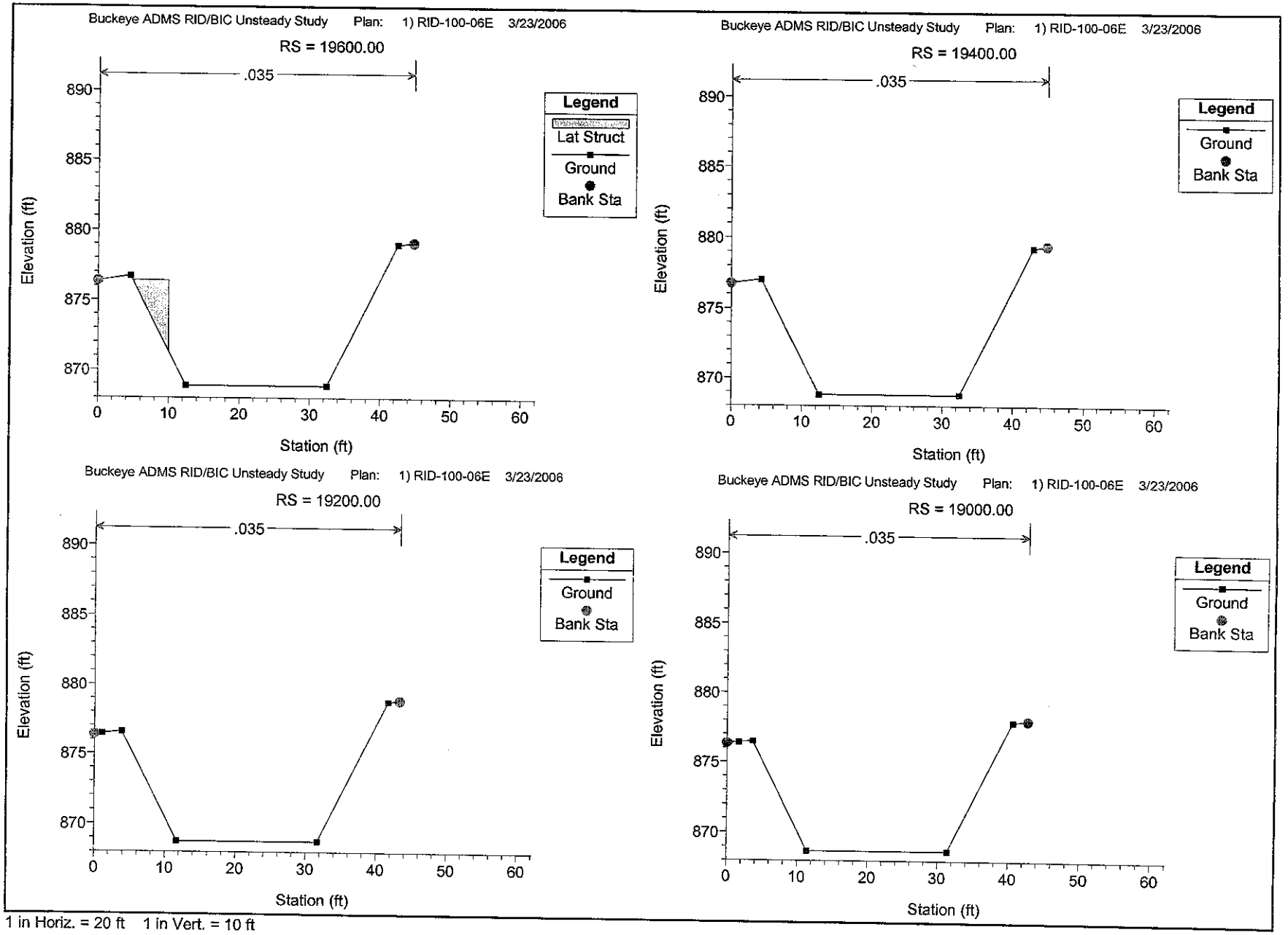


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 19800.00



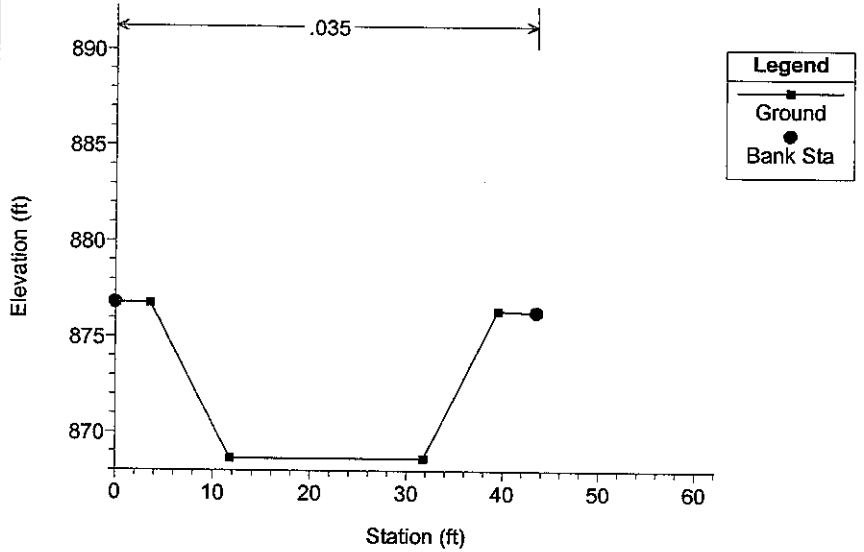
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

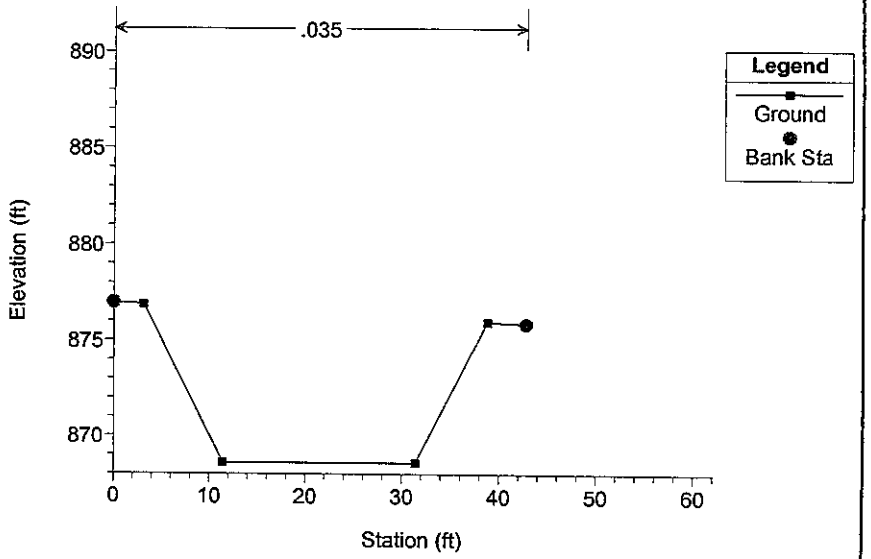
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 18800.00



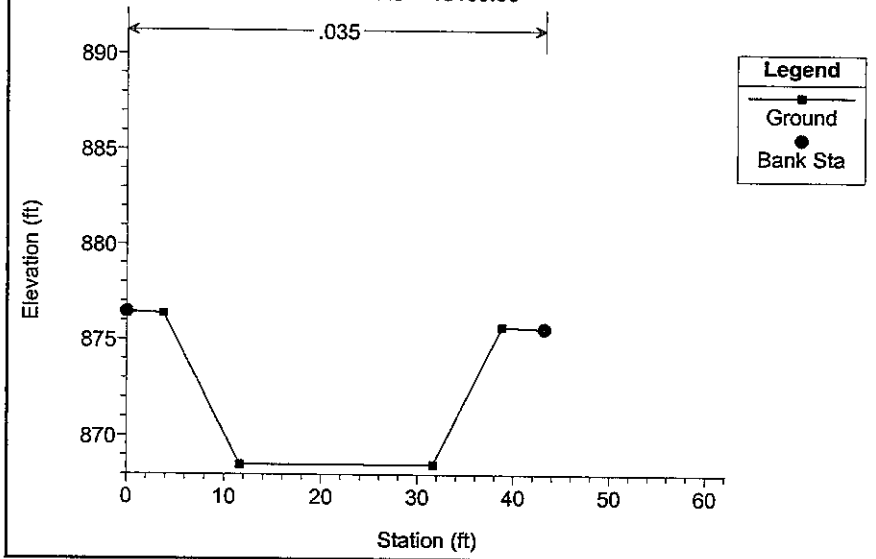
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 18600.00



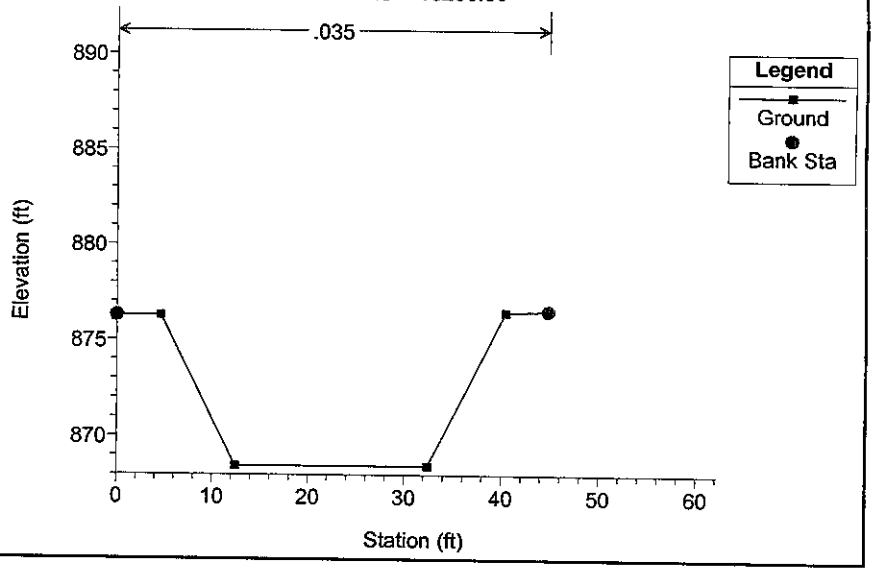
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 18400.00

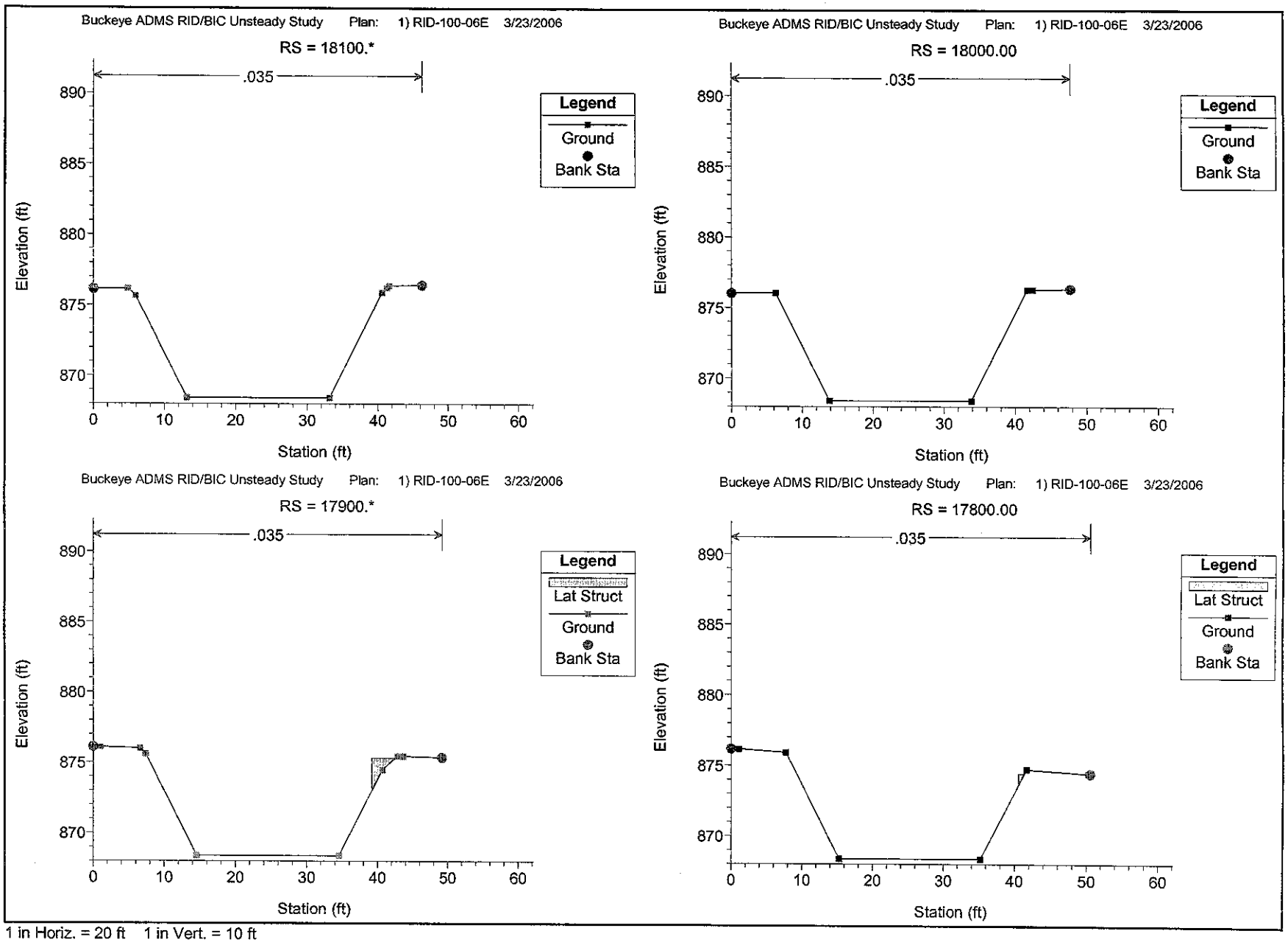


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 18200.00



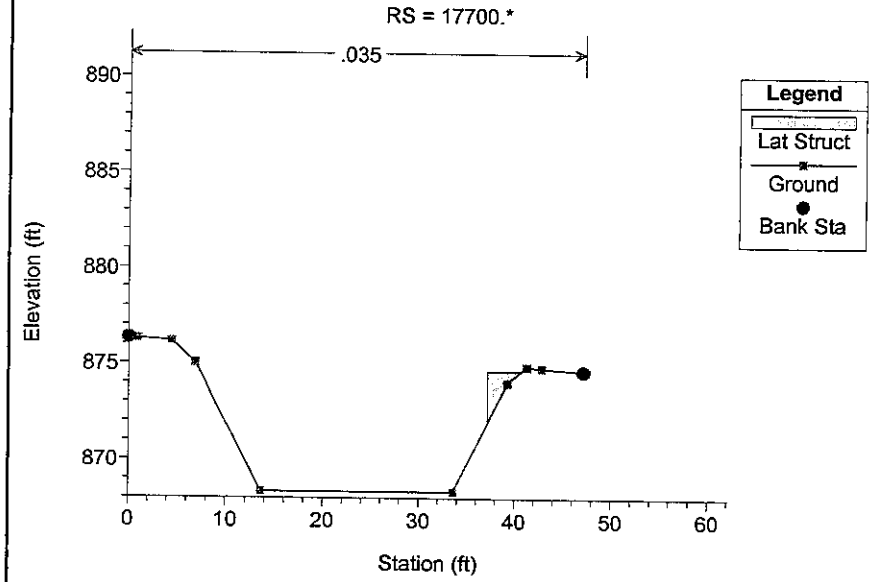
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

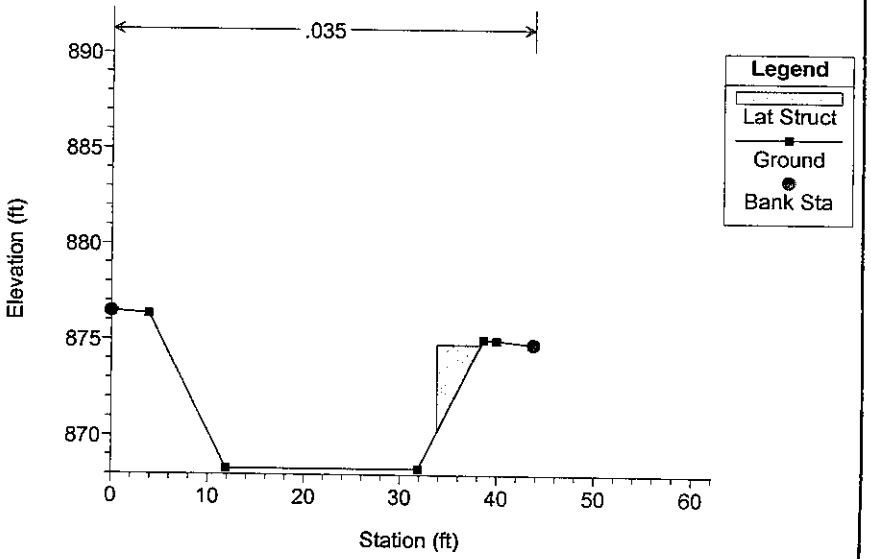
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 17700.*



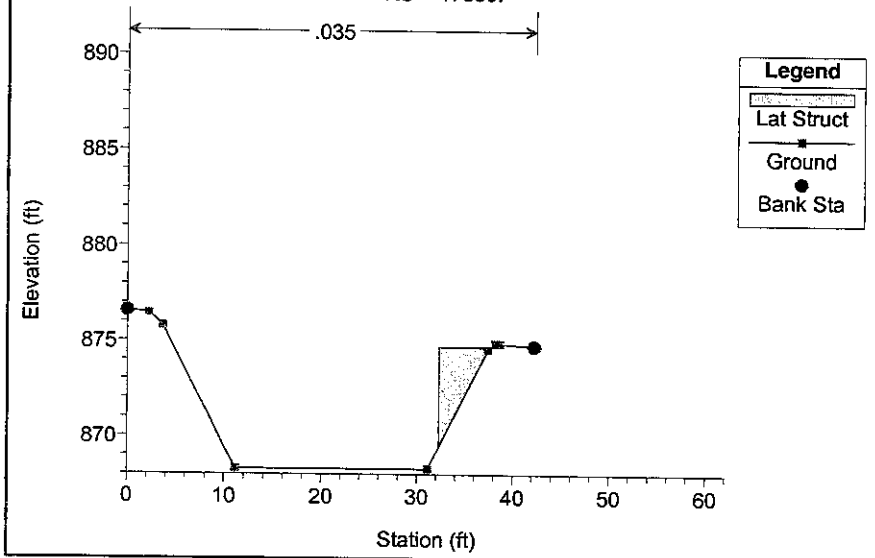
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 17600.00



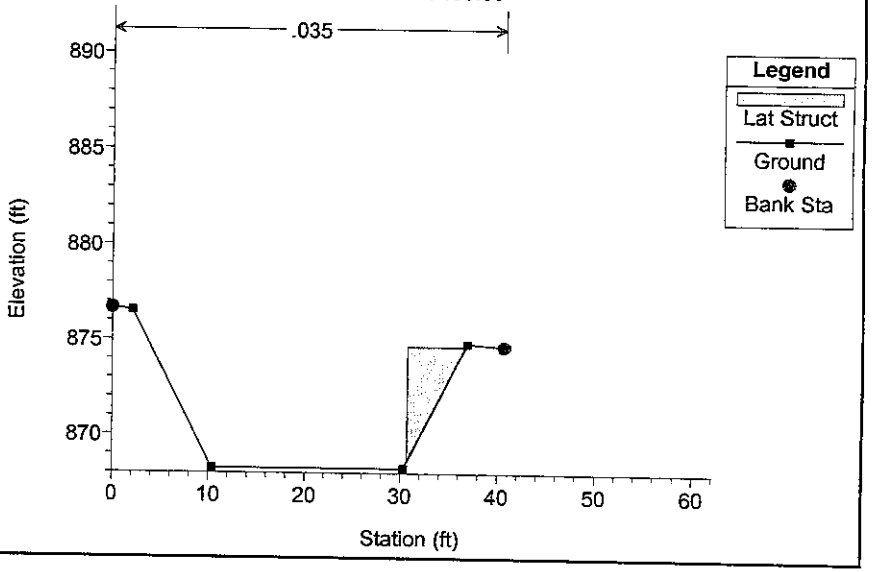
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 17500.*

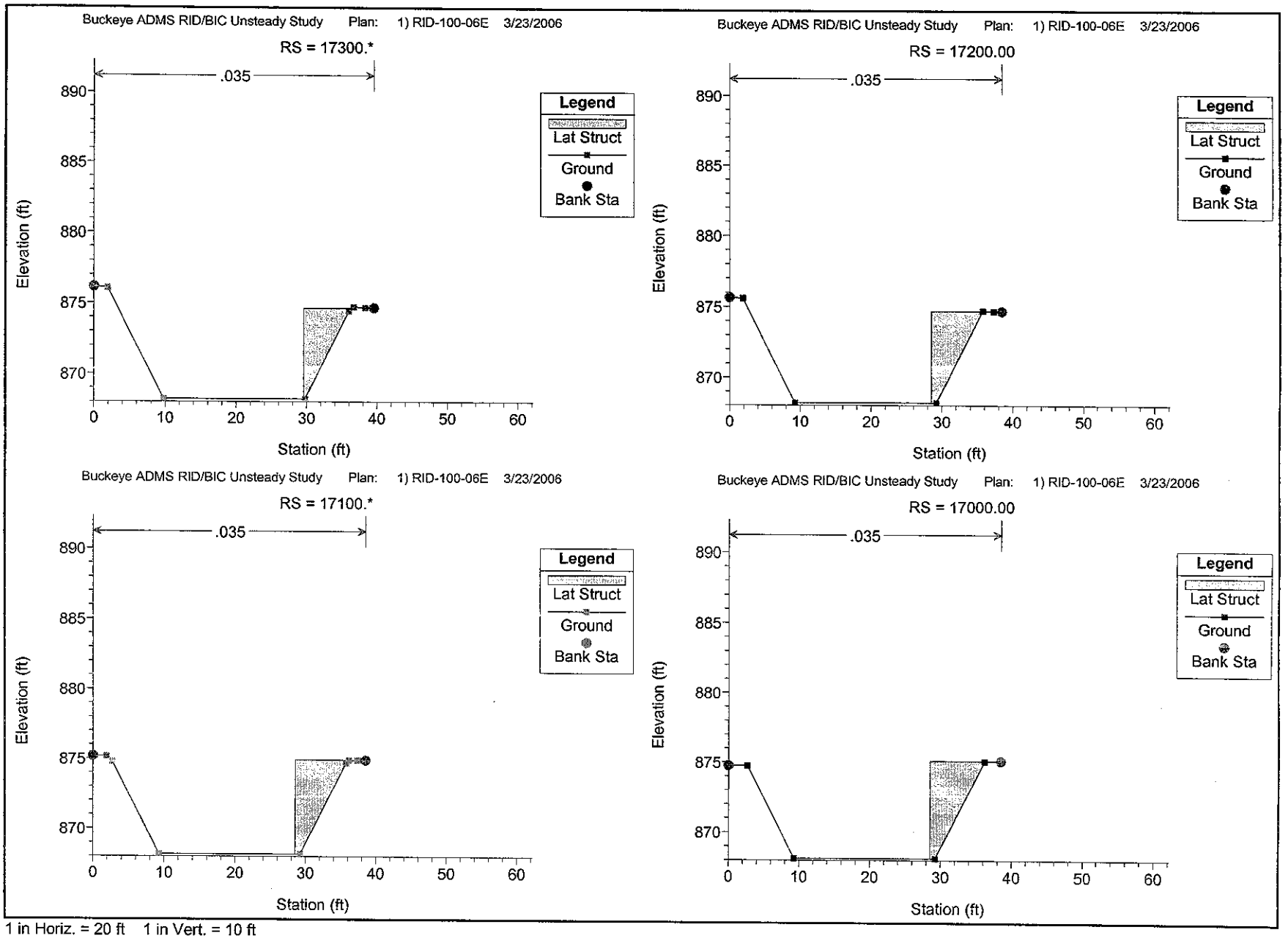


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

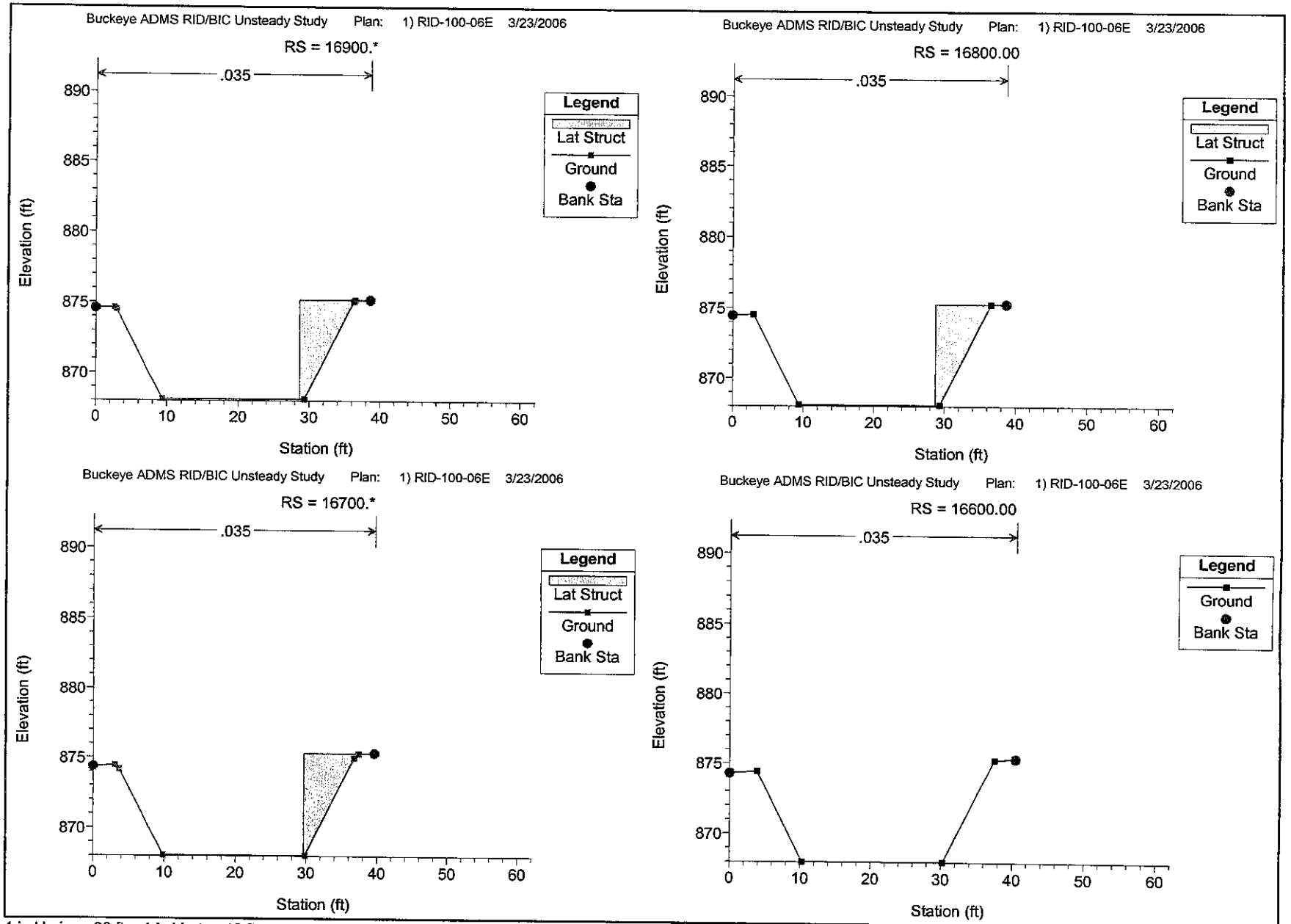
RS = 17400.00



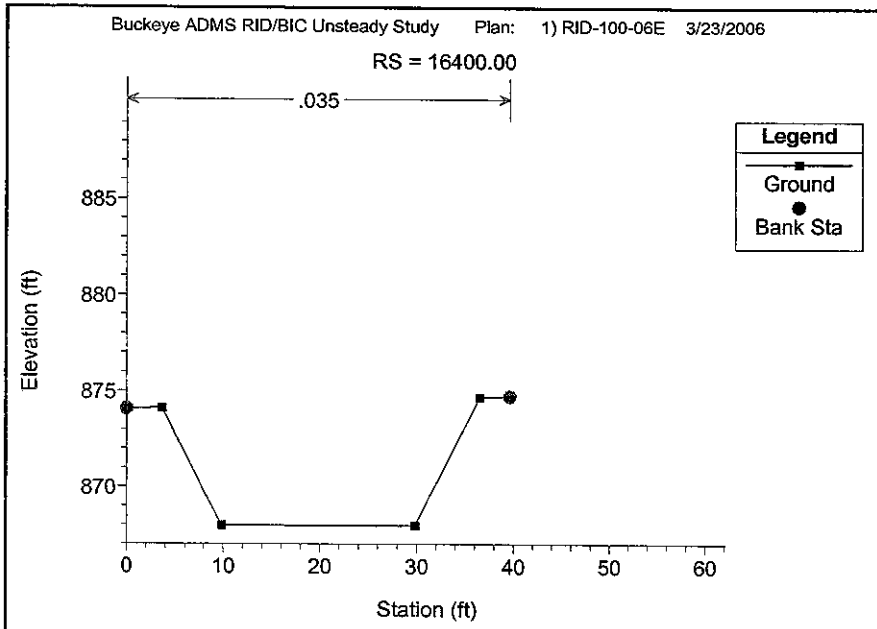
1 in Horiz. = 20 ft 1 in Vert. = 10 ft

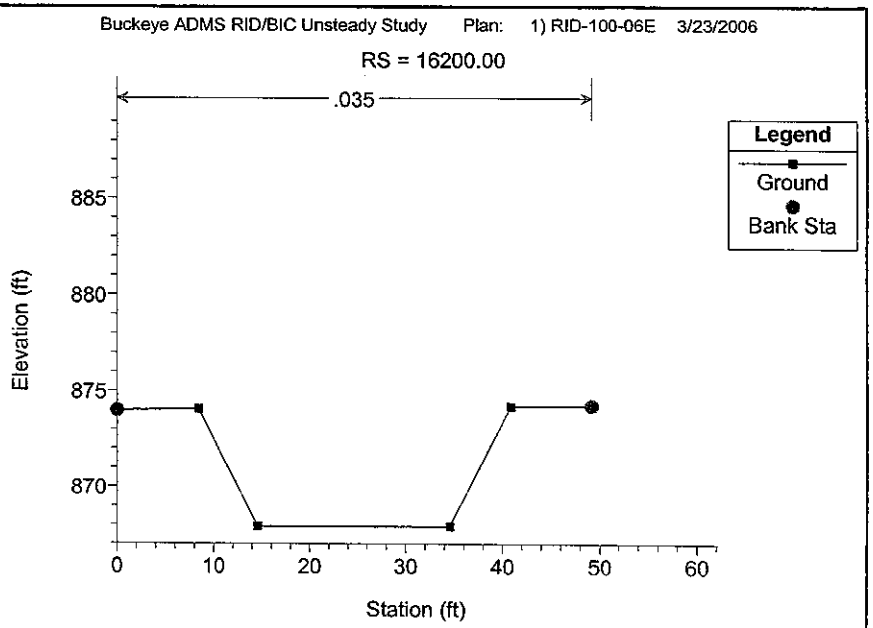


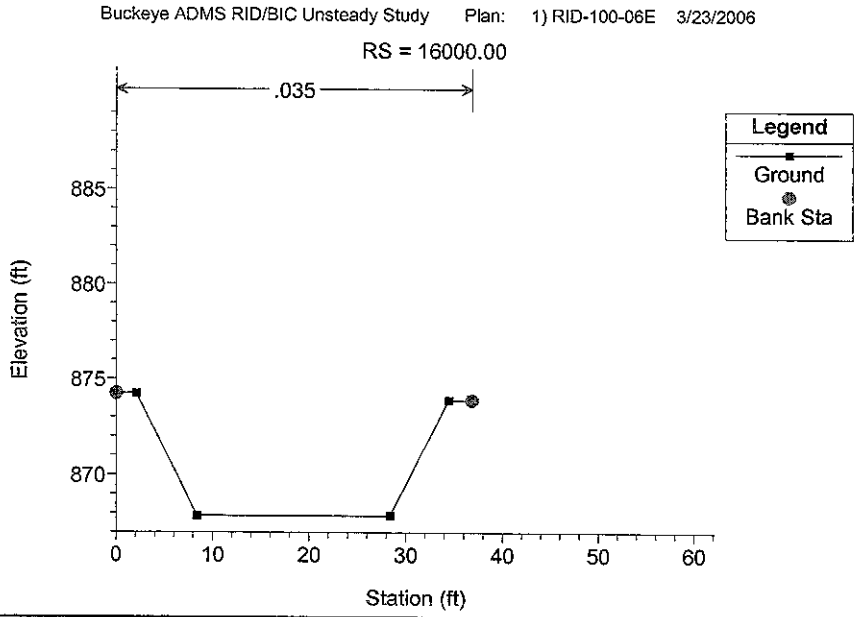
1 in Horiz. = 20 ft 1 in Vert. = 10 ft

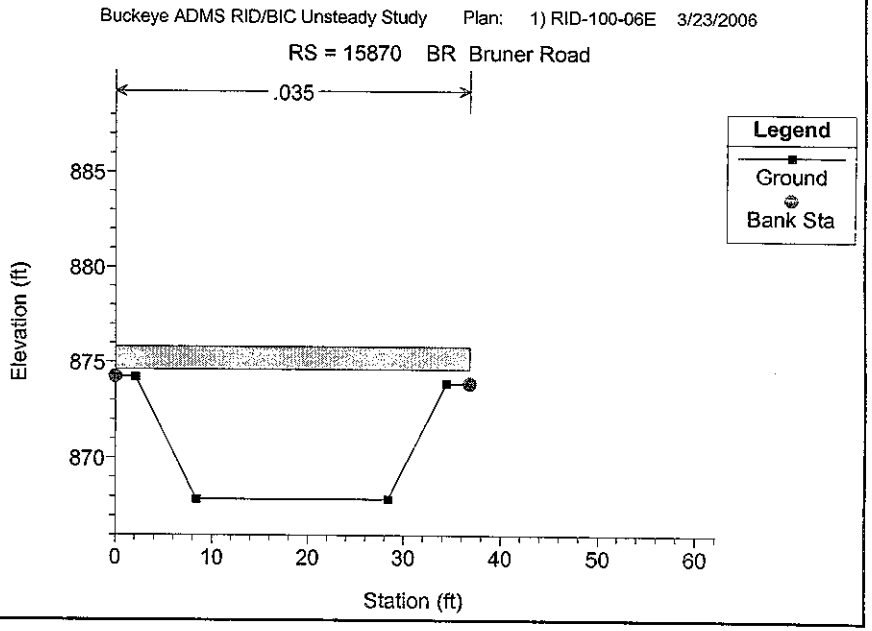


1 in Horiz. = 20 ft 1 in Vert. = 10 ft

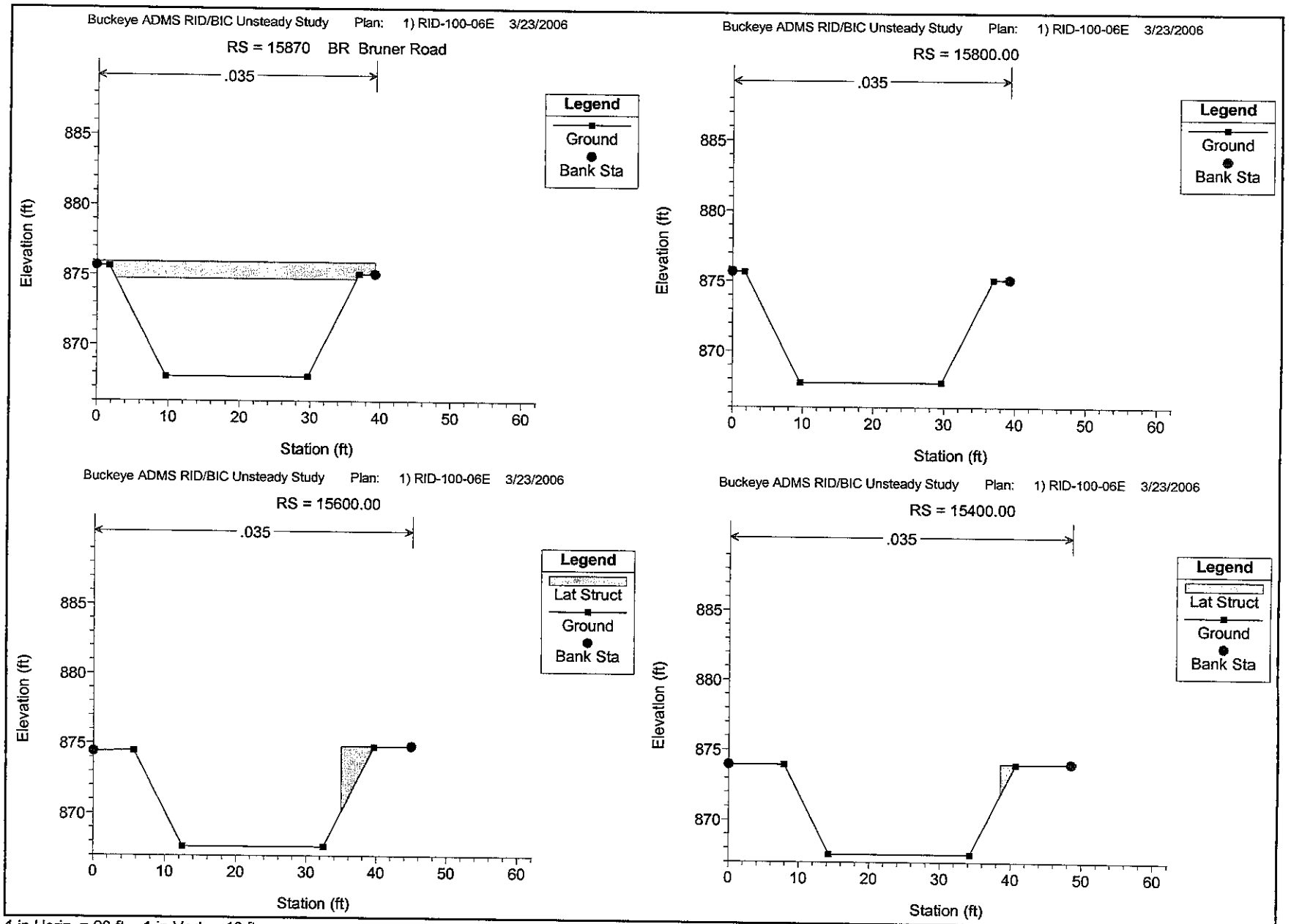




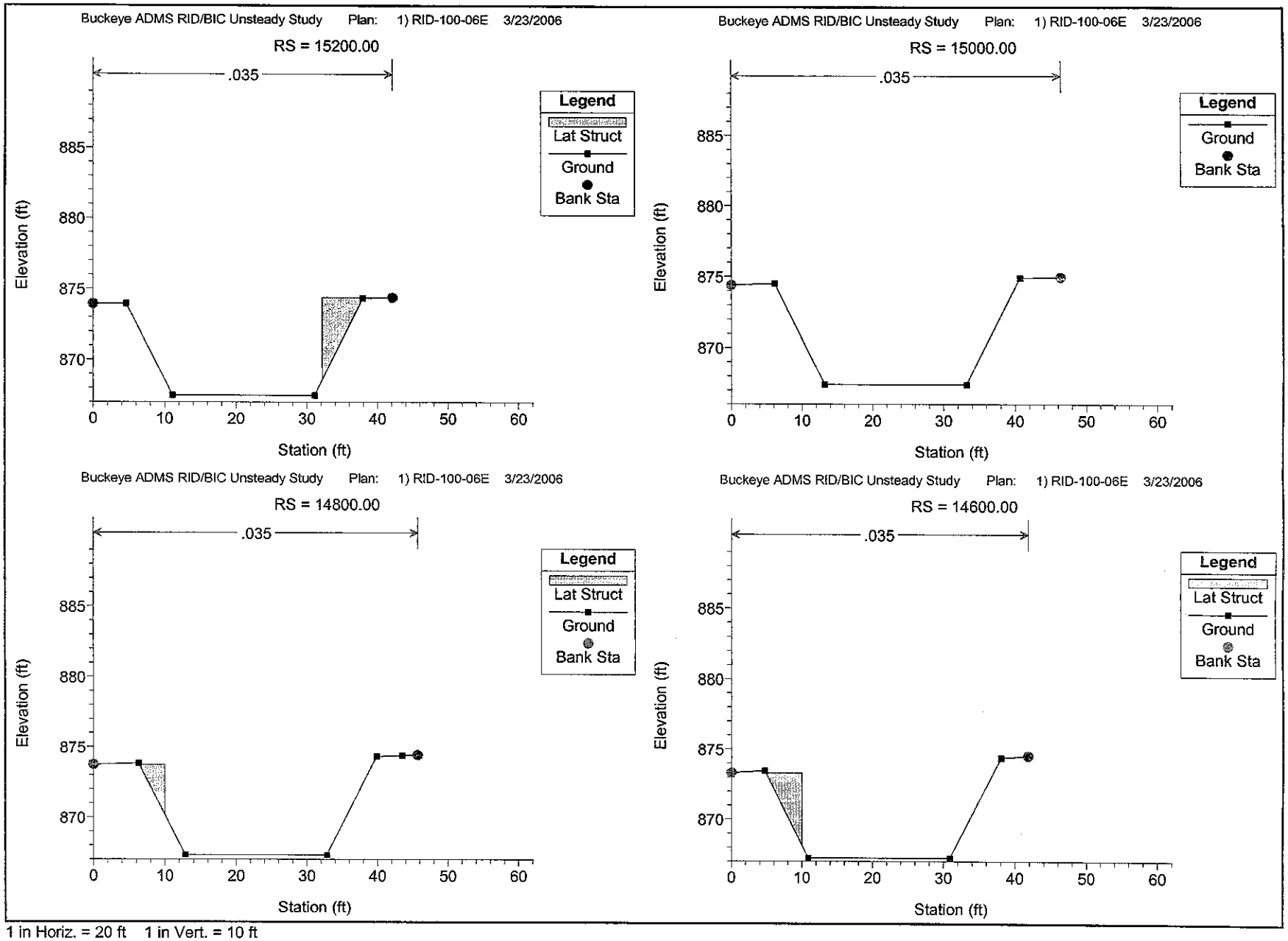




1 in Horiz. = 20 ft 1 in Vert. = 10 ft



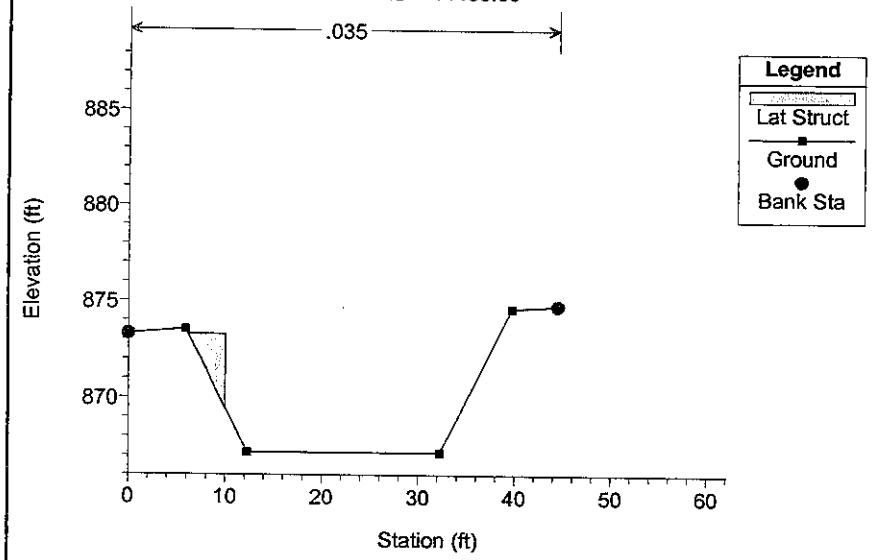
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

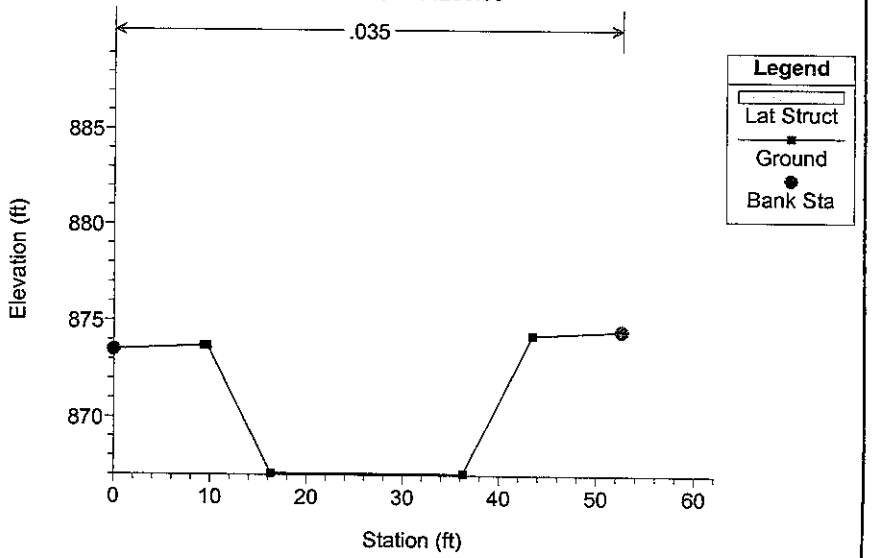
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 14400.00



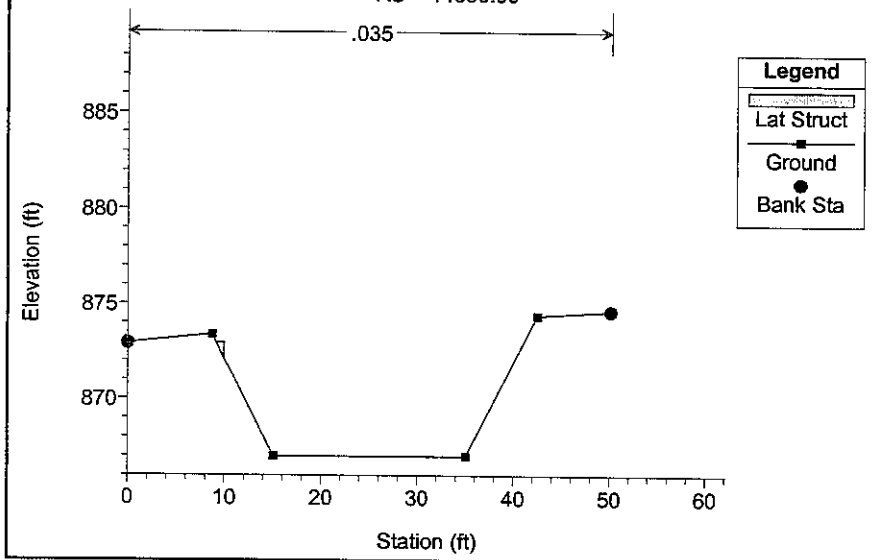
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 14200.00



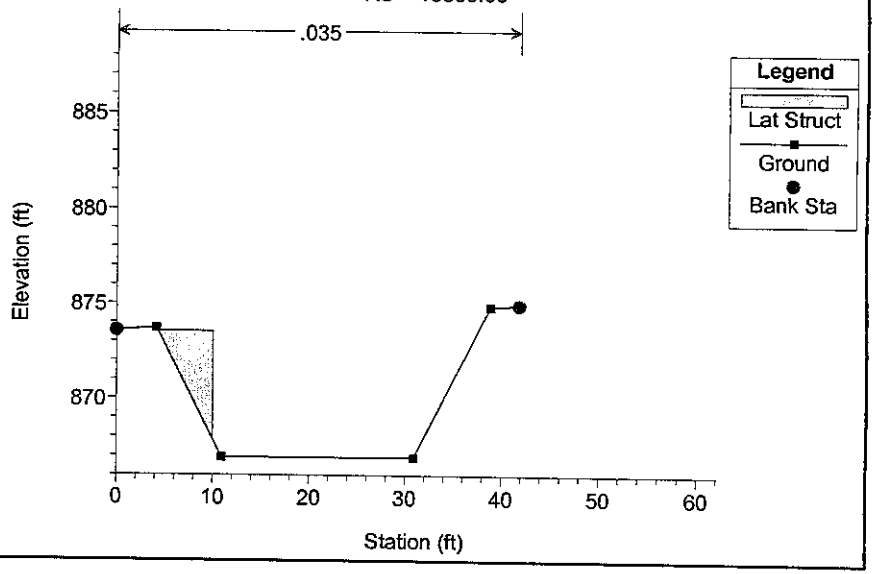
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 14000.00

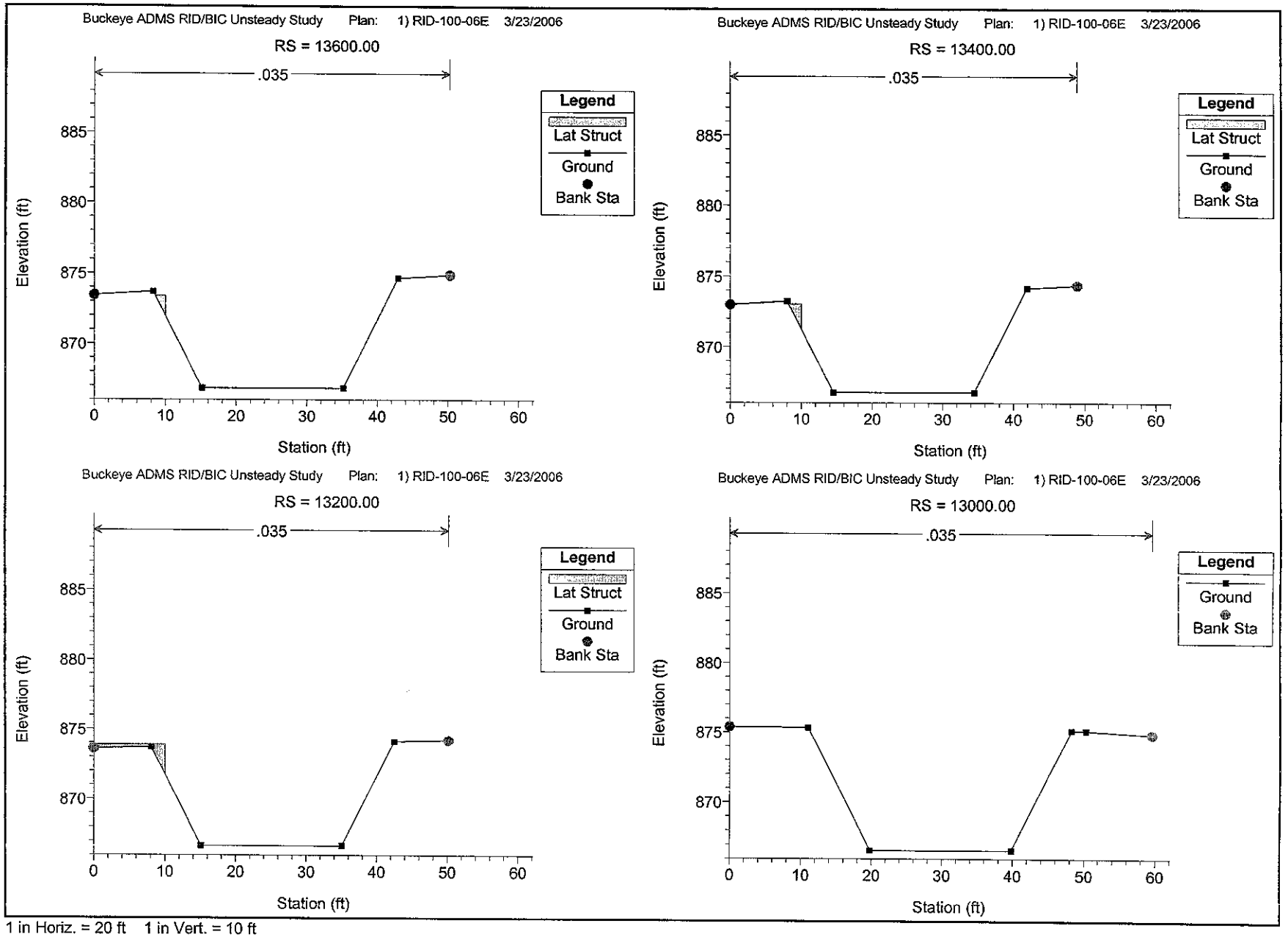


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 13800.00



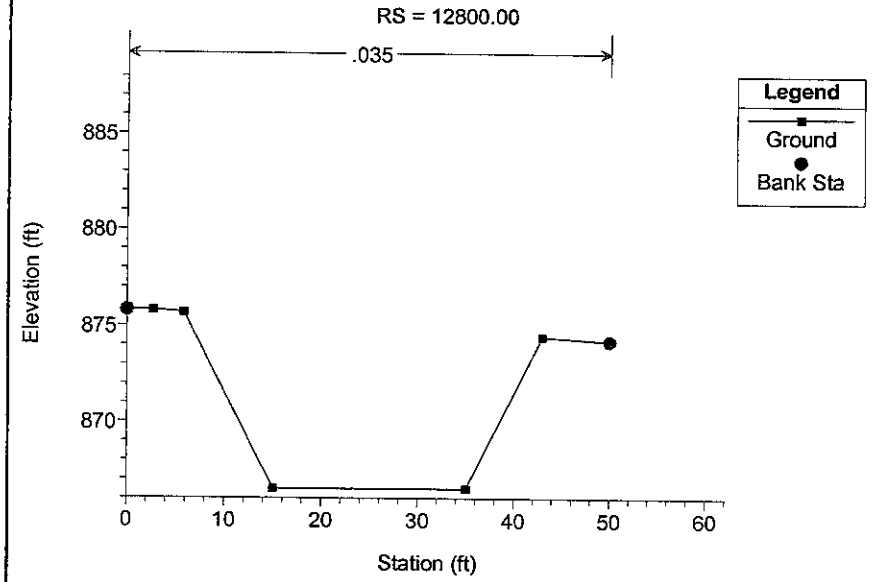
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

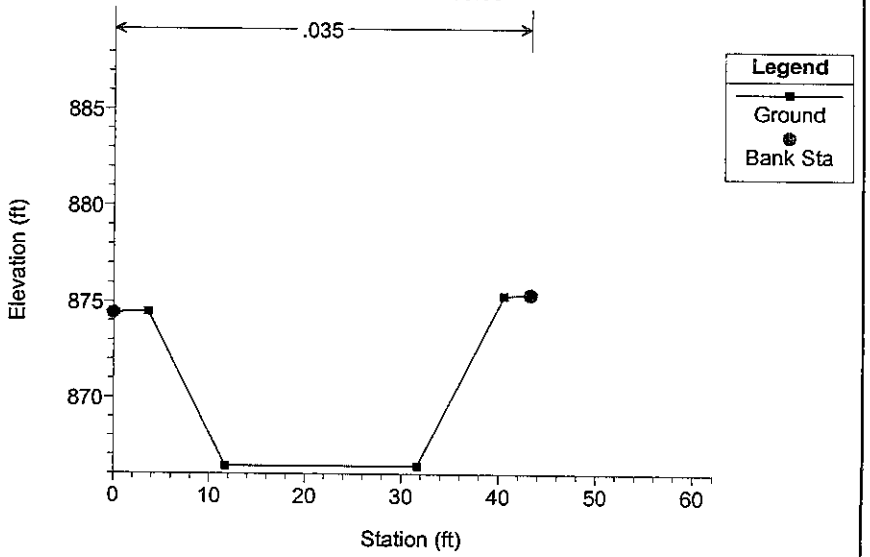
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 12800.00



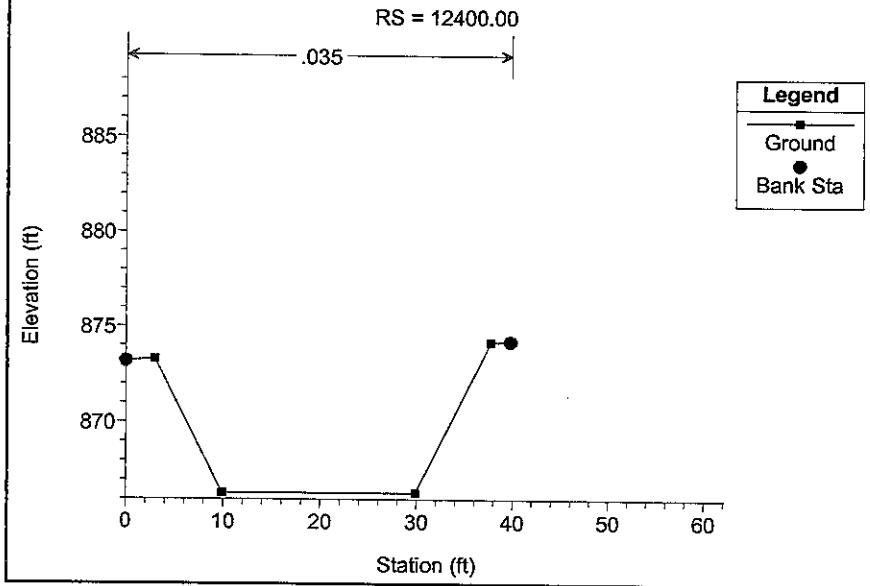
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 12600.00



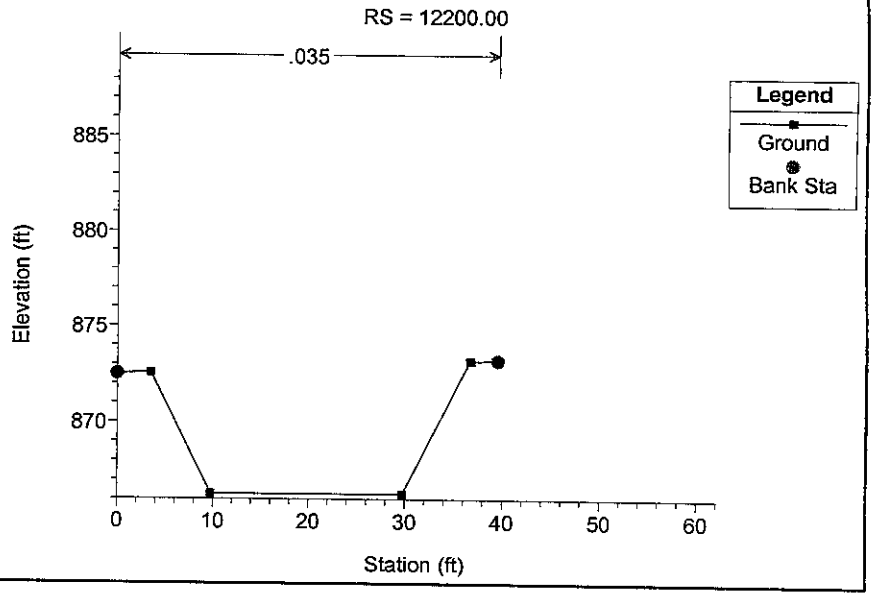
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 12400.00

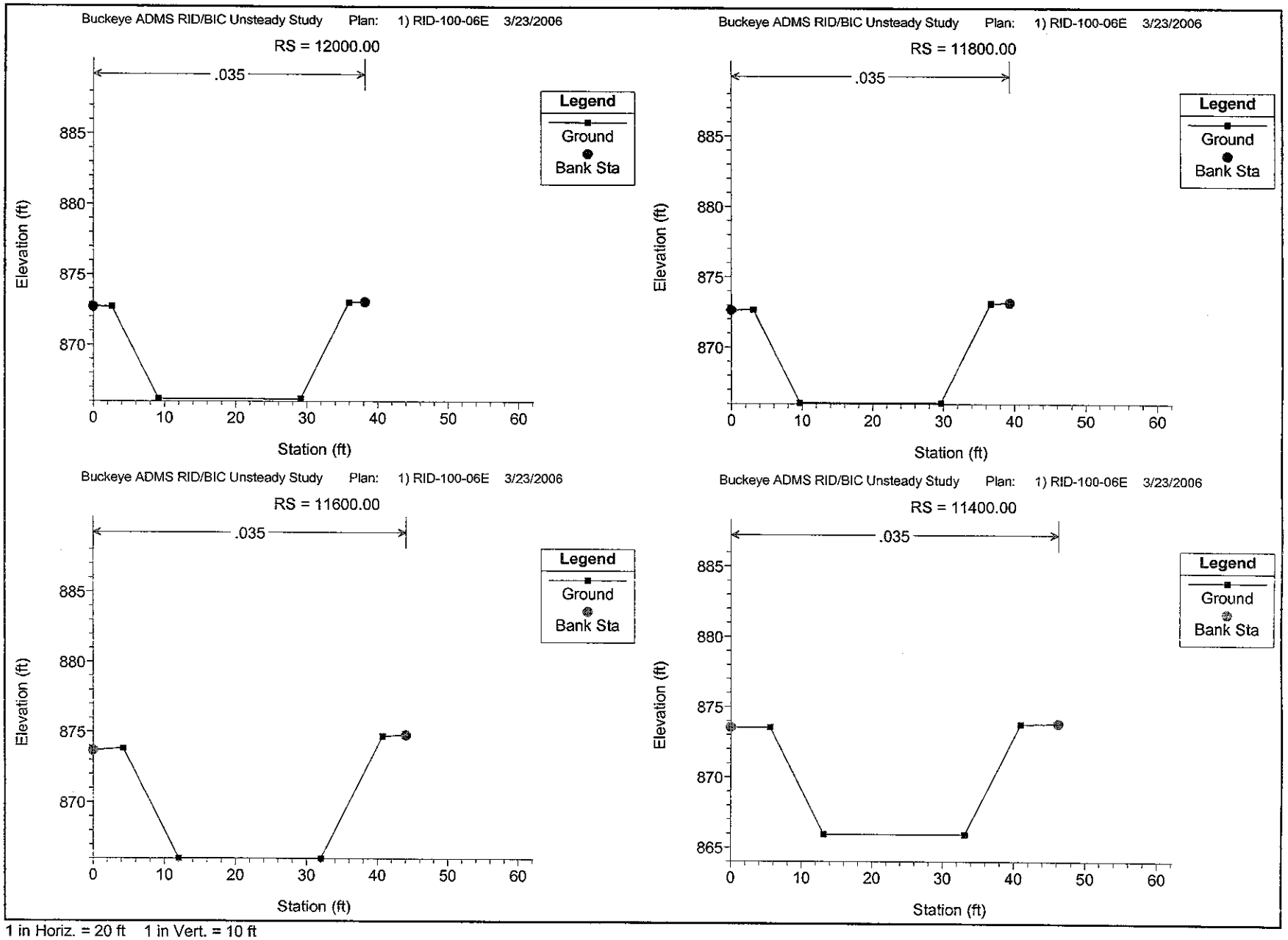


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 12200.00



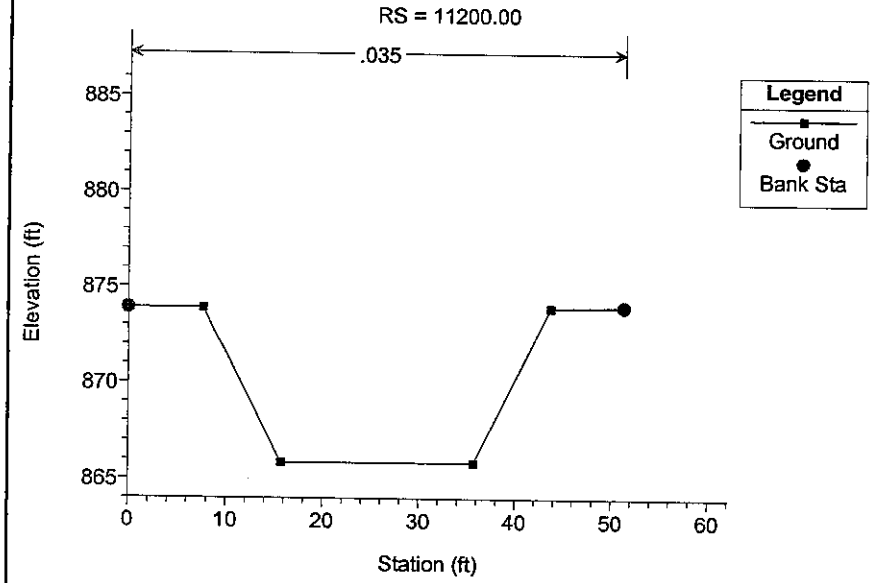
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

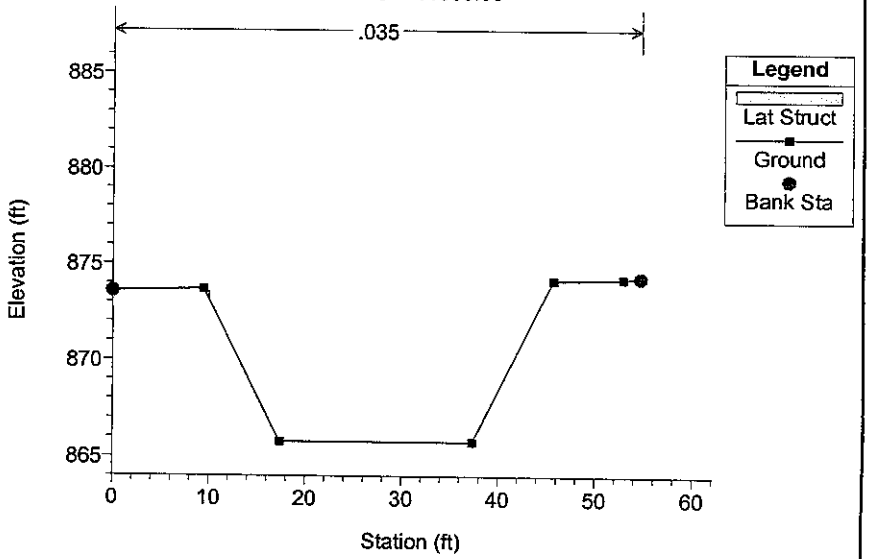
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 11200.00



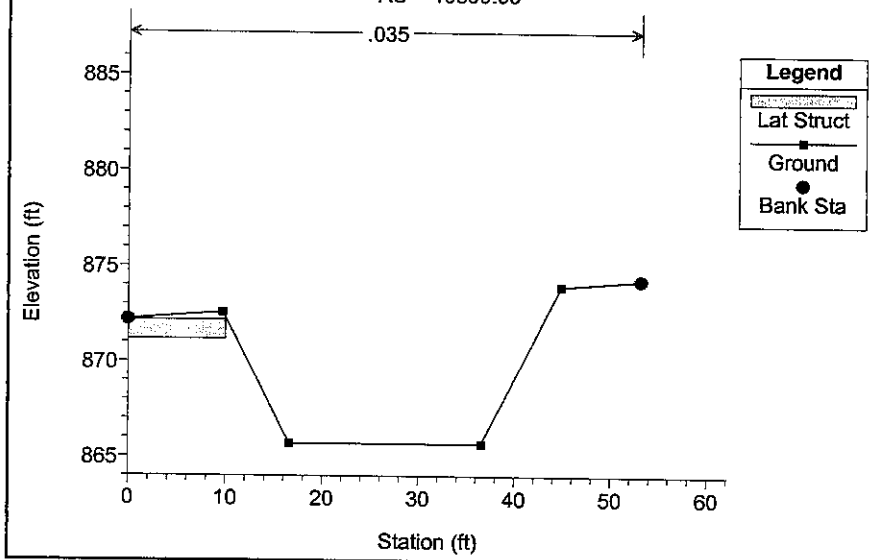
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 11000.00



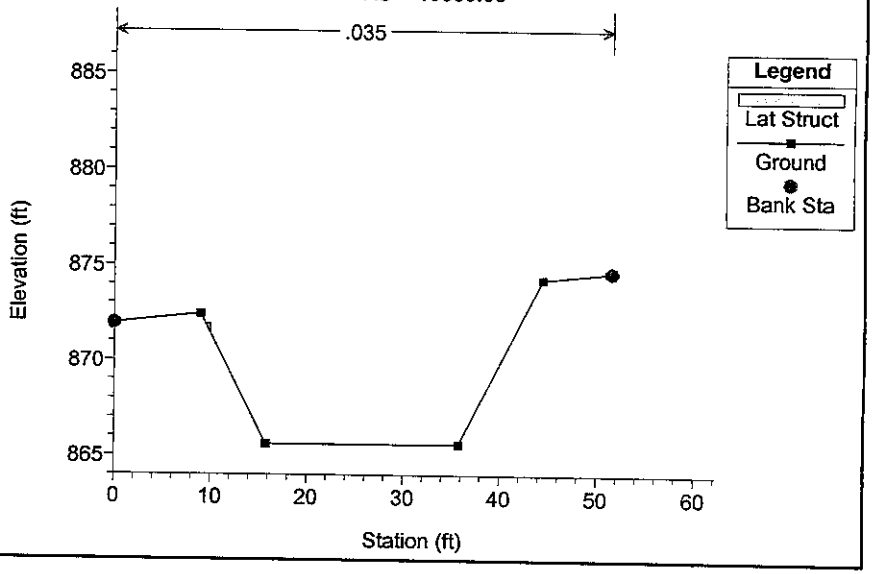
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 10800.00

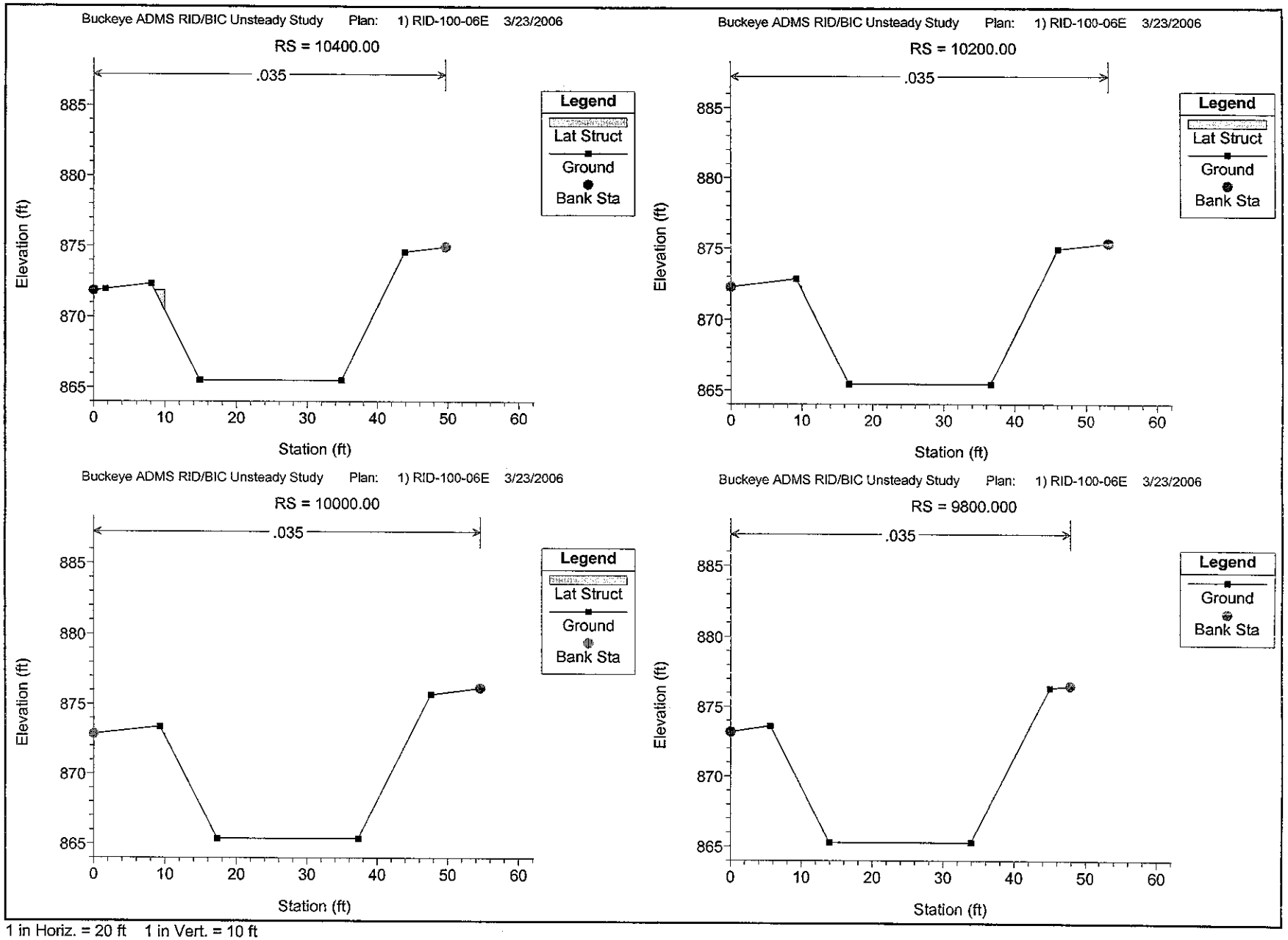


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 10600.00



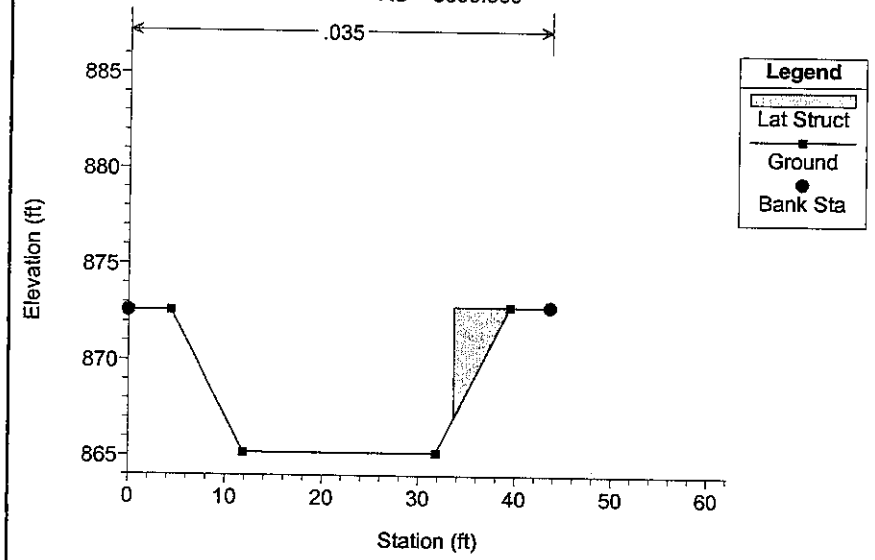
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

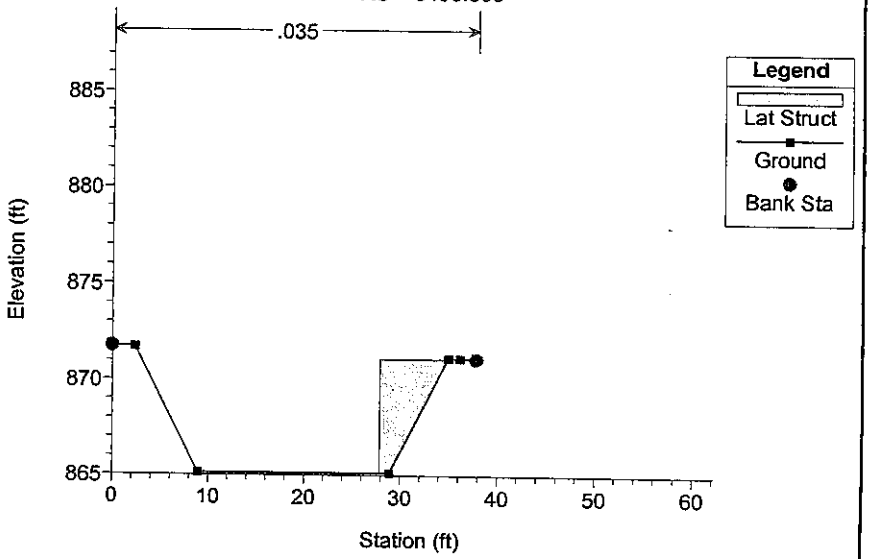
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 9600.000



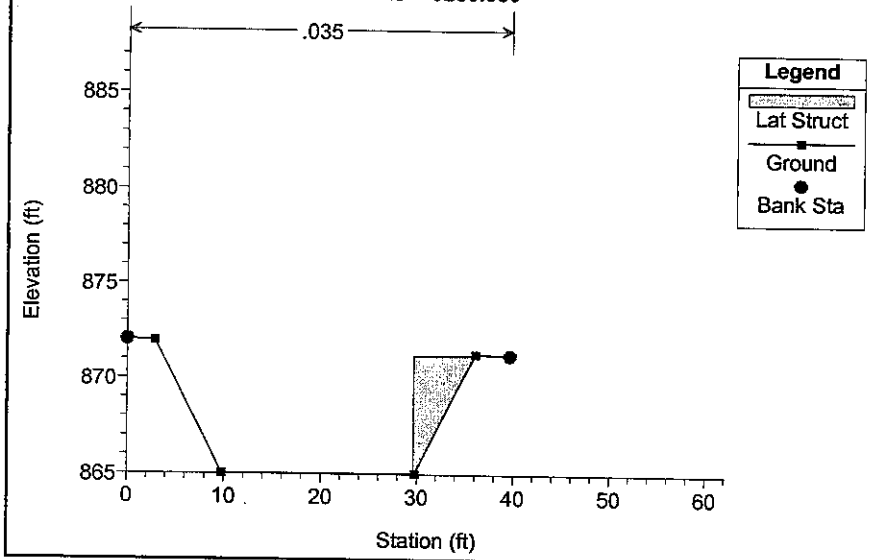
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 9400.000



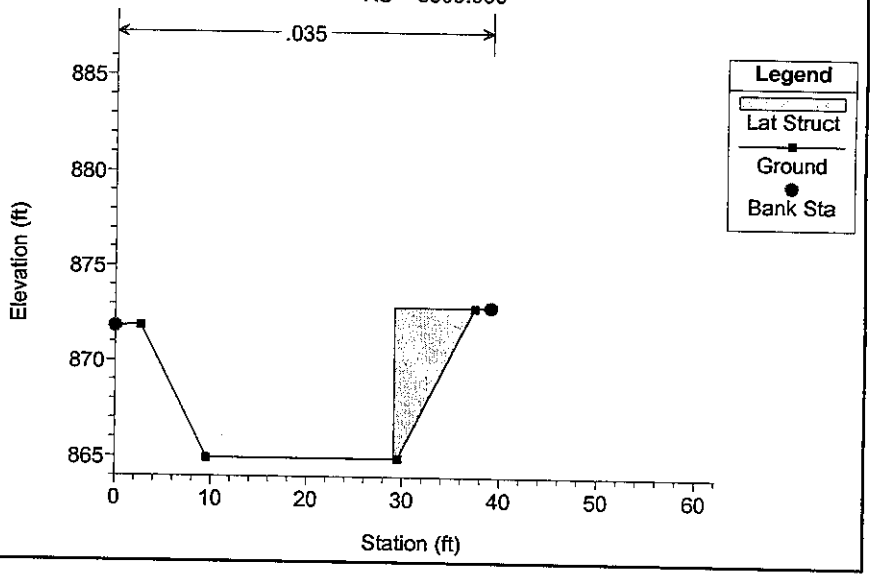
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 9200.000

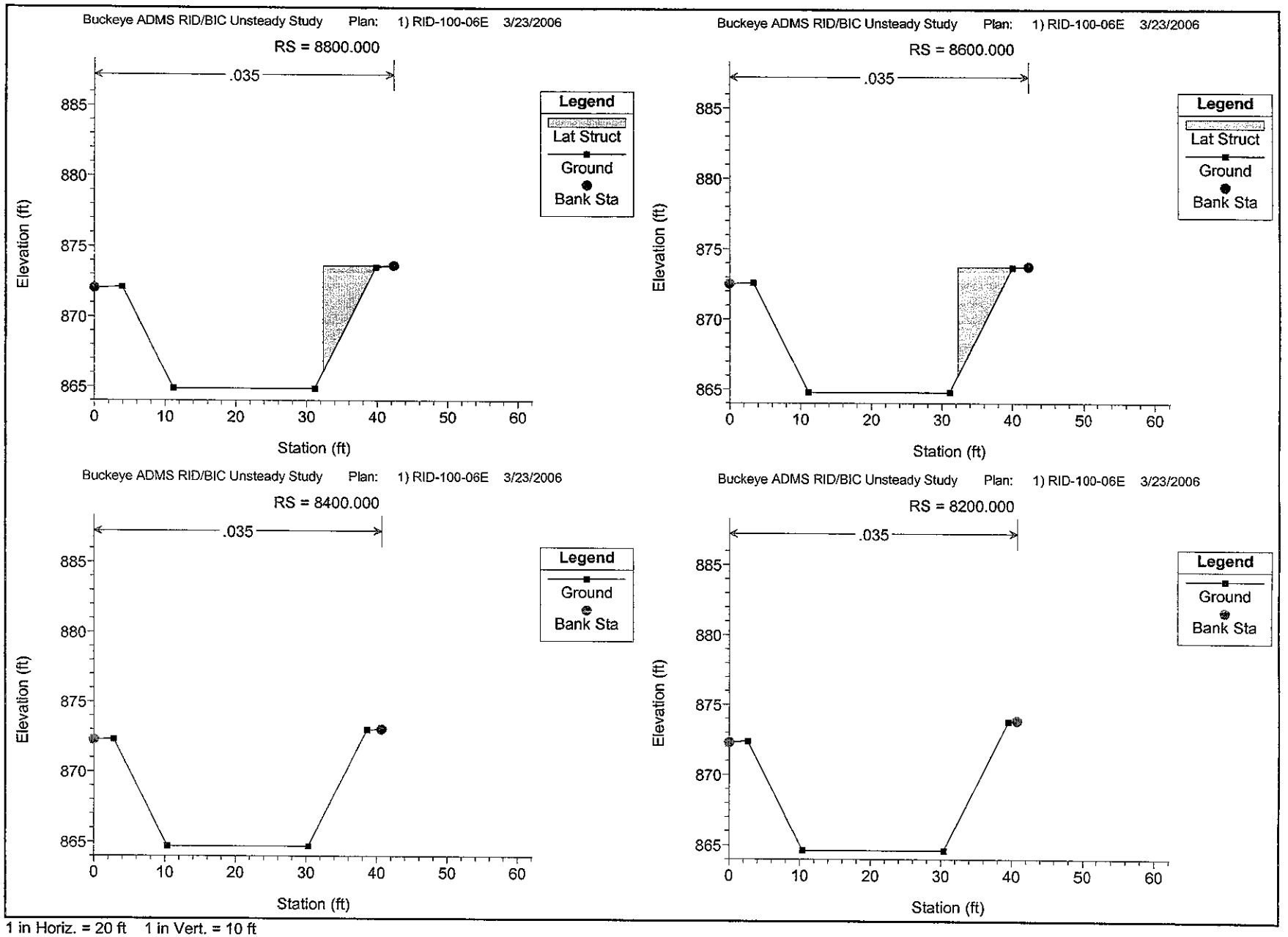


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 9000.000



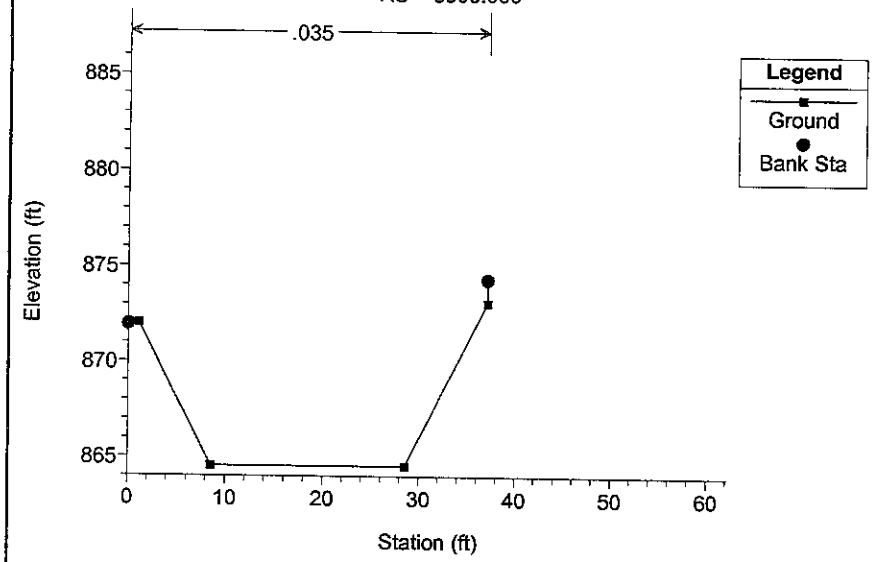
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

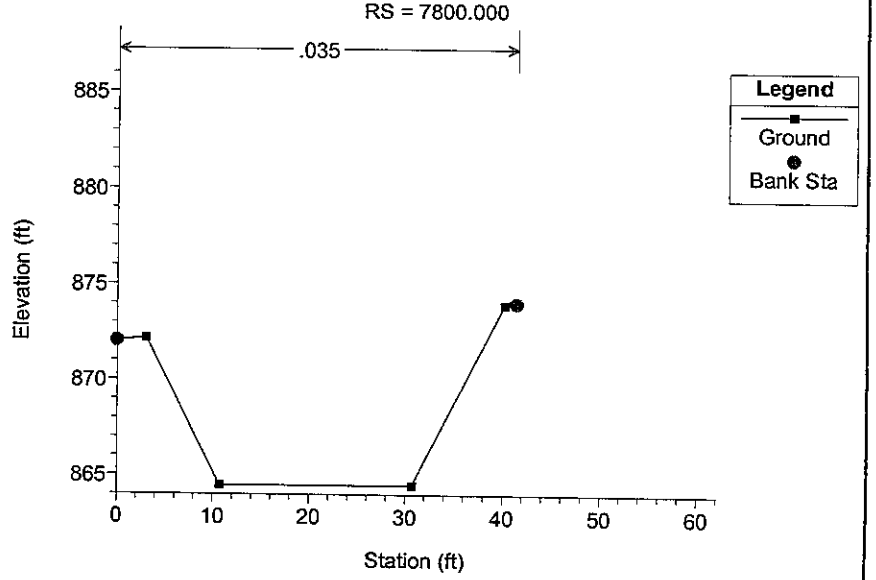
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 8000.000



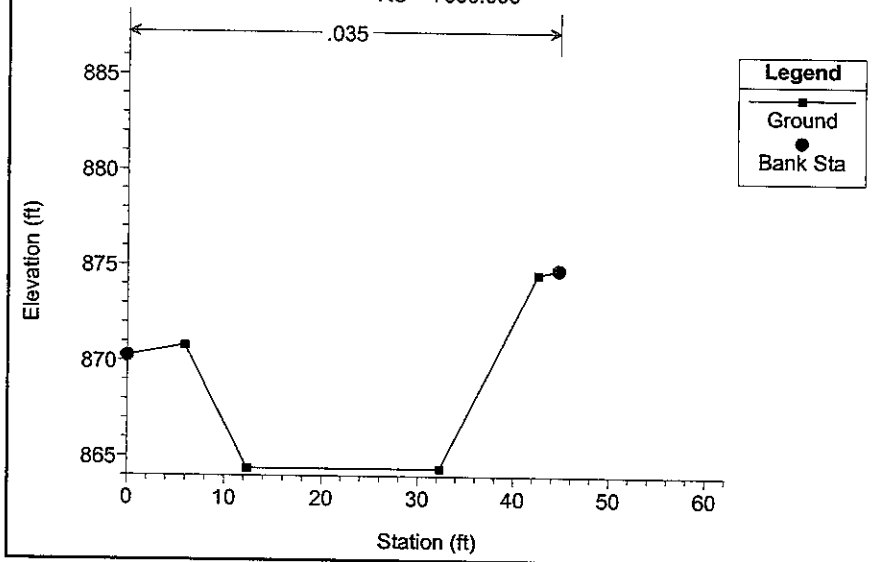
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 7800.000



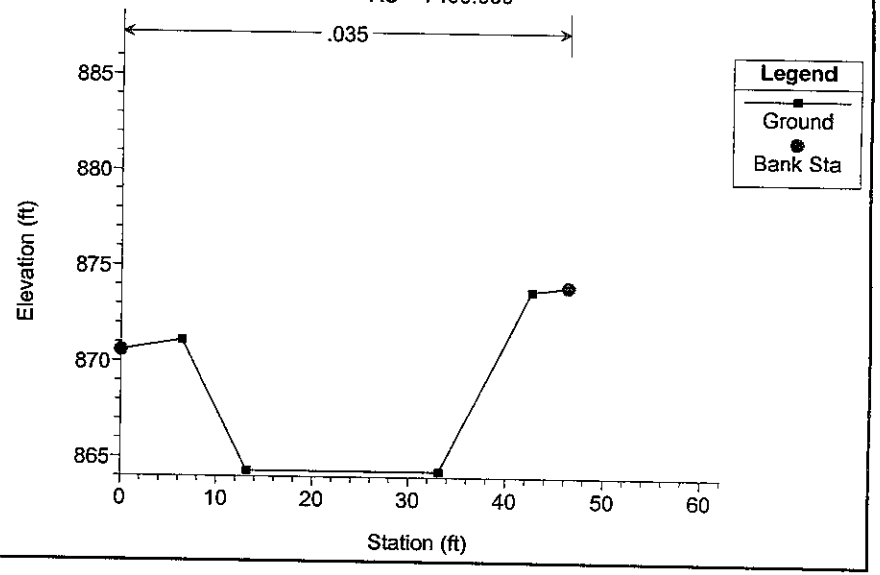
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 7600.000

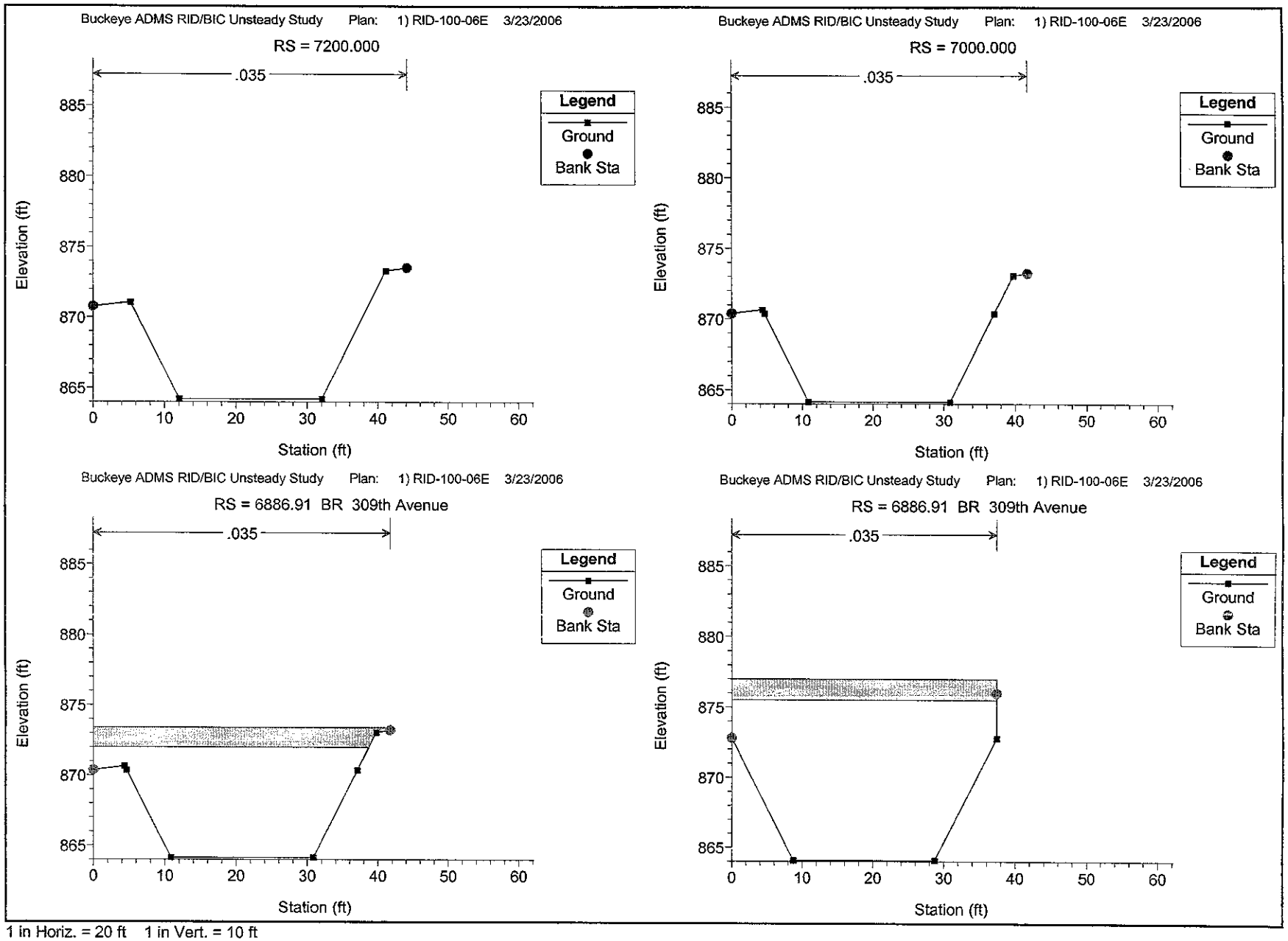


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 7400.000



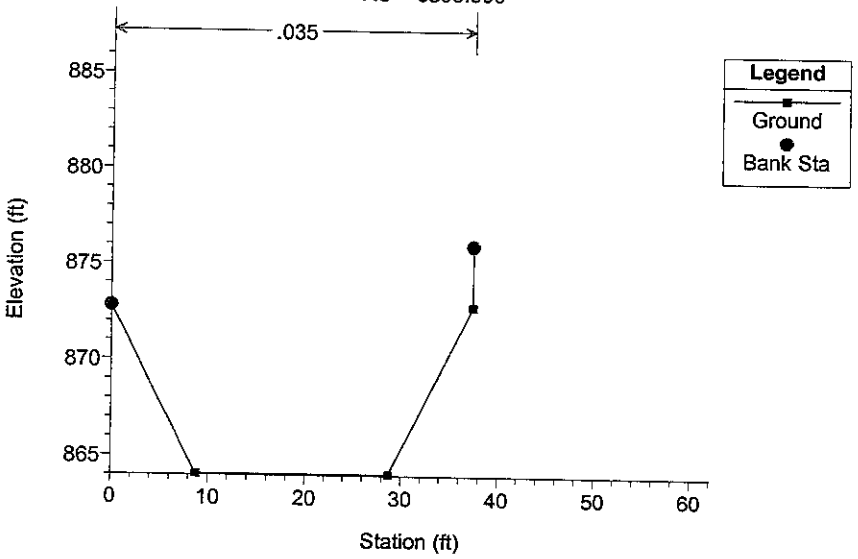
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

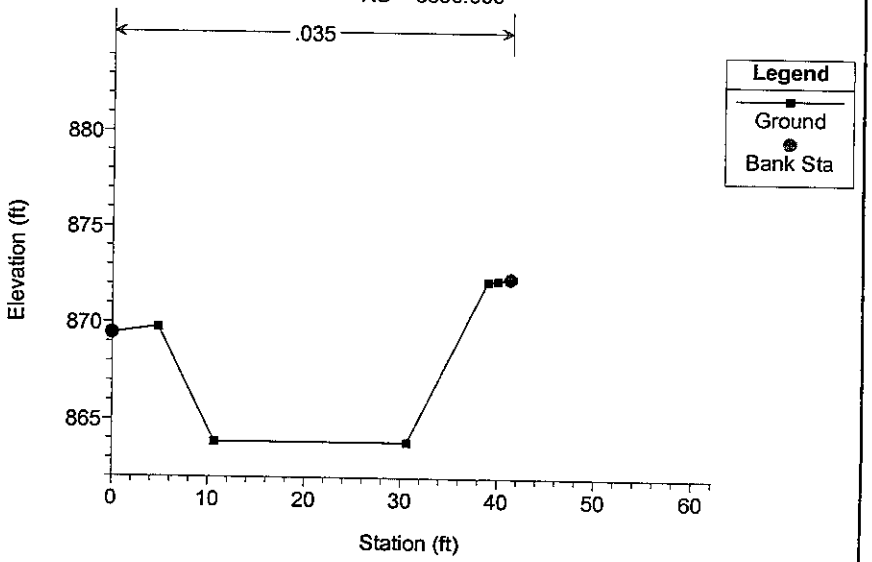
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 6800.000



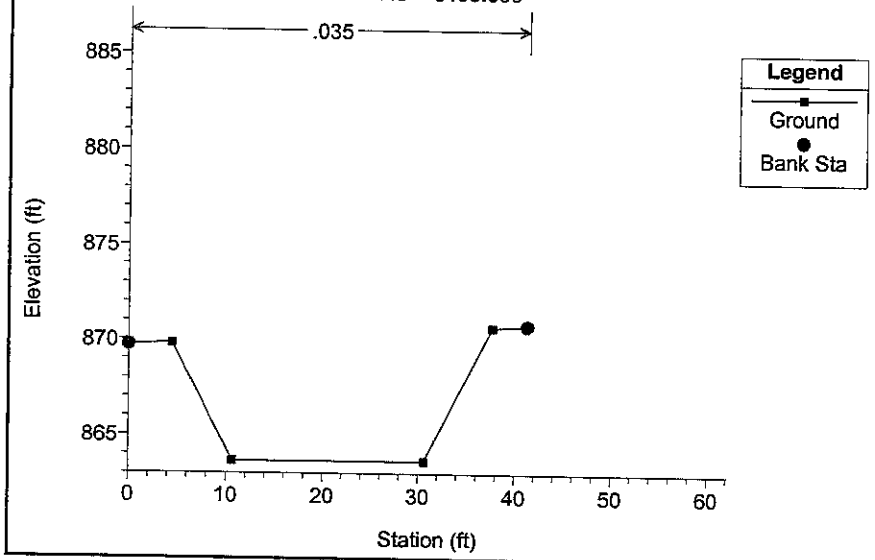
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 6600.000



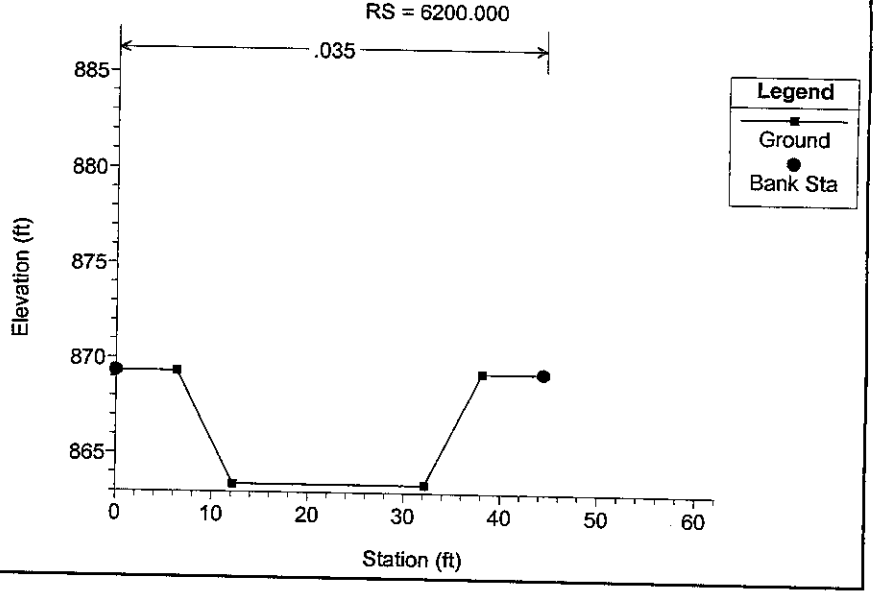
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 6400.000

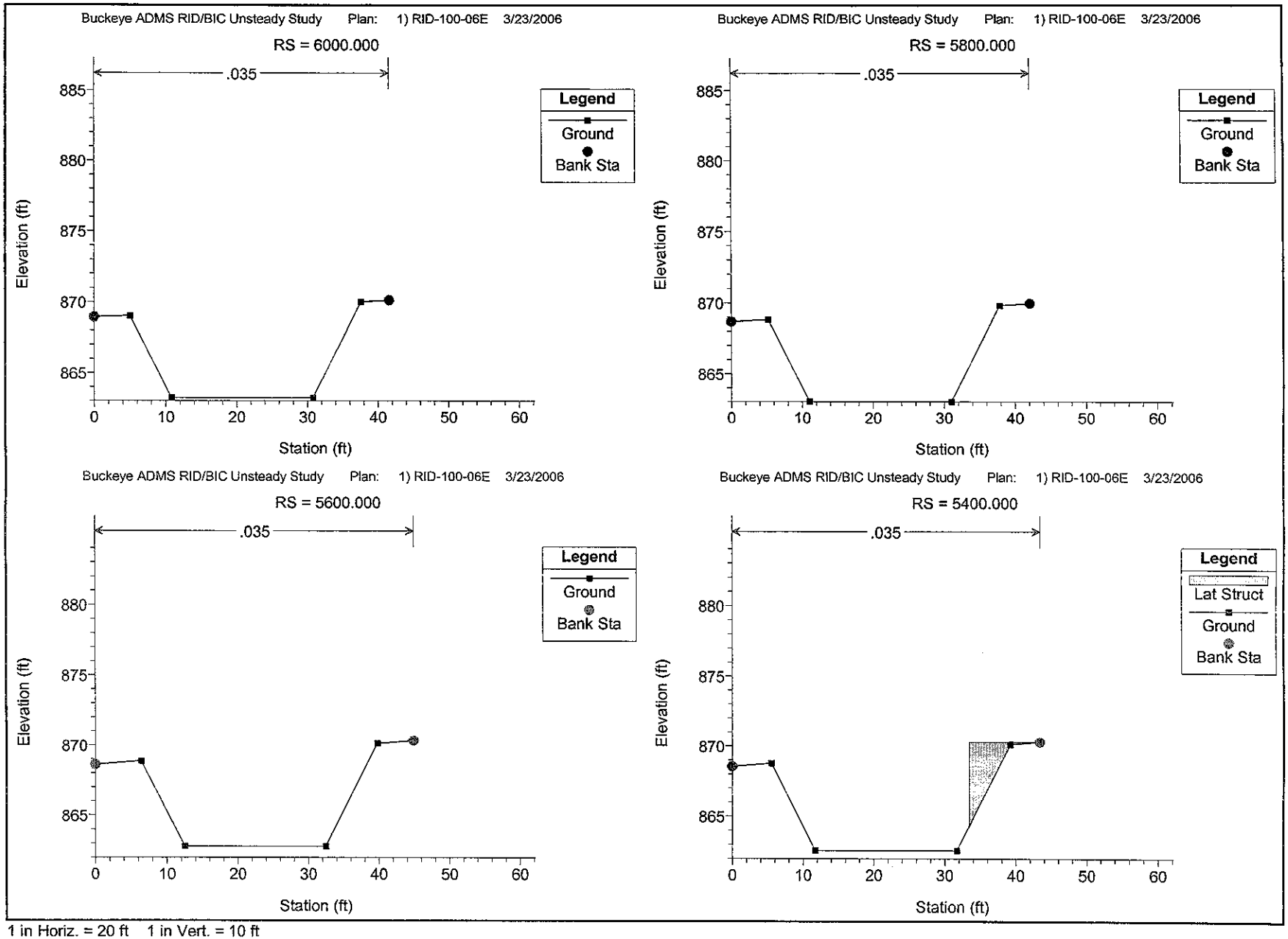


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 6200.000



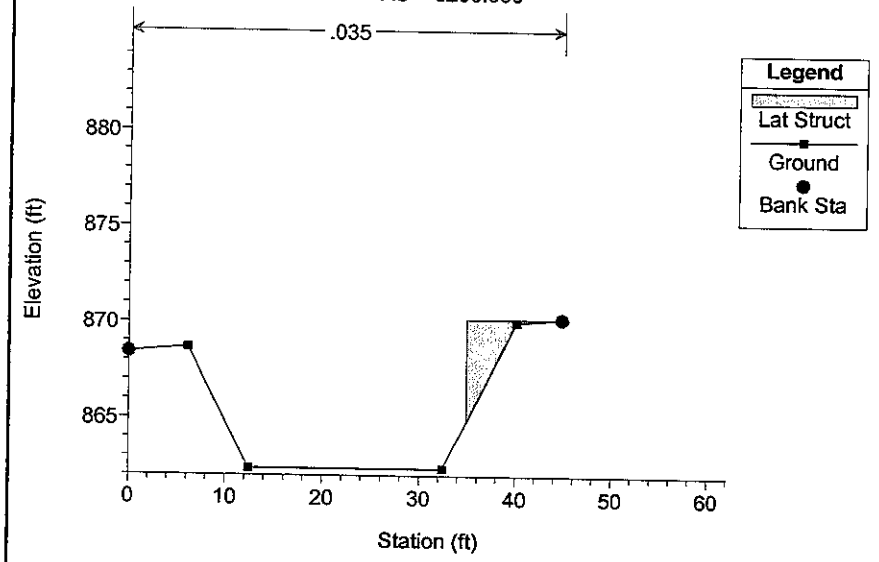
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

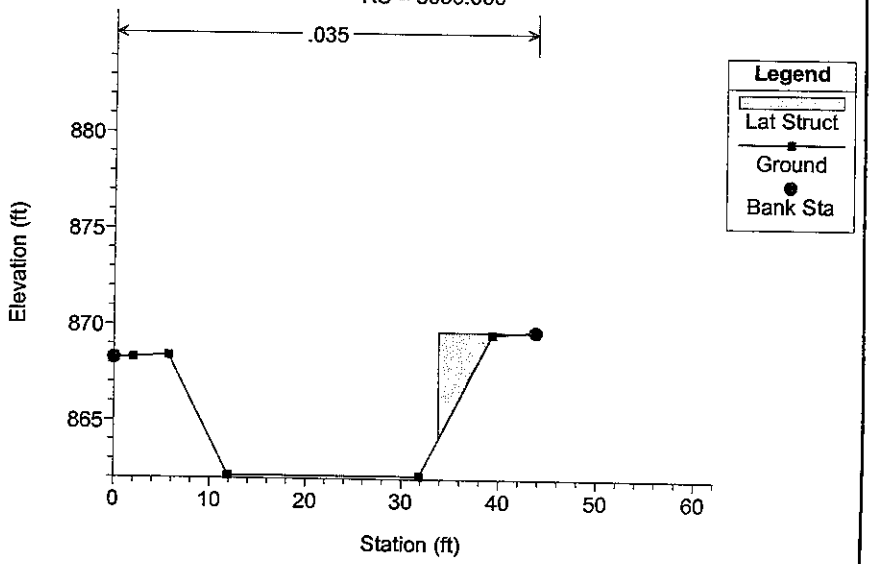
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 5200.000



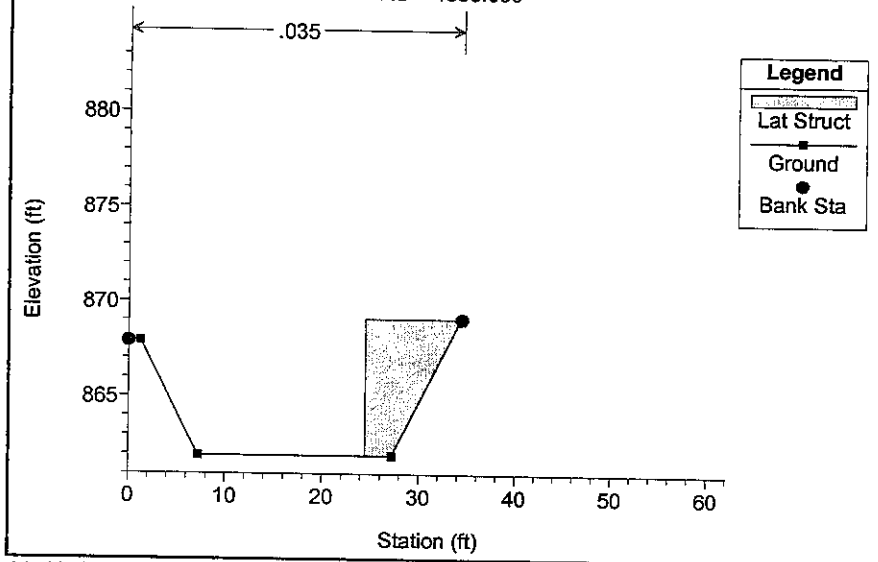
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 5000.000



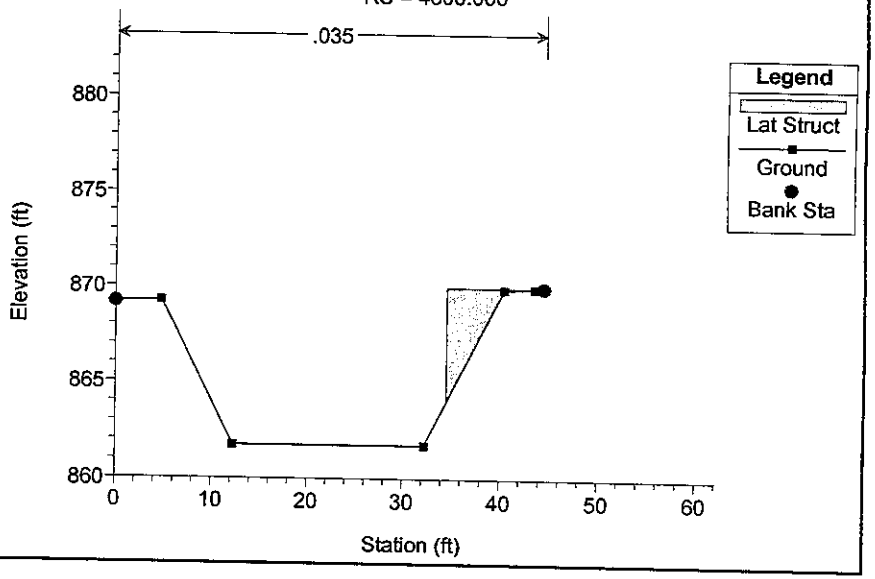
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 4800.000

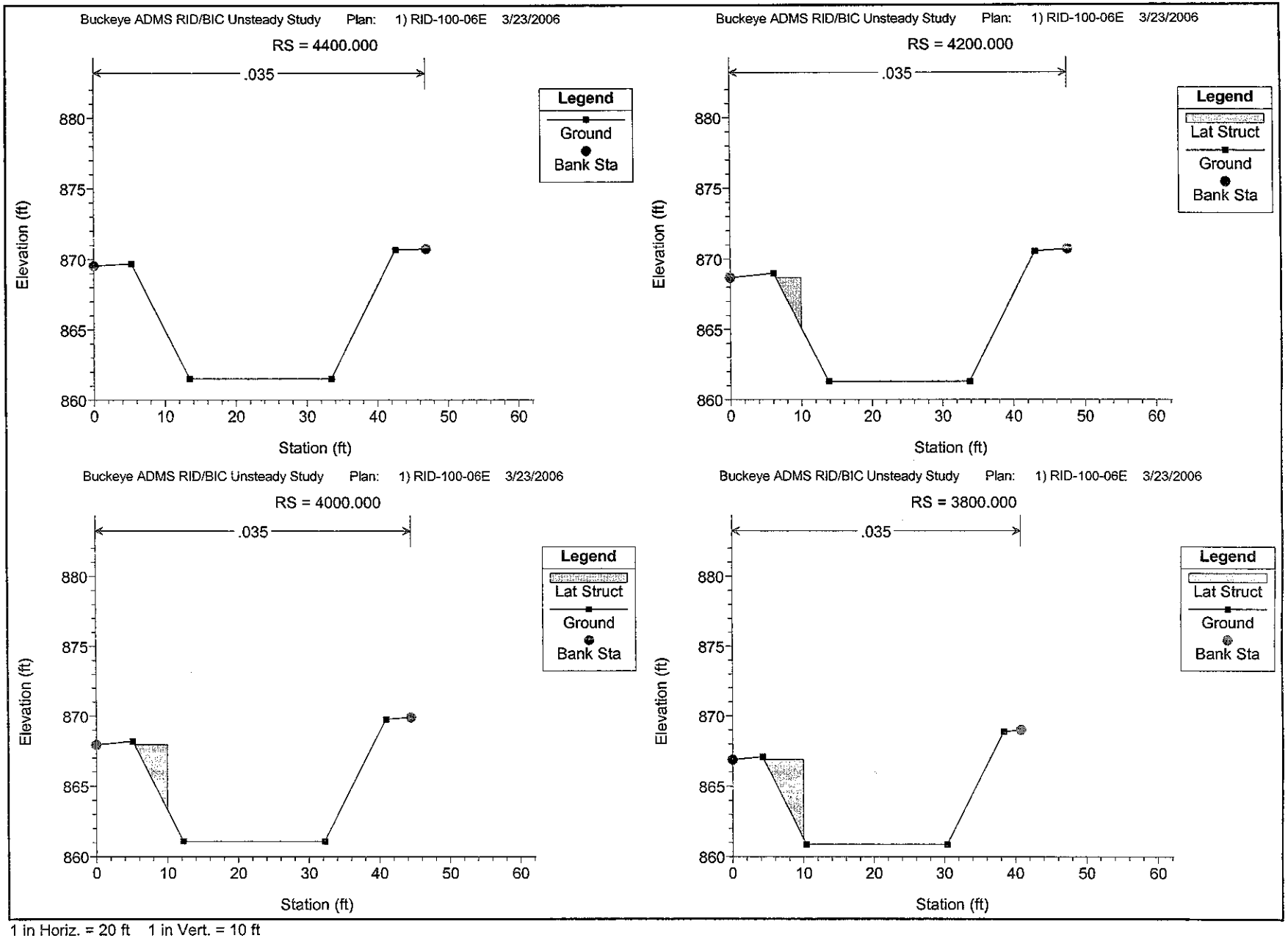


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 4600.000



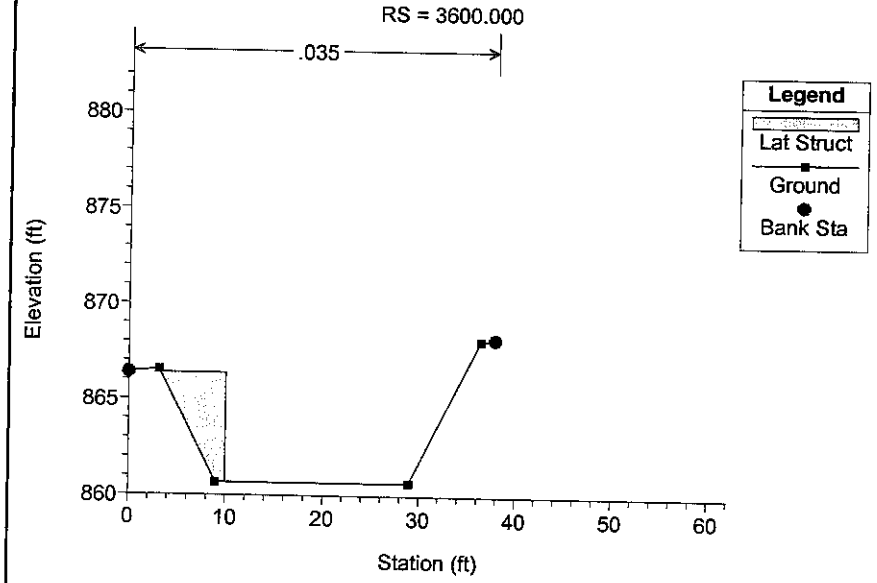
1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

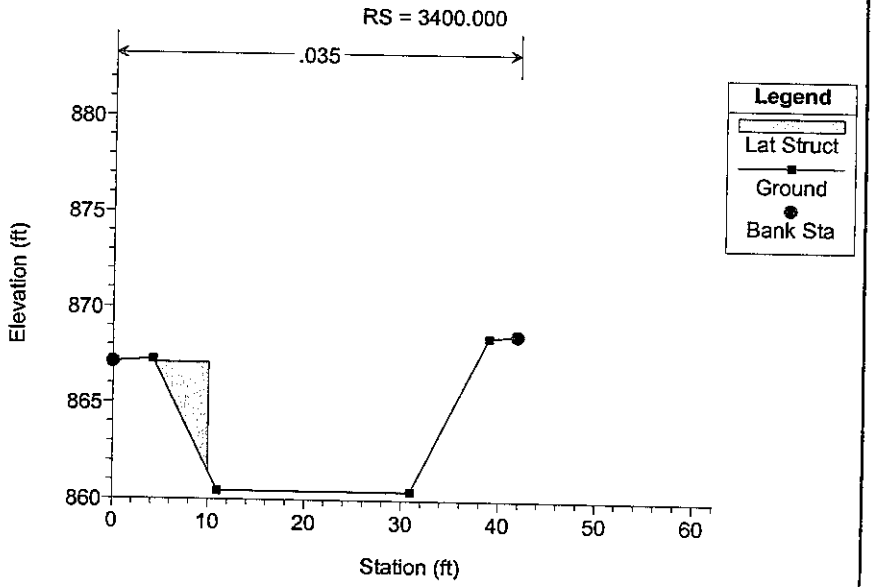
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 3600.000



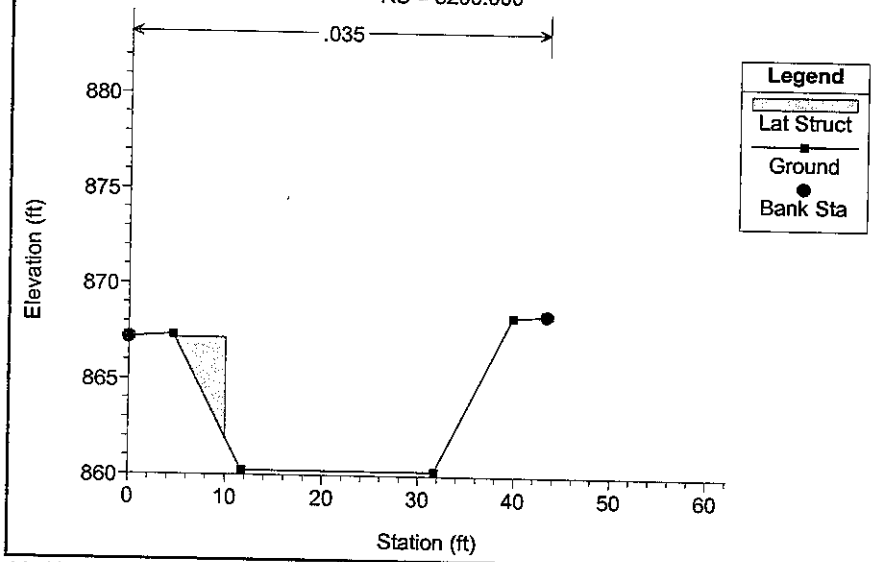
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 3400.000



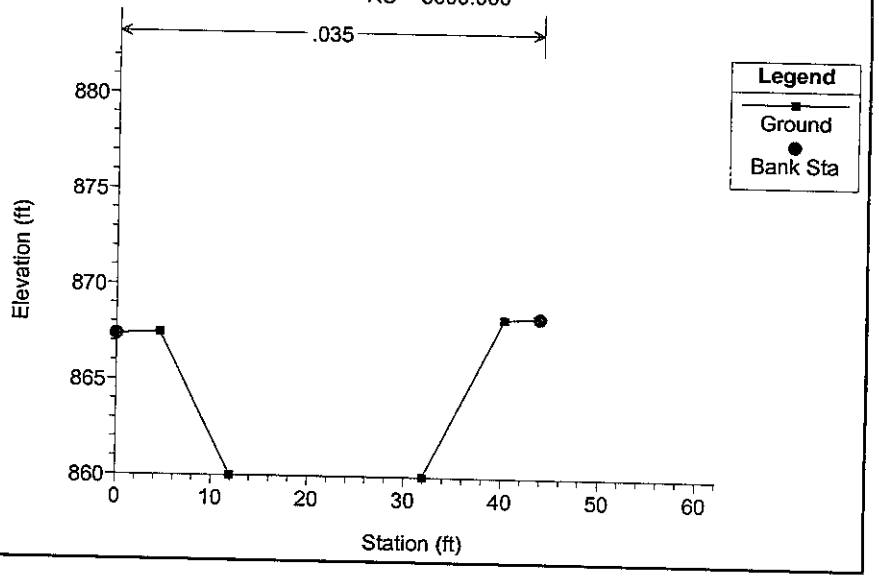
Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 3200.000

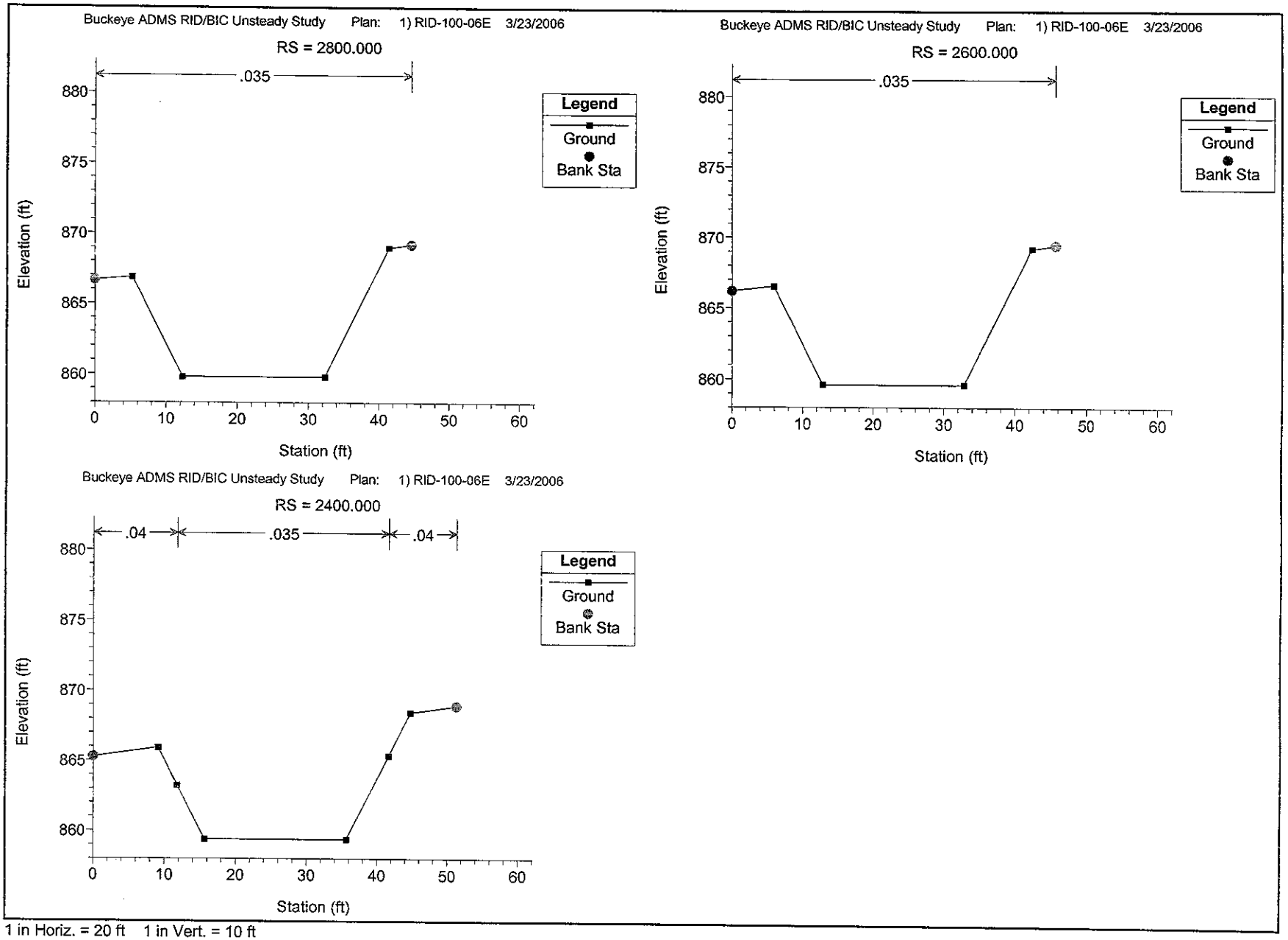


Buckeye ADMS RID/BIC Unsteady Study Plan: 1) RID-100-06E 3/23/2006

RS = 3000.000



1 in Horiz. = 20 ft 1 in Vert. = 10 ft



1 in Horiz. = 20 ft 1 in Vert. = 10 ft

E.3 Expansion and Contraction Coefficients

E.3.1 Roosevelt Irrigation Ditch (RID) Expansion and Contraction Coefficients

Expansion and contraction coefficients were 0.3 and 0.1, respectively, for the entire length of the RID.

E.3.2 Buckeye Irrigation Canal (BIC) Expansion Contraction Coefficients

Expansion and contraction coefficients were 0.3 and 0.1, respectively, for the entire length of the BIC.

E.4 Analysis of Structures

E.4.1 Roosevelt Irrigation Ditch Structures

Station	Bridge Location
57900	Rainbow Road
52525.73	Watson Road
41834.80	Miller Road
30927.22	Oglesby Road
14578.46	Palo Verde Road
3573.98	Johnson Road

E.4.2 Buckeye Irrigation Canal Structures

Station	Bridge Location
66265	Rainbow Road
55646.31	Baseline Road
51075	4th Street
49709.36	Miller Road
39383.46	Oglesby Road
39062	Old Oglesby Road Bridge
33712	Turner Road
28289.85	Wilson Avenue
15870	Bruner Road
6886.91	309th Avenue

E.5 Hydraulic Calculations

E.5.1 Lateral Weir Analysis for both Roosevelt Irrigation Ditch and Buckeye Irrigation Canal – Existing 100-Year, 6-Hour Event

HEC-RAS Plan: RID-100-06E River: RID Reach: RID Profile: Max WS

Reach	River Sta	Profile	Q US	Q Leaving Total	Q DS	Q Weir	Q Gates	Wr Top Width	Weir Max Depth	Weir Avg Depth	Min El Weir Flow	E.G. US.	W.S. US.	E.G. DS	W.S. DS
			(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
RID	61999	Max WS	449.95	485.65	5.40	485.65		2048.71	0.54	0.19	999.57	1000.72	1000.41	1000.15	1000.15
RID	58390	Max WS	26.77	-528.29	537.90	-528.29		200.00	1.06	0.99	1000.71	1000.16	1000.15	999.87	999.57
RID	57199	Max WS	536.39	188.16	268.75	188.16		982.66	0.37	0.17	998.32	999.50	999.17	998.85	998.78
RID	53799	Max WS	269.06	-262.16	531.23	-262.16		200.00	0.70	0.52	998.81	998.80	998.74	996.58	998.29
RID	51199	Max WS	530.34	284.87	240.04	284.87		1184.99	0.47	0.19	998.90	997.89	997.63	997.52	997.47
RID	48399	Max WS	240.04	-341.78	583.53	-341.78		200.00	0.75	0.74	998.24	997.51	997.46	997.25	996.96
RID	47199	Max WS	583.31	733.52	-88.47	733.52		2352.34	0.66	0.22	995.61	996.95	996.65	996.28	996.27
RID	42399	Max WS	-78.47	-681.67	522.54	-681.67		200.00	1.17	1.17	997.18	996.29	996.29	996.12	995.93
RID	41599	Max WS	522.40	0.29	522.20	0.29		108.30	0.02	0.01	995.64	995.99	995.81	995.77	995.60
RID	39599	Max WS	522.12	-319.33	846.98	-319.33		200.00	0.70	0.70	996.42	995.67	995.51	995.30	994.74
RID	38999	Max WS	847.05	536.43	307.43	536.43		1348.33	0.92	0.25	993.19	995.09	994.50	994.21	994.15
RID	36599	Max WS	307.43	-397.13	724.71	-397.13		372.17	1.01	0.53	993.19	994.19	994.13	993.74	993.26
RID	35599	Max WS	722.58	632.50	107.75	632.50		1464.54	0.55	0.29	991.67	993.34	992.79	992.70	992.70
RID	32399	Max WS	124.88	-538.85	621.14	-538.85		895.10	0.64	0.38	992.21	992.72	992.71	992.21	991.88
RID	30399	Max WS	622.38	-73.90	620.56	-73.90		390.51	0.33	0.17	992.10	991.94	991.61	991.15	990.84
RID	27599	Max WS	620.56	224.82	364.94	224.82		1573.61	0.32	0.14	990.38	991.09	990.78	990.79	990.71
RID	24399	Max WS	349.65	-96.72	847.86	-96.72		1159.61	0.76	0.53	989.85	990.72	990.66	990.19	989.71
RID	23190	Max WS	845.37	0.00	847.71						990.17	990.18	989.71	989.50	989.00
RID	19799	Max WS	847.16	243.54	546.27	243.54		1700.86	0.46	0.13	987.42	988.66	988.12	987.75	987.57
RID	15799	Max WS	539.56	-131.12	668.98	-131.12		753.08	0.20	0.16	988.46	987.63	987.46	987.41	987.15
RID	13399	Max WS	668.79	569.13	83.85	569.13		2357.98	0.47	0.20	986.04	986.84	986.54	986.59	986.59
RID	9599	Max WS	90.82	-836.06	917.63	-836.06		282.18	1.96	0.96	985.57	986.60	986.59	986.09	985.58
RID	6199	Max WS	917.17	300.35	615.66	300.35		2396.14	0.26	0.13	984.28	985.54	984.95	984.76	984.53
RID	4599	Max WS	624.66	0.00	529.11						984.52	984.60	984.36	984.45	984.21

HEC-RAS Plan: BIC-100-06E River: BIC Reach: BIC Profile: Max WS

Reach	River Sta	Profile	Q US	Q Leaving Total	Q DS	Q Weir	Q Gates	Wr Top Width	Weir Max Depth	Weir Avg Depth	Min El Weir Flow	E.G. US.	W.S. US.	E.G. DS	W.S. DS
			(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
BIC	88199	Max WS	198.99	-287.63	464.57	-287.63		619.18	0.46	0.30	889.99	889.87	889.85	889.59	889.46
BIC	87395	Max WS	464.57	124.25	340.22	124.25		423.04	0.34	0.23	888.89	889.59	889.48	889.24	889.18
BIC	65999	Max WS	340.21	0.00	340.16						889.58	888.94	888.87	888.53	888.46
BIC	63799	Max WS	340.12	47.09	292.99	47.09		1178.84	0.16	0.06	886.91	888.16	888.05	886.83	886.76
BIC	58999	Max WS	292.92	225.52	67.27	225.52		568.83	0.36	0.28	885.65	886.26	886.18	886.03	886.03
BIC	56999	Max WS	67.21	-246.76	215.38	-246.76		478.03	0.57	0.33	885.91	885.01	886.01	885.84	885.80
BIC	53999	Max WS	202.32	-139.21	341.57	-139.21		621.57	0.45	0.19	886.05	885.37	885.34	885.05	884.97
BIC	52599	Max WS	341.54	51.24	290.28	51.24		469.51	0.21	0.12	884.37	884.89	884.81	884.52	884.46
BIC	48199	Max WS	290.07	-11.92	301.92	-11.92		440.89	0.08	0.05	883.10	883.13	883.08	882.64	882.55
BIC	47195	Max WS	301.93	85.24	199.75	85.24		594.45	0.27	0.14	881.88	882.64	882.55	881.96	881.92
BIC	42799	Max WS	199.62	499.14	-299.53	499.14		866.31	0.58	0.36	880.51	881.24	881.21	881.25	881.17
BIC	40799	Max WS	-299.54	-537.37	356.08	-537.37		1149.62	1.33	0.79	880.38	881.51	881.45	881.58	881.50
BIC	36399	Max WS	365.62	304.68	58.19	304.68		693.69	0.40	0.30	878.57	879.27	879.13	879.01	879.00
BIC	35599	Max WS	58.19	-182.36	234.34	-182.36		181.11	0.95	0.48	878.41	879.01	879.00	878.88	878.83
BIC	33399	Max WS	233.51	148.71	85.02	148.71		858.78	0.38	0.15	877.38	878.20	878.14	877.76	877.75
BIC	29799	Max WS	85.02	-122.96	206.99	-122.96		738.28	0.37	0.16	877.71	877.71	877.70	877.63	877.60
BIC	26999	Max WS	206.83	-141.76	358.34	-141.76		1523.55	0.75	0.37	876.58	877.37	877.34	877.06	877.00
BIC	24799	Max WS	358.33	33.29	323.91	33.29		761.01	0.18	0.06	876.50	876.93	876.88	876.36	876.31
BIC	21999	Max WS	323.72	158.05	165.20	158.05		461.94	0.40	0.27	875.35	876.16	876.11	875.72	875.71
BIC	17999	Max WS	165.16	-253.32	424.33	-253.32		1327.69	1.20	0.71	874.43	875.64	875.53	875.46	875.41
BIC	15795	Max WS	424.22	-233.11	657.40	-233.11		467.62	0.64	0.35	874.05	874.90	874.82	874.29	874.07
BIC	14995	Max WS	657.40	250.65	406.59	250.65		998.99	0.47	0.21	872.90	874.27	874.05	873.00	872.91
BIC	11199	Max WS	406.26	0.00	405.61						871.83	872.13	872.03	871.41	871.31
BIC	9799	Max WS	405.61	-146.35	412.28	-146.35		294.94	0.45	0.34	871.11	871.40	871.29	870.68	870.56
BIC	5599	Max WS	172.89	-335.15	486.76	-335.15		468.53	0.84	0.41	869.07	867.89	867.86	867.20	867.01
BIC	4395	Max WS	486.76	0.00	482.37						866.39	867.18	867.00	865.70	865.52

E.5.2 Lateral Weir Analysis for both Roosevelt Irrigation Ditch and Buckeye Irrigation Canal – Future 100-Year, 6-Hour Event

HEC-RAS Plan: RID-100-05F River: RID Reach: RID Profile: Max WS

Reach	River Sta	Profile	Q US	Q Leaving Total	Q DS	Q Weir	Q Gates	Wr Top Width	Weir Max Depth	Weir Avg Depth	Min El Weir Flow	E.G. US.	W.S. US.	E.G. DS	W.S. DS
			(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
RID	61899	Max WS	449.95	640.70	-39.02	640.70		2049.52	0.60	0.23	999.57	1000.72	1000.41	1000.17	1000.17
RID	58390	Max WS	-10.84	-699.59	527.18	-699.59		200.00	1.26	1.19	1000.71	1000.18	1000.17	999.93	999.66
RID	57199	Max WS	526.55	451.92	45.46	451.92		1092.43	0.50	0.29	998.32	999.57	999.26	999.03	999.03
RID	53799	Max WS	48.06	-527.81	569.96	-527.81		200.00	1.07	0.98	998.81	999.04	999.04	998.74	998.43
RID	51199	Max WS	569.78	282.94	266.69	282.94		1213.84	0.46	0.19	996.90	997.97	997.67	997.53	997.47
RID	48399	Max WS	266.69	-321.94	588.45	-321.94		200.00	0.72	0.71	998.24	997.51	997.46	997.27	996.97
RID	47199	Max WS	588.42	468.81	110.36	468.81		1993.57	0.54	0.18	995.61	996.96	996.65	996.21	996.20
RID	42399	Max WS	144.24	-435.85	548.30	-435.85		200.00	0.87	0.87	997.18	996.22	996.20	996.02	995.81
RID	41599	Max WS	548.23	0.00	548.19						995.64	995.89	995.67	995.62	995.42
RID	39599	Max WS	545.53	-236.41	803.90	-256.41		200.00	0.61	0.61	996.42	995.51	995.31	995.19	994.97
RID	38999	Max WS	803.88	410.37	396.04	410.37		1308.64	0.78	0.22	993.19	994.99	994.45	994.10	993.99
RID	36599	Max WS	396.04	-329.66	699.60	-329.66		359.72	0.93	0.47	993.19	994.06	993.96	993.65	993.18
RID	35599	Max WS	699.51	491.20	212.00	491.20		1367.42	0.47	0.26	991.67	993.28	992.75	992.62	992.58
RID	32399	Max WS	219.10	-414.40	590.09	-414.40		863.10	0.58	0.33	992.21	992.59	992.56	992.09	991.78
RID	30399	Max WS	591.35	-34.81	589.26	-34.81		306.17	0.24	0.12	992.10	991.84	991.53	991.10	990.82
RID	27599	Max WS	589.26	168.55	392.94	168.55		1522.27	0.31	0.12	990.38	991.05	990.77	990.74	990.65
RID	24399	Max WS	399.71	-264.41	833.86	-264.41		1129.56	0.65	0.44	989.85	990.65	990.56	990.11	989.64
RID	23190	Max WS	833.11	0.00	830.10						990.17	990.11	989.84	989.43	988.94
RID	19799	Max WS	828.84	176.50	555.88	176.50		1487.36	0.45	0.12	987.42	988.62	988.10	987.65	987.46
RID	15799	Max WS	556.01	-91.34	543.50	-91.34		724.85	0.16	0.13	988.46	987.52	987.34	987.32	987.08
RID	13399	Max WS	641.68	270.03	356.49	270.03		1970.94	0.33	0.13	986.04	986.79	986.52	986.44	986.37
RID	9599	Max WS	356.55	-511.94	869.85	-511.94		231.91	1.61	0.81	985.57	986.41	986.34	985.97	985.49
RID	8199	Max WS	869.09	242.52	627.42	242.52		2301.50	0.25	0.12	984.28	985.47	984.94	984.71	984.48
RID	4599	Max WS	627.37	0.00	627.33						984.52	984.52	984.27	984.35	984.10

HEC-RAS Plan: BIC-100-05F River: BIC Reach: BIC Profile: Max WS

Reach	River Sta	Profile	Q US	Q Leaving Total	Q DS	Q Weir	Q Gates	Wr Top Width	Weir Max Depth	Weir Avg Depth	Min El Weir Flow	E.G. US.	W.S. US.	E.G. DS.	W.S. DS.
			(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
BIC	68199	Max WS	199.25	-280.64	479.53	-280.64		623.42	0.47	0.31	889.99	889.91	889.89	889.62	889.51
BIC	67395	Max WS	479.53	136.62	342.89	136.62		436.00	0.36	0.24	888.89	889.62	889.50	889.26	888.19
BIC	65899	Max WS	342.88	-60.40	342.82	-60.40		547.08	0.23	0.13	889.58	888.96	888.89	888.54	888.47
BIC	63799	Max WS	342.82	48.71	293.62	48.71		1181.83	0.16	0.06	886.91	888.17	888.09	886.82	886.78
BIC	58999	Max WS	293.53	206.12	91.38	206.12		556.53	0.35	0.27	885.65	886.25	886.18	886.01	886.00
BIC	56999	Max WS	91.33	-220.79	267.21	-220.79		467.59	0.54	0.31	885.91	885.97	885.96	885.80	885.74
BIC	53999	Max WS	233.49	-48.99	279.45	-48.99		303.83	0.30	0.15	886.05	885.07	885.03	884.78	884.72
BIC	52599	Max WS	279.39	0.96	278.36	0.96		125.88	0.04	0.02	884.37	884.65	884.60	884.34	884.29
BIC	48199	Max WS	278.22	0.00	278.17						883.10	883.02	882.95	882.56	882.48
BIC	47195	Max WS	278.18	67.11	200.48	67.11		531.80	0.24	0.13	881.88	882.56	882.48	881.95	881.91
BIC	42799	Max WS	200.40	462.17	-261.72	462.17		618.53	0.55	0.36	880.51	881.22	881.16	881.19	881.13
BIC	40799	Max WS	-261.75	-615.27	352.55	-615.27		1053.95	1.19	0.71	880.38	881.39	881.34	881.44	881.36
BIC	38399	Max WS	351.44	226.53	91.86	226.53		638.49	0.36	0.26	878.57	879.22	879.09	878.93	878.92
BIC	35599	Max WS	91.86	-144.49	226.21	-144.49		165.01	0.87	0.43	878.41	878.93	878.92	878.80	878.75
BIC	33399	Max WS	225.68	91.05	129.02	91.05		718.19	0.32	0.13	877.38	878.15	878.10	877.67	877.65
BIC	29799	Max WS	128.50	-79.31	207.75	-79.31		643.59	0.32	0.13	877.71	877.53	877.52	877.42	877.39
BIC	26999	Max WS	207.68	-78.40	295.59	-78.40		1167.28	0.49	0.17	876.58	877.14	877.11	876.75	876.70
BIC	24799	Max WS	295.59	0.00	295.31						876.50	876.65	876.60	876.16	876.12
BIC	21999	Max WS	294.49	51.07	239.58	51.07		342.91	0.21	0.18	875.35	875.97	875.93	875.48	875.45
BIC	17999	Max WS	238.43	-87.10	373.48	-87.10		1052.97	0.83	0.45	874.43	875.30	875.27	875.03	874.96
BIC	15795	Max WS	368.21	-222.07	587.21	-222.07		440.22	0.59	0.32	874.05	874.66	874.60	874.14	873.98
BIC	14995	Max WS	587.21	185.56	401.63	185.56		873.57	0.42	0.19	872.90	874.12	873.95	872.95	872.86
BIC	11199	Max WS	401.55	0.00	401.48						871.83	872.03	871.96	871.36	871.25
BIC	9799	Max WS	401.48	-86.74	405.71	-86.74		268.80	0.34	0.26	871.11	871.35	871.24	870.63	870.51
BIC	5599	Max WS	171.47	-375.02	505.83	-375.02		492.08	0.88	0.43	869.07	868.02	867.99	867.33	867.14
BIC	4395	Max WS	505.83	0.00	501.79						866.39	867.32	867.12	865.84	865.65

E.5.3 Water Surface Elevation HEC-RAS Output for Roosevelt Irrigation Ditch – Existing 100-Year, 6-Hour Event

HEC-RAS Plan: RID-100-06E River: RID Reach: RID Profile: Max WS

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
RID	63400.00	Max WS	450.00	994.75	1000.91		1001.23	0.000372	4.52	99.63	22.33	0.38
RID	63200.00	Max WS	449.99	994.67	1000.84		1001.16	0.000371	4.51	99.77	22.34	0.38
RID	63000.00	Max WS	449.98	994.59	1000.77		1001.08	0.000369	4.50	99.95	22.36	0.38
RID	62800.00	Max WS	449.97	994.51	1000.70		1001.01	0.000368	4.50	100.10	22.37	0.37
RID	62600.00	Max WS	449.97	994.44	1000.62		1000.94	0.000368	4.50	100.01	22.36	0.37
RID	62400.00	Max WS	449.95	994.36	1000.55		1000.86	0.000367	4.49	100.17	22.36	0.37
RID	62200.00	Max WS	449.96	994.28	1000.48		1000.79	0.000365	4.48	100.35	22.39	0.37
RID	62000.00	Max WS	449.95	994.20	1000.41		1000.72	0.000363	4.47	100.55	22.41	0.37
RID	61999		Lat Struct									
RID	61800.00	Max WS	449.95	994.12	1000.33		1000.64	0.000361	4.47	100.75	22.43	0.37
RID	61600.00	Max WS	449.94	994.05	1000.26		1000.57	0.000362	4.47	100.69	22.42	0.37
RID	61400.00	Max WS	449.92	993.97	1000.19		1000.50	0.000360	4.46	100.89	22.44	0.37
RID	61200.00	Max WS	449.91	993.89	1000.12		1000.43	0.000358	4.45	101.11	22.46	0.37
RID	61000.00	Max WS	449.90	993.81	1000.05		1000.36	0.000355	4.44	101.34	22.48	0.37
RID	60800.00	Max WS	448.43	993.73	999.98		1000.28	0.000438	4.40	101.91	27.66	0.40
RID	60600.00	Max WS	427.16	993.66	999.97		1000.23	0.000400	4.13	103.31	28.90	0.39
RID	60400.00	Max WS	410.72	993.58	999.94		1000.18	0.000304	3.94	104.12	24.82	0.34
RID	60200.00	Max WS	400.25	993.50	999.90		1000.13	0.000326	3.80	105.33	28.60	0.35
RID	60000.00	Max WS	368.14	993.42	999.93		1000.10	0.000272	3.39	108.49	30.69	0.32
RID	59800.00	Max WS	343.43	993.35	999.93		1000.08	0.000189	3.15	109.12	25.57	0.27
RID	59600.00	Max WS	335.27	993.27	999.91		1000.05	0.000188	3.03	110.71	27.62	0.27
RID	59400.00	Max WS	269.96	993.19	999.99		1000.07	0.000119	2.31	116.99	31.44	0.21
RID	59200.00	Max WS	111.07	993.11	1000.11		1000.13	0.000018	0.91	122.46	31.65	0.08
RID	59000.00	Max WS	14.09	993.03	1000.14		1000.14	0.000000	0.12	122.18	28.32	0.01
RID	58800.00	Max WS	5.40	992.96	1000.15		1000.15	0.000000	0.04	123.86	28.54	0.00
RID	58600.00	Max WS	16.78	992.88	1000.16		1000.16	0.000000	0.13	129.11	31.67	0.01
RID	58400.00	Max WS	26.77	992.80	1000.18		1000.18	0.000001	0.21	130.43	31.89	0.02
RID	58390		Lat Struct									
RID	58200.00	Max WS	507.57	992.72	999.58		999.88	0.000316	4.39	115.61	23.72	0.35
RID	58000.00	Max WS	537.90	992.64	999.43	996.53	999.77	0.000369	4.72	113.98	23.58	0.38
RID	57900		Bridge									
RID	57800.00	Max WS	537.49	992.47	999.37		999.70	0.000346	4.61	116.72	23.81	0.37
RID	57600.00	Max WS	537.09	992.40	999.31		999.64	0.000345	4.60	116.80	23.82	0.37
RID	57400.00	Max WS	536.37	992.34	999.24		999.57	0.000346	4.60	116.56	23.80	0.37
RID	57200.00	Max WS	536.35	992.27	999.17		999.50	0.000346	4.60	116.55	23.80	0.37
RID	57199		Lat Struct									
RID	57000.00	Max WS	536.02	992.21	999.10		999.43	0.000347	4.61	116.30	23.77	0.37
RID	56800.00	Max WS	535.72	992.14	999.03		999.35	0.000347	4.61	116.26	23.77	0.37
RID	56600.00	Max WS	535.44	992.07	998.95		999.28	0.000347	4.61	116.21	23.77	0.37
RID	56400.00	Max WS	460.05	992.01	998.89		999.13	0.000257	3.96	116.05	23.75	0.32
RID	56200.00	Max WS	459.33	991.94	998.84		999.08	0.000254	3.94	116.55	23.80	0.31
RID	56000.00	Max WS	459.54	991.88	998.79		999.03	0.000252	3.93	116.80	23.82	0.31
RID	55800.00	Max WS	459.01	991.81	998.74		998.98	0.000249	3.91	117.33	23.86	0.31
RID	55600.00	Max WS	457.21	991.74	998.69		998.93	0.000244	3.88	117.89	23.91	0.31
RID	55400.00	Max WS	457.24	991.68	998.65		998.88	0.000242	3.87	118.20	23.93	0.31
RID	55200.00	Max WS	448.67	991.61	998.62		998.84	0.000291	3.75	119.56	30.23	0.33
RID	55000.00	Max WS	386.49	991.54	998.69		998.84	0.000203	3.10	124.65	32.12	0.28
RID	54800.00	Max WS	310.26	991.48	998.77		998.86	0.000118	2.45	126.76	30.61	0.21
RID	54600.00	Max WS	276.49	991.41	998.79		998.86	0.000084	2.15	128.45	29.03	0.18
RID	54400.00	Max WS	268.75	991.35	998.78		998.85	0.000065	2.07	129.55	24.86	0.16
RID	54200.00	Max WS	268.80	991.28	998.77		998.83	0.000079	2.05	131.30	30.59	0.17
RID	54000.00	Max WS	268.92	991.21	998.76		998.82	0.000077	2.01	133.73	31.71	0.17
RID	53800.00	Max WS	269.06	991.15	998.74		998.80	0.000075	2.00	134.68	31.40	0.17
RID	53799		Lat Struct									
RID	53600.00	Max WS	529.87	991.08	998.29		998.58	0.000287	4.27	124.16	24.68	0.34
RID	53400.00	Max WS	531.23	991.02	998.22		998.51	0.000324	4.28	124.00	27.27	0.35
RID	53200.00	Max WS	531.22	990.95	998.16		998.44	0.000287	4.28	124.02	24.41	0.33
RID	53000.00	Max WS	531.21	990.88	998.10		998.38	0.000285	4.27	124.33	24.45	0.33
RID	52800.00	Max WS	531.19	990.82	998.04		998.33	0.000284	4.27	124.40	24.45	0.33
RID	52600.00	Max WS	531.20	990.75	997.99	994.62	998.27	0.000282	4.26	124.78	24.48	0.33
RID	52525.73		Bridge									
RID	52400.00	Max WS	531.19	990.55	997.95		998.22	0.000259	4.12	128.78	24.80	0.32
RID	52200.00	Max WS	531.17	990.49	997.90		998.16	0.000258	4.12	129.02	24.82	0.32
RID	52000.00	Max WS	531.20	990.44	997.85		998.11	0.000258	4.12	128.98	24.82	0.32
RID	51800.00	Max WS	531.19	990.38	997.80		998.06	0.000280	4.11	129.26	26.91	0.33
RID	51600.00	Max WS	530.42	990.32	997.74		998.00	0.000261	4.10	129.29	25.33	0.32
RID	51400.00	Max WS	530.32	990.27	997.69		997.95	0.000256	4.11	129.13	24.83	0.32
RID	51200.00	Max WS	530.34	990.21	997.63		997.89	0.000255	4.10	129.34	24.85	0.32
RID	51199		Lat Struct									
RID	51000.00	Max WS	530.21	990.16	997.58		997.84	0.000255	4.10	129.31	24.84	0.32
RID	50800.00	Max WS	529.87	990.10	997.53		997.79	0.000253	4.09	129.55	24.86	0.32
RID	50600.00	Max WS	519.90	990.04	997.50		997.75	0.000268	3.99	130.43	27.50	0.32
RID	50400.00	Max WS	515.50	989.99	997.46		997.70	0.000236	3.95	130.39	24.93	0.30
RID	50200.00	Max WS	514.34	989.93	997.41		997.65	0.000233	3.93	130.77	24.96	0.30
RID	50000.00	Max WS	513.97	989.87	997.37		997.60	0.000231	3.92	131.15	24.99	0.30

HEC-RAS Plan: RID-100-08E River: RID Reach: RID Profile: Max WS (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
RID	49800.00	Max WS	511.29	989.82	997.32		997.56	0.000228	3.89	131.27	25.00	0.30
RID	49600.00	Max WS	510.97	989.76	997.28		997.51	0.000230	3.88	131.67	25.51	0.30
RID	49400.00	Max WS	502.24	989.70	997.24		997.47	0.000234	3.79	132.45	27.07	0.30
RID	49200.00	Max WS	473.10	989.65	997.25		997.45	0.000219	3.52	134.31	29.51	0.29
RID	49000.00	Max WS	377.84	989.59	997.37		997.48	0.000137	2.69	140.38	32.77	0.23
RID	48800.00	Max WS	262.82	989.54	997.46		997.52	0.000061	1.83	143.51	32.72	0.15
RID	48600.00	Max WS	240.45	989.48	997.47		997.52	0.000039	1.67	143.82	25.99	0.13
RID	48400.00	Max WS	240.04	989.42	997.47		997.51	0.000049	1.64	145.93	32.98	0.14
RID	48399		Lat Struct									
RID	48200.00	Max WS	581.98	989.37	996.96		997.25	0.000282	4.36	133.50	25.18	0.33
RID	48000.00	Max WS	583.53	989.31	996.90		997.19	0.000361	4.34	134.36	31.79	0.37
RID	47800.00	Max WS	583.53	989.25	996.83		997.12	0.000337	4.37	133.47	29.39	0.36
RID	47600.00	Max WS	583.51	989.20	996.76		997.06	0.000288	4.39	132.80	25.12	0.34
RID	47400.00	Max WS	583.57	989.14	996.70		997.00	0.000287	4.39	132.87	25.13	0.34
RID	47200.00	Max WS	583.31	989.08	996.65		996.95	0.000286	4.39	132.94	25.14	0.34
RID	47199		Lat Struct									
RID	47000.00	Max WS	583.25	989.03	996.59		996.89	0.000288	4.39	132.73	25.12	0.34
RID	46800.00	Max WS	582.56	988.97	996.53		996.83	0.000298	4.39	132.77	26.03	0.34
RID	46600.00	Max WS	578.45	988.92	996.47		996.77	0.000292	4.36	132.60	25.72	0.34
RID	46400.00	Max WS	578.03	988.86	996.41		996.71	0.000284	4.36	132.56	25.10	0.33
RID	46200.00	Max WS	577.58	988.80	996.35		996.65	0.000283	4.36	132.61	25.11	0.33
RID	46000.00	Max WS	577.52	988.75	996.30		996.59	0.000284	4.36	132.41	25.09	0.33
RID	45800.00	Max WS	577.46	988.69	996.24		996.53	0.000283	4.36	132.50	25.10	0.33
RID	45600.00	Max WS	573.15	988.63	996.18		996.47	0.000279	4.32	132.59	25.11	0.33
RID	45400.00	Max WS	570.22	988.58	996.13		996.41	0.000277	4.31	132.42	25.09	0.33
RID	45200.00	Max WS	563.60	988.52	996.08		996.36	0.000302	4.24	132.90	28.00	0.34
RID	45000.00	Max WS	540.49	988.46	996.07		996.32	0.000269	4.03	134.15	27.93	0.32
RID	44800.00	Max WS	494.35	988.41	996.11		996.31	0.000240	3.61	137.03	31.40	0.30
RID	44600.00	Max WS	462.73	988.35	996.12		996.29	0.000165	3.35	137.99	25.86	0.26
RID	44400.00	Max WS	462.37	988.30	996.08		996.26	0.000161	3.34	138.45	25.57	0.25
RID	44200.00	Max WS	432.44	988.24	996.10		996.25	0.000172	3.05	141.78	32.51	0.26
RID	44000.00	Max WS	357.79	988.18	996.17		996.27	0.000106	2.48	144.27	31.11	0.20
RID	43800.00	Max WS	346.03	988.13	996.16		996.25	0.000080	2.39	144.88	26.07	0.18
RID	43600.00	Max WS	337.91	988.07	996.16		996.24	0.000086	2.30	146.63	30.09	0.18
RID	43400.00	Max WS	319.72	988.01	996.16		996.23	0.000068	2.16	147.98	27.60	0.16
RID	43200.00	Max WS	221.66	987.96	996.23		996.26	0.000036	1.43	154.58	33.91	0.12
RID	43000.00	Max WS	-15.06	987.90	996.29		996.29	0.000000	-0.10	158.46	34.56	0.01
RID	42800.00	Max WS	-93.82	987.84	996.27		996.28	0.000006	-0.60	155.95	32.26	0.05
RID	42600.00	Max WS	-86.47	987.79	996.28		996.29	0.000005	-0.55	161.20	34.70	0.04
RID	42400.00	Max WS	-78.47	987.73	996.29		996.29	0.000004	-0.49	159.73	34.05	0.04
RID	42399		Lat Struct									
RID	42200.00	Max WS	518.76	987.68	995.93		996.12	0.000162	3.44	150.67	26.51	0.25
RID	42000.00	Max WS	522.54	987.62	995.90	991.45	996.08	0.000162	3.45	151.26	26.55	0.26
RID	41834.8		Bridge									
RID	41600.00	Max WS	522.40	987.55	995.81		995.99	0.000164	3.46	150.77	26.52	0.26
RID	41599		Lat Struct									
RID	41400.00	Max WS	522.42	987.49	995.78		995.96	0.000161	3.45	151.55	26.57	0.25
RID	41200.00	Max WS	522.47	987.43	995.75		995.93	0.000159	3.43	152.35	26.63	0.25
RID	41000.00	Max WS	522.48	987.37	995.72		995.90	0.000157	3.41	153.17	26.70	0.25
RID	40800.00	Max WS	522.51	987.31	995.69		995.87	0.000155	3.39	153.99	26.76	0.25
RID	40600.00	Max WS	522.49	987.24	995.66		995.84	0.000155	3.37	155.10	27.43	0.25
RID	40400.00	Max WS	522.24	987.18	995.63		995.80	0.000150	3.35	155.89	26.90	0.25
RID	40200.00	Max WS	522.23	987.12	995.60		995.77	0.000147	3.33	156.70	26.98	0.24
RID	40000.00	Max WS	522.20	987.06	995.57		995.74	0.000145	3.31	157.58	27.02	0.24
RID	39800.00	Max WS	522.18	987.00	995.54		995.71	0.000181	3.27	159.47	33.96	0.27
RID	39600.00	Max WS	522.12	986.94	995.51		995.68	0.000180	3.26	160.18	34.38	0.27
RID	39599		Lat Struct									
RID	39400.00	Max WS	845.68	986.88	994.74		995.31	0.000519	6.02	140.43	25.72	0.45
RID	39200.00	Max WS	846.98	986.82	994.62		995.20	0.000538	6.10	138.82	25.60	0.46
RID	39000.00	Max WS	847.05	986.75	994.50		995.09	0.000551	6.16	137.54	25.50	0.47
RID	38999		Lat Struct									
RID	38800.00	Max WS	846.93	986.69	994.37		994.97	0.000570	6.24	135.79	25.36	0.48
RID	38600.00	Max WS	845.94	986.63	994.22		994.84	0.000703	6.32	133.79	29.44	0.52
RID	38400.00	Max WS	834.39	986.57	994.11		994.72	0.000657	6.31	132.25	27.47	0.51
RID	38200.00	Max WS	823.32	986.51	994.00		994.61	0.000686	6.28	131.08	28.50	0.52
RID	38000.00	Max WS	822.21	986.45	993.85		994.48	0.000622	6.39	128.65	24.79	0.49
RID	37800.00	Max WS	822.28	986.39	993.70		994.35	0.000652	6.50	126.43	24.61	0.51
RID	37600.00	Max WS	782.67	986.33	993.53		994.15	0.000666	6.32	123.93	25.68	0.51
RID	37400.00	Max WS	702.29	986.26	993.45		993.95	0.000598	5.66	124.06	28.59	0.48
RID	37200.00	Max WS	655.14	986.20	993.51		993.92	0.000529	5.13	127.72	31.44	0.45
RID	37000.00	Max WS	599.01	986.14	993.76		994.06	0.000374	4.37	137.00	32.99	0.38
RID	36800.00	Max WS	312.62	986.08	994.15		994.21	0.000078	2.06	152.08	34.64	0.17
RID	36600.00	Max WS	307.43	986.02	994.14		994.19	0.000112	1.83	167.94	65.43	0.20
RID	36599		Lat Struct									
RID	36400.00	Max WS	576.10	985.96	993.74		993.96	0.000325	3.78	152.48	42.18	0.35

HEC-RAS Plan: RID-100-06E River: RID Reach: RID Profile: Max WS (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
RID	36200.00	Max WS	724.71	985.90	993.22		993.72	0.000606	5.71	127.03	29.30	0.48
RID	36000.00	Max WS	724.73	985.84	993.10		993.60	0.000647	5.67	127.74	31.39	0.50
RID	35800.00	Max WS	724.75	985.77	992.95		993.47	0.000682	5.81	124.69	30.74	0.51
RID	35600.00	Max WS	722.58	985.71	992.79		993.34	0.000568	5.98	120.90	24.16	0.47
RID	35599		Lat Struct									
RID	35400.00	Max WS	718.79	985.65	992.67		993.23	0.000691	6.00	119.71	28.25	0.51
RID	35200.00	Max WS	715.05	985.59	992.53		993.11	0.000599	6.08	117.63	23.89	0.48
RID	35000.00	Max WS	714.99	985.53	992.39		992.98	0.000647	6.19	115.55	24.33	0.50
RID	34800.00	Max WS	714.44	985.47	992.22		992.84	0.000665	6.32	113.11	23.50	0.51
RID	34600.00	Max WS	714.53	985.41	992.06		992.70	0.000753	6.46	110.69	24.67	0.54
RID	34400.00	Max WS	688.61	985.35	991.96		992.57	0.000770	6.25	110.09	26.43	0.54
RID	34200.00	Max WS	653.29	985.28	991.94		992.47	0.000675	5.88	111.13	26.49	0.51
RID	34000.00	Max WS	571.92	985.22	992.12		992.48	0.000488	4.83	118.31	29.92	0.43
RID	33800.00	Max WS	403.46	985.16	992.43		992.59	0.000198	3.16	127.77	30.95	0.27
RID	33600.00	Max WS	231.75	985.10	992.62		992.67	0.000058	1.74	133.39	31.54	0.15
RID	33400.00	Max WS	105.29	985.04	992.70		992.70	0.000011	0.77	136.73	31.27	0.06
RID	33200.00	Max WS	107.75	984.98	992.70		992.71	0.000011	0.77	140.79	31.72	0.06
RID	33000.00	Max WS	122.35	984.92	992.70		992.71	0.000014	0.86	142.68	32.63	0.07
RID	32800.00	Max WS	125.02	984.86	992.70		992.71	0.000013	0.85	146.90	32.12	0.07
RID	32600.00	Max WS	124.95	984.80	992.71		992.72	0.000012	0.84	149.15	31.01	0.07
RID	32400.00	Max WS	124.88	984.73	992.71		992.72	0.000012	0.83	151.15	32.26	0.07
RID	32399		Lat Struct									
RID	32200.00	Max WS	144.29	984.67	992.71		992.72	0.000017	0.93	155.04	38.48	0.08
RID	32000.00	Max WS	282.22	984.61	992.62		992.67	0.000062	1.83	153.85	35.03	0.15
RID	31800.00	Max WS	436.83	984.55	992.42		992.55	0.000166	2.92	149.46	35.73	0.25
RID	31600.00	Max WS	556.61	984.49	992.17		992.42	0.000285	4.00	139.26	30.87	0.33
RID	31400.00	Max WS	619.13	984.43	991.96		992.29	0.000382	4.59	134.76	30.14	0.38
RID	31200.00	Max WS	621.21	984.37	991.88		992.21	0.000412	4.62	134.35	31.73	0.40
RID	31000.00	Max WS	621.14	984.31	991.78	988.55	992.13	0.000400	4.75	130.89	28.97	0.39
RID	30927.22		Bridge									
RID	30800.00	Max WS	621.82	984.11	991.73		992.07	0.000316	4.63	134.36	25.25	0.35
RID	30600.00	Max WS	622.11	984.04	991.67		992.00	0.000315	4.62	134.60	25.27	0.35
RID	30400.00	Max WS	622.38	983.97	991.61		991.94	0.000314	4.62	134.85	25.29	0.35
RID	30399		Lat Struct									
RID	30200.00	Max WS	622.61	983.89	991.55		991.88	0.000311	4.60	135.39	25.33	0.35
RID	30000.00	Max WS	622.90	983.82	991.49		991.82	0.000309	4.59	135.65	25.35	0.35
RID	29800.00	Max WS	622.94	983.75	991.44		991.76	0.000308	4.58	135.91	25.37	0.35
RID	29600.00	Max WS	622.94	983.68	991.38		991.70	0.000306	4.57	136.17	25.39	0.35
RID	29400.00	Max WS	622.90	983.61	991.32		991.64	0.000305	4.57	136.43	25.41	0.35
RID	29200.00	Max WS	622.82	983.53	991.26		991.58	0.000301	4.55	137.00	25.46	0.35
RID	29000.00	Max WS	622.71	983.46	991.20		991.52	0.000299	4.54	137.28	25.48	0.34
RID	28800.00	Max WS	622.56	983.39	991.14		991.46	0.000298	4.53	137.56	25.50	0.34
RID	28600.00	Max WS	622.38	983.32	991.08		991.40	0.000296	4.51	137.85	25.52	0.34
RID	28400.00	Max WS	621.92	983.25	991.02		991.34	0.000294	4.50	138.15	25.55	0.34
RID	28200.00	Max WS	621.62	983.17	990.97		991.28	0.000290	4.48	138.74	25.59	0.34
RID	28000.00	Max WS	621.29	983.10	990.91		991.22	0.000315	4.47	139.07	27.79	0.35
RID	27800.00	Max WS	620.94	983.03	990.84		991.15	0.000287	4.46	139.10	25.62	0.34
RID	27600.00	Max WS	620.56	982.96	990.78		991.09	0.000285	4.45	139.41	25.64	0.34
RID	27599		Lat Struct									
RID	27400.00	Max WS	602.89	982.89	990.76		991.05	0.000334	4.25	141.87	32.57	0.36
RID	27200.00	Max WS	561.65	982.81	990.79		991.03	0.000230	3.91	143.66	27.54	0.30
RID	27000.00	Max WS	560.32	982.74	990.75		990.99	0.000212	3.88	144.37	26.03	0.29
RID	26800.00	Max WS	555.97	982.67	990.71		990.94	0.000205	3.83	145.15	26.09	0.29
RID	26600.00	Max WS	526.77	982.60	990.67		990.88	0.000183	3.61	145.94	26.36	0.27
RID	26400.00	Max WS	517.54	982.53	990.65		990.84	0.000206	3.51	147.38	31.17	0.28
RID	26200.00	Max WS	498.90	982.45	990.64		990.81	0.000188	3.35	149.13	31.63	0.27
RID	26000.00	Max WS	458.99	982.38	990.66		990.80	0.000172	3.00	153.12	36.55	0.26
RID	25800.00	Max WS	403.71	982.31	990.70		990.81	0.000123	2.60	155.20	35.46	0.22
RID	25600.00	Max WS	376.74	982.24	990.71		990.80	0.000091	2.40	156.73	31.36	0.19
RID	25400.00	Max WS	364.37	982.16	990.71		990.79	0.000075	2.30	158.66	29.19	0.17
RID	25200.00	Max WS	364.94	982.09	990.70		990.78	0.000074	2.28	160.22	29.41	0.17
RID	25000.00	Max WS	365.79	982.02	990.68		990.76	0.000090	2.23	163.69	37.16	0.19
RID	24800.00	Max WS	357.86	981.95	990.67		990.74	0.000081	2.14	167.10	37.13	0.18
RID	24600.00	Max WS	355.93	981.88	990.66		990.73	0.000086	2.11	168.73	41.07	0.18
RID	24400.00	Max WS	349.65	981.80	990.66		990.72	0.000072	2.04	171.34	37.37	0.17
RID	24399		Lat Struct									
RID	24200.00	Max WS	365.60	981.73	990.63		990.70	0.000090	2.08	175.85	45.49	0.19
RID	24000.00	Max WS	368.76	981.66	990.63		990.69	0.000088	2.09	176.41	44.34	0.18
RID	23800.00	Max WS	346.80	981.59	990.61		990.67	0.000062	1.95	177.49	36.68	0.16
RID	23600.00	Max WS	574.22	981.52	990.35		990.53	0.000199	3.40	168.90	36.89	0.28
RID	23400.00	Max WS	745.66	981.44	990.02		990.36	0.000287	4.68	159.37	27.16	0.34
RID	23200.00	Max WS	845.37	981.37	989.71		990.19	0.000412	5.52	153.08	26.69	0.41
RID	23190		Lat Struct									
RID	23000.00	Max WS	847.88	981.30	989.62		990.10	0.000418	5.56	152.49	26.65	0.41
RID	22800.00	Max WS	847.89	981.23	989.54		990.02	0.000422	5.58	152.05	26.61	0.41

HEC-RAS Plan: RID-100-06E River: RID Reach: RID Profile: Max WS (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
RID	22600.00	Max WS	847.87	981.16	989.45		989.93	0.000425	5.59	151.57	26.58	0.41
RID	22400.00	Max WS	847.86	981.08	989.36		989.85	0.000426	5.60	151.41	26.56	0.41
RID	22200.00	Max WS	847.84	981.01	989.27		989.76	0.000430	5.62	150.92	26.53	0.42
RID	22000.00	Max WS	847.81	980.94	989.18		989.68	0.000434	5.64	150.39	26.49	0.42
RID	21800.00	Max WS	847.85	980.87	989.09		989.59	0.000438	5.66	149.85	26.45	0.42
RID	21600.00	Max WS	847.75	980.80	989.00		989.50	0.000443	5.68	149.26	26.40	0.42
RID	21400.00	Max WS	847.71	980.72	988.91		989.41	0.000445	5.69	148.97	26.38	0.42
RID	21200.00	Max WS	847.73	980.65	988.82		989.32	0.000450	5.71	148.34	26.33	0.42
RID	21000.00	Max WS	847.79	980.58	988.72		989.23	0.000456	5.74	147.69	26.28	0.43
RID	20800.00	Max WS	847.54	980.51	988.62		989.14	0.000461	5.77	146.98	26.23	0.43
RID	20600.00	Max WS	847.38	980.44	988.53		989.05	0.000468	5.79	146.24	26.17	0.43
RID	20400.00	Max WS	847.30	980.36	988.43		988.95	0.000471	5.81	145.78	26.14	0.43
RID	20200.00	Max WS	847.28	980.29	988.33		988.86	0.000479	5.84	144.96	26.07	0.44
RID	20000.00	Max WS	847.18	980.22	988.22		988.76	0.000486	5.88	144.10	26.01	0.44
RID	19800.00	Max WS	847.16	980.15	988.12		988.66	0.000495	5.92	143.18	25.94	0.44
RID	19799		Lat Struct									
RID	19600.00	Max WS	847.14	980.08	988.01		988.56	0.000504	5.96	142.18	25.86	0.45
RID	19400.00	Max WS	844.23	980.00	987.90		988.46	0.000552	5.96	141.61	27.92	0.47
RID	19200.00	Max WS	840.65	979.93	987.80		988.35	0.000512	5.98	140.60	25.74	0.45
RID	19000.00	Max WS	782.27	979.86	987.89		988.32	0.000563	5.31	147.44	36.38	0.46
RID	18800.00	Max WS	717.10	979.79	987.94		988.30	0.000341	4.85	147.89	27.50	0.37
RID	18600.00	Max WS	716.48	979.72	987.86		988.23	0.000325	4.85	147.75	26.29	0.36
RID	18400.00	Max WS	716.58	979.64	987.79		988.15	0.000324	4.84	147.93	26.30	0.36
RID	18200.00	Max WS	709.82	979.57	987.73		988.08	0.000360	4.79	148.26	29.58	0.38
RID	18000.00	Max WS	659.09	979.50	987.67		987.98	0.000272	4.44	148.45	26.34	0.33
RID	17800.00	Max WS	645.32	979.43	987.64		987.93	0.000326	4.30	150.20	33.31	0.36
RID	17600.00	Max WS	595.33	979.36	987.66		987.90	0.000253	3.90	152.51	32.03	0.32
RID	17400.00	Max WS	555.67	979.28	987.68		987.88	0.000213	3.58	155.21	32.62	0.29
RID	17200.00	Max WS	546.51	979.21	987.66		987.85	0.000164	3.51	155.85	26.90	0.26
RID	17000.00	Max WS	546.31	979.14	987.63		987.82	0.000161	3.48	156.94	26.98	0.25
RID	16800.00	Max WS	546.29	979.07	987.60		987.78	0.000158	3.46	158.04	27.06	0.25
RID	16600.00	Max WS	546.27	979.00	987.57		987.75	0.000155	3.43	159.17	27.14	0.25
RID	16400.00	Max WS	545.89	978.92	987.54		987.72	0.000151	3.40	160.62	27.25	0.25
RID	16200.00	Max WS	545.70	978.85	987.52		987.69	0.000148	3.37	161.78	27.33	0.24
RID	16000.00	Max WS	539.41	978.78	987.49		987.66	0.000142	3.31	162.93	27.42	0.24
RID	15800.00	Max WS	539.56	978.71	987.46		987.63	0.000139	3.29	164.13	27.50	0.24
RID	15799		Lat Struct									
RID	15600.00	Max WS	553.17	978.63	987.42		987.59	0.000144	3.35	165.12	27.58	0.24
RID	15400.00	Max WS	602.01	978.56	987.33		987.53	0.000172	3.66	164.52	27.53	0.26
RID	15200.00	Max WS	640.03	978.49	987.23		987.47	0.000196	3.90	163.91	27.49	0.28
RID	15000.00	Max WS	669.64	978.42	987.15		987.41	0.000217	4.10	163.44	27.45	0.30
RID	14800.00	Max WS	668.98	978.35	987.11		987.36	0.000213	4.07	164.25	27.51	0.29
RID	14600.00	Max WS	668.99	978.27	987.07	982.69	987.32	0.000209	4.05	165.38	27.60	0.29
RID	14578.46		Bridge									
RID	14400.00	Max WS	668.99	978.43	986.84		987.13	0.000250	4.32	154.78	26.82	0.32
RID	14200.00	Max WS	668.91	978.38	986.78		987.07	0.000333	4.31	155.25	35.04	0.36
RID	14000.00	Max WS	668.89	978.32	986.73		987.01	0.000333	4.27	156.62	35.82	0.36
RID	13800.00	Max WS	668.92	978.27	986.66		986.95	0.000323	4.31	155.35	34.03	0.36
RID	13600.00	Max WS	668.81	978.21	986.60		986.89	0.000295	4.33	154.55	31.03	0.34
RID	13400.00	Max WS	668.79	978.16	986.54		986.84	0.000253	4.34	154.13	26.77	0.32
RID	13399		Lat Struct									
RID	13200.00	Max WS	669.84	978.10	986.49		986.78	0.000245	4.27	154.41	26.79	0.31
RID	13000.00	Max WS	657.91	978.05	986.45		986.73	0.000258	4.26	154.52	28.22	0.32
RID	12800.00	Max WS	647.79	977.99	986.42		986.69	0.000245	4.17	155.30	28.11	0.31
RID	12600.00	Max WS	630.99	977.94	986.37		986.63	0.000220	4.06	155.36	26.86	0.30
RID	12400.00	Max WS	608.38	977.88	986.37		986.60	0.000251	3.86	157.81	33.73	0.31
RID	12200.00	Max WS	549.76	977.83	986.41		986.60	0.000185	3.44	159.99	31.95	0.27
RID	12000.00	Max WS	514.86	977.78	986.43		986.59	0.000153	3.19	161.59	31.15	0.25
RID	11800.00	Max WS	493.70	977.72	986.43		986.57	0.000131	3.03	163.08	30.03	0.23
RID	11600.00	Max WS	492.05	977.67	986.41		986.55	0.000116	3.01	163.68	27.47	0.22
RID	11400.00	Max WS	489.97	977.61	986.39		986.52	0.000126	2.97	164.94	30.42	0.22
RID	11200.00	Max WS	436.10	977.56	986.42		986.53	0.000111	2.59	168.52	35.33	0.21
RID	11000.00	Max WS	311.14	977.50	986.51		986.56	0.000056	1.79	174.18	38.83	0.15
RID	10800.00	Max WS	251.72	977.45	986.54		986.57	0.000026	1.45	173.47	28.18	0.10
RID	10600.00	Max WS	206.09	977.39	986.56		986.58	0.000021	1.16	177.21	35.65	0.09
RID	10400.00	Max WS	104.97	977.34	986.59		986.59	0.000005	0.59	178.67	33.49	0.04
RID	10200.00	Max WS	78.88	977.28	986.59		986.59	0.000002	0.44	179.80	28.62	0.03
RID	10000.00	Max WS	83.85	977.23	986.59		986.59	0.000003	0.46	182.05	35.33	0.04
RID	9800.000	Max WS	84.72	977.18	986.59		986.60	0.000003	0.46	183.16	33.68	0.03
RID	9600.000	Max WS	90.62	977.12	986.59		986.60	0.000004	0.49	186.19	37.89	0.04
RID	9599		Lat Struct									
RID	9400.000	Max WS	460.53	977.07	986.38		986.47	0.000122	2.41	191.48	50.58	0.22
RID	9200.000	Max WS	917.63	977.01	985.57		986.08	0.000440	5.78	158.77	27.11	0.42
RID	9000.000	Max WS	917.59	976.96	985.47		985.99	0.000450	5.83	157.43	27.01	0.43
RID	8800.000	Max WS	917.50	976.90	985.36		985.90	0.000515	5.87	156.39	29.99	0.45

HEC-RAS Plan: RID-100-06E River: RID Reach: RID Profile: Max WS (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
RID	8600.000	Max WS	917.45	976.85	985.24		985.78	0.000597	5.90	155.54	33.55	0.48
RID	8400.000	Max WS	917.48	976.79	985.11		985.66	0.000632	5.94	154.43	35.56	0.50
RID	8200.000	Max WS	917.17	976.74	984.95		985.54	0.000525	6.13	149.61	26.89	0.46
RID	8199		Lat Struct									
RID	8000.000	Max WS	898.06	976.68	984.89		985.45	0.000569	5.99	149.97	30.19	0.47
RID	7800.000	Max WS	856.13	976.63	984.89		985.39	0.000518	5.66	151.37	31.02	0.45
RID	7600.000	Max WS	820.92	976.58	984.88		985.33	0.000453	5.40	152.06	30.10	0.42
RID	7400.000	Max WS	794.20	976.52	984.86		985.27	0.000423	5.19	153.15	30.66	0.41
RID	7200.000	Max WS	780.85	976.47	984.80		985.21	0.000365	5.11	152.68	27.43	0.38
RID	7000.000	Max WS	771.86	976.41	984.74		985.14	0.000393	5.05	152.96	30.16	0.39
RID	6800.000	Max WS	769.01	976.36	984.67		985.06	0.000347	5.06	152.06	26.61	0.37
RID	6600.000	Max WS	768.58	976.30	984.59		984.99	0.000348	5.07	151.71	26.59	0.37
RID	6400.000	Max WS	761.15	976.25	984.52		984.92	0.000392	5.03	151.40	29.95	0.39
RID	6200.000	Max WS	720.55	976.19	984.54		984.88	0.000404	4.86	154.62	35.98	0.40
RID	6000.000	Max WS	667.59	976.14	984.58		984.86	0.000328	4.27	156.52	35.53	0.36
RID	5800.000	Max WS	637.37	976.08	984.58		984.83	0.000271	4.04	157.60	33.24	0.33
RID	5600.000	Max WS	617.73	976.03	984.57		984.80	0.000232	3.90	158.45	30.94	0.30
RID	5400.000	Max WS	615.66	975.97	984.53		984.76	0.000198	3.88	158.83	27.12	0.28
RID	5200.000	Max WS	616.82	975.92	984.49		984.72	0.000197	3.88	159.10	27.14	0.28
RID	5000.000	Max WS	619.26	975.87	984.45		984.68	0.000198	3.89	159.28	27.15	0.28
RID	4800.000	Max WS	621.74	975.81	984.41		984.64	0.000269	3.85	161.32	36.85	0.32
RID	4600.000	Max WS	624.68	975.76	984.36		984.60	0.000263	3.88	161.03	35.52	0.32
RID	4599		Lat Struct									
RID	4400.000	Max WS	626.76	975.70	984.32		984.56	0.000258	3.90	160.91	34.75	0.32
RID	4200.000	Max WS	627.73	975.65	984.29		984.52	0.000271	3.86	162.77	37.43	0.33
RID	4000.000	Max WS	628.58	975.59	984.25		984.49	0.000197	3.89	161.61	27.32	0.28
RID	3800.000	Max WS	629.24	975.54	984.22		984.45	0.000196	3.88	162.03	27.35	0.28
RID	3600.000	Max WS	629.11	975.49	984.18	979.77	984.41	0.000194	3.87	162.44	27.38	0.28
RID	3573.98		Bridge									
RID	3400.000	Max WS	628.50	975.44	984.07		984.30	0.000298	3.84	163.64	41.25	0.34
RID	3200.000	Max WS	628.78	975.38	984.07		984.24	0.000256	3.35	187.62	52.64	0.31
RID	3000.000	Max WS	628.68	975.33	984.01	979.61	984.17	0.000241	3.22	195.52	56.17	0.30

E.5.4 Water Surface Elevation HEC-RAS Output for Roosevelt Irrigation Ditch – Future 100-Year, 6-Hour Event

HEC-RAS Plan: RID-100-08F River: RID Reach: RID Profile: Max WS

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
RID	63400.00	Max WS	450.00	994.75	1000.92		1001.23	0.000372	4.52	99.66	22.33	0.38
RID	63200.00	Max WS	449.99	994.67	1000.84		1001.16	0.000371	4.51	99.79	22.34	0.38
RID	63000.00	Max WS	449.98	994.59	1000.77		1001.08	0.000369	4.50	99.97	22.36	0.38
RID	62800.00	Max WS	449.97	994.51	1000.70		1001.01	0.000367	4.49	100.13	22.37	0.37
RID	62600.00	Max WS	449.98	994.44	1000.62		1000.94	0.000368	4.50	100.04	22.36	0.37
RID	62400.00	Max WS	449.98	994.36	1000.55		1000.86	0.000366	4.49	100.22	22.38	0.37
RID	62200.00	Max WS	449.98	994.28	1000.48		1000.79	0.000365	4.48	100.40	22.40	0.37
RID	62000.00	Max WS	449.95	994.20	1000.41		1000.72	0.000363	4.47	100.57	22.41	0.37
RID	61999		Lat Struct									
RID	61800.00	Max WS	449.94	994.12	1000.34		1000.65	0.000361	4.46	100.78	22.43	0.37
RID	61600.00	Max WS	449.93	994.05	1000.26		1000.57	0.000362	4.47	100.71	22.42	0.37
RID	61400.00	Max WS	449.93	993.97	1000.19		1000.50	0.000359	4.46	100.93	22.44	0.37
RID	61200.00	Max WS	449.91	993.89	1000.12		1000.43	0.000357	4.45	101.13	22.46	0.37
RID	61000.00	Max WS	449.90	993.81	1000.05		1000.36	0.000355	4.44	101.38	22.48	0.37
RID	60800.00	Max WS	448.37	993.73	999.99		1000.29	0.000439	4.40	101.96	27.76	0.40
RID	60600.00	Max WS	426.30	993.66	999.97		1000.24	0.000400	4.12	103.44	29.09	0.39
RID	60400.00	Max WS	408.45	993.58	999.95		1000.19	0.000303	3.92	104.33	25.12	0.34
RID	60200.00	Max WS	395.39	993.50	999.92		1000.14	0.000326	3.74	105.81	29.63	0.35
RID	60000.00	Max WS	355.46	993.42	999.96		1000.12	0.000247	3.25	109.54	30.72	0.30
RID	59800.00	Max WS	317.96	993.35	999.99		1000.12	0.000176	2.87	110.72	28.63	0.26
RID	59600.00	Max WS	292.41	993.27	1000.00		1000.11	0.000156	2.58	113.45	31.93	0.24
RID	59400.00	Max WS	185.21	993.19	1000.11		1000.15	0.000051	1.53	120.72	31.56	0.14
RID	59200.00	Max WS	-13.70	993.11	1000.18		1000.18	0.000000	-0.11	124.39	31.71	0.01
RID	59000.00	Max WS	-44.62	993.03	1000.16		1000.16	0.000003	-0.36	122.72	28.71	0.03
RID	58800.00	Max WS	-39.02	992.96	1000.17		1000.17	0.000002	-0.31	124.32	29.23	0.03
RID	58600.00	Max WS	-25.40	992.88	1000.18		1000.18	0.000001	-0.20	129.68	31.69	0.02
RID	58400.00	Max WS	-10.84	992.80	1000.20		1000.20	0.000000	-0.08	131.07	31.91	0.01
RID	58390		Lat Struct									
RID	58200.00	Max WS	489.40	992.72	999.67		999.94	0.000280	4.16	117.76	23.90	0.33
RID	58000.00	Max WS	527.18	992.64	999.51	996.50	999.83	0.000339	4.55	115.90	23.74	0.36
RID	57900		Bridge									
RID	57800.00	Max WS	526.69	992.47	999.46		999.76	0.000317	4.44	118.71	23.98	0.35
RID	57600.00	Max WS	526.62	992.40	999.39		999.70	0.000316	4.43	118.86	23.99	0.35
RID	57400.00	Max WS	526.66	992.34	999.33		999.63	0.000317	4.44	118.70	23.97	0.35
RID	57200.00	Max WS	526.55	992.27	999.26		999.57	0.000317	4.43	118.76	23.98	0.35
RID	57199		Lat Struct									
RID	57000.00	Max WS	526.11	992.21	999.19		999.50	0.000325	4.44	118.60	24.46	0.36
RID	56800.00	Max WS	526.11	992.14	999.12		999.43	0.000317	4.44	118.60	23.97	0.35
RID	56600.00	Max WS	525.92	992.07	999.05		999.36	0.000335	4.43	118.62	25.23	0.36
RID	56400.00	Max WS	525.74	992.01	998.98		999.28	0.000393	4.44	118.34	28.95	0.39
RID	56200.00	Max WS	525.69	991.94	998.91		999.21	0.000320	4.45	118.22	23.93	0.35
RID	56000.00	Max WS	491.32	991.88	998.84		999.11	0.000280	4.16	118.10	23.93	0.33
RID	55800.00	Max WS	491.01	991.81	998.79		999.06	0.000277	4.14	118.51	23.96	0.33
RID	55600.00	Max WS	474.93	991.74	998.74		998.99	0.000256	3.99	118.97	24.00	0.32
RID	55400.00	Max WS	473.21	991.68	998.69		998.93	0.000279	3.97	119.30	26.29	0.33
RID	55200.00	Max WS	451.34	991.61	998.68		998.90	0.000313	3.71	121.67	33.46	0.34
RID	55000.00	Max WS	353.80	991.54	998.82		998.93	0.000155	2.75	128.77	32.25	0.24
RID	54800.00	Max WS	218.21	991.48	998.95		998.99	0.000051	1.65	132.45	30.79	0.14
RID	54600.00	Max WS	113.06	991.41	999.01		999.02	0.000013	0.83	135.49	32.02	0.07
RID	54400.00	Max WS	45.46	991.35	999.03		999.03	0.000002	0.33	136.79	31.85	0.03
RID	54200.00	Max WS	46.11	991.28	999.03		999.04	0.000002	0.33	139.97	32.85	0.03
RID	54000.00	Max WS	47.42	991.21	999.04		999.04	0.000002	0.33	142.68	31.99	0.03
RID	53800.00	Max WS	48.06	991.15	999.04		999.04	0.000002	0.33	144.58	37.62	0.03
RID	53799		Lat Struct									
RID	53600.00	Max WS	567.66	991.08	998.43		998.74	0.000423	4.42	128.37	33.94	0.40
RID	53400.00	Max WS	569.96	991.02	998.34		998.65	0.000419	4.46	127.66	32.83	0.40
RID	53200.00	Max WS	569.92	990.95	998.27		998.58	0.000334	4.50	126.75	26.25	0.36
RID	53000.00	Max WS	569.88	990.88	998.20		998.52	0.000349	4.49	127.01	27.45	0.37
RID	52800.00	Max WS	569.85	990.82	998.14		998.45	0.000311	4.50	126.68	24.63	0.35
RID	52600.00	Max WS	569.83	990.75	998.07	994.78	998.39	0.000310	4.49	126.90	24.65	0.35
RID	52525.73		Bridge									
RID	52400.00	Max WS	569.86	990.55	998.03		998.33	0.000285	4.36	130.83	24.97	0.34
RID	52200.00	Max WS	569.82	990.49	997.98		998.27	0.000285	4.35	130.91	24.97	0.34
RID	52000.00	Max WS	569.80	990.44	997.92		998.21	0.000286	4.36	130.71	24.96	0.34
RID	51800.00	Max WS	569.84	990.38	997.86		998.15	0.000331	4.35	131.03	28.58	0.36
RID	51600.00	Max WS	569.87	990.32	997.79		998.09	0.000308	4.36	130.67	26.66	0.35
RID	51400.00	Max WS	569.80	990.27	997.73		998.03	0.000289	4.38	130.22	24.92	0.34
RID	51200.00	Max WS	569.78	990.21	997.67		997.97	0.000289	4.38	130.21	24.92	0.34
RID	51199		Lat Struct									
RID	51000.00	Max WS	570.26	990.16	997.61		997.91	0.000291	4.39	129.98	24.90	0.34
RID	50800.00	Max WS	570.17	990.10	997.55		997.85	0.000291	4.39	130.01	24.91	0.34
RID	50600.00	Max WS	556.98	990.04	997.52		997.80	0.000308	4.25	130.96	27.87	0.35
RID	50400.00	Max WS	535.56	989.99	997.47		997.73	0.000252	4.10	130.77	24.96	0.32
RID	50200.00	Max WS	534.42	989.93	997.42		997.68	0.000250	4.08	131.06	24.98	0.31
RID	50000.00	Max WS	533.46	989.87	997.37		997.63	0.000247	4.06	131.36	25.01	0.31

HEC-RAS Plan: RID-100-06F River: RID Reach: RID Profile: Max WS (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
RID	49800.00	Max WS	531.77	989.82	997.33		997.58	0.000246	4.05	131.39	25.01	0.31
RID	49600.00	Max WS	530.48	989.76	997.28		997.53	0.000248	4.03	131.70	25.52	0.31
RID	49400.00	Max WS	523.34	989.70	997.24		997.48	0.000253	3.95	132.36	26.99	0.31
RID	49200.00	Max WS	495.09	989.65	997.25		997.46	0.000239	3.69	134.08	29.34	0.30
RID	49000.00	Max WS	402.53	989.59	997.36		997.49	0.000156	2.87	140.17	32.76	0.24
RID	48800.00	Max WS	288.73	989.54	997.46		997.53	0.000074	2.01	143.49	32.72	0.17
RID	48600.00	Max WS	266.71	989.48	997.47		997.53	0.000048	1.85	143.79	25.98	0.14
RID	48400.00	Max WS	266.69	989.42	997.46		997.52	0.000060	1.83	145.84	32.88	0.15
RID	48399		Lat Struct									
RID	48200.00	Max WS	586.89	989.37	996.97		997.27	0.000285	4.39	133.74	25.20	0.34
RID	48000.00	Max WS	588.45	989.31	996.91		997.20	0.000368	4.37	134.65	32.02	0.38
RID	47800.00	Max WS	588.43	989.25	996.84		997.14	0.000344	4.40	133.70	29.66	0.37
RID	47600.00	Max WS	588.44	989.20	996.77		997.07	0.000291	4.43	132.96	25.14	0.34
RID	47400.00	Max WS	588.40	989.14	996.71		997.01	0.000291	4.42	133.01	25.14	0.34
RID	47200.00	Max WS	588.42	989.08	996.65		996.96	0.000291	4.42	133.05	25.14	0.34
RID	47199		Lat Struct									
RID	47000.00	Max WS	588.44	989.03	996.59		996.90	0.000292	4.43	132.82	25.13	0.34
RID	46800.00	Max WS	588.27	988.97	996.53		996.84	0.000305	4.43	132.82	26.09	0.35
RID	46600.00	Max WS	584.11	988.92	996.48		996.78	0.000297	4.40	132.64	25.75	0.34
RID	46400.00	Max WS	583.56	988.86	996.41		996.71	0.000289	4.40	132.57	25.11	0.34
RID	46200.00	Max WS	583.54	988.80	996.35		996.65	0.000289	4.40	132.59	25.11	0.34
RID	46000.00	Max WS	583.58	988.75	996.29		996.60	0.000290	4.41	132.36	25.09	0.34
RID	45800.00	Max WS	579.68	988.69	996.24		996.53	0.000286	4.38	132.41	25.09	0.34
RID	45600.00	Max WS	579.51	988.63	996.18		996.48	0.000285	4.37	132.48	25.10	0.34
RID	45400.00	Max WS	574.87	988.58	996.12		996.41	0.000282	4.35	132.27	25.08	0.33
RID	45200.00	Max WS	565.43	988.52	996.07		996.35	0.000303	4.26	132.67	27.79	0.34
RID	45000.00	Max WS	545.24	988.46	996.06		996.31	0.000273	4.08	133.79	27.62	0.33
RID	44800.00	Max WS	505.52	988.41	996.08		996.29	0.000251	3.71	136.27	30.83	0.31
RID	44600.00	Max WS	481.46	988.35	996.08		996.27	0.000180	3.51	137.01	25.46	0.27
RID	44400.00	Max WS	481.22	988.30	996.04		996.23	0.000178	3.50	137.39	25.49	0.27
RID	44200.00	Max WS	461.12	988.24	996.04		996.21	0.000199	3.30	139.87	31.87	0.28
RID	44000.00	Max WS	412.63	988.18	996.08		996.21	0.000136	2.91	141.61	28.76	0.23
RID	43800.00	Max WS	409.68	988.13	996.06		996.19	0.000118	2.88	142.17	25.86	0.22
RID	43600.00	Max WS	409.15	988.07	996.04		996.16	0.000122	2.86	143.20	27.21	0.22
RID	43400.00	Max WS	408.23	988.01	996.02		996.14	0.000113	2.83	144.16	26.01	0.21
RID	43200.00	Max WS	363.82	987.96	996.05		996.14	0.000109	2.45	148.57	33.73	0.21
RID	43000.00	Max WS	200.53	987.90	996.17		996.19	0.000030	1.30	154.23	34.44	0.11
RID	42800.00	Max WS	106.11	987.84	996.20		996.21	0.000007	0.69	153.73	30.12	0.05
RID	42600.00	Max WS	110.36	987.79	996.20		996.21	0.000008	0.70	158.44	34.62	0.06
RID	42400.00	Max WS	144.24	987.73	996.21		996.22	0.000013	0.92	157.01	31.58	0.07
RID	42399		Lat Struct									
RID	42200.00	Max WS	546.36	987.68	995.81		996.02	0.000191	3.71	147.27	26.25	0.28
RID	42000.00	Max WS	548.30	987.62	995.76	991.57	995.98	0.000190	3.71	147.78	26.29	0.28
RID	41834.8		Bridge									
RID	41600.00	Max WS	548.23	987.55	995.67		995.89	0.000192	3.72	147.24	26.25	0.28
RID	41599		Lat Struct									
RID	41400.00	Max WS	548.19	987.49	995.64		995.85	0.000190	3.71	147.85	26.29	0.28
RID	41200.00	Max WS	548.04	987.43	995.60		995.81	0.000188	3.69	148.47	26.34	0.27
RID	41000.00	Max WS	547.72	987.37	995.56		995.77	0.000185	3.67	149.10	26.39	0.27
RID	40800.00	Max WS	547.55	987.31	995.53		995.74	0.000183	3.66	149.74	26.44	0.27
RID	40600.00	Max WS	547.19	987.24	995.49		995.70	0.000180	3.63	150.67	26.51	0.27
RID	40400.00	Max WS	546.98	987.18	995.46		995.66	0.000178	3.62	151.30	26.56	0.27
RID	40200.00	Max WS	546.73	987.12	995.42		995.62	0.000176	3.60	151.96	26.60	0.27
RID	40000.00	Max WS	546.19	987.06	995.39		995.59	0.000173	3.58	152.65	26.66	0.26
RID	39800.00	Max WS	545.87	987.00	995.35		995.55	0.000187	3.56	153.48	29.12	0.27
RID	39600.00	Max WS	545.53	986.94	995.32		995.51	0.000183	3.54	154.02	28.88	0.27
RID	39599		Lat Struct									
RID	39400.00	Max WS	802.81	986.88	994.67		995.19	0.000485	5.79	138.63	25.58	0.44
RID	39200.00	Max WS	803.90	986.82	994.56		995.09	0.000499	5.86	137.30	25.48	0.44
RID	39000.00	Max WS	803.88	986.75	994.45		994.99	0.000509	5.90	136.29	25.40	0.45
RID	38999		Lat Struct									
RID	38800.00	Max WS	803.86	986.69	994.33		994.89	0.000523	5.96	134.89	25.29	0.45
RID	38600.00	Max WS	803.52	986.63	994.20		994.77	0.000618	6.03	133.22	28.41	0.49
RID	38400.00	Max WS	797.46	986.57	994.08		994.65	0.000587	6.06	131.56	26.50	0.48
RID	38200.00	Max WS	793.24	986.51	993.96		994.53	0.000619	6.10	129.96	27.10	0.49
RID	38000.00	Max WS	792.96	986.45	993.82		994.41	0.000588	6.20	127.90	24.73	0.48
RID	37800.00	Max WS	791.37	986.39	993.68		994.29	0.000610	6.28	125.93	24.57	0.49
RID	37600.00	Max WS	785.43	986.33	993.52		994.15	0.000668	6.35	123.71	25.66	0.51
RID	37400.00	Max WS	735.68	986.26	993.44		993.99	0.000654	5.95	123.63	28.22	0.50
RID	37200.00	Max WS	623.16	986.20	993.49		993.87	0.000478	4.90	127.06	30.95	0.43
RID	37000.00	Max WS	570.71	986.14	993.66		993.95	0.000364	4.26	133.88	32.89	0.37
RID	36800.00	Max WS	400.70	986.08	993.99		994.10	0.000142	2.74	146.51	34.48	0.23
RID	36600.00	Max WS	396.04	986.02	993.96		994.06	0.000194	2.52	157.26	56.69	0.27
RID	36599		Lat Struct									
RID	36400.00	Max WS	596.43	985.96	993.58		993.84	0.000403	4.10	145.57	42.18	0.39

HEC-RAS Plan: RID-100-06F River: RID Reach: RID Profile: Max WS (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
RID	36200.00	Max WS	699.60	985.90	993.15		993.64	0.000542	5.59	125.22	27.12	0.46
RID	36000.00	Max WS	699.55	985.84	993.04		993.52	0.000629	5.56	125.92	31.33	0.49
RID	35800.00	Max WS	699.46	985.77	992.90		993.40	0.000658	5.68	123.22	30.69	0.50
RID	35600.00	Max WS	699.51	985.71	992.75		993.28	0.000543	5.83	120.05	24.09	0.46
RID	35599		Lat Struct									
RID	35400.00	Max WS	698.01	985.65	992.63		993.17	0.000633	5.88	118.64	26.84	0.49
RID	35200.00	Max WS	696.50	985.59	992.50		993.05	0.000580	5.97	116.75	23.81	0.47
RID	35000.00	Max WS	696.28	985.53	992.36		992.93	0.000606	6.06	114.86	23.65	0.48
RID	34800.00	Max WS	695.76	985.47	992.20		992.80	0.000637	6.17	112.71	23.47	0.50
RID	34600.00	Max WS	694.95	985.41	992.05		992.66	0.000711	6.29	110.52	24.51	0.52
RID	34400.00	Max WS	676.58	985.35	991.96		992.55	0.000743	6.15	110.02	26.37	0.53
RID	34200.00	Max WS	637.50	985.28	991.93		992.44	0.000642	5.74	111.01	26.40	0.49
RID	34000.00	Max WS	563.26	985.22	992.09		992.44	0.000485	4.80	117.37	29.89	0.43
RID	33800.00	Max WS	429.30	985.16	992.35		992.53	0.000238	3.43	125.25	30.87	0.30
RID	33600.00	Max WS	301.94	985.10	992.51		992.59	0.000103	2.32	129.87	30.31	0.20
RID	33400.00	Max WS	211.46	985.04	992.58		992.62	0.000047	1.59	133.13	30.76	0.13
RID	33200.00	Max WS	212.00	984.98	992.58		992.61	0.000045	1.55	136.92	31.60	0.13
RID	33000.00	Max WS	213.26	984.92	992.57		992.61	0.000045	1.54	138.42	32.50	0.13
RID	32800.00	Max WS	215.29	984.86	992.56		992.60	0.000042	1.51	142.45	31.98	0.13
RID	32600.00	Max WS	217.08	984.80	992.56		992.60	0.000039	1.50	144.61	30.86	0.12
RID	32400.00	Max WS	219.10	984.73	992.56		992.59	0.000040	1.50	146.19	32.11	0.12
RID	32399		Lat Struct									
RID	32200.00	Max WS	224.90	984.67	992.55		992.58	0.000047	1.51	148.86	37.53	0.13
RID	32000.00	Max WS	346.02	984.61	992.43		992.52	0.000107	2.35	147.34	35.03	0.20
RID	31800.00	Max WS	471.78	984.55	992.22		992.39	0.000193	3.30	142.80	31.09	0.27
RID	31600.00	Max WS	554.77	984.49	992.00		992.27	0.000317	4.14	134.04	30.70	0.35
RID	31400.00	Max WS	589.58	984.43	991.85		992.16	0.000373	4.49	131.41	30.03	0.38
RID	31200.00	Max WS	590.15	984.37	991.78		992.09	0.000400	4.50	131.05	31.63	0.39
RID	31000.00	Max WS	590.09	984.31	991.69	988.42	992.02	0.000340	4.60	128.32	26.00	0.36
RID	30927.22		Bridge									
RID	30800.00	Max WS	590.83	984.11	991.65		991.96	0.000299	4.47	132.15	25.07	0.34
RID	30600.00	Max WS	591.12	984.04	991.59		991.90	0.000297	4.46	132.49	25.10	0.34
RID	30400.00	Max WS	591.35	983.97	991.53		991.84	0.000295	4.45	132.84	25.13	0.34
RID	30399		Lat Struct									
RID	30200.00	Max WS	591.53	983.89	991.48		991.78	0.000291	4.43	133.49	25.18	0.34
RID	30000.00	Max WS	591.66	983.82	991.42		991.73	0.000289	4.42	133.85	25.21	0.34
RID	29800.00	Max WS	591.85	983.75	991.37		991.67	0.000287	4.41	134.22	25.24	0.34
RID	29600.00	Max WS	591.88	983.68	991.31		991.61	0.000285	4.40	134.60	25.27	0.34
RID	29400.00	Max WS	591.88	983.61	991.26		991.56	0.000283	4.38	134.98	25.30	0.33
RID	29200.00	Max WS	591.73	983.53	991.21		991.50	0.000279	4.36	135.66	25.35	0.33
RID	29000.00	Max WS	591.57	983.46	991.15		991.44	0.000277	4.35	136.06	25.38	0.33
RID	28800.00	Max WS	591.37	983.39	991.10		991.39	0.000274	4.33	136.47	25.41	0.33
RID	28600.00	Max WS	591.12	983.32	991.04		991.33	0.000272	4.32	136.88	25.45	0.33
RID	28400.00	Max WS	590.84	983.25	990.99		991.28	0.000269	4.30	137.31	25.48	0.33
RID	28200.00	Max WS	590.53	983.17	990.94		991.22	0.000265	4.28	138.03	25.54	0.32
RID	28000.00	Max WS	590.15	983.10	990.88		991.17	0.000260	4.26	138.46	27.10	0.33
RID	27800.00	Max WS	589.74	983.03	990.82		991.11	0.000261	4.25	138.70	25.59	0.32
RID	27600.00	Max WS	589.26	982.96	990.77		991.05	0.000259	4.23	139.15	25.62	0.32
RID	27599		Lat Struct									
RID	27400.00	Max WS	572.82	982.89	990.75		991.01	0.000301	4.05	141.53	32.33	0.34
RID	27200.00	Max WS	531.18	982.81	990.78		990.99	0.000204	3.71	143.14	27.10	0.28
RID	27000.00	Max WS	537.32	982.74	990.74		990.95	0.000196	3.73	143.90	25.99	0.28
RID	26800.00	Max WS	537.36	982.67	990.70		990.91	0.000193	3.71	144.72	26.06	0.28
RID	26600.00	Max WS	517.63	982.60	990.66		990.86	0.000177	3.56	145.53	26.12	0.27
RID	26400.00	Max WS	492.52	982.53	990.63		990.81	0.000184	3.35	146.85	30.41	0.27
RID	26200.00	Max WS	480.39	982.45	990.62		990.78	0.000169	3.24	148.47	30.43	0.26
RID	26000.00	Max WS	448.71	982.38	990.63		990.77	0.000168	2.95	151.97	36.52	0.26
RID	25800.00	Max WS	406.57	982.31	990.66		990.77	0.000121	2.65	153.66	33.52	0.22
RID	25600.00	Max WS	392.91	982.24	990.66		990.76	0.000093	2.53	155.06	28.86	0.19
RID	25400.00	Max WS	391.85	982.16	990.65		990.74	0.000083	2.50	156.86	27.14	0.18
RID	25200.00	Max WS	392.94	982.09	990.63		990.73	0.000082	2.48	158.41	27.45	0.18
RID	25000.00	Max WS	393.03	982.02	990.62		990.71	0.000109	2.44	161.33	37.10	0.21
RID	24800.00	Max WS	392.84	981.95	990.61		990.69	0.000102	2.39	164.58	37.06	0.20
RID	24600.00	Max WS	416.81	981.88	990.58		990.68	0.000112	2.51	165.76	37.07	0.21
RID	24400.00	Max WS	399.71	981.80	990.56		990.65	0.000100	2.38	167.79	37.27	0.20
RID	24399		Lat Struct									
RID	24200.00	Max WS	414.31	981.73	990.53		990.63	0.000125	2.42	171.29	45.49	0.22
RID	24000.00	Max WS	359.53	981.66	990.54		990.60	0.000079	2.08	172.73	39.69	0.18
RID	23800.00	Max WS	464.36	981.59	990.46		990.57	0.000122	2.70	171.90	36.53	0.22
RID	23600.00	Max WS	657.93	981.52	990.16		990.42	0.000297	4.07	161.84	36.70	0.34
RID	23400.00	Max WS	775.89	981.44	989.87		990.25	0.000334	5.00	155.27	26.85	0.37
RID	23200.00	Max WS	833.11	981.37	989.65		990.12	0.000413	5.51	151.28	26.55	0.41
RID	23190		Lat Struct									
RID	23000.00	Max WS	833.86	981.30	989.56		990.03	0.000417	5.53	150.78	26.52	0.41
RID	22800.00	Max WS	833.29	981.23	989.47		989.95	0.000420	5.54	150.36	26.48	0.41

HEC-RAS Plan: RID-100-06F River: RID Reach: RID Profile: Max WS (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
RID	22600.00	Max WS	832.77	981.16	989.39		989.87	0.000422	5.55	149.93	26.45	0.41
RID	22400.00	Max WS	832.29	981.08	989.30		989.78	0.000423	5.56	149.80	26.44	0.41
RID	22200.00	Max WS	831.82	981.01	989.21		989.70	0.000426	5.57	149.35	26.41	0.41
RID	22000.00	Max WS	831.43	980.94	989.13		989.61	0.000429	5.59	148.87	26.37	0.41
RID	21800.00	Max WS	831.06	980.87	989.04		989.52	0.000432	5.60	148.38	26.33	0.42
RID	21600.00	Max WS	830.68	980.80	988.95		989.44	0.000436	5.62	147.87	26.30	0.42
RID	21400.00	Max WS	830.10	980.72	988.86		989.35	0.000437	5.62	147.66	26.28	0.42
RID	21200.00	Max WS	829.73	980.65	988.77		989.26	0.000441	5.64	147.12	26.24	0.42
RID	21000.00	Max WS	829.36	980.58	988.68		989.18	0.000445	5.66	146.56	26.20	0.42
RID	20800.00	Max WS	829.04	980.51	988.59		989.09	0.000450	5.68	145.97	26.15	0.42
RID	20600.00	Max WS	828.79	980.44	988.49		989.00	0.000455	5.70	145.33	26.10	0.43
RID	20400.00	Max WS	828.68	980.36	988.40		988.90	0.000458	5.72	144.98	26.08	0.43
RID	20200.00	Max WS	828.58	980.29	988.30		988.81	0.000464	5.74	144.27	26.02	0.43
RID	20000.00	Max WS	828.58	980.22	988.20		988.72	0.000470	5.77	143.52	25.96	0.43
RID	19800.00	Max WS	828.64	980.15	988.10		988.62	0.000478	5.81	142.71	25.90	0.44
RID	19799		Lat Struct									
RID	19600.00	Max WS	828.56	980.08	988.00		988.53	0.000486	5.84	141.82	25.83	0.44
RID	19400.00	Max WS	822.16	980.00	987.89		988.42	0.000521	5.82	141.32	27.64	0.45
RID	19200.00	Max WS	803.42	979.93	987.79		988.30	0.000468	5.72	140.49	25.73	0.43
RID	19000.00	Max WS	764.23	979.86	987.87		988.29	0.000544	5.20	146.83	36.36	0.46
RID	18800.00	Max WS	706.01	979.79	987.91		988.26	0.000323	4.80	147.05	26.45	0.36
RID	18600.00	Max WS	690.64	979.72	987.84		988.18	0.000306	4.70	147.09	26.24	0.35
RID	18400.00	Max WS	690.60	979.64	987.77		988.11	0.000304	4.68	147.45	26.26	0.35
RID	18200.00	Max WS	687.38	979.57	987.71		988.05	0.000333	4.65	147.76	28.97	0.36
RID	18000.00	Max WS	685.19	979.50	987.65		987.98	0.000297	4.63	147.90	26.30	0.34
RID	17800.00	Max WS	676.23	979.43	987.60		987.92	0.000350	4.54	148.98	31.94	0.37
RID	17600.00	Max WS	581.18	979.36	987.60		987.83	0.000233	3.86	150.46	29.95	0.30
RID	17400.00	Max WS	561.52	979.28	987.59		987.80	0.000208	3.69	152.28	29.73	0.29
RID	17200.00	Max WS	559.94	979.21	987.55		987.76	0.000181	3.66	153.01	26.68	0.27
RID	17000.00	Max WS	557.36	979.14	987.52		987.72	0.000176	3.62	154.00	26.76	0.27
RID	16800.00	Max WS	556.01	979.07	987.49		987.69	0.000172	3.59	155.02	26.83	0.26
RID	16600.00	Max WS	555.88	979.00	987.46		987.65	0.000169	3.56	156.08	26.91	0.26
RID	16400.00	Max WS	555.98	978.92	987.43		987.62	0.000165	3.53	157.44	27.01	0.26
RID	16200.00	Max WS	555.86	978.85	987.40		987.59	0.000162	3.51	158.52	27.09	0.26
RID	16000.00	Max WS	555.94	978.78	987.37		987.56	0.000159	3.48	159.61	27.17	0.25
RID	15800.00	Max WS	556.01	978.71	987.34		987.52	0.000156	3.46	160.74	27.26	0.25
RID	15799		Lat Struct									
RID	15600.00	Max WS	564.08	978.63	987.30		987.49	0.000158	3.49	161.86	27.34	0.25
RID	15400.00	Max WS	597.09	978.56	987.22		987.43	0.000177	3.69	161.60	27.32	0.27
RID	15200.00	Max WS	624.81	978.49	987.14		987.38	0.000195	3.87	161.42	27.31	0.28
RID	15000.00	Max WS	643.41	978.42	987.08		987.32	0.000207	3.98	161.48	27.31	0.29
RID	14800.00	Max WS	643.50	978.35	987.04		987.28	0.000204	3.96	162.33	27.37	0.29
RID	14600.00	Max WS	643.44	978.27	987.00	982.59	987.24	0.000200	3.94	163.52	27.46	0.28
RID	14578.46		Bridge									
RID	14400.00	Max WS	643.26	978.43	986.79		987.06	0.000237	4.19	153.41	26.71	0.31
RID	14200.00	Max WS	642.56	978.38	986.73		987.01	0.000290	4.18	153.64	32.36	0.34
RID	14000.00	Max WS	642.49	978.32	986.68		986.95	0.000316	4.14	155.05	35.77	0.36
RID	13800.00	Max WS	641.86	978.27	986.62		986.89	0.000294	4.17	154.06	32.96	0.34
RID	13600.00	Max WS	641.77	978.21	986.57		986.84	0.000265	4.18	153.53	29.78	0.32
RID	13400.00	Max WS	641.68	978.16	986.52		986.79	0.000236	4.18	153.39	26.71	0.31
RID	13399		Lat Struct									
RID	13200.00	Max WS	628.90	978.10	986.47		986.73	0.000225	4.09	153.80	26.74	0.30
RID	13000.00	Max WS	628.10	978.05	986.43		986.69	0.000234	4.08	154.00	27.84	0.31
RID	12800.00	Max WS	621.20	977.99	986.40		986.65	0.000224	4.01	154.75	27.70	0.30
RID	12600.00	Max WS	620.52	977.94	986.35		986.60	0.000215	4.01	154.92	26.83	0.29
RID	12400.00	Max WS	601.08	977.88	986.34		986.57	0.000244	3.83	157.09	33.16	0.31
RID	12200.00	Max WS	551.92	977.83	986.38		986.57	0.000185	3.47	158.87	31.05	0.27
RID	12000.00	Max WS	528.29	977.78	986.38		986.55	0.000157	3.30	160.02	29.72	0.25
RID	11800.00	Max WS	519.96	977.72	986.36		986.52	0.000140	3.23	161.08	28.08	0.24
RID	11600.00	Max WS	519.78	977.67	986.33		986.49	0.000134	3.21	161.68	27.33	0.23
RID	11400.00	Max WS	519.32	977.61	986.31		986.47	0.000137	3.19	162.64	28.33	0.23
RID	11200.00	Max WS	494.38	977.56	986.31		986.45	0.000140	3.00	164.73	32.65	0.24
RID	11000.00	Max WS	423.03	977.50	986.37		986.47	0.000106	2.51	168.72	36.22	0.20
RID	10800.00	Max WS	399.69	977.45	986.37		986.46	0.000071	2.37	168.82	27.84	0.17
RID	10600.00	Max WS	389.33	977.39	986.37		986.45	0.000075	2.28	170.86	31.97	0.17
RID	10400.00	Max WS	357.59	977.34	986.38		986.45	0.000057	2.08	172.24	29.64	0.15
RID	10200.00	Max WS	356.41	977.28	986.37		986.44	0.000052	2.05	173.60	28.19	0.15
RID	10000.00	Max WS	356.49	977.23	986.36		986.43	0.000052	2.04	174.76	28.63	0.15
RID	9800.000	Max WS	356.58	977.18	986.35		986.42	0.000050	2.03	175.89	28.35	0.14
RID	9600.000	Max WS	356.56	977.12	986.34		986.41	0.000055	2.01	177.56	31.59	0.15
RID	9599		Lat Struct									
RID	9400.000	Max WS	590.83	977.07	986.08		986.25	0.000222	3.35	176.46	43.81	0.29
RID	9200.000	Max WS	869.88	977.01	985.48		985.96	0.000411	5.56	156.43	26.94	0.41
RID	9000.000	Max WS	869.88	976.96	985.39		985.88	0.000419	5.60	155.35	26.86	0.41
RID	8800.000	Max WS	869.79	976.90	985.30		985.79	0.000447	5.63	154.49	28.08	0.42

HEC-RAS Plan: RID-100-06F River: RID Reach: RID Profile: Max WS (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
RID	8600.000	Max WS	869.76	976.85	985.19		985.69	0.000534	5.65	153.88	32.47	0.46
RID	8400.000	Max WS	869.69	976.79	985.08		985.58	0.000587	5.67	153.27	34.86	0.48
RID	8200.000	Max WS	869.09	976.74	984.94		985.47	0.000470	5.82	149.27	26.62	0.43
RID	8199		Lat Struct									
RID	8000.000	Max WS	852.33	976.68	984.88		985.39	0.000512	5.69	149.68	29.99	0.45
RID	7800.000	Max WS	814.36	976.63	984.88		985.33	0.000467	5.39	151.03	30.75	0.43
RID	7600.000	Max WS	782.78	976.58	984.86		985.28	0.000410	5.16	151.65	29.75	0.40
RID	7400.000	Max WS	759.56	976.52	984.84		985.22	0.000384	4.98	152.60	30.14	0.39
RID	7200.000	Max WS	750.27	976.47	984.78		985.16	0.000333	4.93	152.19	26.92	0.37
RID	7000.000	Max WS	745.39	976.41	984.72		985.10	0.000361	4.89	152.35	29.35	0.38
RID	6800.000	Max WS	743.95	976.36	984.65		985.02	0.000327	4.91	151.62	28.58	0.36
RID	6600.000	Max WS	743.92	976.30	984.58		984.96	0.000328	4.91	151.41	26.56	0.36
RID	6400.000	Max WS	738.28	976.25	984.52		984.89	0.000367	4.88	151.13	29.65	0.38
RID	6200.000	Max WS	701.73	976.19	984.53		984.85	0.000383	4.56	154.06	35.58	0.39
RID	6000.000	Max WS	656.18	976.14	984.55		984.83	0.000311	4.22	155.54	34.27	0.35
RID	5800.000	Max WS	635.45	976.08	984.54		984.79	0.000256	4.07	156.20	30.86	0.32
RID	5600.000	Max WS	627.72	976.03	984.50		984.75	0.000229	4.01	156.52	28.65	0.30
RID	5400.000	Max WS	627.42	975.97	984.46		984.71	0.000212	4.00	156.92	28.98	0.29
RID	5200.000	Max WS	627.41	975.92	984.41		984.66	0.000211	3.99	157.09	26.99	0.29
RID	5000.000	Max WS	627.40	975.87	984.37		984.62	0.000211	3.99	157.19	27.00	0.29
RID	4800.000	Max WS	627.38	975.81	984.32		984.57	0.000278	3.96	158.30	35.32	0.33
RID	4600.000	Max WS	627.37	975.76	984.27		984.52	0.000253	3.97	158.02	32.29	0.32
RID	4599		Lat Struct									
RID	4400.000	Max WS	627.36	975.70	984.23		984.47	0.000213	3.97	158.02	27.67	0.29
RID	4200.000	Max WS	627.37	975.65	984.19		984.43	0.000280	3.94	159.07	37.33	0.34
RID	4000.000	Max WS	627.32	975.59	984.15		984.39	0.000205	3.95	158.76	27.11	0.29
RID	3800.000	Max WS	627.32	975.54	984.11		984.35	0.000205	3.94	159.03	27.13	0.29
RID	3600.000	Max WS	627.33	975.49	984.07	979.76	984.31	0.000204	3.94	159.31	27.15	0.29
RID	3573.98		Bridge									
RID	3400.000	Max WS	627.34	975.44	983.95		984.19	0.000325	3.95	158.81	41.13	0.35
RID	3200.000	Max WS	627.33	975.38	983.95		984.13	0.000284	3.46	181.32	52.64	0.33
RID	3000.000	Max WS	627.32	975.33	983.89	979.60	984.06	0.000268	3.32	188.78	56.17	0.32

E.5.5 Water Surface Elevation HEC-RAS Output for Buckeye Irrigation Canal – Existing 100-Year, 6-Hour Event

HEC-RAS Plan: BIC-100-06E River: BIC Reach: BIC Profile: Max WS

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
BIC	71773.48	Max WS	200.00	883.31	890.15		890.17	0.000085	1.09	183.53	33.68	0.08
BIC	71600.00	Max WS	199.99	883.29	890.13		890.15	0.000084	1.09	183.71	33.69	0.08
BIC	71400.00	Max WS	199.98	883.27	890.12		890.14	0.000084	1.09	183.82	33.69	0.08
BIC	71200.00	Max WS	199.94	883.25	890.10		890.12	0.000084	1.09	183.92	33.70	0.08
BIC	71000.00	Max WS	199.90	883.23	890.08		890.10	0.000084	1.09	184.02	33.71	0.08
BIC	70800.00	Max WS	199.91	883.21	890.07		890.08	0.000084	1.09	184.11	33.71	0.08
BIC	70600.00	Max WS	199.92	883.19	890.05		890.07	0.000084	1.09	184.23	33.72	0.08
BIC	70400.00	Max WS	199.79	883.17	890.03		890.05	0.000083	1.08	184.34	33.72	0.08
BIC	70200.00	Max WS	199.82	883.15	890.02		890.03	0.000083	1.08	184.44	33.73	0.08
BIC	70000.00	Max WS	199.88	883.13	890.00		890.02	0.000083	1.08	184.55	33.74	0.08
BIC	69800.00	Max WS	199.93	883.11	889.98		890.00	0.000083	1.08	184.66	33.74	0.08
BIC	69600.00	Max WS	199.88	883.09	889.97		889.98	0.000083	1.08	184.77	33.75	0.08
BIC	69400.00	Max WS	199.76	883.07	889.95		889.97	0.000083	1.08	184.89	33.76	0.08
BIC	69200.00	Max WS	199.79	883.05	889.93		889.95	0.000082	1.08	185.01	33.76	0.08
BIC	69000.00	Max WS	199.83	883.02	889.92		889.93	0.000082	1.08	185.46	33.79	0.08
BIC	68800.00	Max WS	199.53	883.00	889.90		889.92	0.000082	1.08	185.58	33.80	0.08
BIC	68600.00	Max WS	199.08	882.98	889.88		889.90	0.000081	1.07	185.70	33.81	0.08
BIC	68400.00	Max WS	199.12	882.96	889.87		889.88	0.000081	1.07	185.82	33.81	0.08
BIC	68200.00	Max WS	198.99	882.94	889.85		889.87	0.000081	1.07	185.95	33.82	0.08
BIC	68199		Lat Struct									
BIC	68000.00	Max WS	199.06	882.92	889.83		889.85	0.000105	1.06	187.45	43.16	0.09
BIC	67800.00	Max WS	266.27	882.90	889.77		889.81	0.000190	1.42	187.12	43.57	0.12
BIC	67600.00	Max WS	391.42	882.88	889.64		889.71	0.000441	2.15	181.87	42.74	0.18
BIC	67400.00	Max WS	464.57	882.86	889.48		889.59	0.000511	2.64	176.28	33.24	0.20
BIC	67395		Lat Struct									
BIC	67200.00	Max WS	464.57	882.84	889.37		889.49	0.000536	2.68	173.36	33.07	0.21
BIC	67000.00	Max WS	451.46	882.82	889.27		889.37	0.000695	2.62	172.02	42.30	0.23
BIC	66800.00	Max WS	366.42	882.80	889.23		889.30	0.000452	2.14	171.57	41.49	0.19
BIC	66600.00	Max WS	340.26	882.78	889.18		889.24	0.000309	2.01	168.86	32.79	0.16
BIC	66400.00	Max WS	340.22	882.76	889.11	884.76	889.18	0.000317	2.03	167.44	32.71	0.16
BIC	66265		Bridge									
BIC	66200.00	Max WS	340.23	882.67	888.94		889.01	0.000331	2.06	164.77	32.54	0.16
BIC	66000.00	Max WS	340.21	882.62	888.87		888.94	0.000334	2.07	164.28	32.53	0.16
BIC	65899		Lat Struct									
BIC	65800.00	Max WS	340.21	882.57	888.81		888.87	0.000338	2.08	163.73	32.50	0.16
BIC	65600.00	Max WS	340.21	882.52	888.74		888.81	0.000341	2.09	163.06	32.44	0.16
BIC	65400.00	Max WS	340.20	882.47	888.67		888.74	0.000345	2.09	162.43	32.40	0.16
BIC	65200.00	Max WS	340.19	882.42	888.60		888.67	0.000349	2.10	161.79	32.36	0.17
BIC	65000.00	Max WS	340.17	882.37	888.53		888.60	0.000353	2.11	161.12	32.32	0.17
BIC	64800.00	Max WS	340.18	882.32	888.46		888.53	0.000357	2.12	160.42	32.28	0.17
BIC	64600.00	Max WS	340.16	882.27	888.39		888.46	0.000362	2.13	159.69	32.23	0.17
BIC	64400.00	Max WS	340.15	882.22	888.31		888.38	0.000367	2.14	158.94	32.18	0.17
BIC	64200.00	Max WS	340.14	882.17	888.24		888.31	0.000372	2.15	158.16	32.13	0.17
BIC	64000.00	Max WS	340.13	882.12	888.16		888.23	0.000378	2.16	157.32	32.08	0.17
BIC	63800.00	Max WS	340.12	882.07	888.08		888.16	0.000384	2.17	156.46	32.03	0.17
BIC	63799		Lat Struct									
BIC	63600.00	Max WS	340.14	882.02	888.01		888.08	0.000390	2.19	155.56	31.97	0.17
BIC	63400.00	Max WS	340.13	881.97	887.93		888.00	0.000397	2.20	154.62	31.91	0.18
BIC	63200.00	Max WS	340.13	881.92	887.84		887.92	0.000404	2.21	153.60	31.85	0.18
BIC	63000.00	Max WS	339.91	881.87	887.76		887.84	0.000432	2.23	152.48	33.04	0.18
BIC	62800.00	Max WS	336.50	881.82	887.67		887.75	0.000430	2.22	151.32	32.82	0.18
BIC	62600.00	Max WS	326.12	881.77	887.59		887.67	0.000435	2.17	150.60	34.40	0.18
BIC	62400.00	Max WS	314.12	881.72	887.52		887.59	0.000393	2.10	149.70	33.14	0.17
BIC	62200.00	Max WS	312.01	881.67	887.44		887.51	0.000382	2.10	148.73	32.25	0.17
BIC	62000.00	Max WS	312.02	881.62	887.36		887.43	0.000379	2.11	147.85	31.49	0.17
BIC	61800.00	Max WS	312.00	881.57	887.29		887.36	0.000365	2.12	146.98	31.43	0.17
BIC	61600.00	Max WS	306.15	881.52	887.21		887.28	0.000422	2.09	146.47	34.63	0.18
BIC	61400.00	Max WS	293.14	881.47	887.14		887.20	0.000365	2.01	145.57	32.47	0.17
BIC	61200.00	Max WS	293.00	881.42	887.06		887.13	0.000355	2.02	144.73	31.29	0.17
BIC	61000.00	Max WS	292.99	881.37	886.99		887.05	0.000361	2.04	143.92	31.24	0.17
BIC	60800.00	Max WS	292.99	881.32	886.91		886.98	0.000367	2.05	143.12	31.18	0.17
BIC	60600.00	Max WS	292.99	881.27	886.84		886.90	0.000373	2.06	142.28	31.13	0.17
BIC	60400.00	Max WS	292.99	881.22	886.76		886.82	0.000379	2.07	141.42	31.08	0.17
BIC	60200.00	Max WS	292.99	881.17	886.68		886.75	0.000386	2.08	140.57	31.02	0.17
BIC	60000.00	Max WS	292.99	881.12	886.60		886.67	0.000393	2.10	139.68	30.96	0.17
BIC	59800.00	Max WS	292.99	881.07	886.52		886.59	0.000401	2.11	138.75	30.90	0.18
BIC	59600.00	Max WS	292.98	881.02	886.44		886.51	0.000409	2.13	137.76	30.84	0.18
BIC	59400.00	Max WS	292.95	880.97	886.36		886.43	0.000418	2.14	136.73	30.77	0.18
BIC	59200.00	Max WS	292.93	880.92	886.27		886.34	0.000427	2.16	135.63	30.70	0.18
BIC	59000.00	Max WS	292.92	880.87	886.18		886.26	0.000436	2.18	134.48	30.63	0.18
BIC	58999		Lat Struct									
BIC	58800.00	Max WS	292.91	880.82	886.09		886.17	0.000449	2.20	133.25	30.55	0.19
BIC	58600.00	Max WS	281.95	880.77	886.01		886.07	0.000539	2.11	133.59	37.94	0.20
BIC	58400.00	Max WS	178.05	880.72	886.01		886.04	0.000204	1.31	135.48	37.75	0.12
BIC	58200.00	Max WS	85.20	880.67	886.03		886.04	0.000044	0.62	137.05	36.75	0.06

HEC-RAS Plan: BIC-100-06E River: BIC Reach: BIC Profile: Max WS (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
BIC	58000.00	Max WS	67.27	880.62	886.03		886.03	0.000022	0.49	137.45	30.82	0.04
BIC	57800.00	Max WS	67.26	880.57	886.03		886.03	0.000023	0.48	138.95	33.42	0.04
BIC	57600.00	Max WS	67.25	880.52	886.02		886.02	0.000020	0.48	140.27	31.00	0.04
BIC	57400.00	Max WS	67.21	880.47	886.02		886.02	0.000020	0.47	141.69	31.09	0.04
BIC	57200.00	Max WS	67.19	880.42	886.01		886.02	0.000019	0.47	143.13	31.19	0.04
BIC	57000.00	Max WS	67.21	880.37	886.01		886.01	0.000019	0.46	144.58	31.28	0.04
BIC	56999		Lat Struct									
BIC	56800.00	Max WS	67.26	880.32	886.01		886.01	0.000018	0.46	146.02	31.37	0.04
BIC	56600.00	Max WS	150.82	880.27	885.97		885.98	0.000118	1.03	146.82	39.48	0.09
BIC	56400.00	Max WS	265.21	880.22	885.85		885.91	0.000293	1.84	144.45	31.27	0.15
BIC	56200.00	Max WS	223.01	880.17	885.80		885.84	0.000207	1.54	144.43	31.27	0.13
BIC	56000.00	Max WS	215.38	880.12	885.77		885.80	0.000192	1.49	144.80	31.29	0.12
BIC	55800.00	Max WS	215.23	880.07	885.73	881.56	885.76	0.000190	1.48	145.18	31.32	0.12
BIC	55646.31		Bridge									
BIC	55400.00	Max WS	211.24	879.83	885.55		885.58	0.000176	1.44	147.20	31.45	0.12
BIC	55200.00	Max WS	210.91	879.76	885.52		885.55	0.000172	1.42	148.34	31.52	0.12
BIC	55000.00	Max WS	202.58	879.69	885.49		885.51	0.000155	1.35	149.52	31.59	0.11
BIC	54800.00	Max WS	202.33	879.63	885.46		885.48	0.000152	1.34	150.47	31.65	0.11
BIC	54600.00	Max WS	202.35	879.56	885.43		885.45	0.000148	1.33	151.76	31.73	0.11
BIC	54400.00	Max WS	202.33	879.49	885.40		885.43	0.000144	1.32	153.08	31.82	0.11
BIC	54200.00	Max WS	202.29	879.42	885.37		885.40	0.000141	1.31	154.42	31.90	0.10
BIC	54000.00	Max WS	202.32	879.36	885.34		885.37	0.000138	1.30	155.46	31.97	0.10
BIC	53999		Lat Struct									
BIC	53800.00	Max WS	202.32	879.29	885.32		885.34	0.000135	1.29	156.83	32.05	0.10
BIC	53600.00	Max WS	253.55	879.22	885.25		885.29	0.000211	1.61	157.01	32.06	0.13
BIC	53400.00	Max WS	326.65	879.15	885.14		885.21	0.000359	2.10	155.67	31.98	0.17
BIC	53200.00	Max WS	340.73	879.08	885.05		885.13	0.000395	2.20	155.10	31.94	0.18
BIC	53000.00	Max WS	341.57	879.02	884.97		885.05	0.000401	2.21	154.43	31.90	0.18
BIC	52800.00	Max WS	341.57	878.95	884.89		884.97	0.000404	2.22	154.09	31.88	0.18
BIC	52600.00	Max WS	341.54	878.88	884.81		884.89	0.000407	2.22	153.73	31.86	0.18
BIC	52599		Lat Struct									
BIC	52400.00	Max WS	341.55	878.81	884.72		884.80	0.000410	2.23	153.26	31.83	0.18
BIC	52200.00	Max WS	334.76	878.74	884.64		884.71	0.000484	2.19	153.13	37.76	0.19
BIC	52000.00	Max WS	300.72	878.68	884.58		884.64	0.000392	1.96	153.64	38.15	0.17
BIC	51800.00	Max WS	290.28	878.61	884.52		884.58	0.000297	1.90	153.13	31.82	0.15
BIC	51600.00	Max WS	290.28	878.54	884.46		884.52	0.000295	1.89	153.46	31.84	0.15
BIC	51400.00	Max WS	290.26	878.47	884.40		884.46	0.000293	1.89	153.82	31.86	0.15
BIC	51200.00	Max WS	290.25	878.41	884.34	880.22	884.40	0.000294	1.89	153.82	31.94	0.15
BIC	51075		Bridge									
BIC	51000.00	Max WS	290.24	878.36	884.25		884.31	0.000300	1.90	152.53	31.78	0.15
BIC	50800.00	Max WS	290.22	878.32	884.19		884.25	0.000304	1.91	151.87	31.74	0.15
BIC	50600.00	Max WS	290.21	878.29	884.13		884.19	0.000310	1.92	150.86	31.68	0.16
BIC	50400.00	Max WS	290.20	878.25	884.07		884.12	0.000314	1.93	150.13	31.63	0.16
BIC	50200.00	Max WS	290.20	878.21	884.00		884.06	0.000318	1.94	149.38	31.58	0.16
BIC	50000.00	Max WS	290.18	878.17	883.94		884.00	0.000323	1.95	148.60	31.53	0.16
BIC	49800.00	Max WS	290.17	878.14	883.87	879.95	883.93	0.000330	1.97	147.46	31.46	0.16
BIC	49709.36		Bridge									
BIC	49600.00	Max WS	290.16	878.13	883.72		883.79	0.000466	2.02	143.94	39.45	0.19
BIC	49400.00	Max WS	290.15	878.07	883.62		883.69	0.000489	2.01	144.16	41.11	0.19
BIC	49200.00	Max WS	290.13	878.02	883.53		883.60	0.000378	2.06	140.60	31.02	0.17
BIC	49000.00	Max WS	290.12	877.96	883.45		883.52	0.000382	2.07	140.09	30.99	0.17
BIC	48800.00	Max WS	290.11	877.90	883.36		883.43	0.000614	2.07	140.24	46.25	0.21
BIC	48600.00	Max WS	290.10	877.85	883.26		883.33	0.000472	2.04	141.92	38.07	0.19
BIC	48400.00	Max WS	290.08	877.79	883.16		883.23	0.000487	2.06	140.80	38.23	0.19
BIC	48200.00	Max WS	290.07	877.73	883.06		883.13	0.000537	2.11	137.69	39.11	0.20
BIC	48199		Lat Struct									
BIC	48000.00	Max WS	290.06	877.67	882.96		883.03	0.000437	2.17	133.65	30.57	0.18
BIC	47800.00	Max WS	290.17	877.62	882.87		882.94	0.000449	2.19	132.43	30.49	0.19
BIC	47600.00	Max WS	294.45	877.56	882.77		882.85	0.000474	2.24	131.27	30.42	0.19
BIC	47400.00	Max WS	301.34	877.50	882.66		882.74	0.000513	2.32	129.81	30.32	0.20
BIC	47200.00	Max WS	301.93	877.45	882.55		882.64	0.000535	2.36	128.07	30.20	0.20
BIC	47195		Lat Struct									
BIC	47000.00	Max WS	301.92	877.39	882.44		882.53	0.000554	2.39	126.50	30.10	0.21
BIC	46800.00	Max WS	301.91	877.33	882.32		882.41	0.000577	2.42	124.74	29.98	0.21
BIC	46600.00	Max WS	292.24	877.28	882.21		882.29	0.000645	2.37	123.09	33.42	0.22
BIC	46400.00	Max WS	245.06	877.22	882.15		882.21	0.000483	1.98	123.58	35.53	0.19
BIC	46200.00	Max WS	216.55	877.16	882.09		882.14	0.000313	1.76	123.03	30.17	0.15
BIC	46000.00	Max WS	216.37	877.10	882.03		882.08	0.000309	1.76	122.94	29.86	0.15
BIC	45800.00	Max WS	199.75	877.05	881.98		882.02	0.000264	1.63	122.81	29.85	0.14
BIC	45600.00	Max WS	199.74	876.99	881.92		881.97	0.000263	1.62	123.03	29.87	0.14
BIC	45400.00	Max WS	199.75	876.93	881.87		881.91	0.000261	1.62	123.27	29.88	0.14
BIC	45200.00	Max WS	199.74	876.88	881.82		881.86	0.000262	1.62	123.20	29.88	0.14
BIC	45000.00	Max WS	199.73	876.82	881.77		881.81	0.000260	1.62	123.44	29.90	0.14
BIC	44800.00	Max WS	199.72	876.76	881.72		881.76	0.000259	1.61	123.68	29.91	0.14
BIC	44600.00	Max WS	199.72	876.71	881.66		881.70	0.000259	1.62	123.60	29.91	0.14

HEC-RAS Plan: BIC-100-06E River: BIC Reach: BIC Profile: Max WS (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
BIC	44400.00	Max WS	199.71	876.65	881.61		881.65	0.000258	1.61	123.83	29.92	0.14
BIC	44200.00	Max WS	199.69	876.59	881.56		881.60	0.000258	1.61	124.09	29.94	0.14
BIC	44000.00	Max WS	199.68	876.54	881.51		881.55	0.000256	1.61	124.06	29.94	0.14
BIC	43800.00	Max WS	199.66	876.48	881.46		881.50	0.000255	1.61	124.30	29.95	0.14
BIC	43600.00	Max WS	199.65	876.42	881.41		881.45	0.000253	1.60	124.56	29.97	0.14
BIC	43400.00	Max WS	199.64	876.36	881.36		881.39	0.000252	1.60	124.85	29.99	0.14
BIC	43200.00	Max WS	199.63	876.31	881.30		881.34	0.000252	1.60	124.84	29.99	0.14
BIC	43000.00	Max WS	199.63	876.25	881.25		881.29	0.000250	1.60	125.14	30.01	0.14
BIC	42800.00	Max WS	199.62	876.19	881.21		881.24	0.000248	1.59	125.46	30.03	0.14
BIC	42799		Lat Struct									
BIC	42600.00	Max WS	199.61	876.14	881.15		881.19	0.000248	1.59	125.44	30.03	0.14
BIC	42400.00	Max WS	199.51	876.08	881.10		881.14	0.000259	1.59	125.64	31.31	0.14
BIC	42200.00	Max WS	146.36	876.02	881.09		881.11	0.000156	1.13	129.46	37.15	0.11
BIC	42000.00	Max WS	-13.68	875.97	881.12		881.12	0.000001	-0.10	132.72	37.34	0.01
BIC	41800.00	Max WS	-208.58	875.91	881.07		881.11	0.000300	-1.57	132.83	37.77	0.15
BIC	41600.00	Max WS	-298.97	875.85	881.07		881.15	0.000506	-2.27	131.72	31.57	0.20
BIC	41400.00	Max WS	-299.47	875.79	881.17		881.25	0.000437	-2.19	136.63	30.77	0.18
BIC	41200.00	Max WS	-299.53	875.74	881.27		881.34	0.000490	-2.11	141.68	37.19	0.19
BIC	41000.00	Max WS	-299.54	875.68	881.36		881.43	0.000447	-2.04	147.04	38.05	0.18
BIC	40800.00	Max WS	-299.54	875.62	881.45		881.51	0.000380	-1.94	154.32	37.64	0.17
BIC	40799		Lat Struct									
BIC	40600.00	Max WS	-299.56	875.57	881.52		881.58	0.000345	-1.89	158.85	37.44	0.16
BIC	40400.00	Max WS	-266.21	875.51	881.61		881.65	0.000270	-1.60	166.01	41.80	0.14
BIC	40200.00	Max WS	-46.62	875.45	881.71		881.71	0.000007	-0.27	174.85	43.95	0.02
BIC	40000.00	Max WS	-46.14	875.40	881.71		881.71	0.000007	-0.26	179.75	43.62	0.02
BIC	39800.00	Max WS	-77.21	875.34	881.71		881.71	0.000018	-0.42	182.87	43.91	0.04
BIC	39600.00	Max WS	131.99	875.28	881.70		881.71	0.000049	0.71	187.01	43.73	0.06
BIC	39550.*	Max WS	236.28	875.27	881.64		881.67	0.000177	1.31	180.61	44.84	0.11
BIC	39500.*	Max WS	324.02	875.26	881.56		881.61	0.000393	1.88	172.40	45.95	0.17
BIC	39450.*	Max WS	365.95	875.24	881.50		881.58	0.000481	2.21	165.38	39.97	0.19
BIC	39400.00	Max WS	366.08	875.23	881.48	877.33	881.56	0.000387	2.23	164.22	32.51	0.17
BIC	39383.46		Bridge									
BIC	39200.00	Max WS	366.06	875.16	881.45		881.52	0.000463	2.12	172.55	42.95	0.19
BIC	39100	Max WS	366.06	875.16	881.40	877.26	881.48	0.000461	2.14	170.70	41.54	0.19
BIC	39062		Bridge									
BIC	39000.00	Max WS	366.03	875.09	881.23		881.30	0.000520	2.14	170.85	46.04	0.20
BIC	38800.00	Max WS	365.99	875.03	881.09		881.16	0.000555	2.20	166.11	45.10	0.20
BIC	38600.00	Max WS	365.96	874.96	880.95		881.02	0.000535	2.20	166.49	43.83	0.20
BIC	38400.00	Max WS	365.94	874.90	880.80		880.87	0.000621	2.15	169.99	52.74	0.21
BIC	38200.00	Max WS	365.90	874.83	880.59		880.67	0.000740	2.23	164.06	55.66	0.23
BIC	38000.00	Max WS	365.87	874.76	880.40		880.49	0.000755	2.42	150.93	45.17	0.23
BIC	37800.00	Max WS	365.86	874.70	880.26		880.36	0.000661	2.46	148.96	38.89	0.22
BIC	37600.00	Max WS	365.84	874.63	880.12		880.22	0.000708	2.52	145.22	38.55	0.23
BIC	37400.00	Max WS	365.83	874.57	879.96		880.07	0.000811	2.65	138.29	38.08	0.24
BIC	37200.00	Max WS	365.81	874.50	879.80		879.92	0.000687	2.73	134.18	30.81	0.23
BIC	37000.00	Max WS	365.76	874.43	879.66		879.78	0.000722	2.77	131.90	30.46	0.23
BIC	36800.00	Max WS	365.75	874.37	879.49		879.62	0.000878	2.84	128.83	33.71	0.26
BIC	36600.00	Max WS	365.73	874.30	879.32		879.45	0.000832	2.91	125.48	30.03	0.25
BIC	36400.00	Max WS	365.62	874.24	879.13		879.27	0.000905	3.00	121.85	29.79	0.26
BIC	36399		Lat Struct									
BIC	36200.00	Max WS	337.51	874.17	878.97		879.09	0.001090	2.78	121.27	38.96	0.28
BIC	36000.00	Max WS	208.97	874.10	878.98		879.02	0.000385	1.70	123.19	37.94	0.17
BIC	35800.00	Max WS	95.63	874.04	879.00		879.01	0.000075	0.76	125.27	37.42	0.07
BIC	35600.00	Max WS	58.19	873.97	879.00		879.01	0.000021	0.46	126.01	30.07	0.04
BIC	35699		Lat Struct									
BIC	35400.00	Max WS	165.50	873.91	878.94		878.96	0.000196	1.28	129.22	36.34	0.12
BIC	35200.00	Max WS	234.47	873.84	878.83		878.88	0.000356	1.88	124.68	31.75	0.17
BIC	35000.00	Max WS	234.34	873.77	878.76		878.81	0.000354	1.87	125.33	35.49	0.18
BIC	34800.00	Max WS	234.34	873.71	878.69		878.74	0.000352	1.89	124.25	29.95	0.16
BIC	34600.00	Max WS	234.32	873.64	878.61		878.67	0.000352	1.89	124.25	29.95	0.16
BIC	34400.00	Max WS	234.31	873.58	878.54		878.60	0.000361	1.89	123.93	31.82	0.17
BIC	34200.00	Max WS	234.29	873.51	878.46		878.52	0.000443	1.88	124.45	36.33	0.18
BIC	34000.00	Max WS	234.23	873.45	878.38		878.44	0.000362	1.90	123.00	29.87	0.17
BIC	33800.00	Max WS	234.13	873.38	878.31	874.95	878.37	0.000362	1.90	122.98	29.88	0.17
BIC	33712.00		Bridge									
BIC	33600.00	Max WS	233.84	873.27	878.21		878.27	0.000358	1.90	123.33	29.89	0.16
BIC	33400.00	Max WS	233.51	873.19	878.14		878.20	0.000355	1.89	123.58	29.91	0.16
BIC	33399		Lat Struct									
BIC	33200.00	Max WS	233.48	873.12	878.07		878.12	0.000356	1.89	123.46	29.90	0.16
BIC	33000.00	Max WS	233.18	873.04	877.99		878.05	0.000353	1.89	123.61	29.91	0.16
BIC	32800.00	Max WS	220.60	872.96	877.93		877.98	0.000369	1.77	124.58	34.68	0.16
BIC	32600.00	Max WS	210.00	872.89	877.88		877.92	0.000280	1.69	124.60	29.97	0.15
BIC	32400.00	Max WS	209.84	872.81	877.82		877.86	0.000275	1.67	125.30	30.02	0.14
BIC	32200.00	Max WS	207.53	872.73	877.77		877.81	0.000288	1.64	126.18	32.35	0.15
BIC	32000.00	Max WS	149.01	872.65	877.76		877.78	0.000156	1.15	129.89	36.33	0.11

HEC-RAS Plan: BIC-100-06E River: BIC Reach: BIC Profile: Max WS (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
BIC	31800.00	Max WS	86.26	872.58	877.77		877.78	0.000047	0.66	130.93	33.75	0.06
BIC	31600.00	Max WS	85.04	872.50	877.76		877.77	0.000038	0.64	132.93	30.52	0.05
BIC	31400.00	Max WS	85.04	872.42	877.75		877.76	0.000036	0.63	135.16	30.67	0.05
BIC	31200.00	Max WS	85.02	872.35	877.75		877.75	0.000035	0.62	137.10	30.80	0.05
BIC	31000.00	Max WS	85.10	872.27	877.74		877.75	0.000036	0.61	139.55	34.71	0.05
BIC	30800.00	Max WS	85.09	872.19	877.73		877.74	0.000039	0.59	143.70	37.78	0.05
BIC	30600.00	Max WS	85.09	872.12	877.73		877.73	0.000036	0.59	143.79	35.95	0.05
BIC	30400.00	Max WS	85.09	872.04	877.72		877.73	0.000035	0.58	146.24	36.89	0.05
BIC	30200.00	Max WS	85.06	871.96	877.71		877.72	0.000033	0.57	149.35	37.08	0.05
BIC	30000.00	Max WS	85.04	871.88	877.71		877.71	0.000027	0.57	150.51	31.65	0.05
BIC	29800.00	Max WS	85.02	871.81	877.70		877.71	0.000031	0.55	153.44	37.21	0.05
BIC	29799		Lat Struct									
BIC	29600.00	Max WS	85.04	871.73	877.70		877.70	0.000028	0.55	155.93	36.50	0.05
BIC	29400.00	Max WS	85.01	871.65	877.69		877.70	0.000027	0.54	158.86	36.85	0.05
BIC	29200.00	Max WS	91.40	871.58	877.68		877.69	0.000030	0.56	161.86	37.35	0.05
BIC	29000.00	Max WS	110.53	871.50	877.67		877.68	0.000043	0.68	162.31	37.42	0.06
BIC	28800.00	Max WS	170.84	871.42	877.64		877.66	0.000100	1.04	163.62	37.16	0.09
BIC	28600.00	Max WS	206.90	871.35	877.60		877.63	0.000135	1.26	164.17	35.06	0.10
BIC	28400.00	Max WS	206.99	871.27	877.58	872.72	877.60	0.000136	1.25	166.03	36.24	0.10
BIC	28289.85		Bridge									
BIC	28200.00	Max WS	206.94	871.25	877.51		877.54	0.000123	1.26	164.47	32.53	0.10
BIC	28000.00	Max WS	206.94	871.19	877.49		877.51	0.000173	1.23	167.76	45.59	0.11
BIC	27800.00	Max WS	206.91	871.14	877.46		877.48	0.000149	1.20	171.96	42.66	0.11
BIC	27600.00	Max WS	206.92	871.08	877.42		877.45	0.000146	1.20	171.80	41.93	0.10
BIC	27400.00	Max WS	206.89	871.03	877.40		877.42	0.000143	1.20	172.86	41.95	0.10
BIC	27200.00	Max WS	206.88	870.97	877.37		877.39	0.000145	1.19	173.55	42.86	0.10
BIC	27000.00	Max WS	206.83	870.92	877.34		877.37	0.000151	1.19	173.34	44.37	0.11
BIC	26999		Lat Struct									
BIC	26800.00	Max WS	170.43	870.86	877.33		877.34	0.000093	0.97	176.04	42.39	0.08
BIC	26600.00	Max WS	97.55	870.81	877.33		877.33	0.000028	0.54	180.05	41.69	0.05
BIC	26400.00	Max WS	48.95	870.75	877.33		877.33	0.000007	0.27	179.68	42.39	0.02
BIC	26200.00	Max WS	59.13	870.69	877.32		877.33	0.000010	0.33	179.39	42.14	0.03
BIC	26000.00	Max WS	97.91	870.64	877.31		877.32	0.000028	0.54	179.99	42.20	0.05
BIC	25800.00	Max WS	202.48	870.58	877.27		877.29	0.000111	1.11	183.01	40.82	0.09
BIC	25600.00	Max WS	337.03	870.53	877.15		877.21	0.000324	1.88	179.26	40.45	0.16
BIC	25400.00	Max WS	358.61	870.47	877.06		877.13	0.000337	2.04	175.92	35.93	0.16
BIC	25200.00	Max WS	358.59	870.42	877.00		877.06	0.000340	2.04	176.21	36.22	0.16
BIC	25000.00	Max WS	358.34	870.36	876.93		876.99	0.000343	2.05	175.18	36.13	0.16
BIC	24800.00	Max WS	358.33	870.30	876.86		876.93	0.000314	2.06	174.34	33.13	0.16
BIC	24799		Lat Struct									
BIC	24600.00	Max WS	358.31	870.25	876.80		876.87	0.000316	2.06	173.90	33.10	0.16
BIC	24400.00	Max WS	358.29	870.19	876.74		876.80	0.000316	2.06	173.75	33.09	0.16
BIC	24200.00	Max WS	344.81	870.14	876.68		876.74	0.000333	1.98	173.96	36.91	0.16
BIC	24000.00	Max WS	330.43	870.08	876.63		876.68	0.000269	1.90	173.83	33.10	0.15
BIC	23800.00	Max WS	327.84	870.03	876.57		876.63	0.000280	1.89	173.68	34.63	0.15
BIC	23600.00	Max WS	324.83	869.97	876.52		876.57	0.000260	1.87	173.86	33.10	0.14
BIC	23400.00	Max WS	324.79	869.92	876.46		876.52	0.000260	1.87	173.73	33.09	0.14
BIC	23200.00	Max WS	324.51	869.86	876.41		876.47	0.000259	1.87	173.97	33.10	0.14
BIC	23000.00	Max WS	324.10	869.80	876.36		876.41	0.000257	1.86	174.27	33.12	0.14
BIC	22800.00	Max WS	323.91	869.75	876.31		876.36	0.000257	1.86	174.23	33.12	0.14
BIC	22600.00	Max WS	323.91	869.69	876.26		876.31	0.000255	1.86	174.52	33.14	0.14
BIC	22400.00	Max WS	323.85	869.64	876.21		876.26	0.000255	1.86	174.49	33.14	0.14
BIC	22200.00	Max WS	323.77	869.58	876.16		876.21	0.000254	1.85	174.80	33.15	0.14
BIC	22000.00	Max WS	323.72	869.53	876.11		876.16	0.000254	1.85	174.78	33.15	0.14
BIC	21999		Lat Struct									
BIC	21800.00	Max WS	323.72	869.47	876.06		876.11	0.000253	1.85	175.10	33.17	0.14
BIC	21600.00	Max WS	323.69	869.41	876.01		876.06	0.000251	1.85	175.43	33.19	0.14
BIC	21400.00	Max WS	323.66	869.36	875.96		876.01	0.000251	1.85	175.42	33.19	0.14
BIC	21200.00	Max WS	323.52	869.30	875.91		875.96	0.000250	1.84	175.76	33.21	0.14
BIC	21000.00	Max WS	323.42	869.25	875.86		875.91	0.000250	1.84	175.76	33.21	0.14
BIC	20800.00	Max WS	323.27	869.19	875.81		875.86	0.000248	1.84	176.06	33.23	0.14
BIC	20600.00	Max WS	323.22	869.14	875.75		875.81	0.000248	1.84	176.01	33.23	0.14
BIC	20400.00	Max WS	290.77	869.08	875.73		875.77	0.000224	1.63	178.22	37.57	0.13
BIC	20200.00	Max WS	185.61	869.03	875.75		875.76	0.000088	1.03	180.76	37.83	0.08
BIC	20000.00	Max WS	165.16	868.97	875.74		875.75	0.000060	0.91	181.18	33.54	0.07
BIC	19800.00	Max WS	165.19	868.91	875.73		875.74	0.000058	0.90	182.80	33.63	0.07
BIC	19600.00	Max WS	165.19	868.86	875.72		875.73	0.000057	0.90	184.11	33.71	0.07
BIC	19400.00	Max WS	165.20	868.80	875.70		875.72	0.000056	0.89	185.76	33.81	0.07
BIC	19200.00	Max WS	165.20	868.75	875.69		875.71	0.000055	0.88	187.09	33.89	0.07
BIC	19000.00	Max WS	165.18	868.69	875.68		875.70	0.000053	0.88	188.77	33.99	0.07
BIC	18800.00	Max WS	165.19	868.64	875.67		875.68	0.000052	0.87	190.12	34.07	0.06
BIC	18600.00	Max WS	165.19	868.58	875.66		875.67	0.000051	0.86	191.82	34.17	0.06
BIC	18400.00	Max WS	165.20	868.52	875.65		875.66	0.000056	0.85	193.66	37.87	0.07
BIC	18200.00	Max WS	165.17	868.47	875.64		875.65	0.000049	0.85	194.90	34.35	0.06
BIC	18100.*	Max WS	165.17	868.44	875.64		875.65	0.000048	0.84	195.76	34.40	0.06

HEC-RAS Plan: BIC-100-06E River: BIC Reach: BIC Profile: Max WS (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
BIC	18000.00	Max WS	165.16	868.41	875.63		875.64	0.000047	0.84	196.64	34.45	0.06
BIC	17999		Lat Struct									
BIC	17900.*	Max WS	162.98	868.39	875.63		875.64	0.000055	0.82	199.33	41.87	0.07
BIC	17800.00	Max WS	145.81	868.36	875.63		875.64	0.000041	0.70	207.10	42.54	0.06
BIC	17700.*	Max WS	127.80	868.33	875.63		875.63	0.000031	0.62	205.84	41.58	0.05
BIC	17600.00	Max WS	113.16	868.30	875.63		875.63	0.000023	0.56	203.79	39.23	0.04
BIC	17500.*	Max WS	101.39	868.28	875.63		875.63	0.000018	0.50	204.41	38.47	0.04
BIC	17400.00	Max WS	91.00	868.25	875.63		875.63	0.000014	0.44	205.03	37.72	0.03
BIC	17300.*	Max WS	81.77	868.22	875.63		875.63	0.000011	0.40	205.79	37.23	0.03
BIC	17200.00	Max WS	68.26	868.19	875.63		875.63	0.000008	0.33	206.34	38.50	0.03
BIC	17100.*	Max WS	132.20	868.17	875.62		875.62	0.000030	0.64	207.06	38.50	0.05
BIC	17000.00	Max WS	214.72	868.14	875.59		875.61	0.000079	1.03	207.47	38.51	0.08
BIC	16900.*	Max WS	289.26	868.11	875.55		875.58	0.000143	1.40	207.25	38.62	0.11
BIC	16800.00	Max WS	344.84	868.08	875.51		875.55	0.000206	1.67	206.79	38.73	0.13
BIC	16700.*	Max WS	387.53	868.05	875.46		875.52	0.000265	1.87	206.92	39.62	0.14
BIC	16600.00	Max WS	424.33	868.02	875.41		875.48	0.000329	2.05	206.53	40.51	0.16
BIC	16400.00	Max WS	424.29	867.97	875.35		875.41	0.000319	2.04	207.51	39.66	0.16
BIC	16200.00	Max WS	424.26	867.91	875.21		875.27	0.000356	1.96	216.53	49.19	0.16
BIC	16000.00	Max WS	424.23	867.86	875.08	870.17	875.15	0.000331	2.12	200.07	36.82	0.16
BIC	15870		Bridge									
BIC	15800.00	Max WS	424.22	867.73	874.82		874.90	0.000334	2.21	192.14	34.18	0.16
BIC	15795		Lat Struct									
BIC	15600.00	Max WS	424.19	867.65	874.75		874.82	0.000386	2.19	193.95	39.58	0.17
BIC	15400.00	Max WS	479.19	867.57	874.61		874.70	0.000571	2.40	199.93	48.52	0.21
BIC	15200.00	Max WS	641.79	867.48	874.30		874.48	0.000988	3.48	184.42	37.91	0.28
BIC	15000.00	Max WS	657.40	867.40	874.06		874.27	0.001003	3.70	177.49	33.32	0.28
BIC	14995		Lat Struct									
BIC	14800.00	Max WS	656.21	867.32	873.82		874.05	0.001309	3.80	172.59	38.85	0.32
BIC	14600.00	Max WS	601.66	867.24	873.65		873.85	0.001091	3.52	170.79	37.31	0.29
BIC	14400.00	Max WS	519.08	867.16	873.56		873.71	0.000861	3.06	169.91	38.67	0.26
BIC	14200.00	Max WS	498.46	867.08	873.43		873.57	0.000682	2.98	167.23	32.69	0.23
BIC	14000.00	Max WS	436.04	866.99	873.36		873.46	0.000660	2.56	170.05	41.43	0.22
BIC	13800.00	Max WS	409.82	866.91	873.27		873.37	0.000457	2.44	167.78	32.73	0.19
BIC	13600.00	Max WS	409.82	866.83	873.18		873.28	0.000460	2.45	167.39	32.70	0.19
BIC	13400.00	Max WS	406.77	866.75	873.09		873.18	0.000510	2.43	167.14	36.00	0.20
BIC	13200.00	Max WS	406.70	866.67	872.99		873.09	0.000460	2.44	166.44	32.65	0.19
BIC	13000.00	Max WS	406.69	866.59	872.90		872.99	0.000464	2.45	166.03	32.62	0.19
BIC	12800.00	Max WS	406.67	866.50	872.81		872.90	0.000464	2.45	165.93	32.61	0.19
BIC	12600.00	Max WS	406.65	866.42	872.71		872.81	0.000468	2.46	165.49	32.59	0.19
BIC	12400.00	Max WS	406.60	866.34	872.62		872.71	0.000471	2.46	165.03	32.56	0.19
BIC	12200.00	Max WS	406.57	866.26	872.52		872.62	0.000494	2.47	164.45	33.59	0.20
BIC	12000.00	Max WS	406.54	866.18	872.42		872.52	0.000481	2.48	163.80	32.48	0.19
BIC	11800.00	Max WS	406.49	866.09	872.33		872.42	0.000483	2.48	163.58	32.47	0.20
BIC	11600.00	Max WS	406.37	866.01	872.23		872.32	0.000488	2.49	163.00	32.43	0.20
BIC	11400.00	Max WS	406.35	865.93	872.13		872.23	0.000493	2.50	162.40	32.40	0.20
BIC	11200.00	Max WS	406.26	865.85	872.03		872.13	0.000498	2.51	161.76	32.36	0.20
BIC	11199		Lat Struct									
BIC	11000.00	Max WS	406.25	865.77	871.93		872.03	0.000504	2.52	161.08	32.32	0.20
BIC	10800.00	Max WS	406.23	865.69	871.83		871.93	0.000510	2.53	160.37	32.27	0.20
BIC	10600.00	Max WS	406.20	865.60	871.72		871.82	0.000514	2.54	159.95	32.25	0.20
BIC	10400.00	Max WS	406.11	865.52	871.62		871.72	0.000521	2.55	159.14	32.20	0.20
BIC	10200.00	Max WS	406.10	865.44	871.51		871.61	0.000529	2.57	158.29	32.14	0.20
BIC	10000.00	Max WS	405.95	865.36	871.40		871.51	0.000537	2.58	157.40	32.09	0.21
BIC	9800.000	Max WS	405.81	865.28	871.29		871.40	0.000546	2.59	156.45	32.03	0.21
BIC	9799		Lat Struct									
BIC	9600.000	Max WS	405.69	865.19	871.18		871.29	0.000552	2.60	155.79	31.99	0.21
BIC	9400.000	Max WS	405.96	865.11	871.07		871.17	0.000565	2.63	154.64	31.91	0.21
BIC	9200.000	Max WS	412.33	865.03	870.94		871.05	0.000599	2.69	153.11	31.82	0.22
BIC	9000.000	Max WS	412.30	864.95	870.82		870.93	0.000615	2.72	151.73	31.73	0.22
BIC	8800.000	Max WS	412.30	864.87	870.69		870.81	0.000632	2.74	150.25	31.64	0.22
BIC	8600.000	Max WS	412.30	864.79	870.56		870.68	0.000652	2.77	148.64	31.54	0.23
BIC	8400.000	Max WS	412.28	864.70	870.42		870.55	0.000670	2.80	147.25	31.45	0.23
BIC	8200.000	Max WS	412.27	864.62	870.28		870.41	0.000694	2.84	145.38	31.33	0.23
BIC	8000.000	Max WS	412.26	864.54	870.14		870.27	0.000723	2.88	143.35	31.20	0.24
BIC	7800.000	Max WS	412.24	864.46	869.99		870.12	0.000756	2.92	141.13	31.06	0.24
BIC	7600.000	Max WS	412.23	864.38	869.83		869.97	0.000794	2.97	138.67	30.90	0.25
BIC	7400.000	Max WS	412.21	864.30	869.66		869.80	0.000841	3.03	135.93	30.72	0.25
BIC	7200.000	Max WS	412.20	864.21	869.48		869.63	0.000891	3.09	133.21	30.54	0.26
BIC	7000.000	Max WS	412.20	864.14	869.29	866.40	869.44	0.000967	3.18	129.45	30.30	0.27
BIC	6886.91		Bridge									
BIC	6800.000	Max WS	412.19	864.06	869.07		869.24	0.001061	3.29	125.35	30.02	0.28
BIC	6600.000	Max WS	412.19	863.85	868.86		869.03	0.001062	3.29	125.29	30.02	0.28
BIC	6400.000	Max WS	412.17	863.63	868.65		868.82	0.001055	3.28	125.56	30.04	0.28
BIC	6200.000	Max WS	412.17	863.42	868.44		868.60	0.001056	3.28	125.53	30.04	0.28
BIC	6000.000	Max WS	412.16	863.21	868.23		868.39	0.001057	3.28	125.49	30.03	0.28

HEC-RAS Plan: BIC-100-06E River: BIC Reach: BIC Profile: Max WS (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
BIC	5800.000	Max WS	412.15	863.00	868.01		868.18	0.001058	3.29	125.45	30.03	0.28
BIC	5600.000	Max WS	172.89	862.78	867.86		867.89	0.000177	1.36	127.55	30.17	0.12
BIC	5599		Lat Struct									
BIC	5400.000	Max WS	171.29	862.57	867.83		867.86	0.000155	1.29	132.91	30.52	0.11
BIC	5200.000	Max WS	170.13	862.36	867.80		867.83	0.000136	1.23	138.45	30.88	0.10
BIC	5000.000	Max WS	174.93	862.15	867.77		867.79	0.000128	1.21	144.03	31.24	0.10
BIC	4800.000	Max WS	361.28	861.93	867.55		867.65	0.000547	2.51	144.08	31.25	0.21
BIC	4600.000	Max WS	487.72	861.72	867.22		867.40	0.001080	3.48	140.10	30.99	0.29
BIC	4400.000	Max WS	486.76	861.51	867.00		867.19	0.001079	3.48	139.96	30.98	0.29
BIC	4395		Lat Struct									
BIC	4200.000	Max WS	485.83	861.30	866.79		866.97	0.001077	3.47	139.84	30.97	0.29
BIC	4000.000	Max WS	484.95	861.08	866.57		866.76	0.001068	3.46	140.09	30.99	0.29
BIC	3800.000	Max WS	484.13	860.87	866.36		866.55	0.001066	3.46	140.03	30.99	0.29
BIC	3600.000	Max WS	483.39	860.66	866.15		866.34	0.001063	3.45	139.99	30.98	0.29
BIC	3400.000	Max WS	482.94	860.45	865.94		866.12	0.001062	3.45	139.94	30.98	0.29
BIC	3200.000	Max WS	482.55	860.23	865.73		865.91	0.001053	3.44	140.27	31.00	0.29
BIC	3000.000	Max WS	482.37	860.02	865.52		865.70	0.001053	3.44	140.27	31.00	0.28
BIC	2800.000	Max WS	482.21	859.81	865.31		865.49	0.001052	3.44	140.29	31.00	0.28
BIC	2600.000	Max WS	482.10	859.60	865.10		865.29	0.001051	3.44	140.31	31.00	0.28
BIC	2400.000	Max WS	482.07	859.38	864.89	861.88	865.07	0.001065	3.43	140.61	31.02	0.28

E.5.6 Water Surface Elevation HEC-RAS Output for Buckeye Irrigation Canal – Future 100-Year, 6-Hour Event

HEC-RAS Plan: BIC-100-06F River: BIC Reach: BIC Profile: Max WS

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
BIC	71773.48	Max WS	200.00	883.31	890.19		890.20	0.000083	1.08	184.80	33.75	0.08
BIC	71600.00	Max WS	199.99	883.29	890.17		890.19	0.000083	1.08	184.99	33.76	0.08
BIC	71400.00	Max WS	199.97	883.27	890.16		890.17	0.000082	1.08	185.11	33.77	0.08
BIC	71200.00	Max WS	199.95	883.25	890.14		890.16	0.000082	1.08	185.22	33.78	0.08
BIC	71000.00	Max WS	199.96	883.23	890.12		890.14	0.000082	1.08	185.32	33.78	0.08
BIC	70800.00	Max WS	199.89	883.21	890.10		890.12	0.000082	1.08	185.42	33.79	0.08
BIC	70600.00	Max WS	199.85	883.19	890.09		890.11	0.000082	1.08	185.54	33.80	0.08
BIC	70400.00	Max WS	199.84	883.17	890.07		890.09	0.000082	1.08	185.66	33.80	0.08
BIC	70200.00	Max WS	199.80	883.15	890.06		890.07	0.000082	1.08	185.78	33.81	0.08
BIC	70000.00	Max WS	199.76	883.13	890.04		890.06	0.000081	1.07	185.91	33.82	0.08
BIC	69800.00	Max WS	199.70	883.11	890.02		890.04	0.000081	1.07	186.03	33.83	0.08
BIC	69600.00	Max WS	199.72	883.09	890.01		890.02	0.000081	1.07	186.16	33.83	0.08
BIC	69400.00	Max WS	199.61	883.07	889.99		890.01	0.000081	1.07	186.29	33.84	0.08
BIC	69200.00	Max WS	199.57	883.05	889.97		889.99	0.000081	1.07	186.42	33.85	0.08
BIC	69000.00	Max WS	199.51	883.02	889.96		889.98	0.000080	1.07	186.89	33.88	0.08
BIC	68800.00	Max WS	199.43	883.00	889.94		889.96	0.000080	1.07	187.02	33.88	0.08
BIC	68600.00	Max WS	199.39	882.98	889.93		889.94	0.000080	1.07	187.16	33.89	0.08
BIC	68400.00	Max WS	199.37	882.96	889.91		889.93	0.000079	1.06	187.30	33.90	0.08
BIC	68200.00	Max WS	199.25	882.94	889.89		889.91	0.000079	1.06	187.44	33.91	0.08
BIC	68199		Lat Struct									
BIC	68000.00	Max WS	199.45	882.92	889.88		889.89	0.000102	1.05	189.36	43.21	0.09
BIC	67800.00	Max WS	271.38	882.90	889.82		889.85	0.000192	1.44	188.98	43.62	0.12
BIC	67600.00	Max WS	401.85	882.88	889.67		889.75	0.000453	2.19	183.42	42.77	0.19
BIC	67400.00	Max WS	479.53	882.86	889.51		889.62	0.000537	2.71	177.12	33.29	0.21
BIC	67395		Lat Struct									
BIC	67200.00	Max WS	479.51	882.84	889.39		889.51	0.000565	2.76	173.99	33.11	0.21
BIC	67000.00	Max WS	464.37	882.82	889.28		889.39	0.000727	2.69	172.65	42.31	0.23
BIC	66800.00	Max WS	372.43	882.80	889.25		889.32	0.000461	2.16	172.29	41.51	0.19
BIC	66600.00	Max WS	342.92	882.78	889.20		889.26	0.000311	2.02	169.48	32.83	0.16
BIC	66400.00	Max WS	342.89	882.76	889.13	884.77	889.20	0.000319	2.04	168.03	32.74	0.16
BIC	66265		Bridge									
BIC	66200.00	Max WS	342.88	882.67	888.96		889.02	0.000334	2.07	165.29	32.58	0.16
BIC	66000.00	Max WS	342.88	882.62	888.89		888.96	0.000337	2.08	164.78	32.56	0.16
BIC	65899		Lat Struct									
BIC	65800.00	Max WS	342.88	882.57	888.82		888.89	0.000340	2.09	164.21	32.53	0.16
BIC	65600.00	Max WS	342.86	882.52	888.75		888.82	0.000344	2.10	163.52	32.47	0.16
BIC	65400.00	Max WS	342.86	882.47	888.68		888.75	0.000348	2.10	162.88	32.43	0.17
BIC	65200.00	Max WS	342.84	882.42	888.61		888.68	0.000352	2.11	162.22	32.39	0.17
BIC	65000.00	Max WS	342.84	882.37	888.54		888.61	0.000356	2.12	161.53	32.34	0.17
BIC	64800.00	Max WS	342.83	882.32	888.47		888.54	0.000361	2.13	160.81	32.30	0.17
BIC	64600.00	Max WS	342.82	882.27	888.40		888.47	0.000365	2.14	160.05	32.25	0.17
BIC	64400.00	Max WS	342.84	882.22	888.32		888.39	0.000371	2.15	159.27	32.20	0.17
BIC	64200.00	Max WS	342.83	882.17	888.25		888.32	0.000376	2.16	158.45	32.15	0.17
BIC	64000.00	Max WS	342.83	882.12	888.17		888.24	0.000382	2.18	157.60	32.10	0.17
BIC	63800.00	Max WS	342.82	882.07	888.09		888.17	0.000388	2.19	156.71	32.04	0.17
BIC	63799		Lat Struct									
BIC	63600.00	Max WS	342.81	882.02	888.01		888.09	0.000395	2.20	155.78	31.99	0.18
BIC	63400.00	Max WS	342.80	881.97	887.93		888.01	0.000402	2.21	154.80	31.93	0.18
BIC	63200.00	Max WS	342.80	881.92	887.85		887.93	0.000409	2.23	153.75	31.86	0.18
BIC	63000.00	Max WS	342.53	881.87	887.76		887.84	0.000439	2.24	152.59	33.11	0.18
BIC	62800.00	Max WS	338.62	881.82	887.67		887.75	0.000436	2.24	151.41	32.88	0.18
BIC	62600.00	Max WS	327.76	881.77	887.60		887.67	0.000439	2.18	150.68	34.44	0.18
BIC	62400.00	Max WS	315.32	881.72	887.52		887.59	0.000396	2.11	149.76	33.18	0.17
BIC	62200.00	Max WS	313.03	881.67	887.44		887.51	0.000385	2.10	148.79	32.29	0.17
BIC	62000.00	Max WS	313.03	881.62	887.36		887.43	0.000381	2.12	147.88	31.49	0.17
BIC	61800.00	Max WS	313.01	881.57	887.29		887.36	0.000388	2.13	146.99	31.43	0.17
BIC	61600.00	Max WS	307.15	881.52	887.21		887.28	0.000425	2.10	146.47	34.64	0.18
BIC	61400.00	Max WS	294.18	881.47	887.14		887.20	0.000367	2.02	145.55	32.46	0.17
BIC	61200.00	Max WS	294.05	881.42	887.06		887.13	0.000358	2.03	144.69	31.29	0.17
BIC	61000.00	Max WS	293.65	881.37	886.99		887.05	0.000363	2.04	143.87	31.23	0.17
BIC	60800.00	Max WS	293.63	881.32	886.91		886.98	0.000369	2.05	143.06	31.18	0.17
BIC	60600.00	Max WS	293.62	881.27	886.83		886.90	0.000375	2.06	142.21	31.13	0.17
BIC	60400.00	Max WS	293.62	881.22	886.75		886.82	0.000382	2.08	141.33	31.07	0.17
BIC	60200.00	Max WS	293.59	881.17	886.68		886.74	0.000388	2.09	140.47	31.01	0.17
BIC	60000.00	Max WS	293.59	881.12	886.60		886.67	0.000396	2.10	139.56	30.96	0.17
BIC	59800.00	Max WS	293.57	881.07	886.52		886.59	0.000403	2.12	138.61	30.89	0.18
BIC	59600.00	Max WS	293.56	881.02	886.43		886.51	0.000412	2.13	137.61	30.83	0.18
BIC	59400.00	Max WS	293.55	880.97	886.35		886.42	0.000421	2.15	136.56	30.76	0.18
BIC	59200.00	Max WS	293.54	880.92	886.26		886.34	0.000431	2.17	135.44	30.69	0.18
BIC	59000.00	Max WS	293.53	880.87	886.18		886.25	0.000442	2.19	134.26	30.61	0.18
BIC	58999		Lat Struct									
BIC	58800.00	Max WS	293.51	880.82	886.08		886.16	0.000454	2.21	133.00	30.53	0.19
BIC	58600.00	Max WS	283.33	880.77	886.00		886.07	0.000545	2.13	133.22	37.74	0.20
BIC	58400.00	Max WS	189.82	880.72	886.00		886.03	0.000234	1.41	134.77	37.41	0.13
BIC	58200.00	Max WS	105.76	880.67	886.01		886.02	0.000068	0.78	136.21	36.34	0.07

HEC-RAS Plan: BIC-100-06F River: BIC Reach: BIC Profile: Max WS (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
BIC	58000.00	Max WS	91.38	880.62	886.00		886.01	0.000041	0.67	136.62	30.76	0.06
BIC	57800.00	Max WS	91.38	880.57	885.99		886.00	0.000042	0.66	137.93	32.61	0.06
BIC	57600.00	Max WS	91.38	880.52	885.99		885.99	0.000039	0.66	139.20	30.93	0.05
BIC	57400.00	Max WS	91.37	880.47	885.98		885.99	0.000038	0.65	140.52	31.02	0.05
BIC	57200.00	Max WS	91.36	880.42	885.97		885.98	0.000037	0.64	141.85	31.10	0.05
BIC	57000.00	Max WS	91.33	880.37	885.96		885.97	0.000036	0.64	143.19	31.19	0.05
BIC	56999		Lat Struct									
BIC	56800.00	Max WS	91.33	880.32	885.96		885.96	0.000035	0.63	144.53	31.28	0.05
BIC	56600.00	Max WS	162.92	880.27	885.91		885.93	0.000144	1.13	144.79	39.42	0.10
BIC	56400.00	Max WS	263.55	880.22	885.81		885.86	0.000298	1.84	142.95	31.17	0.15
BIC	56200.00	Max WS	267.23	880.17	885.74		885.80	0.000309	1.88	142.52	31.15	0.15
BIC	56000.00	Max WS	267.21	880.12	885.68		885.74	0.000311	1.88	142.14	31.12	0.16
BIC	55800.00	Max WS	267.20	880.07	885.62	881.78	885.67	0.000314	1.89	141.74	31.10	0.16
BIC	55646.31		Bridge									
BIC	55400.00	Max WS	235.97	879.83	885.35		885.40	0.000249	1.67	140.92	31.04	0.14
BIC	55200.00	Max WS	235.53	879.76	885.30		885.35	0.000244	1.66	141.58	31.09	0.14
BIC	55000.00	Max WS	234.75	879.69	885.26		885.30	0.000239	1.65	142.28	31.13	0.14
BIC	54800.00	Max WS	234.07	879.63	885.21		885.25	0.000236	1.64	142.89	31.16	0.14
BIC	54600.00	Max WS	234.10	879.56	885.16		885.20	0.000233	1.63	143.43	31.20	0.13
BIC	54400.00	Max WS	233.84	879.49	885.12		885.16	0.000229	1.62	144.19	31.25	0.13
BIC	54200.00	Max WS	233.73	879.42	885.07		885.11	0.000225	1.61	144.98	31.30	0.13
BIC	54000.00	Max WS	233.49	879.36	885.03		885.07	0.000222	1.61	145.47	31.34	0.13
BIC	53999		Lat Struct									
BIC	53800.00	Max WS	233.41	879.29	884.98		885.02	0.000219	1.60	146.31	31.39	0.13
BIC	53600.00	Max WS	252.10	879.22	884.92		884.97	0.000253	1.72	146.62	31.41	0.14
BIC	53400.00	Max WS	279.50	879.15	884.85		884.90	0.000313	1.91	146.37	31.39	0.16
BIC	53200.00	Max WS	279.50	879.08	884.78		884.84	0.000312	1.91	146.62	31.41	0.16
BIC	53000.00	Max WS	279.45	879.02	884.72		884.78	0.000312	1.91	146.54	31.40	0.16
BIC	52800.00	Max WS	279.44	878.95	884.66		884.72	0.000310	1.90	146.80	31.42	0.16
BIC	52600.00	Max WS	279.39	878.88	884.60		884.65	0.000309	1.90	147.06	31.44	0.15
BIC	52599		Lat Struct									
BIC	52400.00	Max WS	279.38	878.81	884.54		884.59	0.000307	1.90	147.34	31.45	0.15
BIC	52200.00	Max WS	279.36	878.74	884.47		884.53	0.000306	1.89	147.56	31.47	0.15
BIC	52000.00	Max WS	278.55	878.68	884.41		884.46	0.000322	1.89	147.44	32.94	0.16
BIC	51800.00	Max WS	278.38	878.61	884.35		884.40	0.000303	1.89	147.65	31.47	0.15
BIC	51600.00	Max WS	278.36	878.54	884.29		884.34	0.000301	1.88	147.96	31.49	0.15
BIC	51400.00	Max WS	278.36	878.47	884.23		884.28	0.000299	1.88	148.28	31.51	0.15
BIC	51200.00	Max WS	278.34	878.41	884.17	880.17	884.22	0.000299	1.88	148.27	31.51	0.15
BIC	51075		Bridge									
BIC	51000.00	Max WS	278.35	878.36	884.10		884.16	0.000302	1.88	147.75	31.48	0.15
BIC	50800.00	Max WS	278.33	878.32	884.04		884.09	0.000306	1.89	147.08	31.44	0.15
BIC	50600.00	Max WS	278.32	878.29	883.98		884.03	0.000312	1.91	146.05	31.37	0.16
BIC	50400.00	Max WS	278.29	878.25	883.91		883.97	0.000317	1.92	145.32	31.33	0.16
BIC	50200.00	Max WS	278.29	878.21	883.85		883.91	0.000322	1.93	144.56	31.28	0.16
BIC	50000.00	Max WS	278.29	878.17	883.78		883.84	0.000327	1.94	143.77	31.23	0.16
BIC	49800.00	Max WS	278.28	878.14	883.72	879.90	883.78	0.000334	1.95	142.61	31.15	0.16
BIC	49709.36		Bridge									
BIC	49600.00	Max WS	278.28	878.13	883.59		883.65	0.000359	2.00	139.04	30.92	0.17
BIC	49400.00	Max WS	278.27	878.07	883.50		883.56	0.000503	2.00	138.98	40.99	0.19
BIC	49200.00	Max WS	278.27	878.02	883.41		883.47	0.000376	2.03	136.80	30.78	0.17
BIC	49000.00	Max WS	278.26	877.96	883.33		883.40	0.000380	2.04	136.31	30.74	0.17
BIC	48800.00	Max WS	278.25	877.90	883.25		883.31	0.000386	2.05	135.52	30.69	0.17
BIC	48600.00	Max WS	278.25	877.85	883.15		883.22	0.000474	2.02	137.87	37.96	0.19
BIC	48400.00	Max WS	278.24	877.79	883.06		883.12	0.000490	2.03	136.77	38.13	0.19
BIC	48200.00	Max WS	278.22	877.73	882.95		883.02	0.000543	2.08	133.52	39.00	0.20
BIC	48199		Lat Struct									
BIC	48000.00	Max WS	278.22	877.67	882.85		882.92	0.000431	2.13	130.43	30.36	0.18
BIC	47800.00	Max WS	278.21	877.62	882.76		882.83	0.000442	2.15	129.26	30.28	0.18
BIC	47600.00	Max WS	278.20	877.56	882.67		882.74	0.000451	2.17	128.34	30.22	0.19
BIC	47400.00	Max WS	278.19	877.50	882.58		882.65	0.000461	2.18	127.36	30.16	0.19
BIC	47200.00	Max WS	278.18	877.45	882.48		882.56	0.000476	2.21	126.00	30.07	0.19
BIC	47195		Lat Struct									
BIC	47000.00	Max WS	278.17	877.39	882.38		882.46	0.000489	2.23	124.85	29.99	0.19
BIC	46800.00	Max WS	278.16	877.33	882.28		882.36	0.000503	2.25	123.56	29.90	0.20
BIC	46600.00	Max WS	272.72	877.28	882.18		882.26	0.000561	2.23	122.17	32.73	0.20
BIC	46400.00	Max WS	223.44	877.22	882.12		882.17	0.000403	1.82	122.72	34.96	0.17
BIC	46200.00	Max WS	200.50	877.16	882.08		882.12	0.000268	1.64	122.47	29.83	0.14
BIC	46000.00	Max WS	200.49	877.10	882.02		882.06	0.000267	1.63	122.66	29.84	0.14
BIC	45800.00	Max WS	200.49	877.05	881.97		882.01	0.000268	1.64	122.55	29.84	0.14
BIC	45600.00	Max WS	200.49	876.99	881.91		881.96	0.000266	1.63	122.75	29.85	0.14
BIC	45400.00	Max WS	200.48	876.93	881.86		881.90	0.000265	1.63	122.96	29.86	0.14
BIC	45200.00	Max WS	200.47	876.88	881.81		881.85	0.000266	1.63	122.87	29.86	0.14
BIC	45000.00	Max WS	200.46	876.82	881.76		881.80	0.000264	1.63	123.08	29.87	0.14
BIC	44800.00	Max WS	200.46	876.76	881.70		881.74	0.000263	1.63	123.30	29.89	0.14
BIC	44600.00	Max WS	200.46	876.71	881.65		881.69	0.000264	1.63	123.20	29.88	0.14

HEC-RAS Plan: BIC-100-06F River: BIC Reach: BIC Profile: Max WS (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
BIC	44400.00	Max WS	200.45	876.65	881.60		881.64	0.000262	1.62	123.42	29.89	0.14
BIC	44200.00	Max WS	200.45	876.59	881.55		881.59	0.000261	1.62	123.65	29.91	0.14
BIC	44000.00	Max WS	200.44	876.54	881.49		881.53	0.000261	1.62	123.59	29.91	0.14
BIC	43800.00	Max WS	200.44	876.48	881.44		881.48	0.000260	1.62	123.81	29.92	0.14
BIC	43600.00	Max WS	200.43	876.42	881.39		881.43	0.000258	1.62	124.04	29.94	0.14
BIC	43400.00	Max WS	200.42	876.36	881.34		881.38	0.000257	1.61	124.30	29.95	0.14
BIC	43200.00	Max WS	200.42	876.31	881.29		881.33	0.000257	1.61	124.26	29.95	0.14
BIC	43000.00	Max WS	200.41	876.25	881.23		881.27	0.000256	1.61	124.52	29.97	0.14
BIC	42800.00	Max WS	200.40	876.19	881.18		881.22	0.000254	1.61	124.80	29.99	0.14
BIC	42799		Lat Struct									
BIC	42600.00	Max WS	200.40	876.14	881.13		881.17	0.000254	1.61	124.76	29.98	0.14
BIC	42400.00	Max WS	200.39	876.08	881.08		881.12	0.000253	1.60	124.93	30.00	0.14
BIC	42200.00	Max WS	155.75	876.02	881.06		881.09	0.000182	1.21	128.33	37.12	0.12
BIC	42000.00	Max WS	9.87	875.97	881.09		881.09	0.000001	0.07	131.71	37.31	0.01
BIC	41800.00	Max WS	-177.60	875.91	881.06		881.08	0.000220	-1.34	132.27	37.76	0.13
BIC	41600.00	Max WS	-261.56	875.85	881.05		881.11	0.000387	-1.99	131.11	31.18	0.17
BIC	41400.00	Max WS	-261.69	875.79	881.13		881.19	0.000343	-1.93	135.32	30.68	0.16
BIC	41200.00	Max WS	-261.72	875.74	881.20		881.26	0.000366	-1.88	139.34	34.94	0.17
BIC	41000.00	Max WS	-261.73	875.68	881.27		881.33	0.000363	-1.82	143.74	37.73	0.16
BIC	40800.00	Max WS	-261.75	875.62	881.34		881.39	0.000314	-1.74	150.39	37.53	0.15
BIC	40799		Lat Struct									
BIC	40600.00	Max WS	-261.77	875.57	881.41		881.45	0.000286	-1.69	154.45	37.33	0.15
BIC	40400.00	Max WS	-253.94	875.51	881.47		881.50	0.000275	-1.59	160.09	41.80	0.14
BIC	40200.00	Max WS	-87.41	875.45	881.56		881.57	0.000029	-0.52	168.38	43.95	0.05
BIC	40000.00	Max WS	4.76	875.40	881.58		881.58	0.000000	0.03	173.84	43.62	0.00
BIC	39800.00	Max WS	-69.28	875.34	881.57		881.58	0.000016	-0.39	176.80	43.91	0.03
BIC	39600.00	Max WS	157.04	875.28	881.55		881.56	0.000077	0.87	180.37	43.73	0.08
BIC	39550.*	Max WS	258.26	875.27	881.48		881.51	0.000240	1.49	173.40	44.84	0.13
BIC	39500.*	Max WS	326.59	875.26	881.40		881.46	0.000456	1.98	165.27	45.95	0.18
BIC	39450.*	Max WS	352.51	875.24	881.36		881.44	0.000389	2.20	159.98	32.49	0.17
BIC	39400.00	Max WS	352.55	875.23	881.34	877.28	881.42	0.000390	2.21	159.57	32.22	0.17
BIC	39383.46		Bridge									
BIC	39200.00	Max WS	352.53	875.16	881.31		881.38	0.000426	2.11	166.75	38.80	0.18
BIC	39100	Max WS	352.52	875.16	881.26	877.21	881.33	0.000439	2.14	165.01	38.75	0.18
BIC	39062		Bridge									
BIC	39000.00	Max WS	352.52	875.09	881.10		881.17	0.000541	2.14	164.77	46.04	0.20
BIC	38800.00	Max WS	352.51	875.03	880.96		881.04	0.000574	2.20	160.47	45.10	0.21
BIC	38600.00	Max WS	352.49	874.96	880.83		880.90	0.000548	2.19	161.30	43.83	0.20
BIC	38400.00	Max WS	352.46	874.90	880.68		880.76	0.000644	2.15	164.11	52.74	0.21
BIC	38200.00	Max WS	352.39	874.83	880.49		880.57	0.000766	2.22	158.58	55.66	0.23
BIC	38000.00	Max WS	352.39	874.76	880.31		880.40	0.000760	2.40	147.05	45.17	0.23
BIC	37800.00	Max WS	352.39	874.70	880.18		880.27	0.000657	2.42	145.66	38.81	0.22
BIC	37600.00	Max WS	352.33	874.63	880.04		880.13	0.000703	2.48	141.99	38.47	0.23
BIC	37400.00	Max WS	352.28	874.57	879.88		879.98	0.000806	2.61	135.19	38.00	0.24
BIC	37200.00	Max WS	352.26	874.50	879.73		879.84	0.000670	2.67	131.83	30.45	0.23
BIC	37000.00	Max WS	352.24	874.43	879.59		879.70	0.000703	2.72	129.68	30.31	0.23
BIC	36800.00	Max WS	352.20	874.37	879.43		879.55	0.000749	2.78	126.83	30.12	0.24
BIC	36600.00	Max WS	352.03	874.30	879.27		879.39	0.000798	2.84	123.98	29.93	0.25
BIC	36400.00	Max WS	351.44	874.24	879.09		879.23	0.000861	2.91	120.62	29.71	0.25
BIC	36399		Lat Struct									
BIC	36200.00	Max WS	316.92	874.17	878.93		879.04	0.000982	2.65	119.58	38.23	0.26
BIC	36000.00	Max WS	195.75	874.10	878.92		878.96	0.000349	1.62	120.96	37.19	0.18
BIC	35800.00	Max WS	111.77	874.04	878.93		878.94	0.000104	0.91	122.58	35.86	0.09
BIC	35600.00	Max WS	91.86	873.97	878.92		878.93	0.000055	0.74	123.54	29.90	0.06
BIC	35599		Lat Struct									
BIC	35400.00	Max WS	171.13	873.91	878.85		878.88	0.000226	1.36	126.08	36.25	0.13
BIC	35200.00	Max WS	226.42	873.84	878.75		878.80	0.000344	1.85	122.20	29.81	0.16
BIC	35000.00	Max WS	226.21	873.77	878.68		878.73	0.000349	1.85	122.61	33.72	0.17
BIC	34800.00	Max WS	225.97	873.71	878.61		878.66	0.000345	1.85	121.95	29.80	0.16
BIC	34600.00	Max WS	225.78	873.64	878.54		878.59	0.000344	1.85	121.99	29.80	0.16
BIC	34400.00	Max WS	225.74	873.58	878.47		878.52	0.000346	1.86	121.69	29.78	0.16
BIC	34200.00	Max WS	225.74	873.51	878.39		878.45	0.000412	1.85	122.02	34.56	0.17
BIC	34000.00	Max WS	225.72	873.45	878.32		878.37	0.000352	1.86	121.06	29.74	0.16
BIC	33800.00	Max WS	225.71	873.38	878.25	874.91	878.30	0.000351	1.86	121.10	29.75	0.16
BIC	33712.00		Bridge									
BIC	33600.00	Max WS	225.70	873.27	878.17		878.22	0.000345	1.85	121.90	29.79	0.16
BIC	33400.00	Max WS	225.68	873.19	878.10		878.15	0.000342	1.85	122.25	29.82	0.16
BIC	33399		Lat Struct									
BIC	33200.00	Max WS	225.19	873.12	878.03		878.08	0.000340	1.84	122.25	29.82	0.16
BIC	33000.00	Max WS	224.95	873.04	877.96		878.01	0.000337	1.84	122.56	29.84	0.16
BIC	32800.00	Max WS	218.37	872.96	877.90		877.94	0.000359	1.77	123.30	33.52	0.16
BIC	32600.00	Max WS	212.74	872.89	877.83		877.88	0.000296	1.72	123.34	29.89	0.15
BIC	32400.00	Max WS	212.69	872.81	877.78		877.82	0.000292	1.72	123.97	29.93	0.15
BIC	32200.00	Max WS	209.72	872.73	877.72		877.76	0.000292	1.68	124.65	31.10	0.15
BIC	32000.00	Max WS	169.04	872.65	877.70		877.73	0.000213	1.33	127.64	36.27	0.12

HEC-RAS Plan: BIC-100-06F River: BIC Reach: BIC Profile: Max WS (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
BIC	31800.00	Max WS	129.32	872.58	877.69		877.71	0.000102	1.01	128.31	31.32	0.09
BIC	31600.00	Max WS	129.27	872.50	877.67		877.69	0.000094	0.99	130.12	30.34	0.08
BIC	31400.00	Max WS	129.01	872.42	877.65		877.67	0.000090	0.98	132.01	30.46	0.08
BIC	31200.00	Max WS	129.02	872.35	877.63		877.65	0.000087	0.97	133.62	30.57	0.08
BIC	31000.00	Max WS	129.02	872.27	877.62		877.63	0.000083	0.95	135.55	30.70	0.08
BIC	30800.00	Max WS	128.70	872.19	877.60		877.61	0.000099	0.93	138.65	37.65	0.09
BIC	30600.00	Max WS	128.53	872.12	877.58		877.60	0.000077	0.92	139.09	30.93	0.08
BIC	30400.00	Max WS	128.53	872.04	877.57		877.58	0.000073	0.91	141.09	31.05	0.08
BIC	30200.00	Max WS	128.53	871.96	877.55		877.56	0.000084	0.90	143.36	36.08	0.08
BIC	30000.00	Max WS	128.49	871.88	877.54		877.55	0.000068	0.89	145.12	31.31	0.07
BIC	29800.00	Max WS	128.50	871.81	877.52		877.53	0.000071	0.87	146.96	33.59	0.07
BIC	29799		Lat Struct									
BIC	29600.00	Max WS	128.49	871.73	877.51		877.52	0.000072	0.86	149.14	35.32	0.07
BIC	29400.00	Max WS	128.49	871.65	877.50		877.51	0.000071	0.85	151.69	36.66	0.07
BIC	29200.00	Max WS	130.10	871.58	877.48		877.49	0.000070	0.84	154.32	37.15	0.07
BIC	29000.00	Max WS	138.41	871.50	877.46		877.48	0.000065	0.89	154.87	31.93	0.07
BIC	28800.00	Max WS	182.19	871.42	877.43		877.45	0.000110	1.17	156.29	32.02	0.09
BIC	28600.00	Max WS	207.74	871.35	877.39		877.42	0.000141	1.32	157.34	32.08	0.11
BIC	28400.00	Max WS	207.75	871.27	877.36	872.72	877.39	0.000137	1.31	159.04	32.19	0.10
BIC	28289.85		Bridge									
BIC	28200.00	Max WS	207.74	871.25	877.30		877.33	0.000140	1.32	157.55	32.10	0.10
BIC	28000.00	Max WS	207.74	871.19	877.27		877.30	0.000171	1.31	158.87	38.88	0.11
BIC	27800.00	Max WS	207.72	871.14	877.24		877.26	0.000178	1.28	162.62	42.66	0.12
BIC	27600.00	Max WS	207.71	871.08	877.20		877.23	0.000175	1.28	162.55	41.93	0.11
BIC	27400.00	Max WS	207.71	871.03	877.17		877.20	0.000155	1.27	163.52	38.49	0.11
BIC	27200.00	Max WS	207.70	870.97	877.14		877.17	0.000149	1.27	164.18	37.60	0.11
BIC	27000.00	Max WS	207.68	870.92	877.11		877.14	0.000153	1.27	163.86	38.38	0.11
BIC	26999		Lat Struct									
BIC	26800.00	Max WS	188.15	870.86	877.09		877.11	0.000136	1.13	165.89	42.39	0.10
BIC	26600.00	Max WS	152.64	870.81	877.07		877.08	0.000083	0.90	169.12	41.69	0.08
BIC	26400.00	Max WS	228.00	870.75	877.00		877.03	0.000199	1.37	165.88	42.39	0.12
BIC	26200.00	Max WS	236.21	870.69	876.97		877.00	0.000159	1.43	164.88	32.55	0.11
BIC	26000.00	Max WS	236.38	870.64	876.93		876.97	0.000158	1.43	165.48	32.59	0.11
BIC	25800.00	Max WS	261.68	870.58	876.88		876.92	0.000245	1.57	167.19	40.82	0.14
BIC	25600.00	Max WS	295.37	870.53	876.81		876.86	0.000279	1.78	166.23	36.51	0.15
BIC	25400.00	Max WS	295.62	870.47	876.76		876.81	0.000248	1.79	165.27	32.57	0.14
BIC	25200.00	Max WS	295.61	870.42	876.70		876.75	0.000277	1.79	165.59	35.92	0.15
BIC	25000.00	Max WS	295.59	870.36	876.65		876.70	0.000248	1.79	165.37	32.58	0.14
BIC	24800.00	Max WS	295.59	870.30	876.60		876.65	0.000246	1.78	165.67	32.60	0.14
BIC	24799		Lat Struct									
BIC	24600.00	Max WS	295.57	870.25	876.55		876.60	0.000246	1.78	165.70	32.60	0.14
BIC	24400.00	Max WS	295.57	870.19	876.50		876.55	0.000245	1.78	166.06	32.62	0.14
BIC	24200.00	Max WS	295.57	870.14	876.45		876.50	0.000245	1.78	166.08	32.62	0.14
BIC	24000.00	Max WS	295.57	870.08	876.40		876.45	0.000243	1.78	166.42	32.64	0.14
BIC	23800.00	Max WS	295.54	870.03	876.35		876.40	0.000243	1.78	166.45	32.65	0.14
BIC	23600.00	Max WS	295.54	869.97	876.31		876.35	0.000241	1.77	166.84	32.67	0.14
BIC	23400.00	Max WS	295.52	869.92	876.26		876.31	0.000241	1.77	166.89	32.67	0.14
BIC	23200.00	Max WS	295.49	869.86	876.21		876.26	0.000240	1.77	167.29	32.70	0.14
BIC	23000.00	Max WS	295.41	869.80	876.16		876.21	0.000238	1.76	167.70	32.72	0.14
BIC	22800.00	Max WS	295.31	869.75	876.11		876.16	0.000237	1.76	167.78	32.73	0.14
BIC	22600.00	Max WS	295.23	869.69	876.07		876.11	0.000235	1.76	168.20	32.75	0.14
BIC	22400.00	Max WS	294.93	869.64	876.02		876.07	0.000235	1.75	168.30	32.76	0.14
BIC	22200.00	Max WS	294.50	869.58	875.97		876.02	0.000232	1.75	168.74	32.79	0.14
BIC	22000.00	Max WS	294.49	869.53	875.93		875.97	0.000232	1.74	168.86	32.79	0.14
BIC	21999		Lat Struct									
BIC	21800.00	Max WS	294.32	869.47	875.88		875.93	0.000230	1.74	169.32	32.82	0.13
BIC	21600.00	Max WS	294.17	869.41	875.84		875.88	0.000228	1.73	169.80	32.85	0.13
BIC	21400.00	Max WS	294.14	869.36	875.79		875.84	0.000227	1.73	169.94	32.86	0.13
BIC	21200.00	Max WS	294.07	869.30	875.75		875.79	0.000225	1.73	170.44	32.89	0.13
BIC	21000.00	Max WS	293.15	869.25	875.70		875.75	0.000223	1.72	170.61	32.90	0.13
BIC	20800.00	Max WS	292.78	869.19	875.66		875.70	0.000221	1.71	171.12	32.93	0.13
BIC	20600.00	Max WS	292.67	869.14	875.61		875.66	0.000220	1.71	171.31	32.94	0.13
BIC	20400.00	Max WS	283.92	869.08	875.57		875.62	0.000235	1.65	172.43	37.25	0.13
BIC	20200.00	Max WS	243.76	869.03	875.56		875.59	0.000171	1.40	173.61	37.64	0.12
BIC	20000.00	Max WS	240.56	868.97	875.53		875.56	0.000142	1.38	174.16	33.12	0.11
BIC	19800.00	Max WS	240.38	868.91	875.50		875.53	0.000139	1.37	175.22	33.18	0.11
BIC	19600.00	Max WS	239.94	868.86	875.47		875.50	0.000137	1.36	175.97	33.22	0.10
BIC	19400.00	Max WS	239.58	868.80	875.45		875.47	0.000134	1.35	177.08	33.29	0.10
BIC	19200.00	Max WS	239.35	868.75	875.42		875.45	0.000132	1.35	177.86	33.34	0.10
BIC	19000.00	Max WS	239.31	868.69	875.39		875.42	0.000130	1.34	179.00	33.41	0.10
BIC	18800.00	Max WS	239.24	868.64	875.37		875.40	0.000128	1.33	179.81	33.46	0.10
BIC	18600.00	Max WS	239.20	868.58	875.34		875.37	0.000126	1.32	180.98	33.53	0.10
BIC	18400.00	Max WS	238.97	868.52	875.32		875.34	0.000123	1.31	182.17	33.60	0.10
BIC	18200.00	Max WS	238.93	868.47	875.29		875.32	0.000122	1.31	183.03	33.65	0.10
BIC	18100.*	Max WS	238.90	868.44	875.28		875.31	0.000120	1.30	183.64	33.68	0.10

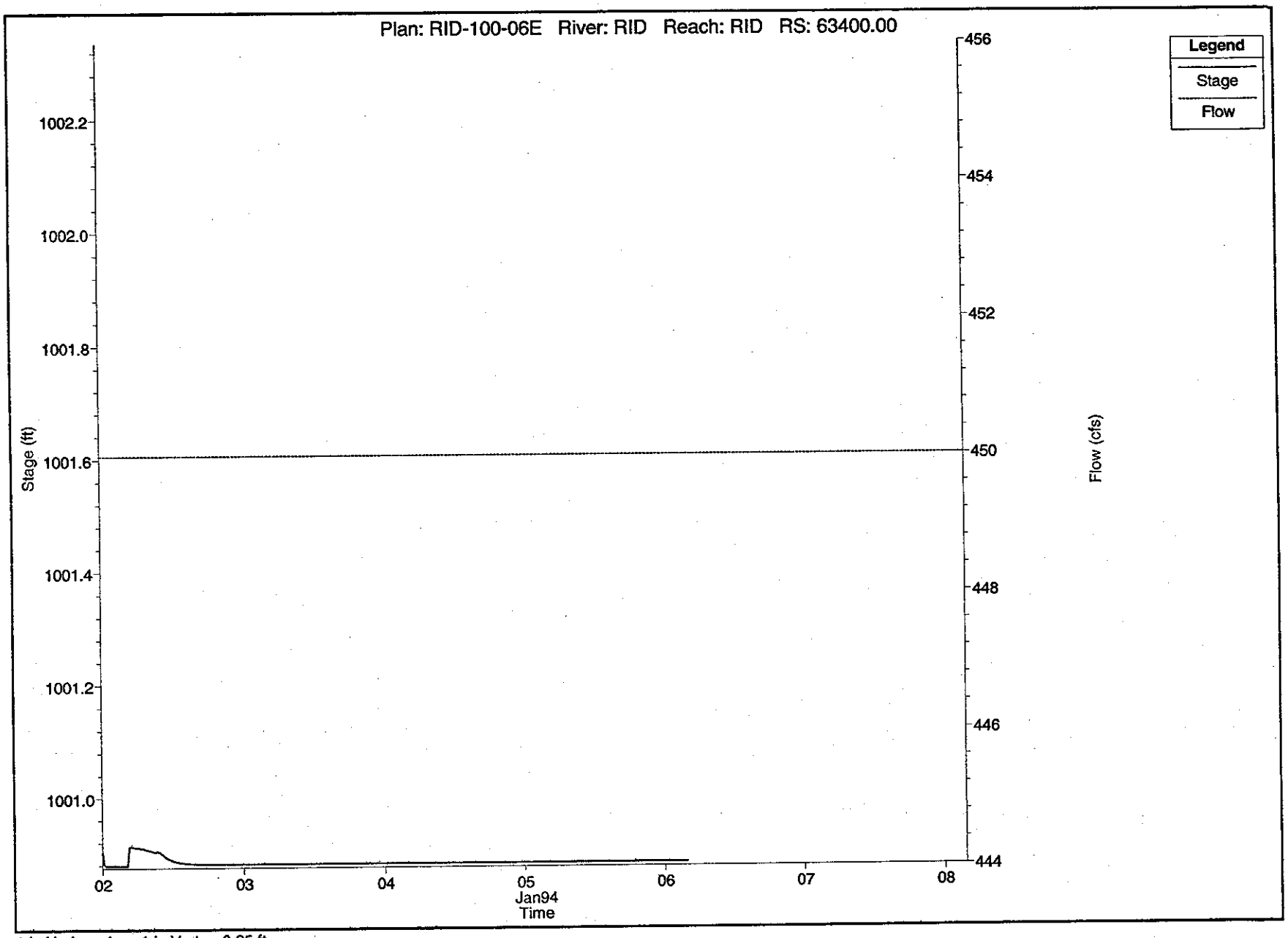
HEC-RAS Plan: BIC-100-06F River: BIC Reach: BIC Profile: Max WS (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
BIC	18000.00	Max WS	238.43	868.41	875.27		875.30	0.000119	1.29	184.25	33.72	0.10
BIC	17999		Lat Struct									
BIC	17900.*	Max WS	238.17	868.39	875.26		875.28	0.000120	1.29	184.93	34.67	0.10
BIC	17800.00	Max WS	213.18	868.36	875.26		875.28	0.000110	1.11	191.38	42.17	0.09
BIC	17700.*	Max WS	184.60	868.33	875.26		875.27	0.000080	0.97	190.56	40.77	0.08
BIC	17600.00	Max WS	161.57	868.30	875.26		875.27	0.000060	0.85	189.29	38.86	0.07
BIC	17500.*	Max WS	143.45	868.28	875.26		875.27	0.000045	0.75	190.19	38.10	0.06
BIC	17400.00	Max WS	126.54	868.25	875.26		875.26	0.000034	0.66	191.10	37.35	0.05
BIC	17300.*	Max WS	176.54	868.22	875.24		875.25	0.000064	0.92	191.39	36.84	0.07
BIC	17200.00	Max WS	265.03	868.19	875.20		875.23	0.000145	1.39	190.44	36.26	0.11
BIC	17100.*	Max WS	337.25	868.17	875.14		875.19	0.000243	1.79	188.60	36.59	0.14
BIC	17000.00	Max WS	366.17	868.14	875.09		875.15	0.000307	1.95	188.21	38.51	0.16
BIC	16900.*	Max WS	374.18	868.11	875.05		875.12	0.000299	1.99	188.34	36.26	0.15
BIC	16800.00	Max WS	374.32	868.08	875.02		875.09	0.000299	1.98	188.61	36.31	0.15
BIC	16700.*	Max WS	373.49	868.05	874.99		875.06	0.000299	1.98	189.09	36.77	0.15
BIC	16600.00	Max WS	373.48	868.02	874.96		875.03	0.000303	1.97	189.41	37.20	0.15
BIC	16400.00	Max WS	373.24	867.97	874.90		874.96	0.000324	1.97	189.87	39.66	0.16
BIC	16200.00	Max WS	372.88	867.91	874.80		874.86	0.000374	1.90	196.22	49.19	0.17
BIC	16000.00	Max WS	371.31	867.86	874.70	869.98	874.76	0.000315	2.00	186.09	36.82	0.16
BIC	15870		Bridge									
BIC	15800.00	Max WS	368.21	867.73	874.60		874.66	0.000282	1.99	184.60	33.74	0.15
BIC	15795		Lat Struct									
BIC	15600.00	Max WS	368.00	867.65	874.54		874.60	0.000331	1.98	185.73	39.37	0.16
BIC	15400.00	Max WS	438.89	867.57	874.41		874.49	0.000562	2.31	190.03	48.52	0.21
BIC	15200.00	Max WS	577.31	867.48	874.14		874.30	0.000880	3.23	178.59	37.75	0.26
BIC	15000.00	Max WS	587.21	867.40	873.95		874.13	0.000848	3.38	173.92	33.10	0.26
BIC	14995		Lat Struct									
BIC	14800.00	Max WS	587.16	867.32	873.76		873.94	0.000959	3.45	170.27	34.73	0.27
BIC	14600.00	Max WS	549.31	867.24	873.61		873.77	0.000938	3.25	169.06	37.27	0.27
BIC	14400.00	Max WS	484.24	867.16	873.51		873.64	0.000765	2.88	168.08	38.22	0.24
BIC	14200.00	Max WS	471.11	867.08	873.39		873.51	0.000623	2.84	165.93	32.62	0.22
BIC	14000.00	Max WS	421.59	866.99	873.32		873.41	0.000622	2.51	168.15	40.50	0.22
BIC	13800.00	Max WS	402.34	866.91	873.22		873.32	0.000453	2.42	166.16	32.63	0.19
BIC	13600.00	Max WS	402.33	866.83	873.13		873.22	0.000456	2.43	165.79	32.61	0.19
BIC	13400.00	Max WS	401.64	866.75	873.04		873.13	0.000485	2.43	165.40	34.24	0.19
BIC	13200.00	Max WS	401.64	866.67	872.94		873.04	0.000461	2.44	164.87	32.55	0.19
BIC	13000.00	Max WS	401.63	866.59	872.85		872.94	0.000464	2.44	164.45	32.52	0.19
BIC	12800.00	Max WS	401.61	866.50	872.76		872.85	0.000465	2.44	164.35	32.52	0.19
BIC	12600.00	Max WS	401.60	866.42	872.67		872.76	0.000469	2.45	163.91	32.49	0.19
BIC	12400.00	Max WS	401.60	866.34	872.57		872.66	0.000473	2.46	163.43	32.46	0.19
BIC	12200.00	Max WS	401.59	866.26	872.47		872.57	0.000477	2.47	162.86	32.43	0.19
BIC	12000.00	Max WS	401.58	866.18	872.37		872.47	0.000482	2.48	162.25	32.39	0.19
BIC	11800.00	Max WS	401.57	866.09	872.28		872.37	0.000484	2.48	162.03	32.37	0.20
BIC	11600.00	Max WS	401.57	866.01	872.18		872.28	0.000489	2.49	161.45	32.34	0.20
BIC	11400.00	Max WS	401.55	865.93	872.08		872.18	0.000494	2.50	160.84	32.30	0.20
BIC	11200.00	Max WS	401.55	865.85	871.98		872.08	0.000500	2.51	160.19	32.26	0.20
BIC	11199		Lat Struct									
BIC	11000.00	Max WS	401.54	865.77	871.88		871.98	0.000506	2.52	159.50	32.22	0.20
BIC	10800.00	Max WS	401.54	865.69	871.78		871.88	0.000513	2.53	158.77	32.17	0.20
BIC	10600.00	Max WS	401.53	865.60	871.67		871.77	0.000517	2.54	158.34	32.15	0.20
BIC	10400.00	Max WS	401.52	865.52	871.57		871.67	0.000524	2.55	157.53	32.10	0.20
BIC	10200.00	Max WS	401.50	865.44	871.46		871.56	0.000532	2.56	156.67	32.04	0.20
BIC	10000.00	Max WS	401.50	865.36	871.35		871.46	0.000541	2.58	155.76	31.99	0.21
BIC	9800.000	Max WS	401.48	865.28	871.24		871.35	0.000551	2.59	154.79	31.92	0.21
BIC	9799		Lat Struct									
BIC	9600.000	Max WS	401.48	865.19	871.13		871.24	0.000558	2.61	154.10	31.88	0.21
BIC	9400.000	Max WS	401.67	865.11	871.01		871.12	0.000571	2.63	152.94	31.81	0.21
BIC	9200.000	Max WS	405.75	865.03	870.89		871.00	0.000598	2.68	151.50	31.72	0.22
BIC	9000.000	Max WS	405.74	864.95	870.77		870.88	0.000614	2.70	150.14	31.63	0.22
BIC	8800.000	Max WS	405.73	864.87	870.64		870.75	0.000631	2.73	148.67	31.54	0.22
BIC	8600.000	Max WS	405.72	864.79	870.51		870.63	0.000651	2.76	147.08	31.44	0.22
BIC	8400.000	Max WS	405.71	864.70	870.37		870.50	0.000668	2.78	145.70	31.35	0.23
BIC	8200.000	Max WS	405.71	864.62	870.24		870.36	0.000693	2.82	143.85	31.23	0.23
BIC	8000.000	Max WS	405.70	864.54	870.09		870.22	0.000721	2.86	141.84	31.10	0.24
BIC	7800.000	Max WS	405.68	864.46	869.94		870.07	0.000754	2.91	139.62	30.96	0.24
BIC	7600.000	Max WS	405.68	864.38	869.78		869.92	0.000793	2.96	137.18	30.80	0.25
BIC	7400.000	Max WS	405.67	864.30	869.61		869.75	0.000840	3.02	134.45	30.62	0.25
BIC	7200.000	Max WS	405.66	864.21	869.43		869.58	0.000891	3.08	131.74	30.45	0.26
BIC	7000.000	Max WS	405.65	864.14	869.24	866.38	869.39	0.000968	3.17	127.99	30.21	0.27
BIC	6886.91		Bridge									
BIC	6800.000	Max WS	405.64	864.06	869.02		869.19	0.001062	3.27	123.90	29.93	0.28
BIC	6600.000	Max WS	405.64	863.85	868.81		868.98	0.001064	3.28	123.83	29.92	0.28
BIC	6400.000	Max WS	405.63	863.63	868.60		868.77	0.001057	3.27	124.09	29.94	0.28
BIC	6200.000	Max WS	405.62	863.42	868.39		868.55	0.001058	3.27	124.05	29.94	0.28
BIC	6000.000	Max WS	405.62	863.21	868.18		868.34	0.001060	3.27	123.99	29.93	0.28

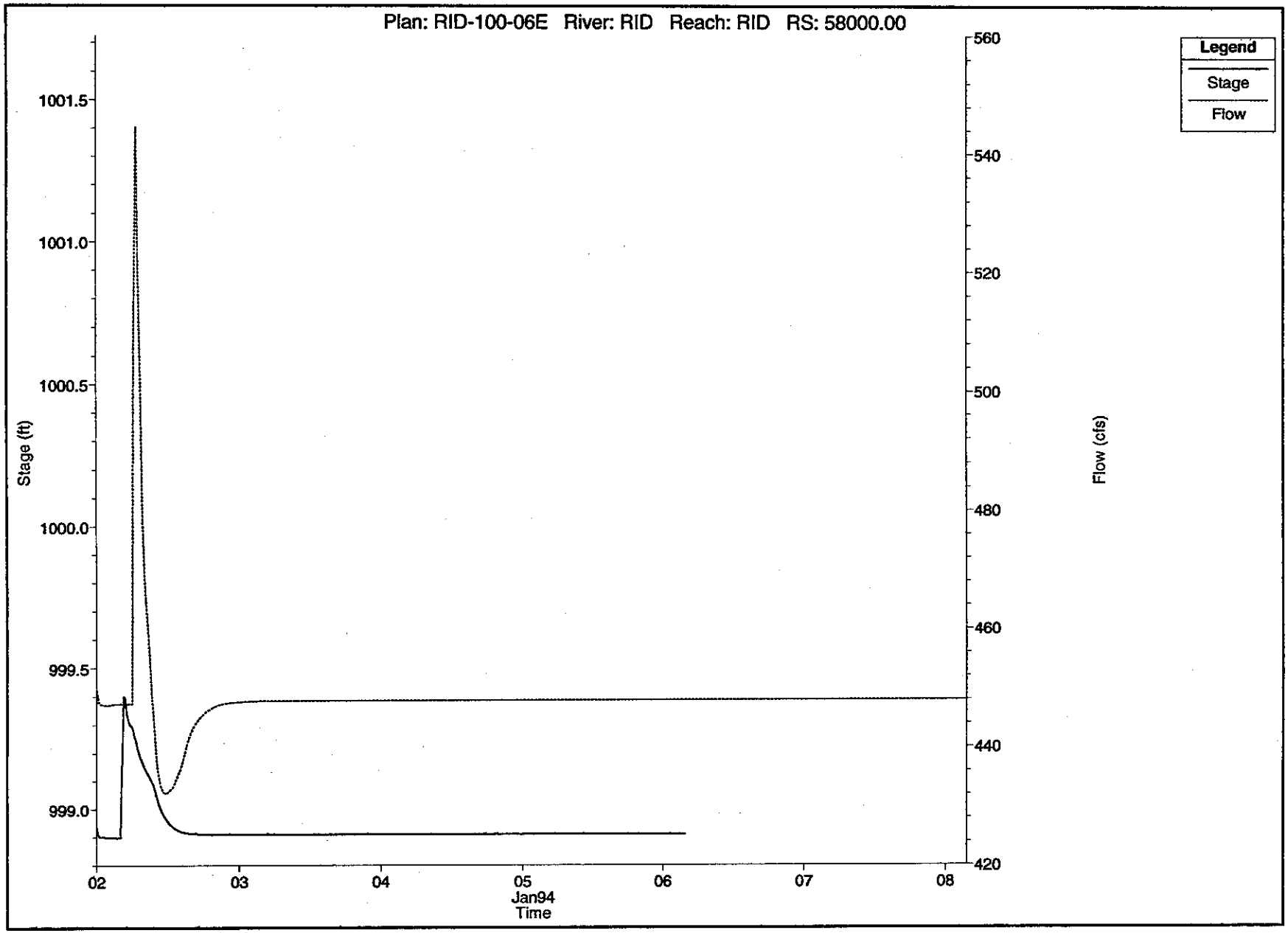
HEC-RAS Plan: BIC-100-06F River: BIC Reach: BIC Profile: Max WS (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
BIC	5800.000	Max WS	172.87	863.00	868.03		868.06	0.000185	1.37	125.78	30.05	0.12
BIC	5600.000	Max WS	171.47	862.78	867.99		868.02	0.000160	1.30	131.40	30.42	0.11
BIC	5599		Lat Struct									
BIC	5400.000	Max WS	169.91	862.57	867.96		867.99	0.000140	1.24	136.90	30.78	0.10
BIC	5200.000	Max WS	168.19	862.36	867.93		867.96	0.000122	1.18	142.57	31.15	0.10
BIC	5000.000	Max WS	175.06	862.15	867.91		867.93	0.000118	1.18	148.25	31.51	0.10
BIC	4800.000	Max WS	372.03	861.93	867.69		867.78	0.000534	2.51	148.29	31.51	0.20
BIC	4600.000	Max WS	508.77	861.72	867.34		867.54	0.001076	3.52	144.08	31.25	0.29
BIC	4400.000	Max WS	505.83	861.51	867.13		867.32	0.001075	3.51	143.96	31.24	0.29
BIC	4395		Lat Struct									
BIC	4200.000	Max WS	504.94	861.30	866.92		867.11	0.001074	3.51	143.84	31.23	0.29
BIC	4000.000	Max WS	504.11	861.08	866.70		866.89	0.001065	3.50	144.09	31.25	0.29
BIC	3800.000	Max WS	503.33	860.87	866.49		866.68	0.001063	3.49	144.04	31.24	0.29
BIC	3600.000	Max WS	502.96	860.66	866.28		866.47	0.001062	3.49	144.00	31.24	0.29
BIC	3400.000	Max WS	502.33	860.45	866.07		866.26	0.001060	3.49	143.96	31.24	0.29
BIC	3200.000	Max WS	502.04	860.23	865.86		866.05	0.001052	3.48	144.29	31.26	0.29
BIC	3000.000	Max WS	501.79	860.02	865.65		865.84	0.001050	3.48	144.31	31.26	0.29
BIC	2800.000	Max WS	501.74	859.81	865.44		865.63	0.001050	3.48	144.34	31.26	0.29
BIC	2600.000	Max WS	501.59	859.60	865.23		865.42	0.001048	3.47	144.37	31.26	0.28
BIC	2400.000	Max WS	501.57	859.38	865.02	861.95	865.21	0.001064	3.47	144.68	31.28	0.28

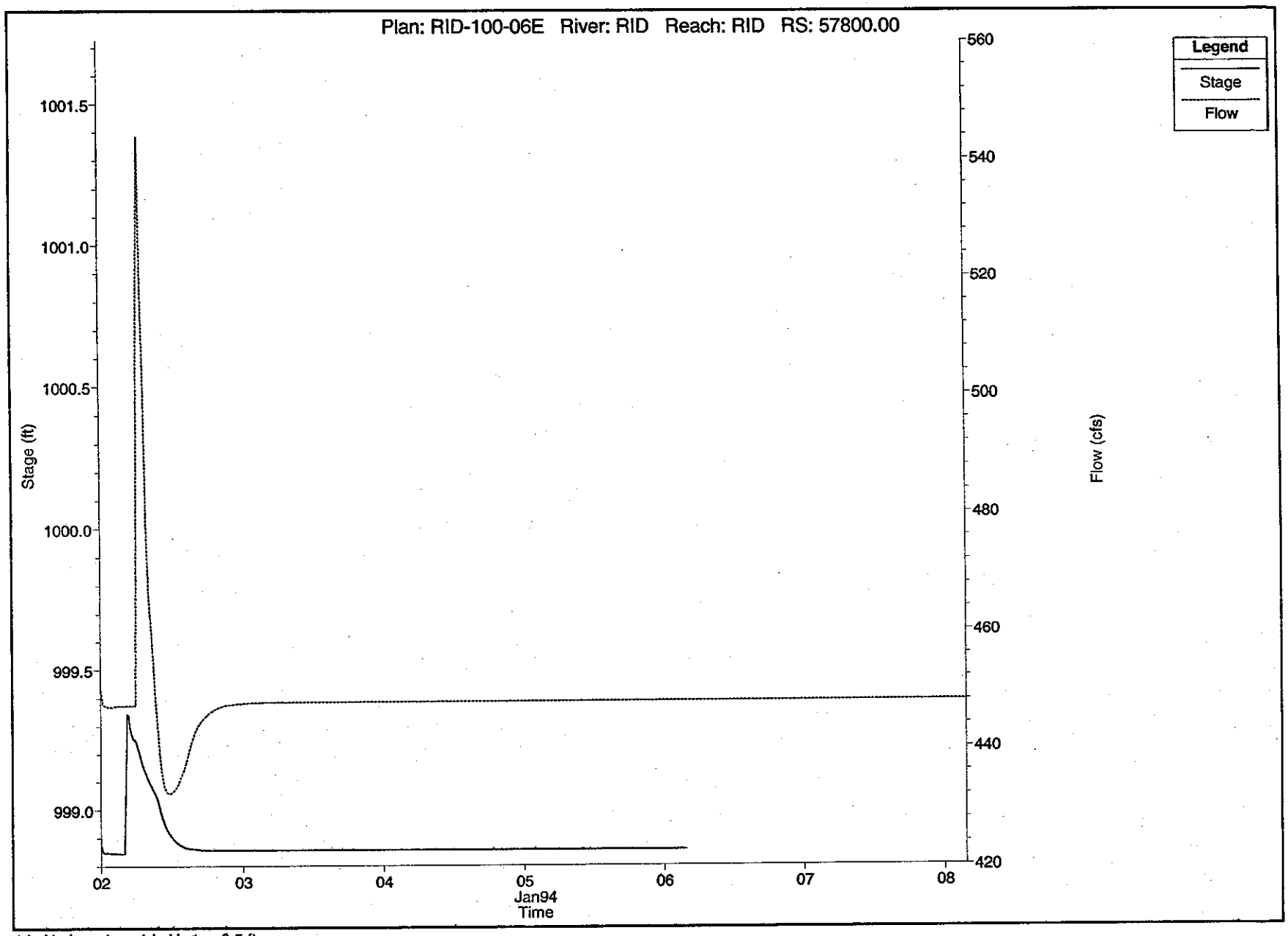
E.5.7 Stage and Flow Hydrographs for RID – Existing 100-Year, 6-Hour Event



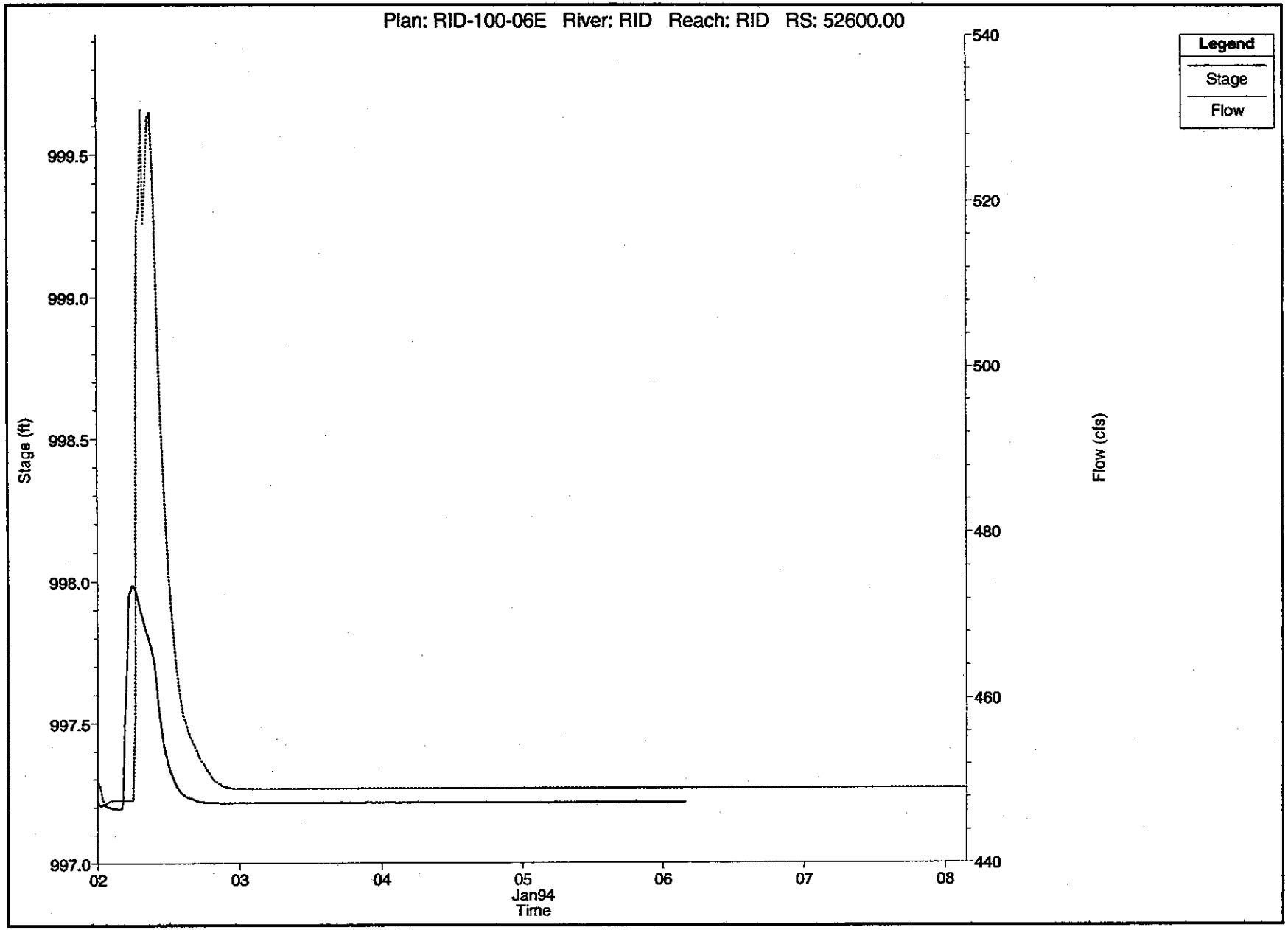
1 in Horiz. = 1 1 in Vert. = 0.25 ft



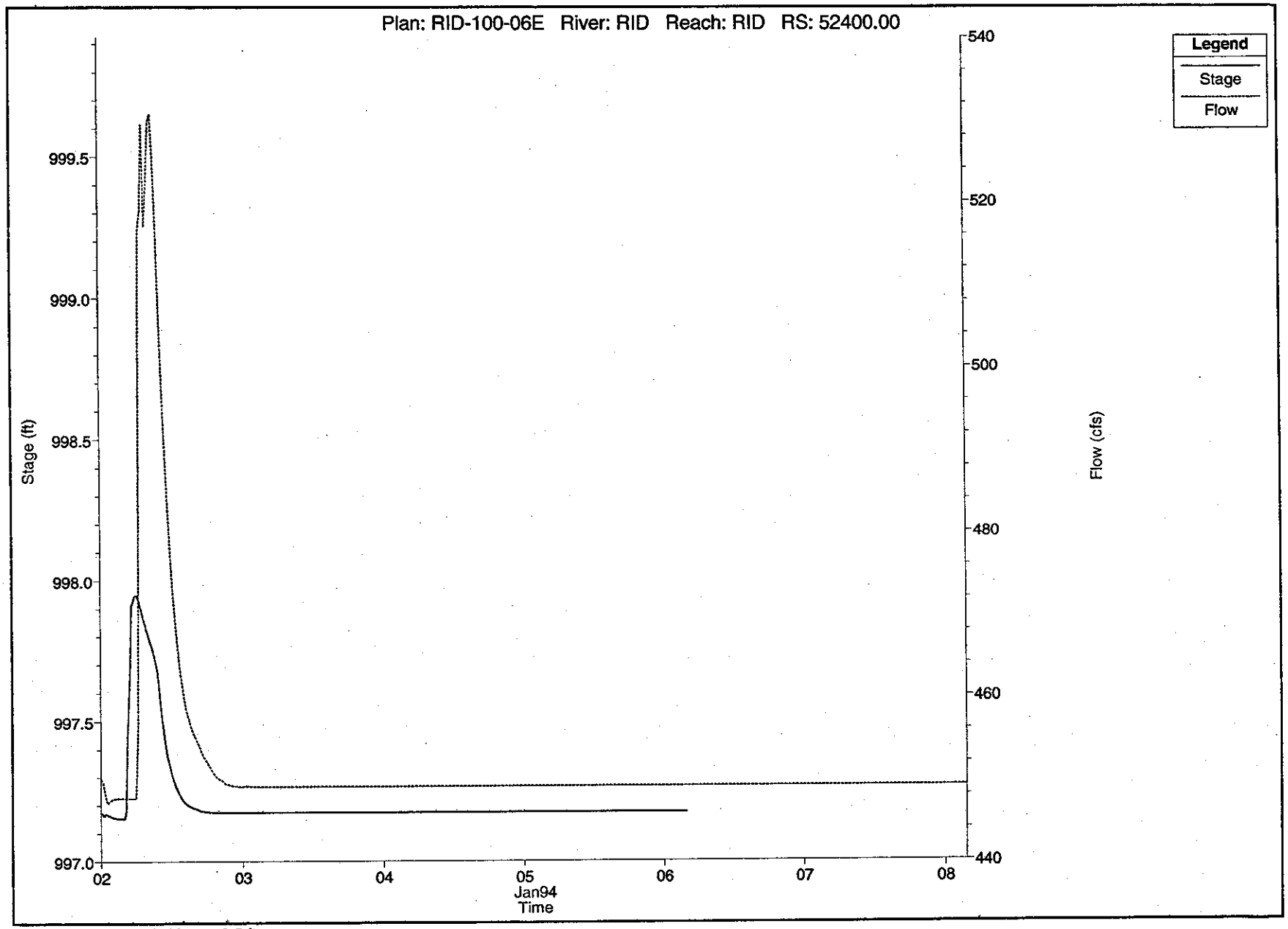
1 in Horiz. = 1 1 in Vert. = 0.5 ft



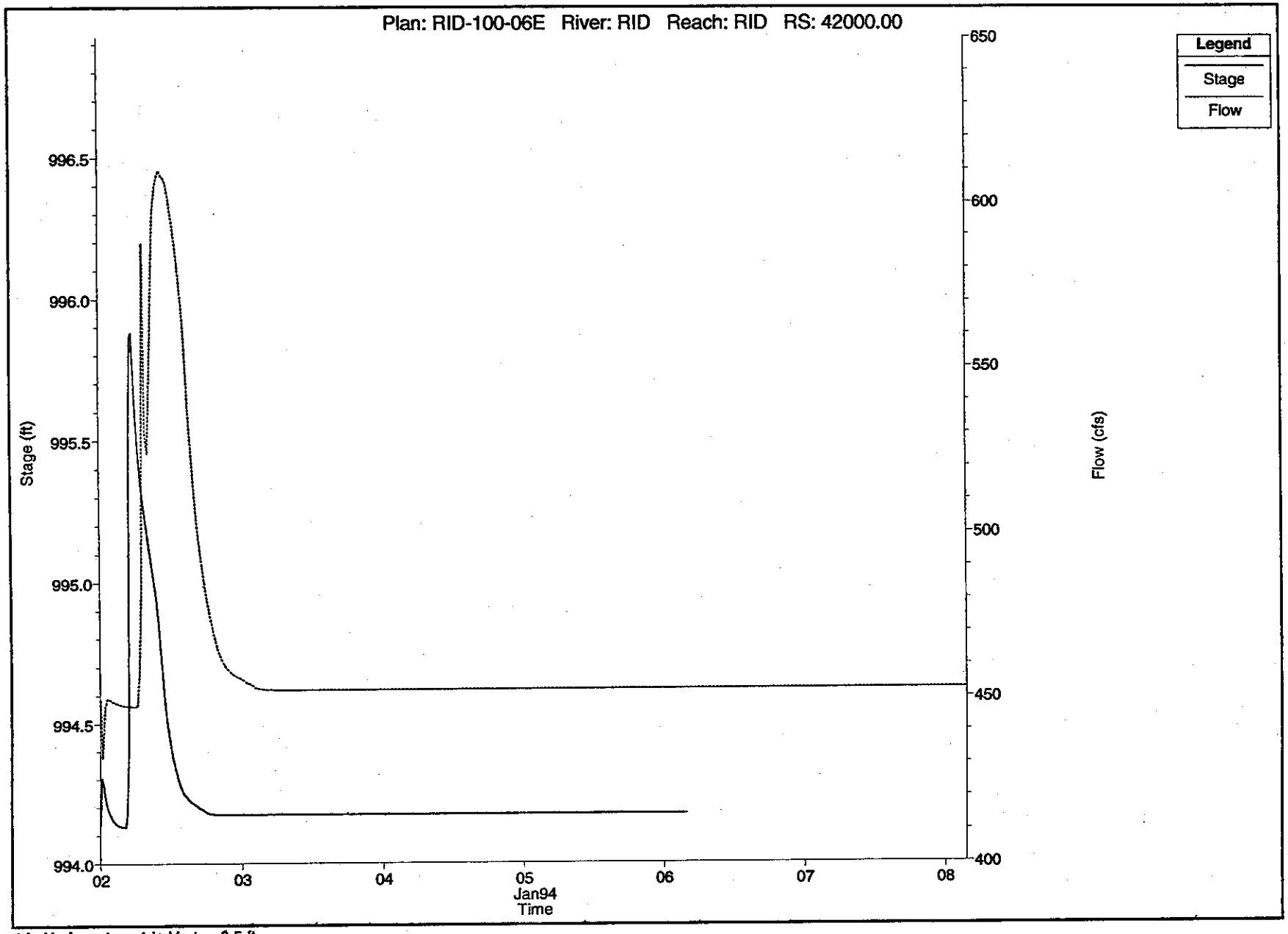
1 in Horiz. = 1 1 in Vert. = 0.5 ft



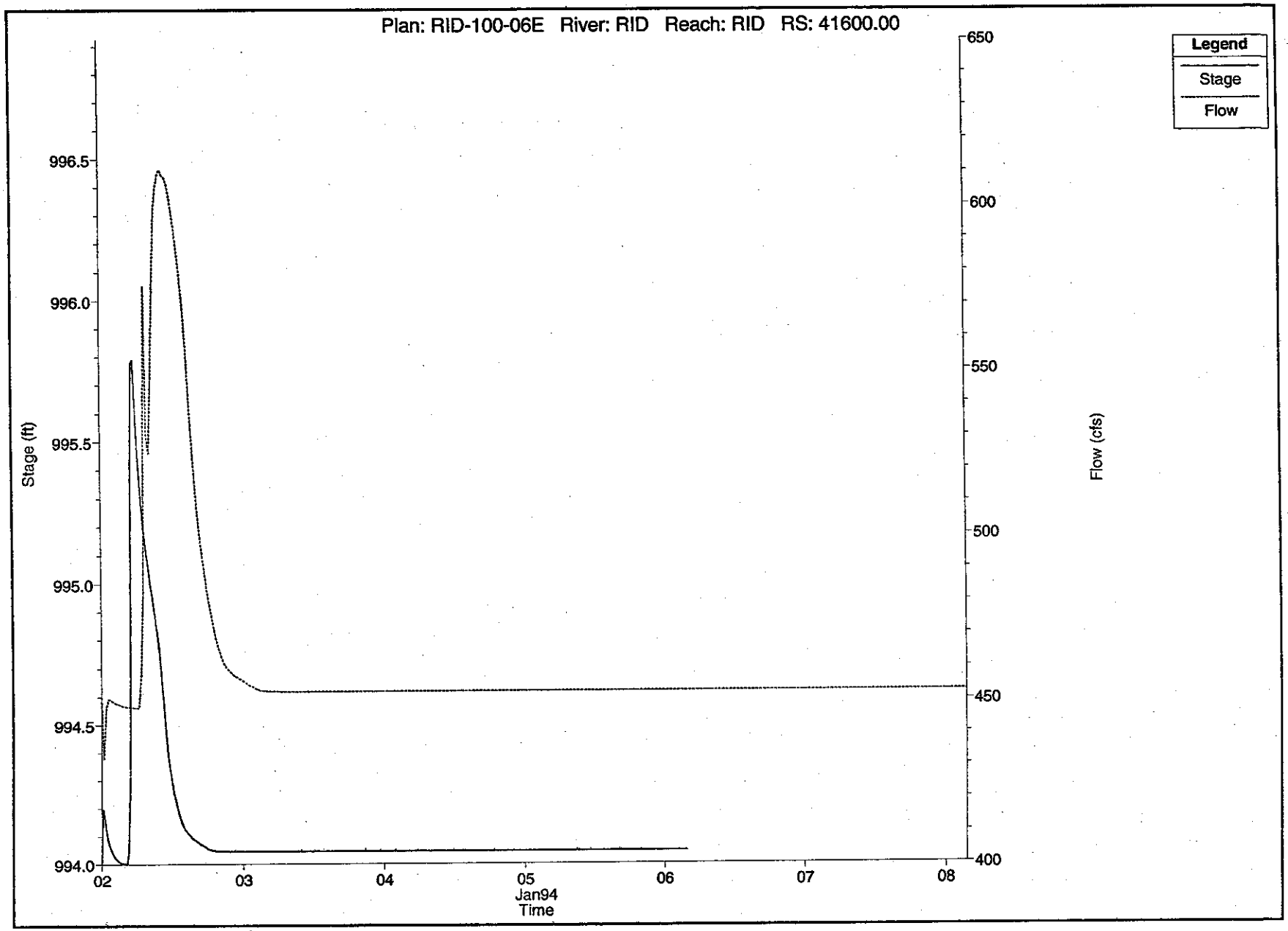
1 in Horiz. = 1 1 in Vert. = 0.5 ft



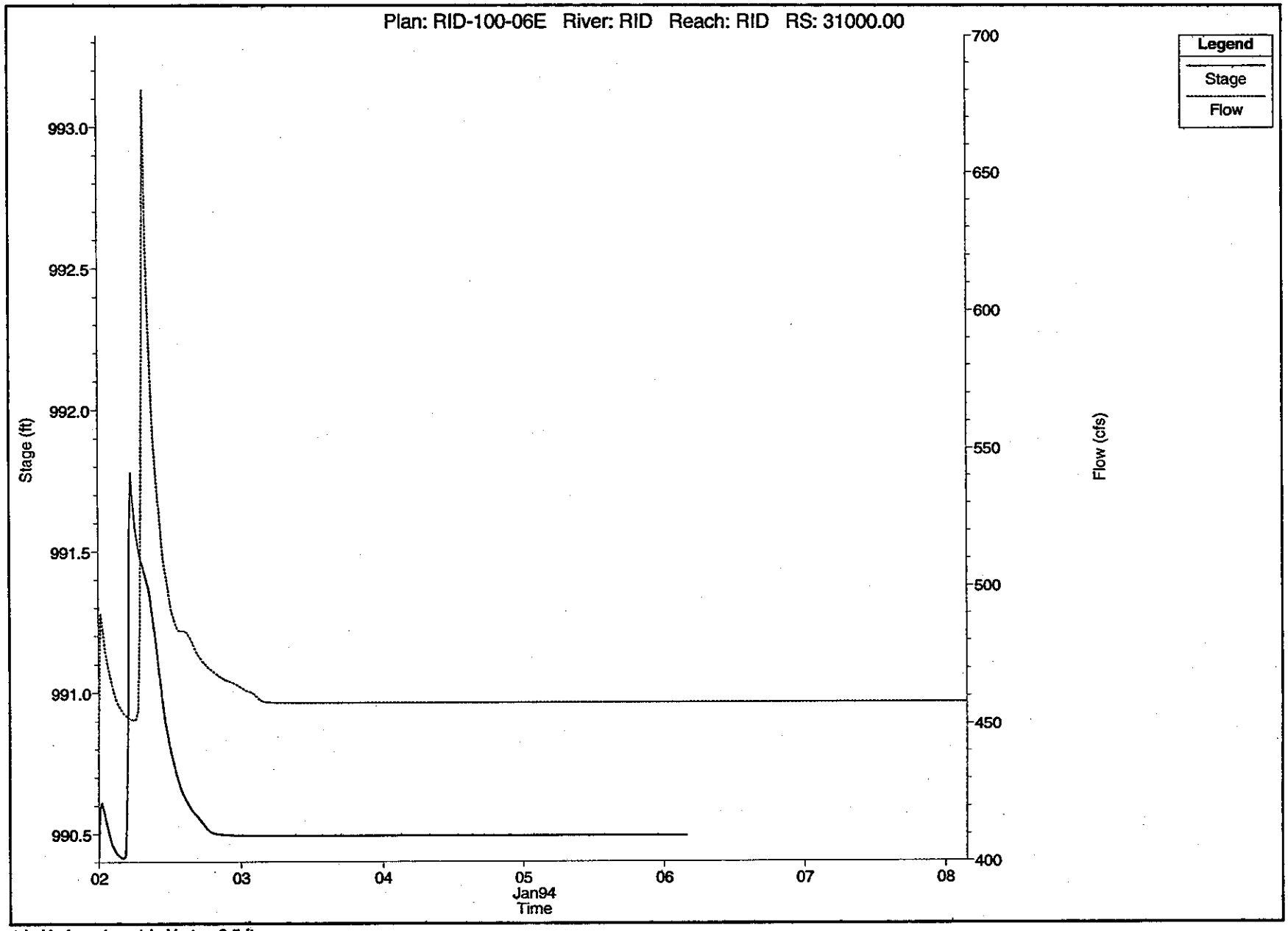
1 in Horiz. = 1 1 in Vert. = 0.5 ft



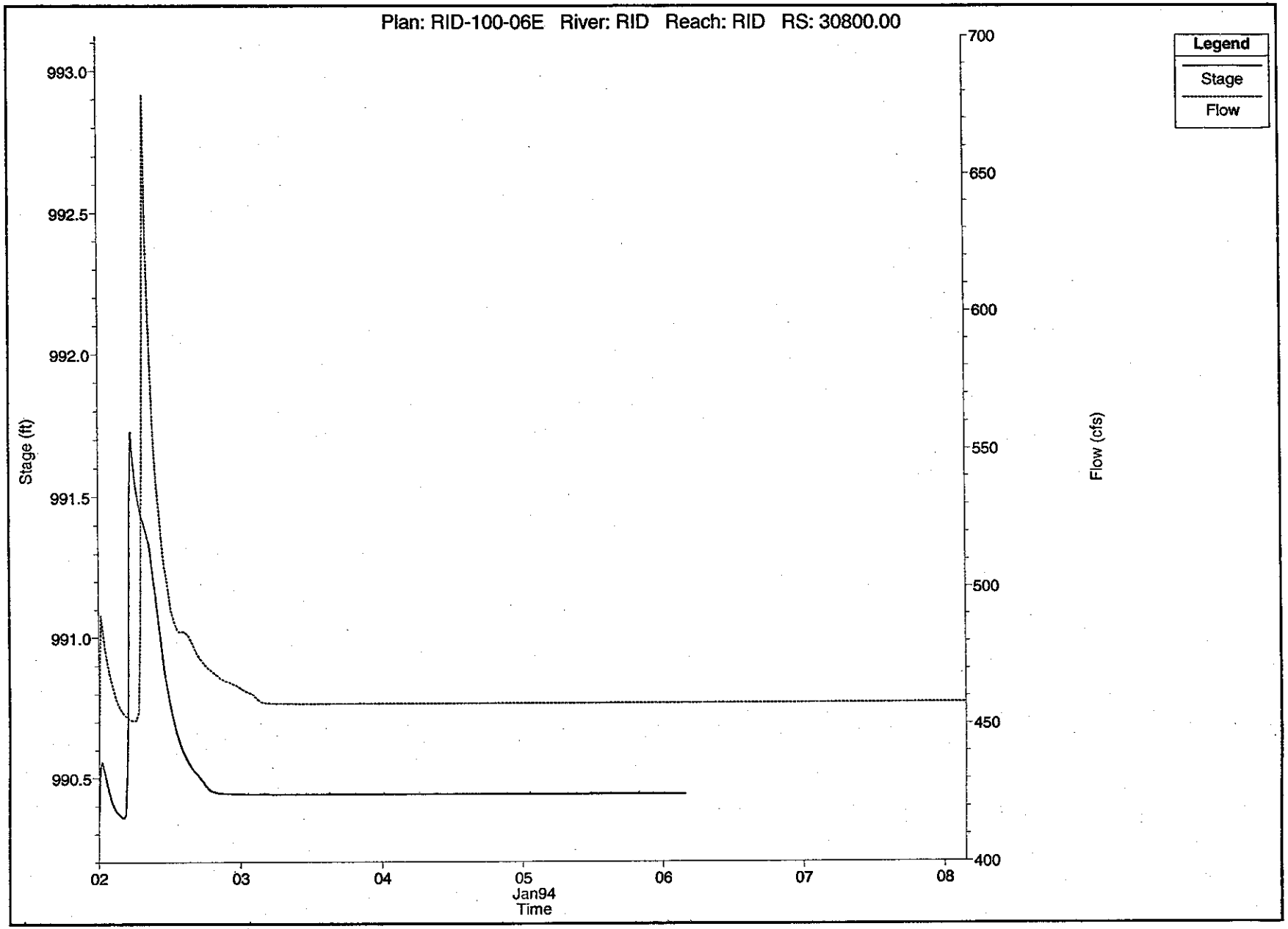
1 in Horiz. = 1 1 in Vert. = 0.5 ft



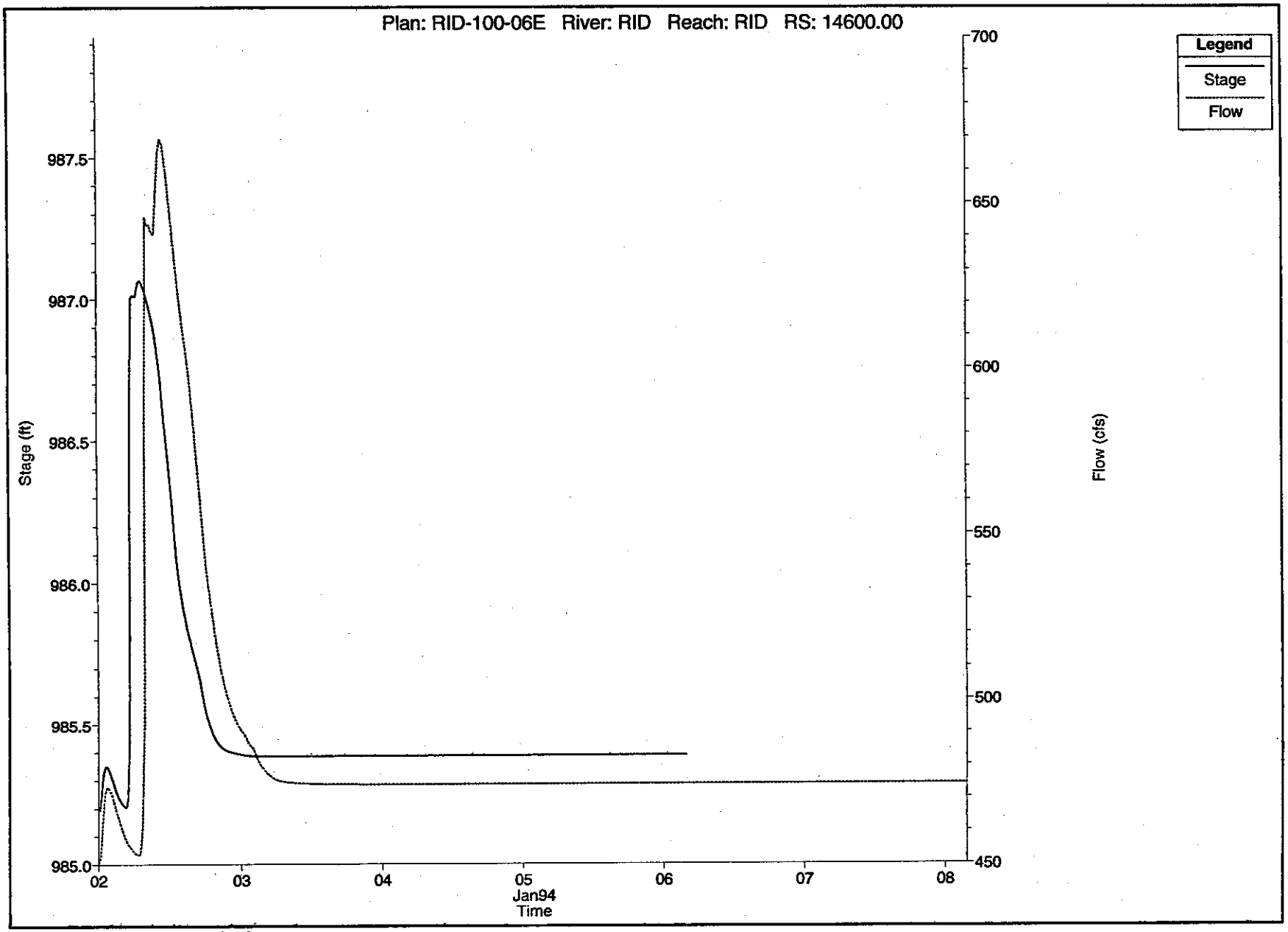
1 in Horiz. = 1 1 in Vert. = 0.5 ft



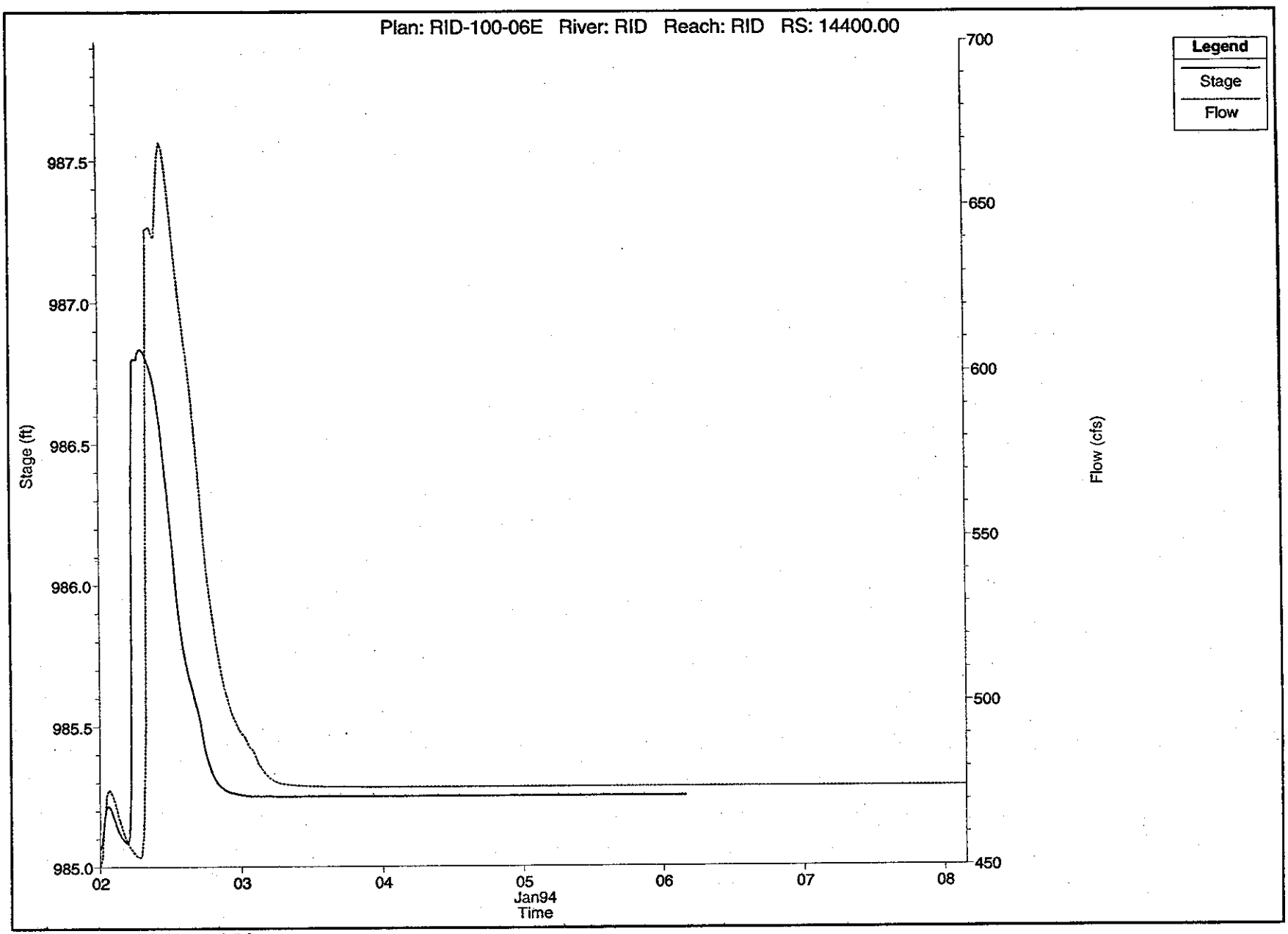
1 in Horiz. = 1 1 in Vert. = 0.5 ft



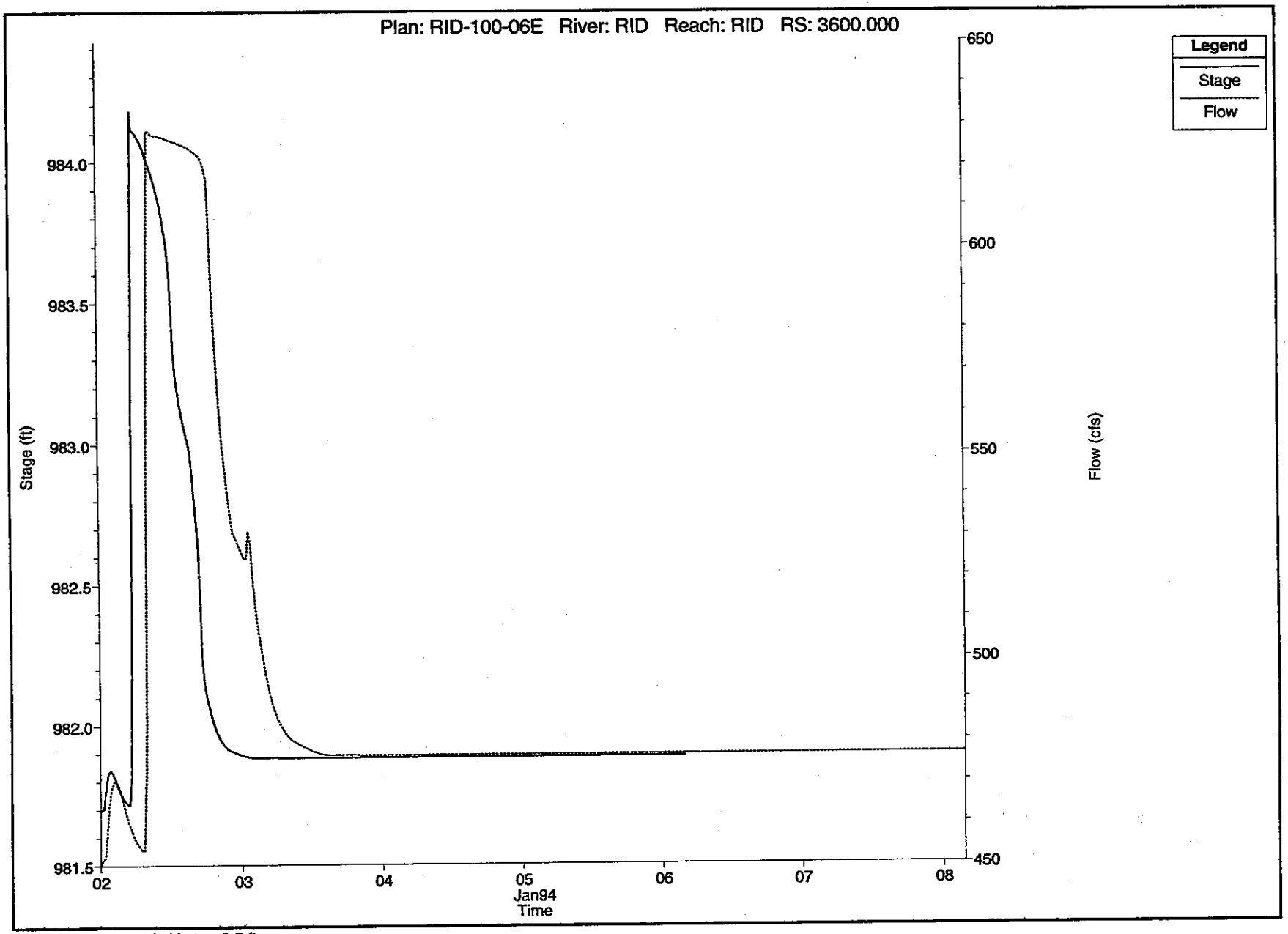
1 in Horiz. = 1 1 in Vert. = 0.5 ft



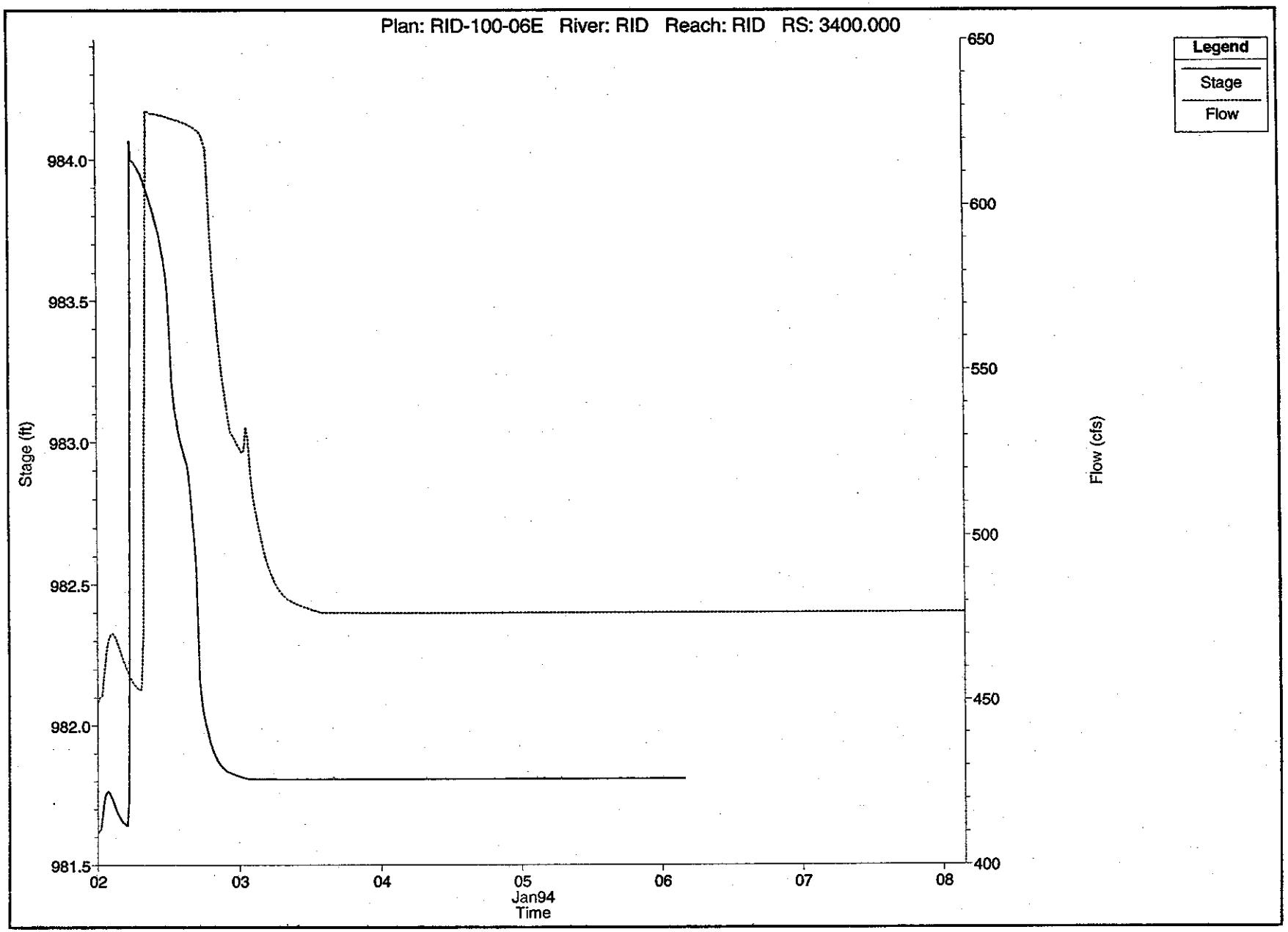
1 in Horiz. = 1 1 in Vert. = 0.5 ft



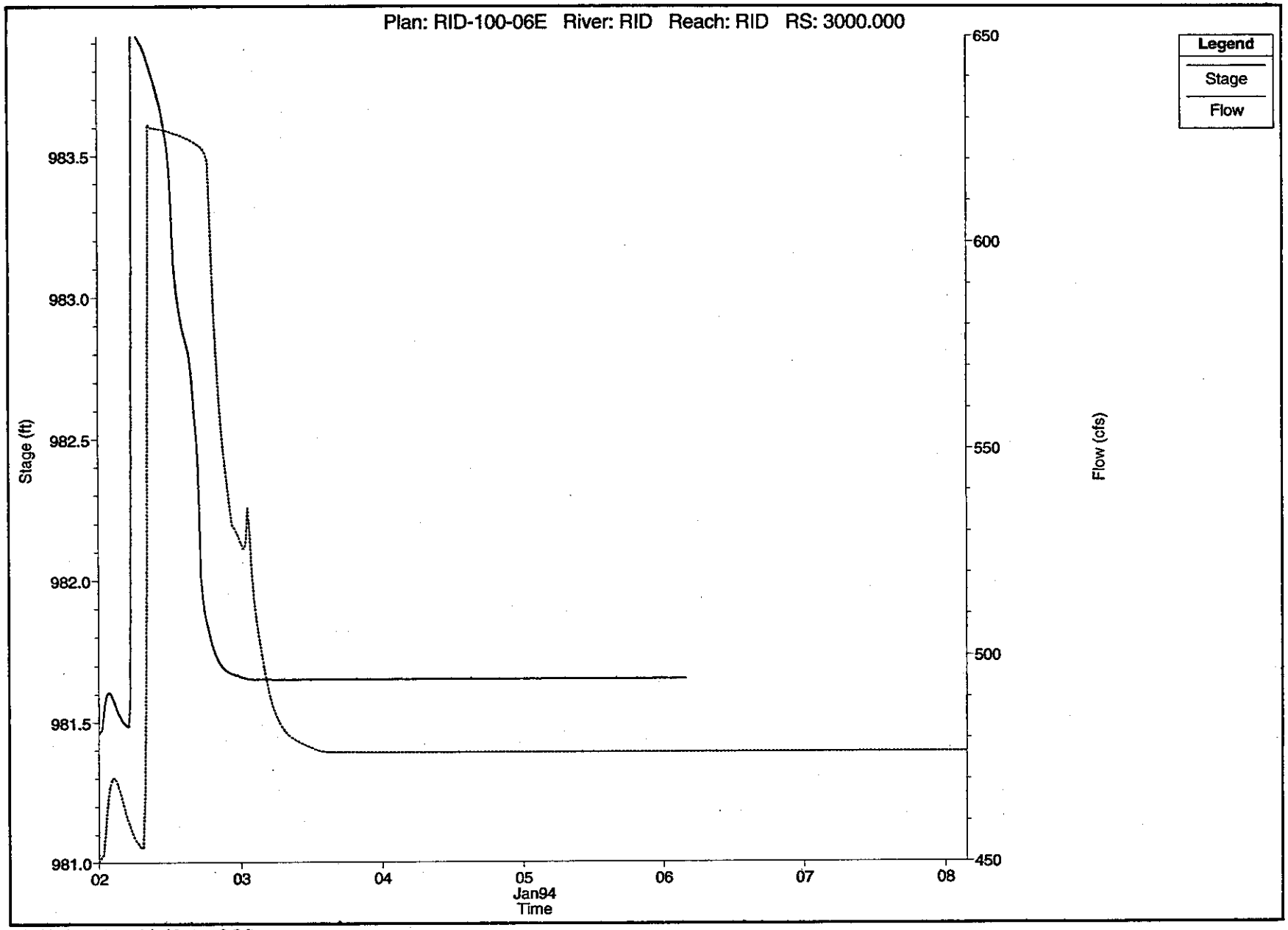
1 in Horiz. = 1 1 in Vert. = 0.5 ft



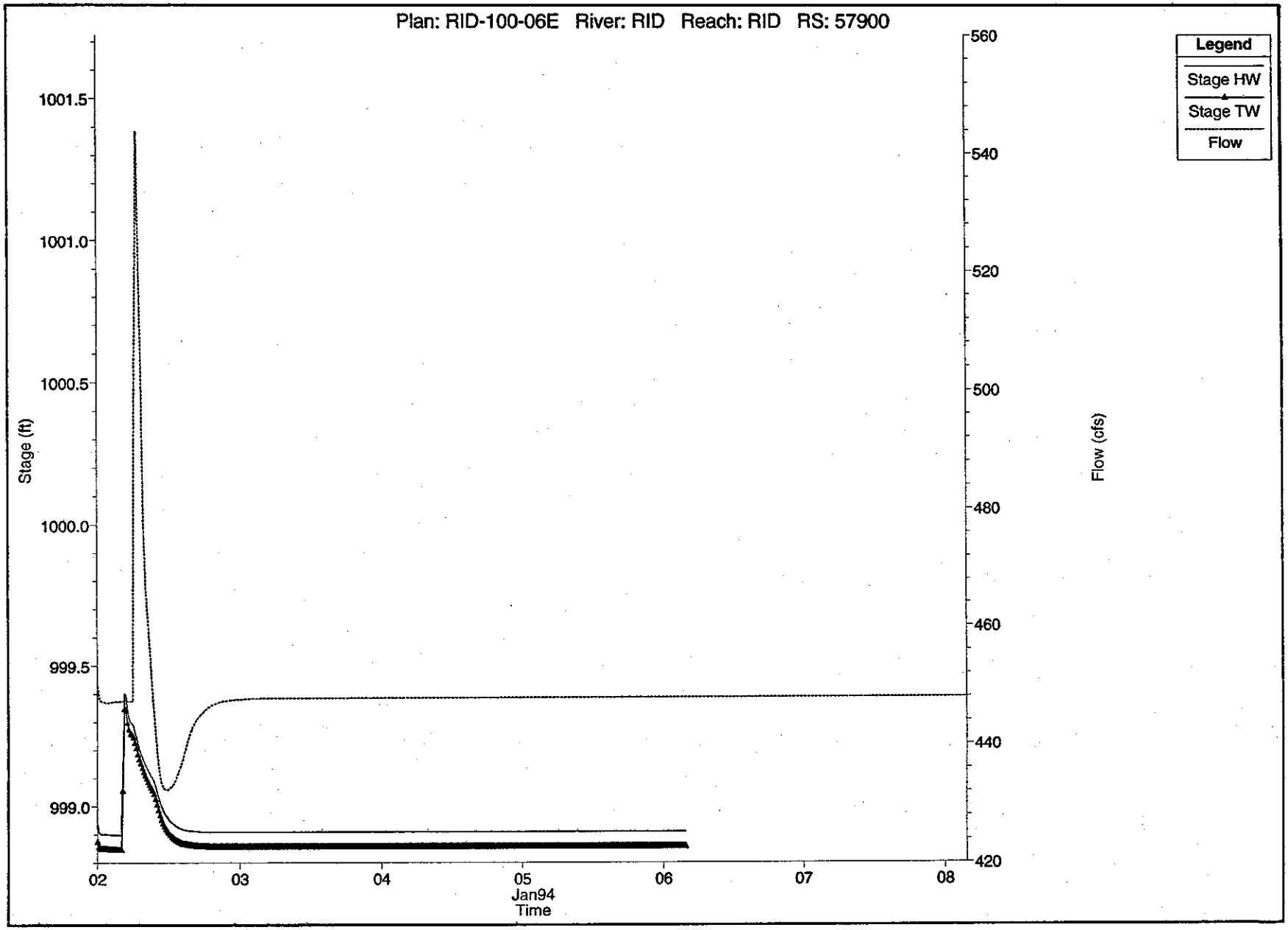
1 in Horiz. = 1 1 in Vert. = 0.5 ft



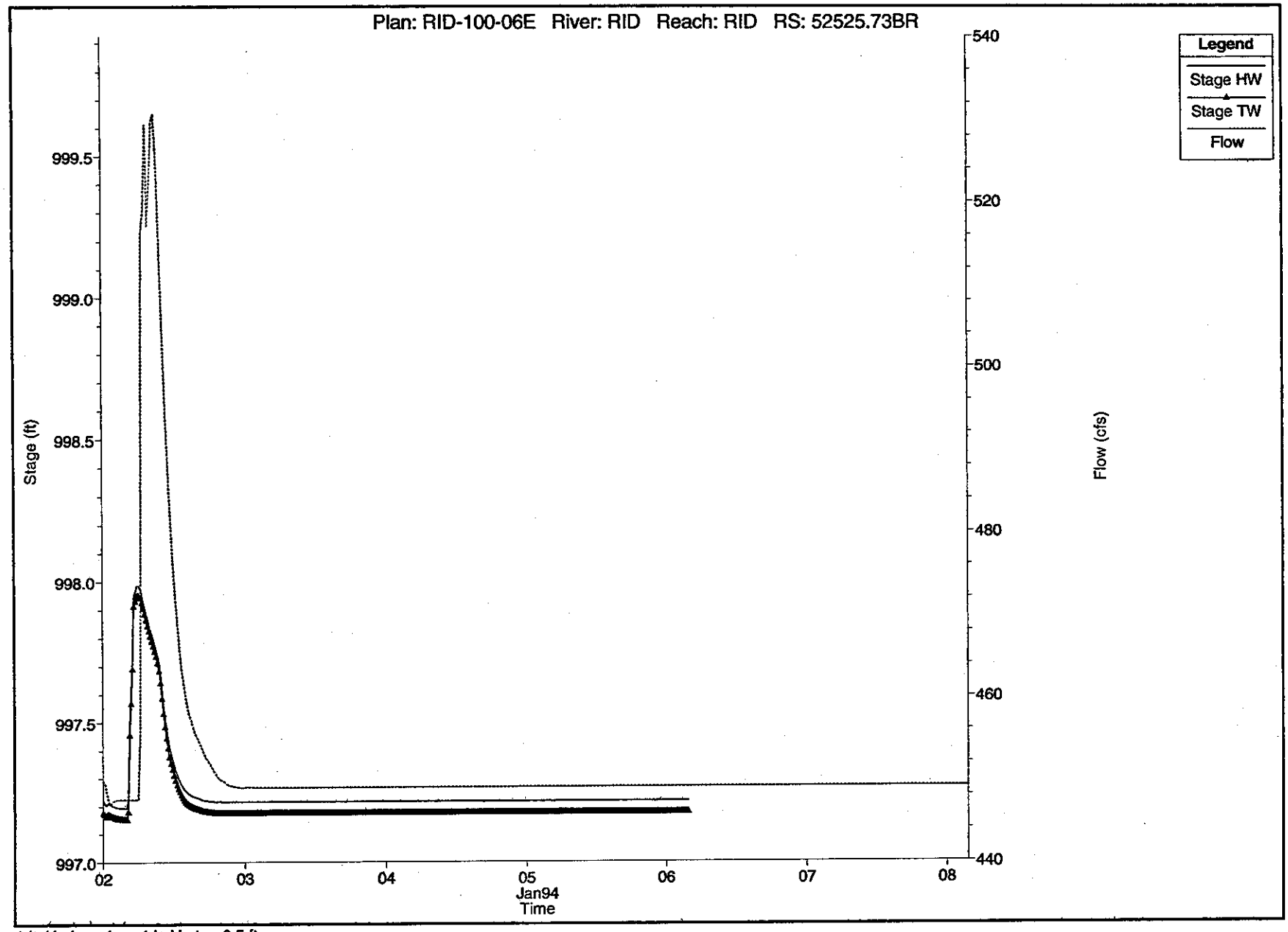
1 in Horiz. = 1 1 in Vert. = 0.5 ft



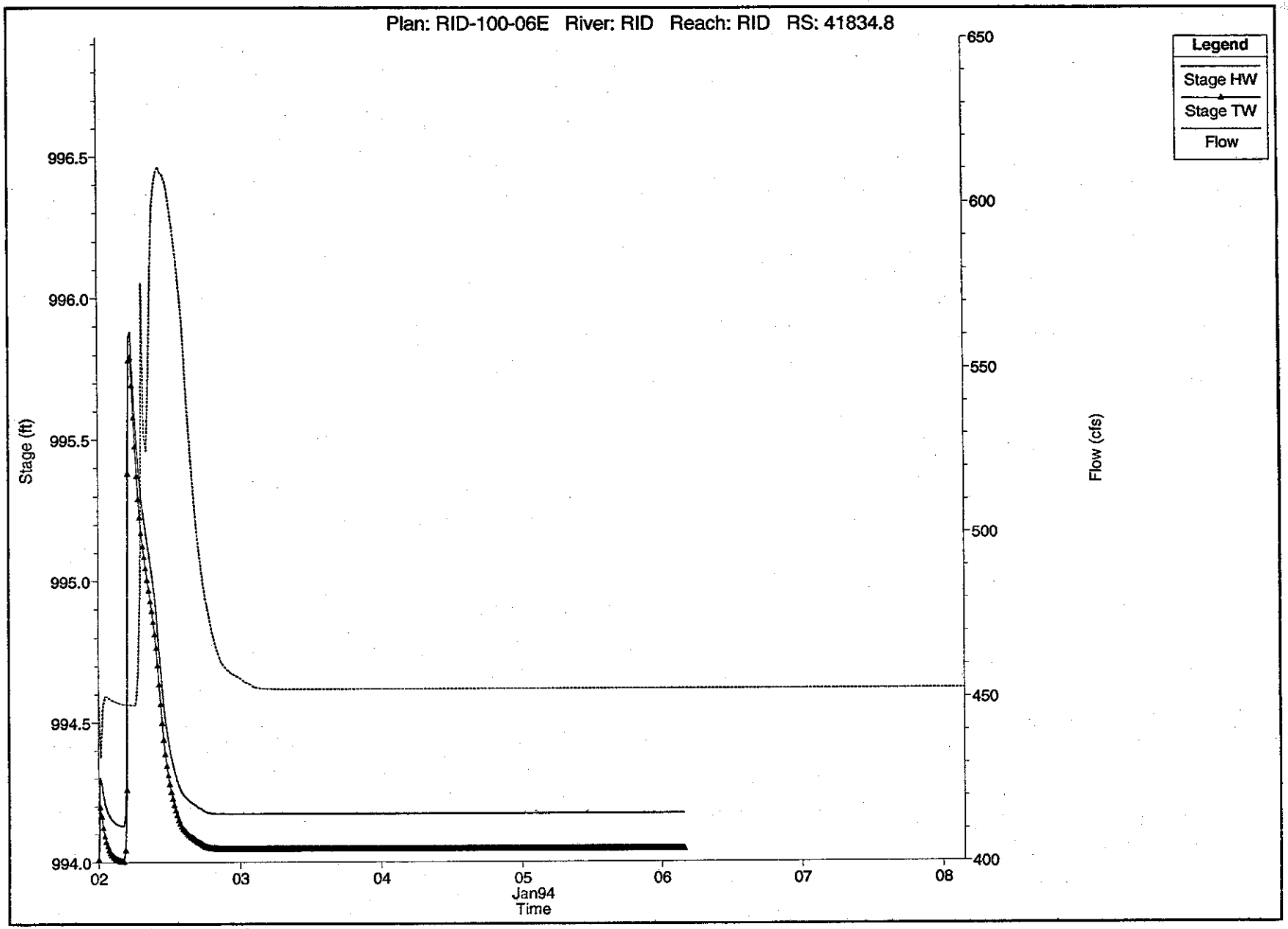
1 in Horiz. = 1 1 in Vert. = 0.5 ft



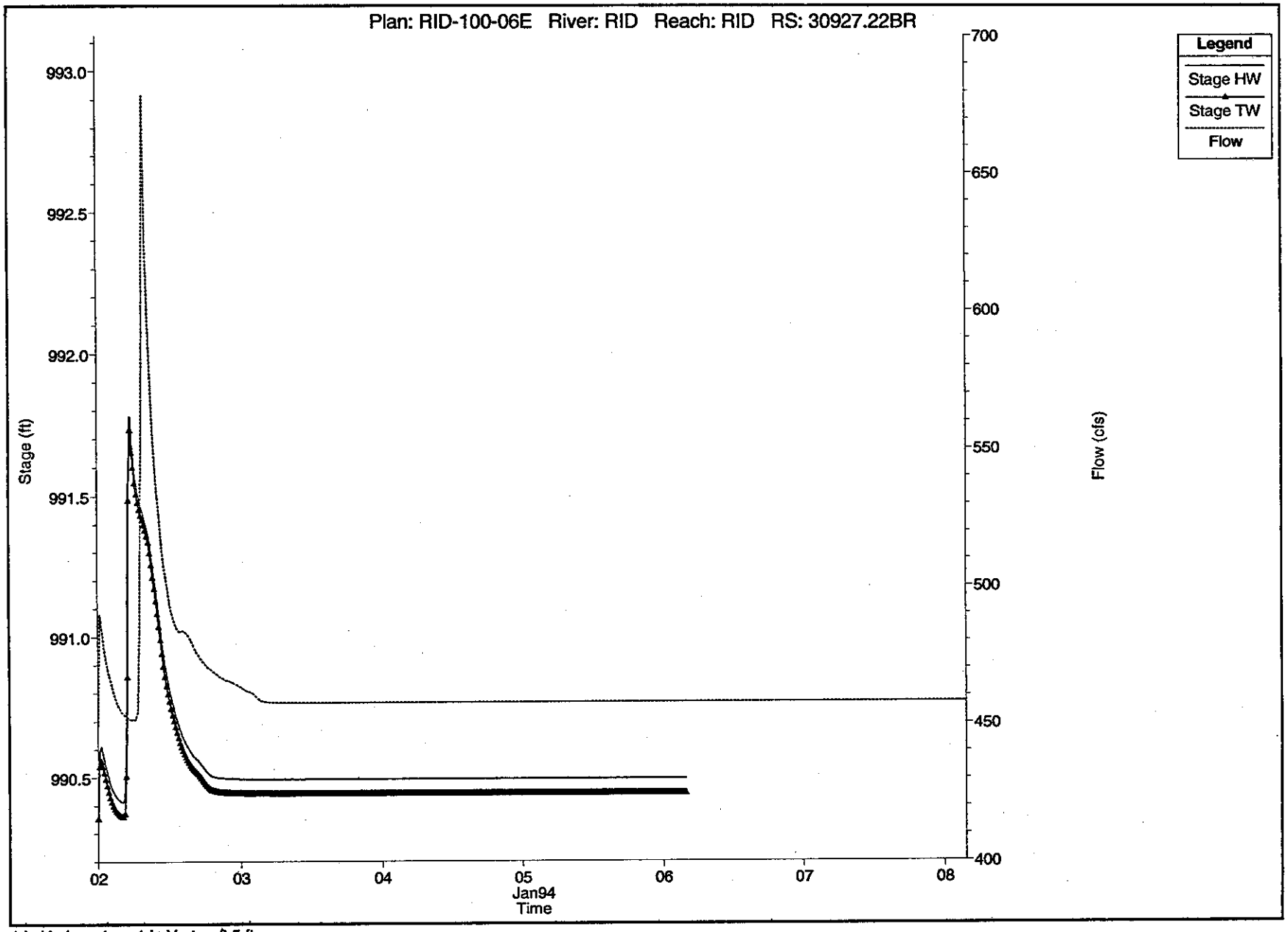
1 in Horiz. = 1 1 in Vert. = 0.5 ft



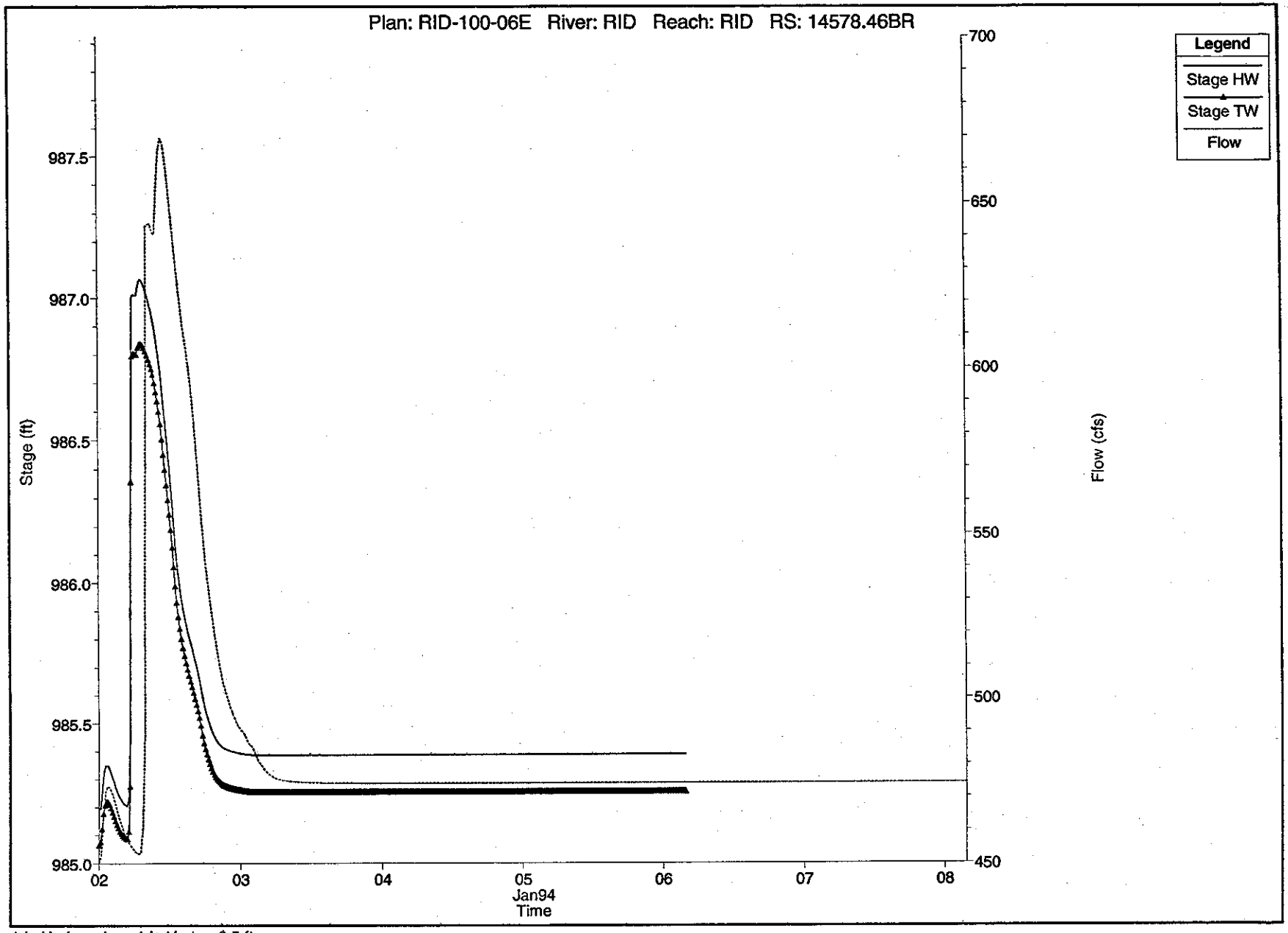
1 in Horiz. = 1 1 in Vert. = 0.5 ft



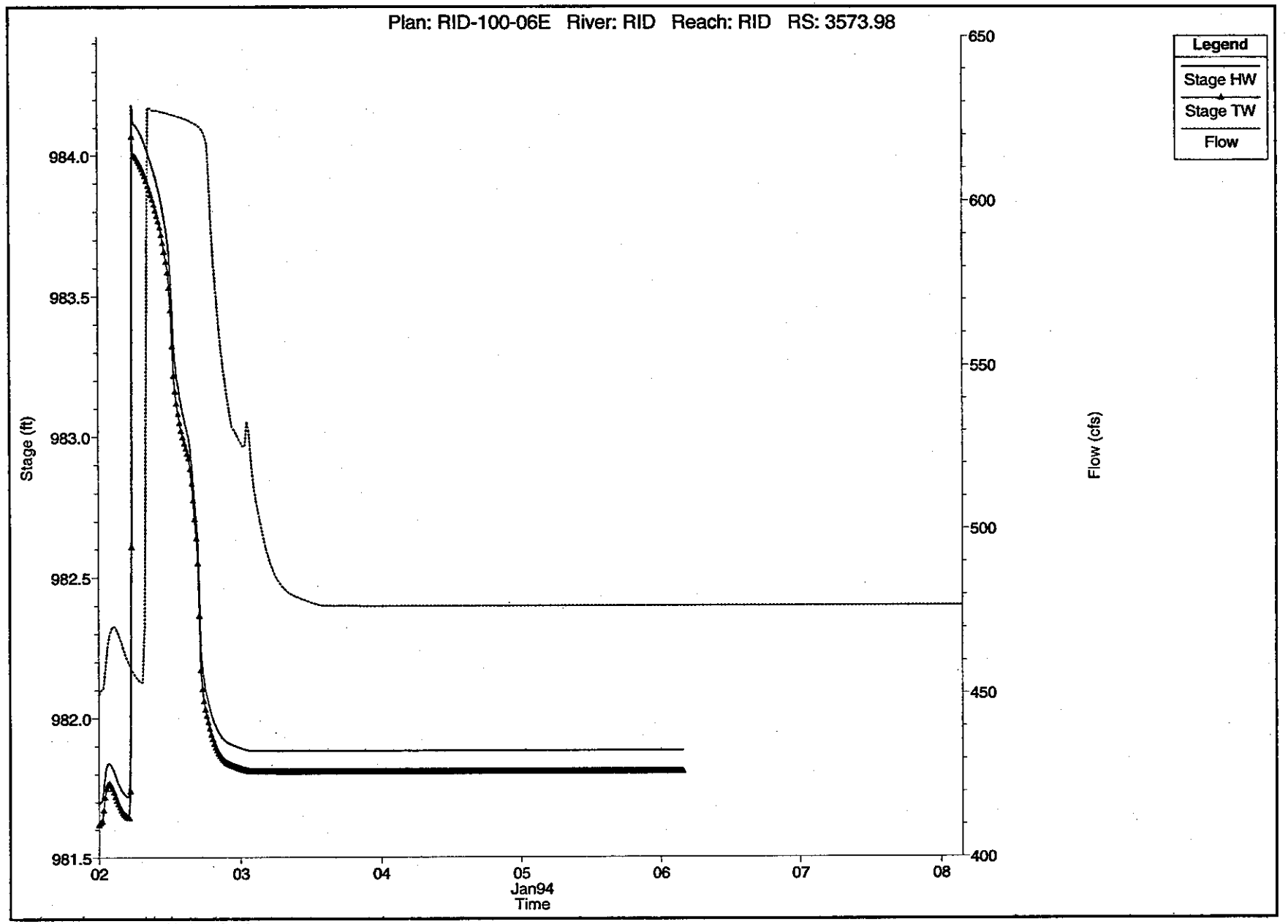
1 in Horiz. = 1 1 in Vert. = 0.5 ft



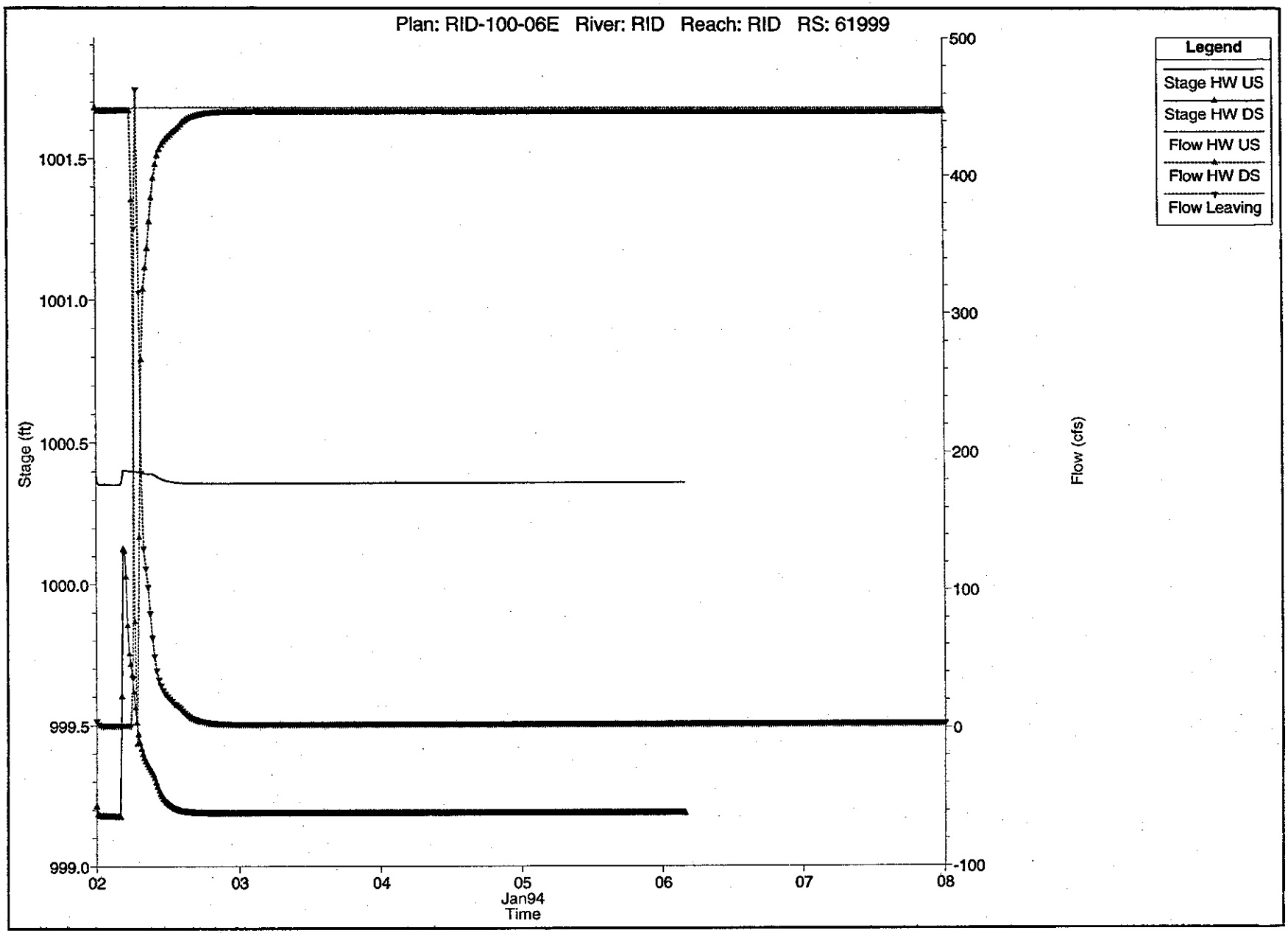
1 in Horiz. = 1 1 in Vert. = 0.5 ft



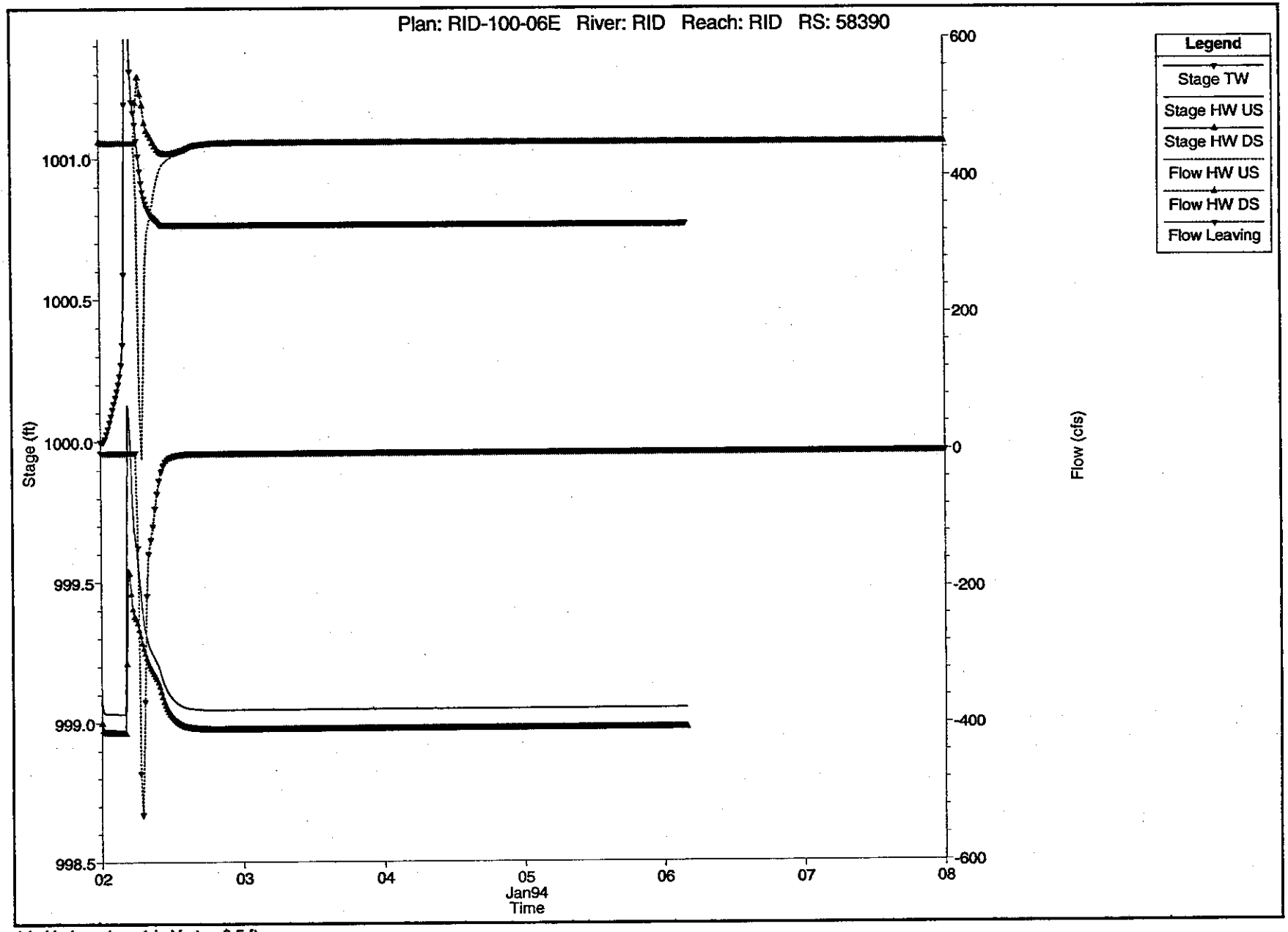
1 in Horiz. = 1 1 in Vert. = 0.5 ft



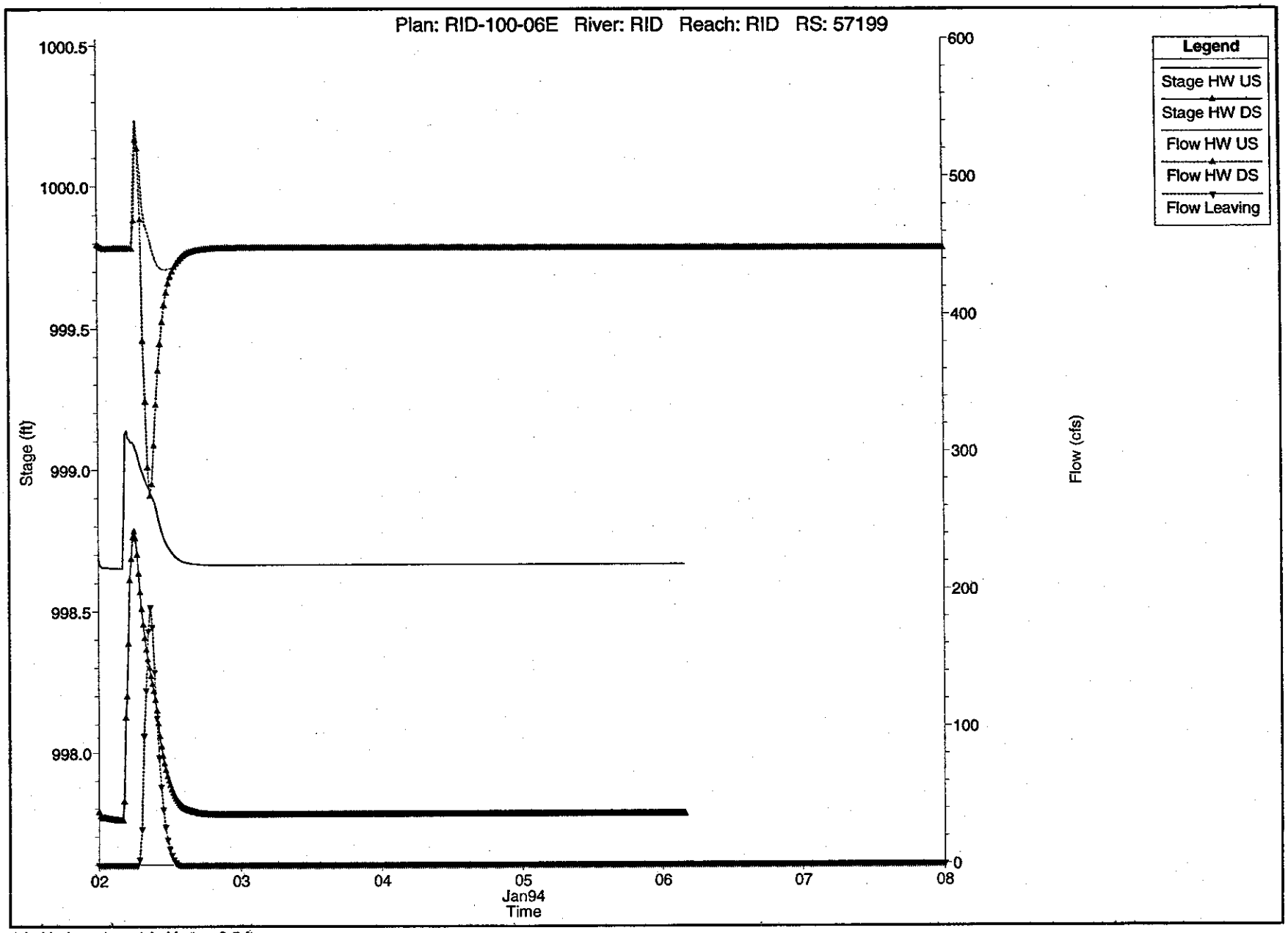
1 in Horiz. = 1 1 in Vert. = 0.5 ft



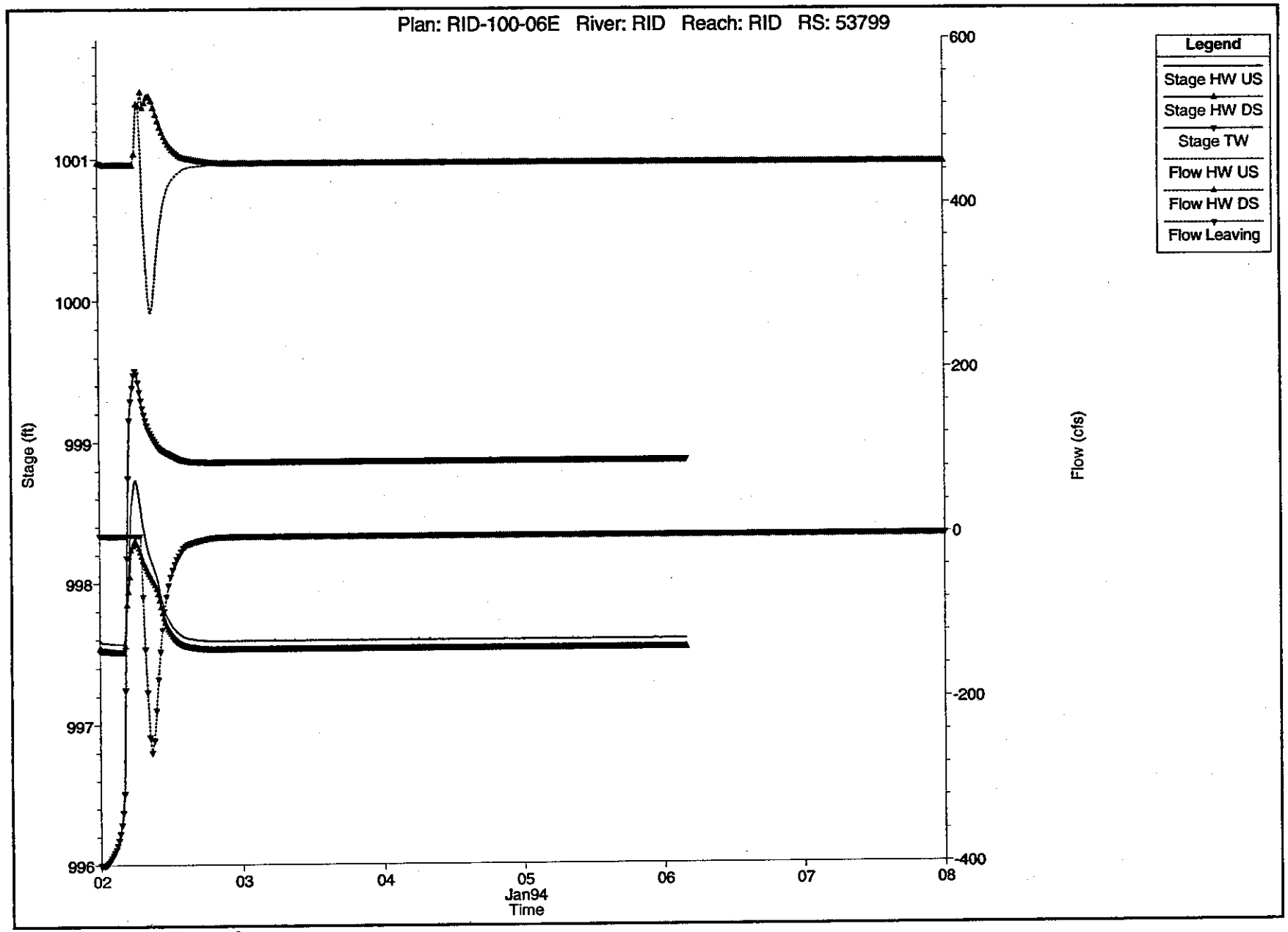
1 in Horiz. = 1 1 in Vert. = 0.5 ft



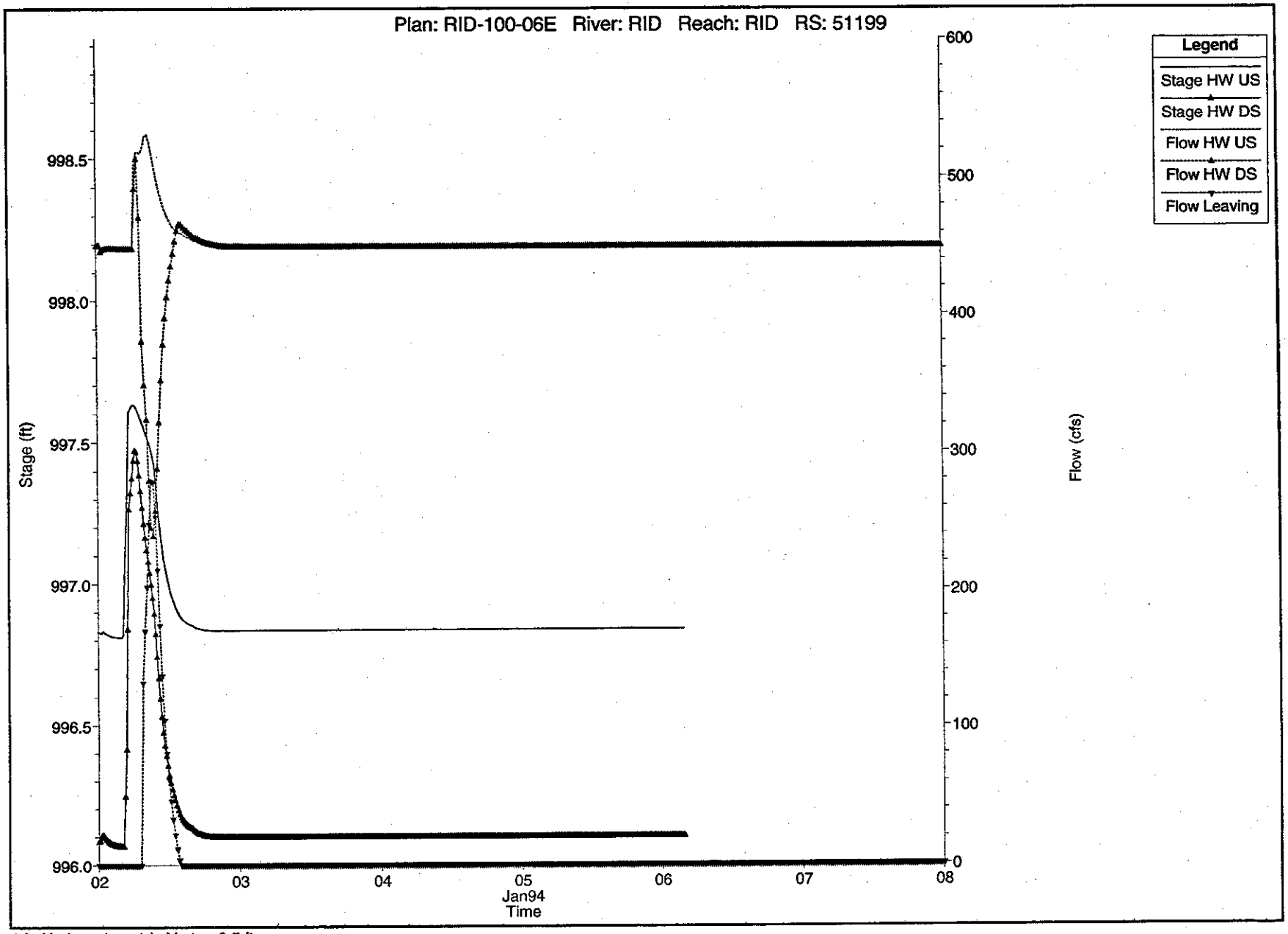
1 in Horiz. = 1 1 in Vert. = 0.5 ft



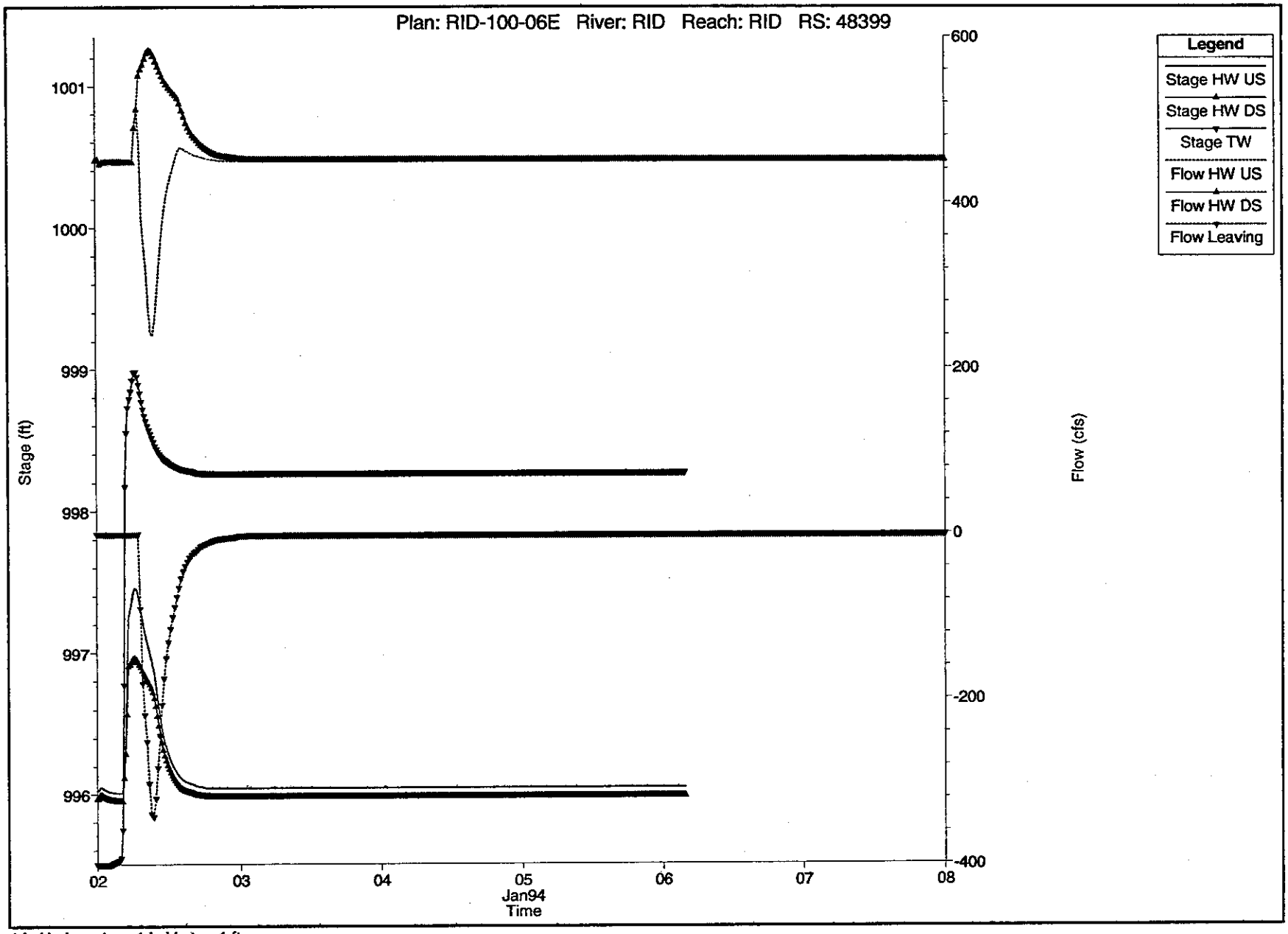
1 in Horiz. = 1 1 in Vert. = 0.5 ft



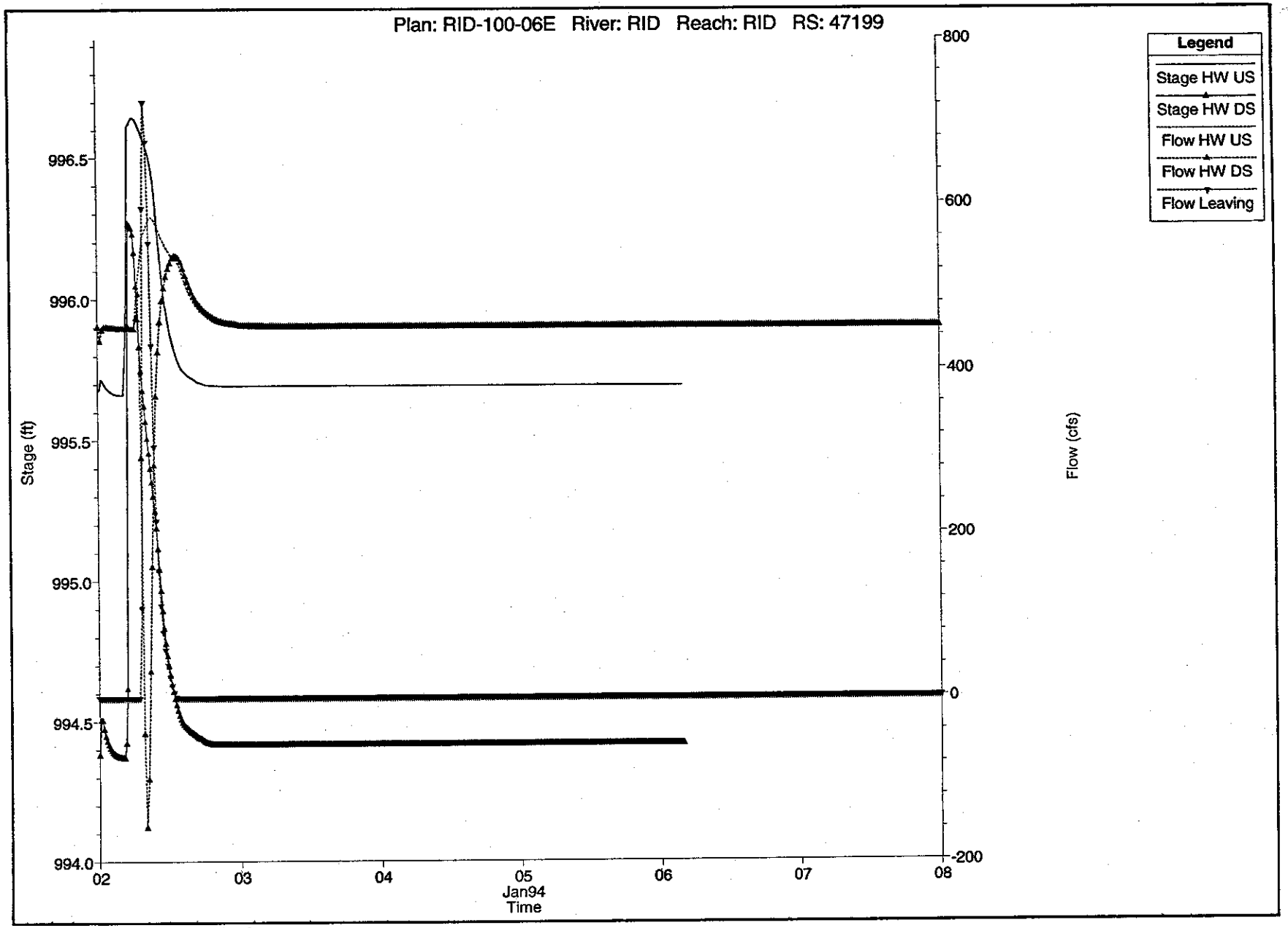
1 in Horiz. = 1 1 in Vert. = 1 ft



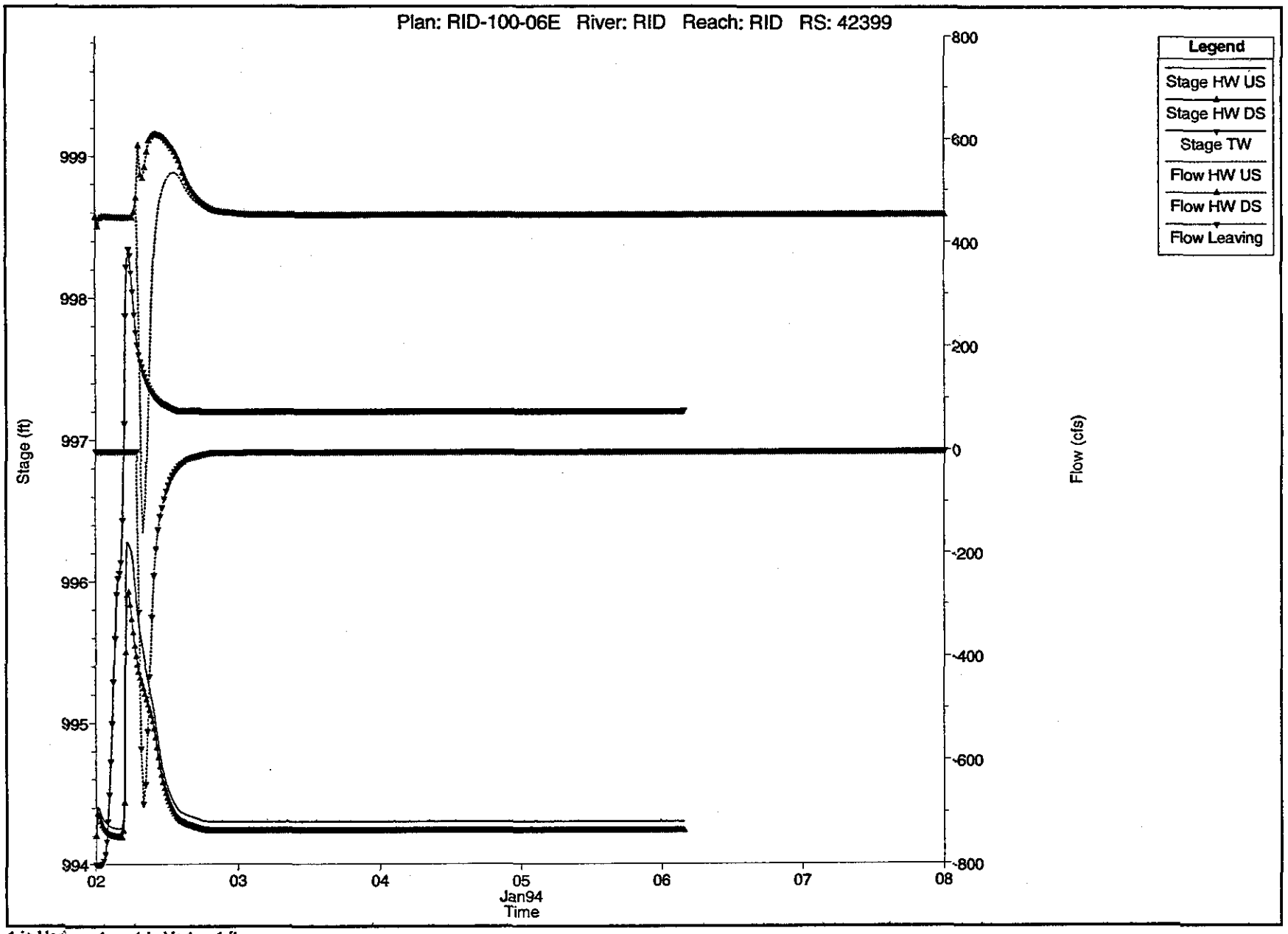
1 in Horiz. = 1 1 in Vert. = 0.5 ft



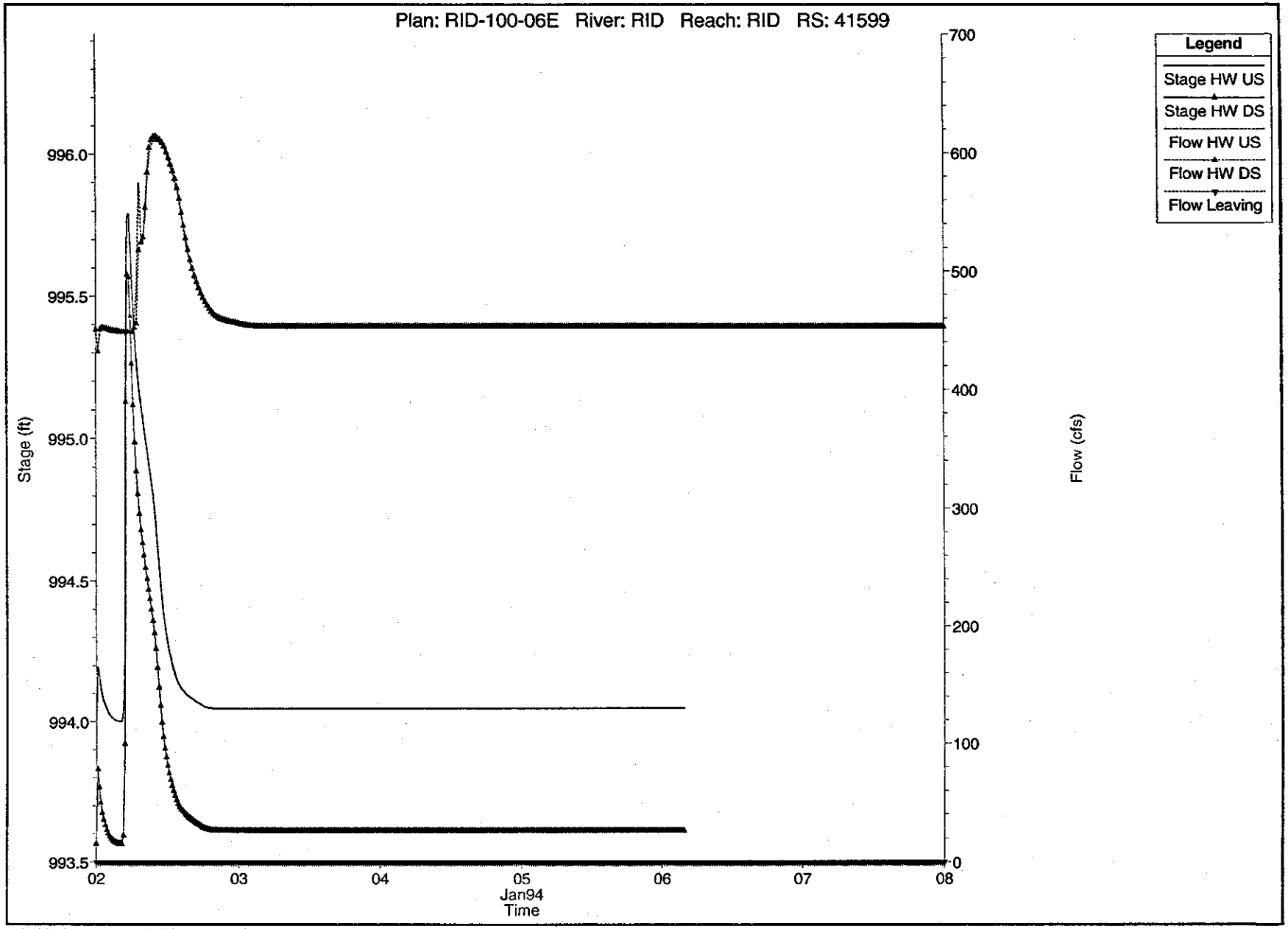
1 in Horiz. = 1 1 in Vert. = 1 ft



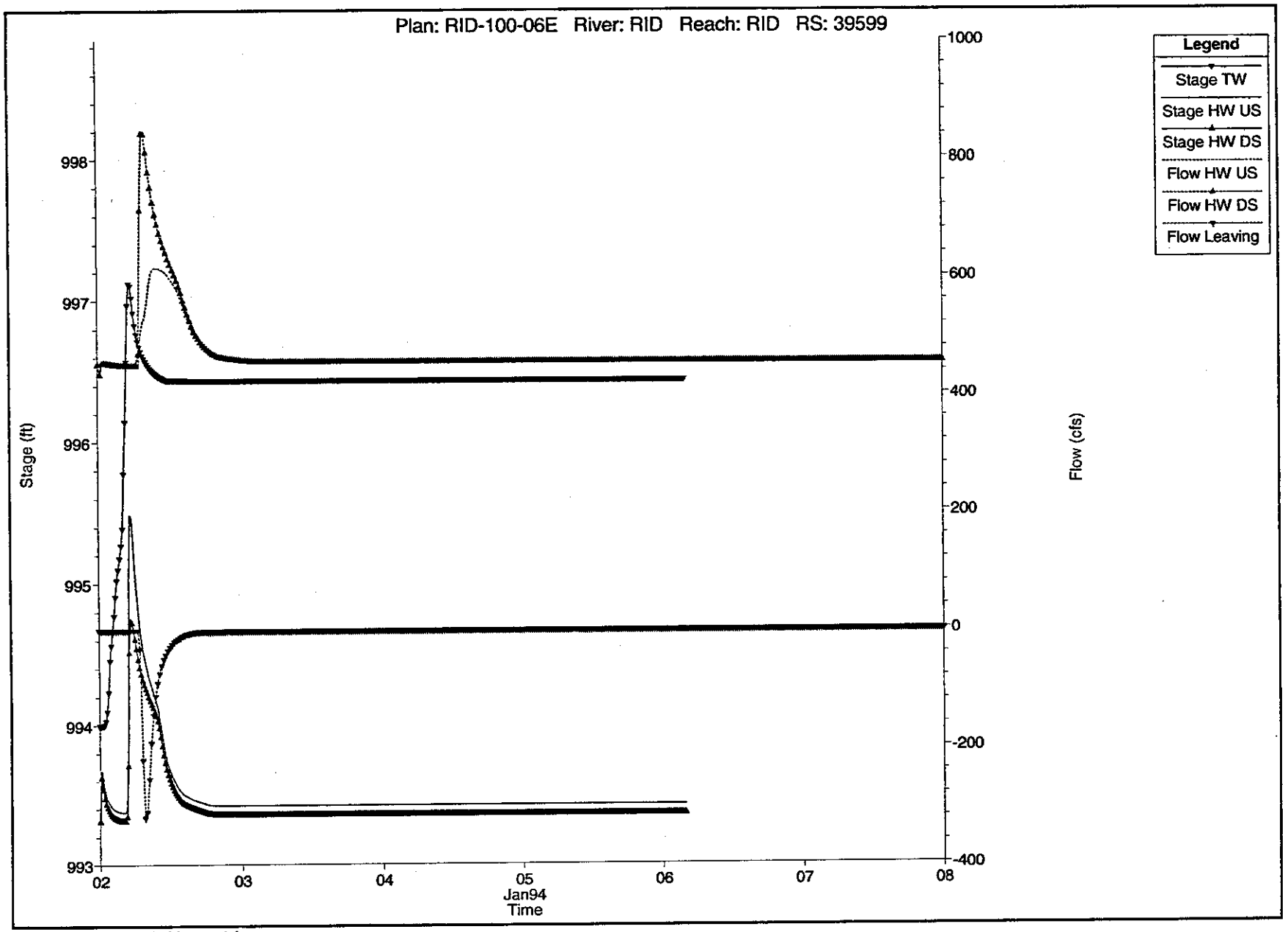
1 in Horiz. = 1 1 in Vert. = 0.5 ft



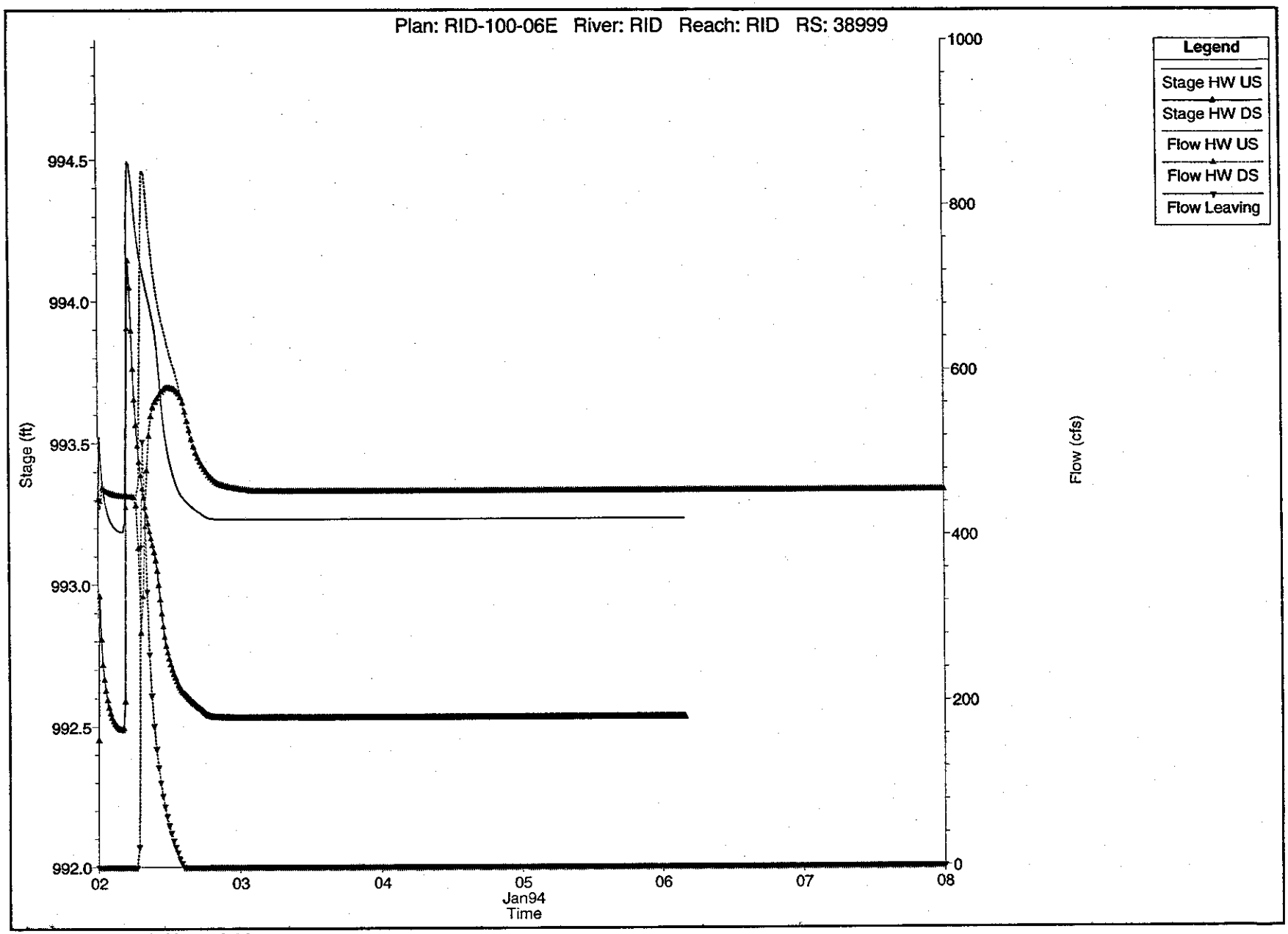
1 in Horiz. = 1 1 in Vert. = 1 ft



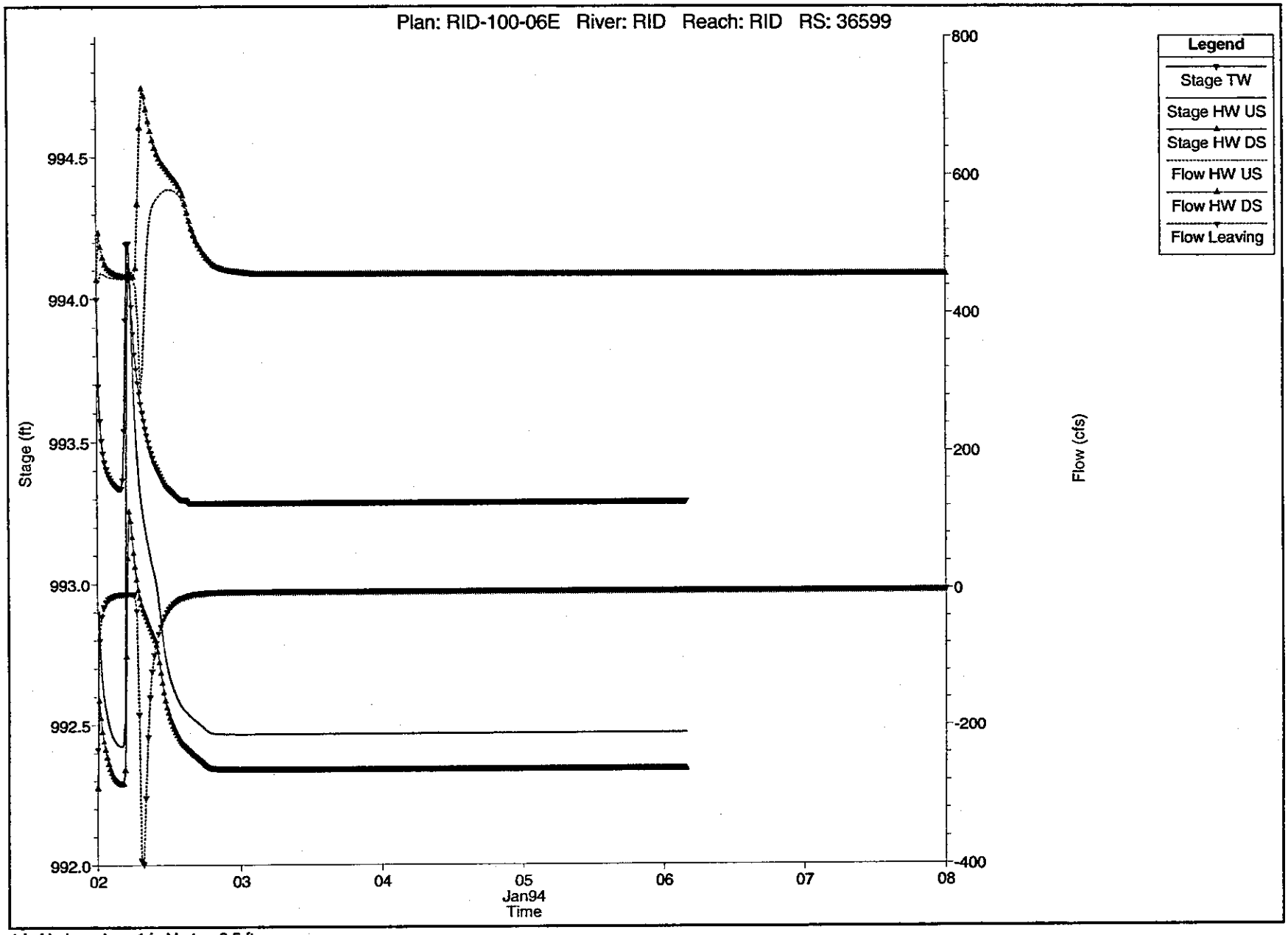
1 in Horiz. = 1 1 in Vert. = 0.5 ft



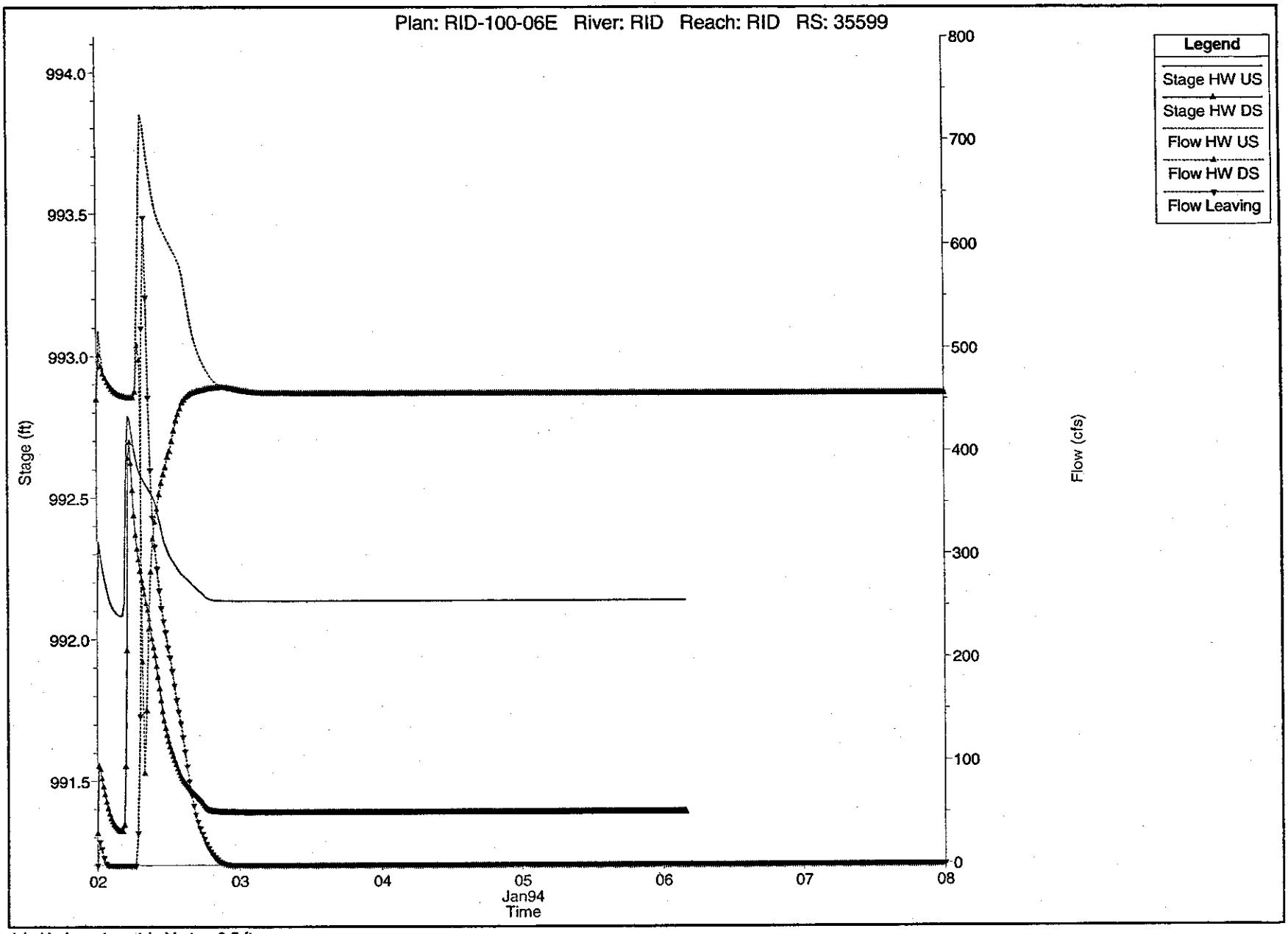
1 in Horiz. = 1 1 in Vert. = 1 ft



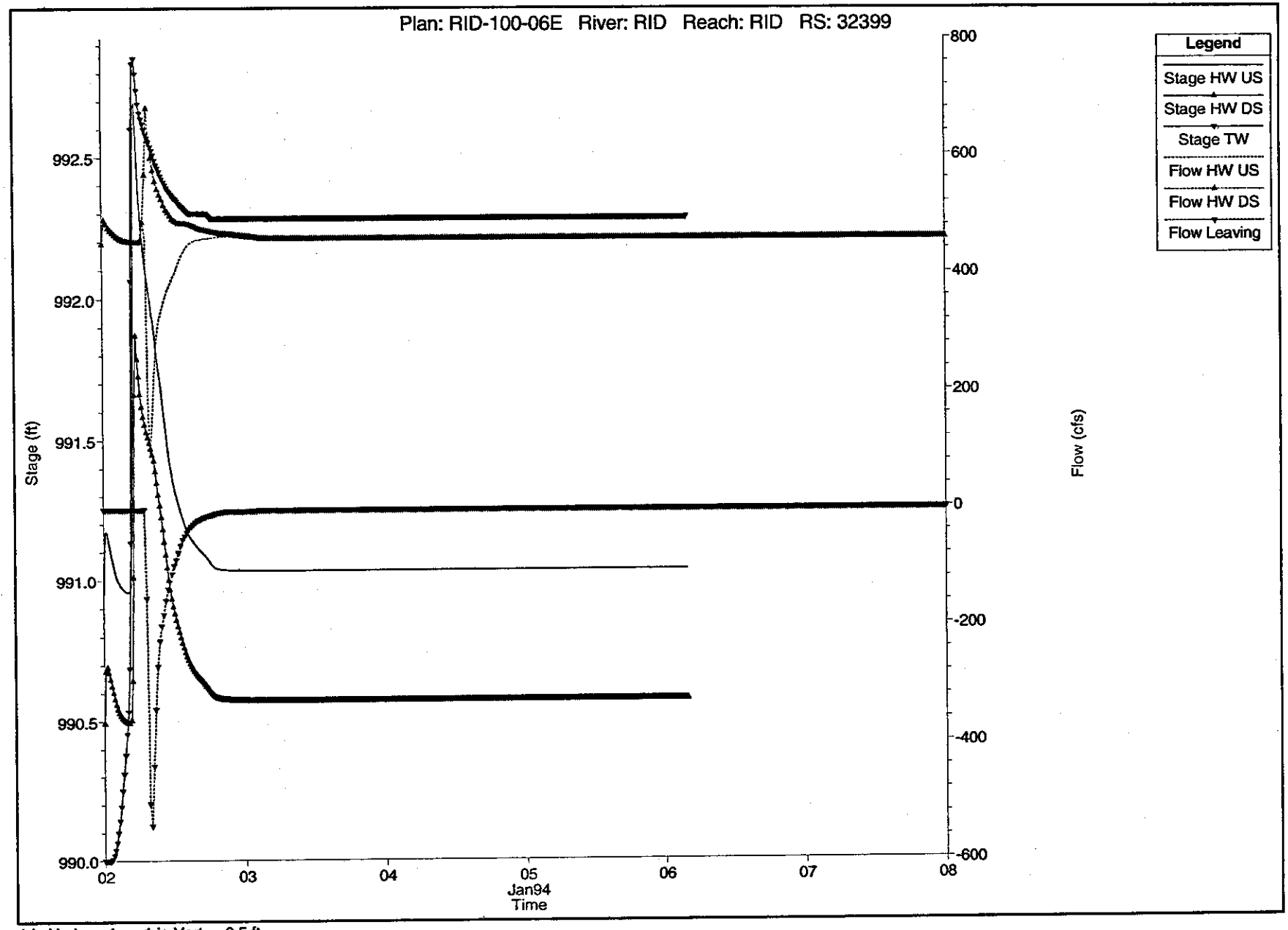
1 in Horiz. = 1 1 in Vert. = 0.5 ft



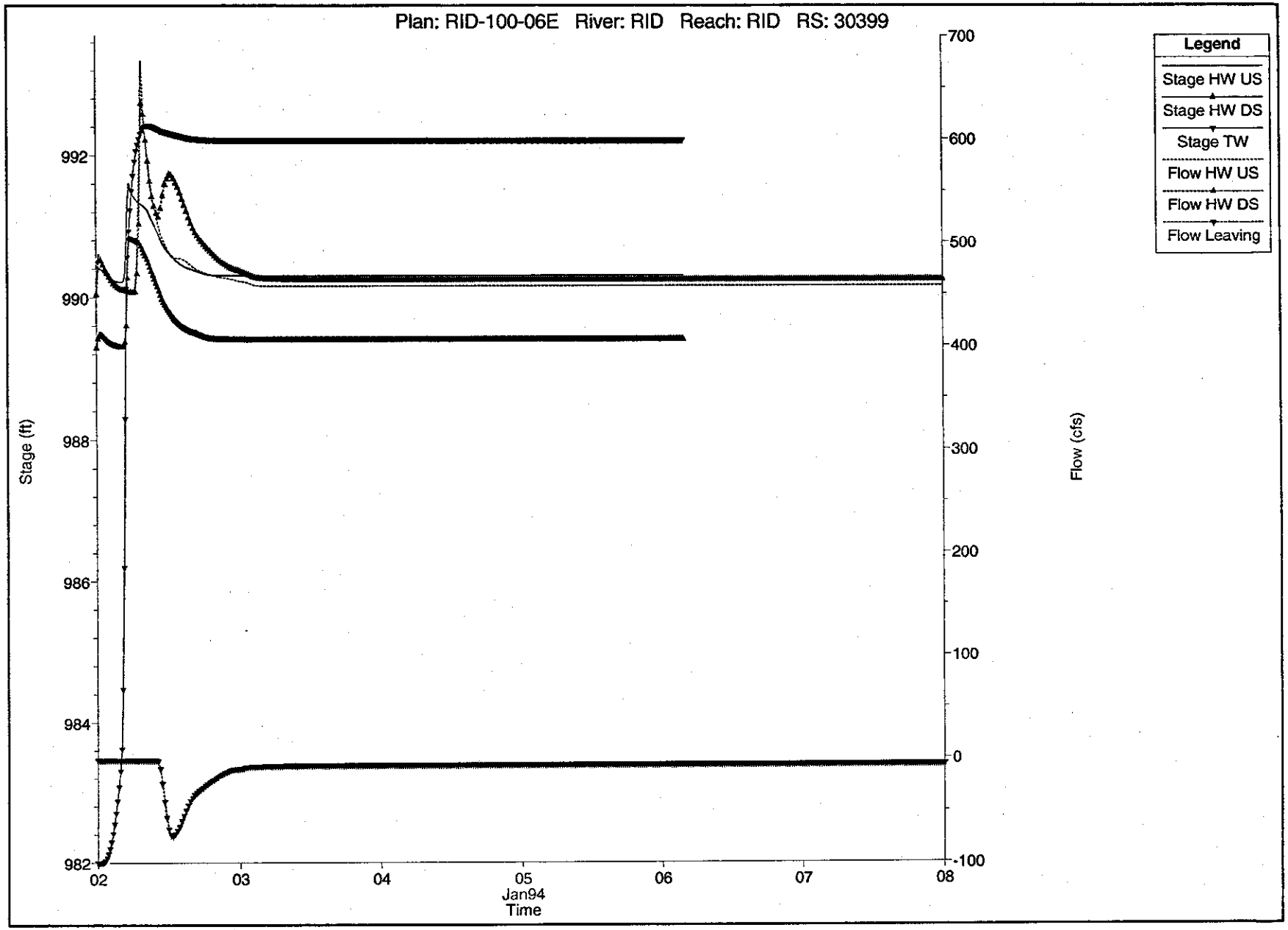
1 in Horiz. = 1 1 in Vert. = 0.5 ft



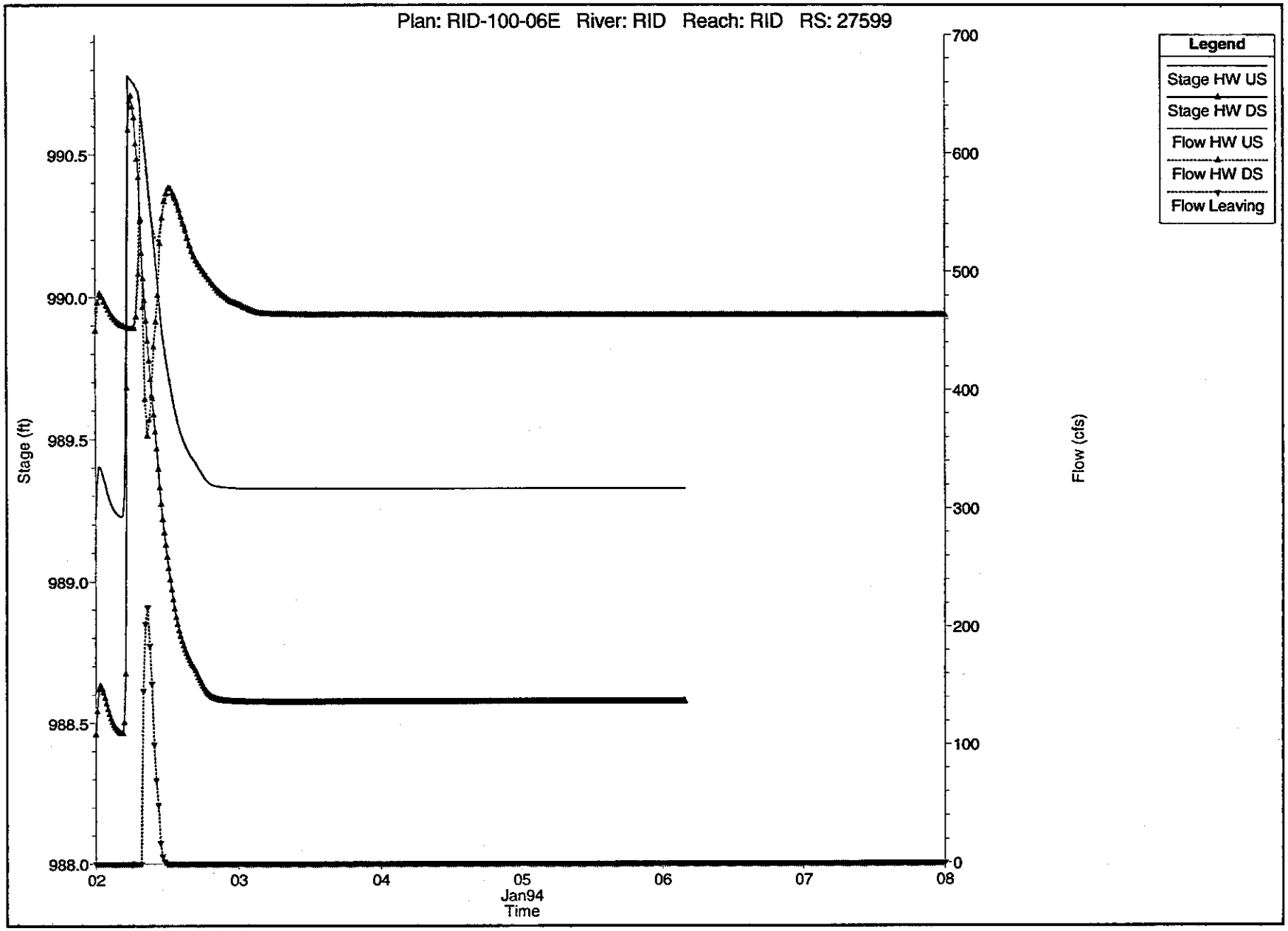
1 in Horiz. = 1 1 in Vert. = 0.5 ft



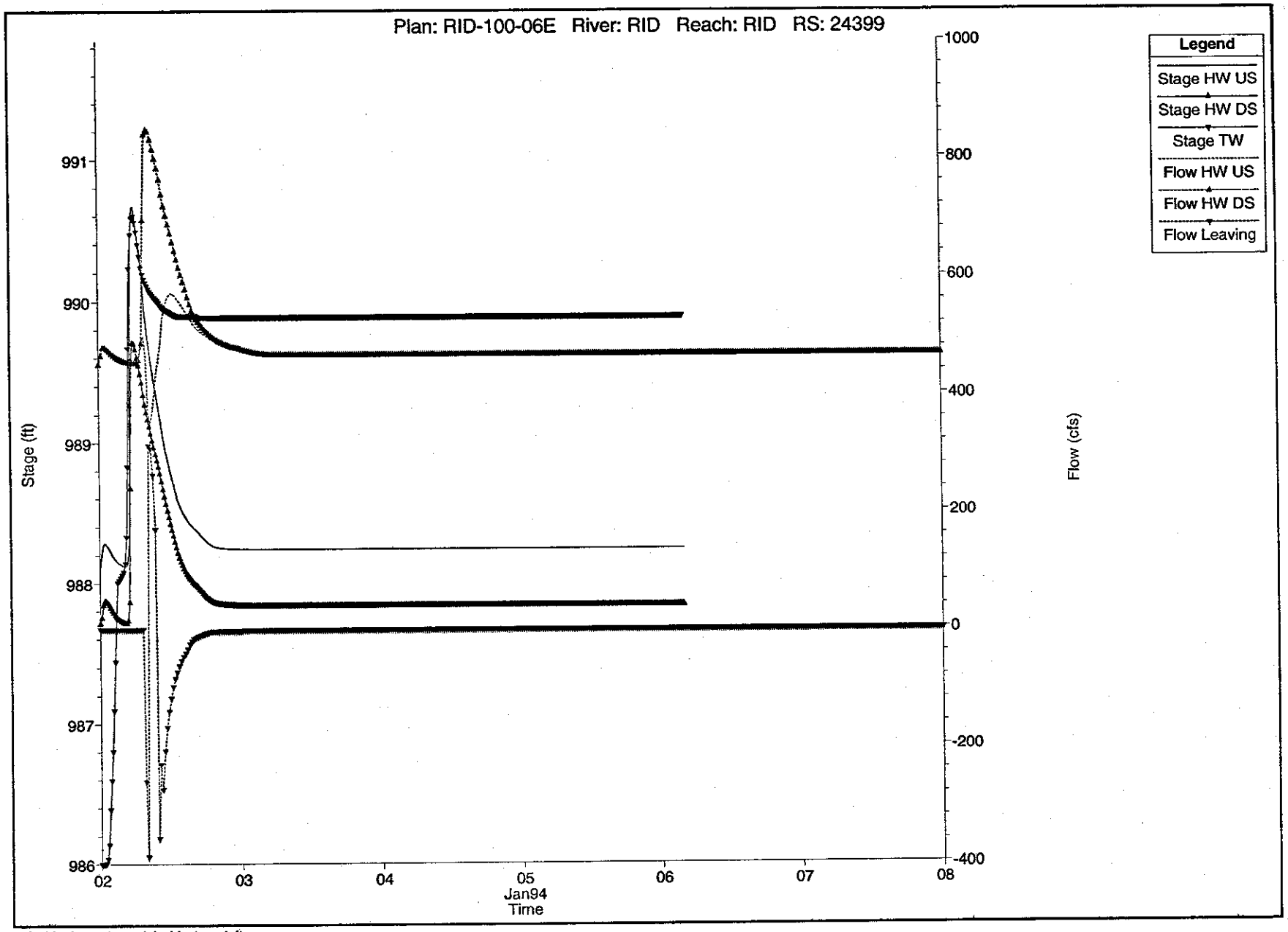
1 in Horiz. = 1 1 in Vert. = 0.5 ft



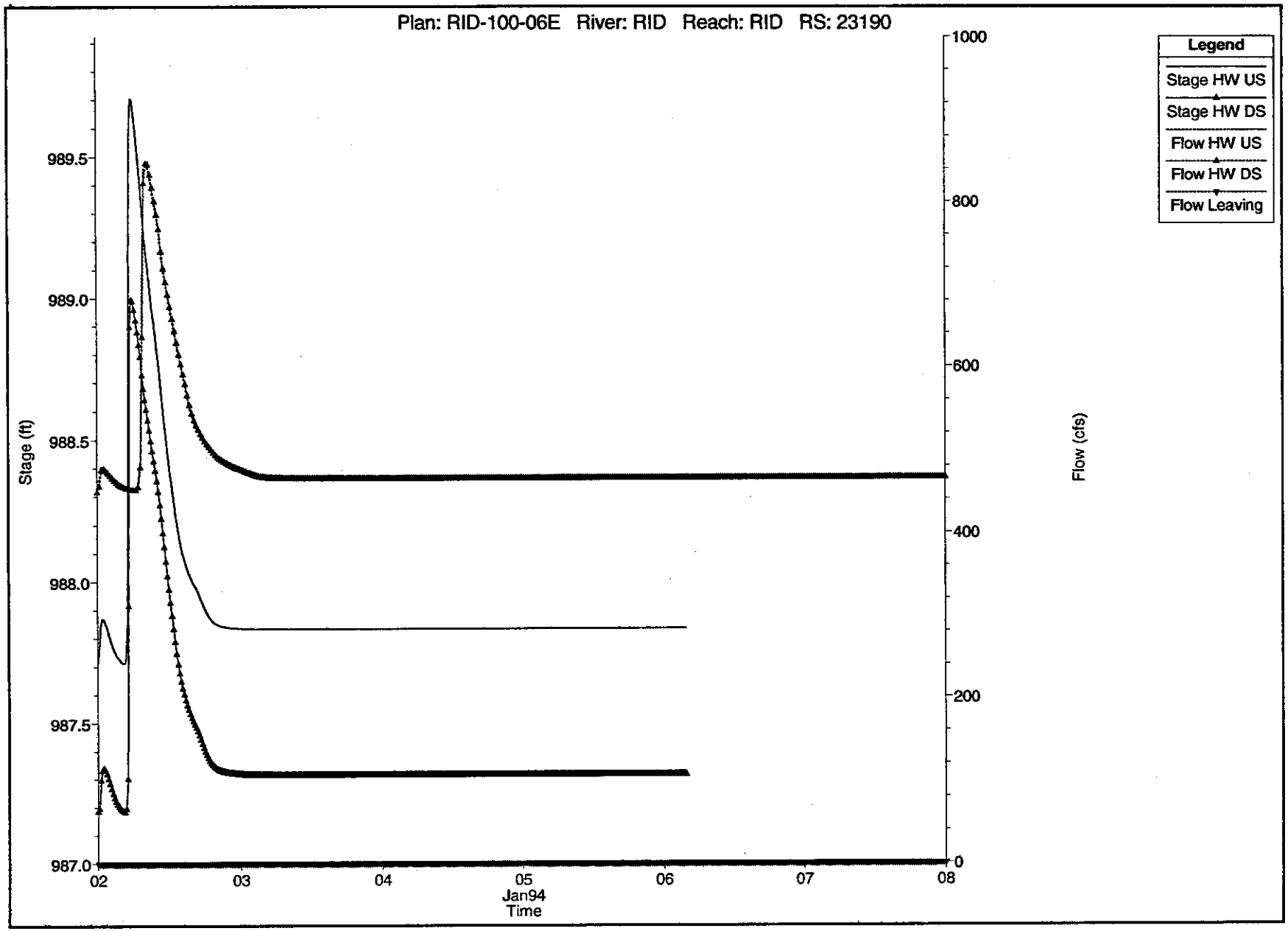
1 in Horiz. = 1 1 in Vert. = 2 ft



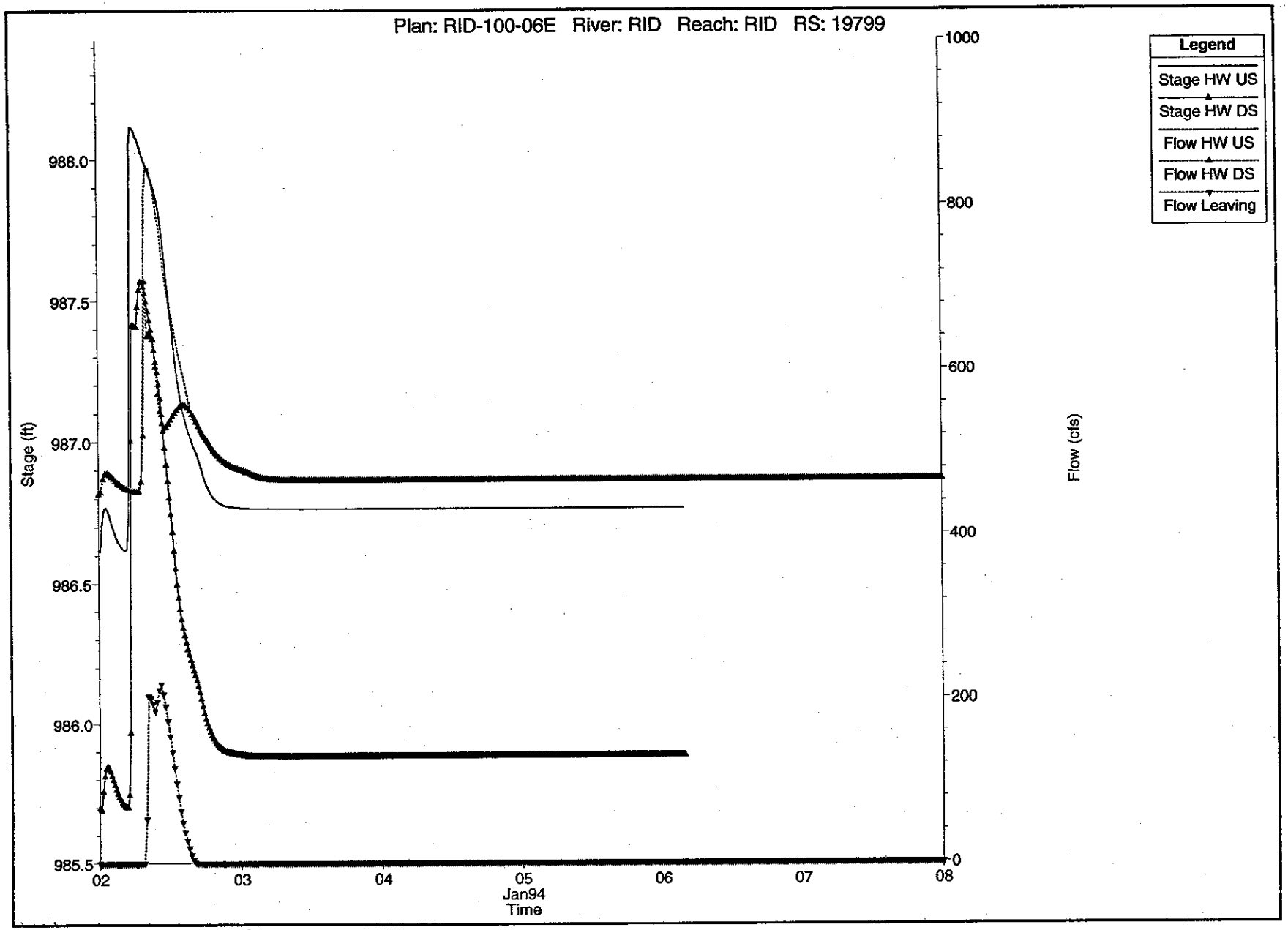
1 in Horiz. = 1 1 in Vert. = 0.5 ft



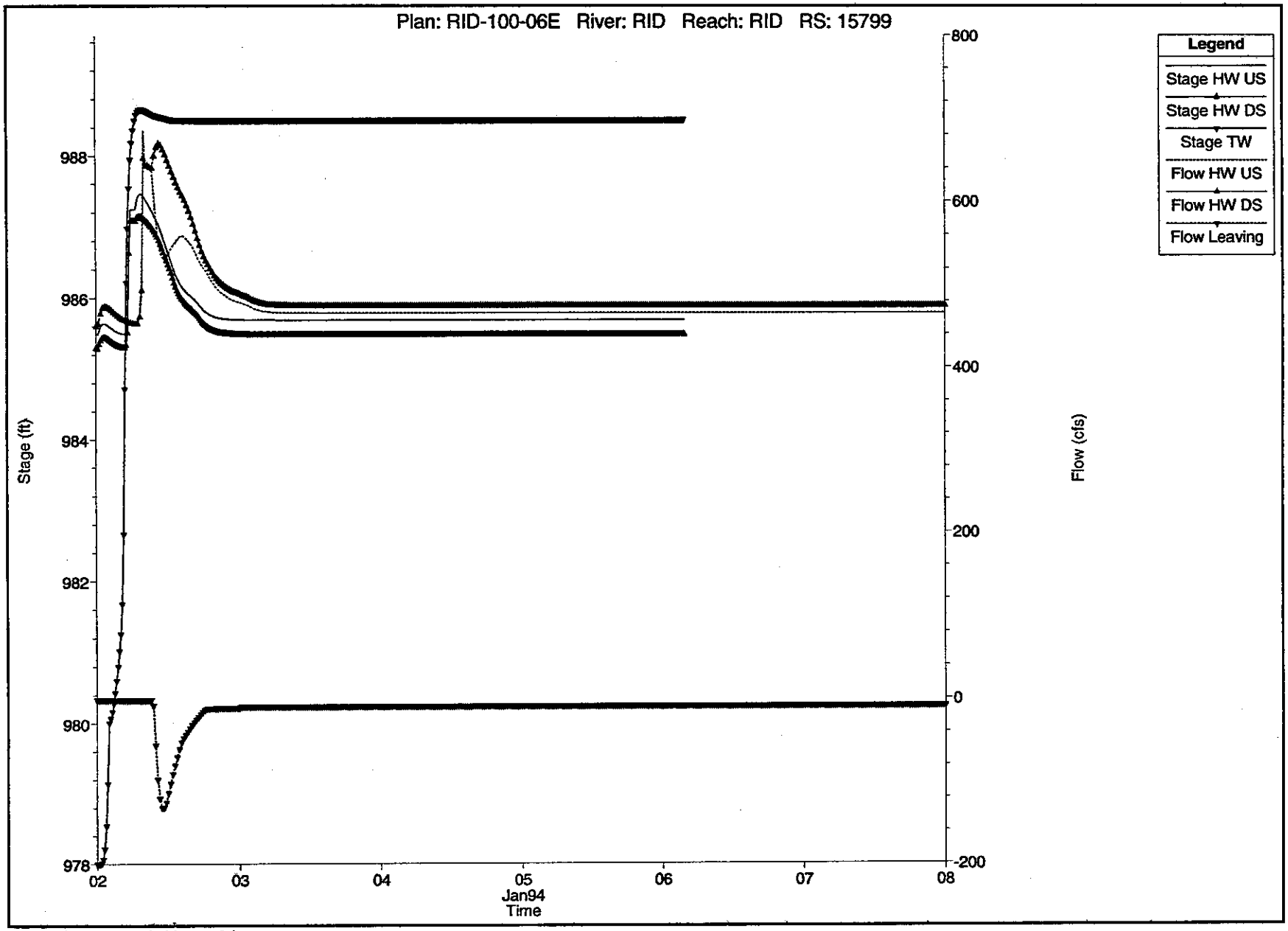
1 in Horiz. = 1 1 in Vert. = 1 ft



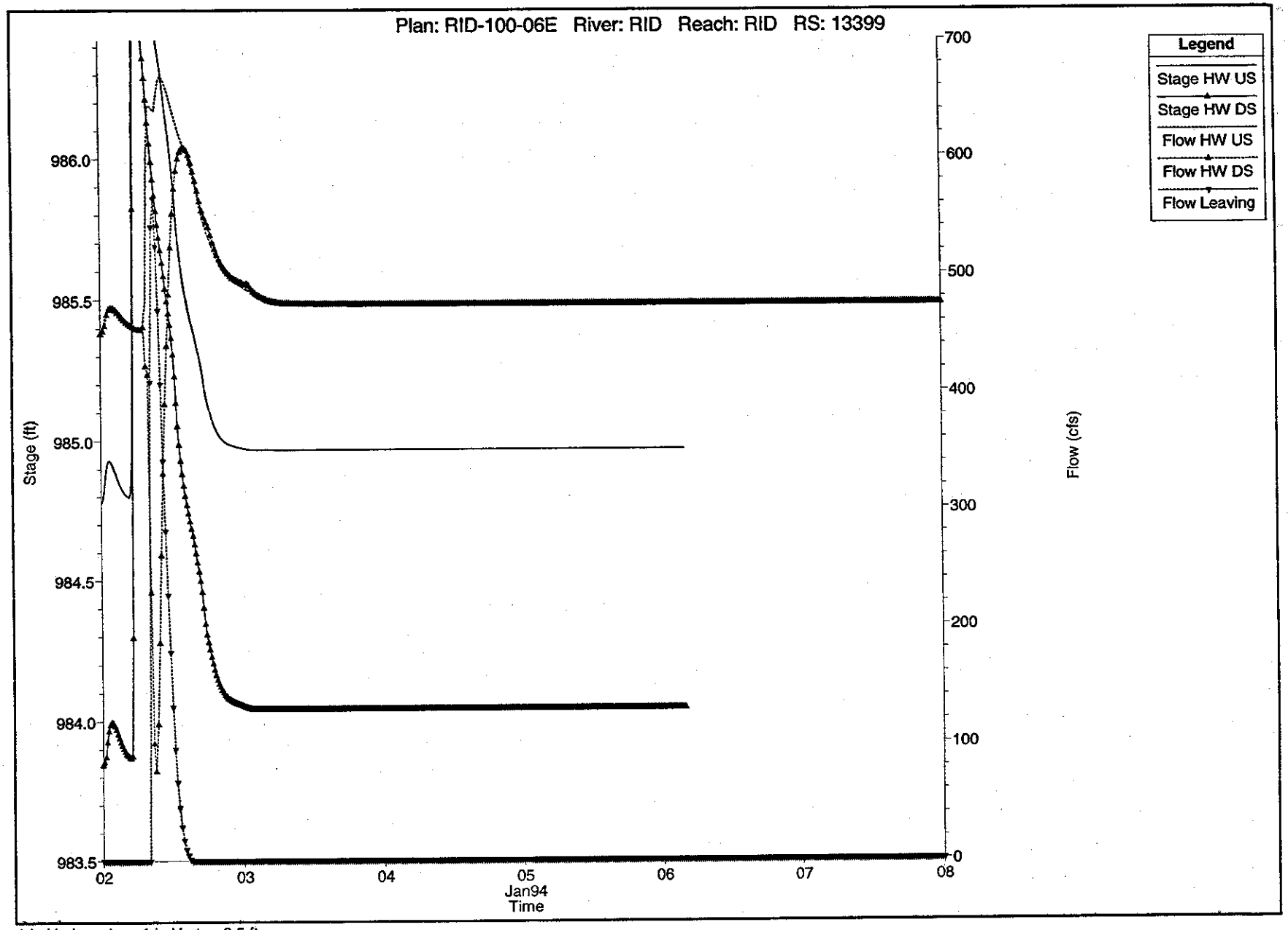
1 in Horiz. = 1 1 in Vert. = 0.5 ft



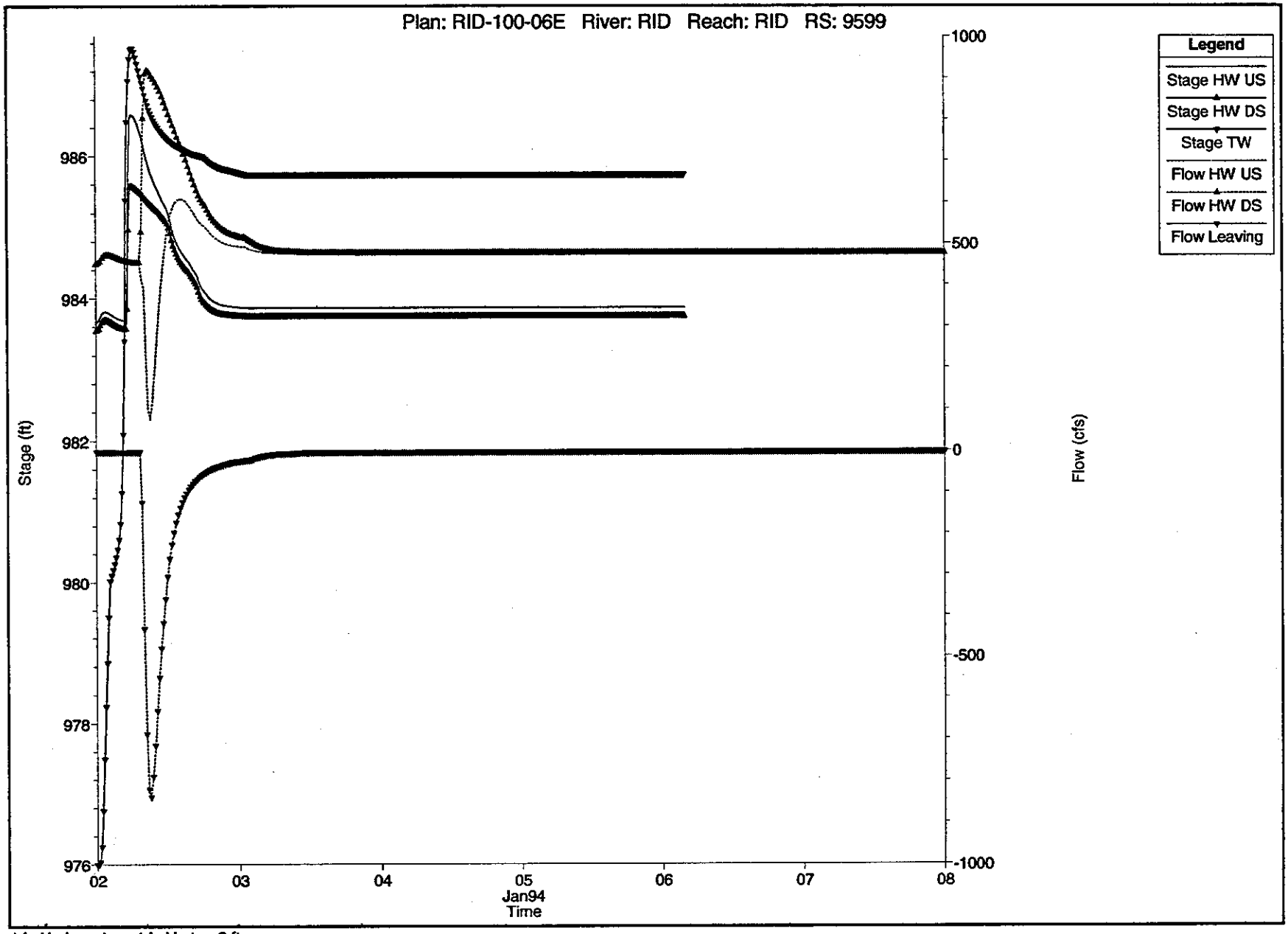
1 in Horiz. = 1 1 in Vert. = 0.5 ft



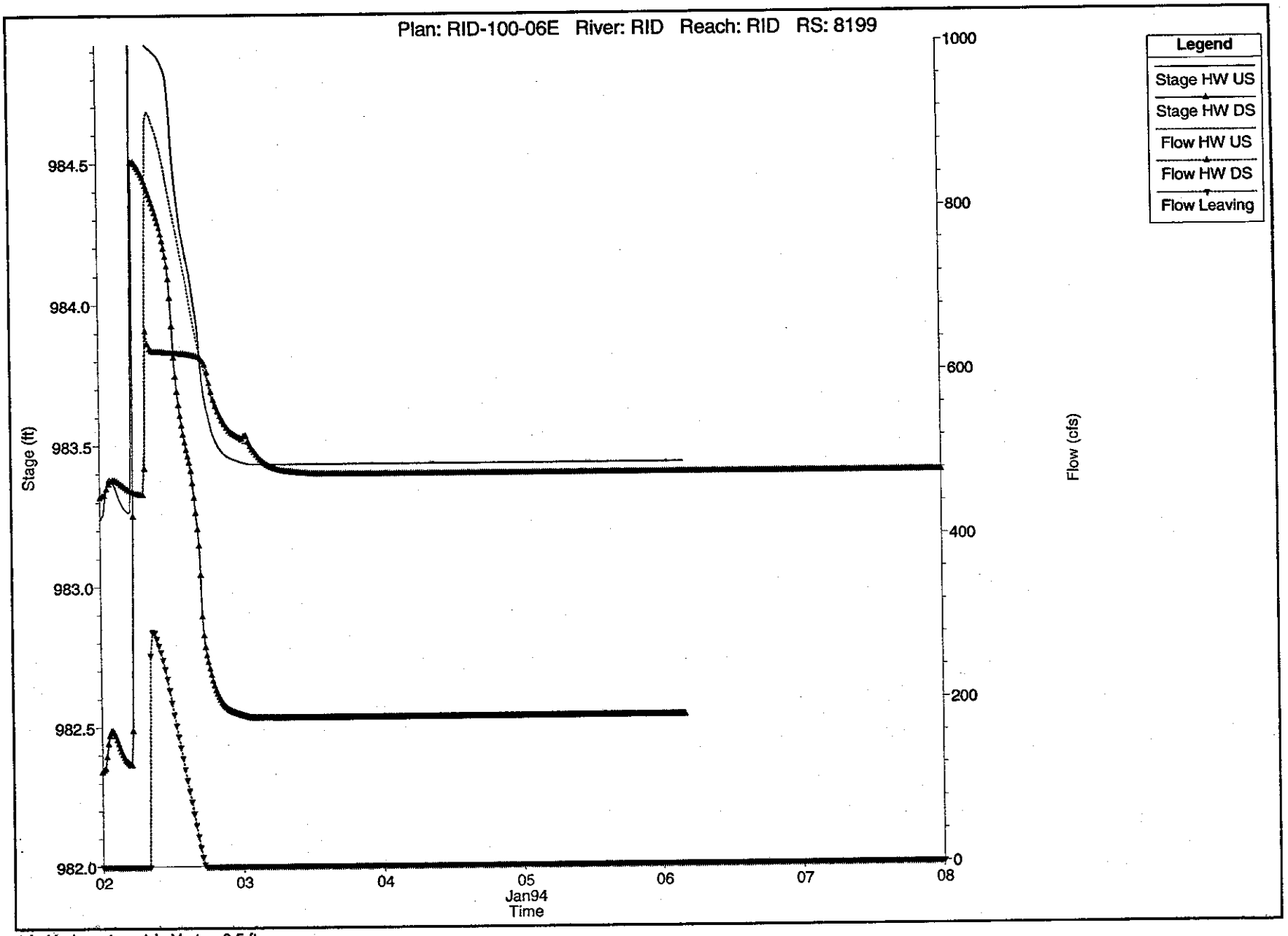
1 in Horiz. = 1 1 in Vert. = 2 ft



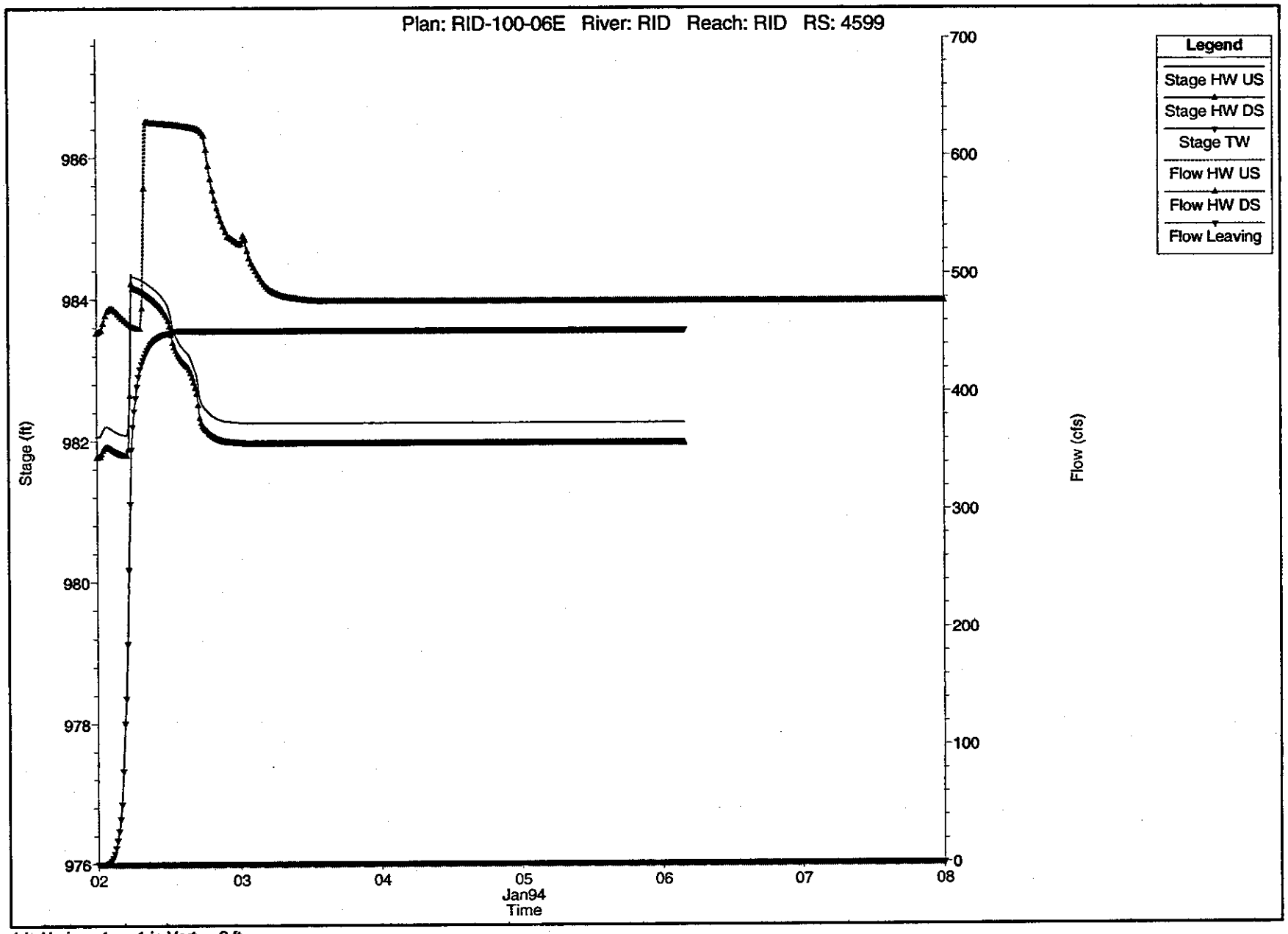
1 in Horiz. = 1 1 in Vert. = 0.5 ft



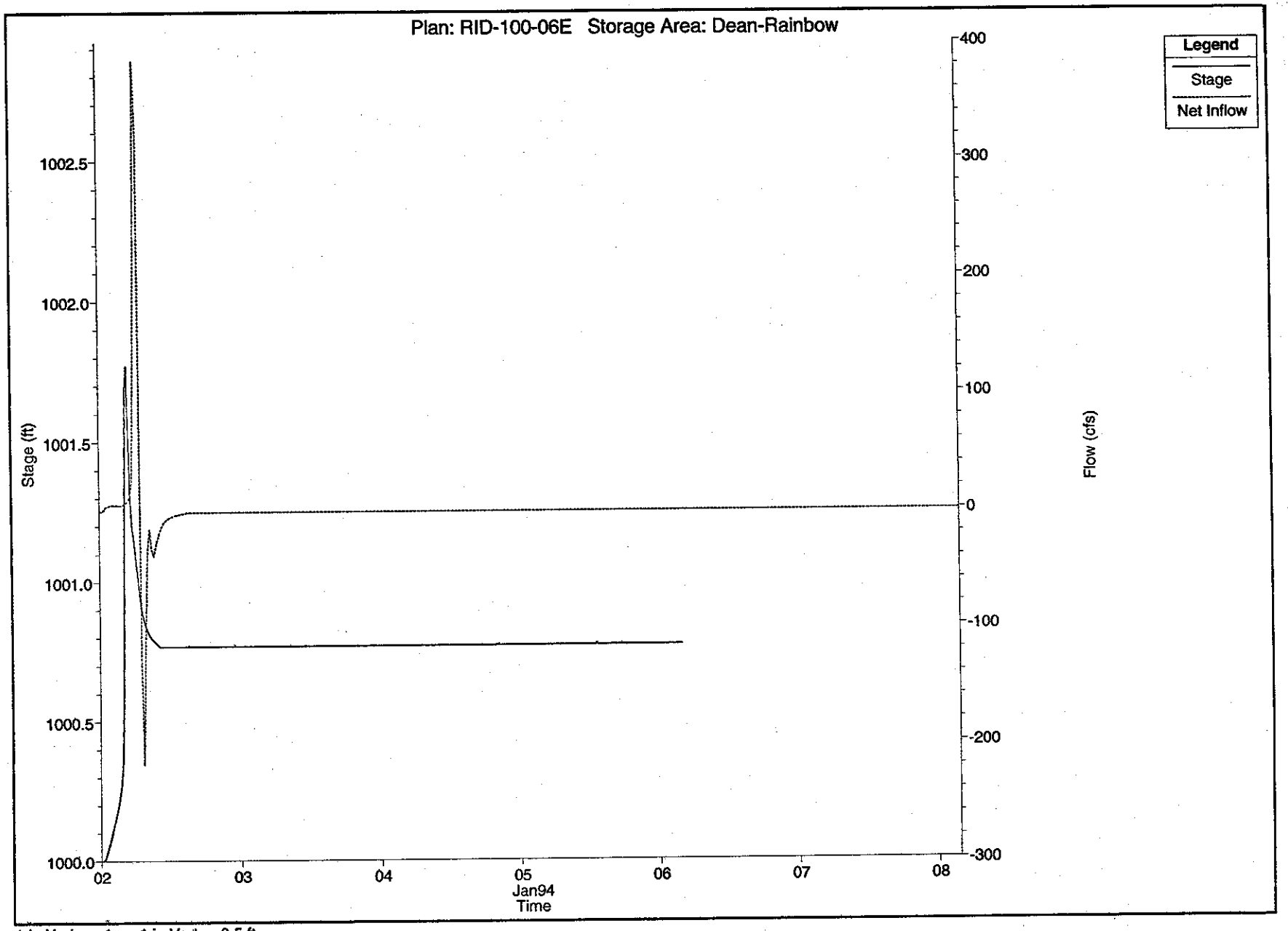
1 in Horiz. = 1 1 in Vert. = 2 ft



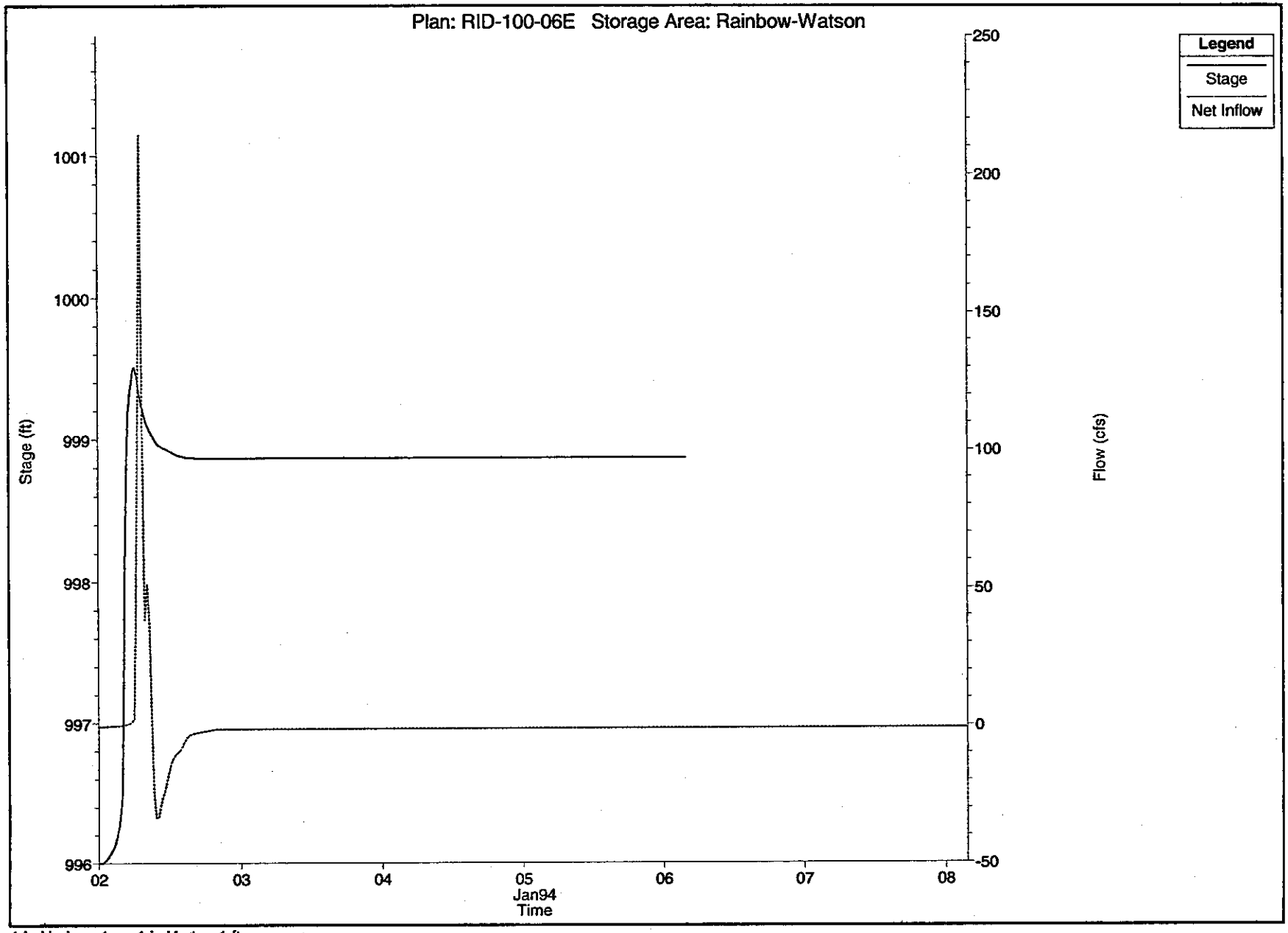
1 in Horiz. = 1 1 in Vert. = 0.5 ft



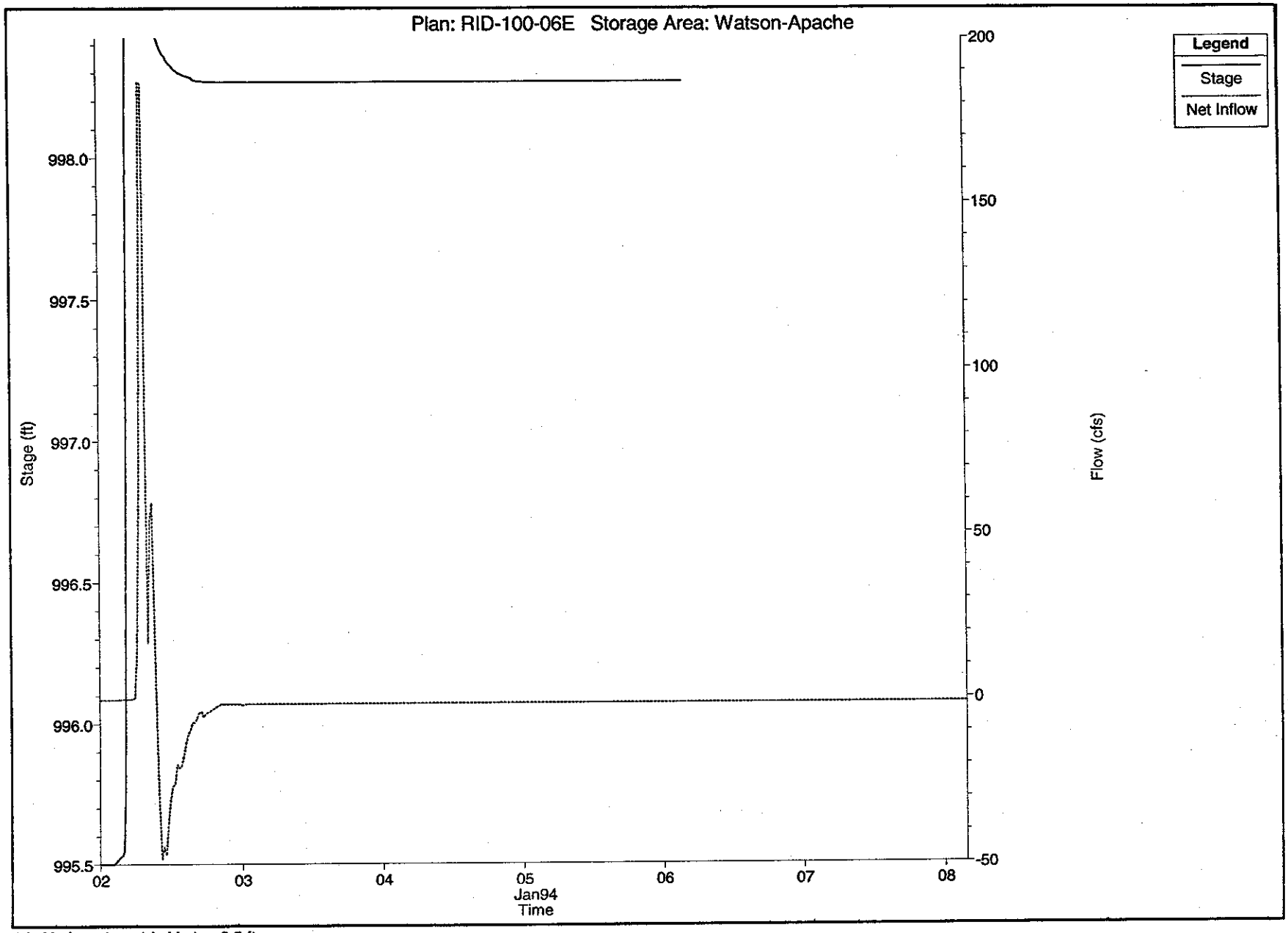
1 in Horiz. = 1 1 in Vert. = 2 ft



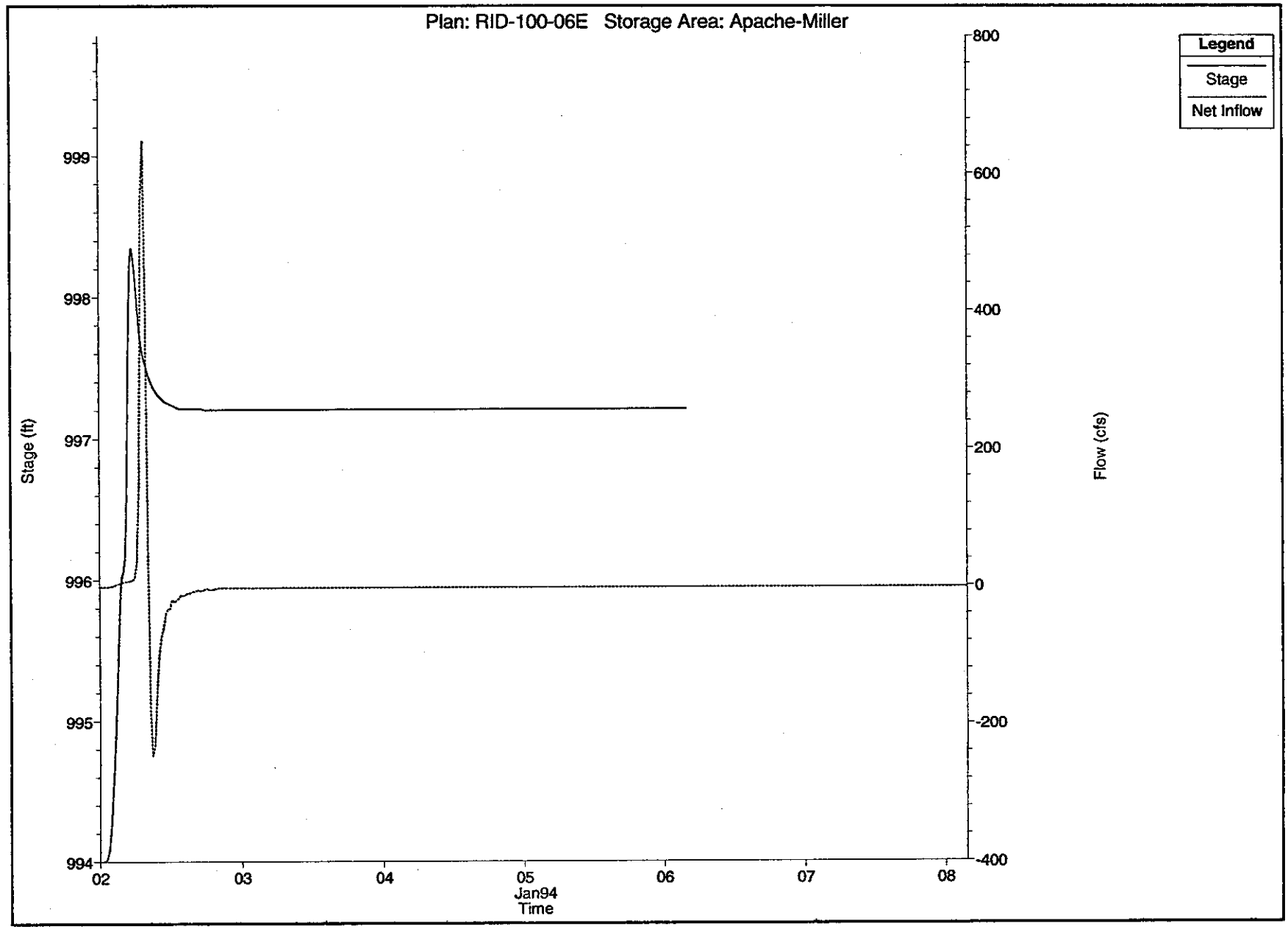
1 in Horiz. = 1 1 in Vert. = 0.5 ft



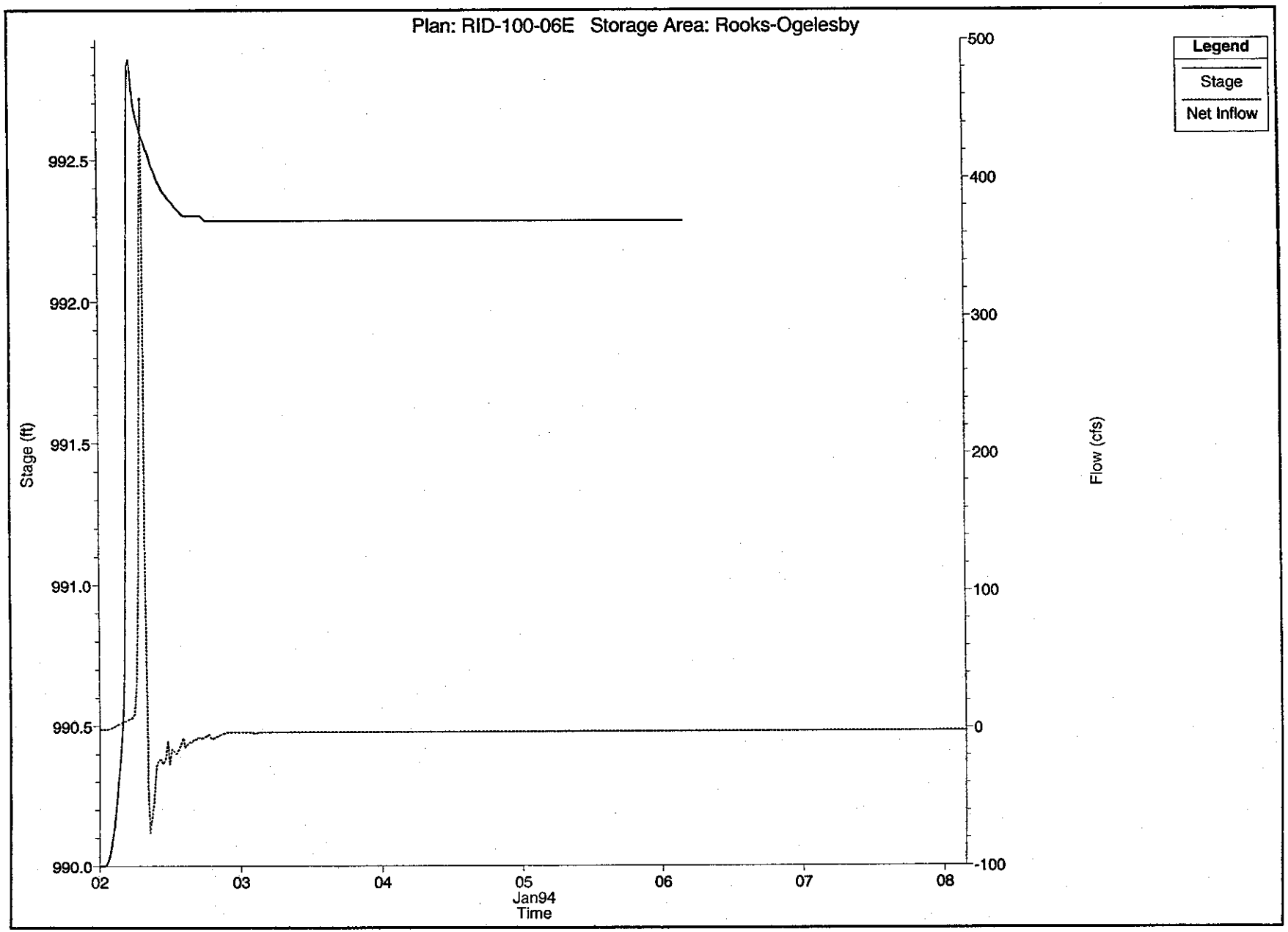
1 in Horiz. = 1 1 in Vert. = 1 ft



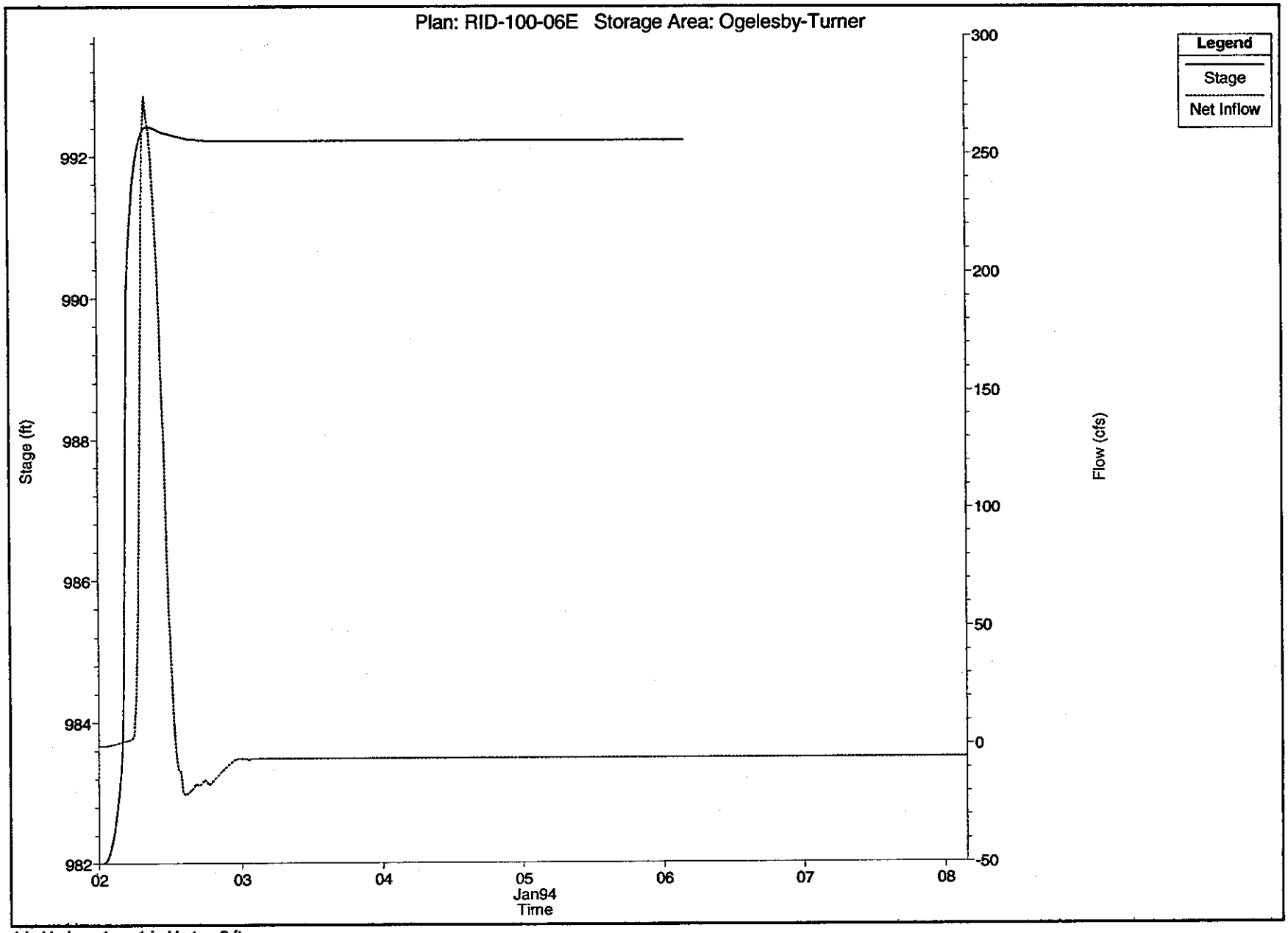
1 in Horiz. = 1 1 in Vert. = 0.5 ft



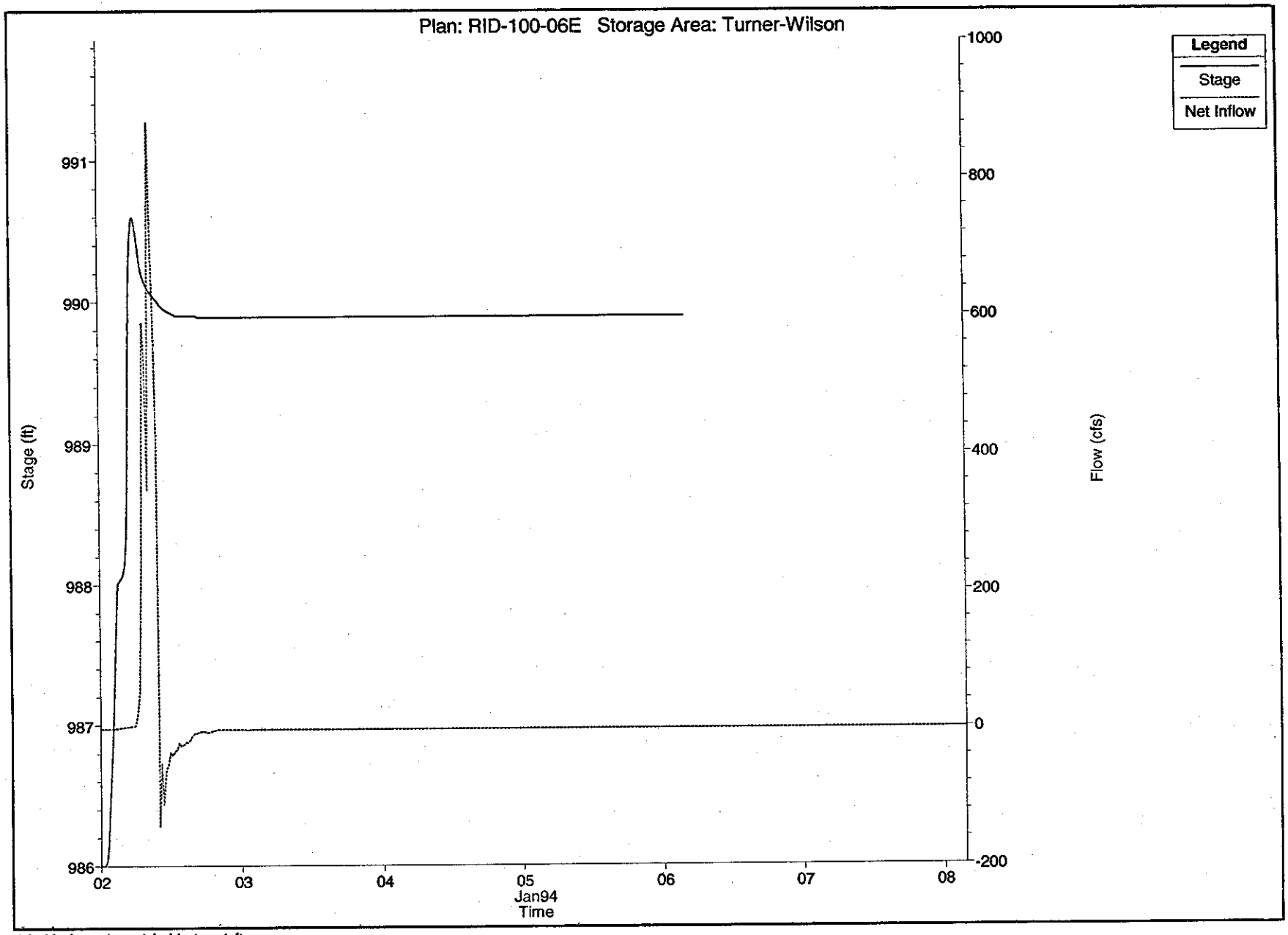
1 in Horiz. = 1 1 in Vert. = 1 ft



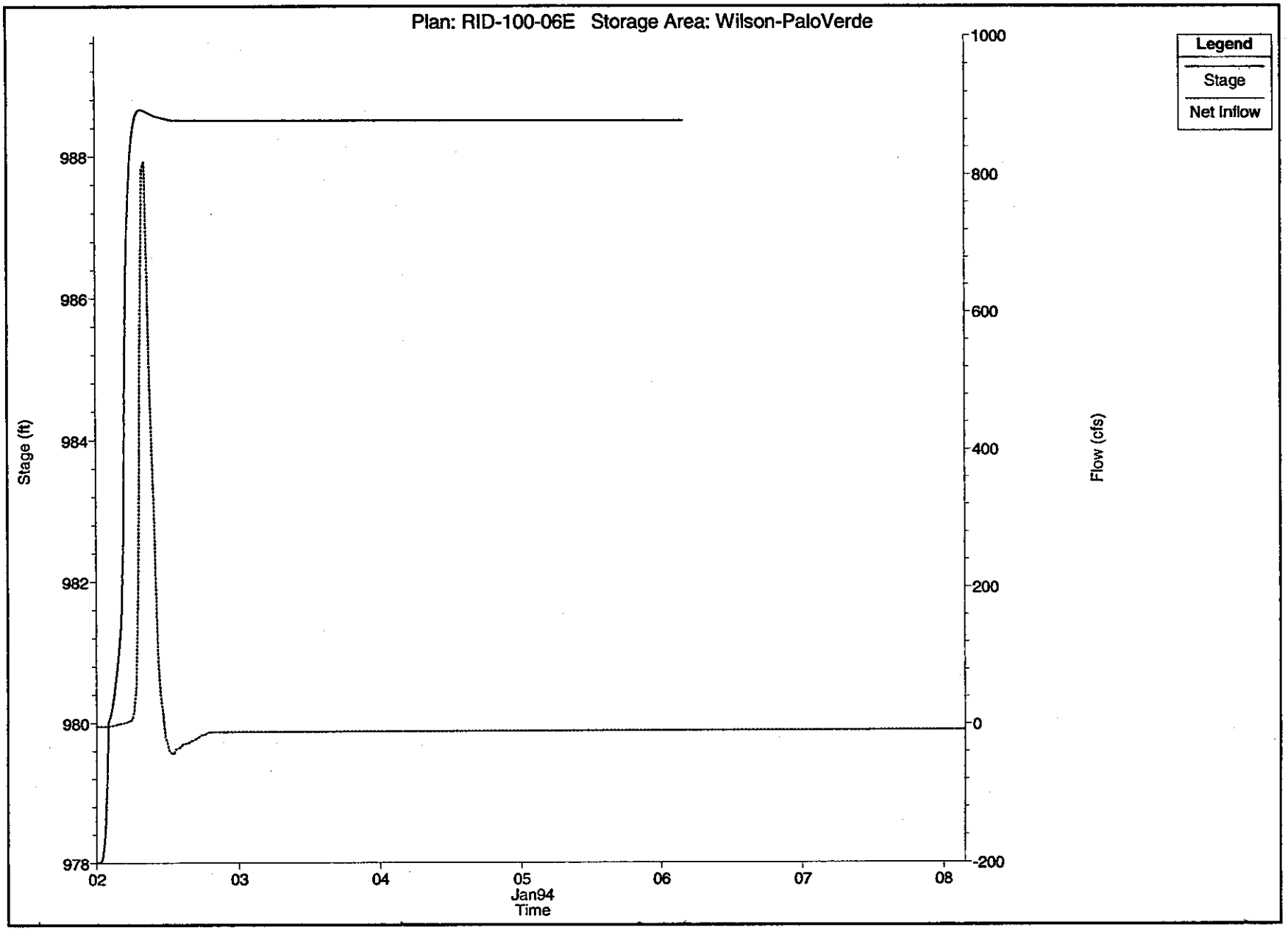
1 in Horiz. = 1 1 in Vert. = 0.5 ft



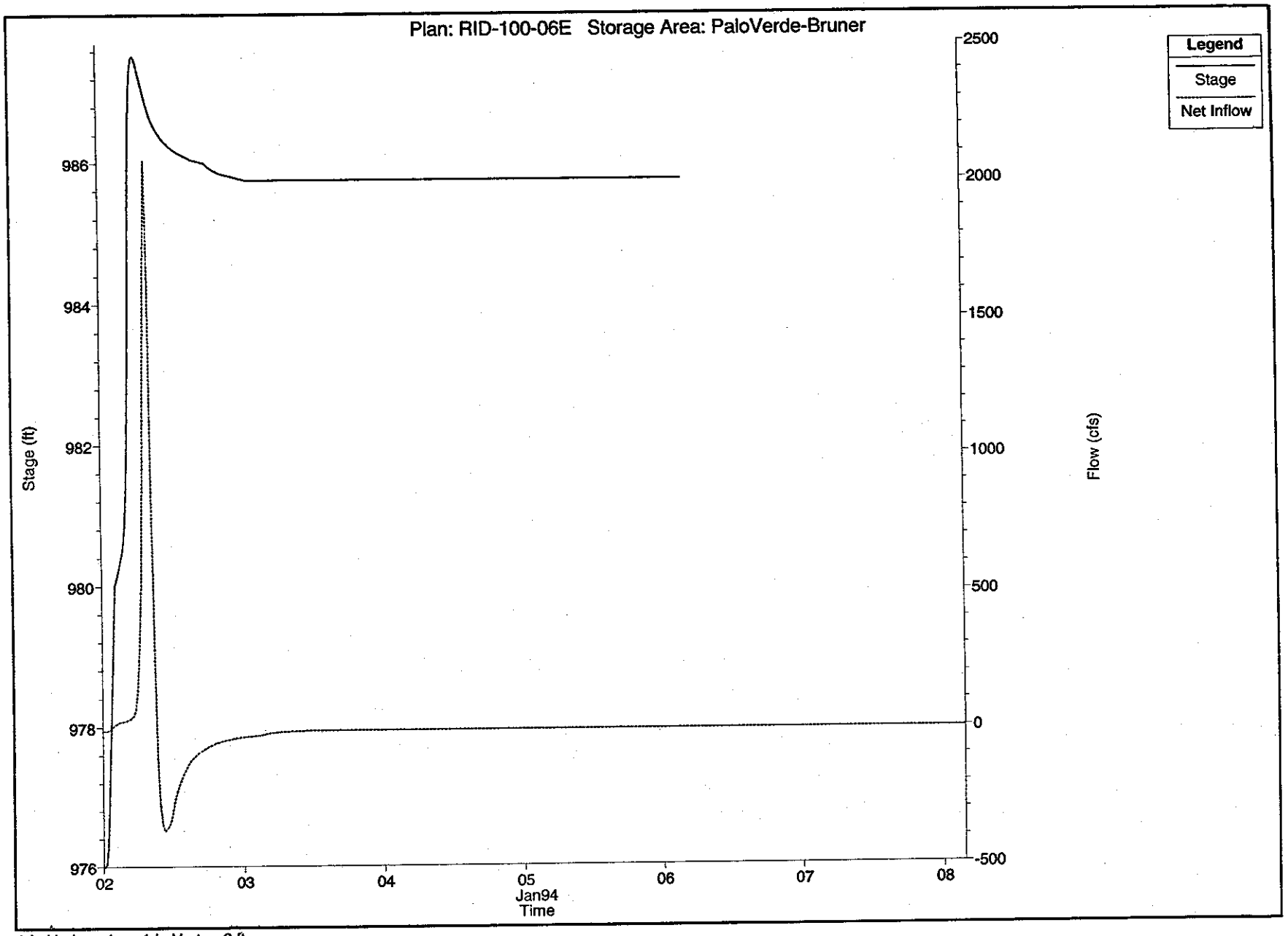
1 in Horiz. = 1 1 in Vert. = 2 ft



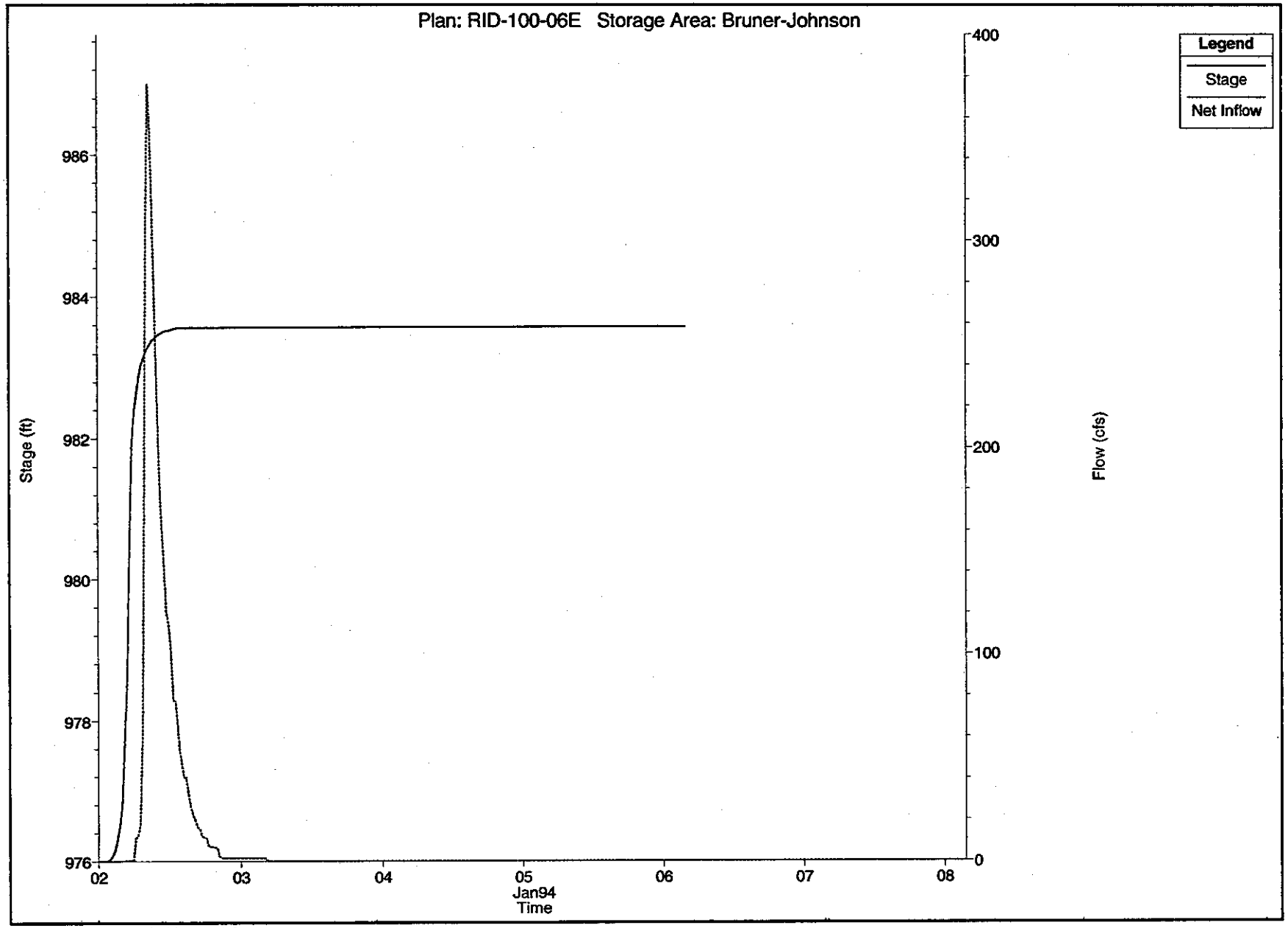
1 in Horiz. = 1 1 in Vert. = 1 ft



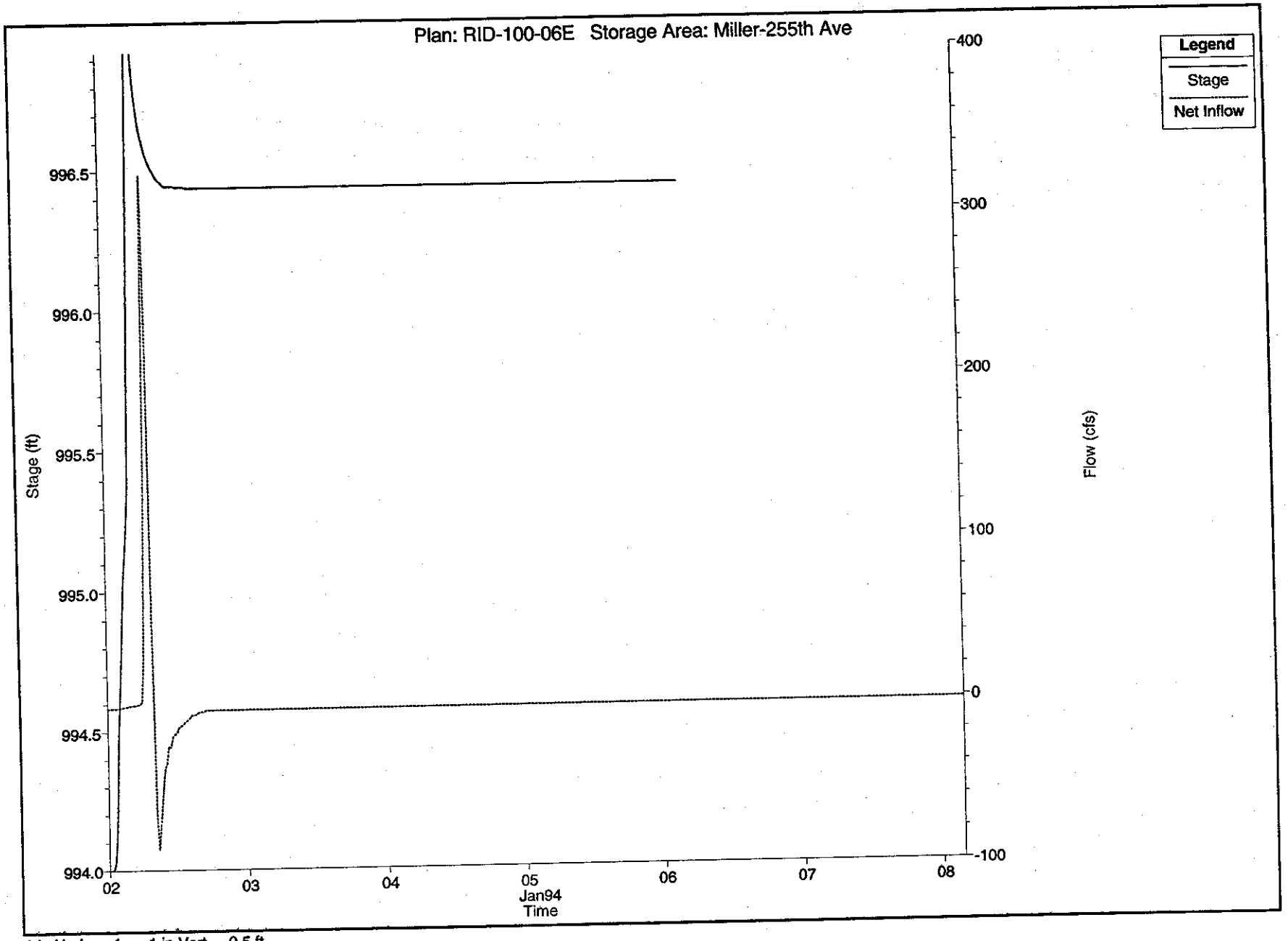
1 in Horiz. = 1 1 in Vert. = 2 ft



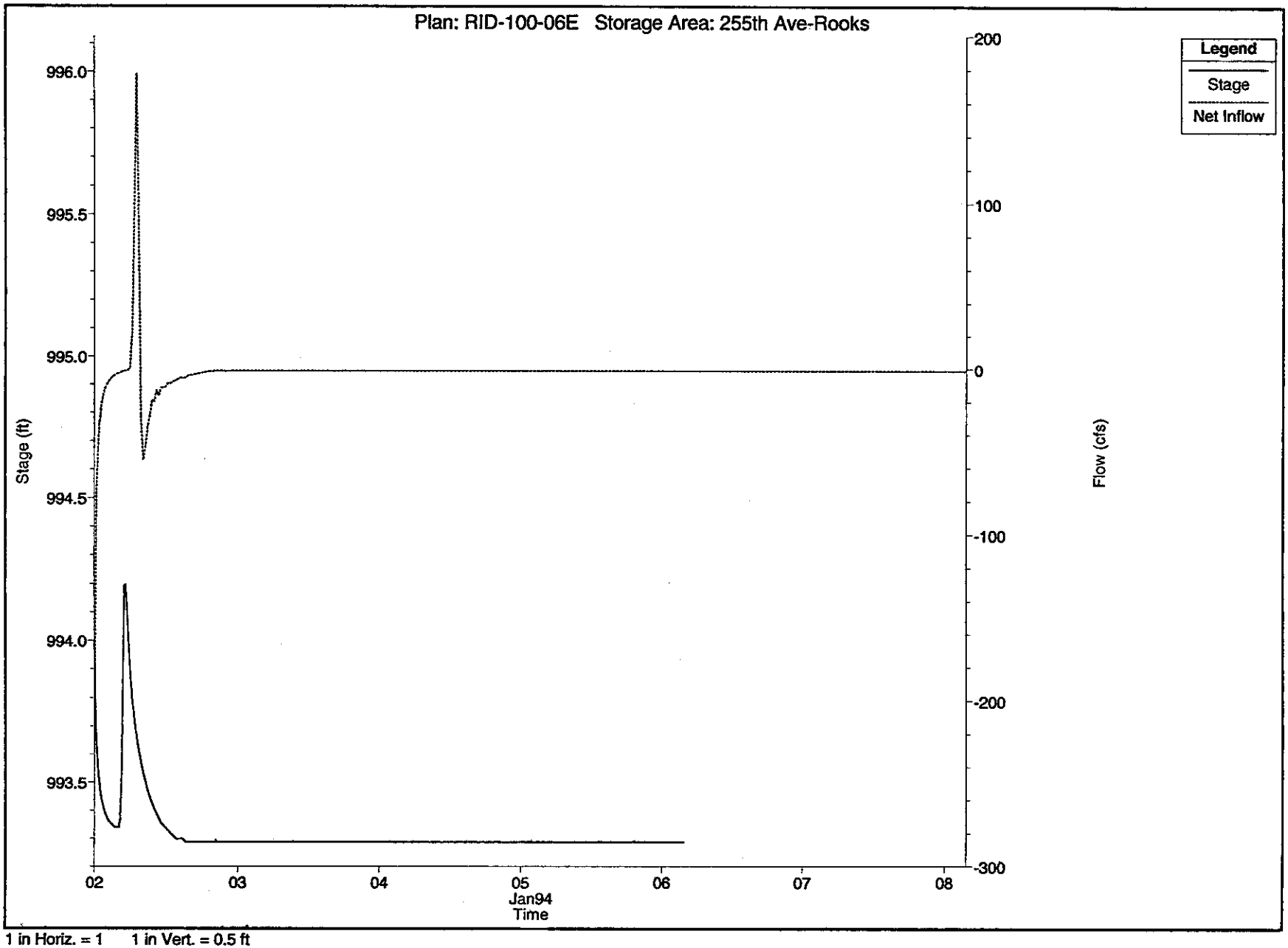
1 in Horiz. = 1 1 in Vert. = 2 ft



1 in Horiz. = 1 1 in Vert. = 2 ft

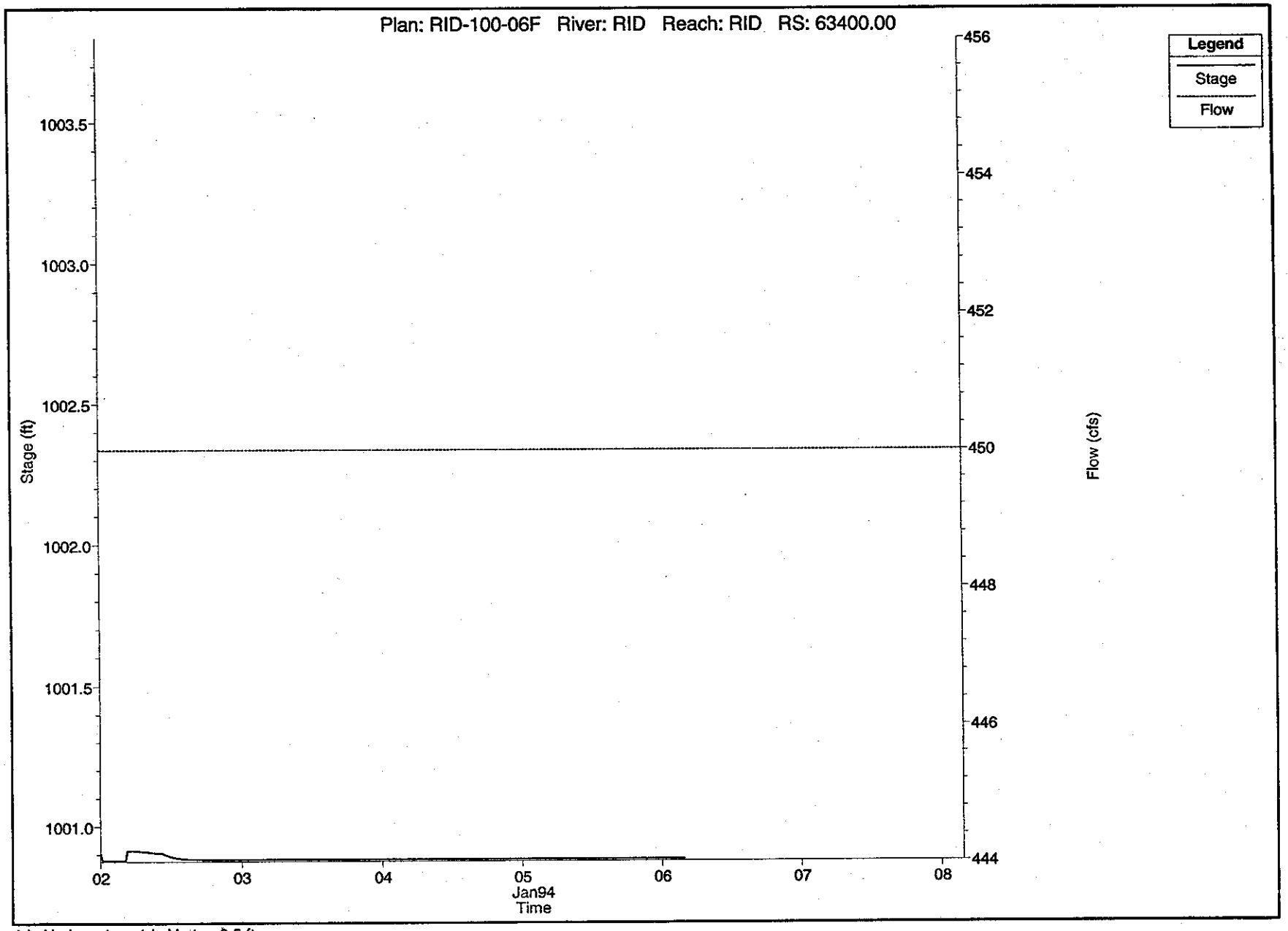


1 in Horiz. = 1 1 in Vert. = 0.5 ft

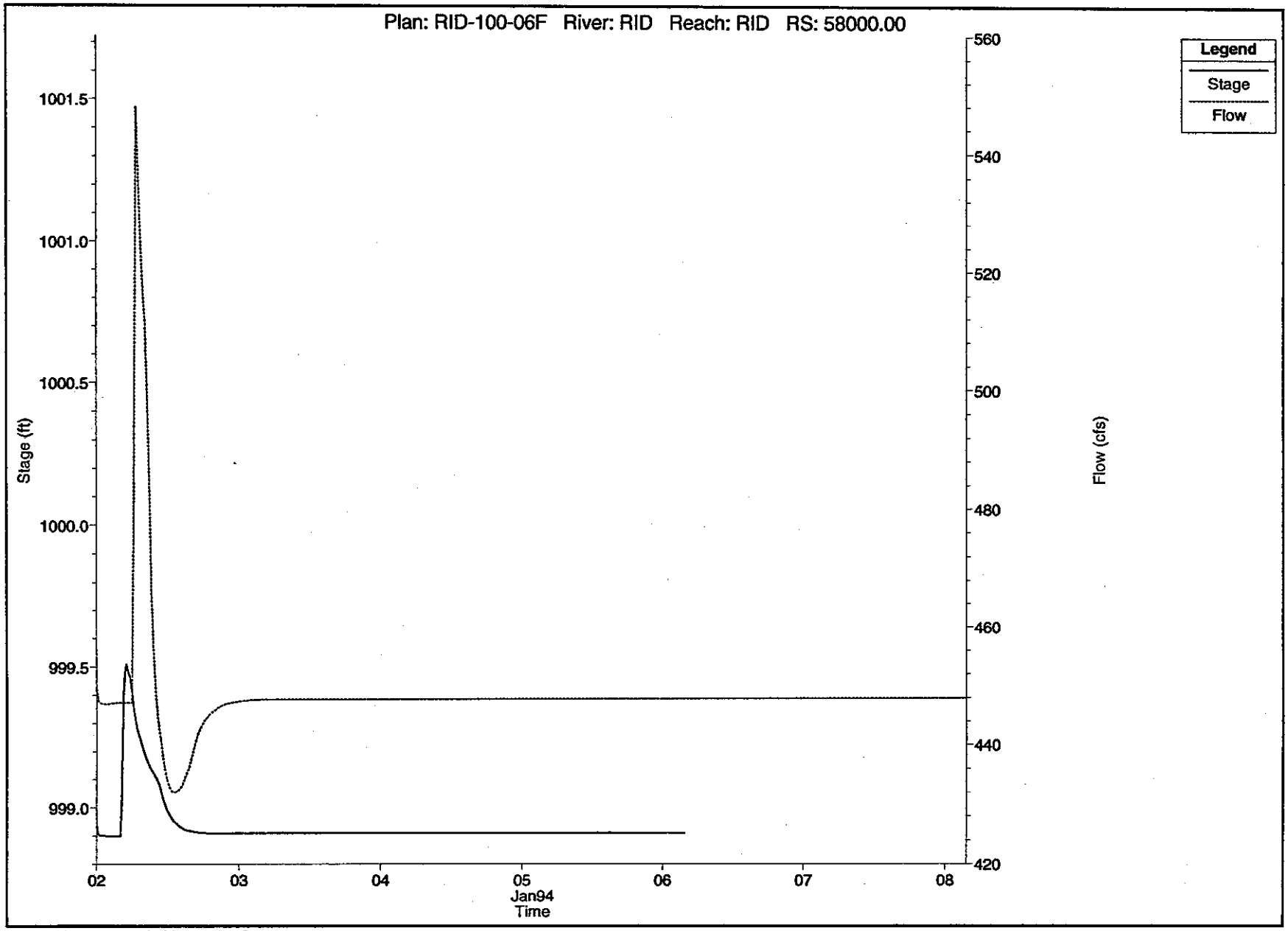


1 in Horiz. = 1 1 in Vert. = 0.5 ft

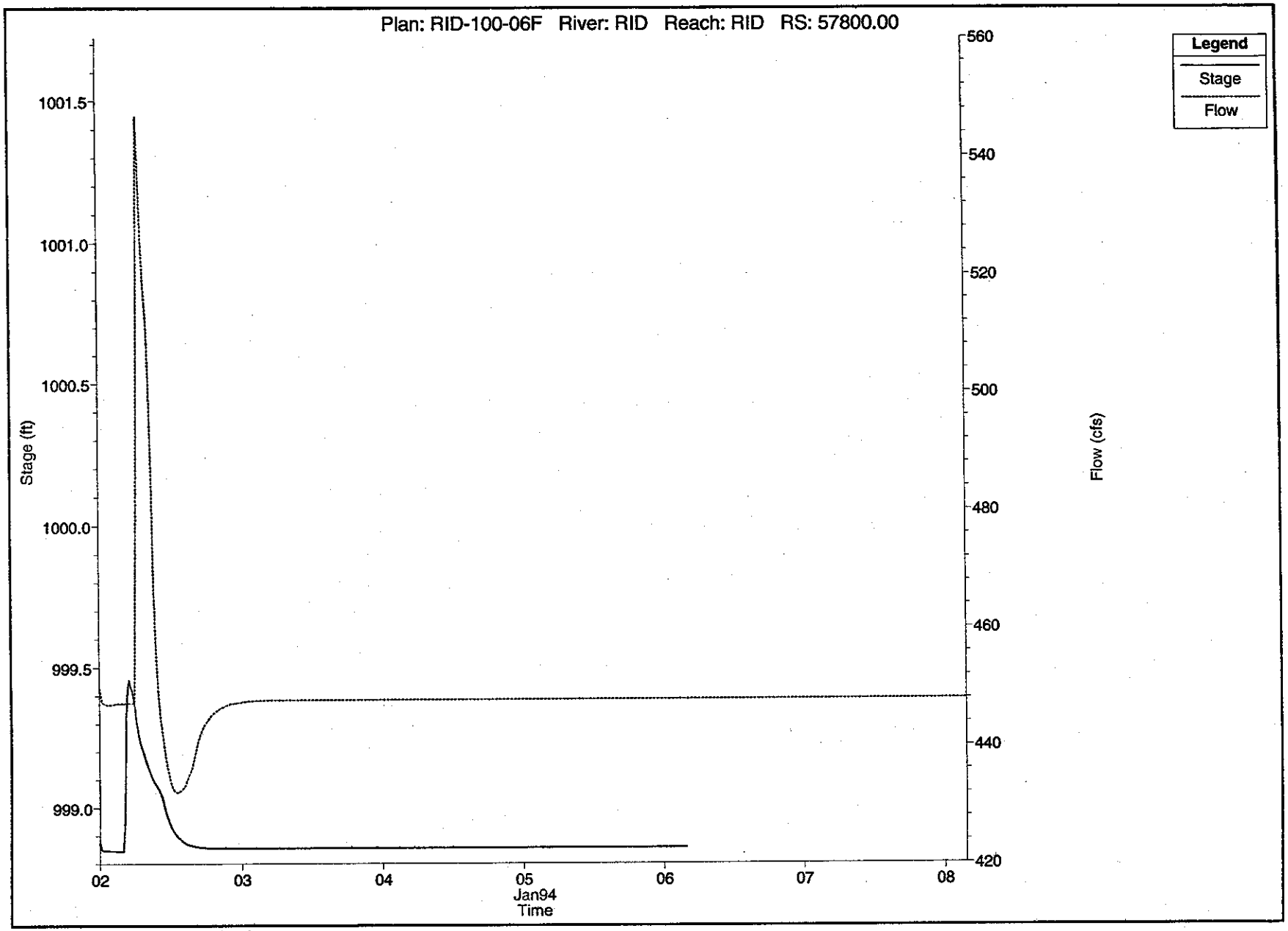
E.5.8 Stage and Flow Hydrographs for RID – Future 100-Year, 6-Hour Event



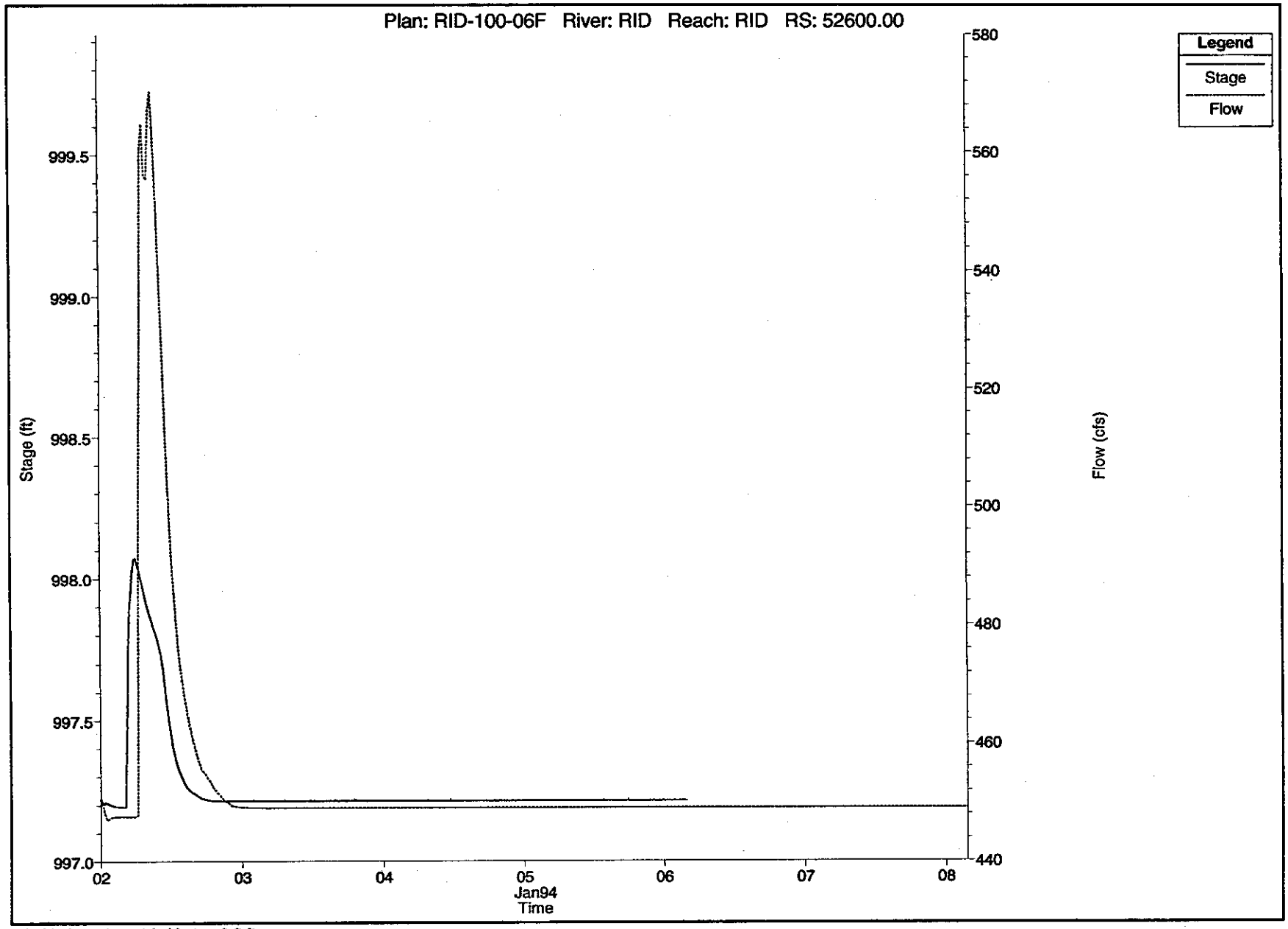
1 in Horiz. = 1 1 in Vert. = 0.5 ft



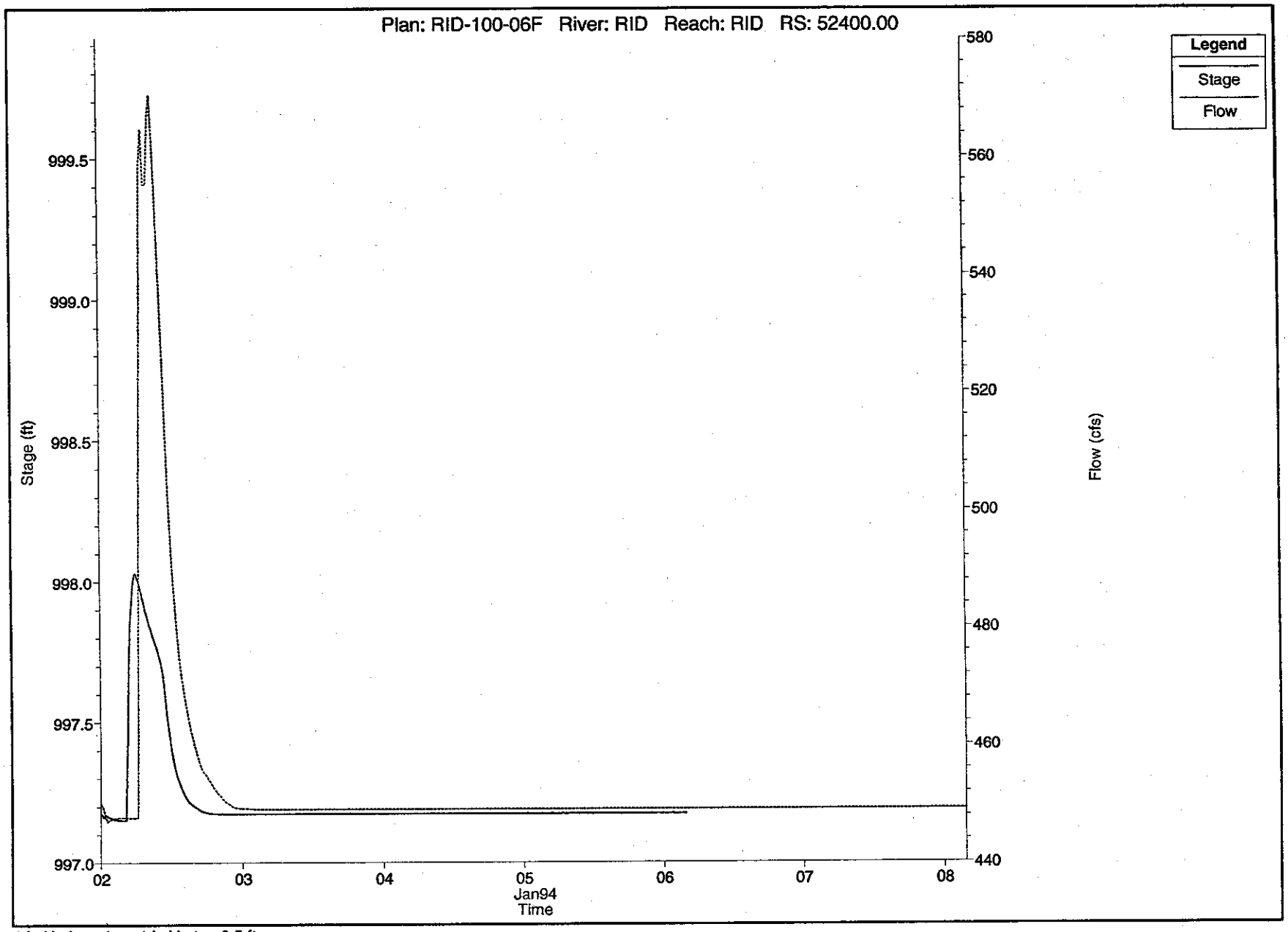
1 in Horiz. = 1 1 in Vert. = 0.5 ft



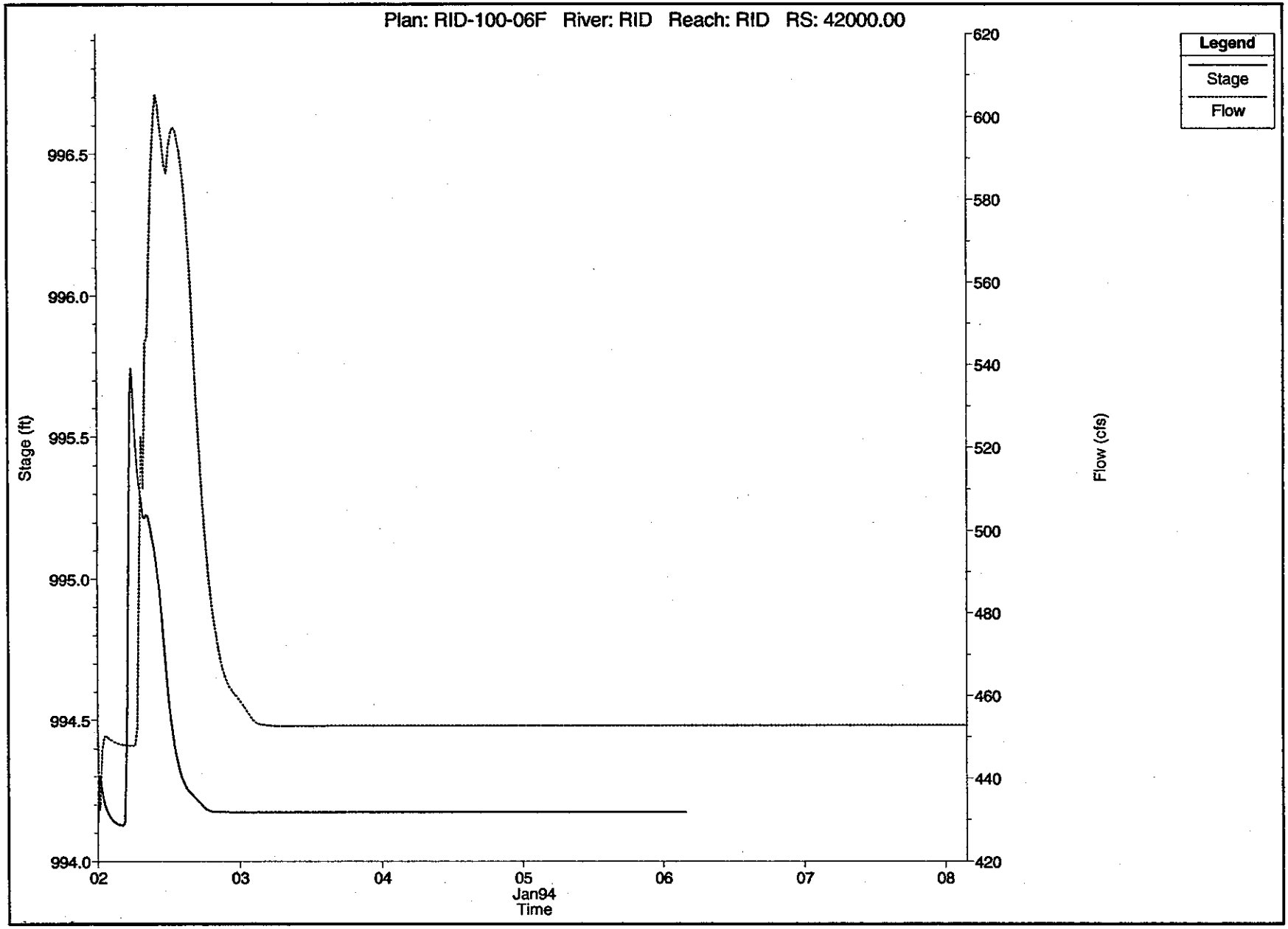
1 in Horiz. = 1 1 in Vert. = 0.5 ft



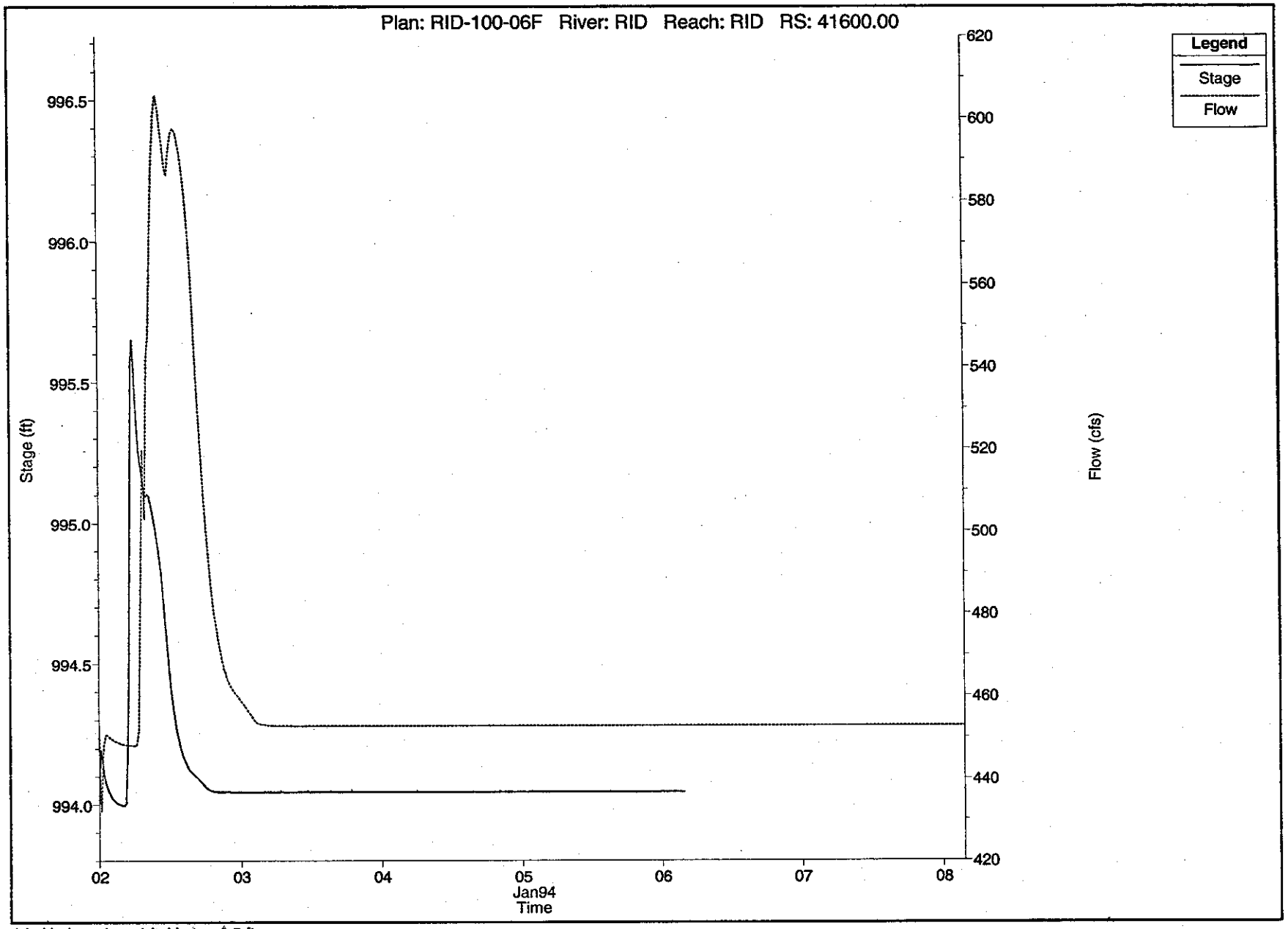
1 in Horiz. = 1 1 in Vert. = 0.5 ft



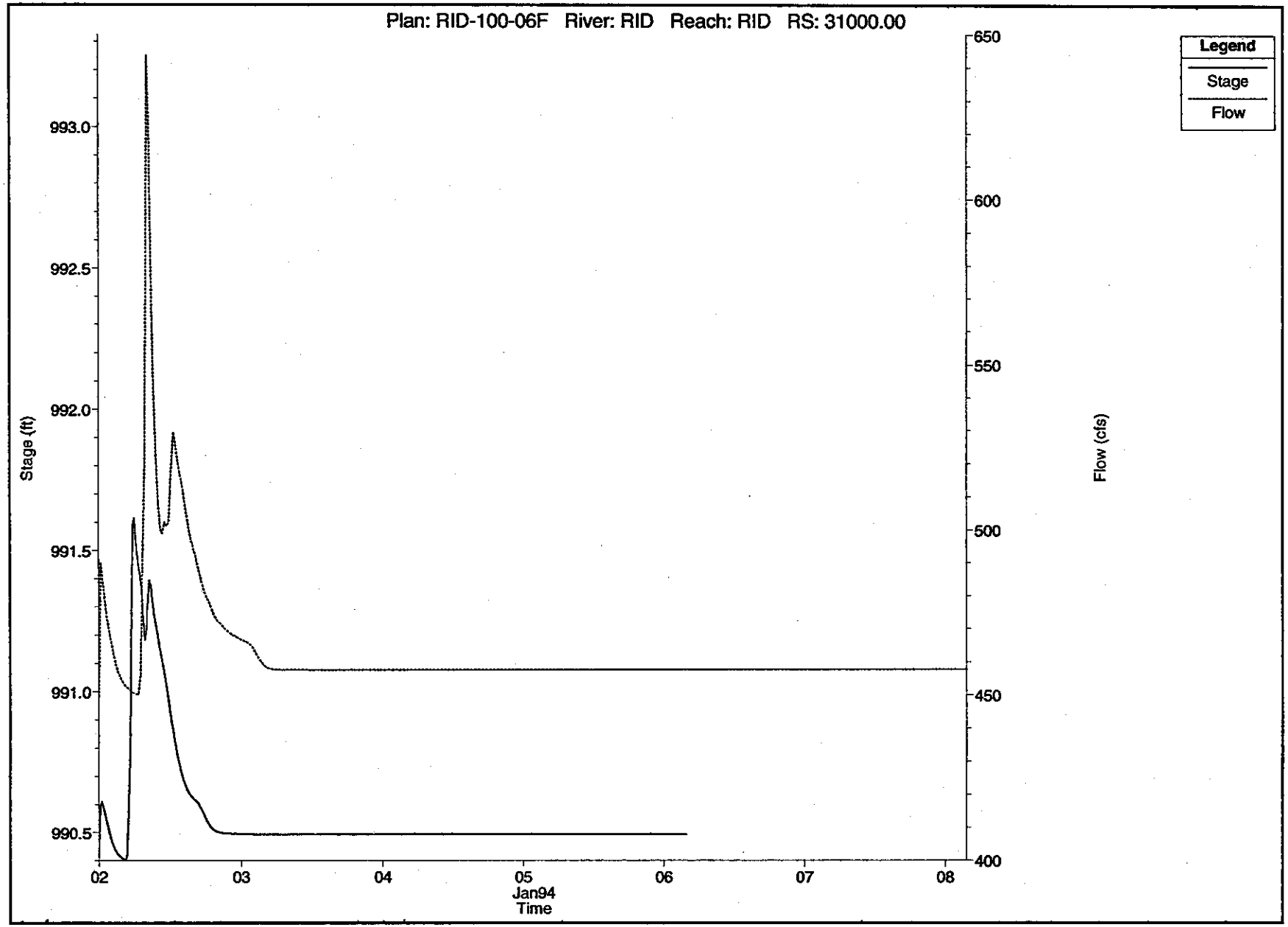
1 in Horiz. = 1 1 in Vert. = 0.5 ft



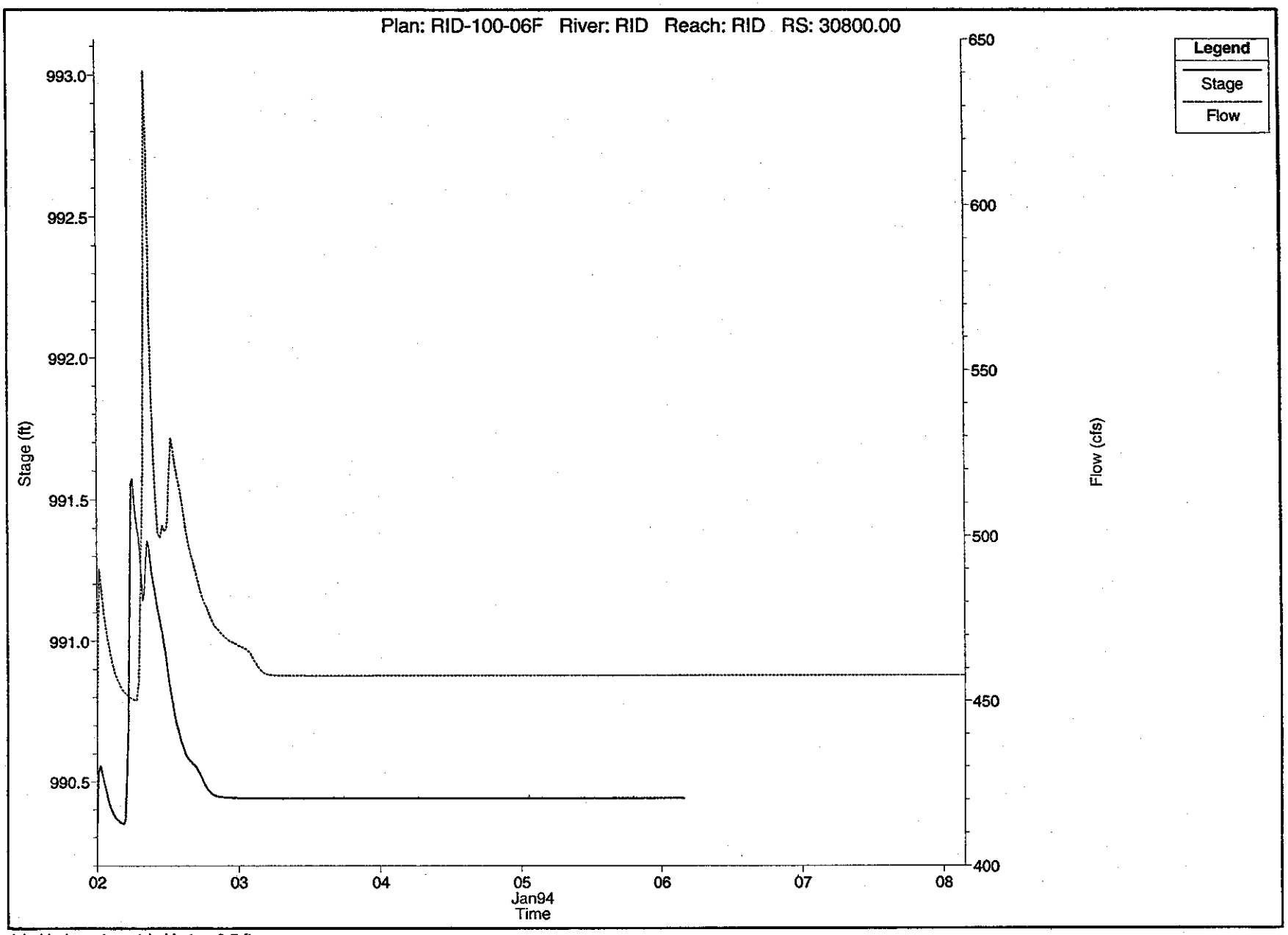
1 in Horiz. = 1 1 in Vert. = 0.5 ft



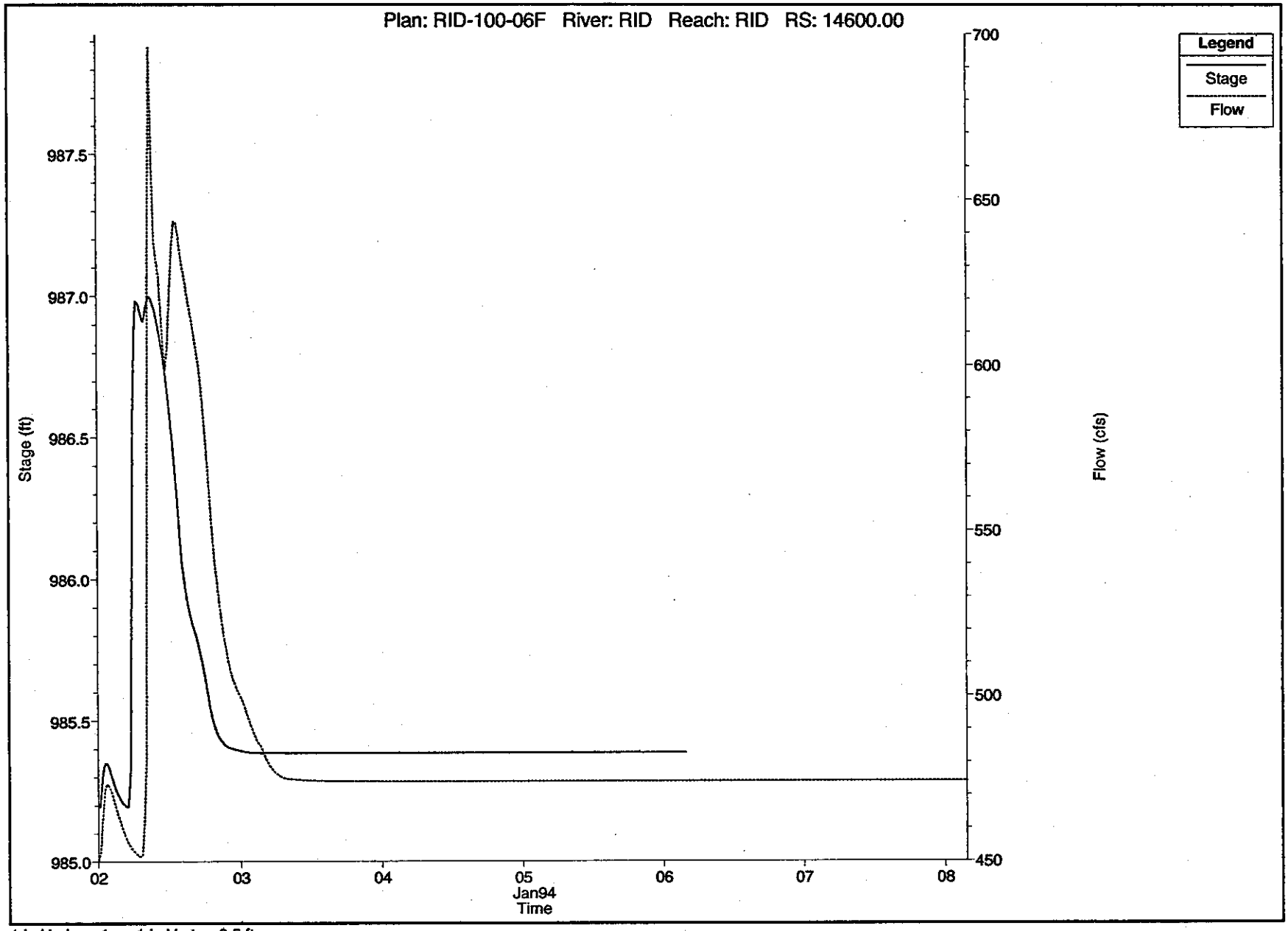
1 in Horiz. = 1 1 in Vert. = 0.5 ft



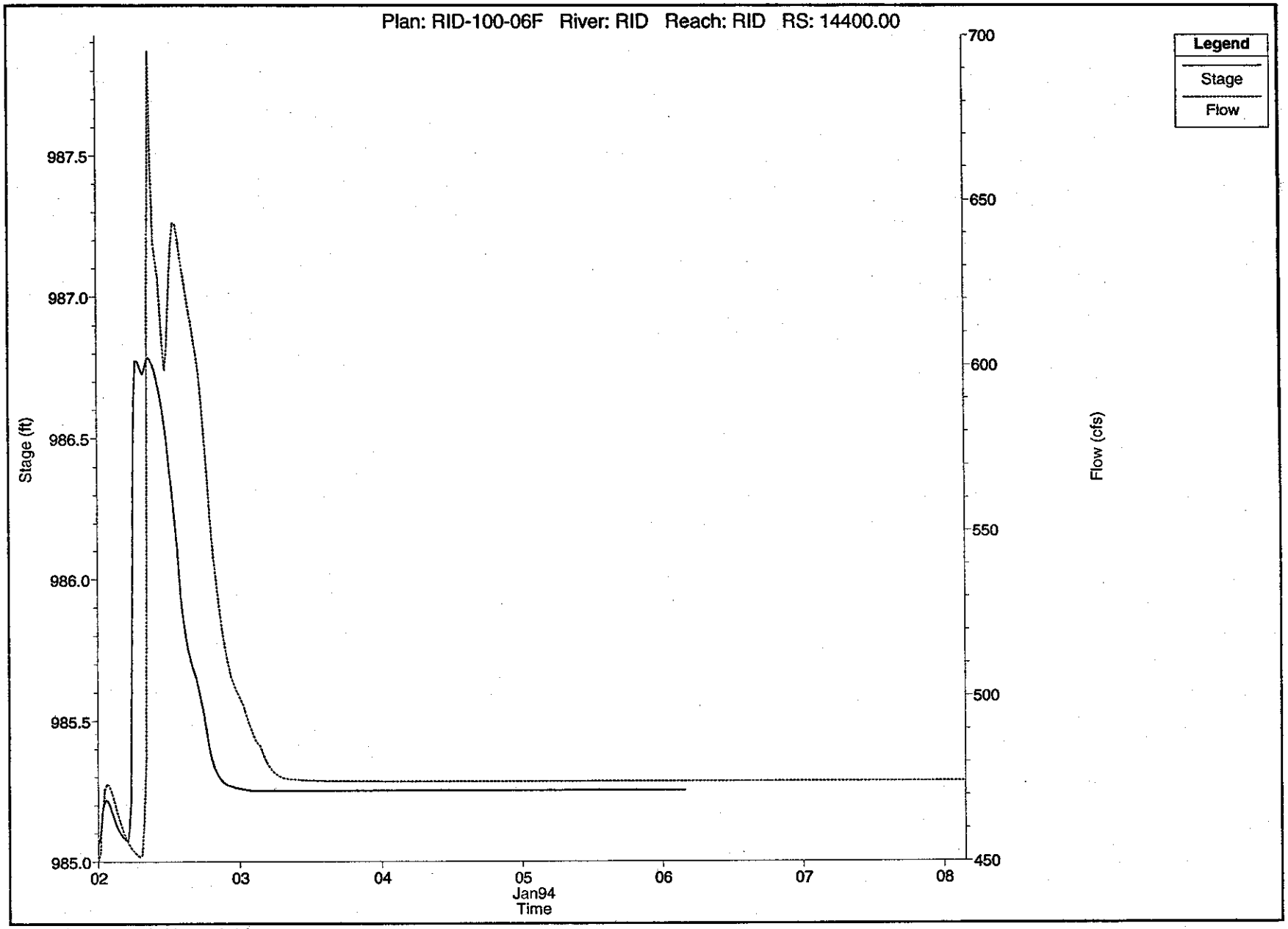
1 in Horiz. = 1 1 in Vert. = 0.5 ft



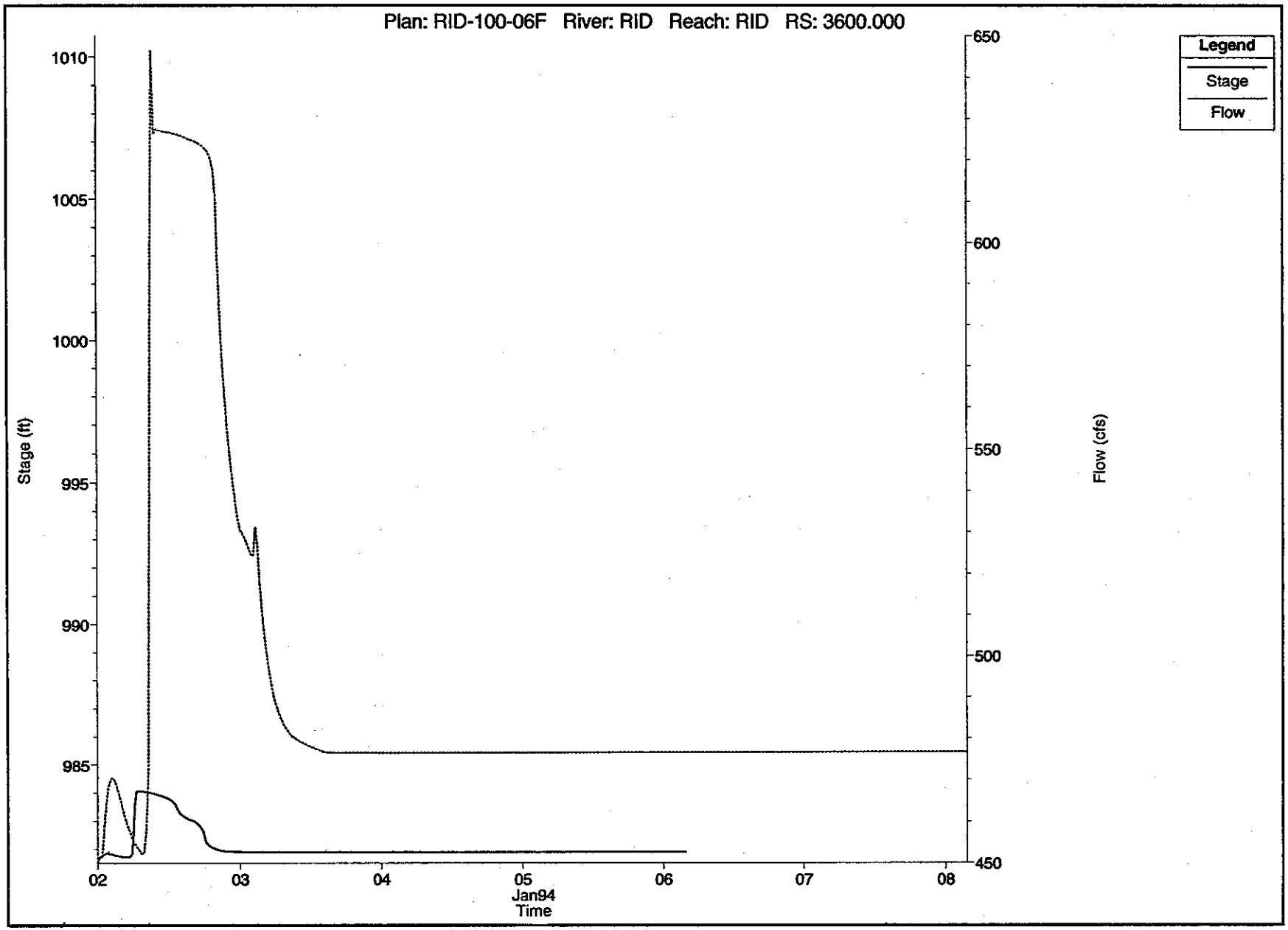
1 in Horiz. = 1 1 in Vert. = 0.5 ft



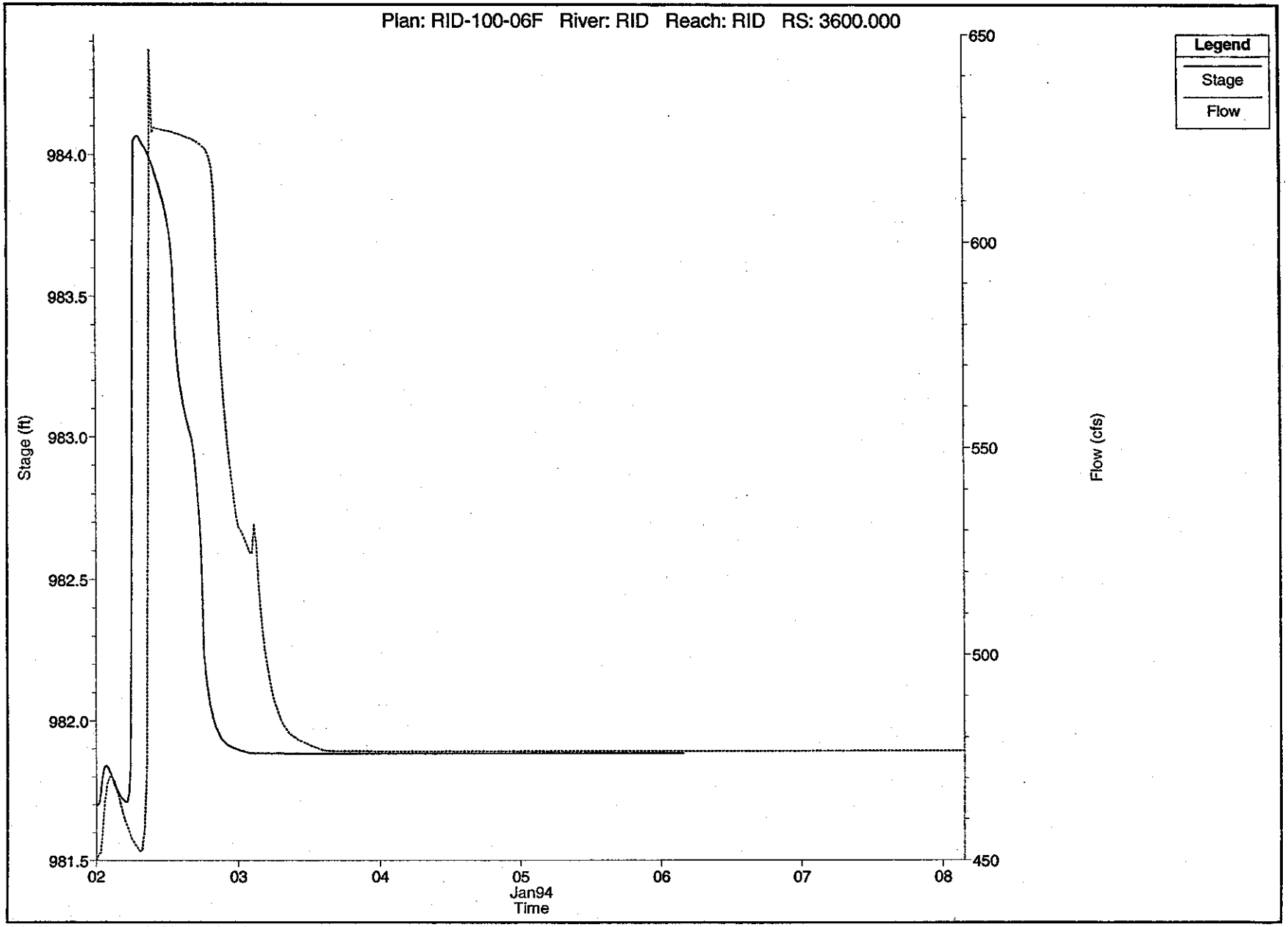
1 in Horiz. = 1 1 in Vert. = 0.5 ft



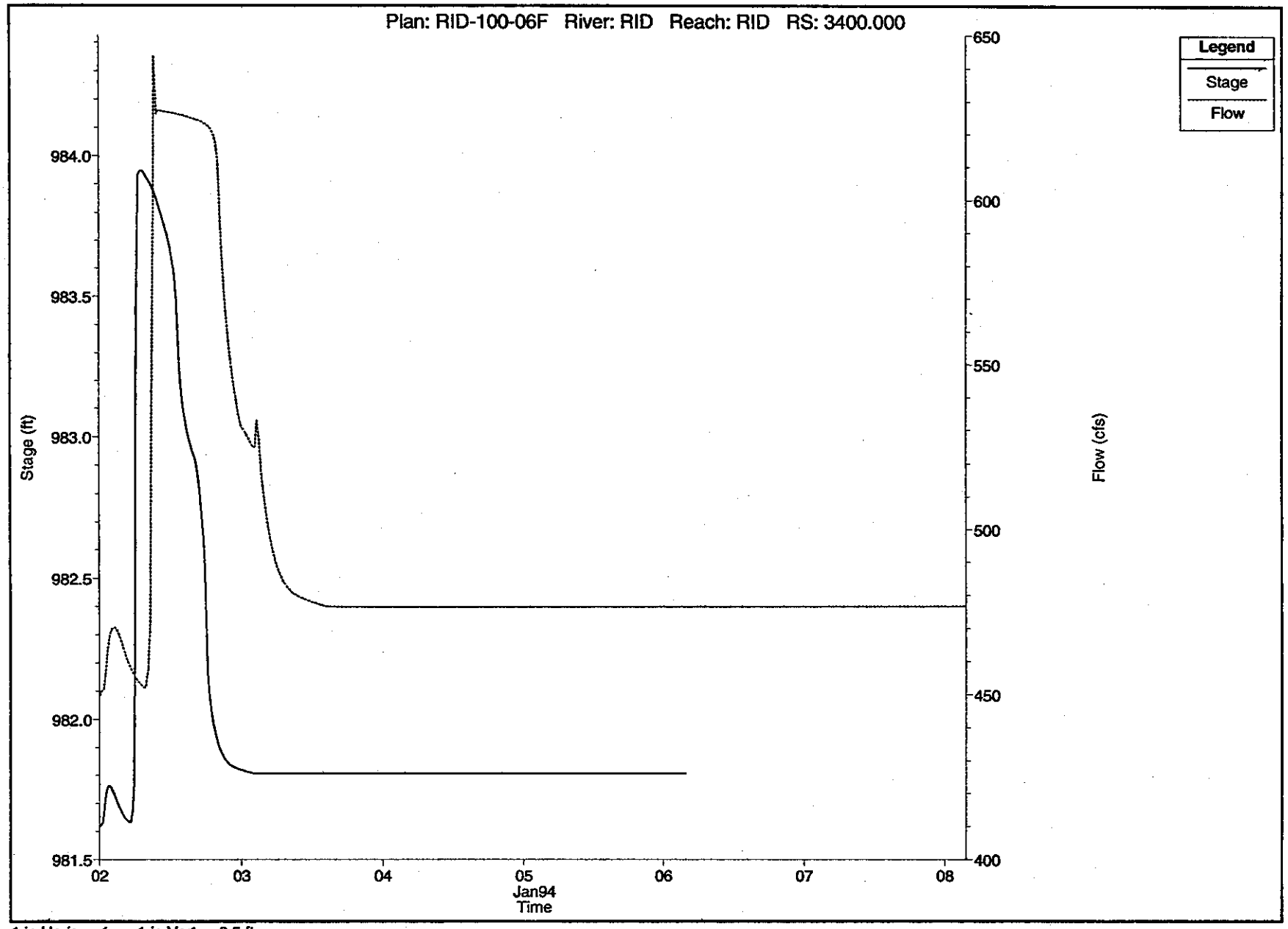
1 in Horiz. = 1 1 in Vert. = 0.5 ft



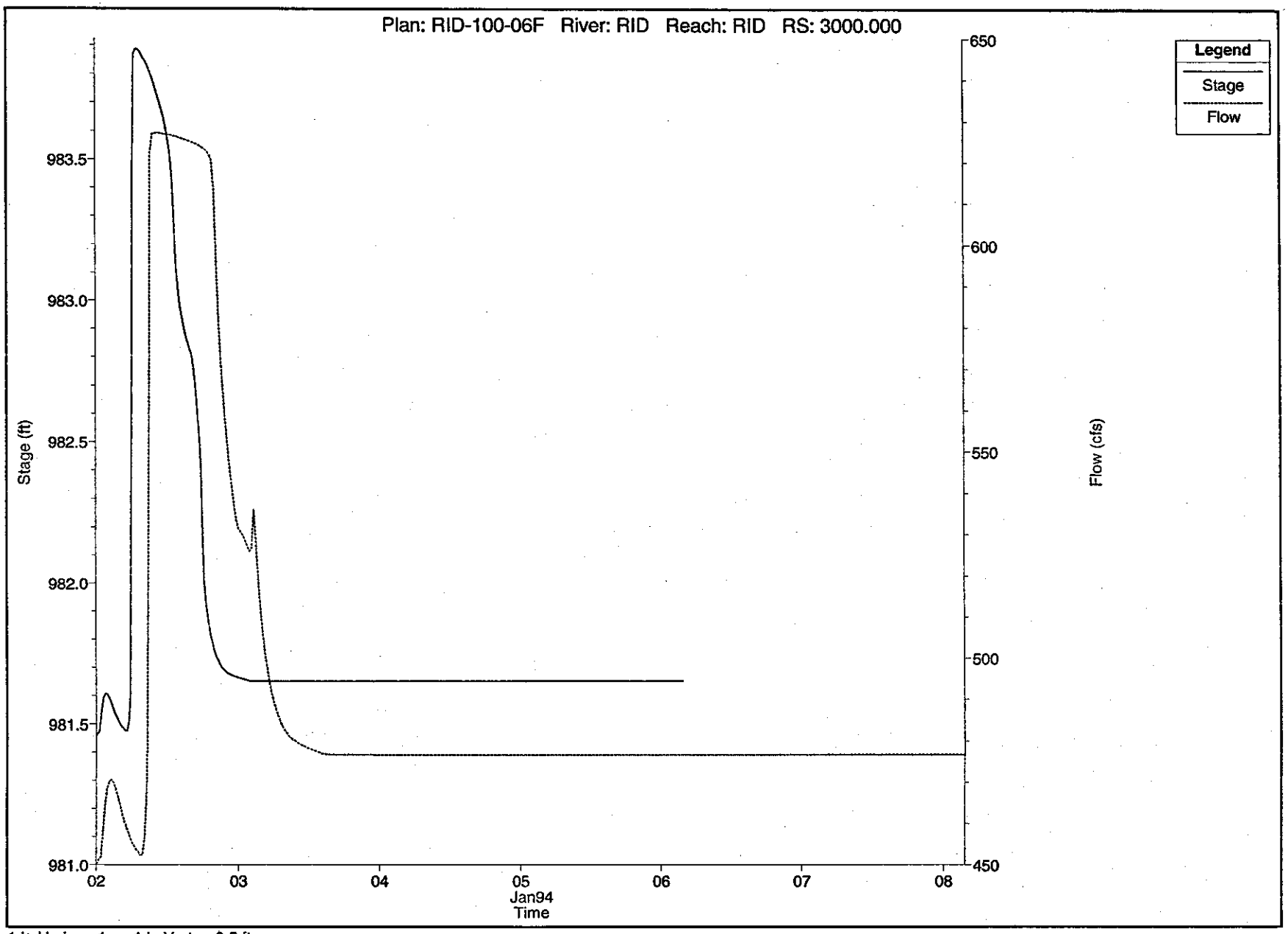
1 in Horiz. = 1 1 in Vert. = 5 ft



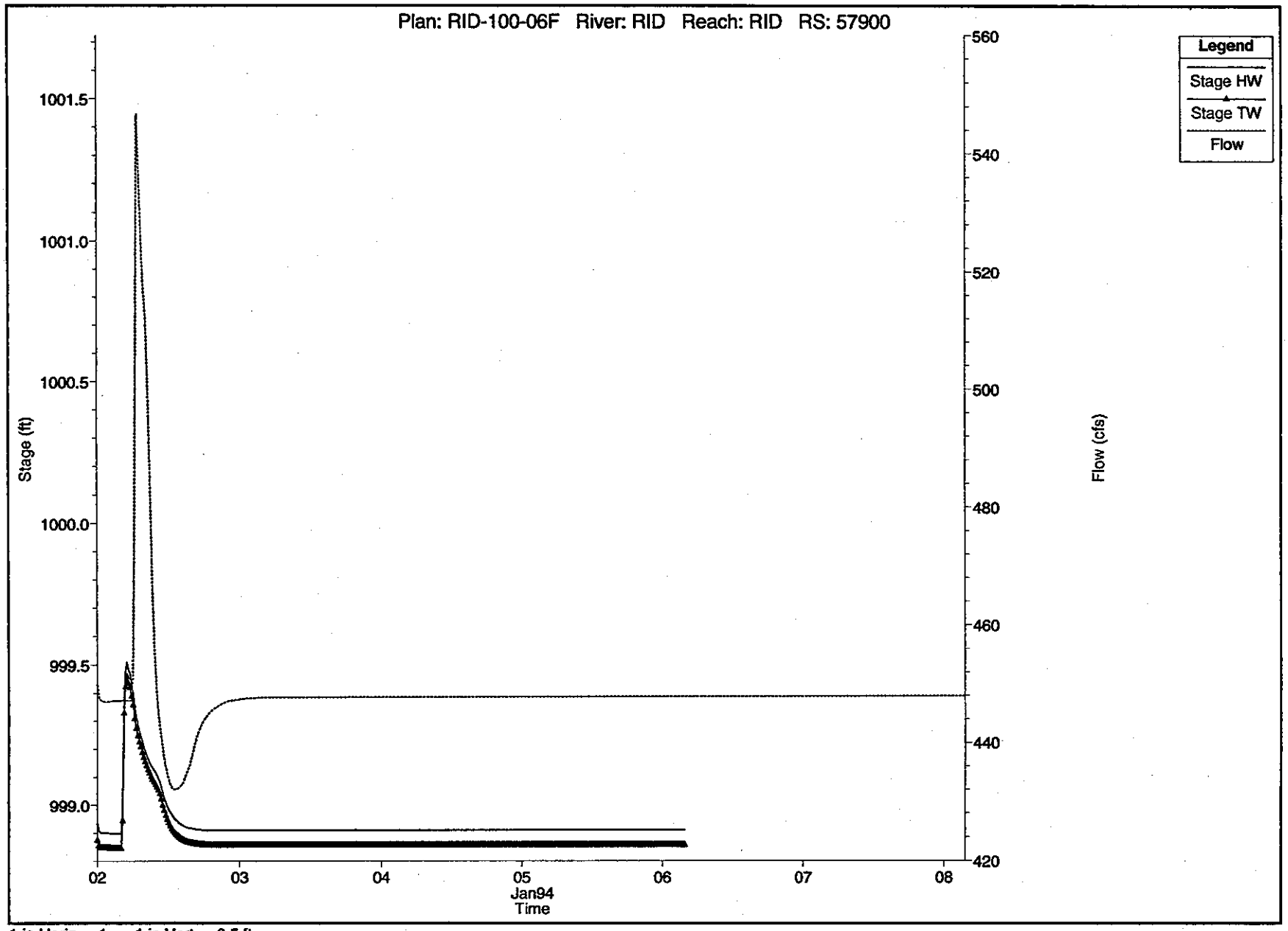
1 in Horiz. = 1 1 in Vert. = 0.5 ft



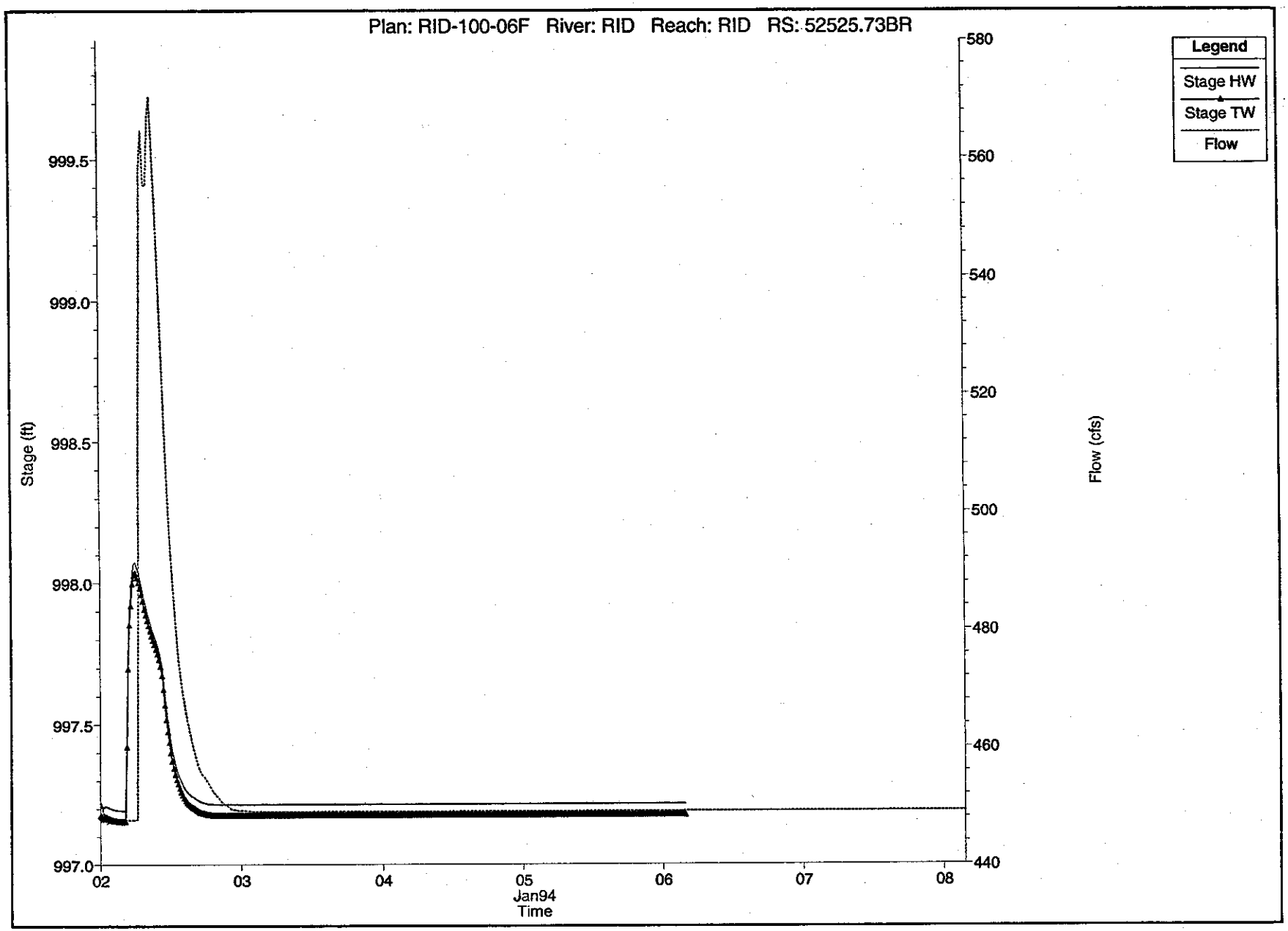
1 in Horiz. = 1 1 in Vert. = 0.5 ft



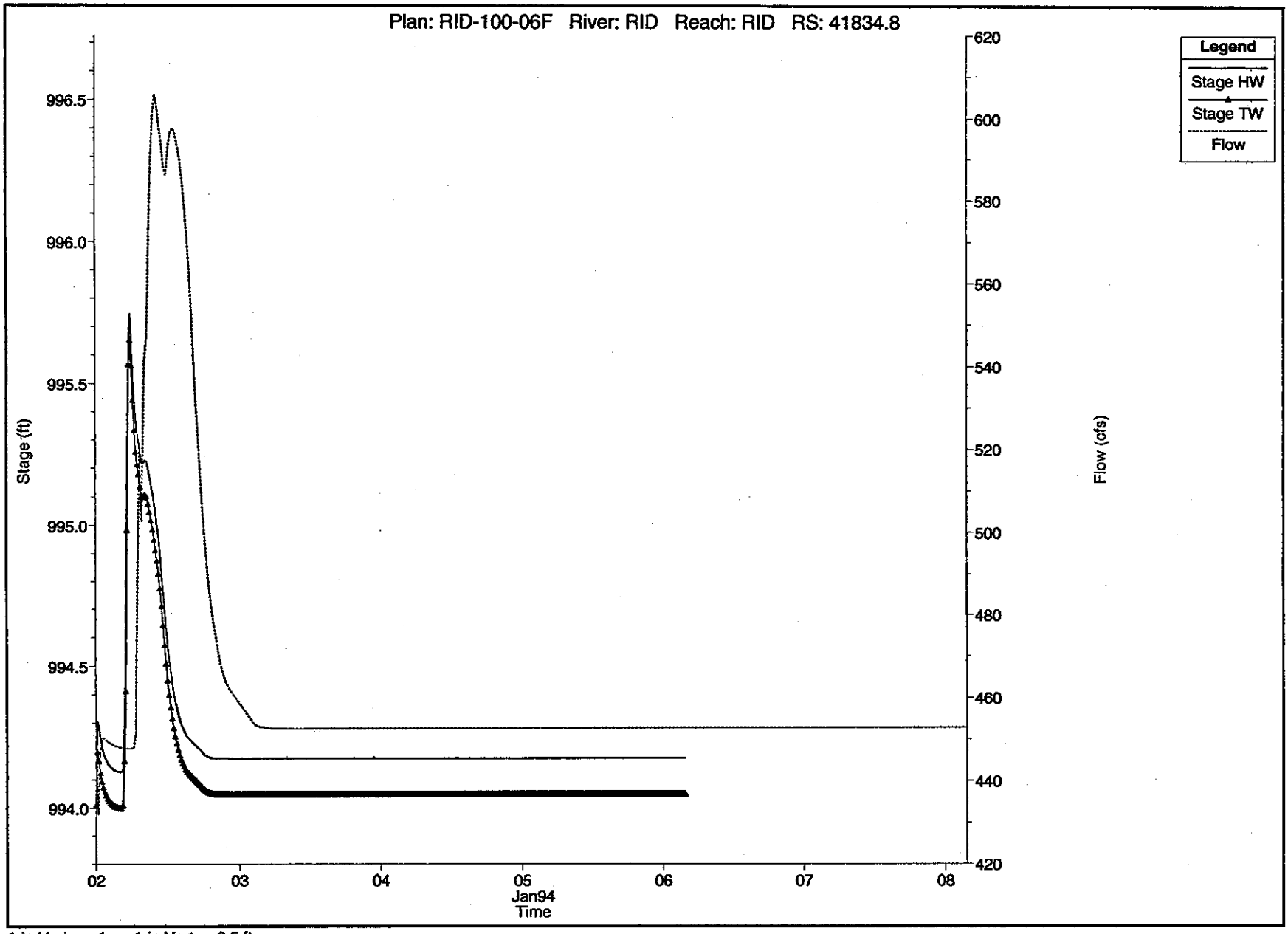
1 in Horiz. = 1 1 in Vert. = 0.5 ft



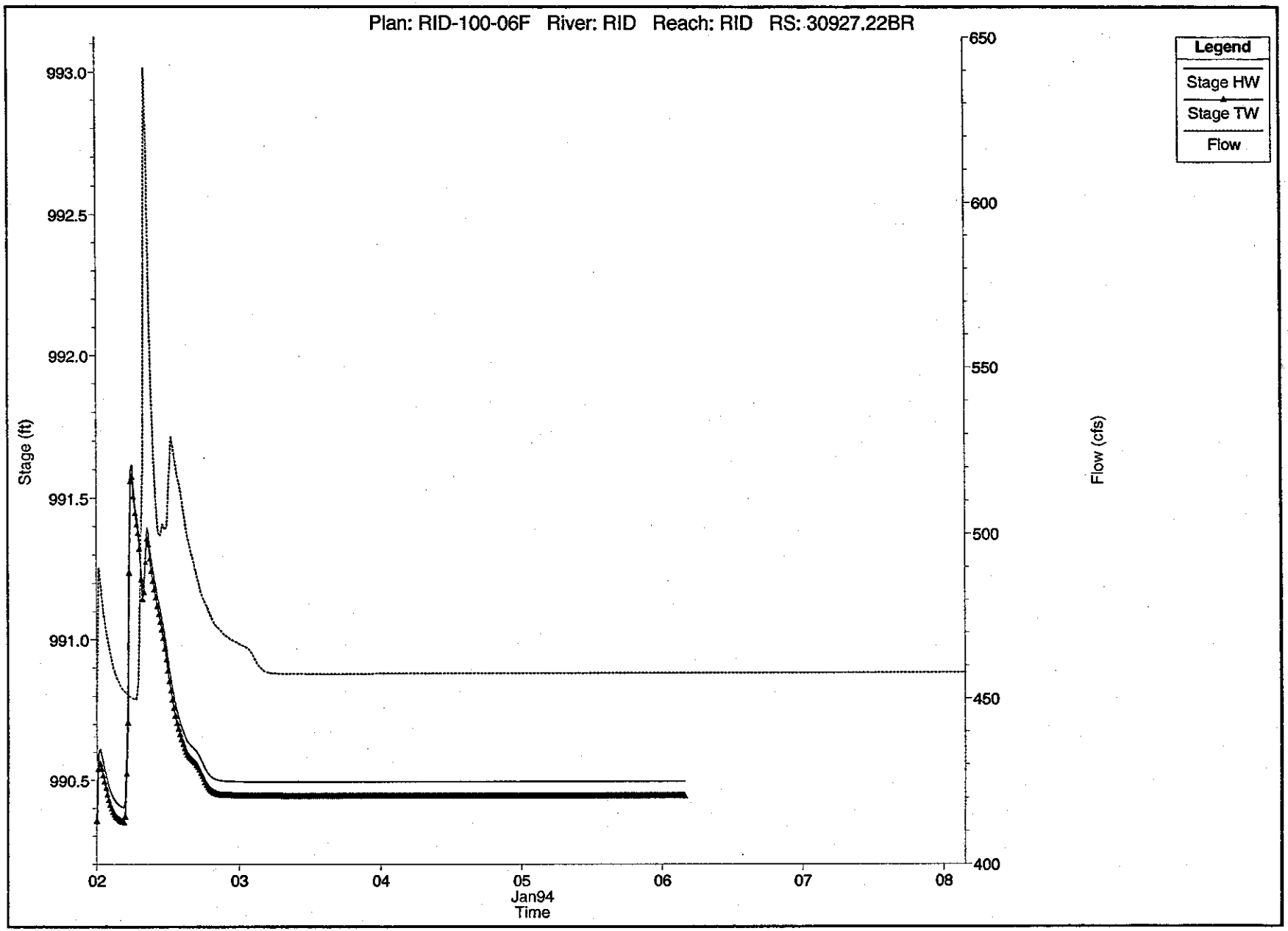
1 in Horiz. = 1 1 in Vert. = 0.5 ft



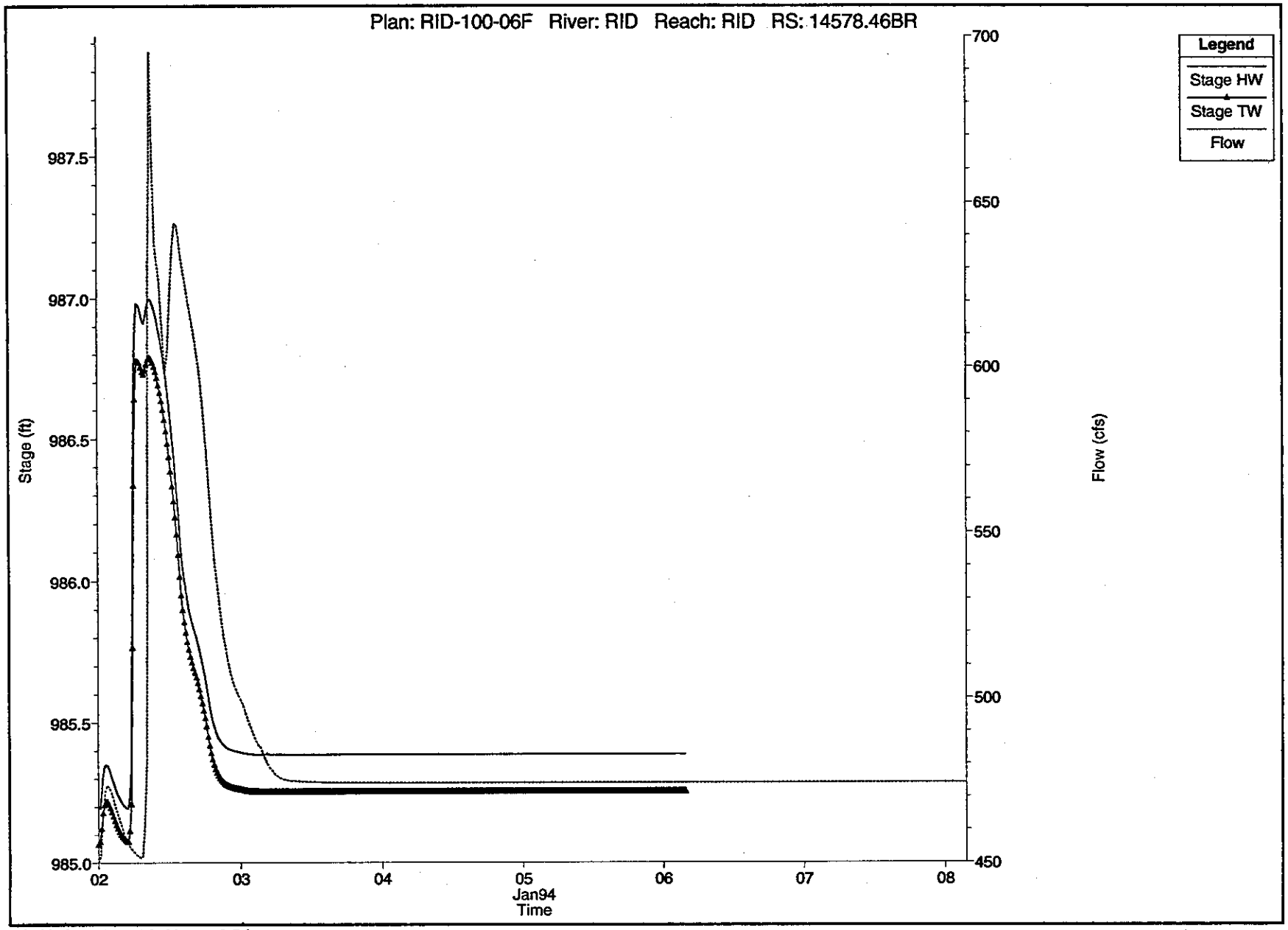
1 in Horiz. = 1 1 in Vert. = 0.5 ft



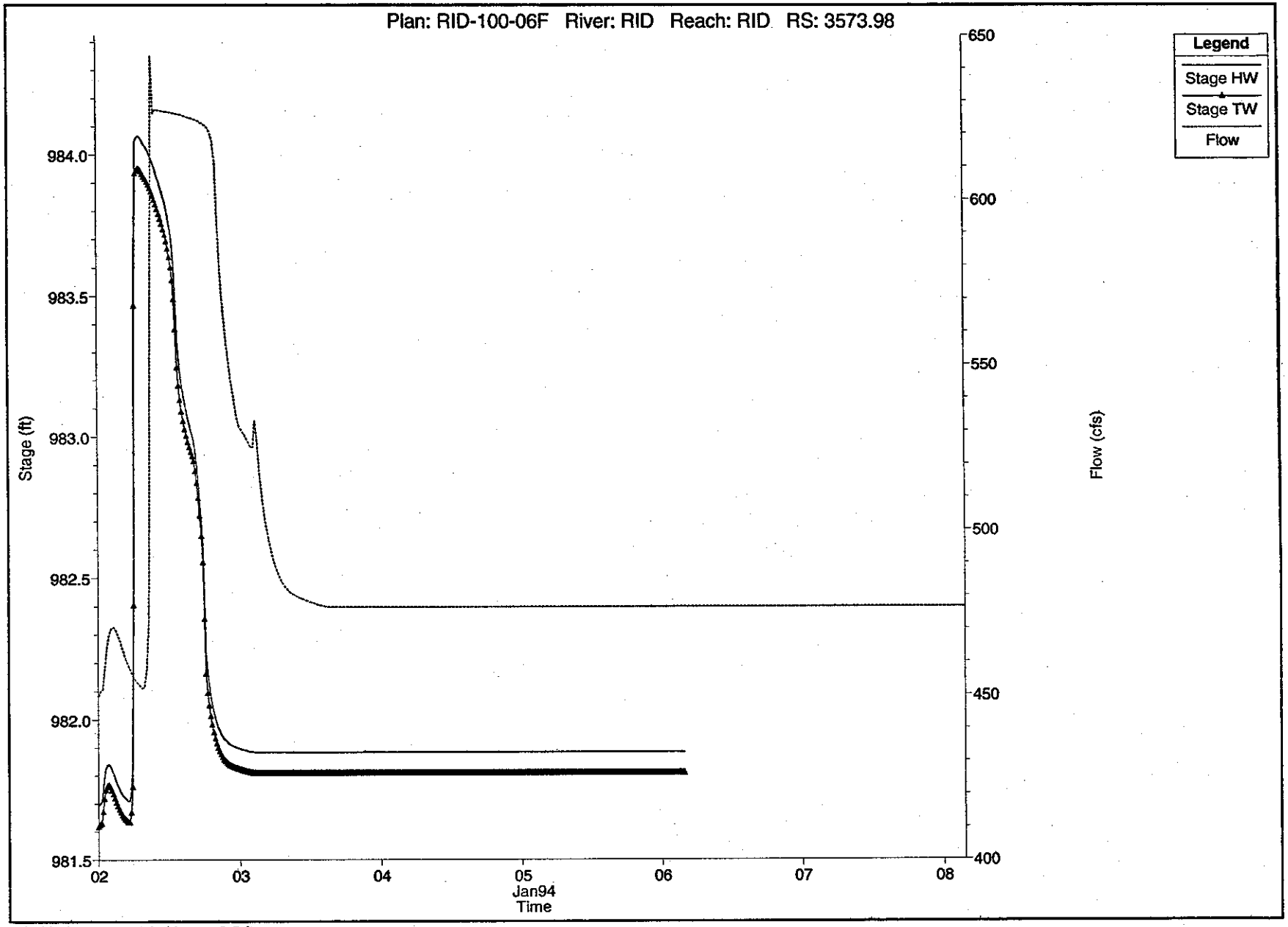
1 in Horiz. = 1 1 in Vert. = 0.5 ft



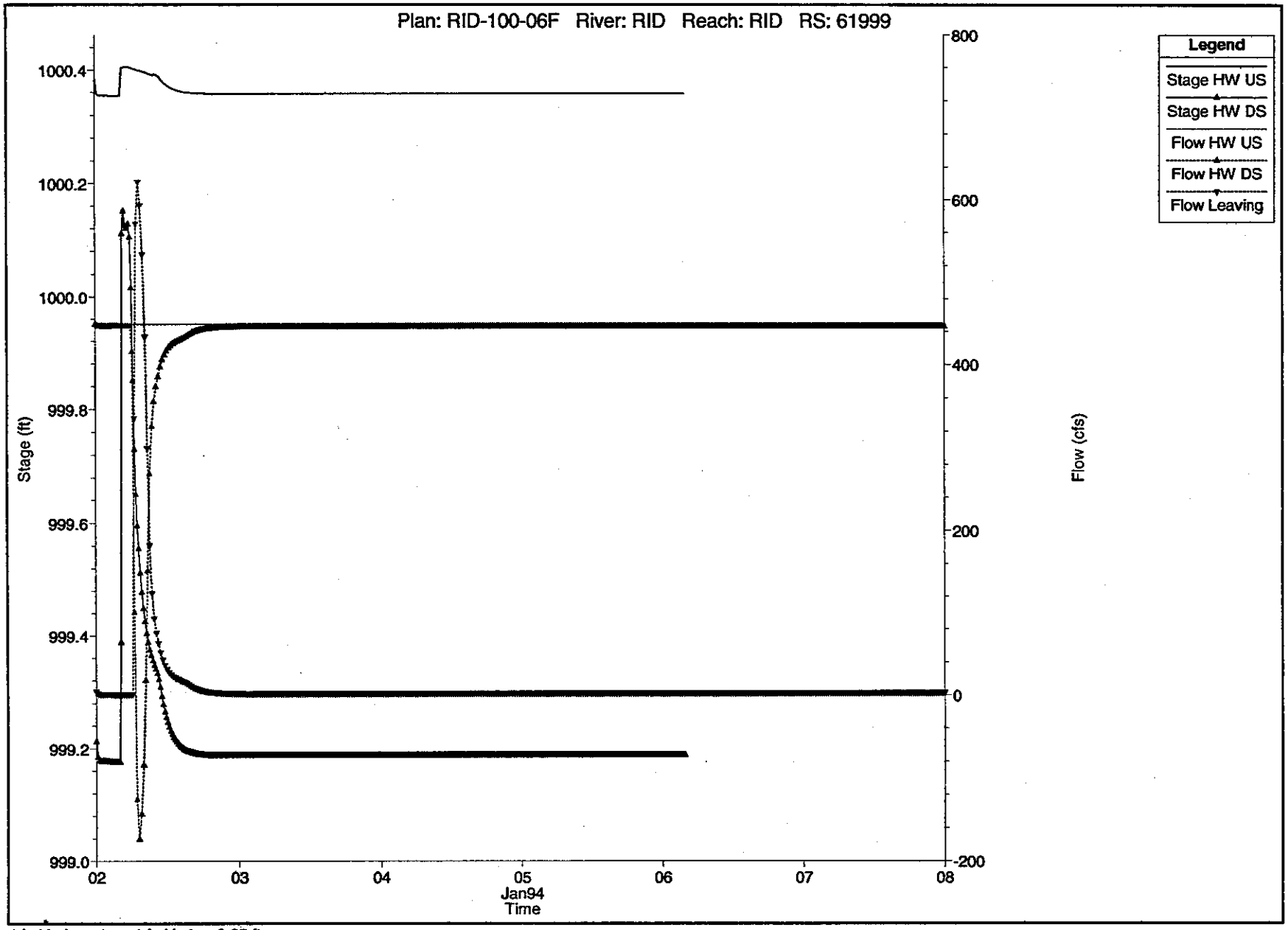
1 in Horiz. = 1 1 in Vert. = 0.5 ft



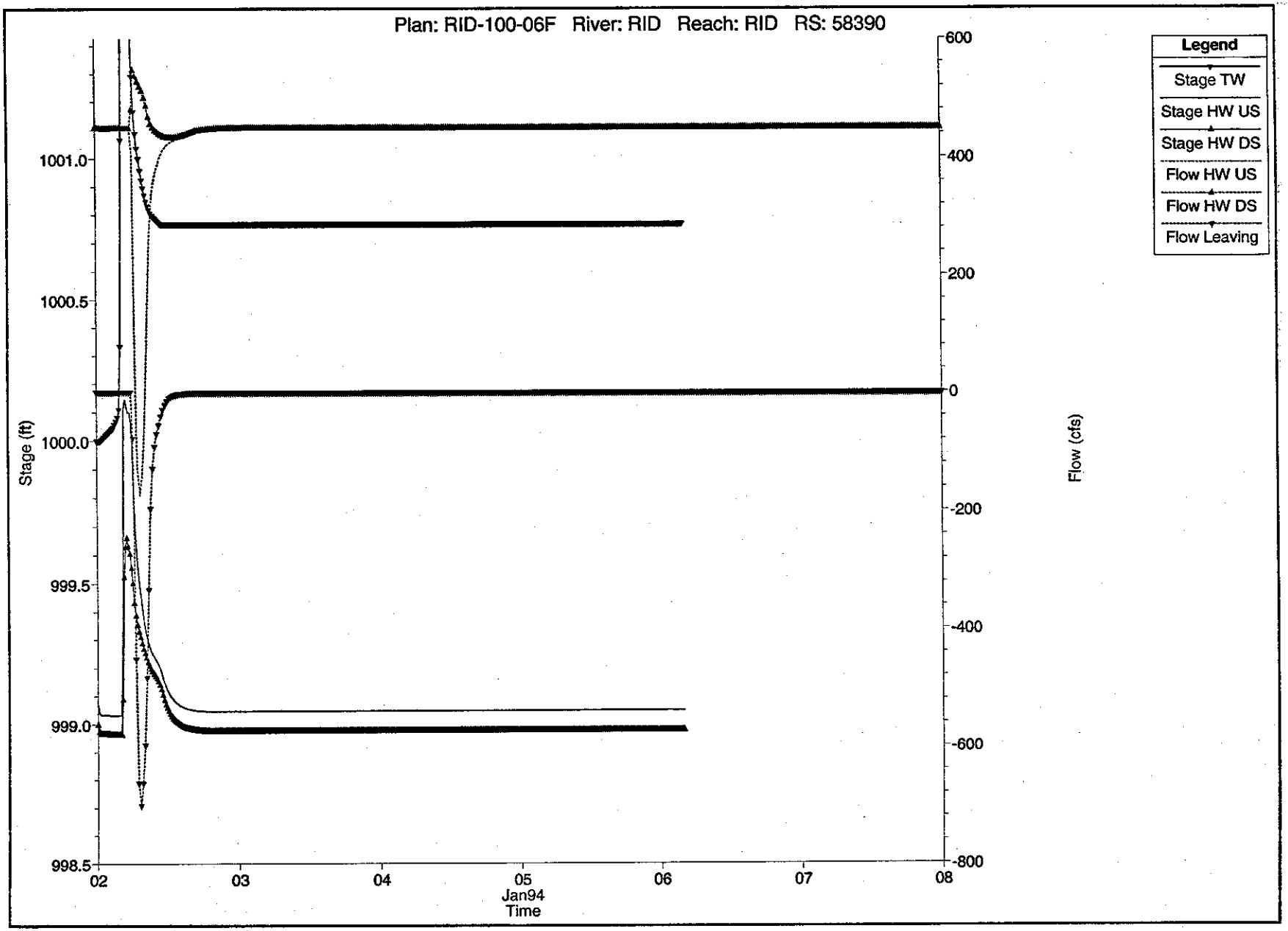
1 in Horiz. = 1 1 in Vert. = 0.5 ft



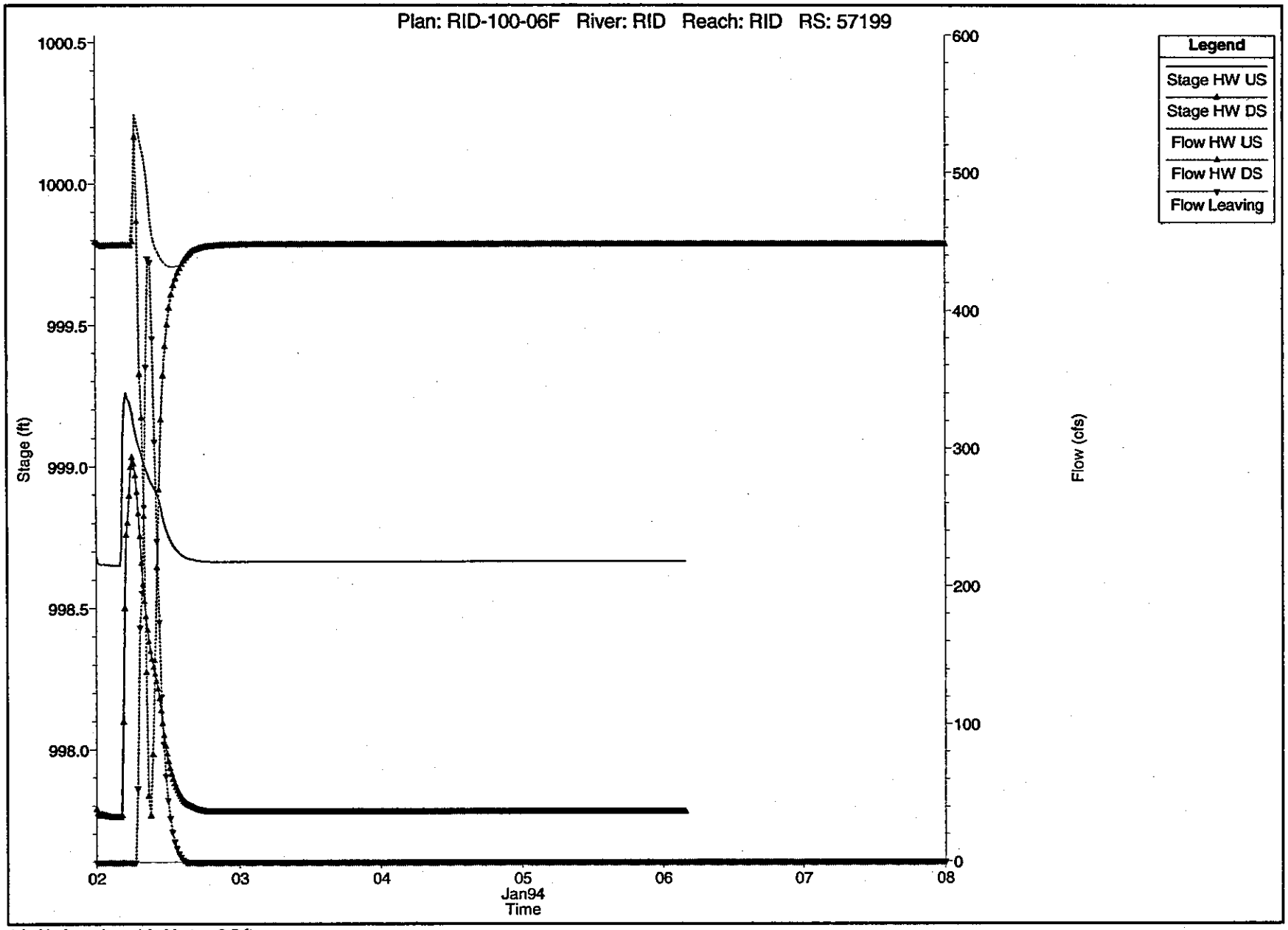
1 in Horiz. = 1 1 in Vert. = 0.5 ft



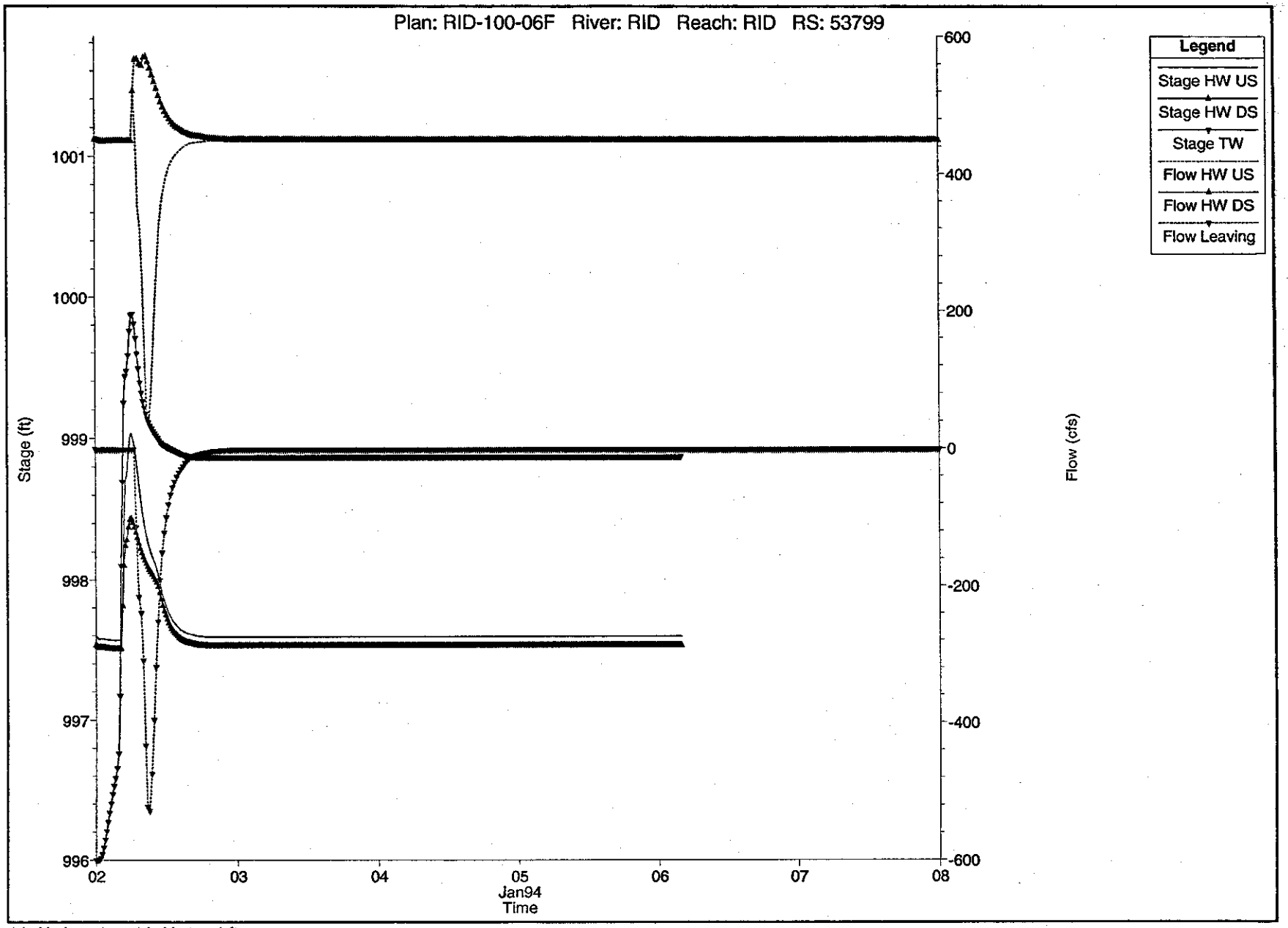
1 in Horiz. = 1 1 in Vert. = 0.25 ft



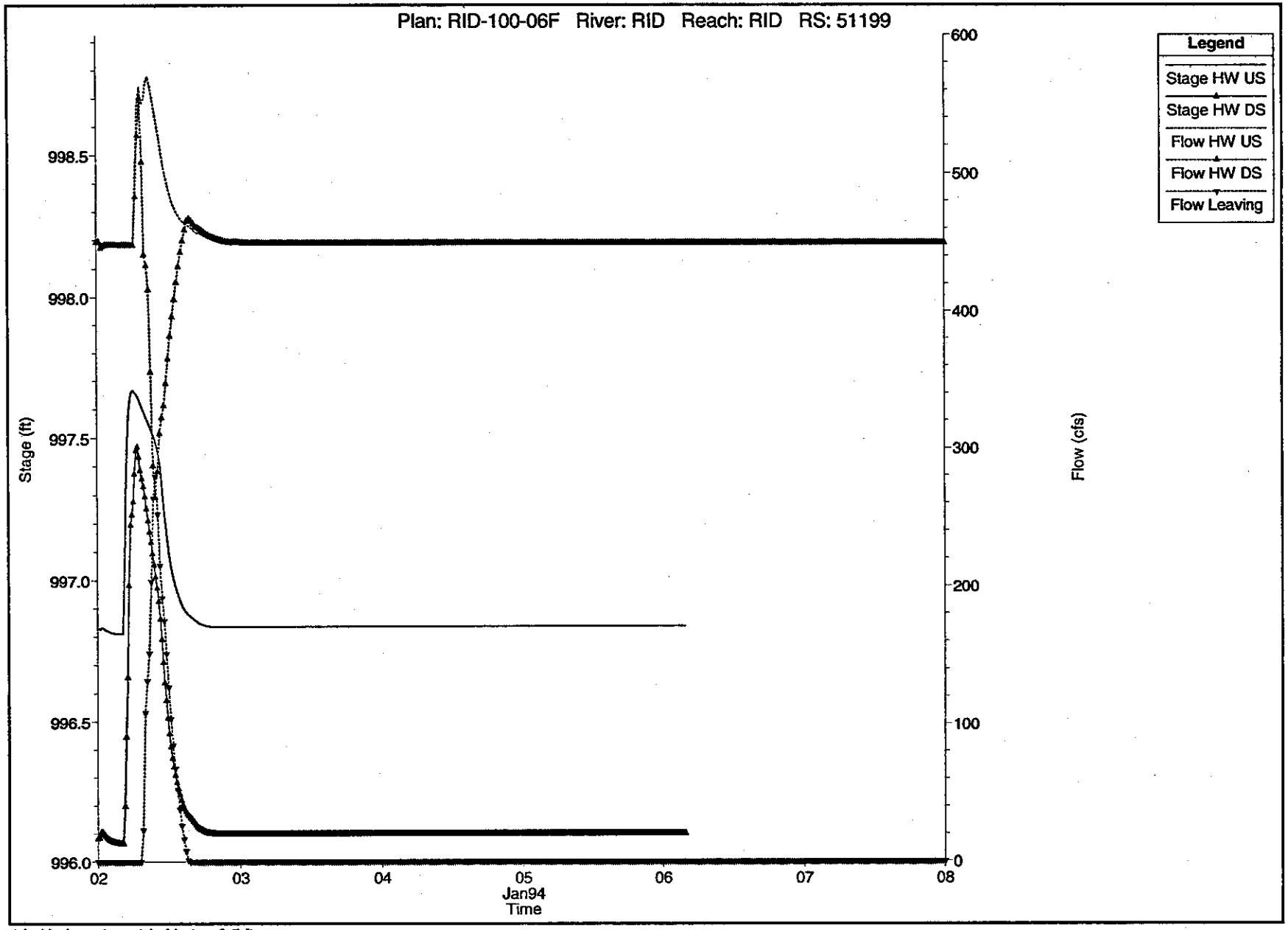
1 in Horiz. = 1 1 in Vert. = 0.5 ft



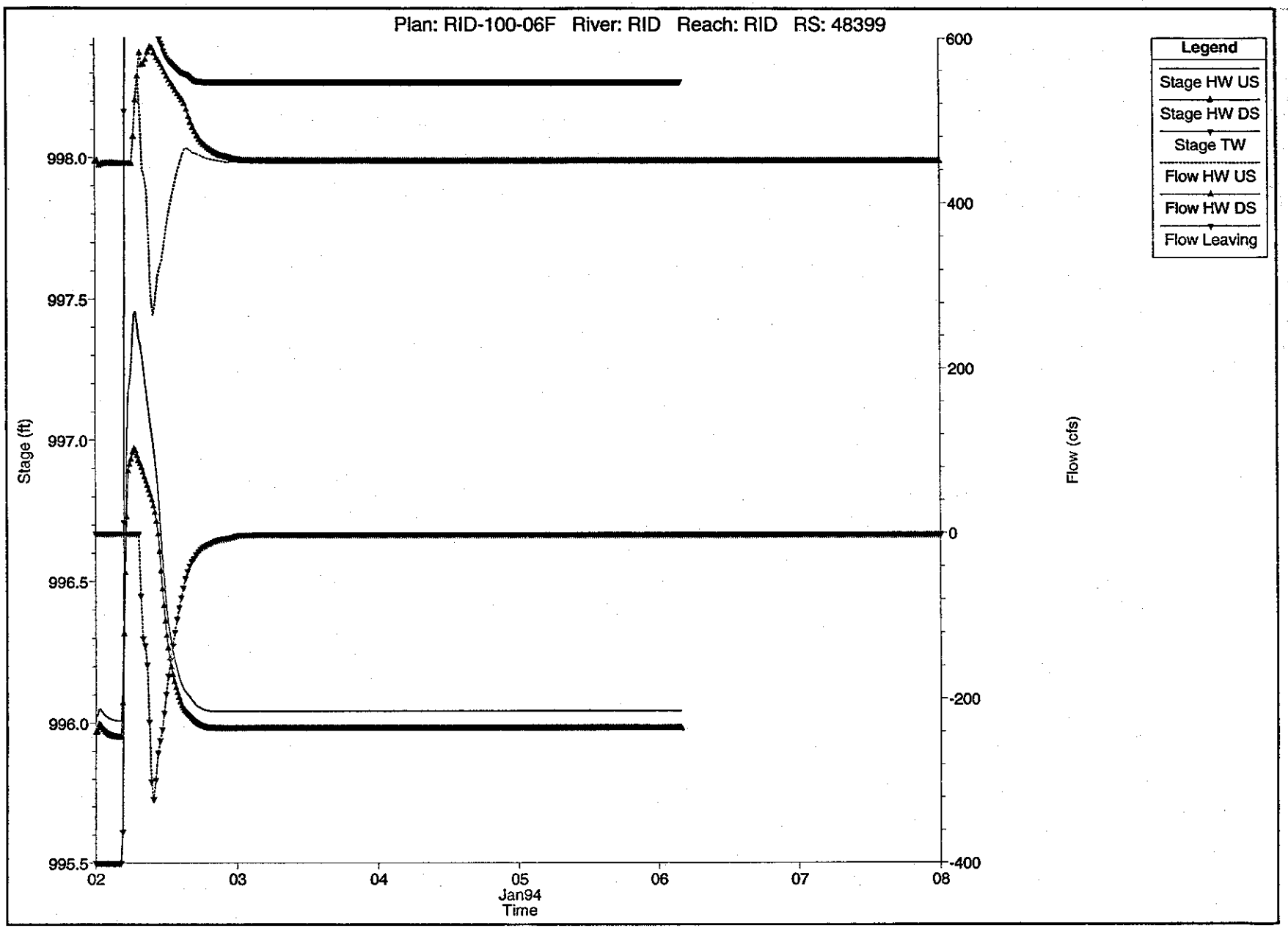
1 in Horiz. = 1 1 in Vert. = 0.5 ft



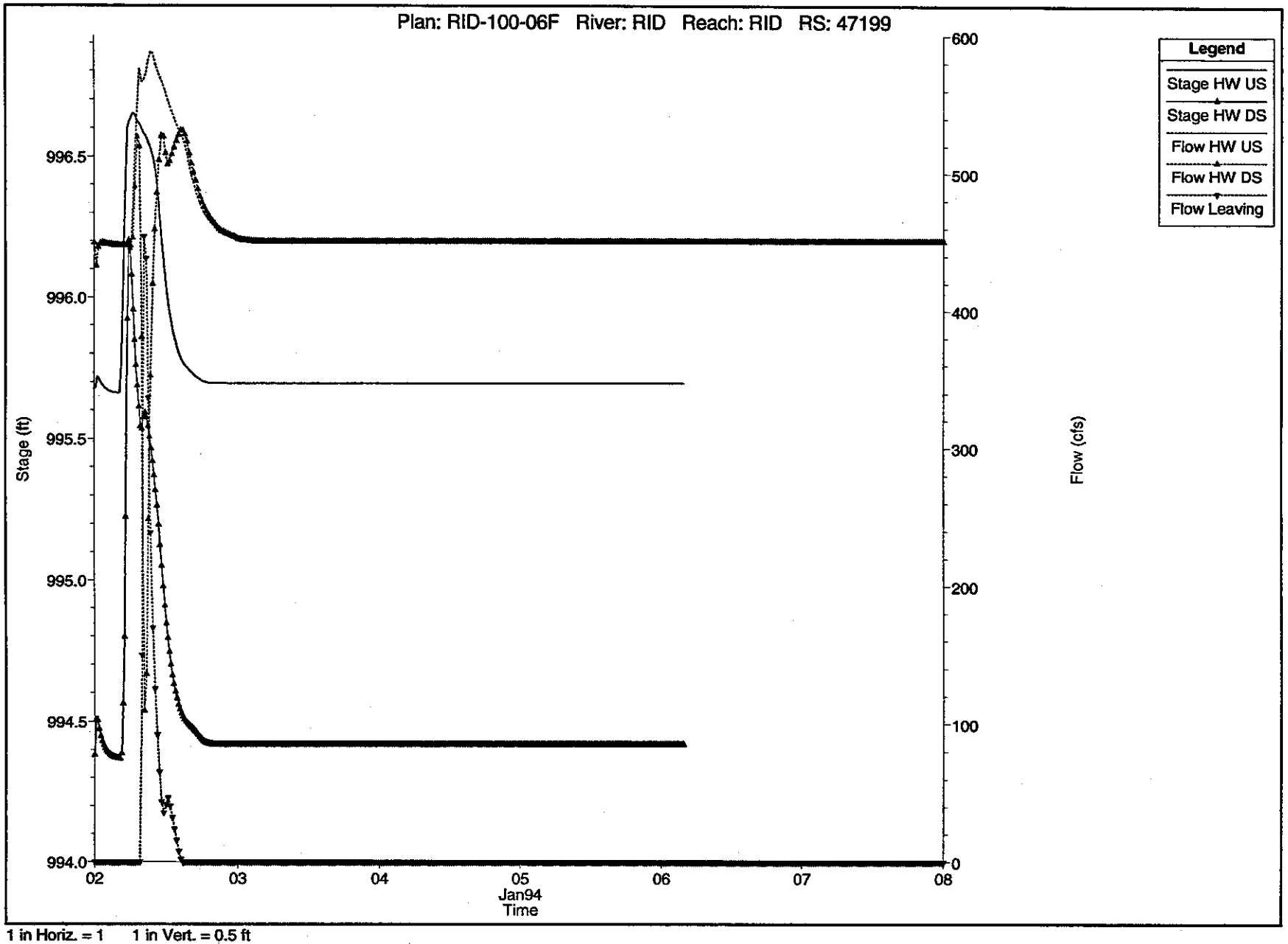
1 in Horiz. = 1 1 in Vert. = 1 ft



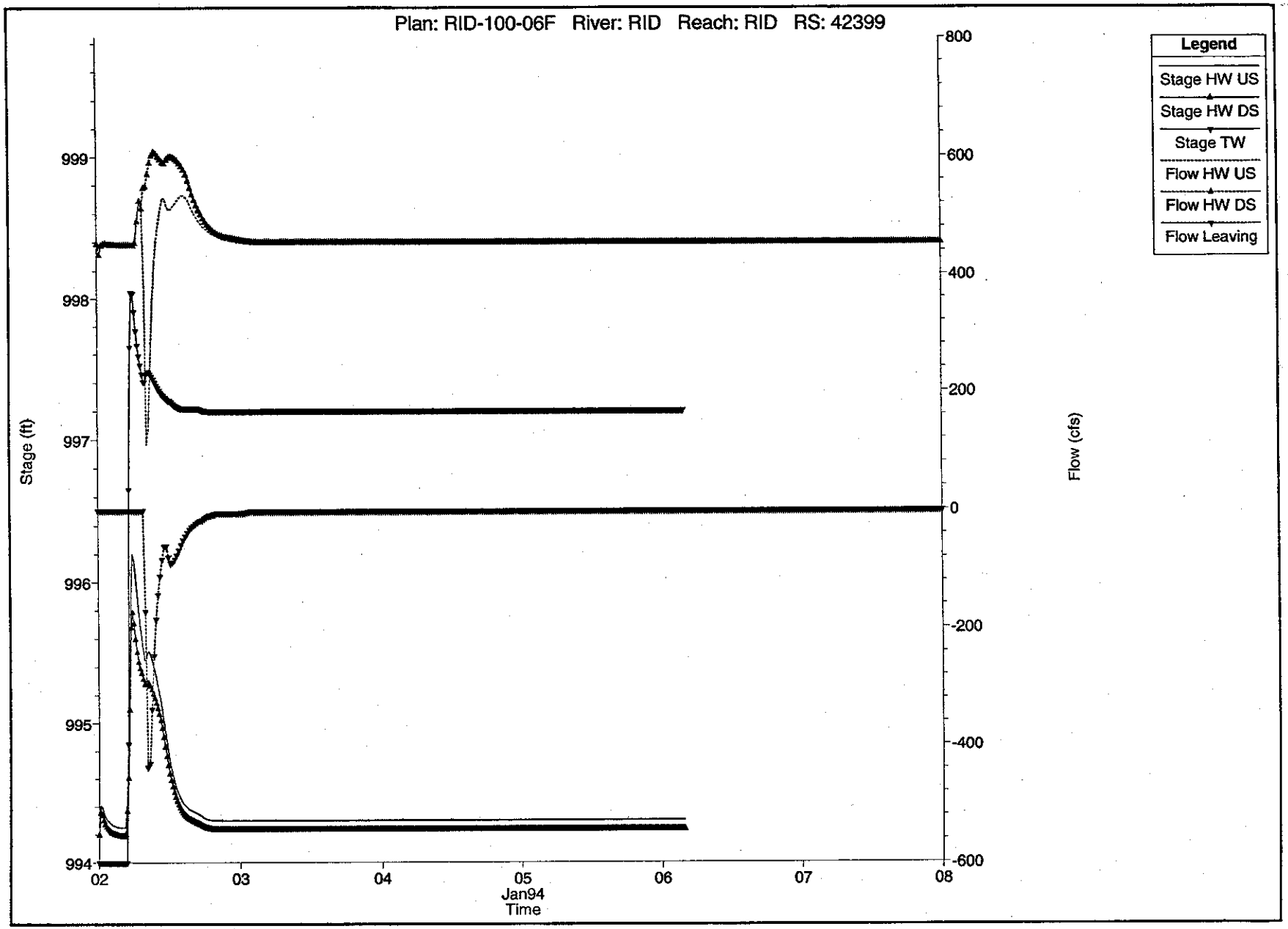
1 in Horiz. = 1 1 in Vert. = 0.5 ft



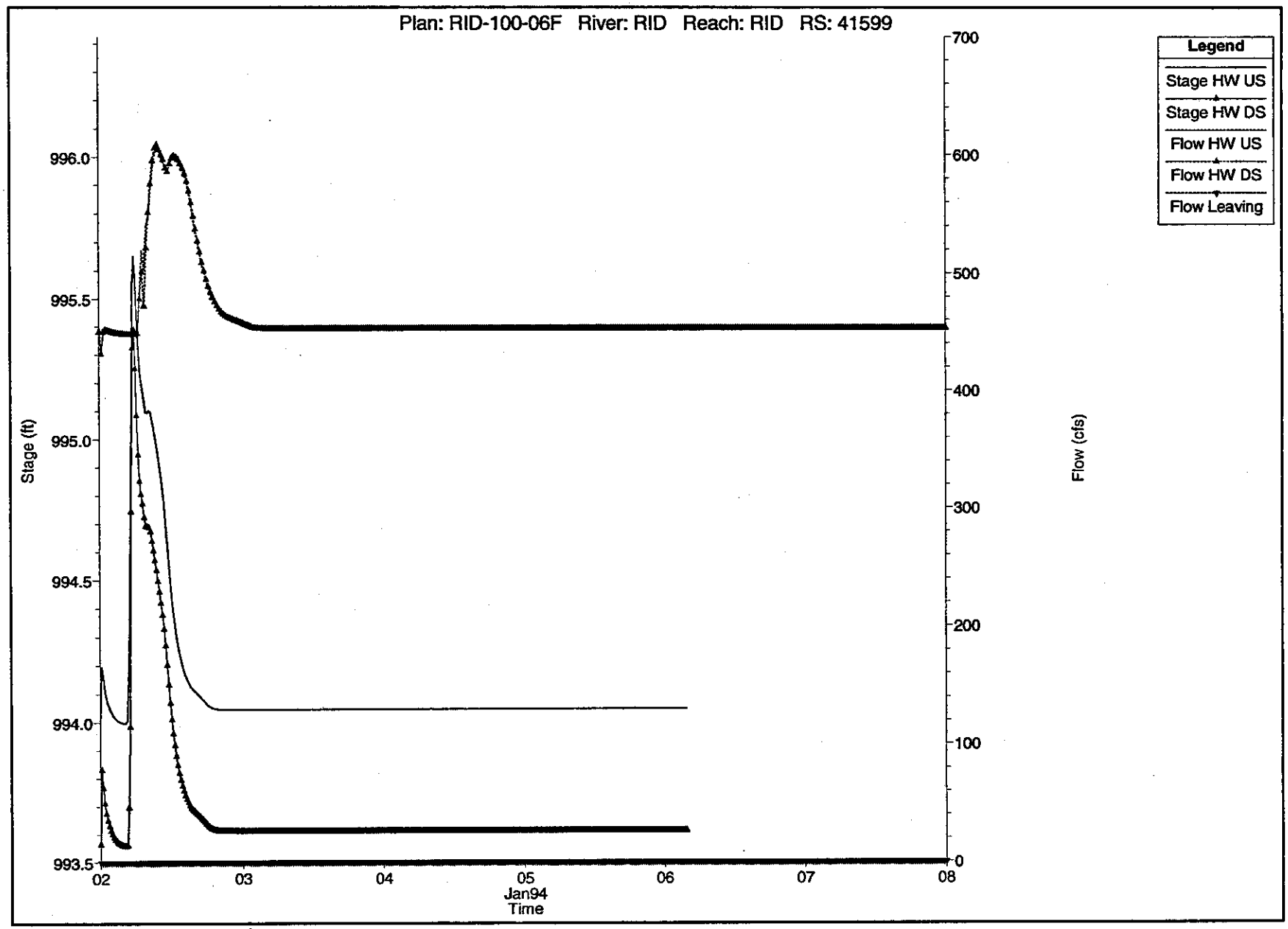
1 in Horiz. = 1 1 in Vert. = 0.5 ft



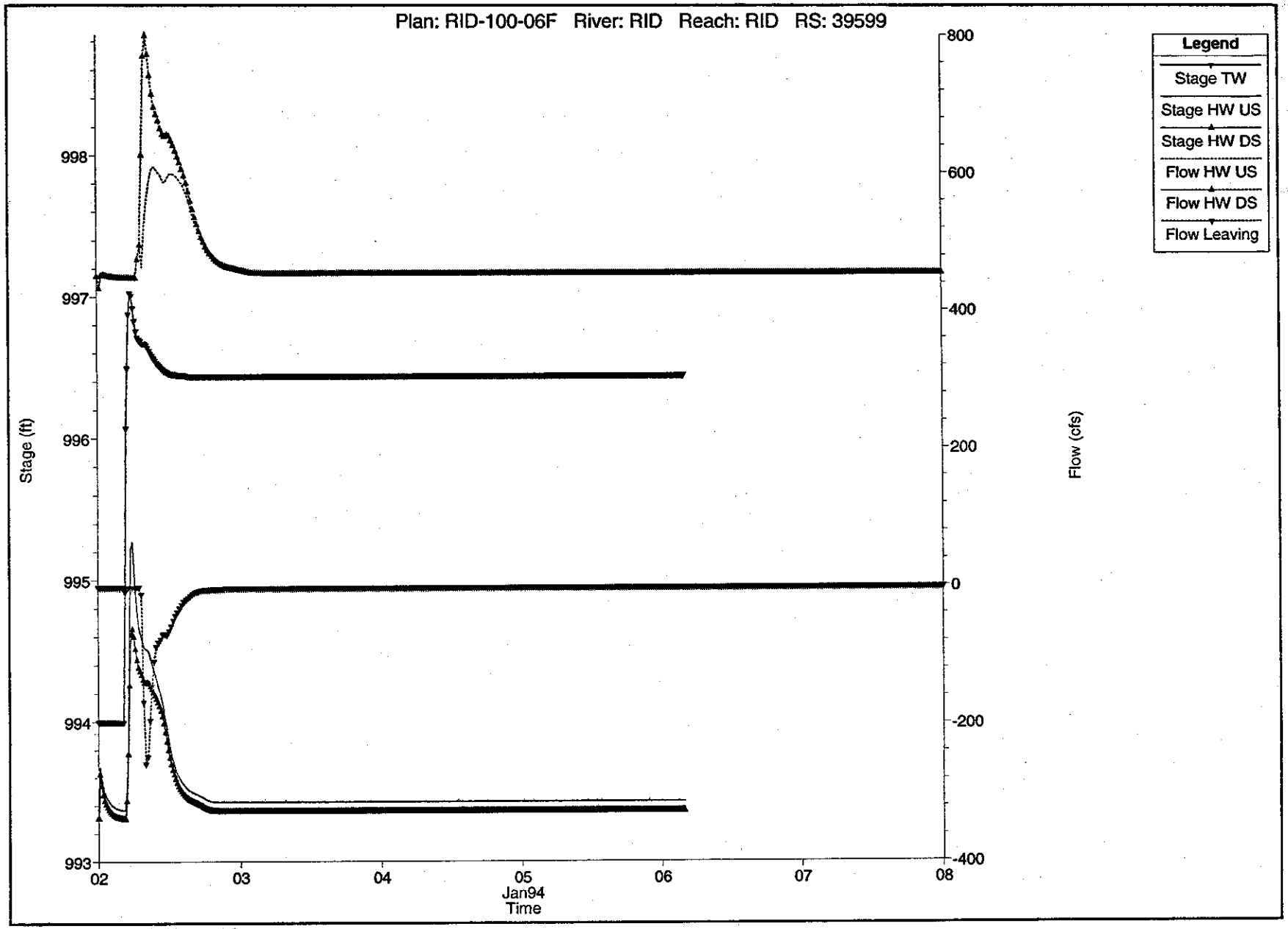
1 in Horiz. = 1 1 in Vert. = 0.5 ft



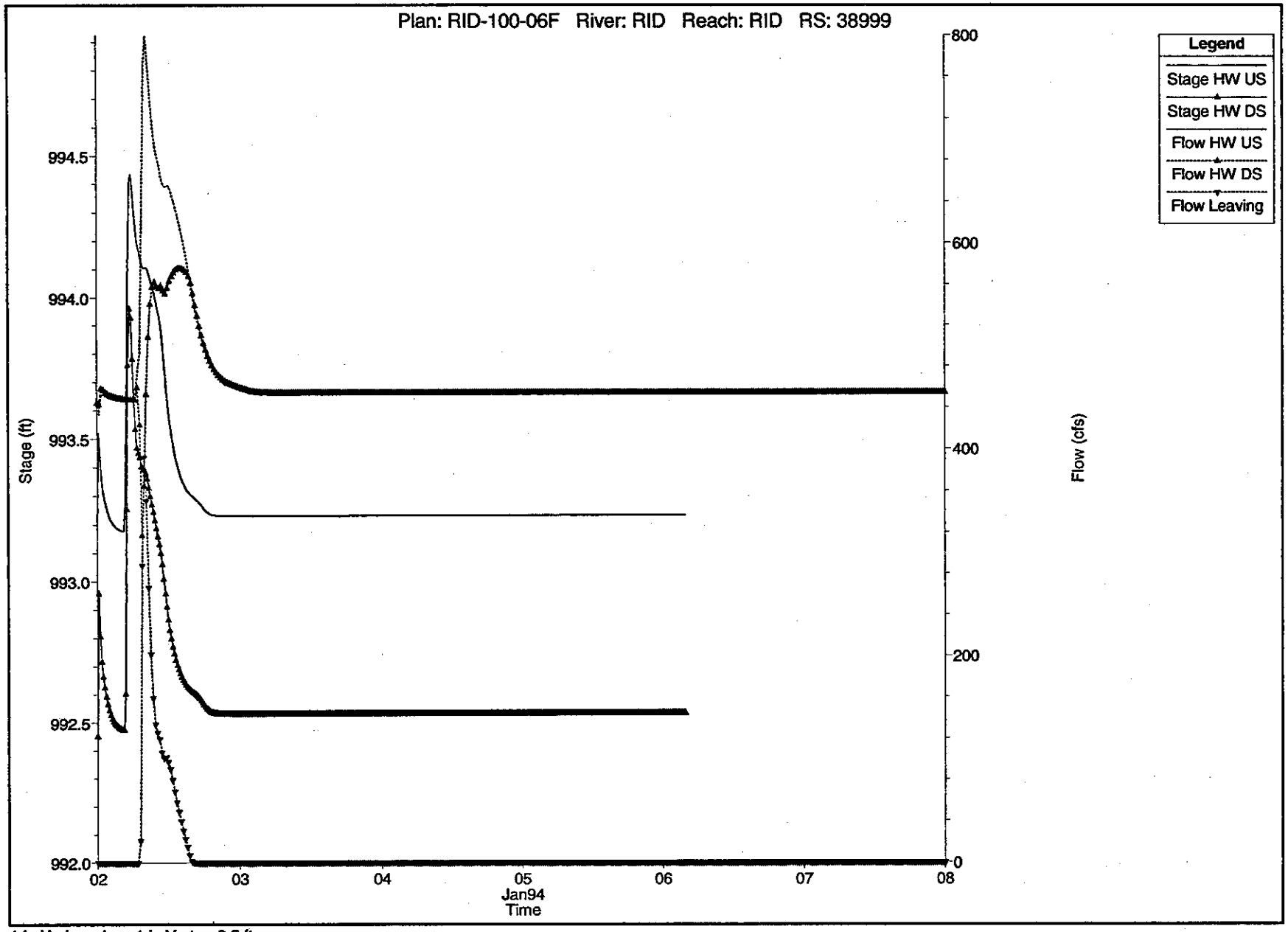
1 in Horiz. = 1 1 in Vert. = 1 ft



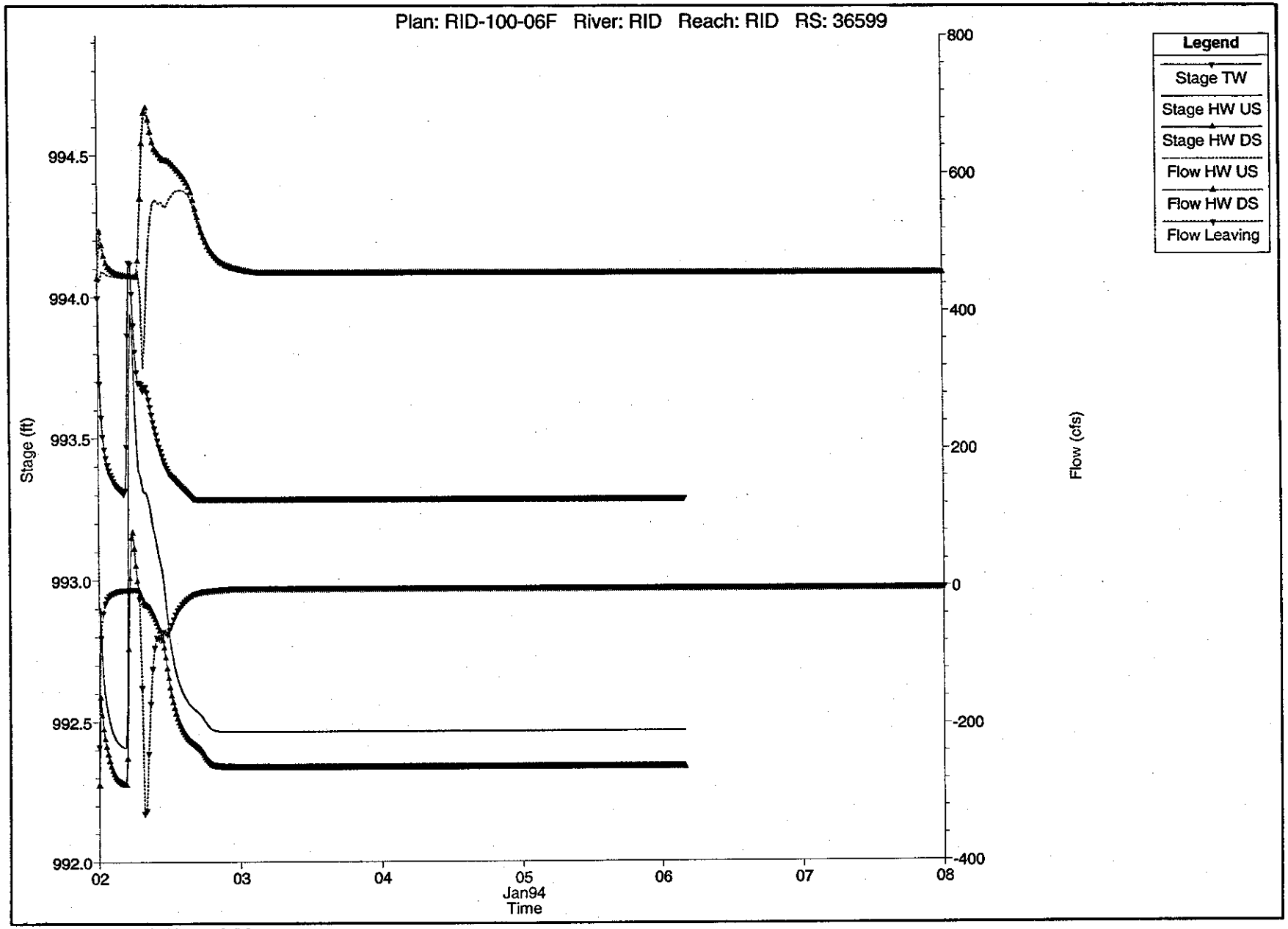
1 in Horiz. = 1 1 in Vert. = 0.5 ft



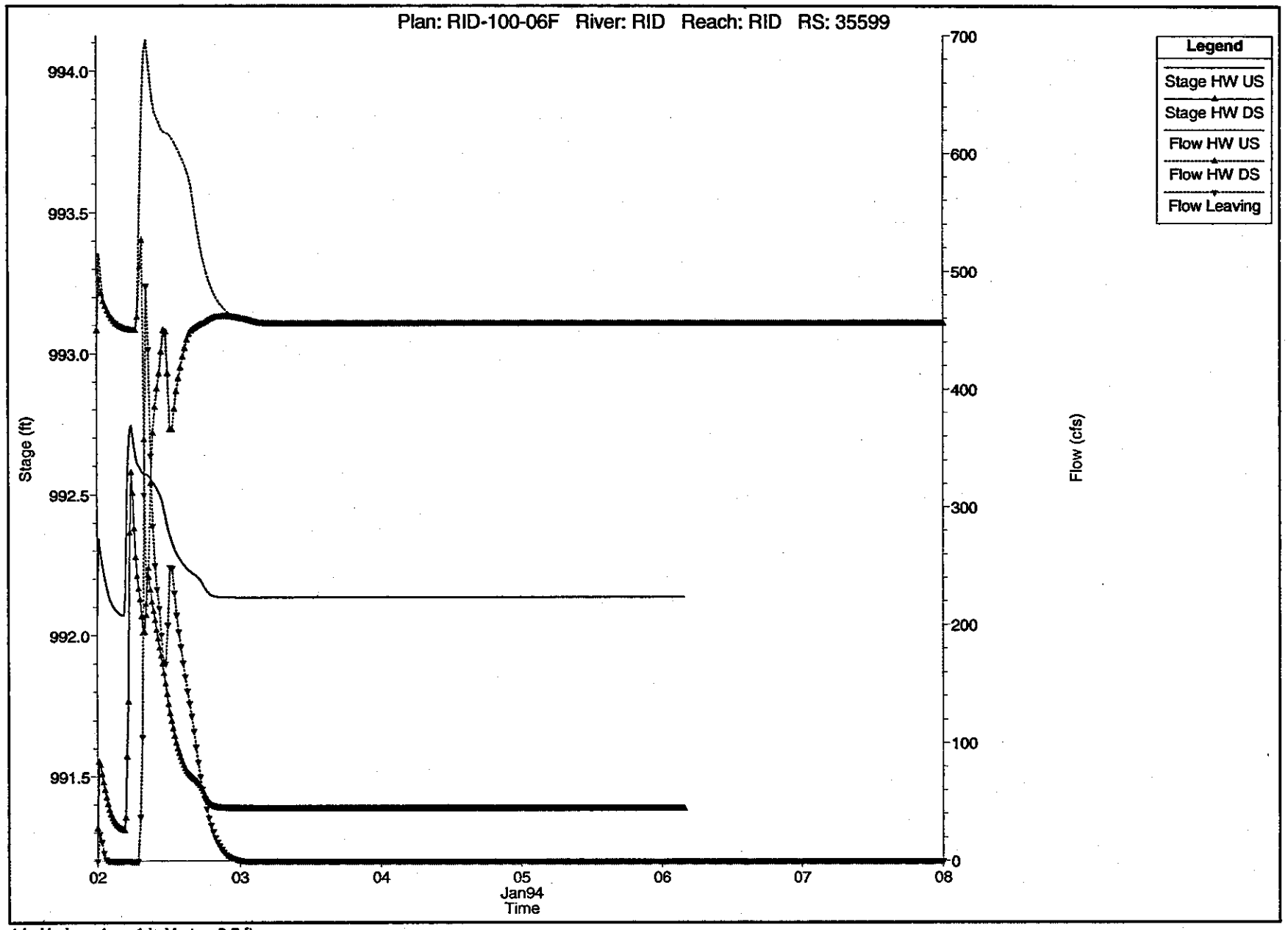
1 in Horiz. = 1 1 in Vert. = 1 ft



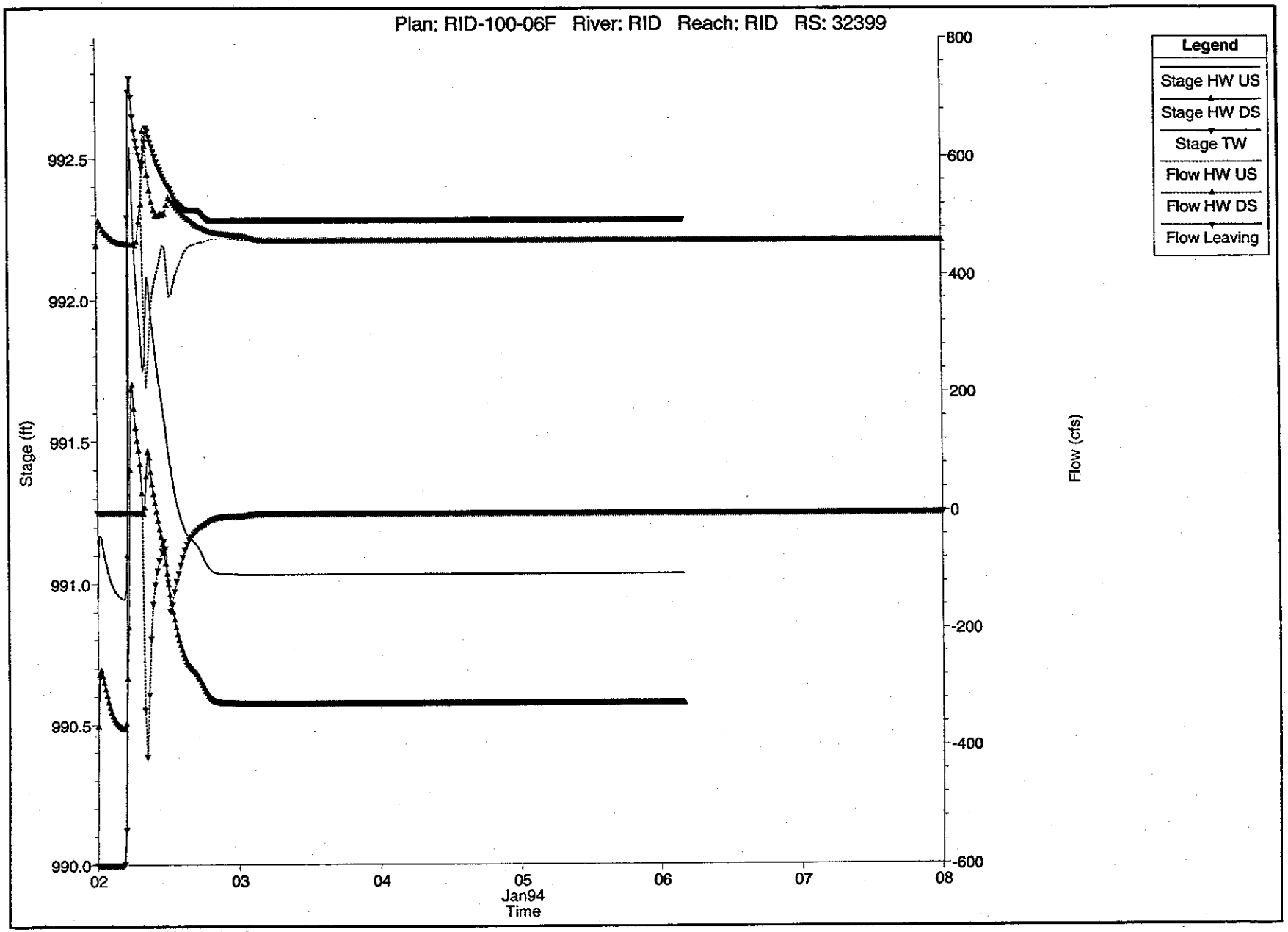
1 in Horiz. = 1 1 in Vert. = 0.5 ft



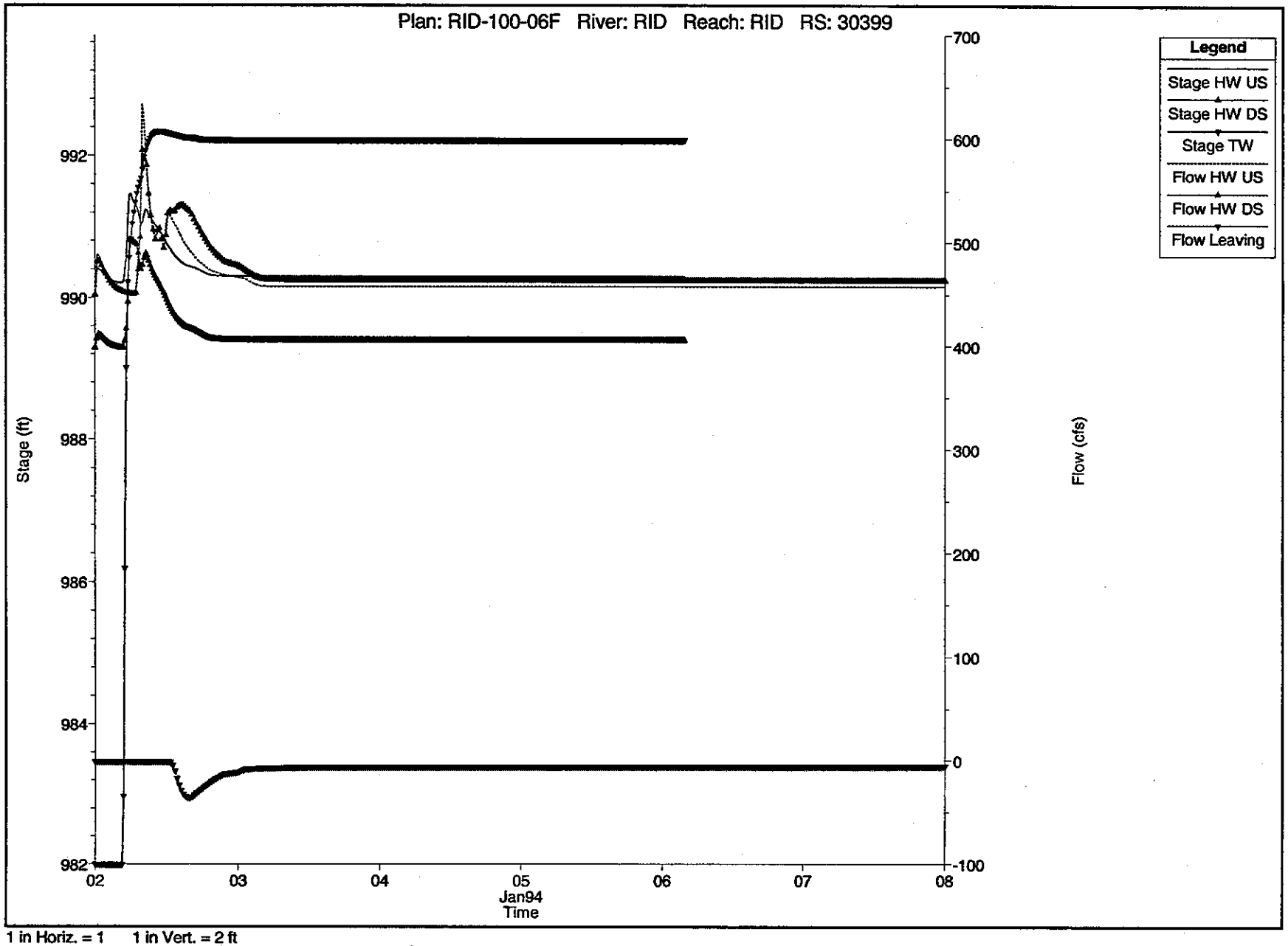
1 in Horiz. = 1 1 in Vert. = 0.5 ft



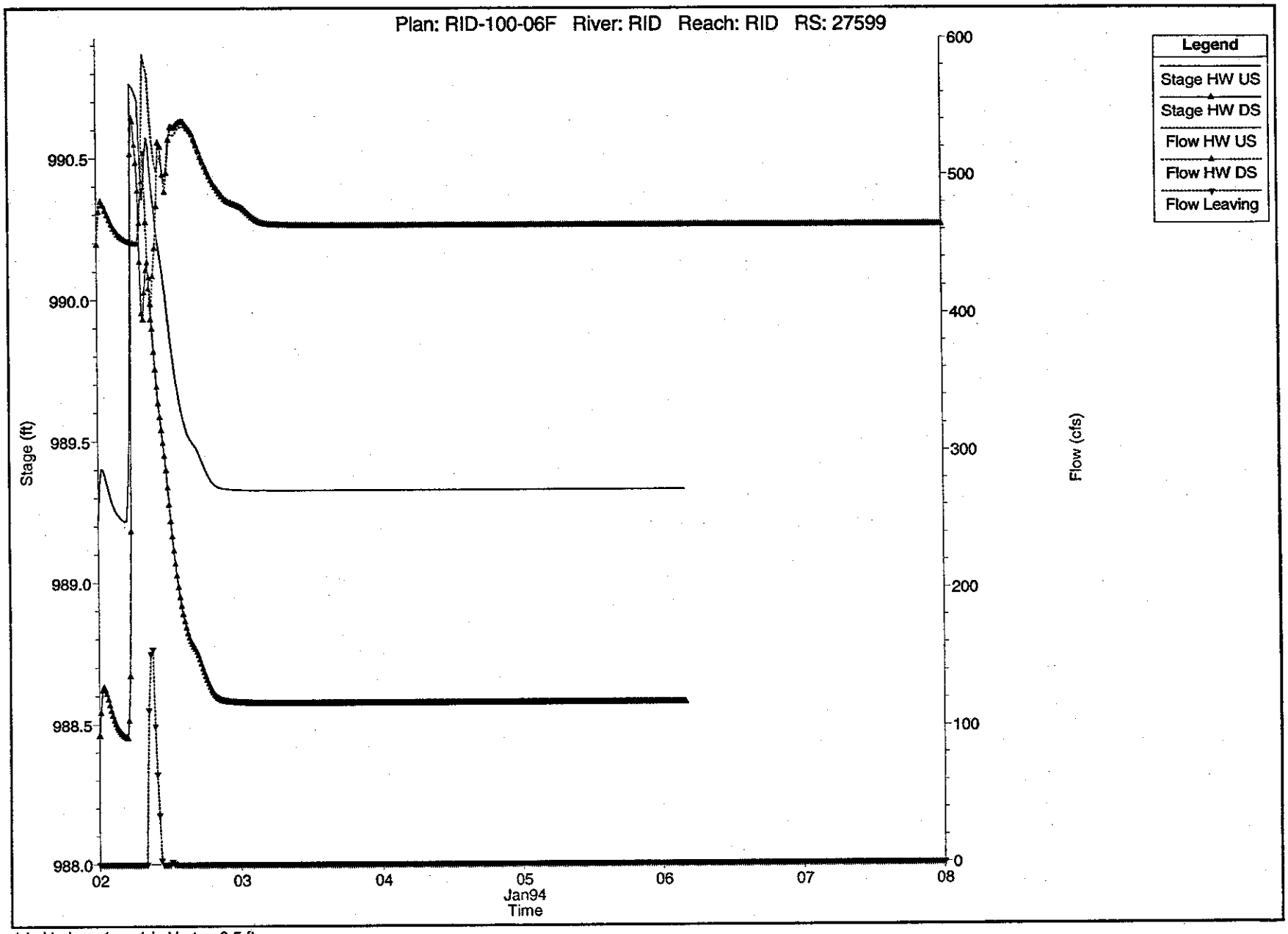
1 in Horiz. = 1 1 in Vert. = 0.5 ft



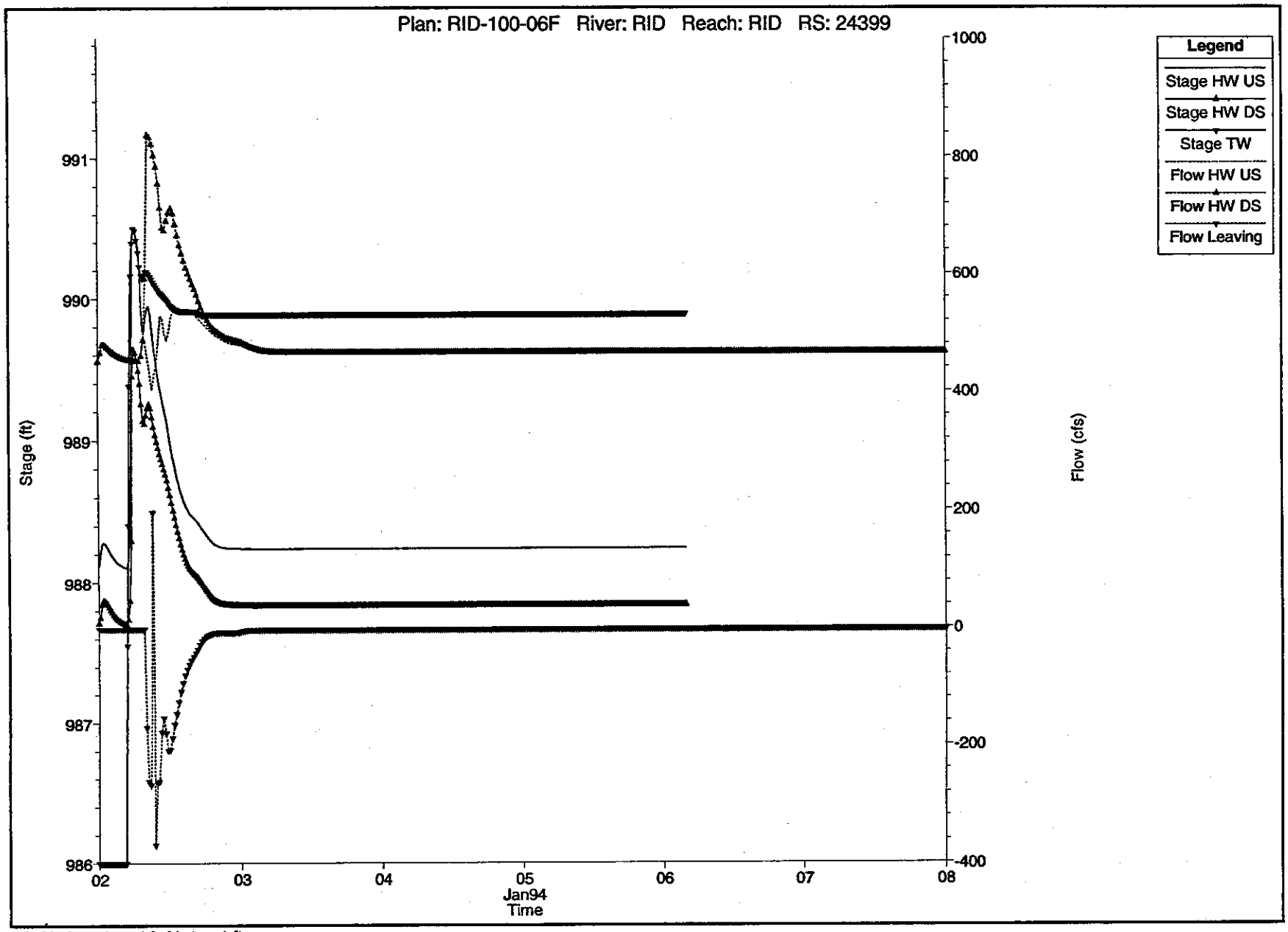
1 in Horiz. = 1 1 in Vert. = 0.5 ft



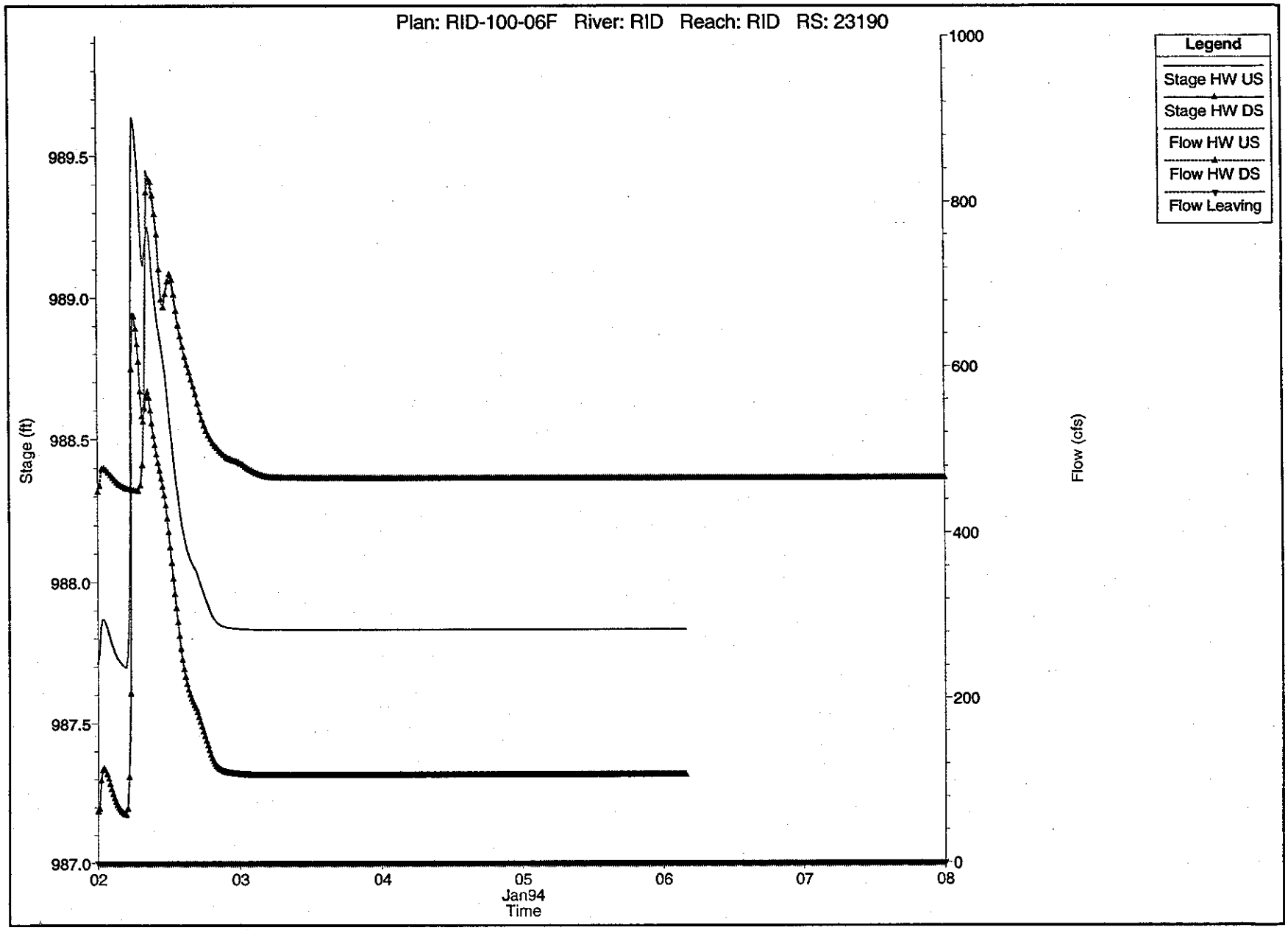
1 in Horiz. = 1 1 in Vert. = 2 ft



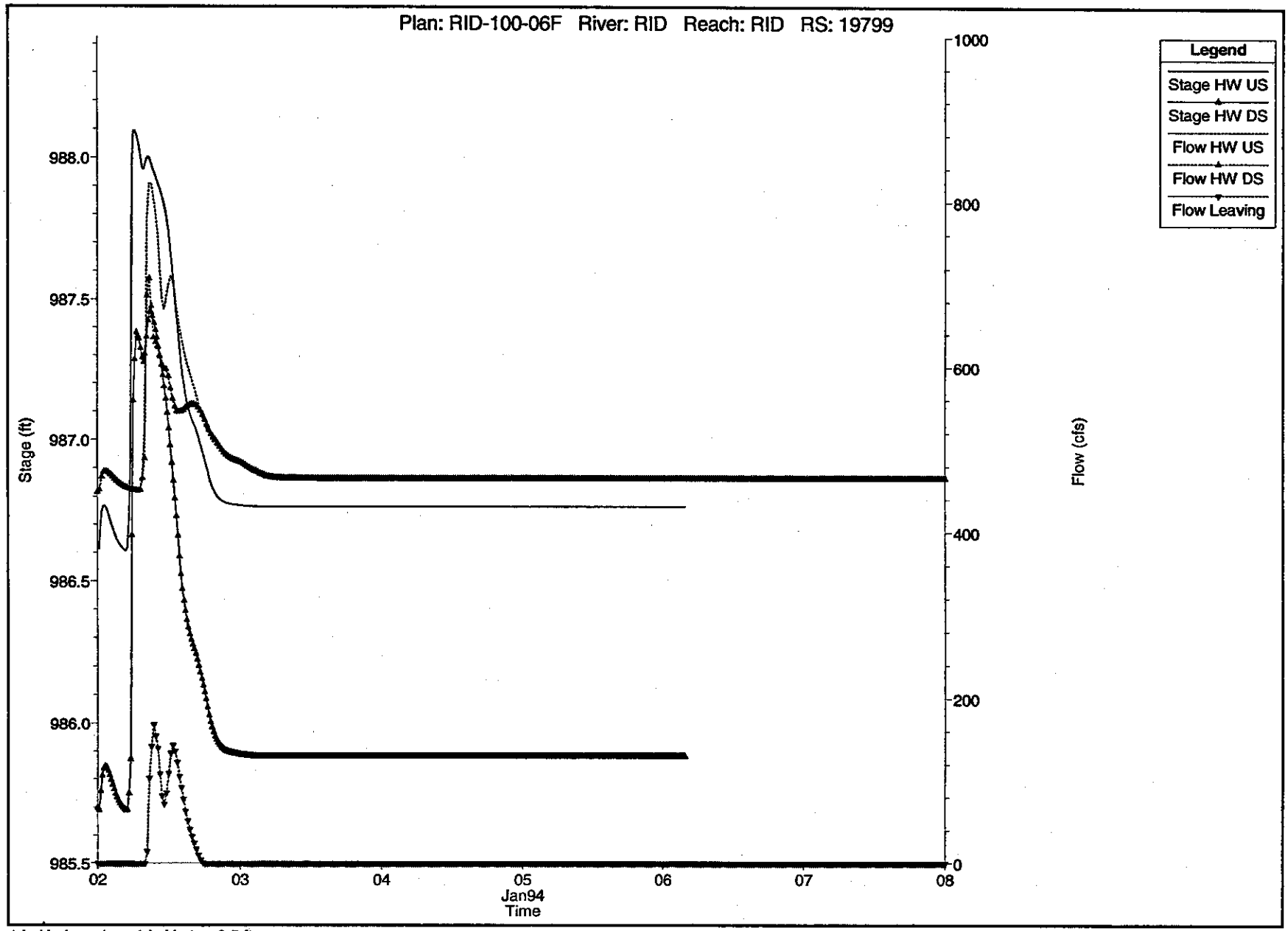
1 in Horiz. = 1 1 in Vert. = 0.5 ft



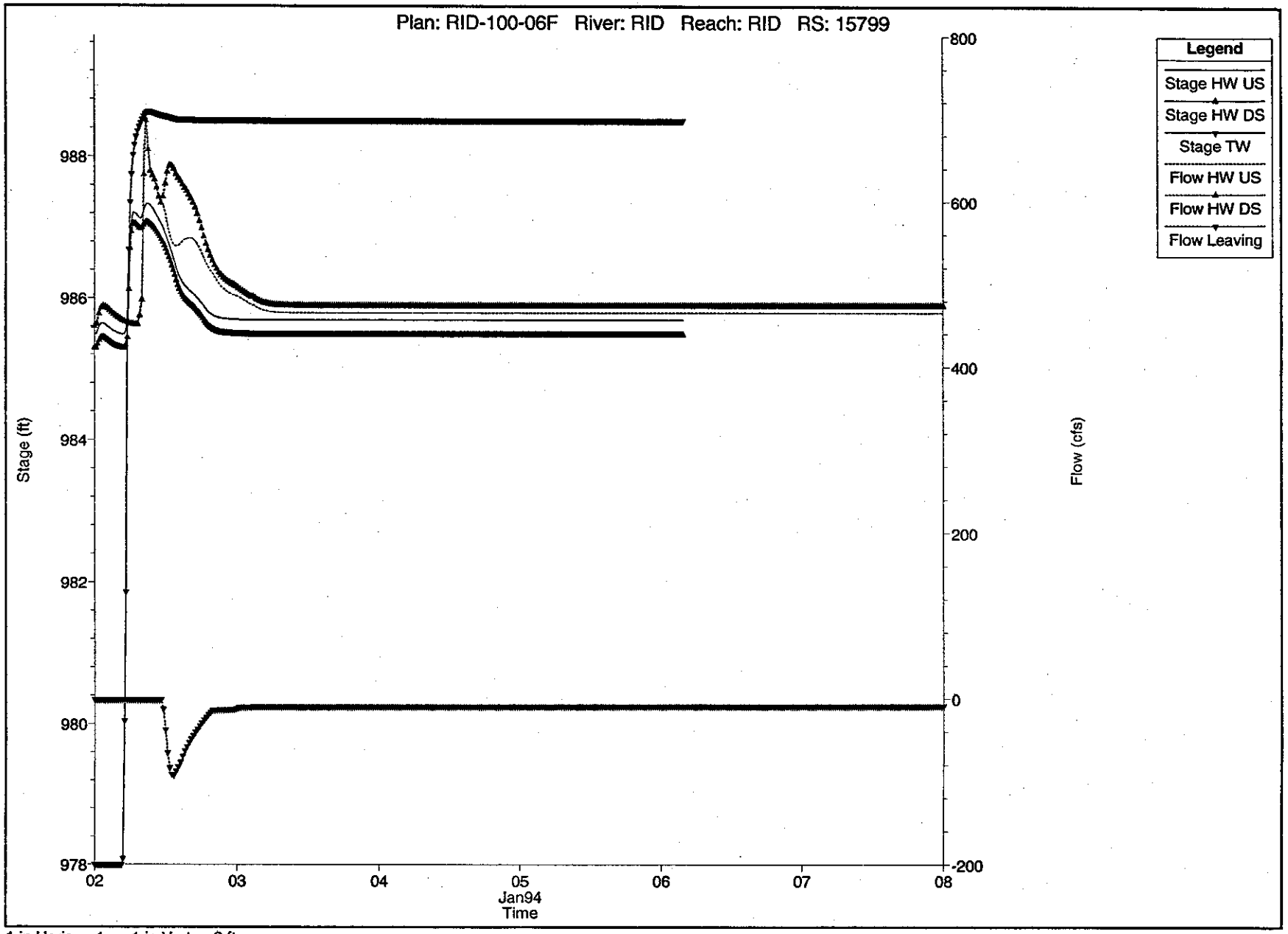
1 in Horiz. = 1 1 in Vert. = 1 ft



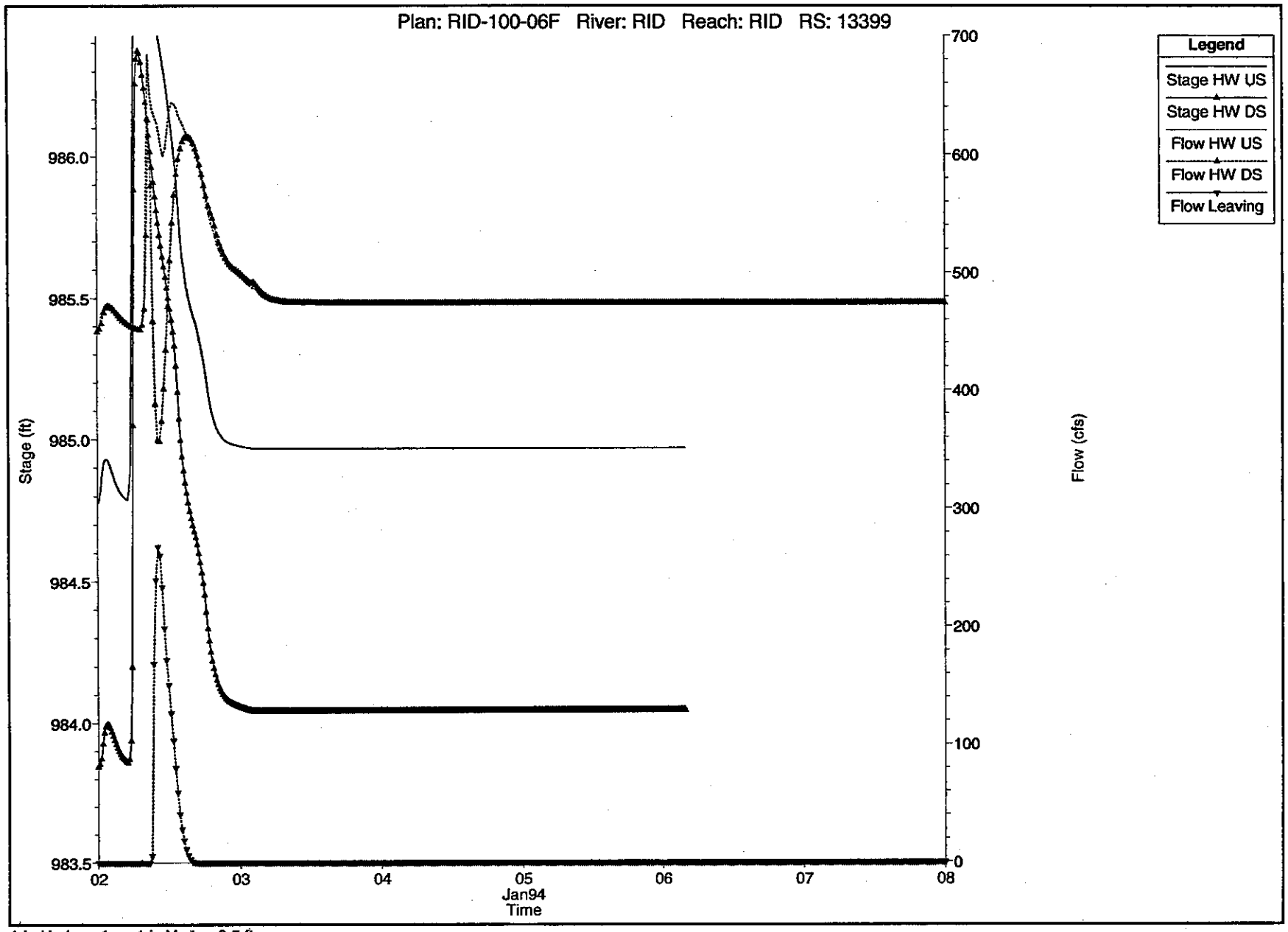
1 in Horiz. = 1 1 in Vert. = 0.5 ft



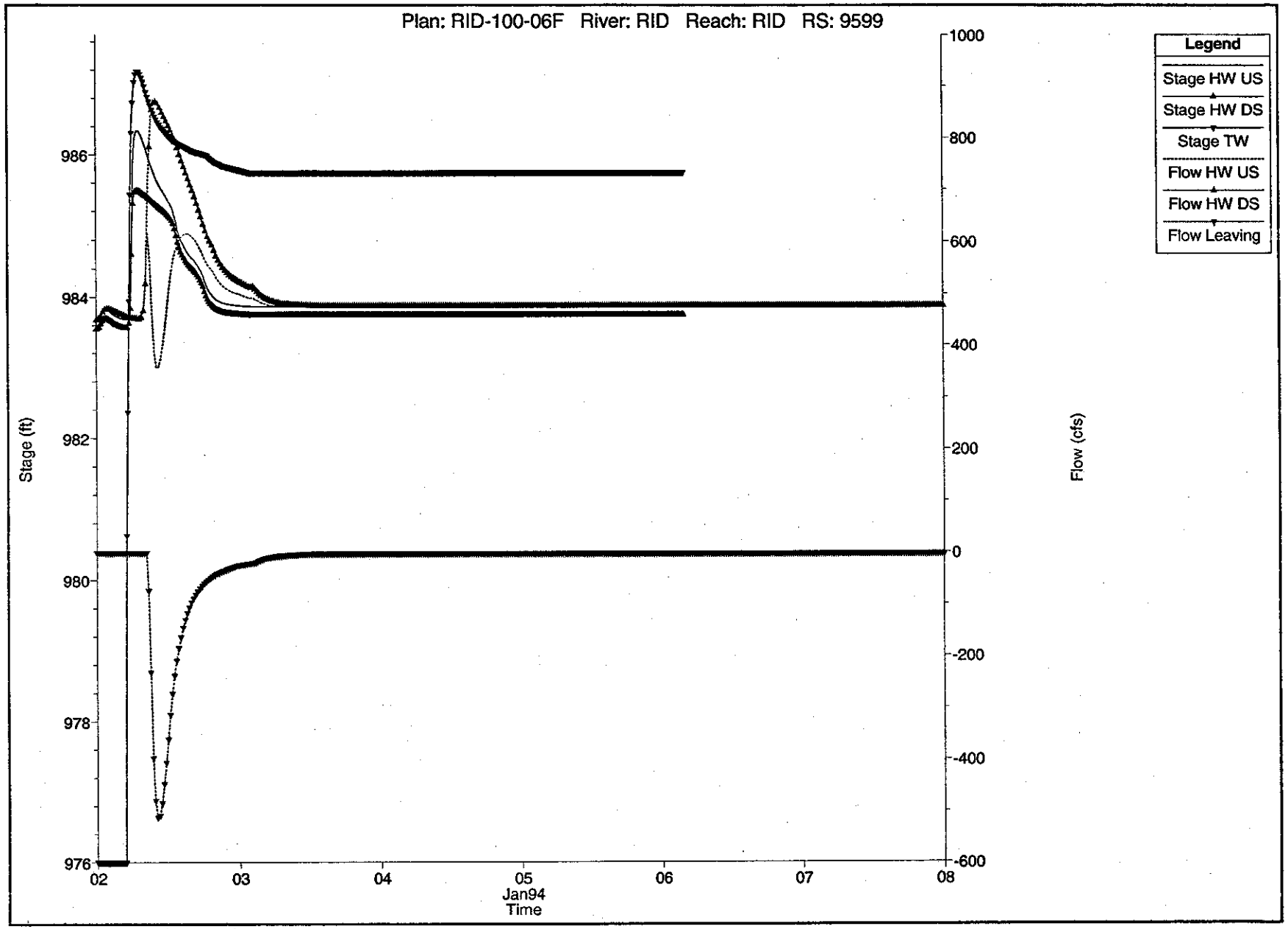
1 in Horiz. = 1 1 in Vert. = 0.5 ft



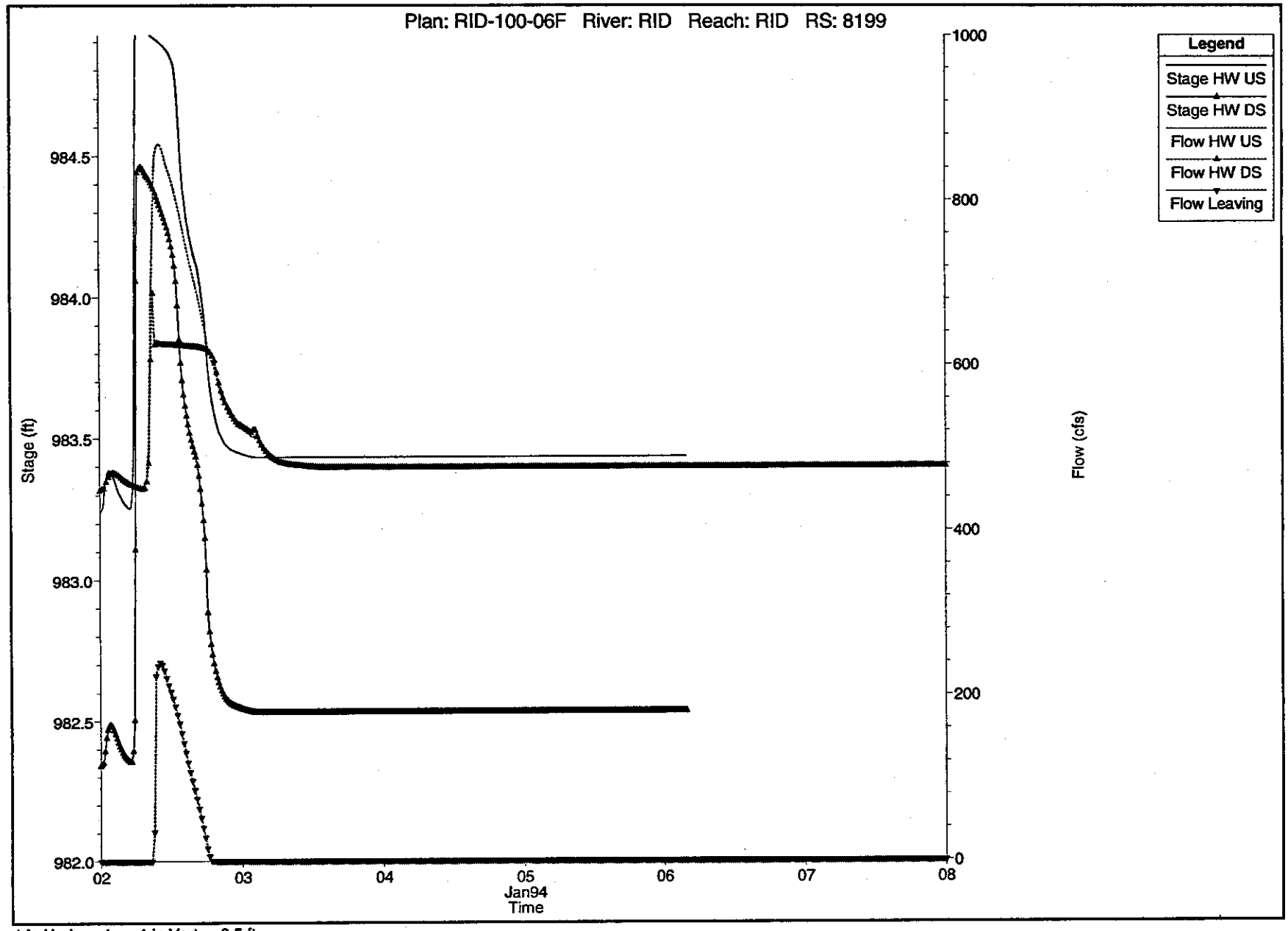
1 in Horiz. = 1 1 in Vert. = 2 ft



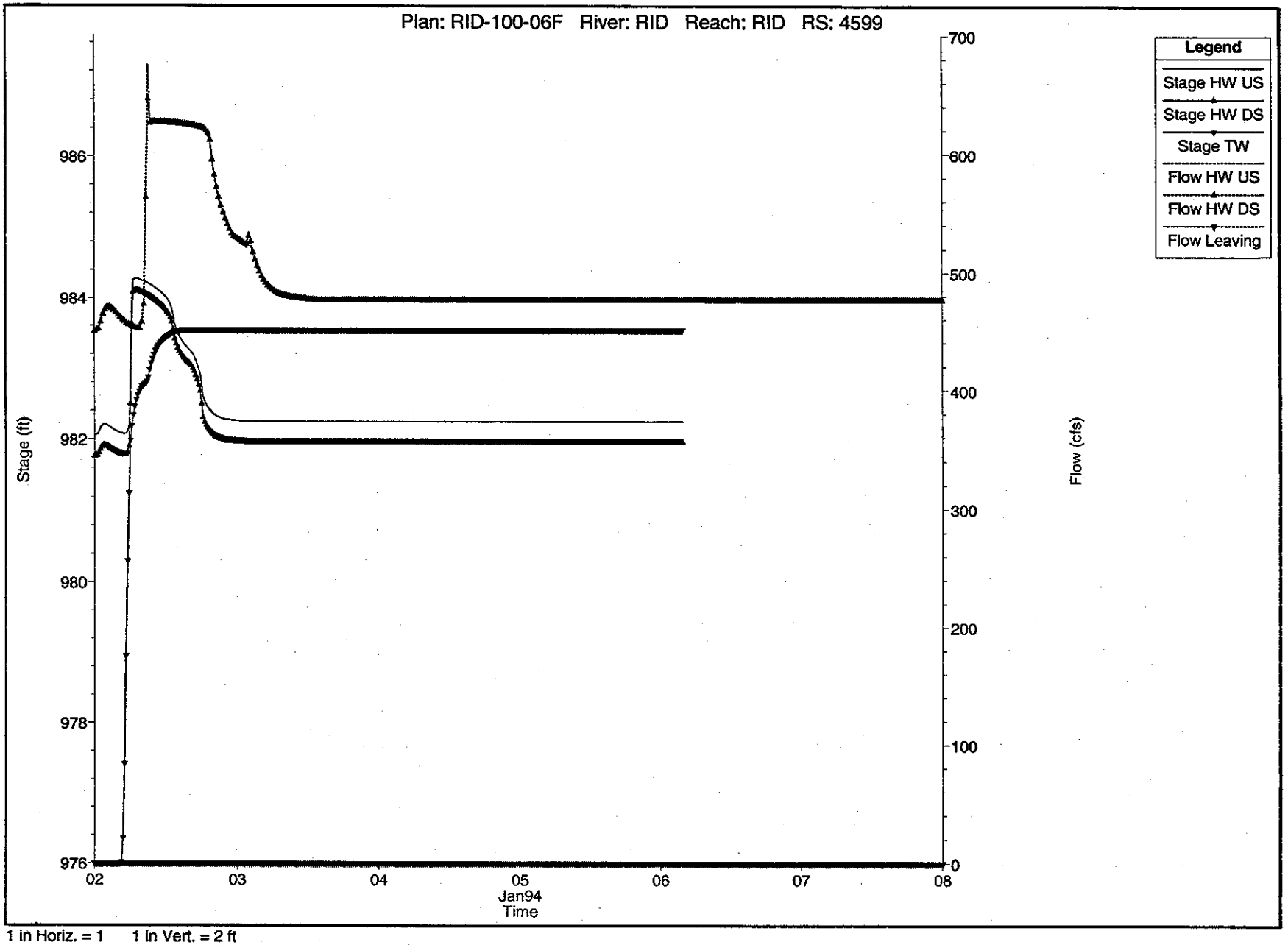
1 in Horiz. = 1 1 in Vert. = 0.5 ft



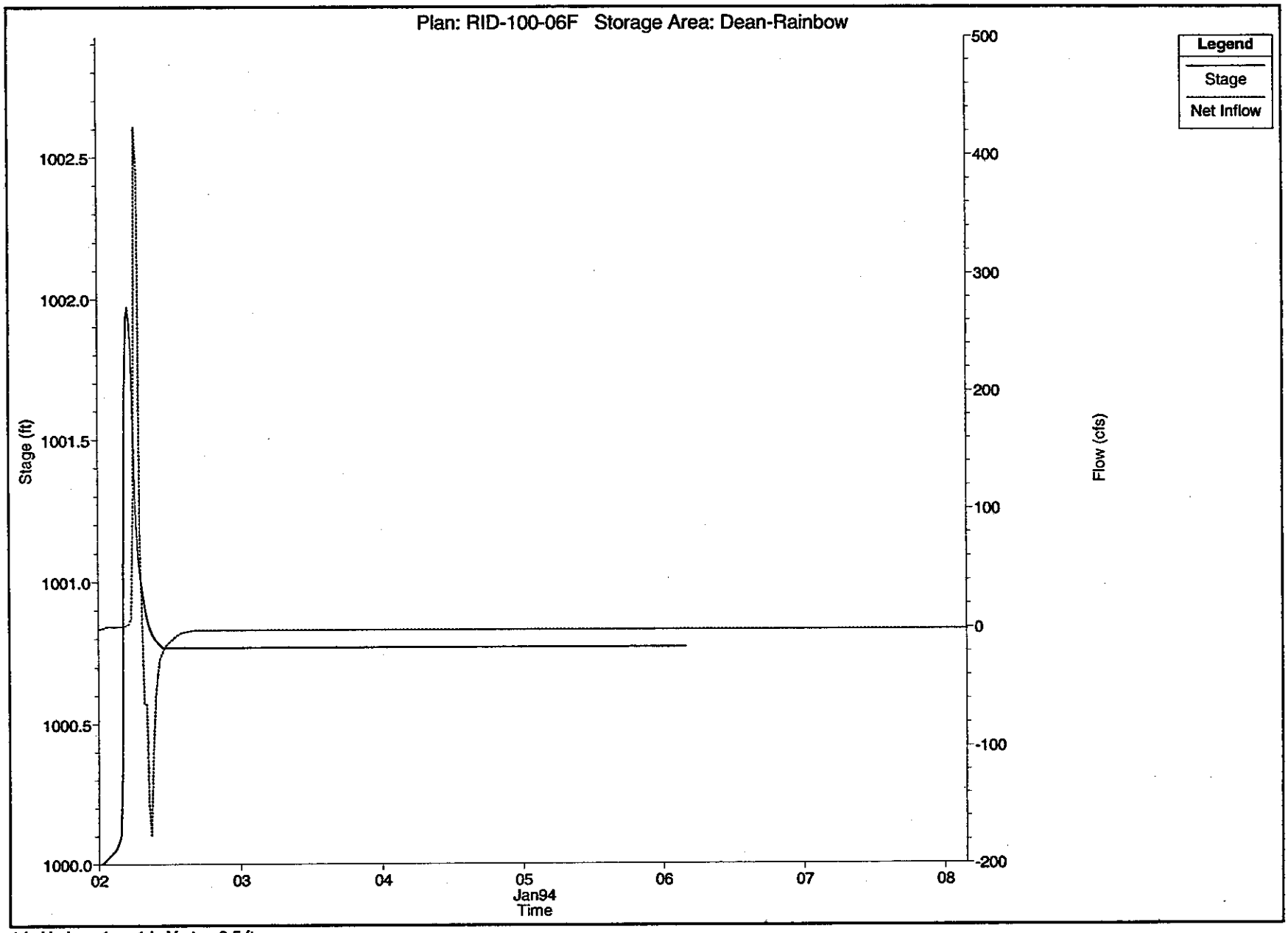
1 in Horiz. = 1 1 in Vert. = 2 ft



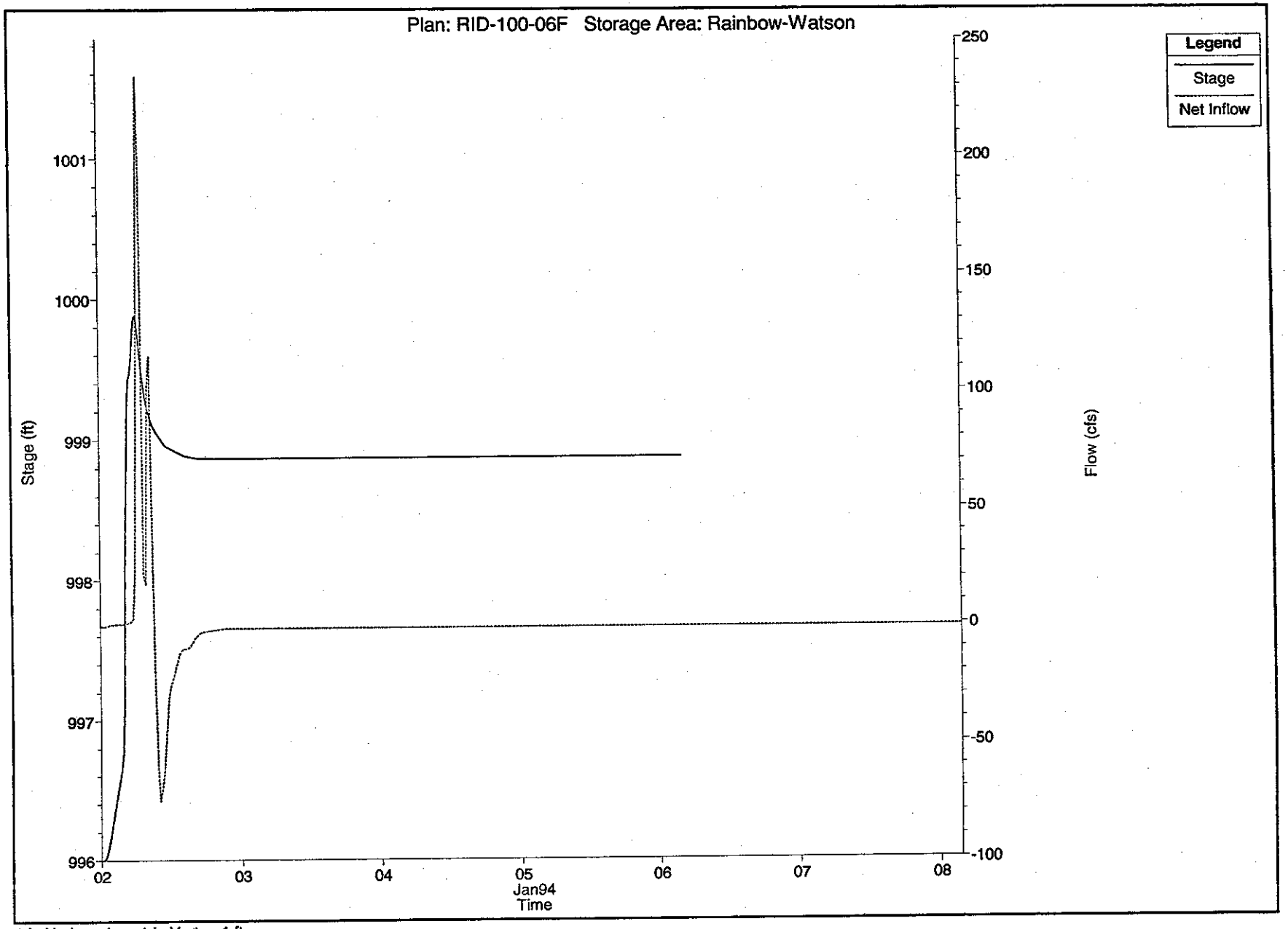
1 in Horiz. = 1 1 in Vert. = 0.5 ft



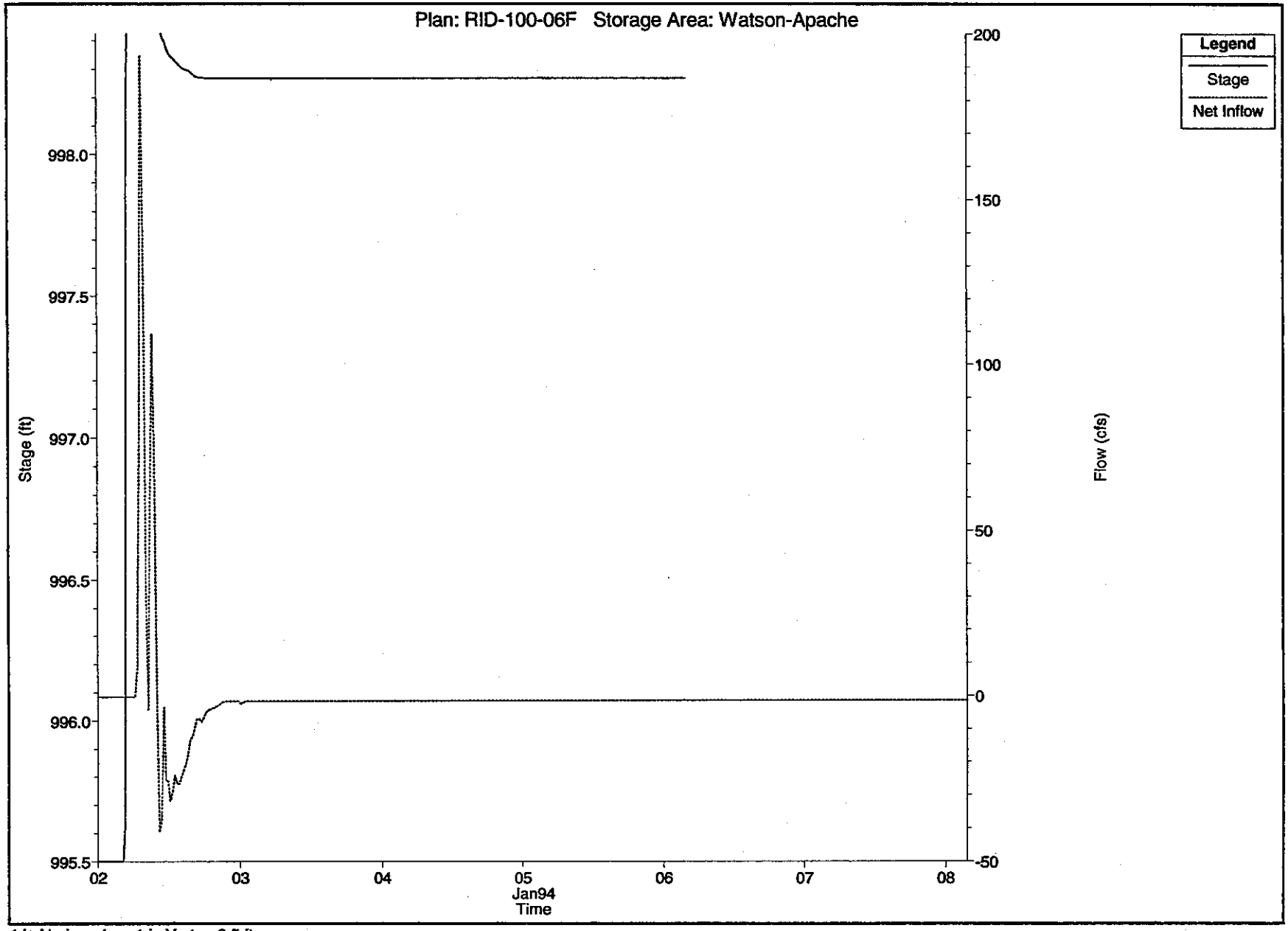
1 in Horiz. = 1 1 in Vert. = 2 ft



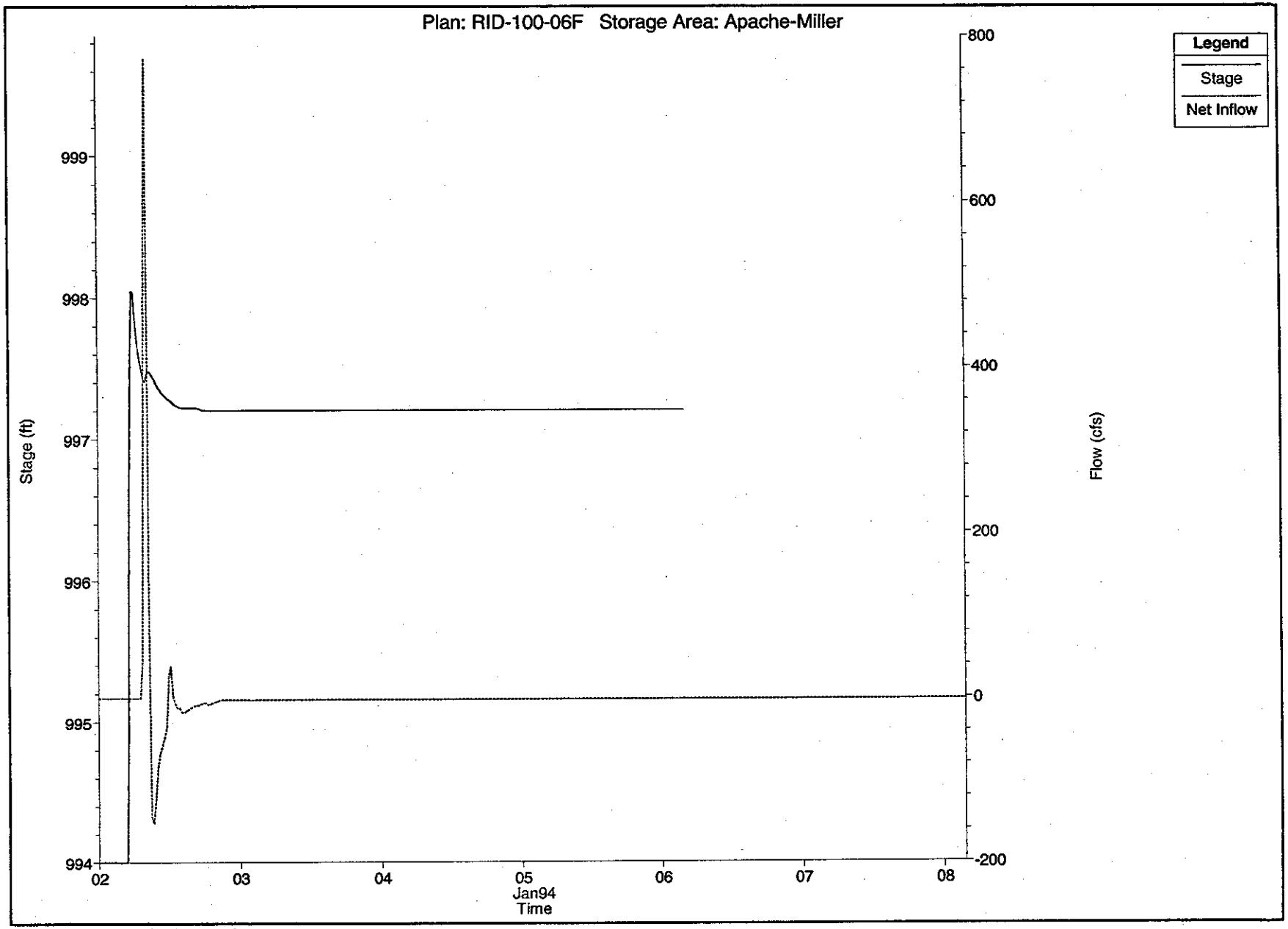
1 in Horiz. = 1 1 in Vert. = 0.5 ft



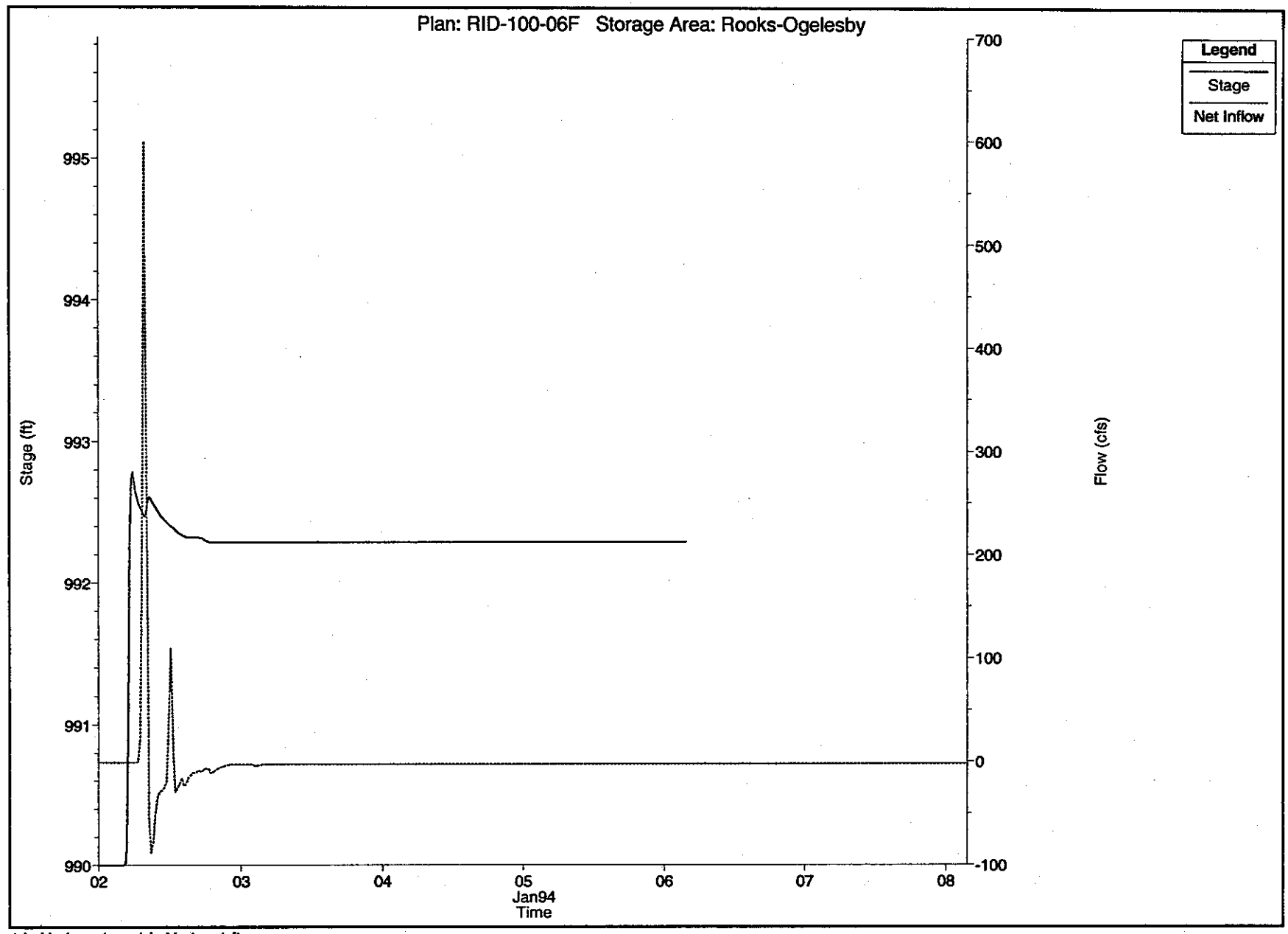
1 in Horiz. = 1 1 in Vert. = 1 ft



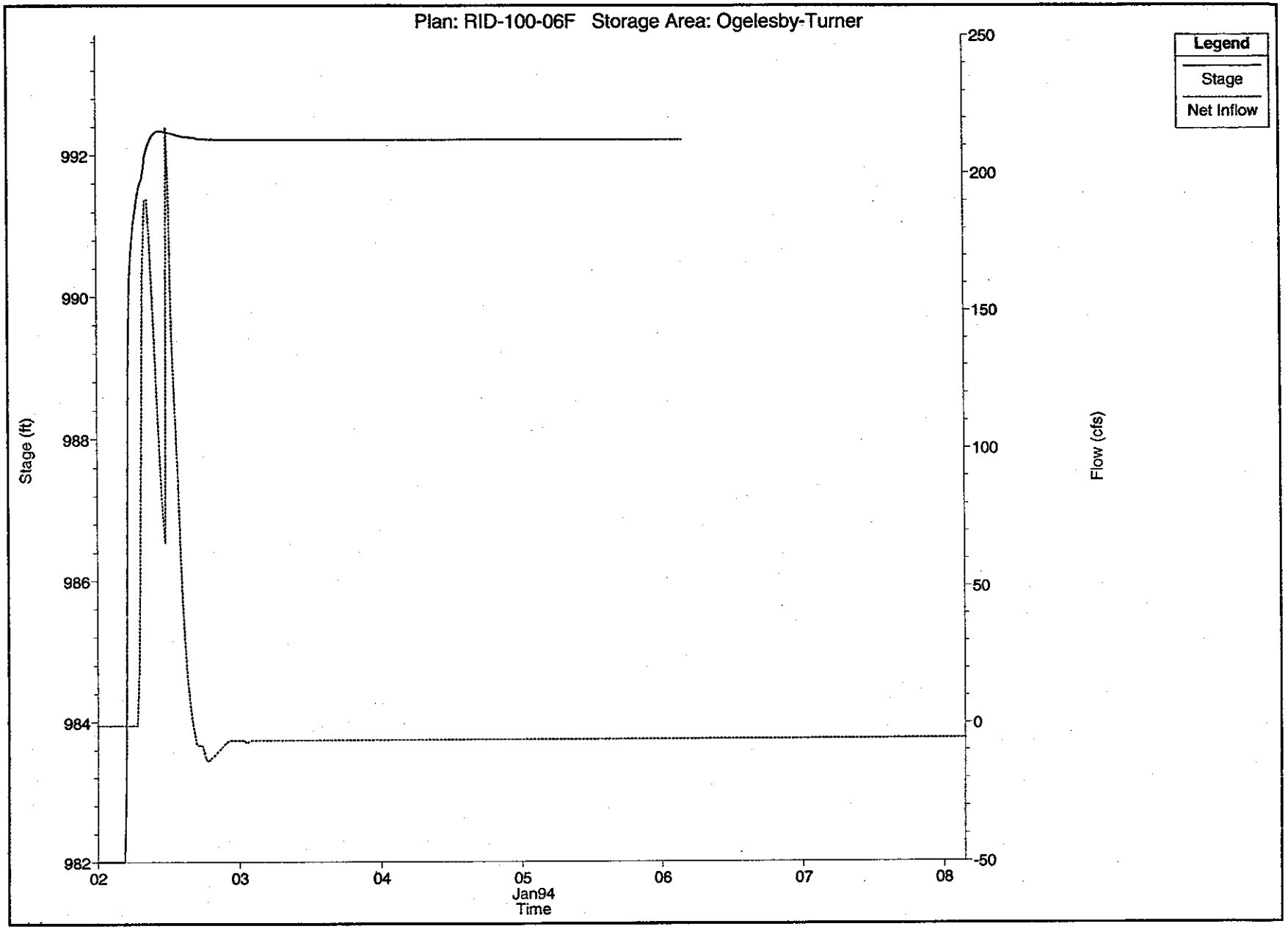
1 in Horiz. = 1 1 in Vert. = 0.5 ft



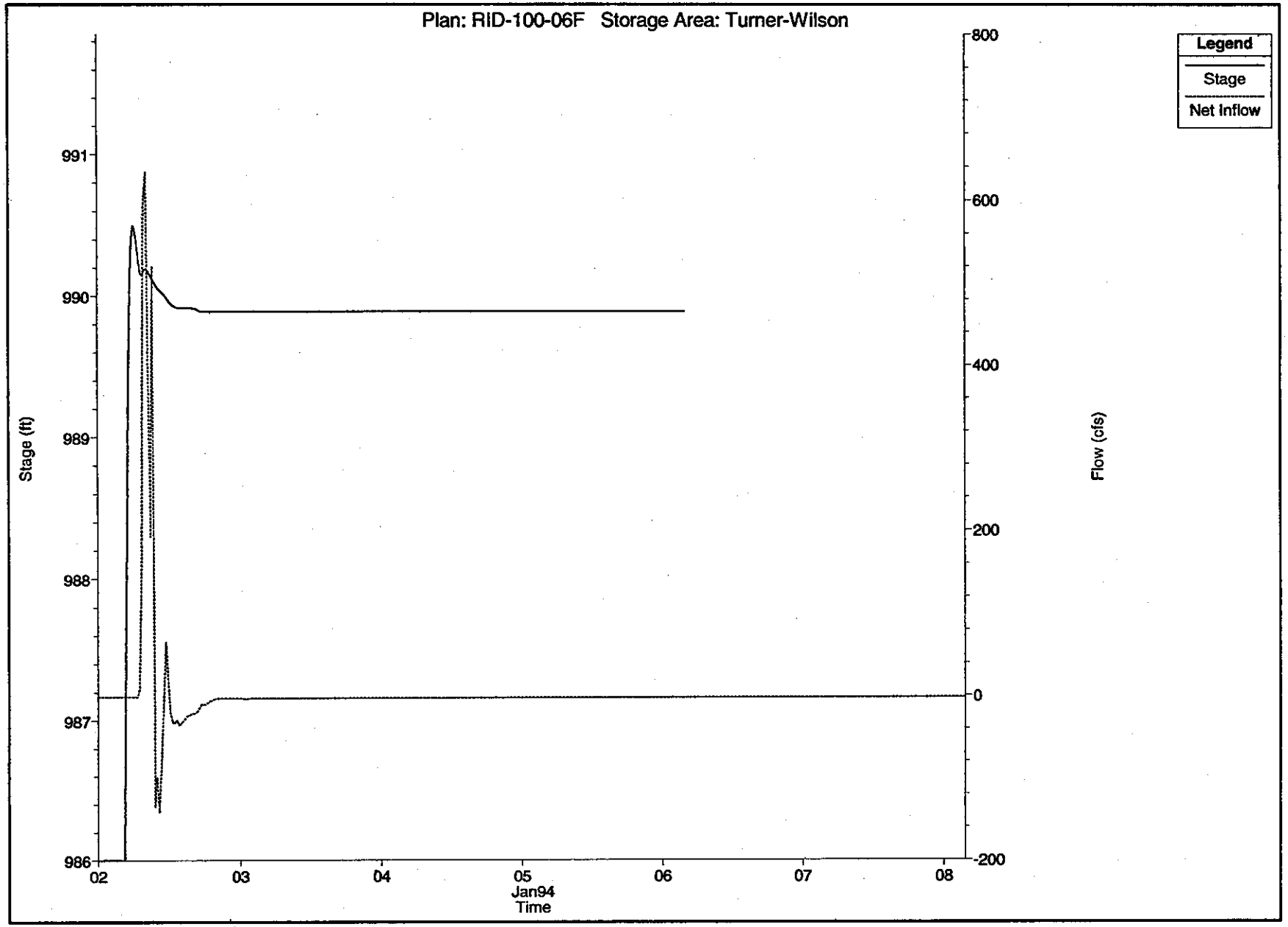
1 in Horiz. = 1 1 in Vert. = 1 ft



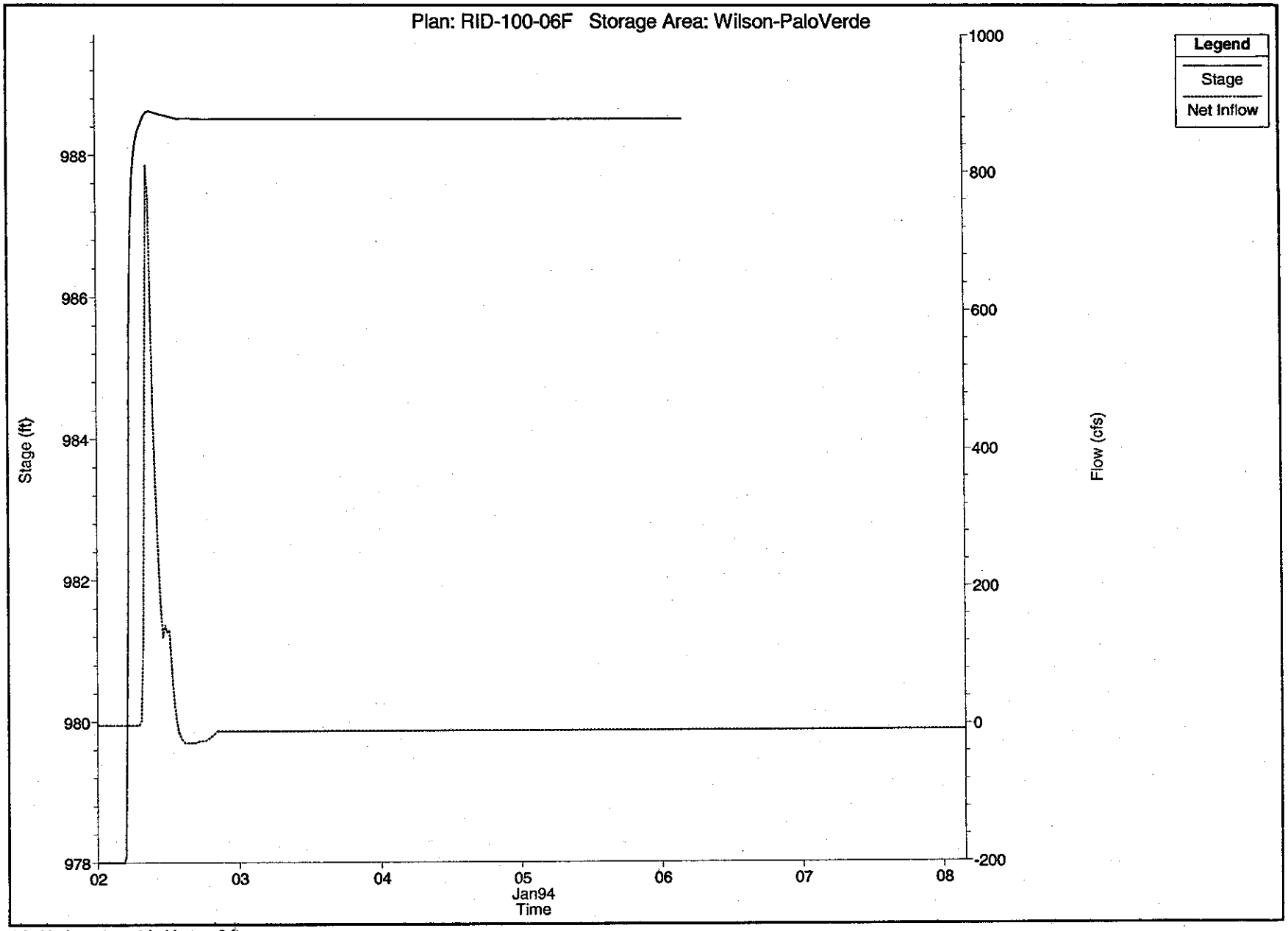
1 in Horiz. = 1 1 in Vert. = 1 ft



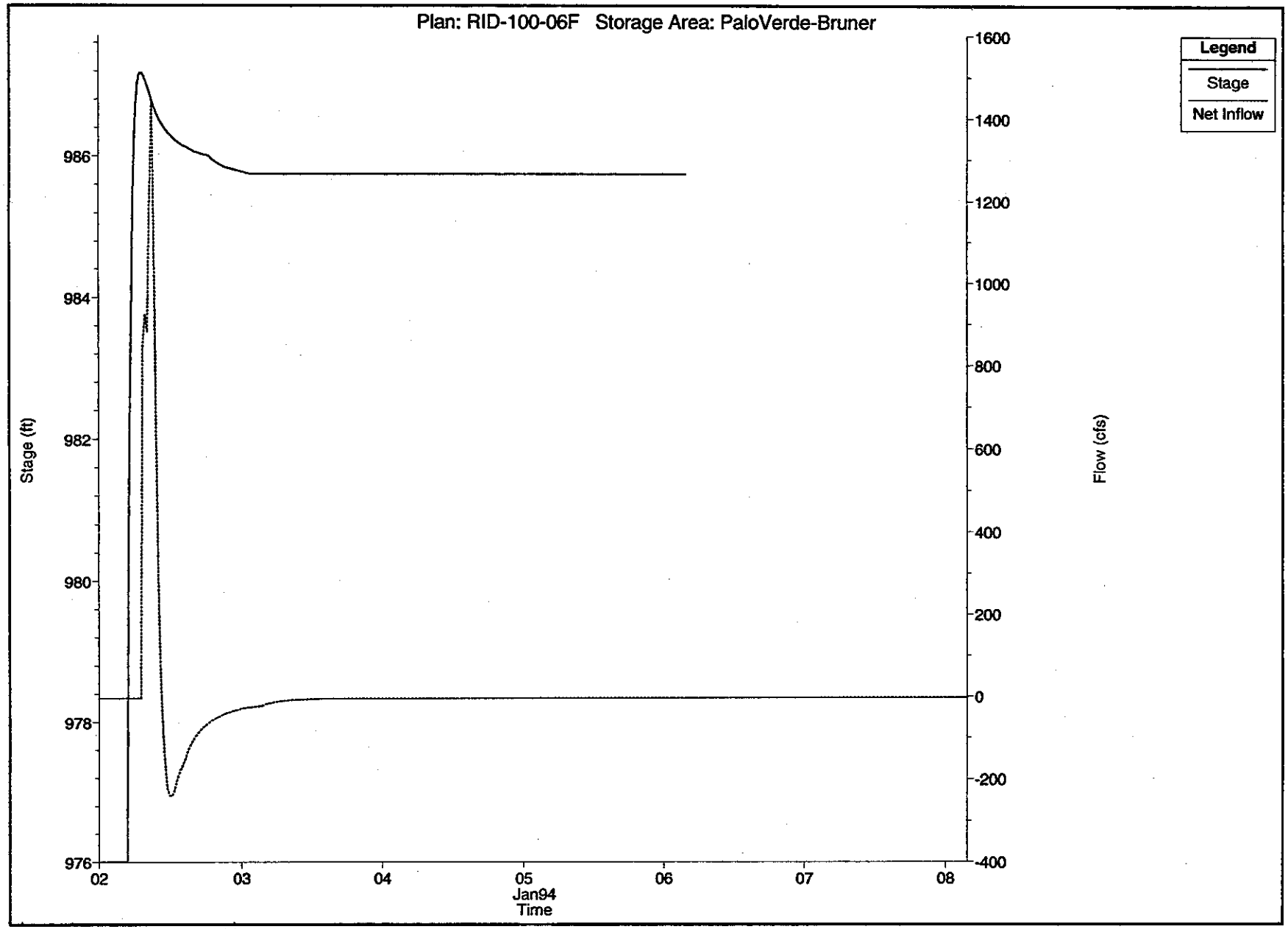
1 in Horiz. = 1 1 in Vert. = 2 ft



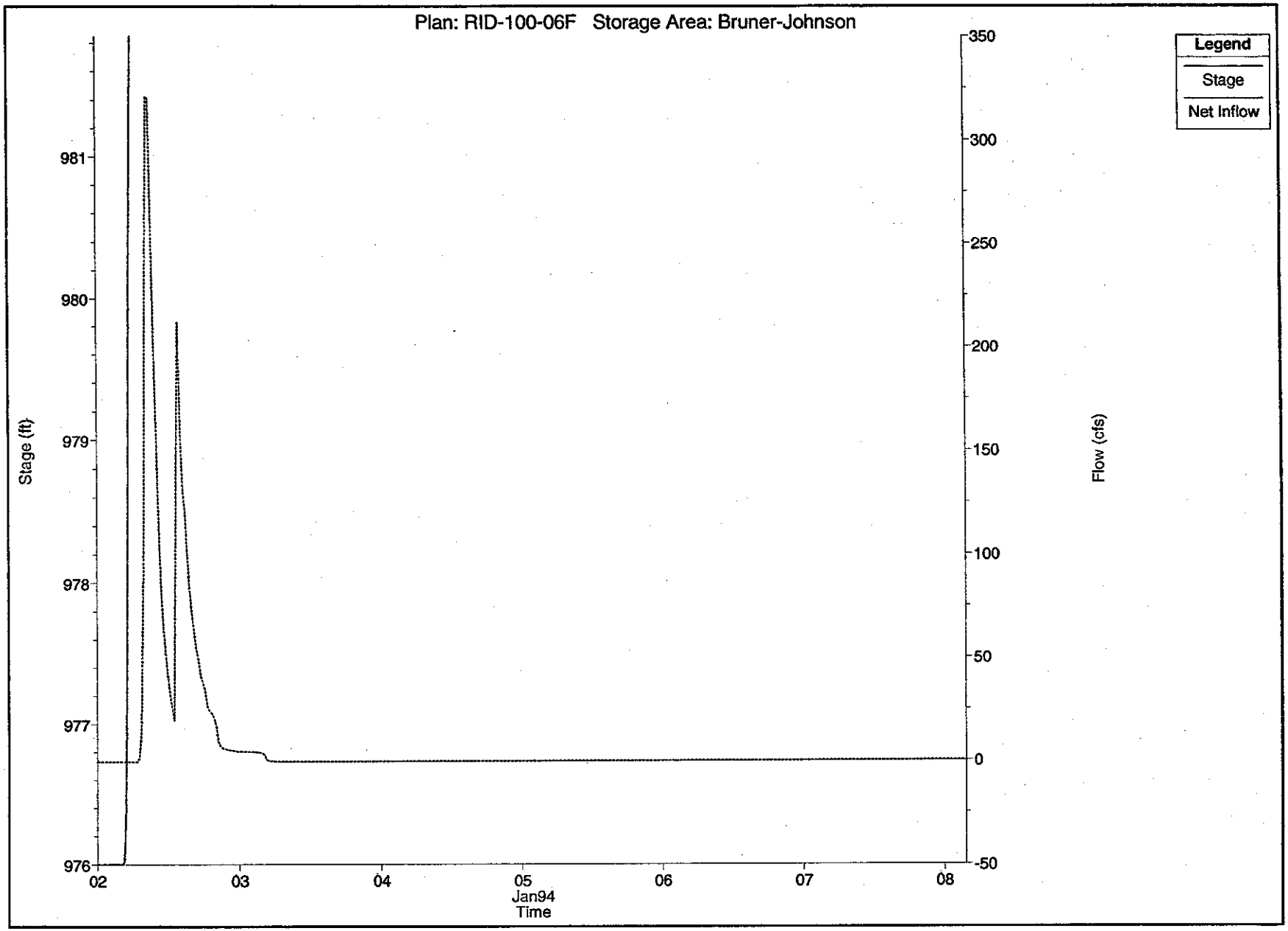
1 in Horiz. = 1 1 in Vert. = 1 ft



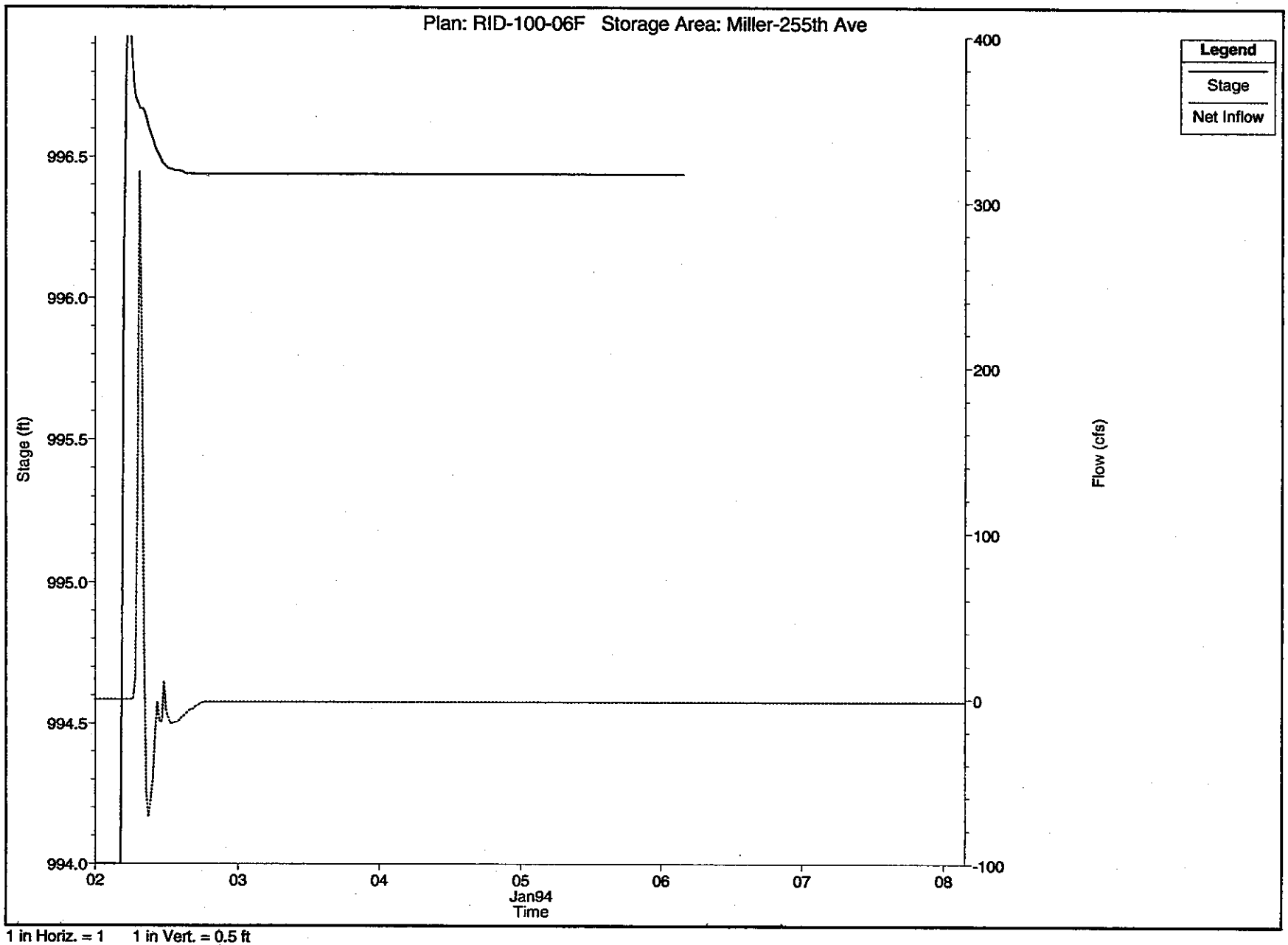
1 in Horiz. = 1 1 in Vert. = 2 ft



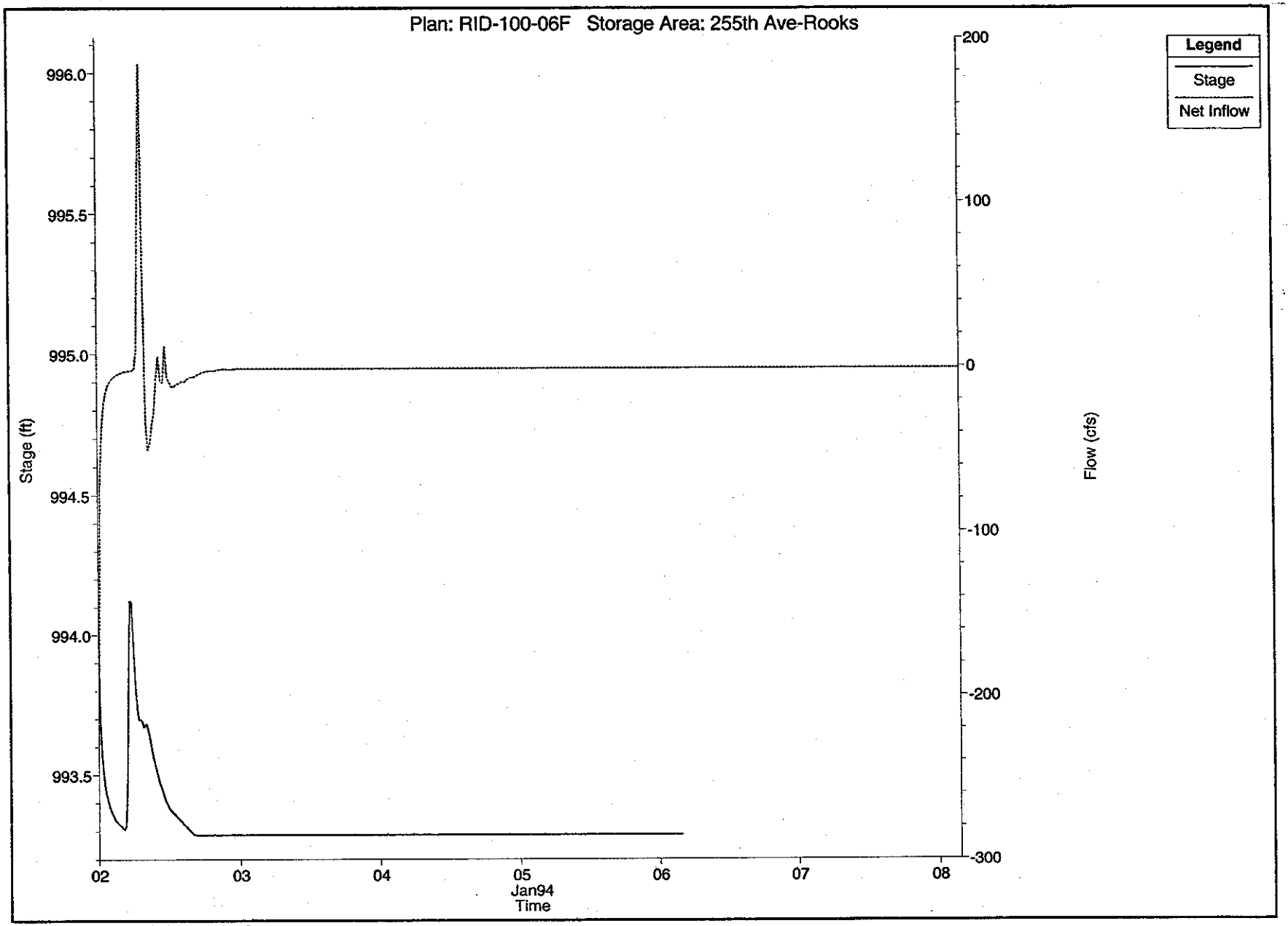
1 in Horiz. = 1 1 in Vert. = 2 ft



1 in Horiz. = 1 1 in Vert. = 1 ft

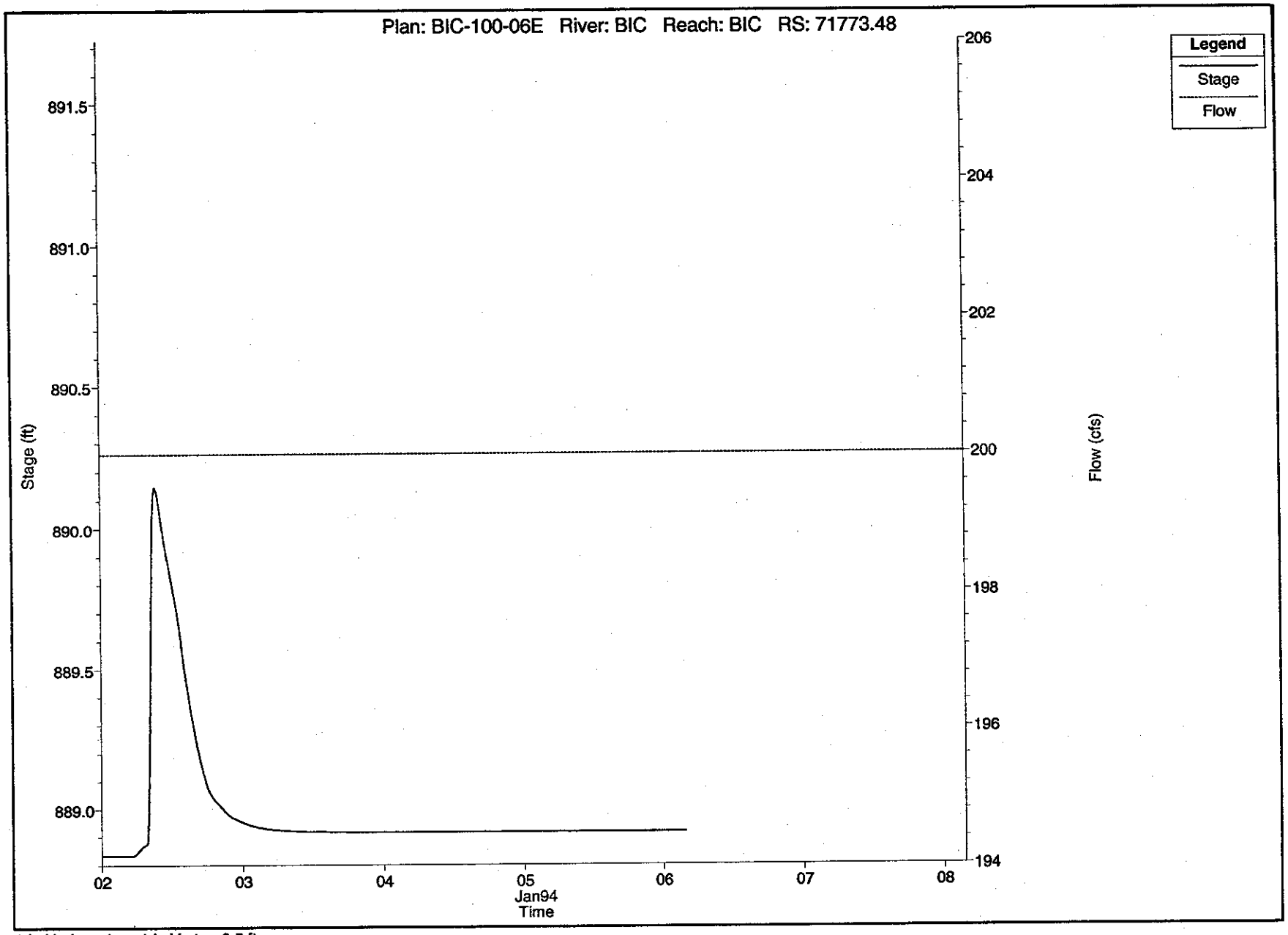


1 in Horiz. = 1 1 in Vert. = 0.5 ft

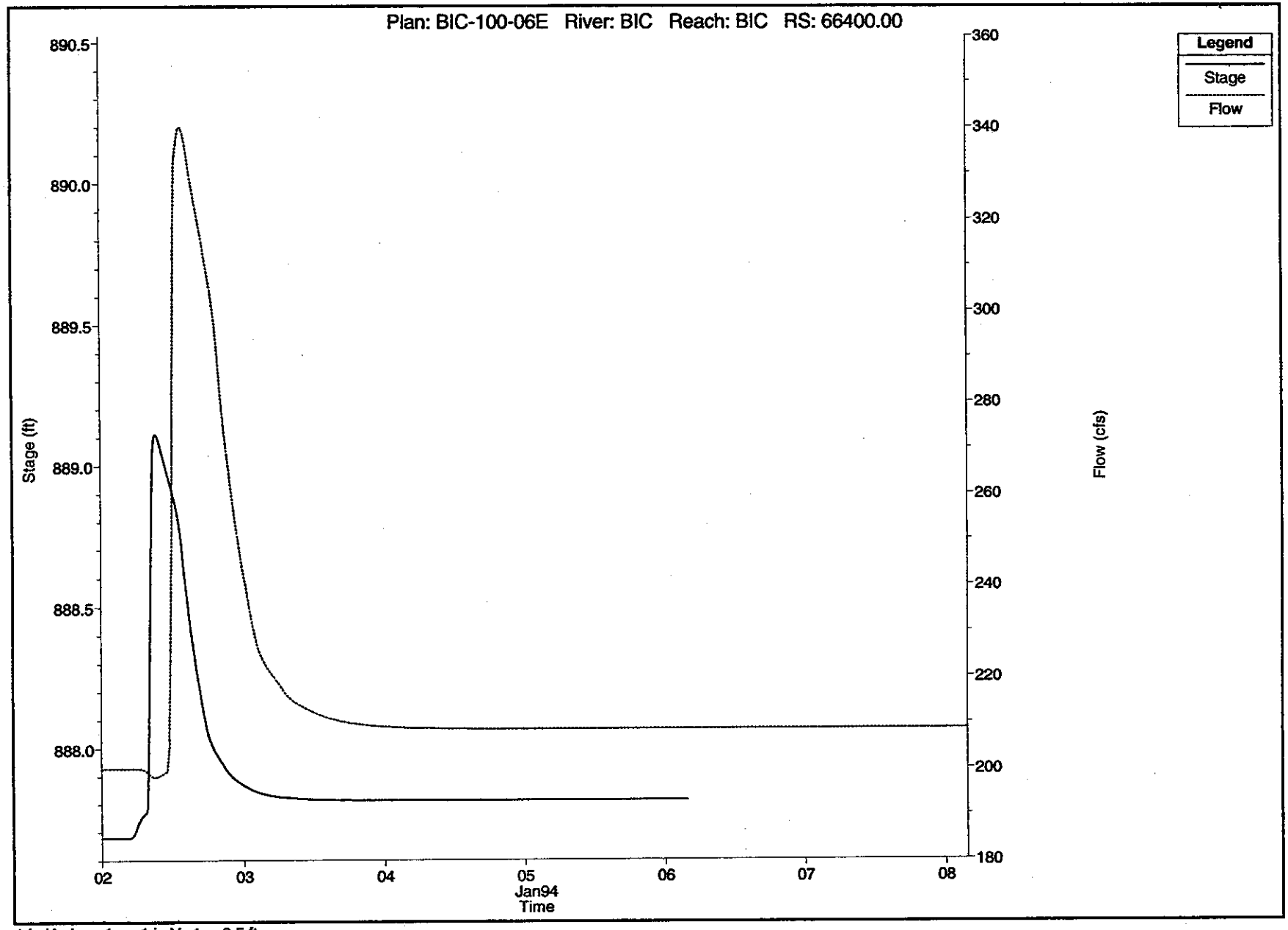


1 in Horiz. = 1 1 in Vert. = 0.5 ft

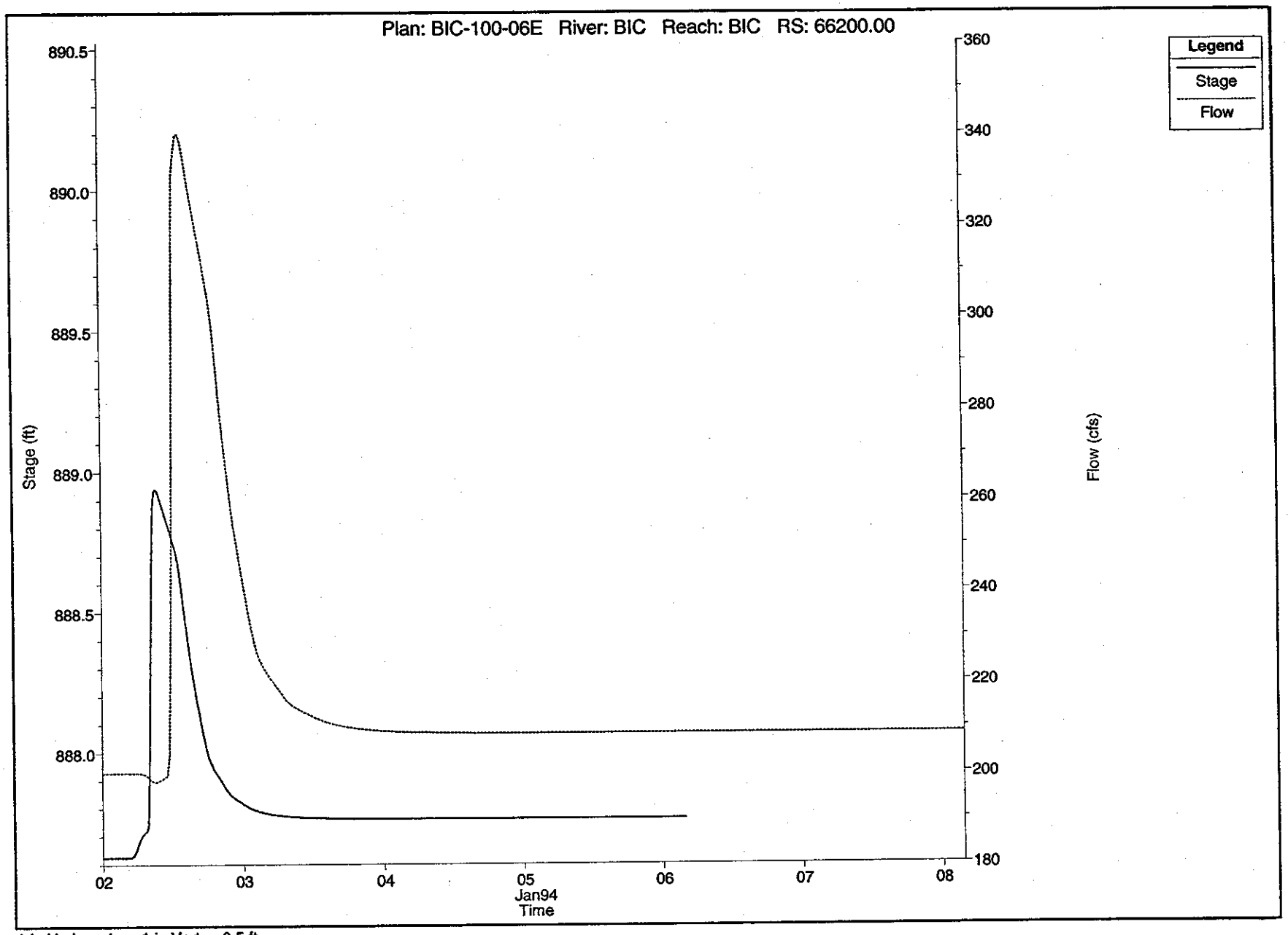
E.5.9 Stage and Flow Hydrographs for BIC – Existing 100-Year, 6-Hour Event



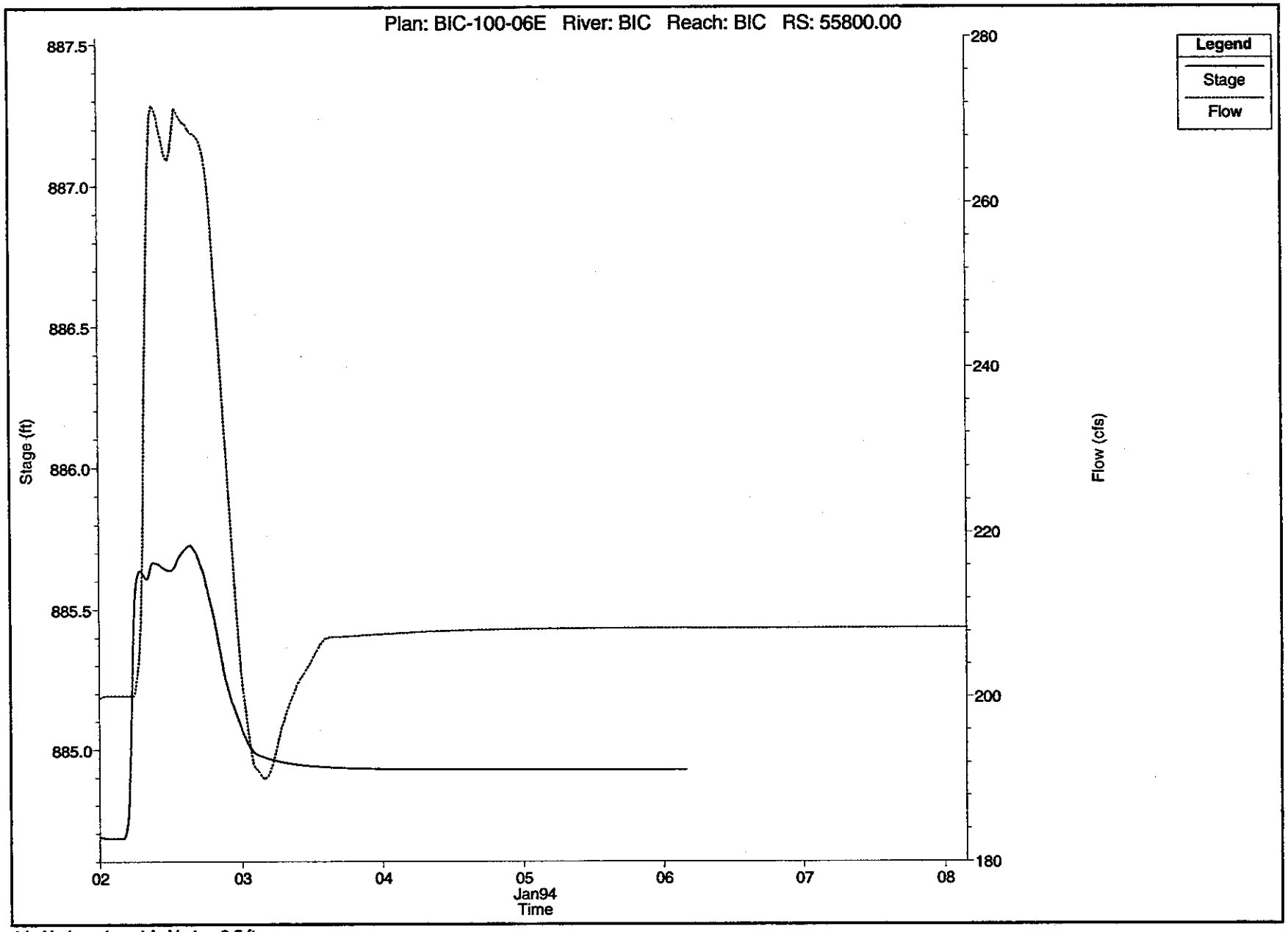
1 in Horiz. = 1 1 in Vert. = 0.5 ft



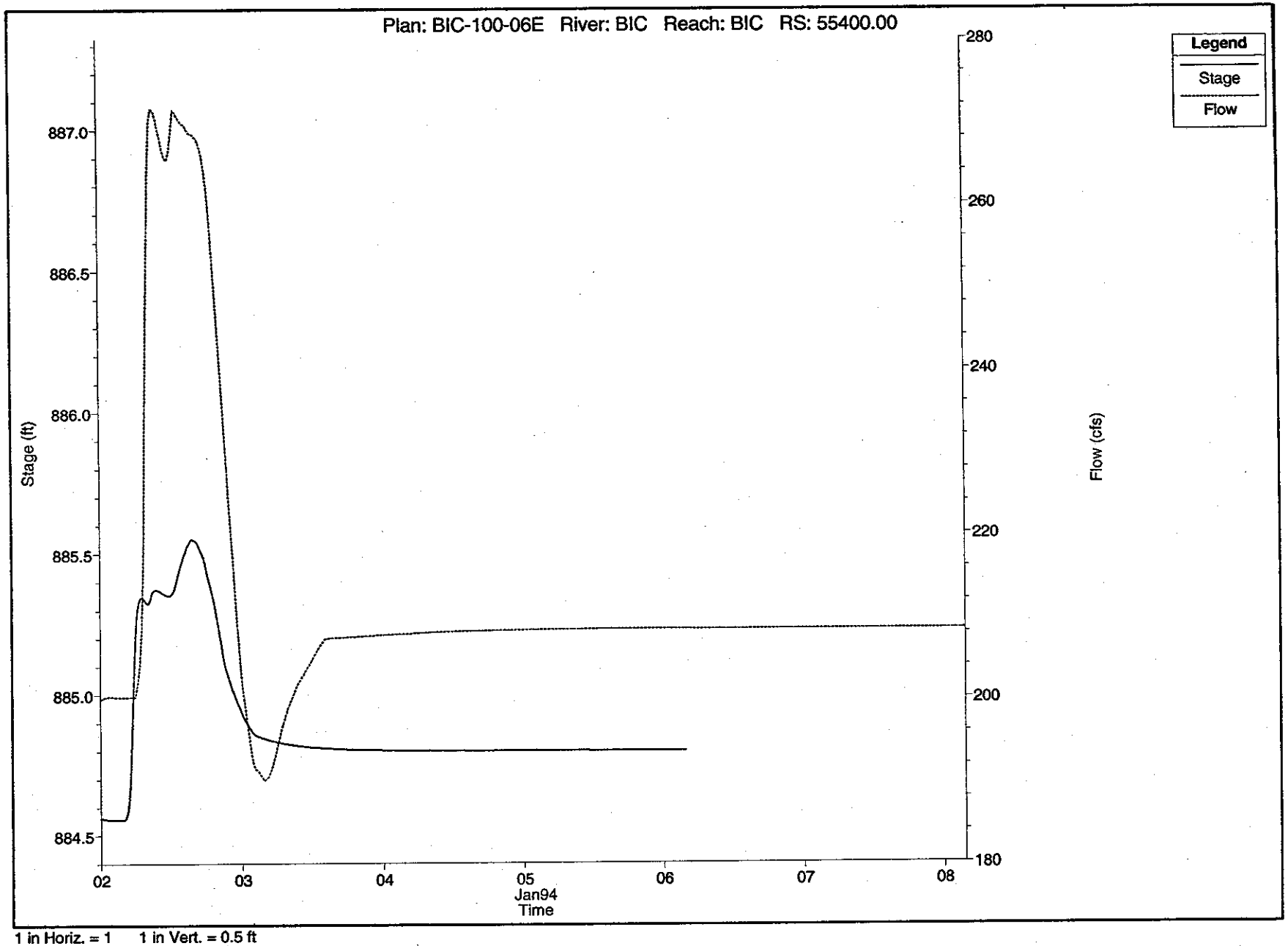
1 in Horiz. = 1 1 in Vert. = 0.5 ft



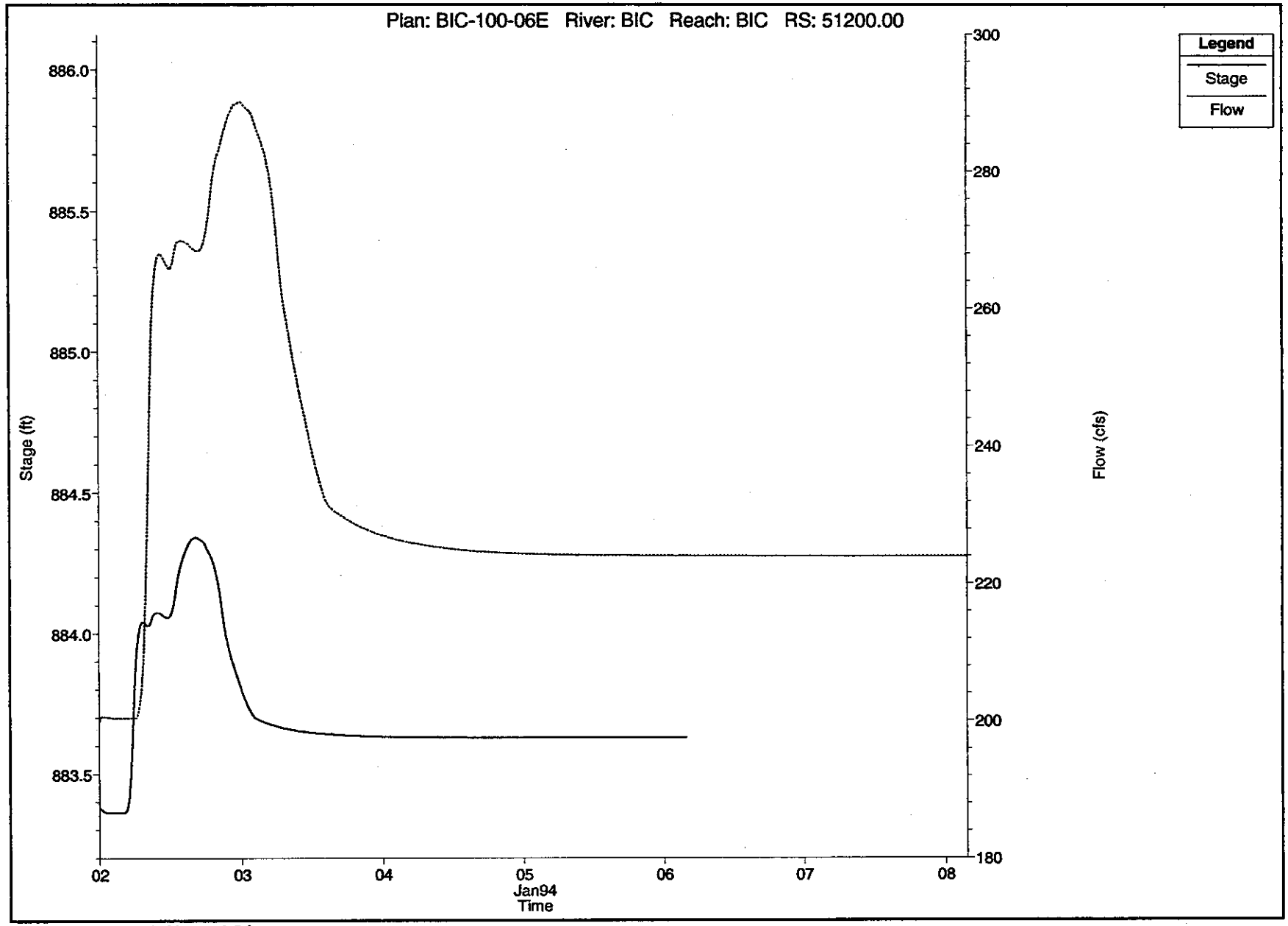
1 in Horiz. = 1 1 in Vert. = 0.5 ft



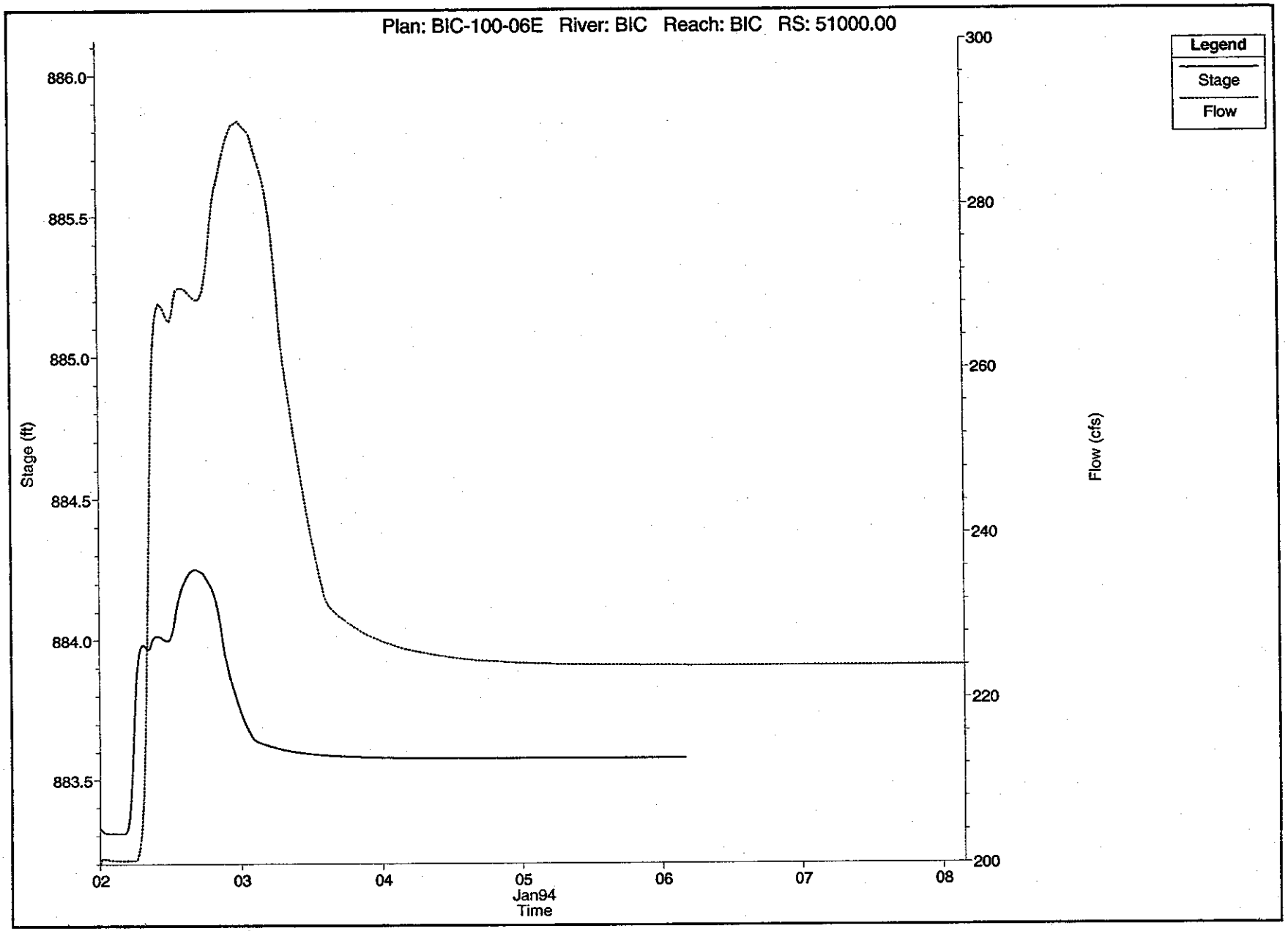
1 in Horiz. = 1 1 in Vert. = 0.5 ft



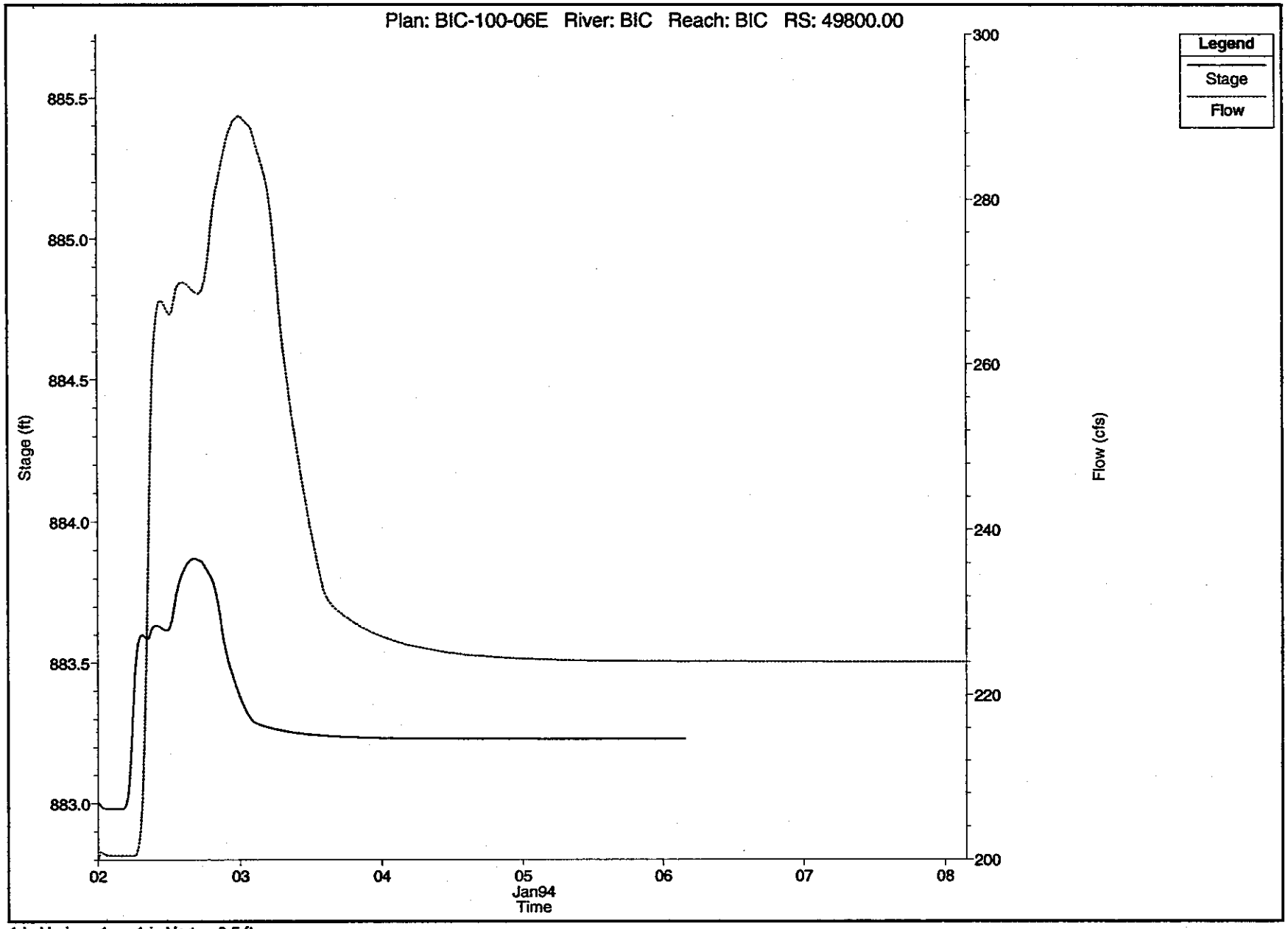
1 in Horiz. = 1 1 in Vert. = 0.5 ft



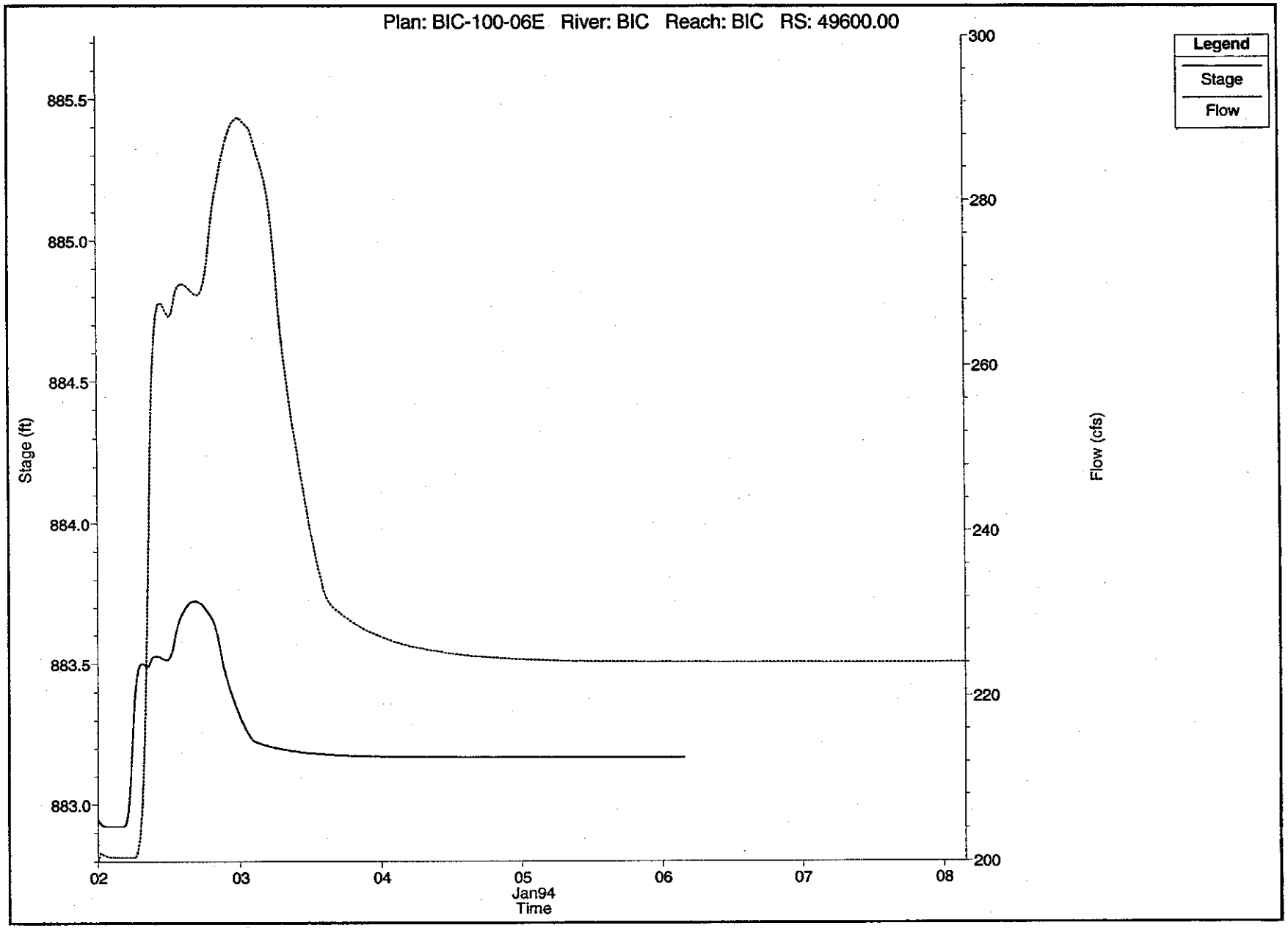
1 in Horiz. = 1 1 in Vert. = 0.5 ft



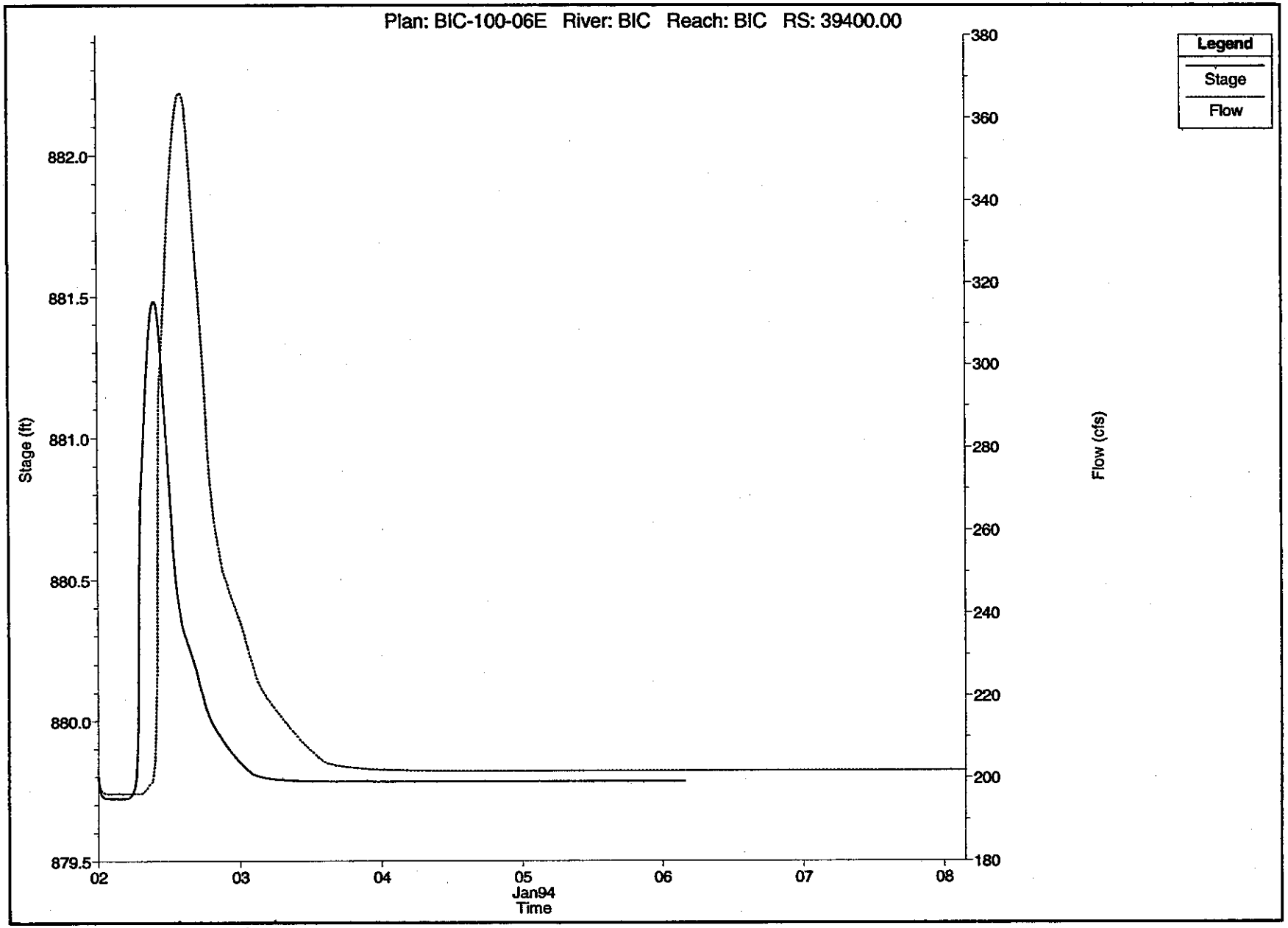
1 in Horiz. = 1 1 in Vert. = 0.5 ft



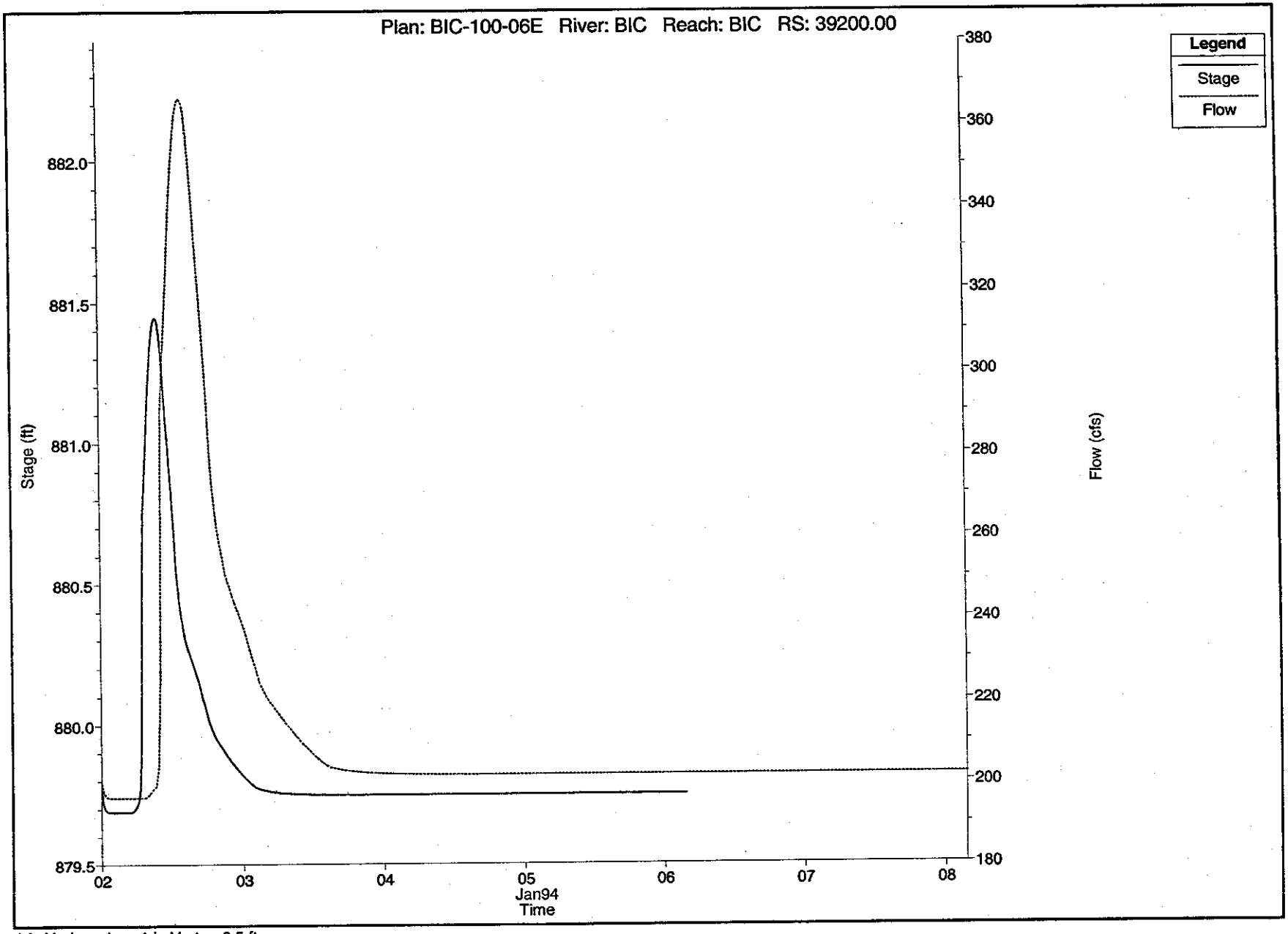
1 in Horiz. = 1 1 in Vert. = 0.5 ft



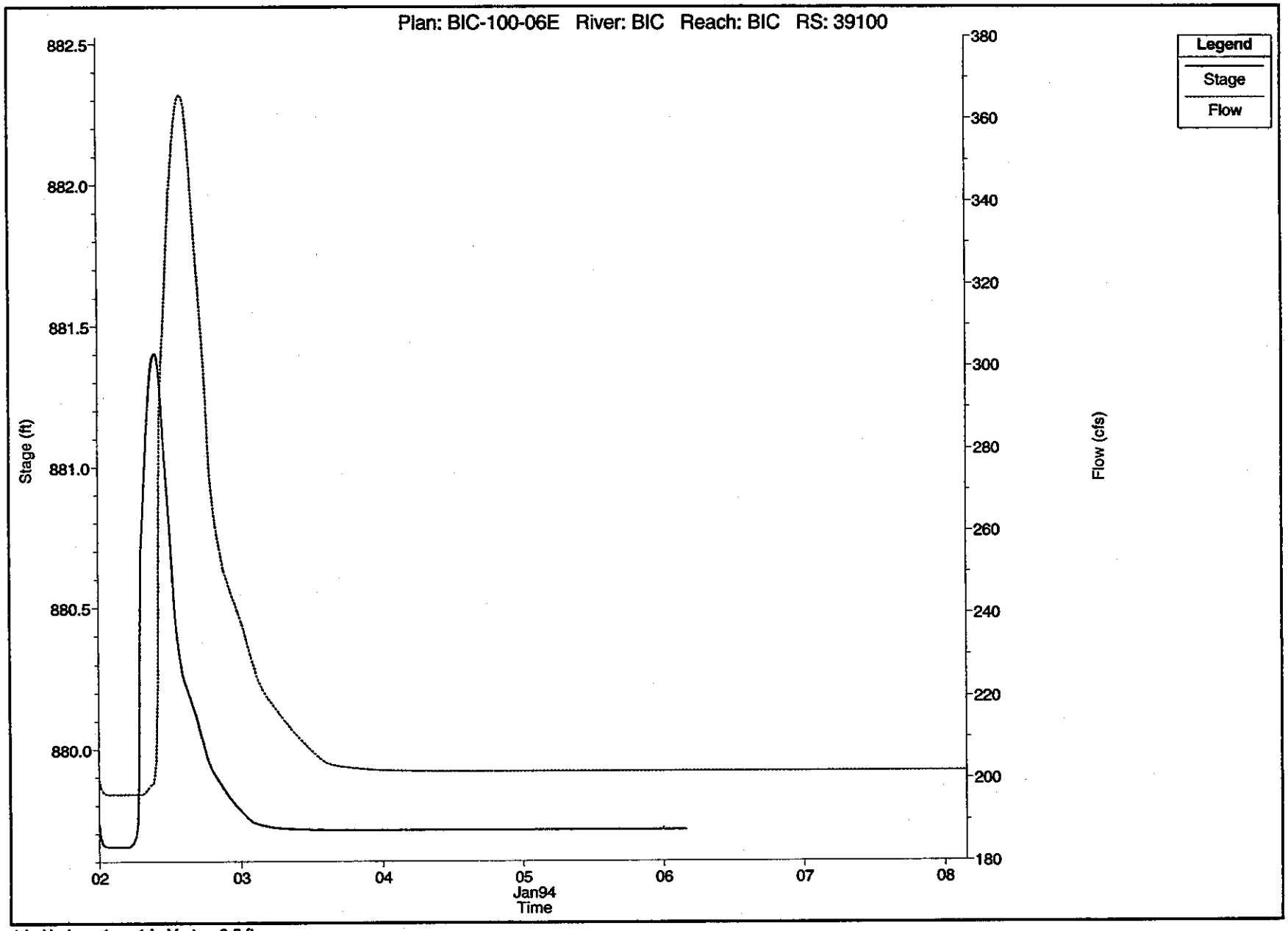
1 in Horiz. = 1 1 in Vert. = 0.5 ft



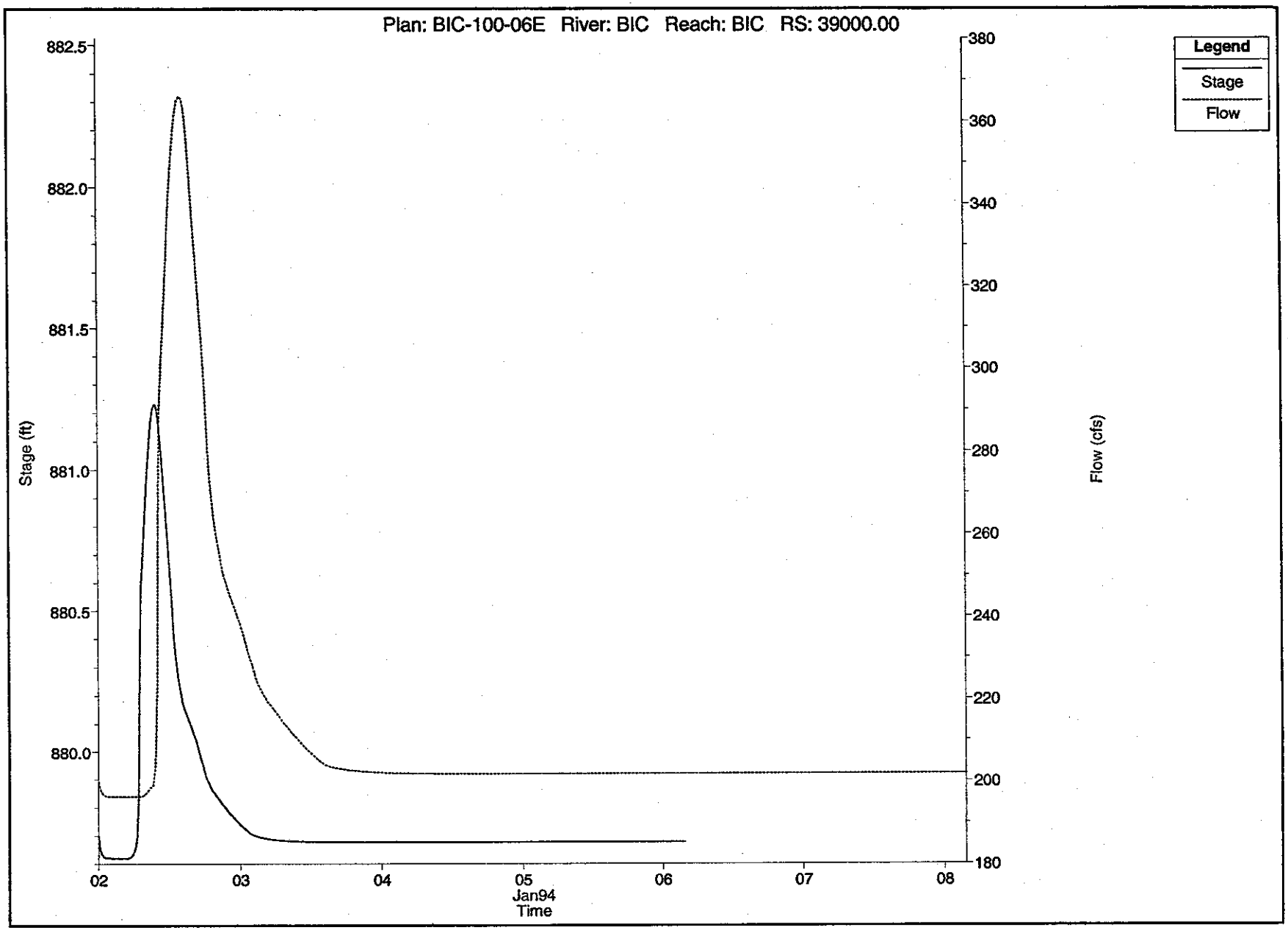
1 in Horiz. = 1 1 in Vert. = 0.5 ft



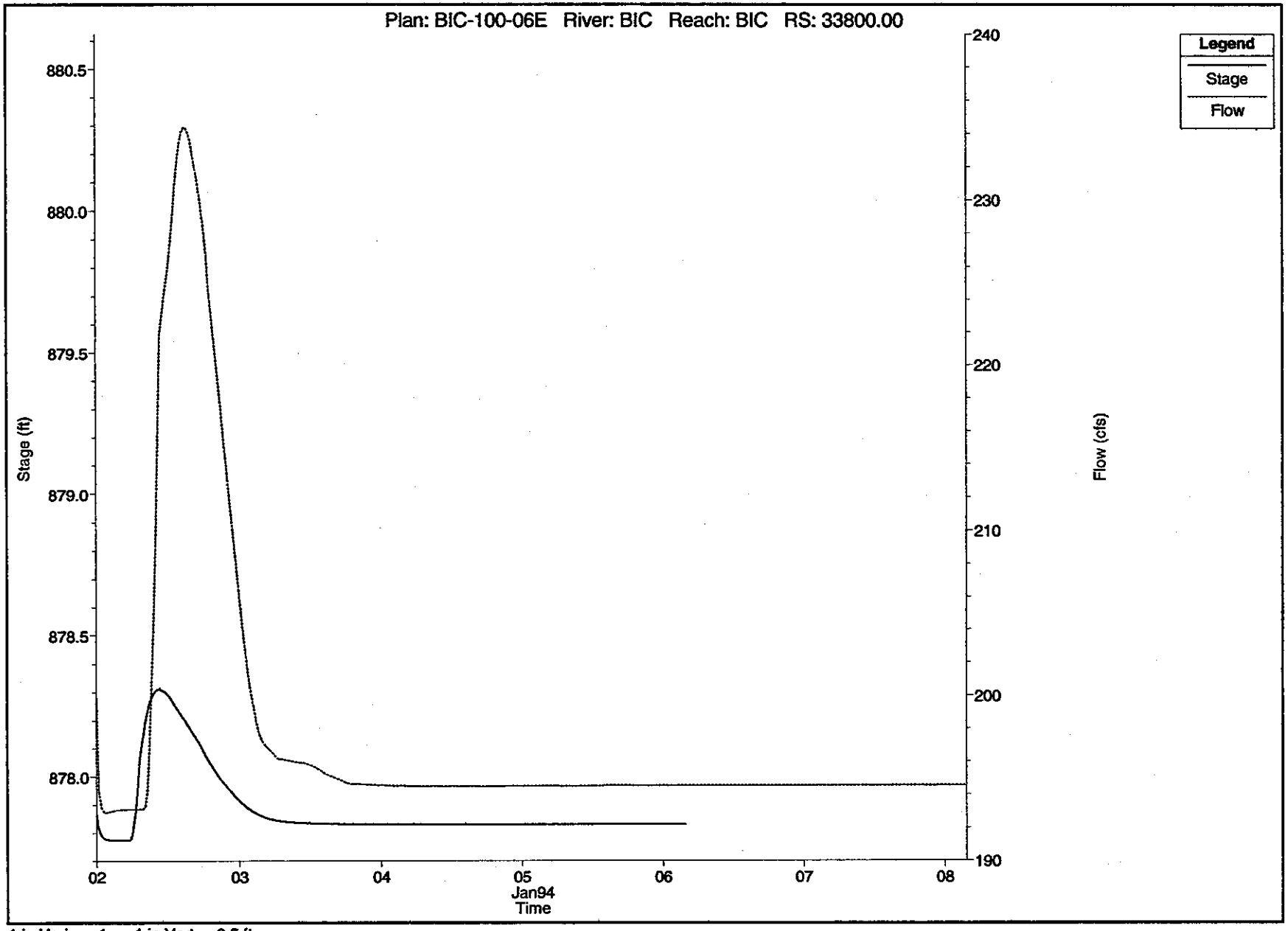
1 in Horiz. = 1 1 in Vert. = 0.5 ft



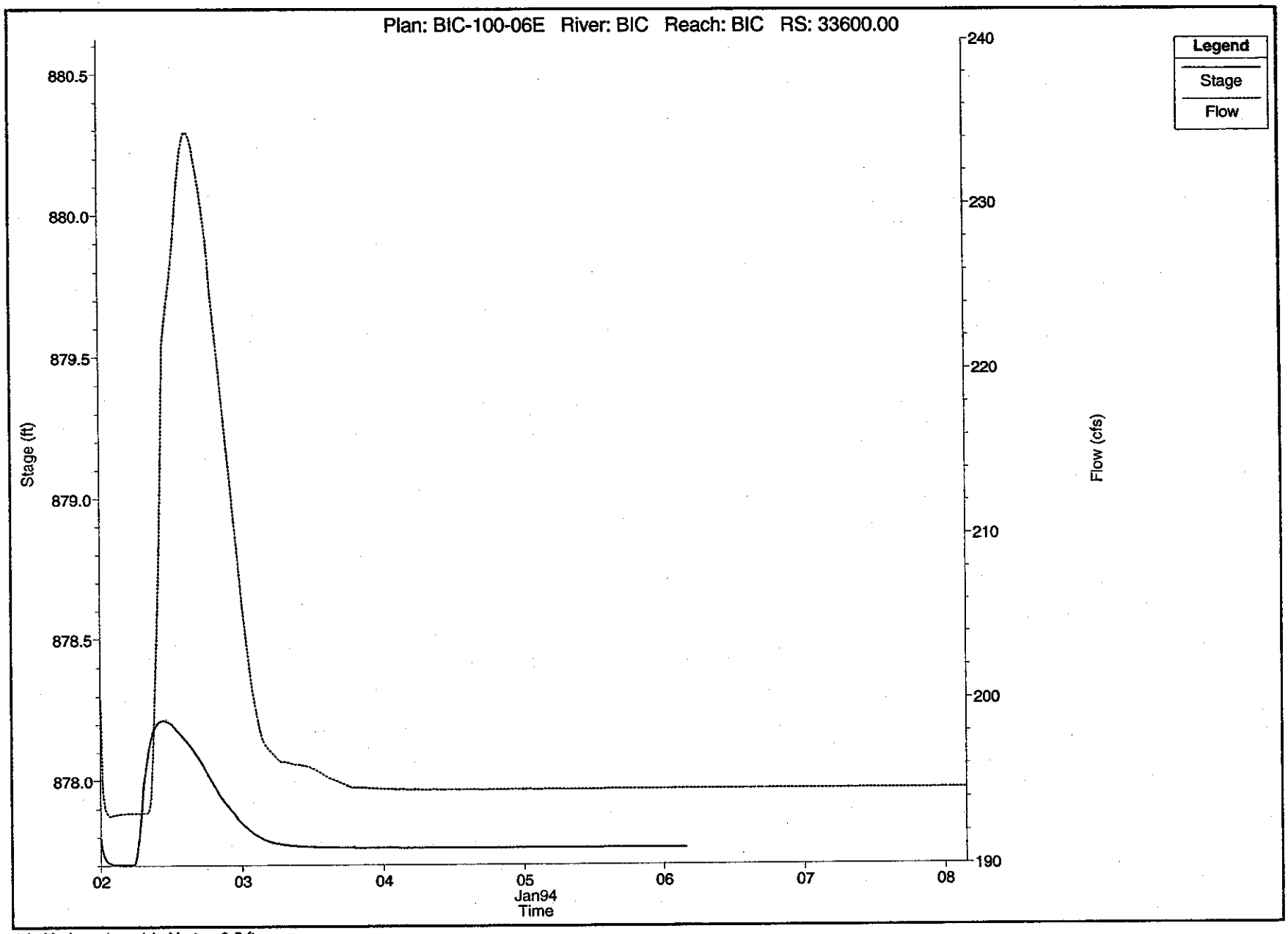
1 in Horiz. = 1 1 in Vert. = 0.5 ft



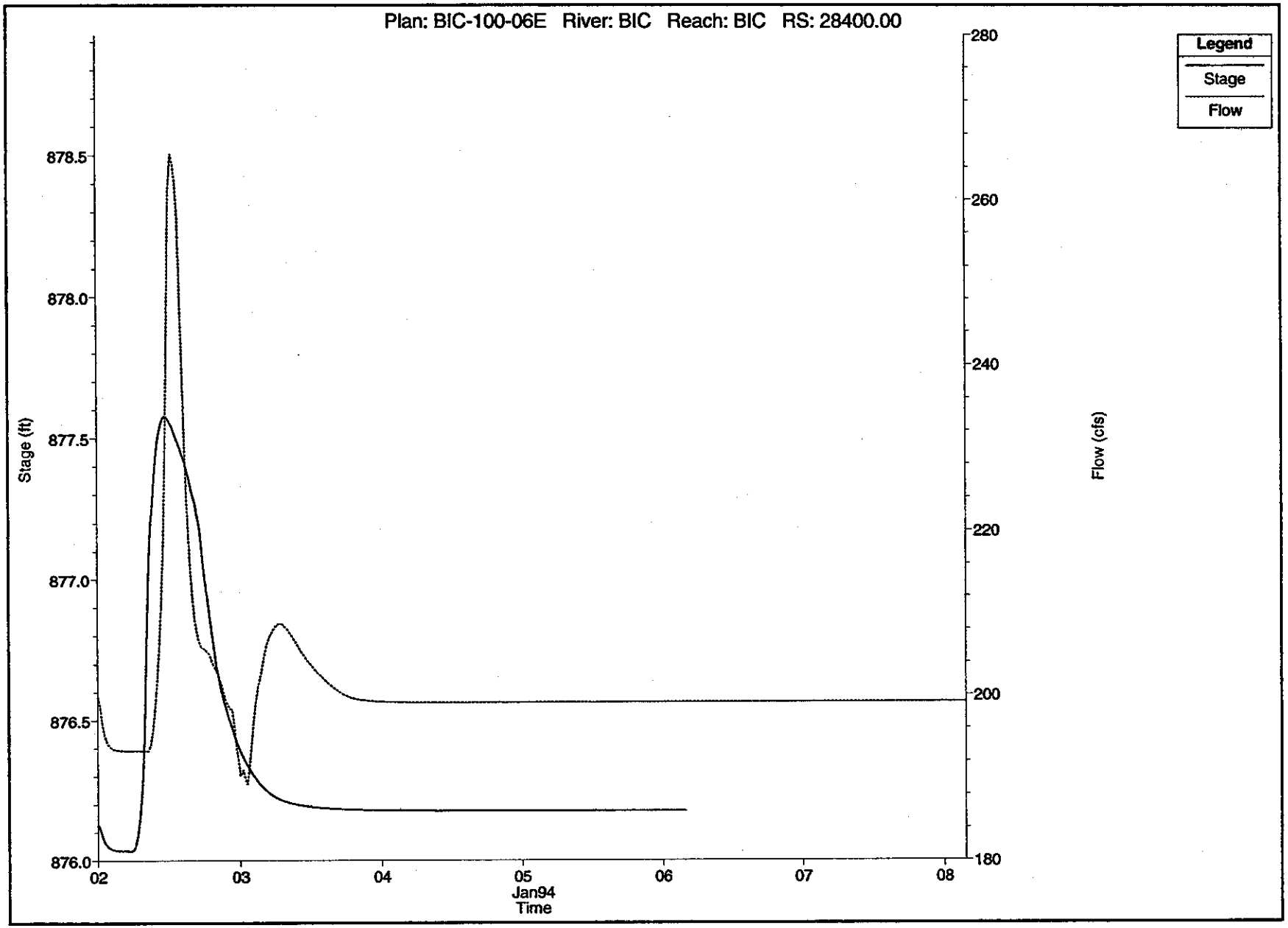
1 in Horiz. = 1 1 in Vert. = 0.5 ft



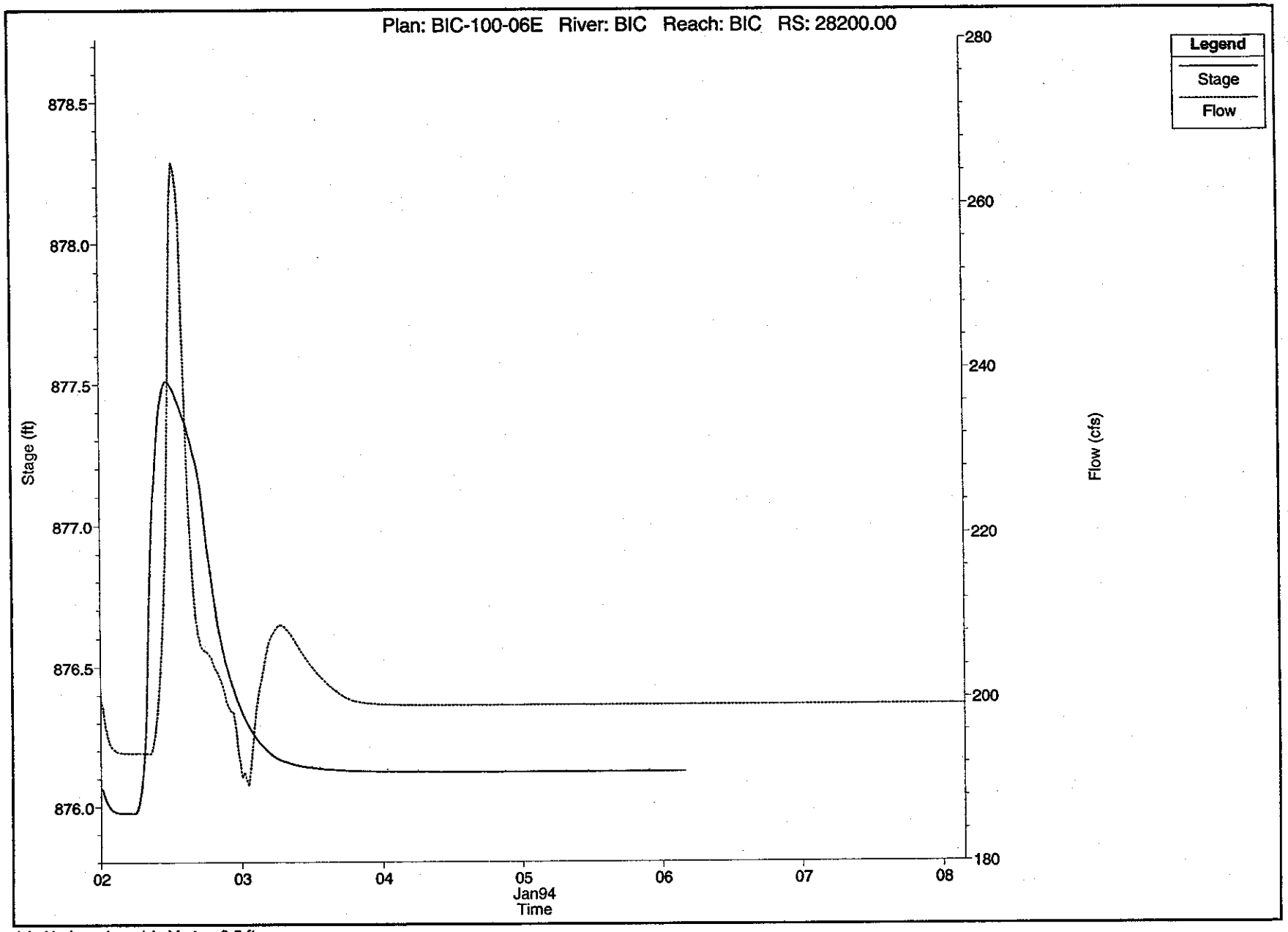
1 in Horiz. = 1 1 in Vert. = 0.5 ft



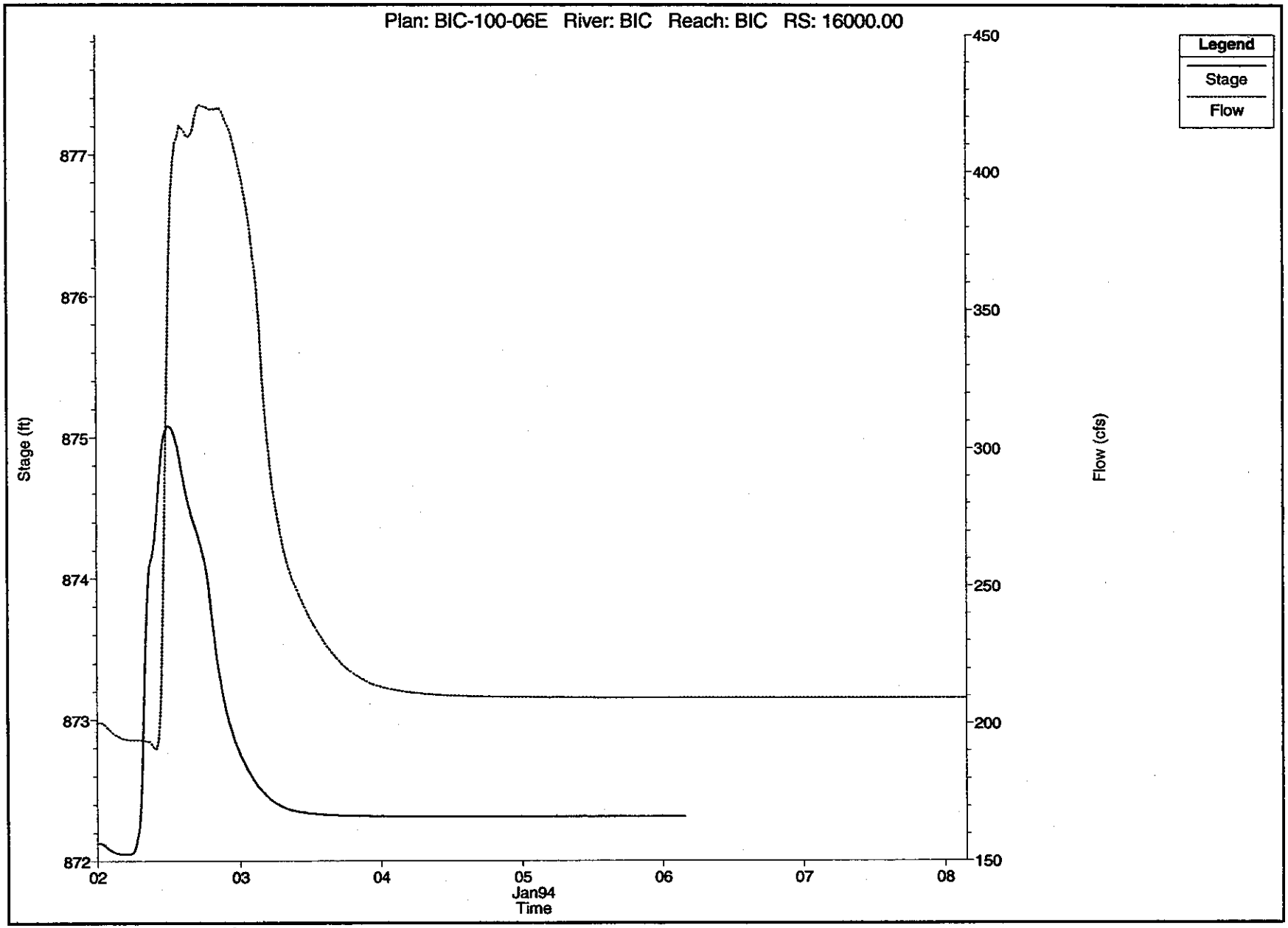
1 in Horiz. = 1 1 in Vert. = 0.5 ft



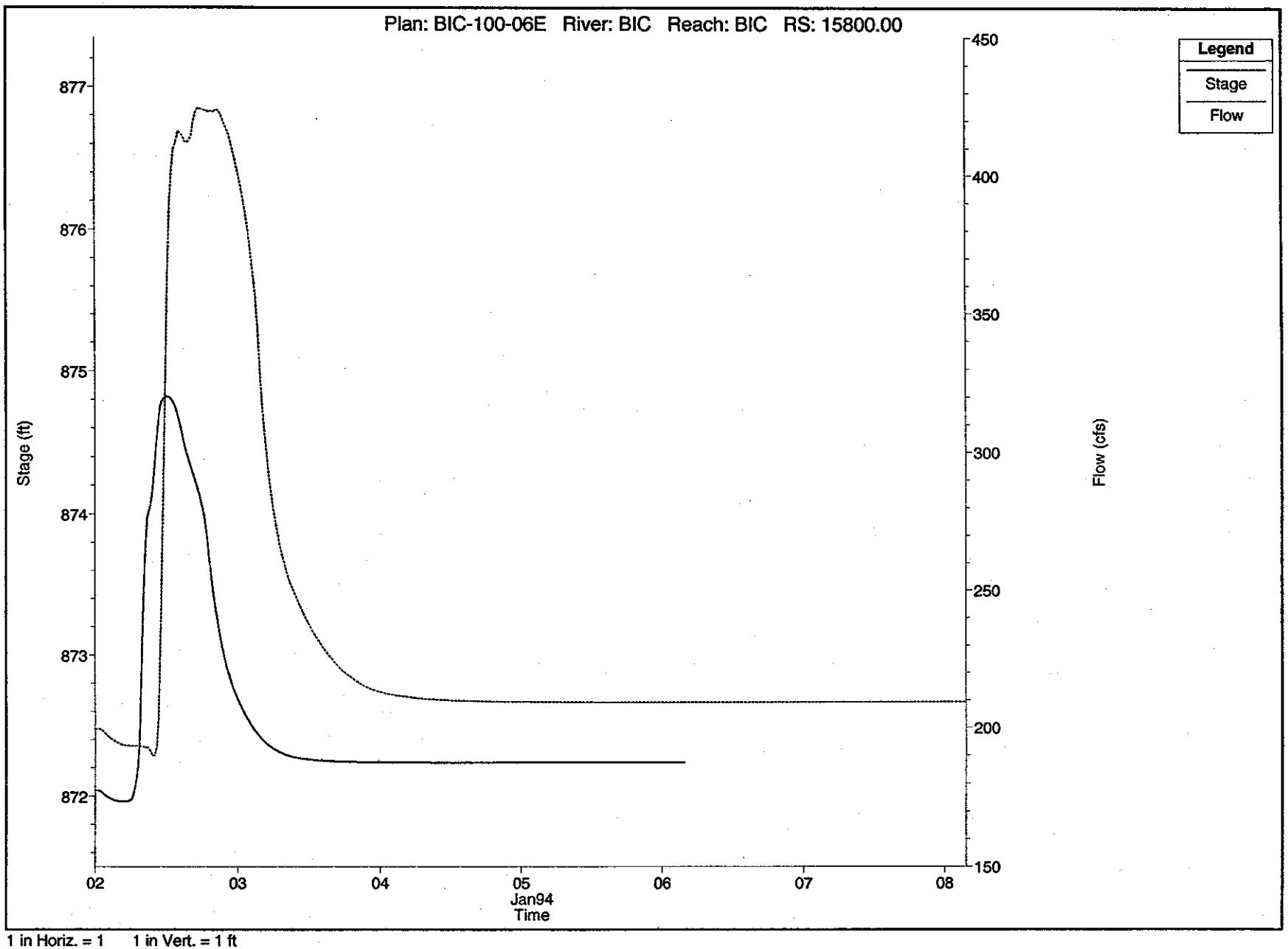
1 in Horiz. = 1 1 in Vert. = 0.5 ft



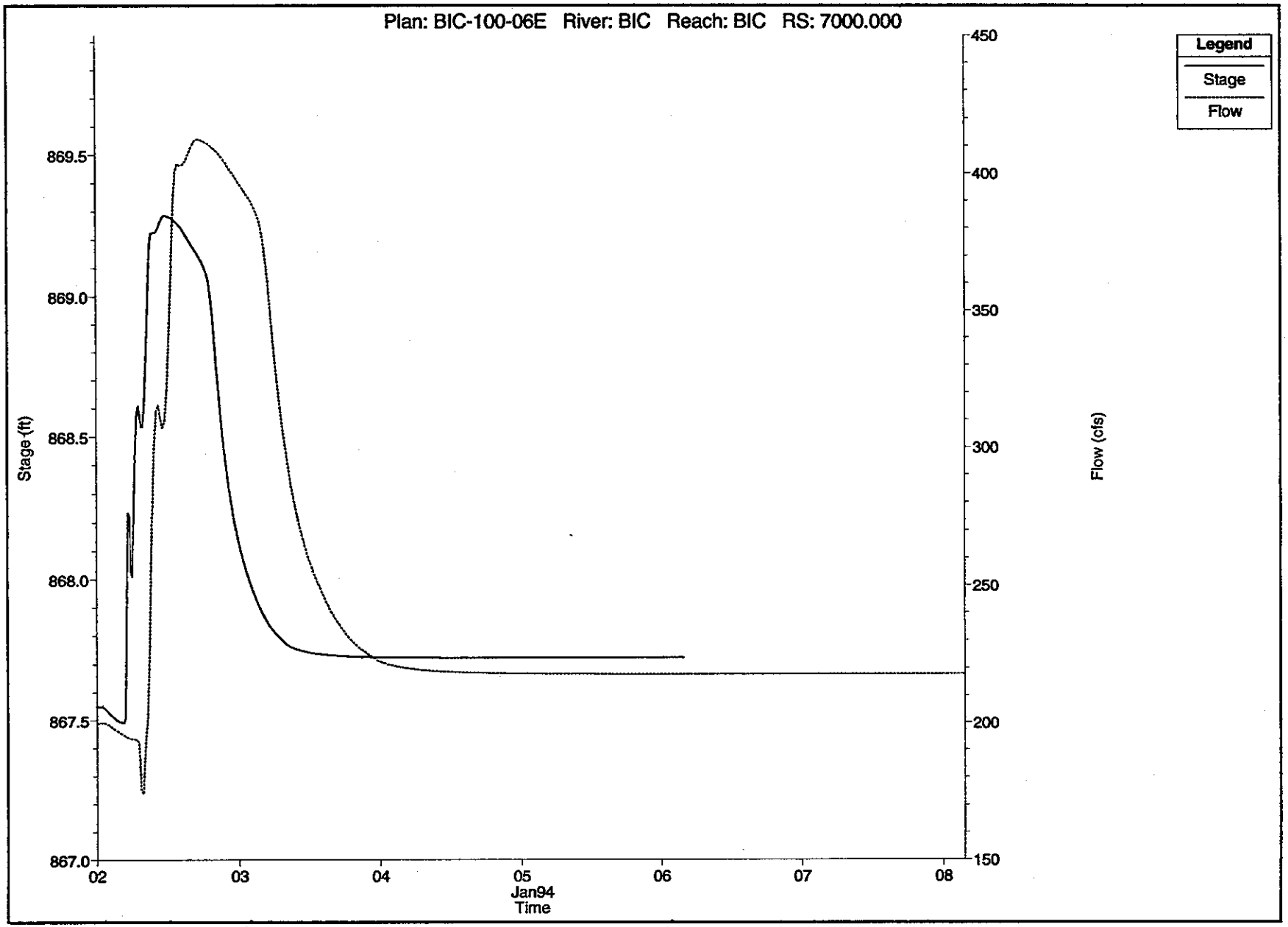
1 in Horiz. = 1 1 in Vert. = 0.5 ft



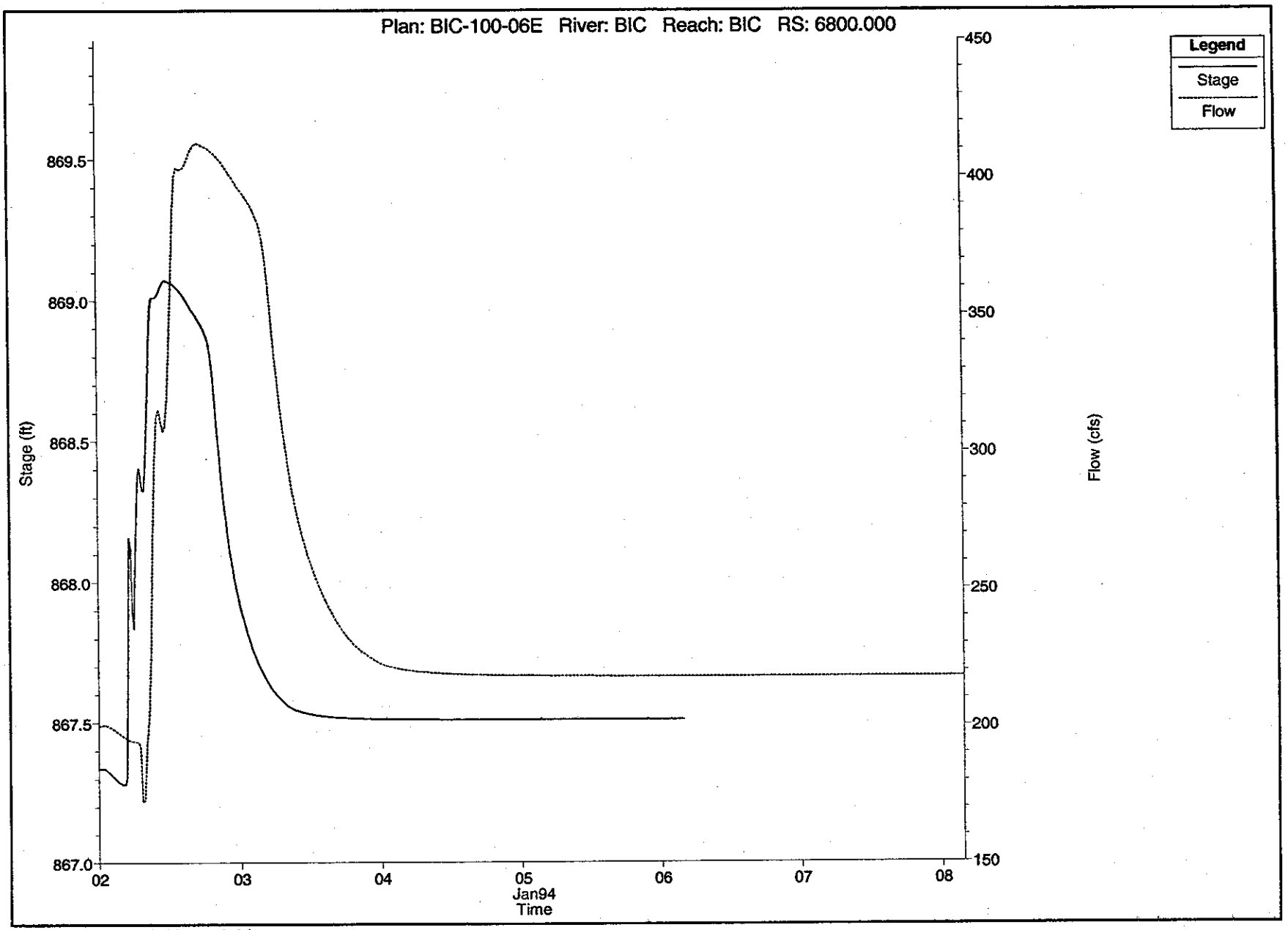
1 in Horiz. = 1 1 in Vert. = 1 ft



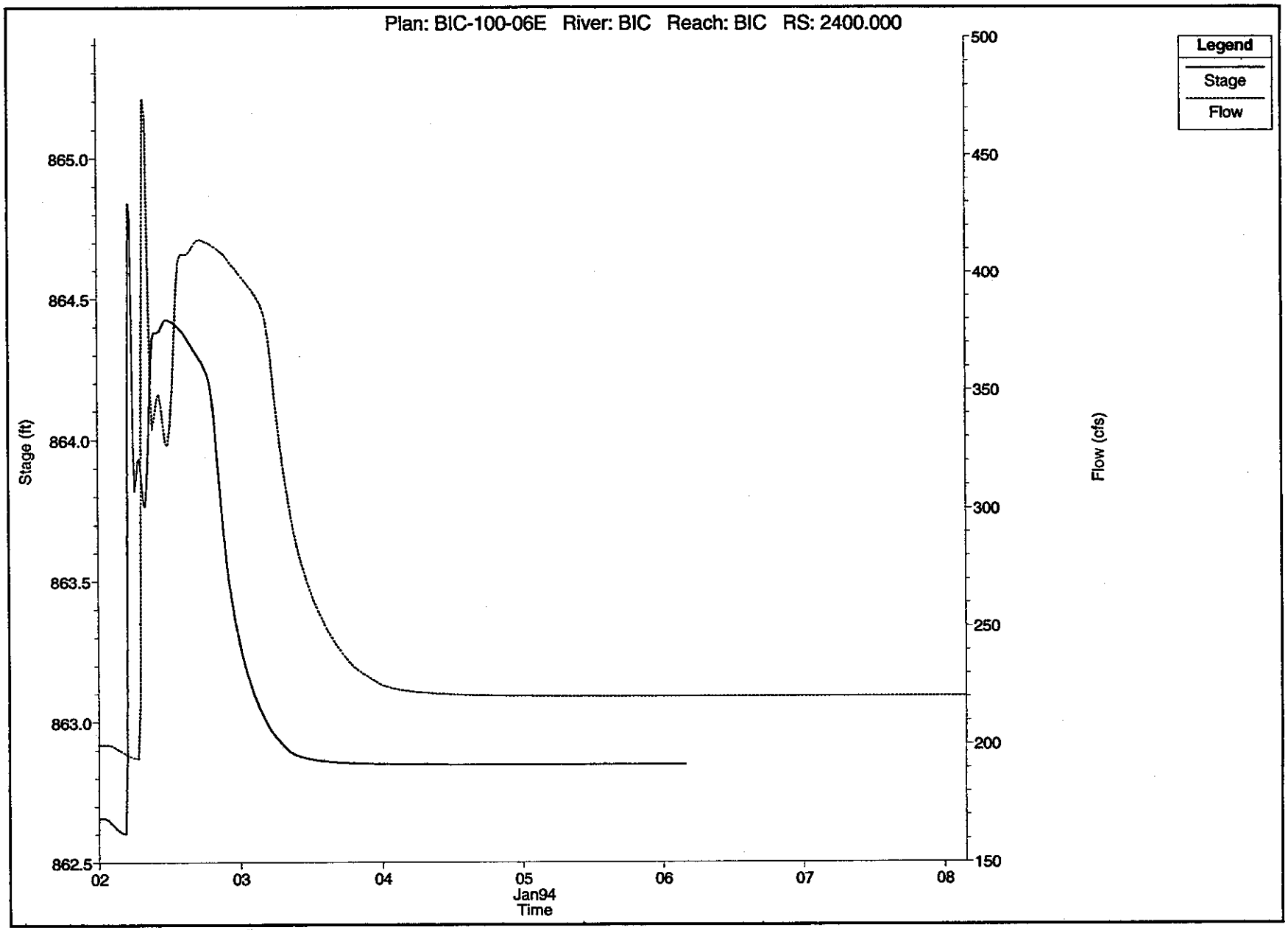
1 in Horiz. = 1 1 in Vert. = 1 ft



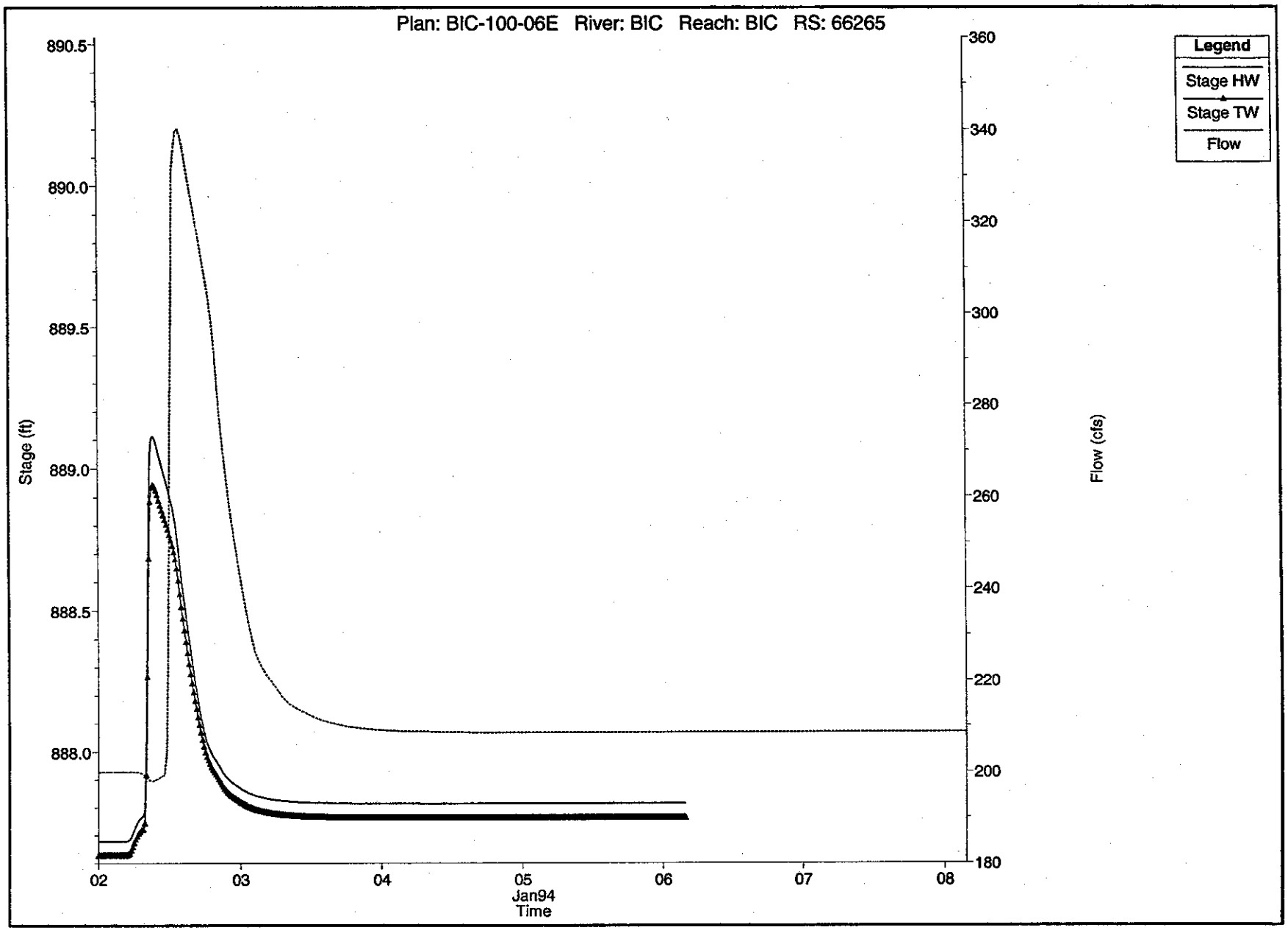
1 in Horiz. = 1 1 in Vert. = 0.5 ft



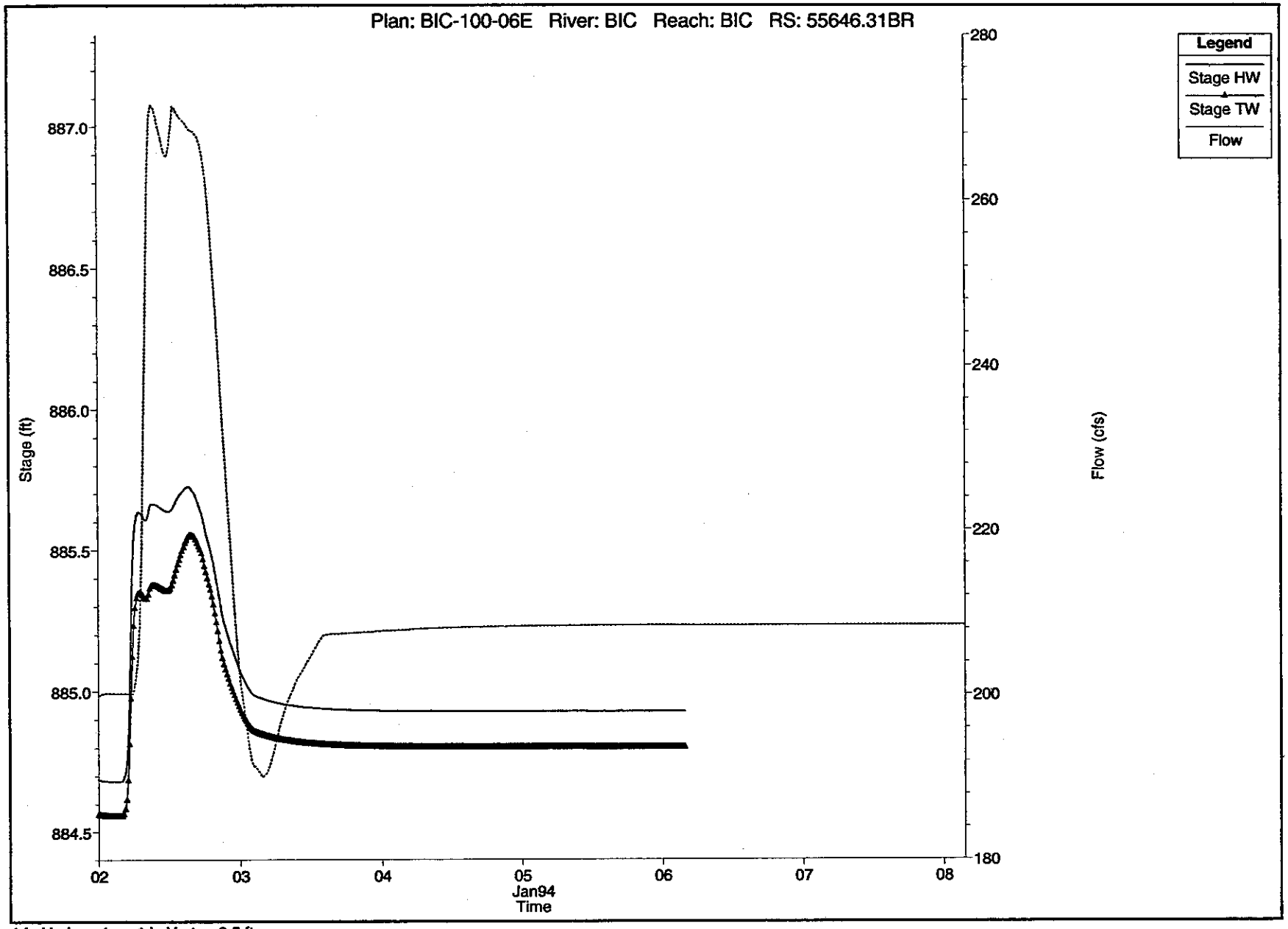
1 in Horiz. = 1 1 in Vert. = 0.5 ft



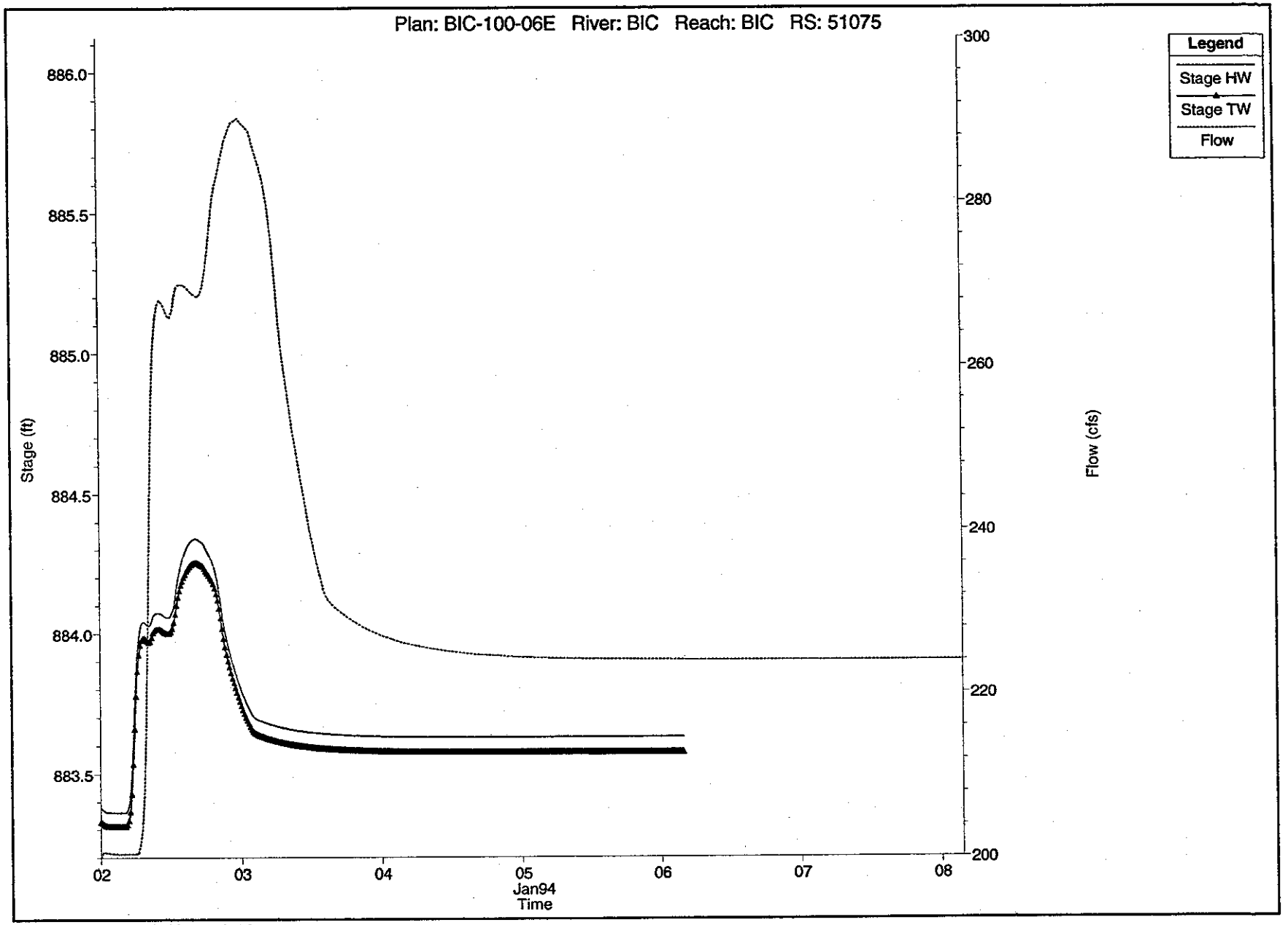
1 in Horiz. = 1 1 in Vert. = 0.5 ft



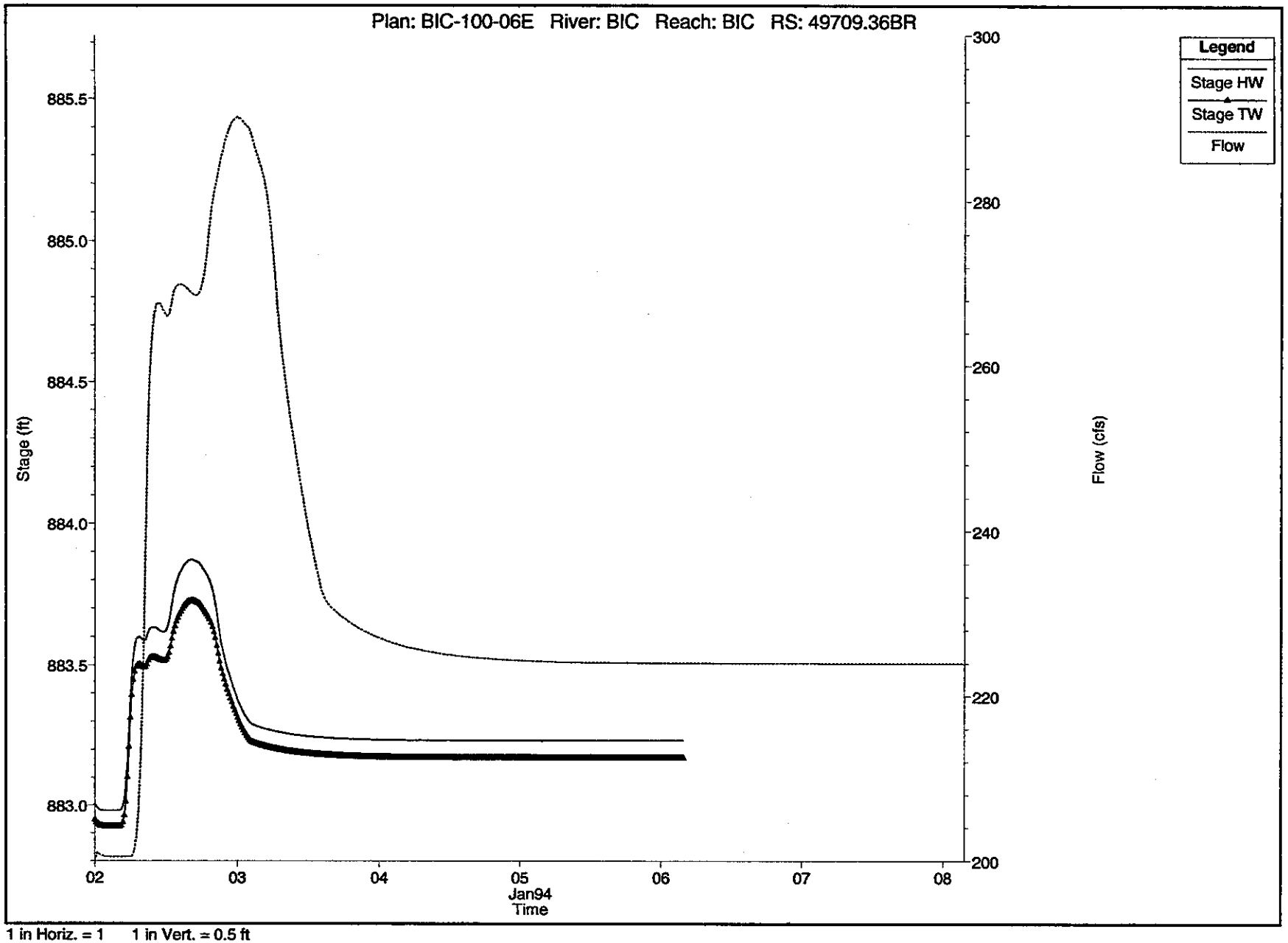
1 in Horiz. = 1 1 in Vert. = 0.5 ft



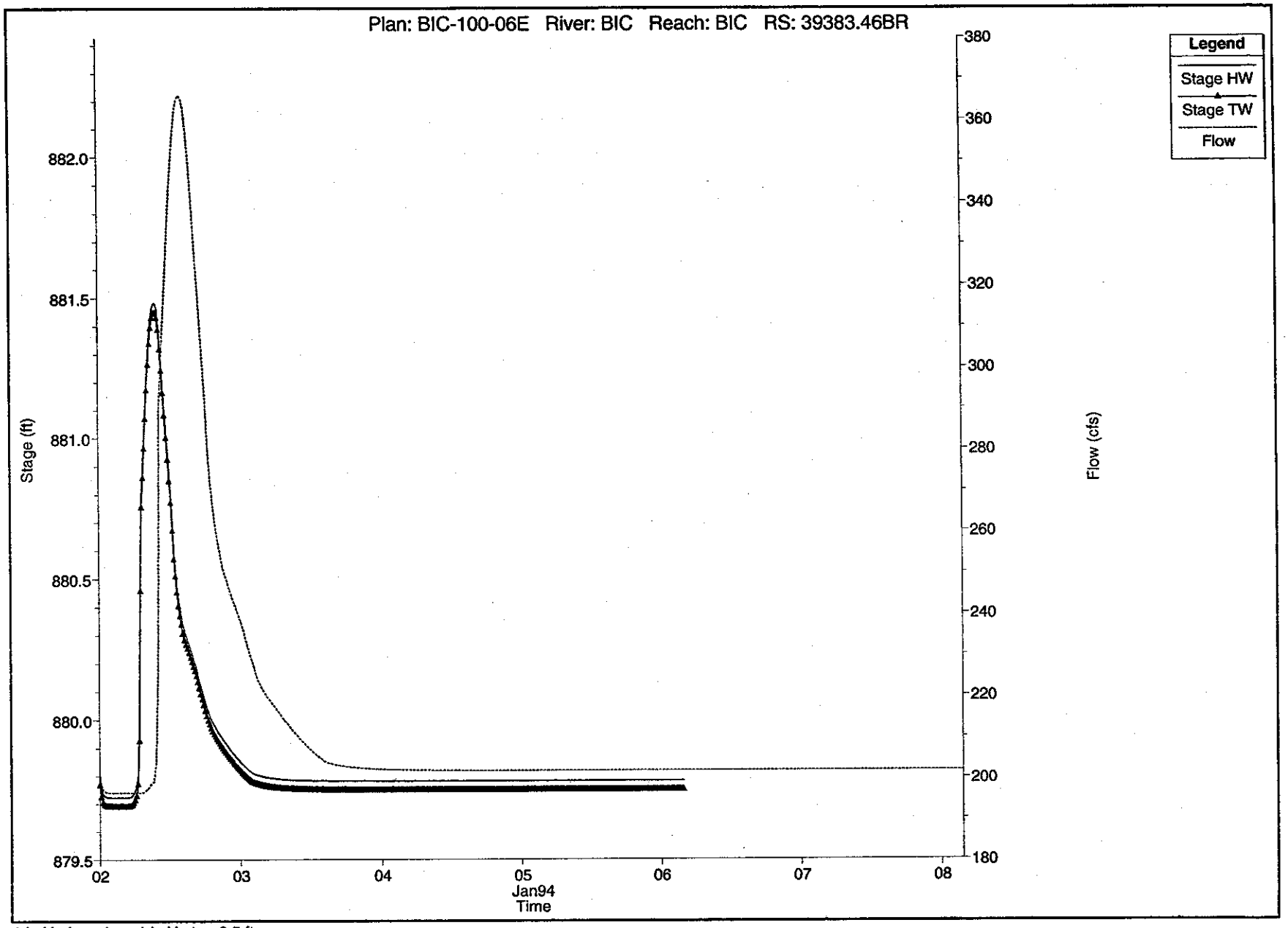
1 in Horiz. = 1 1 in Vert. = 0.5 ft



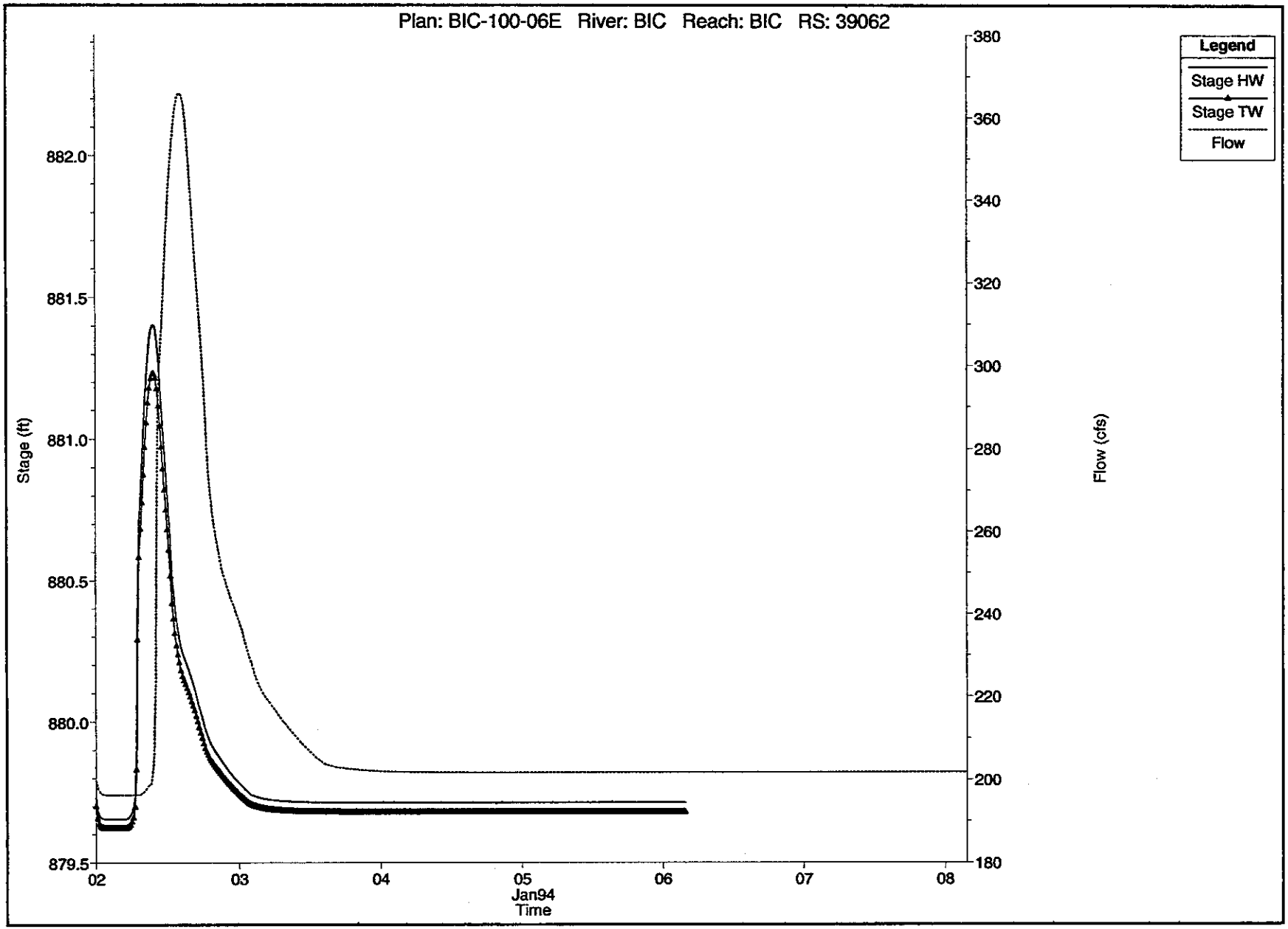
1 in Horiz. = 1 1 in Vert. = 0.5 ft



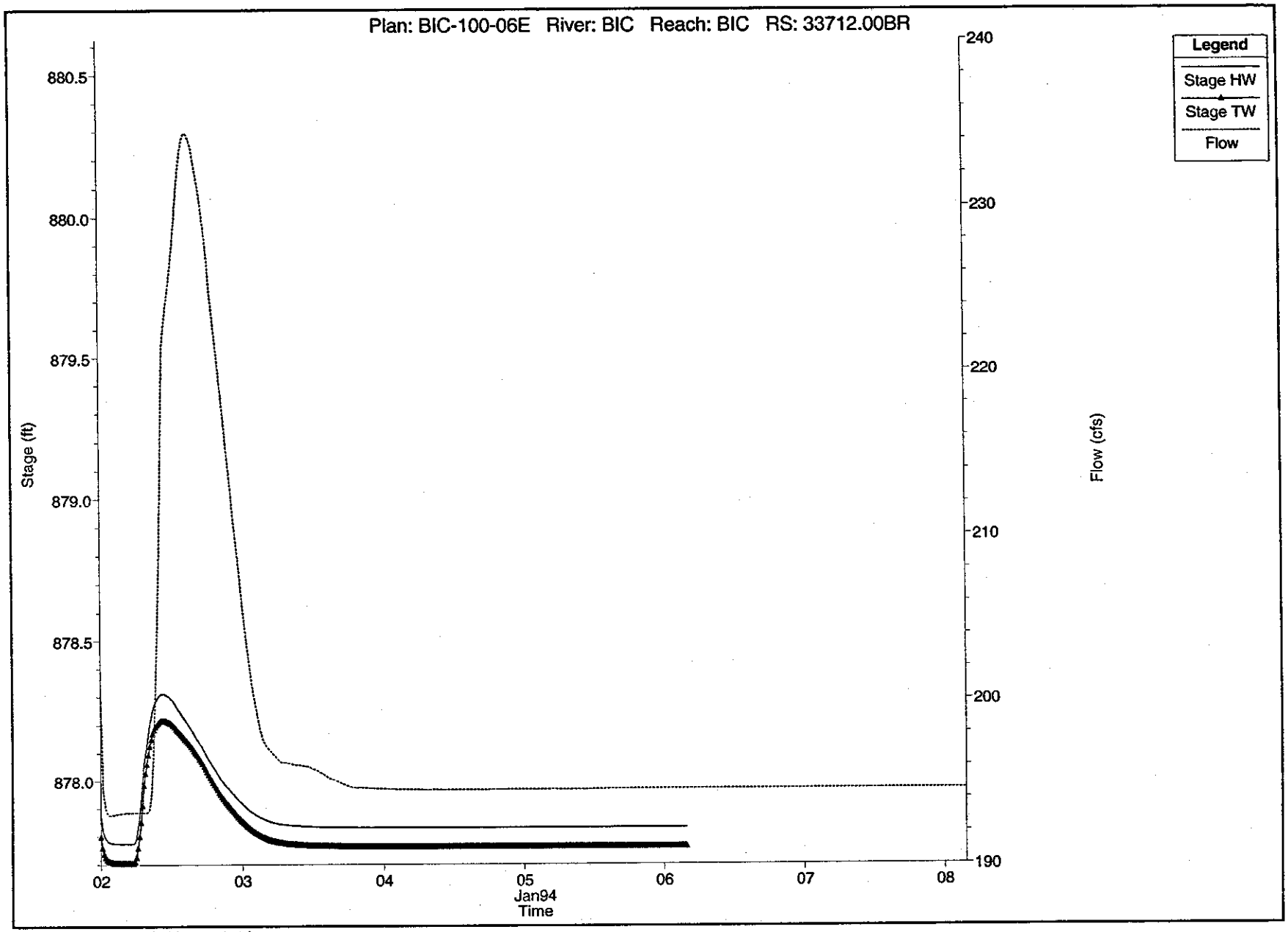
1 in Horiz. = 1 1 in Vert. = 0.5 ft



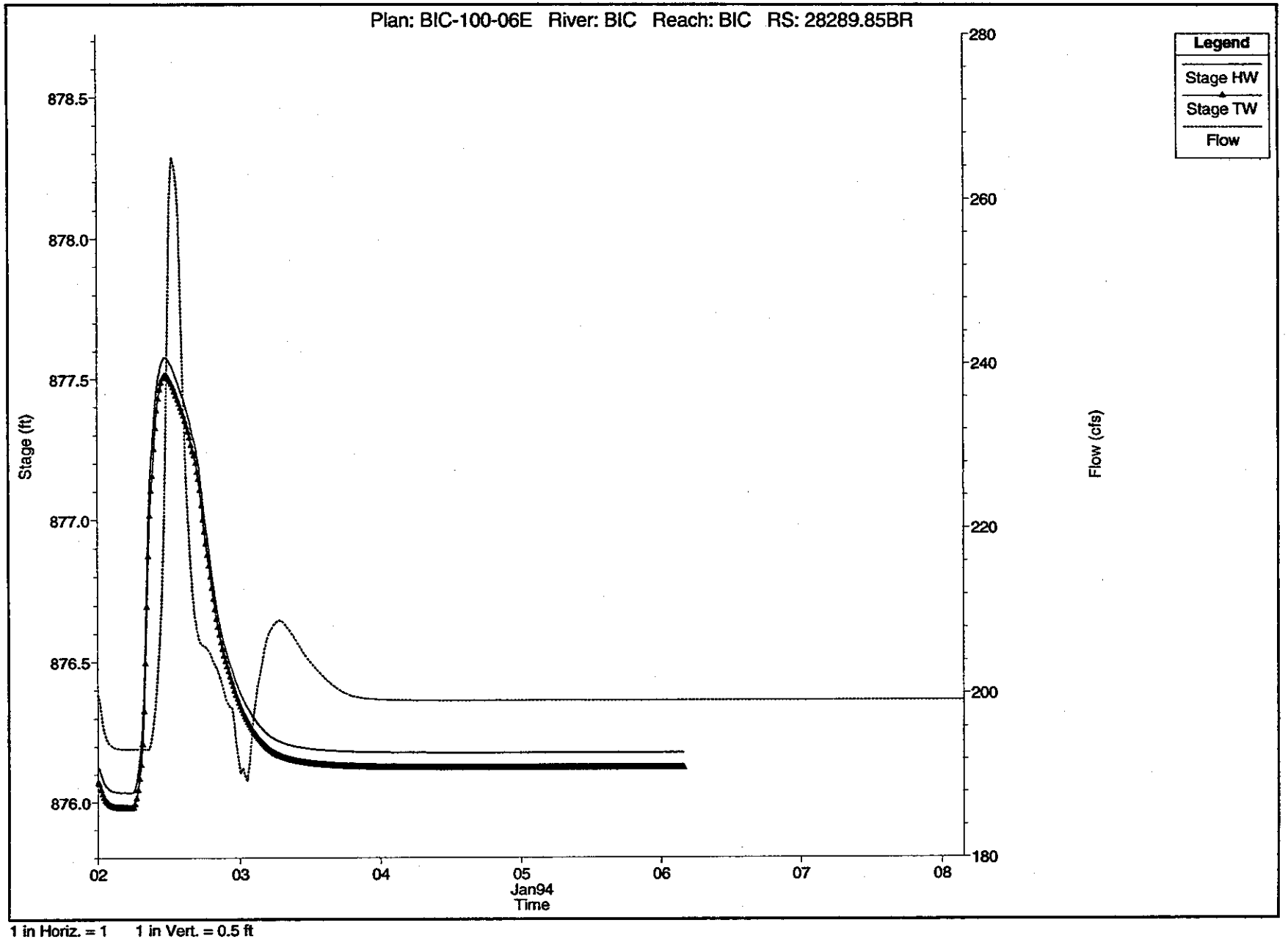
1 in Horiz. = 1 1 in Vert. = 0.5 ft



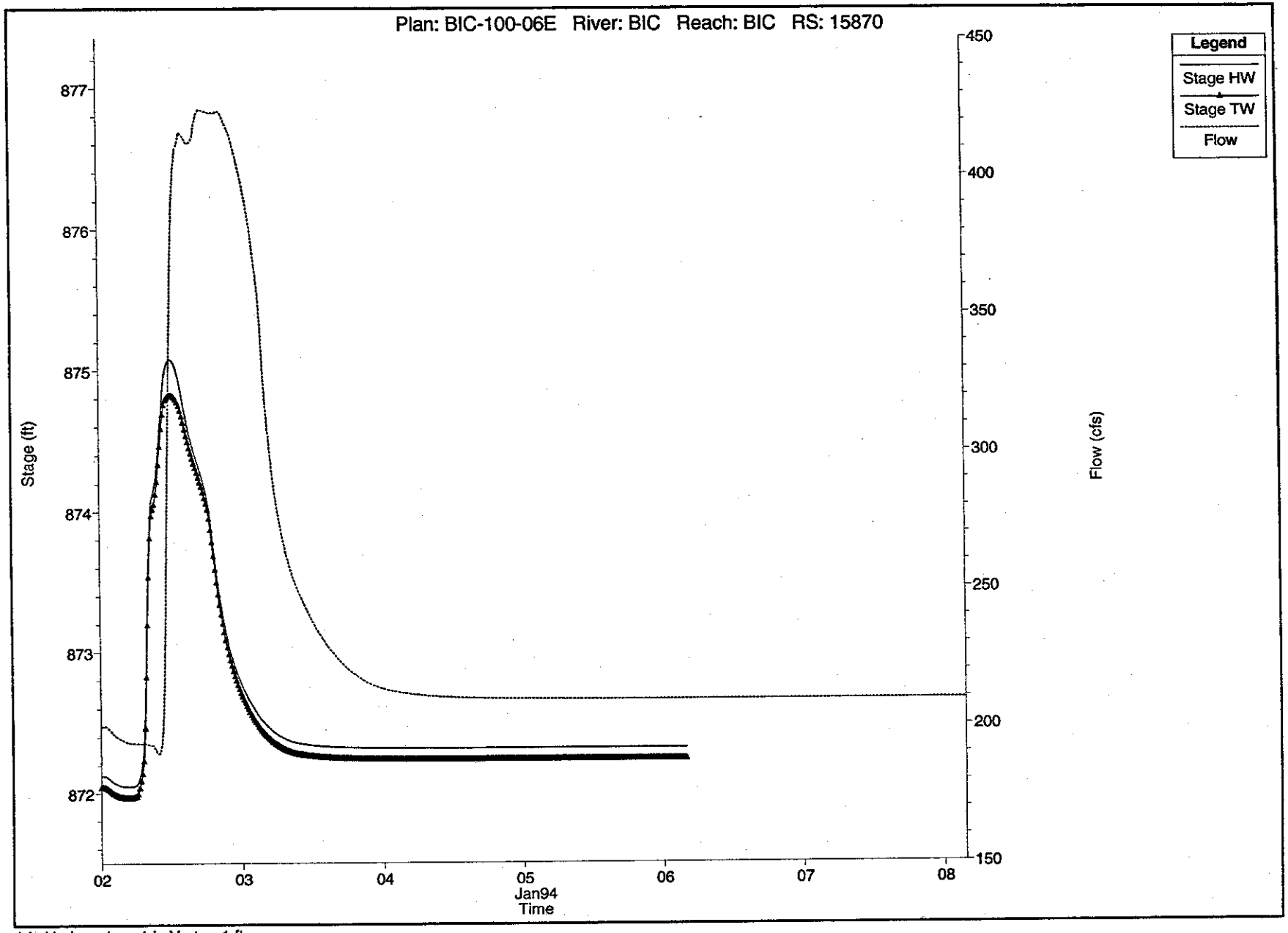
1 in Horiz. = 1 1 in Vert. = 0.5 ft



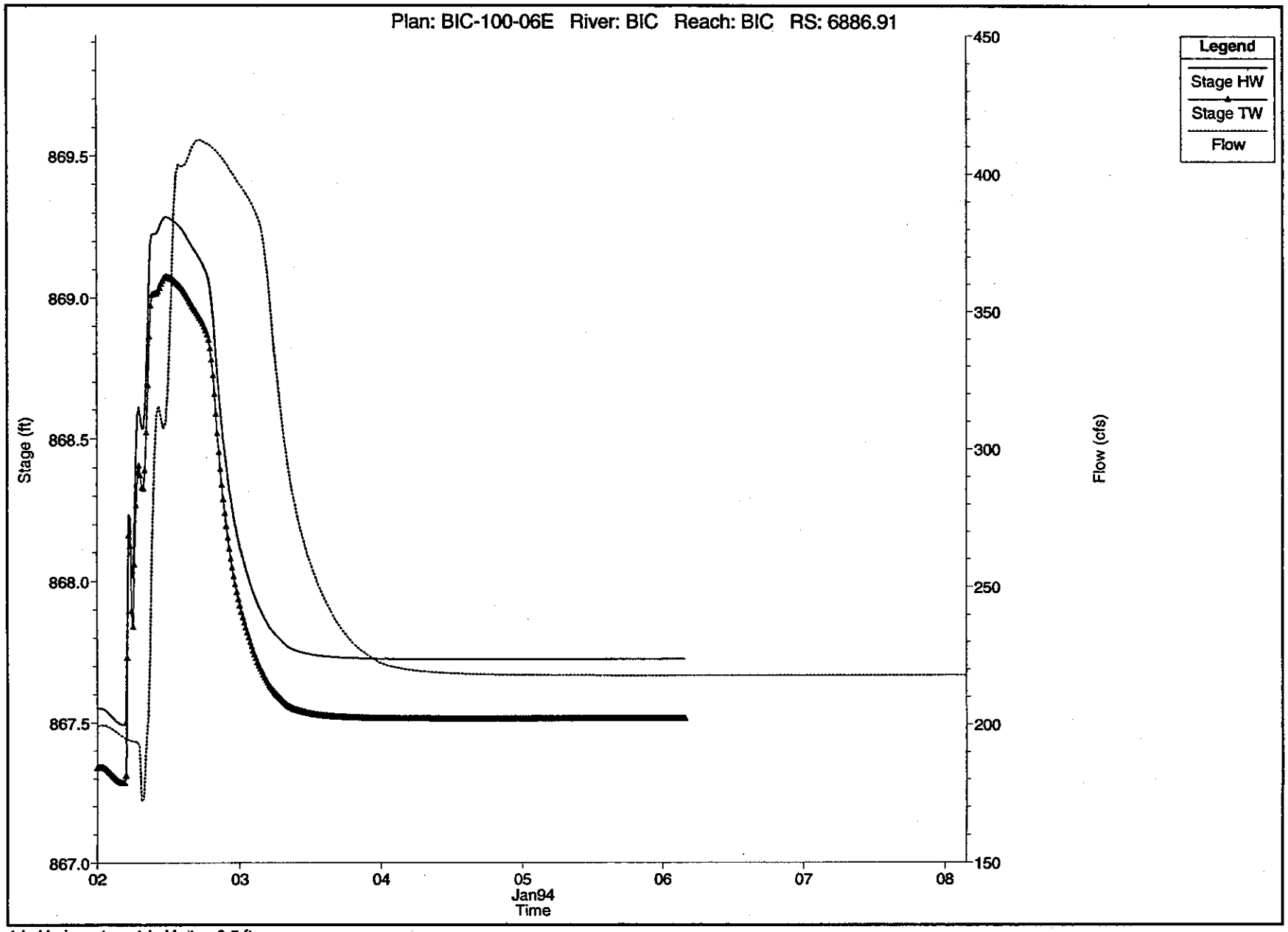
1 in Horiz. = 1 1 in Vert. = 0.5 ft



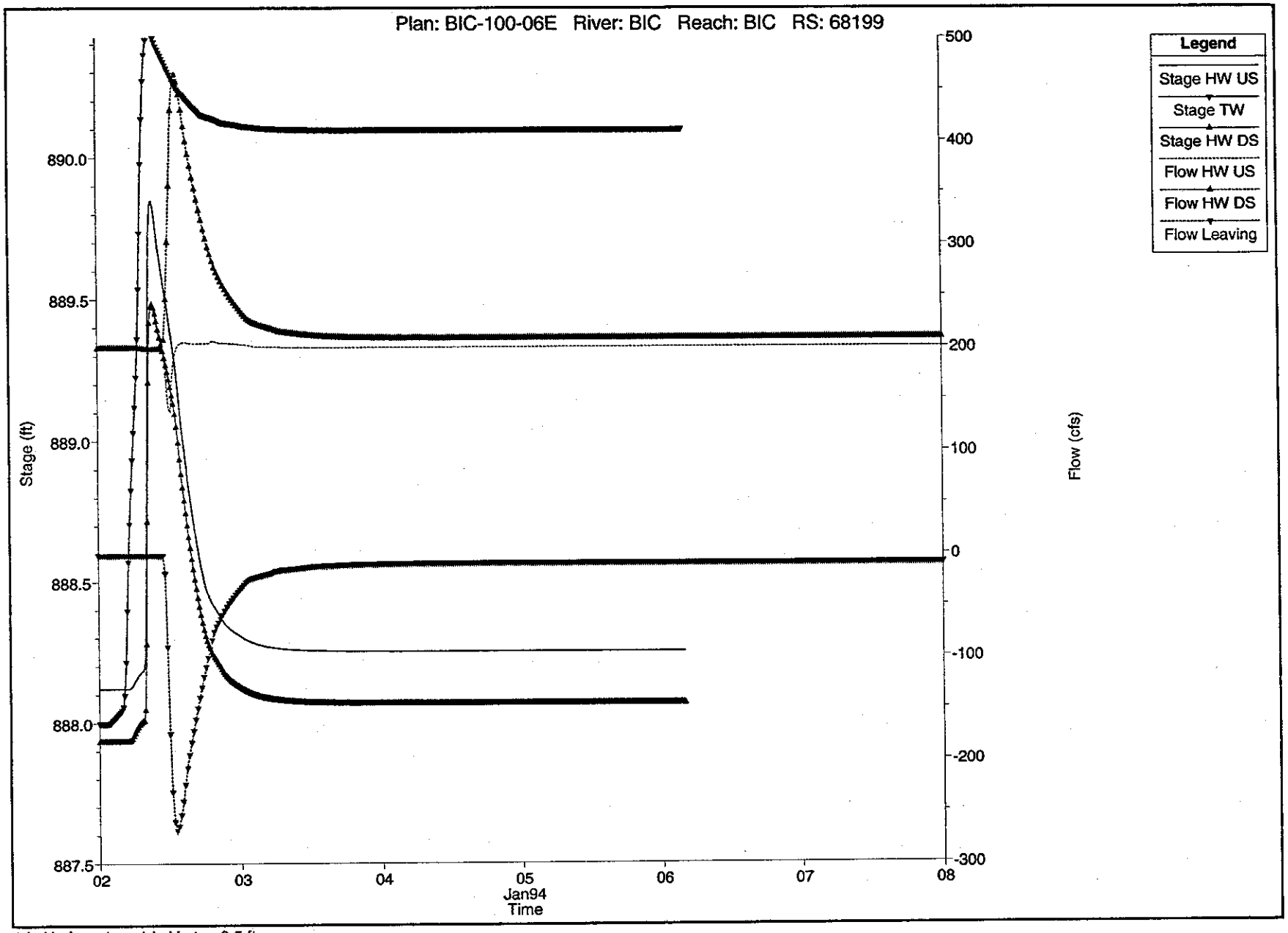
1 in Horiz. = 1 1 in Vert. = 0.5 ft



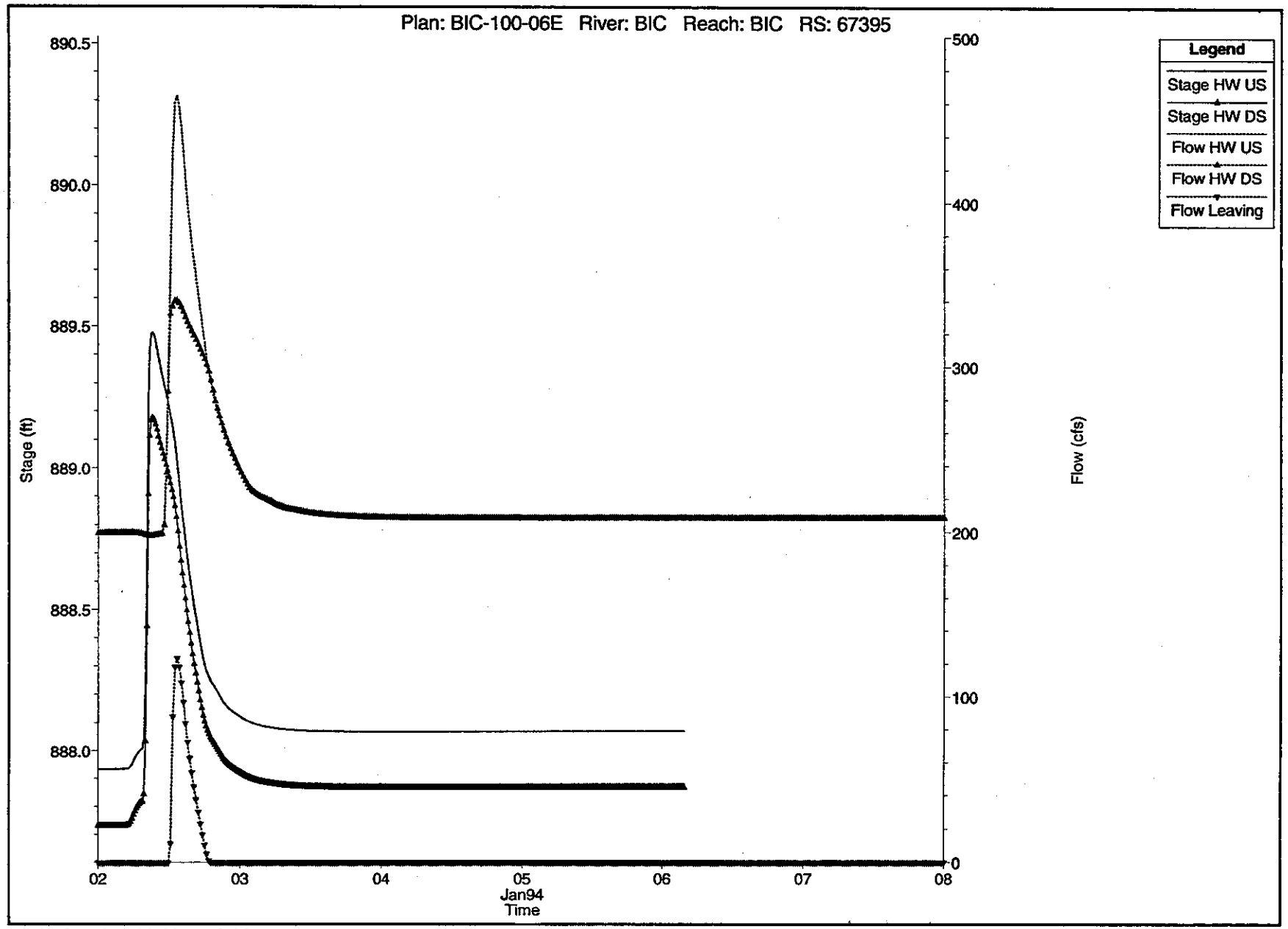
1 in Horiz. = 1 1 in Vert. = 1 ft



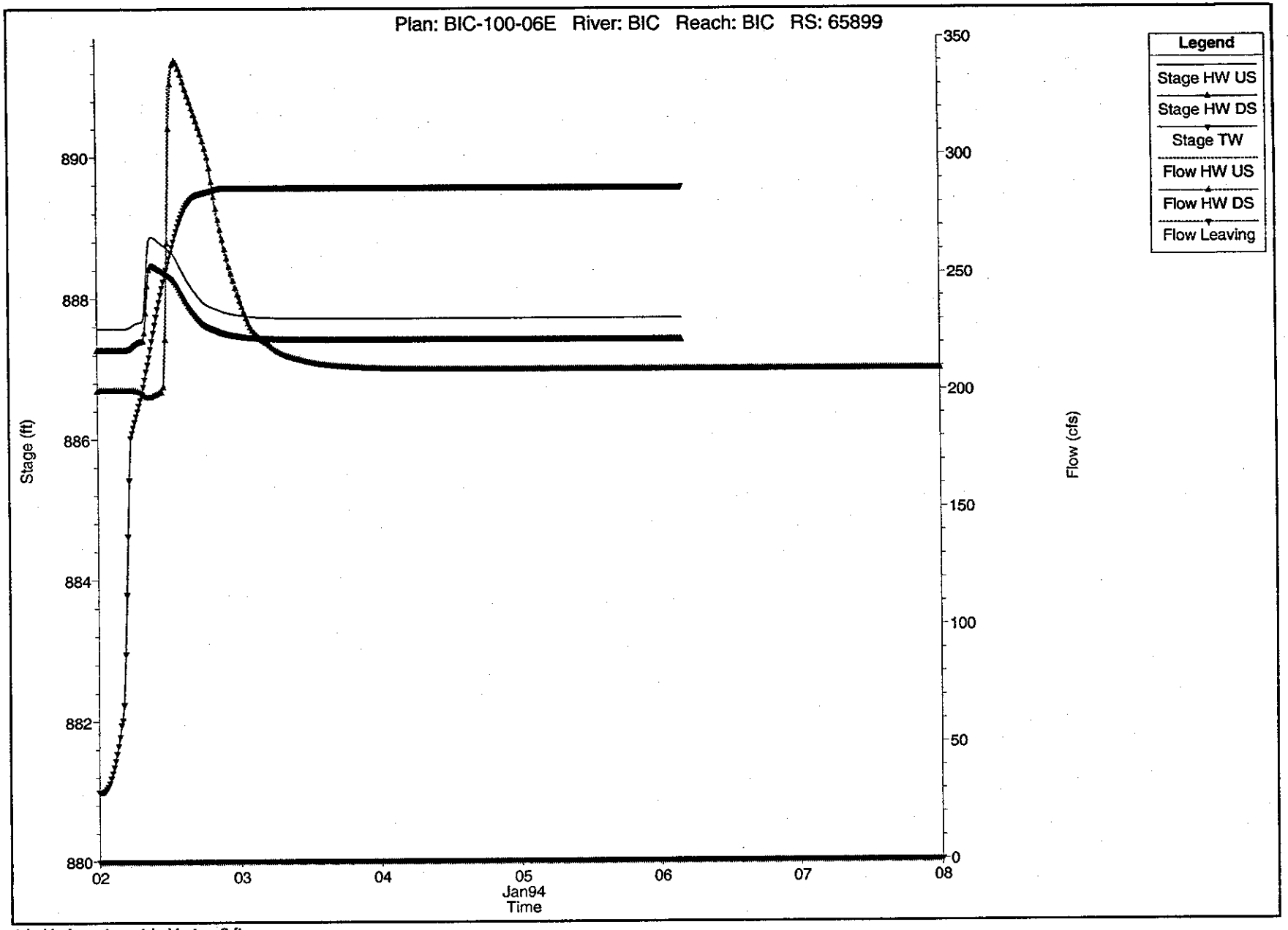
1 in Horiz. = 1 1 in Vert. = 0.5 ft



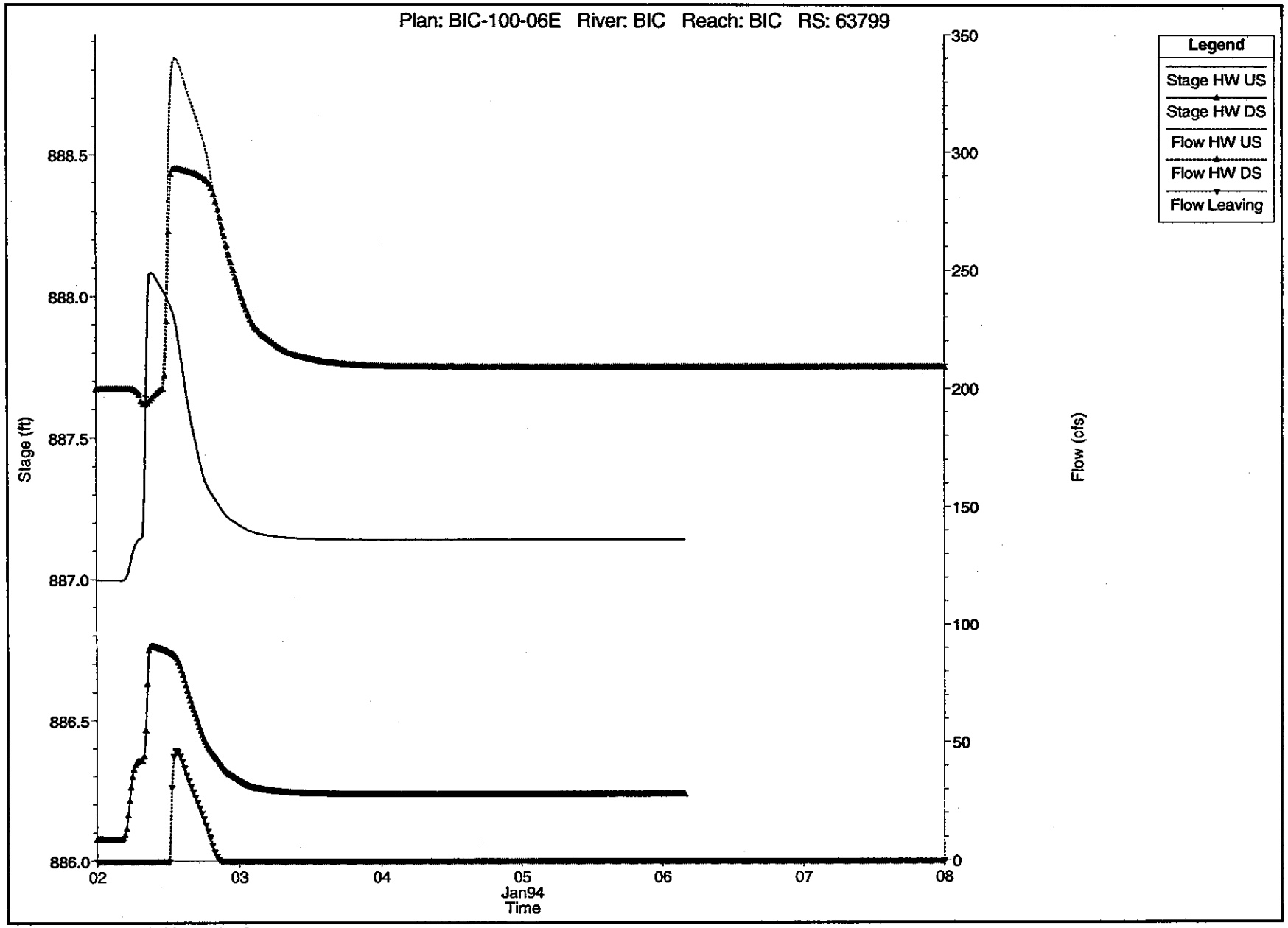
1 in Horiz. = 1 1 in Vert. = 0.5 ft



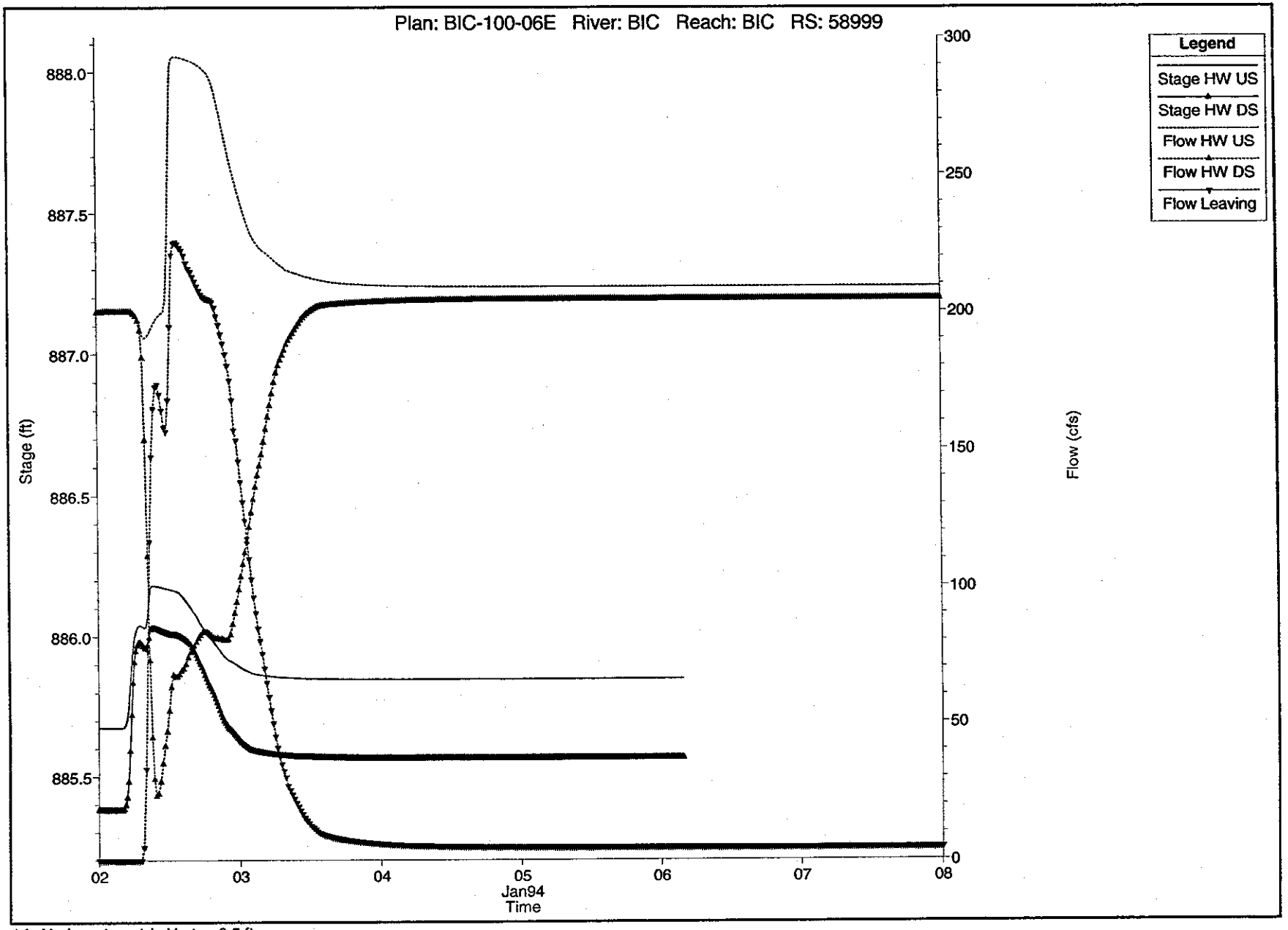
1 in Horiz. = 1 1 in Vert. = 0.5 ft



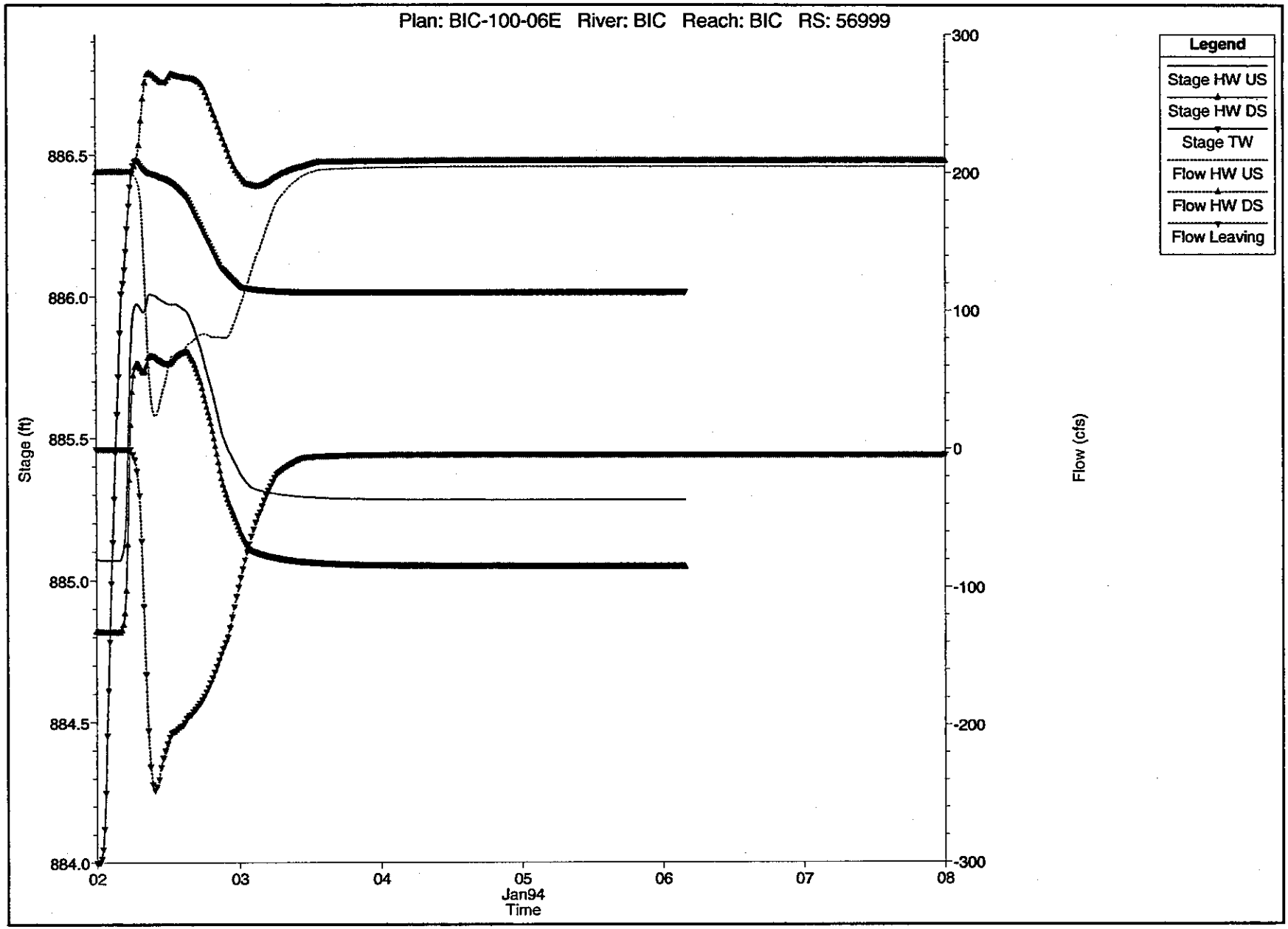
1 in Horiz. = 1 1 in Vert. = 2 ft



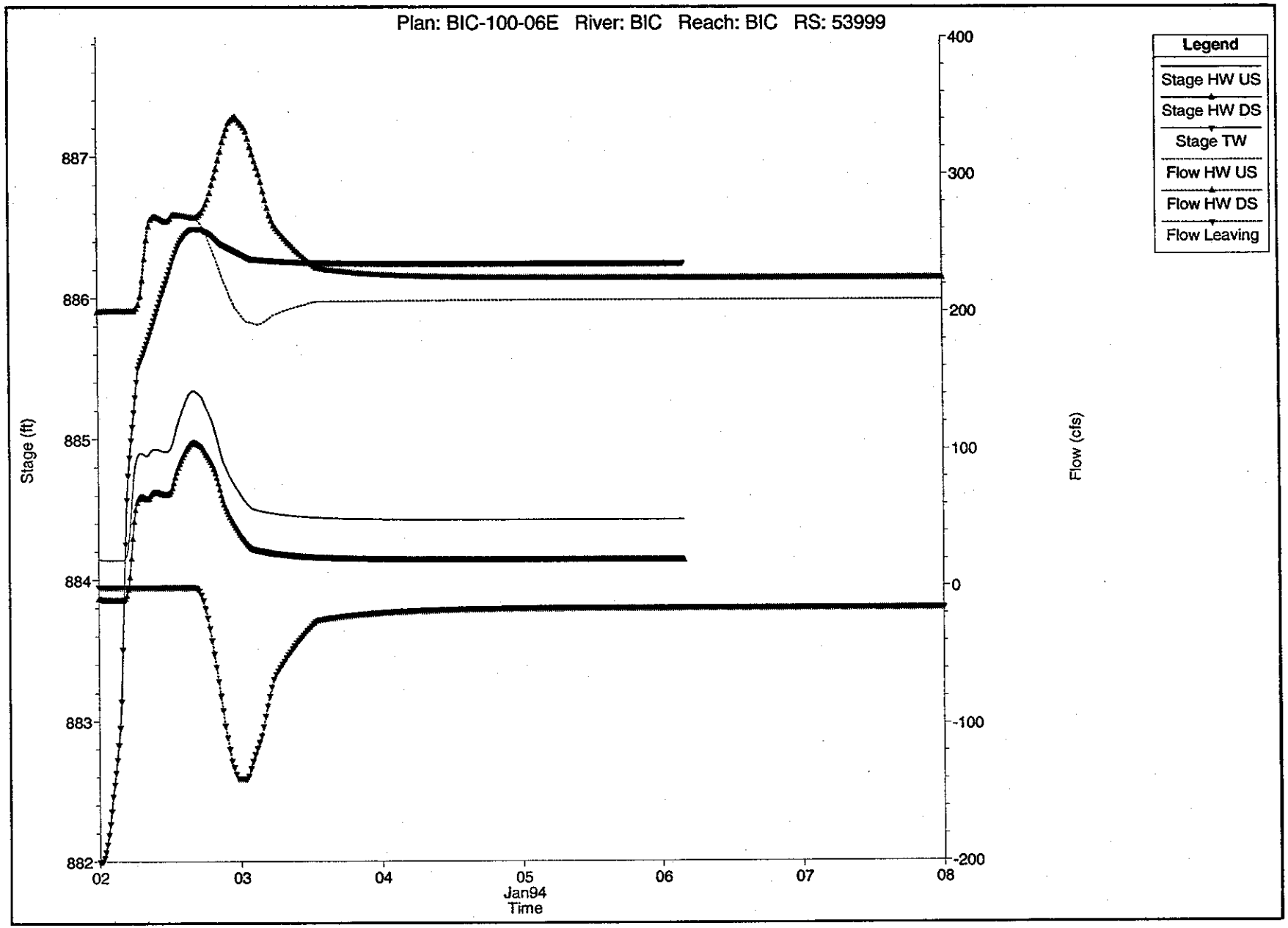
1 in Horiz. = 1 1 in Vert. = 0.5 ft



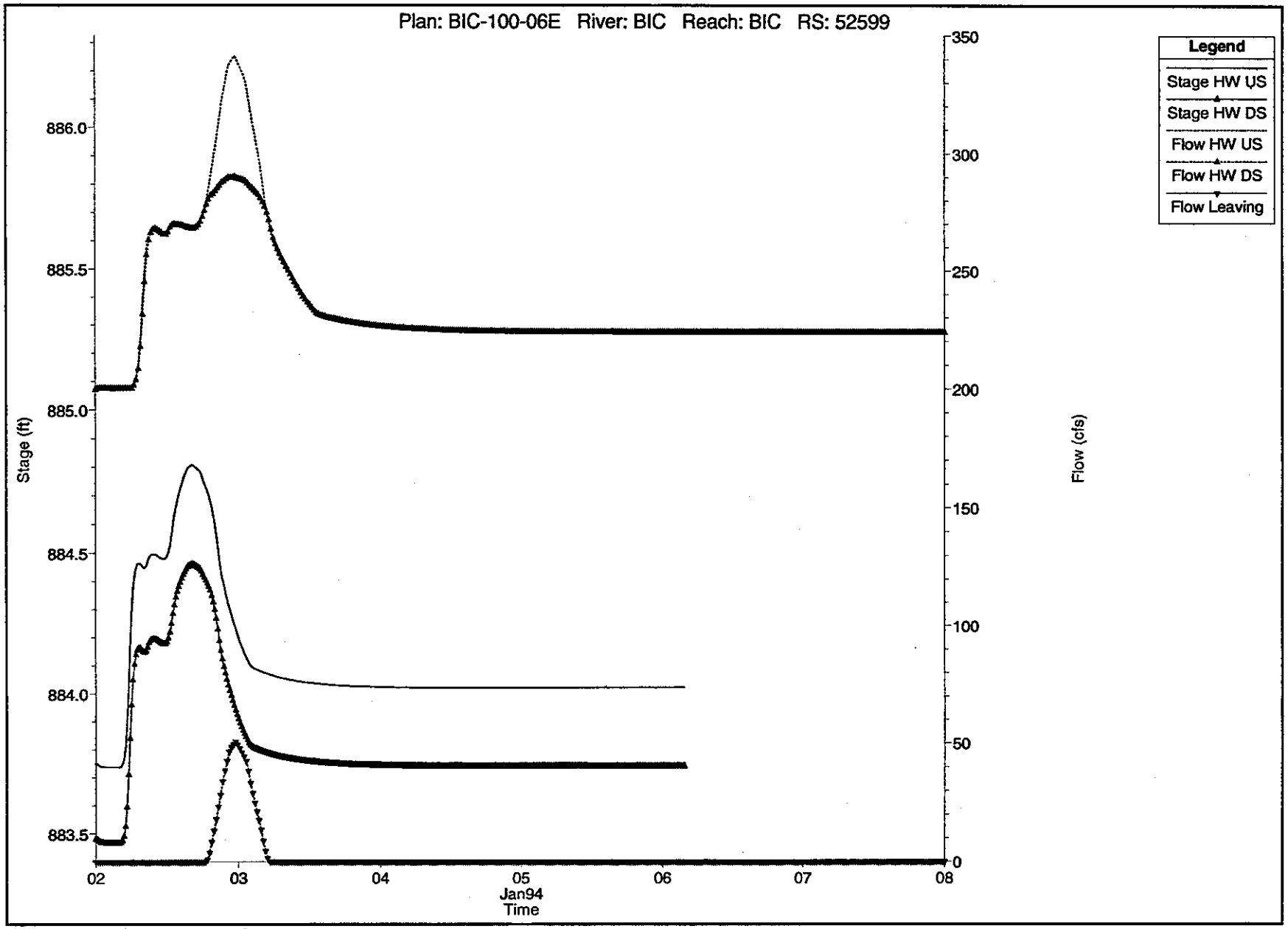
1 in Horiz. = 1 1 in Vert. = 0.5 ft



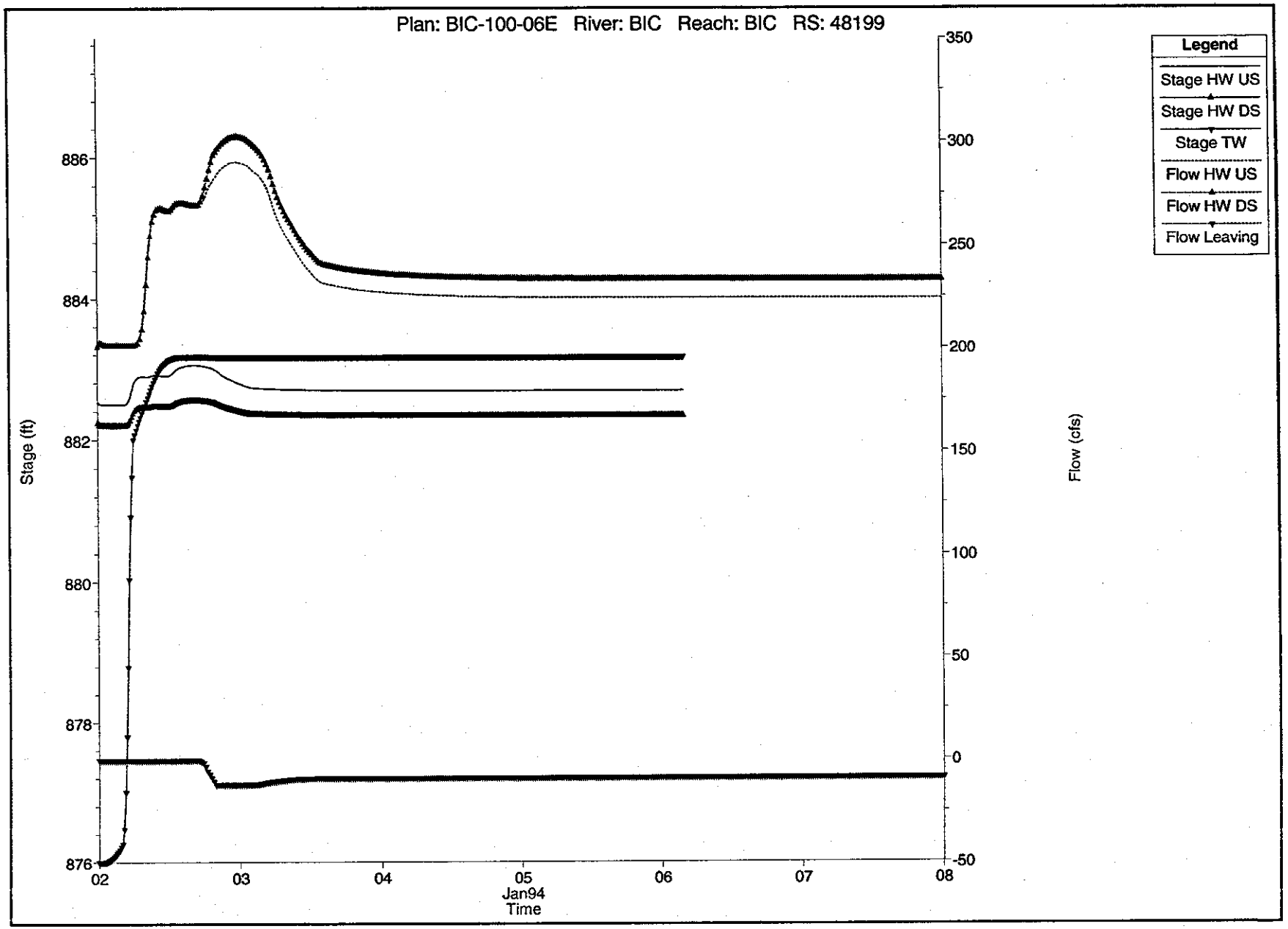
1 in Horiz. = 1 1 in Vert. = 0.5 ft



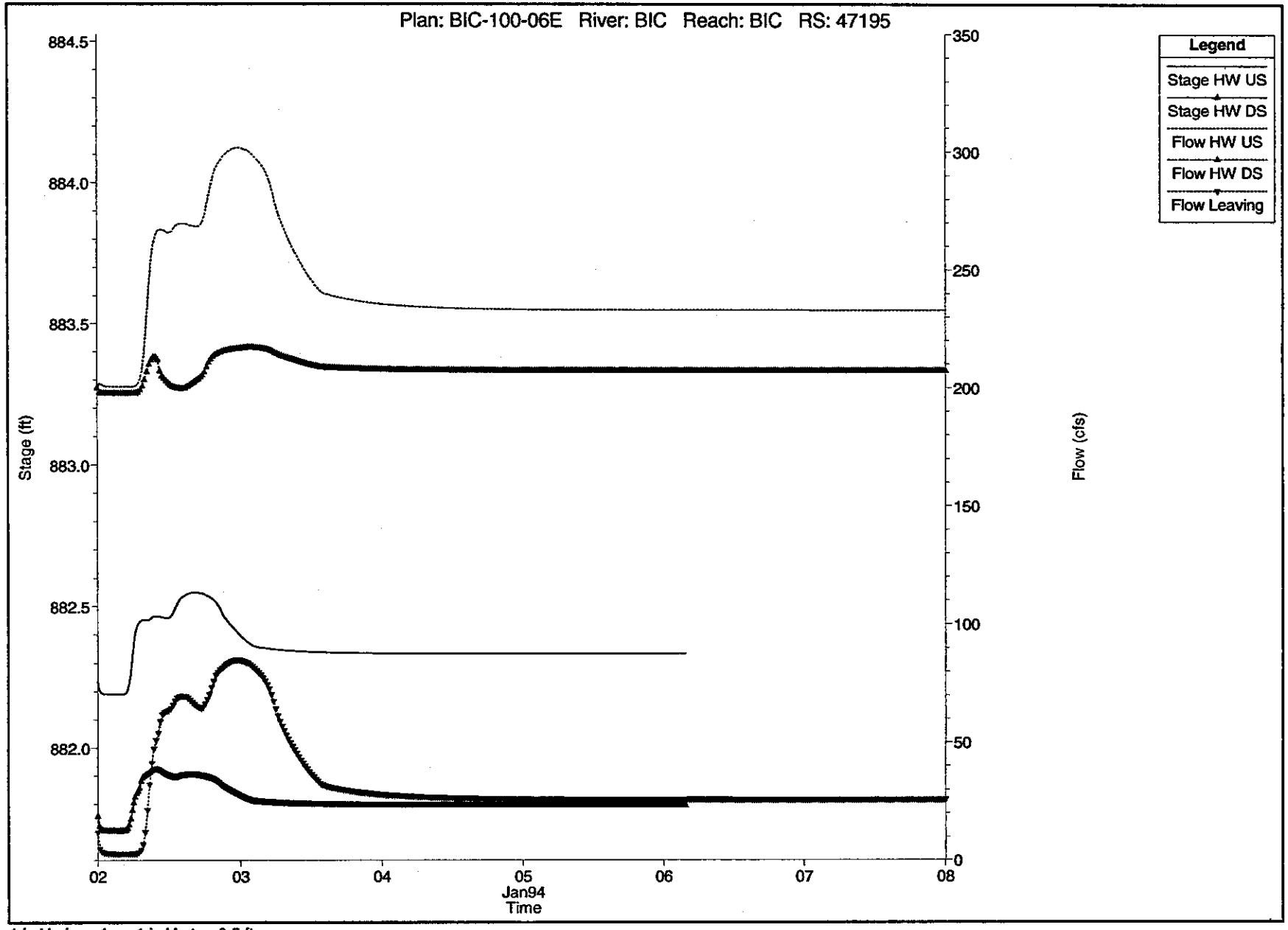
1 in Horiz. = 1 1 in Vert. = 1 ft



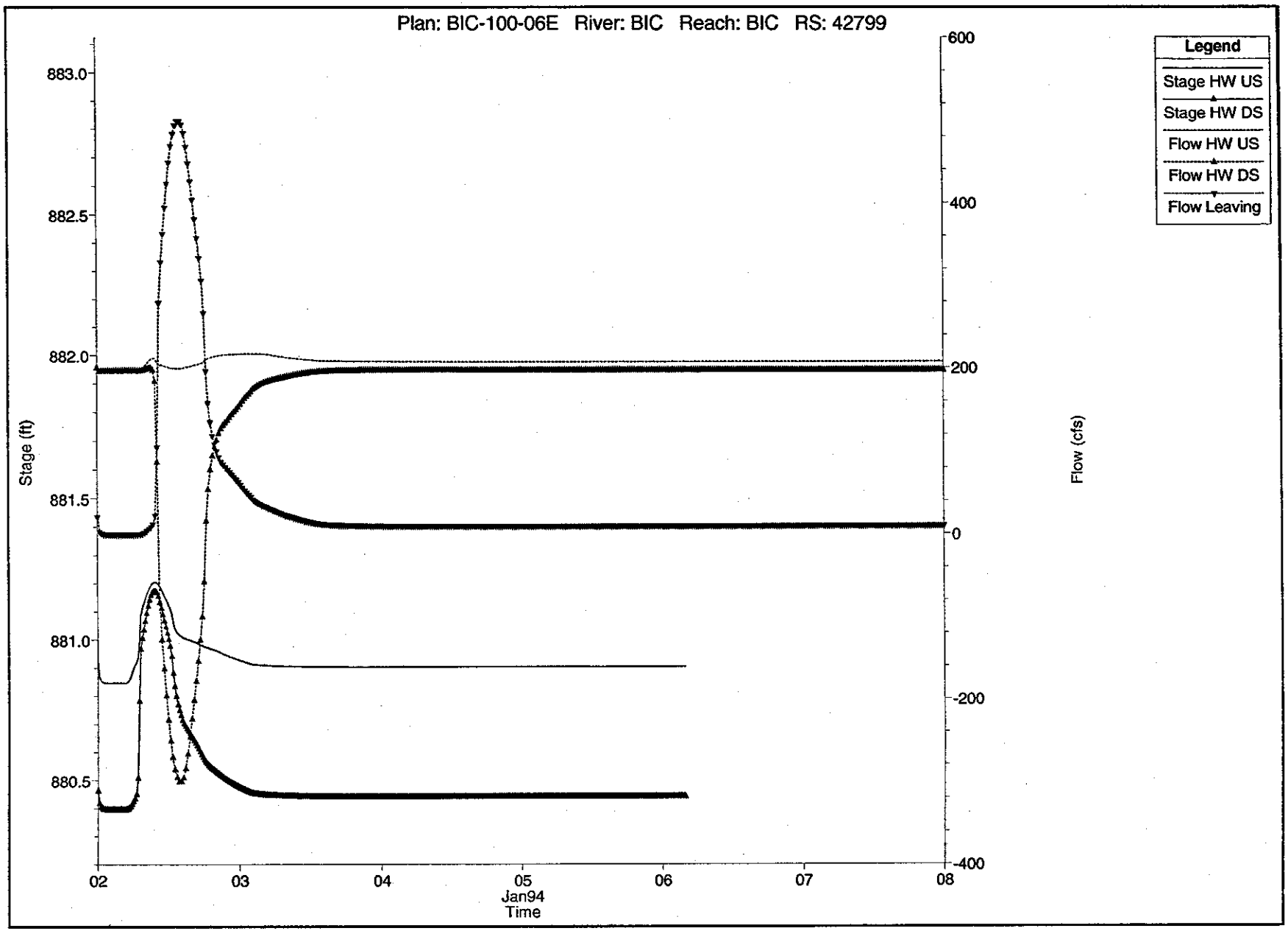
1 in Horiz. = 1 1 in Vert. = 0.5 ft



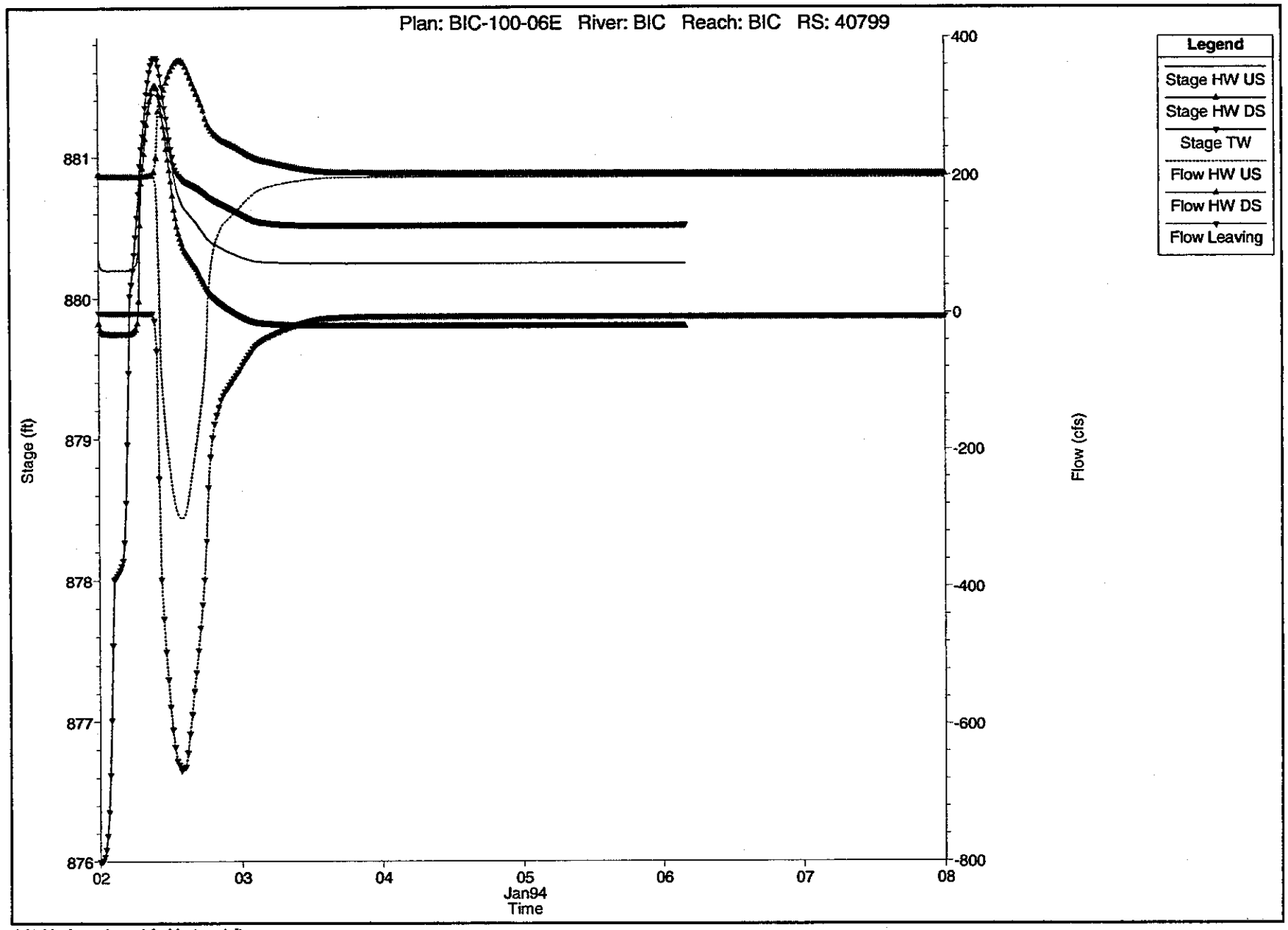
1 in Horiz. = 1 1 in Vert. = 2 ft



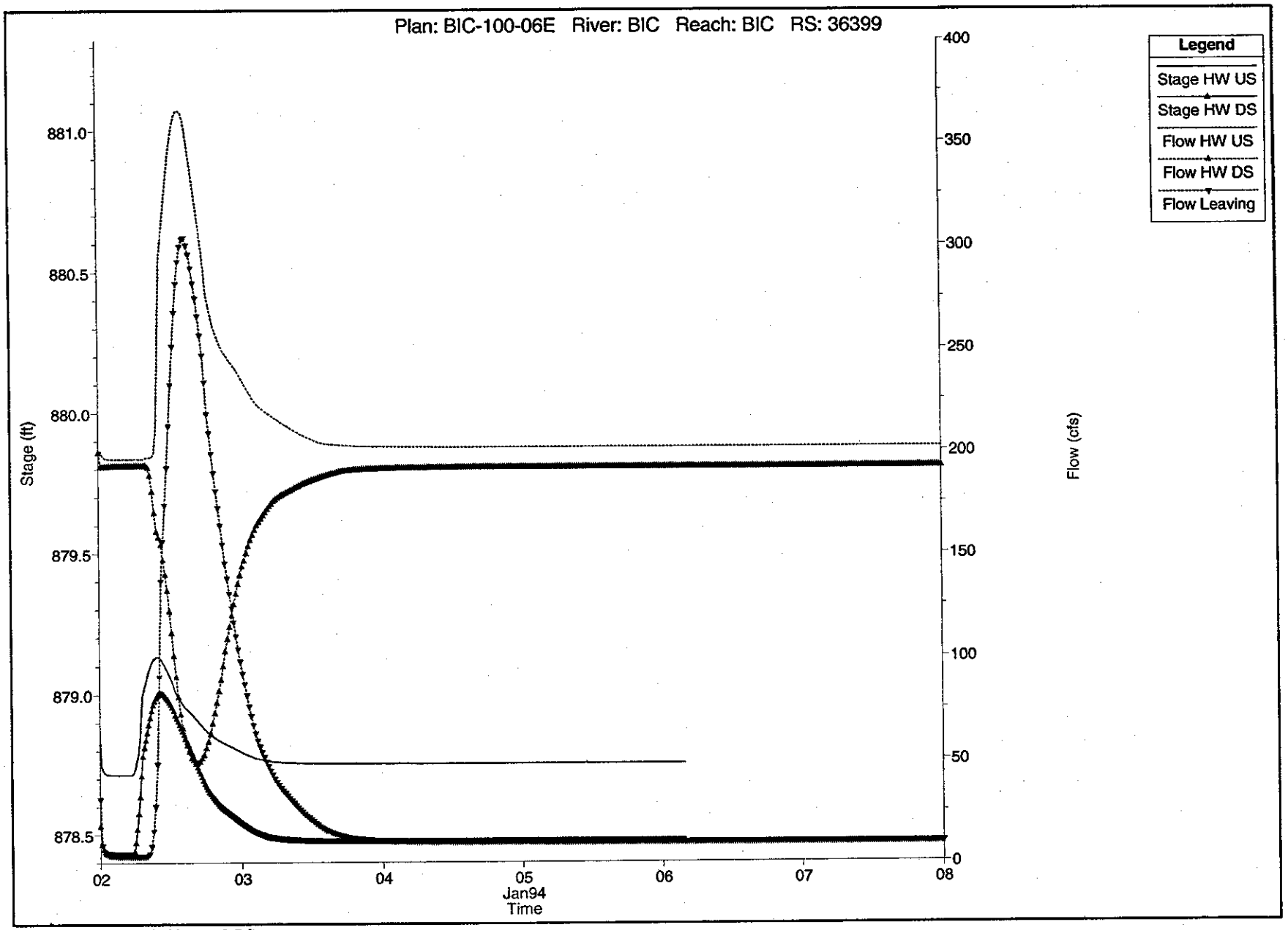
1 in Horiz. = 1 1 in Vert. = 0.5 ft



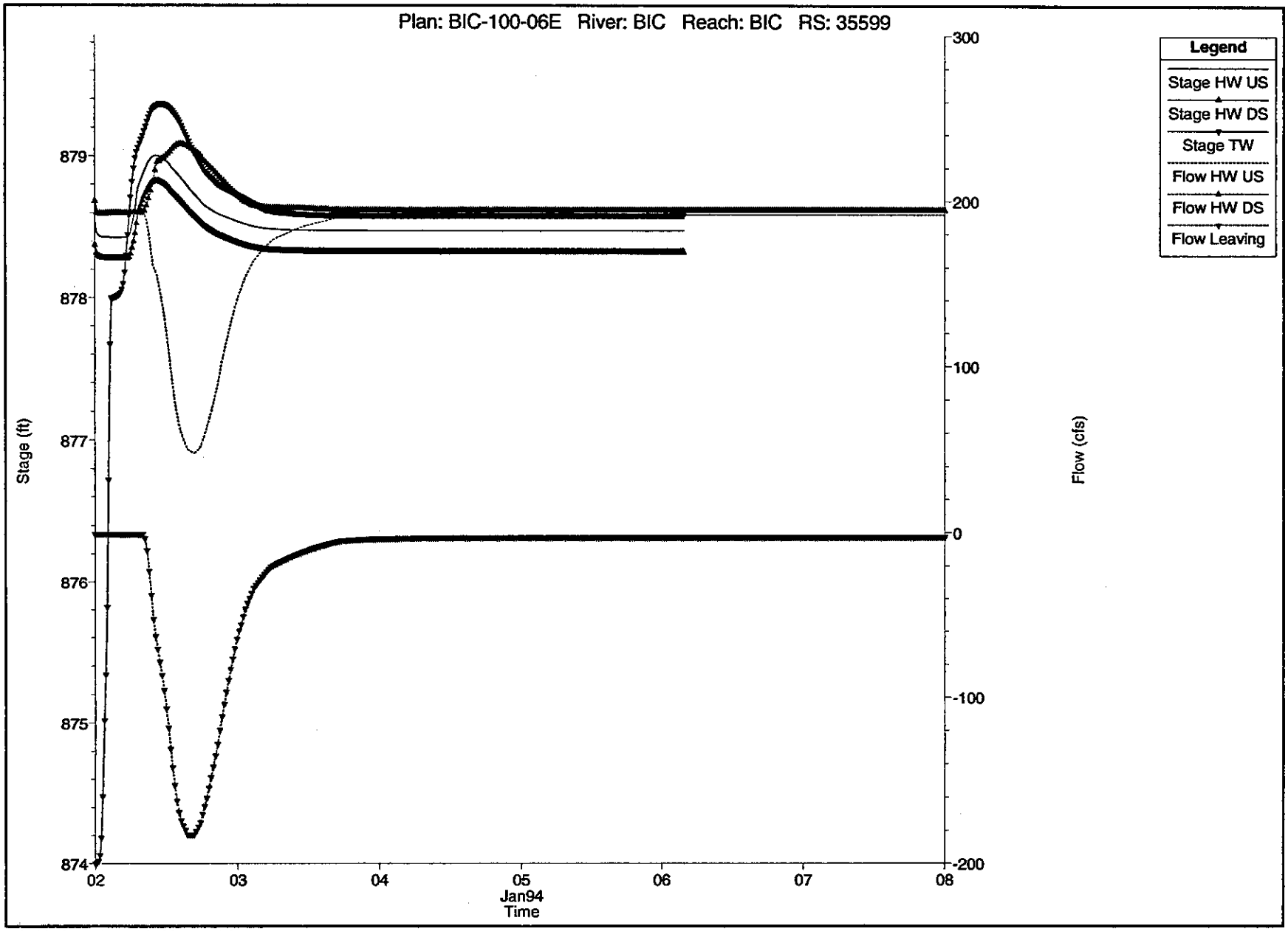
1 in Horiz. = 1 1 in Vert. = 0.5 ft



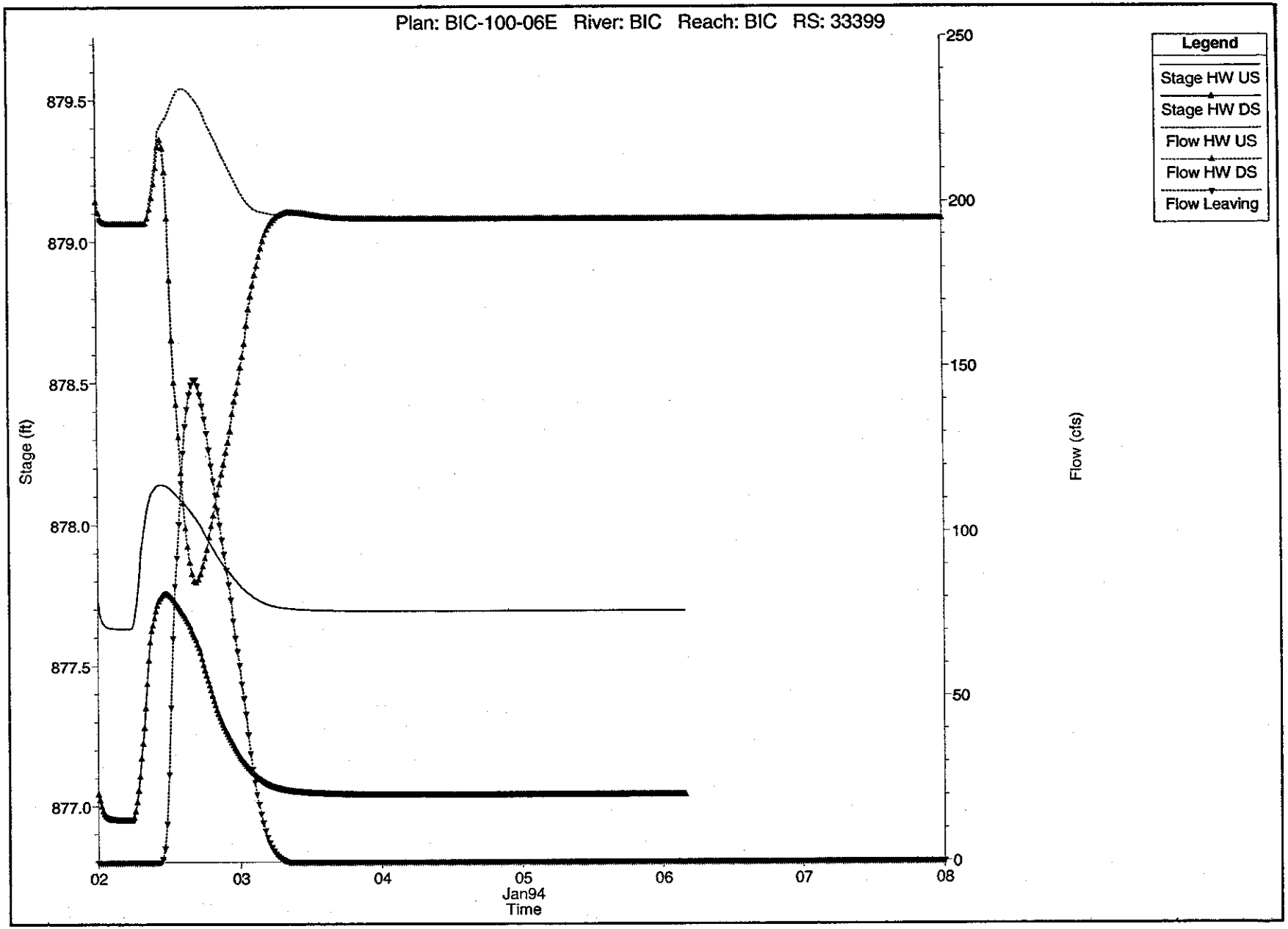
1 in Horiz. = 1 1 in Vert. = 1 ft



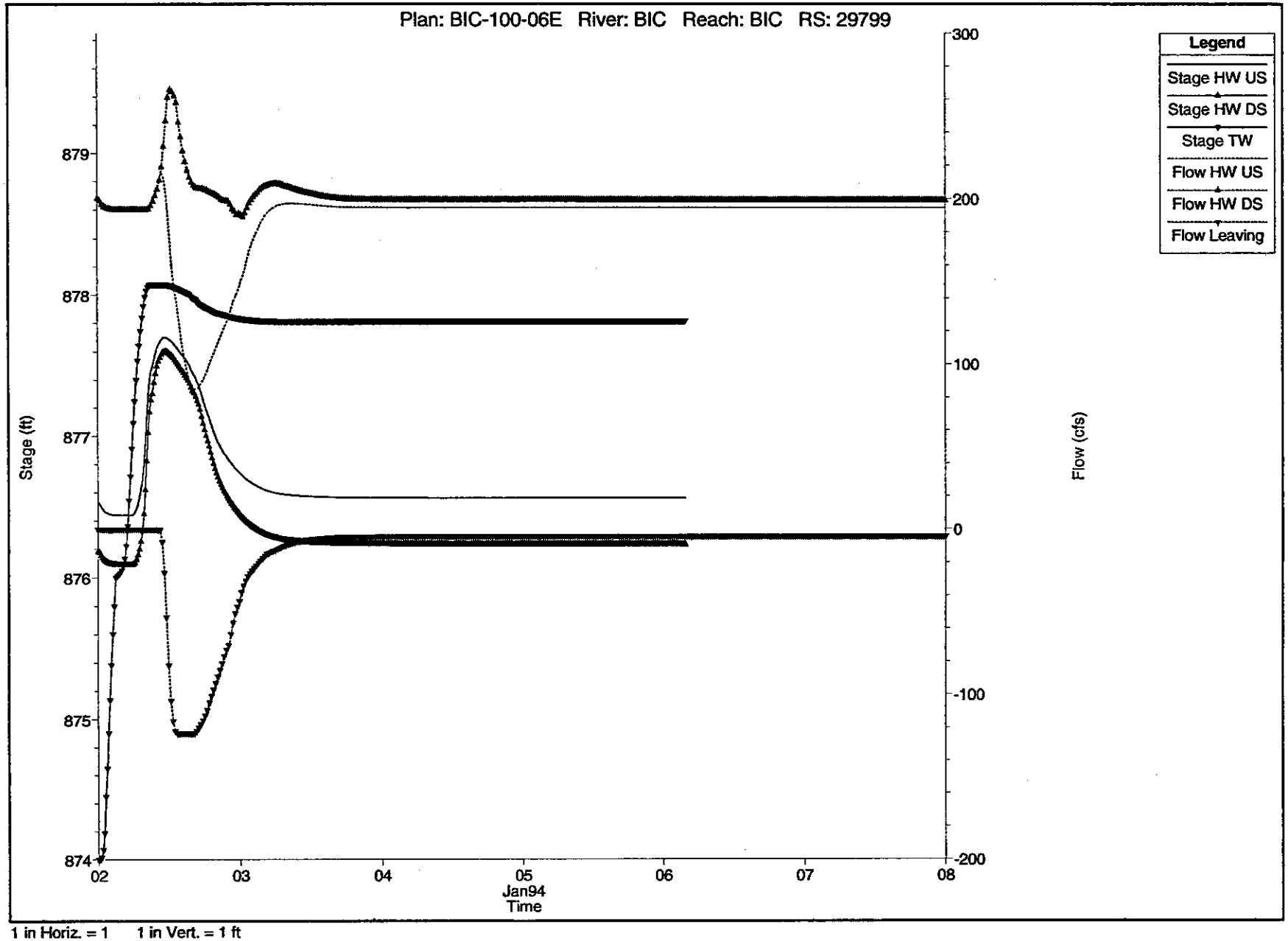
1 in Horiz. = 1 1 in Vert. = 0.5 ft



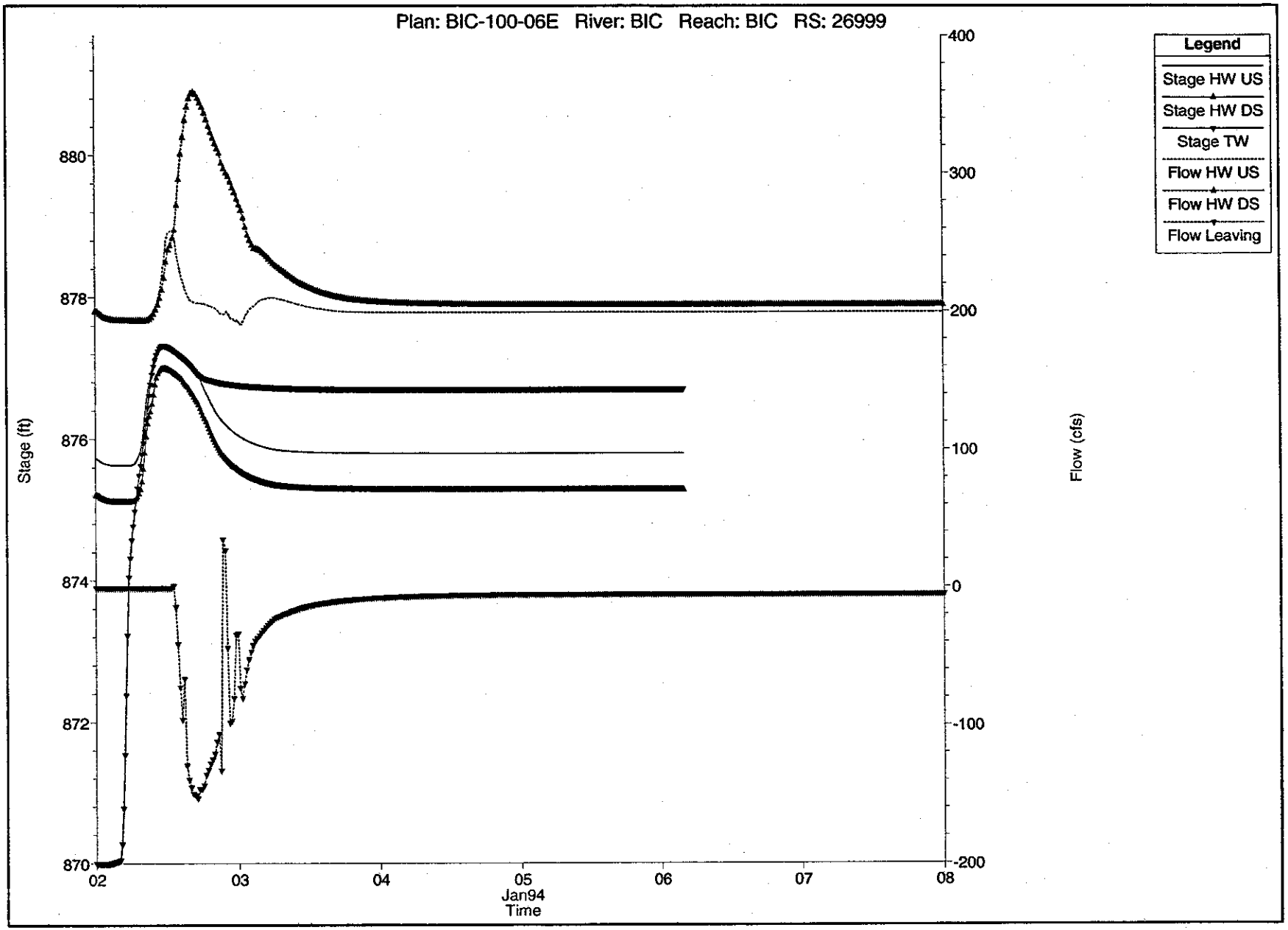
1 in Horiz. = 1 1 in Vert. = 1 ft



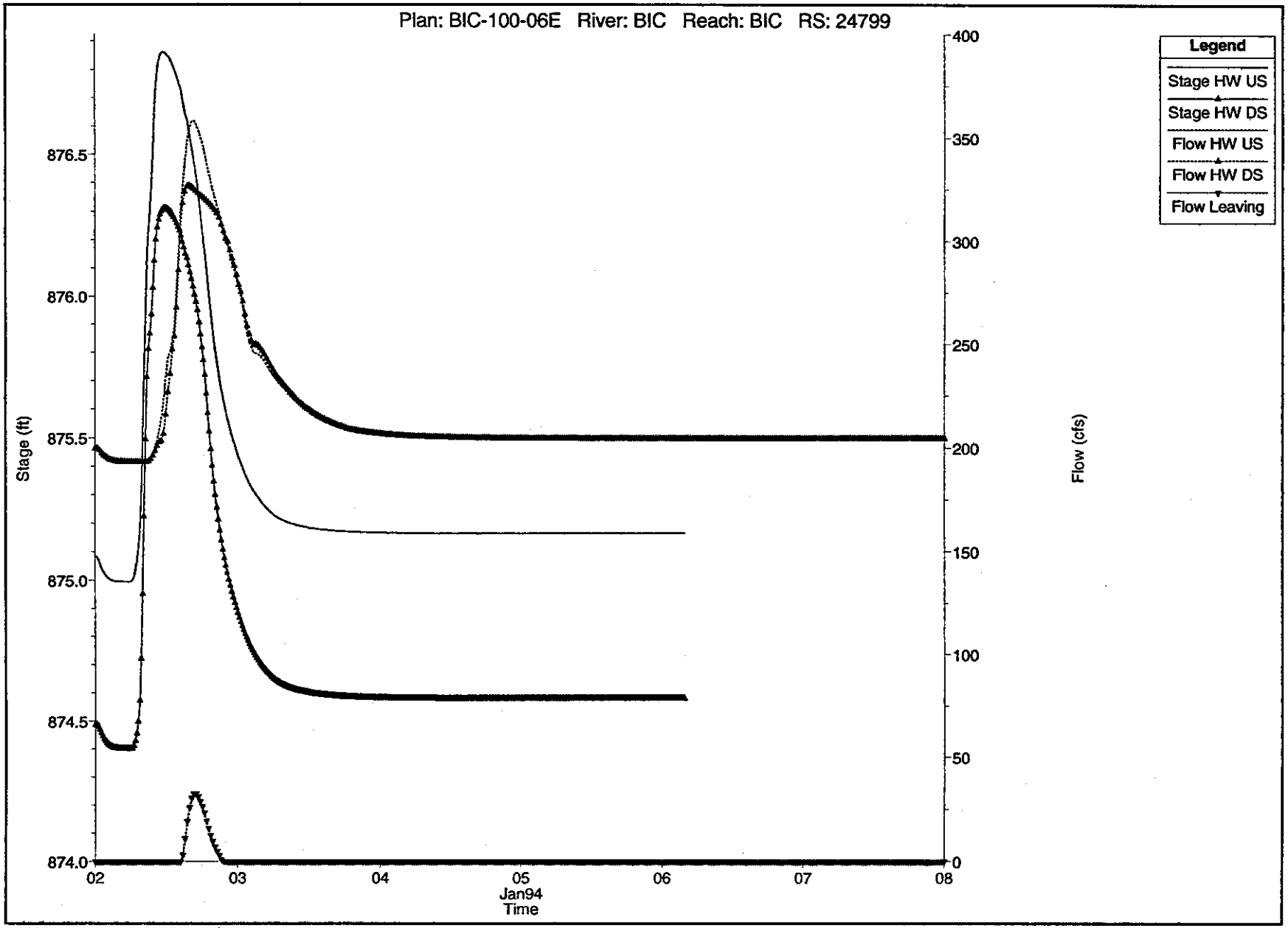
1 in Horiz. = 1 1 in Vert. = 0.5 ft



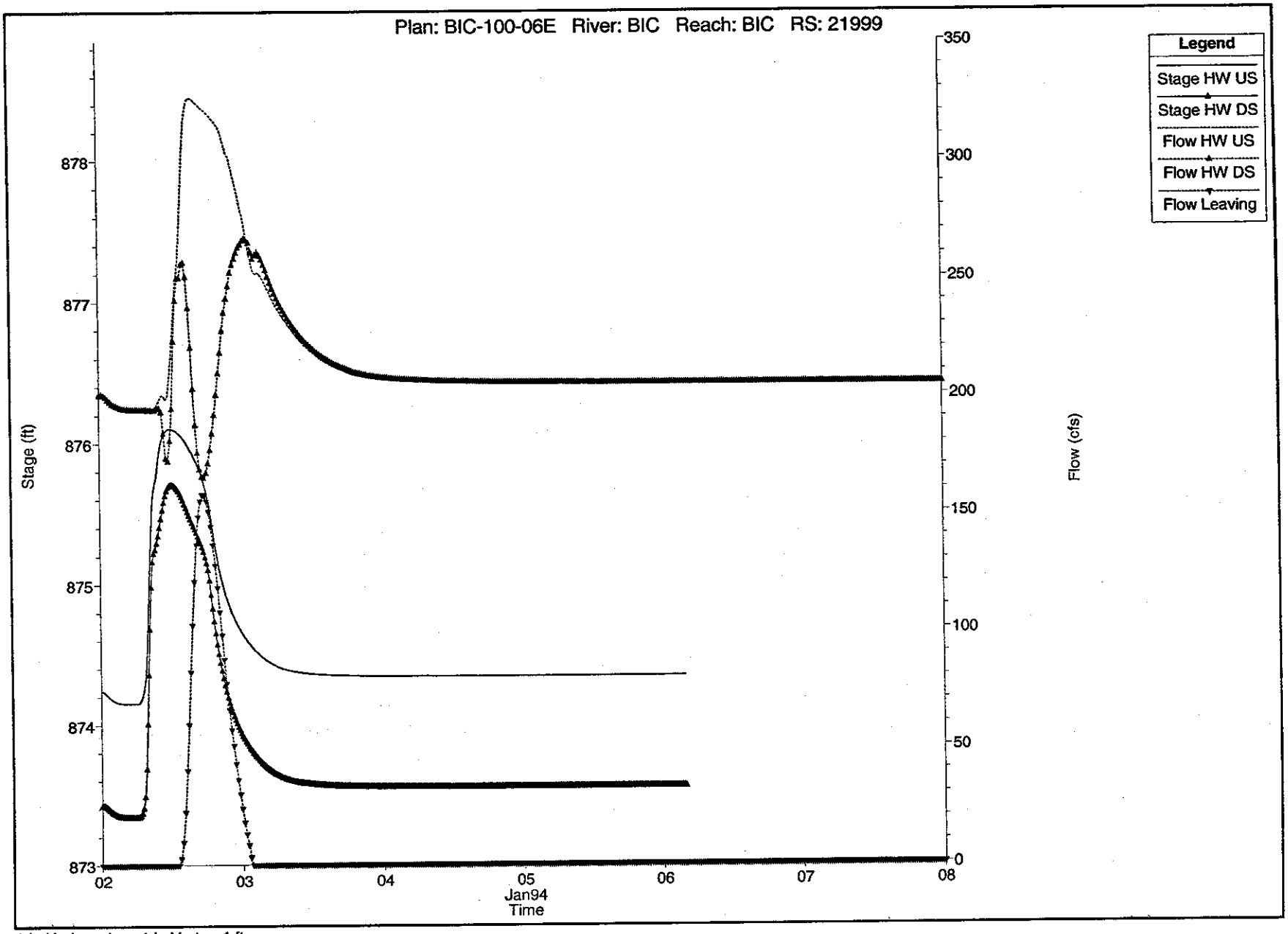
1 in Horiz. = 1 1 in Vert. = 1 ft



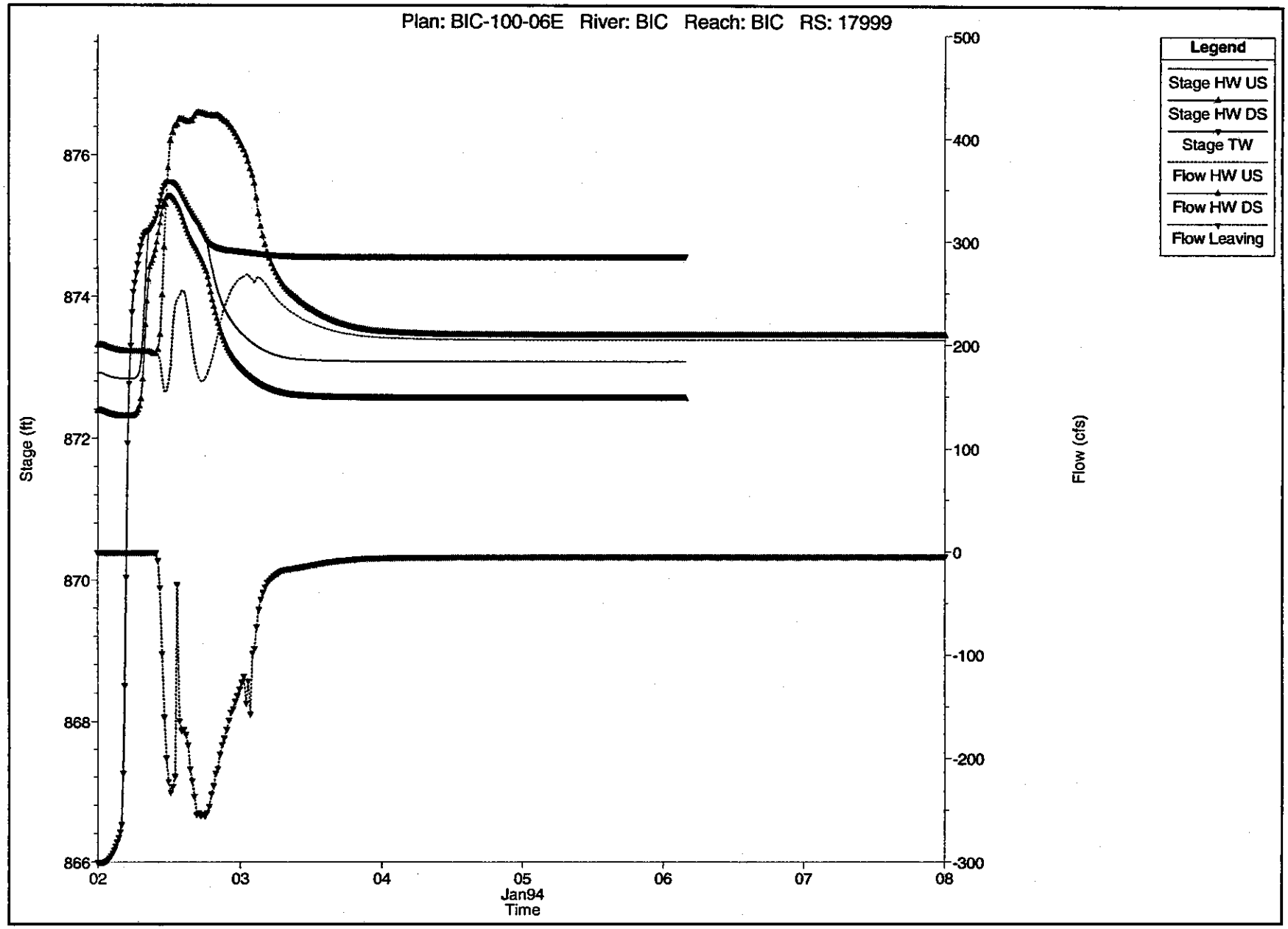
1 in Horiz. = 1 1 in Vert. = 2 ft



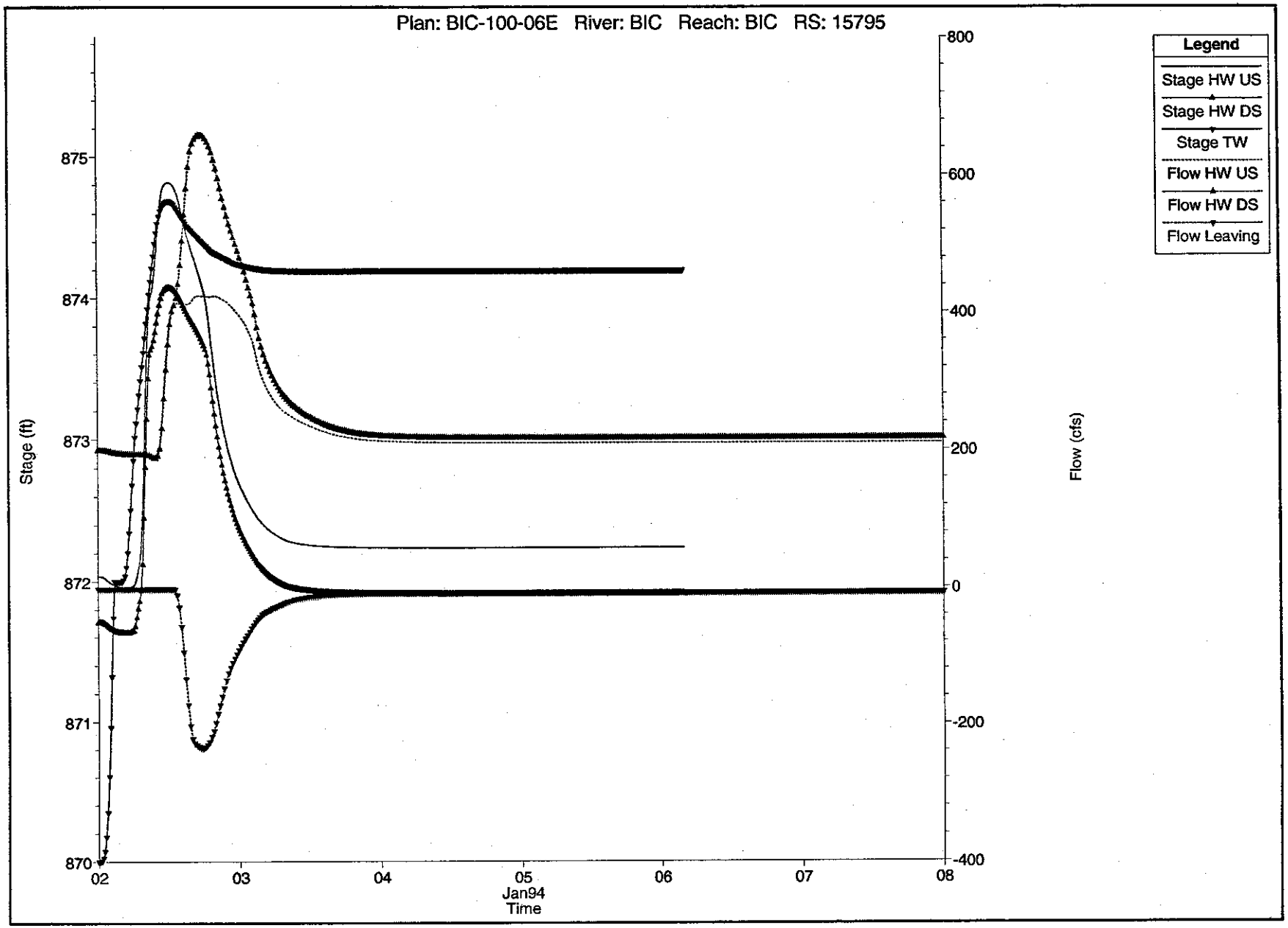
1 in Horiz. = 1 1 in Vert. = 0.5 ft



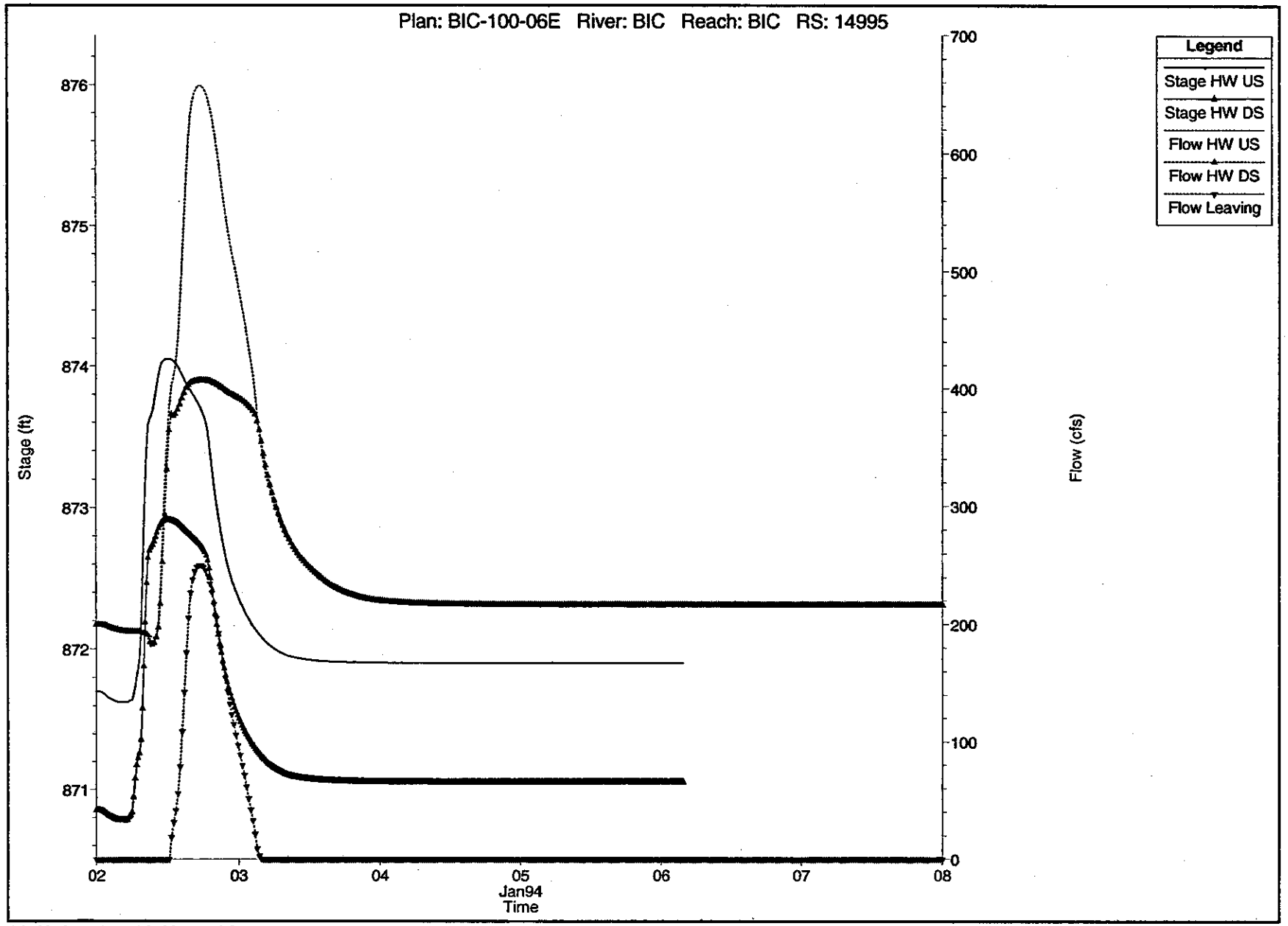
1 in Horiz. = 1 1 in Vert. = 1 ft



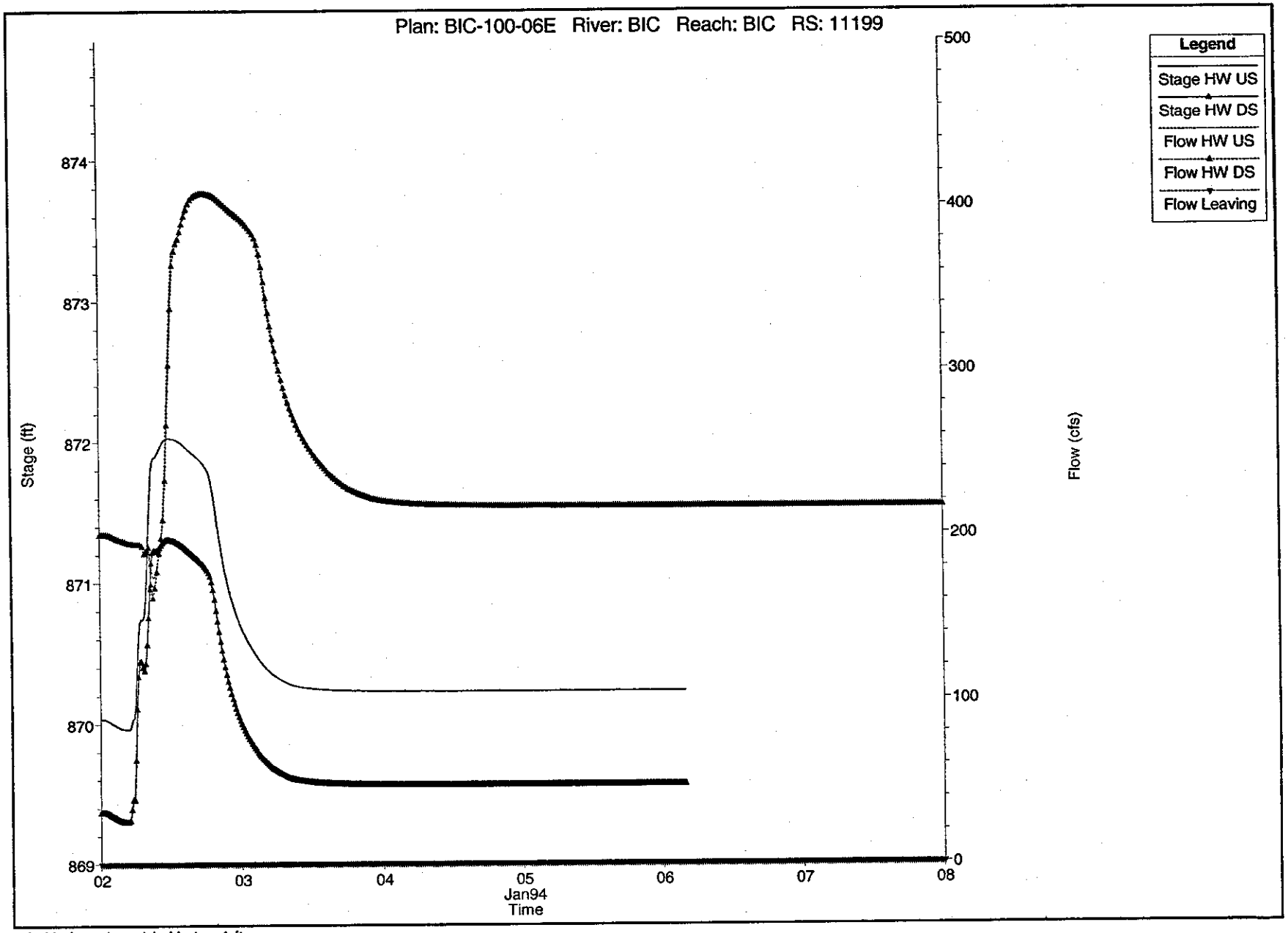
1 in Horiz. = 1 1 in Vert. = 2 ft



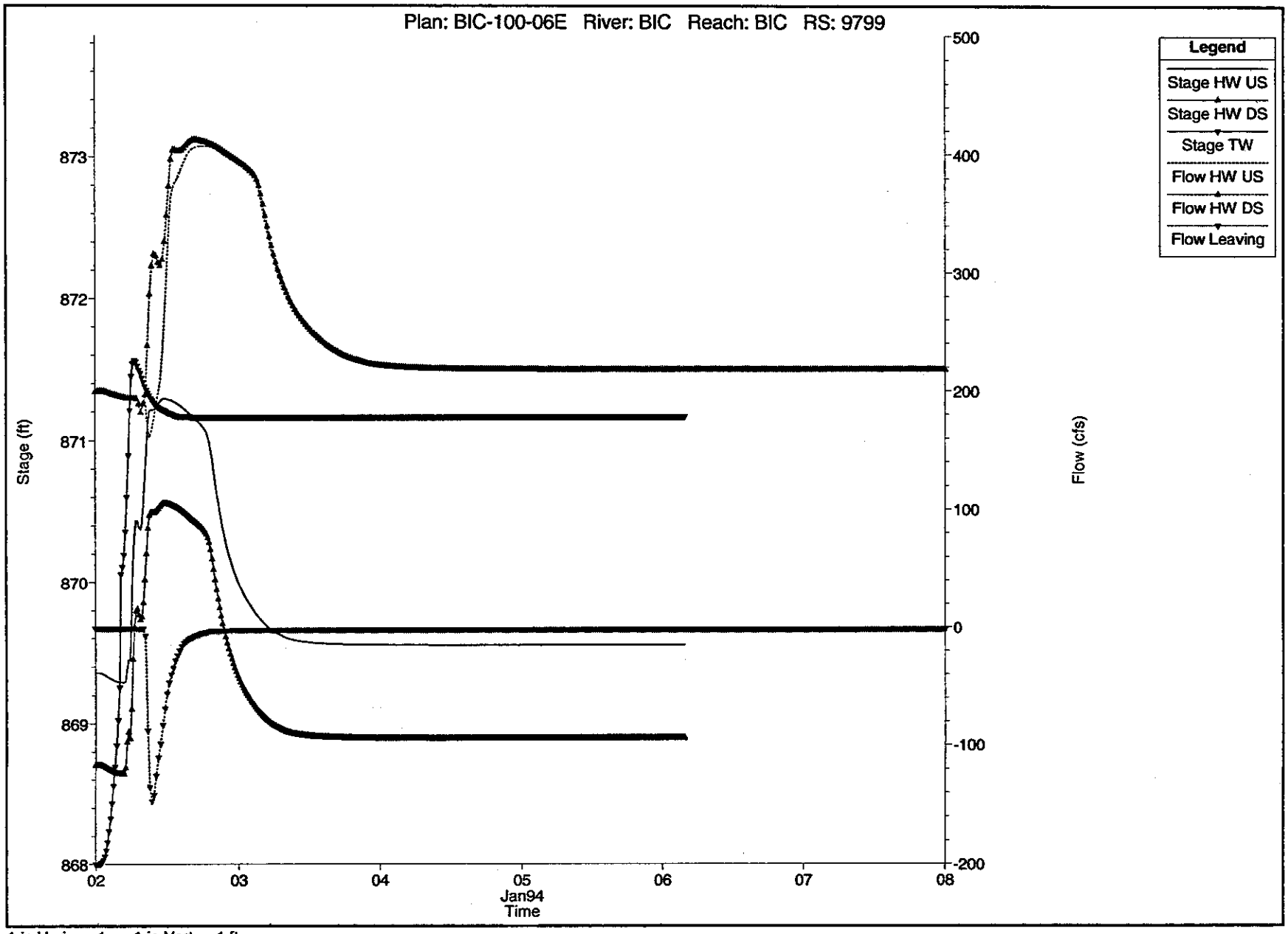
1 in Horiz. = 1 1 in Vert. = 1 ft



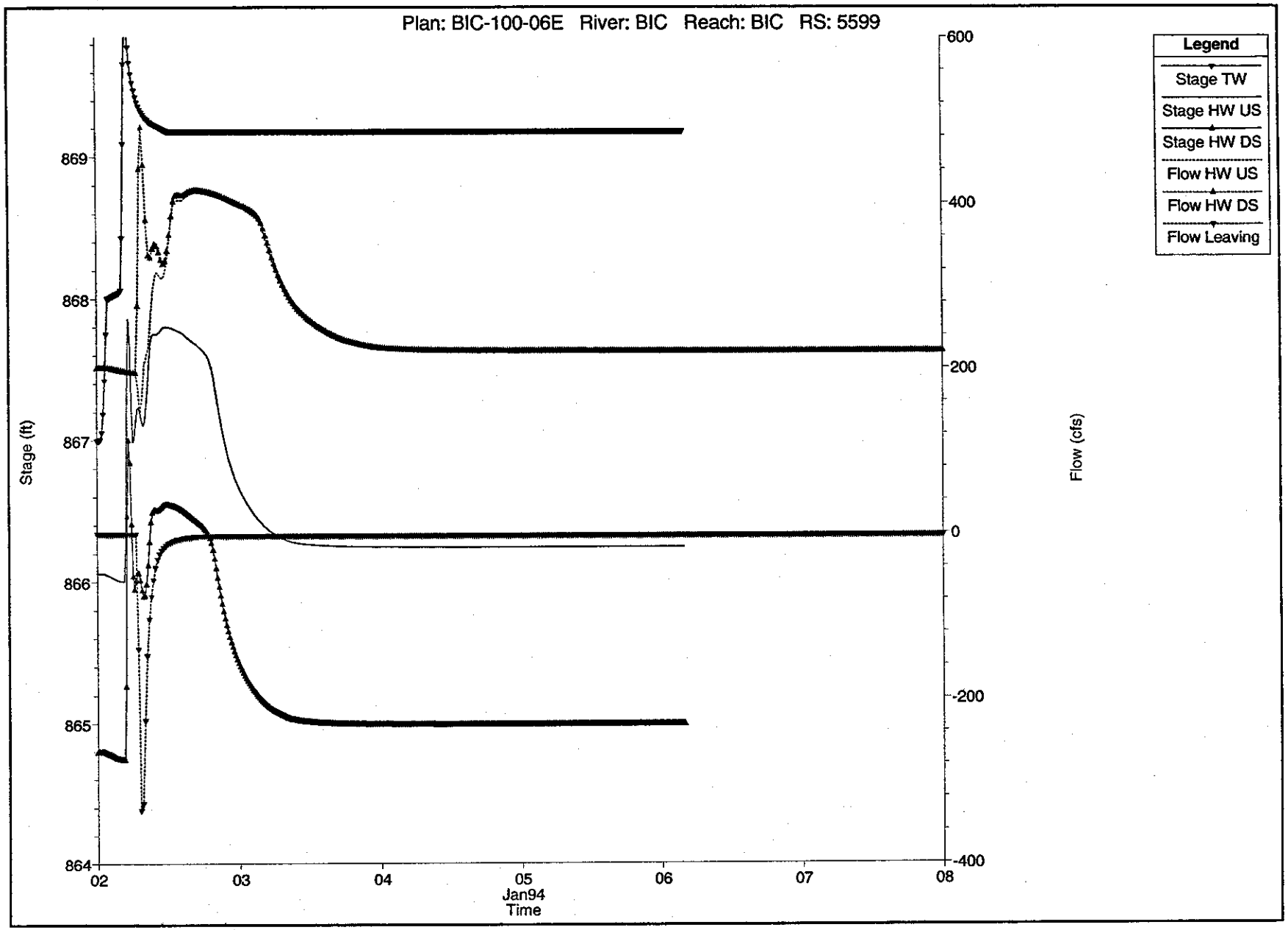
1 in Horiz. = 1 1 in Vert. = 1 ft



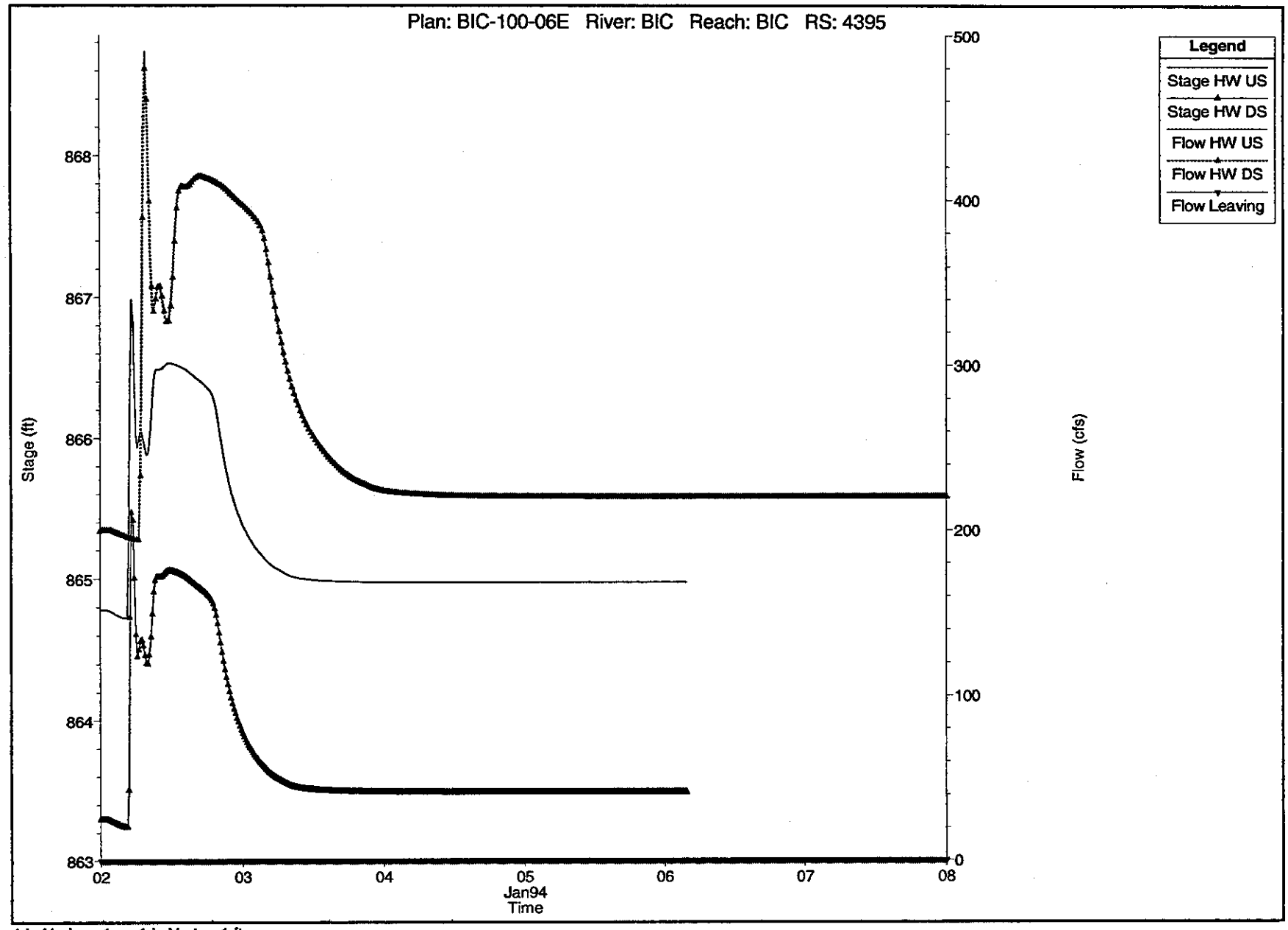
1 in Horiz. = 1 1 in Vert. = 1 ft



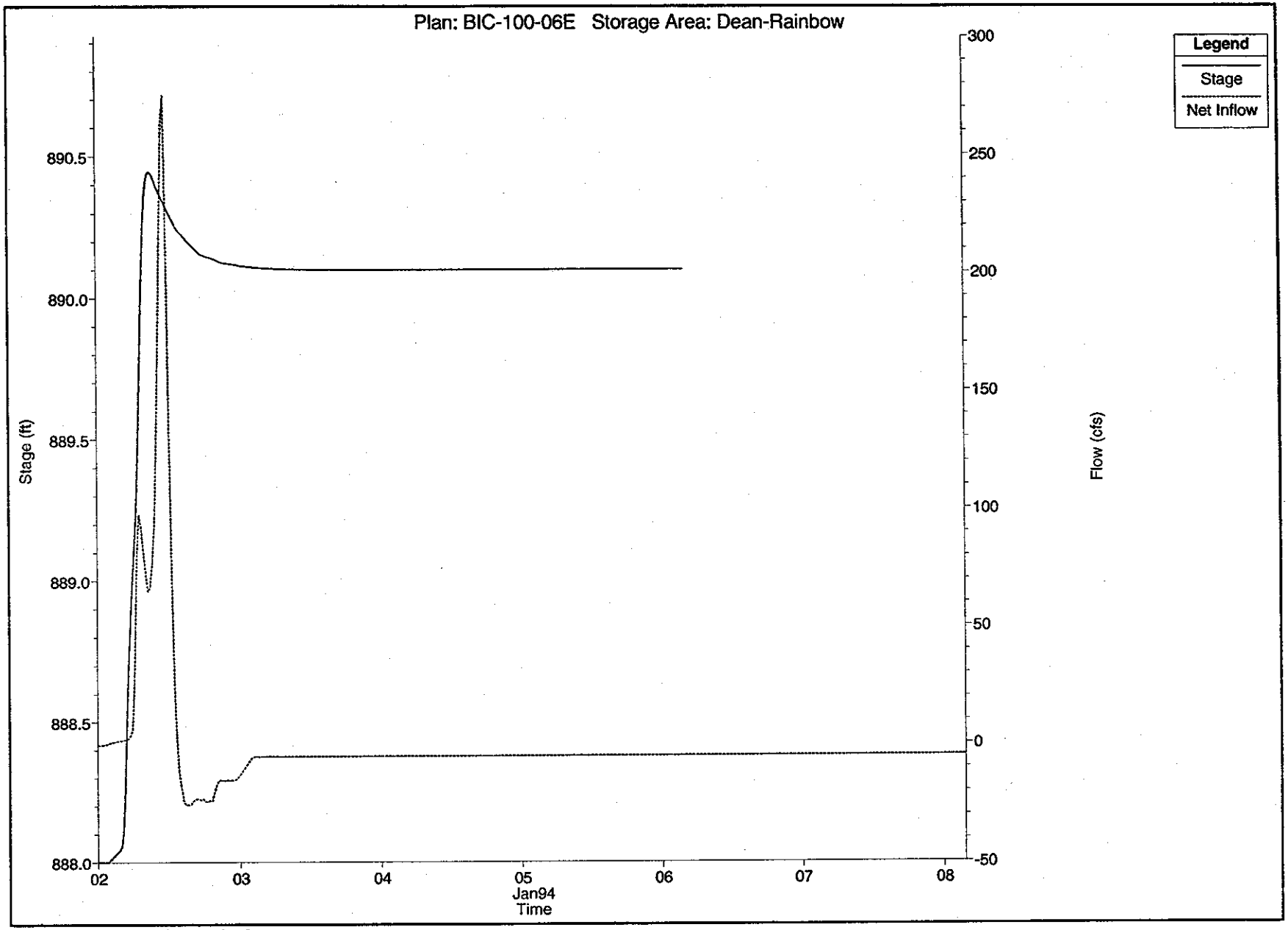
1 in Horiz. = 1 1 in Vert. = 1 ft



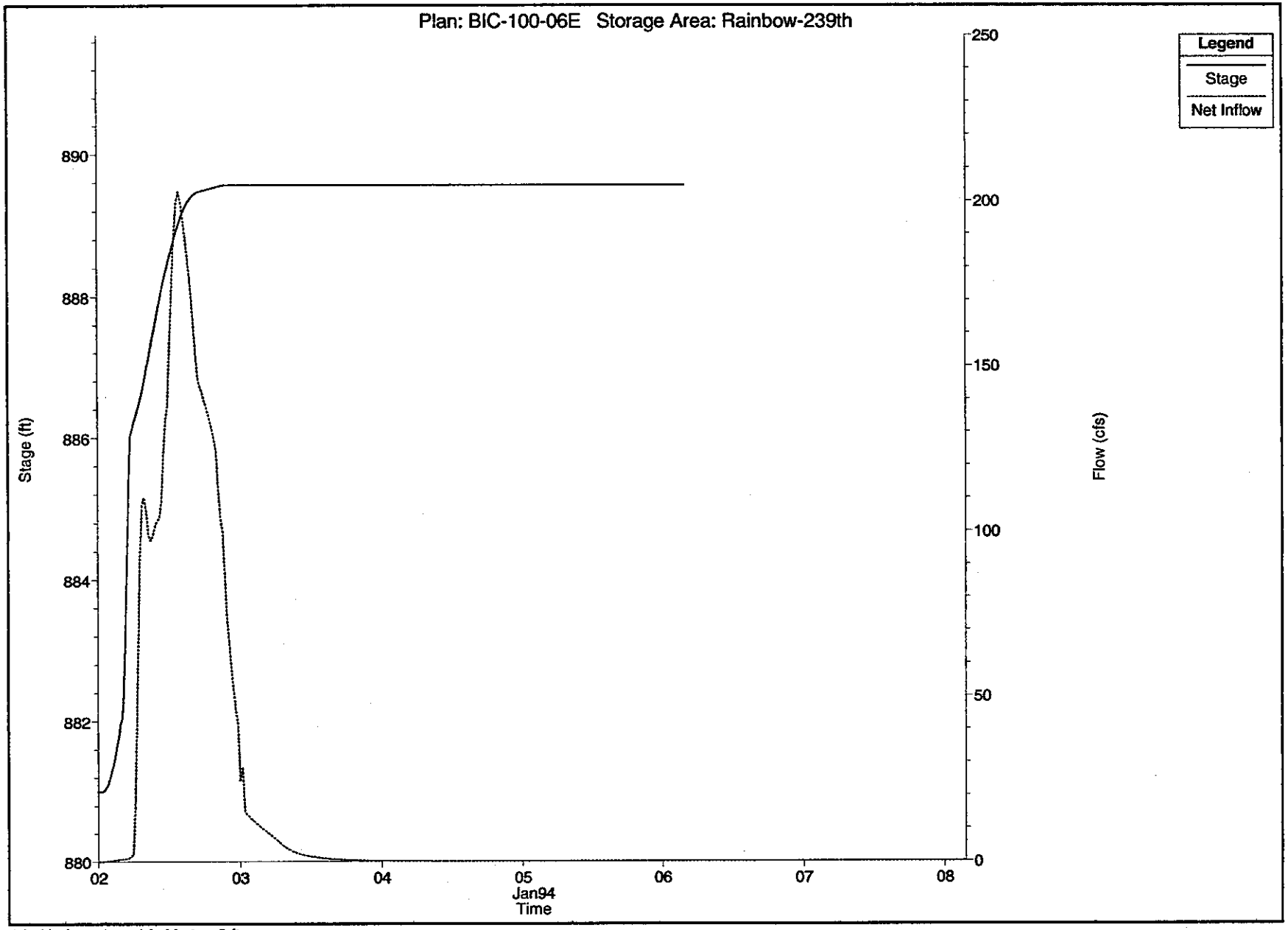
1 in Horiz. = 1 1 in Vert. = 1 ft



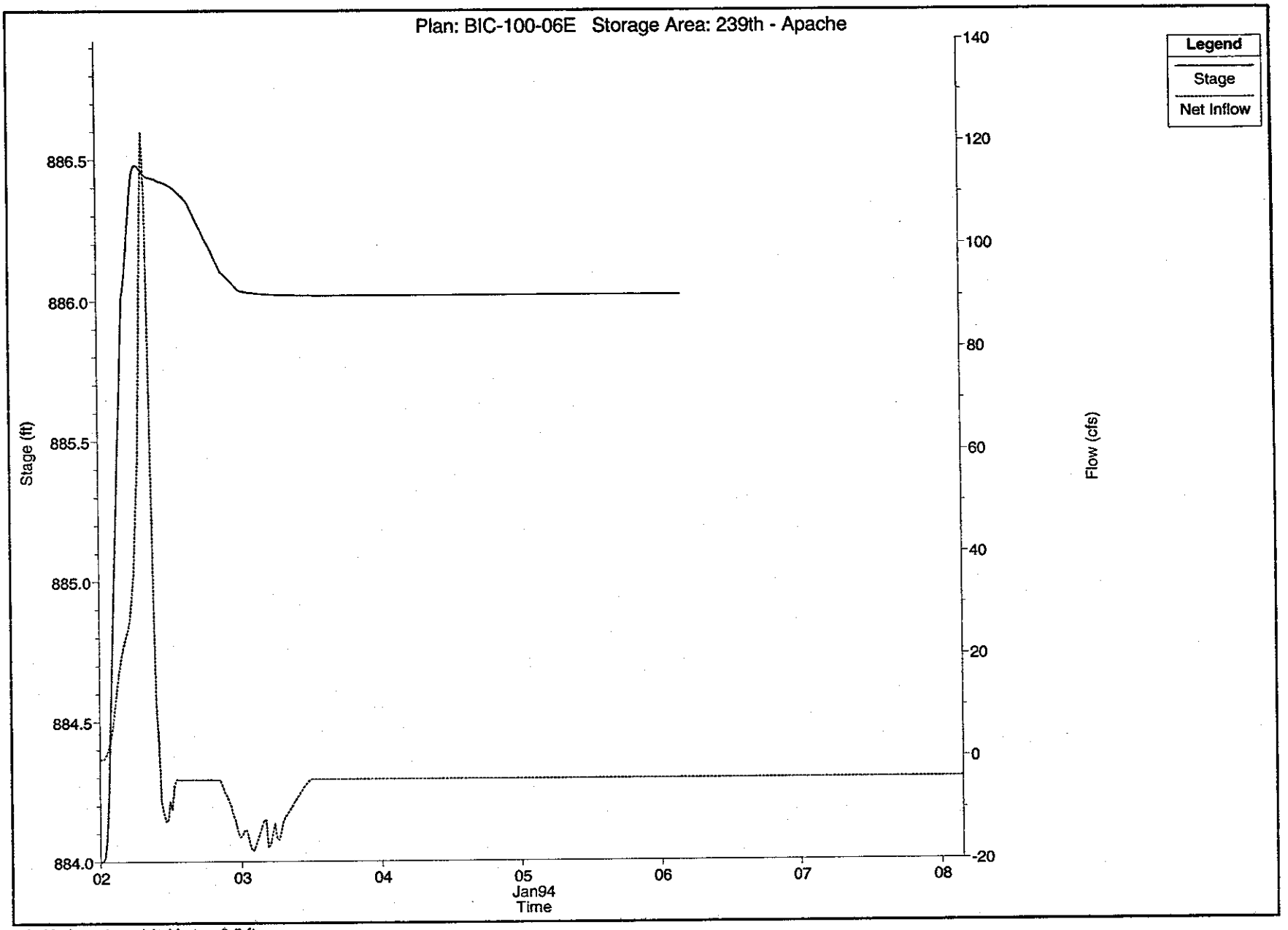
1 in Horiz. = 1 1 in Vert. = 1 ft



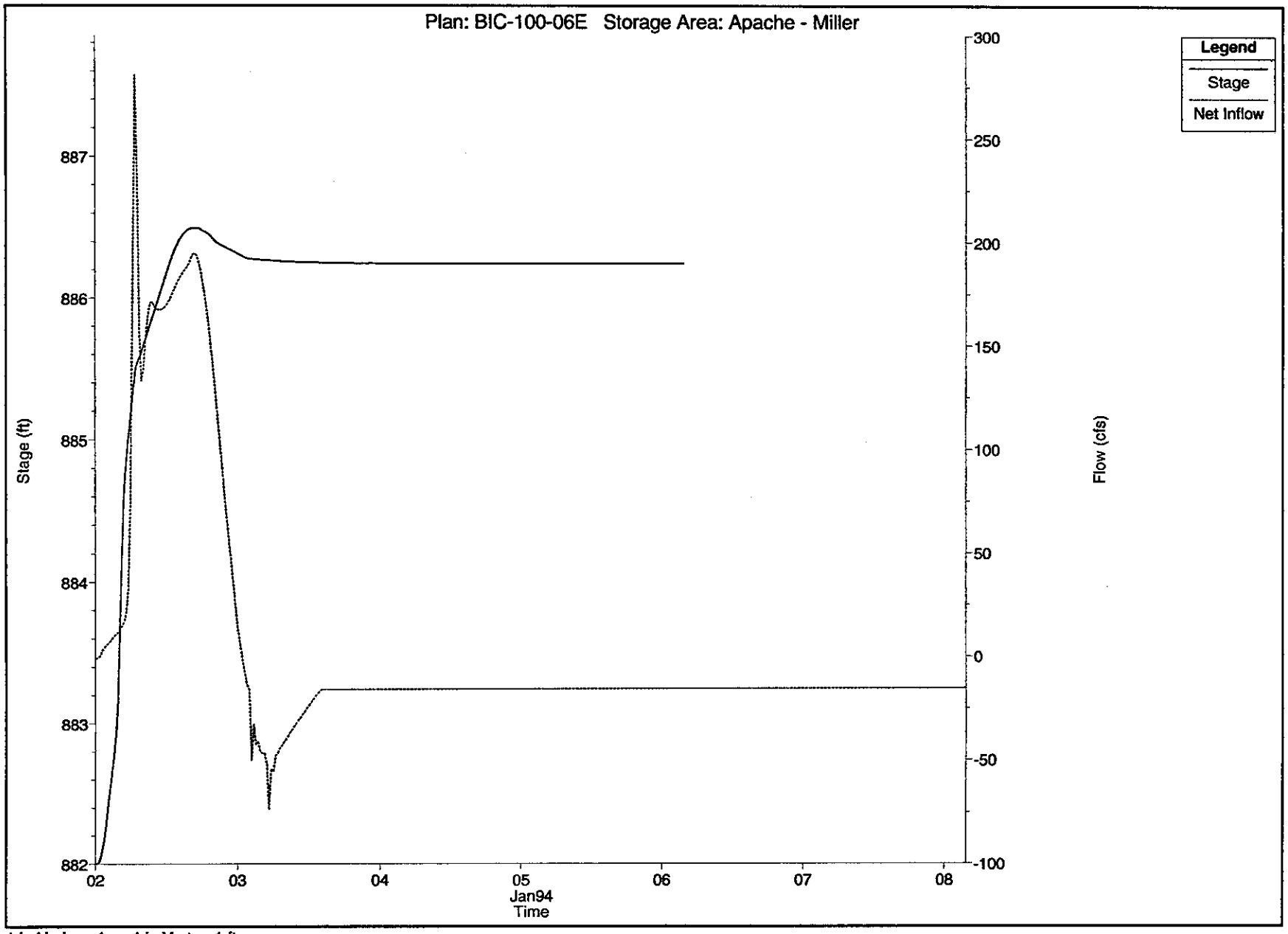
1 in Horiz. = 1 1 in Vert. = 0.5 ft



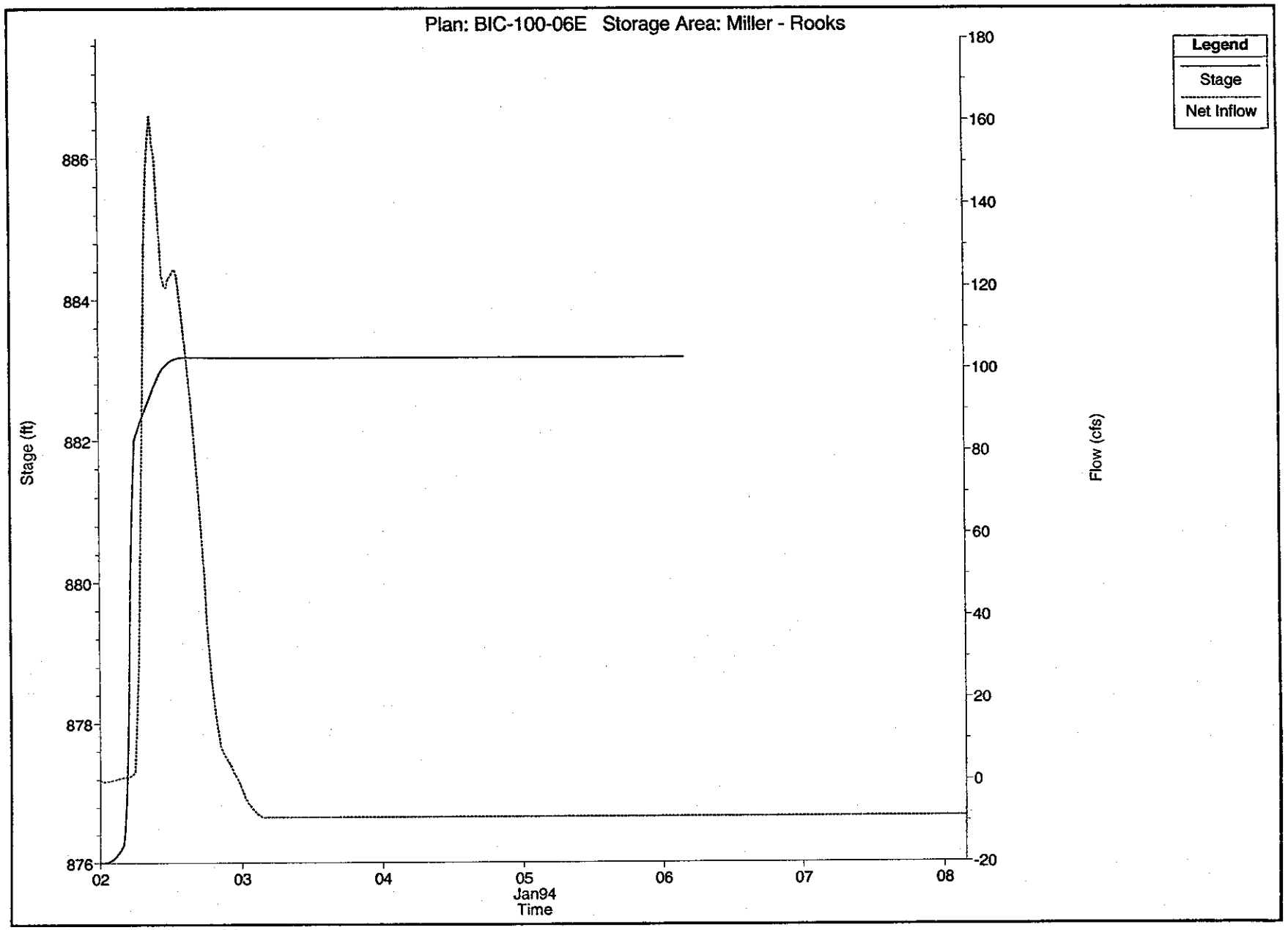
1 in Horiz. = 1 1 in Vert. = 2 ft



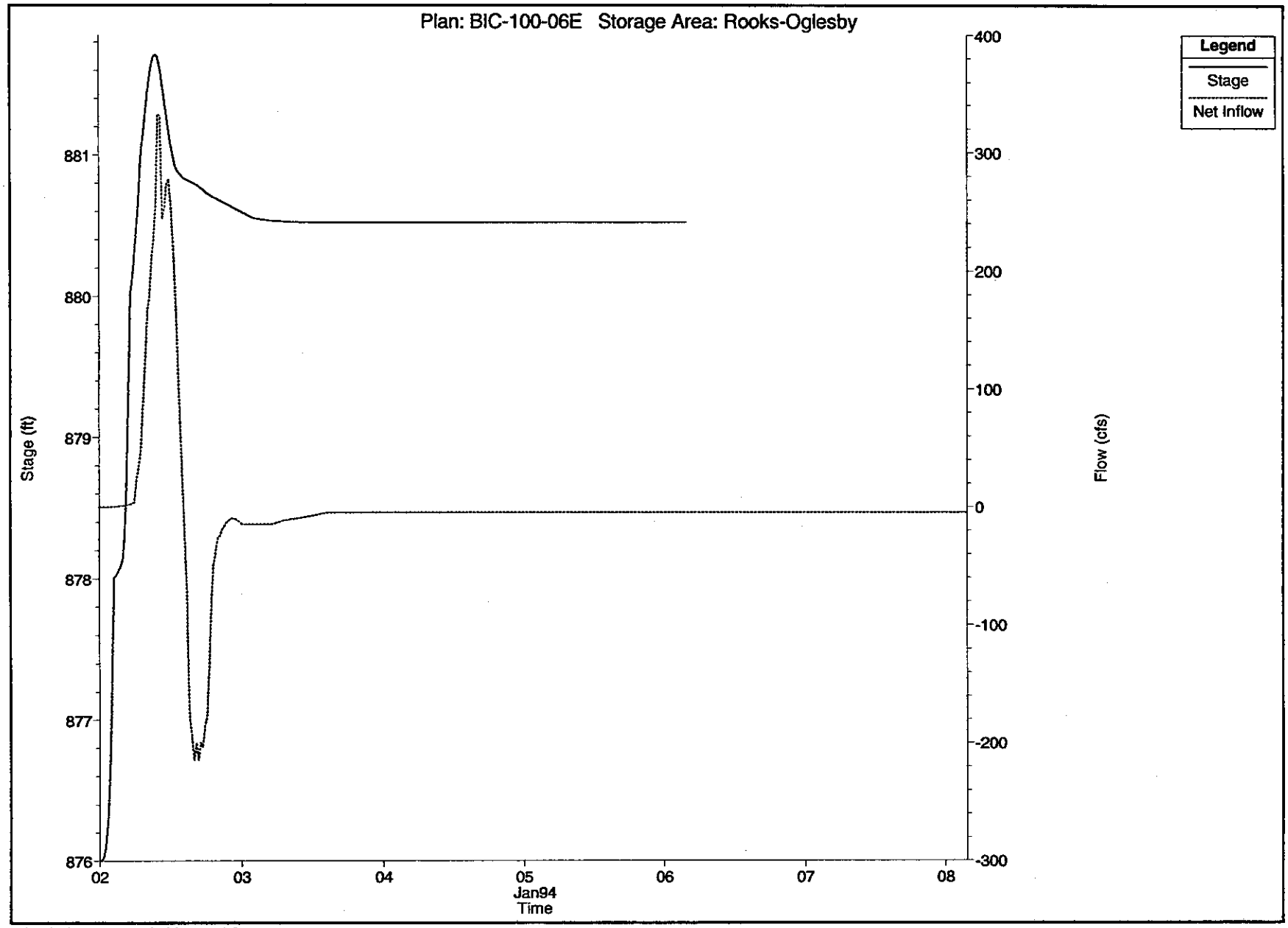
1 in Horiz. = 1 1 in Vert. = 0.5 ft



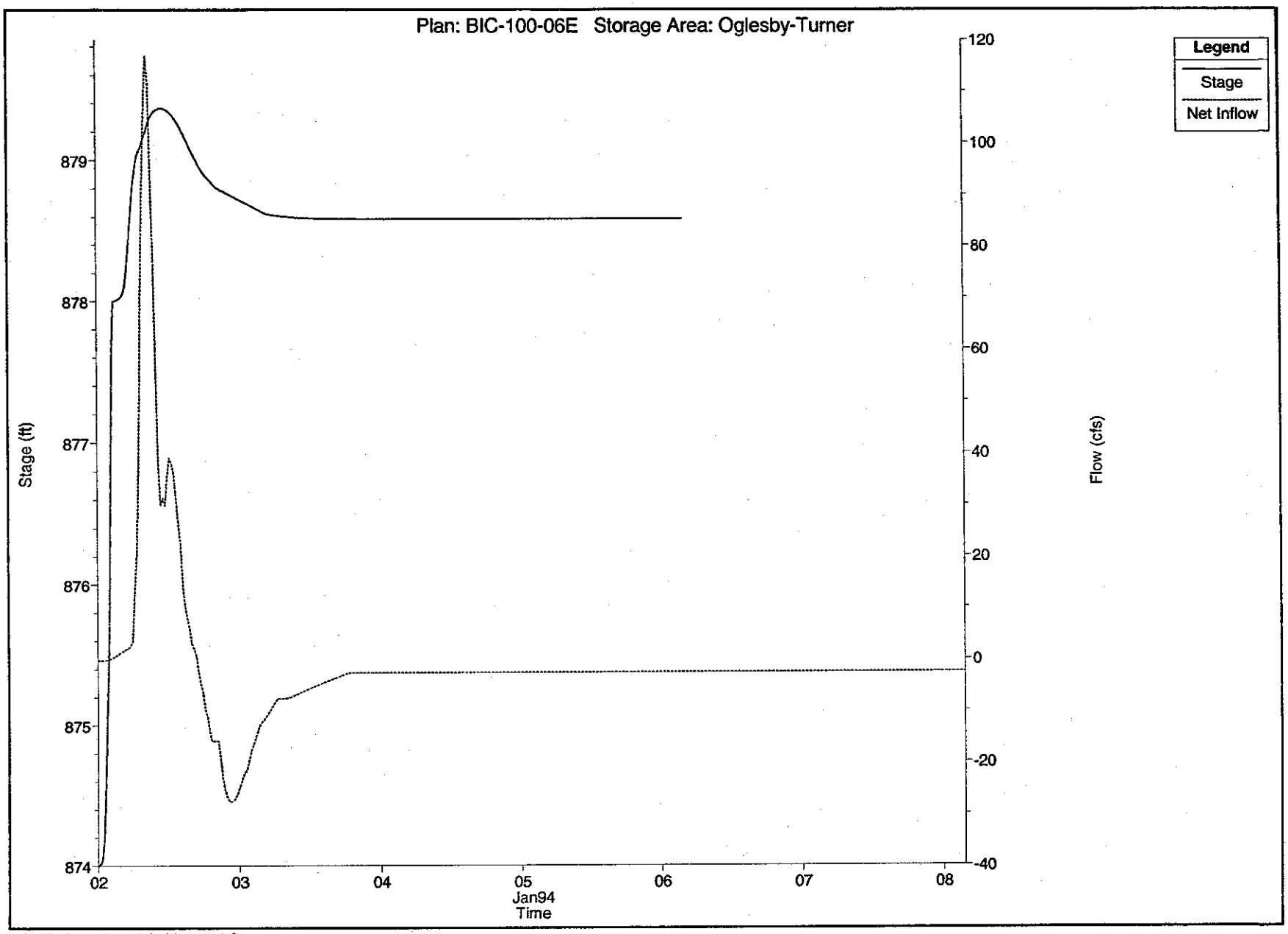
1 in Horiz. = 1 1 in Vert. = 1 ft



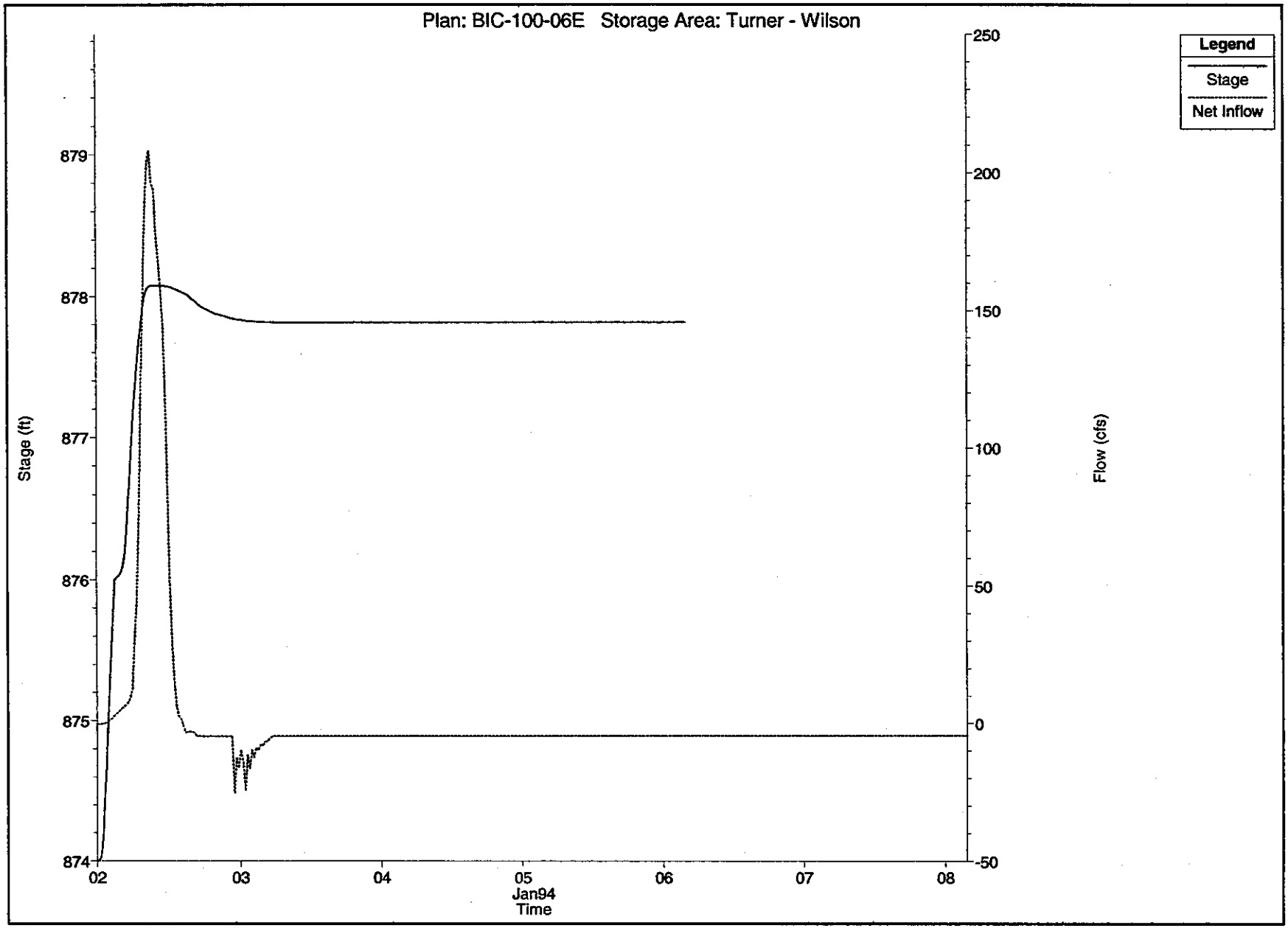
1 in Horiz. = 1 1 in Vert. = 2 ft



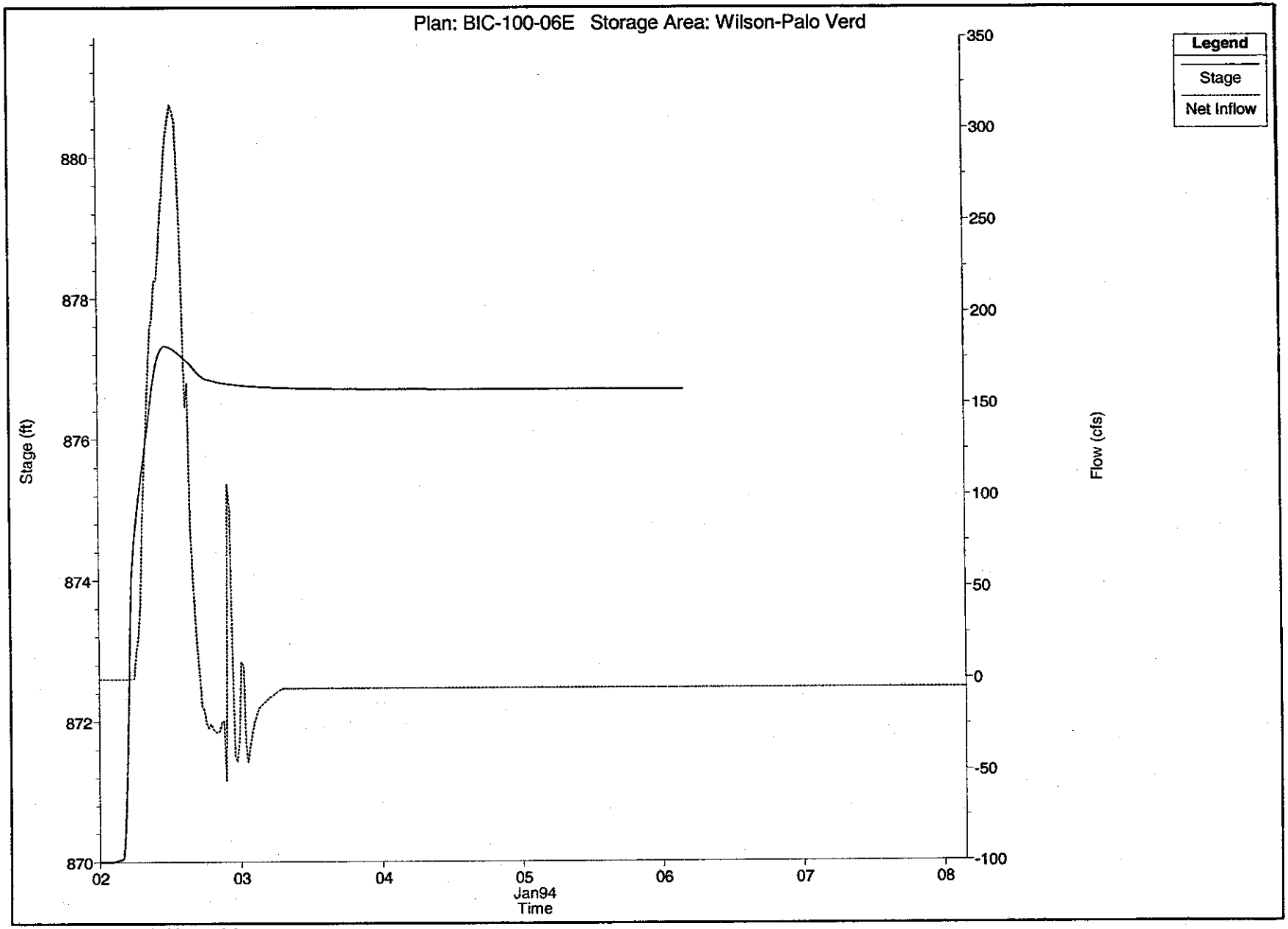
1 in Horiz. = 1 1 in Vert. = 1 ft



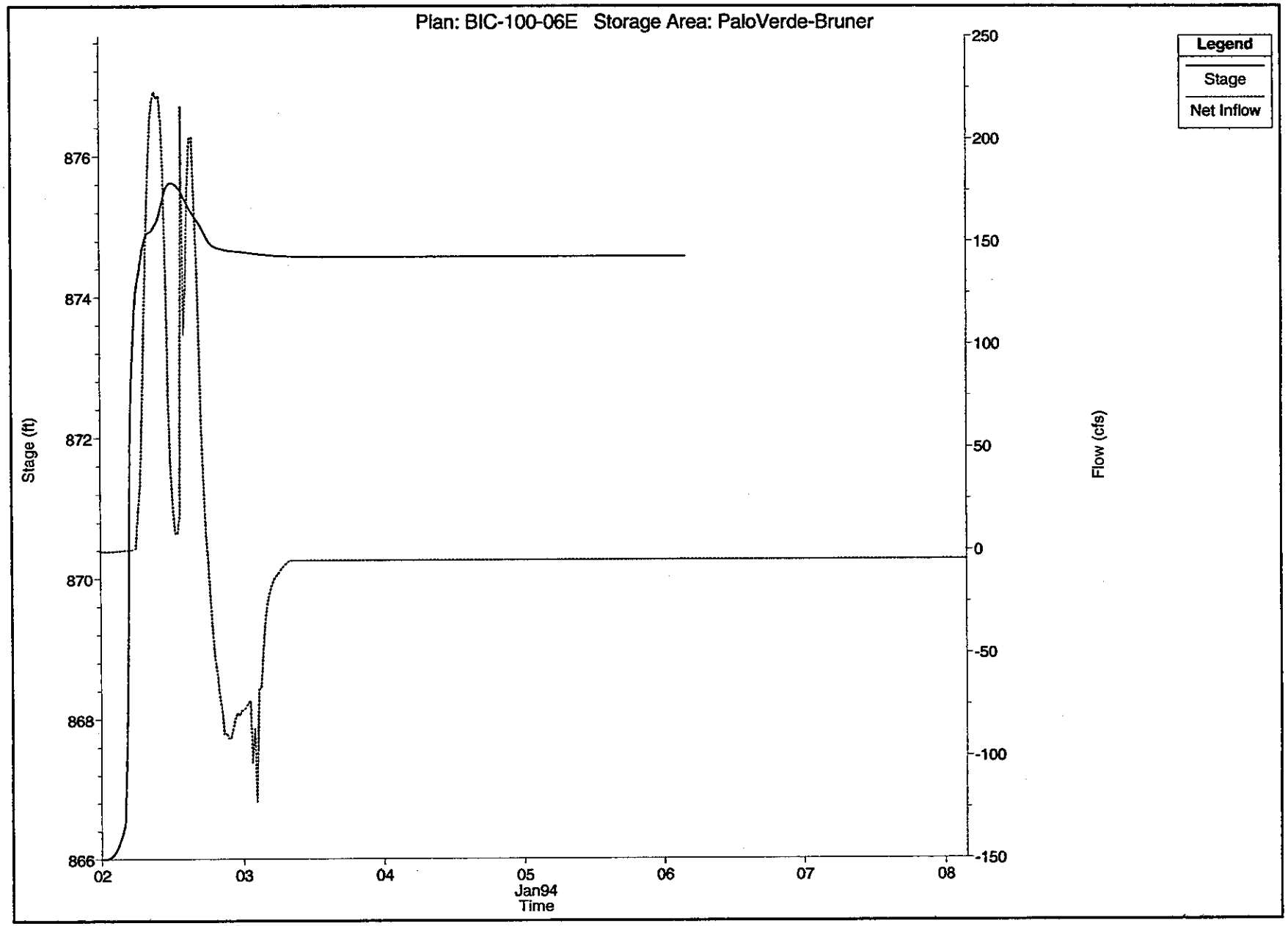
1 in Horiz. = 1 1 in Vert. = 1 ft



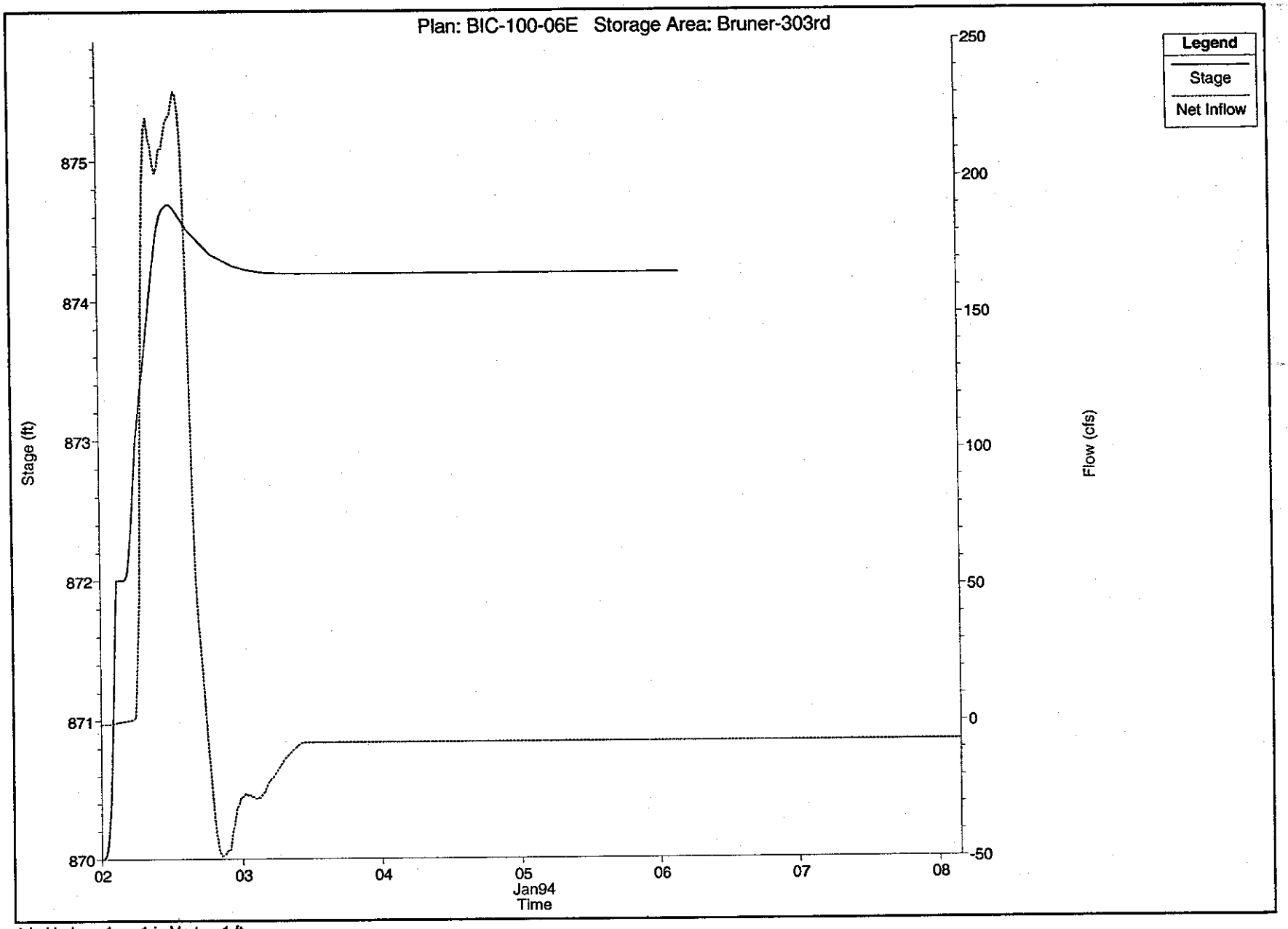
1 in Horiz. = 1 1 in Vert. = 1 ft



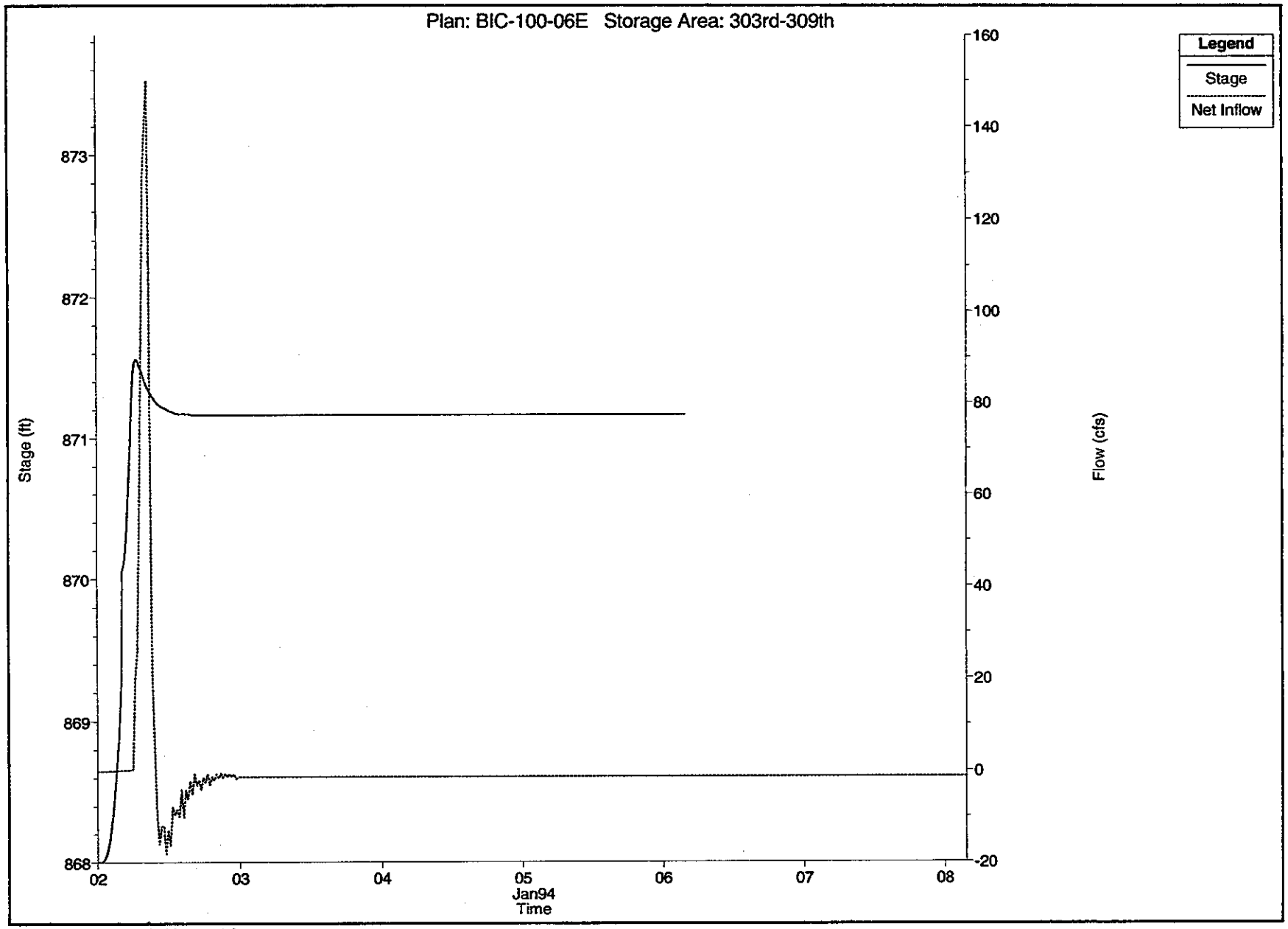
1 in Horiz. = 1 1 in Vert. = 2 ft



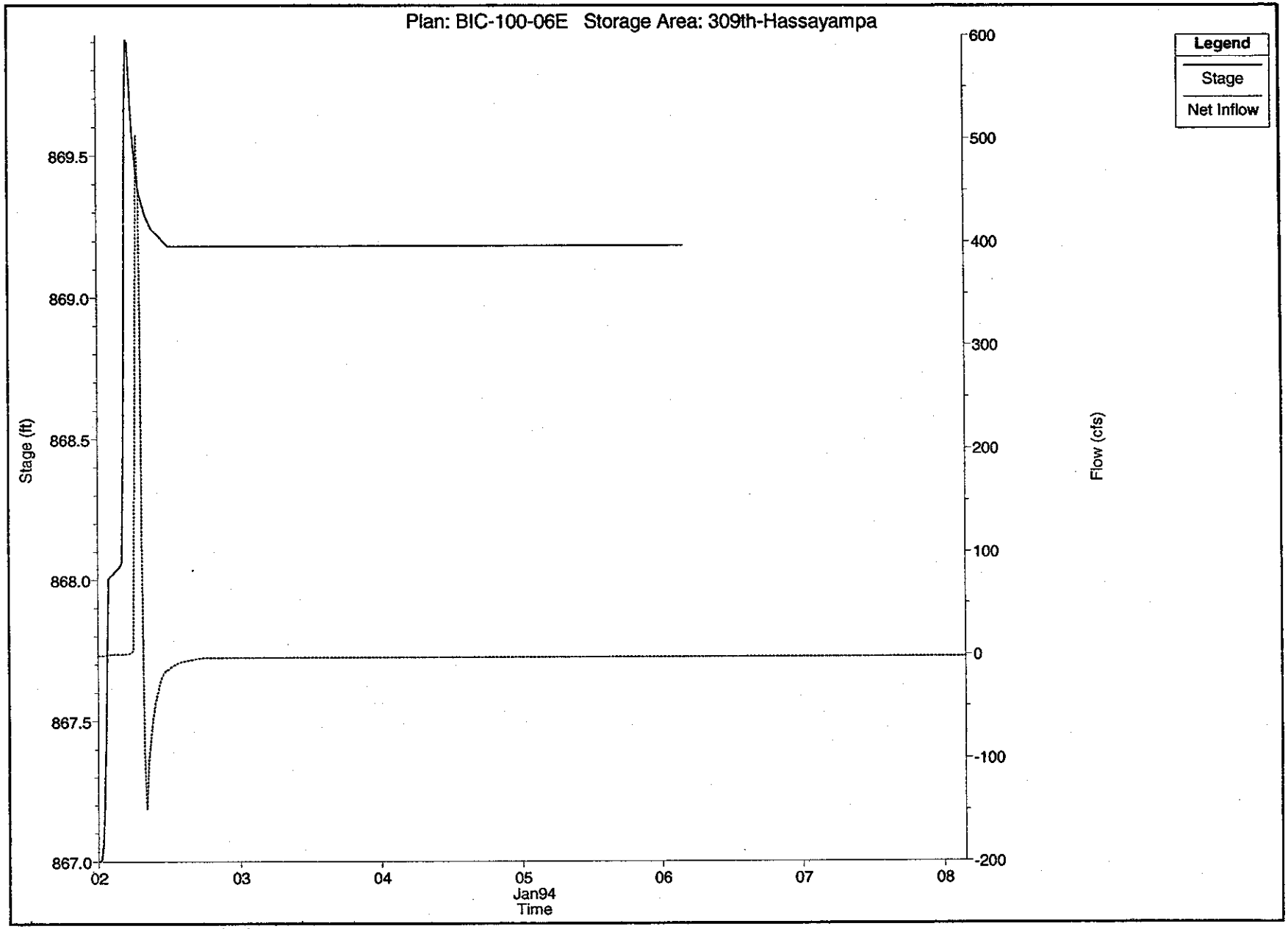
1 in Horiz. = 1 1 in Vert. = 2 ft



1 in Horiz. = 1 1 in Vert. = 1 ft

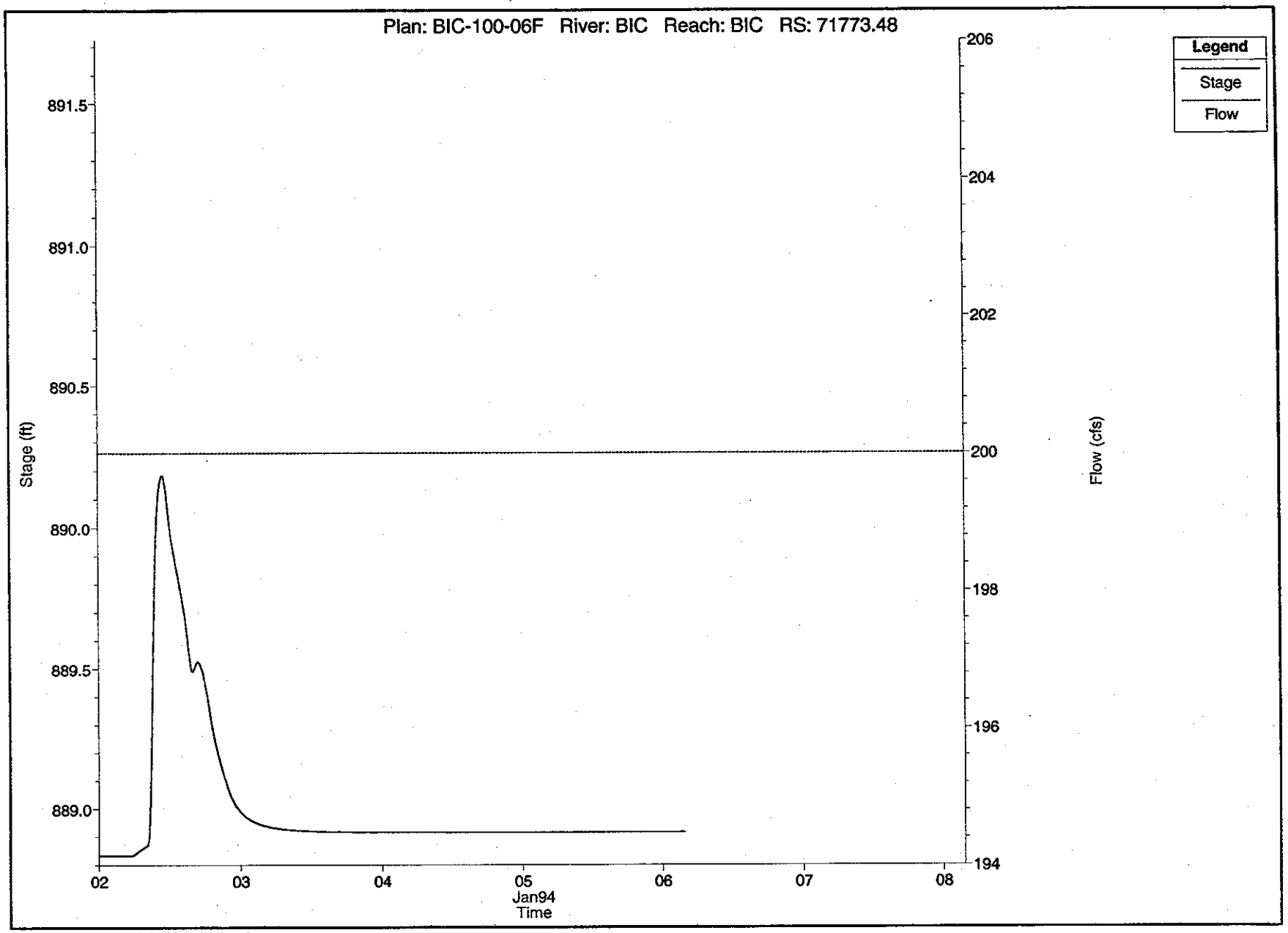


1 in Horiz. = 1 1 in Vert. = 1 ft

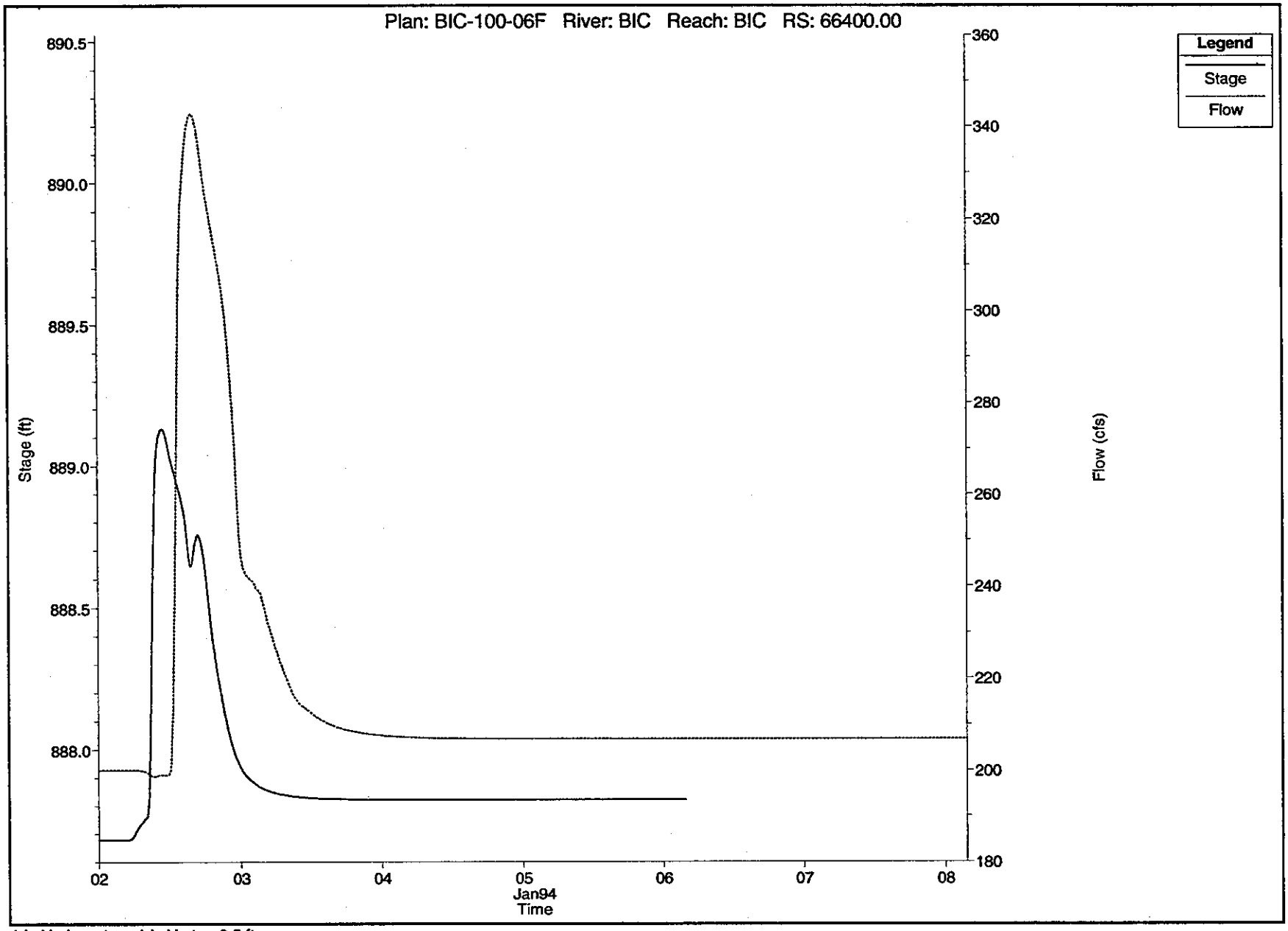


1 in Horiz. = 1 1 in Vert. = 0.5 ft

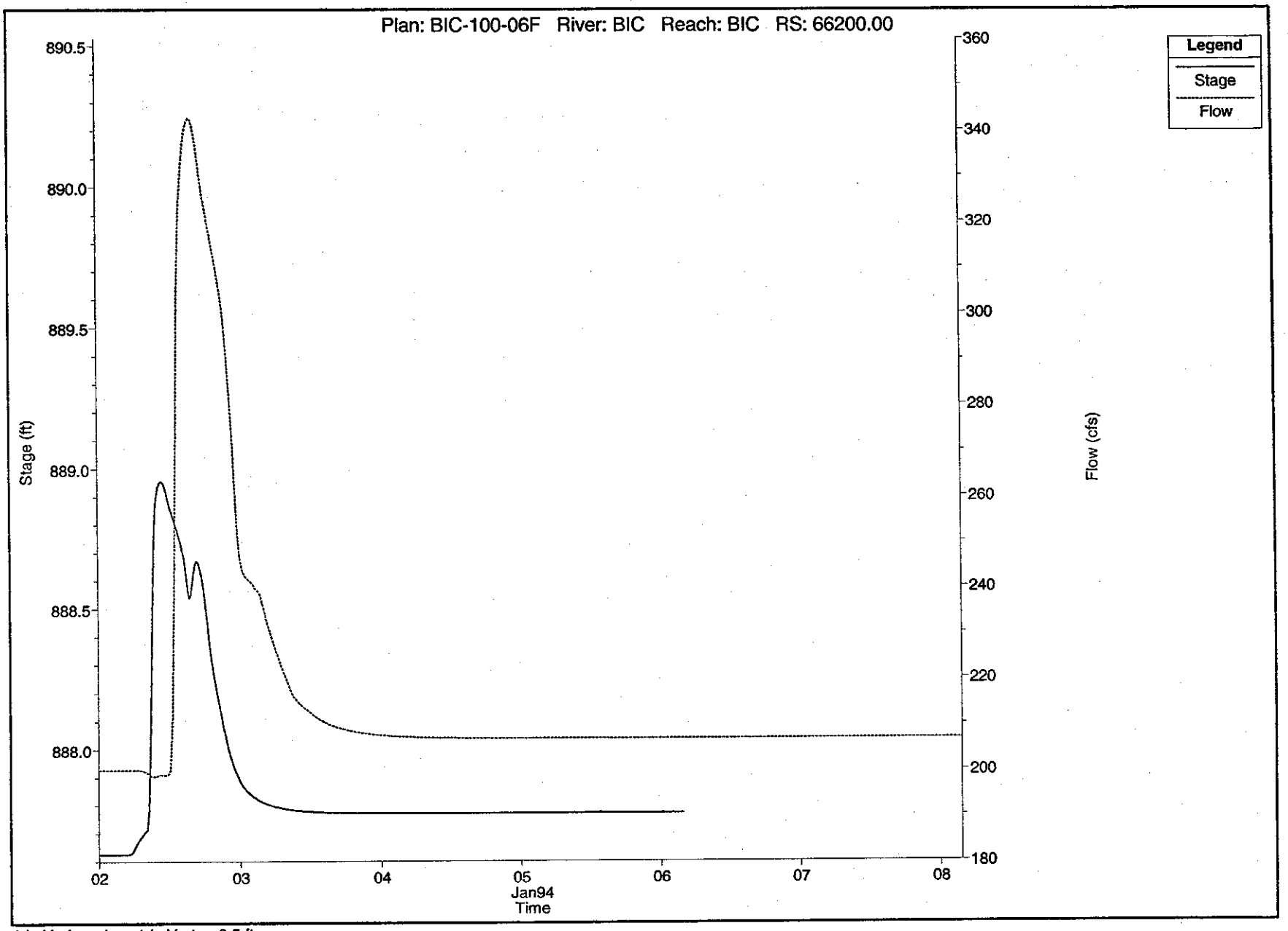
E.5.10 Stage and Flow Hydrographs for BIC– Future 100-Year, 6-Hour Event



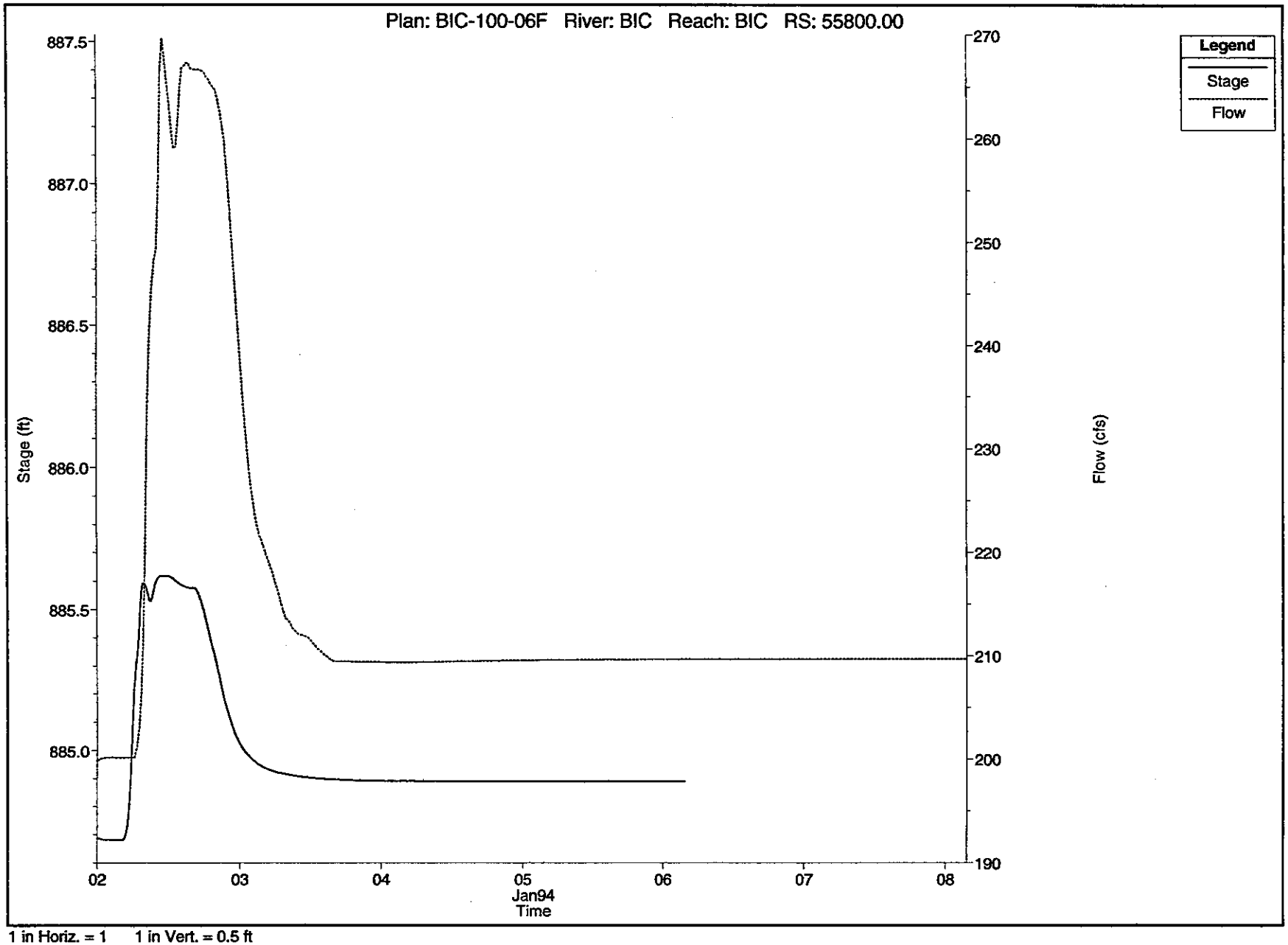
1 in Horiz. = 1 1 in Vert. = 0.5 ft



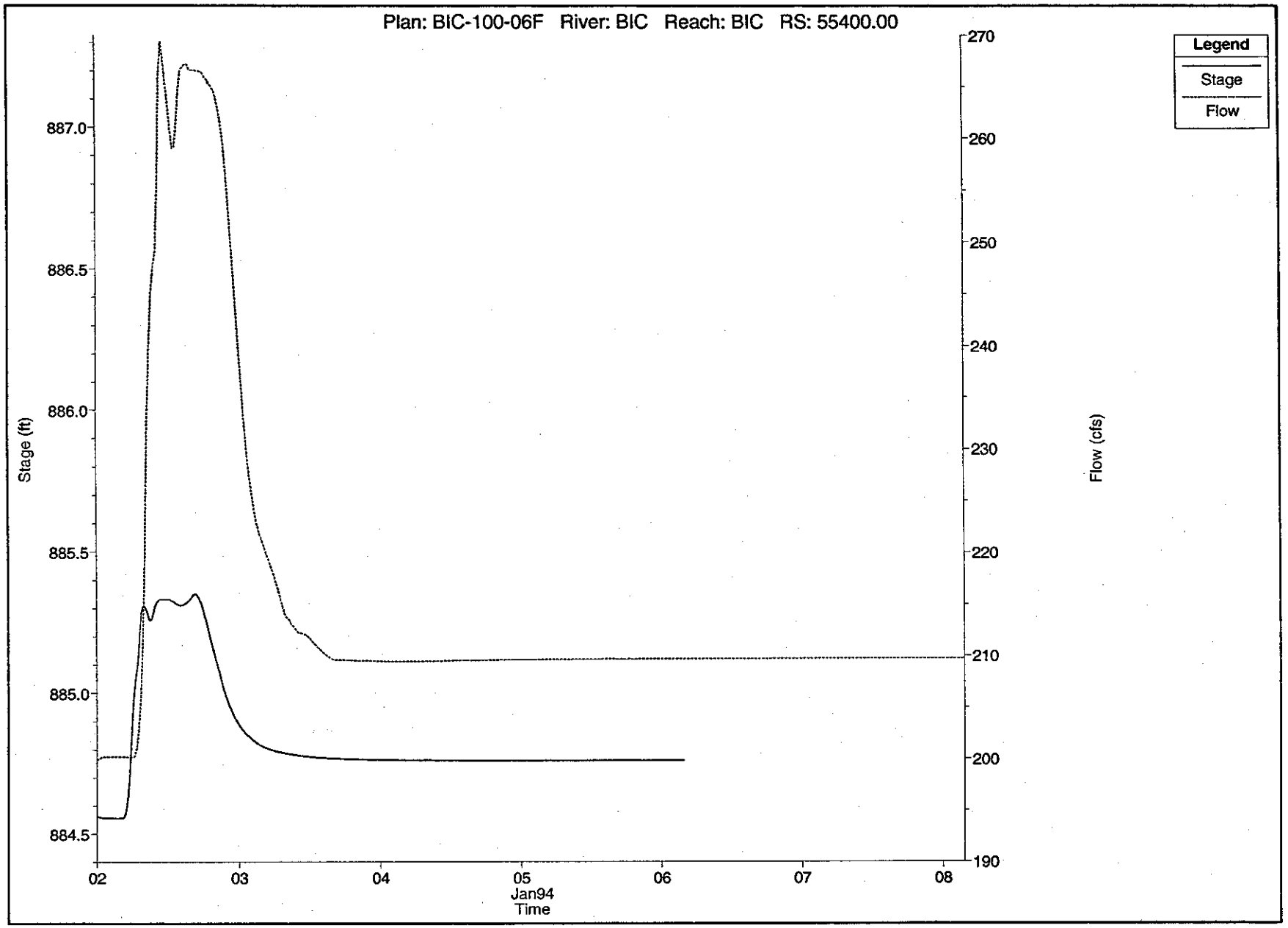
1 in Horiz. = 1 1 in Vert. = 0.5 ft



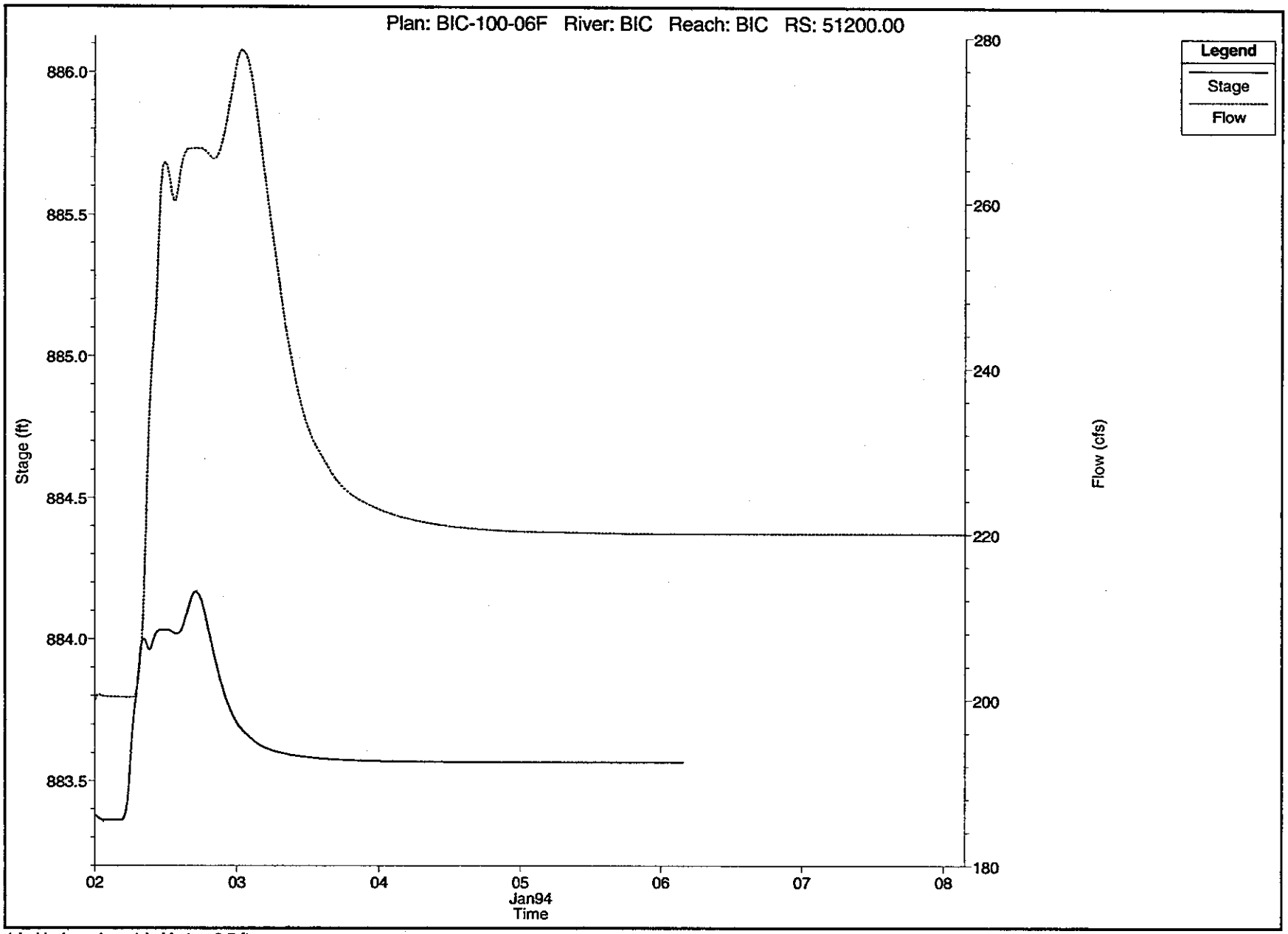
1 in Horiz. = 1 1 in Vert. = 0.5 ft



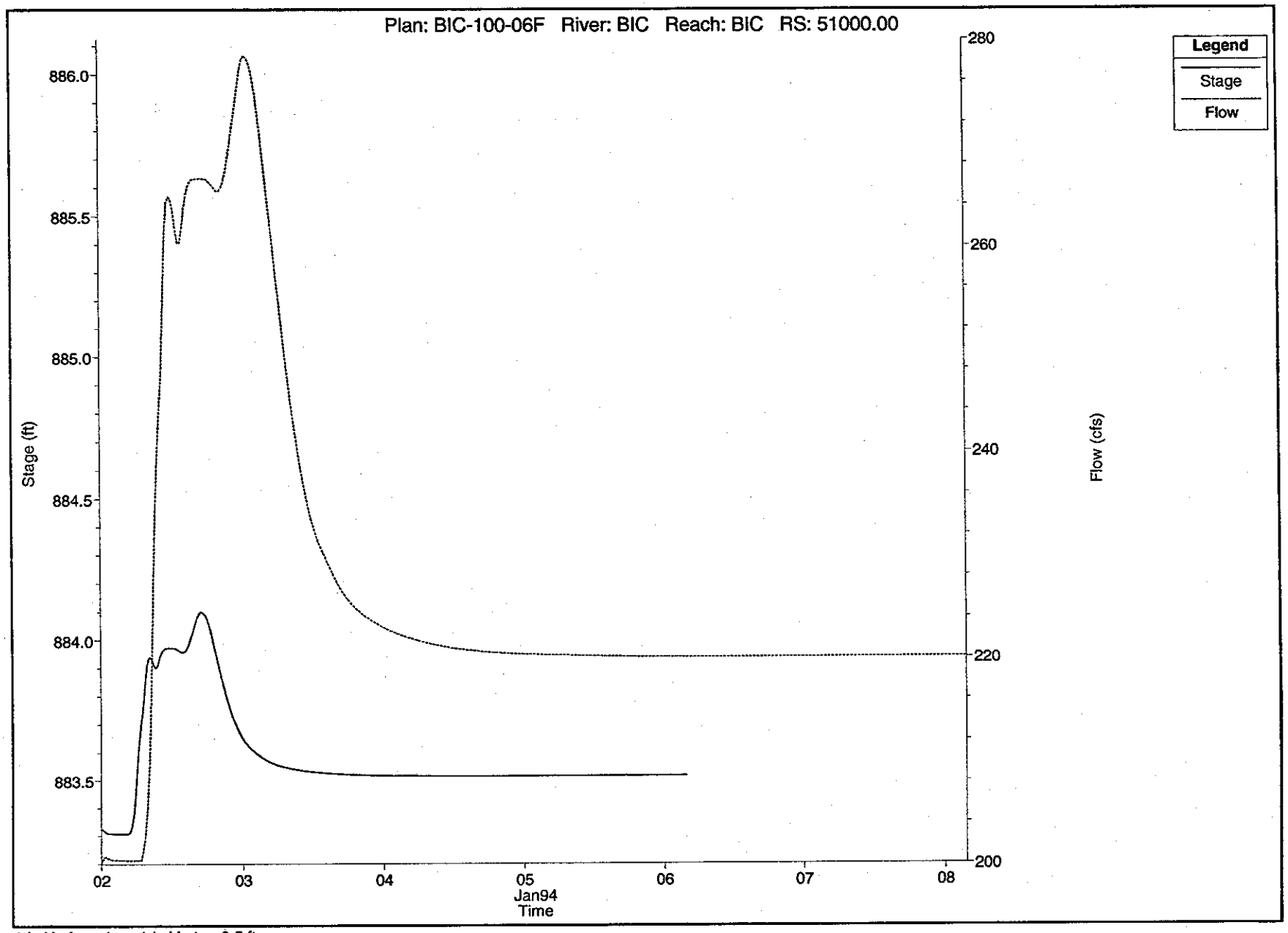
1 in Horiz. = 1 1 in Vert. = 0.5 ft



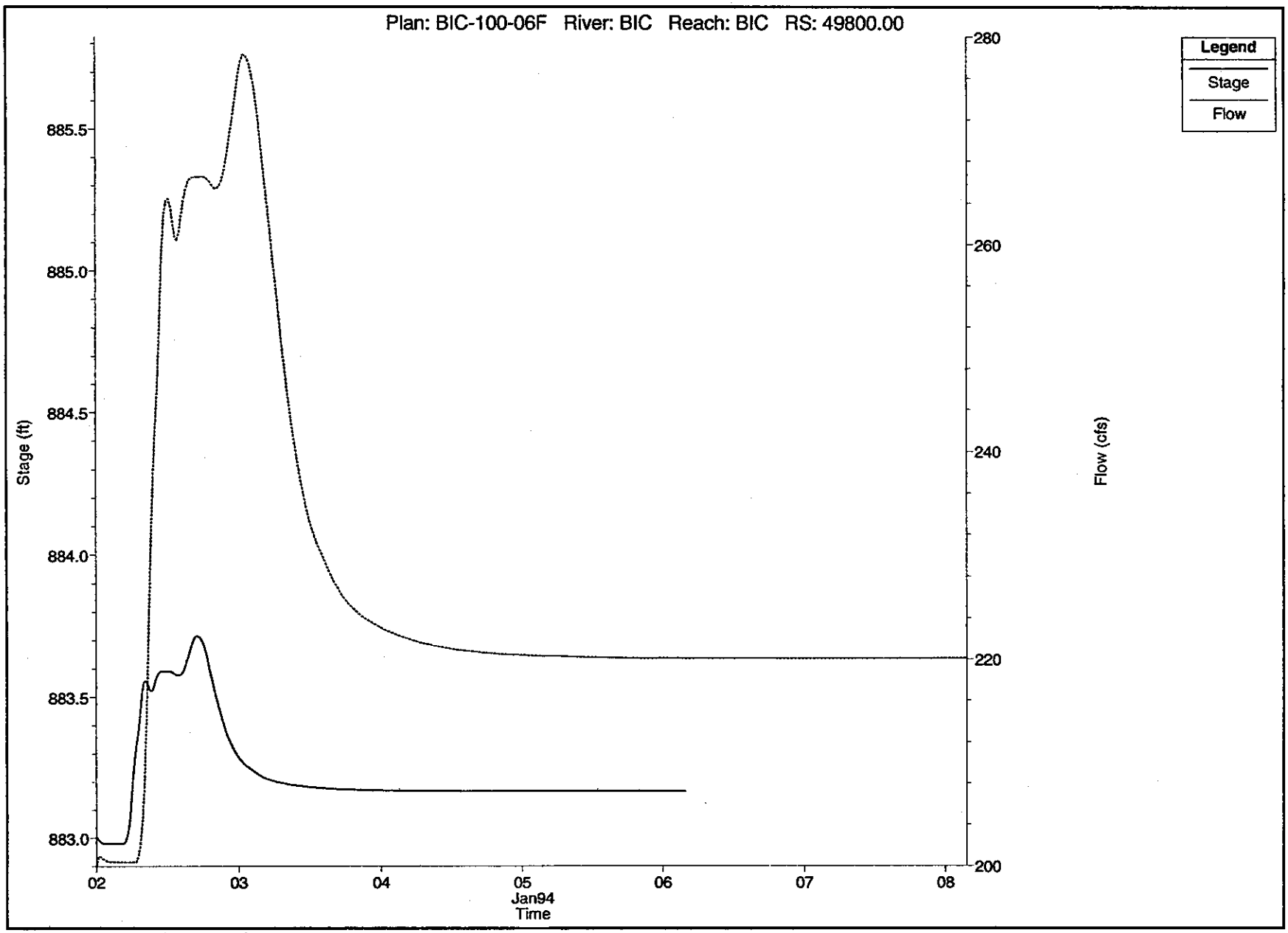
1 in Horiz. = 1 1 in Vert. = 0.5 ft



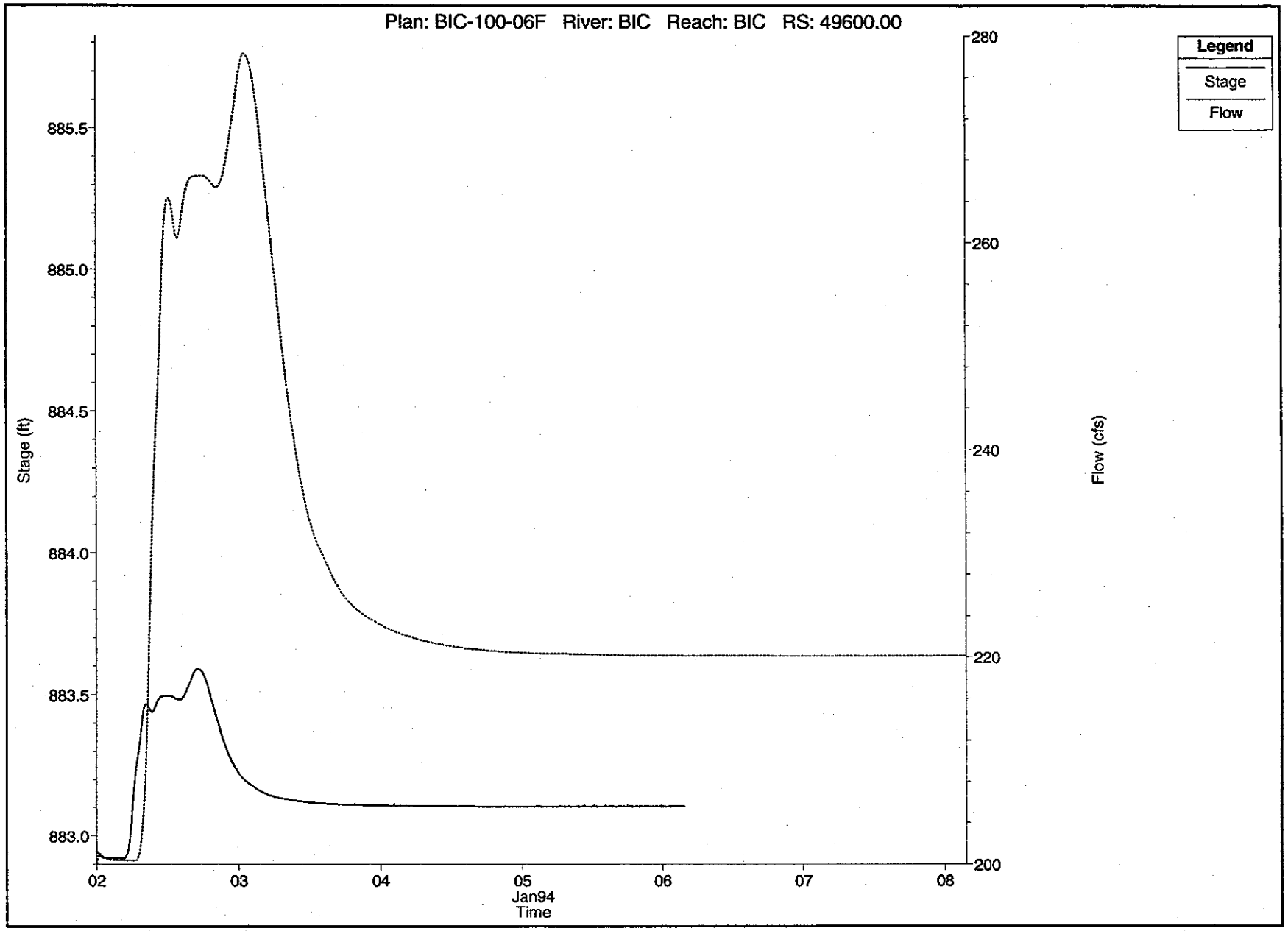
1 in Horiz. = 1 1 in Vert. = 0.5 ft



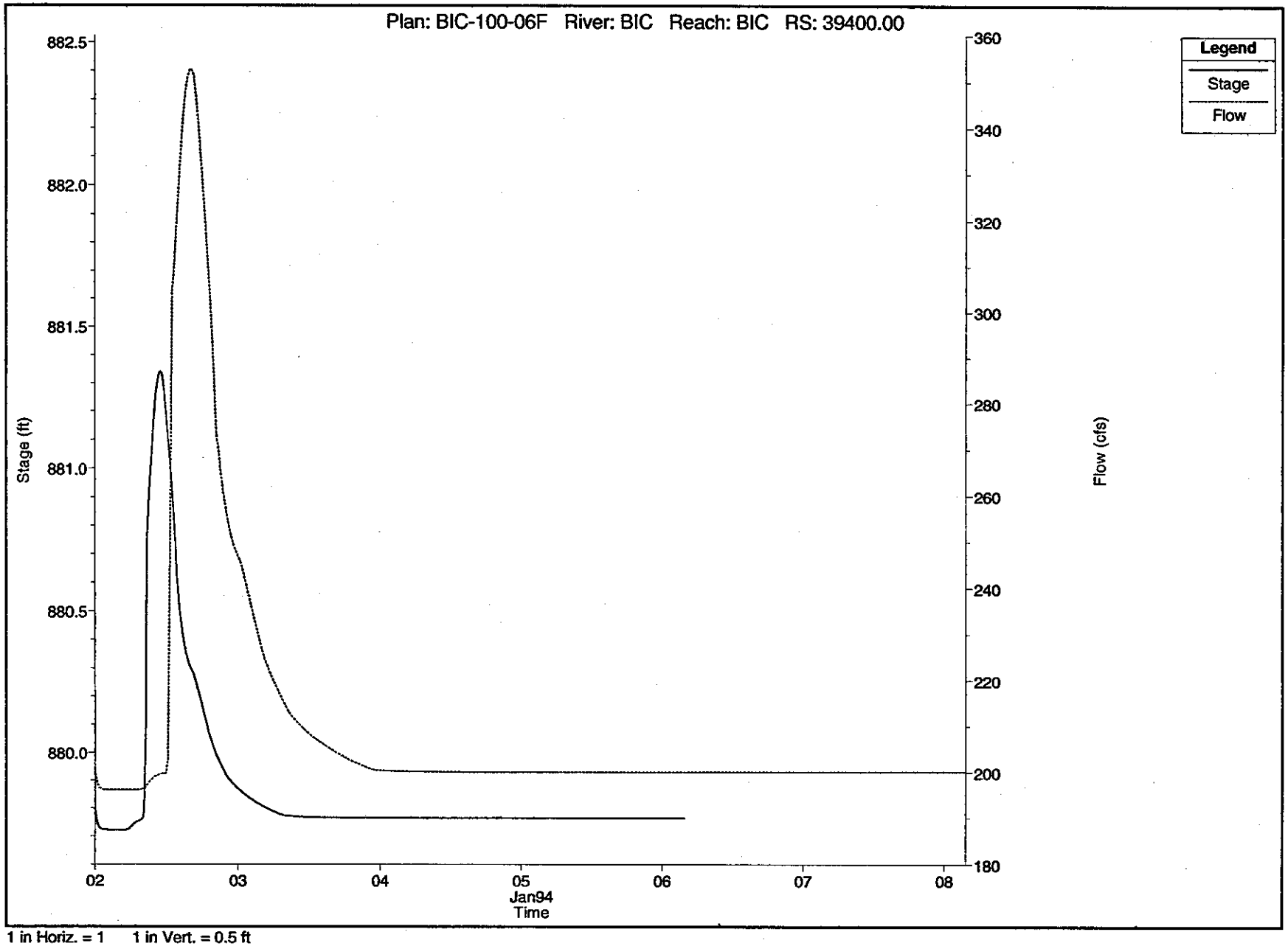
1 in Horiz. = 1 1 in Vert. = 0.5 ft



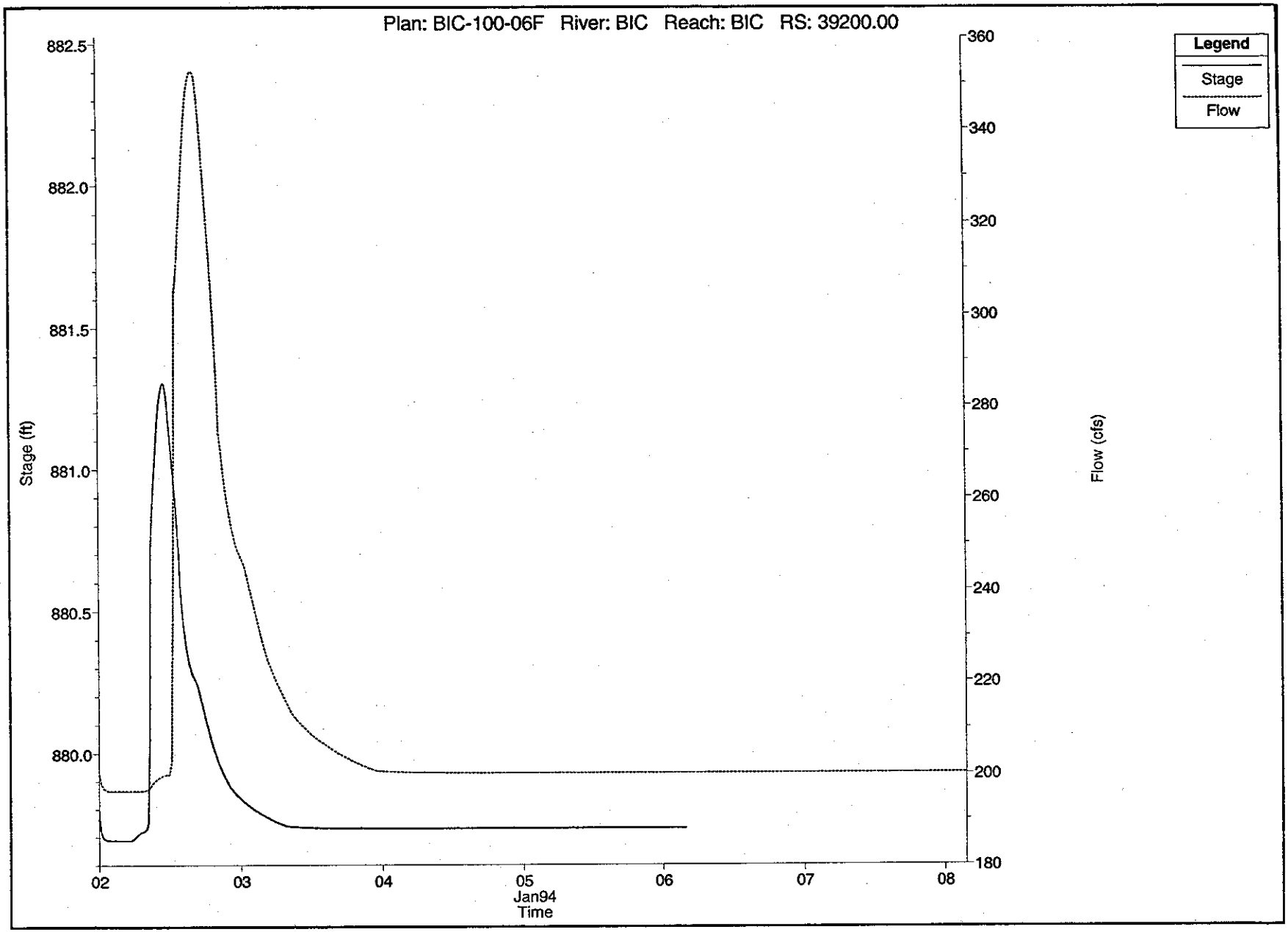
1 in Horiz. = 1 1 in Vert. = 0.5 ft



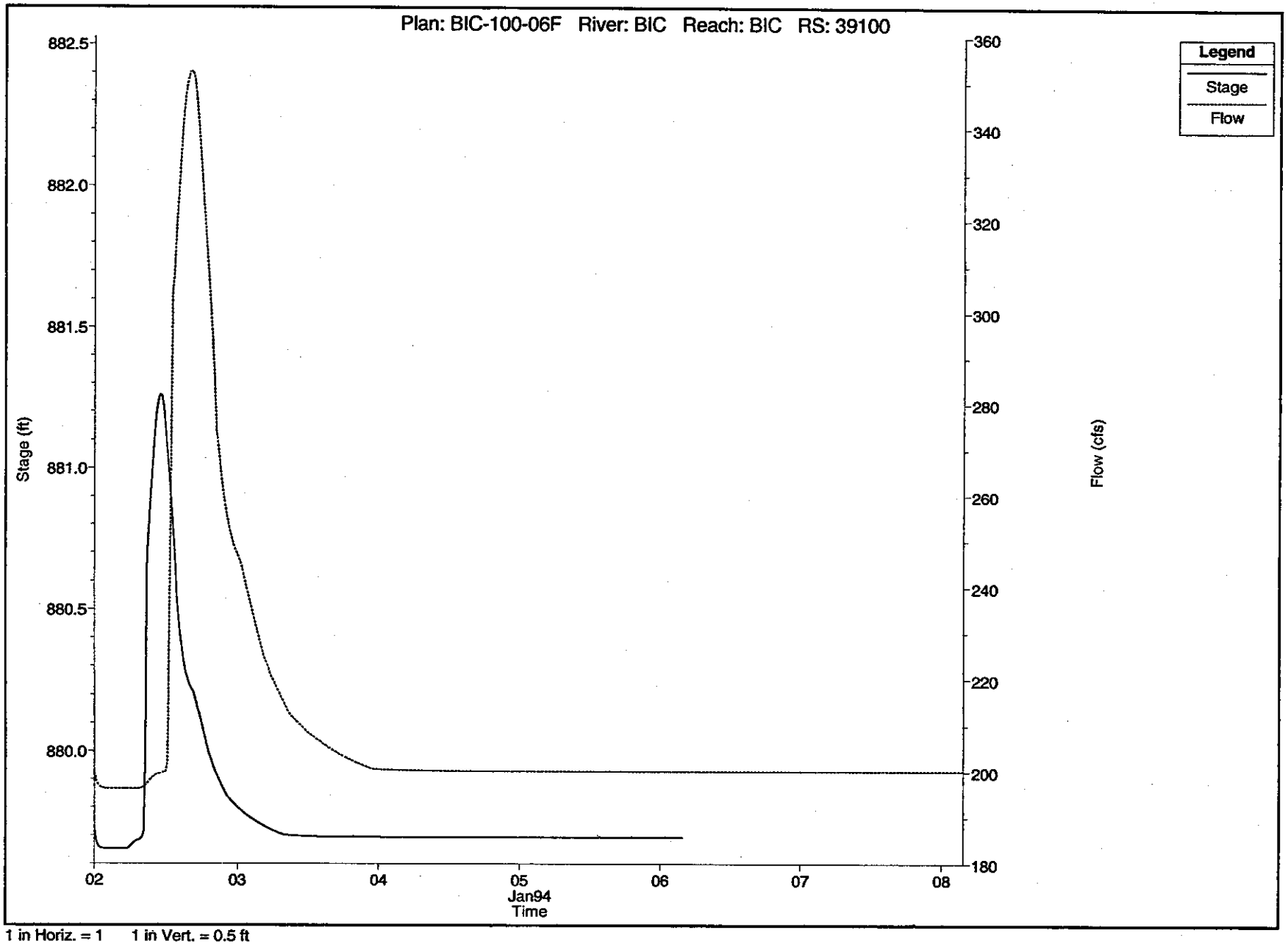
1 in Horiz. = 1 1 in Vert. = 0.5 ft



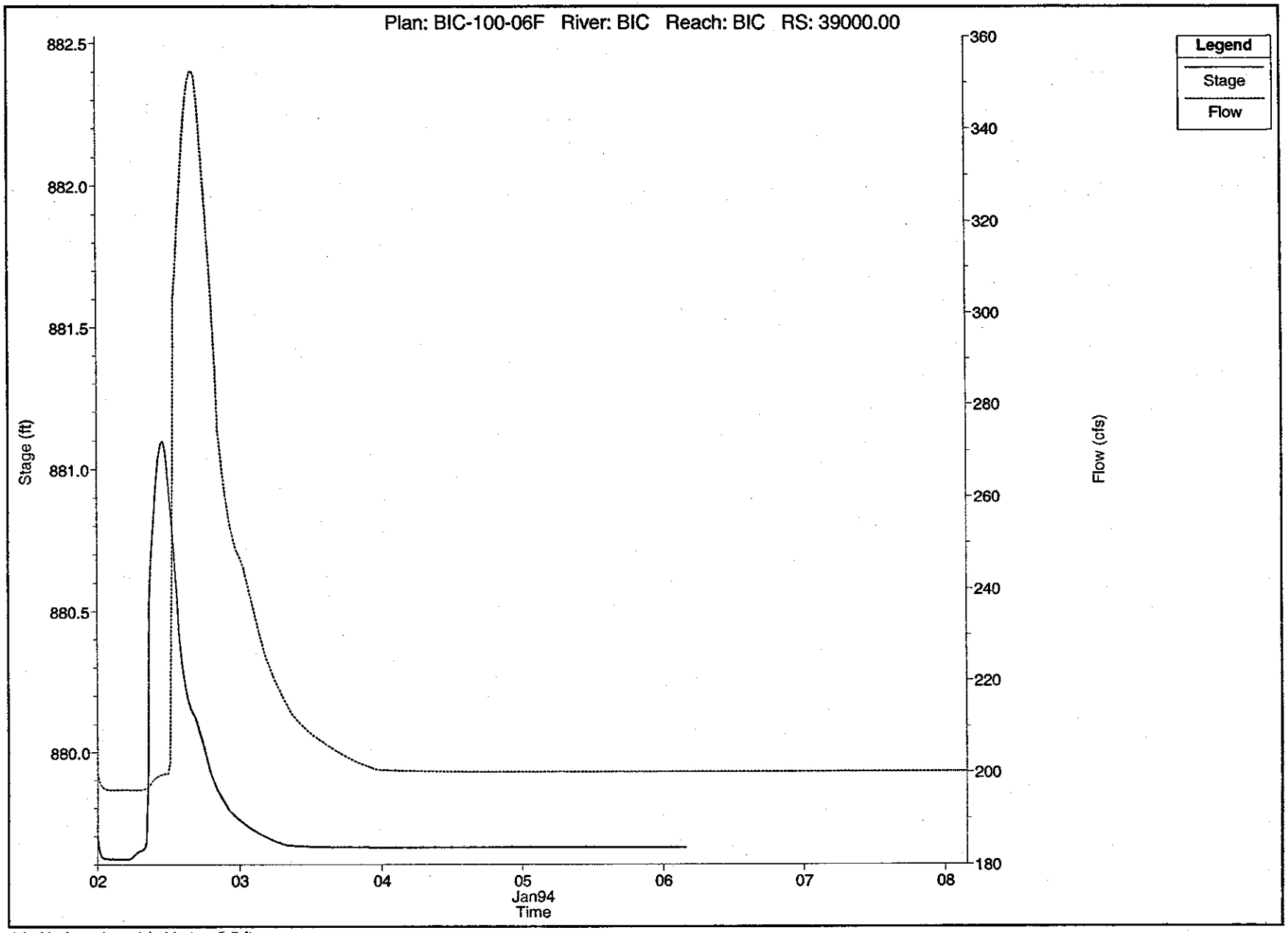
1 in Horiz. = 1 1 in Vert. = 0.5 ft



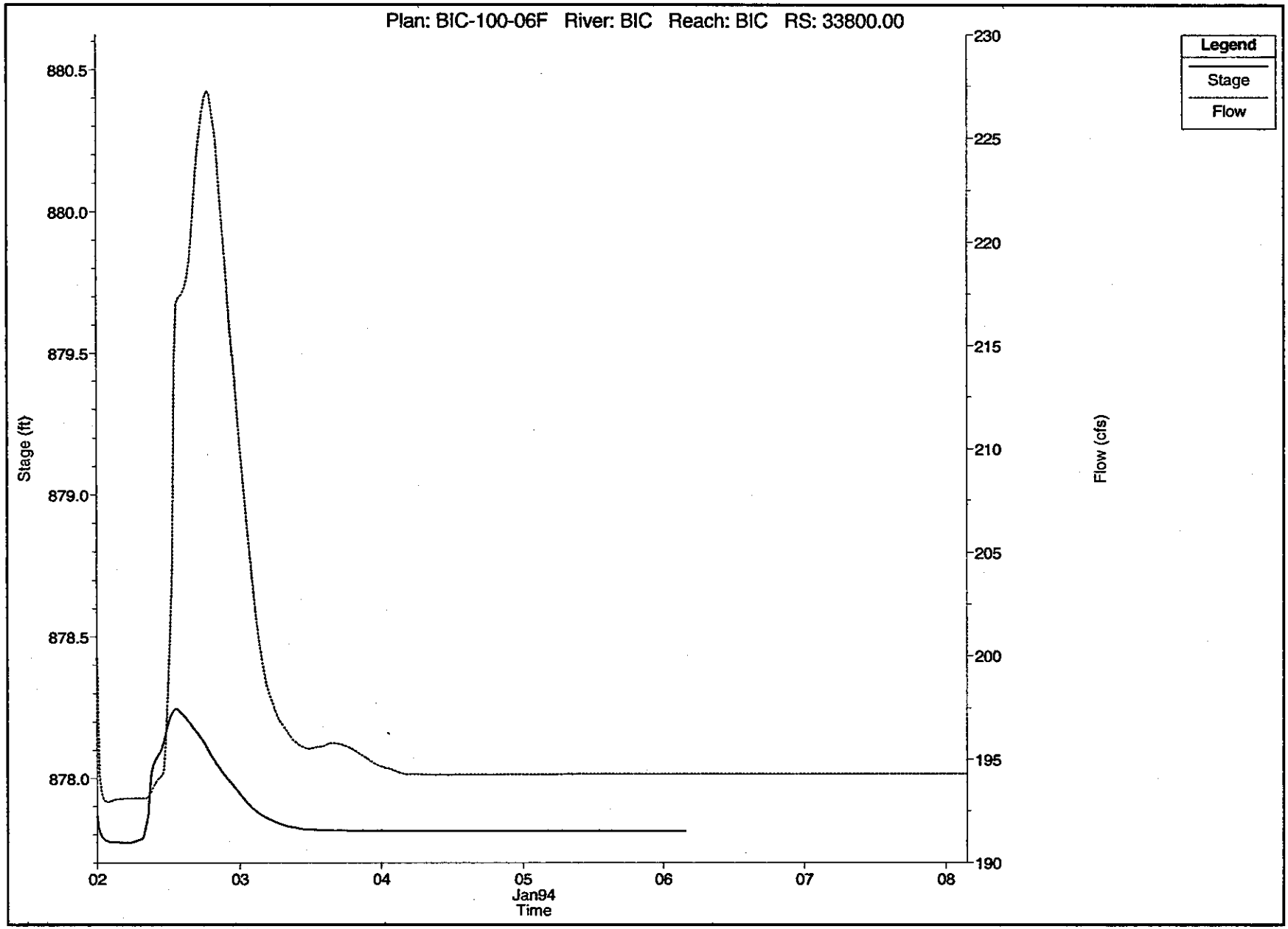
1 in Horiz. = 1 1 in Vert. = 0.5 ft



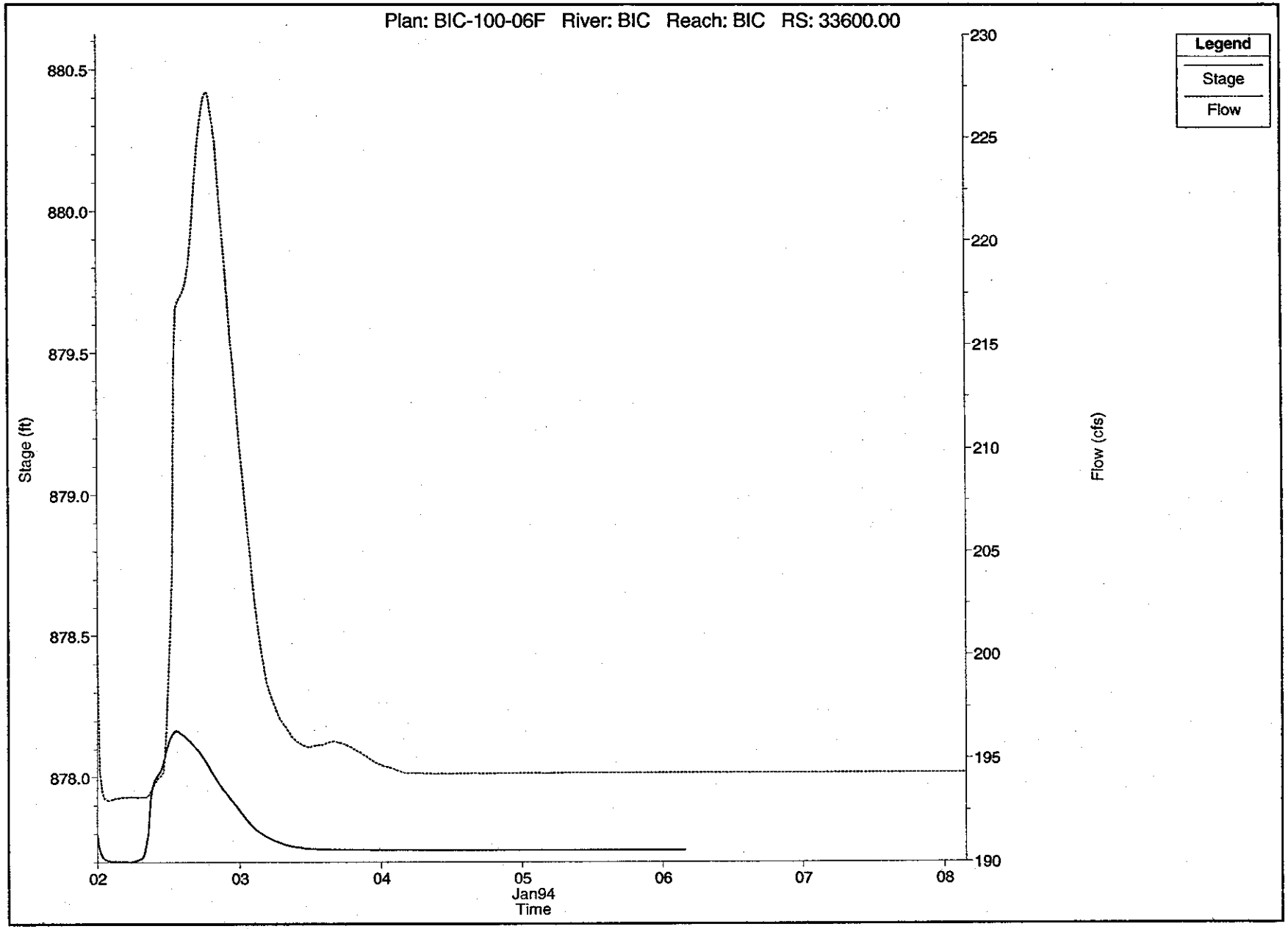
1 in Horiz. = 1 1 in Vert. = 0.5 ft



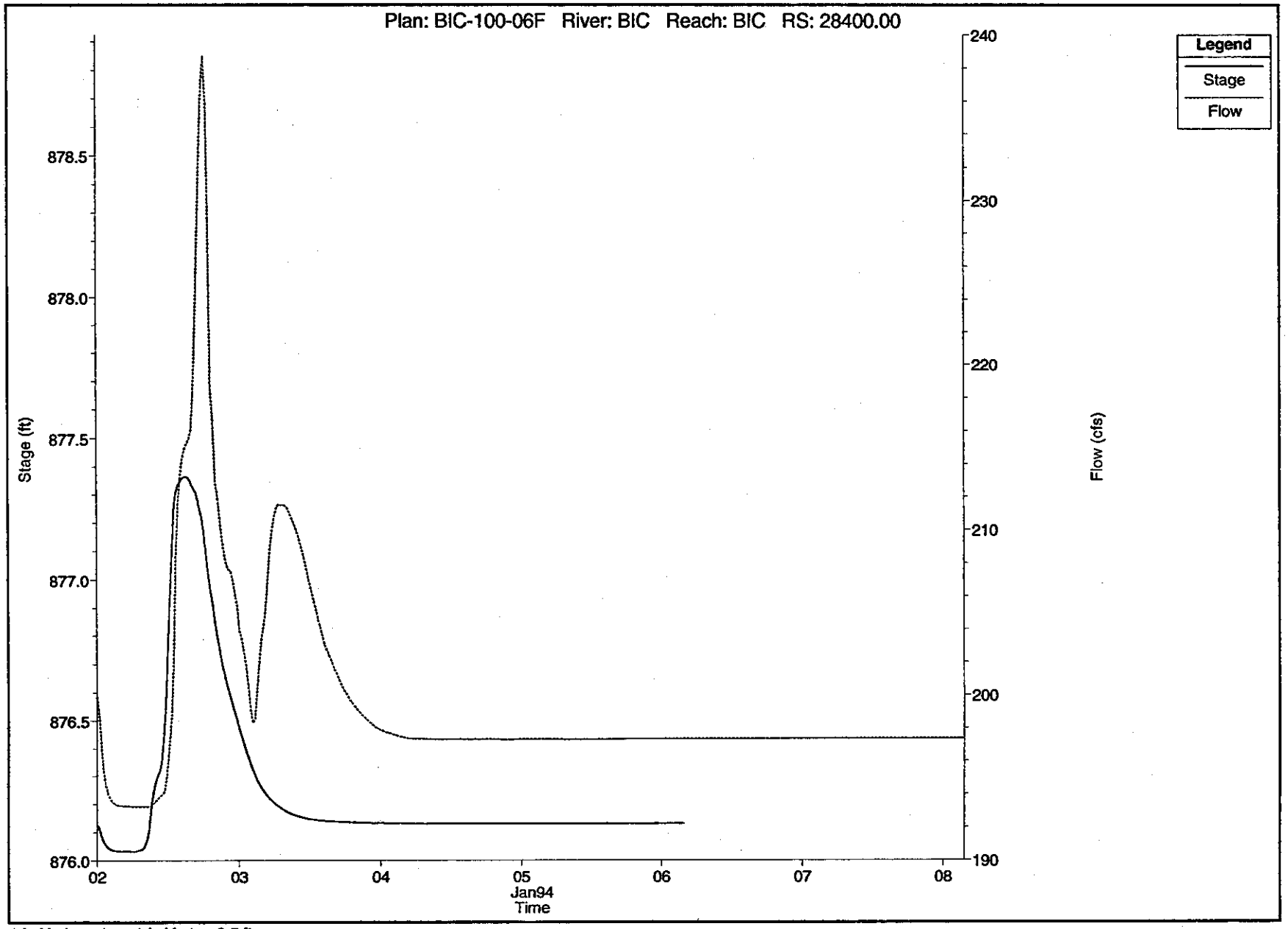
1 in Horiz. = 1 1 in Vert. = 0.5 ft



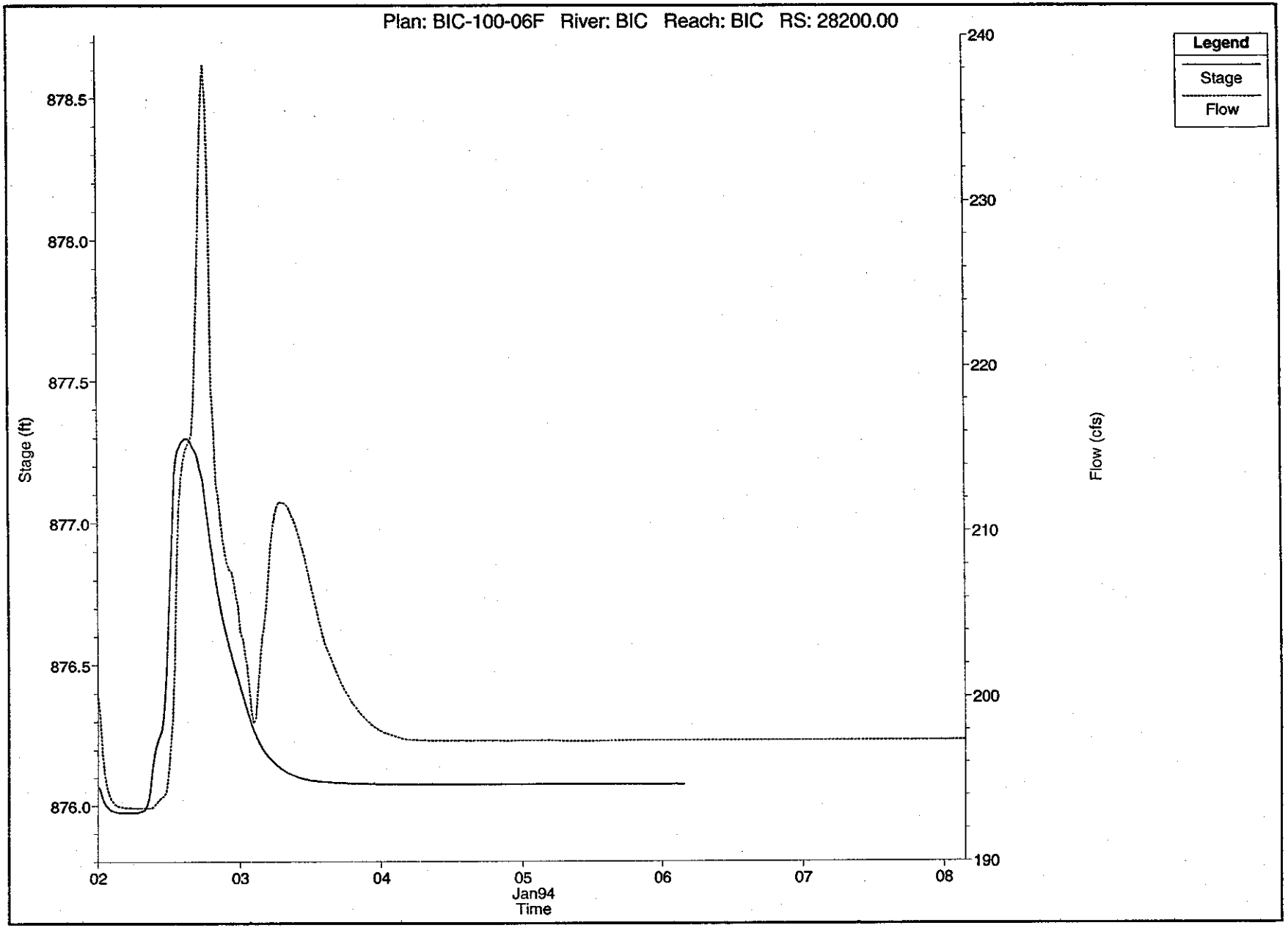
1 in Horiz. = 1 1 in Vert. = 0.5 ft



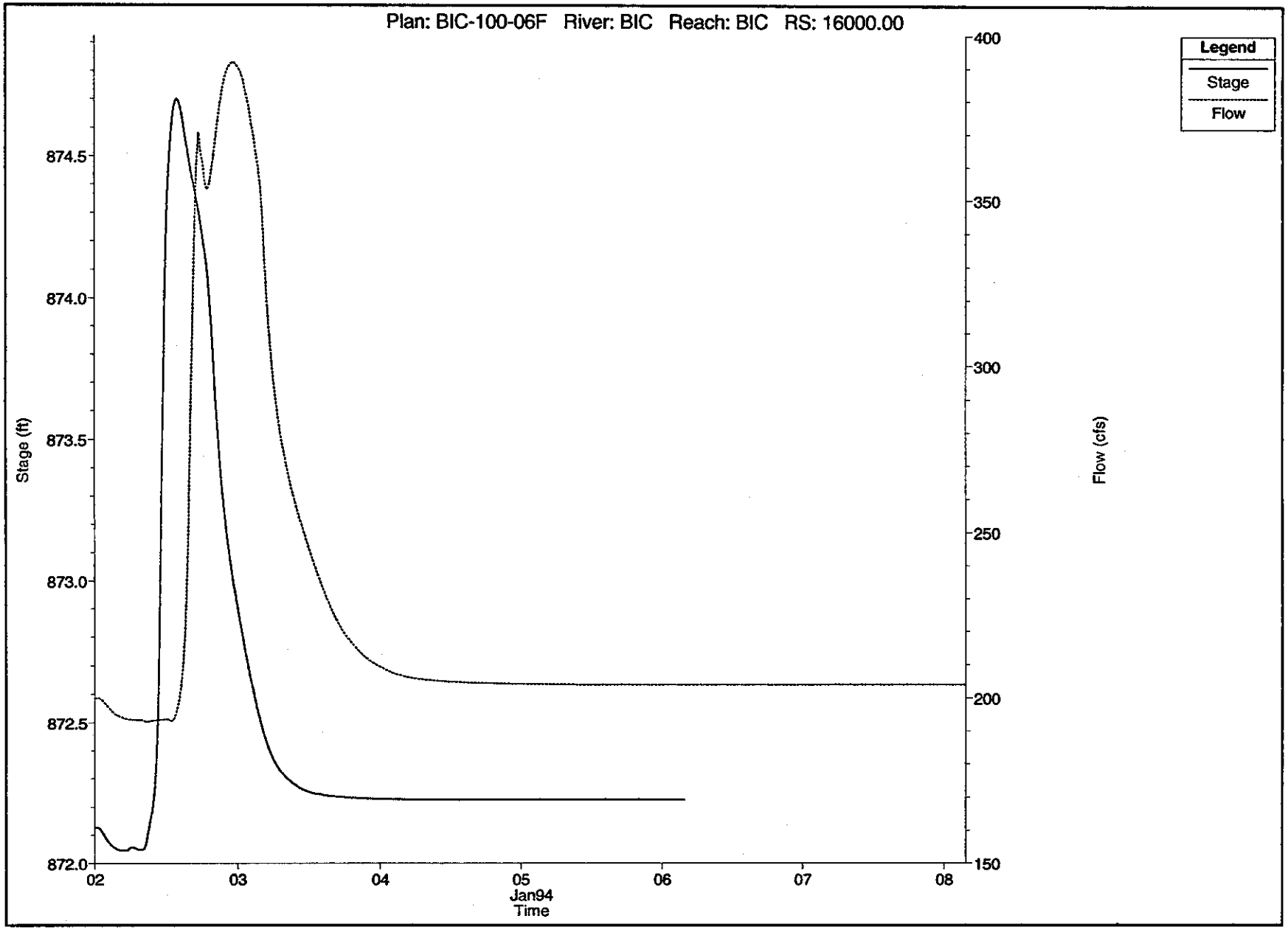
1 in Horiz. = 1 1 in Vert. = 0.5 ft



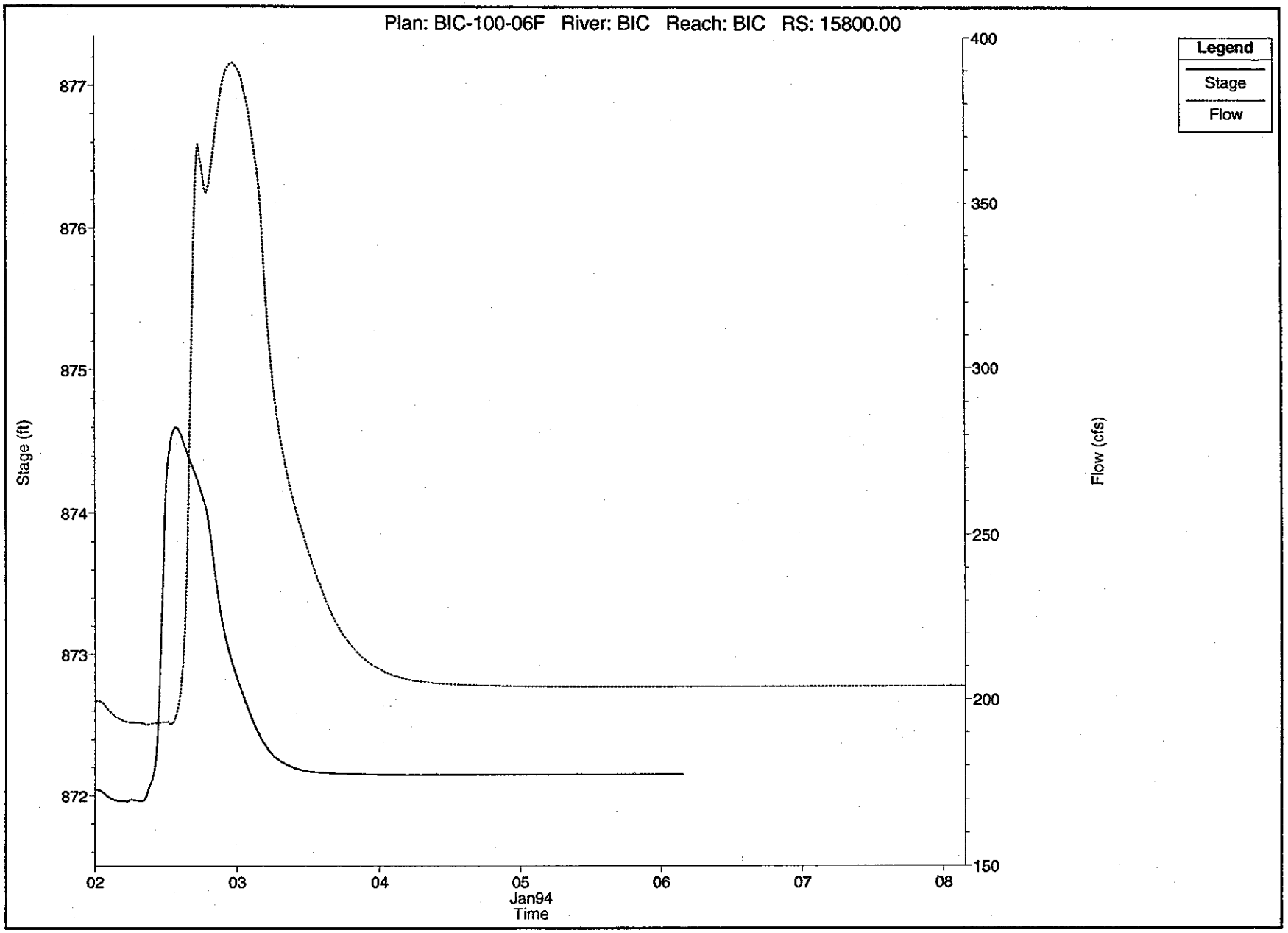
1 in Horiz. = 1 1 in Vert. = 0.5 ft



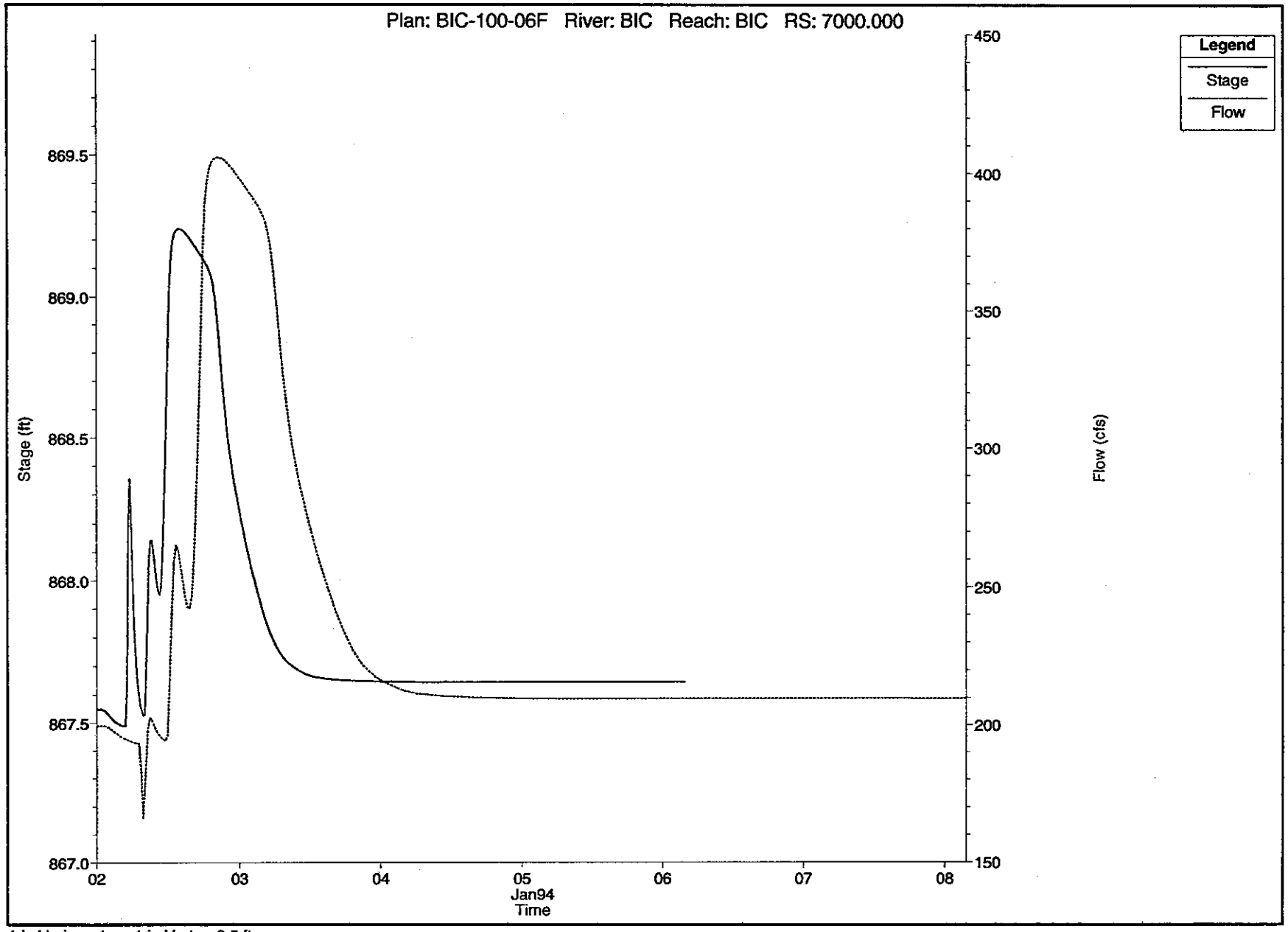
1 in Horiz. = 1 1 in Vert. = 0.5 ft



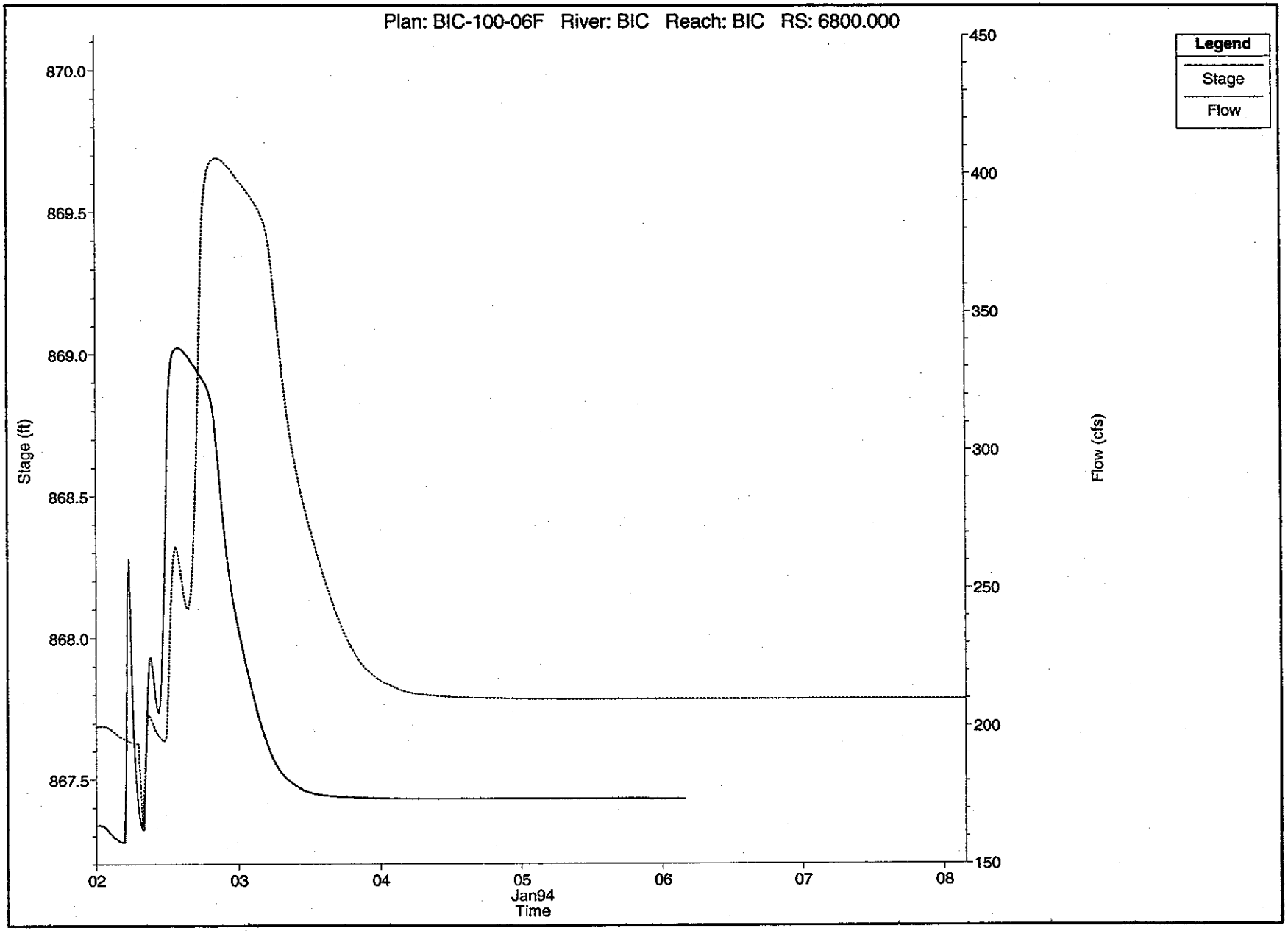
1 in Horiz. = 1 1 in Vert. = 0.5 ft



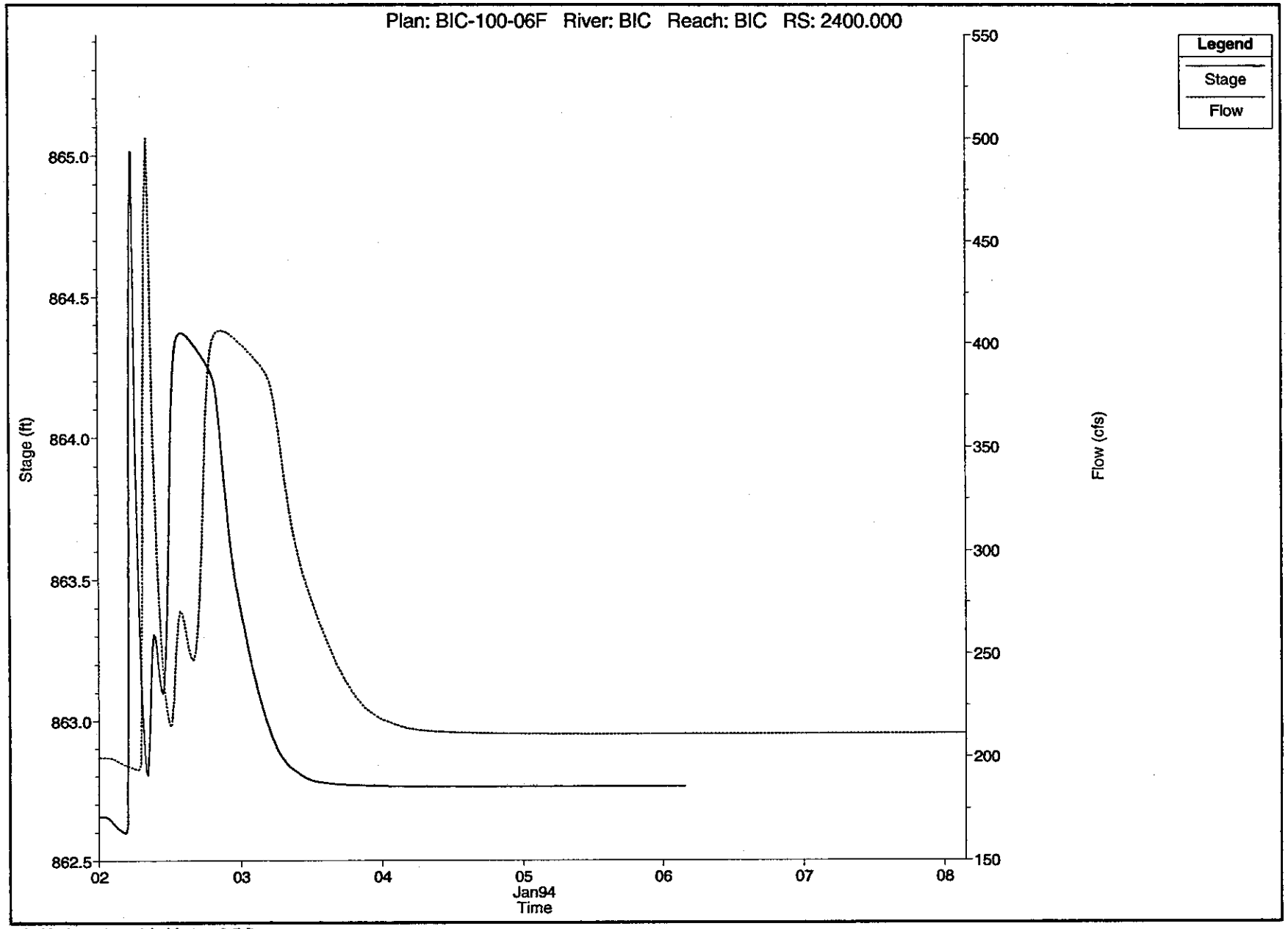
1 in Horiz. = 1 1 in Vert. = 1 ft



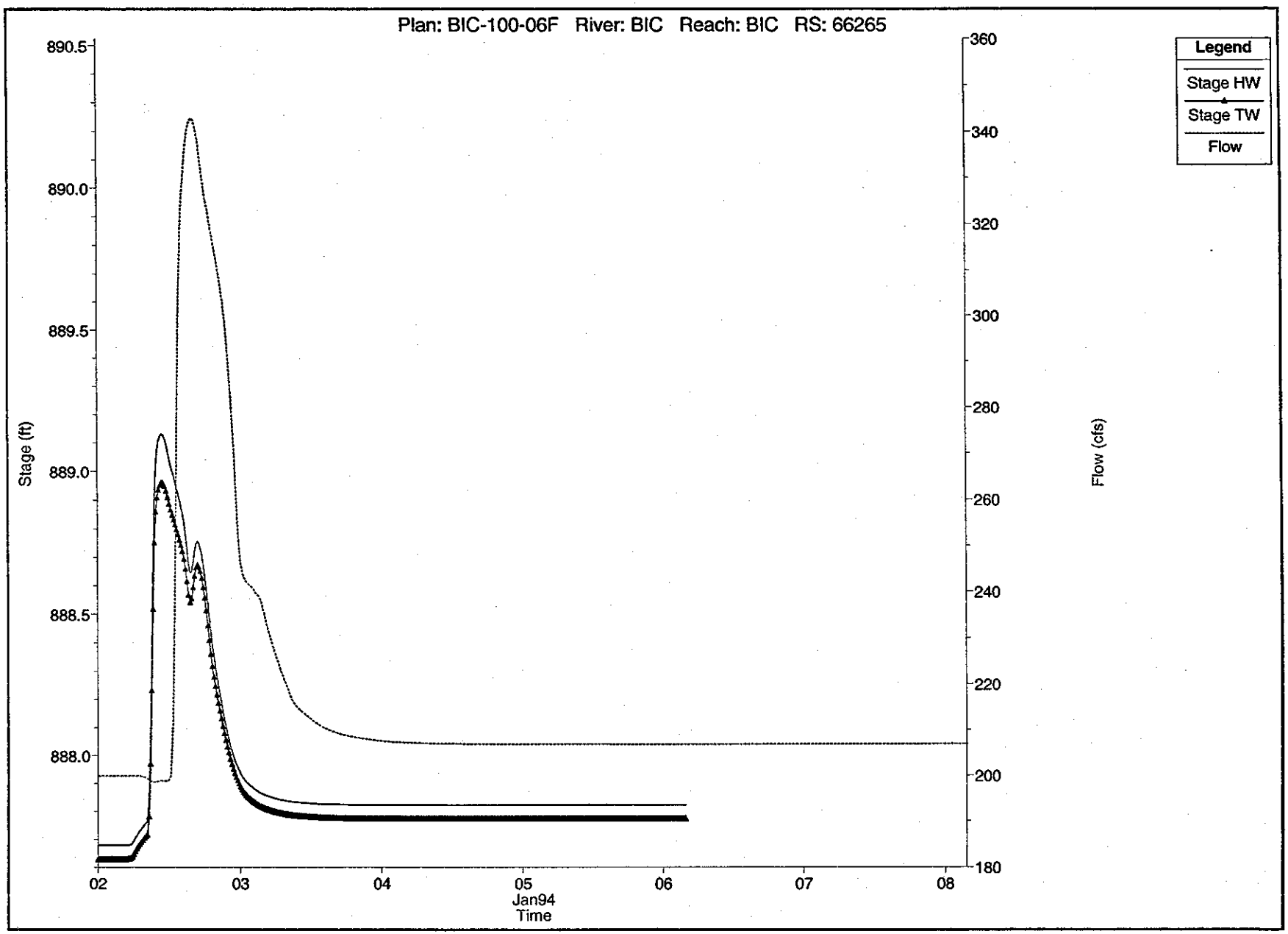
1 in Horiz. = 1 1 in Vert. = 0.5 ft



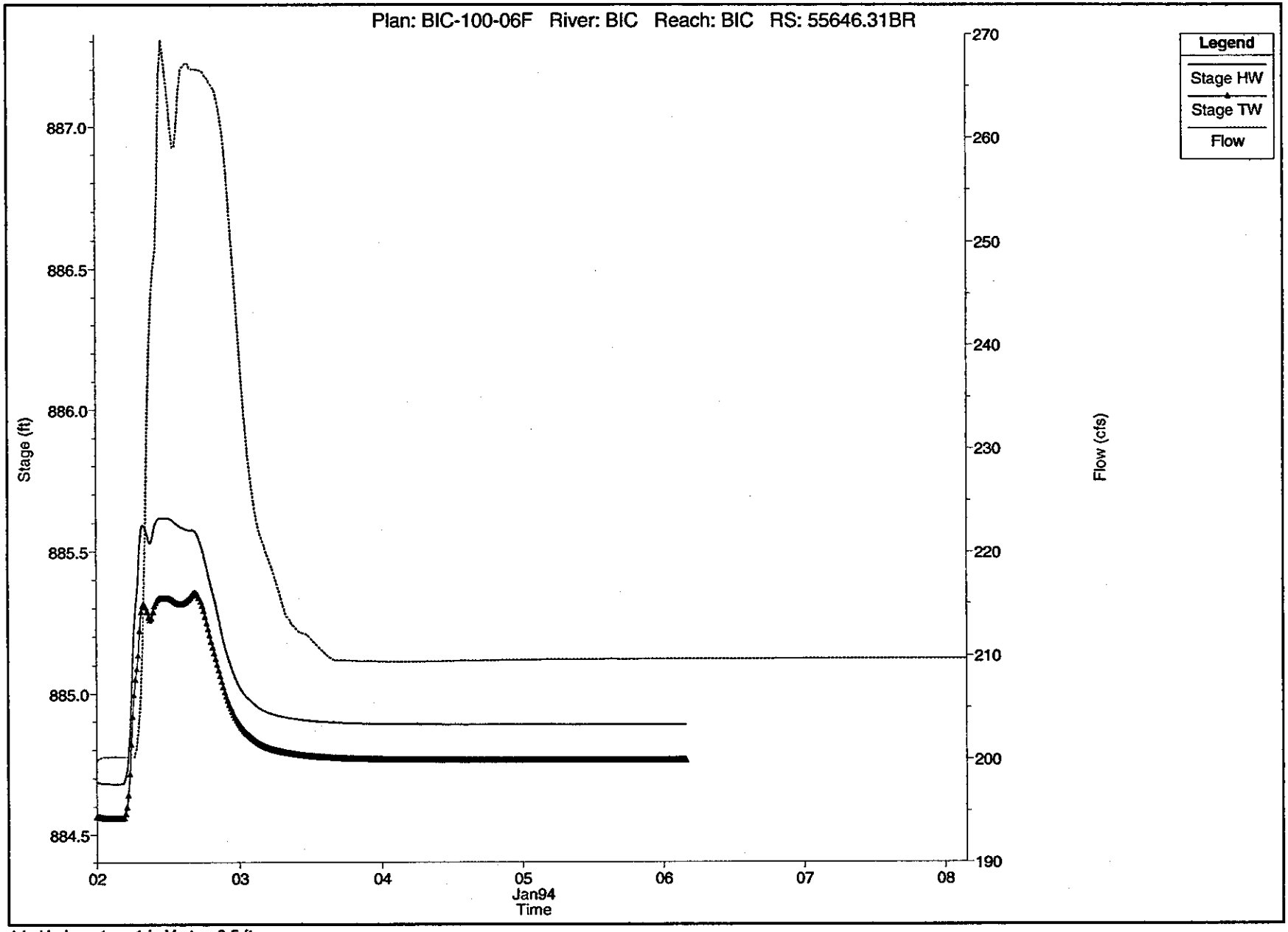
1 in Horiz. = 1 1 in Vert. = 0.5 ft



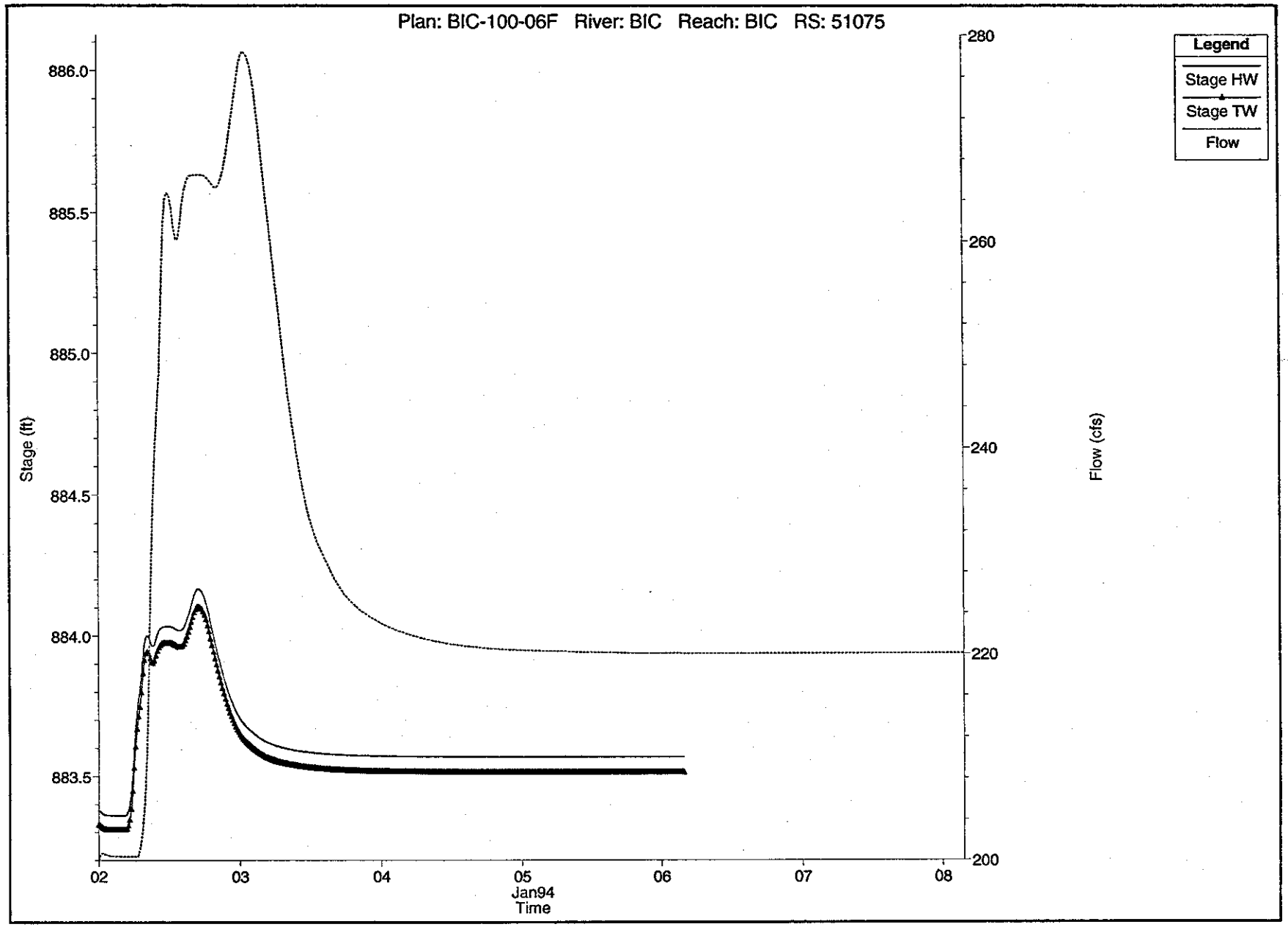
1 in Horiz. = 1 1 in Vert. = 0.5 ft



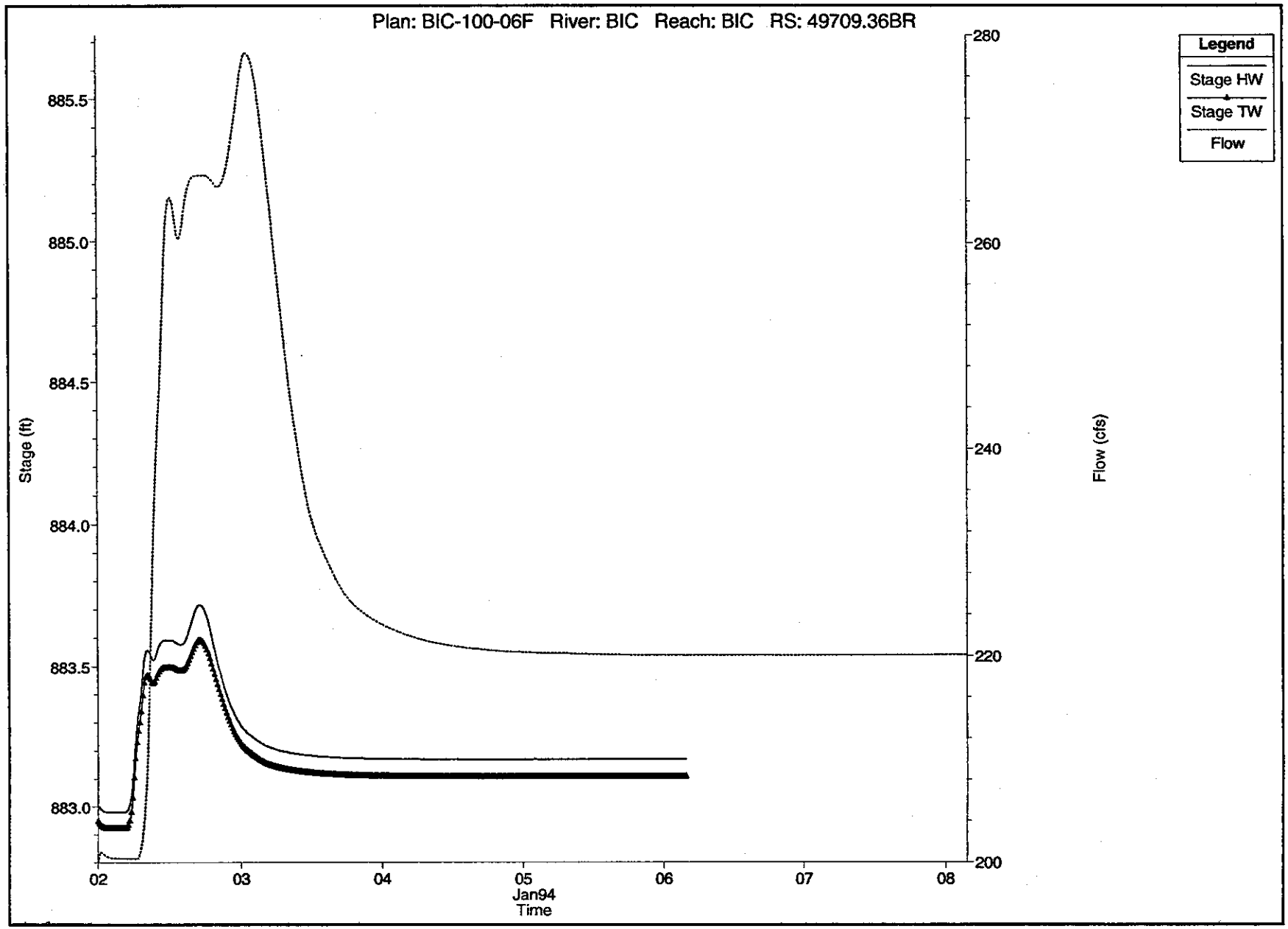
1 in Horiz. = 1 1 in Vert. = 0.5 ft



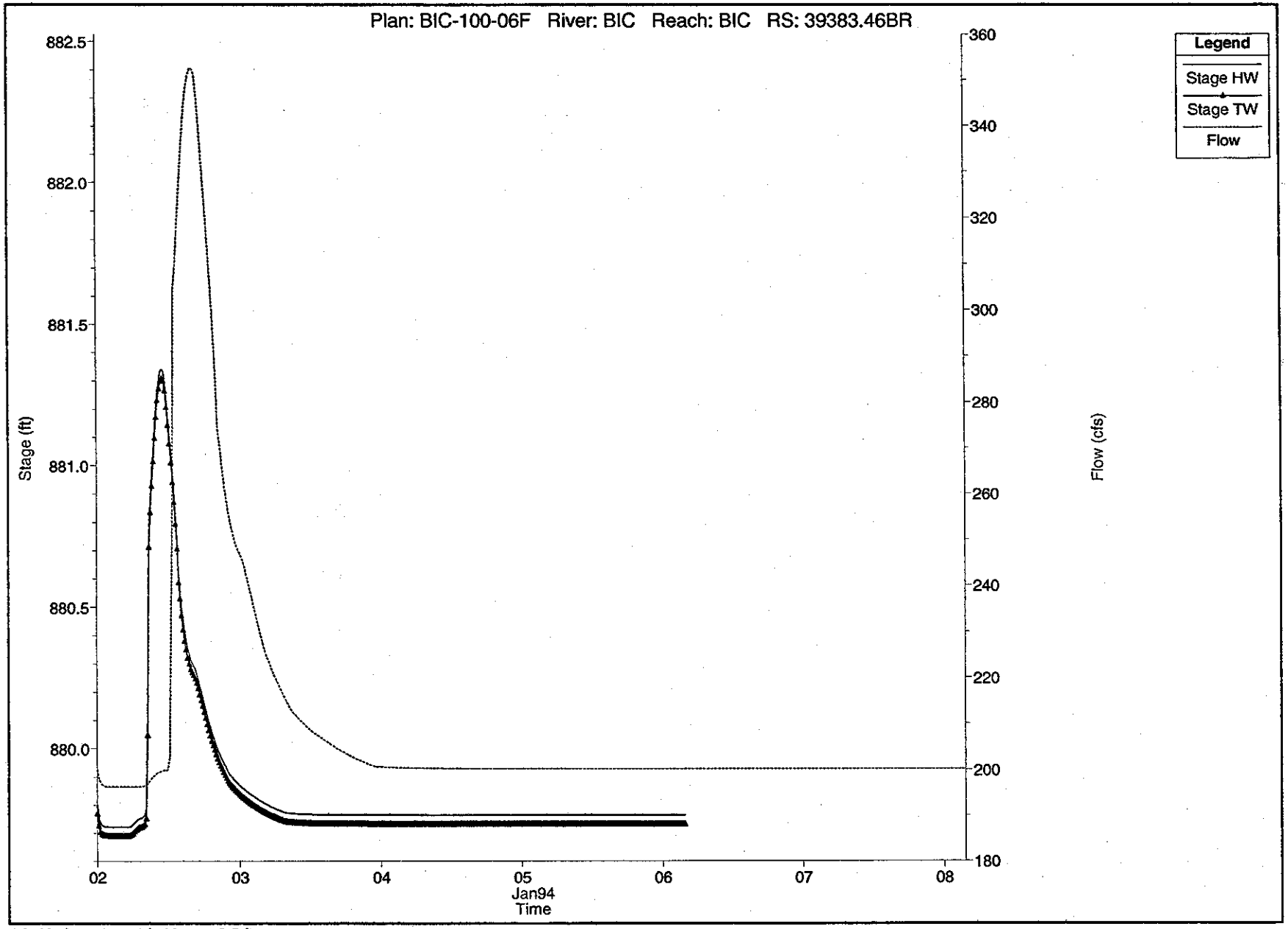
1 in Horiz. = 1 1 in Vert. = 0.5 ft



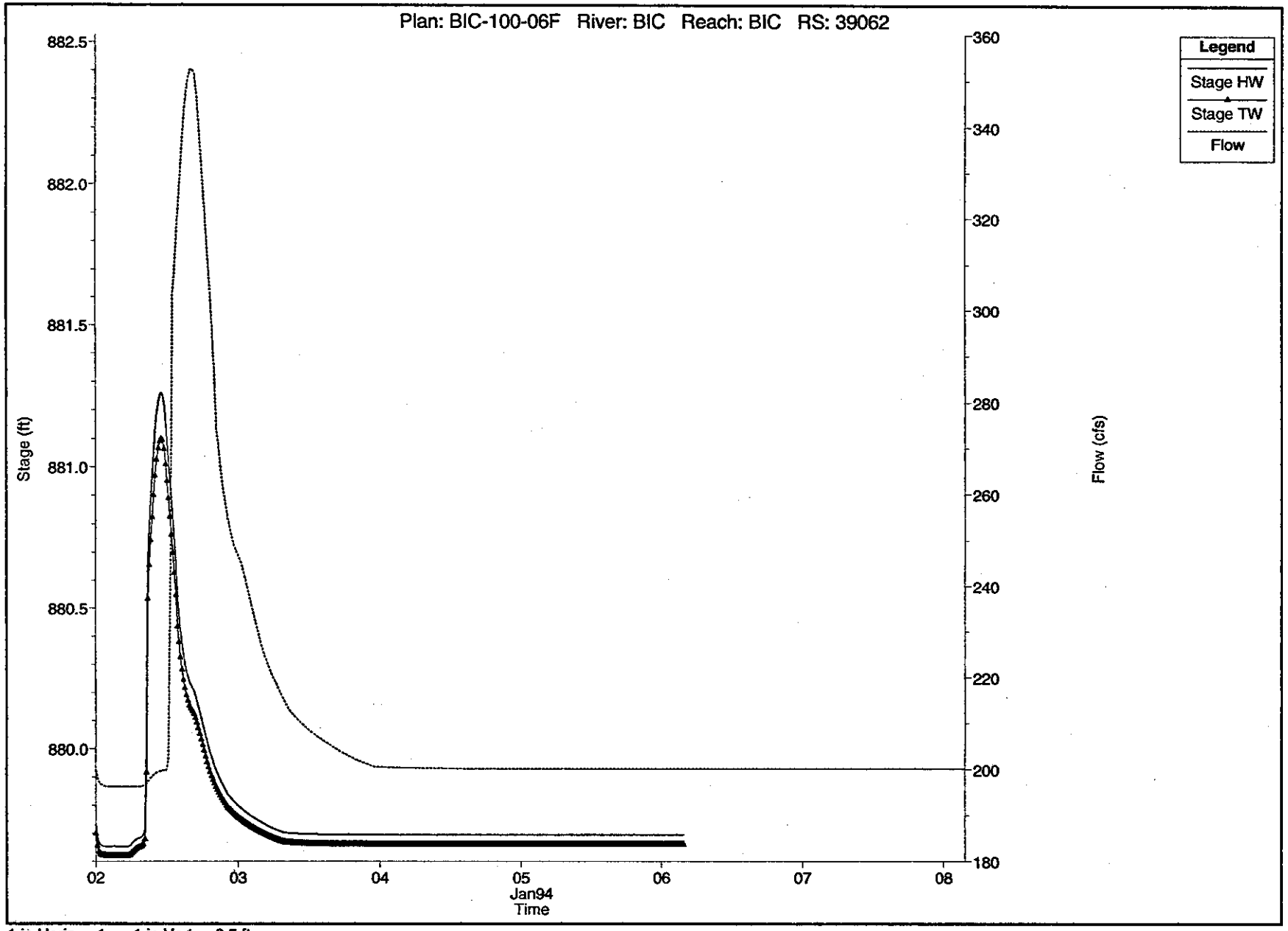
1 in Horiz. = 1 1 in Vert. = 0.5 ft



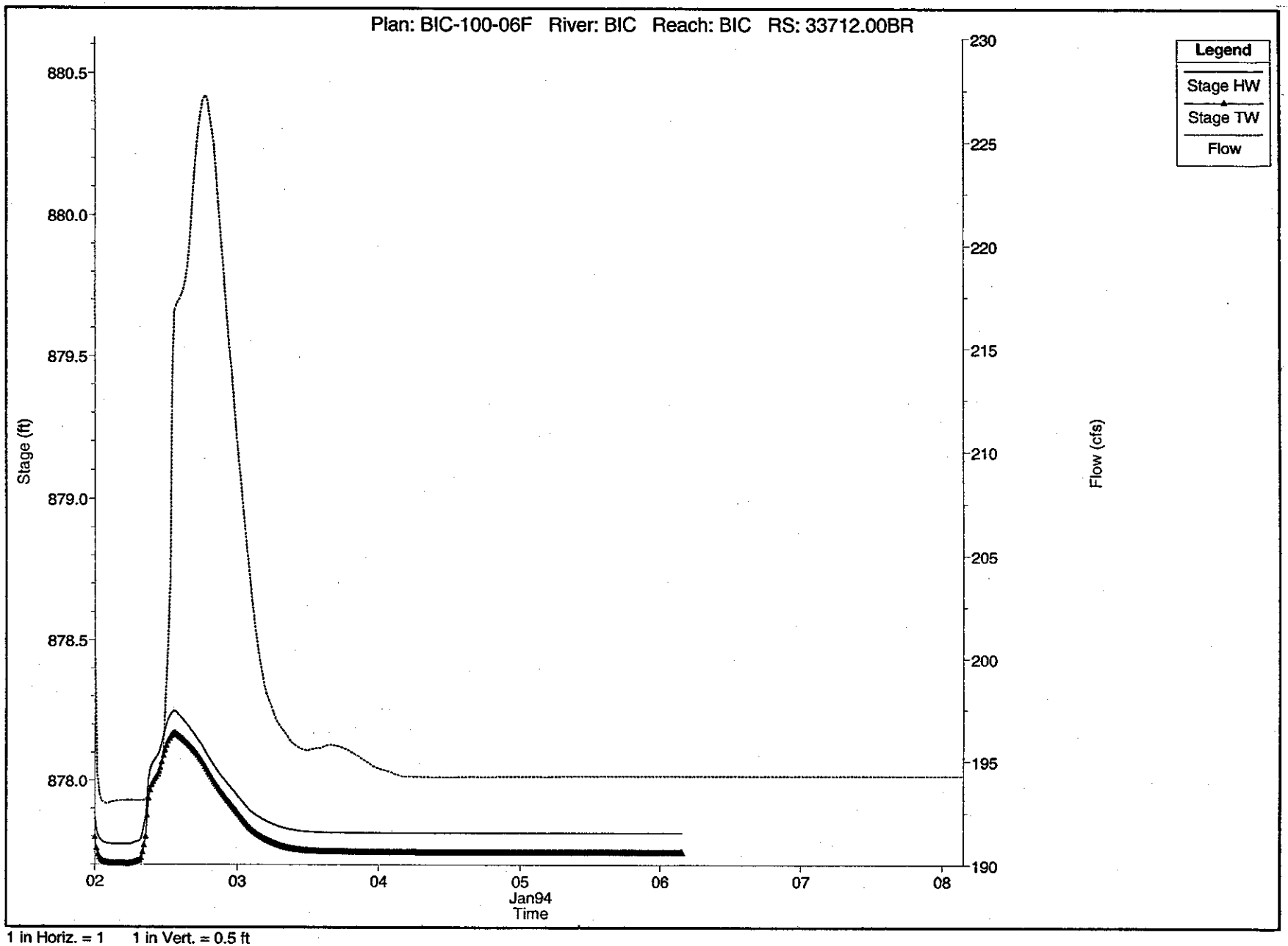
1 in Horiz. = 1 1 in Vert. = 0.5 ft



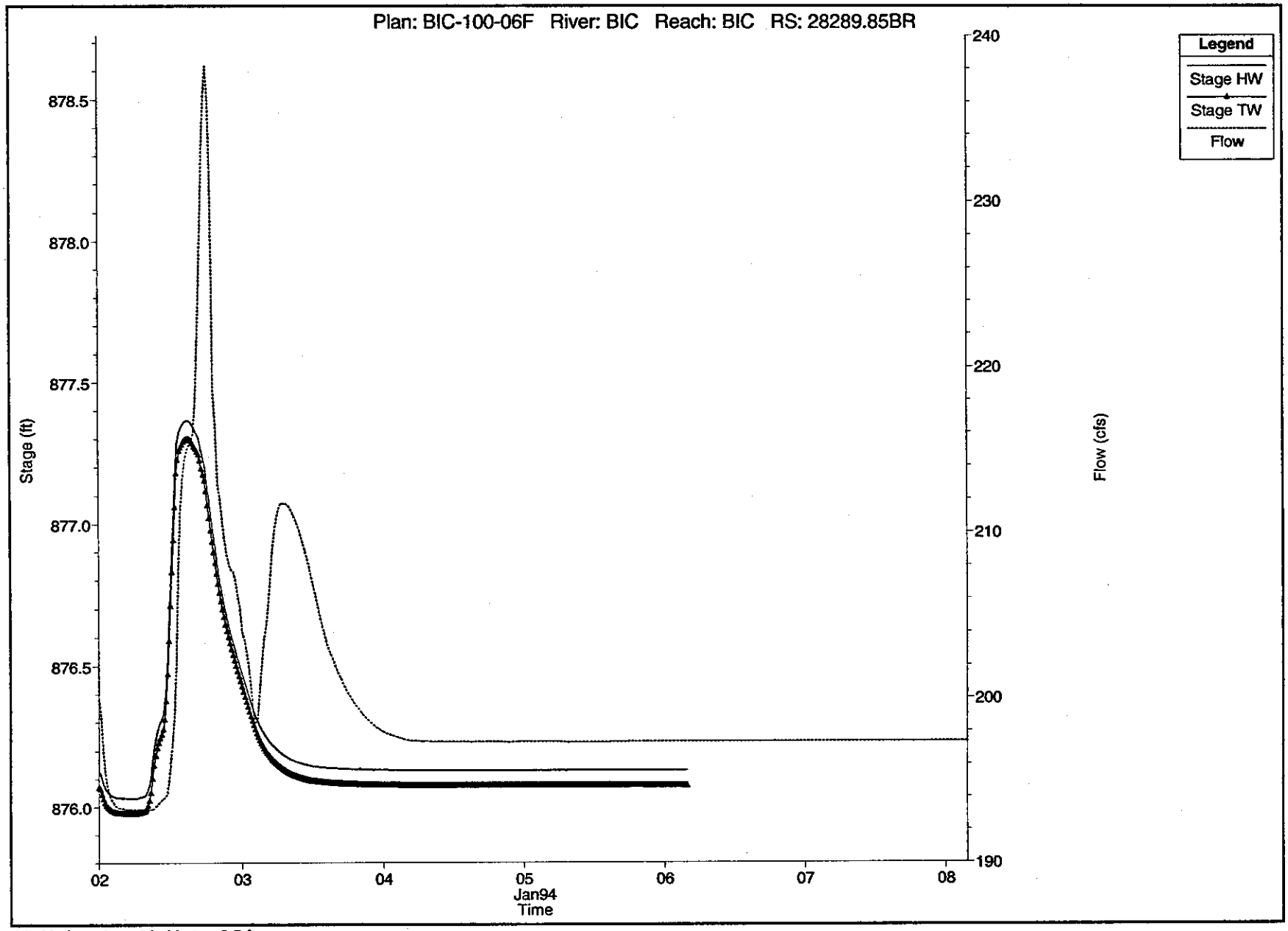
1 in Horiz. = 1 1 in Vert. = 0.5 ft



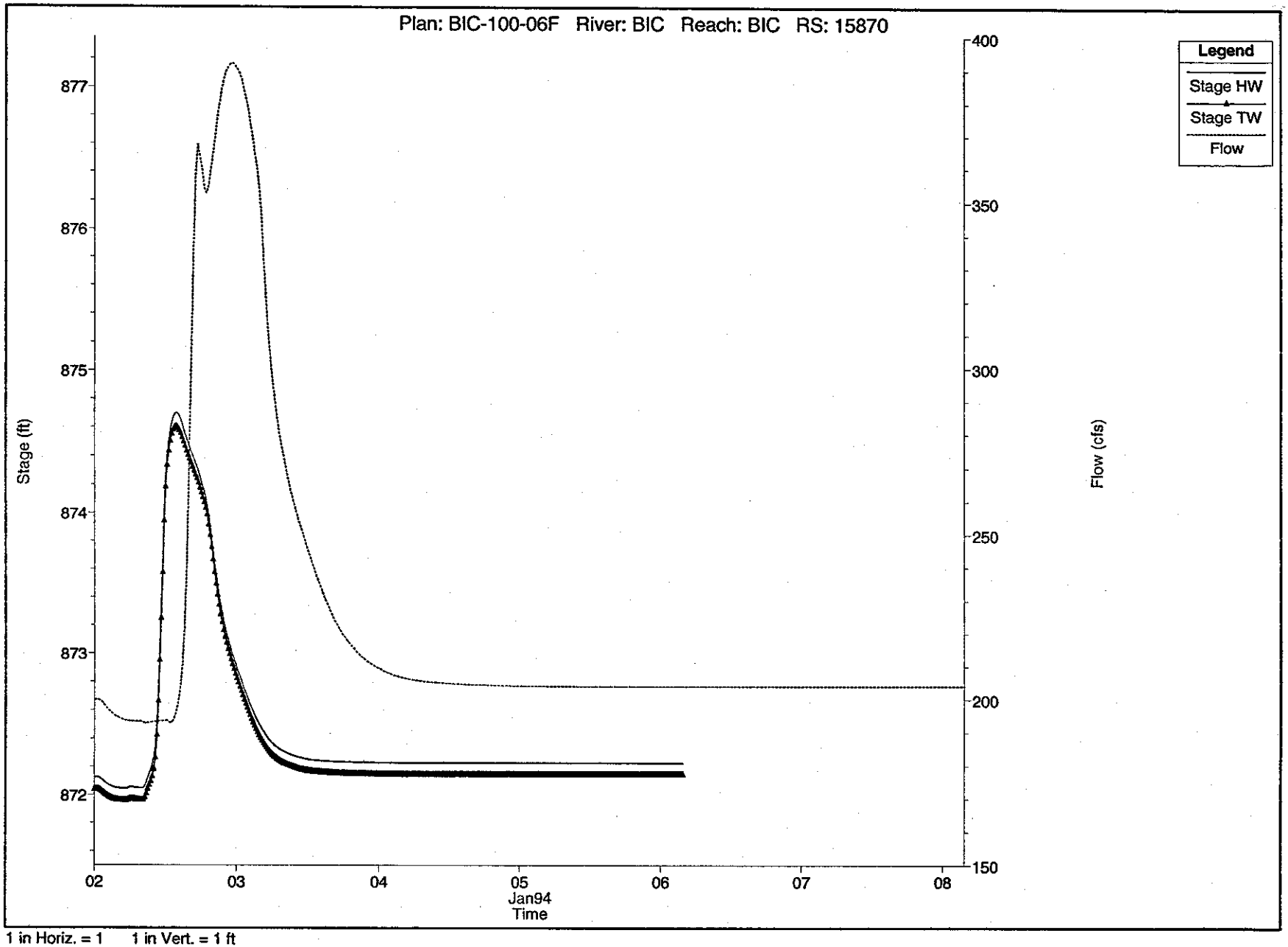
1 in Horiz. = 1 1 in Vert. = 0.5 ft



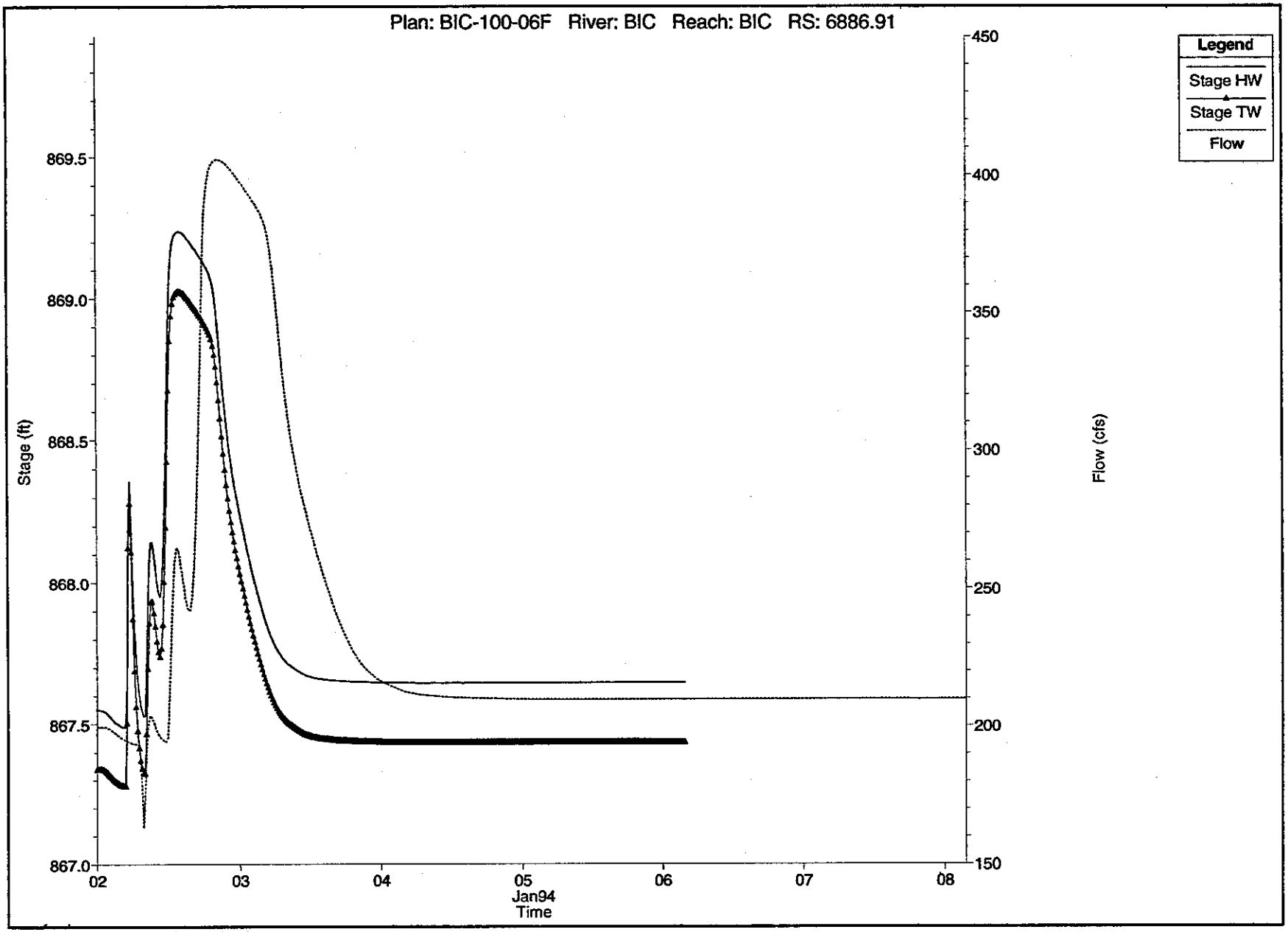
1 in Horiz. = 1 1 in Vert. = 0.5 ft



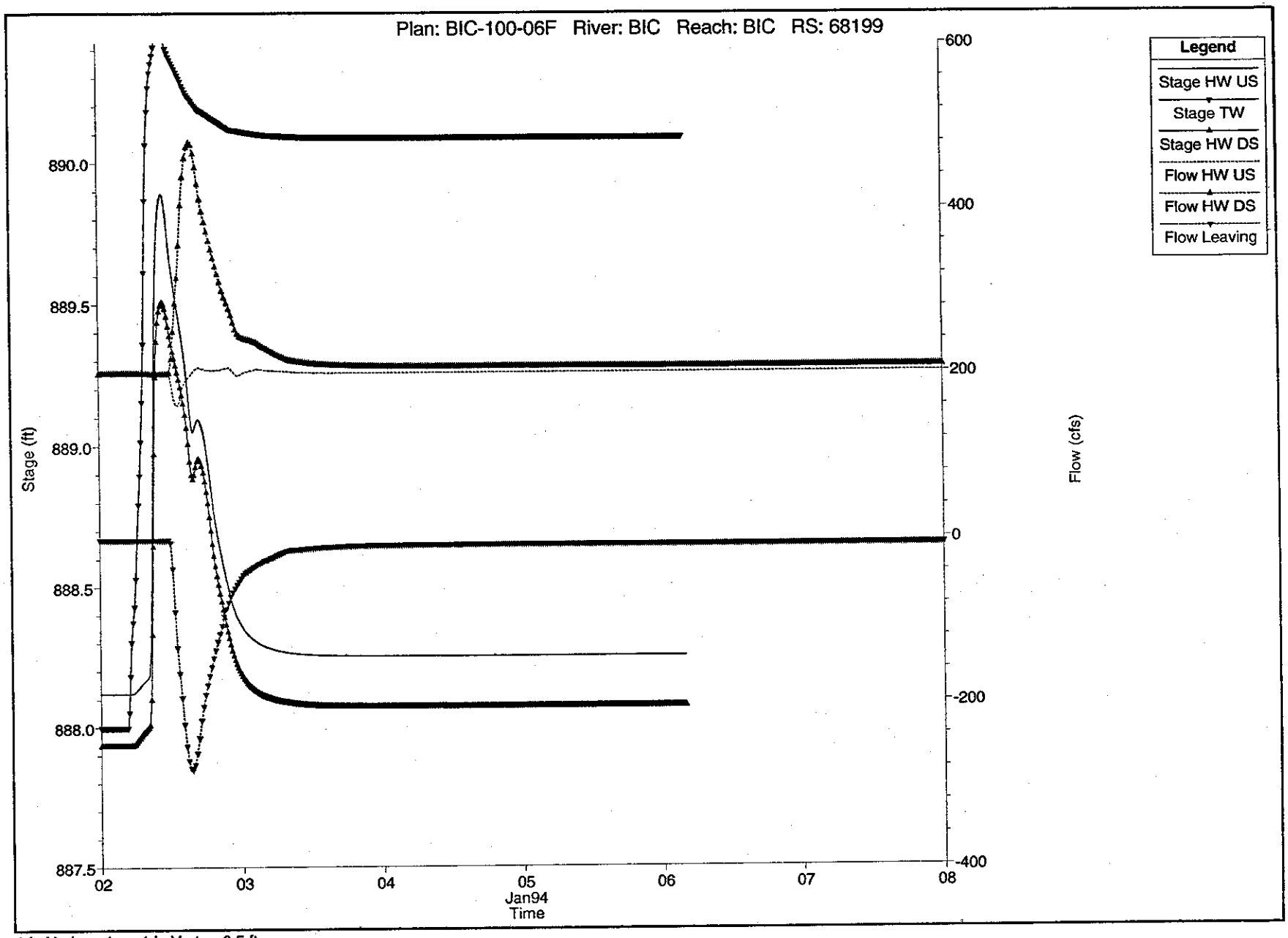
1 in Horiz. = 1 1 in Vert. = 0.5 ft



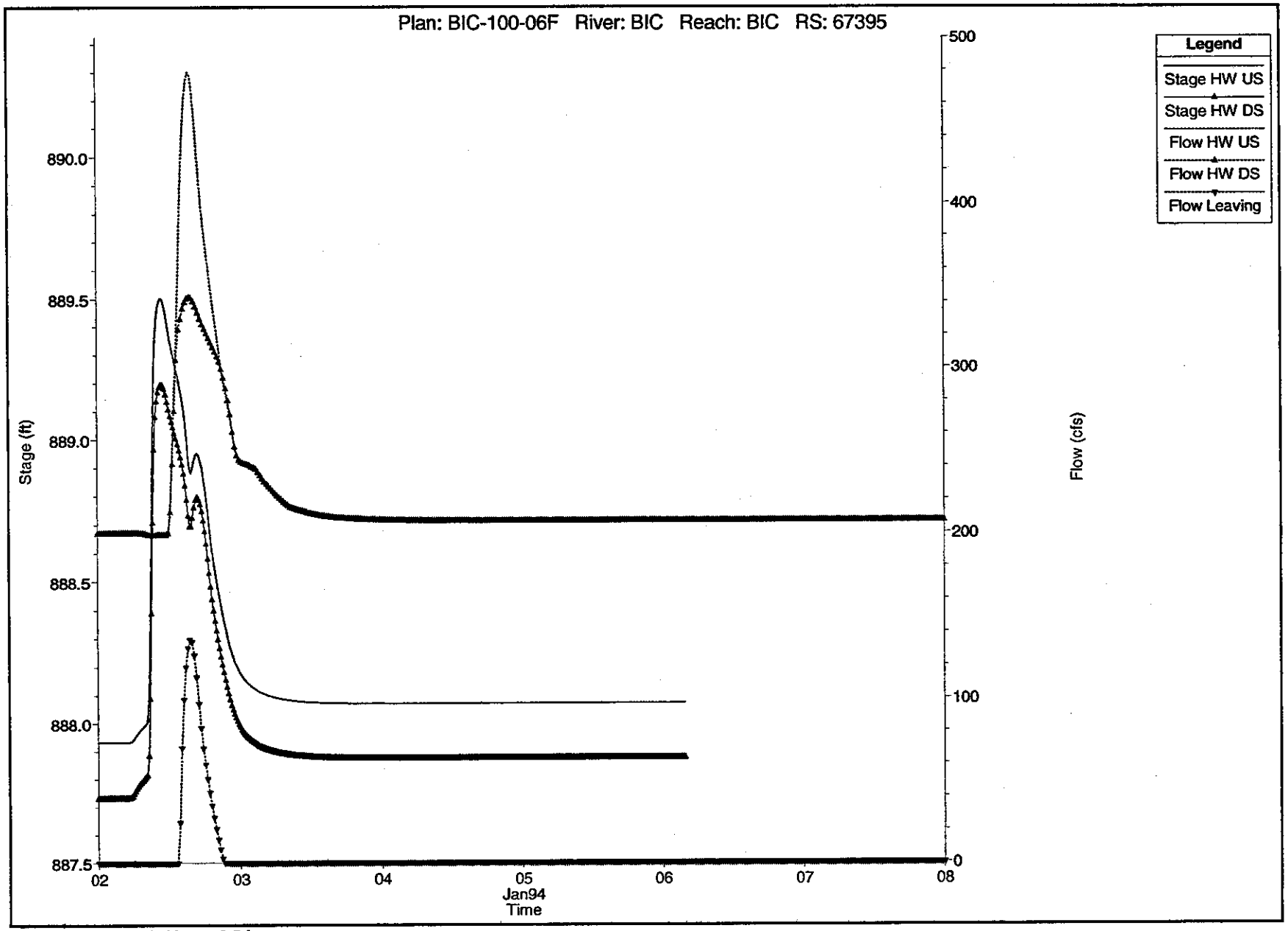
1 in Horiz. = 1 1 in Vert. = 1 ft



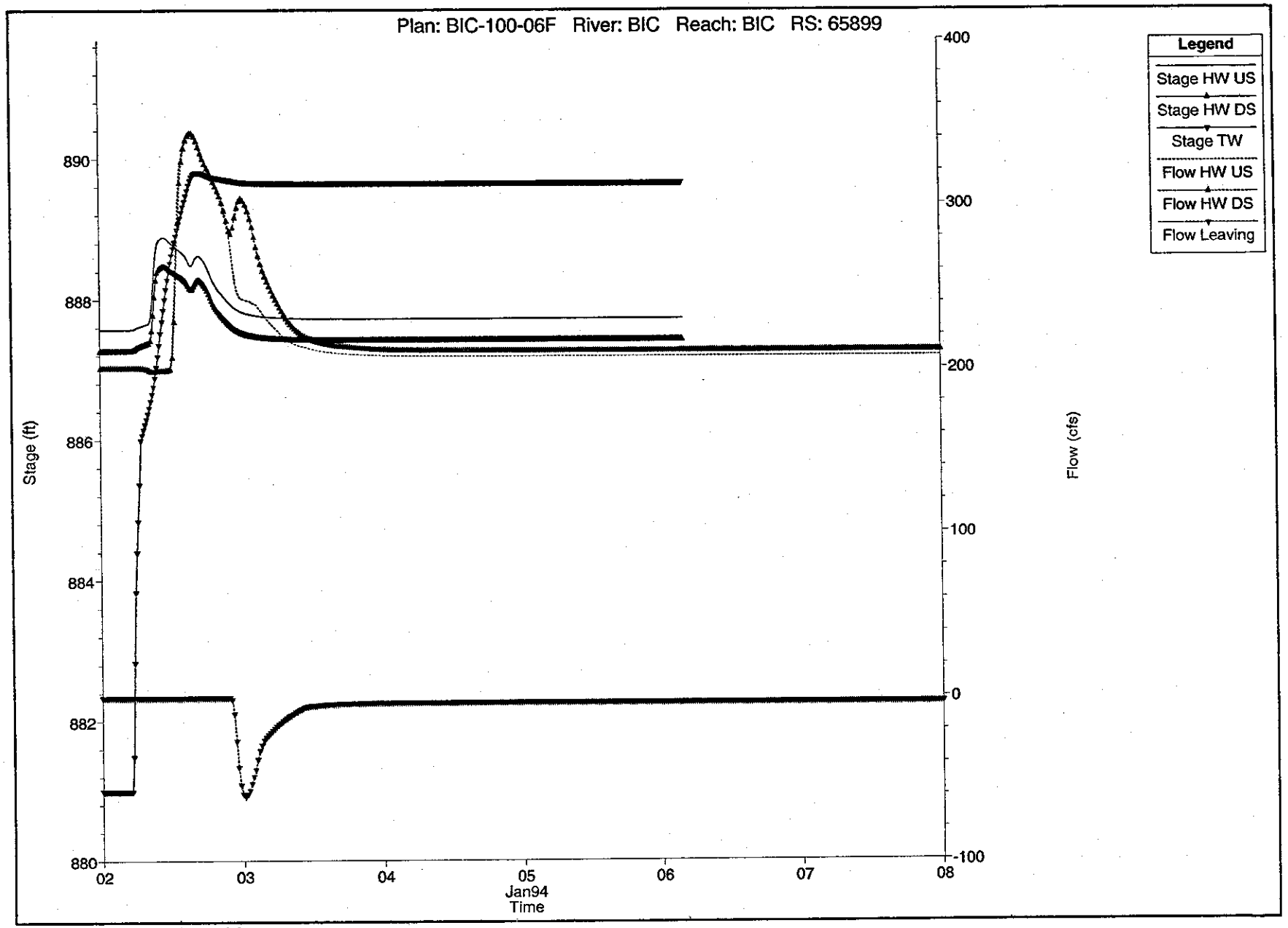
1 in Horiz. = 1 1 in Vert. = 0.5 ft



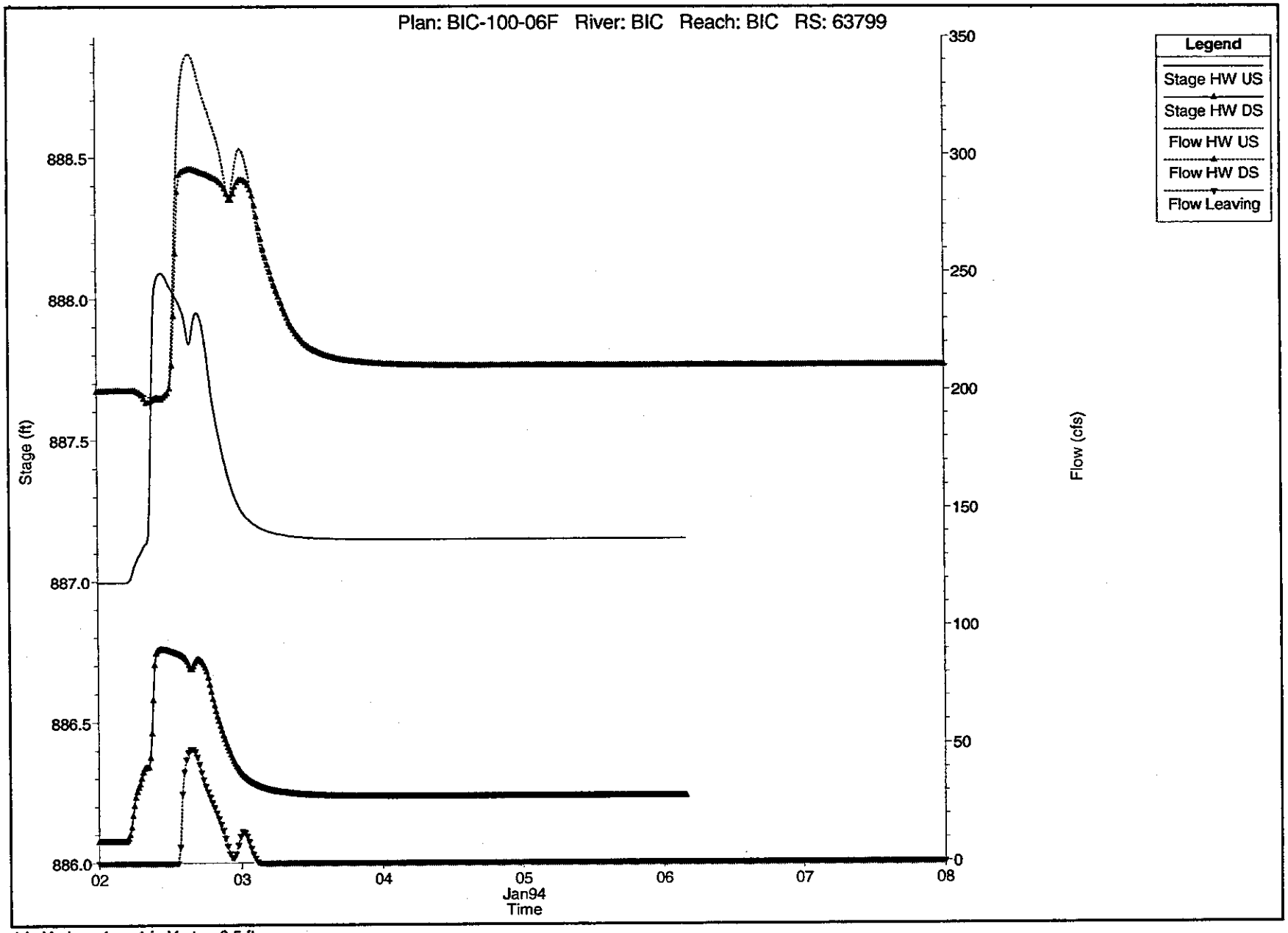
1 in Horiz. = 1 1 in Vert. = 0.5 ft



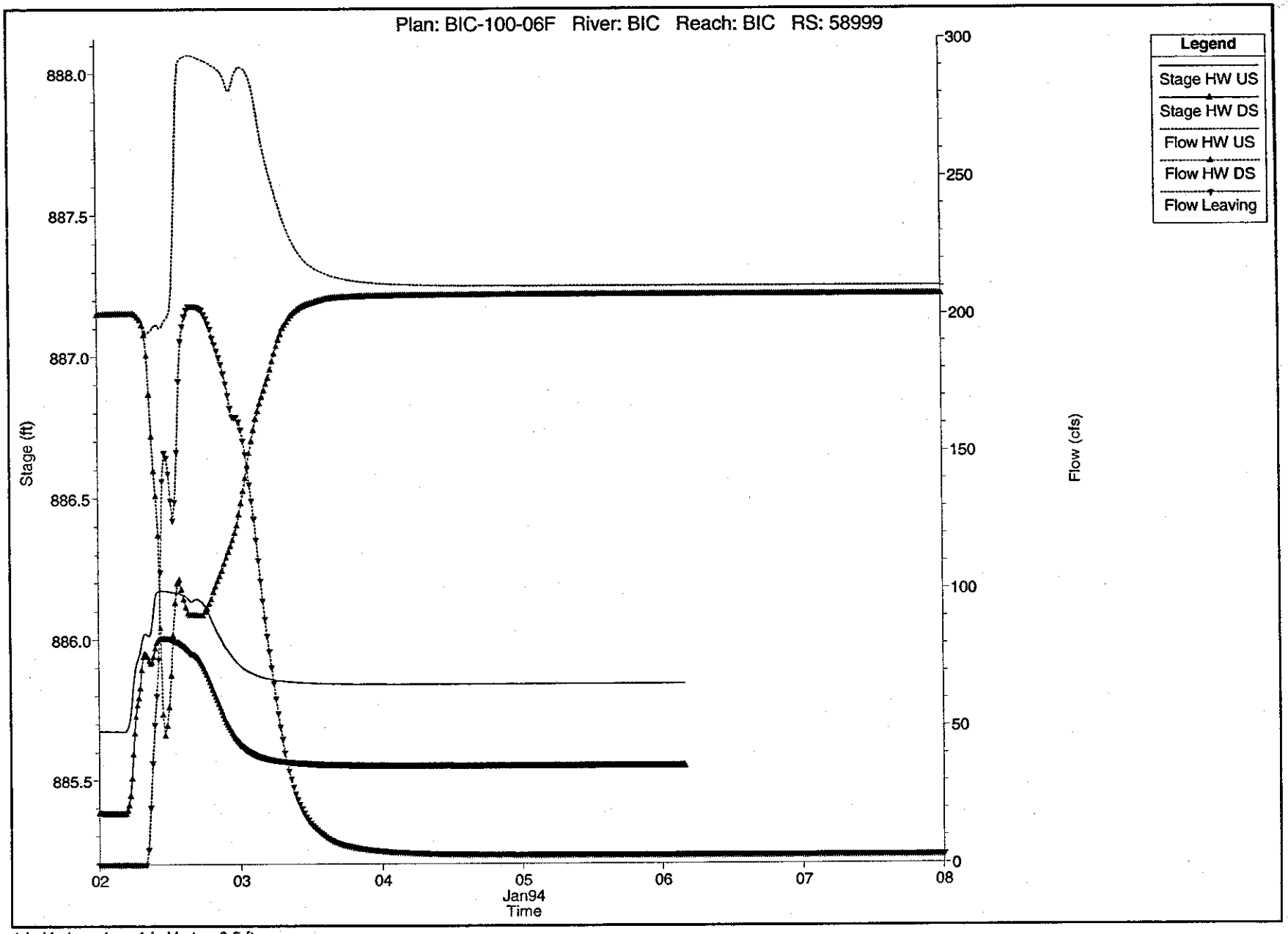
1 in Horiz. = 1 1 in Vert. = 0.5 ft



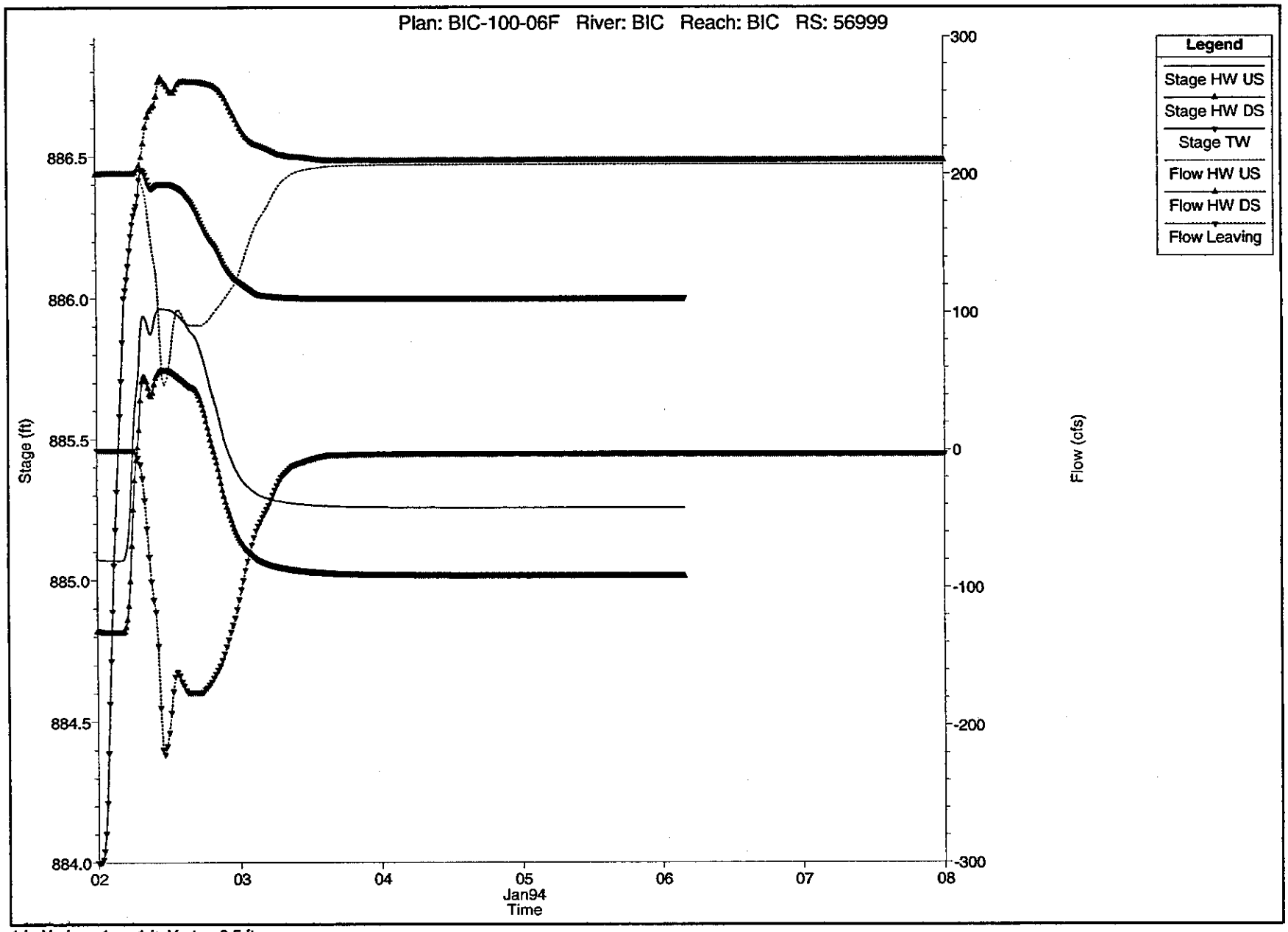
1 in Horiz. = 1 1 in Vert. = 2 ft



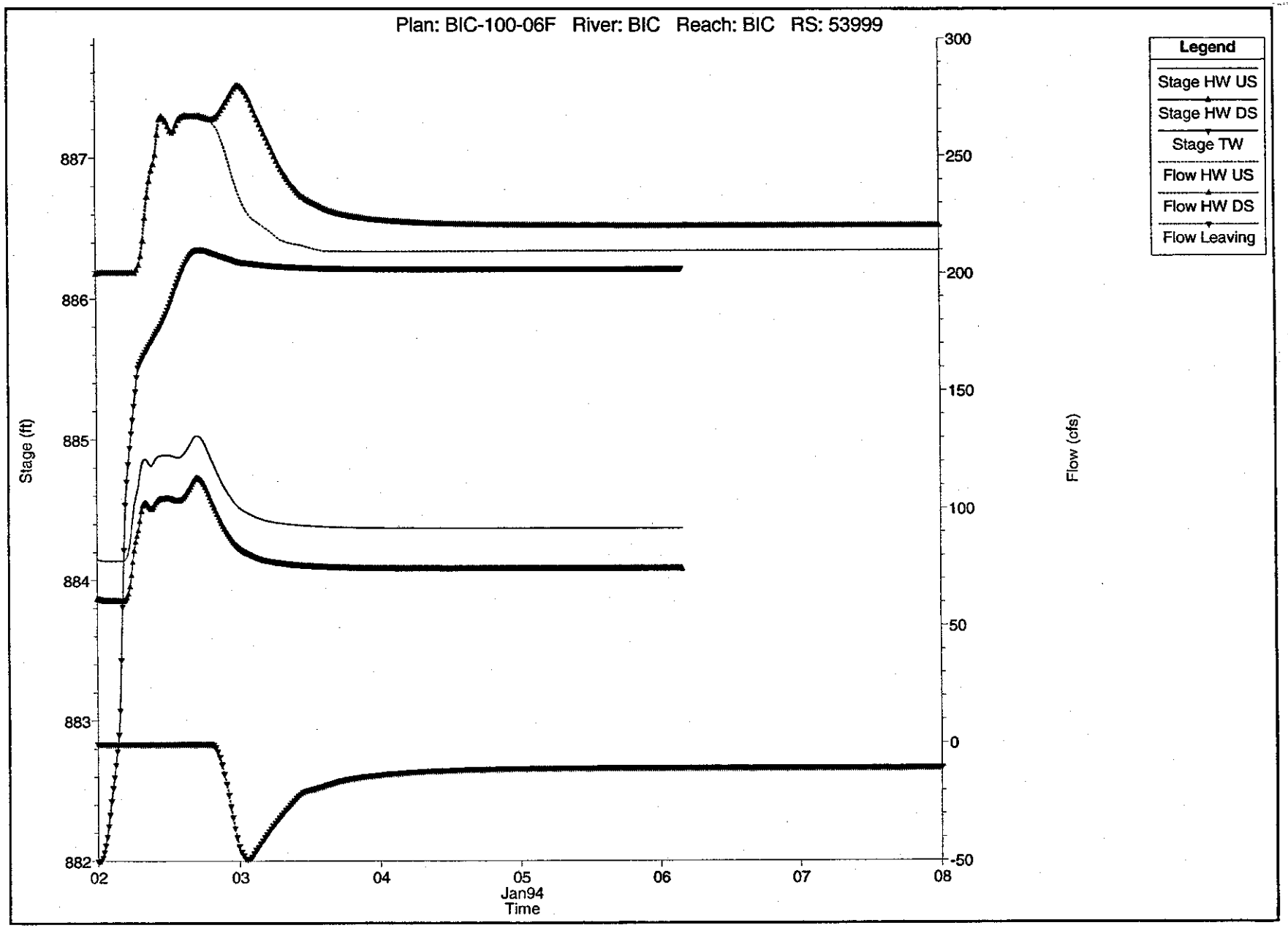
1 in Horiz. = 1 1 in Vert. = 0.5 ft



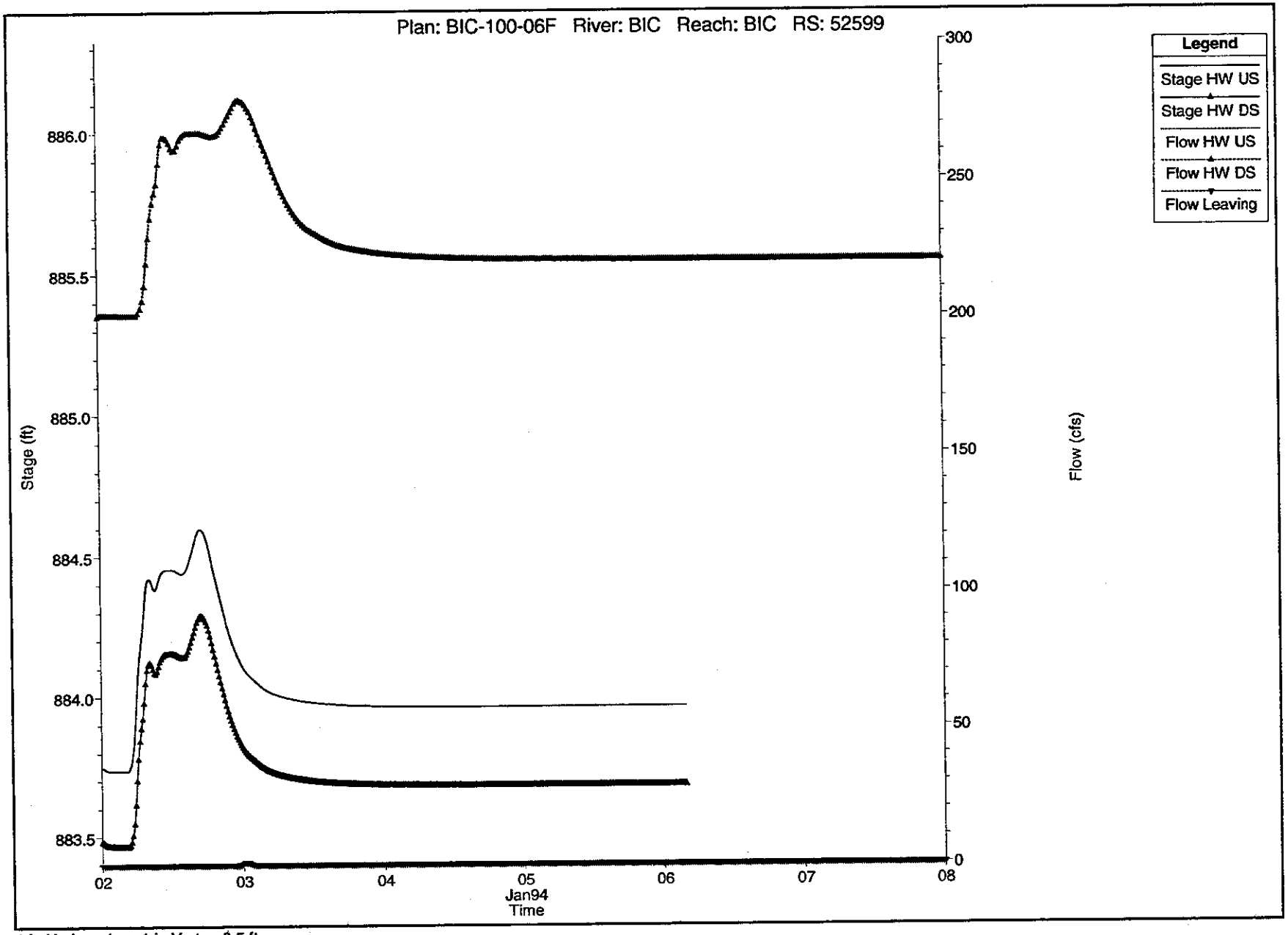
1 in Horiz. = 1 1 in Vert. = 0.5 ft



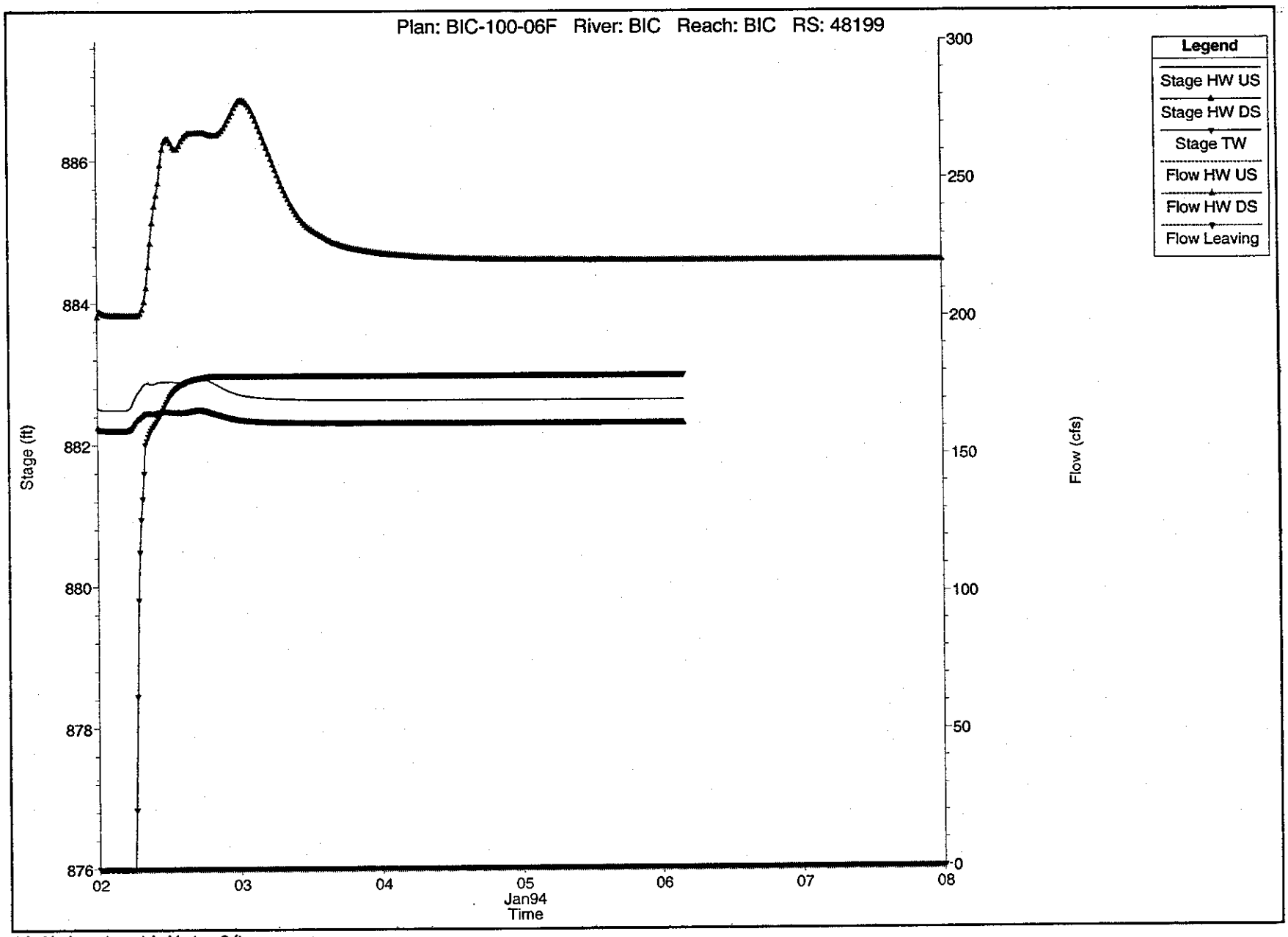
1 in Horiz. = 1 1 in Vert. = 0.5 ft



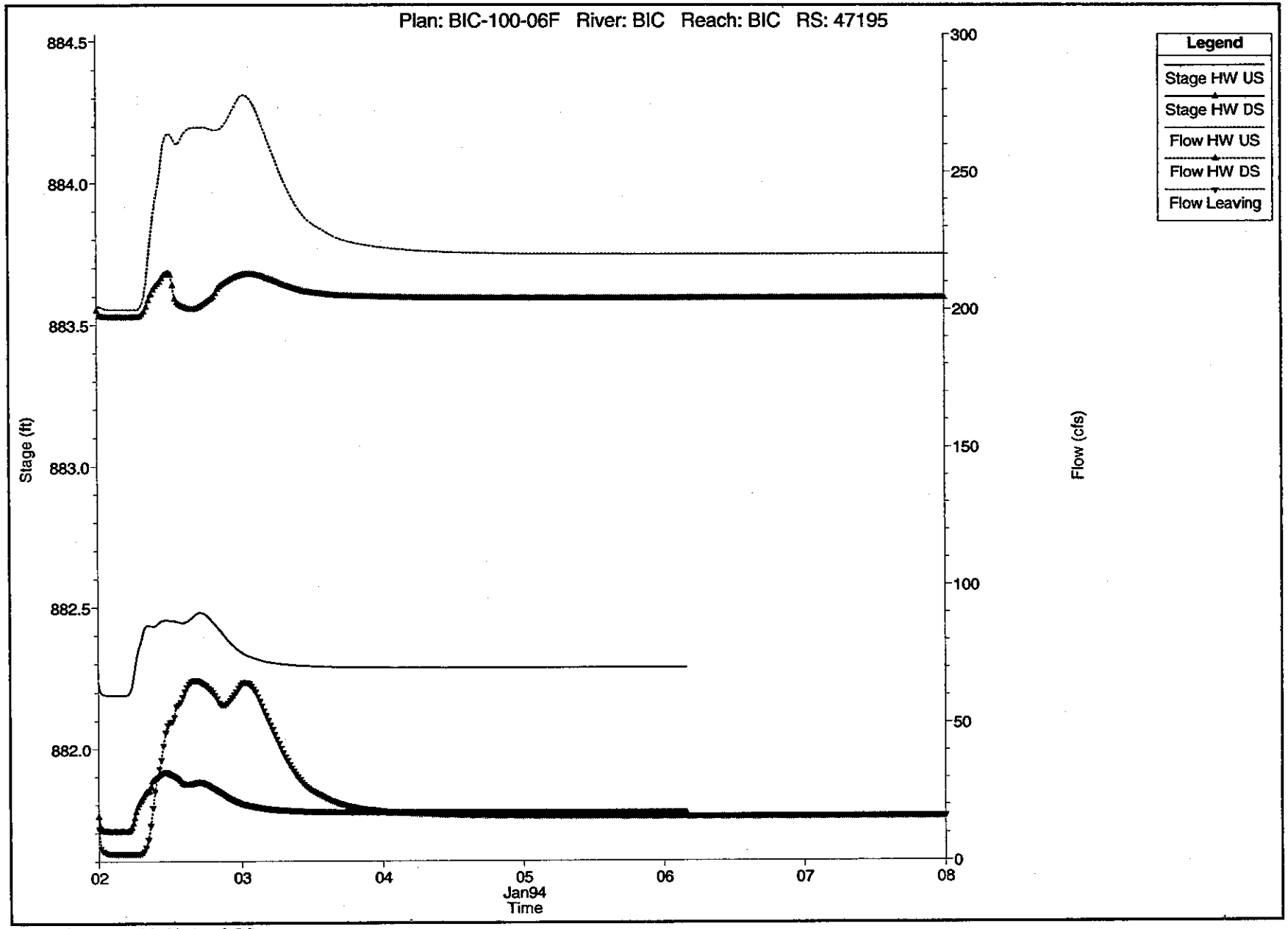
1 in Horiz. = 1 1 in Vert. = 1 ft



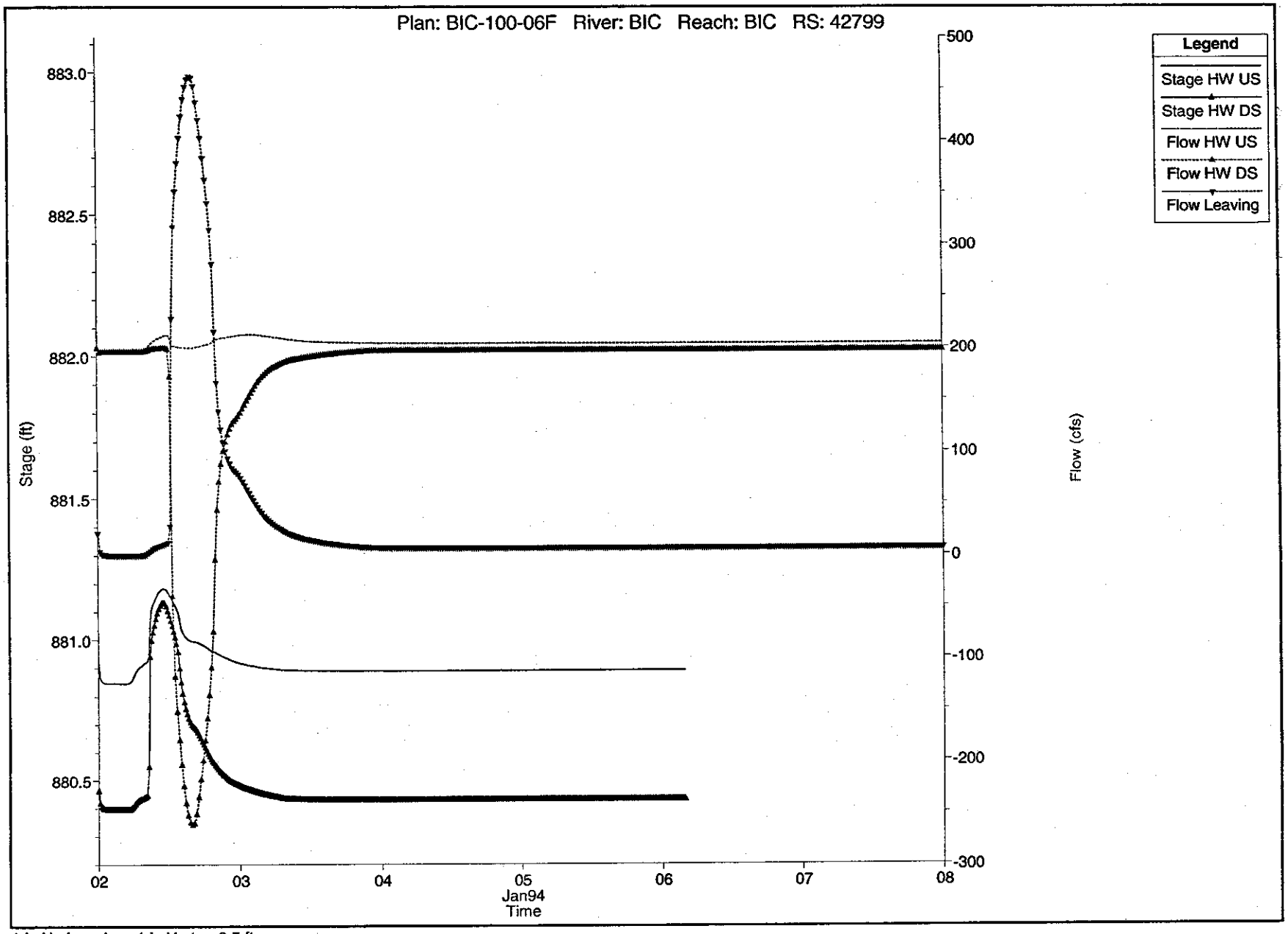
1 in Horiz. = 1 1 in Vert. = 0.5 ft



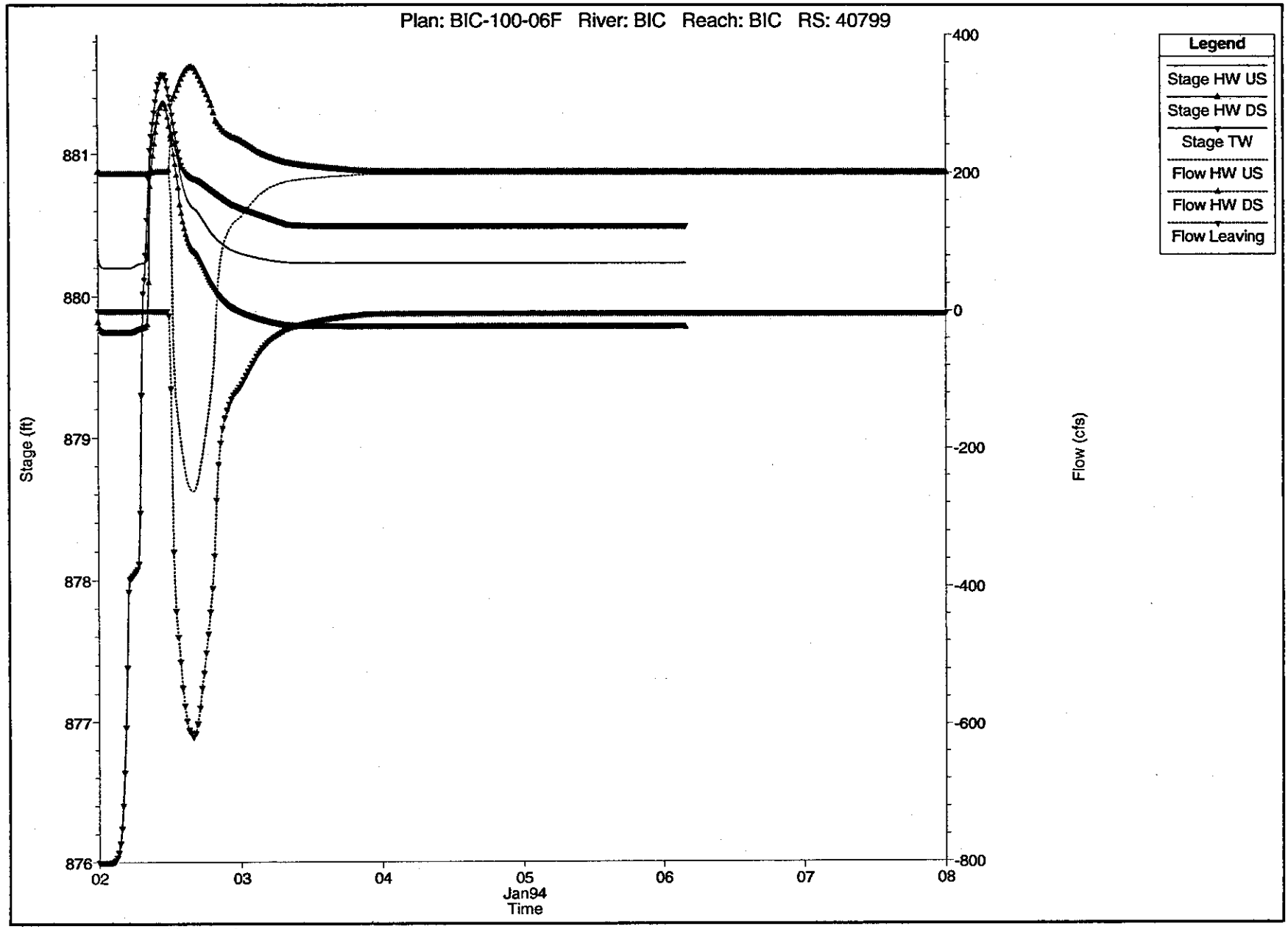
1 in Horiz. = 1 1 in Vert. = 2 ft



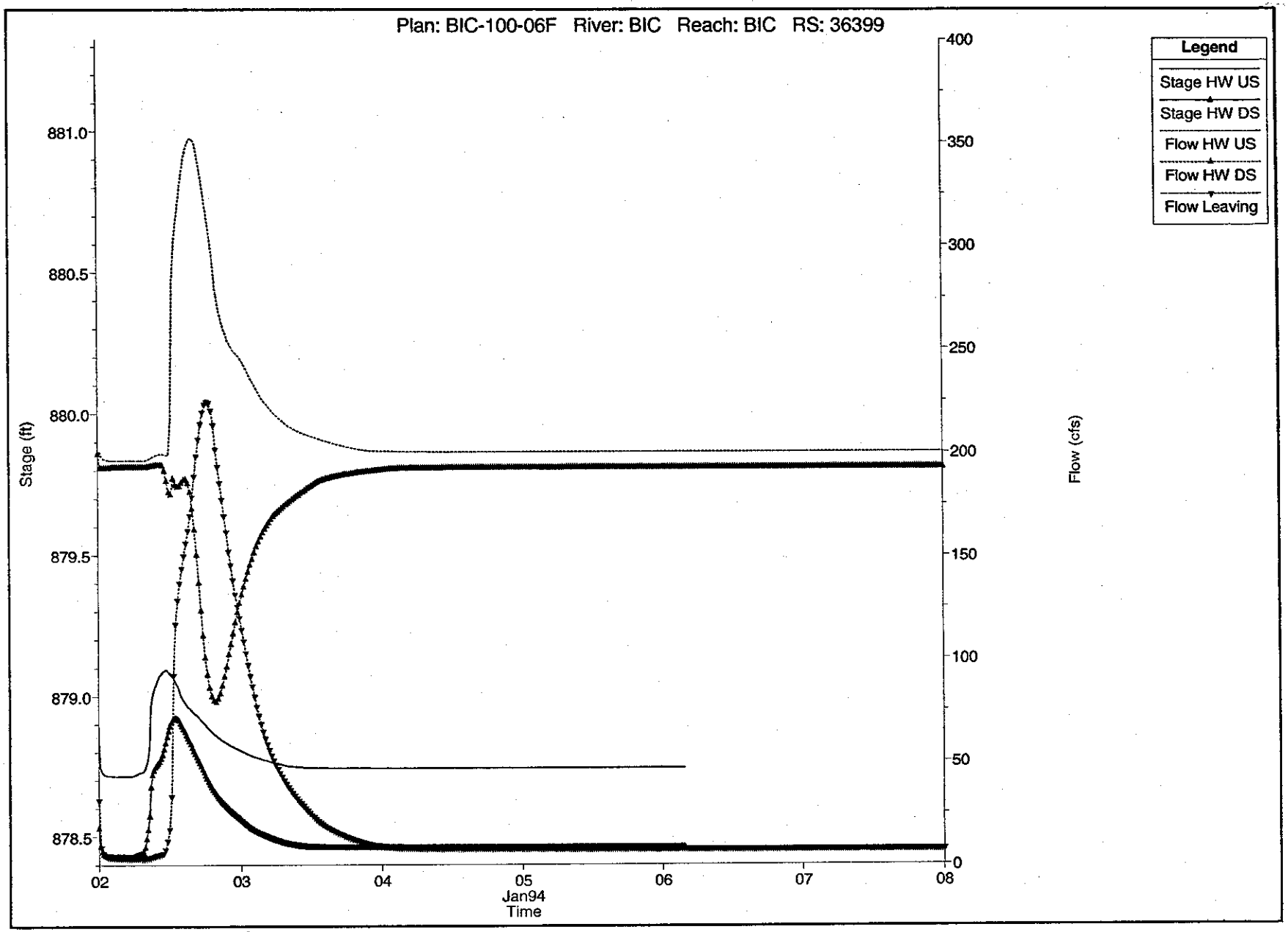
1 in Horiz. = 1 1 in Vert. = 0.5 ft



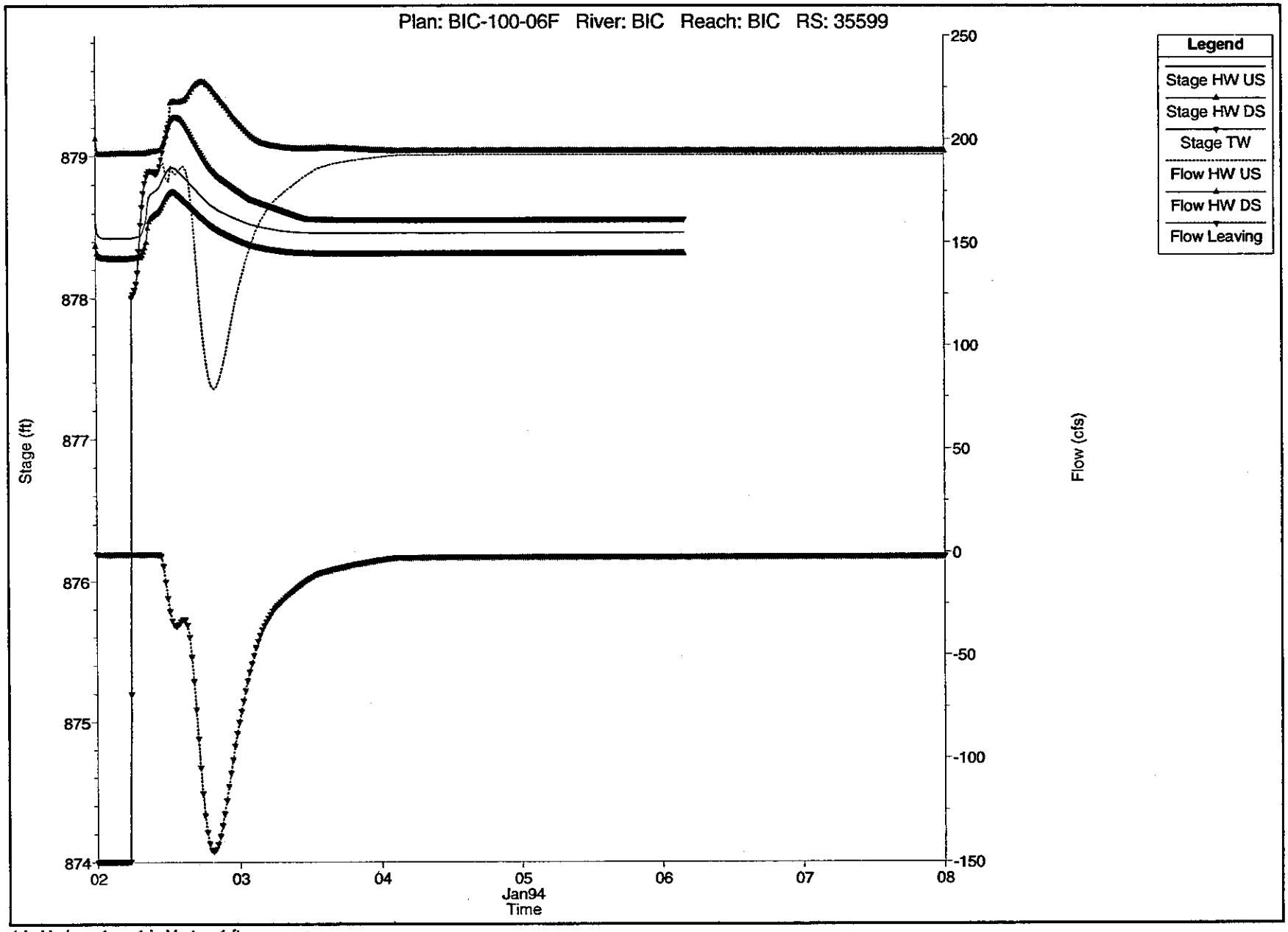
1 in Horiz. = 1 1 in Vert. = 0.5 ft



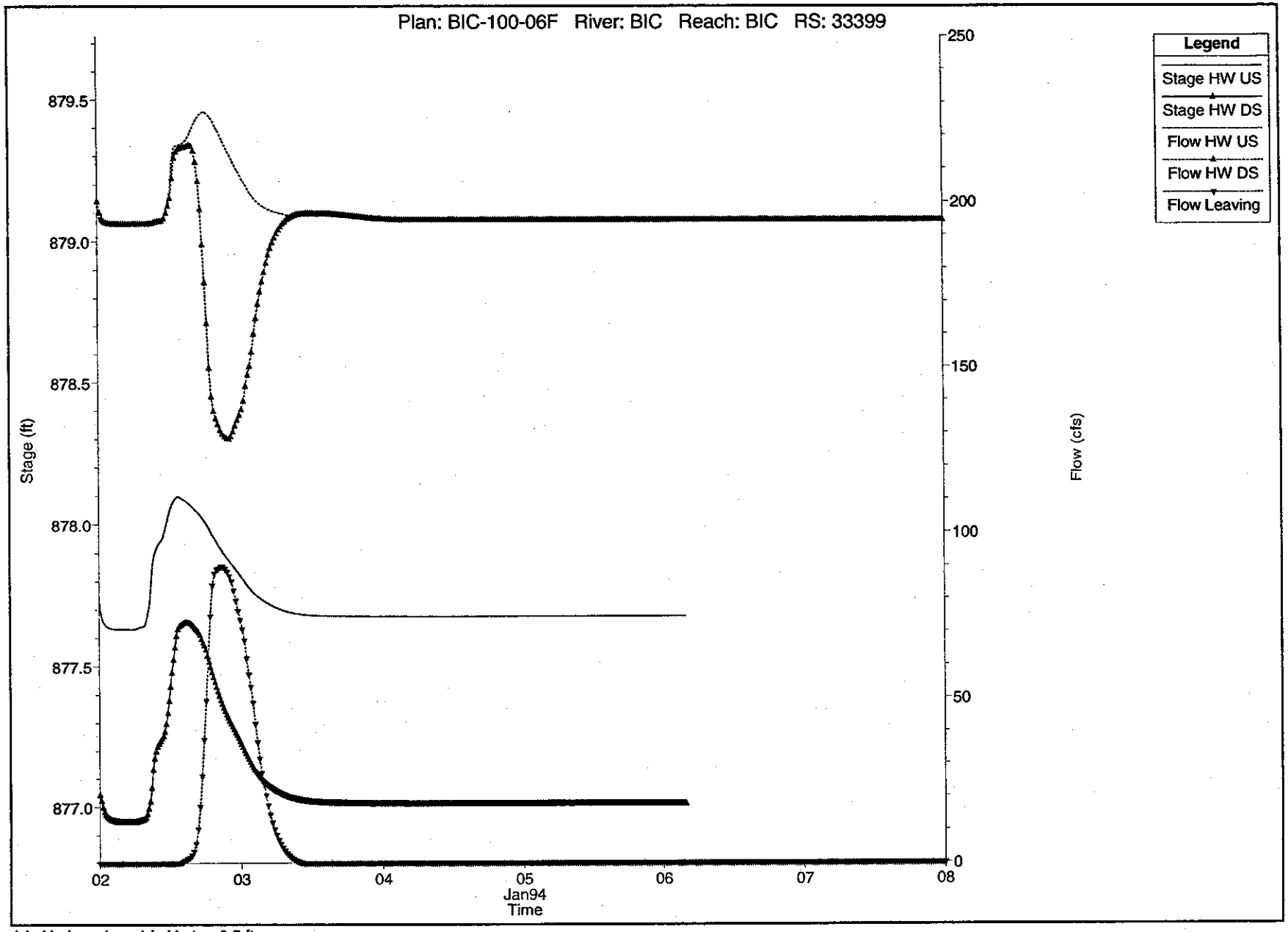
1 in Horiz. = 1 1 in Vert. = 1 ft



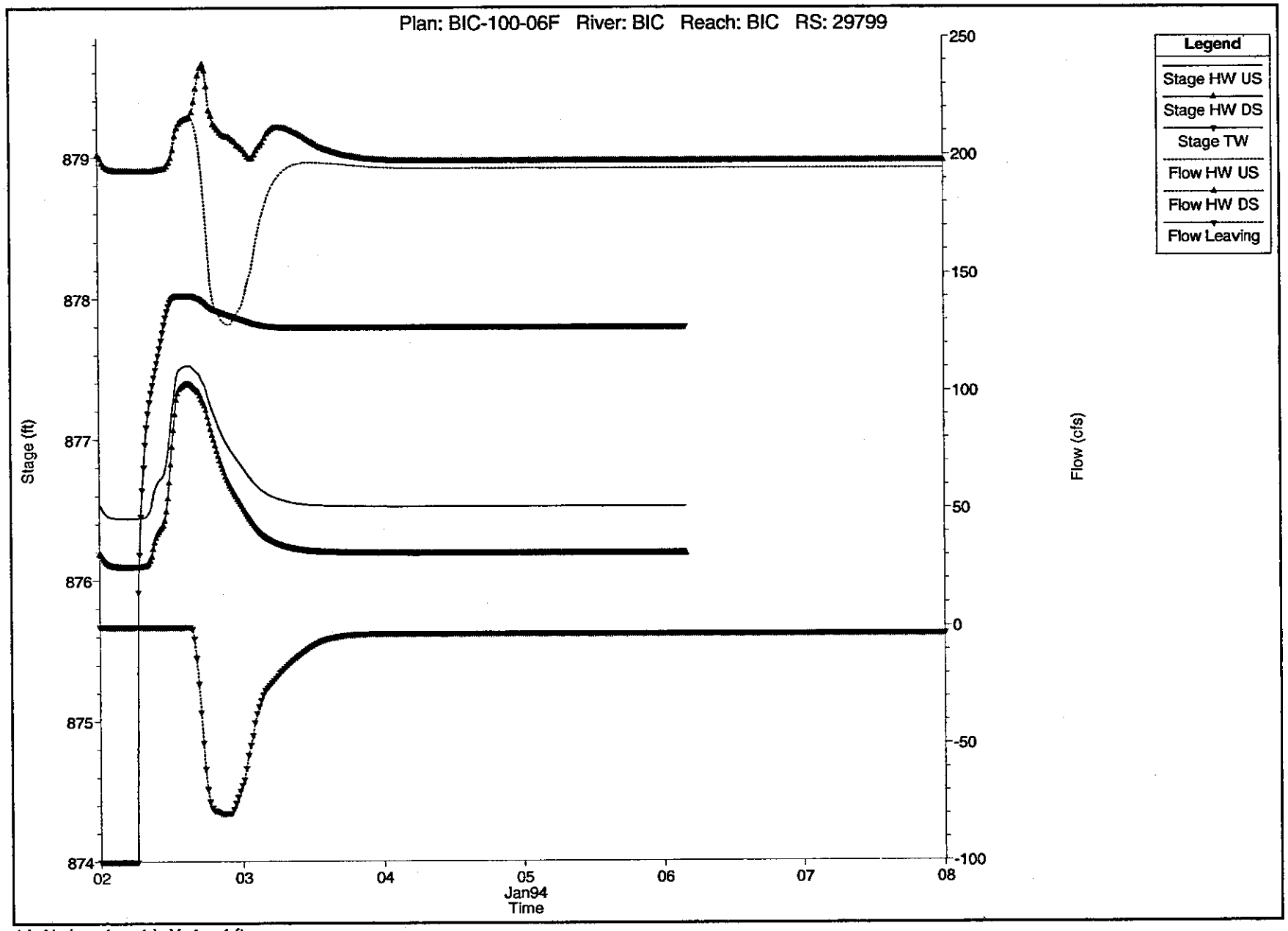
1 in Horiz. = 1 1 in Vert. = 0.5 ft



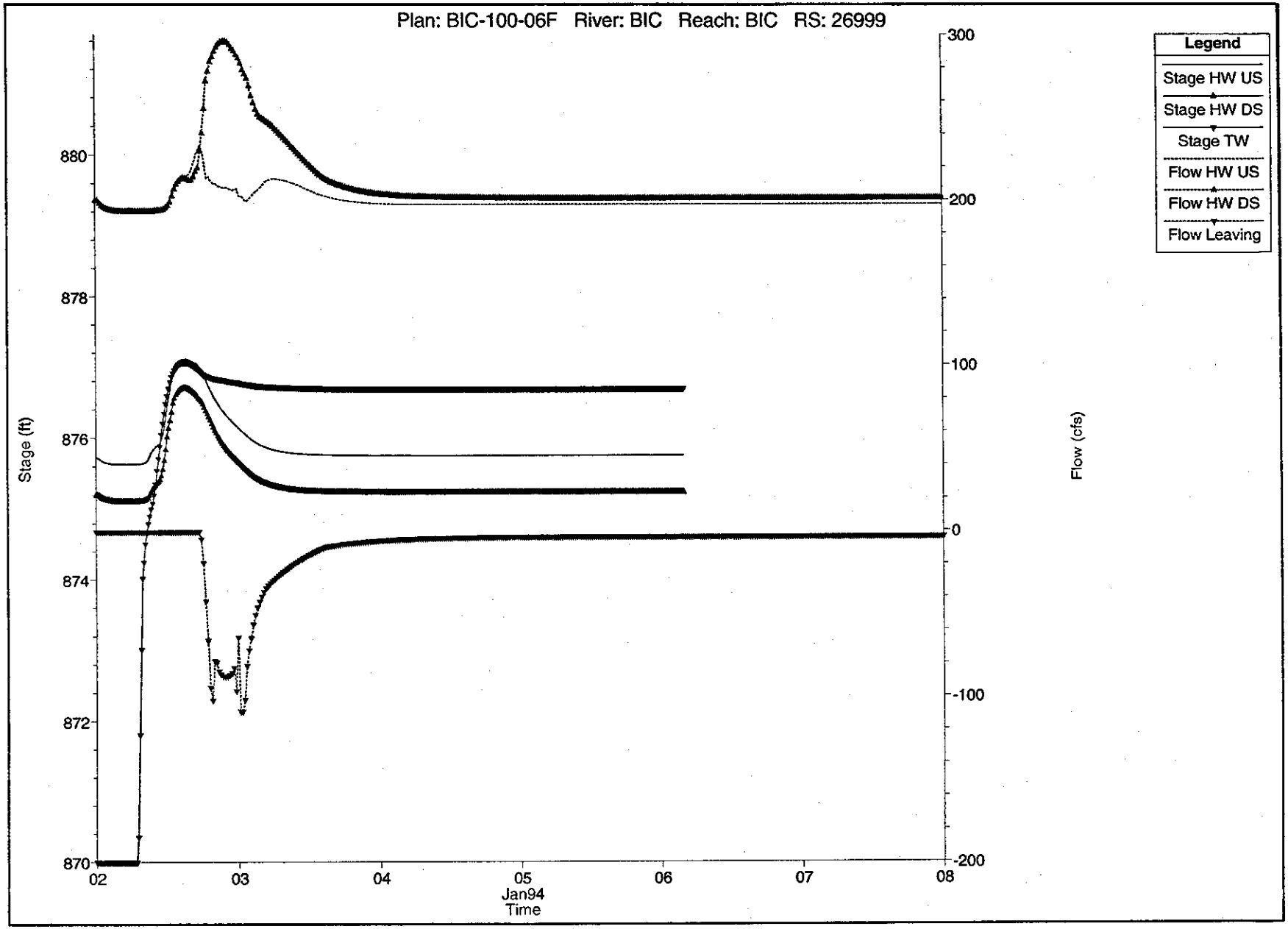
1 in Horiz. = 1 1 in Vert. = 1 ft



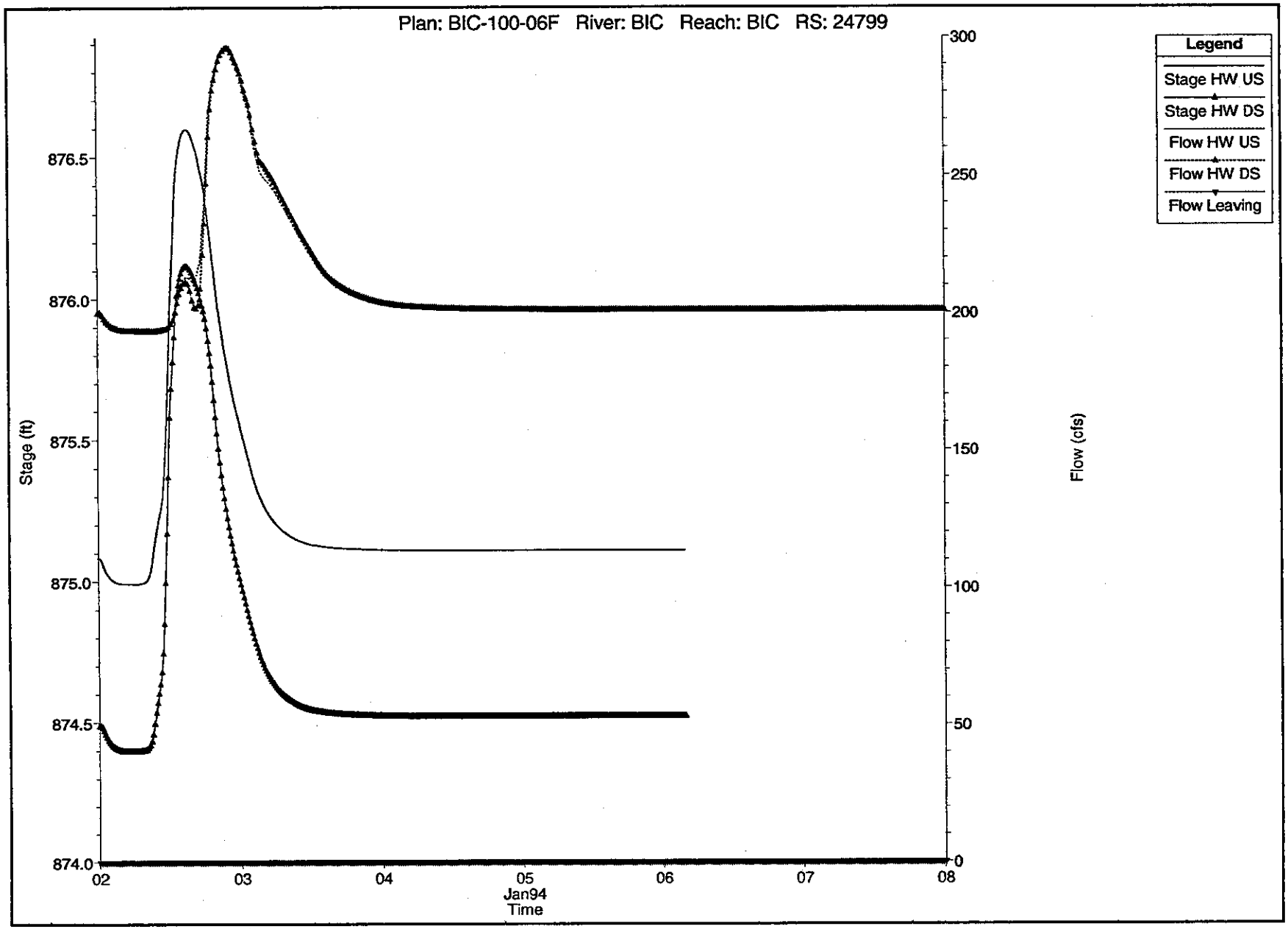
1 in Horiz. = 1 1 in Vert. = 0.5 ft



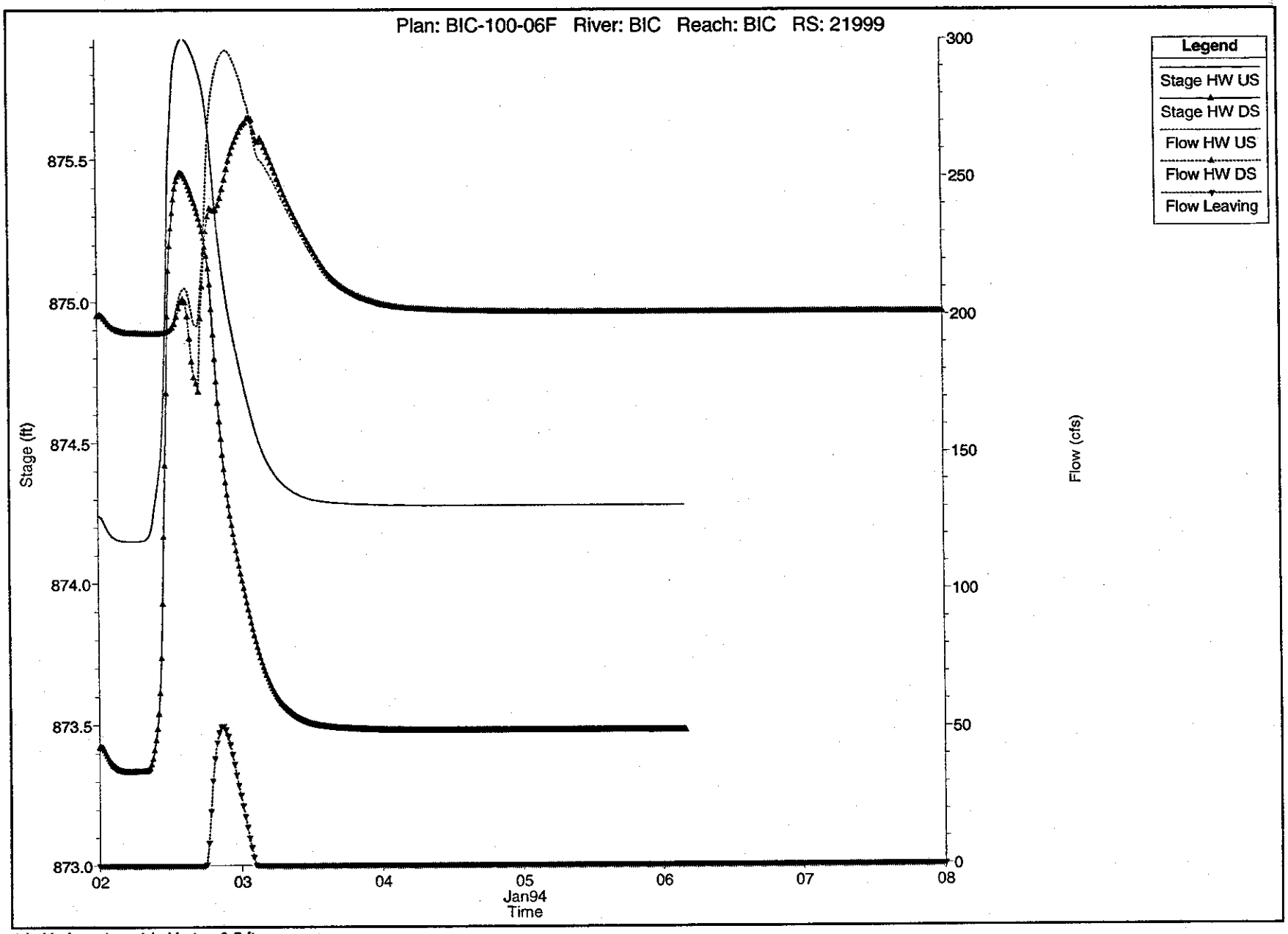
1 in Horiz. = 1 1 in Vert. = 1 ft



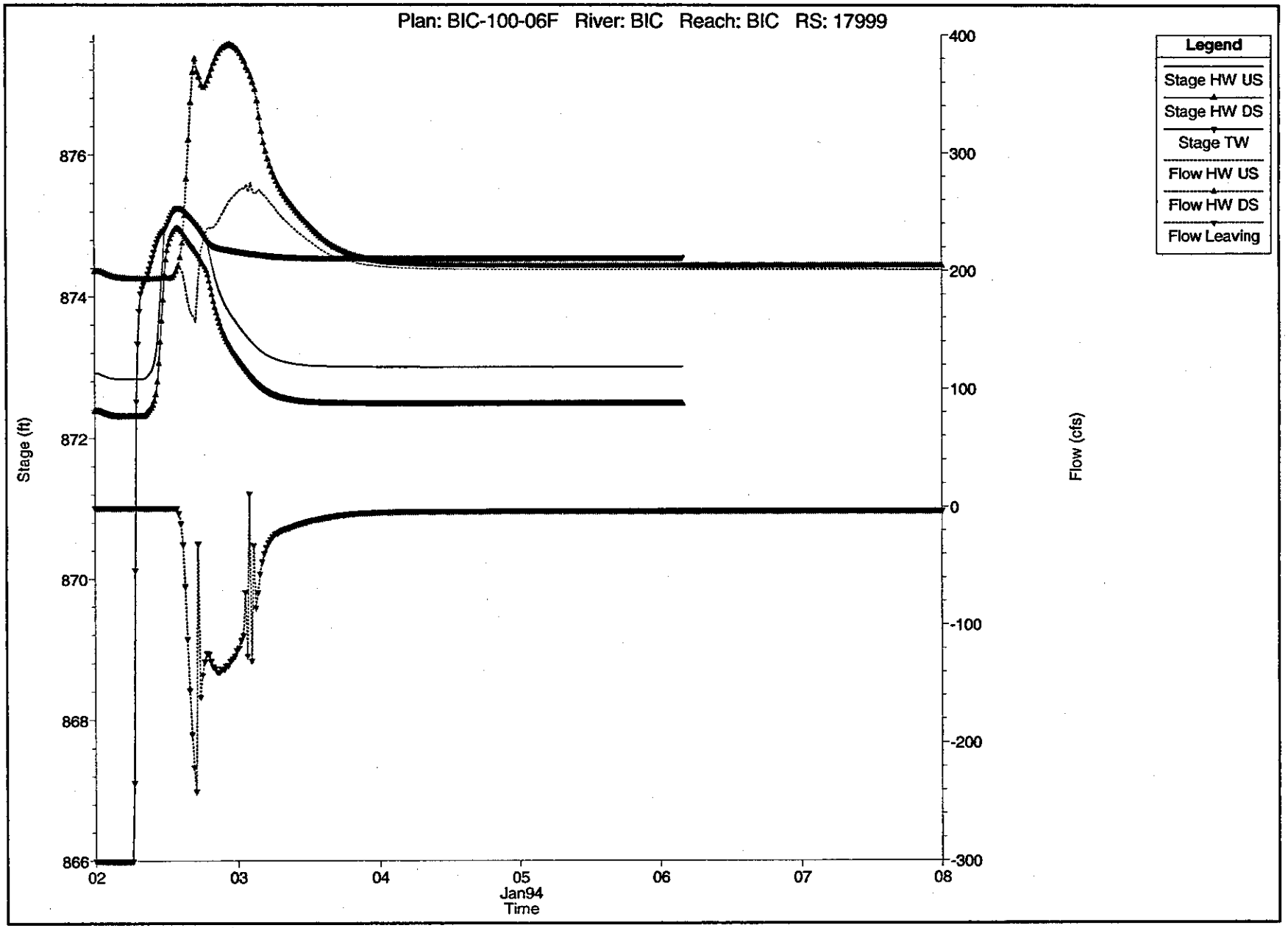
1 in Horiz. = 1 1 in Vert. = 2 ft



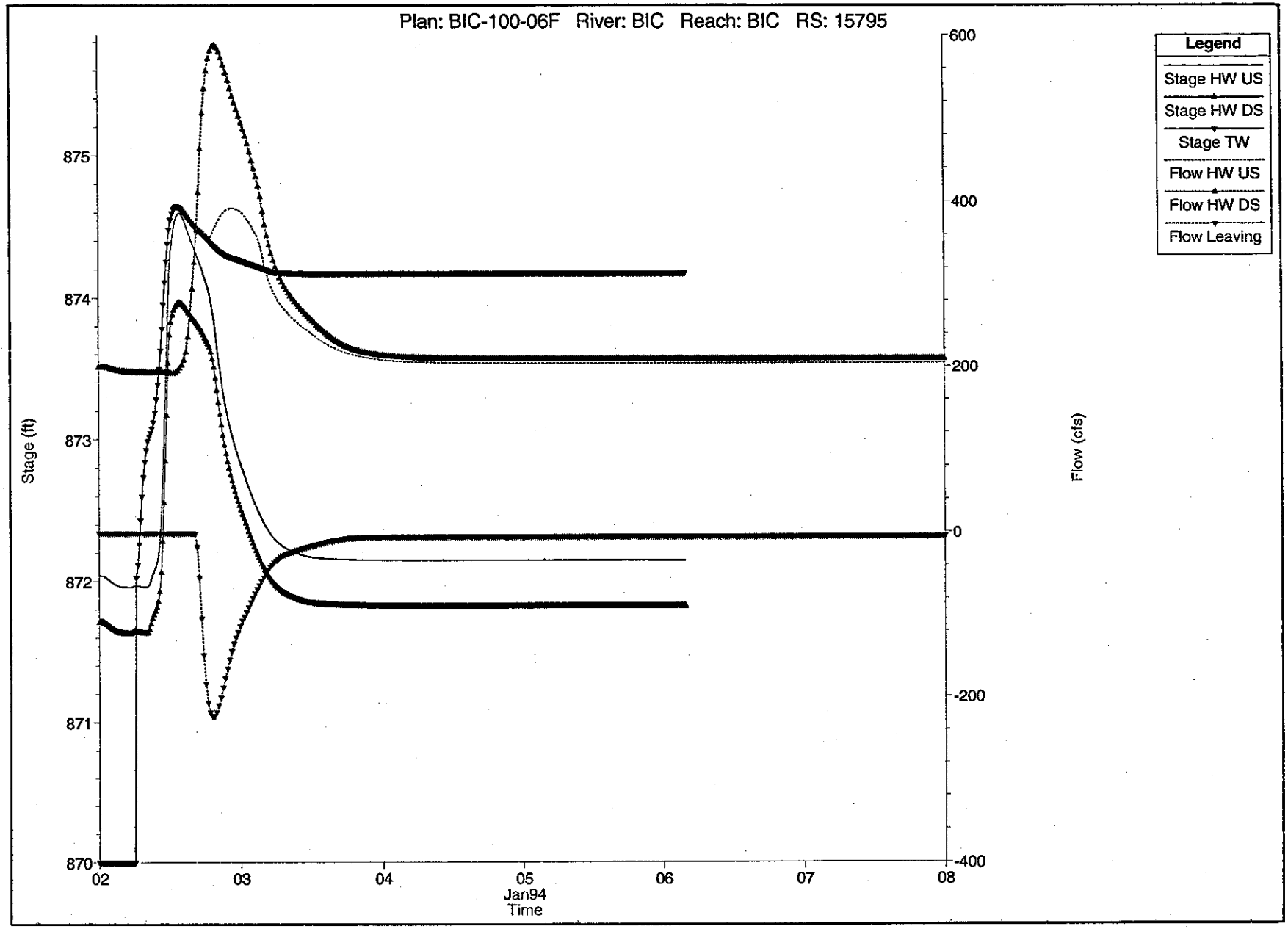
1 in Horiz. = 1 1 in Vert. = 0.5 ft



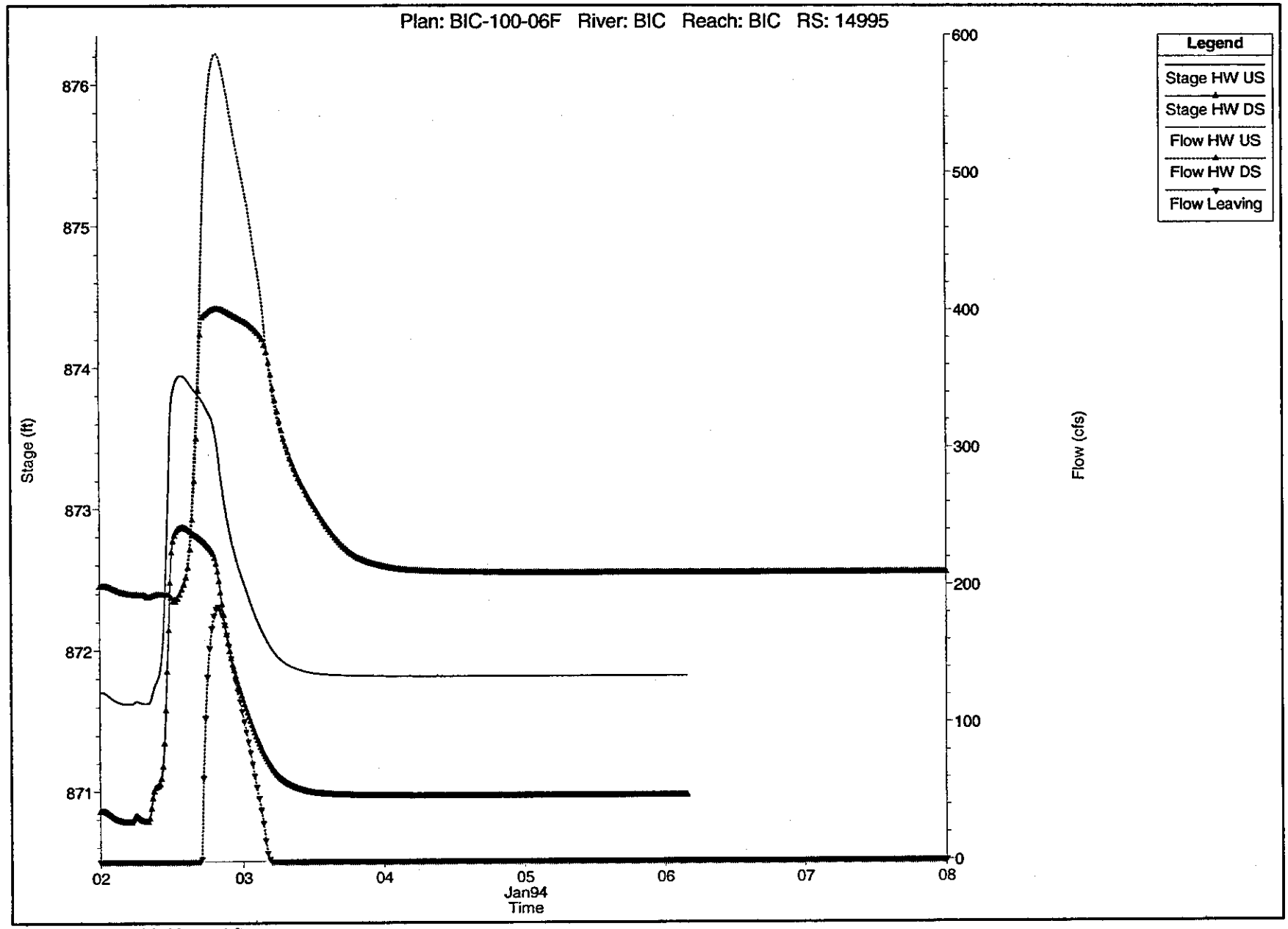
1 in Horiz. = 1 1 in Vert. = 0.5 ft



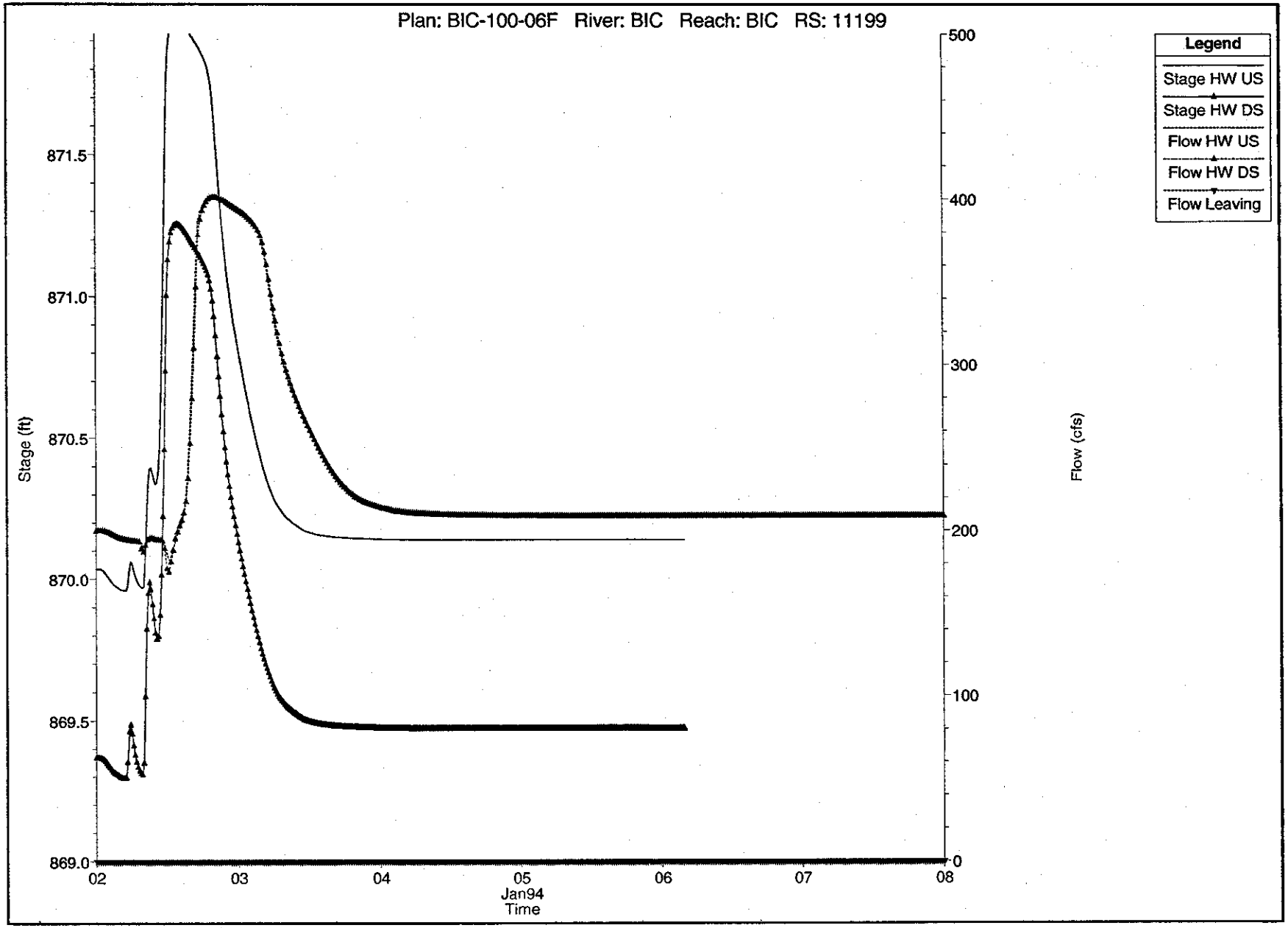
1 in Horiz. = 1 1 in Vert. = 2 ft



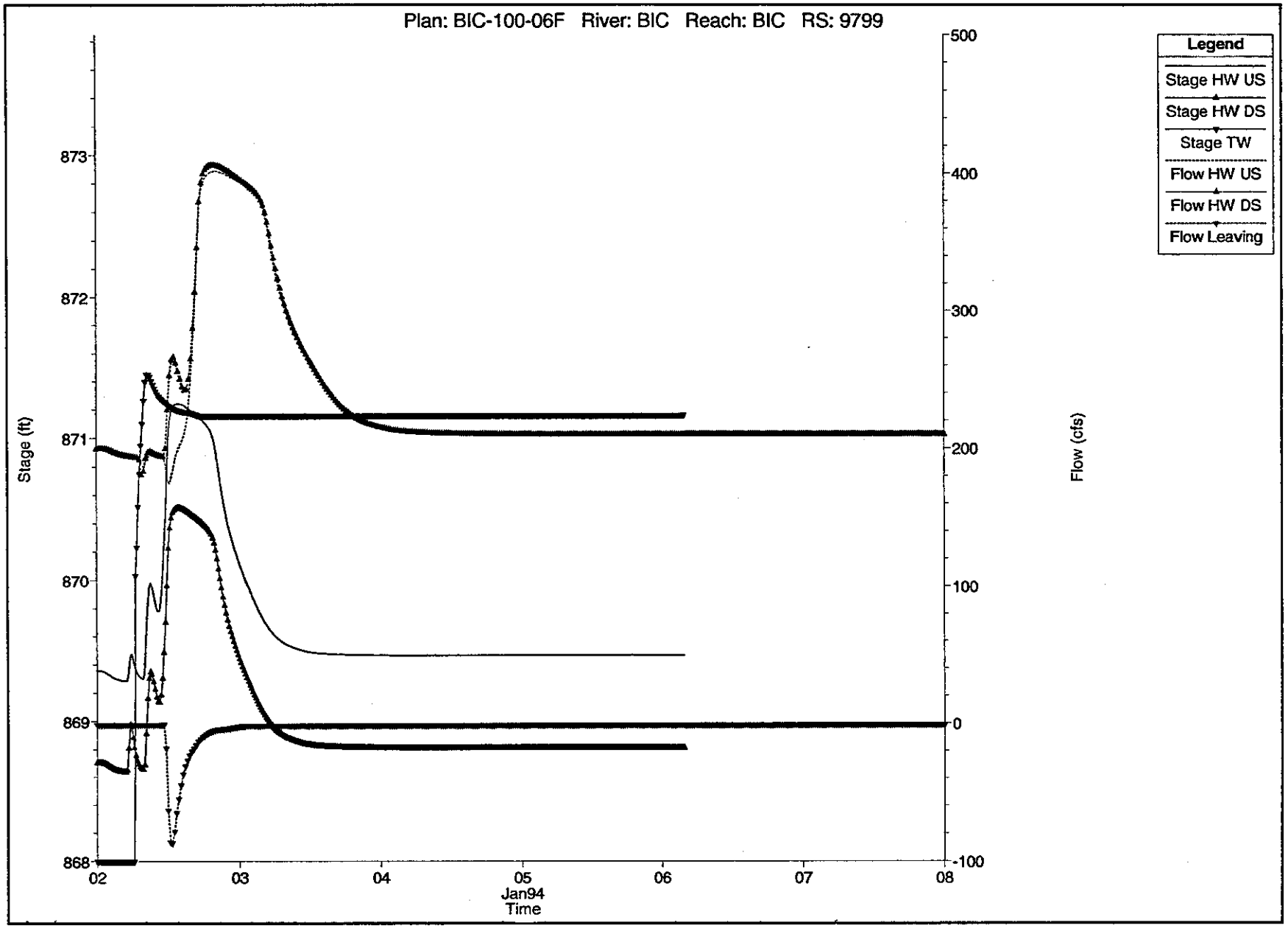
1 in Horiz. = 1 1 in Vert. = 1 ft



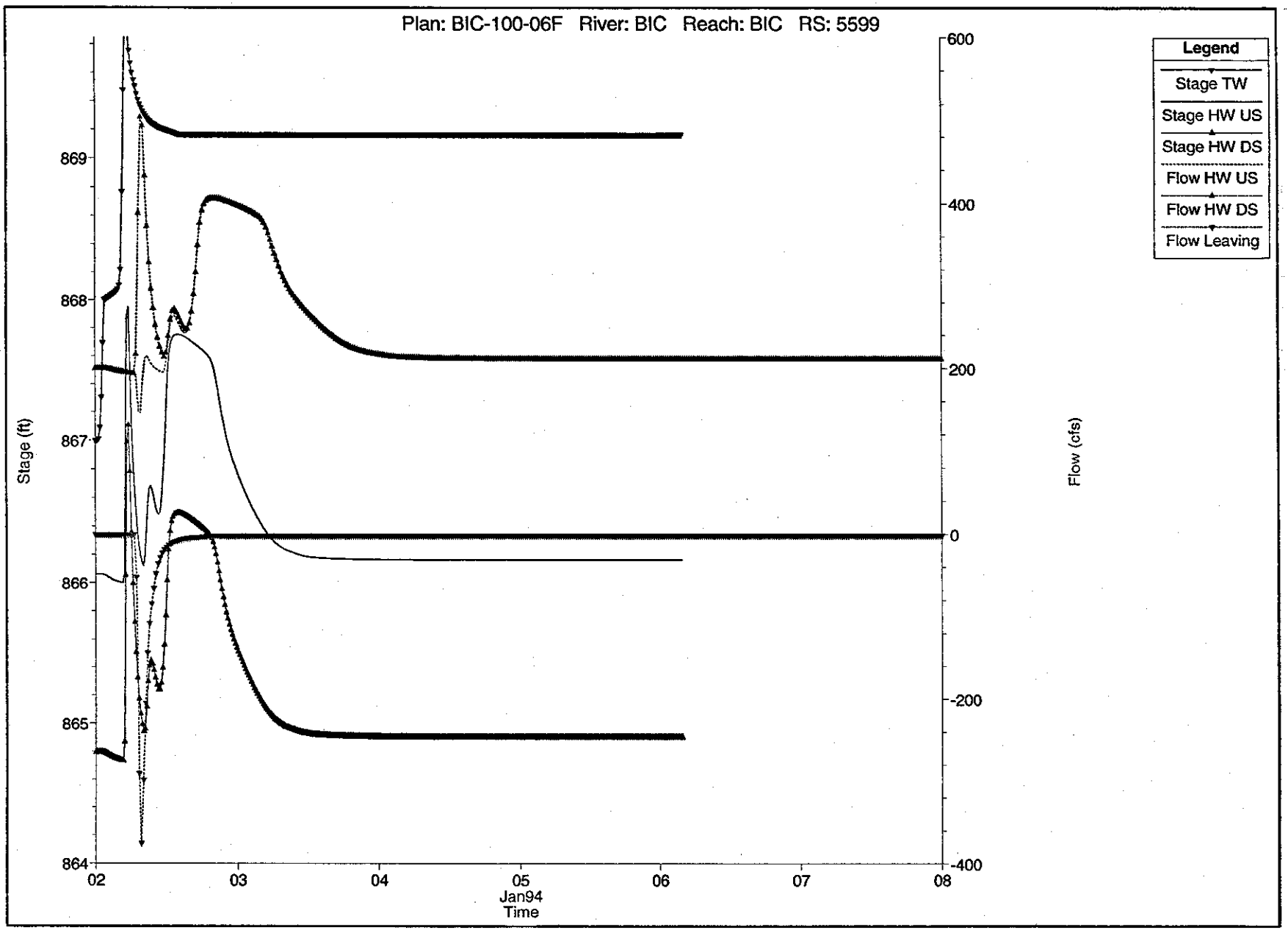
1 in Horiz. = 1 1 in Vert. = 1 ft



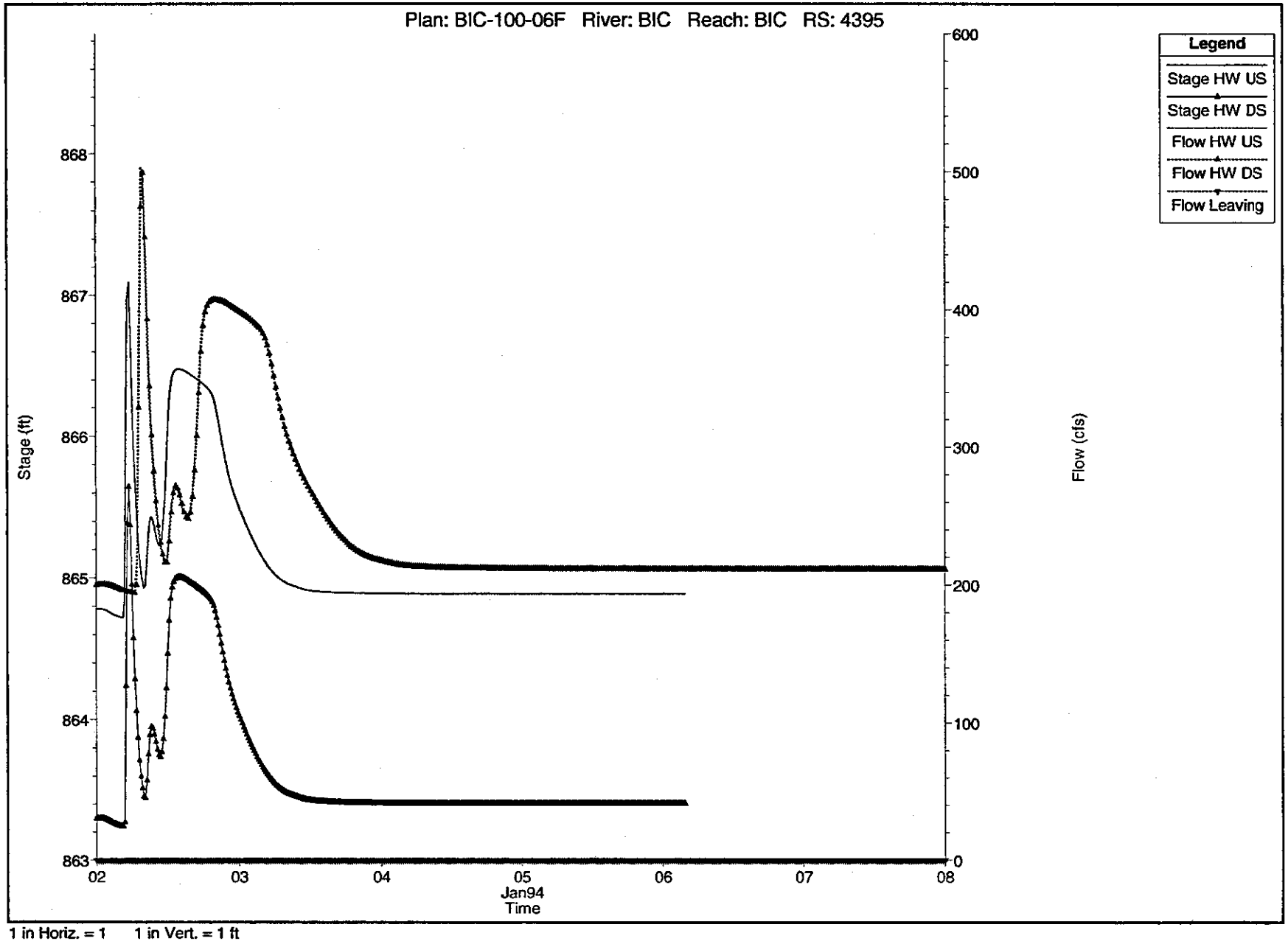
1 in Horiz. = 1 1 in Vert. = 0.5 ft



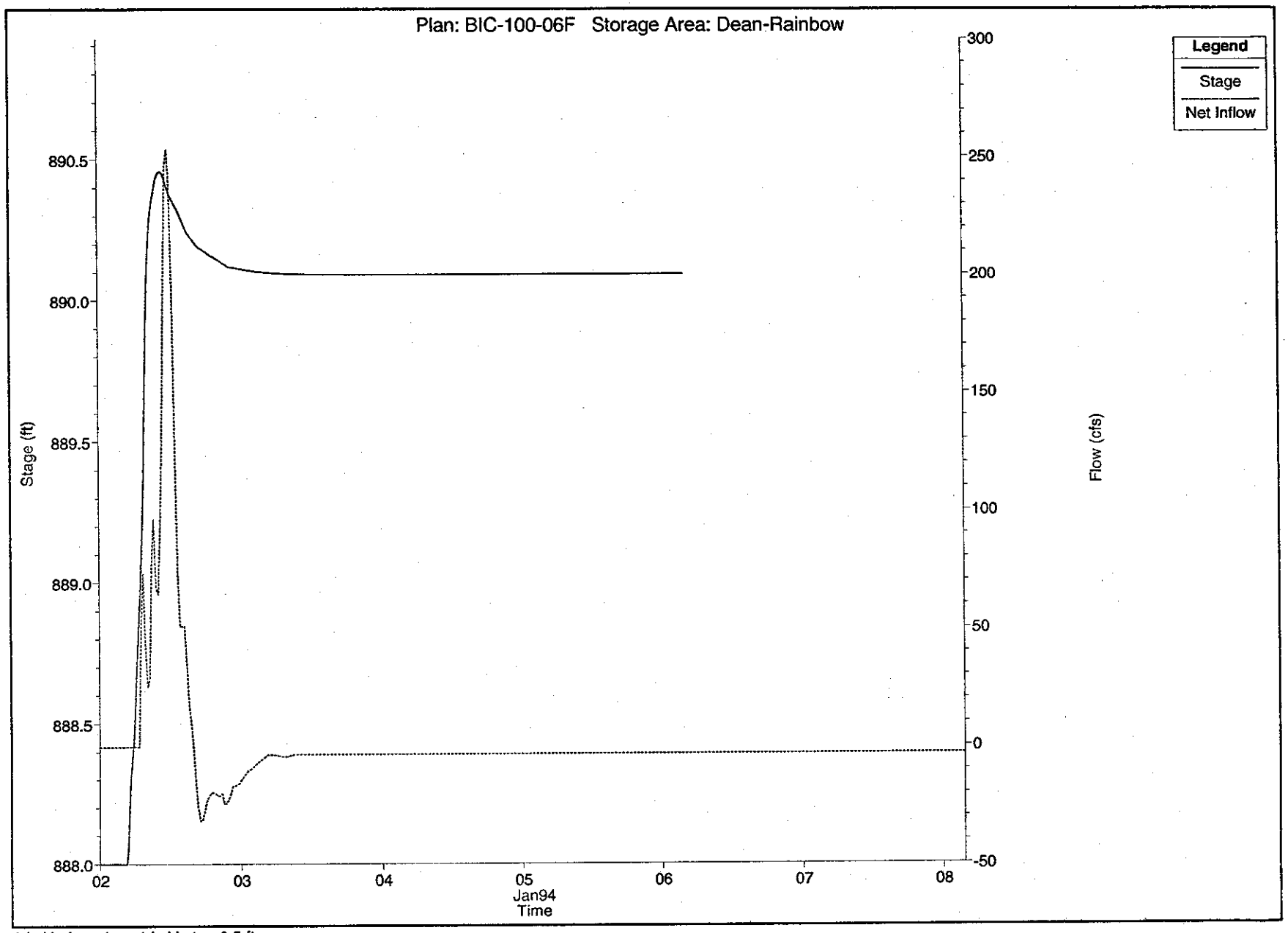
1 in Horiz. = 1 1 in Vert. = 1 ft



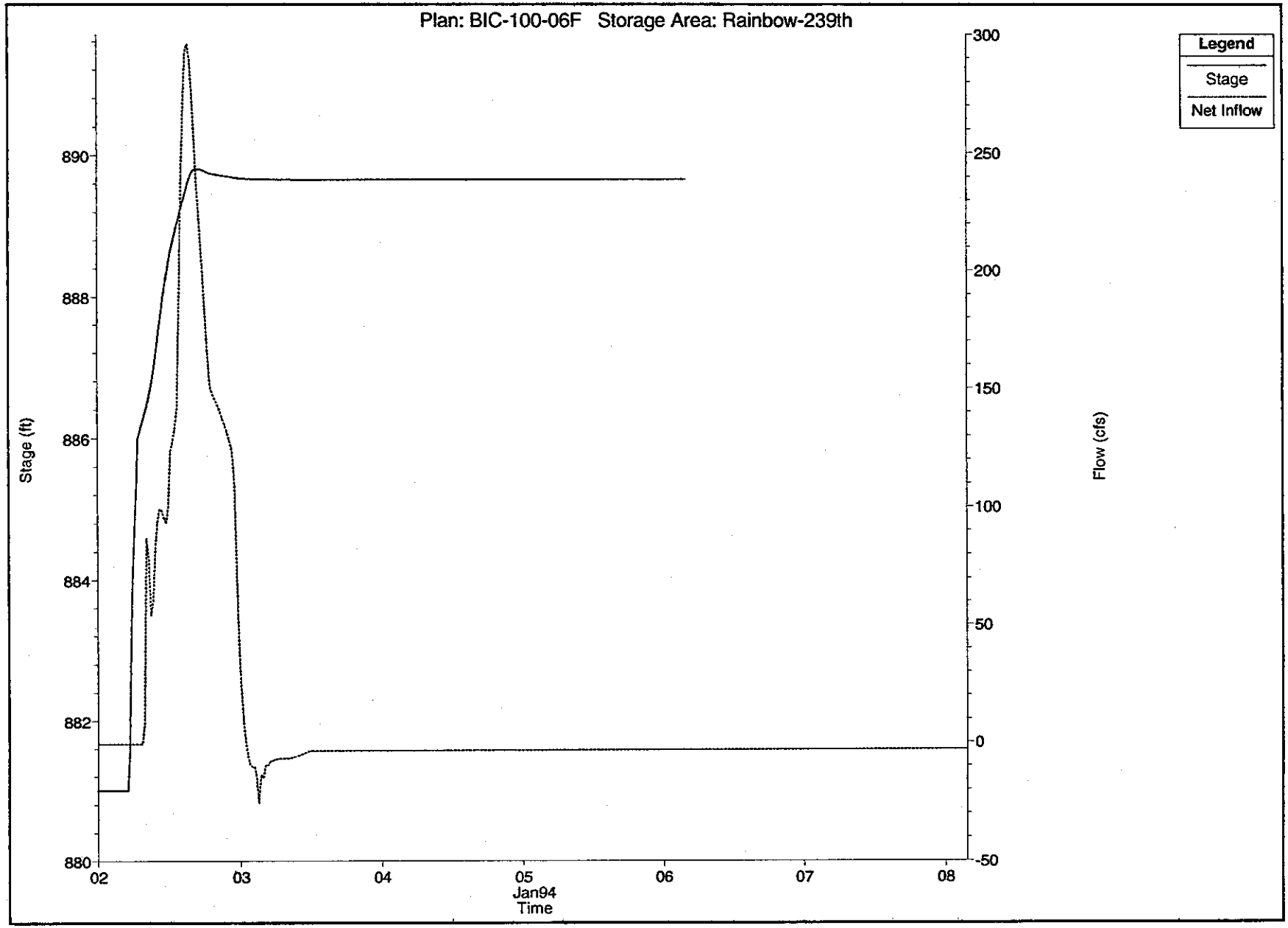
1 in Horiz. = 1 1 in Vert. = 1 ft



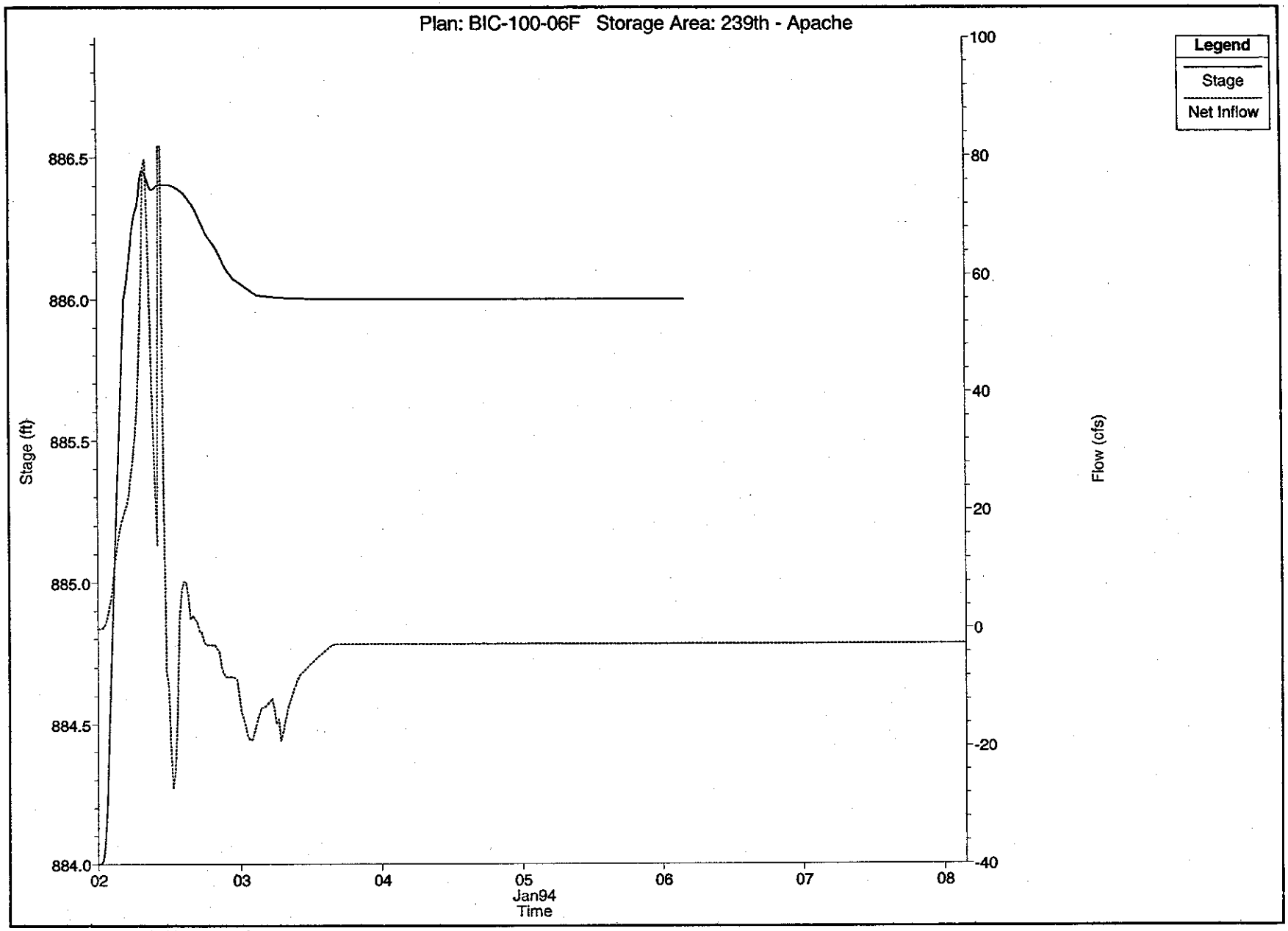
1 in Horiz. = 1 1 in Vert. = 1 ft



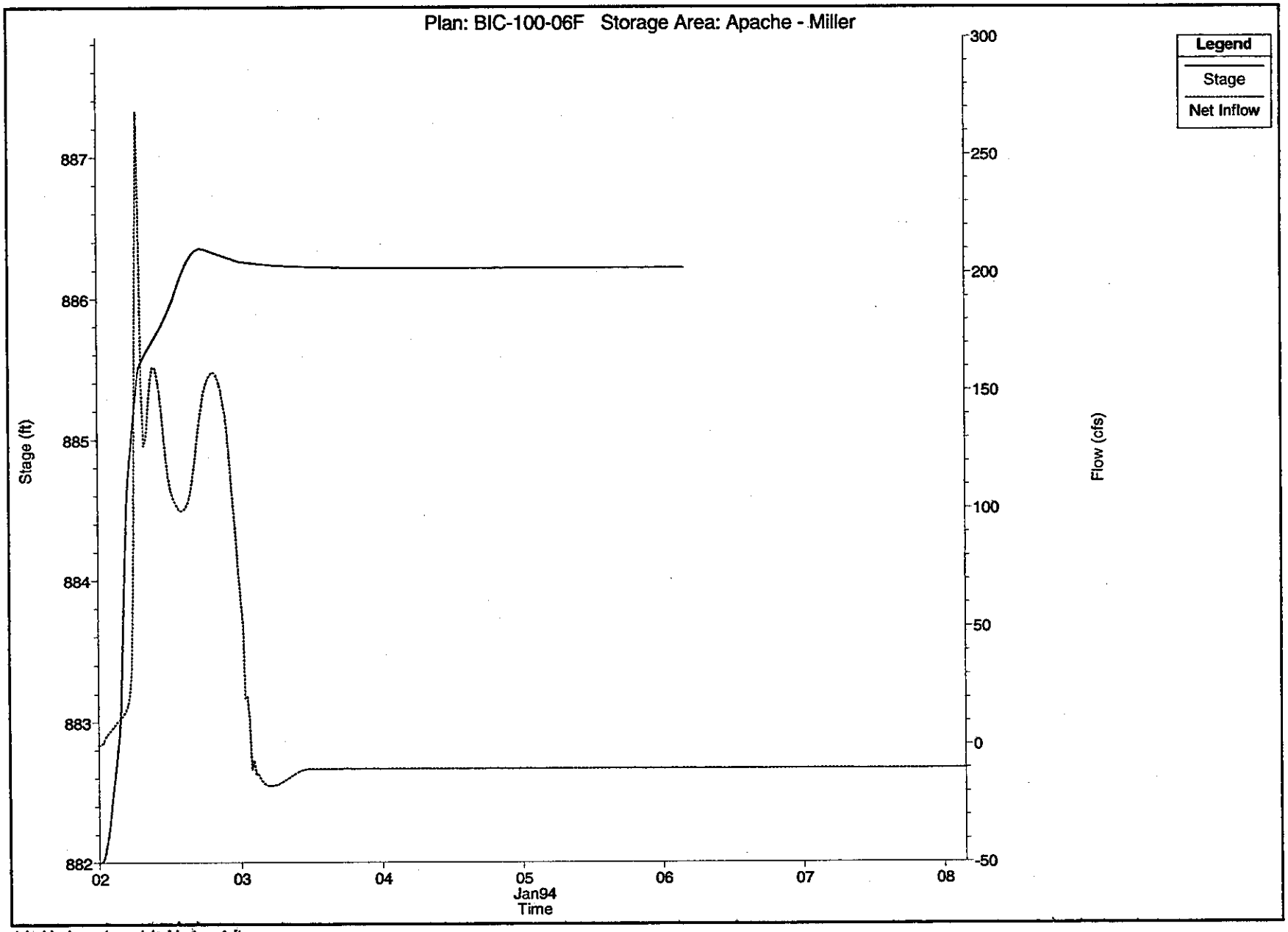
1 in Horiz. = 1 1 in Vert. = 0.5 ft



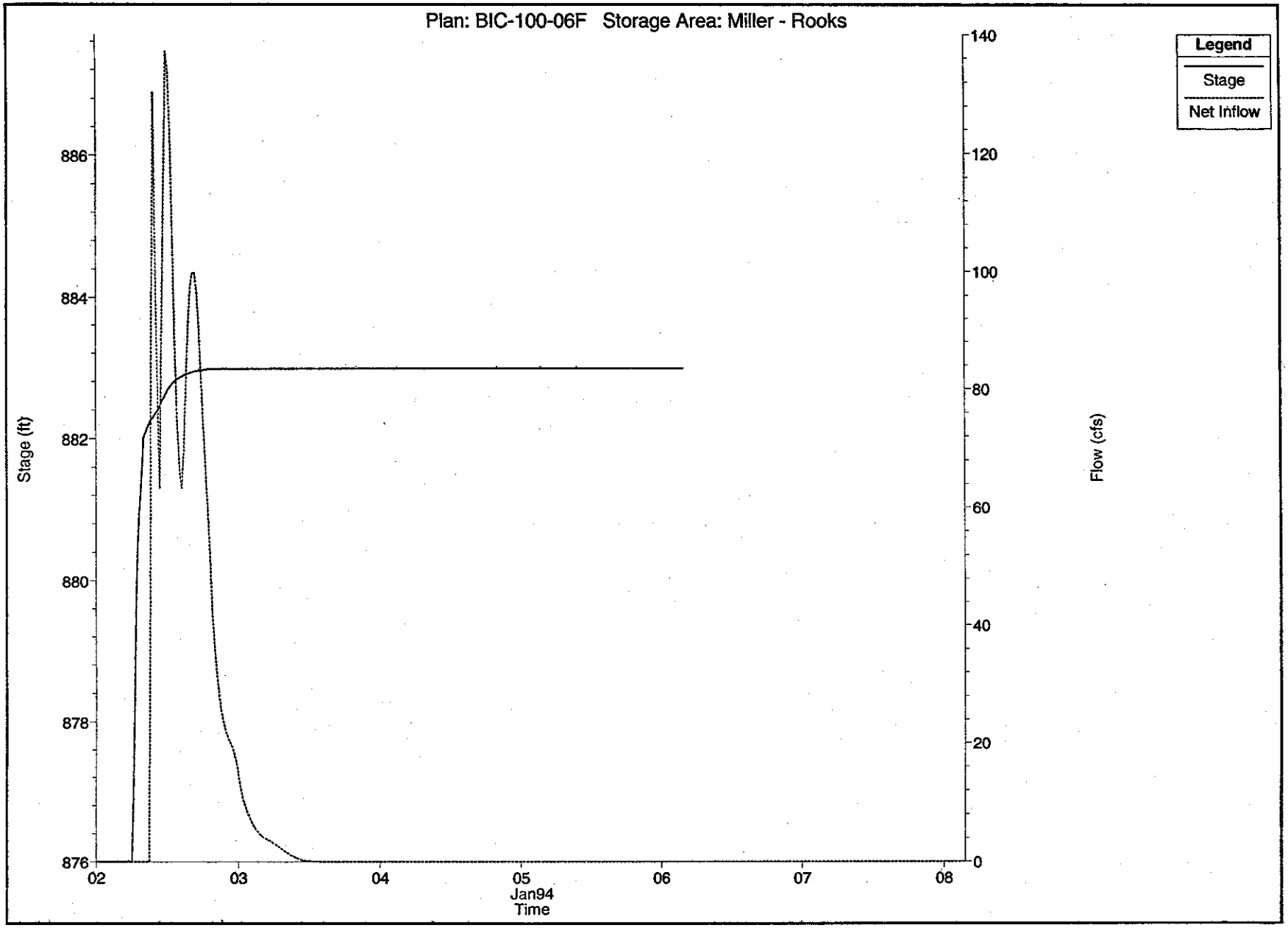
1 in Horiz. = 1 1 in Vert. = 2 ft



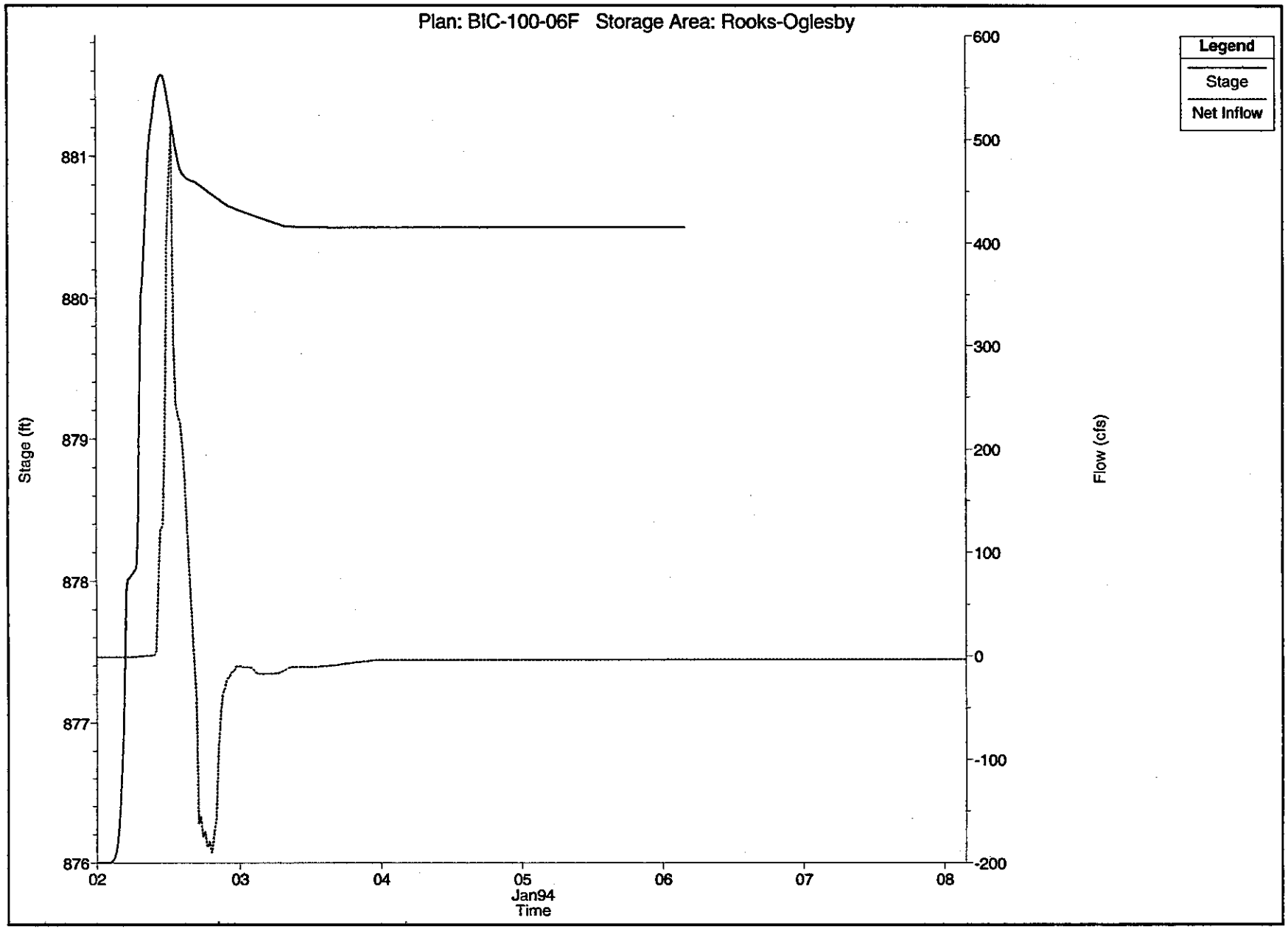
1 in Horiz. = 1 1 in Vert. = 0.5 ft



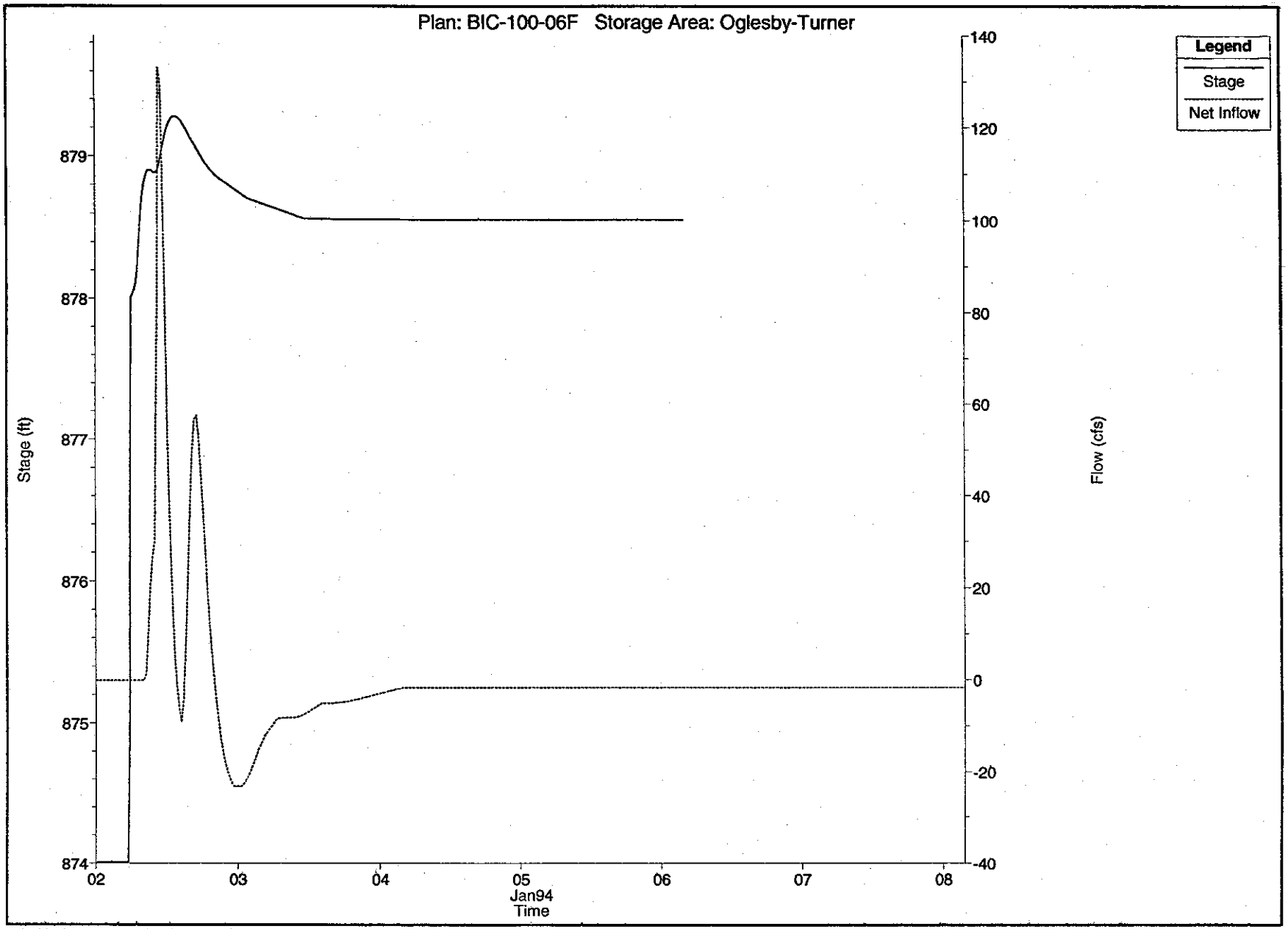
1 in Horiz. = 1 1 in Vert. = 1 ft



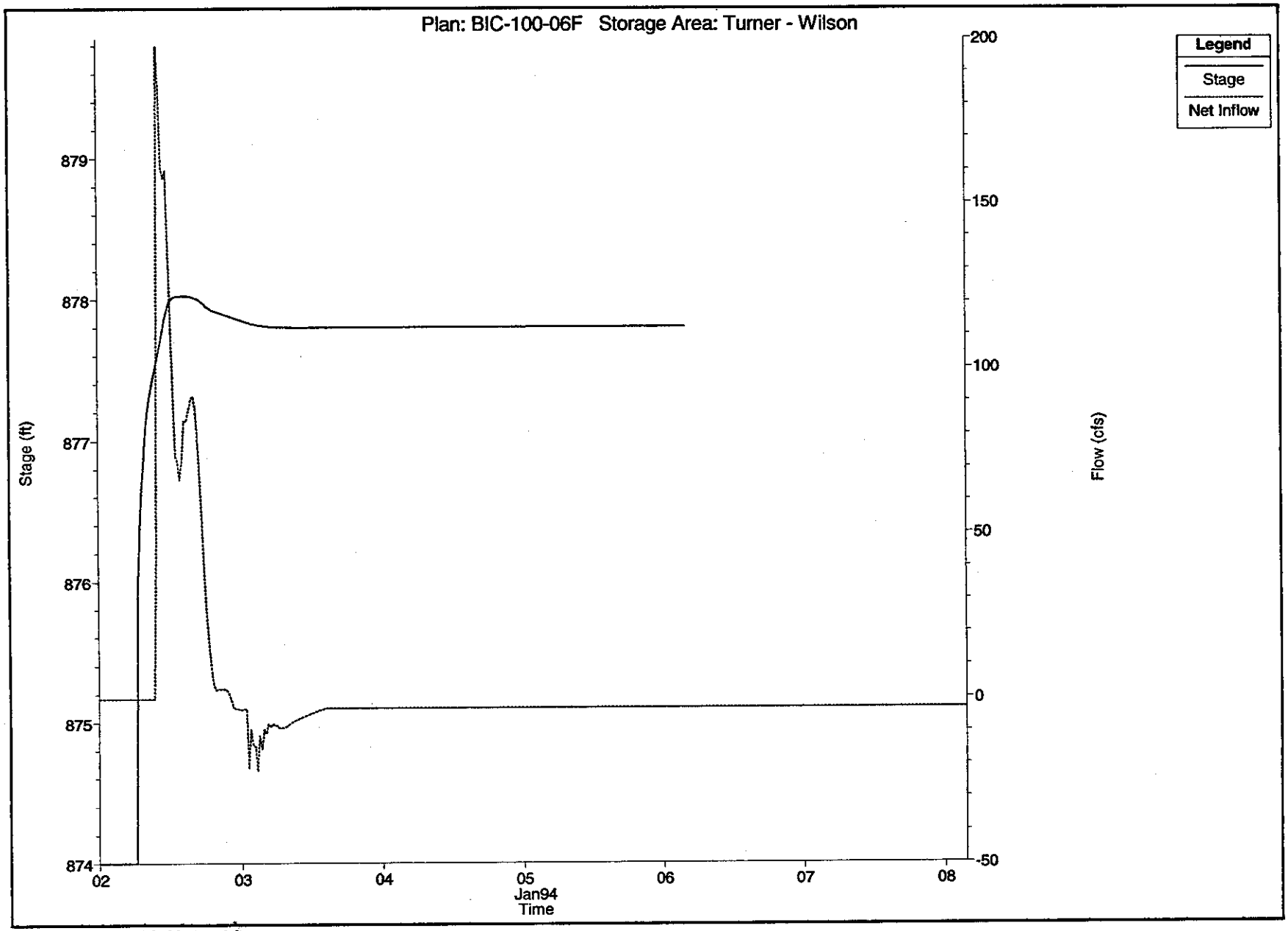
1 in Horiz. = 1 1 in Vert. = 2 ft



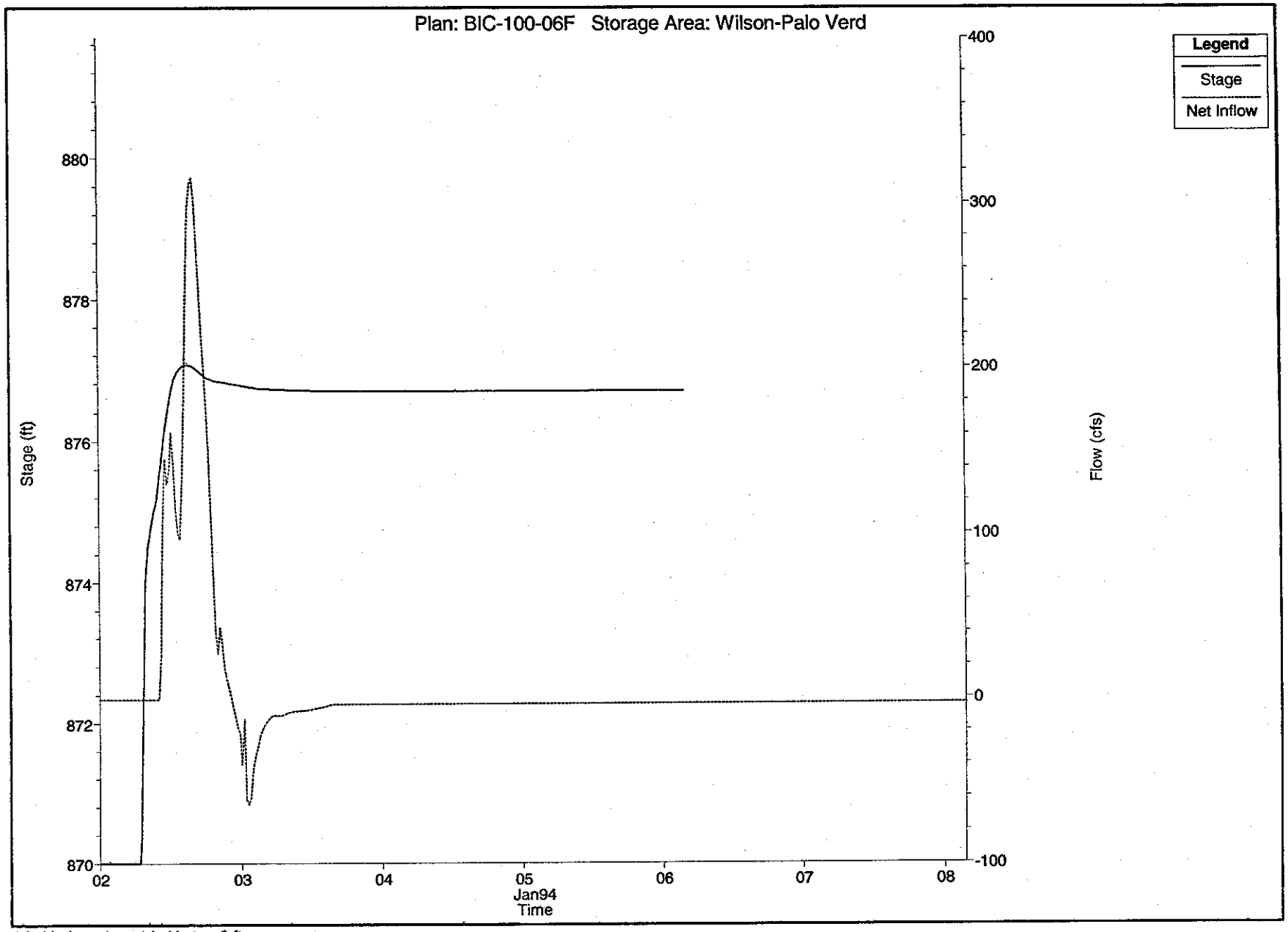
1 in Horiz. = 1 1 in Vert. = 1 ft



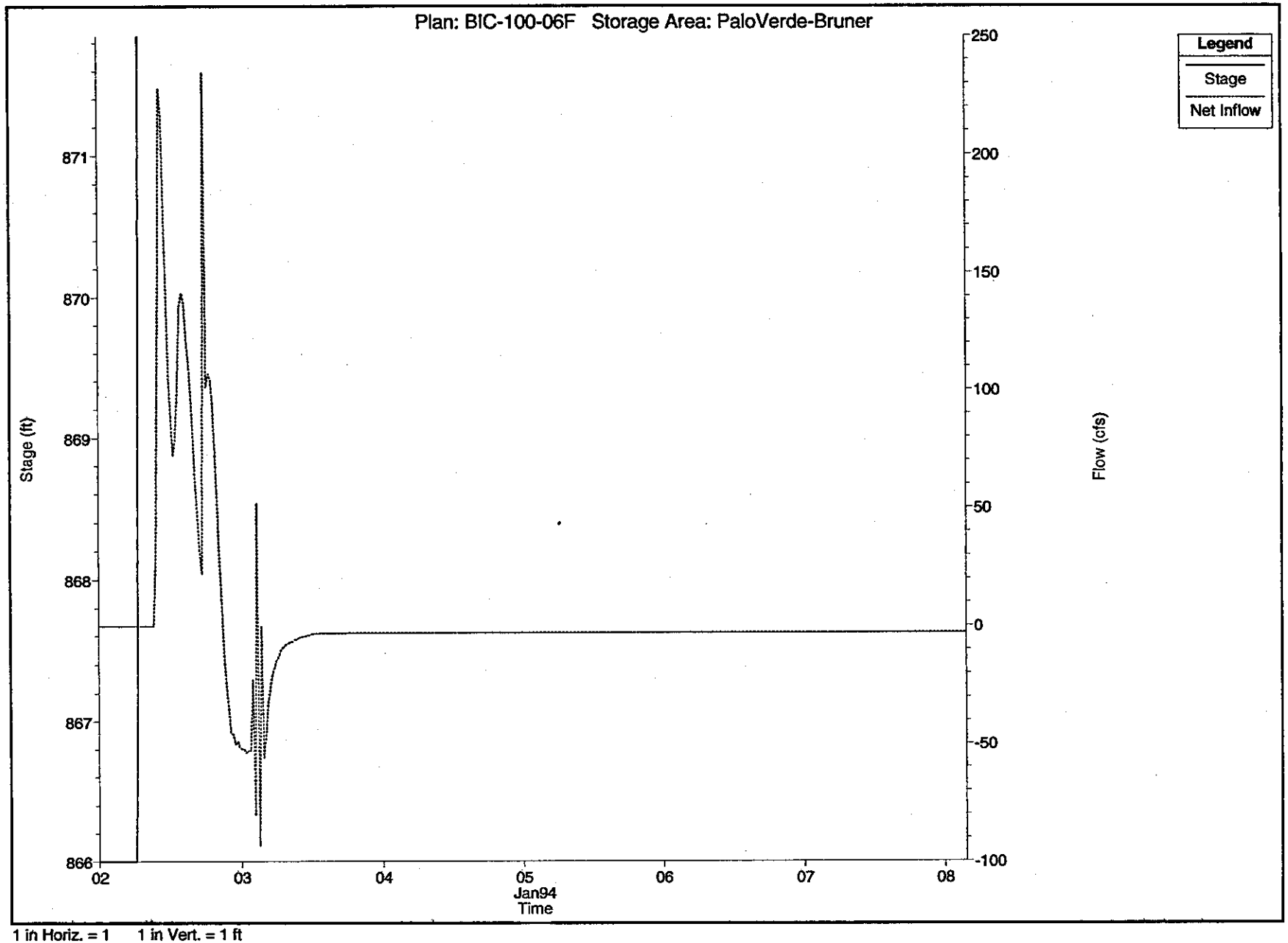
1 in Horiz. = 1 1 in Vert. = 1 ft



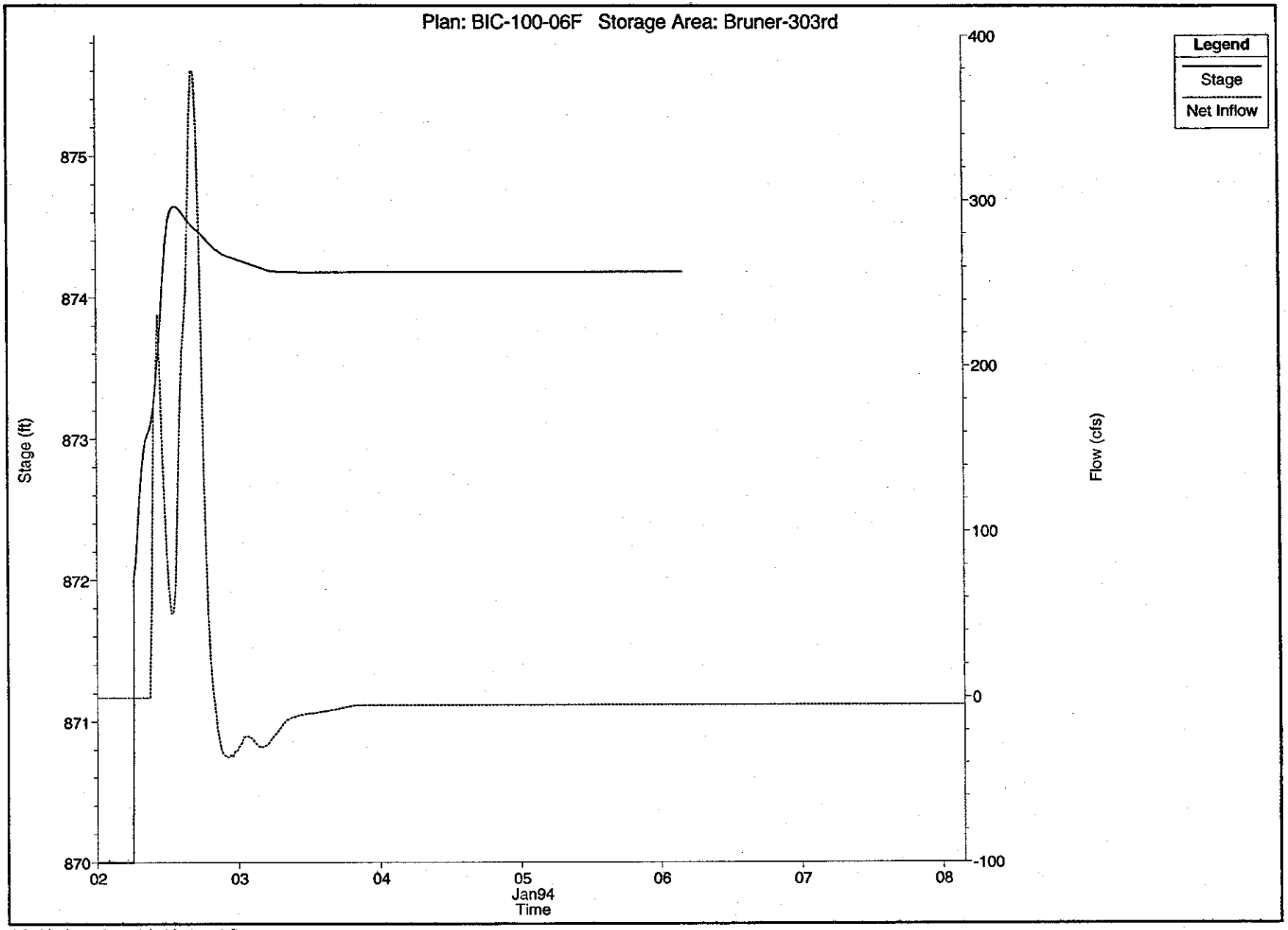
1 in Horiz. = 1 1 in Vert. = 1 ft



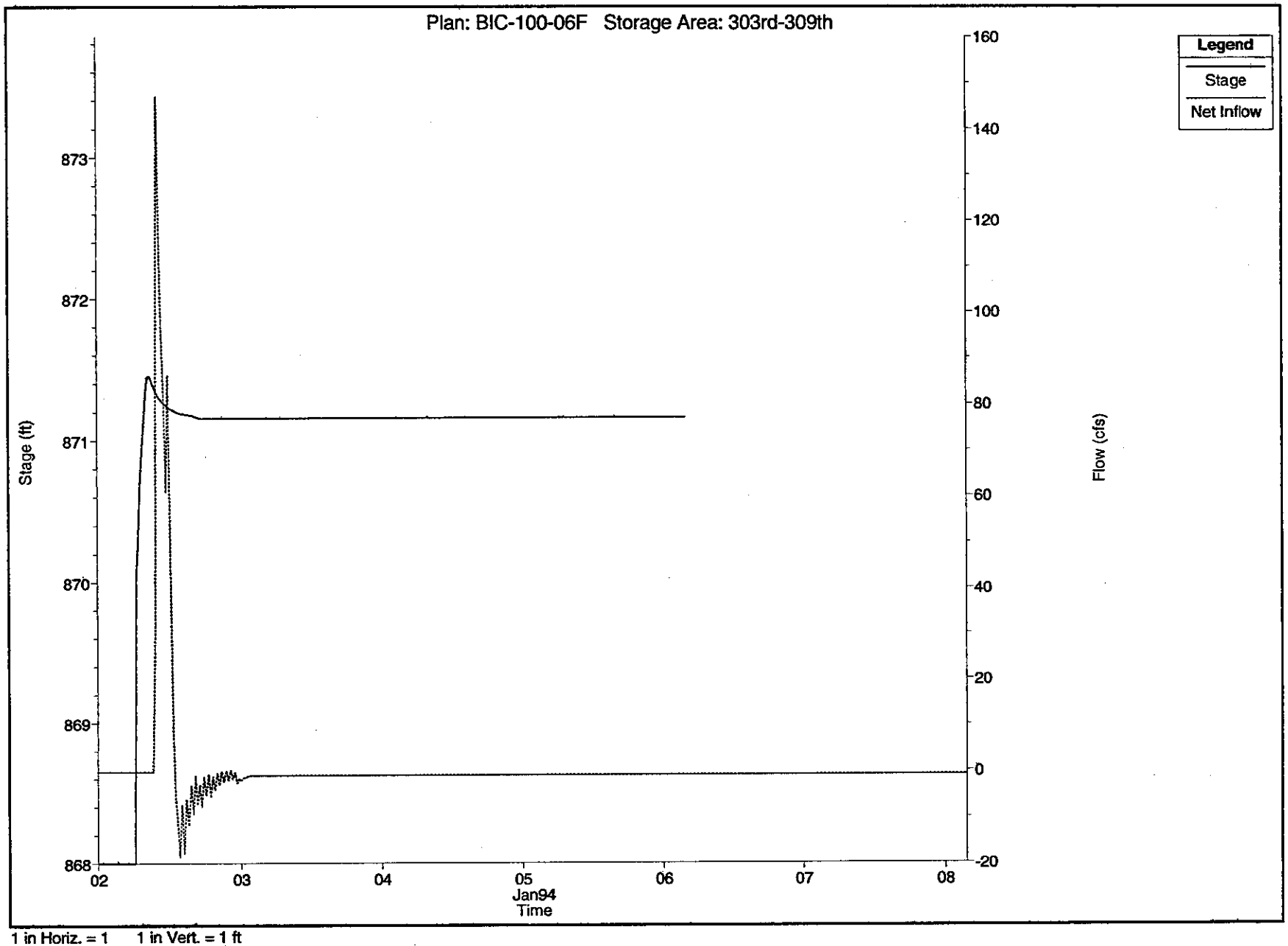
1 in Horiz. = 1 1 in Vert. = 2 ft



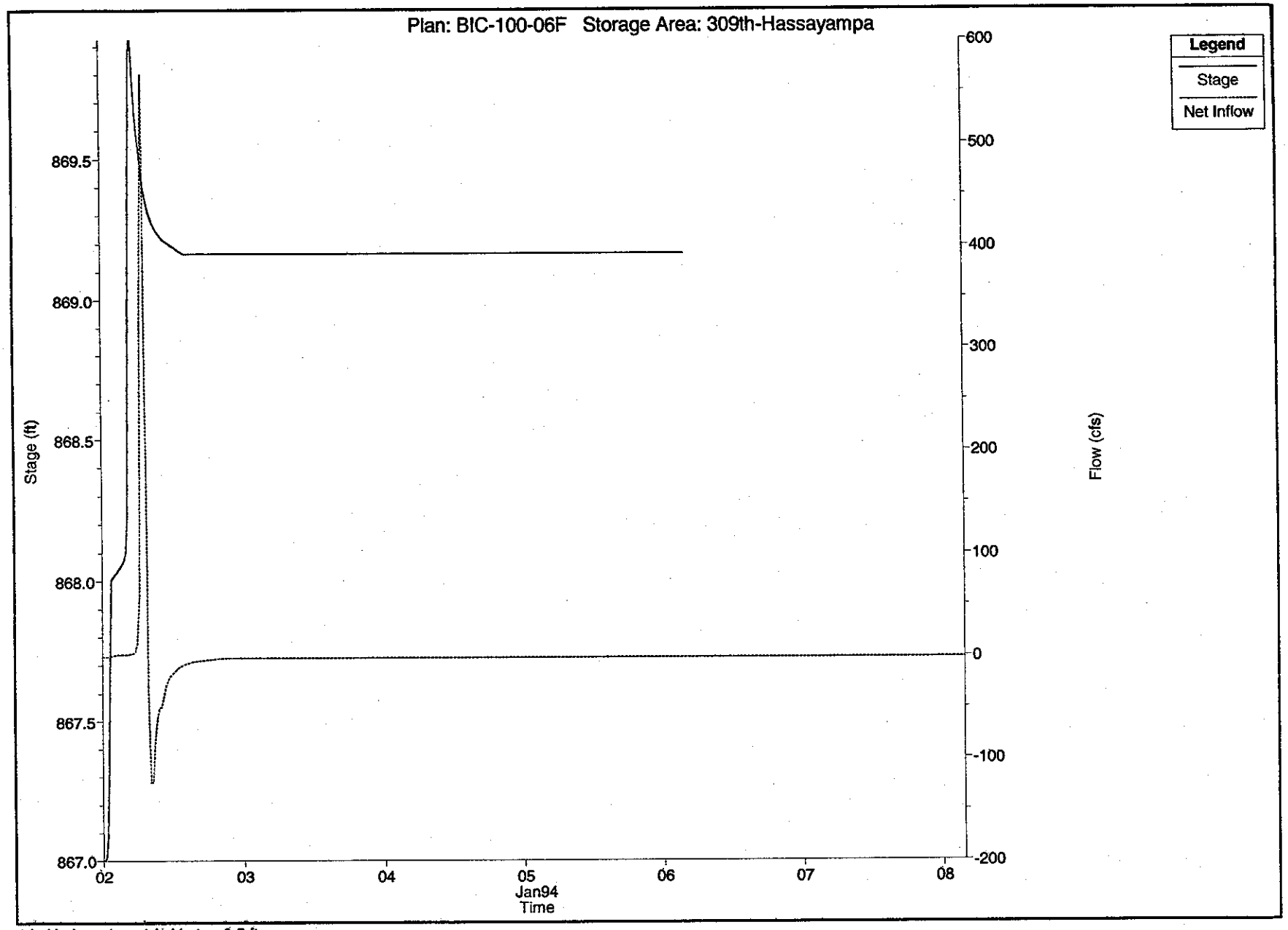
1 in Horiz. = 1 1 in Vert. = 1 ft



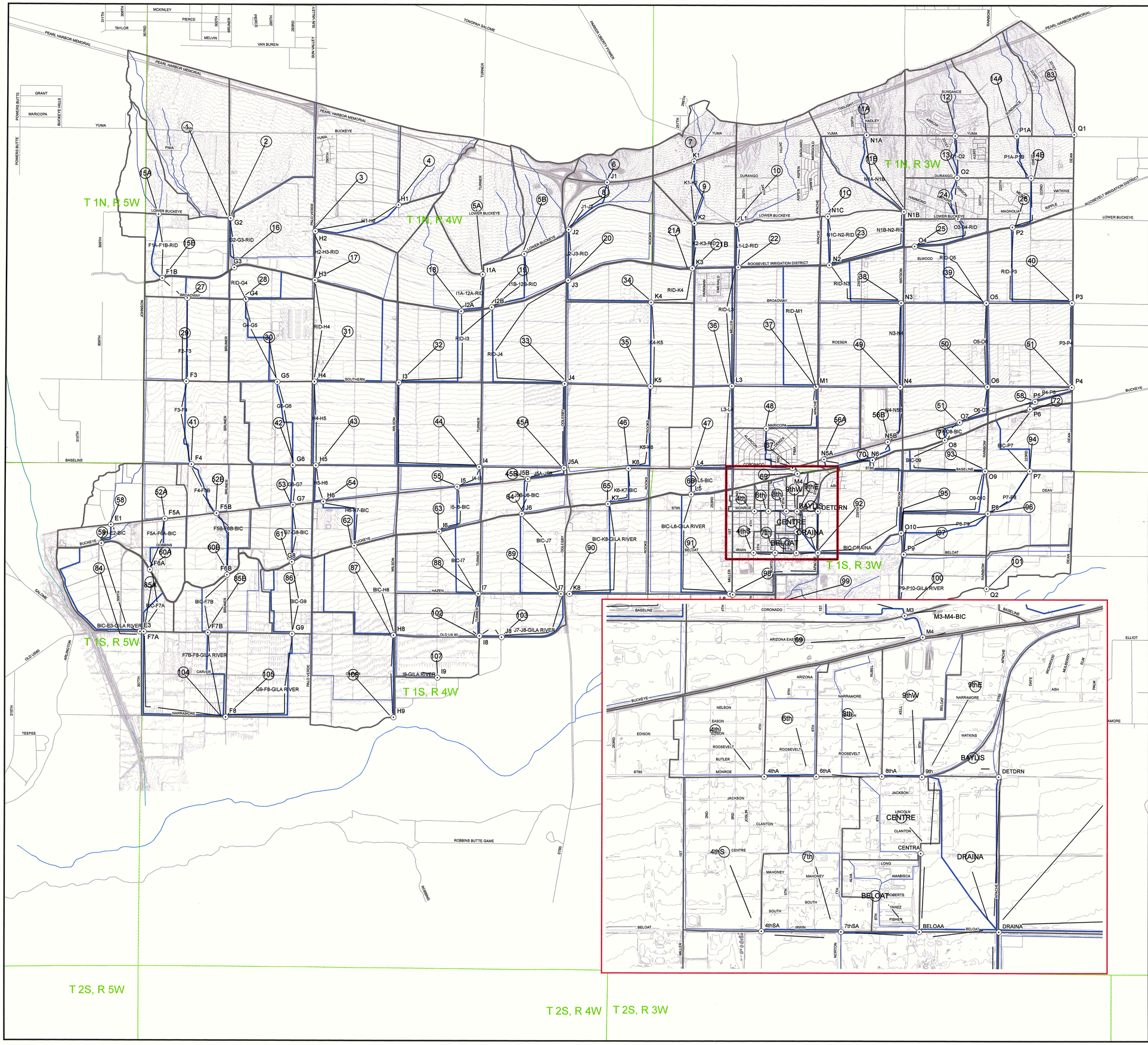
1 in Horiz. = 1 1 in Vert. = 1 ft



1 in Horiz. = 1 1 in Vert. = 1 ft



1 in Horiz. = 1 1 in Vert. = 0.5 ft



BUCKEYE/SUN VALLEY AREA DRAINAGE MASTER STUDY
FCD CONTRACT NO. 2002C027

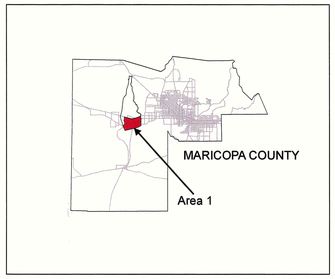
Figure 4-3
Area 1
Existing and Future Schematic Map

LEGEND

- (15) Sub-Basin ID
- RID-G4 Routing Channel ID
- P5 Concentration/Combining Point
- Routing Channel
- Lag Time Path
- Sub-Basin Boundary
- Road
- Contours
- Township-Range

NOTES

INDEX MAP



N

0 2,000 4,000 6,000 Feet

1 inch equals 2,000 feet
countour interval equals 10 feet

Horizontal Coordinate System:
NAD 1983 State Plane Arizona Central
Vertical Coordinate System:
NAVD 1988

PBS&J
7310 N. 16th Street, Suite 310
Phoenix, AZ 85020
(602) 943-1003

	BY	DATE	
DESIGN	SLH	1/06	FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
DESIGN CHK.	SWR	1/06	
PLANS	SLH	1/06	RECOMMENDED BY:
PLANS CHK.	SWR	1/06	APPROVED BY:
SUBMITTED BY:			CHIEF ENGINEER AND GENERAL MANAGER
DATE:			SHEET 1 OF 1

Flood Control District of Maricopa County

BUCKEYE/SUN VALLEY
AREA DRAINAGE MASTER STUDY
FCD CONTRACT NO. 2002C027

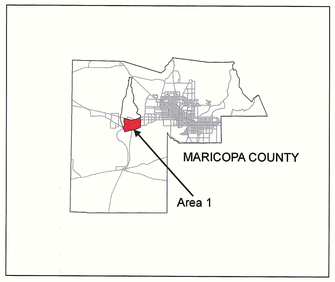
Figure 4-2
Area 1
Watershed Workmap

LEGEND

- P5 Concentration/Combining Point
- Routing Channel
- Lag Time Path
- 15 Sub-Basin Boundary
- Road
- Contours
- Township-Range

NOTES

INDEX MAP



N

0 2,200 4,400 6,600 Feet

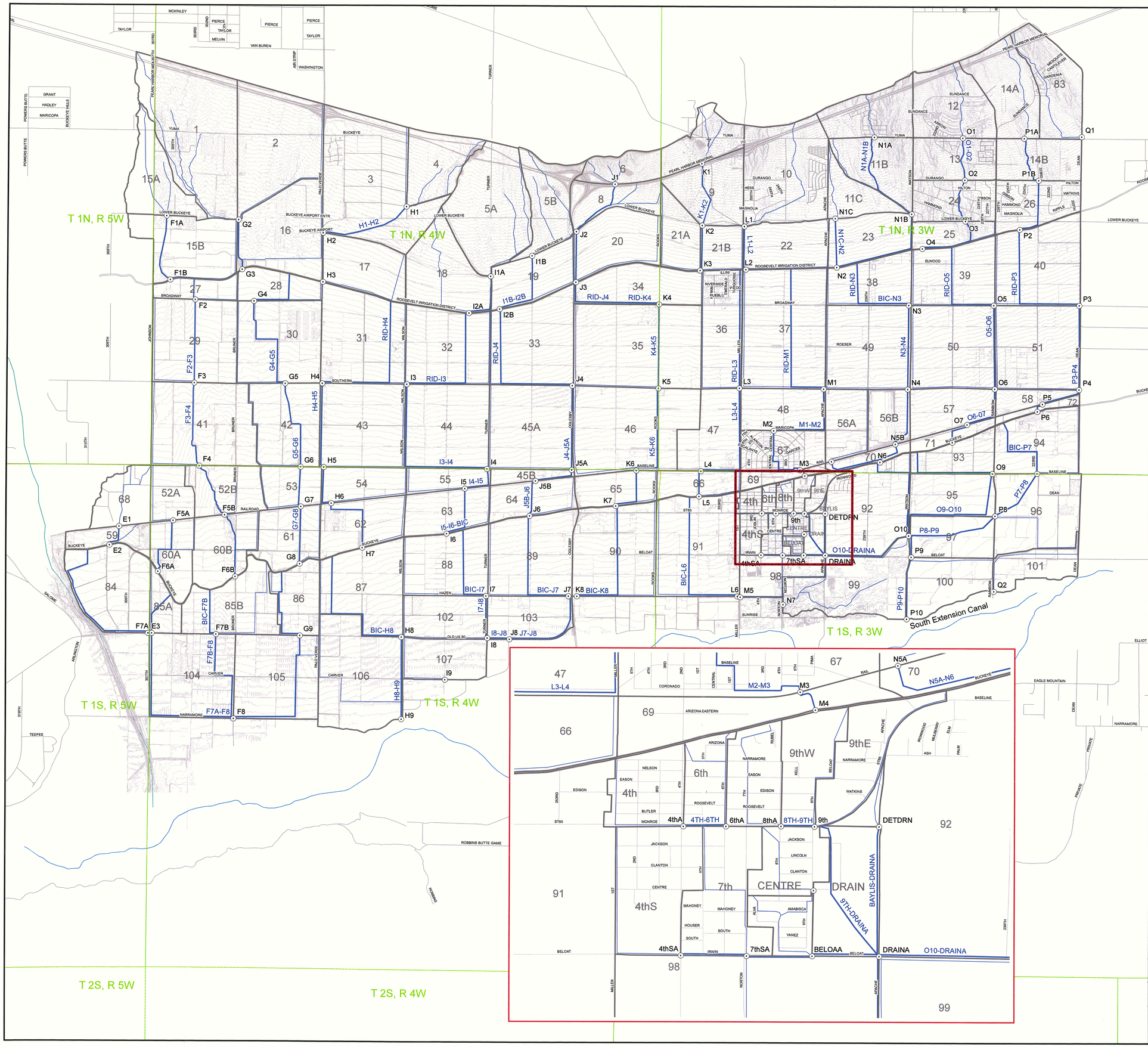
1 inch equals 2,000 feet
countour interval equals 10 feet
Inset scale: 1 inch equals 1,000 feet

Horizontal Coordinate System:
NAD 1983 State Plane Arizona Central
Vertical Coordinate System:
NAVD 1988

PBSJ

7310 N. 16th Street, Suite 310
Phoenix, AZ 85020
(602) 943-1003

	BY	DATE	
DESIGN	SLH	1/06	FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
DESIGN CHK.	SWR	1/06	
PLANS	SLH	1/06	RECOMMENDED BY:
PLANS CHK.	SWR	1/06	APPROVED BY:
SUBMITTED BY: DATE:			CHIEF ENGINEER AND GENERAL MANAGER
			SHEET 1 OF 1



BUCKEYE/SUN VALLEY AREA DRAINAGE MASTER STUDY

FCD CONTRACT NO. 2002C027

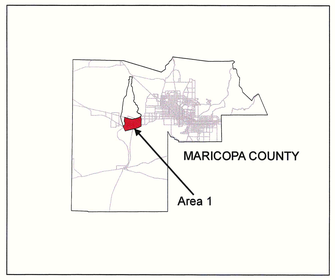
Figure 4-4
Area 1
Routing Map

LEGEND

- P5 — Concentration/Combining Point
- RID-G4 — Routing Channel
- Lag Time Path
- 15 — Sub-Basin Boundary
- Road
- Contours
- Township-Range

NOTES

INDEX MAP



N

0 2,000 4,000 6,000 Feet

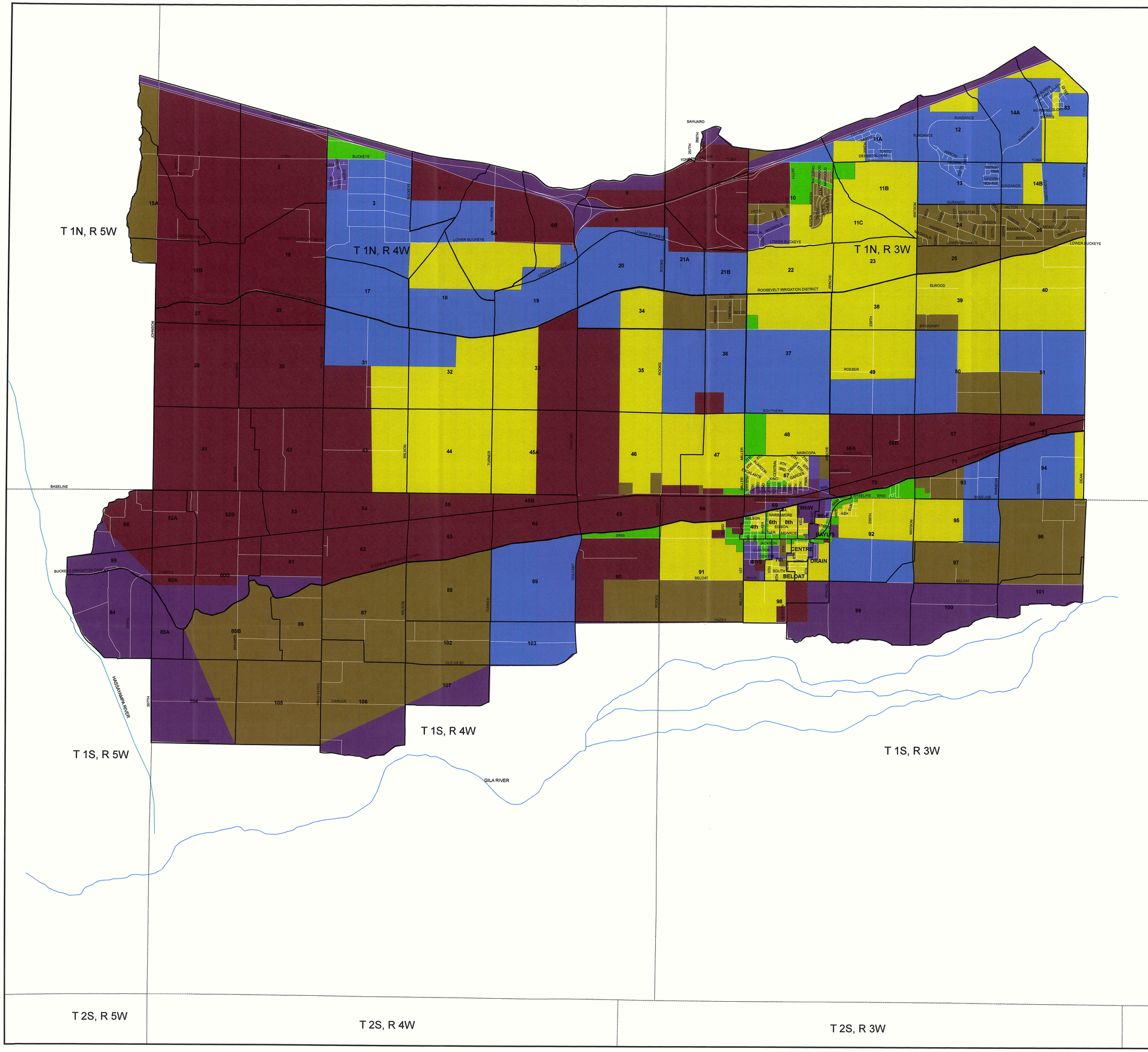
1 inch equals 2,000 feet
countour interval equals 10 feet

Horizontal Coordinate System:
NAD 1983 State Plane Arizona Central
Vertical Coordinate System:
NAVD 1988

PBSJ

7310 N. 16th Street, Suite 310
Phoenix, AZ 85020
(602) 943-1003

	BY	DATE	
DESIGN	SLH	1/06	FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
DESIGN CHK.	SWR	1/06	
PLANS	SLH	1/06	RECOMMENDED BY:
PLANS CHK.	SWR	1/06	APPROVED BY:
SUBMITTED BY:			CHIEF ENGINEER AND GENERAL MANAGER
DATE:			SHEET 1 OF 1



BUCKEYE/SUN VALLEY AREA DRAINAGE MASTER STUDY
FCD CONTRACT NO. 2002C027

Figure 4-6B
Area 1
Future Conditions Land Use

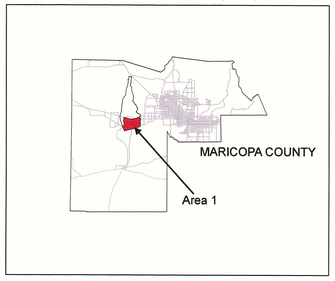
LEGEND

- 83 Sub-Basin Boundary
- Township - Range
- Road

Land Use Type

- Active Open Space
- Community Commercial
- Estate Residential
- General Commercial
- High Density Residential
- Industrial
- Large Lot Residential
- Medium Density Residential
- Medium Lot Residential
- Mixed Use (Jurisdiction defined)
- Neighborhood Commercial
- Other Employment
- Passive Open Space
- Public Facilities
- Rural Residential
- Small Lot Residential
- Tourist Accommodations
- Very High Density Residential
- Water

INDEX MAP



N

0 1,900 3,800 5,700 Feet

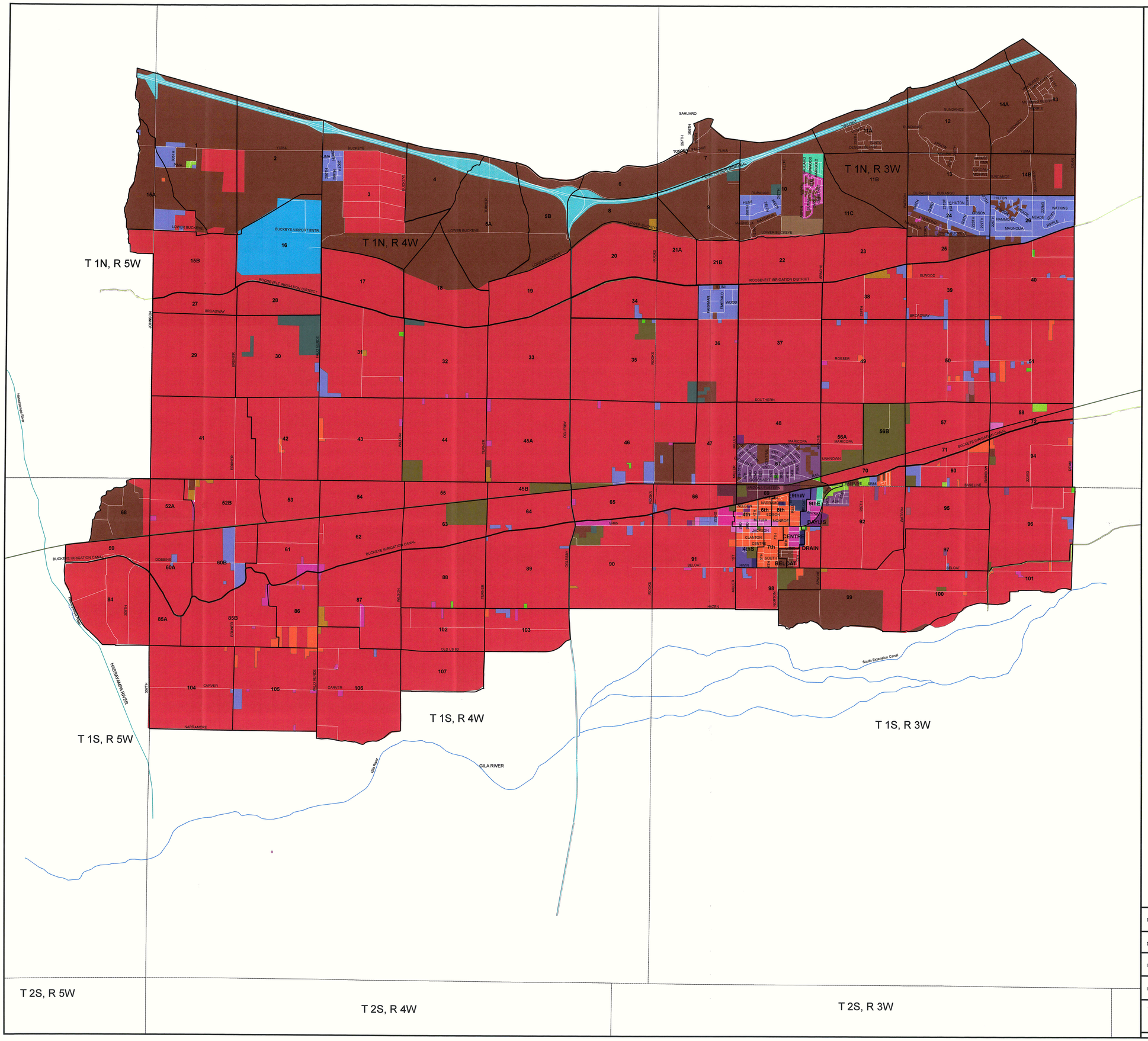
1 inch equals 2,000 feet
countour interval equals 10 feet

Horizontal Coordinate System:
NAD 1983 State Plane Arizona Central
Vertical Coordinate System:
NAVD 1988

Land Use Data Source: FCDMC

PBSJ
7310 N. 16th Street, Suite 310
Phoenix, AZ 85020
(602) 943-1003

	BY	DATE	
DESIGN	SLH	1/06	FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
DESIGN CHK.	SWR	1/06	
PLANS	SLH	1/06	RECOMMENDED BY:
PLANS CHK.	SWR	1/06	APPROVED BY:
SUBMITTED BY:			CHIEF ENGINEER AND GENERAL MANAGER
DATE:			SHEET 1 OF 1



Flood Control District of Maricopa County

BUCKEYE/SUN VALLEY
AREA DRAINAGE MASTER STUDY
FCD CONTRACT NO. 2002C027

Figure 4-6A
Area 1
Existing Condition Land Use

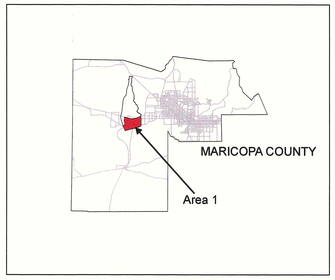
LEGEND

- 83 Sub-Basin Boundary
- Township - Range
- Road

Land Use Type

- Active Open Space
- Agriculture
- Airports
- Business Park
- Community Commercial
- Educational
- Estate Residential
- General Industrial
- General Open Space
- High Density Residential
- Industrial
- Institutional
- Large Lot Residential
- Medium Density Residential
- Medium Lot Residential
- Neighborhood Commercial
- Office Low Rise
- Other Employment
- Passive Open Space
- Public Facilities
- Rural Residential
- Small Lot Residential
- Specialty Commercial
- Tourist Accommodations
- Transportation
- Vacant
- Very Small Lot Residential
- Warehouse
- Water

INDEX MAP



N

0 2,000 4,000 6,000 Feet

1 inch equals 2,000 feet
countour interval equals 10 feet

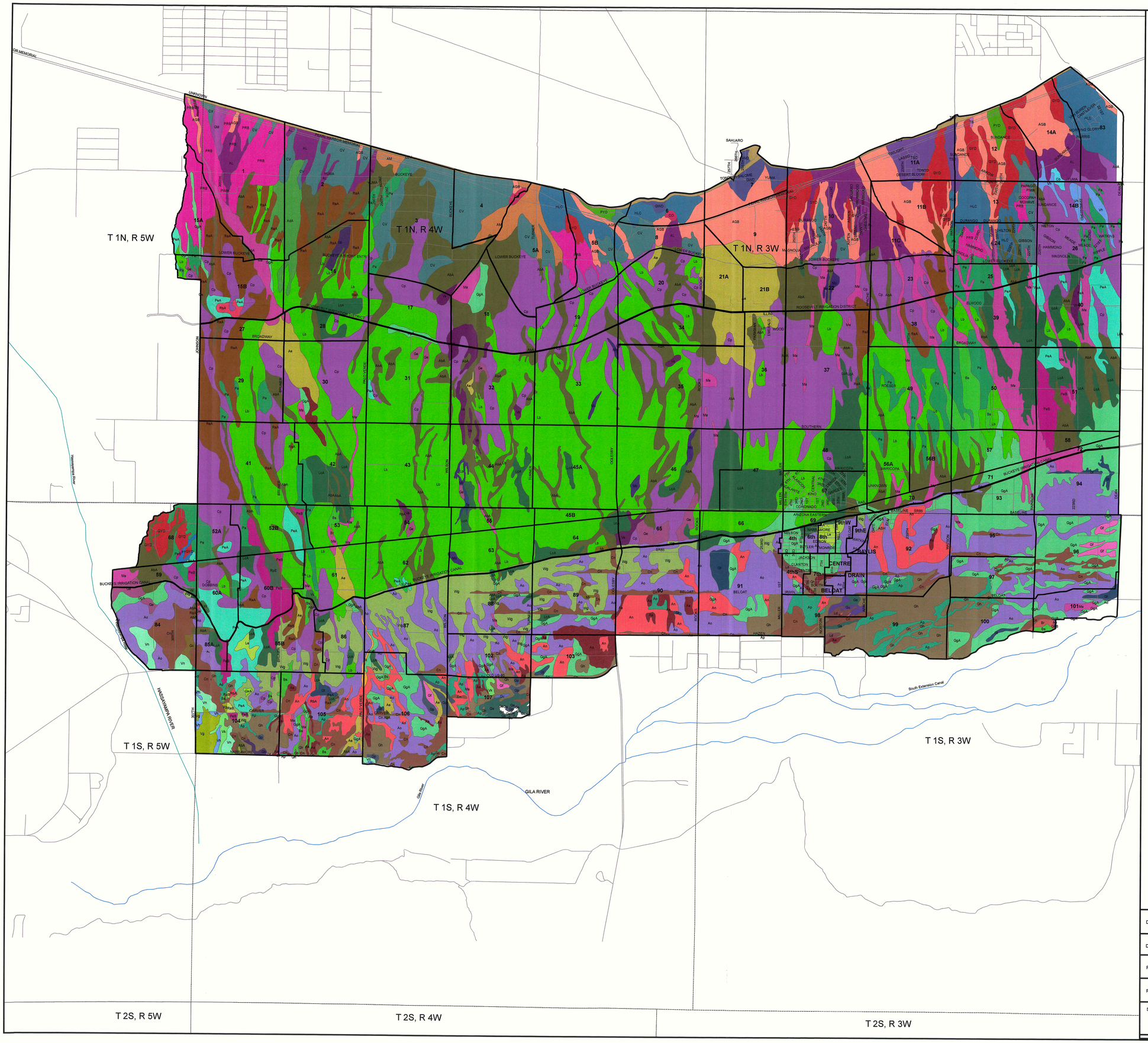
Horizontal Coordinate System:
NAD 1983 State Plane Arizona Central
Vertical Coordinate System:
NAVD 1988

Land Use Data Source: FCDMC

PBS&J

7310 N. 16th Street, Suite 310
Phoenix, AZ 85020
(602) 943-1003

	BY	DATE	
DESIGN	SLH	1/06	FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
DESIGN CHK.	SWR	1/06	
PLANS	SLH	1/06	RECOMMENDED BY:
PLANS CHK.	SWR	1/06	APPROVED BY:
SUBMITTED BY:		DATE:	CHIEF ENGINEER AND GENERAL MANAGER
			SHEET 1 OF 1



Flood Control District of Maricopa County

BUCKEYE/SUN VALLEY
AREA DRAINAGE MASTER STUDY
FCD CONTRACT NO. 2002C027

Figure 4-5
Area 1
Soils Map

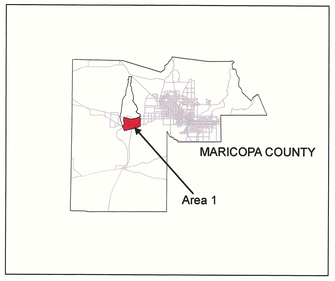
LEGEND

83 Sub-Basin Boundary
Road
Township - Range

Soil Type

AGB	Cp	GxA	RaA
AL	GM	HLC	RaB
AM	GN	LEV	RbA
Aa	GPI	Lb	RpE
AbA	GWD	LcA	TB
AdA	GYD	Ld	TD
Ae	Gb	Le	TSC
An	Gc	Ma	Ta
Ao	Ge	Mo	Tu
Ap	Gf	Mr	Va
Br	GgA	PRB	Vg
Bs	GgB	PT	Vh
Bt	Gh	PWB	Vk
CF	Gp	PYD	Vn
CO	Gs	Pa	W
CV	Gt	PeA	Wg
Cb	Gu	PeB	
Cn	Gv	RS	

INDEX MAP



N

0 2,000 4,000 6,000 Feet

1 inch equals 2,000 feet
countour interval equals 10 feet

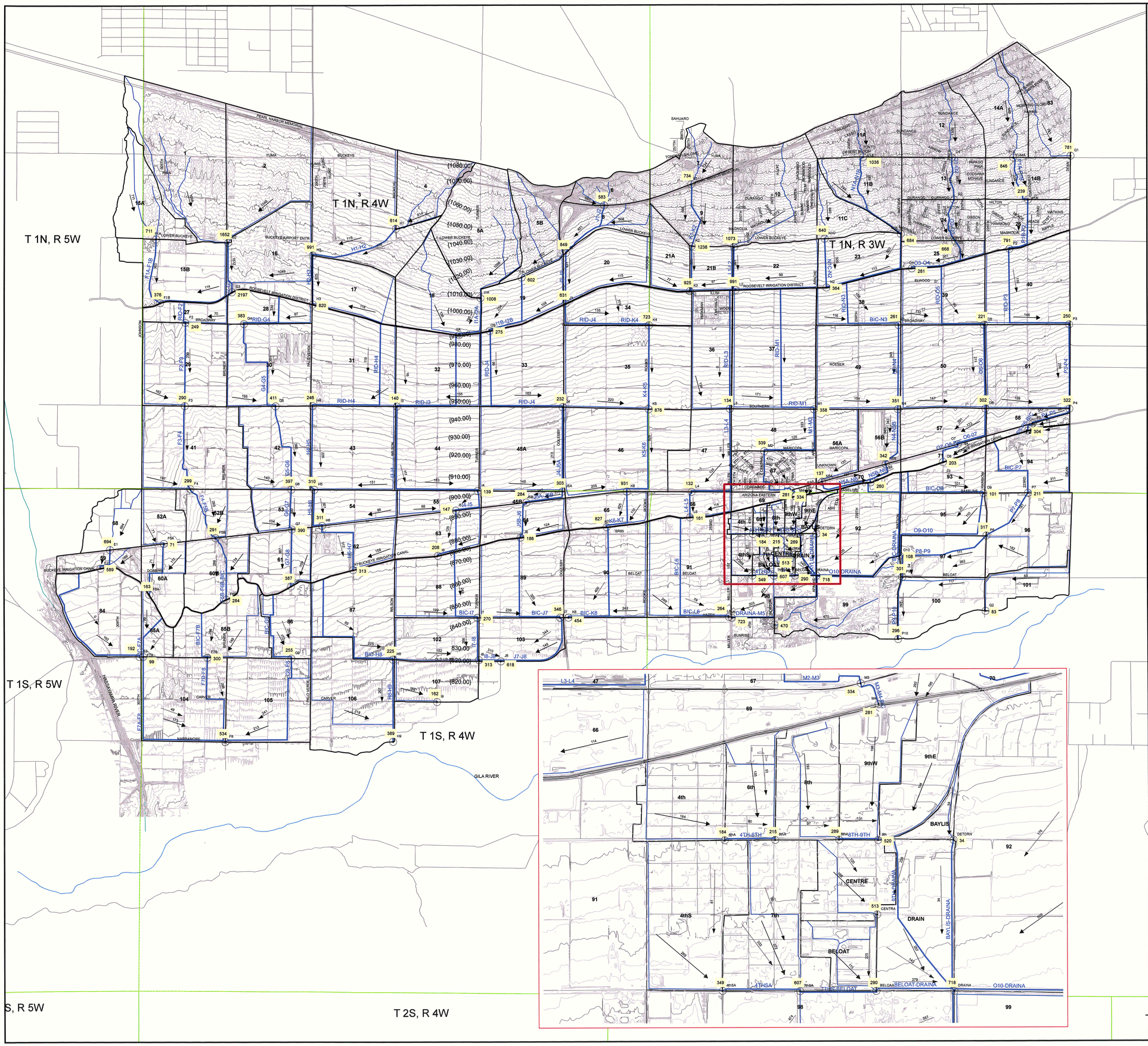
Horizontal Coordinate System:
NAD 1983 State Plane Arizona Central
Vertical Coordinate System:
NAVD 1988

Soils Data Source: FCDMC

PBSJ

7310 N. 16th Street, Suite 310
Phoenix, AZ 85020
(602) 943-1003

	BY	DATE	
DESIGN	SLH	1/06	FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
DESIGN CHK.	SWR	1/06	
PLANS	SLH	1/06	RECOMMENDED BY:
PLANS CHK.	SWR	1/06	APPROVED BY:
SUBMITTED BY: DATE:			CHIEF ENGINEER AND GENERAL MANAGER
			SHEET 1 OF 1



Flood Control District of Maricopa County

BUCKEYE/SUN VALLEY
AREA DRAINAGE MASTER STUDY
FCD CONTRACT NO. 2002C027

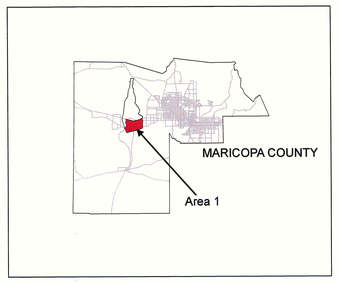
Figure 4-7A
Area 1
Existing Condition Peak Flow Rates Map

LEGEND

- Existing 100-year 6-hour Routed Peak Flows (CFS)
- Existing 100-year 6-hour Sub-Basin Peak Flow (CFS)
- 83 Sub-Basin Boundary
- G2 Concentration Point with Existing Combined Peak Flow (CFS)
- Routing Channel
- Lag Time Path
- Township - Range
- Road
- 10' Contour
- 2' Contour

NOTES

INDEX MAP



N

0 2,100 4,200 6,300 Feet

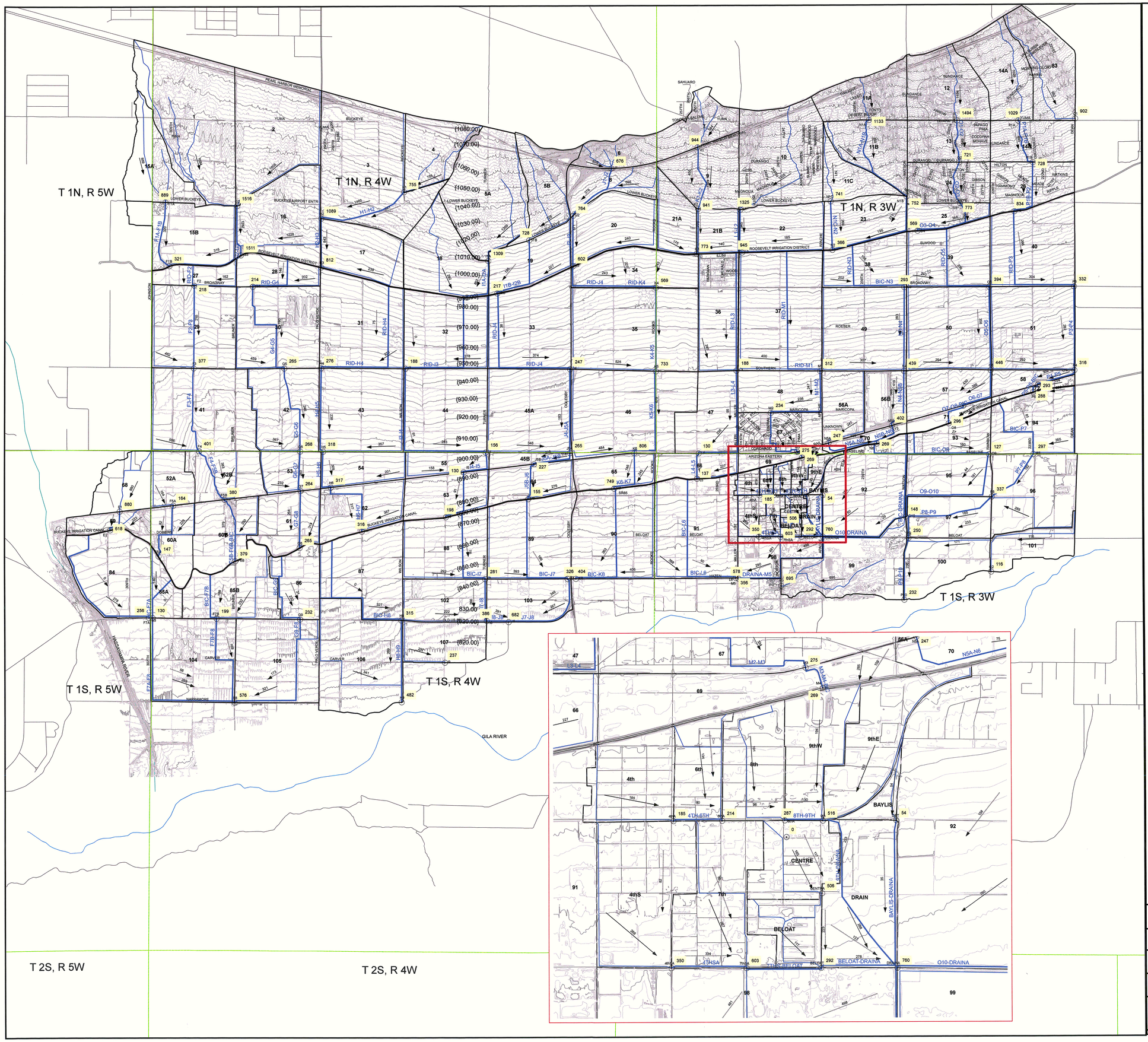
1 inch equals 2,000 feet
countour interval equals 10 feet

Horizontal Coordinate System:
NAD 1983 State Plane Arizona Central
Vertical Coordinate System:
NAVD 1988

PBSJ

7310 N. 16th Street, Suite 310
Phoenix, AZ 85020
(602) 943-1003

	BY	DATE	
DESIGN	SLH	1/06	FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
DESIGN CHK.	SWR	1/06	
PLANS	SLH	1/06	RECOMMENDED BY:
PLANS CHK.	SWR	1/06	APPROVED BY:
SUBMITTED BY:			CHIEF ENGINEER AND GENERAL MANAGER
DATE:			SHEET 1 OF 1



Flood Control District of Maricopa County

BUCKEYE/SUN VALLEY
AREA DRAINAGE MASTER STUDY
FCD CONTRACT NO. 2002C027

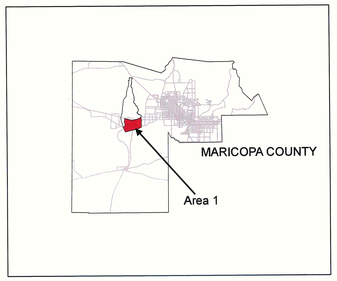
Figure 4-7B
Area 1
Future Condition Peak Flow Rates Map

LEGEND

- Future 100-year 6-hour Routed Peak Flows (CFS)
- Future 100-year 6-hour Sub-Basin Peak Flow (CFS)
- 83 Sub-Basin Boundary
- G2 Concentration Point with Existing 100-year 6-hour Combined Peak Flow (CFS)
- Routing Channel
- Lag Time Path
- Township - Range
- Road
- 10' Contour
- 2' Contour

NOTES

INDEX MAP



N

0 3,400 6,800 10,200 Feet

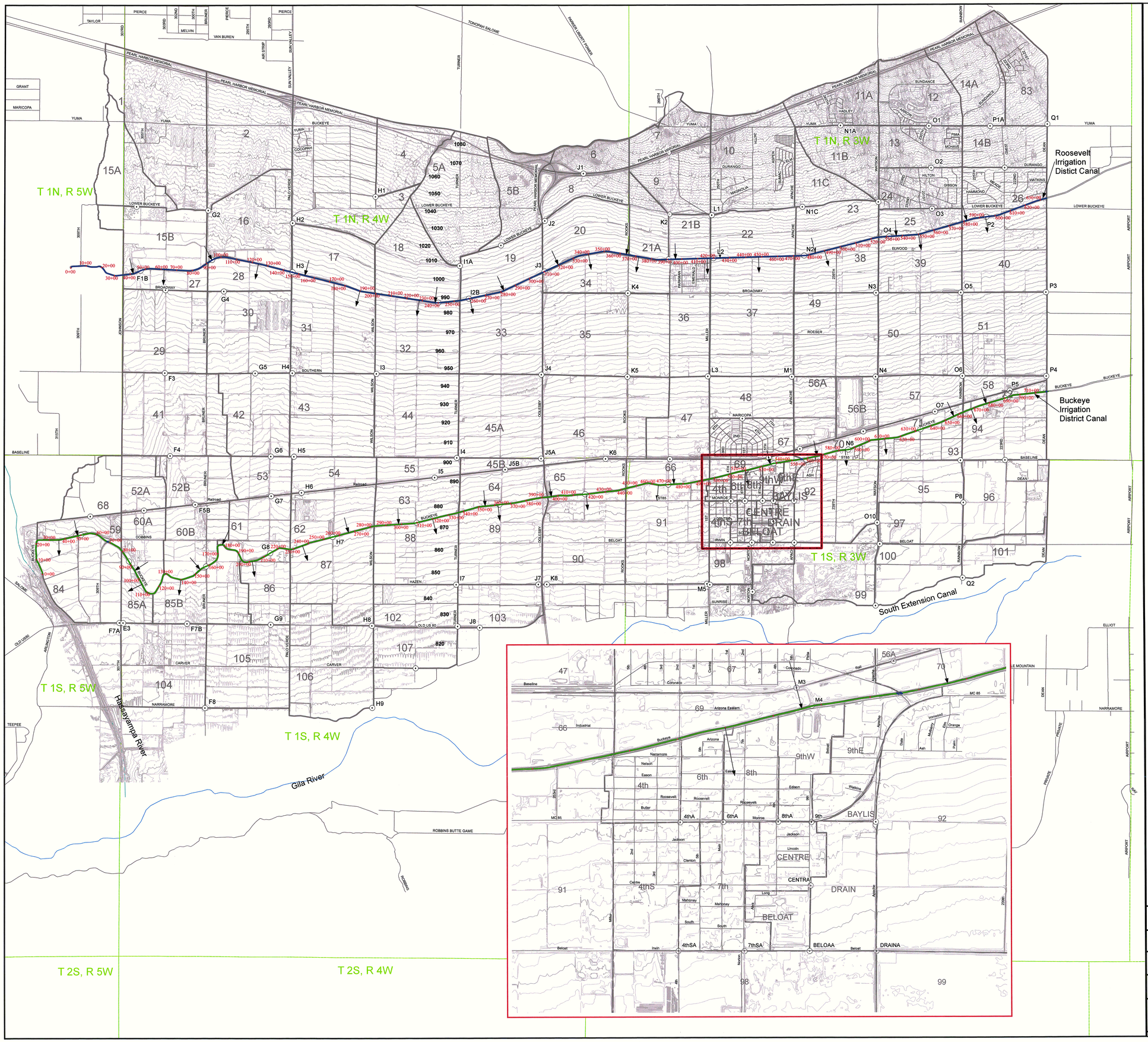
1 inch equals 2,000 feet
countour interval equals 10 feet

Horizontal Coordinate System:
NAD 1983 State Plane Arizona Central
Vertical Coordinate System:
NAVD 1988

PBSJ

7310 N. 16th Street, Suite 310
Phoenix, AZ 85020
(602) 943-1003

	BY	DATE	
DESIGN	SLH	1/06	FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
DESIGN CHK.	SWR	1/06	
PLANS	SLH	1/06	RECOMMENDED BY:
PLANS CHK.	SWR	1/06	APPROVED BY:
SUBMITTED BY:			CHIEF ENGINEER AND GENERAL MANAGER
DATE:			SHEET 1 OF 1



Flood Control District of Maricopa County

BUCKEYE/SUN VALLEY
AREA DRAINAGE MASTER STUDY
FCD CONTRACT NO. 2002C027

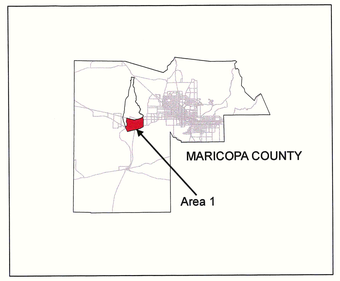
Figure 4-8
Area 1
Overtopping Location Map

LEGEND

- P5 Concentration/Combining Point
- Overtopping Location
- 0+00 Canal Station
- 15 Sub-Basin Boundary
- Roosevelt Irrigation District Canal
- Buckeye Irrigation District Canal
- Township-Range
- Road
- Contour-Inter
- Contour-Index

NOTES

INDEX MAP



N

0 1,600 3,200 4,800 Feet
1 inch equals 2,000 feet

Horizontal Coordinate System:
NAD 1983 State Plane Arizona Central
Vertical Coordinate System:
NAVD 1988

PBSJ

7310 N. 16th Street, Suite 310
Phoenix, AZ 85020
(602) 943-1003

	BY	DATE	
DESIGN	SLH	1/06	FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
DESIGN CHK.	SWR	1/06	
PLANS	SLH	1/06	RECOMMENDED BY:
PLANS CHK.	SWR	1/06	APPROVED BY:
SUBMITTED BY: DATE:			CHIEF ENGINEER AND GENERAL MANAGER
			SHEET 1 OF 1