Interim Operational Plan
for
White Tanks Flood Retarding Structure No. 3 Outlet Pipes

Property of
Flood Control District of MC Library
Please Return to
2801 W. Durango
Phoenix, AZ 85009

Registered Professional Engineer (Civil)
CERTIFICATE NO.
31703
AMIR M.
MOTAMEDI
Date Signed 2-6-01
ARIZONA, U.S.A.

Engineering Division
Flood Control District of Maricopa County
2801 W. Durango Street
Phoenix, AZ 85009

February 6, 2001

Interim Operational Plan
for
White Tanks Flood Retarding Structure No. 3 Outlet Pipes

Engineering Division
Flood Control District of Maricopa County
2801 W. Durango Street
Phoenix, AZ 85009

February 6, 2001

FIGURES

1. Vicinity Map
2. Outlet Pipe Locations
3. Floodplains in White Tanks FRS No.3 Watershed
4. Sept., 1992 Event Photos
5. Downstream Inundation of Central Pipe for White Tanks FRS No.3
6. 99% Interim Design Plan View
7. 99% Interim Emergency Spillway Modification Plan
8. 99% Interim Emergency Spillway Sections
9. Interim Emergency Spillway Modification Rating Curve.
10. Summary Elevation Schematic

TABLES

1. Historical Storms for White Tanks FRS No.3
2. Emergency Notification Elevations for White Tanks FRS No.3 (FCDMC, 10/99)
3. Drawdown Time for 100-year, 24-hour Elevations for White Tanks FRS No.3
4. Comparison of Existing and Proposed Interim Elevations for Operational and Emergency Plans for White Tanks FRS.No.3

APPENDICIES

Appendix 1. Historical Storms
Appendix 1.1 SCS 1970 Memorandum on 1970 Storm in White Tanks No.3
Appendix 1.2 FCDMC ALERT-Recorded Storms
Appendix 2. Rating Curves for Outlet Pipes
Appendix 3. Plots for Drawdown
Appendix 4. Revised IDF TR-20 Model
Appendix 5. HEC-1 Drawdown Model
Appendix 6. Interim Emergency Spillway Rating Curve Analyses
Appendix 7. HEC-RAS Inundation Model for the Central 48" Principle Outlet Pipe
Appendix 8. Excerpts from existing FCDMC and MCDEM Emergency Response Plans

Registered Professional Engineer (Civil)
CERTIFICATE NO.
31703
AMIR M.
MOTAMEDI
Date Signed 2-6-01
ARIZONA, U.S.A.

TABLE OF CONTENTS

PART 1 PRELIMINARY OPERATIONAL PLAN ANALYSES.....1

1.1 Introduction.....1

1.2 Brief History of White Tanks No.3.....1

1.3 Major Historical Storms in White Tanks No.3 Watershed.....2

1.4 Dam Safety Issues for White Tanks No.3.....3

1.5 Existing Emergency Notification Procedures and Operational Plan for Outlet Pipes.....4

1.6 Hydrologic Analysis for New Operational Plans.....4

1.7 Proposed New Emergency Notification Procedures and Operational Plan for Outlet Pipes....6

1.8 Downstream Floodplain Impact.....8

PART 2 FINAL INTERIM OPERATIONAL PLAN AND ANALYSES.....9

2.1 Purpose.....9

2.2 Revised Hydrologic and Hydraulic Analyses.....9

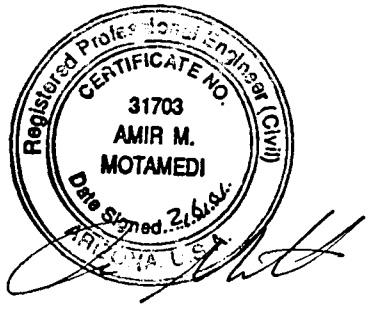
2.3 Operational Scenarios.....10

2.4 Responsibilities and Actions.....11

2.5 Downstream Impacts.....12

2.6 Recovery Actions.....13

References.....14



PART 1 PRELIMINARY OPERATIONAL PLAN ANALYSES

1.1 INTRODUCTION

The Flood Control District of Maricopa County (FCDMC) is proceeding with implementation of interim dam safety improvements to White Tanks Flood Retarding Structure (FRS) No. 3 (Construction Contract FCD 2000C028). In this report, an interim operational plan is developed for the principle outlet pipes of White Tanks FRS No.3 associated with these improvements. The data and analyses supporting the interim operational plan are documented in this report. Part 1 of this report presents the results of the preliminary analyses performed to evaluate the hydraulic conditions associated with different combinations of flow releases from the three principle outlet pipes. Part 1 has also been revised to address the majority of comments made during review by the Arizona Department of Water Resources (ADWR). Part 2 of this report specifically addresses the final interim operational plan that will be in place as a result of the interim safety improvements to the White Tanks FRS No.3 which require permitted approval by ADWR. For a detailed technical explanation of the existing conditions and proposed modifications to the White Tanks FRS No.3 please refer to the Dames & Moore report titled "Design Report Interim Dam Safety Improvement, White Tanks FRS No. 3" (7/2000). Part 2 also expands upon the information presented in Part 1 to further clarify responses to the rest of the review comments.

1.2 BRIEF HISTORY OF WHITE TANKS FRS NO.3

White Tanks No.3 is an earthen dam located about 20 miles west of Phoenix, Maricopa County, Arizona (Figure 1). It was constructed by Natural Resources Conservation Services (NRCS) in 1954 to protect farmland and irrigation facilities from 100-year storm runoff from the White Tanks Mountains. White Tanks No.3 is owned and maintained by Flood Control District of Maricopa County (FCDMC). The ADWR is the jurisdictional agency for the dam and conducts annual inspections of the dam. The embankment crest has a crest width of 10 feet and

length of 7667 feet. The embankment crest design elevation is 1216 feet (above mean sea level). The hydraulic height of the dam is 28.8 feet. The emergency spillway crest elevation is 1210 feet.

The dam has three principal outlets (two 48" corrugated metal pipes and one 24" corrugated metal pipe). See Figure 2 for the locations of the outlet pipes. The intake elevation for the north 48" pipe, middle 48" pipe, and south 24" pipe are 1193.65 feet, 1191.68 feet, and 1192.56 feet, respectively (ERTEC WESTERN, 1981). The White Tanks No. 3 watershed with an area of about 20.5 square miles consists of mountainous and foothill areas within the White Tank Mountains (WLB, 1994). Land slopes range from 1% in the foothills to 100% or more in the steepest mountainous areas. Figure 3 shows the FEMA 100-year floodplains in the vicinity of White Tanks No.3.

1.3 MAJOR HISTORICAL STORMS IN WHITE TANKS FRS NO.3 WATERSHED

There have been several major storms in the White Tanks No.3 watershed. The largest recorded storm occurred on Saturday, September 5, 1970. It is reported that 4.5" of precipitation was recorded in a gauge near the intersection of Jackrabbit Road (195th Avenue) and West Indian School Road (SCS, 1970). The center of the storm was not in the White Tanks No.3 watershed. White Tanks No.3 received an inflow of approximately 350 acre-feet. Based on a SCS 1970 Memorandum, the reservoir was emptied in a matter of a few days through seepage into the ground. The 1970 SCS Memorandum is attached in Appendix 1.1.

Since the FCDMC's Automated Local Evaluation in Real Time (ALERT) rainfall/water level gage (ID: 5415) was installed by FCDMC on White Tanks No.3 Dam in March, 1986, there have been four major storms. Table 1 lists the information for the 1970 storm and the ALERT-recorded storms. The detailed information on the ALERT-recorded gage information can be found in Appendix 1.2. Figure 4 includes photographs taken to document the effects of the 1992 storm on White Tanks FRS No.3.

1.4 DAM SAFETY ISSUES FOR WHITE TANKS FRS NO.3

Maricopa County is the fastest growing county in the United States (in terms of population). Based on Maricopa Association of Governments' population projection, the population will continue increasing 32% from 1998 to 2010. White Tanks FRS No.3 is an earthen dam and was originally constructed in 1954 to protect downstream farmland and irrigation facilities. These farmland areas are increasingly subject to significant urbanization, i.e. many new housing developments have replaced farmland. As a consequence, the level of risk has increased and the safety of White Tanks FRS No.3 has become increasingly important.

Since White Tanks FRS No.3 was constructed in 1954, the dam crest has settled approximately 4.5 feet at the north end of the dam (Dames & Moore, 1998). This settlement is due to regional land subsidence attributed to excessive groundwater withdrawal in the adjacent areas. This settlement has reduced the total freeboard to the point where a dam safety deficiency exists. This safety deficiency resulted in White Tanks FRS No.3 Dam being classified as "Unsafe" because it does not currently meet the ADWR's minimum freeboard requirements to safely pass the 0.5 Probable Maximum Flood (PMF) through its emergency spillway (Lawrence, 1999). Other problems that may increase downstream flooding risk can be found in the Dames & Moore (1998) report.

The FCDMC has evaluated a project to modify White Tanks FRS No.3 in order to correct the dam safety deficiency. More recently the FCDMC has evaluated alternatives to remove the dam and construct a regional detention basin, which has become the preferred alternative. However, the detention basin construction will not begin till January 2002 or later. The FCDMC is seeking federal funding assistance for this project. Therefore, construction of the basin project to replace the flood control function of the dam and associated removal of the dam may not begin for 3 to 5 years. Thus, interim dam safety measures are to be implemented by the FCDMC (Renckly, 1999) until such time as the basin project is implemented. After reviewing the interim

dam safety measures, ADWR required the FCDMC to lower a section of the emergency spillway crest from 1210 feet to 1207.0 feet to satisfy ADWR's minimum 4 feet total freeboard requirement (the lowest spot of the dam is at 1211.5 feet), add trash racks to the inlets of the principle outlet pipes, add diaphragm filters to the outlet pipes, and develop an interim operational plan for the principle outlets. It is intended that the additional ADWR 3 feet residual freeboard requirement will be waived during the interim period .

1.5 EXISTING EMERGENCY NOTIFICATION PROCEDURES AND OPERATIONAL PLAN FOR OUTLET PIPES

The existing emergency notification water surface elevations for White Tanks FRS No.3 are shown in Table 2. Some minor errors were found in the existing depths (relative to 1190.17 zero gage height) for 25%, 50%, and 100% storage levels. The modified values are shown in Table 2.

The existing operational plan for White Tanks FRS No.3 outlet pipes is quoted as follows (FCDMC, 10/01/1999):

> **White Tanks FRS #3**
> The gated outlet is to remain closed, unless otherwise directed by the FCD Operations Center. The Beardsley Water District needs to be notified before water is released into their canal. The Water District has the right to open and close the gate at their discretion. They are supposed to notify the District when they change the position of this gate.

1.6 HYDROLOGIC ANALYSES FOR INTERUM OPERATIONAL PLAN OPTIONS

Hydrologic analyses were performed to determine how long it will take to empty the reservoir to the elevation of the outlet pipe intakes after one, two or three outlet pipes are opened at the maximum water surface elevation for a 100-year 24-hour storm. The purpose for determining how long it will take to empty the reservoir is to make sure the outlet pipes are able to empty the reservoir within 10 days as required by ADWR. If the outlet pipes are able to empty the reservoir within 10 days for the 100-year 24-hour storm, then the starting elevation for routing the inflow design flood (0.5 PMF) through the reservoir can be equal to the 10-day

drawdown elevation.

A hydrologic model (HEC-1 model) was developed by modifying the White Tank/Agua Fria ADMS HEC-1 model to determine the runoff volume from the watershed. Seven HEC-1 models were developed to model the drawdown for the reservoir, which correspond to seven different ways of opening the outlet pipes, i.e., only north 48" is open, only middle 48" is open, only south 24" is open, both north 48" and middle 48" are open, both north 48" and south 24" are open, both middle 48" and south 24" are open, and all three pipes are open. The discharge-elevation rating curves for the individual outlet pipes and the combination of two or three outlet pipes can be found in Appendix 2. The drawdown modeling starts at the maximum water surface elevation (assuming that the gates are closed during the 100-year 24-hour storm and the gates are opened when the maximum water surface elevation is reached). The hydrologic/hydraulic assumptions used in the HEC-1 model are as follows:

1. The soils (Quilotosa-vaiva-rock) in the mountainous areas contain 95% rock.
2. The borrow pit near White Tanks FRS No.3 is filled. The hydraulic conductivity for the filled pit soil is the same as the neighboring soil's hydraulic conductivity.
3. The existing land use is used (except for the borrow pit)
4. The 100-year flows will be contained in the north inlet channel and carried to White Tanks FRS No.3.

The above assumptions will make the results more conservative, i.e., higher runoff volume generated from the watershed.

By running the HEC-1 model with the above assumptions, the runoff volume was computed as 1968 ac-ft, with a storage elevation of 1205.11 feet. Then, the HEC-1 models for drawdown were run to determine the drawdown time for emptying the reservoir to the outlet pipe intake elevations. The drawdown time is the time required for lowering the maximum 100-year 24-hour water surface elevation to the outlet pipe intake elevation. It should be pointed out that

ground infiltration is not considered here even though the historical storms show the infiltration is significant. Therefore, the actual drawdown time should be less. The results can be summarized in Table 3. The plots can be found in Appendix 3.

Table 3 shows that it takes less than 10 days to empty the reservoir to its outlet pipe intake elevations for all six of the seven cases. Herein, "empty" means that the water surface elevation reaches the outlet pipe intake elevations. For example, in the case that only the middle 48" pipe is opened, the intake elevation for the outlet pipe is at 1191.68 feet. Table 3 shows that it will take 8 days to lower the maximum water surface elevation (1205.11 feet for the 100-year 24-hour storm) to the intake elevation at 1191.68 feet. The storage volume below 1191.68 feet is about 190 ac-ft. Based on a historical storm, as shown in Table 1, it takes about one day to infiltrate 249 ac-ft. If the infiltration for the first 8 days are ignored (assuming only the middle pipe is used to release the water after the maximum water surface elevation is reached), it will take a total of 9 days to completely empty the reservoir. Then, the starting water surface elevation for routing the inflow design flow (0.5 PMF) can be set at 1176 feet (empty reservoir). Based on Zhao (September 1, 1998), the maximum water surface elevation for the 0.5 PMF is 1210.34 feet when the starting elevation is 1176 feet. The lowest spot of the dam is 1211.5'. Since 1210.34 feet is less than 1211.5 feet and the additional 3-feet residual freeboard is temporarily waived during the interim condition by ADWR, opening the middle 48" pipe will satisfy ADWR's requirement that the reservoir becomes empty in 10-14 days.

1.7 PROPOSED NEW EMERGENCY NOTIFICATION PROCEDURES AND OPERATIONAL PLAN FOR OUTLET PIPES

The existing emergency notification procedures and operational plan for the outlet pipes are being revised in consideration of dam safety deficiencies and in association with interim dam safety improvements. As seen in Table 2 for the existing emergency notification procedures, the Flood Control District of Maricopa County (FCDMC) Operation & Maintenance Division

(O&M) is notified by the FCDMC ALERT staff when the reservoir is 25% storage full (spillway crest at 1210 feet is considered full). Once FCDMC's O&M is notified, a FCDMC crew will be sent to White Tanks FRS No.3 to monitor the dam and continually report to the FCDMC for further instructions. Based on the existing emergency notification procedures, if the reservoir is 50% storage full, then Maricopa County Department of Emergency Management will be notified, and the dam will be under around-the-clock watch by the FCDMC's crew until the storm is over and dam is considered safe as defined in the emergency plan.. As also can be seen in the existing operational plan (Appendix 8) for the principle outlet pipes, the Maricopa County Municipal Water Conservation District (MCMWCD) must be notified if water is to be discharged into the Beardsley Canal. The north 48" (Sta. 29+00, Dames & Moore, 6/2000) outlet pipe discharges water directly into the Beardsley Canal. The flow from middle 48" (Sta. 46+00) and south 24" (Sta.63+80) pipes will pass the Beardsley Canal at Bethany Home Road by an overchute.

The proposed revised interim operational procedures are to notify Maricopa County Department of Emergency Management and send FCDMC's O & M crew to the White Tanks FRS No.3 for around-the-clock watch when the reservoir is at the 25% storage level. Since FCDMC is going to lower a portion of the existing spillway crest elevation by 3.0 feet (from 1210 feet to 1207.0 feet) as required by ADWR, the full storage will correspond to the volume at 1207.0 feet (2575 ac-feet). The volume, elevation, and staff gage height for the 25% storage level are 644 ac-ft, 1197.7 feet, and 7.53 feet (relative to 1190.17 zero gage height), respectively. They are less than the volume, elevation, and staff gage height for the existing spillway (831 ac-ft, 1199.15', and 9 feet staff gage).

To minimize potential for flood damage on the downstream areas when the outlet pipes are open, and minimize the possible delay in coordination with MCMWCD, the proposed interim operational plan for the principle outlet pipes is to open the middle 48" outlet pipe when the reservoir is at 50% storage level of the proposed spillway at 1207.0 feet. As the case with the

25% storage level, the 50% storage level is less than that of the existing spillway. The volume, elevation, staff gage reading for the 50% storage level for the new spillway are 1287 ac-ft, 1202 feet, and 11.83 feet, respectively. Instead of waiting for the water surface elevation to reach the 100-year 24-hour maximum water surface elevation (1205.11 feet), the gate will be opened when the water surface elevation is at 1202 feet. Since 1202 feet is lower than the 100-year 24-hour maximum water surface elevation (1205.11 feet), it will take about 6 days to lower the water surface from 1202 feet to the intake elevation of 1191.68 feet (see Appendix 3 for the plot), assuming no additional inflow. Herein, the ground infiltration is ignored before the reservoir reaches 1202 feet even though the historical storms showed the infiltration effect (Table 1). After the water surface reaches the intake elevation for the middle 48" pipe at 1191.68 feet (corresponding to 190 acre-feet), it is estimated that will take less than a day to infiltrate the remaining water. Table 1 shows that it took 23 hour to infiltrate 249 ac-ft for the 1992 and 1993 storms. Therefore, the total drawdown time to completely empty the reservoir is estimated to be less than 7 days. Table 4 compares the existing and proposed emergency notification procedures and outlet pipe operational plans.

1.8 DOWNSTREAM FLOODPLAIN IMPACT

The inundation area has been determined for the areas downstream of the middle 48" pipe when the pipe is opened. The purpose for determining the floodplains when the outlet pipe is opened is to identify the potential flood damage areas downstream of the dam. The ARCINFO-based HEC-GEORAS (HEC, March, 1999) was used to generate the cross-sections. The data from the cross-sections were transferred to HEC-RAS. The results from running HEC-RAS of version 2.2 were transferred back to HEC-GEORAS to draw the inundation areas. Figure 5 shows the expected inundation for the downstream area if the middle 48" pipe is opened. The flow released from the middle 48" pipe will eventually merge with the existing FEMA 100-year floodplain at Bethany Home Road and Perryville Road.

PART 2 FINAL REPORT FOR THE INTERIM OPERATIONAL PLAN

2.1 PURPOSE

The preliminary interim operational plan presented above in Section 1.6 is based upon an analysis that optimized releases from the principle spillways. The objective of that analysis is to insure that the reservoir is drained within 10 days. The ADWR requirement to drain the reservoir within 10 days insures there is storage volume available for major, back to back, flood events.

The purpose of the final report interim operational plan presented below is to pull together the results of Part 1 above, with the inflow design flood (IDF) analyses (Zhao, 1998), and the interim design modifications (URS/Dames & Moore, 2001). The objective is to develop a technically based operational plan that meets certain ADWR dam safety regulations during the interim period. The following sections provide the results of revised hydrologic and hydraulic analyses, and an operational plan that identifies impoundment scenarios, responsibilities, downstream impacts, and recovery actions.

2.2 REVISED HYDROLOGIC AND HYDRAULIC ANALYSES

As specified by the ADWR, the inflow design flood (IDF) for the White Tanks FRS No.3 is half of the probable maximum flood (PMF). From previous analyses (Zhao, 1998), the maximum expected water surface elevation under existing conditions from this IDF into an empty reservoir is 1210.34 feet. The existing conditions represent no upstream inlet improvements, and the emergency spillway rating curve at an elevation of 1210.0. A revised TR-20 model is provided in Appendix 4. This revised TR-20 model is based upon a stage-storage-discharge relationship using the latest topography, and rating curves for the principle and notched emergency spillways developed as part of this interim dam safety project for White Tanks No. 3 FRS. The rating curve includes flow from the central 48" inch principle outlet pipe under this interim period. The maximum expected water surface elevation for the IDF is now

1209.55. The interim 99% design plan, emergency spillway modification, and sections from Dames & Moore (10/2000) are provided in Figures 6, 7, and 8, respectively. An analysis of the IDF using a smaller (10 feet) notch in the emergency spillway has also been performed. The results indicate that a 75-foot notch will draw down the water surface above the emergency spillway approximately 12 hours sooner than a 10-foot notch.

The maximum water surface elevation and volume for the 100-year runoff event are 1205.11 feet and 1968 acre feet, respectively (Zhao, 5/2000). The draw down behind the structure following this event is eight days. The HEC-1 model demonstrating the draw down time is provided in Appendix 5. This model assumes increased peak runoff and volume associated with revised soil parameters and upstream improvements to prevent flows from breaking out upstream.

The modified emergency spillway rating curve is provided in Figure 9. This rating curve was developed using an open channel Manning's Equation, and compared to a step backwater model. The hydraulic analyses used to develop the rating curve are provided in Appendix 6. The HEC-RAS model was developed from the HEC-2 model prepared by Dames & Moore (11/2000). An additional cross-section was added to represent the interim spillway modifications. The principle outlet pipe rating curves are illustrated in Appendix 2. URS/Dames & Moore (2000) developed these curves, and the calculations are provided in Appendix E of their design report.

Utilizing the peak discharge of 210 cfs from the central 48" CMP (Sta. 46+00), the expected principle spillway inundation area was defined using HEC-RAS (Appendix 7) and is illustrated in Figure 5. The downstream starting water surface elevation for this analysis utilizes the 100-year floodplain water surface elevation at Bethany Home and Perryville Roads.

2.3 OPERATIONAL SCENARIOS

Part 1 of this report presents the results of a seven different principle spillway release conditions. The draw down for all conditions is based upon the peak runoff and volume for the 100-year event using revised soil characteristics, and upstream improvements. The results indicate that the quickest draw down time is 4.5 days. Draw down scenarios using the middle 48" CMP result in the lowest elevation behind the structure. The criteria used to select an interim operational plan are minimize impoundment time behind to less than 10 days, drain impoundment to the lowest level possible, and minimize downstream impacts from principle spillway releases. Although the scenario in which all three principle spillway pipes are opened satisfies two of the criteria, the selected interim operational plan calls for the opening of only the middle 48" CMP since it minimizes downstream impacts (Figure 5).

As previously noted the maximum water surface elevation expected from the IDF is 1210.34. This water surface elevation will result in releases from the emergency spillway, but the structure will not be overtopped. Under these conditions the interim operational plan specifies that all three principle pipes be opened, and flood emergency procedures govern operations.

2.4 RESPONSIBILITIES AND ACTIONS

Given the proposed interim changes to the White Tanks FRS No.3 and the analysis of hydrologic and hydraulic impacts associated with the changes, this interim operational plan was developed to provide the highest possible level of flood protection possible. Table 4 above compares the changes made to the existing operational and emergency plans. The excerpts from the existing FCDMC and MCDEM emergency response manuals are provided in Appendix 8. The following changes have been made to these plans to insure that measures are in place for the safety of the structure during this interim period.

Observation Instructions for the FCDMC O & M Team 3: Far West Valley have been

revised for observation point 5 on page 23 to read:

> **<u>Gated Outlet</u>: The middle 48" principle spillway pipe at Station 46+00 is to be opened when the staff gage on the structure reaches a height of 12 feet.**

It should be noted that the FCDMC has an extensive network of real-time rain and stage gages on our structures throughout the county and notifies the MCDEM as part of the FCDMC's standard procedures during a significant rainfall event.

Section 5 Specific Tasks, a. Flood Control District of Maricopa County (2) in Appendix 13 of the MCDEM emergency operations plan for the White Tanks FRS No.3 has been revised to read:

> **(2) Notify the Maricopa County Department of Emergency Management and the Maricopa County Municipal Water Conservation District when**
>
> **(a) impoundment water reaches a depth of 8 feet and rising. The emergency spillway will begin to operate when a water depth of 16 feet at the principle outlets is reached. If operation of the emergency spillway appears imminent, notification or evacuation of downstream developments should be considered.**
>
> **(b) Overtopping of the dam crest or failure of the structure appears imminent.**

The specific responsibilities and actions associated with this interim operational plan are also provided in Appendix 8 of this report including the individual and agency contacts and phone numbers.

2.5 DOWNSTREAM IMPACTS

The downstream impacts of this interim operational plan are illustrated in Figure 5. Since these impacts are limited to releases from the middle 48" principle outlet pipe flows are expected to be conveyed across the Beardsley Canal at the overshoot located at Bethany Home Road. Based upon the HEC_RAS analysis provided in Appendix 7, the overshoot is expected to have the capacity to convey releases. The depth of flow for the expected flows is generally less than 2

feet, with the maximum depth of 3.7 feet adjacent to Perryville Road. Flow velocities are generally less than 5 feet per second (ft/s), with a maximum of 7 ft/s at the outlet. It is also assumed that an event, which necessitates the release of flows from this principle outlet, will inundate existing regulatory floodplains downstream illustrated in Figure 3. Therefore, reference should be made to specific floodplain mapping for impacts outside the limits illustrated in Figure 5.

Downstream impacts from emergency spillway releases have been identified as part of the Draft Design Issues Report (Dames & Moore, 11/1998), and dam break analyses in the MCDEM emergency response manual.

2.6 RECOVERY ACTIONS

Steps needed to evaluate conditions following any impoundment behind the White Tanks FRS No.3 are identified as part of this interim operational plan. There are three possibilities that may occur and each has different levels of effort. The first is that impoundment occurs but does not reach a level for releases from the principle outlet. The second is that the impoundment reaches a level that require one or all of the principle outlets to be opened but does not discharge through the emergency spillway. The third is that impoundment reaches a level in excess of the emergency spillway.

The FCDMC is involved with recovery actions associated with all three possibilities, and actions are listed in the FCDMC Significant Rainfall Event and Flood Emergency Response Manual provided in Appendix 8. These actions include photographing and assessing damages, removing debris, and making necessary repairs. A post-event critique will also be held with all individuals and agencies that were involved, and a report will be prepared listing the findings from the event.

REFERENCES

Dames & Moore (November, 1998). "Design Issues Report: White Tanks FRS No.3 Modifications Design Report," Technical Report (draft), prepared for Flood Control District of Maricopa County.

Dames & Moore (December 16, 1999). "White Tanks FRS #3 Project Monthly Meeting," Notes for project monthly meeting, Meeting held at FCDMC. Design Issues Report: White Tanks FRS No.3 Modifications Design Report," Technical Report (draft), prepared for Flood Control District of Maricopa County.

Dames & Moore (July 28, 2000). "Draft Report 95 Percent Submittal Interim Dam Safety White Tanks FRS #3," prepared for Flood Control District of Maricopa County.

ERTEC WESTERN (August, 1981). "Phase I Inspection Report for White Tanks Retarding Dam No.3," Prepared for the State of Arizona Department of Water Resources.

Flood Control District of Maricopa County (10/01/1999). "Flood Emergency Response Manual," Prepared by Flood Warning/Water Quality Branch, Engineering Division.

HEC (March, 1999). "HEC-GEORAS: an application for support of HEC-RAS using ARC/INFO," User's Manual, version 1.0, Hydrologic Engineering Center, US Army Corps of Engineers.

Lawrence, D.R. (August 9, 1999). "White Tanks FRS No.3 Dam (07.28) Interim Dam Safety Measures," Letter to Mr. Tom Renckly, Flood Control District of Maricopa County from Dam Safety Section, Arizona Department of Water Resources.

Renckly, T. (March 11,1999). "Meeting with ADWR on White Tanks FRS No.3 Current Project Status and Interim Dam Safety Measures," Meeting Notes for the meeting held at ADWR.

SCS (November 12, 1970). "White Tanks Project - Report on Flood of September 5, 1970," Memo to M.E. Strong, State Conservationist, Soil Conservation Service, Arizona State Office, Phoenix, Arizona, United States Department of Agriculture (The memo is located in "The White Tanks Story," FCDMC Engineering Division Main Library, call number: A470.908)

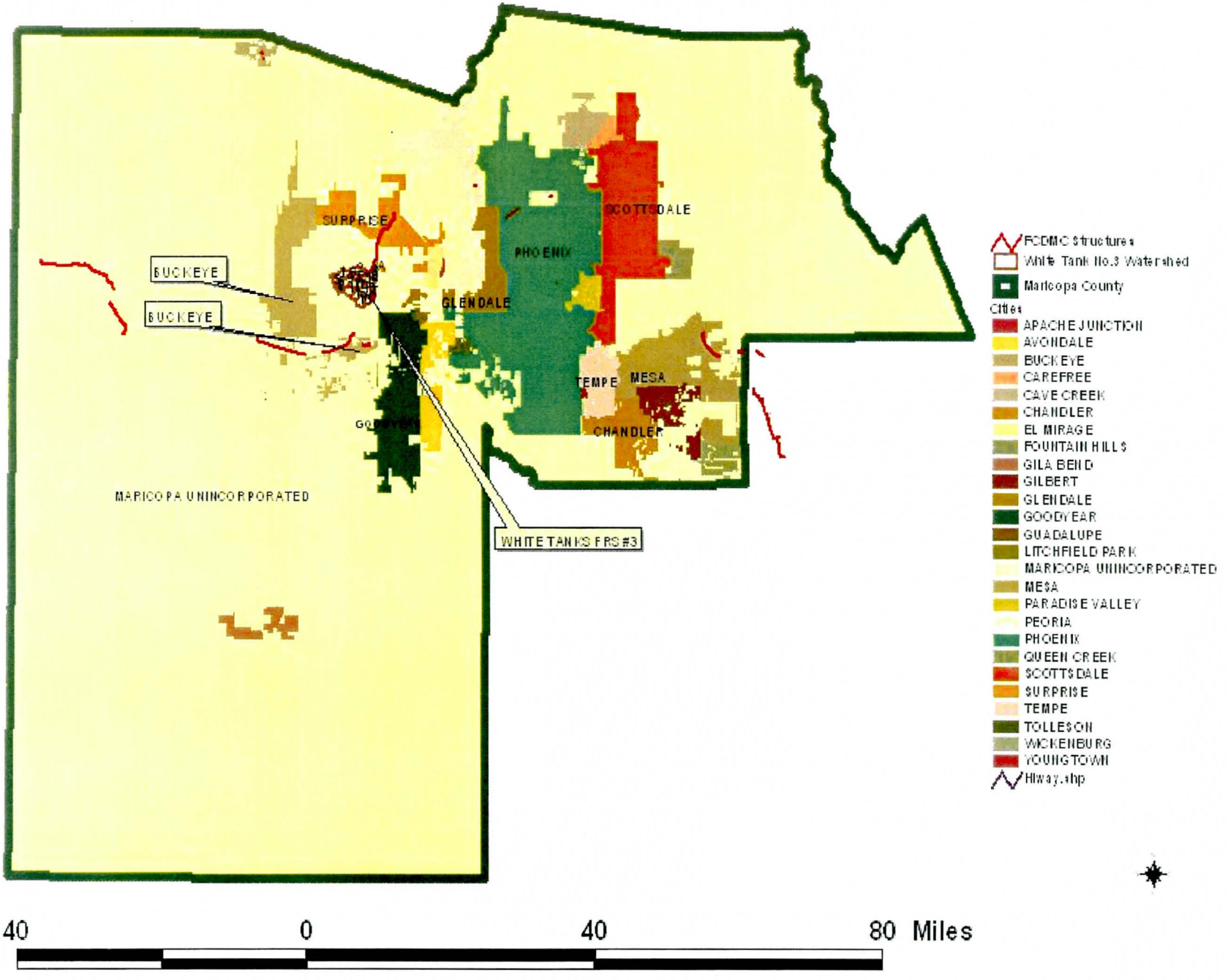
WLB, Inc. (1994) "White Tanks Agua Fria Area Drainage Master Study, Part B: Area Drainage Master Plan" prepared for Flood Control District of Maricopa County.

Zhao, B. (September 1, 1998). "Maximum Water Surface Elevation for Inflow Design Flood (IDF) at White Tanks Flood Retarding Structure No.3 under Current Conditions," Engineering Division, Flood Control District of Maricopa County, Phoenix, Arizona.

Zhao, B. (May 11, 2000). "Hydrologic Analysis for White Tanks Flood Retarding Structure No. 3 Watershed," Engineering Division, Flood Control District of Maricopa County, Phoenix, Arizona.

FIGURES

Figure 1. Vicinity Map for White Tank FRS No.3



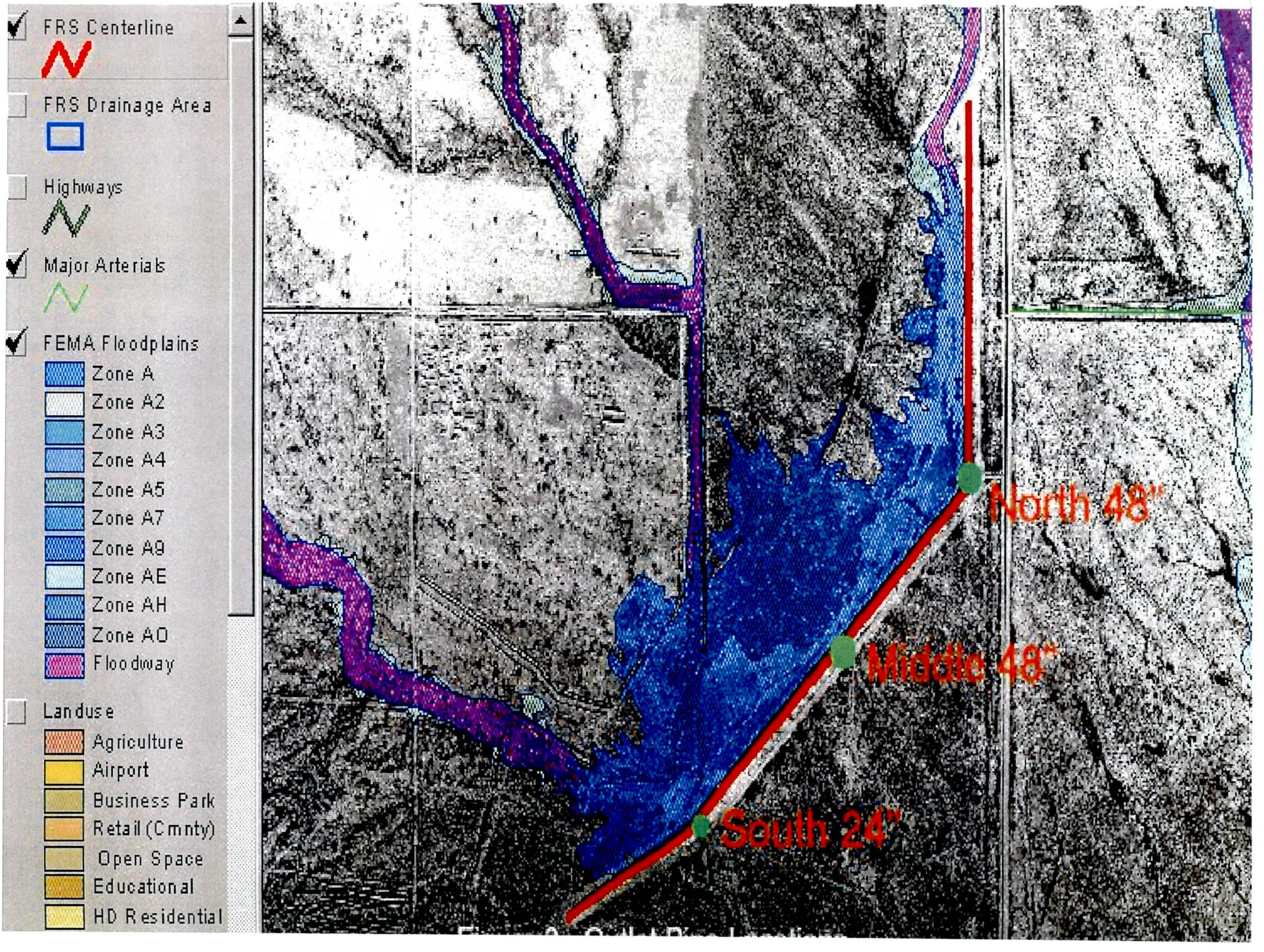
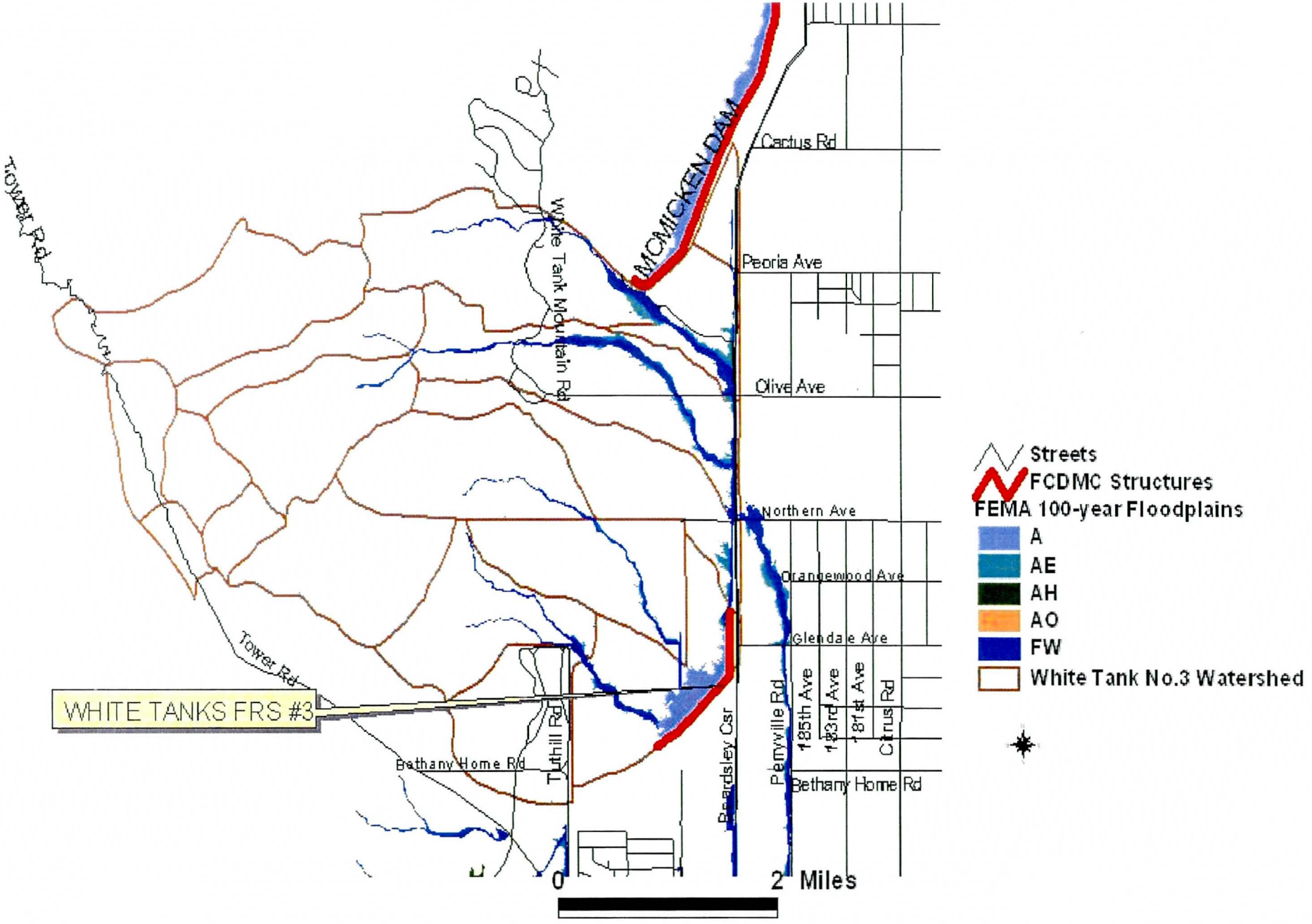
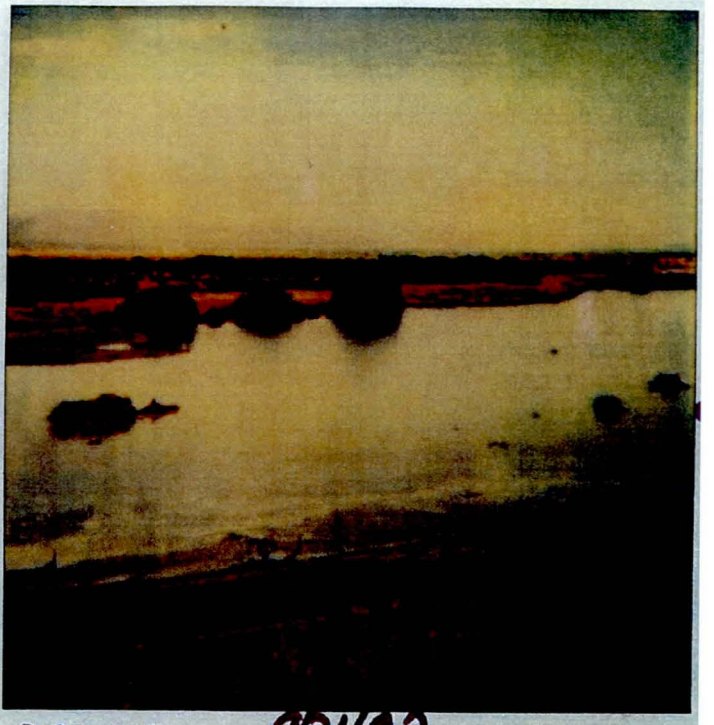

FRS Centerline
FRS Drainage Area
Highways
Major Arterials
FEMA Floodplains
Zone A
Zone A2
Zone A3
Zone A4
Zone A5
Zone A7
Zone A9
Zone AE
Zone AH
Zone AO
Floodway
Landuse
Agriculture
Airport
Business Park
Retail (Cmnty)
Open Space
Educational
HD Residential
North 48"
Middle 48"
South 24"

Figure 3. Floodplains in White Tank FRS No.3 Watershed.

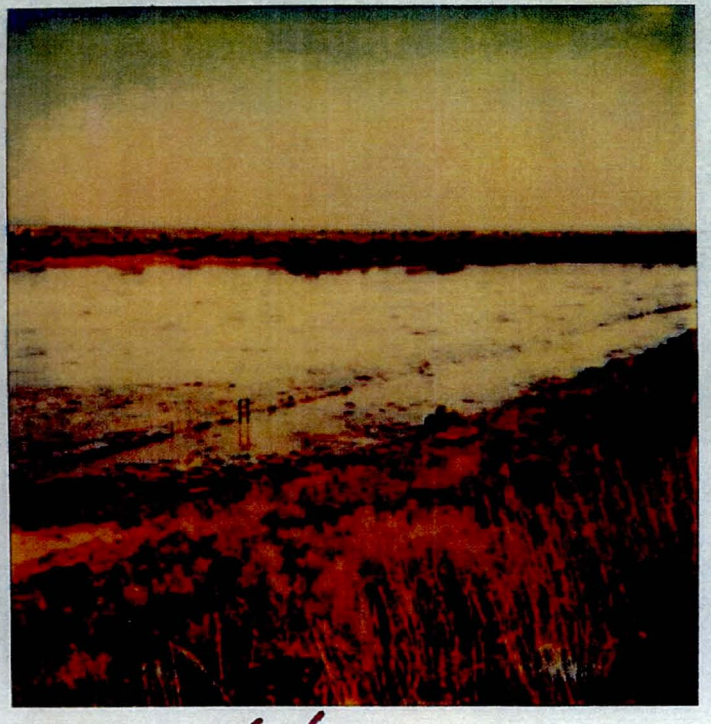


29+00 White Tank III
9/21/92 STAFF GAUGE
(High) → 2.6

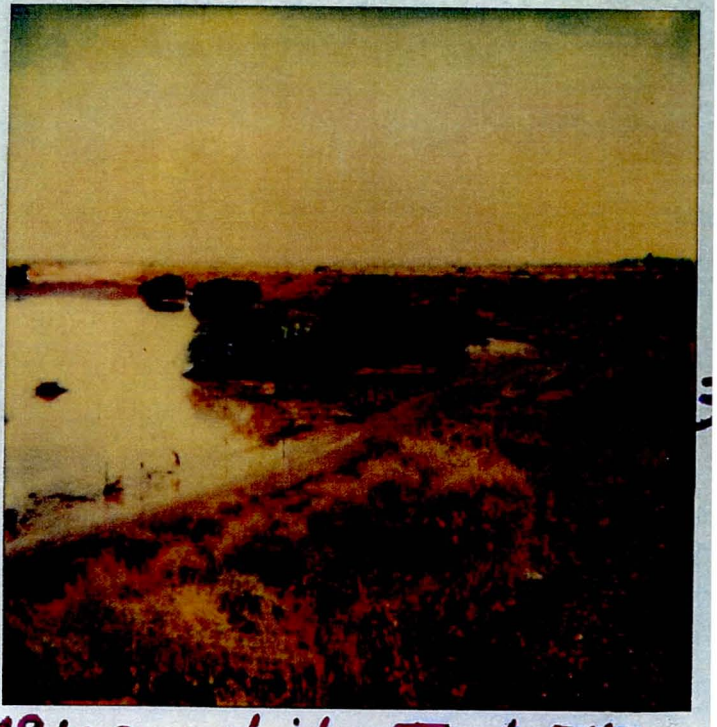


2

30+00 9/21/92
White Tank III



55+00 9/21/92
White Tanks III



3

29+00 White Tank III
9/21/92 STAFF GAUGE
(High) → 2.6

Figure 4. 09/21/1992 at White Tank No.3.

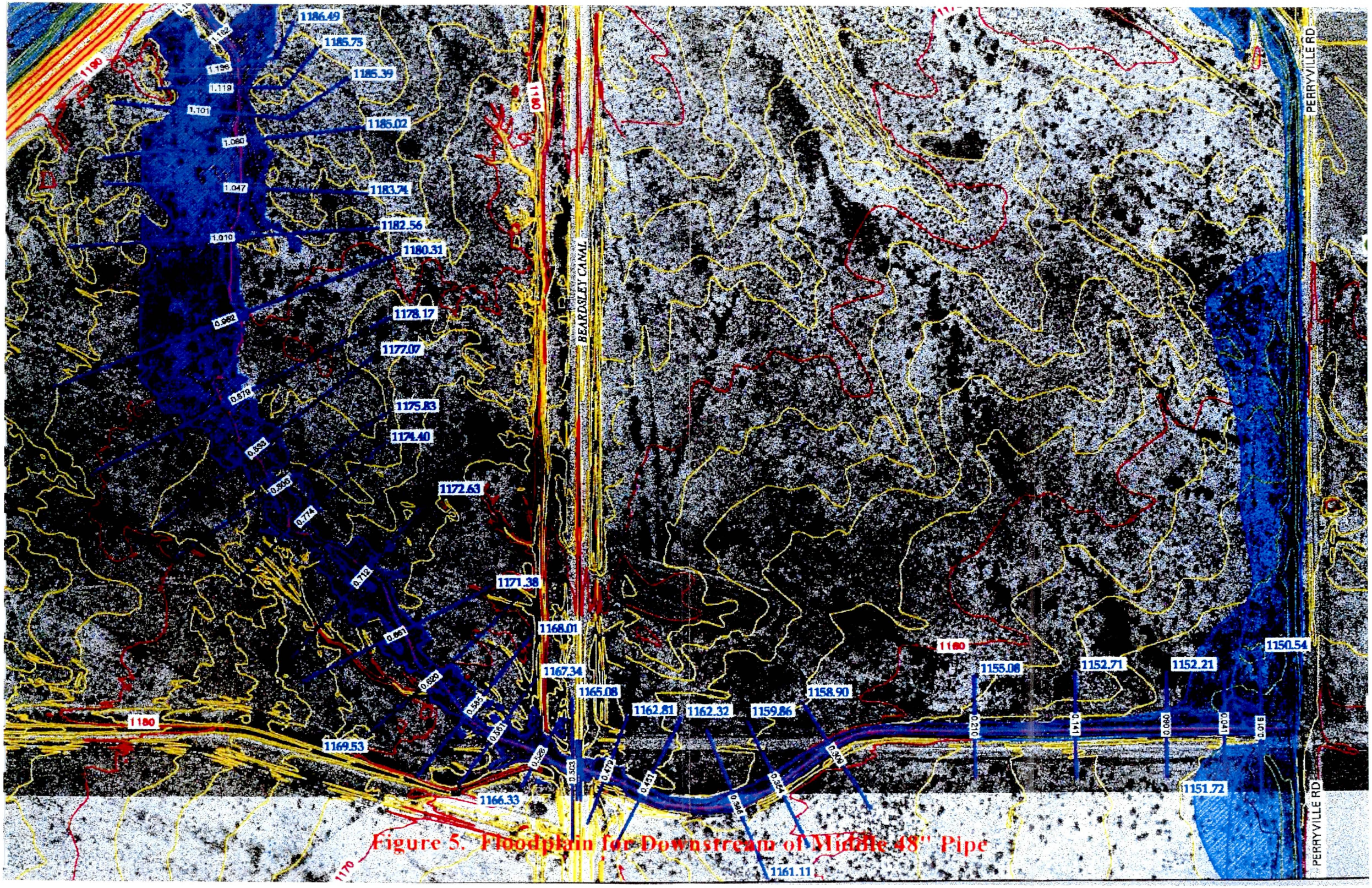
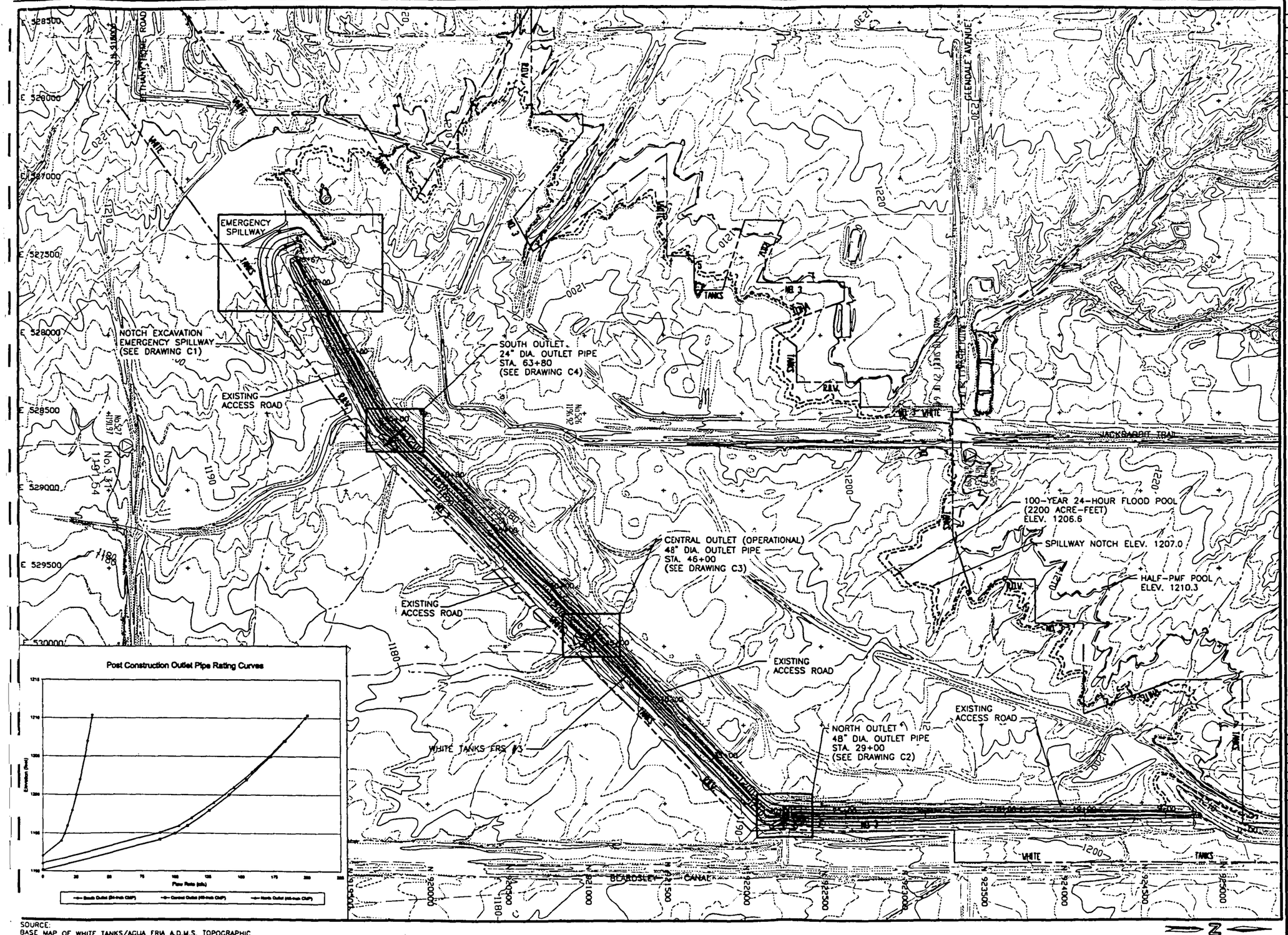


Figure 5. Floodplain for Downstream of Middle 48" Pipe



SOURCE:
BASE MAP OF WHITE TANKS/AGUA FRIA A.D.M.S. TOPOGRAPHIC MAPS, FLOWN 12/22/89 BY COOPER AERIAL OF PHOENIX, INC. FOR THE WLB GROUP INC., AREA DRAINAGE MASTER STUDY.
BASIS OF BEARING: CONVERTED FROM NAD 27 TO ARIZONA ZONE 12 CENTRAL NAD 83

ITEM NO.	ITEM DESCRIPTION	QUANTITY
105-1	PARTNERING (ALLOWANCE)	1 LS
107-1	CONSTRUCTION SWPPP	1 LS
107-2	PROJECT SIGN ALLOWANCE	1 LS
107-3	PUBLIC INFORMATION AND NOTIFICATION ALLOWANCE	1 LS
202-1	MOBILIZATION	1 LS
401-1	TRAFFIC CONTROL	1 LS
405-2	MONUMENTS	1 LS

LEGEND:

- 1200 — EXISTING CONTOUR 5' INTERVAL
- EXISTING CONTOUR 1' INTERVAL
- FCDMC PROPERTY LINE
- EXISTING DIRT ROAD
- EXISTING BARBED WIRE FENCE

NOTES:

1. BENCHMARK LOCATIONS IDENTIFIED FOR THIS PROJECT ARE BEYOND THE LIMITS OF THIS DRAWING. SEE PROJECT BENCHMARK AND CONTROL POINT APPROXIMATE GEOGRAPHIC LOCATION SHOWN ON DRAWING G1 AND COORDINATE TABLE ON DRAWING G2.
2. CENTRAL OUTLET IS IDENTIFIED AS BEING THE PRIMARY OPERATIONAL STRUCTURE.
3. CONTRACTOR SHALL STAY ON EXISTING ROADS AND WORK WITHIN SPECIFIED ZONES ALLOWED FOR PROJECT.

263-1100
1-800-STAKE-IT

ADWR APPROVAL

FIGURE 6

NO.	REVISION	BY	DATE
0	100% SUBMITTAL, ISSUED FOR ADWR PERMIT	TER	10/00
E	95% SUBMITTAL	TER	07/00
D	90% SUBMITTAL	TER	05/00
C	60% SUBMITTAL	TER	02/00
B	30% SUBMITTAL	TER	01/00
A	10% SUBMITTAL	TER	11/99

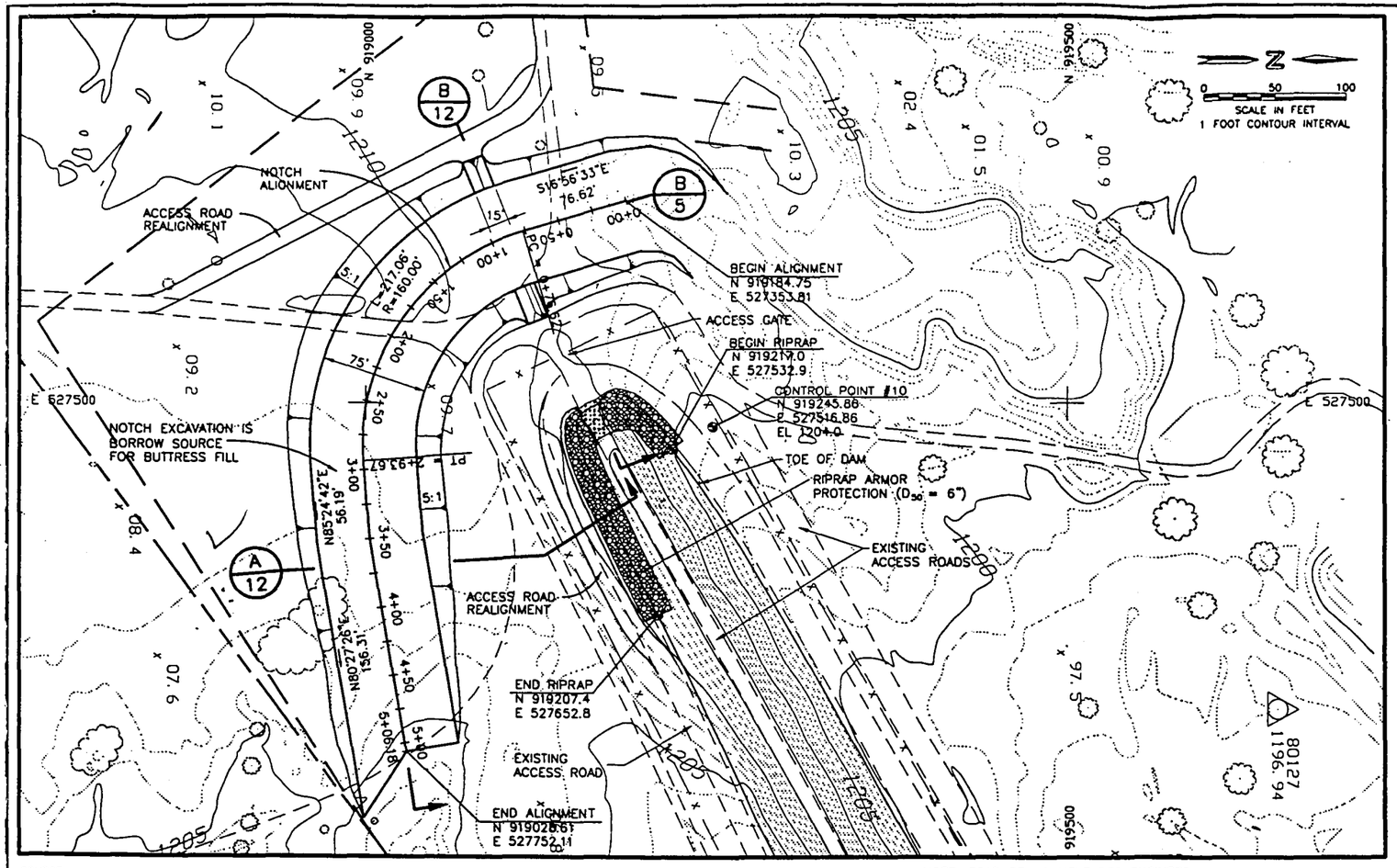
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
ENGINEERING DIVISION

WHITE TANKS FRS #3
INTERIM DAM SAFETY
F.C.D. CONTRACT NO. FCD2000C028

	BY	DATE
DESIGNED	K. SOMERVILLE	10/00
DRAWN	K. PALMISANO	10/00
CHECKED	T. RINGSMUTH	10/00

DAMES & MOORE

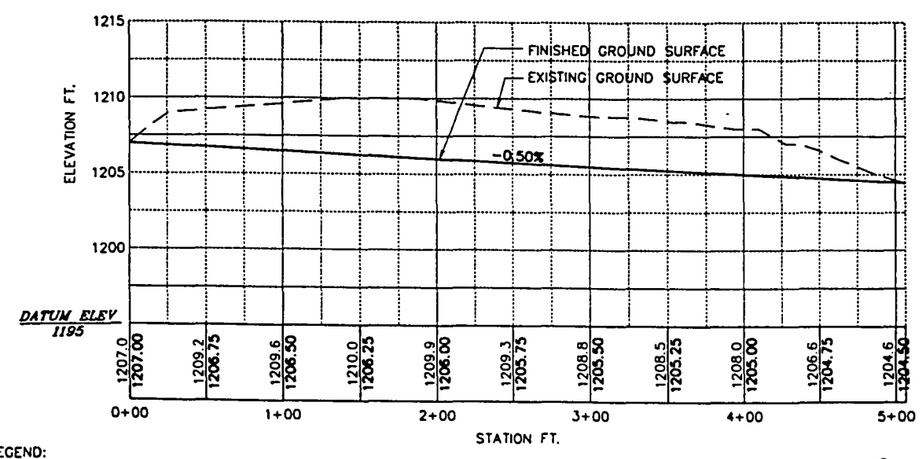
DRAWING NO. G3 | SITE MAP | SHEET 3 OF 18



SOURCE:
BASE MAP OF WHITE TANKS/AGUA FRIA A.D.M.S. TOPOGRAPHIC MAPS, PROVIDED BY FCDMC 12/98.
BASIS OF BEARING: ARIZONA ZONE 12 CENTRAL NAD 83

NOTE: ROAD REALIGNMENT PER ENGINEER.

A/5 SPILLWAY PLAN

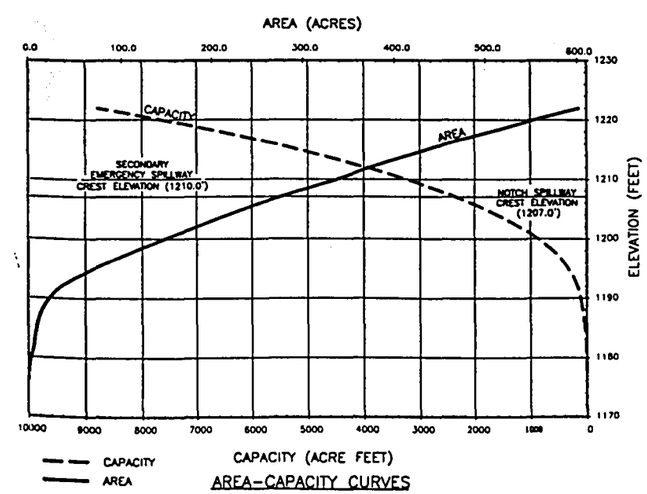


LEGEND:

1209.2 EXISTING GROUND SURFACE ELEVATION
1206.75 FINISHED GROUND SURFACE ELEVATION

B/5 NOTCH PROFILE

HORIZONTAL SCALE: 0 50 100 SCALE IN FEET
VERTICAL SCALE: 0 5 10 SCALE IN FEET



AREA-CAPACITY CURVES

ITEM NO.	ITEM DESCRIPTION	QUANTIT
201-1	CLEARING/GRUBBING	6060 S
215-1	NOTCH EXCAVATION	5000 C
220-1	RIPRAP	330 C

LEGEND:

- 1200 EXISTING CONTOUR 5' INTERVAL
- EXISTING CONTOUR 1' INTERVAL
- FCDMC PROPERTY LINE
- EXISTING DIRT ROAD
- x EXISTING BARBED WIRE FENCE
- WORK ZONE BOUNDARY

263-1100 1-800-STAKE-IT

ADWR APPROVAL

FIGURE 7

NO.	REVISION	BY	DATE
0	100% SUBMITTAL, ISSUED FOR ADWR PERMIT	TER	10/00
E	95% SUBMITTAL	TER	07/00
D	90% SUBMITTAL	TER	05/00
C	60% SUBMITTAL	TER	02/00
B	30% SUBMITTAL	TER	01/00
A	10% SUBMITTAL	TER	11/99

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
ENGINEERING DIVISION

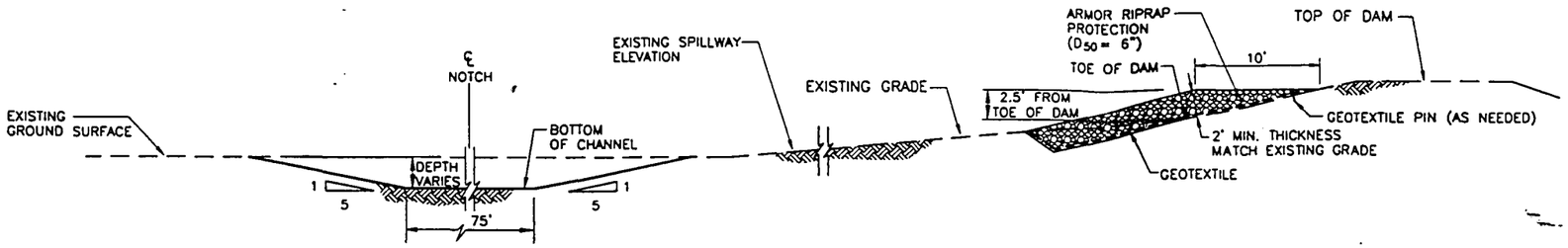
WHITE TANKS FRS #3
INTERIM DAM SAFETY
F.C.D. CONTRACT NO. FCD2000C028

	BY	DATE
DESIGNED	K. SOMERVILLE	10/00
DRAWN	K. PALMISANO	10/00
CHECKED	T. RINGSMUTH	10/00

DAMES & MOORE

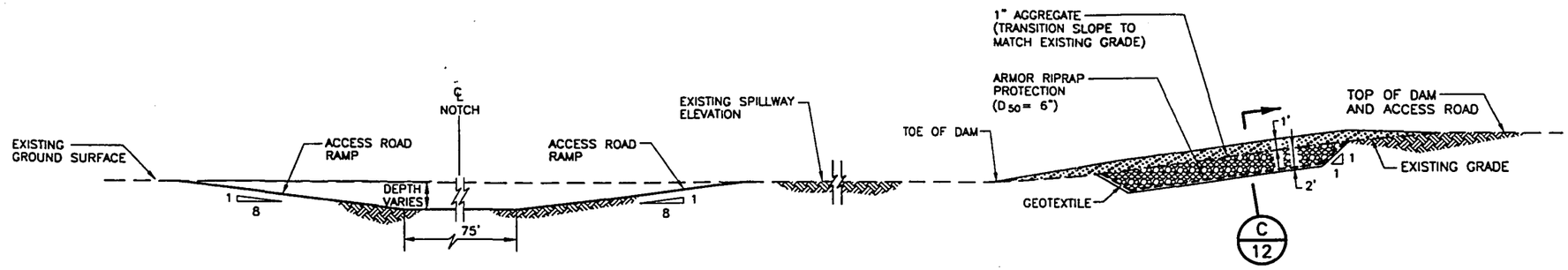
DRAWING NO.		SHEET
C1	PLAN AND ALIGNMENT OF EMERGENCY SPILLWAY MODIFICATIONS AND ARMOR	5 1

ITEM NO.	ITEM DESCRIPTION	QUANTIT
220-2	1-INCH AGGREGATE	30 CY
230-1	GEOTEXTILE	850 SY



A/12 NOTCH SECTION

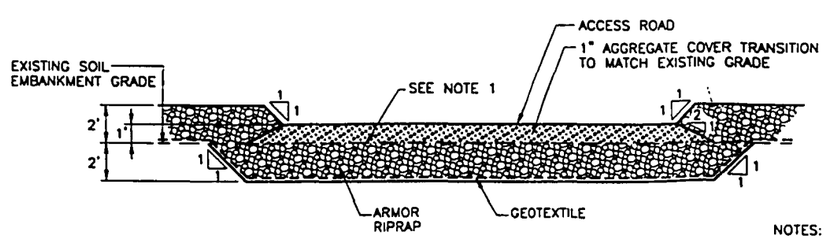
0 6 12
SCALE IN FEET



B/12 ACCESS ROAD SECTION

0 6 12
SCALE IN FEET

NOTE: ACCESS ROAD REALIGNMENT PER DIRECTION OF ENGINEER.



C/12 ACCESS ROAD RIPRAP SECTION

0 4 8
SCALE IN FEET

NOTES:

1. FILL VOIDS OF RIPRAP WITH SOIL PRIOR TO PLACEMENT OF GRAVEL, TO SATISFACTION OF FIELD ENGINEER.

263-1100
1-800-STAKE-IT

ADWR APPROVAL

FIGURE 8

NO.	REVISION	BY	DATE
E	100% SUBMITTAL, ISSUED FOR ADWR PERMIT	TER	9/0
E	95% SUBMITTAL	TER	7/0
D	90% SUBMITTAL	TER	5/0
C	NEW SHEET 60% SUBMITTAL	TER	2/0

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
ENGINEERING DIVISION

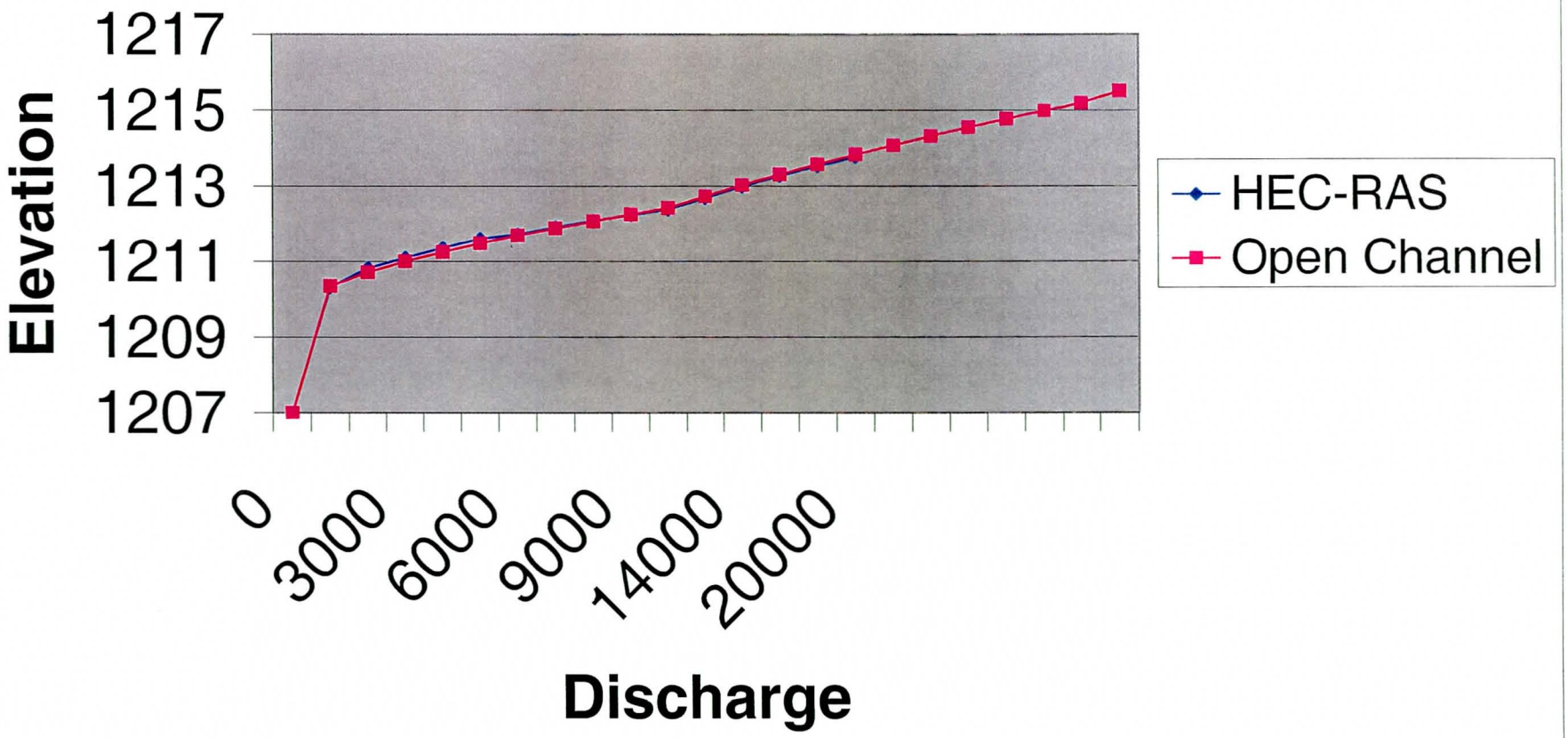
WHITE TANKS FRS #3
INTERIM DAM SAFETY
F.C.D. CONTRACT NO. FCD2000C028

	BY	DATE
DESIGNED	K. SOMERVILLE	9/0
DRAWN	K. PALMISANO	9/0
CHECKED	T. RINGSMUTH	9/0

DAMES & MOORE

DRAWING NO.		SHEET
D1	EMERGENCY SPILLWAY SECTIONS	12

Figure 9
White Tanks FRS No.3 Emergency Spillway
Discharge Rating Curves



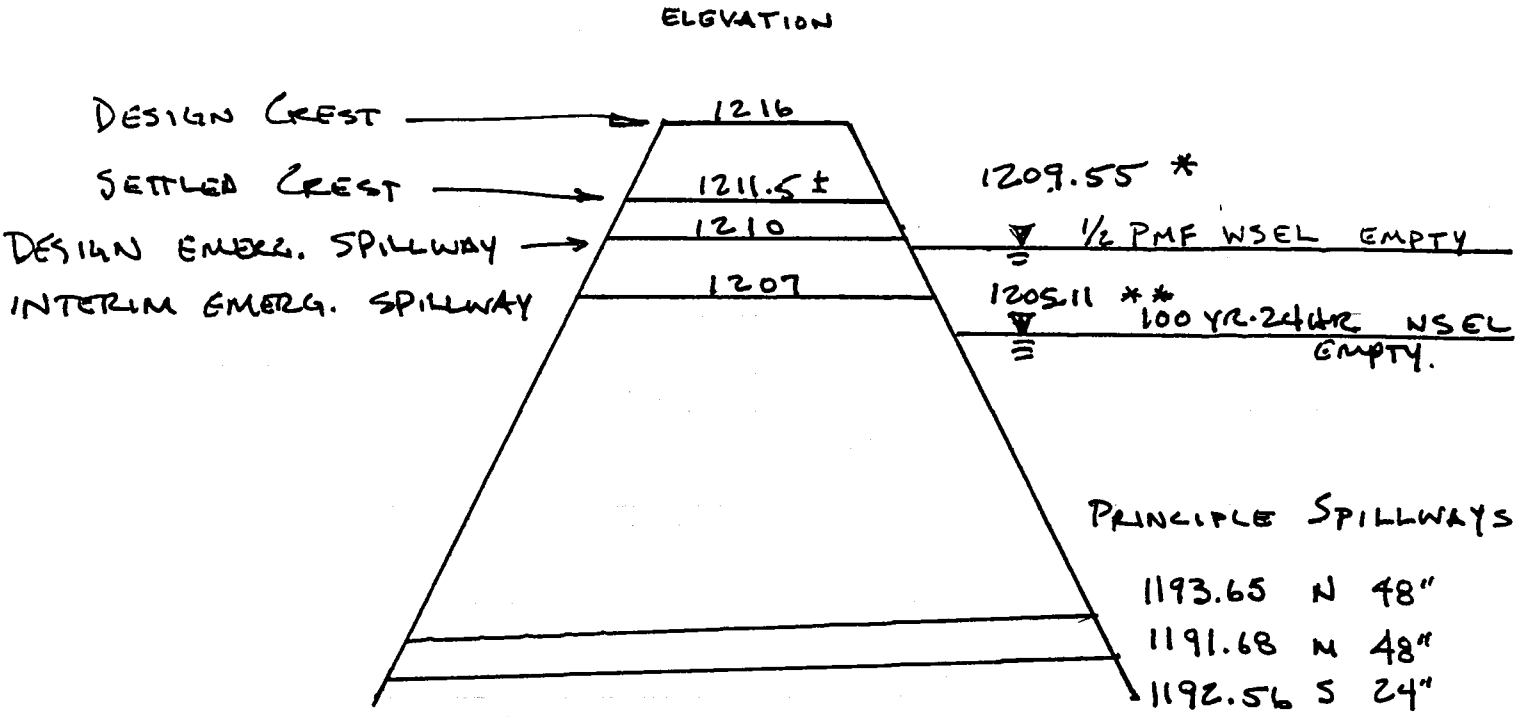
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

PROJECT WHITE TANKS FRS NO. 3 PAGE ____ OF ____

DETAIL SCHEMATIC OF ELEVATIONS AND WSELS COMPUTED ____ DATE ____

CHECKED BY ____ DATE ____

FIGURE 10 (NTS)



* Revised TR-20 Model assuming a stage-storage-discharge relationship based upon latest topography and rating curves for the principle and notched emergency spillways.

** HEC-1 Model developed using adjusted Green-Ampt parameter

TABLES

Table 1. Historical Storms for White Tanks No.3

Date(s) of Storm	09/05/1970	09/20/1992	01/05/1993 To 01/11/1993	02/14/1998 To 02/16/1998	03/31/1999 To 04/01/1999
Rainfall Depth (inches) at White Tank Mountain E. Peak ALERT Gage (ID: 5430, installed in 1980)	N/A	0.43 inches (within 2 hrs 30 min)	6.93 inches (within 6 days)	3.86 inches (with 3 days)	0.77 inches (within 17 hrs)
Rainfall Depth (inches) at White Tanks No.3 Dam ALERT Gage (ID: 5415 installed in 1986)	N/A	0.67 inches (within 1 hr 15 min	3.94 inches (within 6 days)	2.68 inches (with 3 days)	1.22 inches (within 11 hrs)
Runoff Volume (ac-ft)	350 ac-ft	247 ac-ft (7.4% of full storage*)	249 ac-ft (7.5% of full storage*)	130 ac-ft (3.9% of full storage*)	137 ac-ft (4.1% of full storage*)
Drawdown Time to Zero Staff Gage at 1190.07' (124 ac-ft)	N/A	23 hr	23 hr	17 hours	8 hours
Decrease in Water Depth (feet) During Drawdown Time (to Zero Staff Gage at 1190.07'	N/A	2.6 feet	2.6 feet	0.25 feet	0.52 feet
Infiltration Rate (in/hr)	N/A	1.36 in/hr	1.36 in/hr	0.176 in/hr	0.78 in/hr
Pre-storm Soil Condition	N/A	Wet	Wet	Wet	Dry

* full storage is the storage volume below the spillway crest elevation

Table 2 - Emergency Notification Elevations for White Tanks FRS No.3 (FCDMC, 10/01/99)

Structure Name	Impoundment Depth to Notify O&M*, feet (25%)	Impoundment Depth to Notify MCDEM** feet (50%)	Emergency Spillway Operation Depth, feet (100%)
White Tanks FRS #3	9.3 feet	13.7 feet	19.6 feet
Modified White Tanks FRS #3	9 feet***	13.6 feet***	19.8 feet***

*: O&M: Flood Control District of Maricopa County Operation and Maintenance Division
** MCDEM: Maricopa County Department of Emergency Management
***Modified depths for 25%, 50%, and 100% storage levels

Table 3. Drawdown Time (days) from 100-year 24-hour Maximum Water Surface Elevation to Intake Elevations for White Tanks FRS No.3

	North 48" Open	Middle 48" Open	South 24" Open	North 48" & Middle 48" Open	North 48" & South 24" Open	Middle 48" & South 24" Open	All Three Pipes Open
Days	7	8	40	5	6	7	4.5
Released Water (Volume percent in total runoff)	86%	90%	88%	90%	86%	90%	90%
Lowest Intake Elevation (storage)	1193.65' (285 AF)	1191.68' (190 AF)	1192.56' (230 AF)	1191.68' (190 AF)	1192.56' (230 AF)	1191.68' (190 AF)	1191.68' (190 AF)

Table 4 - Comparison of Existing and Proposed New Emergency Notification Elevations and Operational Plans for White Tanks FRS No.3.

	25% Storage Level	50% Storage Level	100% Storage Level (at spillway crest el.: 1210')
Existing Notification Elevation	1199.15 feet	1203.8 feet	1210 feet
Existing Notification Staff Gage Height (zero gage: 1190.17')	9 feet	13.6 feet	19.8 feet
Existing Notification Storage Volume	831 ac-ft	1663 ac-ft	3325 ac-ft
Existing Notification and Operational Plan	1. FCDMC ALERT Crew Notifies FCDMC O&M* 2. FCDMC' O&M Sends Crew to the Site	3 FCDMC's ALERT Crew Notifies MCDEM** 4 FCDMC's O&M Sends Around-the-Clock-Watch Crew to the Site	N/A
Proposed New Notification Elevation	1197.7 feet	1202 feet	1207.0 feet*** (new spillway notch channel bottom)
Proposed New Notification Staff Gage Height	7.53 feet	11.83 feet	16.83 feet
Proposed New Notification Storage Volume	644 ac-ft	1287 ac-ft	2575 ac-ft
Proposed New Notification and Operational Plan	1. FCDMC's ALERT Crew Notifies MCDEM & MCMWCD**** 2. FCDMC's O&M Sends Around-the-Clock-Watch Crew	Open Middle 48" Pipe (Sta. 46+00)	FCDMC's O&M crews opens all three principle spillway pipes and assists with emergency operations.

*: O&M: Flood Control District of Maricopa County Operation and Maintenance Division
** MCDEM: Maricopa County Department of Emergency Management
***1207.0 feet is the new emergency spillway crest (ADWR requires FCDMC to lower the spillway by 3.0 feet to meet the 4 feet total freeboard requirement.)
****MCMWCD: Maricopa County Municipal Water Conservation District

APPENDIX 1. HISTORICAL STORMS

Appendix 1.1 SCS 1970 Memorandum on 1970 Storm in White Tanks FRS No.3

UNITED STATES DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

Arizona State Office, Phoenix, Arizona

SUBJECT: WATERSHEDS - White Tanks Project - Report on Flood of September 5, 1970

DATE: November 12, 1970

TO: M. E. Strong, State Conservationist
SCS, Phoenix, Arizona

Copy handed to Mr. F. A. Garner and Engineer Phoenix

1. In the summer of 1954 two flood control structures, identified as White Tanks No. 3 and No. 4, were built by the Soil Conservation Service in cooperation with the County of Maricopa, the Municipal Water Conservation District No. 1, and the Agua Fria-New River Soil Conservation District.

2. The project was known as the White Tanks Erosion Control Project and SCS participation was under the Pilot Watershed Program.

3. It is reported that 4.5" of precipitation were recorded in a gauge near the intersection of Jackrabbit Road (195th Avenue) and West Indian School Road. (See attached map.) This is believed to have been near the center of maximum rainfall with somewhat lesser intensity near the summit of the White Tanks Mountains about five miles to the west.

4. The rain is reported to have started about midafternoon on Saturday, September 5, 1970. The maximum intensity is believed to have occurred between 6:00 and 8:00 p.m. It was reported that water started flowing across Jackrabbit Road in the vicinity of Thomas Road about 7:00 p.m. and ceased to flow across the road about 9:00 p.m.

5. The elevation of the high point of the watershed is 3671'. The spillways of Structure No. 4 are at elevation 1050' with the top of the structure at 1056'. The elevation of the rain gauge is approximately 1165'.

6. Structure No. 4 was designed to impound 1036 acre-feet from a drainage area of 10.3 square miles.

7. Since 1954 developments north of Indian School Road and west of Tuthill Road have caused four square miles of watershed originally designed to flow into Structure No. 3, and an additional 1.8 square miles of watershed to flow into Structure No. 4 along Tuthill Road. Additional land developments between Jackrabbit Road and Tuthill Road plus improvement of Jackrabbit Road divert still another 2.7 square miles of watershed into the north end of Structure No. 4 along Jackrabbit Road.

8. Thus at the time of the storm there was a total of 18.8 square miles of watershed contributing to Structure No. 4. This is 8.5 square miles more than the 10.3 square miles for which the structure was designed.

9. It should be noted that chronic deposition of coarse sands in the borrow channel on the west side of Jackrabbit Road limits the flow of water diverted into Structure No. 4. Excess flood waters flowing south along Jackrabbit Road overflowed the pavement in the vicinity of Thomas and McDowell Roads causing damage to an unknown number of homes in the subdivisions east of Jackrabbit Road.

10. High water marks indicate that the Structure No. 4 filled and the 165' wide Tuthill Road (west) emergency earth spillway flowed for a short period at a depth averaging about 0.8'. There was no erosion in the channel except for a small 1' deep headcut at the extreme south end where it emptied into a flood channel along the north side of an auxiliary Air Force landing field that appeared to have been carrying 10 to 20 times the spillway flow.

11. Flow through the Jackrabbit Road (north) emergency earth spillway, also 163' wide, averaged about 1.6' in depth. Surveys after the flood indicate that the crest of this spillway is now about 0.4' below the elevation at the time of completion. It is believed that most of the lowering of the earth spillway crest resulted from wind erosion and from use of the cleared spillway crest area as a driveway for vehicles and as a practice ground for horsemen and motorcyclists during the 16 years since its construction. The high water marks indicate that the water surface was 0.4' higher at the Jackrabbit Road spillway than at the Tuthill Road (west) spillway. This could have been the result of wave action or a west wind across the one-mile reach of the reservoir. Erosion in this spillway from this storm was negligible. Floodwater through the spillway crossed unimproved desert for one-half mile before co-mingling with larger onslaughts of water flowing from the north and west.

12. The two principal spillways equipped with gates remained closed during the storm. Had they been open they would have had little effect upon the reservoir hydrograph because of the intense short-period of runoff. The reservoir was emptied in a matter of a few days through seepage into the ground.

13. Structure No. 3 with a capacity of 2633 acre-feet and a designed watershed area of 24.1 square miles, received an inflow of approximately 350 acre-feet. The rainfall was less intense on this watershed than on the watershed of Structure No. 4 and as mentioned in paragraph seven above. As mentioned above, four square miles of this watershed has been diverted into the watershed of Structure No. 4. Runoff from this four-square mile area was quite heavy.

It is recommended that consideration be given to correcting the overloading of Structure No. 4 by combinations of the following alternatives:

A. Redesign the roadway fills and channels in Sections 18 and 13 so as to permit the four-square-mile area in parts of Sections 2, 3, 10, 11, 12, 13, and 14 to drain into Structure No. 3 as originally planned. (See map attached.)

B. Construct one or more small retarding structures north of Indian School Road to control runoff from all or parts of Sections 13, 14, 17, 18, 19, and 20. (Structure No. 4 was not designed to receive runoff from this area but since 1954 the runoff has been directed into Structure No. 4.)

C. Enlarge Structure No. 4 to enable it to safely accommodate runoff from Section 29 and that part of Section 32 that was not originally designed to contribute to Structure No. 4.

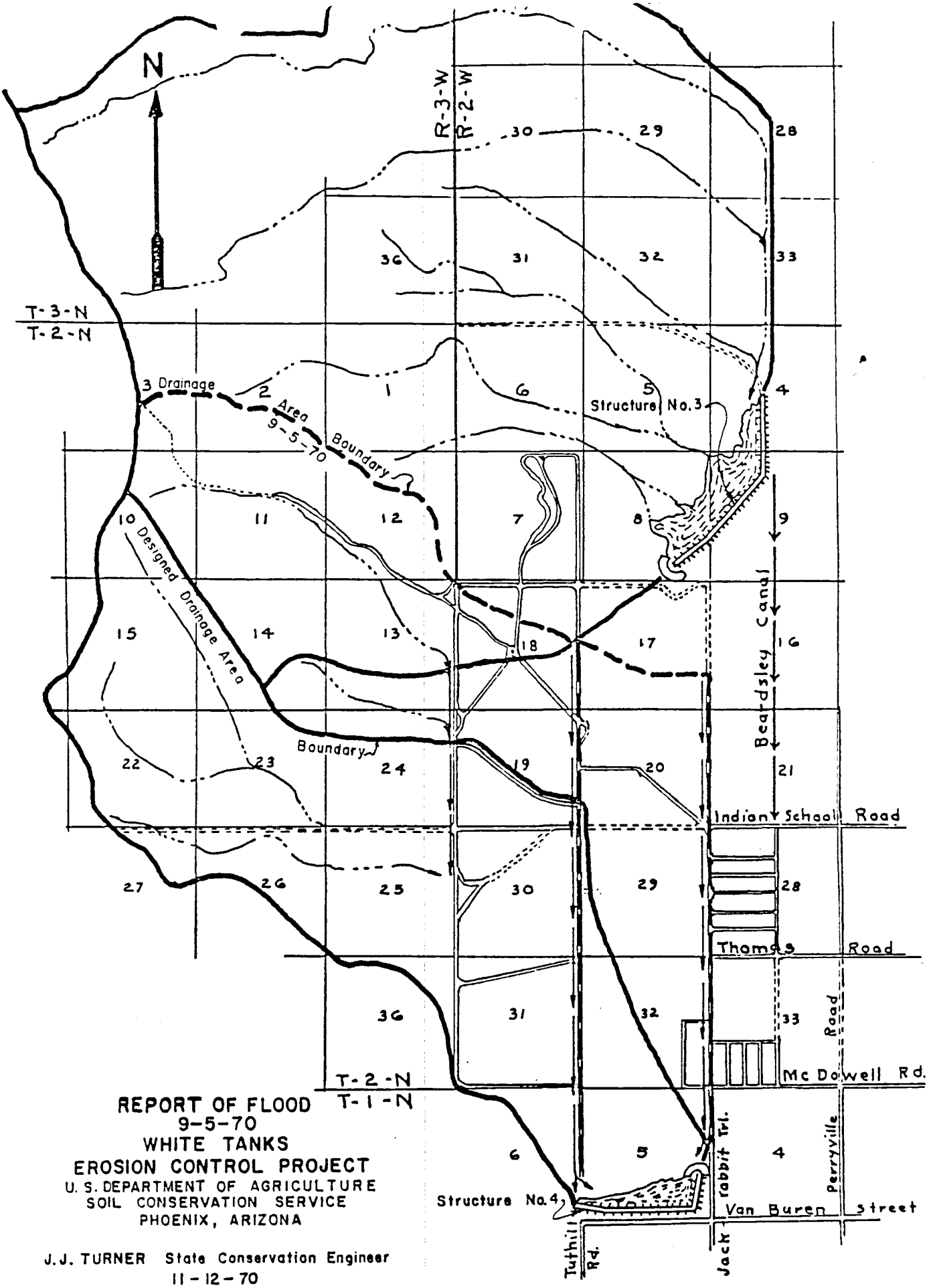
D. If it is not practical to materially increase the capacity of Structure No. 4 additional structures should be built upstream, possibly in Sections 23 and 25.

J. J. Turner
State Conservation Engineer

Attachment

cc to:
E. J. Core, Head, E&WF Unit, SCS, Portland, Oregon
Kenneth E. Grant, Administrator, SCS, Washington, D. C.
Chris Williams, DC, Phoenix WU.
Max Tomerough DC, Buckeye - sent 11/7/70

JJT:csw



REPORT OF FLOOD
9-5-70
WHITE TANKS
EROSION CONTROL PROJECT
U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
PHOENIX, ARIZONA

J. J. TURNER State Conservation Engineer
11-12-70

Appendix 1.2 FCDMC ALERT-Recorded Storms

FCD of Maricopa County ALERT System
Date Time
01/05/2000-16:43:34

Storm of Sept '92.

eviceID	WtTanks3	WTnk3FRS	WTnk3Cap	WTnk3Cap
StatType	rain	max	max	tmax
ataType	precip	PT	rated	PT
nits	in	ft	ac ft	time
09/21/92				
1800	0.00	0.00	0	23:20
700	0.00	0.00	0	23:20
600	0.00	0.00	0	23:20
1500	0.00	0.00	0	23:20
400	0.00	0.00	0	23:20
300	0.00	0.00	0	23:20
1200	0.00	0.00	0	23:20
100	0.00	0.00	0	23:20
000	0.00	0.00	0	23:20
0900	0.00	0.00	0	23:20
0800	0.00	0.00	0	23:20
700	0.00	0.00	0	23:20
600	0.00	0.00	0	23:20
0500	0.00	0.00	0	23:20
400	0.00	0.00	0	23:20
300	0.00	0.00	0	23:20
0200	0.00	0.00	0	23:20
100	0.00	0.00	0	23:20
/20/92				
400	0.00	0.00	152	23:20
2300	0.00	0.10	155	19:20
200	0.00	0.10	155	19:20
2100	0.00	0.10	155	19:20
2000	0.00	0.10	155	19:20
900	0.00	0.20	157	17:05
800	0.00	0.20	157	17:05
1700	0.00	0.30	160	14:54
600	0.00	0.30	160	14:54
500	0.00	0.30	160	14:54
1400	0.00	0.40	163	13:09
1300	0.00	0.50	166	11:38
200	0.00	0.50	166	11:38
1100	0.00	0.60	169	10:07
1000	0.00	0.70	172	08:50
900	0.00	0.70	172	08:50
800	0.00	0.80	175	07:34
0700	0.00	0.90	177	06:14
600	0.00	1.00	180	04:35
500	0.00	1.00	180	04:35
0400	0.00	1.10	175	02:28
0300	0.00	1.10	175	02:28
200	0.00	2.60	249	01:08
100	0.31	2.30	216	00:57
/19/92				
200	0.35	0.00	0	12:00
300	0.00	0.00	0	12:00
2200	0.00	0.00	0	12:00
100	0.00	0.00	0	12:00
000	0.00	0.00	0	12:00

FCD of Maricopa County ALERT System
Date Time
01/05/2000-16:41:41

Storm of Jan '93

DeviceID	WtTanks3	WTnk3FRS	WTnk3Cap	WTnk3Cap
StatType	rain	max	max	tmax
DataType	precip	PT	rated	PT
Units	in	ft	ac ft	time
01/12/93				
2400	0.04	0.00	0	14:32
2300	0.04	0.00	0	14:32
2200	0.00	0.00	0	14:32
2100	0.00	0.00	0	14:32
2000	0.00	0.00	0	14:32
1900	0.00	0.00	0	14:32
1800	0.00	0.00	0	14:32
1700	0.00	0.00	0	14:32
1600	0.00	0.00	0	14:32
1500	0.00	0.00	0	14:32
1400	0.00	0.10	152	13:32
1300	0.00	0.20	155	11:53
1200	0.00	0.20	155	11:53
1100	0.00	0.30	157	10:15
1000	0.00	0.40	160	08:48
0900	0.00	0.40	160	08:48
0800	0.00	0.50	163	07:35
0700	0.00	0.60	166	06:07
0600	0.00	0.70	169	04:22
0500	0.00	0.70	169	04:22
0400	0.00	0.80	172	02:25
0300	0.00	0.80	172	02:25
0200	0.00	0.90	175	00:47
0100	0.00	0.90	175	00:47
01/11/93				
2400	0.00	1.00	177	23:30
2300	0.00	1.10	180	22:03
2200	0.00	1.20	183	20:39
2100	0.00	1.20	183	20:39
2000	0.00	1.30	186	19:23
1900	0.00	1.40	189	18:03
1800	0.00	1.50	192	16:46
1700	0.00	1.50	192	16:46
1600	0.00	1.70	197	14:13
1500	0.00	1.70	197	14:13
1400	0.00	1.80	200	13:08
1300	0.00	2.00	210	10:39
1200	0.00	2.00	210	10:39
1100	0.00	2.00	210	10:39
1000	0.00	2.10	216	09:26
0900	0.00	2.30	229	07:11
0800	0.00	2.30	229	07:11
0700	0.00	2.60	249	02:34
0600	0.00	2.60	249	02:34
0500	0.00	2.60	249	02:34
0400	0.00	2.60	249	02:34
0300	0.00	2.60	249	02:34
0200	0.00	1.90	203	23:07
0100	0.00	1.90	203	23:07

FCD of Maricopa County ALERT System
Date Time
01/05/2000-16:55:07

Feb 1998

eviceIDWtTanks3	WTnk3FRS	WTnk3Cap	WTnk3FRS
StatType rain	max	max	tmax
ataType precip	PT	rated	PT
nits in	ft	ac ft	time
02/19/98			
2400 0.00	0.00	0	23:51
300 0.00	0.00	0	11:51
200 0.00	0.00	0	11:51
2100 0.00	0.00	0	11:51
000 0.00	0.00	0	11:51
900 0.00	0.00	0	11:51
1800 0.00	0.00	0	11:51
1700 0.00	0.00	0	11:51
600 0.00	0.00	0	11:51
1500 0.00	0.00	0	11:51
1400 0.00	0.00	0	11:51
300 0.00	0.00	0	11:51
200 0.00	0.00	0	11:51
1100 0.00	0.00	130	23:51
000 0.00	0.00	130	23:51
900 0.00	0.00	130	23:51
0800 0.00	0.00	130	23:51
0700 0.00	0.00	130	23:51
00 0.00	0.00	130	23:51
500 0.00	0.00	130	23:51
0400 0.00	0.00	130	23:51
300 0.00	0.00	130	23:51
200 0.00	0.00	130	23:51
0100 0.00	0.00	130	23:51
2/18/98			
400 0.00	0.00	130	23:51
2300 0.00	0.25	130	06:00
2200 0.00	0.25	130	06:00
100 0.00	0.25	130	06:00
2000 0.00	0.25	130	06:00
1900 0.00	0.25	130	06:00
800 0.00	0.25	130	06:00
700 0.00	0.25	130	06:00
1600 0.00	0.25	130	06:00
500 0.00	0.25	130	06:00
400 0.00	0.25	130	06:00
1300 0.00	0.25	130	06:00
1200 0.00	0.25	130	06:00
100 0.00	0.25	130	06:00
1000 0.00	0.25	130	06:00
0900 0.00	0.25	130	06:00
800 0.00	0.25	130	06:00
700 0.00	0.25	130	06:00
00 0.00	0.00	0	23:51
00 0.00	0.00	0	23:51
400 0.00	0.00	0	23:51
0300 0.00	0.00	0	23:51
0200 0.00	0.00	0	23:51
100 0.00	0.00	0	23:51

FCD of Maricopa County ALERT System
Date Time
01/05/2000-16:56:56

eviceID StatType ataType nits	WtTanks3 rain precip in	WTnk3FRS max PT ft	WTnk3Cap max rated ac ft	WTnk3FRS tmax PT time
)4/03/99				
200	0.00	0.00	0	00:10
100	0.00	0.00	0	00:10
000	0.00	0.00	0	00:10
0900	0.00	0.00	0	00:10
800	0.00	0.00	0	00:10
700	0.00	0.00	0	00:10
0600	0.00	0.00	0	00:10
500	0.00	0.00	0	00:10
400	0.00	0.00	0	00:10
)300	0.00	0.00	0	00:10
200	0.00	0.00	0	00:10
100	0.00	0.00	0	00:10
)4/02/99				
2400	0.00	0.00	124	12:10
300	0.00	0.00	124	12:10
200	0.00	0.00	124	12:10
2100	0.00	0.00	124	12:10
000	0.00	0.00	124	12:10
00	0.00	0.00	124	12:10
1800	0.00	0.00	124	12:10
1700	0.00	0.00	124	12:10
600	0.00	0.00	124	12:10
1500	0.00	0.00	124	12:10
1400	0.00	0.00	124	12:10
300	0.00	0.00	124	12:10
200	0.00	0.03	124	06:20
1100	0.00	0.03	124	06:20
000	0.00	0.03	124	06:20
)900	0.04	0.03	124	06:20
0800	0.08	0.03	124	06:20
0700	0.04	0.03	124	06:20
)600	0.12	0.12	127	05:40
)500	0.08	0.52	137	04:16
0400	0.31	0.50	137	03:47
)300	0.12	0.00	____	00:10
)200	0.16	0.00	____	00:10
0100	0.08	0.00	____	00:10
)4/01/99				
2400	0.04	0.00	____	12:10
2300	0.08	0.00	____	12:10
2200	0.04	0.00	____	12:10
2100	0.04	0.00	____	12:10
2000	0.00	0.00	____	12:10
00	0.00	0.00	____	12:10
1800	0.00	0.00	____	12:10
1700	0.00	0.00	____	12:10
1600	0.00	0.00	____	12:10
1500	0.00	0.00	____	12:10
1400	0.00	0.00	____	12:10

Apr 1999

01 10 93

2400	0.08	1.90	203	23:07
2300	0.08	1.80	200	22:56
2200	0.08	1.10	180	21:58
100	0.35			
2000	0.35			
1900	0.08			
1800	0.08			
1700	0.04			
1600	0.04			
1500	0.04			
1400	0.12			
1300	0.12			
1200	0.12			
1100	0.12			
1000	0.00			
0900	0.08			
0800	0.04			
0700	0.04			
0600	0.00			
0500	0.00			
0400	0.00			
0300	0.00			
0200	0.00			
0100	0.00			

FCD of Maricopa County ALERT System
Date Time
01/05/2000-16:15:16

DeviceID	WtTanks3	WTnk3FRS	WTnk3Cap	WTnk3Cap
StatType	rain	max	max	tmax
DataType	precip	PT	rated	PT
Units	in	ft	ac ft	time
1day at 24:00:00				
01/14/93	0.28	0.00	0	14:32
01/13/93	0.12	0.00	0	14:32
01/12/93	0.08	0.90	175	00:47
01/11/93	0.00	2.60	249	02:34
01/10/93	1.85	1.90	203	23:07
01/09/93	0.00	____	____	____
01/08/93	0.79	____	____	____
01/07/93	0.63	____	____	____
01/06/93	0.67	____	____	____
01/05/93	0.00	____	____	____
01/04/93	0.00	____	____	____
01/03/93	0.08	____	____	____
TOTALS:	4.49	2.60	249	02:34

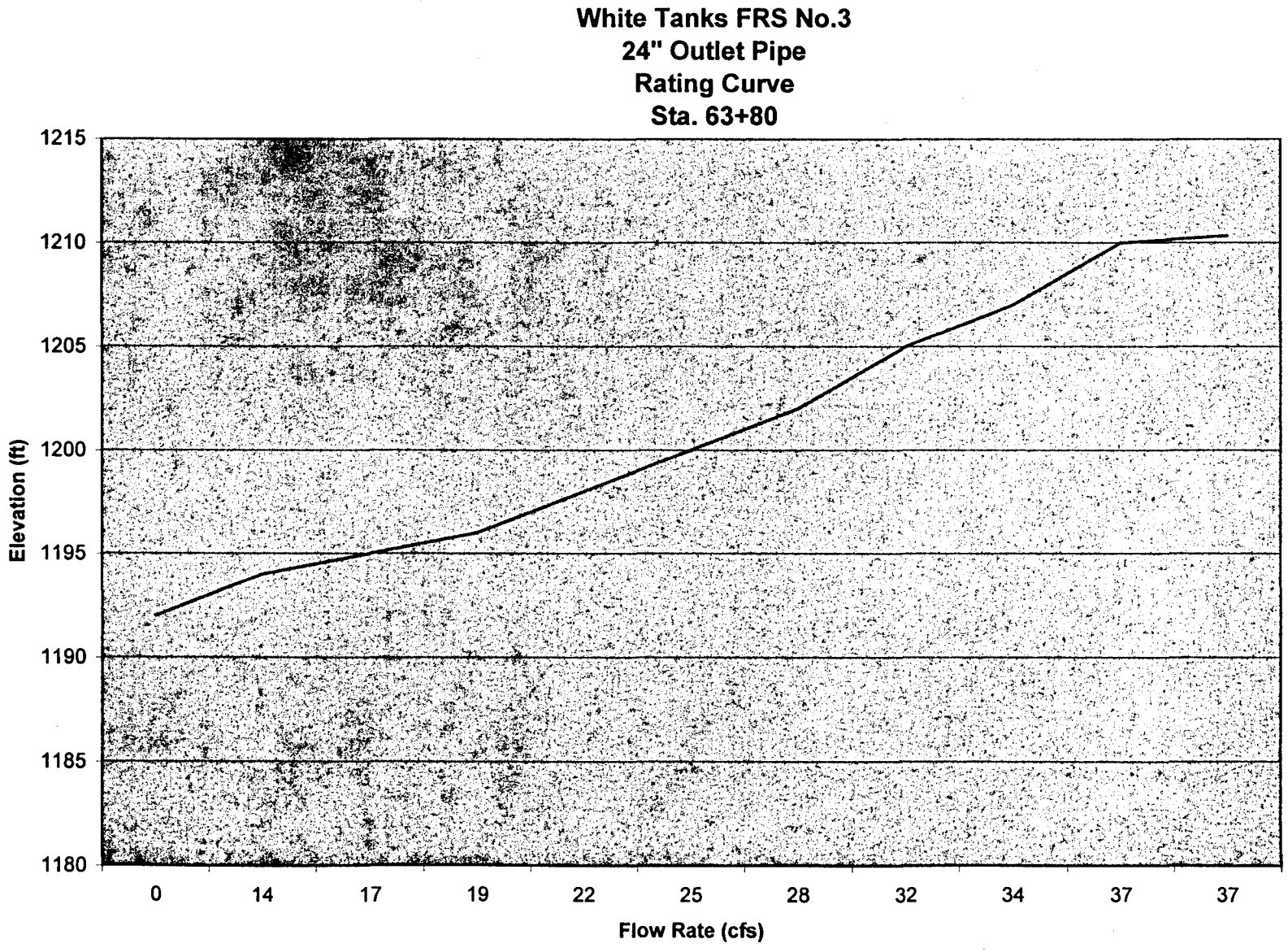
FCD of Maricopa County ALERT System

Date Time

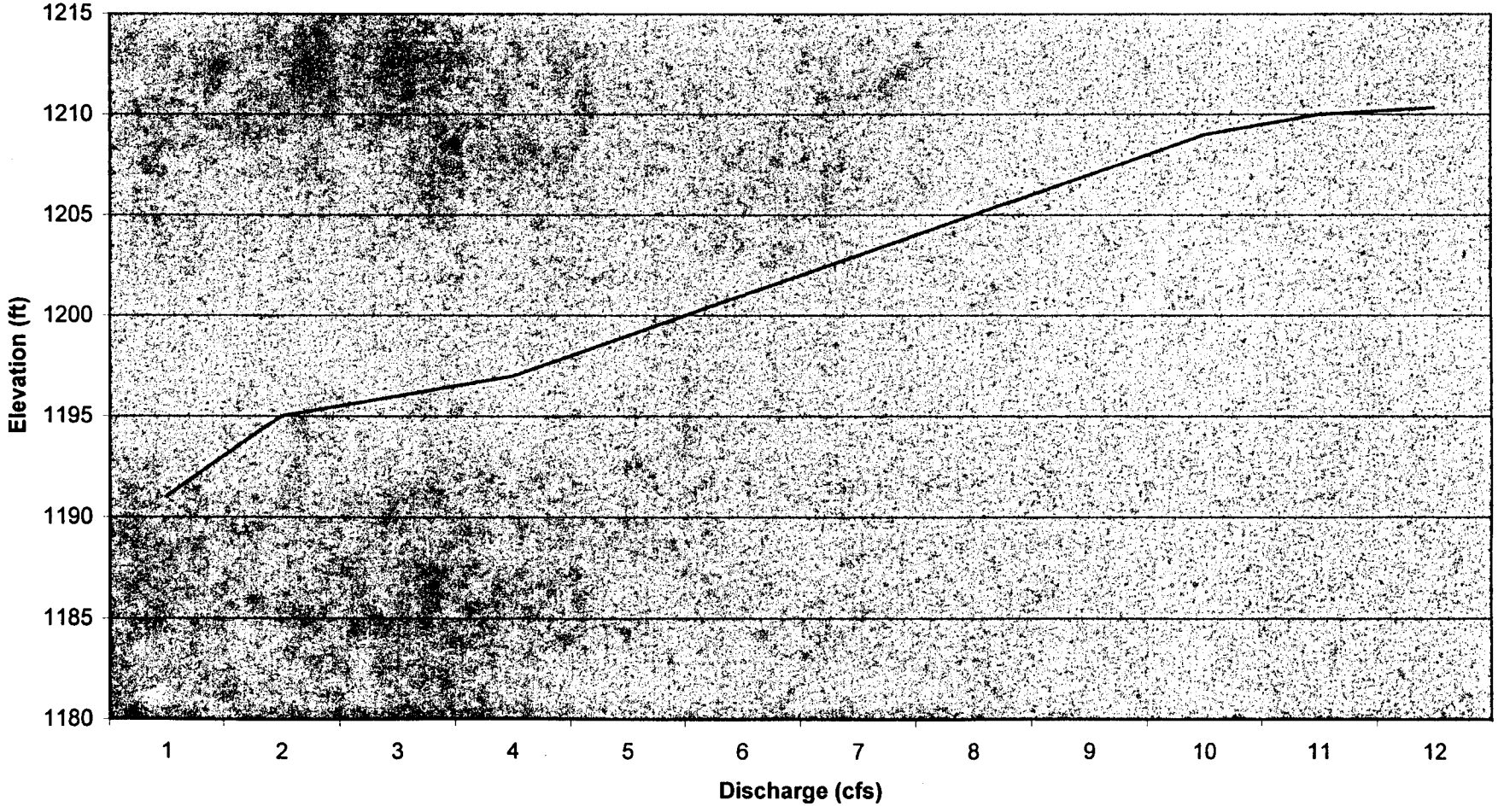
01/05/2000-10:16:04

DeviceID	WTnk3FRS	WTnk3FRS	WTnk3FRS	WTnk3Cap
StatType	max	max	dmax	max
DataType	PT	rated	PT	rated
Units	ft	cfs	date	ac ft
lyear at 24:00:00				
12/31/99	0.52	68	04/02/99	137
12/31/98	0.25	64	02/18/98	130
12/31/97	0.00	0	12/31/97	0
12/31/96	0.00	0	12/31/96	0
12/31/95	0.00	0	12/31/95	0
12/31/94	0.00	0	12/31/94	0
12/31/93	2.60	189	01/11/93	249
12/31/92	2.60	189	09/20/92	249
12/31/91	0.70	69	03/26/91	0
12/31/90	0.00	0	12/15/90	0
12/31/89	0.00	0	12/15/89	0
12/31/88	0.60	68	01/25/88	0
12/31/87	____	____	____	____
12/31/86	____	____	____	____
12/31/85	____	____	____	____

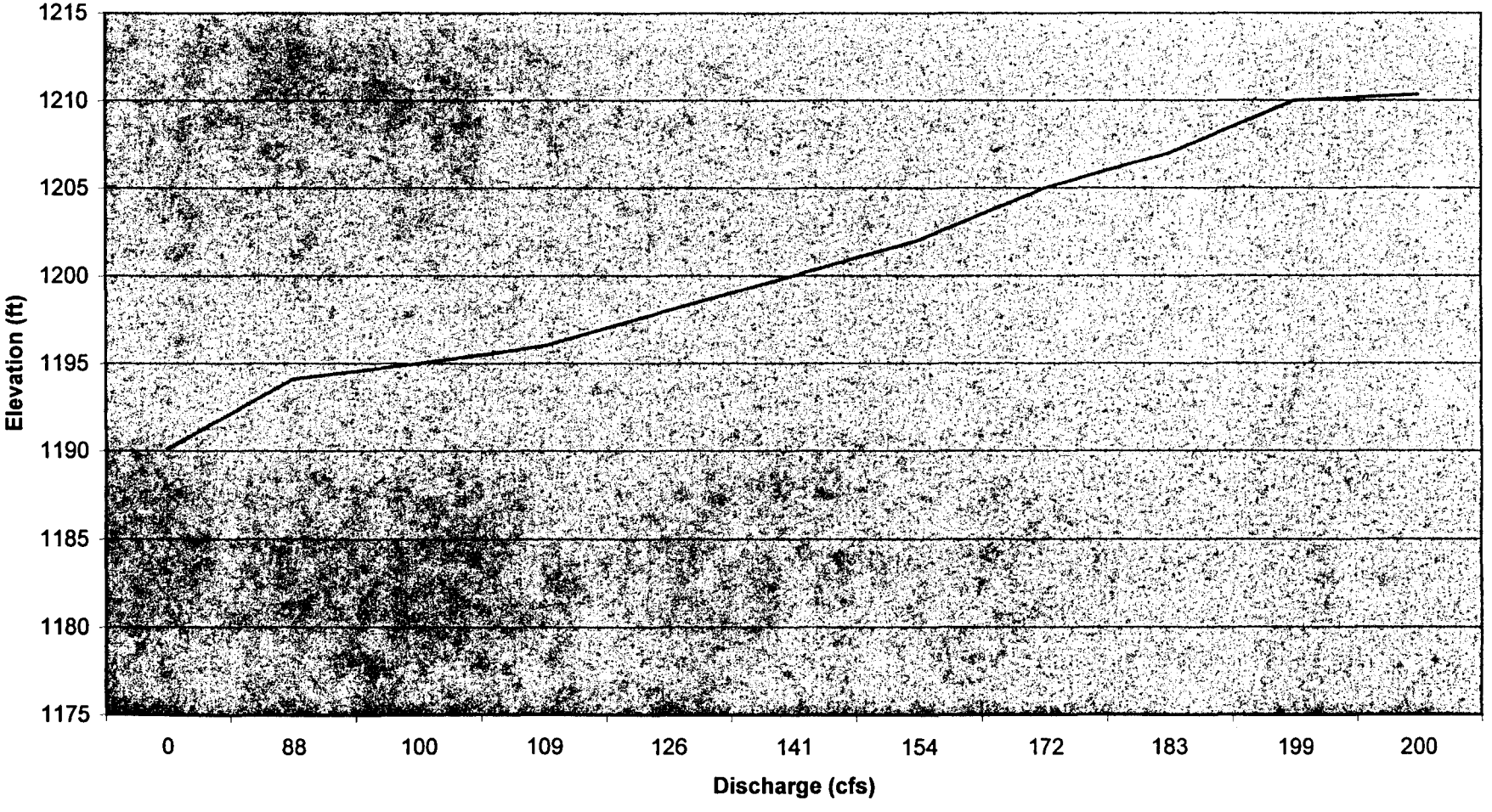
APPENDIX 2. RATING CURVES FOR OUTLET PIPES


White Tanks FRS No.3
24" Outlet Pipe
Rating Curve
Sta. 63+80
Elevation (ft)
1215
1210
1205
1200
1195
1190
1185
1180
0
14
17
19
22
25
28
32
34
37
37
Flow Rate (cfs)

White Tanks FRS No. 3
48" North Outlet Pipe
Rating Curve
Sta. 29+00

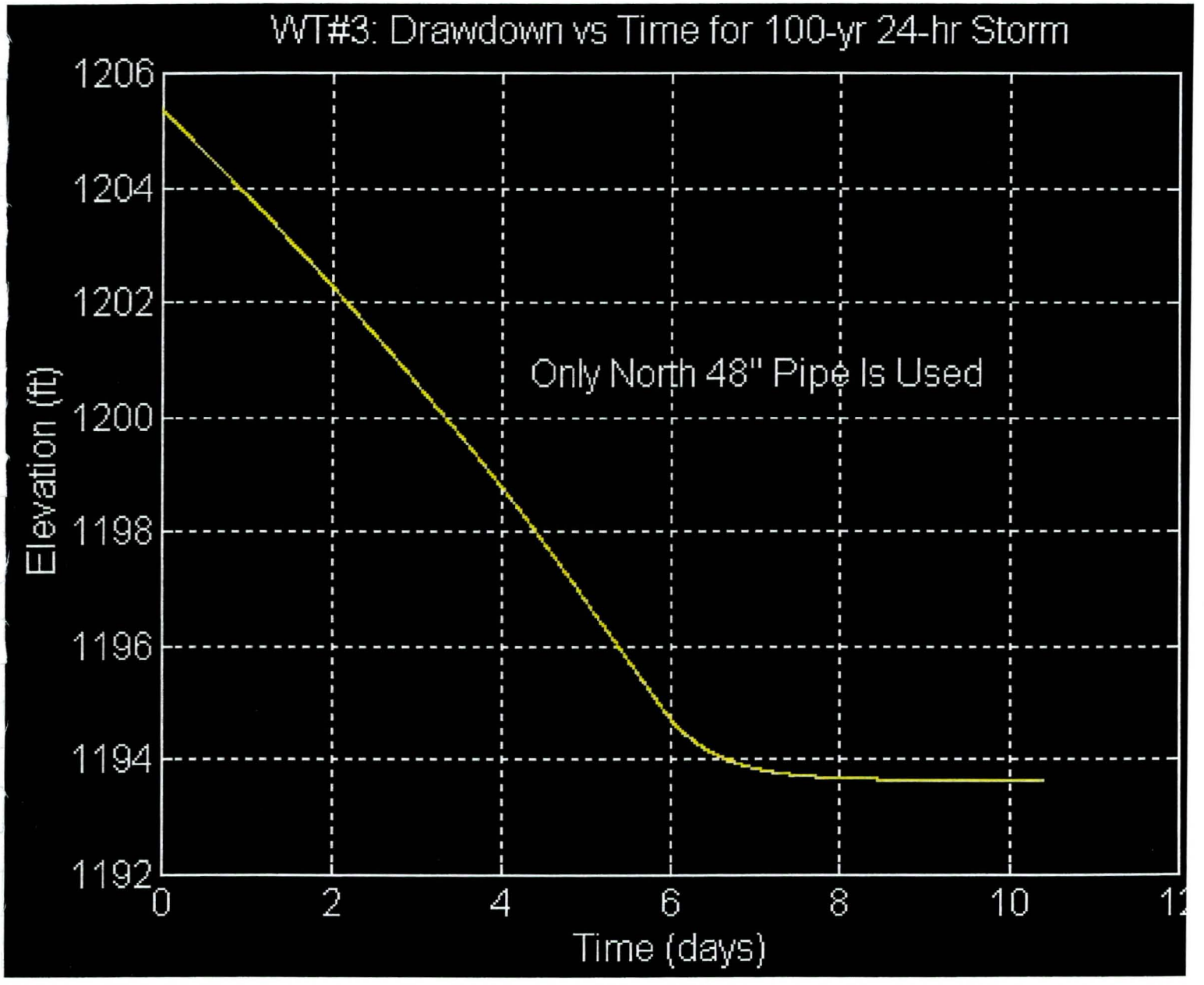


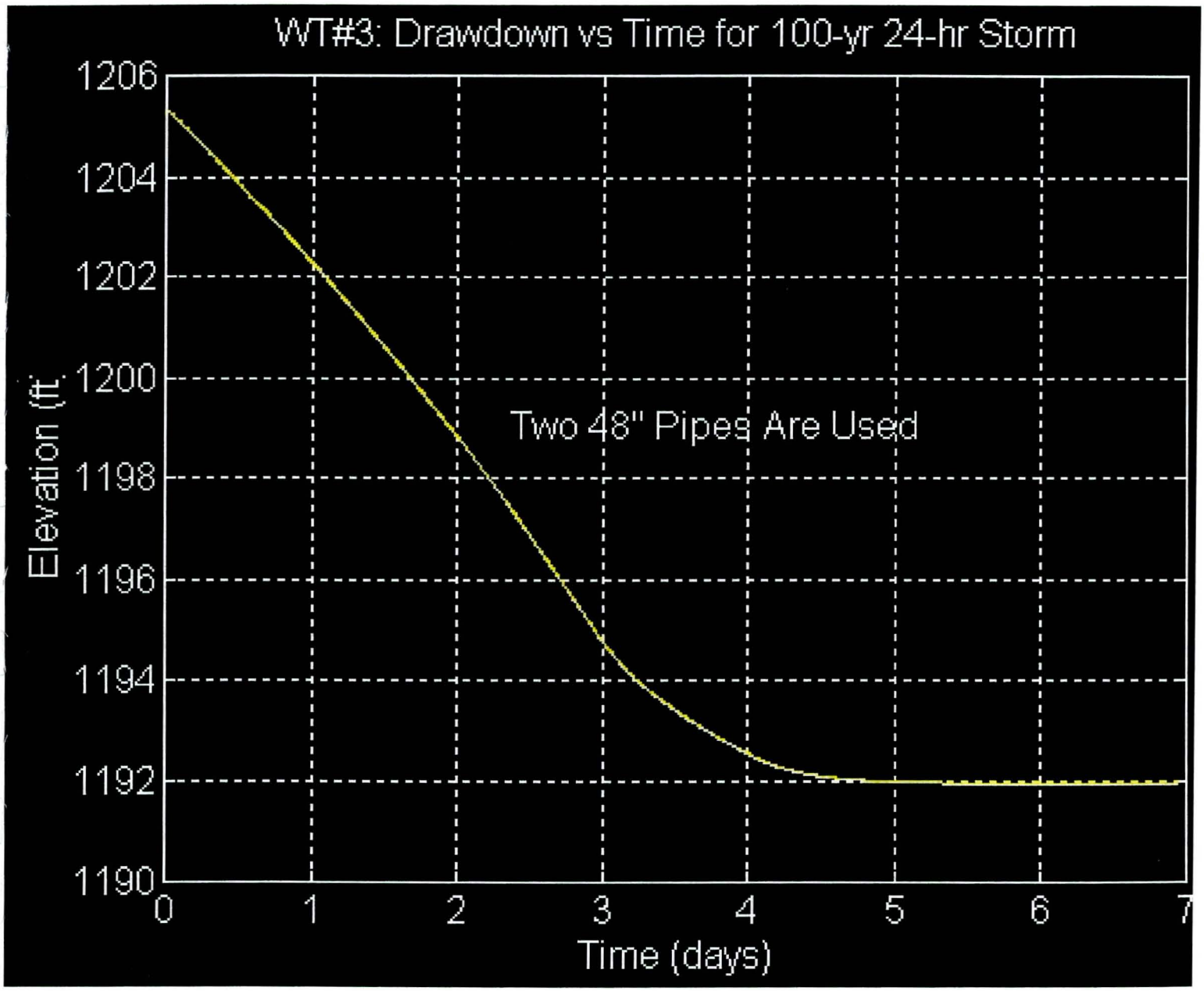
White Tanks FRS No. 3
48" Central Outlet Pipe
Rating Curve
Sta 46+00

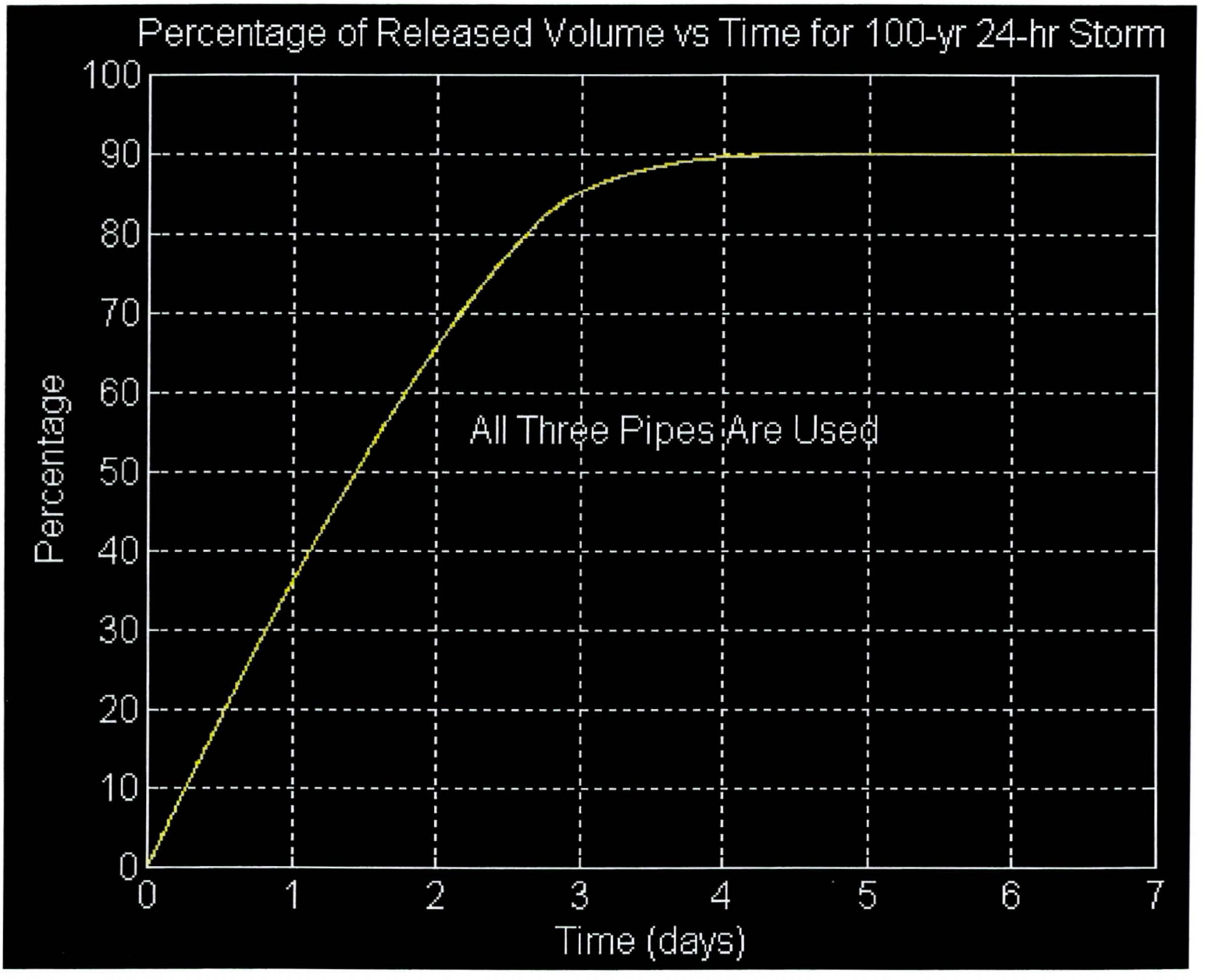


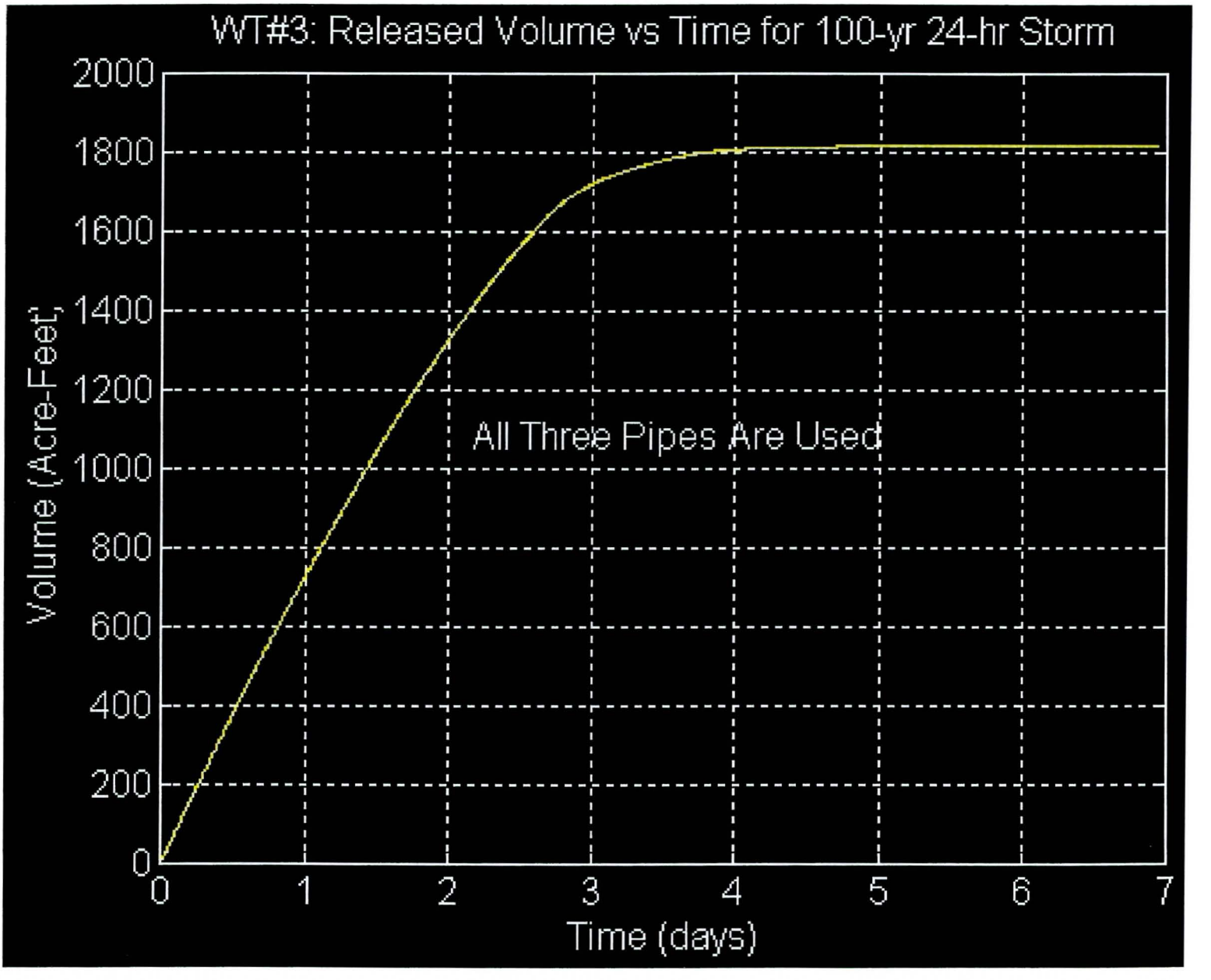
South Pipe		Central Pipe		North Pipe	
water elevation at inlet (ft)	pipe flow (cfs)	water elevation at inlet (ft)	pipe flow (cfs)	water elevation at inlet (ft)	pipe flow (cfs)
1192	0	1190	0	1191	0
1194	14	1194	88	1195	88
1195	17	1195	100	1196	103
1196	19	1196	109	1197	112
1198	22	1198	126	1199	129
1200	25	1200	141	1201	144
1202	28	1202	154	1203	158
1205	32	1205	172	1205	171
1207	34	1207	183	1207	182
1210	37	1210	199	1209	193
1210.34	37	1210.34	200	1210	199
				1210.34	200

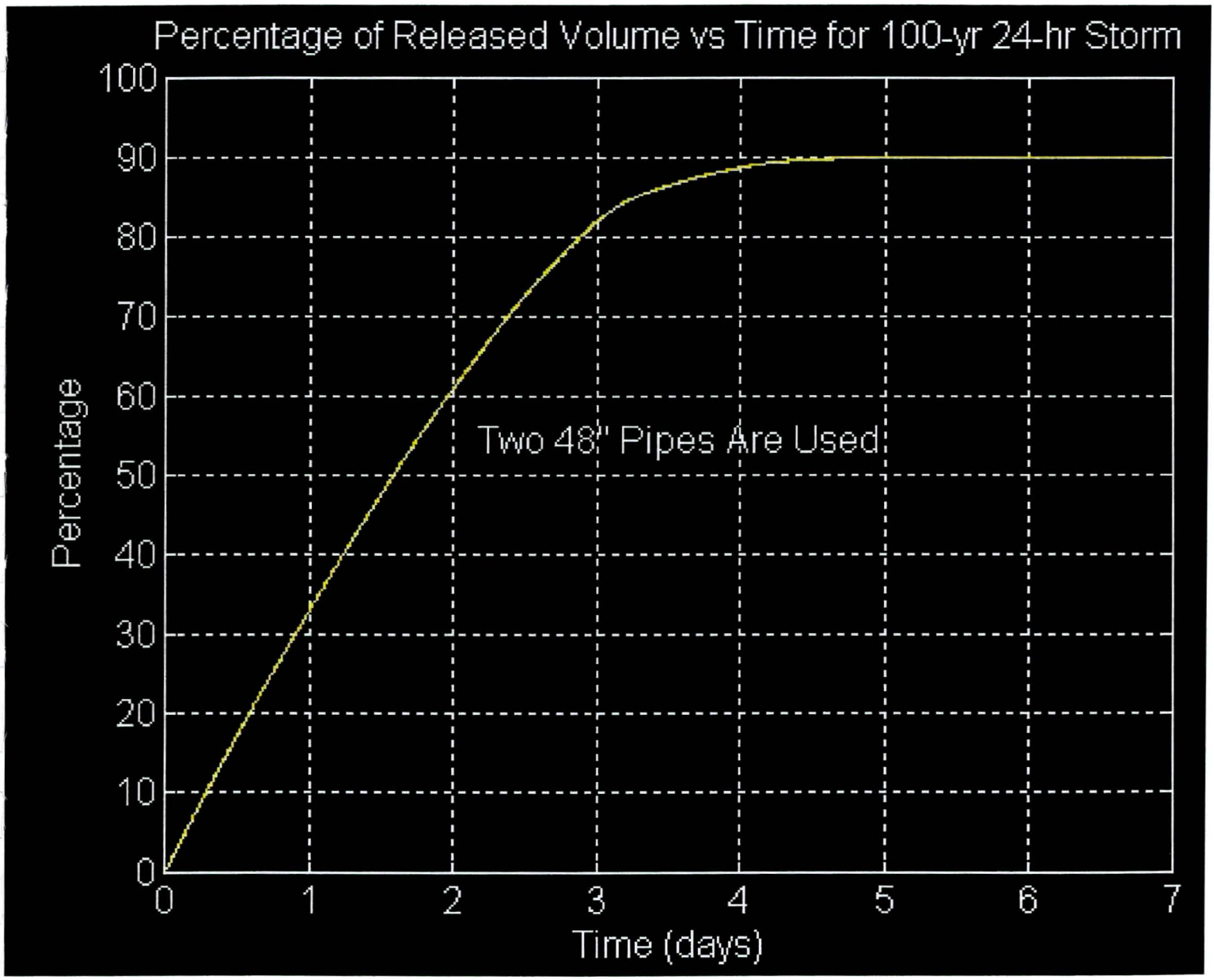
APPENDIX 3. PLOTS FOR DRAWDOWN

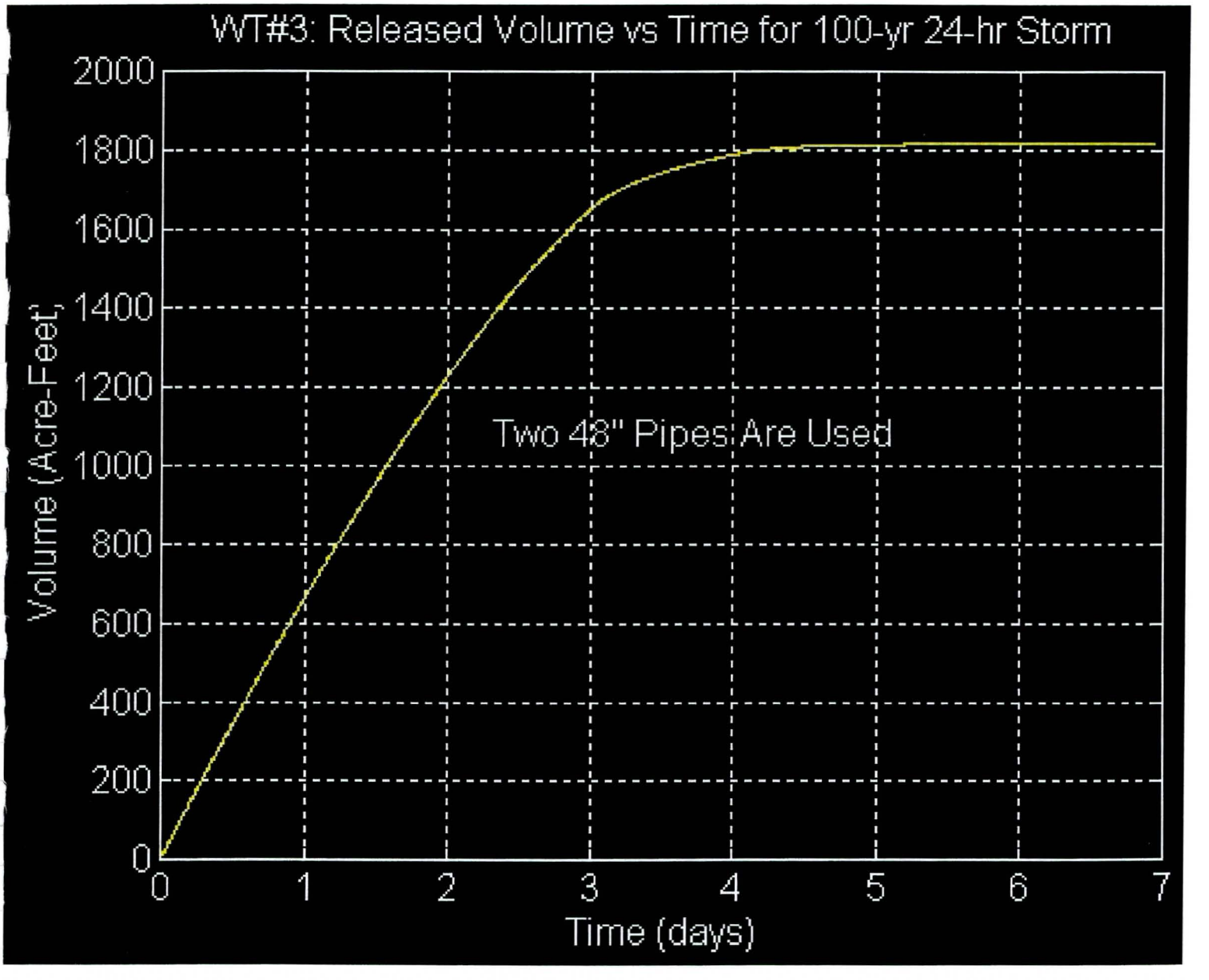

WT#3: Drawdown vs Time for 100-yr 24-hr Storm
Only North 48" Pipe Is Used
Elevation (ft)
1206
1204
1202
1200
1198
1196
1194
1192
0
2
4
6
8
10
12
Time (days)

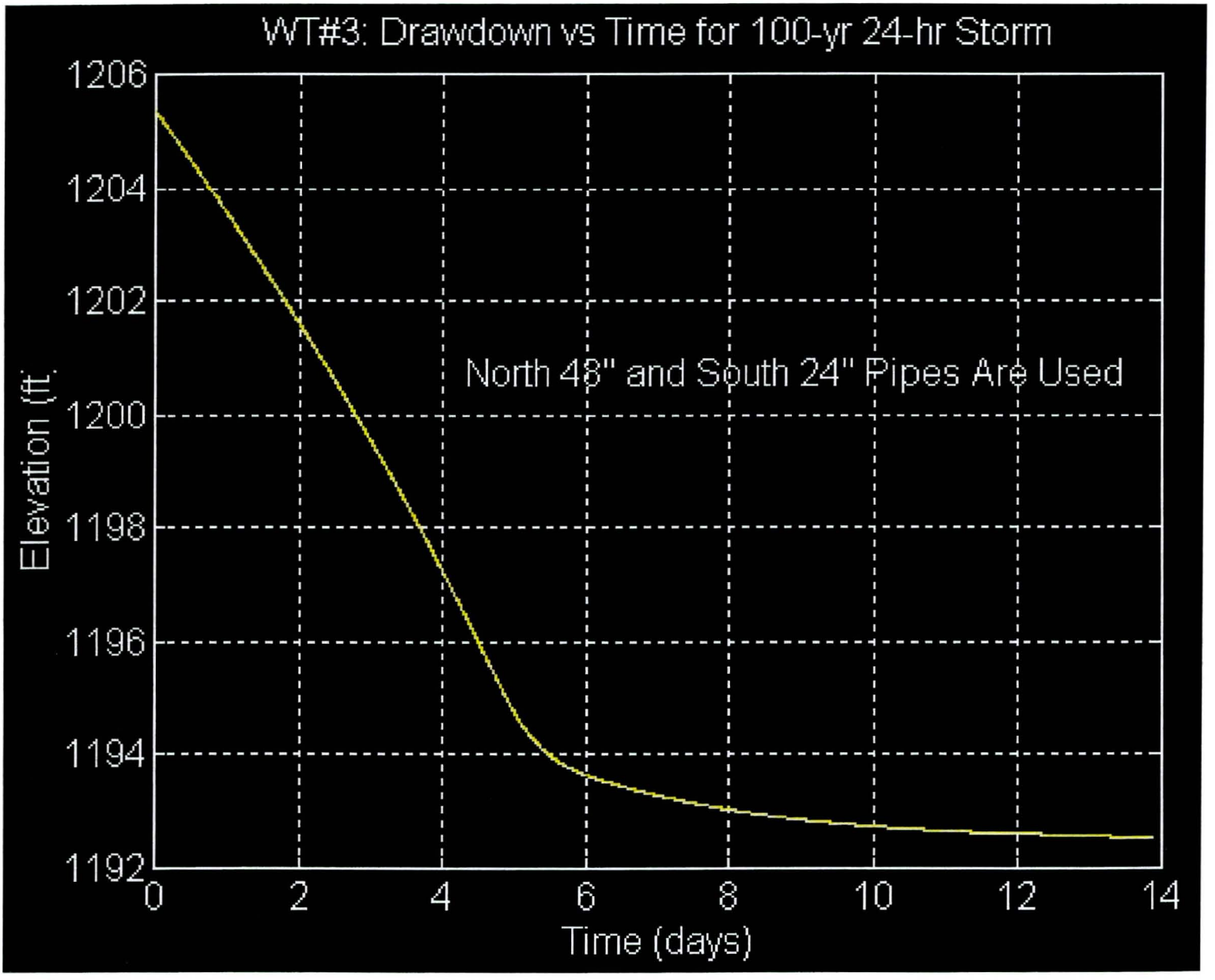

WT#3: Drawdown vs Time for 100-yr 24-hr Storm
Two 48" Pipes Are Used
Elevation (ft)
Time (days)
1206
1204
1202
1200
1198
1196
1194
1192
1190
0
1
2
3
4
5
6
7

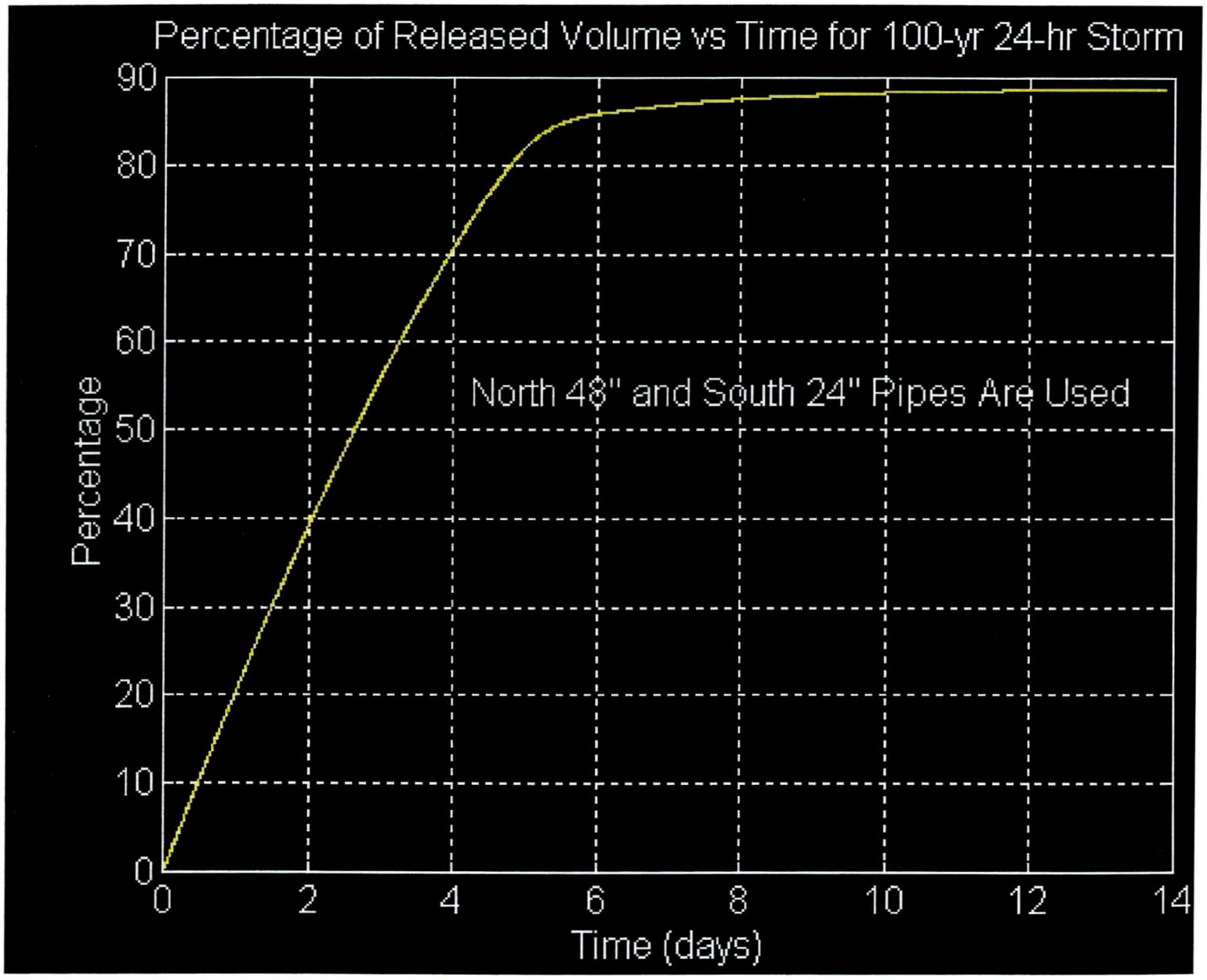

Percentage of Released Volume vs Time for 100-yr 24-hr Storm
100
90
80
70
60
50
40
30
20
10
0
Percentage
All Three Pipes Are Used
0
1
2
3
4
5
6
7
Time (days)

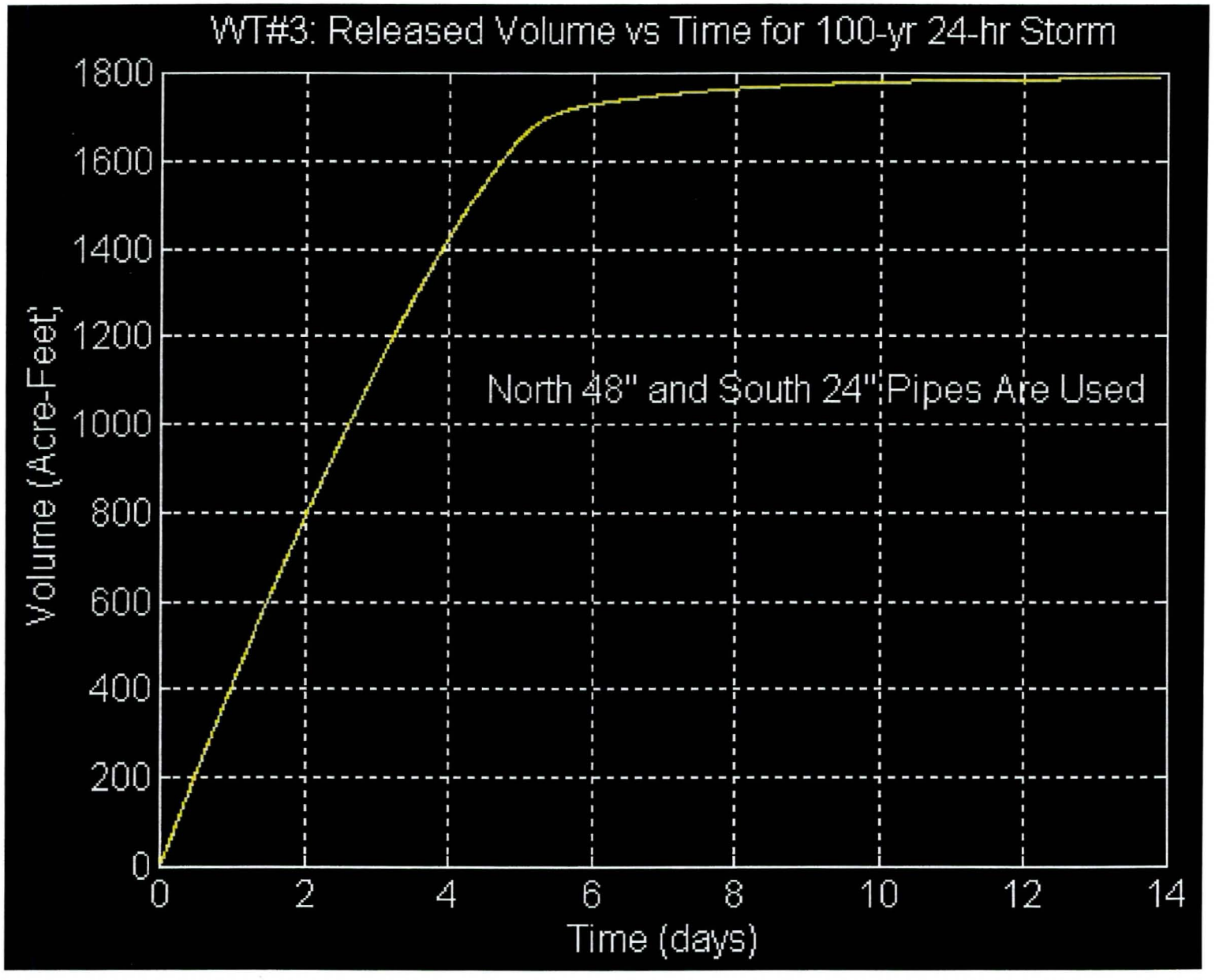

WT#3: Released Volume vs Time for 100-yr 24-hr Storm
Volume (Acre-Feet)
2000
1800
1600
1400
1200
1000
800
600
400
200
0
0
1
2
3
4
5
6
7
Time (days)
All Three Pipes Are Used

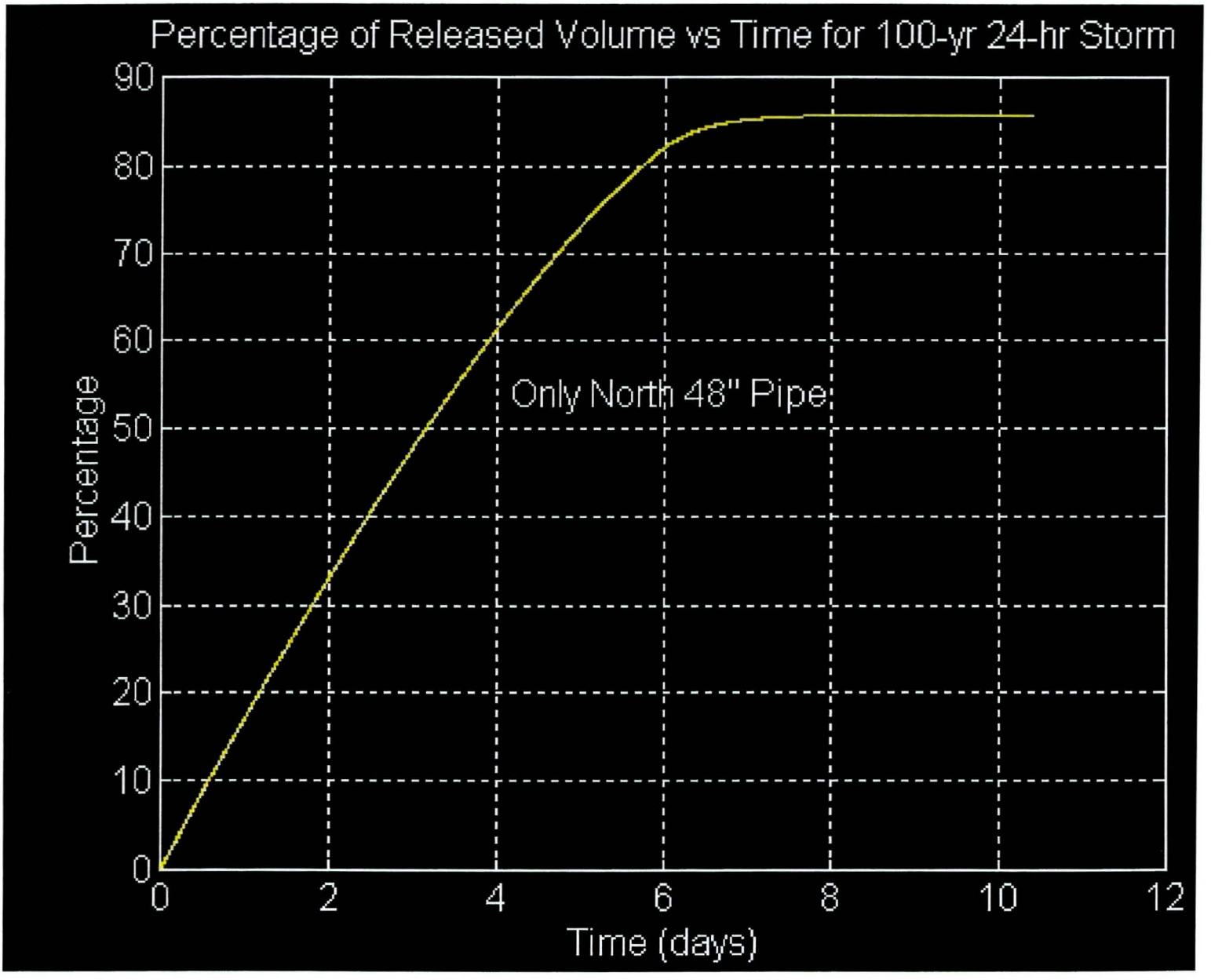

Percentage of Released Volume vs Time for 100-yr 24-hr Storm
Percentage
Time (days)
Two 48" Pipes Are Used
0
10
20
30
40
50
60
70
80
90
100
0
1
2
3
4
5
6
7

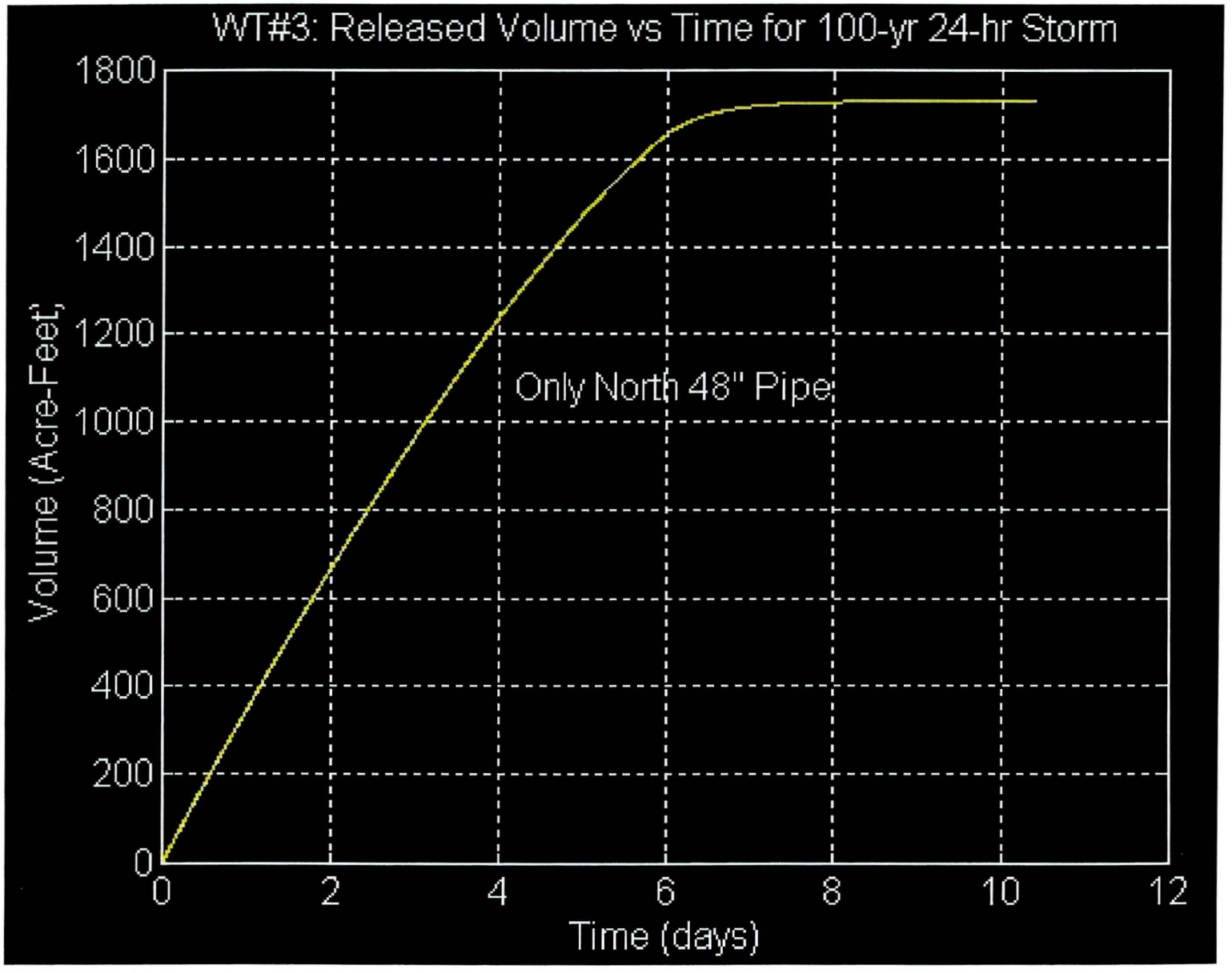

WT#3: Released Volume vs Time for 100-yr 24-hr Storm
Volume (Acre-Feet)
2000
1800
1600
1400
1200
1000
800
600
400
200
0
0
1
2
3
4
5
6
7
Time (days)
Two 48" Pipes Are Used

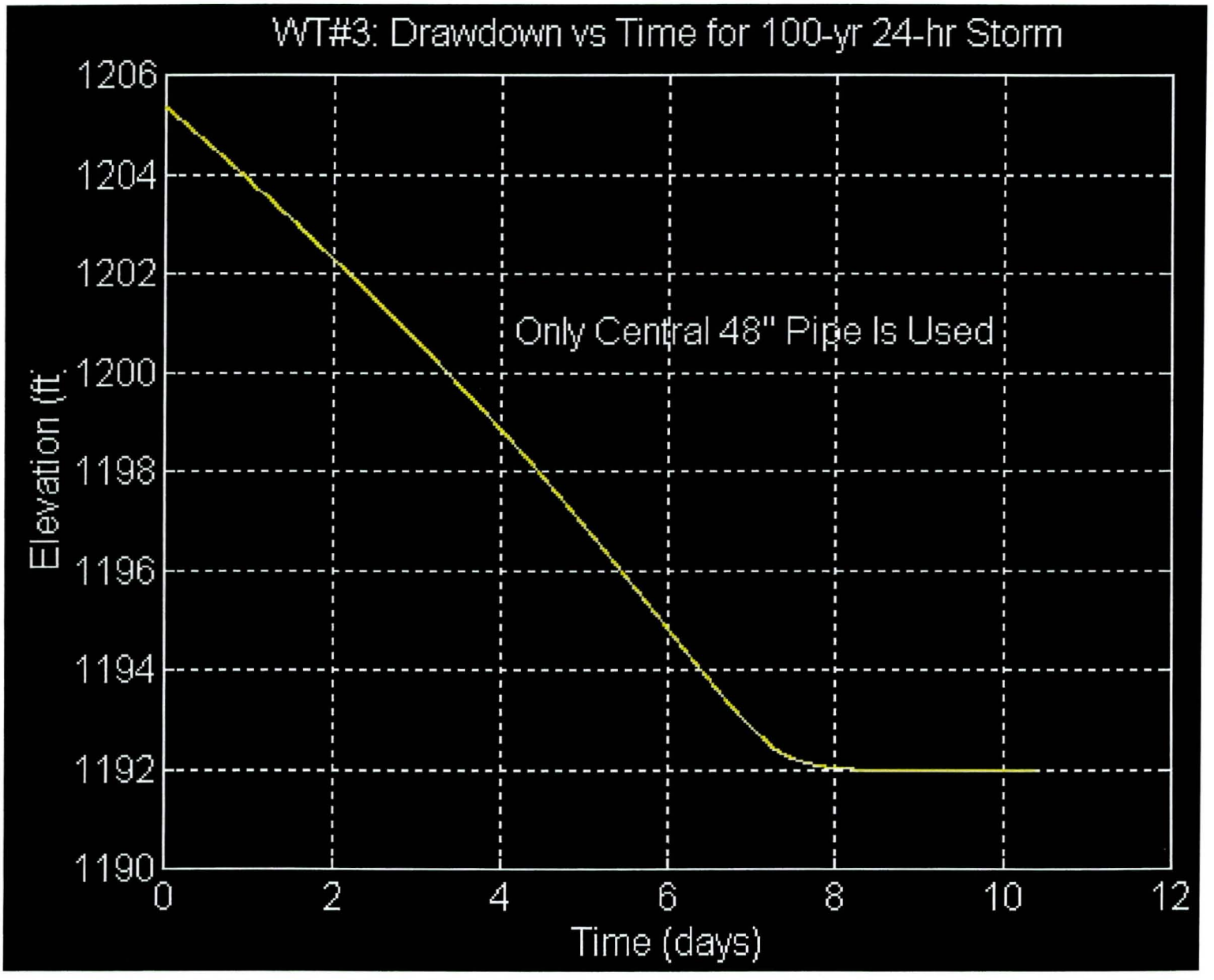

WT#3: Drawdown vs Time for 100-yr 24-hr Storm
North 48" and South 24" Pipes Are Used
Elevation (ft)
1206
1204
1202
1200
1198
1196
1194
1192
0
2
4
6
8
10
12
14
Time (days)

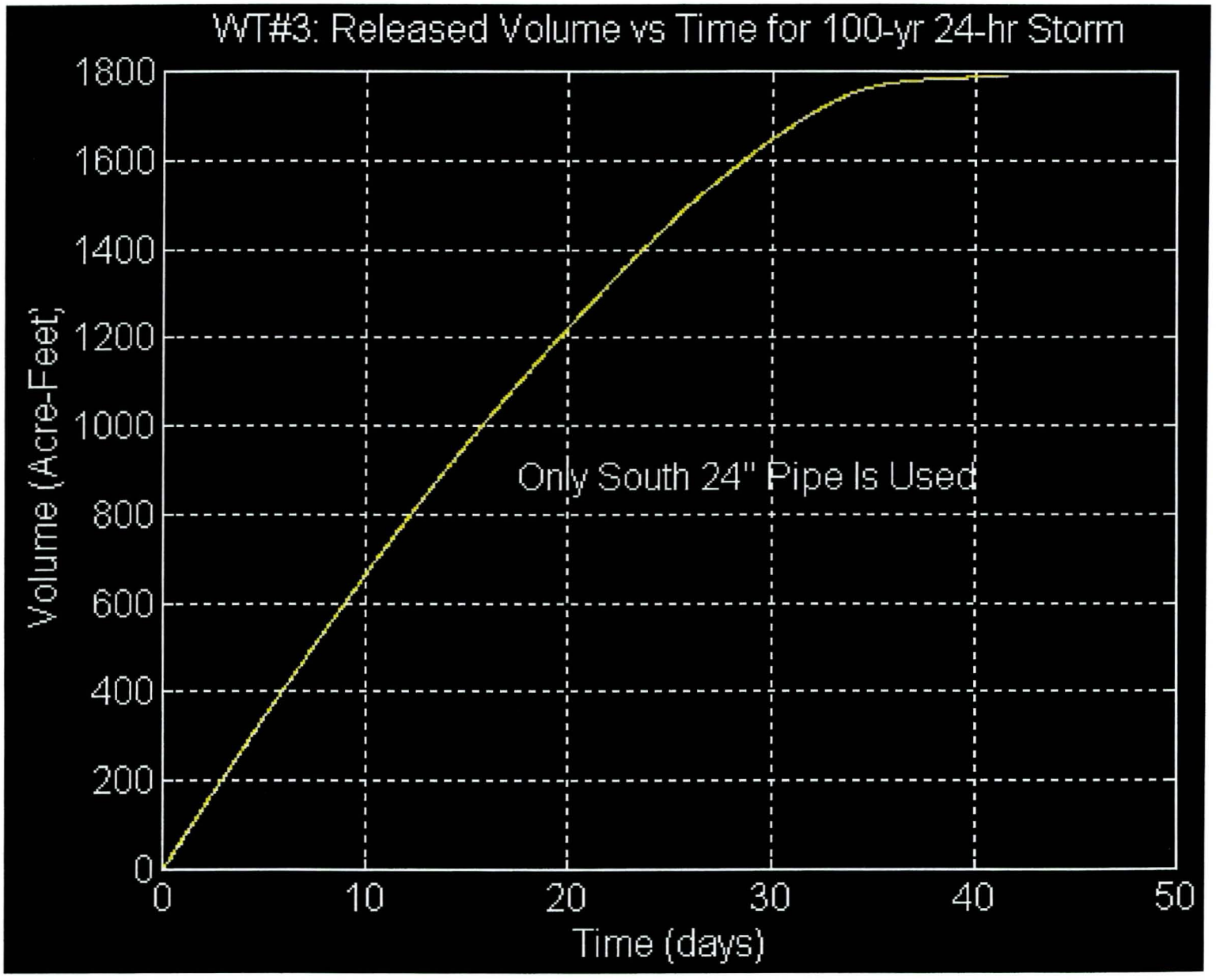

Percentage of Released Volume vs Time for 100-yr 24-hr Storm
North 48" and South 24" Pipes Are Used
Percentage
Time (days)
0
10
20
30
40
50
60
70
80
90
0
2
4
6
8
10
12
14

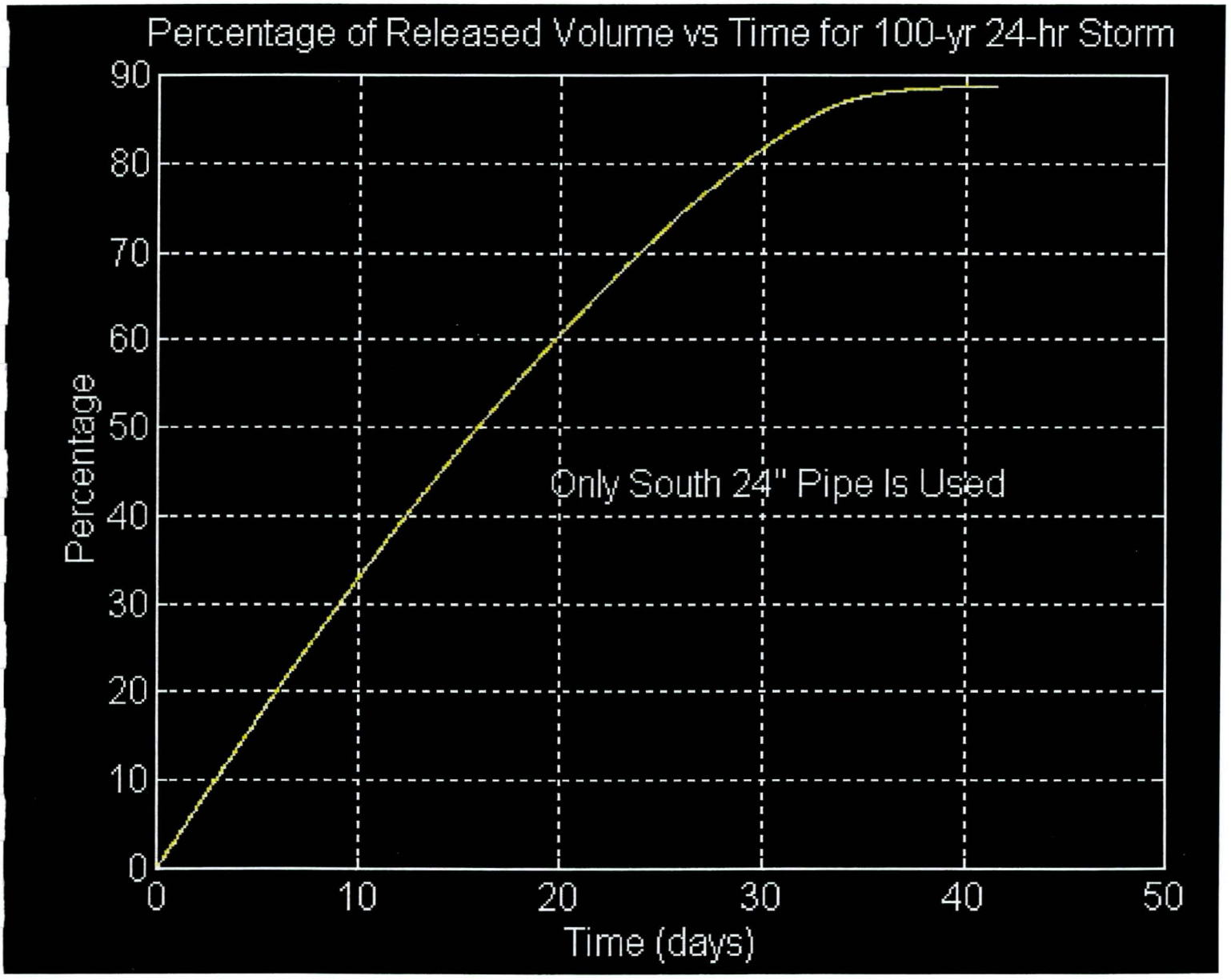

WT#3: Released Volume vs Time for 100-yr 24-hr Storm
North 48" and South 24" Pipes Are Used
Volume (Acre-Feet)
Time (days)
0
200
400
600
800
1000
1200
1400
1600
1800
0
2
4
6
8
10
12
14

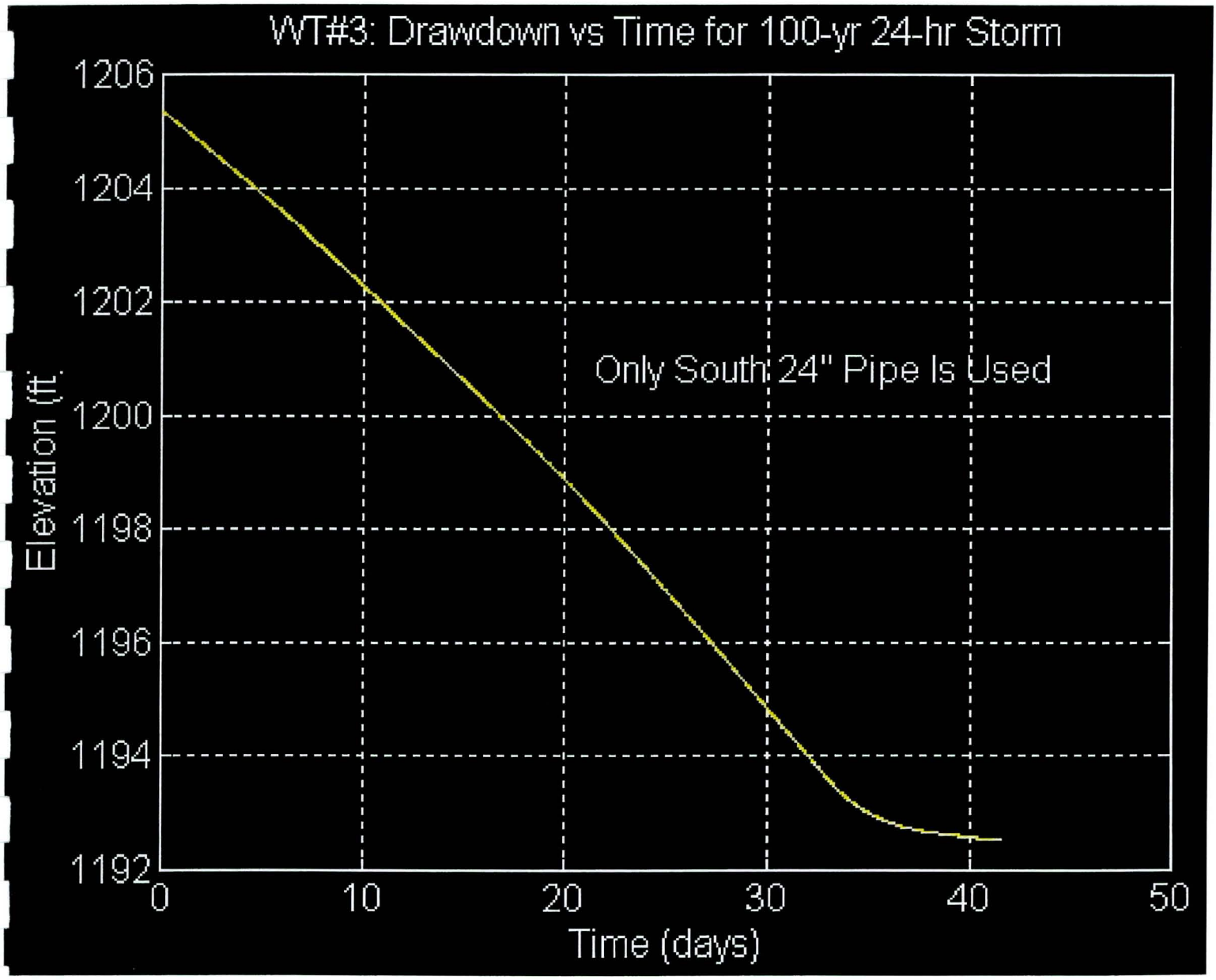

Percentage of Released Volume vs Time for 100-yr 24-hr Storm
Only North 48" Pipe
Percentage
Time (days)
0
10
20
30
40
50
60
70
80
90
0
2
4
6
8
10
12

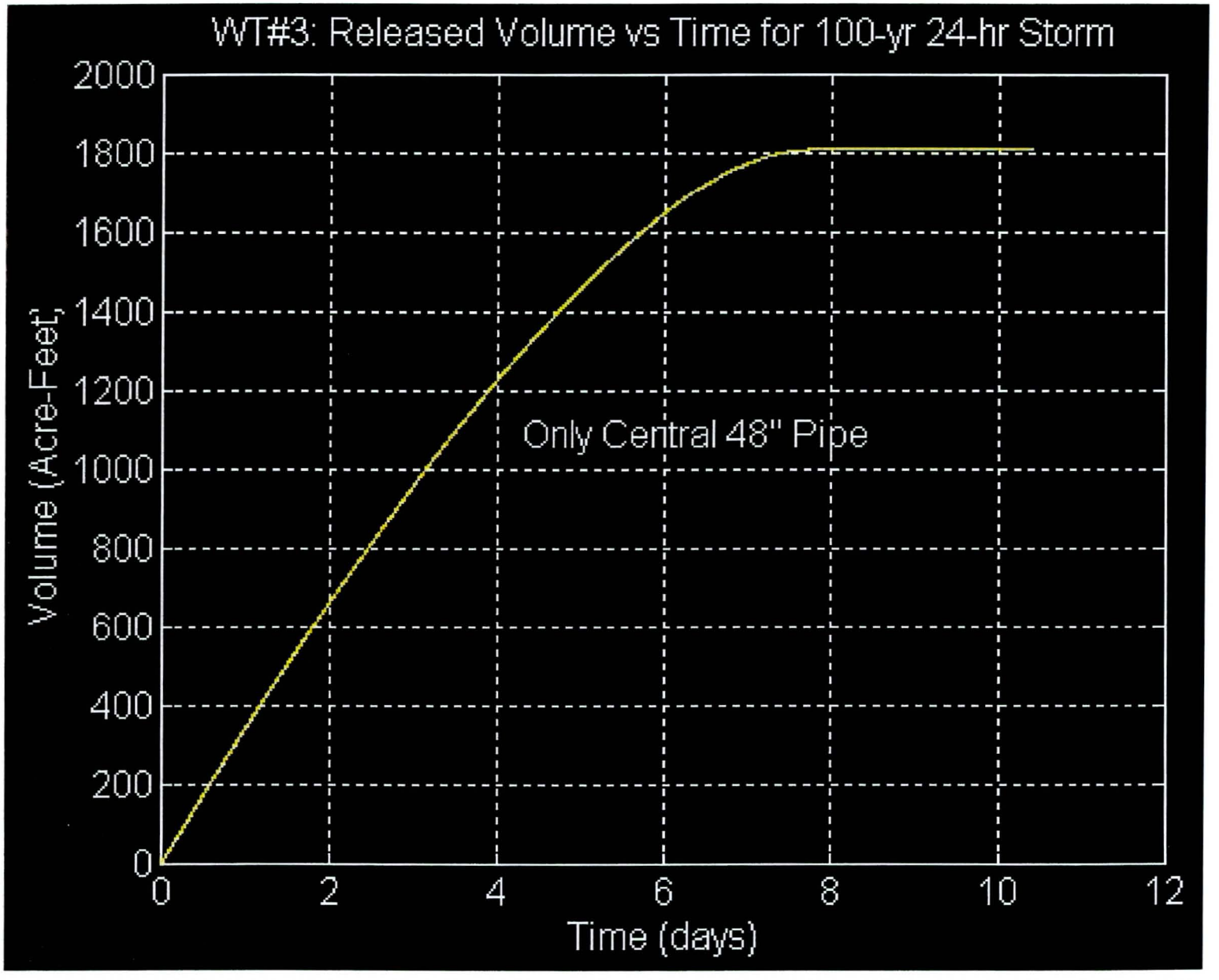

WT#3: Released Volume vs Time for 100-yr 24-hr Storm
Volume (Acre-Feet)
1800
1600
1400
1200
1000
800
600
400
200
0
Only North 48" Pipe
0
2
4
6
8
10
12
Time (days)

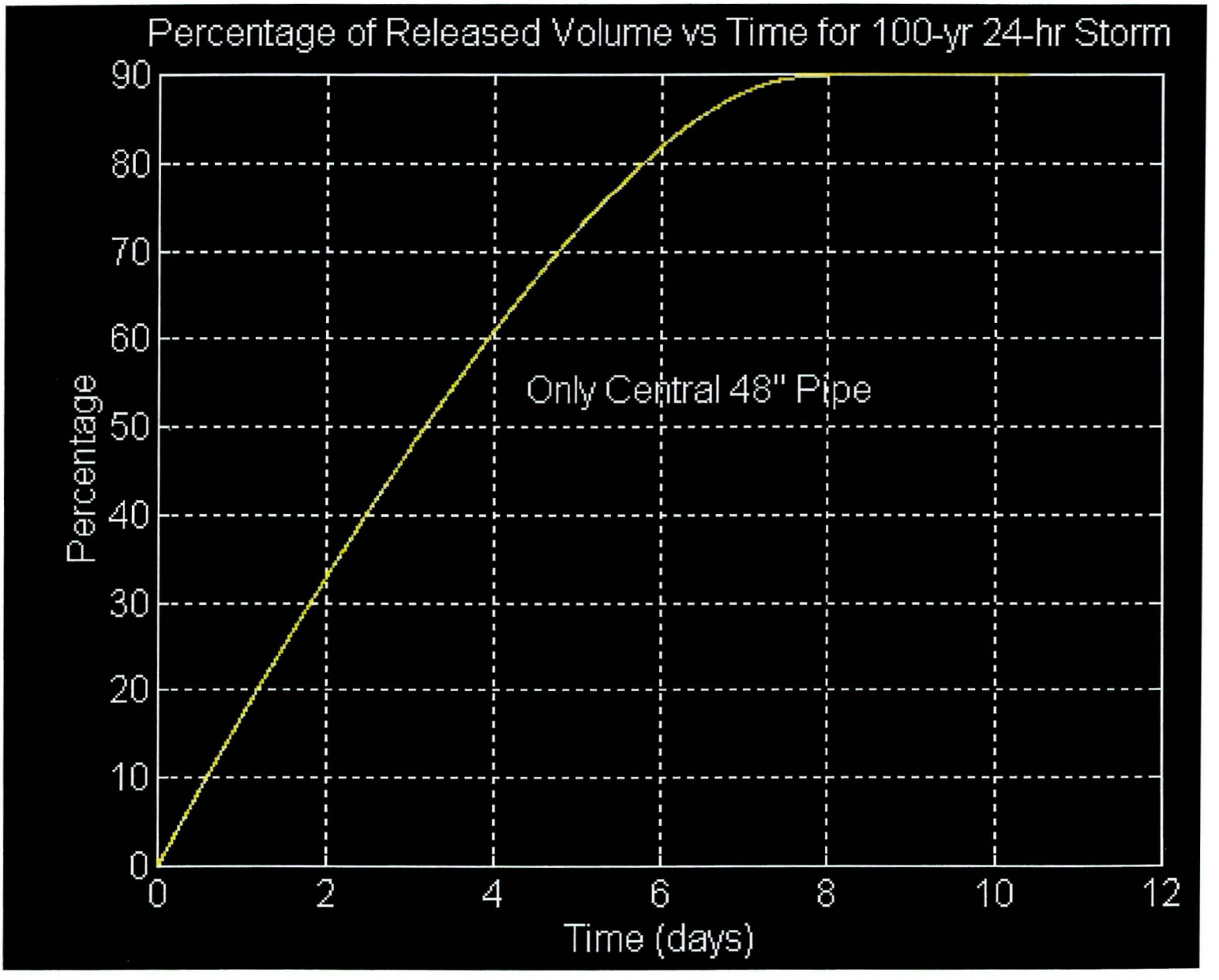

WT#3: Drawdown vs Time for 100-yr 24-hr Storm
Only Central 48" Pipe Is Used
Elevation (ft)
1206
1204
1202
1200
1198
1196
1194
1192
1190
0
2
4
6
8
10
12
Time (days)

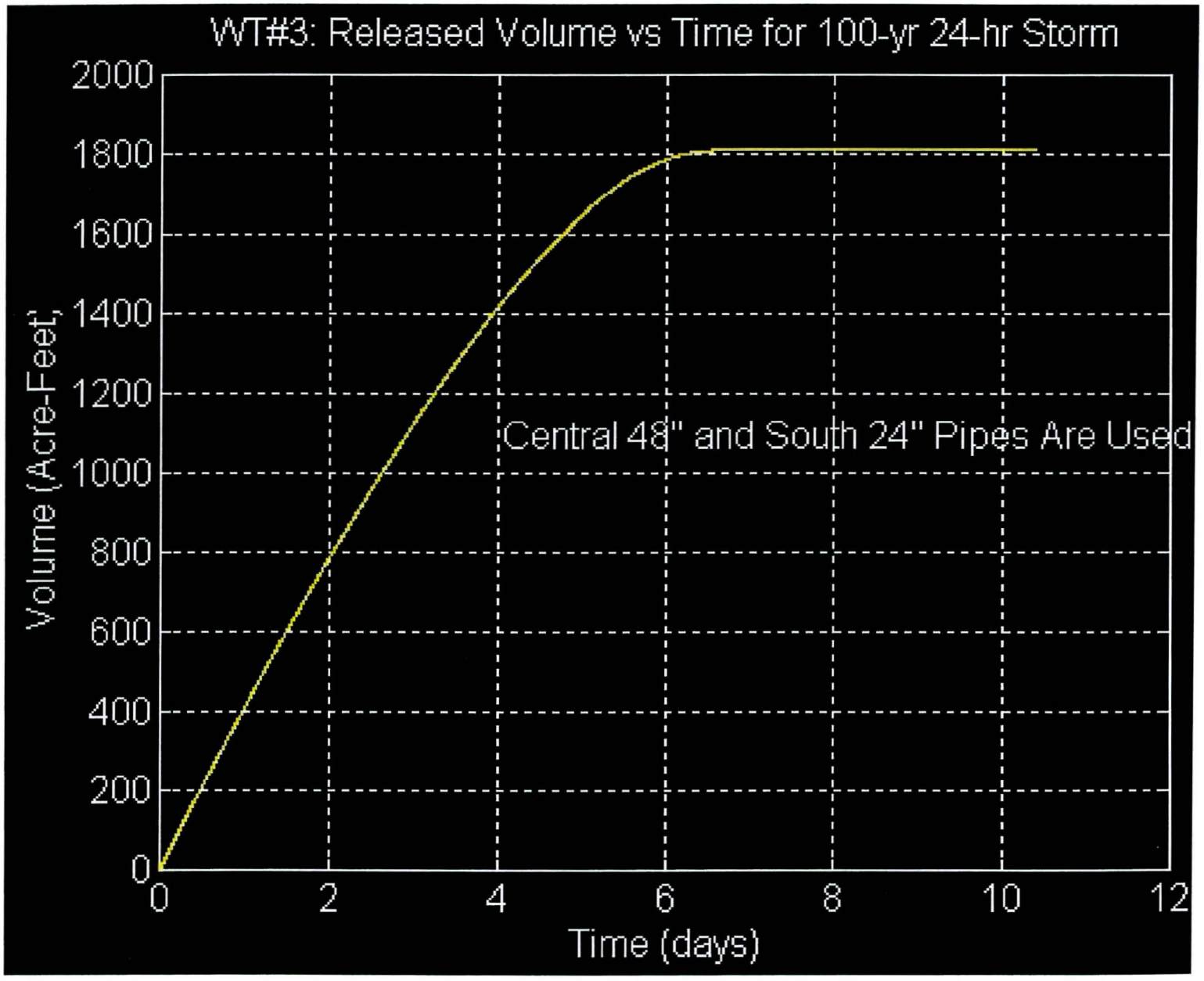

WT#3: Released Volume vs Time for 100-yr 24-hr Storm
Volume (Acre-Feet)
1800
1600
1400
1200
1000
800
600
400
200
0
0
10
20
30
40
50
Time (days)
Only South 24" Pipe Is Used

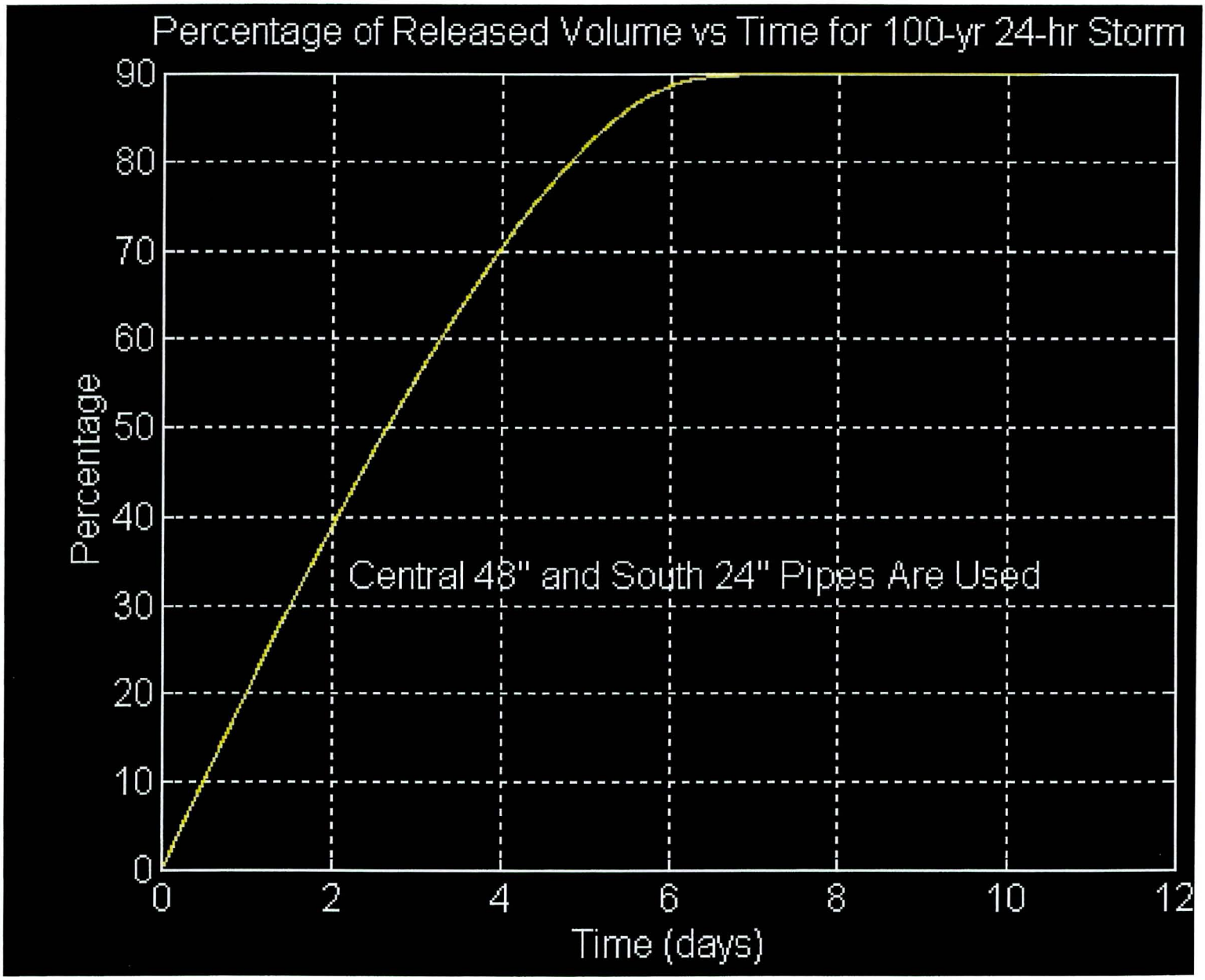

Percentage of Released Volume vs Time for 100-yr 24-hr Storm
Percentage
Time (days)
Only South 24" Pipe Is Used
0
10
20
30
40
50
60
70
80
90
0
10
20
30
40
50

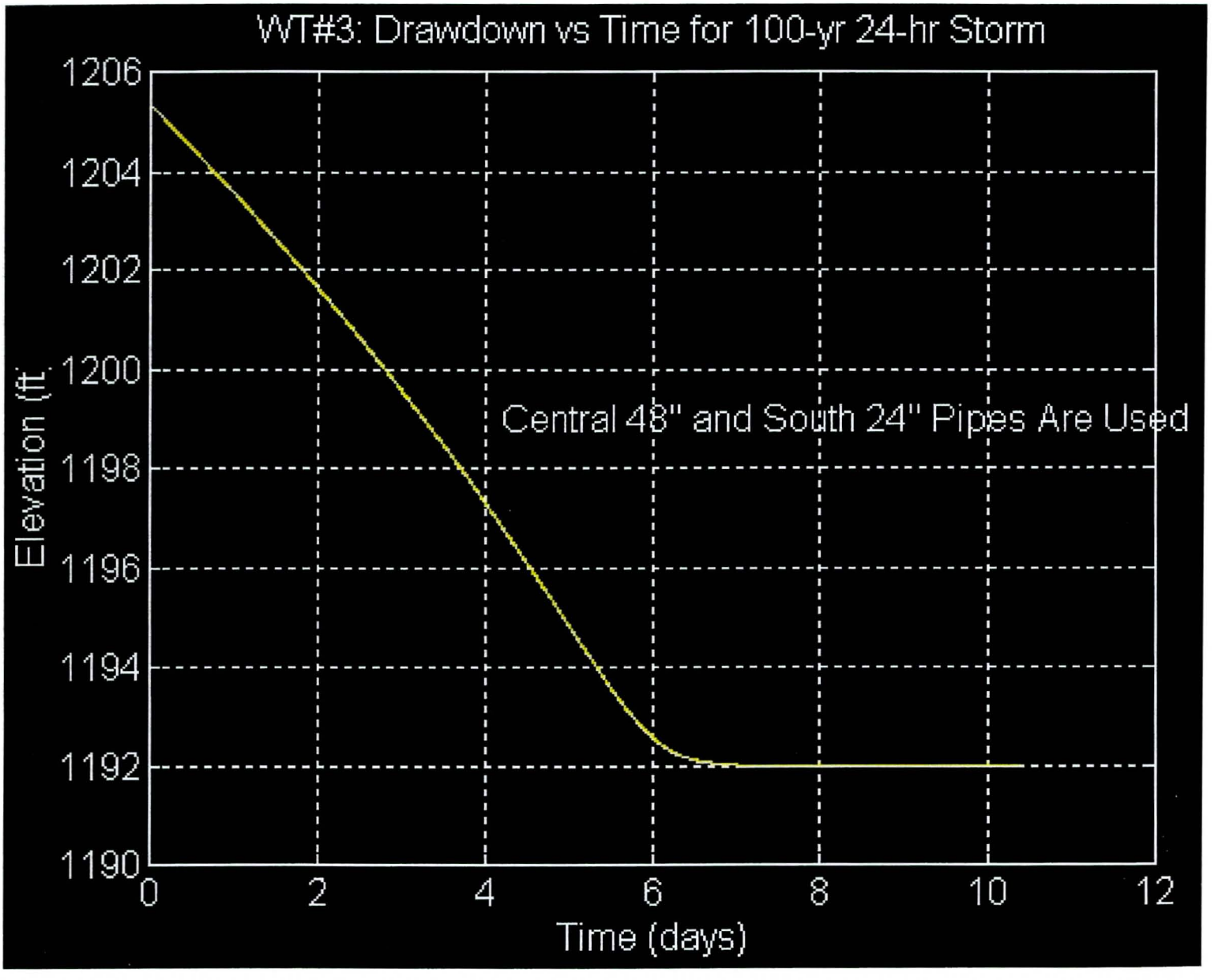

WT#3: Drawdown vs Time for 100-yr 24-hr Storm
Only South 24" Pipe Is Used
Elevation (ft)
1206
1204
1202
1200
1198
1196
1194
1192
0
10
20
30
40
50
Time (days)


WT#3: Released Volume vs Time for 100-yr 24-hr Storm
Volume (Acre-Feet)
2000
1800
1600
1400
1200
1000
800
600
400
200
0
0
2
4
6
8
10
12
Time (days)
Only Central 48" Pipe


Percentage of Released Volume vs Time for 100-yr 24-hr Storm
Only Central 48" Pipe
Percentage
Time (days)
0
10
20
30
40
50
60
70
80
90
0
2
4
6
8
10
12


WT#3: Released Volume vs Time for 100-yr 24-hr Storm
Volume (Acre-Feet)
Time (days)
Central 48" and South 24" Pipes Are Used
0
200
400
600
800
1000
1200
1400
1600
1800
2000
0
2
4
6
8
10
12


Percentage of Released Volume vs Time for 100-yr 24-hr Storm
Percentage
Time (days)
Central 48" and South 24" Pipes Are Used
0
10
20
30
40
50
60
70
80
90
0
2
4
6
8
10
12


WT#3: Drawdown vs Time for 100-yr 24-hr Storm
Central 48" and South 24" Pipes Are Used
Elevation (ft)
1206
1204
1202
1200
1198
1196
1194
1192
1190
0
2
4
6
8
10
12
Time (days)

APPENDIX 4. REVISED TR-20 MODEL

```
 8                1.4560      1.4580      1.4610      1.4630      1.4660
 8                1.4680      1.4710      1.4730      1.4750      1.4770
 8                1.4800      1.4800      1.4800      1.4800      1.4800
 9 ENDTBL
1
```



```
0                    STANDARD CONTROL INSTRUCTIONS


 6 RESVOR 2      1 2   1    1176.0000                        1 1 0 0 1 1
   ENDATA


 END OF LISTING
1
```



```
 EXECUTIVE CONTROL OPERATION INCREM                                                                          RECORD ID
+                                        MAIN TIME INCREMENT =    .05 HOURS

 EXECUTIVE CONTROL OPERATION READHD                                                                          RECORD ID
+                                        DISCHARGE HYDROGRAPH, HYDROGRAPH LOCATION 2

   STARTING TIME=  1.00      TIME INCREMENT=    .05      DRAINAGE AREA=  16.89      BASE FLOW=     .00

 8                  .00         .50         .50        1.50        3.00
 8                 5.50       10.00       17.00       27.00       41.50
 8                61.50       88.50      123.00      166.50      220.50
 8               285.50      362.50      452.00      554.00      667.00
 8               807.50     1048.50     1497.00     2264.50     3477.50
 8              5269.00     7734.00    10650.50    13854.00    17177.00
 8             20426.00    23406.00    25922.00    27818.00    28979.50
 8             29352.50    28871.50    27643.00    25960.50    24039.00
 8             22076.00    20133.00    18304.00    16679.00    15224.00
 8             13957.00    12887.00    12005.00    11262.00    10601.00
 8             10020.00     9522.50     9091.00     8709.50     8380.50
 8              8100.00     7838.50     7584.00     7335.00     7100.00
 8              6877.00     6663.00     6456.00     6255.50     6064.50
 8              5885.00     5717.00     5564.00     5415.00     5269.50
 8              5128.00     4993.50     4866.50     4744.00     4628.50
 8              4521.50     4420.50     4328.00     4239.00     4156.00
 8              4078.00     4004.50     3935.50     3868.00     3807.00
 8              3752.00     3699.00     3649.00     3601.50     3559.50
 8              3518.50     3478.00     3439.50     3404.00     3369.00
 8              3332.50     3294.00     3253.50     3206.00     3152.00
 8              3094.50     3036.50     2976.00     2911.50     2841.50
 8              2767.50     2689.50     2609.00     2526.00     2442.00
 8              2356.00     2270.50     2188.00     2111.00     2044.50
 8              1990.00     1946.50     1912.50     1885.00     1864.00
 8              1847.00     1815.50     1773.00     1723.00     1668.50
 8              1611.50     1553.00     1494.00     1435.00     1376.00
 8              1318.00     1260.50     1204.00     1148.50     1094.50
 8              1042.00      991.00      941.50      893.50      847.50
 8               803.00      760.00      719.00      680.00      642.00
 8               606.50      572.00      539.50      508.50      479.00
 8               451.00      424.00      399.00      375.00      352.50
 8               331.00      310.50      291.50      273.50      256.50
 8               240.50      225.50      211.00      198.00      185.00
 8               173.50      162.00      152.00      142.00      132.50
 8               124.00      116.00      108.50      101.00       94.50
 8                88.50       82.50       77.00       72.00       67.00
 8                62.50       58.50       54.50       50.50       47.00
 8                44.00       41.00       38.00       35.50       33.00
 8                31.00       29.00       27.00       25.00       23.00
 8                21.50       20.00       18.50       17.50       16.00
1
```



```
 8                15.00       14.00       13.00       12.00       11.50
 8                10.50        9.50        9.00        8.50        8.00
 8                 7.50        6.50        6.50        6.00        5.50
 8                 5.00        4.50        4.50        4.00        3.50
 8                 3.50        3.00        3.00        3.00        2.50
 8                 2.50        2.00        2.00        2.00        2.00
 8                 1.50        1.50        1.50        1.50        1.00
```

```
 8                .0057       .0063       .0070       .0076       .0082
 8                .0089       .0095       .0103       .0111       .0119
 8                .0127       .0134       .0142       .0150       .0158
 8                .0171       .0184       .0196       .0209       .0222
 8                .0234       .0247       .0259       .0272       .0285
1
```



```
 8                .0297       .0310       .0323       .0335       .0348
 8                .0361       .0375       .0389       .0403       .0418
 8                .0432       .0446       .0460       .0475       .0489
 8                .0503       .0517       .0532       .0546       .0560
 8                .0574       .0589       .0604       .0620       .0636
 8                .0652       .0668       .0684       .0699       .0715
 8                .0731       .0747       .0763       .0778       .0797
 8                .0816       .0835       .0854       .0877       .0899
 8                .0921       .0943       .0968       .0994       .1019
 8                .1044       .1073       .1101       .1130       .1158
 8                .1193       .1228       .1263       .1297       .1335
 8                .1373       .1411       .1449       .1491       .1532
 8                .1573       .1614       .1725       .1837       .1948
 8                .2059       .2241       .2422       .2603       .2784
 8                .3431       .4078       .4726       .5373       .5596
 8                .5819       .6042       .6265       .6390       .6515
 8                .6641       .6766       .6870       .6975       .7079
 8                .7184       .7255       .7326       .7397       .7468
 8                .7535       .7601       .7668       .7734       .7794
 8                .7854       .7915       .7975       .8030       .8085
 8                .8141       .8196       .8247       .8297       .8348
 8                .8399       .8443       .8487       .8532       .8576
 8                .8598       .8620       .8642       .8665       .8685
 8                .8706       .8726       .8747       .8766       .8785
 8                .8804       .8823       .8840       .8858       .8875
 8                .8892       .8908       .8924       .8940       .8956
 8                .8972       .8987       .9003       .9019       .9035
 8                .9051       .9066       .9082       .9098       .9114
 8                .9130       .9146       .9160       .9174       .9188
 8                .9203       .9217       .9231       .9245       .9259
 8                .9274       .9288       .9302       .9316       .9329
 8                .9342       .9354       .9367       .9380       .9392
 8                .9405       .9418       .9430       .9443       .9456
 8                .9468       .9481       .9494       .9506       .9519
 8                .9530       .9541       .9552       .9563       .9574
 8                .9585       .9597       .9608       .9619       .9630
 8                .9641       .9652       .9661       .9671       .9680
 8                .9690       .9699       .9709       .9718       .9728
 8                .9736       .9744       .9752       .9759       .9767
 8                .9775       .9783       .9791       .9797       .9804
 8                .9810       .9816       .9823       .9829       .9835
 8                .9842       .9847       .9851       .9856       .9861
 8                .9866       .9870       .9875       .9880       .9884
 8                .9889       .9894       .9899       .9902       .9905
 8                .9908       .9911       .9915       .9918       .9921
 8                .9924       .9927       .9930       .9934       .9937
 8                .9940       .9943       .9946       .9949       .9953
 8                .9956       .9959       .9962       .9965       .9968
 8                .9972       .9975       .9978       .9981       .9984
1
```



```
 8                .9987       .9989       .9991       .9992       .9994
 8                .9995       .9997       .9998      1.0000      1.0000
 9 ENDTBL

     TABLE NO.        TIME INCREMENT
 5 RAINFL 8                  2.4000

 8                .0000       .0024       .0048       .0073       .0097
 8                .0121       .0148       .0174       .0201       .0228
 8                .0254       .0284       .0314       .0344       .0374
 8                .0404       .0437       .0471       .0505       .0539
 8                .0572       .0612       .0651       .0690       .0729
 8                .0768       .0815       .0862       .0909       .0955
 8                .1002       .1061       .1120       .1179       .1238
 8                .1297       .1377       .1458       .1538       .1618
 8                .1699       .1832       .1966       .2099       .2232
 8                .2366       .2548       .2778       .3093       .3614
 8               1.0920      1.1740      1.2130      1.2400      1.2600
 8               1.2760      1.2860      1.2960      1.3060      1.3160
 8               1.3260      1.3330      1.3400      1.3470      1.3540
 8               1.3600      1.3650      1.3710      1.3760      1.3810
 8               1.3860      1.3910      1.3950      1.3990      1.4030
 8               1.4080      1.4110      1.4150      1.4180      1.4220
 8               1.4260      1.4290      1.4320      1.4350      1.4380
 8               1.4420      1.4440      1.4470      1.4500      1.4530
```

```
8                .2050       .2140       .2240       .2330       .2420
8                .2520       .2650       .2780       .2910       .3030
8                .3160       .3340       .3510       .3680       .3860
8                .4030       .4250       .4470       .4680       .4900
8                .5120       .5270       .5430       .5580       .5740
8                .5890       .6030       .6170       .6310       .6450
8                .6590       .6710       .6840       .6960       .7090
8                .7210       .7310       .7410       .7510       .7610
8                .7710       .7790       .7860       .7930       .8000
8                .8080       .8140       .8200       .8250       .8310
8                .8370       .8400       .8430       .8470       .8500
8                .8530       .8550       .8570       .8590       .8610
8                .8640       .8660       .8680       .8700       .8720
8                .8740       .8760       .8780       .8800       .8810
8                .8830       .8850       .8860       .8880       .8900
8                .8910       .8930       .8950       .8960       .8980
8                .8990       .9010       .9020       .9040       .9050
8                .9070       .9080       .9090       .9100       .9120
8                .9130       .9140       .9150       .9160       .9170
8                .9190       .9200       .9210       .9220       .9230
8                .9240       .9260       .9270       .9280       .9290
8                .9300       .9320       .9330       .9350       .9360
8                .9380       .9400       .9410       .9430       .9440
8                .9460       .9470       .9470       .9480       .9490
8                .9500       .9500       .9510       .9520       .9530
8                .9530       .9550       .9560       .9570       .9580
8                .9590       .9600       .9610       .9620       .9630
8                .9640       .9650       .9660       .9670       .9680
8                .9690       .9700       .9710       .9720       .9730
8                .9740       .9750       .9760       .9770       .9780
8                .9790       .9800       .9810       .9820       .9830
8                .9840       .9850       .9860       .9870       .9880
8                .9880       .9890       .9900       .9910       .9910
8                .9920       .9930       .9940       .9950       .9950
8                .9960       .9970       .9980       .9980       .9990
8               1.0000      1.0000      1.0000      1.0000      1.0000
9 ENDTBL

     TABLE NO.        TIME INCREMENT
5 RAINFL 6                    .2500

8                .0000       .0015       .0029       .0044       .0058
8                .0073       .0088       .0102       .0117       .0131
8                .0146       .0160       .0175       .0190       .0204
1
```



```
8                .0219       .0233       .0248       .0263       .0277
8                .0292       .0306       .0321       .0335       .0350
8                .0365       .0379       .0394       .0408       .0423
8                .0438       .0452       .0467       .0481       .0496
8                .0510       .0525       .0542       .0558       .0575
8                .0592       .0608       .0625       .0642       .0658
8                .0692       .0725       .0758       .0792       .0825
8                .0858       .0892       .0925       .0975       .1025
8                .1075       .1125       .1175       .1225       .1275
8                .1325       .1442       .1560       .1677       .1794
8                .1985       .2176       .2366       .2557       .3239
8                .3921       .4603       .5285       .5520       .5754
8                .5989       .6224       .6356       .6488       .6620
8                .6752       .6862       .6972       .7082       .7192
8                .7267       .7342       .7417       .7492       .7558
8                .7625       .7692       .7758       .7825       .7892
8                .7958       .8025       .8083       .8142       .8200
8                .8258       .8308       .8358       .8408       .8458
8                .8508       .8558       .8608       .8658       .8683
8                .8708       .8733       .8758       .8783       .8808
8                .8833       .8858       .8875       .8892       .8908
8                .8925       .8942       .8958       .8975       .8992
8                .9008       .9025       .9042       .9058       .9075
8                .9092       .9108       .9125       .9140       .9154
8                .9169       .9183       .9198       .9213       .9227
8                .9242       .9256       .9271       .9285       .9300
8                .9315       .9329       .9344       .9358       .9373
8                .9388       .9402       .9417       .9431       .9446
8                .9460       .9475       .9490       .9504       .9519
8                .9533       .9548       .9563       .9577       .9592
8                .9606       .9621       .9635       .9650       .9665
8                .9679       .9694       .9708       .9723       .9737
8                .9752       .9767       .9781       .9796       .9810
8                .9825       .9840       .9854       .9869       .9883
8                .9898       .9912       .9927       .9942       .9956
8                .9971       .9985      1.0000      1.0000      1.0000
9 ENDTBL

     TABLE NO.        TIME INCREMENT
5 RAINFL 7                    .2500

8                .0000       .0005       .0009       .0014       .0019
8                .0025       .0032       .0038       .0044       .0051
```

```
8                .1180       .1250       .1320       .1390       .1460
8                .1530       .1620       .1710       .1800       .1890
8                .1980       .2110       .2240       .2370       .2500
8                .2640       .3000       .3450       .3910       .4360
8                .4910       .5360       .5640       .5860       .6070
8                .6290       .6430       .6570       .6720       .6860
8                .7000       .7110       .7210       .7320       .7420
8                .7530       .7610       .7690       .7780       .7860
8                .7950       .8020       .8090       .8170       .8240
8                .8320       .8370       .8430       .8480       .8540
8                .8590       .8650       .8700       .8750       .8810
8                .8860       .8910       .8950       .9000       .9050
8                .9090       .9130       .9170       .9210       .9250
8                .9290       .9330       .9360       .9400       .9440
8                .9480       .9510       .9540       .9570       .9600
8                .9630       .9660       .9690       .9710       .9740
8                .9770       .9800       .9820       .9840       .9860
8                .9890       .9910       .9930       .9950       .9980
8               1.0000      1.0000      1.0000      1.0000      1.0000
9 ENDTBL

     TABLE NO.       TIME INCREMENT
5 RAINFL 4                   .1000

8                .0000       .0010       .0020       .0030       .0040
8                .0050       .0050       .0060       .0070       .0080
8                .0090       .0120       .0140       .0170       .0200
1
```



```
8                .0230       .0250       .0280       .0310       .0330
8                .0360       .0400       .0440       .0490       .0530
8                .0570       .0610       .0650       .0700       .0740
8                .0780       .0840       .0900       .0960       .1020
8                .1080       .1140       .1200       .1260       .1320
8                .1380       .1460       .1540       .1620       .1700
8                .1790       .1870       .1950       .2030       .2110
8                .2200       .2380       .2560       .2750       .2930
8                .3110       .3300       .3480       .3670       .3850
8                .4030       .4300       .4570       .4840       .5110
8                .5380       .5570       .5770       .5970       .6160
8                .6360       .6530       .6700       .6870       .7040
8                .7210       .7340       .7460       .7590       .7710
8                .7840       .7920       .8010       .8100       .8180
8                .8270       .8320       .8380       .8430       .8480
8                .8530       .8560       .8590       .8620       .8640
8                .8670       .8700       .8720       .8750       .8780
8                .8800       .8820       .8850       .8870       .8890
8                .8910       .8930       .8950       .8970       .8990
8                .9010       .9030       .9050       .9070       .9090
8                .9110       .9120       .9140       .9160       .9170
8                .9190       .9200       .9220       .9240       .9250
8                .9270       .9290       .9300       .9320       .9340
8                .9350       .9370       .9380       .9400       .9410
8                .9430       .9450       .9460       .9480       .9490
8                .9510       .9520       .9530       .9550       .9560
8                .9570       .9590       .9600       .9610       .9630
8                .9640       .9650       .9670       .9680       .9700
8                .9710       .9720       .9740       .9750       .9760
8                .9780       .9790       .9800       .9820       .9830
8                .9840       .9850       .9860       .9880       .9890
8                .9900       .9910       .9920       .9930       .9940
8                .9950       .9960       .9970       .9980       .9990
8               1.0000      1.0000      1.0000      1.0000      1.0000
9 ENDTBL

     TABLE NO.       TIME INCREMENT
5 RAINFL 5                   .1000

8                .0000       .0000       .0010       .0010       .0020
8                .0020       .0020       .0030       .0030       .0030
8                .0040       .0050       .0070       .0090       .0100
8                .0120       .0130       .0150       .0160       .0180
8                .0190       .0220       .0240       .0270       .0300
8                .0320       .0350       .0370       .0400       .0420
8                .0450       .0480       .0510       .0550       .0580
8                .0610       .0640       .0680       .0710       .0740
8                .0780       .0820       .0870       .0910       .0960
1
```



```
8                .1000       .1040       .1090       .1130       .1180
8                .1220       .1270       .1320       .1370       .1420
8                .1470       .1510       .1560       .1610       .1660
8                .1710       .1770       .1840       .1910       .1980
```

```
 8                        1176.00        .00        .01
 8                        1188.00        .02      69.96
 8                        1194.00        .03     255.68
 8                        1196.00        .04     394.95
 8                        1196.50        .05     444.38
 8                        1200.00       1.00     854.04
 8                        1206.00     178.00    2059.18
 8                        1208.00     367.40    2611.35
 8                        1210.00    1377.80    3242.71
 8                        1210.20    1505.30    3313.43
 8                        1210.50    1961.20    3419.51
 8                        1210.80    2653.40    3525.60
 8                        1211.20    3883.80    3667.05
1
```



```
 8                        1211.60    5424.60    3808.50
 8                        1212.20    8256.50    4028.32
 8                        1212.70   11053.00    4224.24
 8                        1213.00   14200.00    4341.80
 8                        1213.20   15700.00    4420.17
 8                        1214.00   21514.00    4733.66
 8                        1215.00   30312.00    5167.23
 9 ENDTBL

                     TIME INCREMENT
 4 DIMHYD                     .0556     (INPUT VALUE OF   .056 NOT EQUAL TO COMPUTED VALUE; COMPUTED VALUE USED.)

 8                 .0000       .0300       .1000       .1900       .3100
 8                 .4700       .6600       .8200       .9300       .9900
 8                1.0000       .9900       .9300       .8200       .6600
 8                 .4700       .3100       .0300       .0000       .0000
 9 ENDTBL

  COMPUTED PEAK RATE FACTOR =  664.61

     TABLE NO.       TIME INCREMENT
 5 RAINFL 1                   .1000

 8                 .0000       .0030       .0060       .0090       .0130
 8                 .0160       .0200       .0250       .0300       .0350
 8                 .0390       .0460       .0520       .0580       .0650
 8                 .0710       .0800       .0900       .0990       .1090
 8                 .1180       .2830       .4490       .5670       .6220
 8                 .6690       .7010       .7320       .7560       .7800
 8                 .7950       .8090       .8240       .8380       .8520
 8                 .8660       .8760       .8850       .8940       .9040
 8                 .9130       .9200       .9260       .9320       .9390
 8                 .9450       .9500       .9540       .9590       .9640
 8                 .9690       .9720       .9760       .9800       .9840
 8                 .9880       .9910       .9930       .9950       .9980
 8                1.0000      1.0000      1.0000      1.0000      1.0000
 9 ENDTBL

     TABLE NO.       TIME INCREMENT
 5 RAINFL 2                   .1000

 8                 .0000       .0050       .0130       .0200       .0280
 8                 .0380       .0450       .0530       .0600       .0700
 8                 .0800       .0850       .0950       .1080       .1200
 8                 .1380       .1500       .1650       .1900       .2100
1
```



```
 8                 .2380       .2800       .3500       .4400       .5500
 8                 .5900       .6200       .6450       .6680       .6850
 8                 .7000       .7200       .7350       .7530       .7650
 8                 .7750       .7900       .8000       .8100       .8200
 8                 .8350       .8430       .8500       .8630       .8700
 8                 .8800       .8900       .8980       .9080       .9150
 8                 .9250       .9300       .9400       .9450       .9550
 8                 .9630       .9700       .9780       .9850       .9900
 8                1.0000      1.0000      1.0000      1.0000      1.0000
 9 ENDTBL

     TABLE NO.       TIME INCREMENT
 5 RAINFL 3                   .1000

 8                 .0000       .0030       .0070       .0100       .0130
 8                 .0160       .0190       .0220       .0250       .0280
 8                 .0310       .0340       .0370       .0400       .0430
 8                 .0450       .0500       .0540       .0580       .0620
 8                 .0660       .0710       .0750       .0800       .0850
 8                 .0890       .0950       .1010       .1070       .1120
```

```
2 XSECTN     30                1.0000

                            ELEVATION   DISCHARGE    END AREA
8                                .00         .00         .00
8                                .77        5.00        4.67
8                               1.54       50.00       32.06
8                               1.78      100.00       56.64
8                               2.10      200.00      100.59
8                               2.50      400.00      179.97
8                               3.01      800.00      320.25
8                               3.63     1600.00      589.66
8                               4.35     3200.00     1110.72
8                               5.21     6400.00     2084.48
8                               6.03    12800.00     4119.83
8                               6.99    25600.00     6856.75
8                               8.28    51200.00    11085.87
9 ENDTBL

          XSECTN NO.       DRAINAGE AREA
2 XSECTN     45                1.0000

                            ELEVATION   DISCHARGE    END AREA
8                                .00         .00         .00
8                                .60      100.00       85.69
8                                .90      200.00      127.94
8                               1.13      300.00      161.93
8                               1.52      500.00      217.27
8                               2.25     1000.00      324.03
8                               3.31     2000.00      483.02
8                               4.87     4000.00      722.17
8                               6.09     6000.00      914.99
8                               7.15     8000.00     1084.61
8                               8.05    10000.00     1234.17
8                               8.87    12000.00     1373.80
8                               9.64    14000.00     1507.84
8                              10.34    16000.00     1633.45
8                              11.00    18000.00     1753.12
9 ENDTBL

          XSECTN NO.       DRAINAGE AREA
2 XSECTN     60                1.0000

                            ELEVATION   DISCHARGE    END AREA
8                                .00         .00         .00
8                               2.36      100.00       45.12
8                               2.88      200.00       83.75
8                               3.18      300.00      114.33
1
```



```
8                               3.64      500.00      172.72
8                               4.42     1000.00      289.04
8                               5.40     2000.00      470.72
8                               6.87     4000.00      782.74
8                               7.91     6000.00     1020.12
8                               8.79     8000.00     1231.25
8                               9.60    10000.00     1435.05
8                              10.26    12000.00     1618.34
8                              10.94    14000.00     1812.58
8                              11.47    16000.00     1983.46
8                              11.96    18000.00     2150.12
9 ENDTBL

          XSECTN NO.       DRAINAGE AREA
2 XSECTN     67                1.0000

                            ELEVATION   DISCHARGE    END AREA
8                                .00         .00         .00
8                                .35        5.00        5.56
8                               1.03       50.00       30.95
8                               1.39      100.00       52.16
8                               1.94      200.00       88.72
8                               2.63      400.00      148.61
8                               3.51      800.00      260.63
8                               4.62     1600.00      459.66
8                               6.04     3200.00      929.36
8                               7.38     6400.00     1811.51
8                               8.77    12800.00     3374.20
8                              10.17    25600.00     6398.87
8                              11.89    51200.00    10982.51
9 ENDTBL

           STRUCT NO.      ELEVATION   DISCHARGE     STORAGE
3 STRUCT        1
```

8	.00	.00	.00
8	.35	5.00	5.56
8	1.03	50.00	30.95
8	1.39	100.00	52.16
8	1.94	200.00	88.72
8	2.63	400.00	148.61
8	3.51	800.00	260.63
8	4.62	1600.00	459.66
8	6.04	3200.00	929.36
8	7.38	6400.00	1811.51
8	8.77	12800.00	3374.20
8	10.17	25600.00	6398.87
8	11.89	51200.00	10982.51
9 ENDTBL			

	XSECTN NO.	DRAINAGE AREA
2 XSECTN	10	1.0000

	ELEVATION	DISCHARGE	END AREA
8	.00	.00	.00
8	.91	5.00	4.95
8	2.03	50.00	24.80
8	2.63	100.00	41.32
8	3.34	200.00	74.14
8	4.15	400.00	130.28
8	5.23	800.00	223.37
8	6.41	1600.00	447.51
8	7.65	3200.00	898.64
8	8.94	6400.00	1690.88
8	10.29	12800.00	3331.95
8	11.64	25600.00	6185.81
8	13.14	51200.00	10661.04
9 ENDTBL			

1

	XSECTN NO.	DRAINAGE AREA
2 XSECTN	20	1.0000

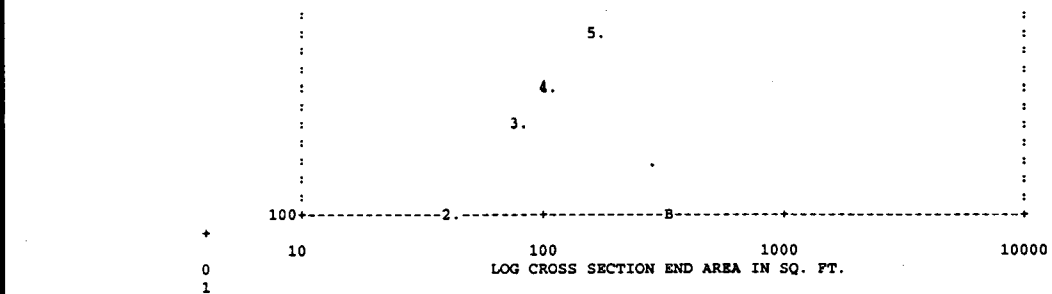
	ELEVATION	DISCHARGE	END AREA
8	.00	.00	.00
8	1.01	100.00	57.78
8	1.49	200.00	86.81
8	1.88	300.00	110.25
8	2.49	500.00	149.47
8	3.68	1000.00	226.31
8	5.40	2000.00	346.26
8	7.85	4000.00	533.39
8	9.64	6000.00	688.07
8	11.16	8000.00	838.10
8	12.46	10000.00	985.31
8	13.61	12000.00	1122.03
8	14.56	14000.00	1236.94
8	15.43	16000.00	1345.18
8	16.31	18000.00	1456.68
9 ENDTBL			

	XSECTN NO.	DRAINAGE AREA
2 XSECTN	25	1.0000

	ELEVATION	DISCHARGE	END AREA
8	.00	.00	.00
8	.63	100.00	80.89
8	.93	200.00	120.32
8	1.17	300.00	151.77
8	1.56	500.00	203.28
8	2.30	1000.00	302.00
8	3.38	2000.00	449.24
8	4.97	4000.00	673.73
8	6.23	6000.00	855.96
8	7.31	8000.00	1016.35
8	8.24	10000.00	1158.51
8	9.09	12000.00	1293.31
8	9.90	14000.00	1425.57
8	10.64	16000.00	1549.17
8	11.36	18000.00	1673.11
9 ENDTBL			

	XSECTN NO.	DRAINAGE AREA

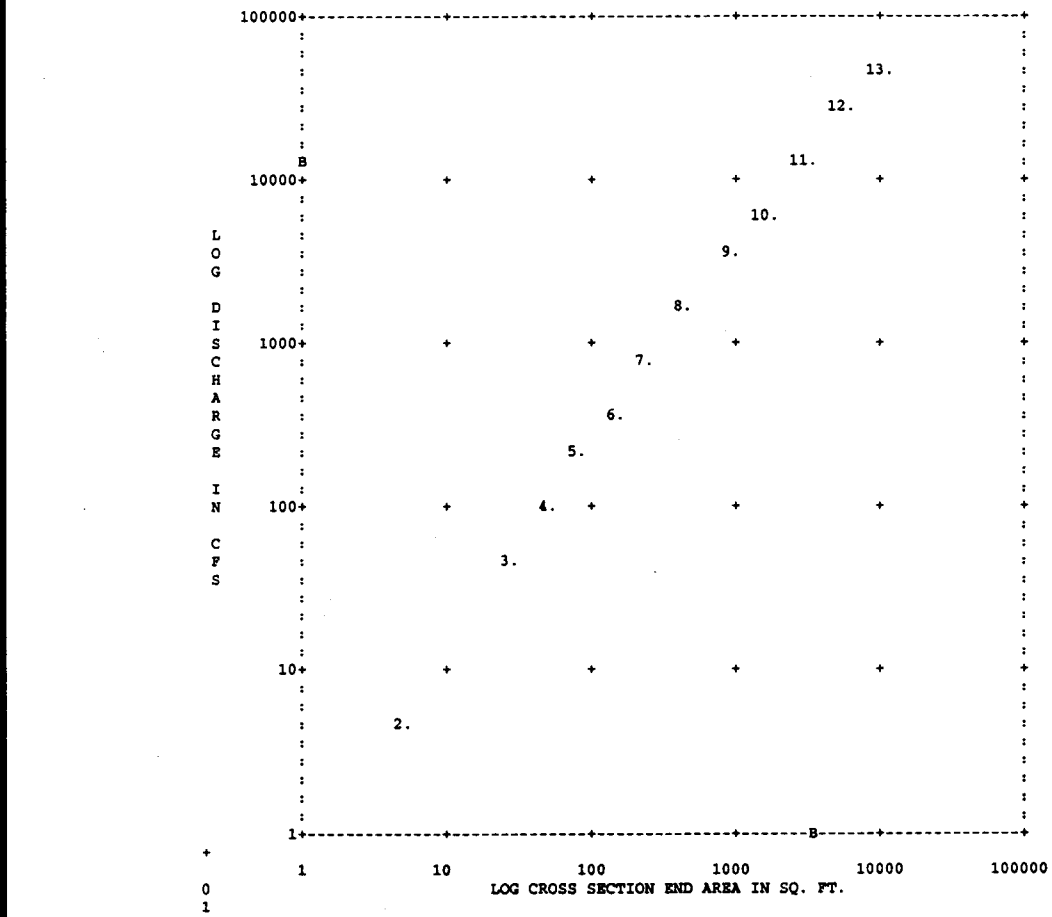
1



LEGEND

+ = GRID REFERENCE
. = LOCATION OF PLOTTED VALUE
3 = REFERENCE NO. OF PLOTTED VALUE
X = MULTIPLE REFERENCE NUMBERS
B = BANKFULL RELATION SHOWN ON AXIS

AREA= 340.9 SQ FT DISCHARGE= 1285.7 CFS



CROSS SECTION 67 END AREA VS DISCHARGE

REFERENCE NO'S	DISCHARGE (CFS)	END AREA (SQ.FT.)	M
1	.00	.00	1.34
2	5.00	5.56	1.34
3	50.00	30.95	1.34
4	100.00	52.16	1.33
5	200.00	88.72	1.32
6	400.00	148.61	1.33
7	800.00	260.63	1.28
8	1600.00	459.66	1.25
9	3200.00	929.36	1.12
10	6400.00	1811.51	1.08
11	12800.00	3374.20	1.10
12	25600.00	6398.87	1.09
13	51200.00	10982.51	1.19

LEGEND

+ = GRID REFERENCE
. = LOCATION OF PLOTTED VALUE
3 = REFERENCE NO. OF PLOTTED VALUE
X = MULTIPLE REFERENCE NUMBERS
B = BANKFULL RELATION SHOWN ON AXIS

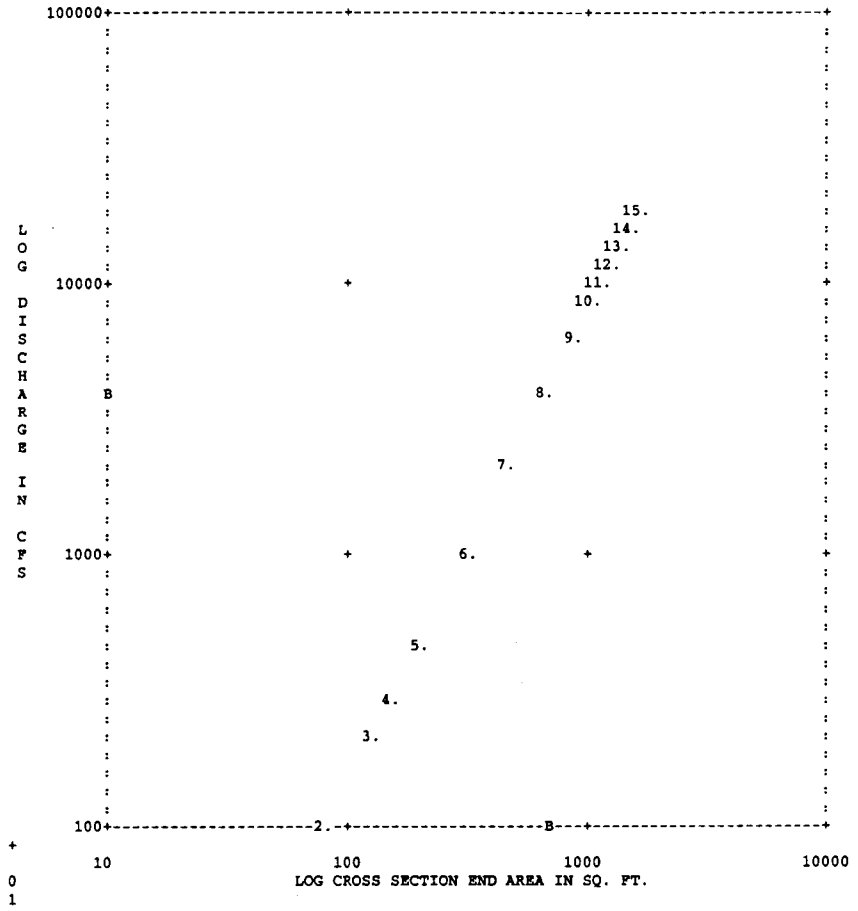
AREA=3374.2 SQ FT DISCHARGE=12800.0 CFS

EXECUTIVE CONTROL OPERATION LIST RECORD ID

LISTING OF CURRENT DATA

	XSECTN NO.	DRAINAGE AREA
2 XSECTN	5	1.0000

ELEVATION DISCHARGE END AREA



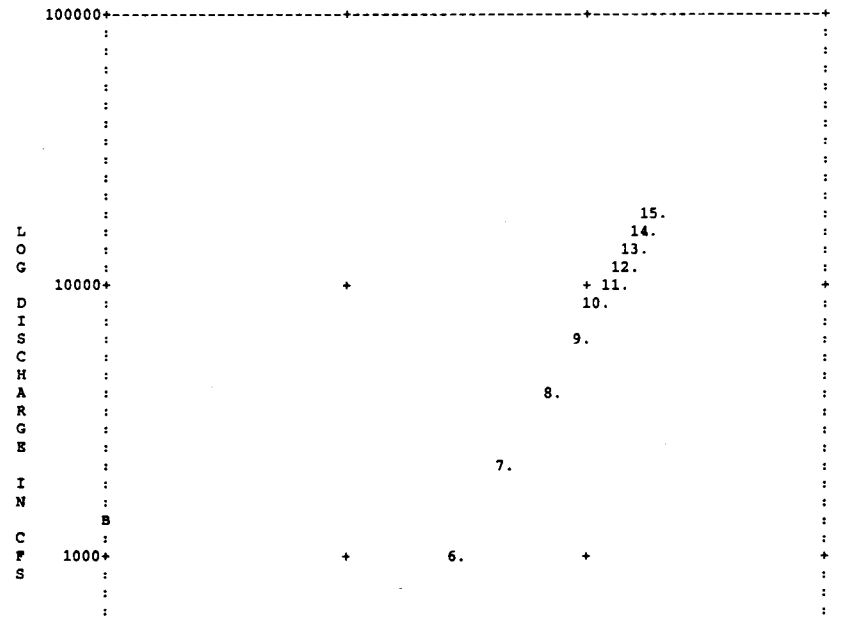
CROSS SECTION 45 END AREA VS DISCHARGE

REFERENCE NO'S	DISCHARGE (CFS)	END AREA (SQ.FT.)	M
1	.00	.00	1.73
2	100.00	85.69	1.73
3	200.00	127.94	1.73
4	300.00	161.93	1.73
5	500.00	217.27	1.73
6	1000.00	324.03	1.73
7	2000.00	483.02	1.73
8	4000.00	722.17	1.73
9	6000.00	914.99	1.72
10	8000.00	1084.61	1.72
11	10000.00	1234.17	1.72
12	12000.00	1373.80	1.72
13	14000.00	1507.84	1.71
14	16000.00	1633.45	1.70
15	18000.00	1753.12	1.70

LEGEND

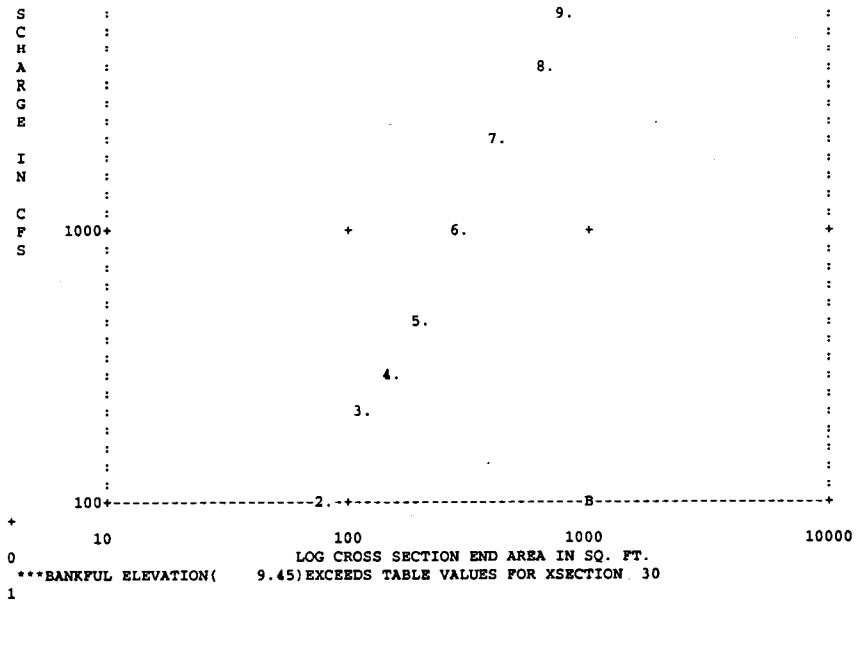
+ = GRID REFERENCE
. = LOCATION OF PLOTTED VALUE
3 = REFERENCE NO. OF PLOTTED VALUE
X = MULTIPLE REFERENCE NUMBERS
B = BANKFULL RELATION SHOWN ON AXIS

AREA= 722.2 SQ FT DISCHARGE= 4000.0 CFS



CROSS SECTION 60 END AREA VS DISCHARGE

REFERENCE NO'S	DISCHARGE (CFS)	END AREA (SQ.FT.)	M
1	.00	.00	1.12
2	100.00	45.12	1.12
3	200.00	83.75	1.12
4	300.00	114.33	1.18
5	500.00	172.72	1.20
6	1000.00	289.04	1.28
7	2000.00	470.72	1.35
8	4000.00	782.74	1.36
9	6000.00	1020.12	1.41
10	8000.00	1231.25	1.44
11	10000.00	1435.05	1.45
12	12000.00	1618.34	1.46
13	14000.00	1812.58	1.44
14	16000.00	1983.46	1.45
15	18000.00	2150.12	1.45



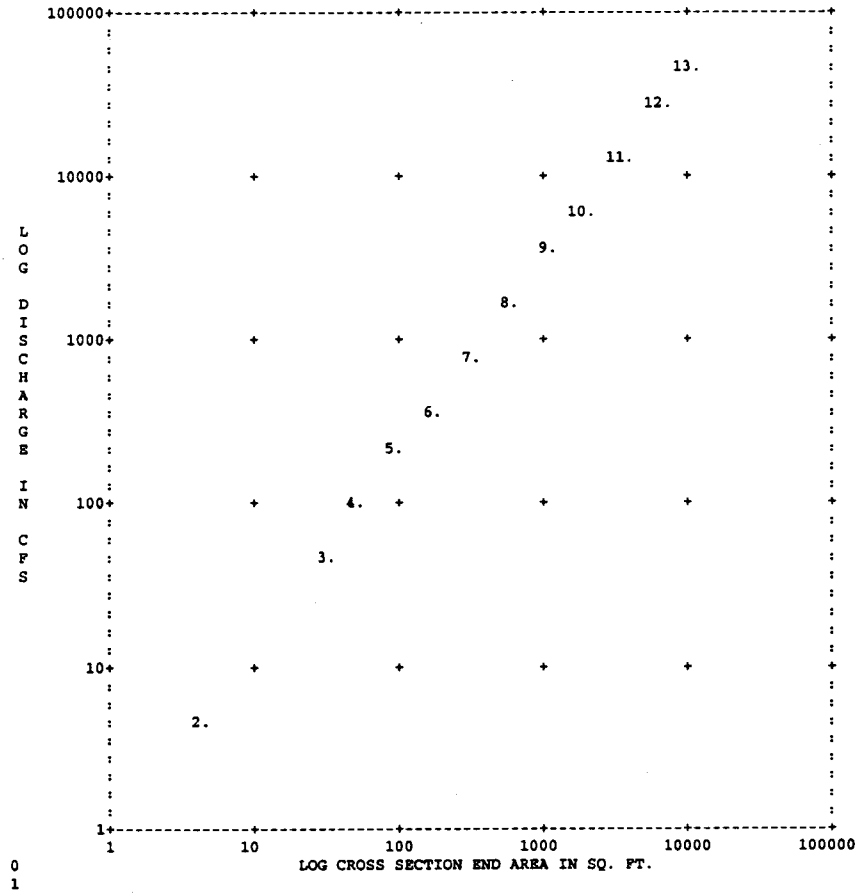
9	6000.00	855.96	1.72
10	8000.00	1016.35	1.71
11	10000.00	1158.51	1.71
12	12000.00	1293.31	1.70
13	14000.00	1425.57	1.68
14	16000.00	1549.17	1.67
15	18000.00	1673.11	1.66

LEGEND

+ = GRID REFERENCE
. = LOCATION OF PLOTTED VALUE
3 = REFERENCE NO. OF PLOTTED VALUE
X = MULTIPLE REFERENCE NUMBERS
B = BANKFULL RELATION SHOWN ON AXIS

AREA=1014.9 SQ FT DISCHARGE= 7981.5 CFS

***BANKFUL ELEVATION(9.45)EXCEEDS TABLE VALUES FOR XSECTION 30

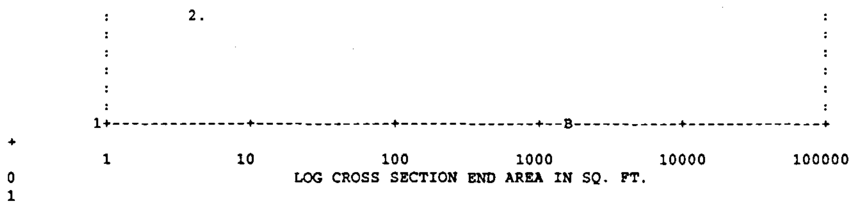


CROSS SECTION 30 END AREA VS DISCHARGE

REFERENCE NO'S	DISCHARGE (CFS)	END AREA (SQ.FT.)	M
1	.00	.00	1.20
2	5.00	4.67	1.20
3	50.00	32.06	1.20
4	100.00	56.64	1.21
5	200.00	100.59	1.21
6	400.00	179.97	1.20
7	800.00	320.25	1.20
8	1600.00	589.66	1.17
9	3200.00	1110.72	1.13
10	6400.00	2084.48	1.12
11	12800.00	4119.83	1.07
12	25600.00	6856.75	1.21
13	51200.00	11085.87	1.33

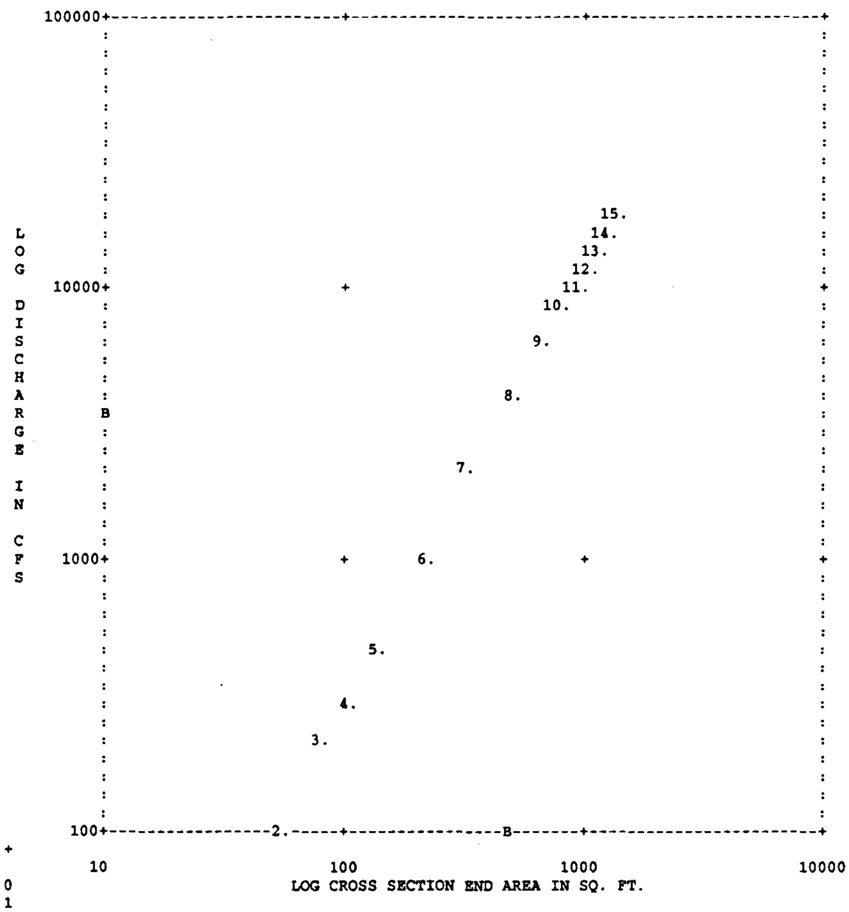
LEGEND

+ = GRID REFERENCE
. = LOCATION OF PLOTTED VALUE
3 = REFERENCE NO. OF PLOTTED VALUE
X = MULTIPLE REFERENCE NUMBERS
B = BANKFULL RELATION SHOWN ON AXIS



+ = GRID REFERENCE
. = LOCATION OF PLOTTED VALUE
3 = REFERENCE NO. OF PLOTTED VALUE
X = MULTIPLE REFERENCE NUMBERS
B = BANKFULL RELATION SHOWN ON AXIS

AREA=1690.9 SQ FT DISCHARGE= 6400.0 CFS



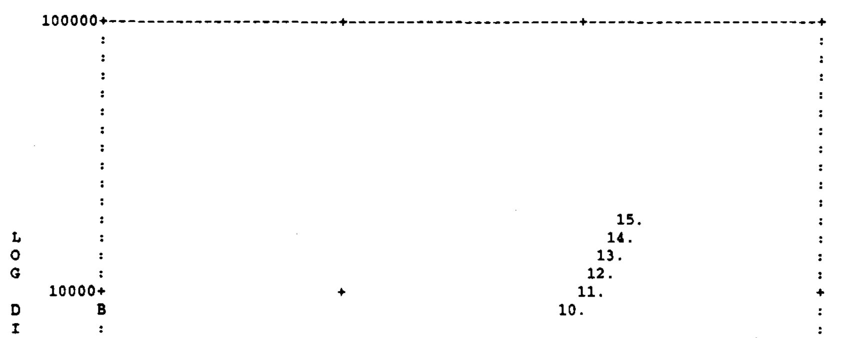
CROSS SECTION 20 END AREA VS DISCHARGE

REFERENCE NO'S	DISCHARGE (CFS)	END AREA (SQ.FT.)	M
1	.00	.00	1.70
2	100.00	57.78	1.70
3	200.00	86.81	1.70
4	300.00	110.25	1.70
5	500.00	149.47	1.69
6	1000.00	226.31	1.68
7	2000.00	346.26	1.66
8	4000.00	533.39	1.63
9	6000.00	688.07	1.62
10	8000.00	838.10	1.58
11	10000.00	985.31	1.54
12	12000.00	1122.03	1.52
13	14000.00	1236.94	1.52
14	16000.00	1345.18	1.53
15	18000.00	1456.68	1.53

LEGEND

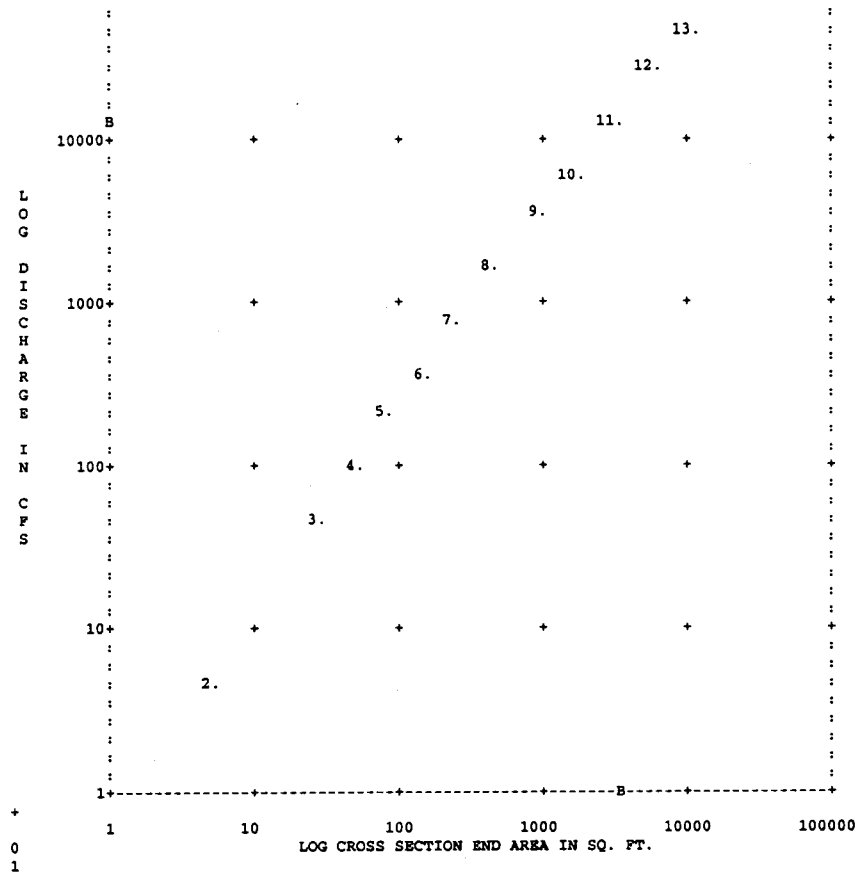
+ = GRID REFERENCE
. = LOCATION OF PLOTTED VALUE
3 = REFERENCE NO. OF PLOTTED VALUE
X = MULTIPLE REFERENCE NUMBERS
B = BANKFULL RELATION SHOWN ON AXIS

AREA= 491.4 SQ FT DISCHARGE= 3551.0 CFS



CROSS SECTION 25 END AREA VS DISCHARGE

REFERENCE NO'S	DISCHARGE (CFS)	END AREA (SQ.FT.)	M
1	.00	.00	1.75
2	100.00	80.89	1.75
3	200.00	120.32	1.75
4	300.00	151.77	1.75
5	500.00	203.28	1.75
6	1000.00	302.00	1.75
7	2000.00	449.24	1.75
8	4000.00	673.73	1.73



CROSS SECTION 5 END AREA VS DISCHARGE

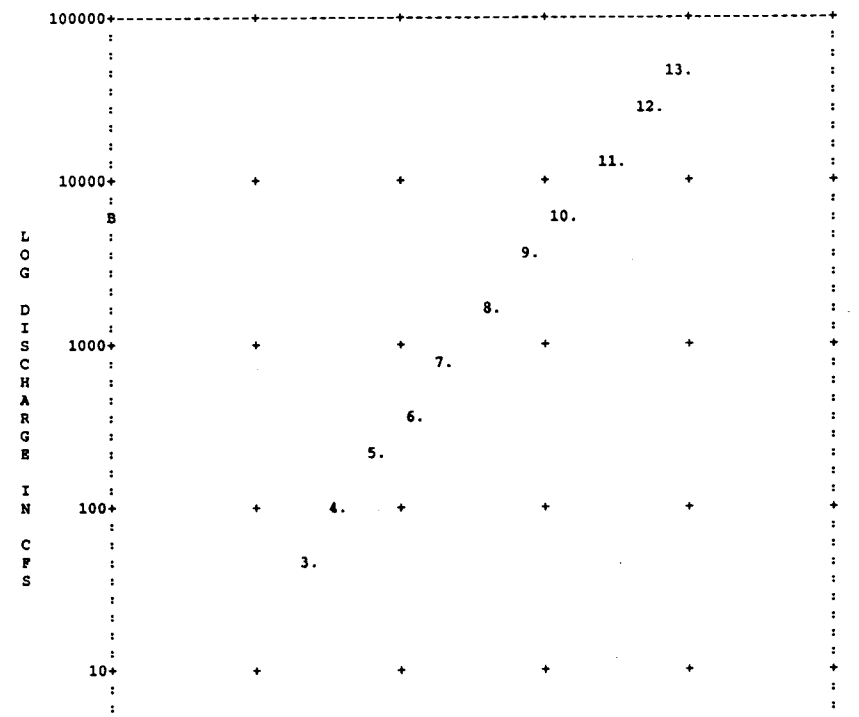
REFERENCE NO'S	DISCHARGE (CFS)	END AREA (SQ.FT.)	M
1	.00	.00	1.34
2	5.00	5.56	1.34
3	50.00	30.95	1.34
4	100.00	52.16	1.33
5	200.00	88.72	1.32
6	400.00	148.61	1.33
7	800.00	260.63	1.28
8	1600.00	459.66	1.25
9	3200.00	929.36	1.12
10	6400.00	1811.51	1.08
11	12800.00	3374.20	1.10
12	25600.00	6398.87	1.09
13	51200.00	10982.51	1.19

LEGEND

+ = GRID REFERENCE
. = LOCATION OF PLOTTED VALUE
3 = REFERENCE NO. OF PLOTTED VALUE
X = MULTIPLE REFERENCE NUMBERS
B = BANKFULL RELATION SHOWN ON AXIS

AREA=3374.2 SQ FT DISCHARGE=12800.0 CFS

TR20 XEQ 01-22-01 15:39 WHITE TANK FRS #3, WATERSHED DIVIDED INTO 7 SUB-BASINS JOB 1 PASS 1
REV PC 09/83(.2) 6HR LOCAL,INITIAL EMPTY,NEW RATING CURVE,No inlet impr PAGE 2



CROSS SECTION 10 END AREA VS DISCHARGE

REFERENCE NO'S	DISCHARGE (CFS)	END AREA (SQ.FT.)	M
1	.00	.00	1.43
2	5.00	4.95	1.43
3	50.00	24.80	1.43
4	100.00	41.32	1.39
5	200.00	74.14	1.29
6	400.00	130.28	1.26
7	800.00	223.37	1.27
8	1600.00	447.51	1.14
9	3200.00	898.64	1.06
10	6400.00	1690.88	1.08
11	12800.00	3331.95	1.05
12	25600.00	6185.81	1.09
13	51200.00	10661.04	1.18

LEGEND

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1
0 STRUCTURE 1	16.89	
ALTERNATE 1		1149.96

1END OF 1 JOBS IN THIS RUN

```
8                 1.00        1.00        1.00        1.00        1.00
8                 1.00         .50         .50         .50         .50
8                  .50         .50         .50         .50         .50
8                  .50         .50         .50         .50         .50
8                  .00         .00         .00         .00         .00
9 ENDTBL

EXECUTIVE CONTROL OPERATION COMPUT                                                                    RECORD ID
+                                   FROM STRUCTURE  1
+                                                     TO STRUCTURE  1
        STARTING TIME =  1.00    RAIN DEPTH = 12.70    RAIN DURATION=  1.00    RAIN TABLE NO.= 1    ANT. MOIST. COND= 2
        ALTERNATE NO.= 1         STORM NO.= 1    MAIN TIME INCREMENT =   .05 HOURS

OPERATION RESVOR   STRUCTURE  1

          PEAK TIME(HRS)              PEAK DISCHARGE(CFS)          PEAK ELEVATION(FEET)
              7.65                         1149.96                      1209.55

TIME(HRS)          FIRST HYDROGRAPH POINT =  1.00 HOURS      TIME INCREMENT =  .05 HOURS      DRAINAGE AREA =  16.89 SQ.MI.
   2.00   DISCHG        .00         .01         .01         .01         .01         .02         .02         .02         .03         .03
   2.50   DISCHG        .03         .04         .20         .46         .73        1.86       19.52       36.65       52.89       68.03
   3.00   DISCHG      81.98       94.73      106.33      116.88      126.49      135.27      143.33      150.79      157.76      164.29
   3.50   DISCHG     170.45      176.28      186.91      199.25      211.07      222.44      233.41      244.01      254.23      264.09
   4.00   DISCHG     273.61      282.81      291.70 --   300.29      308.59      316.62      324.39      331.92      339.22      346.31
   4.50   DISCHG     353.18      359.85      366.32      391.64      419.95      447.34      473.86      499.57      524.51      548.72
   5.00   DISCHG     572.24      595.10      617.35      639.00      660.08      680.64      700.71      720.31      739.45      758.18
   5.50   DISCHG     776.51      794.45      812.01      829.21      846.07      862.58      878.73      894.52      909.91      924.87
   6.00   DISCHG     939.36      953.37      966.90      979.93      992.43     1004.38     1015.74     1026.51     1036.66     1046.20
   6.50   DISCHG    1055.12     1063.41     1071.10     1078.20     1084.79     1090.94     1096.72     1102.21     1107.46     1112.52
   7.00   DISCHG    1117.41     1122.12     1126.55     1130.65     1134.37     1137.70     1140.63     1143.16     1145.28     1146.99
   7.50   DISCHG    1148.31     1149.24     1149.78     1149.96     1149.77     1149.23     1148.36     1147.16     1145.65     1143.83
   8.00   DISCHG    1141.73     1139.36     1136.72     1133.84     1130.72     1127.38     1123.84     1120.09     1116.16     1112.06
   8.50   DISCHG    1107.80     1103.38     1098.82     1094.13     1089.31     1084.39     1079.35     1074.22     1069.00     1063.70
   9.00   DISCHG    1058.33     1052.89     1047.39     1041.83     1036.23     1030.58     1024.89     1019.17     1013.42     1007.65
   9.50   DISCHG    1001.85      996.04      990.21      984.38      978.53      972.69      966.84      960.99      955.15      949.31
  10.00   DISCHG     943.48      937.66      931.85      926.06      920.27      914.51      908.76      903.03      897.32      891.63
  10.50   DISCHG     885.97      880.33      874.71      869.11      863.54      858.00      852.48      846.99      841.52      836.09
  11.00   DISCHG     830.68      825.30      819.95      814.63      809.33      804.07      798.84      793.63      788.46      783.32
  11.50   DISCHG     778.21      773.12      768.07      763.05      758.06      753.09      748.16      743.26      738.39      733.55
  12.00   DISCHG     728.73      723.95      719.20      714.48      709.79      705.13      700.49      695.89      691.32      686.77
  12.50   DISCHG     682.26      677.77      673.31      668.89      664.48      660.11      655.77      651.45      647.16      642.90
  13.00   DISCHG     638.67      634.47      630.29      626.14      622.02      617.92      613.85      609.81      605.79      601.80
1
```



```
  13.50   DISCHG     597.84      593.90      589.99      586.10      582.24      578.41      574.59      570.81      567.04      563.31
  14.00   DISCHG     559.59      555.91      552.24      548.60      544.99      541.39      537.82      534.28      530.76      527.26
  14.50   DISCHG     523.78      520.33      516.90      513.50      510.11      506.75      503.41      500.09      496.79      493.52
  15.00   DISCHG     490.27      487.04      483.83      480.64      477.47      474.32      471.20      468.09      465.00      461.94
  15.50   DISCHG     458.89      455.87      452.87      449.88      446.91      443.97      441.04      438.14      435.25      432.38

                    --- HYDROGRAPH FOR STRUCTURE  1, ALTERNATE  1, STORM  1, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP                                                                    RECORD ID
+                                   COMPUTATIONS COMPLETED FOR PASS   1

EXECUTIVE CONTROL OPERATION ENDJOB                                                                    RECORD ID
1
```


SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
STRUCTURE 1	RESVOR	16.89	1	2	.05	1.0	.00	.00	.88	1209.55	7.65	1149.96	68.1

1

```
  8                    1206.        178.0      2059.1838
  8                    1208.        367.4      2611.3496
  8                    1210.       1377.8      3242.7052
  8                    1210.2      1505.3      3313.4290
  8                    1210.5      1961.2      3419.5148
  8                    1210.8      2653.4      3525.6006
  8                    1211.2      3883.8      3667.0483
  8                    1211.6      5424.6      3808.4960
  8                    1212.2      8256.5      4028.3152
  8                    1212.7      11053.      4224.2437
  8                    1213.       14200.      4341.8009
  8                    1213.2      15700.      4420.1723
  8                    1214.       21514.      4733.6580
  8                    1215.       30312.      5167.2350
  9 ENDTBL
  6 RESVOR 2    01 2   1 1176.0                            1 1     1
    ENDATA
  7 LIST                 1.0                     1.
  7 INCREM 6             0.05
  7 READHD 8     2
  7 READHD 9       1.0000       .0500     16.8877       .0000
  8                  0.00        0.50        0.50        1.50        3.00
  8                  5.50       10.00       17.00       27.00       41.50
  8                 61.50       88.50      123.00      166.50      220.50
  8                285.50      362.50      452.00      554.00      667.00
  8                807.50     1048.50     1497.00     2264.50     3477.50
  8               5269.00     7734.00    10650.50    13854.00    17177.00
  8              20426.00    23406.00    25922.00    27818.00    28979.50
  8              29352.50    28871.50    27643.00    25960.50    24039.00
  8              22076.00    20133.00    18304.00    16679.00    15224.00
  8              13957.00    12887.00    12005.00    11262.00    10601.00
  8              10020.00     9522.50     9091.00     8709.50     8380.50
  8               8100.00     7838.50     7584.00     7335.00     7100.00
  8               6877.00     6663.00     6456.00     6255.50     6064.50
  8               5885.00     5717.00     5564.00     5415.00     5269.50
  8               5128.00     4993.50     4866.50     4744.00     4628.50
  8               4521.50     4420.50     4328.00     4239.00     4156.00
  8               4078.00     4004.50     3935.50     3868.00     3807.00
  8               3752.00     3699.00     3649.00     3601.50     3559.50
  8               3518.50     3478.00     3439.50     3404.00     3369.00
  8               3332.50     3294.00     3253.50     3206.00     3152.00
  8               3094.50     3036.50     2976.00     2911.50     2841.50
  8               2767.50     2689.50     2609.00     2526.00     2442.00
  8               2356.00     2270.50     2188.00     2111.00     2044.50
  8               1990.00     1946.50     1912.50     1885.00     1864.00
1
```

```
*********************80-80 LIST OF INPUT DATA (CONTINUED)*********************

  8               1847.00     1815.50     1773.00     1723.00     1668.50
  8               1611.50     1553.00     1494.00     1435.00     1376.00
  8               1318.00     1260.50     1204.00     1148.50     1094.50
  8               1042.00      991.00      941.50      893.50      847.50
  8                803.00      760.00      719.00      680.00      642.00
  8                606.50      572.00      539.50      508.50      479.00
  8                451.00      424.00      399.00      375.00      352.50
  8                331.00      310.50      291.50      273.50      256.50
  8                240.50      225.50      211.00      198.00      185.00
  8                173.50      162.00      152.00      142.00      132.50
  8                124.00      116.00      108.50      101.00       94.50
  8                 88.50       82.50       77.00       72.00       67.00
  8                 62.50       58.50       54.50       50.50       47.00
  8                 44.00       41.00       38.00       35.50       33.00
  8                 31.00       29.00       27.00       25.00       23.00
  8                 21.50       20.00       18.50       17.50       16.00
  8                 15.00       14.00       13.00       12.00       11.50
  8                 10.50        9.50        9.00        8.50        8.00
  8                  7.50        6.50        6.50        6.00        5.50
  8                  5.00        4.50        4.50        4.00        3.50
  8                  3.50        3.00        3.00        3.00        2.50
  8                  2.50        2.00        2.00        2.00        2.00
  8                  1.50        1.50        1.50        1.50        1.00
  8                  1.00        1.00        1.00        1.00        1.00
  8                  1.00        0.50        0.50        0.50        0.50
  8                  0.50        0.50        0.50        0.50        0.50
  8                  0.50        0.50        0.50        0.50        0.50
  8                  0.00
  9 ENDTBL
  7 COMPUT 7    01    01 1.0          12.7        1.0         1 2  01  01
    ENDCMP 1
    ENDJOB 2
0*****************************END OF 80-80 LIST******************************
1
```



```
   100000+--------------+--------------+--------------+--------------+--------------+
         :                                                                          :
```

```
 8                    1.56        500.        203.28
 8                    2.30        1000.       302.00
 8                    3.38        2000.       449.24
 8                    4.97        4000.       673.73
 8                    6.23        6000.       855.96
 8                    7.31        8000.       1016.35
 8                    8.24        10000.      1158.51
 8                    9.09        12000.      1293.31
 8                    9.90        14000.      1425.57
 8                    10.64       16000.      1549.17
 8                    11.36       18000.      1673.11
 9 ENDTBL
 2 XSECTN   030       1.0         9.45                            BOSSCS#6
 8                    0.          0.0         0.0
 8                    0.77        5.          4.67
 8                    1.54        50.         32.06
 8                    1.78        100.        56.64
 8                    2.10        200.        100.59
 8                    2.50        400.        179.97
 8                    3.01        800.        320.25
 8                    3.63        1600.       589.66
 8                    4.35        3200.       1110.72
 8                    5.21        6400.       2084.48
 8                    6.03        12800.      4119.83
 8                    6.99        25600.      6856.75
 8                    8.28        51200.      11085.87
 9 ENDTBL
 2 XSECTN   045       1.0         4.87                            REACHA
 8                    0.          0.0         0.0
 8                    0.60        100.        85.69
 8                    0.90        200.        127.94
 8                    1.13        300.        161.93
 8                    1.52        500.        217.27
 8                    2.25        1000.       324.03
 8                    3.31        2000.       483.02
 8                    4.87        4000.       722.17
1


*********************80-80 LIST OF INPUT DATA (CONTINUED)*********************

 8                    6.09        6000.       914.99
 8                    7.15        8000.       1084.61
 8                    8.05        10000.      1234.17
 8                    8.87        12000.      1373.80
 8                    9.64        14000.      1507.84
 8                    10.34       16000.      1633.45
 8                    11.00       18000.      1753.12
 9 ENDTBL
 2 XSECTN   060       1.0         4.7                             2CP6CP7
 8                    0.          0.0         0.0
 8                    2.36        100.        45.12
 8                    2.88        200.        83.75
 8                    3.18        300.        114.33
 8                    3.64        500.        172.72
 8                    4.42        1000.       289.04
 8                    5.40        2000.       470.72
 8                    6.87        4000.       782.74
 8                    7.91        6000.       1020.12
 8                    8.79        8000.       1231.25
 8                    9.60        10000.      1435.05
 8                    10.26       12000.      1618.34
 8                    10.94       14000.      1812.58
 8                    11.47       16000.      1983.46
 8                    11.96       18000.      2150.12
 9 ENDTBL
 2 XSECTN   067       1.0         8.77                            BOSSCS#5
 8                    0.          0.0         0.0
 8                    0.35        5.          5.56
 8                    1.03        50.         30.95
 8                    1.39        100.        52.16
 8                    1.94        200.        88.72
 8                    2.63        400.        148.61
 8                    3.51        800.        260.63
 8                    4.62        1600.       459.66
 8                    6.04        3200.       929.36
 8                    7.38        6400.       1811.51
 8                    8.77        12800.      3374.20
 8                    10.17       25600.      6398.87
 8                    11.89       51200.      10982.51
 9 ENDTBL
 3 STRUCT      01                                                 95/11/6
 8                    1176.         0.00      0.0140486
 8                    1188.         0.02      69.964210
 8                    1194.         0.03      255.67669
 8                    1196.         0.04      394.95211
 8                    1196.5        0.05      444.382
1


*********************80-80 LIST OF INPUT DATA (CONTINUED)*********************

 8                    1200.           1.      854.043
```

```
 8          0.9995      0.9997      0.9998      1.0000      1.0000
 9 ENDTBL
 5 RAINFL 8     1        2.4                                          10-DAY
 8          .0000       .0024       .0048       .0073       .0097
 8          .0121       .0148       .0174       .0201       .0228
 8          .0254       .0284       .0314       .0344       .0374
 8          .0404       .0437       .0471       .0505       .0539
 8          .0572       .0612       .0651       .0690       .0729
 8          .0768       .0815       .0862       .0909       .0955
 8          .1002       .1061       .1120       .1179       .1238
 8          .1297       .1377       .1458       .1538       .1618
 8          .1699       .1832       .1966       .2099       .2232
 8          .2366       .2548       .2778       .3093       .3614
 8          1.092       1.174       1.213       1.240       1.260
 8          1.276       1.286       1.296       1.306       1.316
 8          1.326       1.333       1.340       1.347       1.354
 8          1.360       1.365       1.371       1.376       1.381
 8          1.386       1.391       1.395       1.399       1.403
 8          1.408       1.411       1.415       1.418       1.422
 8          1.426       1.429       1.432       1.435       1.438
 8          1.442       1.444       1.447       1.450       1.453
 8          1.456       1.458       1.461       1.463       1.466
 8          1.468       1.471       1.473       1.475       1.477
 8          1.48        1.48        1.48        1.48        1.48
 9 ENDTBL
 4 DIMHYD                .0556                                          WT3
 8          0.0         .03         .10         .19         .31
1


*********************80-80 LIST OF INPUT DATA (CONTINUED)*********************

 8          .47         .66         .82         .93         .99
 8          1.0         .99         .93         .82         .66
 8          .47         .31         .03         .00         .00
 9 ENDTBL
 2 XSECTN   005         1.0         8.77                                 BOSSCS#5
 8                      0.          0.0         0.0
 8                      0.35        5.          5.56
 8                      1.03        50.         30.95
 8                      1.39        100.        52.16
 8                      1.94        200.        88.72
 8                      2.63        400.        148.61
 8                      3.51        800.        260.63
 8                      4.62        1600.       459.66
 8                      6.04        3200.       929.36
 8                      7.38        6400.       1811.51
 8                      8.77        12800.      3374.20
 8                      10.17       25600.      6398.87
 8                      11.89       51200.      10982.51
 9 ENDTBL
 2 XSECTN   010         1.0         8.94                                 BOSSCS#4
 8                      0.          0.0         0.0
 8                      0.91        5.          4.95
 8                      2.03        50.         24.80
 8                      2.63        100.        41.32
 8                      3.34        200.        74.14
 8                      4.15        400.        130.28
 8                      5.23        800.        223.37
 8                      6.41        1600.       447.51
 8                      7.65        3200.       898.64
 8                      8.94        6400.       1690.88
 8                      10.29       12800.      3331.95
 8                      11.64       25600.      6185.81
 8                      13.14       51200.      10661.04
 9 ENDTBL
 2 XSECTN   020         1.0         7.3                                  REACHC
 8                      0.          0.0         0.0
 8                      1.01        100.        57.78
 8                      1.49        200.        86.81
 8                      1.88        300.        110.25
 8                      2.49        500.        149.47
 8                      3.68        1000.       226.31
 8                      5.40        2000.       346.26
 8                      7.85        4000.       533.39
 8                      9.64        6000.       688.07
 8                      11.16       8000.       838.10
 8                      12.46       10000.      985.31
1


*********************80-80 LIST OF INPUT DATA (CONTINUED)*********************

 8                      13.61       12000.      1122.03
 8                      14.56       14000.      1236.94
 8                      15.43       16000.      1345.18
 8                      16.31       18000.      1456.68
 9 ENDTBL
 2 XSECTN   025         1.0         7.3                                  REACHB
 8                      0.          0.0         0.0
 8                      0.63        100.        80.89
 8                      0.93        200.        120.32
 8                      1.17        300.        151.77
```

```
 8          0.5989      0.6224      0.6356      0.6488      0.6620
 8          0.6752      0.6862      0.6972      0.7082      0.7192
 8          0.7267      0.7342      0.7417      0.7492      0.7558
 8          0.7625      0.7692      0.7758      0.7825      0.7892
 8          0.7958      0.8025      0.8083      0.8142      0.8200
 8          0.8258      0.8308      0.8358      0.8408      0.8458
 8          0.8508      0.8558      0.8608      0.8658      0.8683
 8          0.8708      0.8733      0.8758      0.8783      0.8808
 8          0.8833      0.8858      0.8875      0.8892      0.8908
 8          0.8925      0.8942      0.8958      0.8975      0.8992
 8          0.9008      0.9025      0.9042      0.9058      0.9075
 8          0.9092      0.9108      0.9125      0.9140      0.9154
 8          0.9169      0.9183      0.9198      0.9213      0.9227
 8          0.9242      0.9256      0.9271      0.9285      0.9300
 8          0.9315      0.9329      0.9344      0.9358      0.9373
 8          0.9388      0.9402      0.9417      0.9431      0.9446
 8          0.9460      0.9475      0.9490      0.9504      0.9519
 8          0.9533      0.9548      0.9563      0.9577      0.9592
1


*********************80-80 LIST OF INPUT DATA (CONTINUED)*********************

 8          0.9606      0.9621      0.9635      0.9650      0.9665
 8          0.9679      0.9694      0.9708      0.9723      0.9737
 8          0.9752      0.9767      0.9781      0.9796      0.9810
 8          0.9825      0.9840      0.9854      0.9869      0.9883
 8          0.9898      0.9912      0.9927      0.9942      0.9956
 8          0.9971      0.9985      1.0000      1.0000      1.0
 9 ENDTBL
 5 RAINFL 7             .25                                             72HRGEN
 8          0.0000      0.0005      0.0009      0.0014      0.0019
 8          0.0025      0.0032      0.0038      0.0044      0.0051
 8          0.0057      0.0063      0.0070      0.0076      0.0082
 8          0.0089      0.0095      0.0103      0.0111      0.0119
 8          0.0127      0.0134      0.0142      0.0150      0.0158
 8          0.0171      0.0184      0.0196      0.0209      0.0222
 8          0.0234      0.0247      0.0259      0.0272      0.0285
 8          0.0297      0.0310      0.0323      0.0335      0.0348
 8          0.0361      0.0375      0.0389      0.0403      0.0418
 8          0.0432      0.0446      0.0460      0.0475      0.0489
 8          0.0503      0.0517      0.0532      0.0546      0.0560
 8          0.0574      0.0589      0.0604      0.0620      0.0636
 8          0.0652      0.0668      0.0684      0.0699      0.0715
 8          0.0731      0.0747      0.0763      0.0778      0.0797
 8          0.0816      0.0835      0.0854      0.0877      0.0899
 8          0.0921      0.0943      0.0968      0.0994      0.1019
 8          0.1044      0.1073      0.1101      0.1130      0.1158
 8          0.1193      0.1228      0.1263      0.1297      0.1335
 8          0.1373      0.1411      0.1449      0.1491      0.1532
 8          0.1573      0.1614      0.1725      0.1837      0.1948
 8          0.2059      0.2241      0.2422      0.2603      0.2784
 8          0.3431      0.4078      0.4726      0.5373      0.5596
 8          0.5819      0.6042      0.6265      0.6390      0.6515
 8          0.6641      0.6766      0.6870      0.6975      0.7079
 8          0.7184      0.7255      0.7326      0.7397      0.7468
 8          0.7535      0.7601      0.7668      0.7734      0.7794
 8          0.7854      0.7915      0.7975      0.8030      0.8085
 8          0.8141      0.8196      0.8247      0.8297      0.8348
 8          0.8399      0.8443      0.8487      0.8532      0.8576
 8          0.8598      0.8620      0.8642      0.8665      0.8685
 8          0.8706      0.8726      0.8747      0.8766      0.8785
 8          0.8804      0.8823      0.8840      0.8858      0.8875
 8          0.8892      0.8908      0.8924      0.8940      0.8956
 8          0.8972      0.8987      0.9003      0.9019      0.9035
 8          0.9051      0.9066      0.9082      0.9098      0.9114
 8          0.9130      0.9146      0.9160      0.9174      0.9188
 8          0.9203      0.9217      0.9231      0.9245      0.9259
 8          0.9274      0.9288      0.9302      0.9316      0.9329
1


*********************80-80 LIST OF INPUT DATA (CONTINUED)*********************

 8          0.9342      0.9354      0.9367      0.9380      0.9392
 8          0.9405      0.9418      0.9430      0.9443      0.9456
 8          0.9468      0.9481      0.9494      0.9506      0.9519
 8          0.9530      0.9541      0.9552      0.9563      0.9574
 8          0.9585      0.9597      0.9608      0.9619      0.9630
 8          0.9641      0.9652      0.9661      0.9671      0.9680
 8          0.9690      0.9699      0.9709      0.9718      0.9728
 8          0.9736      0.9744      0.9752      0.9759      0.9767
 8          0.9775      0.9783      0.9791      0.9797      0.9804
 8          0.9810      0.9816      0.9823      0.9829      0.9835
 8          0.9842      0.9847      0.9851      0.9856      0.9861
 8          0.9866      0.9870      0.9875      0.9880      0.9884
 8          0.9889      0.9894      0.9899      0.9902      0.9905
 8          0.9908      0.9911      0.9915      0.9918      0.9921
 8          0.9924      0.9927      0.9930      0.9934      0.9937
 8          0.9940      0.9943      0.9946      0.9949      0.9953
 8          0.9956      0.9959      0.9962      0.9965      0.9968
 8          0.9972      0.9975      0.9978      0.9981      0.9984
 8          0.9987      0.9989      0.9991      0.9992      0.9994
```

```
  8          .901        .903        .905        .907        .909
  8          .911        .912        .914        .916        .917
  8          .919        .920        .922        .924        .925
  8          .927        .929        .930        .932        .934
  8          .935        .937        .938        .940        .941
  8          .943        .945        .946        .948        .949
  8          .951        .952        .953        .955        .956
  8          .957        .959        .960        .961        .963
  8          .964        .965        .967        .968        .970
1
```

```
*********************80-80 LIST OF INPUT DATA (CONTINUED)*********************

  8          .971        .972        .974        .975        .976
  8          .978        .979        .980        .982        .983
  8          .984        .985        .986        .988        .989
  8          .990        .991        .992        .993        .994
  8          .995        .996        .997        .998        .999
  8          1.000       1.000       1.000       1.000       1.000
  9 ENDTBL
  5 RAINFL 5             0.1                                          24HRGEN
  8          0.000       0.000       0.001       0.001       0.002
  8          0.002       0.002       0.003       0.003       0.003
  8          0.004       0.005       0.007       0.009       0.010
  8          0.012       0.013       0.015       0.016       0.018
  8          0.019       0.022       0.024       0.027       0.030
  8          0.032       0.035       0.037       0.040       0.042
  8          0.045       0.048       0.051       0.055       0.058
  8          0.061       0.064       0.068       0.071       0.074
  8          0.078       0.082       0.087       0.091       0.096
  8          0.100       0.104       0.109       0.113       0.118
  8          0.122       0.127       0.132       0.137       0.142
  8          0.147       0.151       0.156       0.161       0.166
  8          0.171       0.177       0.184       0.191       0.198
  8          0.205       0.214       0.224       0.233       0.242
  8          0.252       0.265       0.278       0.291       0.303
  8          0.316       0.334       0.351       0.368       0.386
  8          0.403       0.425       0.447       0.468       0.490
  8          0.512       0.527       0.543       0.558       0.574
  8          0.589       0.603       0.617       0.631       0.645
  8          0.659       0.671       0.684       0.696       0.709
  8          0.721       0.731       0.741       0.751       0.761
  8          0.771       0.779       0.786       0.793       0.800
  8          0.808       0.814       0.820       0.825       0.831
  8          0.837       0.840       0.843       0.847       0.850
  8          0.853       0.855       0.857       0.859       0.861
  8          0.864       0.866       0.868       0.870       0.872
  8          0.874       0.876       0.878       0.880       0.881
  8          0.883       0.885       0.886       0.888       0.890
  8          0.891       0.893       0.895       0.896       0.898
  8          0.899       0.901       0.902       0.904       0.905
  8          0.907       0.908       0.909       0.910       0.912
  8          0.913       0.914       0.915       0.916       0.917
  8          0.919       0.920       0.921       0.922       0.923
  8          0.924       0.926       0.927       0.928       0.929
  8          0.930       0.932       0.933       0.935       0.936
  8          0.938       0.940       0.941       0.943       0.944
  8          0.946       0.947       0.947       0.948       0.949
  8          0.950       0.950       0.951       0.952       0.953
1
```

```
*********************80-80 LIST OF INPUT DATA (CONTINUED)*********************

  8          0.953       0.955       0.956       0.957       0.958
  8          0.959       0.960       0.961       0.962       0.963
  8          0.964       0.965       0.966       0.967       0.968
  8          0.969       0.970       0.971       0.972       0.973
  8          0.974       0.975       0.976       0.977       0.978
  8          0.979       0.980       0.981       0.982       0.983
  8          0.984       0.985       0.986       0.987       0.988
  8          0.988       0.989       0.990       0.991       0.991
  8          0.992       0.993       0.994       0.995       0.995
  8          0.996       0.997       0.998       0.998       0.999
  8          1.000       1.000       1.000       1.000       1.000
  9 ENDTBL
  5 RAINFL 6             .25                                          48HRGEN
  8          0.0000      0.0015      0.0029      0.0044      0.0058
  8          0.0073      0.0088      0.0102      0.0117      0.0131
  8          0.0146      0.0160      0.0175      0.0190      0.0204
  8          0.0219      0.0233      0.0248      0.0263      0.0277
  8          0.0292      0.0306      0.0321      0.0335      0.0350
  8          0.0365      0.0379      0.0394      0.0408      0.0423
  8          0.0438      0.0452      0.0467      0.0481      0.0496
  8          0.0510      0.0525      0.0542      0.0558      0.0575
  8          0.0592      0.0608      0.0625      0.0642      0.0658
  8          0.0692      0.0725      0.0758      0.0792      0.0825
  8          0.0858      0.0892      0.0925      0.0975      0.1025
  8          0.1075      0.1125      0.1175      0.1225      0.1275
  8          0.1325      0.1442      0.1560      0.1677      0.1794
  8          0.1985      0.2176      0.2366      0.2557      0.3239
  8          0.3921      0.4603      0.5285      0.5520      0.5754
```

1

```
*****************80-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY*****************

JOB TR-20 halfpmf   ECON                PASS=001  SUMMARY
TITLE     WHITE TANK FRS #3, WATERSHED DIVIDED INTO 7 SUB-BASINS
TITLE     6HR LOCAL,INITIAL EMPTY,NEW RATING CURVE,No inlet impr
 5 RAINFL 1            0.1                                          6HRLOCAL
 8          .0000      .003       .006       .009       .013
 8          .016       .020       .025       .030       .035
 8          .039       .046       .052       .058       .065
 8          .071       .080       .090       .099       .109
 8          .118       .283       .449       .567       .622
 8          .669       .701       .732       .756       .780
 8          .795       .809       .824       .838       .852
 8          .866       .876       .885       .894       .904
 8          .913       .920       .926       .932       .939
 8          .945       .950       .954       .959       .964
 8          .969       .972       .976       .980       .984
 8          .988       .991       .993       .995       .998
 8          1.         1.         1.         1.         1.
 9 ENDTBL
 5 RAINFL 2            .1                                           6HR GEN
 8          .000       .005       .013       .020       .028
 8          .038       .045       .053       .060       .070
 8          .080       .085       .095       .108       .120
 8          .138       .150       .165       .190       .210
 8          .238       .280       .350       .440       .550
 8          .590       .620       .645       .668       .685
 8          .700       .720       .735       .753       .765
 8          .775       .790       .800       .810       .820
 8          .835       .843       .850       .863       .870
 8          .880       .890       .898       .908       .915
 8          .925       .930       .940       .945       .955
 8          .963       .970       .978       .985       .990
 8          1.00       1.00       1.00       1.00       1.00
 9 ENDTBL
 5 RAINFL 3            0.1                                          12HRGEN
 8          .000       .003       .007       .010       .013
 8          .016       .019       .022       .025       .028
 8          .031       .034       .037       .040       .043
 8          .045       .050       .054       .058       .062
 8          .066       .071       .075       .080       .085
 8          .089       .095       .101       .107       .112
 8          .118       .125       .132       .139       .146
 8          .153       .162       .171       .180       .189
 8          .198       .211       .224       .237       .250
 8          .264       .300       .345       .391       .436
 8          .491       .536       .564       .586       .607
 8          .629       .643       .657       .672       .686
1
```

```
*********************80-80 LIST OF INPUT DATA (CONTINUED)*********************

 8          .700       .711       .721       .732       .742
 8          .753       .761       .769       .778       .786
 8          .795       .802       .809       .817       .824
 8          .832       .837       .843       .848       .854
 8          .859       .865       .870       .875       .881
 8          .886       .891       .895       .900       .905
 8          .909       .913       .917       .921       .925
 8          .929       .933       .936       .940       .944
 8          .948       .951       .954       .957       .960
 8          .963       .966       .969       .971       .974
 8          .977       .980       .982       .984       .986
 8          .989       .991       .993       .995       .998
 8          1.000      01.000     1.000      1.000      1.00
 9 ENDTBL
 5 RAINFL 4            0.1                                          18HRGEN
 8          .000       .001       .002       .003       .004
 8          .005       .005       .006       .007       .008
 8          .009       .012       .014       .017       .020
 8          .023       .025       .028       .031       .033
 8          .036       .040       .044       .049       .053
 8          .057       .061       .065       .070       .074
 8          .078       .084       .090       .096       .102
 8          .108       .114       .120       .126       .132
 8          .138       .146       .154       .162       .170
 8          .179       .187       .195       .203       .211
 8          .220       .238       .256       .275       .293
 8          .311       .330       .348       .367       .385
 8          .403       .430       .457       .484       .511
 8          .538       .557       .577       .597       .616
 8          .636       .653       .670       .687       .704
 8          .721       .734       .746       .759       .771
 8          .784       .792       .801       .810       .818
 8          .827       .832       .838       .843       .848
 8          .853       .856       .859       .862       .864
 8          .867       .870       .872       .875       .878
 8          .880       .882       .885       .887       .889
 8          .891       .893       .895       .897       .899
```

APPENDIX 5. HEC-1 DRAWDOWN MODEL

```
1*************************************
*                                   *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*              MAY   1991           *
*           VERSION 4.0.1E          *
*     Lahey F77L-EM/32 version 5.01 *
*       Dodson & Associates, Inc.   *
* RUN DATE  08/28/00  TIME  08:38:35 *
*************************************
```

```
*************************************
*                                   *
*    U.S. ARMY CORPS OF ENGINEERS   *
*    HYDROLOGIC ENGINEERING CENTER  *
*          609 SECOND STREET        *
*       DAVIS, CALIFORNIA 95616     *
*           (916) 551-1748          *
*                                   *
*************************************
```

```
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          White Tanks #3 future condition (Beardsley Canal Wash Improvement)
        2           ID          May, 1999, FCDMC
        3           ID          The purpose of this model is to evaluate the drawdown time
        4           ID          from max water surface elevation to intake elevation when
        5           ID          the central 48' pipe ("L") is open at the end of the storm.
        6           ID          Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
        7           ID          70% rock in the soils
        8           ID
        9           ID          WHITE TANKS/ AGUA FRIA AREA DRAINAGE MASTER PLAN
       10           ID          FINAL HYDROLOGY RUN FOR WHITE TANKS ADMP ---- ENTIRE WATERSHED
       11           ID          100-YEAR, 24-HOUR STORM                    FILE: WTADMP5.24
       12           ID          THIS MODEL INCORPORATES FUTURE CHANNELS OR CHANNEL IMPROVEMENTS ALONG:
       13           ID          -BEARDSLEY CANAL WASH,WHITE TANKS NO. 3 TO PEORIA AV.
       14           ID          -TUTHILL DIKE WASH,WHITE TANKS NO. 4 TO APPROX. 1/2 MILE NORTH OF
       15           ID           CAMELBACK ROAD
       16           ID          -JACKRABBIT TRAIL WASH,WHITE TANKS NO. 4 TO WHITE TANKS NO. 3
       17           ID          -DYSART DRAIN,AGUA FRIA RIVER TO REEMS ROAD
       18           ID          -REEMS ROAD CHANNEL,NORTHERN AV. TO BELL ROAD
       19           ID          -WADDEL ROAD CHANNEL,DYSART ROAD TO  REEMS ROAD
       20           ID          - I-10 (INTERSTATE-10) CHANNEL,ESTRELLA FREEWAY TO 191ST AV.
       21           ID          -BULLARD WASH,GILA RIVER TO APPROX. 1/4 MILE SOUTH OF LOWER BUKEYE RD.
       22           ID          -ESTRELLA FREEWAY CHANNEL,GILA RIVER TO BELL ROAD.
       23           ID          -CAMELBACK ROAD CHANNEL,AGUA FRIA RIVER TO LITCHFIELD ROAD
       24           ID          IT ALSO ASSUMES THAT THE SUN CITY GRAND PROJECT,NORTH OF BELL ROAD
       25           ID          (SEE FIURE 9.2), WILL RETAIN ONSITE FLOWS AND BLEED OFF TO THE
       26           ID           EXISTING BELL ROAD CHANNEL
       27           ID
       28           ID
                    *DIAGRAM
       29           IT      10 94JAN14    0800    2000

       30           KK       1
       31           IN      15
       32           PB   0.005
       33           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
       34           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
       35           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
       36           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
       37           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
       38           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
       39           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
       40           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
       41           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
       42           PC    .983    .986    .989    .992    .995    .998    1.00   1.000   1.000   1.000
       43           KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 1.
       44           BA    1.94
       45           LG     .20     0.0    4.00   0.519    9.90
       46           UI    182.    326.    742.    974.   1186.   1502.   2185.   1957.   1537.   1243.
       47           UI    989.    751.    417.    308.    230.    182.     64.     56.     56.     56.
       48           UI     56.      0.      0.      0.      0.      0.      0.      0.      0.      0.
1                                          HEC-1 INPUT                                                    PAGE  2

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

       49           KK   SRWT3
       50           KM        STORAGE ROUTE THROUGH WHITE TANKS STRUCTURE #3.
```

```
          51          KO       1
          52          RS       1    STOR    1968
          53          SV       0       1      14      42      91     190     203     225     227     287
          54          SV     381     621     958    1394    1932    2574    3325
          55          SQ       0       0       0       0       0       0       0      33      35      63
          56          SQ      85     115     138     158     175     191    1386
          57          SE    1174    1176    1180    1184    1188 1191.68    1192  1192.5 1192.56 1193.65
          58          SE    1195  1197.5    1200  1202.5    1205    1207    1210
          59          ZZ
1
                SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

   30           1
                V
                V
   49        SRWT3

 (***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1****************************************                    ************************************
*                                      *                    *                                  *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                    *   U.S. ARMY CORPS OF ENGINEERS   *
*              MAY   1991              *                    *   HYDROLOGIC ENGINEERING CENTER  *
*            VERSION 4.0.1E            *                    *         609 SECOND STREET        *
*     Lahey F77L-EM/32 version 5.01    *                    *      DAVIS, CALIFORNIA 95616     *
*       Dodson & Associates, Inc.      *                    *          (916) 551-1748          *
*  RUN DATE  08/28/00  TIME  08:38:35  *                    *                                  *
****************************************                    ************************************
```

White Tanks #3 future condition (Beardsley Canal Wash Improvement)
May, 1999, FCDMC
The purpose of this model is to evaluate the drawdown time
from max water surface elevation to intake elevation when
the central 48' pipe ("L") is open at the end of the storm.
Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
70% rock in the soils

WHITE TANKS/ AGUA FRIA AREA DRAINAGE MASTER PLAN
FINAL HYDROLOGY RUN FOR WHITE TANKS ADMP ---- ENTIRE WATERSHED
100-YEAR, 24-HOUR STORM FILE: WTADMP5.24
THIS MODEL INCORPORATES FUTURE CHANNELS OR CHANNEL IMPROVEMENTS ALONG:
-BEARDSLEY CANAL WASH,WHITE TANKS NO. 3 TO PEORIA AV.
-TUTHILL DIKE WASH,WHITE TANKS NO. 4 TO APPROX. 1/2 MILE NORTH OF
 CAMELBACK ROAD
-JACKRABBIT TRAIL WASH,WHITE TANKS NO. 4 TO WHITE TANKS NO. 3
-DYSART DRAIN,AGUA FRIA RIVER TO REEMS ROAD
-REEMS ROAD CHANNEL,NORTHERN AV. TO BELL ROAD
-WADDEL ROAD CHANNEL,DYSART ROAD TO REEMS ROAD
- I-10 (INTERSTATE-10) CHANNEL,ESTRELLA FREEWAY TO 191ST AV.
-BULLARD WASH,GILA RIVER TO APPROX. 1/4 MILE SOUTH OF LOWER BUKEYE RD.
-ESTRELLA FREEWAY CHANNEL,GILA RIVER TO BELL ROAD.
-CAMELBACK ROAD CHANNEL,AGUA FRIA RIVER TO LITCHFIELD ROAD
IT ALSO ASSUMES THAT THE SUN CITY GRAND PROJECT,NORTH OF BELL ROAD
(SEE FIURE 9.2), WILL RETAIN ONSITE FLOWS AND BLEED OFF TO THE
 EXISTING BELL ROAD CHANNEL

```
   IT          HYDROGRAPH TIME DATA
                     NMIN          10  MINUTES IN COMPUTATION INTERVAL
                    IDATE     94JAN14  STARTING DATE
                    ITIME        0800  STARTING TIME
                       NQ        2000  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE     15FEB14  ENDING DATE
                   NDTIME        0510  ENDING TIME
                    ICENT          19  CENTURY MARK

                COMPUTATION INTERVAL    0.17 HOURS
                     TOTAL TIME BASE  333.17 HOURS

        ENGLISH UNITS
             DRAINAGE AREA          SQUARE MILES
             PRECIPITATION DEPTH    INCHES
             LENGTH, ELEVATION      FEET
             FLOW                   CUBIC FEET PER SECOND
             STORAGE VOLUME         ACRE-FEET
             SURFACE AREA           ACRES
             TEMPERATURE            DEGREES FAHRENHEIT

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

          **************
          *            *
 30 KK    *          1 *
          *            *
```

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

31 IN          TIME DATA FOR INPUT TIME SERIES
                    JXMIN          15  TIME INTERVAL IN MINUTES
                   JXDATE     94JAN14  STARTING DATE
                   JXTIME         800  STARTING TIME
                          RUNOFF HYDROGRAPH FROM SUB-BASIN 1.

             SUBBASIN RUNOFF DATA

44 BA          SUBBASIN CHARACTERISTICS
                    TAREA        1.94  SUBBASIN AREA

               PRECIPITATION DATA

32 PB               STORM        0.00  BASIN TOTAL PRECIPITATION

33 PI            INCREMENTAL PRECIPITATION PATTERN
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01      0.01
                   0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.07
                   0.13      0.18      0.03      0.02      0.02      0.02      0.01      0.01      0.01      0.01
                   0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00

45 LG          GREEN AND AMPT LOSS RATE
                   STRTL        0.20  STARTING LOSS
                     DTH        0.00  MOISTURE DEFICIT
                    PSIF        4.00  WETTING FRONT SUCTION
                   XKSAT        0.52  HYDRAULIC CONDUCTIVITY
                   RTIMP        9.90  PERCENT IMPERVIOUS AREA

43 UI          INPUT UNITGRAPH,  21 ORDINATES,  VOLUME = 2.00
                 182.0     326.0     742.0     974.0    1186.0    1502.0    2185.0    1957.0    1537.0    1243.0
                 989.0     751.0     417.0     308.0     230.0     182.0      64.0      56.0      56.0      56.0
                  56.0
```

***

****

HYDROGRAPH AT STATION 1

****

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1	FEB	0800	1	0.00	0.00	0.00	0.	*	8	FEB	0640	1001	0.00	0.00	0.00	0.
1	FEB	0810	2	0.00	0.00	0.00	0.	*	8	FEB	0650	1002	0.00	0.00	0.00	0.
1	FEB	0820	3	0.00	0.00	0.00	0.	*	8	FEB	0700	1003	0.00	0.00	0.00	0.
1	FEB	0830	4	0.00	0.00	0.00	0.	*	8	FEB	0710	1004	0.00	0.00	0.00	0.
1	FEB	0840	5	0.00	0.00	0.00	0.	*	8	FEB	0720	1005	0.00	0.00	0.00	0.
1	FEB	0850	6	0.00	0.00	0.00	0.	*	8	FEB	0730	1006	0.00	0.00	0.00	0.
1	FEB	0900	7	0.00	0.00	0.00	0.	*	8	FEB	0740	1007	0.00	0.00	0.00	0.
1	FEB	0910	8	0.00	0.00	0.00	0.	*	8	FEB	0750	1008	0.00	0.00	0.00	0.
1	FEB	0920	9	0.00	0.00	0.00	0.	*	8	FEB	0800	1009	0.00	0.00	0.00	0.
1	FEB	0930	10	0.00	0.00	0.00	0.	*	8	FEB	0810	1010	0.00	0.00	0.00	0.
1	FEB	0940	11	0.00	0.00	0.00	0.	*	8	FEB	0820	1011	0.00	0.00	0.00	0.
1	FEB	0950	12	0.00	0.00	0.00	0.	*	8	FEB	0830	1012	0.00	0.00	0.00	0.
1	FEB	1000	13	0.00	0.00	0.00	0.	*	8	FEB	0840	1013	0.00	0.00	0.00	0.
1	FEB	1010	14	0.00	0.00	0.00	0.	*	8	FEB	0850	1014	0.00	0.00	0.00	0.
1	FEB	1020	15	0.00	0.00	0.00	0.	*	8	FEB	0900	1015	0.00	0.00	0.00	0.
1	FEB	1030	16	0.00	0.00	0.00	0.	*	8	FEB	0910	1016	0.00	0.00	0.00	0.
1	FEB	1040	17	0.00	0.00	0.00	0.	*	8	FEB	0920	1017	0.00	0.00	0.00	0.
1	FEB	1050	18	0.00	0.00	0.00	0.	*	8	FEB	0930	1018	0.00	0.00	0.00	0.
1	FEB	1100	19	0.00	0.00	0.00	0.	*	8	FEB	0940	1019	0.00	0.00	0.00	0.
1	FEB	1110	20	0.00	0.00	0.00	0.	*	8	FEB	0950	1020	0.00	0.00	0.00	0.
1	FEB	1120	21	0.00	0.00	0.00	0.	*	8	FEB	1000	1021	0.00	0.00	0.00	0.
1	FEB	1130	22	0.00	0.00	0.00	0.	*	8	FEB	1010	1022	0.00	0.00	0.00	0.
1	FEB	1140	23	0.00	0.00	0.00	0.	*	8	FEB	1020	1023	0.00	0.00	0.00	0.
1	FEB	1150	24	0.00	0.00	0.00	0.	*	8	FEB	1030	1024	0.00	0.00	0.00	0.
1	FEB	1200	25	0.00	0.00	0.00	0.	*	8	FEB	1040	1025	0.00	0.00	0.00	0.
1	FEB	1210	26	0.00	0.00	0.00	0.	*	8	FEB	1050	1026	0.00	0.00	0.00	0.
1	FEB	1220	27	0.00	0.00	0.00	0.	*	8	FEB	1100	1027	0.00	0.00	0.00	0.
1	FEB	1230	28	0.00	0.00	0.00	0.	*	8	FEB	1110	1028	0.00	0.00	0.00	0.
1	FEB	1240	29	0.00	0.00	0.00	0.	*	8	FEB	1120	1029	0.00	0.00	0.00	0.
1	FEB	1250	30	0.00	0.00	0.00	0.	*	8	FEB	1130	1030	0.00	0.00	0.00	0.
1	FEB	1300	31	0.00	0.00	0.00	0.	*	8	FEB	1140	1031	0.00	0.00	0.00	0.
1	FEB	1310	32	0.00	0.00	0.00	0.	*	8	FEB	1150	1032	0.00	0.00	0.00	0.
1	FEB	1320	33	0.00	0.00	0.00	0.	*	8	FEB	1200	1033	0.00	0.00	0.00	0.
1	FEB	1330	34	0.00	0.00	0.00	0.	*	8	FEB	1210	1034	0.00	0.00	0.00	0.
1	FEB	1340	35	0.00	0.00	0.00	0.	*	8	FEB	1220	1035	0.00	0.00	0.00	0.
1	FEB	1350	36	0.00	0.00	0.00	0.	*	8	FEB	1230	1036	0.00	0.00	0.00	0.
1	FEB	1400	37	0.00	0.00	0.00	0.	*	8	FEB	1240	1037	0.00	0.00	0.00	0.
1	FEB	1410	38	0.00	0.00	0.00	0.	*	8	FEB	1250	1038	0.00	0.00	0.00	0.
1	FEB	1420	39	0.00	0.00	0.00	0.	*	8	FEB	1300	1039	0.00	0.00	0.00	0.

1	FEB	1430	40	0.00	0.00	0.00	0.	*	8	FEB	1310	1040	0.00	0.00	0.00	0.
1	FEB	1440	41	0.00	0.00	0.00	0.	*	8	FEB	1320	1041	0.00	0.00	0.00	0.
1	FEB	1450	42	0.00	0.00	0.00	0.	*	8	FEB	1330	1042	0.00	0.00	0.00	0.
1	FEB	1500	43	0.00	0.00	0.00	0.	*	8	FEB	1340	1043	0.00	0.00	0.00	0.
1	FEB	1510	44	0.00	0.00	0.00	0.	*	8	FEB	1350	1044	0.00	0.00	0.00	0.
1	FEB	1520	45	0.00	0.00	0.00	0.	*	8	FEB	1400	1045	0.00	0.00	0.00	0.
1	FEB	1530	46	0.00	0.00	0.00	0.	*	8	FEB	1410	1046	0.00	0.00	0.00	0.
1	FEB	1540	47	0.00	0.00	0.00	0.	*	8	FEB	1420	1047	0.00	0.00	0.00	0.
1	FEB	1550	48	0.00	0.00	0.00	0.	*	8	FEB	1430	1048	0.00	0.00	0.00	0.
1	FEB	1600	49	0.00	0.00	0.00	0.	*	8	FEB	1440	1049	0.00	0.00	0.00	0.
1	FEB	1610	50	0.00	0.00	0.00	0.	*	8	FEB	1450	1050	0.00	0.00	0.00	0.
1	FEB	1620	51	0.00	0.00	0.00	0.	*	8	FEB	1500	1051	0.00	0.00	0.00	0.
1	FEB	1630	52	0.00	0.00	0.00	0.	*	8	FEB	1510	1052	0.00	0.00	0.00	0.
1	FEB	1640	53	0.00	0.00	0.00	0.	*	8	FEB	1520	1053	0.00	0.00	0.00	0.
1	FEB	1650	54	0.00	0.00	0.00	0.	*	8	FEB	1530	1054	0.00	0.00	0.00	0.
1	FEB	1700	55	0.00	0.00	0.00	0.	*	8	FEB	1540	1055	0.00	0.00	0.00	0.
1	FEB	1710	56	0.00	0.00	0.00	0.	*	8	FEB	1550	1056	0.00	0.00	0.00	0.
1	FEB	1720	57	0.00	0.00	0.00	0.	*	8	FEB	1600	1057	0.00	0.00	0.00	0.
1	FEB	1730	58	0.00	0.00	0.00	0.	*	8	FEB	1610	1058	0.00	0.00	0.00	0.
1	FEB	1740	59	0.00	0.00	0.00	0.	*	8	FEB	1620	1059	0.00	0.00	0.00	0.
1	FEB	1750	60	0.00	0.00	0.00	0.	*	8	FEB	1630	1060	0.00	0.00	0.00	0.
1	FEB	1800	61	0.00	0.00	0.00	0.	*	8	FEB	1640	1061	0.00	0.00	0.00	0.
1	FEB	1810	62	0.00	0.00	0.00	0.	*	8	FEB	1650	1062	0.00	0.00	0.00	0.
1	FEB	1820	63	0.00	0.00	0.00	0.	*	8	FEB	1700	1063	0.00	0.00	0.00	0.
1	FEB	1830	64	0.00	0.00	0.00	0.	*	8	FEB	1710	1064	0.00	0.00	0.00	0.
1	FEB	1840	65	0.00	0.00	0.00	0.	*	8	FEB	1720	1065	0.00	0.00	0.00	0.
1	FEB	1850	66	0.00	0.00	0.00	0.	*	8	FEB	1730	1066	0.00	0.00	0.00	0.
1	FEB	1900	67	0.00	0.00	0.00	0.	*	8	FEB	1740	1067	0.00	0.00	0.00	0.
1	FEB	1910	68	0.00	0.00	0.00	0.	*	8	FEB	1750	1068	0.00	0.00	0.00	0.
1	FEB	1920	69	0.00	0.00	0.00	0.	*	8	FEB	1800	1069	0.00	0.00	0.00	0.
1	FEB	1930	70	0.00	0.00	0.00	0.	*	8	FEB	1810	1070	0.00	0.00	0.00	0.
1	FEB	1940	71	0.00	0.00	0.00	0.	*	8	FEB	1820	1071	0.00	0.00	0.00	0.
1	FEB	1950	72	0.00	0.00	0.00	0.	*	8	FEB	1830	1072	0.00	0.00	0.00	0.
1	FEB	2000	73	0.00	0.00	0.00	0.	*	8	FEB	1840	1073	0.00	0.00	0.00	0.
1	FEB	2010	74	0.00	0.00	0.00	0.	*	8	FEB	1850	1074	0.00	0.00	0.00	0.
1	FEB	2020	75	0.00	0.00	0.00	0.	*	8	FEB	1900	1075	0.00	0.00	0.00	0.
1	FEB	2030	76	0.00	0.00	0.00	0.	*	8	FEB	1910	1076	0.00	0.00	0.00	0.
1	FEB	2040	77	0.00	0.00	0.00	0.	*	8	FEB	1920	1077	0.00	0.00	0.00	0.
1	FEB	2050	78	0.00	0.00	0.00	0.	*	8	FEB	1930	1078	0.00	0.00	0.00	0.
1	FEB	2100	79	0.00	0.00	0.00	0.	*	8	FEB	1940	1079	0.00	0.00	0.00	0.
1	FEB	2110	80	0.00	0.00	0.00	0.	*	8	FEB	1950	1080	0.00	0.00	0.00	0.
1	FEB	2120	81	0.00	0.00	0.00	0.	*	8	FEB	2000	1081	0.00	0.00	0.00	0.
1	FEB	2130	82	0.00	0.00	0.00	0.	*	8	FEB	2010	1082	0.00	0.00	0.00	0.
1	FEB	2140	83	0.00	0.00	0.00	0.	*	8	FEB	2020	1083	0.00	0.00	0.00	0.
1	FEB	2150	84	0.00	0.00	0.00	0.	*	8	FEB	2030	1084	0.00	0.00	0.00	0.
1	FEB	2200	85	0.00	0.00	0.00	0.	*	8	FEB	2040	1085	0.00	0.00	0.00	0.
1	FEB	2210	86	0.00	0.00	0.00	0.	*	8	FEB	2050	1086	0.00	0.00	0.00	0.
1	FEB	2220	87	0.00	0.00	0.00	0.	*	8	FEB	2100	1087	0.00	0.00	0.00	0.
1	FEB	2230	88	0.00	0.00	0.00	0.	*	8	FEB	2110	1088	0.00	0.00	0.00	0.
1	FEB	2240	89	0.00	0.00	0.00	0.	*	8	FEB	2120	1089	0.00	0.00	0.00	0.
1	FEB	2250	90	0.00	0.00	0.00	0.	*	8	FEB	2130	1090	0.00	0.00	0.00	0.
1	FEB	2300	91	0.00	0.00	0.00	0.	*	8	FEB	2140	1091	0.00	0.00	0.00	0.
1	FEB	2310	92	0.00	0.00	0.00	0.	*	8	FEB	2150	1092	0.00	0.00	0.00	0.
1	FEB	2320	93	0.00	0.00	0.00	0.	*	8	FEB	2200	1093	0.00	0.00	0.00	0.
1	FEB	2330	94	0.00	0.00	0.00	0.	*	8	FEB	2210	1094	0.00	0.00	0.00	0.
1	FEB	2340	95	0.00	0.00	0.00	0.	*	8	FEB	2220	1095	0.00	0.00	0.00	0.
1	FEB	2350	96	0.00	0.00	0.00	0.	*	8	FEB	2230	1096	0.00	0.00	0.00	0.
2	FEB	0000	97	0.00	0.00	0.00	0.	*	8	FEB	2240	1097	0.00	0.00	0.00	0.
2	FEB	0010	98	0.00	0.00	0.00	0.	*	8	FEB	2250	1098	0.00	0.00	0.00	0.
2	FEB	0020	99	0.00	0.00	0.00	0.	*	8	FEB	2300	1099	0.00	0.00	0.00	0.
2	FEB	0030	100	0.00	0.00	0.00	0.	*	8	FEB	2310	1100	0.00	0.00	0.00	0.
2	FEB	0040	101	0.00	0.00	0.00	0.	*	8	FEB	2320	1101	0.00	0.00	0.00	0.
2	FEB	0050	102	0.00	0.00	0.00	0.	*	8	FEB	2330	1102	0.00	0.00	0.00	0.
2	FEB	0100	103	0.00	0.00	0.00	0.	*	8	FEB	2340	1103	0.00	0.00	0.00	0.
2	FEB	0110	104	0.00	0.00	0.00	0.	*	8	FEB	2350	1104	0.00	0.00	0.00	0.
2	FEB	0120	105	0.00	0.00	0.00	0.	*	9	FEB	0000	1105	0.00	0.00	0.00	0.
2	FEB	0130	106	0.00	0.00	0.00	0.	*	9	FEB	0010	1106	0.00	0.00	0.00	0.
2	FEB	0140	107	0.00	0.00	0.00	0.	*	9	FEB	0020	1107	0.00	0.00	0.00	0.
2	FEB	0150	108	0.00	0.00	0.00	0.	*	9	FEB	0030	1108	0.00	0.00	0.00	0.
2	FEB	0200	109	0.00	0.00	0.00	0.	*	9	FEB	0040	1109	0.00	0.00	0.00	0.
2	FEB	0210	110	0.00	0.00	0.00	0.	*	9	FEB	0050	1110	0.00	0.00	0.00	0.
2	FEB	0220	111	0.00	0.00	0.00	0.	*	9	FEB	0100	1111	0.00	0.00	0.00	0.
2	FEB	0230	112	0.00	0.00	0.00	0.	*	9	FEB	0110	1112	0.00	0.00	0.00	0.
2	FEB	0240	113	0.00	0.00	0.00	0.	*	9	FEB	0120	1113	0.00	0.00	0.00	0.
2	FEB	0250	114	0.00	0.00	0.00	0.	*	9	FEB	0130	1114	0.00	0.00	0.00	0.
2	FEB	0300	115	0.00	0.00	0.00	0.	*	9	FEB	0140	1115	0.00	0.00	0.00	0.
2	FEB	0310	116	0.00	0.00	0.00	0.	*	9	FEB	0150	1116	0.00	0.00	0.00	0.
2	FEB	0320	117	0.00	0.00	0.00	0.	*	9	FEB	0200	1117	0.00	0.00	0.00	0.
2	FEB	0330	118	0.00	0.00	0.00	0.	*	9	FEB	0210	1118	0.00	0.00	0.00	0.
2	FEB	0340	119	0.00	0.00	0.00	0.	*	9	FEB	0220	1119	0.00	0.00	0.00	0.
2	FEB	0350	120	0.00	0.00	0.00	0.	*	9	FEB	0230	1120	0.00	0.00	0.00	0.
2	FEB	0400	121	0.00	0.00	0.00	0.	*	9	FEB	0240	1121	0.00	0.00	0.00	0.
2	FEB	0410	122	0.00	0.00	0.00	0.	*	9	FEB	0250	1122	0.00	0.00	0.00	0.
2	FEB	0420	123	0.00	0.00	0.00	0.	*	9	FEB	0300	1123	0.00	0.00	0.00	0.
2	FEB	0430	124	0.00	0.00	0.00	0.	*	9	FEB	0310	1124	0.00	0.00	0.00	0.
2	FEB	0440	125	0.00	0.00	0.00	0.	*	9	FEB	0320	1125	0.00	0.00	0.00	0.
2	FEB	0450	126	0.00	0.00	0.00	0.	*	9	FEB	0330	1126	0.00	0.00	0.00	0.
2	FEB	0500	127	0.00	0.00	0.00	0.	*	9	FEB	0340	1127	0.00	0.00	0.00	0.
2	FEB	0510	128	0.00	0.00	0.00	0.	*	9	FEB	0350	1128	0.00	0.00	0.00	0.
2	FEB	0520	129	0.00	0.00	0.00	0.	*	9	FEB	0400	1129	0.00	0.00	0.00	0.
2	FEB	0530	130	0.00	0.00	0.00	0.	*	9	FEB	0410	1130	0.00	0.00	0.00	0.
2	FEB	0540	131	0.00	0.00	0.00	0.	*	9	FEB	0420	1131	0.00	0.00	0.00	0.
2	FEB	0550	132	0.00	0.00	0.00	0.	*	9	FEB	0430	1132	0.00	0.00	0.00	0.
2	FEB	0600	133	0.00	0.00	0.00	0.	*	9	FEB	0440	1133	0.00	0.00	0.00	0.
2	FEB	0610	134	0.00	0.00	0.00	0.	*	9	FEB	0450	1134	0.00	0.00	0.00	0.

2	FEB	0620	135	0.00	0.00	0.00	0.	*	9	FEB	0500	1135	0.00	0.00	0.00	0.
2	FEB	0630	136	0.00	0.00	0.00	0.	*	9	FEB	0510	1136	0.00	0.00	0.00	0.
2	FEB	0640	137	0.00	0.00	0.00	0.	*	9	FEB	0520	1137	0.00	0.00	0.00	0.
2	FEB	0650	138	0.00	0.00	0.00	0.	*	9	FEB	0530	1138	0.00	0.00	0.00	0.
2	FEB	0700	139	0.00	0.00	0.00	0.	*	9	FEB	0540	1139	0.00	0.00	0.00	0.
2	FEB	0710	140	0.00	0.00	0.00	0.	*	9	FEB	0550	1140	0.00	0.00	0.00	0.
2	FEB	0720	141	0.00	0.00	0.00	0.	*	9	FEB	0600	1141	0.00	0.00	0.00	0.
2	FEB	0730	142	0.00	0.00	0.00	0.	*	9	FEB	0610	1142	0.00	0.00	0.00	0.
2	FEB	0740	143	0.00	0.00	0.00	0.	*	9	FEB	0620	1143	0.00	0.00	0.00	0.
2	FEB	0750	144	0.00	0.00	0.00	0.	*	9	FEB	0630	1144	0.00	0.00	0.00	0.
2	FEB	0800	145	0.00	0.00	0.00	0.	*	9	FEB	0640	1145	0.00	0.00	0.00	0.
2	FEB	0810	146	0.00	0.00	0.00	0.	*	9	FEB	0650	1146	0.00	0.00	0.00	0.
2	FEB	0820	147	0.00	0.00	0.00	0.	*	9	FEB	0700	1147	0.00	0.00	0.00	0.
2	FEB	0830	148	0.00	0.00	0.00	0.	*	9	FEB	0710	1148	0.00	0.00	0.00	0.
2	FEB	0840	149	0.00	0.00	0.00	0.	*	9	FEB	0720	1149	0.00	0.00	0.00	0.
2	FEB	0850	150	0.00	0.00	0.00	0.	*	9	FEB	0730	1150	0.00	0.00	0.00	0.
2	FEB	0900	151	0.00	0.00	0.00	0.	*	9	FEB	0740	1151	0.00	0.00	0.00	0.
2	FEB	0910	152	0.00	0.00	0.00	0.	*	9	FEB	0750	1152	0.00	0.00	0.00	0.
2	FEB	0920	153	0.00	0.00	0.00	0.	*	9	FEB	0800	1153	0.00	0.00	0.00	0.
2	FEB	0930	154	0.00	0.00	0.00	0.	*	9	FEB	0810	1154	0.00	0.00	0.00	0.
2	FEB	0940	155	0.00	0.00	0.00	0.	*	9	FEB	0820	1155	0.00	0.00	0.00	0.
2	FEB	0950	156	0.00	0.00	0.00	0.	*	9	FEB	0830	1156	0.00	0.00	0.00	0.
2	FEB	1000	157	0.00	0.00	0.00	0.	*	9	FEB	0840	1157	0.00	0.00	0.00	0.
2	FEB	1010	158	0.00	0.00	0.00	0.	*	9	FEB	0850	1158	0.00	0.00	0.00	0.
2	FEB	1020	159	0.00	0.00	0.00	0.	*	9	FEB	0900	1159	0.00	0.00	0.00	0.
2	FEB	1030	160	0.00	0.00	0.00	0.	*	9	FEB	0910	1160	0.00	0.00	0.00	0.
2	FEB	1040	161	0.00	0.00	0.00	0.	*	9	FEB	0920	1161	0.00	0.00	0.00	0.
2	FEB	1050	162	0.00	0.00	0.00	0.	*	9	FEB	0930	1162	0.00	0.00	0.00	0.
2	FEB	1100	163	0.00	0.00	0.00	0.	*	9	FEB	0940	1163	0.00	0.00	0.00	0.
2	FEB	1110	164	0.00	0.00	0.00	0.	*	9	FEB	0950	1164	0.00	0.00	0.00	0.
2	FEB	1120	165	0.00	0.00	0.00	0.	*	9	FEB	1000	1165	0.00	0.00	0.00	0.
2	FEB	1130	166	0.00	0.00	0.00	0.	*	9	FEB	1010	1166	0.00	0.00	0.00	0.
2	FEB	1140	167	0.00	0.00	0.00	0.	*	9	FEB	1020	1167	0.00	0.00	0.00	0.
2	FEB	1150	168	0.00	0.00	0.00	0.	*	9	FEB	1030	1168	0.00	0.00	0.00	0.
2	FEB	1200	169	0.00	0.00	0.00	0.	*	9	FEB	1040	1169	0.00	0.00	0.00	0.
2	FEB	1210	170	0.00	0.00	0.00	0.	*	9	FEB	1050	1170	0.00	0.00	0.00	0.
2	FEB	1220	171	0.00	0.00	0.00	0.	*	9	FEB	1100	1171	0.00	0.00	0.00	0.
2	FEB	1230	172	0.00	0.00	0.00	0.	*	9	FEB	1110	1172	0.00	0.00	0.00	0.
2	FEB	1240	173	0.00	0.00	0.00	0.	*	9	FEB	1120	1173	0.00	0.00	0.00	0.
2	FEB	1250	174	0.00	0.00	0.00	0.	*	9	FEB	1130	1174	0.00	0.00	0.00	0.
2	FEB	1300	175	0.00	0.00	0.00	0.	*	9	FEB	1140	1175	0.00	0.00	0.00	0.
2	FEB	1310	176	0.00	0.00	0.00	0.	*	9	FEB	1150	1176	0.00	0.00	0.00	0.
2	FEB	1320	177	0.00	0.00	0.00	0.	*	9	FEB	1200	1177	0.00	0.00	0.00	0.
2	FEB	1330	178	0.00	0.00	0.00	0.	*	9	FEB	1210	1178	0.00	0.00	0.00	0.
2	FEB	1340	179	0.00	0.00	0.00	0.	*	9	FEB	1220	1179	0.00	0.00	0.00	0.
2	FEB	1350	180	0.00	0.00	0.00	0.	*	9	FEB	1230	1180	0.00	0.00	0.00	0.
2	FEB	1400	181	0.00	0.00	0.00	0.	*	9	FEB	1240	1181	0.00	0.00	0.00	0.
2	FEB	1410	182	0.00	0.00	0.00	0.	*	9	FEB	1250	1182	0.00	0.00	0.00	0.
2	FEB	1420	183	0.00	0.00	0.00	0.	*	9	FEB	1300	1183	0.00	0.00	0.00	0.
2	FEB	1430	184	0.00	0.00	0.00	0.	*	9	FEB	1310	1184	0.00	0.00	0.00	0.
2	FEB	1440	185	0.00	0.00	0.00	0.	*	9	FEB	1320	1185	0.00	0.00	0.00	0.
2	FEB	1450	186	0.00	0.00	0.00	0.	*	9	FEB	1330	1186	0.00	0.00	0.00	0.
2	FEB	1500	187	0.00	0.00	0.00	0.	*	9	FEB	1340	1187	0.00	0.00	0.00	0.
2	FEB	1510	188	0.00	0.00	0.00	0.	*	9	FEB	1350	1188	0.00	0.00	0.00	0.
2	FEB	1520	189	0.00	0.00	0.00	0.	*	9	FEB	1400	1189	0.00	0.00	0.00	0.
2	FEB	1530	190	0.00	0.00	0.00	0.	*	9	FEB	1410	1190	0.00	0.00	0.00	0.
2	FEB	1540	191	0.00	0.00	0.00	0.	*	9	FEB	1420	1191	0.00	0.00	0.00	0.
2	FEB	1550	192	0.00	0.00	0.00	0.	*	9	FEB	1430	1192	0.00	0.00	0.00	0.
2	FEB	1600	193	0.00	0.00	0.00	0.	*	9	FEB	1440	1193	0.00	0.00	0.00	0.
2	FEB	1610	194	0.00	0.00	0.00	0.	*	9	FEB	1450	1194	0.00	0.00	0.00	0.
2	FEB	1620	195	0.00	0.00	0.00	0.	*	9	FEB	1500	1195	0.00	0.00	0.00	0.
2	FEB	1630	196	0.00	0.00	0.00	0.	*	9	FEB	1510	1196	0.00	0.00	0.00	0.
2	FEB	1640	197	0.00	0.00	0.00	0.	*	9	FEB	1520	1197	0.00	0.00	0.00	0.
2	FEB	1650	198	0.00	0.00	0.00	0.	*	9	FEB	1530	1198	0.00	0.00	0.00	0.
2	FEB	1700	199	0.00	0.00	0.00	0.	*	9	FEB	1540	1199	0.00	0.00	0.00	0.
2	FEB	1710	200	0.00	0.00	0.00	0.	*	9	FEB	1550	1200	0.00	0.00	0.00	0.
2	FEB	1720	201	0.00	0.00	0.00	0.	*	9	FEB	1600	1201	0.00	0.00	0.00	0.
2	FEB	1730	202	0.00	0.00	0.00	0.	*	9	FEB	1610	1202	0.00	0.00	0.00	0.
2	FEB	1740	203	0.00	0.00	0.00	0.	*	9	FEB	1620	1203	0.00	0.00	0.00	0.
2	FEB	1750	204	0.00	0.00	0.00	0.	*	9	FEB	1630	1204	0.00	0.00	0.00	0.
2	FEB	1800	205	0.00	0.00	0.00	0.	*	9	FEB	1640	1205	0.00	0.00	0.00	0.
2	FEB	1810	206	0.00	0.00	0.00	0.	*	9	FEB	1650	1206	0.00	0.00	0.00	0.
2	FEB	1820	207	0.00	0.00	0.00	0.	*	9	FEB	1700	1207	0.00	0.00	0.00	0.
2	FEB	1830	208	0.00	0.00	0.00	0.	*	9	FEB	1710	1208	0.00	0.00	0.00	0.
2	FEB	1840	209	0.00	0.00	0.00	0.	*	9	FEB	1720	1209	0.00	0.00	0.00	0.
2	FEB	1850	210	0.00	0.00	0.00	0.	*	9	FEB	1730	1210	0.00	0.00	0.00	0.
2	FEB	1900	211	0.00	0.00	0.00	0.	*	9	FEB	1740	1211	0.00	0.00	0.00	0.
2	FEB	1910	212	0.00	0.00	0.00	0.	*	9	FEB	1750	1212	0.00	0.00	0.00	0.
2	FEB	1920	213	0.00	0.00	0.00	0.	*	9	FEB	1800	1213	0.00	0.00	0.00	0.
2	FEB	1930	214	0.00	0.00	0.00	0.	*	9	FEB	1810	1214	0.00	0.00	0.00	0.
2	FEB	1940	215	0.00	0.00	0.00	0.	*	9	FEB	1820	1215	0.00	0.00	0.00	0.
2	FEB	1950	216	0.00	0.00	0.00	0.	*	9	FEB	1830	1216	0.00	0.00	0.00	0.
2	FEB	2000	217	0.00	0.00	0.00	0.	*	9	FEB	1840	1217	0.00	0.00	0.00	0.
2	FEB	2010	218	0.00	0.00	0.00	0.	*	9	FEB	1850	1218	0.00	0.00	0.00	0.
2	FEB	2020	219	0.00	0.00	0.00	0.	*	9	FEB	1900	1219	0.00	0.00	0.00	0.
2	FEB	2030	220	0.00	0.00	0.00	0.	*	9	FEB	1910	1220	0.00	0.00	0.00	0.
2	FEB	2040	221	0.00	0.00	0.00	0.	*	9	FEB	1920	1221	0.00	0.00	0.00	0.
2	FEB	2050	222	0.00	0.00	0.00	0.	*	9	FEB	1930	1222	0.00	0.00	0.00	0.
2	FEB	2100	223	0.00	0.00	0.00	0.	*	9	FEB	1940	1223	0.00	0.00	0.00	0.
2	FEB	2110	224	0.00	0.00	0.00	0.	*	9	FEB	1950	1224	0.00	0.00	0.00	0.
2	FEB	2120	225	0.00	0.00	0.00	0.	*	9	FEB	2000	1225	0.00	0.00	0.00	0.
2	FEB	2130	226	0.00	0.00	0.00	0.	*	9	FEB	2010	1226	0.00	0.00	0.00	0.
2	FEB	2140	227	0.00	0.00	0.00	0.	*	9	FEB	2020	1227	0.00	0.00	0.00	0.
2	FEB	2150	228	0.00	0.00	0.00	0.	*	9	FEB	2030	1228	0.00	0.00	0.00	0.
2	FEB	2200	229	0.00	0.00	0.00	0.	*	9	FEB	2040	1229	0.00	0.00	0.00	0.

2	FEB	2210	230	0.00	0.00	0.00	0.	*	9	FEB	2050	1230	0.00	0.00	0.00	0.
2	FEB	2220	231	0.00	0.00	0.00	0.	*	9	FEB	2100	1231	0.00	0.00	0.00	0.
2	FEB	2230	232	0.00	0.00	0.00	0.	*	9	FEB	2110	1232	0.00	0.00	0.00	0.
2	FEB	2240	233	0.00	0.00	0.00	0.	*	9	FEB	2120	1233	0.00	0.00	0.00	0.
2	FEB	2250	234	0.00	0.00	0.00	0.	*	9	FEB	2130	1234	0.00	0.00	0.00	0.
2	FEB	2300	235	0.00	0.00	0.00	0.	*	9	FEB	2140	1235	0.00	0.00	0.00	0.
2	FEB	2310	236	0.00	0.00	0.00	0.	*	9	FEB	2150	1236	0.00	0.00	0.00	0.
2	FEB	2320	237	0.00	0.00	0.00	0.	*	9	FEB	2200	1237	0.00	0.00	0.00	0.
2	FEB	2330	238	0.00	0.00	0.00	0.	*	9	FEB	2210	1238	0.00	0.00	0.00	0.
2	FEB	2340	239	0.00	0.00	0.00	0.	*	9	FEB	2220	1239	0.00	0.00	0.00	0.
2	FEB	2350	240	0.00	0.00	0.00	0.	*	9	FEB	2230	1240	0.00	0.00	0.00	0.
3	FEB	0000	241	0.00	0.00	0.00	0.	*	9	FEB	2240	1241	0.00	0.00	0.00	0.
3	FEB	0010	242	0.00	0.00	0.00	0.	*	9	FEB	2250	1242	0.00	0.00	0.00	0.
3	FEB	0020	243	0.00	0.00	0.00	0.	*	9	FEB	2300	1243	0.00	0.00	0.00	0.
3	FEB	0030	244	0.00	0.00	0.00	0.	*	9	FEB	2310	1244	0.00	0.00	0.00	0.
3	FEB	0040	245	0.00	0.00	0.00	0.	*	9	FEB	2320	1245	0.00	0.00	0.00	0.
3	FEB	0050	246	0.00	0.00	0.00	0.	*	9	FEB	2330	1246	0.00	0.00	0.00	0.
3	FEB	0100	247	0.00	0.00	0.00	0.	*	9	FEB	2340	1247	0.00	0.00	0.00	0.
3	FEB	0110	248	0.00	0.00	0.00	0.	*	9	FEB	2350	1248	0.00	0.00	0.00	0.
3	FEB	0120	249	0.00	0.00	0.00	0.	*	10	FEB	0000	1249	0.00	0.00	0.00	0.
3	FEB	0130	250	0.00	0.00	0.00	0.	*	10	FEB	0010	1250	0.00	0.00	0.00	0.
3	FEB	0140	251	0.00	0.00	0.00	0.	*	10	FEB	0020	1251	0.00	0.00	0.00	0.
3	FEB	0150	252	0.00	0.00	0.00	0.	*	10	FEB	0030	1252	0.00	0.00	0.00	0.
3	FEB	0200	253	0.00	0.00	0.00	0.	*	10	FEB	0040	1253	0.00	0.00	0.00	0.
3	FEB	0210	254	0.00	0.00	0.00	0.	*	10	FEB	0050	1254	0.00	0.00	0.00	0.
3	FEB	0220	255	0.00	0.00	0.00	0.	*	10	FEB	0100	1255	0.00	0.00	0.00	0.
3	FEB	0230	256	0.00	0.00	0.00	0.	*	10	FEB	0110	1256	0.00	0.00	0.00	0.
3	FEB	0240	257	0.00	0.00	0.00	0.	*	10	FEB	0120	1257	0.00	0.00	0.00	0.
3	FEB	0250	258	0.00	0.00	0.00	0.	*	10	FEB	0130	1258	0.00	0.00	0.00	0.
3	FEB	0300	259	0.00	0.00	0.00	0.	*	10	FEB	0140	1259	0.00	0.00	0.00	0.
3	FEB	0310	260	0.00	0.00	0.00	0.	*	10	FEB	0150	1260	0.00	0.00	0.00	0.
3	FEB	0320	261	0.00	0.00	0.00	0.	*	10	FEB	0200	1261	0.00	0.00	0.00	0.
3	FEB	0330	262	0.00	0.00	0.00	0.	*	10	FEB	0210	1262	0.00	0.00	0.00	0.
3	FEB	0340	263	0.00	0.00	0.00	0.	*	10	FEB	0220	1263	0.00	0.00	0.00	0.
3	FEB	0350	264	0.00	0.00	0.00	0.	*	10	FEB	0230	1264	0.00	0.00	0.00	0.
3	FEB	0400	265	0.00	0.00	0.00	0.	*	10	FEB	0240	1265	0.00	0.00	0.00	0.
3	FEB	0410	266	0.00	0.00	0.00	0.	*	10	FEB	0250	1266	0.00	0.00	0.00	0.
3	FEB	0420	267	0.00	0.00	0.00	0.	*	10	FEB	0300	1267	0.00	0.00	0.00	0.
3	FEB	0430	268	0.00	0.00	0.00	0.	*	10	FEB	0310	1268	0.00	0.00	0.00	0.
3	FEB	0440	269	0.00	0.00	0.00	0.	*	10	FEB	0320	1269	0.00	0.00	0.00	0.
3	FEB	0450	270	0.00	0.00	0.00	0.	*	10	FEB	0330	1270	0.00	0.00	0.00	0.
3	FEB	0500	271	0.00	0.00	0.00	0.	*	10	FEB	0340	1271	0.00	0.00	0.00	0.
3	FEB	0510	272	0.00	0.00	0.00	0.	*	10	FEB	0350	1272	0.00	0.00	0.00	0.
3	FEB	0520	273	0.00	0.00	0.00	0.	*	10	FEB	0400	1273	0.00	0.00	0.00	0.
3	FEB	0530	274	0.00	0.00	0.00	0.	*	10	FEB	0410	1274	0.00	0.00	0.00	0.
3	FEB	0540	275	0.00	0.00	0.00	0.	*	10	FEB	0420	1275	0.00	0.00	0.00	0.
3	FEB	0550	276	0.00	0.00	0.00	0.	*	10	FEB	0430	1276	0.00	0.00	0.00	0.
3	FEB	0600	277	0.00	0.00	0.00	0.	*	10	FEB	0440	1277	0.00	0.00	0.00	0.
3	FEB	0610	278	0.00	0.00	0.00	0.	*	10	FEB	0450	1278	0.00	0.00	0.00	0.
3	FEB	0620	279	0.00	0.00	0.00	0.	*	10	FEB	0500	1279	0.00	0.00	0.00	0.
3	FEB	0630	280	0.00	0.00	0.00	0.	*	10	FEB	0510	1280	0.00	0.00	0.00	0.
3	FEB	0640	281	0.00	0.00	0.00	0.	*	10	FEB	0520	1281	0.00	0.00	0.00	0.
3	FEB	0650	282	0.00	0.00	0.00	0.	*	10	FEB	0530	1282	0.00	0.00	0.00	0.
3	FEB	0700	283	0.00	0.00	0.00	0.	*	10	FEB	0540	1283	0.00	0.00	0.00	0.
3	FEB	0710	284	0.00	0.00	0.00	0.	*	10	FEB	0550	1284	0.00	0.00	0.00	0.
3	FEB	0720	285	0.00	0.00	0.00	0.	*	10	FEB	0600	1285	0.00	0.00	0.00	0.
3	FEB	0730	286	0.00	0.00	0.00	0.	*	10	FEB	0610	1286	0.00	0.00	0.00	0.
3	FEB	0740	287	0.00	0.00	0.00	0.	*	10	FEB	0620	1287	0.00	0.00	0.00	0.
3	FEB	0750	288	0.00	0.00	0.00	0.	*	10	FEB	0630	1288	0.00	0.00	0.00	0.
3	FEB	0800	289	0.00	0.00	0.00	0.	*	10	FEB	0640	1289	0.00	0.00	0.00	0.
3	FEB	0810	290	0.00	0.00	0.00	0.	*	10	FEB	0650	1290	0.00	0.00	0.00	0.
3	FEB	0820	291	0.00	0.00	0.00	0.	*	10	FEB	0700	1291	0.00	0.00	0.00	0.
3	FEB	0830	292	0.00	0.00	0.00	0.	*	10	FEB	0710	1292	0.00	0.00	0.00	0.
3	FEB	0840	293	0.00	0.00	0.00	0.	*	10	FEB	0720	1293	0.00	0.00	0.00	0.
3	FEB	0850	294	0.00	0.00	0.00	0.	*	10	FEB	0730	1294	0.00	0.00	0.00	0.
3	FEB	0900	295	0.00	0.00	0.00	0.	*	10	FEB	0740	1295	0.00	0.00	0.00	0.
3	FEB	0910	296	0.00	0.00	0.00	0.	*	10	FEB	0750	1296	0.00	0.00	0.00	0.
3	FEB	0920	297	0.00	0.00	0.00	0.	*	10	FEB	0800	1297	0.00	0.00	0.00	0.
3	FEB	0930	298	0.00	0.00	0.00	0.	*	10	FEB	0810	1298	0.00	0.00	0.00	0.
3	FEB	0940	299	0.00	0.00	0.00	0.	*	10	FEB	0820	1299	0.00	0.00	0.00	0.
3	FEB	0950	300	0.00	0.00	0.00	0.	*	10	FEB	0830	1300	0.00	0.00	0.00	0.
3	FEB	1000	301	0.00	0.00	0.00	0.	*	10	FEB	0840	1301	0.00	0.00	0.00	0.
3	FEB	1010	302	0.00	0.00	0.00	0.	*	10	FEB	0850	1302	0.00	0.00	0.00	0.
3	FEB	1020	303	0.00	0.00	0.00	0.	*	10	FEB	0900	1303	0.00	0.00	0.00	0.
3	FEB	1030	304	0.00	0.00	0.00	0.	*	10	FEB	0910	1304	0.00	0.00	0.00	0.
3	FEB	1040	305	0.00	0.00	0.00	0.	*	10	FEB	0920	1305	0.00	0.00	0.00	0.
3	FEB	1050	306	0.00	0.00	0.00	0.	*	10	FEB	0930	1306	0.00	0.00	0.00	0.
3	FEB	1100	307	0.00	0.00	0.00	0.	*	10	FEB	0940	1307	0.00	0.00	0.00	0.
3	FEB	1110	308	0.00	0.00	0.00	0.	*	10	FEB	0950	1308	0.00	0.00	0.00	0.
3	FEB	1120	309	0.00	0.00	0.00	0.	*	10	FEB	1000	1309	0.00	0.00	0.00	0.
3	FEB	1130	310	0.00	0.00	0.00	0.	*	10	FEB	1010	1310	0.00	0.00	0.00	0.
3	FEB	1140	311	0.00	0.00	0.00	0.	*	10	FEB	1020	1311	0.00	0.00	0.00	0.
3	FEB	1150	312	0.00	0.00	0.00	0.	*	10	FEB	1030	1312	0.00	0.00	0.00	0.
3	FEB	1200	313	0.00	0.00	0.00	0.	*	10	FEB	1040	1313	0.00	0.00	0.00	0.
3	FEB	1210	314	0.00	0.00	0.00	0.	*	10	FEB	1050	1314	0.00	0.00	0.00	0.
3	FEB	1220	315	0.00	0.00	0.00	0.	*	10	FEB	1100	1315	0.00	0.00	0.00	0.
3	FEB	1230	316	0.00	0.00	0.00	0.	*	10	FEB	1110	1316	0.00	0.00	0.00	0.
3	FEB	1240	317	0.00	0.00	0.00	0.	*	10	FEB	1120	1317	0.00	0.00	0.00	0.
3	FEB	1250	318	0.00	0.00	0.00	0.	*	10	FEB	1130	1318	0.00	0.00	0.00	0.
3	FEB	1300	319	0.00	0.00	0.00	0.	*	10	FEB	1140	1319	0.00	0.00	0.00	0.
3	FEB	1310	320	0.00	0.00	0.00	0.	*	10	FEB	1150	1320	0.00	0.00	0.00	0.
3	FEB	1320	321	0.00	0.00	0.00	0.	*	10	FEB	1200	1321	0.00	0.00	0.00	0.
3	FEB	1330	322	0.00	0.00	0.00	0.	*	10	FEB	1210	1322	0.00	0.00	0.00	0.
3	FEB	1340	323	0.00	0.00	0.00	0.	*	10	FEB	1220	1323	0.00	0.00	0.00	0.
3	FEB	1350	324	0.00	0.00	0.00	0.	*	10	FEB	1230	1324	0.00	0.00	0.00	0.

3 FEB 1400	325	0.00	0.00	0.00	0.	*	10 FEB 1240	1325	0.00	0.00	0.00	0.
3 FEB 1410	326	0.00	0.00	0.00	0.	*	10 FEB 1250	1326	0.00	0.00	0.00	0.
3 FEB 1420	327	0.00	0.00	0.00	0.	*	10 FEB 1300	1327	0.00	0.00	0.00	0.
3 FEB 1430	328	0.00	0.00	0.00	0.	*	10 FEB 1310	1328	0.00	0.00	0.00	0.
3 FEB 1440	329	0.00	0.00	0.00	0.	*	10 FEB 1320	1329	0.00	0.00	0.00	0.
3 FEB 1450	330	0.00	0.00	0.00	0.	*	10 FEB 1330	1330	0.00	0.00	0.00	0.
3 FEB 1500	331	0.00	0.00	0.00	0.	*	10 FEB 1340	1331	0.00	0.00	0.00	0.
3 FEB 1510	332	0.00	0.00	0.00	0.	*	10 FEB 1350	1332	0.00	0.00	0.00	0.
3 FEB 1520	333	0.00	0.00	0.00	0.	*	10 FEB 1400	1333	0.00	0.00	0.00	0.
3 FEB 1530	334	0.00	0.00	0.00	0.	*	10 FEB 1410	1334	0.00	0.00	0.00	0.
3 FEB 1540	335	0.00	0.00	0.00	0.	*	10 FEB 1420	1335	0.00	0.00	0.00	0.
3 FEB 1550	336	0.00	0.00	0.00	0.	*	10 FEB 1430	1336	0.00	0.00	0.00	0.
3 FEB 1600	337	0.00	0.00	0.00	0.	*	10 FEB 1440	1337	0.00	0.00	0.00	0.
3 FEB 1610	338	0.00	0.00	0.00	0.	*	10 FEB 1450	1338	0.00	0.00	0.00	0.
3 FEB 1620	339	0.00	0.00	0.00	0.	*	10 FEB 1500	1339	0.00	0.00	0.00	0.
3 FEB 1630	340	0.00	0.00	0.00	0.	*	10 FEB 1510	1340	0.00	0.00	0.00	0.
3 FEB 1640	341	0.00	0.00	0.00	0.	*	10 FEB 1520	1341	0.00	0.00	0.00	0.
3 FEB 1650	342	0.00	0.00	0.00	0.	*	10 FEB 1530	1342	0.00	0.00	0.00	0.
3 FEB 1700	343	0.00	0.00	0.00	0.	*	10 FEB 1540	1343	0.00	0.00	0.00	0.
3 FEB 1710	344	0.00	0.00	0.00	0.	*	10 FEB 1550	1344	0.00	0.00	0.00	0.
3 FEB 1720	345	0.00	0.00	0.00	0.	*	10 FEB 1600	1345	0.00	0.00	0.00	0.
3 FEB 1730	346	0.00	0.00	0.00	0.	*	10 FEB 1610	1346	0.00	0.00	0.00	0.
3 FEB 1740	347	0.00	0.00	0.00	0.	*	10 FEB 1620	1347	0.00	0.00	0.00	0.
3 FEB 1750	348	0.00	0.00	0.00	0.	*	10 FEB 1630	1348	0.00	0.00	0.00	0.
3 FEB 1800	349	0.00	0.00	0.00	0.	*	10 FEB 1640	1349	0.00	0.00	0.00	0.
3 FEB 1810	350	0.00	0.00	0.00	0.	*	10 FEB 1650	1350	0.00	0.00	0.00	0.
3 FEB 1820	351	0.00	0.00	0.00	0.	*	10 FEB 1700	1351	0.00	0.00	0.00	0.
3 FEB 1830	352	0.00	0.00	0.00	0.	*	10 FEB 1710	1352	0.00	0.00	0.00	0.
3 FEB 1840	353	0.00	0.00	0.00	0.	*	10 FEB 1720	1353	0.00	0.00	0.00	0.
3 FEB 1850	354	0.00	0.00	0.00	0.	*	10 FEB 1730	1354	0.00	0.00	0.00	0.
3 FEB 1900	355	0.00	0.00	0.00	0.	*	10 FEB 1740	1355	0.00	0.00	0.00	0.
3 FEB 1910	356	0.00	0.00	0.00	0.	*	10 FEB 1750	1356	0.00	0.00	0.00	0.
3 FEB 1920	357	0.00	0.00	0.00	0.	*	10 FEB 1800	1357	0.00	0.00	0.00	0.
3 FEB 1930	358	0.00	0.00	0.00	0.	*	10 FEB 1810	1358	0.00	0.00	0.00	0.
3 FEB 1940	359	0.00	0.00	0.00	0.	*	10 FEB 1820	1359	0.00	0.00	0.00	0.
3 FEB 1950	360	0.00	0.00	0.00	0.	*	10 FEB 1830	1360	0.00	0.00	0.00	0.
3 FEB 2000	361	0.00	0.00	0.00	0.	*	10 FEB 1840	1361	0.00	0.00	0.00	0.
3 FEB 2010	362	0.00	0.00	0.00	0.	*	10 FEB 1850	1362	0.00	0.00	0.00	0.
3 FEB 2020	363	0.00	0.00	0.00	0.	*	10 FEB 1900	1363	0.00	0.00	0.00	0.
3 FEB 2030	364	0.00	0.00	0.00	0.	*	10 FEB 1910	1364	0.00	0.00	0.00	0.
3 FEB 2040	365	0.00	0.00	0.00	0.	*	10 FEB 1920	1365	0.00	0.00	0.00	0.
3 FEB 2050	366	0.00	0.00	0.00	0.	*	10 FEB 1930	1366	0.00	0.00	0.00	0.
3 FEB 2100	367	0.00	0.00	0.00	0.	*	10 FEB 1940	1367	0.00	0.00	0.00	0.
3 FEB 2110	368	0.00	0.00	0.00	0.	*	10 FEB 1950	1368	0.00	0.00	0.00	0.
3 FEB 2120	369	0.00	0.00	0.00	0.	*	10 FEB 2000	1369	0.00	0.00	0.00	0.
3 FEB 2130	370	0.00	0.00	0.00	0.	*	10 FEB 2010	1370	0.00	0.00	0.00	0.
3 FEB 2140	371	0.00	0.00	0.00	0.	*	10 FEB 2020	1371	0.00	0.00	0.00	0.
3 FEB 2150	372	0.00	0.00	0.00	0.	*	10 FEB 2030	1372	0.00	0.00	0.00	0.
3 FEB 2200	373	0.00	0.00	0.00	0.	*	10 FEB 2040	1373	0.00	0.00	0.00	0.
3 FEB 2210	374	0.00	0.00	0.00	0.	*	10 FEB 2050	1374	0.00	0.00	0.00	0.
3 FEB 2220	375	0.00	0.00	0.00	0.	*	10 FEB 2100	1375	0.00	0.00	0.00	0.
3 FEB 2230	376	0.00	0.00	0.00	0.	*	10 FEB 2110	1376	0.00	0.00	0.00	0.
3 FEB 2240	377	0.00	0.00	0.00	0.	*	10 FEB 2120	1377	0.00	0.00	0.00	0.
3 FEB 2250	378	0.00	0.00	0.00	0.	*	10 FEB 2130	1378	0.00	0.00	0.00	0.
3 FEB 2300	379	0.00	0.00	0.00	0.	*	10 FEB 2140	1379	0.00	0.00	0.00	0.
3 FEB 2310	380	0.00	0.00	0.00	0.	*	10 FEB 2150	1380	0.00	0.00	0.00	0.
3 FEB 2320	381	0.00	0.00	0.00	0.	*	10 FEB 2200	1381	0.00	0.00	0.00	0.
3 FEB 2330	382	0.00	0.00	0.00	0.	*	10 FEB 2210	1382	0.00	0.00	0.00	0.
3 FEB 2340	383	0.00	0.00	0.00	0.	*	10 FEB 2220	1383	0.00	0.00	0.00	0.
3 FEB 2350	384	0.00	0.00	0.00	0.	*	10 FEB 2230	1384	0.00	0.00	0.00	0.
4 FEB 0000	385	0.00	0.00	0.00	0.	*	10 FEB 2240	1385	0.00	0.00	0.00	0.
4 FEB 0010	386	0.00	0.00	0.00	0.	*	10 FEB 2250	1386	0.00	0.00	0.00	0.
4 FEB 0020	387	0.00	0.00	0.00	0.	*	10 FEB 2300	1387	0.00	0.00	0.00	0.
4 FEB 0030	388	0.00	0.00	0.00	0.	*	10 FEB 2310	1388	0.00	0.00	0.00	0.
4 FEB 0040	389	0.00	0.00	0.00	0.	*	10 FEB 2320	1389	0.00	0.00	0.00	0.
4 FEB 0050	390	0.00	0.00	0.00	0.	*	10 FEB 2330	1390	0.00	0.00	0.00	0.
4 FEB 0100	391	0.00	0.00	0.00	0.	*	10 FEB 2340	1391	0.00	0.00	0.00	0.
4 FEB 0110	392	0.00	0.00	0.00	0.	*	10 FEB 2350	1392	0.00	0.00	0.00	0.
4 FEB 0120	393	0.00	0.00	0.00	0.	*	11 FEB 0000	1393	0.00	0.00	0.00	0.
4 FEB 0130	394	0.00	0.00	0.00	0.	*	11 FEB 0010	1394	0.00	0.00	0.00	0.
4 FEB 0140	395	0.00	0.00	0.00	0.	*	11 FEB 0020	1395	0.00	0.00	0.00	0.
4 FEB 0150	396	0.00	0.00	0.00	0.	*	11 FEB 0030	1396	0.00	0.00	0.00	0.
4 FEB 0200	397	0.00	0.00	0.00	0.	*	11 FEB 0040	1397	0.00	0.00	0.00	0.
4 FEB 0210	398	0.00	0.00	0.00	0.	*	11 FEB 0050	1398	0.00	0.00	0.00	0.
4 FEB 0220	399	0.00	0.00	0.00	0.	*	11 FEB 0100	1399	0.00	0.00	0.00	0.
4 FEB 0230	400	0.00	0.00	0.00	0.	*	11 FEB 0110	1400	0.00	0.00	0.00	0.
4 FEB 0240	401	0.00	0.00	0.00	0.	*	11 FEB 0120	1401	0.00	0.00	0.00	0.
4 FEB 0250	402	0.00	0.00	0.00	0.	*	11 FEB 0130	1402	0.00	0.00	0.00	0.
4 FEB 0300	403	0.00	0.00	0.00	0.	*	11 FEB 0140	1403	0.00	0.00	0.00	0.
4 FEB 0310	404	0.00	0.00	0.00	0.	*	11 FEB 0150	1404	0.00	0.00	0.00	0.
4 FEB 0320	405	0.00	0.00	0.00	0.	*	11 FEB 0200	1405	0.00	0.00	0.00	0.
4 FEB 0330	406	0.00	0.00	0.00	0.	*	11 FEB 0210	1406	0.00	0.00	0.00	0.
4 FEB 0340	407	0.00	0.00	0.00	0.	*	11 FEB 0220	1407	0.00	0.00	0.00	0.
4 FEB 0350	408	0.00	0.00	0.00	0.	*	11 FEB 0230	1408	0.00	0.00	0.00	0.
4 FEB 0400	409	0.00	0.00	0.00	0.	*	11 FEB 0240	1409	0.00	0.00	0.00	0.
4 FEB 0410	410	0.00	0.00	0.00	0.	*	11 FEB 0250	1410	0.00	0.00	0.00	0.
4 FEB 0420	411	0.00	0.00	0.00	0.	*	11 FEB 0300	1411	0.00	0.00	0.00	0.
4 FEB 0430	412	0.00	0.00	0.00	0.	*	11 FEB 0310	1412	0.00	0.00	0.00	0.
4 FEB 0440	413	0.00	0.00	0.00	0.	*	11 FEB 0320	1413	0.00	0.00	0.00	0.
4 FEB 0450	414	0.00	0.00	0.00	0.	*	11 FEB 0330	1414	0.00	0.00	0.00	0.
4 FEB 0500	415	0.00	0.00	0.00	0.	*	11 FEB 0340	1415	0.00	0.00	0.00	0.
4 FEB 0510	416	0.00	0.00	0.00	0.	*	11 FEB 0350	1416	0.00	0.00	0.00	0.
4 FEB 0520	417	0.00	0.00	0.00	0.	*	11 FEB 0400	1417	0.00	0.00	0.00	0.
4 FEB 0530	418	0.00	0.00	0.00	0.	*	11 FEB 0410	1418	0.00	0.00	0.00	0.
4 FEB 0540	419	0.00	0.00	0.00	0.	*	11 FEB 0420	1419	0.00	0.00	0.00	0.

4	FEB	0550	420	0.00	0.00	0.00	0.	*	11	FEB	0430	1420	0.00	0.00	0.00	0.
4	FEB	0600	421	0.00	0.00	0.00	0.	*	11	FEB	0440	1421	0.00	0.00	0.00	0.
4	FEB	0610	422	0.00	0.00	0.00	0.	*	11	FEB	0450	1422	0.00	0.00	0.00	0.
4	FEB	0620	423	0.00	0.00	0.00	0.	*	11	FEB	0500	1423	0.00	0.00	0.00	0.
4	FEB	0630	424	0.00	0.00	0.00	0.	*	11	FEB	0510	1424	0.00	0.00	0.00	0.
4	FEB	0640	425	0.00	0.00	0.00	0.	*	11	FEB	0520	1425	0.00	0.00	0.00	0.
4	FEB	0650	426	0.00	0.00	0.00	0.	*	11	FEB	0530	1426	0.00	0.00	0.00	0.
4	FEB	0700	427	0.00	0.00	0.00	0.	*	11	FEB	0540	1427	0.00	0.00	0.00	0.
4	FEB	0710	428	0.00	0.00	0.00	0.	*	11	FEB	0550	1428	0.00	0.00	0.00	0.
4	FEB	0720	429	0.00	0.00	0.00	0.	*	11	FEB	0600	1429	0.00	0.00	0.00	0.
4	FEB	0730	430	0.00	0.00	0.00	0.	*	11	FEB	0610	1430	0.00	0.00	0.00	0.
4	FEB	0740	431	0.00	0.00	0.00	0.	*	11	FEB	0620	1431	0.00	0.00	0.00	0.
4	FEB	0750	432	0.00	0.00	0.00	0.	*	11	FEB	0630	1432	0.00	0.00	0.00	0.
4	FEB	0800	433	0.00	0.00	0.00	0.	*	11	FEB	0640	1433	0.00	0.00	0.00	0.
4	FEB	0810	434	0.00	0.00	0.00	0.	*	11	FEB	0650	1434	0.00	0.00	0.00	0.
4	FEB	0820	435	0.00	0.00	0.00	0.	*	11	FEB	0700	1435	0.00	0.00	0.00	0.
4	FEB	0830	436	0.00	0.00	0.00	0.	*	11	FEB	0710	1436	0.00	0.00	0.00	0.
4	FEB	0840	437	0.00	0.00	0.00	0.	*	11	FEB	0720	1437	0.00	0.00	0.00	0.
4	FEB	0850	438	0.00	0.00	0.00	0.	*	11	FEB	0730	1438	0.00	0.00	0.00	0.
4	FEB	0900	439	0.00	0.00	0.00	0.	*	11	FEB	0740	1439	0.00	0.00	0.00	0.
4	FEB	0910	440	0.00	0.00	0.00	0.	*	11	FEB	0750	1440	0.00	0.00	0.00	0.
4	FEB	0920	441	0.00	0.00	0.00	0.	*	11	FEB	0800	1441	0.00	0.00	0.00	0.
4	FEB	0930	442	0.00	0.00	0.00	0.	*	11	FEB	0810	1442	0.00	0.00	0.00	0.
4	FEB	0940	443	0.00	0.00	0.00	0.	*	11	FEB	0820	1443	0.00	0.00	0.00	0.
4	FEB	0950	444	0.00	0.00	0.00	0.	*	11	FEB	0830	1444	0.00	0.00	0.00	0.
4	FEB	1000	445	0.00	0.00	0.00	0.	*	11	FEB	0840	1445	0.00	0.00	0.00	0.
4	FEB	1010	446	0.00	0.00	0.00	0.	*	11	FEB	0850	1446	0.00	0.00	0.00	0.
4	FEB	1020	447	0.00	0.00	0.00	0.	*	11	FEB	0900	1447	0.00	0.00	0.00	0.
4	FEB	1030	448	0.00	0.00	0.00	0.	*	11	FEB	0910	1448	0.00	0.00	0.00	0.
4	FEB	1040	449	0.00	0.00	0.00	0.	*	11	FEB	0920	1449	0.00	0.00	0.00	0.
4	FEB	1050	450	0.00	0.00	0.00	0.	*	11	FEB	0930	1450	0.00	0.00	0.00	0.
4	FEB	1100	451	0.00	0.00	0.00	0.	*	11	FEB	0940	1451	0.00	0.00	0.00	0.
4	FEB	1110	452	0.00	0.00	0.00	0.	*	11	FEB	0950	1452	0.00	0.00	0.00	0.
4	FEB	1120	453	0.00	0.00	0.00	0.	*	11	FEB	1000	1453	0.00	0.00	0.00	0.
4	FEB	1130	454	0.00	0.00	0.00	0.	*	11	FEB	1010	1454	0.00	0.00	0.00	0.
4	FEB	1140	455	0.00	0.00	0.00	0.	*	11	FEB	1020	1455	0.00	0.00	0.00	0.
4	FEB	1150	456	0.00	0.00	0.00	0.	*	11	FEB	1030	1456	0.00	0.00	0.00	0.
4	FEB	1200	457	0.00	0.00	0.00	0.	*	11	FEB	1040	1457	0.00	0.00	0.00	0.
4	FEB	1210	458	0.00	0.00	0.00	0.	*	11	FEB	1050	1458	0.00	0.00	0.00	0.
4	FEB	1220	459	0.00	0.00	0.00	0.	*	11	FEB	1100	1459	0.00	0.00	0.00	0.
4	FEB	1230	460	0.00	0.00	0.00	0.	*	11	FEB	1110	1460	0.00	0.00	0.00	0.
4	FEB	1240	461	0.00	0.00	0.00	0.	*	11	FEB	1120	1461	0.00	0.00	0.00	0.
4	FEB	1250	462	0.00	0.00	0.00	0.	*	11	FEB	1130	1462	0.00	0.00	0.00	0.
4	FEB	1300	463	0.00	0.00	0.00	0.	*	11	FEB	1140	1463	0.00	0.00	0.00	0.
4	FEB	1310	464	0.00	0.00	0.00	0.	*	11	FEB	1150	1464	0.00	0.00	0.00	0.
4	FEB	1320	465	0.00	0.00	0.00	0.	*	11	FEB	1200	1465	0.00	0.00	0.00	0.
4	FEB	1330	466	0.00	0.00	0.00	0.	*	11	FEB	1210	1466	0.00	0.00	0.00	0.
4	FEB	1340	467	0.00	0.00	0.00	0.	*	11	FEB	1220	1467	0.00	0.00	0.00	0.
4	FEB	1350	468	0.00	0.00	0.00	0.	*	11	FEB	1230	1468	0.00	0.00	0.00	0.
4	FEB	1400	469	0.00	0.00	0.00	0.	*	11	FEB	1240	1469	0.00	0.00	0.00	0.
4	FEB	1410	470	0.00	0.00	0.00	0.	*	11	FEB	1250	1470	0.00	0.00	0.00	0.
4	FEB	1420	471	0.00	0.00	0.00	0.	*	11	FEB	1300	1471	0.00	0.00	0.00	0.
4	FEB	1430	472	0.00	0.00	0.00	0.	*	11	FEB	1310	1472	0.00	0.00	0.00	0.
4	FEB	1440	473	0.00	0.00	0.00	0.	*	11	FEB	1320	1473	0.00	0.00	0.00	0.
4	FEB	1450	474	0.00	0.00	0.00	0.	*	11	FEB	1330	1474	0.00	0.00	0.00	0.
4	FEB	1500	475	0.00	0.00	0.00	0.	*	11	FEB	1340	1475	0.00	0.00	0.00	0.
4	FEB	1510	476	0.00	0.00	0.00	0.	*	11	FEB	1350	1476	0.00	0.00	0.00	0.
4	FEB	1520	477	0.00	0.00	0.00	0.	*	11	FEB	1400	1477	0.00	0.00	0.00	0.
4	FEB	1530	478	0.00	0.00	0.00	0.	*	11	FEB	1410	1478	0.00	0.00	0.00	0.
4	FEB	1540	479	0.00	0.00	0.00	0.	*	11	FEB	1420	1479	0.00	0.00	0.00	0.
4	FEB	1550	480	0.00	0.00	0.00	0.	*	11	FEB	1430	1480	0.00	0.00	0.00	0.
4	FEB	1600	481	0.00	0.00	0.00	0.	*	11	FEB	1440	1481	0.00	0.00	0.00	0.
4	FEB	1610	482	0.00	0.00	0.00	0.	*	11	FEB	1450	1482	0.00	0.00	0.00	0.
4	FEB	1620	483	0.00	0.00	0.00	0.	*	11	FEB	1500	1483	0.00	0.00	0.00	0.
4	FEB	1630	484	0.00	0.00	0.00	0.	*	11	FEB	1510	1484	0.00	0.00	0.00	0.
4	FEB	1640	485	0.00	0.00	0.00	0.	*	11	FEB	1520	1485	0.00	0.00	0.00	0.
4	FEB	1650	486	0.00	0.00	0.00	0.	*	11	FEB	1530	1486	0.00	0.00	0.00	0.
4	FEB	1700	487	0.00	0.00	0.00	0.	*	11	FEB	1540	1487	0.00	0.00	0.00	0.
4	FEB	1710	488	0.00	0.00	0.00	0.	*	11	FEB	1550	1488	0.00	0.00	0.00	0.
4	FEB	1720	489	0.00	0.00	0.00	0.	*	11	FEB	1600	1489	0.00	0.00	0.00	0.
4	FEB	1730	490	0.00	0.00	0.00	0.	*	11	FEB	1610	1490	0.00	0.00	0.00	0.
4	FEB	1740	491	0.00	0.00	0.00	0.	*	11	FEB	1620	1491	0.00	0.00	0.00	0.
4	FEB	1750	492	0.00	0.00	0.00	0.	*	11	FEB	1630	1492	0.00	0.00	0.00	0.
4	FEB	1800	493	0.00	0.00	0.00	0.	*	11	FEB	1640	1493	0.00	0.00	0.00	0.
4	FEB	1810	494	0.00	0.00	0.00	0.	*	11	FEB	1650	1494	0.00	0.00	0.00	0.
4	FEB	1820	495	0.00	0.00	0.00	0.	*	11	FEB	1700	1495	0.00	0.00	0.00	0.
4	FEB	1830	496	0.00	0.00	0.00	0.	*	11	FEB	1710	1496	0.00	0.00	0.00	0.
4	FEB	1840	497	0.00	0.00	0.00	0.	*	11	FEB	1720	1497	0.00	0.00	0.00	0.
4	FEB	1850	498	0.00	0.00	0.00	0.	*	11	FEB	1730	1498	0.00	0.00	0.00	0.
4	FEB	1900	499	0.00	0.00	0.00	0.	*	11	FEB	1740	1499	0.00	0.00	0.00	0.
4	FEB	1910	500	0.00	0.00	0.00	0.	*	11	FEB	1750	1500	0.00	0.00	0.00	0.
4	FEB	1920	501	0.00	0.00	0.00	0.	*	11	FEB	1800	1501	0.00	0.00	0.00	0.
4	FEB	1930	502	0.00	0.00	0.00	0.	*	11	FEB	1810	1502	0.00	0.00	0.00	0.
4	FEB	1940	503	0.00	0.00	0.00	0.	*	11	FEB	1820	1503	0.00	0.00	0.00	0.
4	FEB	1950	504	0.00	0.00	0.00	0.	*	11	FEB	1830	1504	0.00	0.00	0.00	0.
4	FEB	2000	505	0.00	0.00	0.00	0.	*	11	FEB	1840	1505	0.00	0.00	0.00	0.
4	FEB	2010	506	0.00	0.00	0.00	0.	*	11	FEB	1850	1506	0.00	0.00	0.00	0.
4	FEB	2020	507	0.00	0.00	0.00	0.	*	11	FEB	1900	1507	0.00	0.00	0.00	0.
4	FEB	2030	508	0.00	0.00	0.00	0.	*	11	FEB	1910	1508	0.00	0.00	0.00	0.
4	FEB	2040	509	0.00	0.00	0.00	0.	*	11	FEB	1920	1509	0.00	0.00	0.00	0.
4	FEB	2050	510	0.00	0.00	0.00	0.	*	11	FEB	1930	1510	0.00	0.00	0.00	0.
4	FEB	2100	511	0.00	0.00	0.00	0.	*	11	FEB	1940	1511	0.00	0.00	0.00	0.
4	FEB	2110	512	0.00	0.00	0.00	0.	*	11	FEB	1950	1512	0.00	0.00	0.00	0.
4	FEB	2120	513	0.00	0.00	0.00	0.	*	11	FEB	2000	1513	0.00	0.00	0.00	0.
4	FEB	2130	514	0.00	0.00	0.00	0.	*	11	FEB	2010	1514	0.00	0.00	0.00	0.

4	FEB	2140	515	0.00	0.00	0.00	0.	*	11	FEB	2020	1515	0.00	0.00	0.00	0.
4	FEB	2150	516	0.00	0.00	0.00	0.	*	11	FEB	2030	1516	0.00	0.00	0.00	0.
4	FEB	2200	517	0.00	0.00	0.00	0.	*	11	FEB	2040	1517	0.00	0.00	0.00	0.
4	FEB	2210	518	0.00	0.00	0.00	0.	*	11	FEB	2050	1518	0.00	0.00	0.00	0.
4	FEB	2220	519	0.00	0.00	0.00	0.	*	11	FEB	2100	1519	0.00	0.00	0.00	0.
4	FEB	2230	520	0.00	0.00	0.00	0.	*	11	FEB	2110	1520	0.00	0.00	0.00	0.
4	FEB	2240	521	0.00	0.00	0.00	0.	*	11	FEB	2120	1521	0.00	0.00	0.00	0.
4	FEB	2250	522	0.00	0.00	0.00	0.	*	11	FEB	2130	1522	0.00	0.00	0.00	0.
4	FEB	2300	523	0.00	0.00	0.00	0.	*	11	FEB	2140	1523	0.00	0.00	0.00	0.
4	FEB	2310	524	0.00	0.00	0.00	0.	*	11	FEB	2150	1524	0.00	0.00	0.00	0.
4	FEB	2320	525	0.00	0.00	0.00	0.	*	11	FEB	2200	1525	0.00	0.00	0.00	0.
4	FEB	2330	526	0.00	0.00	0.00	0.	*	11	FEB	2210	1526	0.00	0.00	0.00	0.
4	FEB	2340	527	0.00	0.00	0.00	0.	*	11	FEB	2220	1527	0.00	0.00	0.00	0.
4	FEB	2350	528	0.00	0.00	0.00	0.	*	11	FEB	2230	1528	0.00	0.00	0.00	0.
5	FEB	0000	529	0.00	0.00	0.00	0.	*	11	FEB	2240	1529	0.00	0.00	0.00	0.
5	FEB	0010	530	0.00	0.00	0.00	0.	*	11	FEB	2250	1530	0.00	0.00	0.00	0.
5	FEB	0020	531	0.00	0.00	0.00	0.	*	11	FEB	2300	1531	0.00	0.00	0.00	0.
5	FEB	0030	532	0.00	0.00	0.00	0.	*	11	FEB	2310	1532	0.00	0.00	0.00	0.
5	FEB	0040	533	0.00	0.00	0.00	0.	*	11	FEB	2320	1533	0.00	0.00	0.00	0.
5	FEB	0050	534	0.00	0.00	0.00	0.	*	11	FEB	2330	1534	0.00	0.00	0.00	0.
5	FEB	0100	535	0.00	0.00	0.00	0.	*	11	FEB	2340	1535	0.00	0.00	0.00	0.
5	FEB	0110	536	0.00	0.00	0.00	0.	*	11	FEB	2350	1536	0.00	0.00	0.00	0.
5	FEB	0120	537	0.00	0.00	0.00	0.	*	12	FEB	0000	1537	0.00	0.00	0.00	0.
5	FEB	0130	538	0.00	0.00	0.00	0.	*	12	FEB	0010	1538	0.00	0.00	0.00	0.
5	FEB	0140	539	0.00	0.00	0.00	0.	*	12	FEB	0020	1539	0.00	0.00	0.00	0.
5	FEB	0150	540	0.00	0.00	0.00	0.	*	12	FEB	0030	1540	0.00	0.00	0.00	0.
5	FEB	0200	541	0.00	0.00	0.00	0.	*	12	FEB	0040	1541	0.00	0.00	0.00	0.
5	FEB	0210	542	0.00	0.00	0.00	0.	*	12	FEB	0050	1542	0.00	0.00	0.00	0.
5	FEB	0220	543	0.00	0.00	0.00	0.	*	12	FEB	0100	1543	0.00	0.00	0.00	0.
5	FEB	0230	544	0.00	0.00	0.00	0.	*	12	FEB	0110	1544	0.00	0.00	0.00	0.
5	FEB	0240	545	0.00	0.00	0.00	0.	*	12	FEB	0120	1545	0.00	0.00	0.00	0.
5	FEB	0250	546	0.00	0.00	0.00	0.	*	12	FEB	0130	1546	0.00	0.00	0.00	0.
5	FEB	0300	547	0.00	0.00	0.00	0.	*	12	FEB	0140	1547	0.00	0.00	0.00	0.
5	FEB	0310	548	0.00	0.00	0.00	0.	*	12	FEB	0150	1548	0.00	0.00	0.00	0.
5	FEB	0320	549	0.00	0.00	0.00	0.	*	12	FEB	0200	1549	0.00	0.00	0.00	0.
5	FEB	0330	550	0.00	0.00	0.00	0.	*	12	FEB	0210	1550	0.00	0.00	0.00	0.
5	FEB	0340	551	0.00	0.00	0.00	0.	*	12	FEB	0220	1551	0.00	0.00	0.00	0.
5	FEB	0350	552	0.00	0.00	0.00	0.	*	12	FEB	0230	1552	0.00	0.00	0.00	0.
5	FEB	0400	553	0.00	0.00	0.00	0.	*	12	FEB	0240	1553	0.00	0.00	0.00	0.
5	FEB	0410	554	0.00	0.00	0.00	0.	*	12	FEB	0250	1554	0.00	0.00	0.00	0.
5	FEB	0420	555	0.00	0.00	0.00	0.	*	12	FEB	0300	1555	0.00	0.00	0.00	0.
5	FEB	0430	556	0.00	0.00	0.00	0.	*	12	FEB	0310	1556	0.00	0.00	0.00	0.
5	FEB	0440	557	0.00	0.00	0.00	0.	*	12	FEB	0320	1557	0.00	0.00	0.00	0.
5	FEB	0450	558	0.00	0.00	0.00	0.	*	12	FEB	0330	1558	0.00	0.00	0.00	0.
5	FEB	0500	559	0.00	0.00	0.00	0.	*	12	FEB	0340	1559	0.00	0.00	0.00	0.
5	FEB	0510	560	0.00	0.00	0.00	0.	*	12	FEB	0350	1560	0.00	0.00	0.00	0.
5	FEB	0520	561	0.00	0.00	0.00	0.	*	12	FEB	0400	1561	0.00	0.00	0.00	0.
5	FEB	0530	562	0.00	0.00	0.00	0.	*	12	FEB	0410	1562	0.00	0.00	0.00	0.
5	FEB	0540	563	0.00	0.00	0.00	0.	*	12	FEB	0420	1563	0.00	0.00	0.00	0.
5	FEB	0550	564	0.00	0.00	0.00	0.	*	12	FEB	0430	1564	0.00	0.00	0.00	0.
5	FEB	0600	565	0.00	0.00	0.00	0.	*	12	FEB	0440	1565	0.00	0.00	0.00	0.
5	FEB	0610	566	0.00	0.00	0.00	0.	*	12	FEB	0450	1566	0.00	0.00	0.00	0.
5	FEB	0620	567	0.00	0.00	0.00	0.	*	12	FEB	0500	1567	0.00	0.00	0.00	0.
5	FEB	0630	568	0.00	0.00	0.00	0.	*	12	FEB	0510	1568	0.00	0.00	0.00	0.
5	FEB	0640	569	0.00	0.00	0.00	0.	*	12	FEB	0520	1569	0.00	0.00	0.00	0.
5	FEB	0650	570	0.00	0.00	0.00	0.	*	12	FEB	0530	1570	0.00	0.00	0.00	0.
5	FEB	0700	571	0.00	0.00	0.00	0.	*	12	FEB	0540	1571	0.00	0.00	0.00	0.
5	FEB	0710	572	0.00	0.00	0.00	0.	*	12	FEB	0550	1572	0.00	0.00	0.00	0.
5	FEB	0720	573	0.00	0.00	0.00	0.	*	12	FEB	0600	1573	0.00	0.00	0.00	0.
5	FEB	0730	574	0.00	0.00	0.00	0.	*	12	FEB	0610	1574	0.00	0.00	0.00	0.
5	FEB	0740	575	0.00	0.00	0.00	0.	*	12	FEB	0620	1575	0.00	0.00	0.00	0.
5	FEB	0750	576	0.00	0.00	0.00	0.	*	12	FEB	0630	1576	0.00	0.00	0.00	0.
5	FEB	0800	577	0.00	0.00	0.00	0.	*	12	FEB	0640	1577	0.00	0.00	0.00	0.
5	FEB	0810	578	0.00	0.00	0.00	0.	*	12	FEB	0650	1578	0.00	0.00	0.00	0.
5	FEB	0820	579	0.00	0.00	0.00	0.	*	12	FEB	0700	1579	0.00	0.00	0.00	0.
5	FEB	0830	580	0.00	0.00	0.00	0.	*	12	FEB	0710	1580	0.00	0.00	0.00	0.
5	FEB	0840	581	0.00	0.00	0.00	0.	*	12	FEB	0720	1581	0.00	0.00	0.00	0.
5	FEB	0850	582	0.00	0.00	0.00	0.	*	12	FEB	0730	1582	0.00	0.00	0.00	0.
5	FEB	0900	583	0.00	0.00	0.00	0.	*	12	FEB	0740	1583	0.00	0.00	0.00	0.
5	FEB	0910	584	0.00	0.00	0.00	0.	*	12	FEB	0750	1584	0.00	0.00	0.00	0.
5	FEB	0920	585	0.00	0.00	0.00	0.	*	12	FEB	0800	1585	0.00	0.00	0.00	0.
5	FEB	0930	586	0.00	0.00	0.00	0.	*	12	FEB	0810	1586	0.00	0.00	0.00	0.
5	FEB	0940	587	0.00	0.00	0.00	0.	*	12	FEB	0820	1587	0.00	0.00	0.00	0.
5	FEB	0950	588	0.00	0.00	0.00	0.	*	12	FEB	0830	1588	0.00	0.00	0.00	0.
5	FEB	1000	589	0.00	0.00	0.00	0.	*	12	FEB	0840	1589	0.00	0.00	0.00	0.
5	FEB	1010	590	0.00	0.00	0.00	0.	*	12	FEB	0850	1590	0.00	0.00	0.00	0.
5	FEB	1020	591	0.00	0.00	0.00	0.	*	12	FEB	0900	1591	0.00	0.00	0.00	0.
5	FEB	1030	592	0.00	0.00	0.00	0.	*	12	FEB	0910	1592	0.00	0.00	0.00	0.
5	FEB	1040	593	0.00	0.00	0.00	0.	*	12	FEB	0920	1593	0.00	0.00	0.00	0.
5	FEB	1050	594	0.00	0.00	0.00	0.	*	12	FEB	0930	1594	0.00	0.00	0.00	0.
5	FEB	1100	595	0.00	0.00	0.00	0.	*	12	FEB	0940	1595	0.00	0.00	0.00	0.
5	FEB	1110	596	0.00	0.00	0.00	0.	*	12	FEB	0950	1596	0.00	0.00	0.00	0.
5	FEB	1120	597	0.00	0.00	0.00	0.	*	12	FEB	1000	1597	0.00	0.00	0.00	0.
5	FEB	1130	598	0.00	0.00	0.00	0.	*	12	FEB	1010	1598	0.00	0.00	0.00	0.
5	FEB	1140	599	0.00	0.00	0.00	0.	*	12	FEB	1020	1599	0.00	0.00	0.00	0.
5	FEB	1150	600	0.00	0.00	0.00	0.	*	12	FEB	1030	1600	0.00	0.00	0.00	0.
5	FEB	1200	601	0.00	0.00	0.00	0.	*	12	FEB	1040	1601	0.00	0.00	0.00	0.
5	FEB	1210	602	0.00	0.00	0.00	0.	*	12	FEB	1050	1602	0.00	0.00	0.00	0.
5	FEB	1220	603	0.00	0.00	0.00	0.	*	12	FEB	1100	1603	0.00	0.00	0.00	0.
5	FEB	1230	604	0.00	0.00	0.00	0.	*	12	FEB	1110	1604	0.00	0.00	0.00	0.
5	FEB	1240	605	0.00	0.00	0.00	0.	*	12	FEB	1120	1605	0.00	0.00	0.00	0.
5	FEB	1250	606	0.00	0.00	0.00	0.	*	12	FEB	1130	1606	0.00	0.00	0.00	0.
5	FEB	1300	607	0.00	0.00	0.00	0.	*	12	FEB	1140	1607	0.00	0.00	0.00	0.
5	FEB	1310	608	0.00	0.00	0.00	0.	*	12	FEB	1150	1608	0.00	0.00	0.00	0.
5	FEB	1320	609	0.00	0.00	0.00	0.	*	12	FEB	1200	1609	0.00	0.00	0.00	0.

5	FEB	1330	610	0.00	0.00	0.00	0.	*	12	FEB	1210	1610	0.00	0.00	0.00	0.
5	FEB	1340	611	0.00	0.00	0.00	0.	*	12	FEB	1220	1611	0.00	0.00	0.00	0.
5	FEB	1350	612	0.00	0.00	0.00	0.	*	12	FEB	1230	1612	0.00	0.00	0.00	0.
5	FEB	1400	613	0.00	0.00	0.00	0.	*	12	FEB	1240	1613	0.00	0.00	0.00	0.
5	FEB	1410	614	0.00	0.00	0.00	0.	*	12	FEB	1250	1614	0.00	0.00	0.00	0.
5	FEB	1420	615	0.00	0.00	0.00	0.	*	12	FEB	1300	1615	0.00	0.00	0.00	0.
5	FEB	1430	616	0.00	0.00	0.00	0.	*	12	FEB	1310	1616	0.00	0.00	0.00	0.
5	FEB	1440	617	0.00	0.00	0.00	0.	*	12	FEB	1320	1617	0.00	0.00	0.00	0.
5	FEB	1450	618	0.00	0.00	0.00	0.	*	12	FEB	1330	1618	0.00	0.00	0.00	0.
5	FEB	1500	619	0.00	0.00	0.00	0.	*	12	FEB	1340	1619	0.00	0.00	0.00	0.
5	FEB	1510	620	0.00	0.00	0.00	0.	*	12	FEB	1350	1620	0.00	0.00	0.00	0.
5	FEB	1520	621	0.00	0.00	0.00	0.	*	12	FEB	1400	1621	0.00	0.00	0.00	0.
5	FEB	1530	622	0.00	0.00	0.00	0.	*	12	FEB	1410	1622	0.00	0.00	0.00	0.
5	FEB	1540	623	0.00	0.00	0.00	0.	*	12	FEB	1420	1623	0.00	0.00	0.00	0.
5	FEB	1550	624	0.00	0.00	0.00	0.	*	12	FEB	1430	1624	0.00	0.00	0.00	0.
5	FEB	1600	625	0.00	0.00	0.00	0.	*	12	FEB	1440	1625	0.00	0.00	0.00	0.
5	FEB	1610	626	0.00	0.00	0.00	0.	*	12	FEB	1450	1626	0.00	0.00	0.00	0.
5	FEB	1620	627	0.00	0.00	0.00	0.	*	12	FEB	1500	1627	0.00	0.00	0.00	0.
5	FEB	1630	628	0.00	0.00	0.00	0.	*	12	FEB	1510	1628	0.00	0.00	0.00	0.
5	FEB	1640	629	0.00	0.00	0.00	0.	*	12	FEB	1520	1629	0.00	0.00	0.00	0.
5	FEB	1650	630	0.00	0.00	0.00	0.	*	12	FEB	1530	1630	0.00	0.00	0.00	0.
5	FEB	1700	631	0.00	0.00	0.00	0.	*	12	FEB	1540	1631	0.00	0.00	0.00	0.
5	FEB	1710	632	0.00	0.00	0.00	0.	*	12	FEB	1550	1632	0.00	0.00	0.00	0.
5	FEB	1720	633	0.00	0.00	0.00	0.	*	12	FEB	1600	1633	0.00	0.00	0.00	0.
5	FEB	1730	634	0.00	0.00	0.00	0.	*	12	FEB	1610	1634	0.00	0.00	0.00	0.
5	FEB	1740	635	0.00	0.00	0.00	0.	*	12	FEB	1620	1635	0.00	0.00	0.00	0.
5	FEB	1750	636	0.00	0.00	0.00	0.	*	12	FEB	1630	1636	0.00	0.00	0.00	0.
5	FEB	1800	637	0.00	0.00	0.00	0.	*	12	FEB	1640	1637	0.00	0.00	0.00	0.
5	FEB	1810	638	0.00	0.00	0.00	0.	*	12	FEB	1650	1638	0.00	0.00	0.00	0.
5	FEB	1820	639	0.00	0.00	0.00	0.	*	12	FEB	1700	1639	0.00	0.00	0.00	0.
5	FEB	1830	640	0.00	0.00	0.00	0.	*	12	FEB	1710	1640	0.00	0.00	0.00	0.
5	FEB	1840	641	0.00	0.00	0.00	0.	*	12	FEB	1720	1641	0.00	0.00	0.00	0.
5	FEB	1850	642	0.00	0.00	0.00	0.	*	12	FEB	1730	1642	0.00	0.00	0.00	0.
5	FEB	1900	643	0.00	0.00	0.00	0.	*	12	FEB	1740	1643	0.00	0.00	0.00	0.
5	FEB	1910	644	0.00	0.00	0.00	0.	*	12	FEB	1750	1644	0.00	0.00	0.00	0.
5	FEB	1920	645	0.00	0.00	0.00	0.	*	12	FEB	1800	1645	0.00	0.00	0.00	0.
5	FEB	1930	646	0.00	0.00	0.00	0.	*	12	FEB	1810	1646	0.00	0.00	0.00	0.
5	FEB	1940	647	0.00	0.00	0.00	0.	*	12	FEB	1820	1647	0.00	0.00	0.00	0.
5	FEB	1950	648	0.00	0.00	0.00	0.	*	12	FEB	1830	1648	0.00	0.00	0.00	0.
5	FEB	2000	649	0.00	0.00	0.00	0.	*	12	FEB	1840	1649	0.00	0.00	0.00	0.
5	FEB	2010	650	0.00	0.00	0.00	0.	*	12	FEB	1850	1650	0.00	0.00	0.00	0.
5	FEB	2020	651	0.00	0.00	0.00	0.	*	12	FEB	1900	1651	0.00	0.00	0.00	0.
5	FEB	2030	652	0.00	0.00	0.00	0.	*	12	FEB	1910	1652	0.00	0.00	0.00	0.
5	FEB	2040	653	0.00	0.00	0.00	0.	*	12	FEB	1920	1653	0.00	0.00	0.00	0.
5	FEB	2050	654	0.00	0.00	0.00	0.	*	12	FEB	1930	1654	0.00	0.00	0.00	0.
5	FEB	2100	655	0.00	0.00	0.00	0.	*	12	FEB	1940	1655	0.00	0.00	0.00	0.
5	FEB	2110	656	0.00	0.00	0.00	0.	*	12	FEB	1950	1656	0.00	0.00	0.00	0.
5	FEB	2120	657	0.00	0.00	0.00	0.	*	12	FEB	2000	1657	0.00	0.00	0.00	0.
5	FEB	2130	658	0.00	0.00	0.00	0.	*	12	FEB	2010	1658	0.00	0.00	0.00	0.
5	FEB	2140	659	0.00	0.00	0.00	0.	*	12	FEB	2020	1659	0.00	0.00	0.00	0.
5	FEB	2150	660	0.00	0.00	0.00	0.	*	12	FEB	2030	1660	0.00	0.00	0.00	0.
5	FEB	2200	661	0.00	0.00	0.00	0.	*	12	FEB	2040	1661	0.00	0.00	0.00	0.
5	FEB	2210	662	0.00	0.00	0.00	0.	*	12	FEB	2050	1662	0.00	0.00	0.00	0.
5	FEB	2220	663	0.00	0.00	0.00	0.	*	12	FEB	2100	1663	0.00	0.00	0.00	0.
5	FEB	2230	664	0.00	0.00	0.00	0.	*	12	FEB	2110	1664	0.00	0.00	0.00	0.
5	FEB	2240	665	0.00	0.00	0.00	0.	*	12	FEB	2120	1665	0.00	0.00	0.00	0.
5	FEB	2250	666	0.00	0.00	0.00	0.	*	12	FEB	2130	1666	0.00	0.00	0.00	0.
5	FEB	2300	667	0.00	0.00	0.00	0.	*	12	FEB	2140	1667	0.00	0.00	0.00	0.
5	FEB	2310	668	0.00	0.00	0.00	0.	*	12	FEB	2150	1668	0.00	0.00	0.00	0.
5	FEB	2320	669	0.00	0.00	0.00	0.	*	12	FEB	2200	1669	0.00	0.00	0.00	0.
5	FEB	2330	670	0.00	0.00	0.00	0.	*	12	FEB	2210	1670	0.00	0.00	0.00	0.
5	FEB	2340	671	0.00	0.00	0.00	0.	*	12	FEB	2220	1671	0.00	0.00	0.00	0.
5	FEB	2350	672	0.00	0.00	0.00	0.	*	12	FEB	2230	1672	0.00	0.00	0.00	0.
6	FEB	0000	673	0.00	0.00	0.00	0.	*	12	FEB	2240	1673	0.00	0.00	0.00	0.
6	FEB	0010	674	0.00	0.00	0.00	0.	*	12	FEB	2250	1674	0.00	0.00	0.00	0.
6	FEB	0020	675	0.00	0.00	0.00	0.	*	12	FEB	2300	1675	0.00	0.00	0.00	0.
6	FEB	0030	676	0.00	0.00	0.00	0.	*	12	FEB	2310	1676	0.00	0.00	0.00	0.
6	FEB	0040	677	0.00	0.00	0.00	0.	*	12	FEB	2320	1677	0.00	0.00	0.00	0.
6	FEB	0050	678	0.00	0.00	0.00	0.	*	12	FEB	2330	1678	0.00	0.00	0.00	0.
6	FEB	0100	679	0.00	0.00	0.00	0.	*	12	FEB	2340	1679	0.00	0.00	0.00	0.
6	FEB	0110	680	0.00	0.00	0.00	0.	*	12	FEB	2350	1680	0.00	0.00	0.00	0.
6	FEB	0120	681	0.00	0.00	0.00	0.	*	13	FEB	0000	1681	0.00	0.00	0.00	0.
6	FEB	0130	682	0.00	0.00	0.00	0.	*	13	FEB	0010	1682	0.00	0.00	0.00	0.
6	FEB	0140	683	0.00	0.00	0.00	0.	*	13	FEB	0020	1683	0.00	0.00	0.00	0.
6	FEB	0150	684	0.00	0.00	0.00	0.	*	13	FEB	0030	1684	0.00	0.00	0.00	0.
6	FEB	0200	685	0.00	0.00	0.00	0.	*	13	FEB	0040	1685	0.00	0.00	0.00	0.
6	FEB	0210	686	0.00	0.00	0.00	0.	*	13	FEB	0050	1686	0.00	0.00	0.00	0.
6	FEB	0220	687	0.00	0.00	0.00	0.	*	13	FEB	0100	1687	0.00	0.00	0.00	0.
6	FEB	0230	688	0.00	0.00	0.00	0.	*	13	FEB	0110	1688	0.00	0.00	0.00	0.
6	FEB	0240	689	0.00	0.00	0.00	0.	*	13	FEB	0120	1689	0.00	0.00	0.00	0.
6	FEB	0250	690	0.00	0.00	0.00	0.	*	13	FEB	0130	1690	0.00	0.00	0.00	0.
6	FEB	0300	691	0.00	0.00	0.00	0.	*	13	FEB	0140	1691	0.00	0.00	0.00	0.
6	FEB	0310	692	0.00	0.00	0.00	0.	*	13	FEB	0150	1692	0.00	0.00	0.00	0.
6	FEB	0320	693	0.00	0.00	0.00	0.	*	13	FEB	0200	1693	0.00	0.00	0.00	0.
6	FEB	0330	694	0.00	0.00	0.00	0.	*	13	FEB	0210	1694	0.00	0.00	0.00	0.
6	FEB	0340	695	0.00	0.00	0.00	0.	*	13	FEB	0220	1695	0.00	0.00	0.00	0.
6	FEB	0350	696	0.00	0.00	0.00	0.	*	13	FEB	0230	1696	0.00	0.00	0.00	0.
6	FEB	0400	697	0.00	0.00	0.00	0.	*	13	FEB	0240	1697	0.00	0.00	0.00	0.
6	FEB	0410	698	0.00	0.00	0.00	0.	*	13	FEB	0250	1698	0.00	0.00	0.00	0.
6	FEB	0420	699	0.00	0.00	0.00	0.	*	13	FEB	0300	1699	0.00	0.00	0.00	0.
6	FEB	0430	700	0.00	0.00	0.00	0.	*	13	FEB	0310	1700	0.00	0.00	0.00	0.
6	FEB	0440	701	0.00	0.00	0.00	0.	*	13	FEB	0320	1701	0.00	0.00	0.00	0.
6	FEB	0450	702	0.00	0.00	0.00	0.	*	13	FEB	0330	1702	0.00	0.00	0.00	0.
6	FEB	0500	703	0.00	0.00	0.00	0.	*	13	FEB	0340	1703	0.00	0.00	0.00	0.
6	FEB	0510	704	0.00	0.00	0.00	0.	*	13	FEB	0350	1704	0.00	0.00	0.00	0.

6	FEB	0520	705	0.00	0.00	0.00	0.	*	13 FEB 0400 1705	0.00	0.00	0.00	0.
6	FEB	0530	706	0.00	0.00	0.00	0.	*	13 FEB 0410 1706	0.00	0.00	0.00	0.
6	FEB	0540	707	0.00	0.00	0.00	0.	*	13 FEB 0420 1707	0.00	0.00	0.00	0.
6	FEB	0550	708	0.00	0.00	0.00	0.	*	13 FEB 0430 1708	0.00	0.00	0.00	0.
6	FEB	0600	709	0.00	0.00	0.00	0.	*	13 FEB 0440 1709	0.00	0.00	0.00	0.
6	FEB	0610	710	0.00	0.00	0.00	0.	*	13 FEB 0450 1710	0.00	0.00	0.00	0.
6	FEB	0620	711	0.00	0.00	0.00	0.	*	13 FEB 0500 1711	0.00	0.00	0.00	0.
6	FEB	0630	712	0.00	0.00	0.00	0.	*	13 FEB 0510 1712	0.00	0.00	0.00	0.
6	FEB	0640	713	0.00	0.00	0.00	0.	*	13 FEB 0520 1713	0.00	0.00	0.00	0.
6	FEB	0650	714	0.00	0.00	0.00	0.	*	13 FEB 0530 1714	0.00	0.00	0.00	0.
6	FEB	0700	715	0.00	0.00	0.00	0.	*	13 FEB 0540 1715	0.00	0.00	0.00	0.
6	FEB	0710	716	0.00	0.00	0.00	0.	*	13 FEB 0550 1716	0.00	0.00	0.00	0.
6	FEB	0720	717	0.00	0.00	0.00	0.	*	13 FEB 0600 1717	0.00	0.00	0.00	0.
6	FEB	0730	718	0.00	0.00	0.00	0.	*	13 FEB 0610 1718	0.00	0.00	0.00	0.
6	FEB	0740	719	0.00	0.00	0.00	0.	*	13 FEB 0620 1719	0.00	0.00	0.00	0.
6	FEB	0750	720	0.00	0.00	0.00	0.	*	13 FEB 0630 1720	0.00	0.00	0.00	0.
6	FEB	0800	721	0.00	0.00	0.00	0.	*	13 FEB 0640 1721	0.00	0.00	0.00	0.
6	FEB	0810	722	0.00	0.00	0.00	0.	*	13 FEB 0650 1722	0.00	0.00	0.00	0.
6	FEB	0820	723	0.00	0.00	0.00	0.	*	13 FEB 0700 1723	0.00	0.00	0.00	0.
6	FEB	0830	724	0.00	0.00	0.00	0.	*	13 FEB 0710 1724	0.00	0.00	0.00	0.
6	FEB	0840	725	0.00	0.00	0.00	0.	*	13 FEB 0720 1725	0.00	0.00	0.00	0.
6	FEB	0850	726	0.00	0.00	0.00	0.	*	13 FEB 0730 1726	0.00	0.00	0.00	0.
6	FEB	0900	727	0.00	0.00	0.00	0.	*	13 FEB 0740 1727	0.00	0.00	0.00	0.
6	FEB	0910	728	0.00	0.00	0.00	0.	*	13 FEB 0750 1728	0.00	0.00	0.00	0.
6	FEB	0920	729	0.00	0.00	0.00	0.	*	13 FEB 0800 1729	0.00	0.00	0.00	0.
6	FEB	0930	730	0.00	0.00	0.00	0.	*	13 FEB 0810 1730	0.00	0.00	0.00	0.
6	FEB	0940	731	0.00	0.00	0.00	0.	*	13 FEB 0820 1731	0.00	0.00	0.00	0.
6	FEB	0950	732	0.00	0.00	0.00	0.	*	13 FEB 0830 1732	0.00	0.00	0.00	0.
6	FEB	1000	733	0.00	0.00	0.00	0.	*	13 FEB 0840 1733	0.00	0.00	0.00	0.
6	FEB	1010	734	0.00	0.00	0.00	0.	*	13 FEB 0850 1734	0.00	0.00	0.00	0.
6	FEB	1020	735	0.00	0.00	0.00	0.	*	13 FEB 0900 1735	0.00	0.00	0.00	0.
6	FEB	1030	736	0.00	0.00	0.00	0.	*	13 FEB 0910 1736	0.00	0.00	0.00	0.
6	FEB	1040	737	0.00	0.00	0.00	0.	*	13 FEB 0920 1737	0.00	0.00	0.00	0.
6	FEB	1050	738	0.00	0.00	0.00	0.	*	13 FEB 0930 1738	0.00	0.00	0.00	0.
6	FEB	1100	739	0.00	0.00	0.00	0.	*	13 FEB 0940 1739	0.00	0.00	0.00	0.
6	FEB	1110	740	0.00	0.00	0.00	0.	*	13 FEB 0950 1740	0.00	0.00	0.00	0.
6	FEB	1120	741	0.00	0.00	0.00	0.	*	13 FEB 1000 1741	0.00	0.00	0.00	0.
6	FEB	1130	742	0.00	0.00	0.00	0.	*	13 FEB 1010 1742	0.00	0.00	0.00	0.
6	FEB	1140	743	0.00	0.00	0.00	0.	*	13 FEB 1020 1743	0.00	0.00	0.00	0.
6	FEB	1150	744	0.00	0.00	0.00	0.	*	13 FEB 1030 1744	0.00	0.00	0.00	0.
6	FEB	1200	745	0.00	0.00	0.00	0.	*	13 FEB 1040 1745	0.00	0.00	0.00	0.
6	FEB	1210	746	0.00	0.00	0.00	0.	*	13 FEB 1050 1746	0.00	0.00	0.00	0.
6	FEB	1220	747	0.00	0.00	0.00	0.	*	13 FEB 1100 1747	0.00	0.00	0.00	0.
6	FEB	1230	748	0.00	0.00	0.00	0.	*	13 FEB 1110 1748	0.00	0.00	0.00	0.
6	FEB	1240	749	0.00	0.00	0.00	0.	*	13 FEB 1120 1749	0.00	0.00	0.00	0.
6	FEB	1250	750	0.00	0.00	0.00	0.	*	13 FEB 1130 1750	0.00	0.00	0.00	0.
6	FEB	1300	751	0.00	0.00	0.00	0.	*	13 FEB 1140 1751	0.00	0.00	0.00	0.
6	FEB	1310	752	0.00	0.00	0.00	0.	*	13 FEB 1150 1752	0.00	0.00	0.00	0.
6	FEB	1320	753	0.00	0.00	0.00	0.	*	13 FEB 1200 1753	0.00	0.00	0.00	0.
6	FEB	1330	754	0.00	0.00	0.00	0.	*	13 FEB 1210 1754	0.00	0.00	0.00	0.
6	FEB	1340	755	0.00	0.00	0.00	0.	*	13 FEB 1220 1755	0.00	0.00	0.00	0.
6	FEB	1350	756	0.00	0.00	0.00	0.	*	13 FEB 1230 1756	0.00	0.00	0.00	0.
6	FEB	1400	757	0.00	0.00	0.00	0.	*	13 FEB 1240 1757	0.00	0.00	0.00	0.
6	FEB	1410	758	0.00	0.00	0.00	0.	*	13 FEB 1250 1758	0.00	0.00	0.00	0.
6	FEB	1420	759	0.00	0.00	0.00	0.	*	13 FEB 1300 1759	0.00	0.00	0.00	0.
6	FEB	1430	760	0.00	0.00	0.00	0.	*	13 FEB 1310 1760	0.00	0.00	0.00	0.
6	FEB	1440	761	0.00	0.00	0.00	0.	*	13 FEB 1320 1761	0.00	0.00	0.00	0.
6	FEB	1450	762	0.00	0.00	0.00	0.	*	13 FEB 1330 1762	0.00	0.00	0.00	0.
6	FEB	1500	763	0.00	0.00	0.00	0.	*	13 FEB 1340 1763	0.00	0.00	0.00	0.
6	FEB	1510	764	0.00	0.00	0.00	0.	*	13 FEB 1350 1764	0.00	0.00	0.00	0.
6	FEB	1520	765	0.00	0.00	0.00	0.	*	13 FEB 1400 1765	0.00	0.00	0.00	0.
6	FEB	1530	766	0.00	0.00	0.00	0.	*	13 FEB 1410 1766	0.00	0.00	0.00	0.
6	FEB	1540	767	0.00	0.00	0.00	0.	*	13 FEB 1420 1767	0.00	0.00	0.00	0.
6	FEB	1550	768	0.00	0.00	0.00	0.	*	13 FEB 1430 1768	0.00	0.00	0.00	0.
6	FEB	1600	769	0.00	0.00	0.00	0.	*	13 FEB 1440 1769	0.00	0.00	0.00	0.
6	FEB	1610	770	0.00	0.00	0.00	0.	*	13 FEB 1450 1770	0.00	0.00	0.00	0.
6	FEB	1620	771	0.00	0.00	0.00	0.	*	13 FEB 1500 1771	0.00	0.00	0.00	0.
6	FEB	1630	772	0.00	0.00	0.00	0.	*	13 FEB 1510 1772	0.00	0.00	0.00	0.
6	FEB	1640	773	0.00	0.00	0.00	0.	*	13 FEB 1520 1773	0.00	0.00	0.00	0.
6	FEB	1650	774	0.00	0.00	0.00	0.	*	13 FEB 1530 1774	0.00	0.00	0.00	0.
6	FEB	1700	775	0.00	0.00	0.00	0.	*	13 FEB 1540 1775	0.00	0.00	0.00	0.
6	FEB	1710	776	0.00	0.00	0.00	0.	*	13 FEB 1550 1776	0.00	0.00	0.00	0.
6	FEB	1720	777	0.00	0.00	0.00	0.	*	13 FEB 1600 1777	0.00	0.00	0.00	0.
6	FEB	1730	778	0.00	0.00	0.00	0.	*	13 FEB 1610 1778	0.00	0.00	0.00	0.
6	FEB	1740	779	0.00	0.00	0.00	0.	*	13 FEB 1620 1779	0.00	0.00	0.00	0.
6	FEB	1750	780	0.00	0.00	0.00	0.	*	13 FEB 1630 1780	0.00	0.00	0.00	0.
6	FEB	1800	781	0.00	0.00	0.00	0.	*	13 FEB 1640 1781	0.00	0.00	0.00	0.
6	FEB	1810	782	0.00	0.00	0.00	0.	*	13 FEB 1650 1782	0.00	0.00	0.00	0.
6	FEB	1820	783	0.00	0.00	0.00	0.	*	13 FEB 1700 1783	0.00	0.00	0.00	0.
6	FEB	1830	784	0.00	0.00	0.00	0.	*	13 FEB 1710 1784	0.00	0.00	0.00	0.
6	FEB	1840	785	0.00	0.00	0.00	0.	*	13 FEB 1720 1785	0.00	0.00	0.00	0.
6	FEB	1850	786	0.00	0.00	0.00	0.	*	13 FEB 1730 1786	0.00	0.00	0.00	0.
6	FEB	1900	787	0.00	0.00	0.00	0.	*	13 FEB 1740 1787	0.00	0.00	0.00	0.
6	FEB	1910	788	0.00	0.00	0.00	0.	*	13 FEB 1750 1788	0.00	0.00	0.00	0.
6	FEB	1920	789	0.00	0.00	0.00	0.	*	13 FEB 1800 1789	0.00	0.00	0.00	0.
6	FEB	1930	790	0.00	0.00	0.00	0.	*	13 FEB 1810 1790	0.00	0.00	0.00	0.
6	FEB	1940	791	0.00	0.00	0.00	0.	*	13 FEB 1820 1791	0.00	0.00	0.00	0.
6	FEB	1950	792	0.00	0.00	0.00	0.	*	13 FEB 1830 1792	0.00	0.00	0.00	0.
6	FEB	2000	793	0.00	0.00	0.00	0.	*	13 FEB 1840 1793	0.00	0.00	0.00	0.
6	FEB	2010	794	0.00	0.00	0.00	0.	*	13 FEB 1850 1794	0.00	0.00	0.00	0.
6	FEB	2020	795	0.00	0.00	0.00	0.	*	13 FEB 1900 1795	0.00	0.00	0.00	0.
6	FEB	2030	796	0.00	0.00	0.00	0.	*	13 FEB 1910 1796	0.00	0.00	0.00	0.
6	FEB	2040	797	0.00	0.00	0.00	0.	*	13 FEB 1920 1797	0.00	0.00	0.00	0.
6	FEB	2050	798	0.00	0.00	0.00	0.	*	13 FEB 1930 1798	0.00	0.00	0.00	0.
6	FEB	2100	799	0.00	0.00	0.00	0.	*	13 FEB 1940 1799	0.00	0.00	0.00	0.

6	FEB	2110	800	0.00	0.00	0.00	0.	*	13	FEB	1950	1800	0.00	0.00	0.00	0.
6	FEB	2120	801	0.00	0.00	0.00	0.	*	13	FEB	2000	1801	0.00	0.00	0.00	0.
6	FEB	2130	802	0.00	0.00	0.00	0.	*	13	FEB	2010	1802	0.00	0.00	0.00	0.
6	FEB	2140	803	0.00	0.00	0.00	0.	*	13	FEB	2020	1803	0.00	0.00	0.00	0.
6	FEB	2150	804	0.00	0.00	0.00	0.	*	13	FEB	2030	1804	0.00	0.00	0.00	0.
6	FEB	2200	805	0.00	0.00	0.00	0.	*	13	FEB	2040	1805	0.00	0.00	0.00	0.
6	FEB	2210	806	0.00	0.00	0.00	0.	*	13	FEB	2050	1806	0.00	0.00	0.00	0.
6	FEB	2220	807	0.00	0.00	0.00	0.	*	13	FEB	2100	1807	0.00	0.00	0.00	0.
6	FEB	2230	808	0.00	0.00	0.00	0.	*	13	FEB	2110	1808	0.00	0.00	0.00	0.
6	FEB	2240	809	0.00	0.00	0.00	0.	*	13	FEB	2120	1809	0.00	0.00	0.00	0.
6	FEB	2250	810	0.00	0.00	0.00	0.	*	13	FEB	2130	1810	0.00	0.00	0.00	0.
6	FEB	2300	811	0.00	0.00	0.00	0.	*	13	FEB	2140	1811	0.00	0.00	0.00	0.
6	FEB	2310	812	0.00	0.00	0.00	0.	*	13	FEB	2150	1812	0.00	0.00	0.00	0.
6	FEB	2320	813	0.00	0.00	0.00	0.	*	13	FEB	2200	1813	0.00	0.00	0.00	0.
6	FEB	2330	814	0.00	0.00	0.00	0.	*	13	FEB	2210	1814	0.00	0.00	0.00	0.
6	FEB	2340	815	0.00	0.00	0.00	0.	*	13	FEB	2220	1815	0.00	0.00	0.00	0.
6	FEB	2350	816	0.00	0.00	0.00	0.	*	13	FEB	2230	1816	0.00	0.00	0.00	0.
7	FEB	0000	817	0.00	0.00	0.00	0.	*	13	FEB	2240	1817	0.00	0.00	0.00	0.
7	FEB	0010	818	0.00	0.00	0.00	0.	*	13	FEB	2250	1818	0.00	0.00	0.00	0.
7	FEB	0020	819	0.00	0.00	0.00	0.	*	13	FEB	2300	1819	0.00	0.00	0.00	0.
7	FEB	0030	820	0.00	0.00	0.00	0.	*	13	FEB	2310	1820	0.00	0.00	0.00	0.
7	FEB	0040	821	0.00	0.00	0.00	0.	*	13	FEB	2320	1821	0.00	0.00	0.00	0.
7	FEB	0050	822	0.00	0.00	0.00	0.	*	13	FEB	2330	1822	0.00	0.00	0.00	0.
7	FEB	0100	823	0.00	0.00	0.00	0.	*	13	FEB	2340	1823	0.00	0.00	0.00	0.
7	FEB	0110	824	0.00	0.00	0.00	0.	*	13	FEB	2350	1824	0.00	0.00	0.00	0.
7	FEB	0120	825	0.00	0.00	0.00	0.	*	14	FEB	0000	1825	0.00	0.00	0.00	0.
7	FEB	0130	826	0.00	0.00	0.00	0.	*	14	FEB	0010	1826	0.00	0.00	0.00	0.
7	FEB	0140	827	0.00	0.00	0.00	0.	*	14	FEB	0020	1827	0.00	0.00	0.00	0.
7	FEB	0150	828	0.00	0.00	0.00	0.	*	14	FEB	0030	1828	0.00	0.00	0.00	0.
7	FEB	0200	829	0.00	0.00	0.00	0.	*	14	FEB	0040	1829	0.00	0.00	0.00	0.
7	FEB	0210	830	0.00	0.00	0.00	0.	*	14	FEB	0050	1830	0.00	0.00	0.00	0.
7	FEB	0220	831	0.00	0.00	0.00	0.	*	14	FEB	0100	1831	0.00	0.00	0.00	0.
7	FEB	0230	832	0.00	0.00	0.00	0.	*	14	FEB	0110	1832	0.00	0.00	0.00	0.
7	FEB	0240	833	0.00	0.00	0.00	0.	*	14	FEB	0120	1833	0.00	0.00	0.00	0.
7	FEB	0250	834	0.00	0.00	0.00	0.	*	14	FEB	0130	1834	0.00	0.00	0.00	0.
7	FEB	0300	835	0.00	0.00	0.00	0.	*	14	FEB	0140	1835	0.00	0.00	0.00	0.
7	FEB	0310	836	0.00	0.00	0.00	0.	*	14	FEB	0150	1836	0.00	0.00	0.00	0.
7	FEB	0320	837	0.00	0.00	0.00	0.	*	14	FEB	0200	1837	0.00	0.00	0.00	0.
7	FEB	0330	838	0.00	0.00	0.00	0.	*	14	FEB	0210	1838	0.00	0.00	0.00	0.
7	FEB	0340	839	0.00	0.00	0.00	0.	*	14	FEB	0220	1839	0.00	0.00	0.00	0.
7	FEB	0350	840	0.00	0.00	0.00	0.	*	14	FEB	0230	1840	0.00	0.00	0.00	0.
7	FEB	0400	841	0.00	0.00	0.00	0.	*	14	FEB	0240	1841	0.00	0.00	0.00	0.
7	FEB	0410	842	0.00	0.00	0.00	0.	*	14	FEB	0250	1842	0.00	0.00	0.00	0.
7	FEB	0420	843	0.00	0.00	0.00	0.	*	14	FEB	0300	1843	0.00	0.00	0.00	0.
7	FEB	0430	844	0.00	0.00	0.00	0.	*	14	FEB	0310	1844	0.00	0.00	0.00	0.
7	FEB	0440	845	0.00	0.00	0.00	0.	*	14	FEB	0320	1845	0.00	0.00	0.00	0.
7	FEB	0450	846	0.00	0.00	0.00	0.	*	14	FEB	0330	1846	0.00	0.00	0.00	0.
7	FEB	0500	847	0.00	0.00	0.00	0.	*	14	FEB	0340	1847	0.00	0.00	0.00	0.
7	FEB	0510	848	0.00	0.00	0.00	0.	*	14	FEB	0350	1848	0.00	0.00	0.00	0.
7	FEB	0520	849	0.00	0.00	0.00	0.	*	14	FEB	0400	1849	0.00	0.00	0.00	0.
7	FEB	0530	850	0.00	0.00	0.00	0.	*	14	FEB	0410	1850	0.00	0.00	0.00	0.
7	FEB	0540	851	0.00	0.00	0.00	0.	*	14	FEB	0420	1851	0.00	0.00	0.00	0.
7	FEB	0550	852	0.00	0.00	0.00	0.	*	14	FEB	0430	1852	0.00	0.00	0.00	0.
7	FEB	0600	853	0.00	0.00	0.00	0.	*	14	FEB	0440	1853	0.00	0.00	0.00	0.
7	FEB	0610	854	0.00	0.00	0.00	0.	*	14	FEB	0450	1854	0.00	0.00	0.00	0.
7	FEB	0620	855	0.00	0.00	0.00	0.	*	14	FEB	0500	1855	0.00	0.00	0.00	0.
7	FEB	0630	856	0.00	0.00	0.00	0.	*	14	FEB	0510	1856	0.00	0.00	0.00	0.
7	FEB	0640	857	0.00	0.00	0.00	0.	*	14	FEB	0520	1857	0.00	0.00	0.00	0.
7	FEB	0650	858	0.00	0.00	0.00	0.	*	14	FEB	0530	1858	0.00	0.00	0.00	0.
7	FEB	0700	859	0.00	0.00	0.00	0.	*	14	FEB	0540	1859	0.00	0.00	0.00	0.
7	FEB	0710	860	0.00	0.00	0.00	0.	*	14	FEB	0550	1860	0.00	0.00	0.00	0.
7	FEB	0720	861	0.00	0.00	0.00	0.	*	14	FEB	0600	1861	0.00	0.00	0.00	0.
7	FEB	0730	862	0.00	0.00	0.00	0.	*	14	FEB	0610	1862	0.00	0.00	0.00	0.
7	FEB	0740	863	0.00	0.00	0.00	0.	*	14	FEB	0620	1863	0.00	0.00	0.00	0.
7	FEB	0750	864	0.00	0.00	0.00	0.	*	14	FEB	0630	1864	0.00	0.00	0.00	0.
7	FEB	0800	865	0.00	0.00	0.00	0.	*	14	FEB	0640	1865	0.00	0.00	0.00	0.
7	FEB	0810	866	0.00	0.00	0.00	0.	*	14	FEB	0650	1866	0.00	0.00	0.00	0.
7	FEB	0820	867	0.00	0.00	0.00	0.	*	14	FEB	0700	1867	0.00	0.00	0.00	0.
7	FEB	0830	868	0.00	0.00	0.00	0.	*	14	FEB	0710	1868	0.00	0.00	0.00	0.
7	FEB	0840	869	0.00	0.00	0.00	0.	*	14	FEB	0720	1869	0.00	0.00	0.00	0.
7	FEB	0850	870	0.00	0.00	0.00	0.	*	14	FEB	0730	1870	0.00	0.00	0.00	0.
7	FEB	0900	871	0.00	0.00	0.00	0.	*	14	FEB	0740	1871	0.00	0.00	0.00	0.
7	FEB	0910	872	0.00	0.00	0.00	0.	*	14	FEB	0750	1872	0.00	0.00	0.00	0.
7	FEB	0920	873	0.00	0.00	0.00	0.	*	14	FEB	0800	1873	0.00	0.00	0.00	0.
7	FEB	0930	874	0.00	0.00	0.00	0.	*	14	FEB	0810	1874	0.00	0.00	0.00	0.
7	FEB	0940	875	0.00	0.00	0.00	0.	*	14	FEB	0820	1875	0.00	0.00	0.00	0.
7	FEB	0950	876	0.00	0.00	0.00	0.	*	14	FEB	0830	1876	0.00	0.00	0.00	0.
7	FEB	1000	877	0.00	0.00	0.00	0.	*	14	FEB	0840	1877	0.00	0.00	0.00	0.
7	FEB	1010	878	0.00	0.00	0.00	0.	*	14	FEB	0850	1878	0.00	0.00	0.00	0.
7	FEB	1020	879	0.00	0.00	0.00	0.	*	14	FEB	0900	1879	0.00	0.00	0.00	0.
7	FEB	1030	880	0.00	0.00	0.00	0.	*	14	FEB	0910	1880	0.00	0.00	0.00	0.
7	FEB	1040	881	0.00	0.00	0.00	0.	*	14	FEB	0920	1881	0.00	0.00	0.00	0.
7	FEB	1050	882	0.00	0.00	0.00	0.	*	14	FEB	0930	1882	0.00	0.00	0.00	0.
7	FEB	1100	883	0.00	0.00	0.00	0.	*	14	FEB	0940	1883	0.00	0.00	0.00	0.
7	FEB	1110	884	0.00	0.00	0.00	0.	*	14	FEB	0950	1884	0.00	0.00	0.00	0.
7	FEB	1120	885	0.00	0.00	0.00	0.	*	14	FEB	1000	1885	0.00	0.00	0.00	0.
7	FEB	1130	886	0.00	0.00	0.00	0.	*	14	FEB	1010	1886	0.00	0.00	0.00	0.
7	FEB	1140	887	0.00	0.00	0.00	0.	*	14	FEB	1020	1887	0.00	0.00	0.00	0.
7	FEB	1150	888	0.00	0.00	0.00	0.	*	14	FEB	1030	1888	0.00	0.00	0.00	0.
7	FEB	1200	889	0.00	0.00	0.00	0.	*	14	FEB	1040	1889	0.00	0.00	0.00	0.
7	FEB	1210	890	0.00	0.00	0.00	0.	*	14	FEB	1050	1890	0.00	0.00	0.00	0.
7	FEB	1220	891	0.00	0.00	0.00	0.	*	14	FEB	1100	1891	0.00	0.00	0.00	0.
7	FEB	1230	892	0.00	0.00	0.00	0.	*	14	FEB	1110	1892	0.00	0.00	0.00	0.
7	FEB	1240	893	0.00	0.00	0.00	0.	*	14	FEB	1120	1893	0.00	0.00	0.00	0.
7	FEB	1250	894	0.00	0.00	0.00	0.	*	14	FEB	1130	1894	0.00	0.00	0.00	0.

7	FEB	1300	895	0.00	0.00	0.00	0.	*	14	FEB	1140	1895	0.00	0.00	0.00	0.
7	FEB	1310	896	0.00	0.00	0.00	0.	*	14	FEB	1150	1896	0.00	0.00	0.00	0.
7	FEB	1320	897	0.00	0.00	0.00	0.	*	14	FEB	1200	1897	0.00	0.00	0.00	0.
7	FEB	1330	898	0.00	0.00	0.00	0.	*	14	FEB	1210	1898	0.00	0.00	0.00	0.
7	FEB	1340	899	0.00	0.00	0.00	0.	*	14	FEB	1220	1899	0.00	0.00	0.00	0.
7	FEB	1350	900	0.00	0.00	0.00	0.	*	14	FEB	1230	1900	0.00	0.00	0.00	0.
7	FEB	1400	901	0.00	0.00	0.00	0.	*	14	FEB	1240	1901	0.00	0.00	0.00	0.
7	FEB	1410	902	0.00	0.00	0.00	0.	*	14	FEB	1250	1902	0.00	0.00	0.00	0.
7	FEB	1420	903	0.00	0.00	0.00	0.	*	14	FEB	1300	1903	0.00	0.00	0.00	0.
7	FEB	1430	904	0.00	0.00	0.00	0.	*	14	FEB	1310	1904	0.00	0.00	0.00	0.
7	FEB	1440	905	0.00	0.00	0.00	0.	*	14	FEB	1320	1905	0.00	0.00	0.00	0.
7	FEB	1450	906	0.00	0.00	0.00	0.	*	14	FEB	1330	1906	0.00	0.00	0.00	0.
7	FEB	1500	907	0.00	0.00	0.00	0.	*	14	FEB	1340	1907	0.00	0.00	0.00	0.
7	FEB	1510	908	0.00	0.00	0.00	0.	*	14	FEB	1350	1908	0.00	0.00	0.00	0.
7	FEB	1520	909	0.00	0.00	0.00	0.	*	14	FEB	1400	1909	0.00	0.00	0.00	0.
7	FEB	1530	910	0.00	0.00	0.00	0.	*	14	FEB	1410	1910	0.00	0.00	0.00	0.
7	FEB	1540	911	0.00	0.00	0.00	0.	*	14	FEB	1420	1911	0.00	0.00	0.00	0.
7	FEB	1550	912	0.00	0.00	0.00	0.	*	14	FEB	1430	1912	0.00	0.00	0.00	0.
7	FEB	1600	913	0.00	0.00	0.00	0.	*	14	FEB	1440	1913	0.00	0.00	0.00	0.
7	FEB	1610	914	0.00	0.00	0.00	0.	*	14	FEB	1450	1914	0.00	0.00	0.00	0.
7	FEB	1620	915	0.00	0.00	0.00	0.	*	14	FEB	1500	1915	0.00	0.00	0.00	0.
7	FEB	1630	916	0.00	0.00	0.00	0.	*	14	FEB	1510	1916	0.00	0.00	0.00	0.
7	FEB	1640	917	0.00	0.00	0.00	0.	*	14	FEB	1520	1917	0.00	0.00	0.00	0.
7	FEB	1650	918	0.00	0.00	0.00	0.	*	14	FEB	1530	1918	0.00	0.00	0.00	0.
7	FEB	1700	919	0.00	0.00	0.00	0.	*	14	FEB	1540	1919	0.00	0.00	0.00	0.
7	FEB	1710	920	0.00	0.00	0.00	0.	*	14	FEB	1550	1920	0.00	0.00	0.00	0.
7	FEB	1720	921	0.00	0.00	0.00	0.	*	14	FEB	1600	1921	0.00	0.00	0.00	0.
7	FEB	1730	922	0.00	0.00	0.00	0.	*	14	FEB	1610	1922	0.00	0.00	0.00	0.
7	FEB	1740	923	0.00	0.00	0.00	0.	*	14	FEB	1620	1923	0.00	0.00	0.00	0.
7	FEB	1750	924	0.00	0.00	0.00	0.	*	14	FEB	1630	1924	0.00	0.00	0.00	0.
7	FEB	1800	925	0.00	0.00	0.00	0.	*	14	FEB	1640	1925	0.00	0.00	0.00	0.
7	FEB	1810	926	0.00	0.00	0.00	0.	*	14	FEB	1650	1926	0.00	0.00	0.00	0.
7	FEB	1820	927	0.00	0.00	0.00	0.	*	14	FEB	1700	1927	0.00	0.00	0.00	0.
7	FEB	1830	928	0.00	0.00	0.00	0.	*	14	FEB	1710	1928	0.00	0.00	0.00	0.
7	FEB	1840	929	0.00	0.00	0.00	0.	*	14	FEB	1720	1929	0.00	0.00	0.00	0.
7	FEB	1850	930	0.00	0.00	0.00	0.	*	14	FEB	1730	1930	0.00	0.00	0.00	0.
7	FEB	1900	931	0.00	0.00	0.00	0.	*	14	FEB	1740	1931	0.00	0.00	0.00	0.
7	FEB	1910	932	0.00	0.00	0.00	0.	*	14	FEB	1750	1932	0.00	0.00	0.00	0.
7	FEB	1920	933	0.00	0.00	0.00	0.	*	14	FEB	1800	1933	0.00	0.00	0.00	0.
7	FEB	1930	934	0.00	0.00	0.00	0.	*	14	FEB	1810	1934	0.00	0.00	0.00	0.
7	FEB	1940	935	0.00	0.00	0.00	0.	*	14	FEB	1820	1935	0.00	0.00	0.00	0.
7	FEB	1950	936	0.00	0.00	0.00	0.	*	14	FEB	1830	1936	0.00	0.00	0.00	0.
7	FEB	2000	937	0.00	0.00	0.00	0.	*	14	FEB	1840	1937	0.00	0.00	0.00	0.
7	FEB	2010	938	0.00	0.00	0.00	0.	*	14	FEB	1850	1938	0.00	0.00	0.00	0.
7	FEB	2020	939	0.00	0.00	0.00	0.	*	14	FEB	1900	1939	0.00	0.00	0.00	0.
7	FEB	2030	940	0.00	0.00	0.00	0.	*	14	FEB	1910	1940	0.00	0.00	0.00	0.
7	FEB	2040	941	0.00	0.00	0.00	0.	*	14	FEB	1920	1941	0.00	0.00	0.00	0.
7	FEB	2050	942	0.00	0.00	0.00	0.	*	14	FEB	1930	1942	0.00	0.00	0.00	0.
7	FEB	2100	943	0.00	0.00	0.00	0.	*	14	FEB	1940	1943	0.00	0.00	0.00	0.
7	FEB	2110	944	0.00	0.00	0.00	0.	*	14	FEB	1950	1944	0.00	0.00	0.00	0.
7	FEB	2120	945	0.00	0.00	0.00	0.	*	14	FEB	2000	1945	0.00	0.00	0.00	0.
7	FEB	2130	946	0.00	0.00	0.00	0.	*	14	FEB	2010	1946	0.00	0.00	0.00	0.
7	FEB	2140	947	0.00	0.00	0.00	0.	*	14	FEB	2020	1947	0.00	0.00	0.00	0.
7	FEB	2150	948	0.00	0.00	0.00	0.	*	14	FEB	2030	1948	0.00	0.00	0.00	0.
7	FEB	2200	949	0.00	0.00	0.00	0.	*	14	FEB	2040	1949	0.00	0.00	0.00	0.
7	FEB	2210	950	0.00	0.00	0.00	0.	*	14	FEB	2050	1950	0.00	0.00	0.00	0.
7	FEB	2220	951	0.00	0.00	0.00	0.	*	14	FEB	2100	1951	0.00	0.00	0.00	0.
7	FEB	2230	952	0.00	0.00	0.00	0.	*	14	FEB	2110	1952	0.00	0.00	0.00	0.
7	FEB	2240	953	0.00	0.00	0.00	0.	*	14	FEB	2120	1953	0.00	0.00	0.00	0.
7	FEB	2250	954	0.00	0.00	0.00	0.	*	14	FEB	2130	1954	0.00	0.00	0.00	0.
7	FEB	2300	955	0.00	0.00	0.00	0.	*	14	FEB	2140	1955	0.00	0.00	0.00	0.
7	FEB	2310	956	0.00	0.00	0.00	0.	*	14	FEB	2150	1956	0.00	0.00	0.00	0.
7	FEB	2320	957	0.00	0.00	0.00	0.	*	14	FEB	2200	1957	0.00	0.00	0.00	0.
7	FEB	2330	958	0.00	0.00	0.00	0.	*	14	FEB	2210	1958	0.00	0.00	0.00	0.
7	FEB	2340	959	0.00	0.00	0.00	0.	*	14	FEB	2220	1959	0.00	0.00	0.00	0.
7	FEB	2350	960	0.00	0.00	0.00	0.	*	14	FEB	2230	1960	0.00	0.00	0.00	0.
8	FEB	0000	961	0.00	0.00	0.00	0.	*	14	FEB	2240	1961	0.00	0.00	0.00	0.
8	FEB	0010	962	0.00	0.00	0.00	0.	*	14	FEB	2250	1962	0.00	0.00	0.00	0.
8	FEB	0020	963	0.00	0.00	0.00	0.	*	14	FEB	2300	1963	0.00	0.00	0.00	0.
8	FEB	0030	964	0.00	0.00	0.00	0.	*	14	FEB	2310	1964	0.00	0.00	0.00	0.
8	FEB	0040	965	0.00	0.00	0.00	0.	*	14	FEB	2320	1965	0.00	0.00	0.00	0.
8	FEB	0050	966	0.00	0.00	0.00	0.	*	14	FEB	2330	1966	0.00	0.00	0.00	0.
8	FEB	0100	967	0.00	0.00	0.00	0.	*	14	FEB	2340	1967	0.00	0.00	0.00	0.
8	FEB	0110	968	0.00	0.00	0.00	0.	*	14	FEB	2350	1968	0.00	0.00	0.00	0.
8	FEB	0120	969	0.00	0.00	0.00	0.	*	15	FEB	0000	1969	0.00	0.00	0.00	0.
8	FEB	0130	970	0.00	0.00	0.00	0.	*	15	FEB	0010	1970	0.00	0.00	0.00	0.
8	FEB	0140	971	0.00	0.00	0.00	0.	*	15	FEB	0020	1971	0.00	0.00	0.00	0.
8	FEB	0150	972	0.00	0.00	0.00	0.	*	15	FEB	0030	1972	0.00	0.00	0.00	0.
8	FEB	0200	973	0.00	0.00	0.00	0.	*	15	FEB	0040	1973	0.00	0.00	0.00	0.
8	FEB	0210	974	0.00	0.00	0.00	0.	*	15	FEB	0050	1974	0.00	0.00	0.00	0.
8	FEB	0220	975	0.00	0.00	0.00	0.	*	15	FEB	0100	1975	0.00	0.00	0.00	0.
8	FEB	0230	976	0.00	0.00	0.00	0.	*	15	FEB	0110	1976	0.00	0.00	0.00	0.
8	FEB	0240	977	0.00	0.00	0.00	0.	*	15	FEB	0120	1977	0.00	0.00	0.00	0.
8	FEB	0250	978	0.00	0.00	0.00	0.	*	15	FEB	0130	1978	0.00	0.00	0.00	0.
8	FEB	0300	979	0.00	0.00	0.00	0.	*	15	FEB	0140	1979	0.00	0.00	0.00	0.
8	FEB	0310	980	0.00	0.00	0.00	0.	*	15	FEB	0150	1980	0.00	0.00	0.00	0.
8	FEB	0320	981	0.00	0.00	0.00	0.	*	15	FEB	0200	1981	0.00	0.00	0.00	0.
8	FEB	0330	982	0.00	0.00	0.00	0.	*	15	FEB	0210	1982	0.00	0.00	0.00	0.
8	FEB	0340	983	0.00	0.00	0.00	0.	*	15	FEB	0220	1983	0.00	0.00	0.00	0.
8	FEB	0350	984	0.00	0.00	0.00	0.	*	15	FEB	0230	1984	0.00	0.00	0.00	0.
8	FEB	0400	985	0.00	0.00	0.00	0.	*	15	FEB	0240	1985	0.00	0.00	0.00	0.
8	FEB	0410	986	0.00	0.00	0.00	0.	*	15	FEB	0250	1986	0.00	0.00	0.00	0.
8	FEB	0420	987	0.00	0.00	0.00	0.	*	15	FEB	0300	1987	0.00	0.00	0.00	0.
8	FEB	0430	988	0.00	0.00	0.00	0.	*	15	FEB	0310	1988	0.00	0.00	0.00	0.
8	FEB	0440	989	0.00	0.00	0.00	0.	*	15	FEB	0320	1989	0.00	0.00	0.00	0.

8 FEB 0450	990	0.00	0.00	0.00	0.	*	15 FEB 0330 1990	0.00	0.00	0.00	0.
8 FEB 0500	991	0.00	0.00	0.00	0.	*	15 FEB 0340 1991	0.00	0.00	0.00	0.
8 FEB 0510	992	0.00	0.00	0.00	0.	*	15 FEB 0350 1992	0.00	0.00	0.00	0.
8 FEB 0520	993	0.00	0.00	0.00	0.	*	15 FEB 0400 1993	0.00	0.00	0.00	0.
8 FEB 0530	994	0.00	0.00	0.00	0.	*	15 FEB 0410 1994	0.00	0.00	0.00	0.
8 FEB 0540	995	0.00	0.00	0.00	0.	*	15 FEB 0420 1995	0.00	0.00	0.00	0.
8 FEB 0550	996	0.00	0.00	0.00	0.	*	15 FEB 0430 1996	0.00	0.00	0.00	0.
8 FEB 0600	997	0.00	0.00	0.00	0.	*	15 FEB 0440 1997	0.00	0.00	0.00	0.
8 FEB 0610	998	0.00	0.00	0.00	0.	*	15 FEB 0450 1998	0.00	0.00	0.00	0.
8 FEB 0620	999	0.00	0.00	0.00	0.	*	15 FEB 0500 1999	0.00	0.00	0.00	0.
8 FEB 0630	1000	0.00	0.00	0.00	0.	*	15 FEB 0510 2000	0.00	0.00	0.00	0.
						*					

****

TOTAL RAINFALL = 0.01, TOTAL LOSS = 0.00, TOTAL EXCESS = 0.00

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	333.17-HR
+ (CFS)	(HR)				
		(CFS)			
+ 0.	13.00	0.	0.	0.	0.
		(INCHES) 0.001	0.001	0.001	0.001
		(AC-FT) 0.	0.	0.	0.

CUMULATIVE AREA = 1.94 SQ MI

*** ***

```
            **************
            *            *
 49 KK      *     SRWT3  *
            *            *
            **************
```

STORAGE ROUTE THROUGH WHITE TANKS STRUCTURE #3.

```
 51 KO          OUTPUT CONTROL VARIABLES
                      IPRNT          1  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE

              HYDROGRAPH ROUTING DATA

 52 RS          STORAGE ROUTING
                      NSTPS          1  NUMBER OF SUBREACHES
                       ITYP       STOR  TYPE OF INITIAL CONDITION
                     RSVRIC    1968.00  INITIAL CONDITION
                          X       0.00 WORKING R AND D COEFFICIENT

 53 SV            STORAGE        0.0      1.0      14.0      42.0      91.0     190.0     203.0     225.0     227.0     287.0
                               381.0    621.0     958.0    1394.0    1932.0    2574.0    3325.0

 55 SQ          DISCHARGE        0.       0.        0.        0.        0.        0.        0.       33.       35.       63.
                                 85.     115.      138.      158.      175.      191.     1386.

 57 SE          ELEVATION     1174.00  1176.00   1180.00   1184.00   1188.00   1191.68   1192.00   1192.50   1192.56   1193.65
                              1195.00  1197.50   1200.00   1202.50   1205.00   1207.00   1210.00
                                                                  ***
```

****

HYDROGRAPH AT STATION SRWT3

****

DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE
1 FEB 0800	1	176.	1968.0	1205.1	*	5 FEB 2310	668	113.	606.7	1197.4	*	10 FEB 14201335		0.	203.0	1192.0
1 FEB 0810	2	176.	1965.6	1205.1	*	5 FEB 2320	669	113.	605.1	1197.3	*	10 FEB 14301336		0.	203.0	1192.0
1 FEB 0820	3	176.	1963.2	1205.1	*	5 FEB 2330	670	113.	603.5	1197.3	*	10 FEB 14401337		0.	203.0	1192.0
1 FEB 0830	4	176.	1960.7	1205.1	*	5 FEB 2340	671	113.	602.0	1197.3	*	10 FEB 14501338		0.	203.0	1192.0
1 FEB 0840	5	176.	1958.3	1205.1	*	5 FEB 2350	672	112.	600.4	1197.3	*	10 FEB 15001339		0.	203.0	1192.0
1 FEB 0850	6	176.	1955.9	1205.1	*	6 FEB 0000	673	112.	598.9	1197.3	*	10 FEB 15101340		0.	203.0	1192.0
1 FEB 0900	7	176.	1953.5	1205.1	*	6 FEB 0010	674	112.	597.4	1197.3	*	10 FEB 15201341		0.	203.0	1192.0
1 FEB 0910	8	175.	1951.1	1205.1	*	6 FEB 0020	675	112.	595.8	1197.2	*	10 FEB 15301342		0.	203.0	1192.0
1 FEB 0920	9	175.	1948.6	1205.1	*	6 FEB 0030	676	112.	594.3	1197.2	*	10 FEB 15401343		0.	203.0	1192.0
1 FEB 0930	10	175.	1946.2	1205.0	*	6 FEB 0040	677	111.	592.7	1197.2	*	10 FEB 15501344		0.	203.0	1192.0
1 FEB 0940	11	175.	1943.8	1205.0	*	6 FEB 0050	678	111.	591.2	1197.2	*	10 FEB 16001345		0.	203.0	1192.0
1 FEB 0950	12	175.	1941.4	1205.0	*	6 FEB 0100	679	111.	589.7	1197.2	*	10 FEB 16101346		0.	203.0	1192.0
1 FEB 1000	13	175.	1939.0	1205.0	*	6 FEB 0110	680	111.	588.1	1197.2	*	10 FEB 16201347		0.	203.0	1192.0
1 FEB 1010	14	175.	1936.6	1205.0	*	6 FEB 0120	681	111.	586.6	1197.1	*	10 FEB 16301348		0.	203.0	1192.0
1 FEB 1020	15	175.	1934.2	1205.0	*	6 FEB 0130	682	111.	585.1	1197.1	*	10 FEB 16401349		0.	203.0	1192.0
1 FEB 1030	16	175.	1931.8	1205.0	*	6 FEB 0140	683	110.	583.6	1197.1	*	10 FEB 16501350		0.	203.0	1192.0
1 FEB 1040	17	175.	1929.3	1205.0	*	6 FEB 0150	684	110.	582.1	1197.1	*	10 FEB 17001351		0.	203.0	1192.0
1 FEB 1050	18	175.	1926.9	1205.0	*	6 FEB 0200	685	110.	580.5	1197.1	*	10 FEB 17101352		0.	203.0	1192.0
1 FEB 1100	19	175.	1924.5	1205.0	*	6 FEB 0210	686	110.	579.0	1197.1	*	10 FEB 17201353		0.	203.0	1192.0
1 FEB 1110	20	175.	1922.1	1205.0	*	6 FEB 0220	687	110.	577.5	1197.0	*	10 FEB 17301354		0.	203.0	1192.0
1 FEB 1120	21	175.	1919.7	1204.9	*	6 FEB 0230	688	109.	576.0	1197.0	*	10 FEB 17401355		0.	203.0	1192.0
1 FEB 1130	22	175.	1917.3	1204.9	*	6 FEB 0240	689	109.	574.5	1197.0	*	10 FEB 17501356		0.	203.0	1192.0
1 FEB 1140	23	174.	1914.9	1204.9	*	6 FEB 0250	690	109.	573.0	1197.0	*	10 FEB 18001357		0.	203.0	1192.0
1 FEB 1150	24	174.	1912.5	1204.9	*	6 FEB 0300	691	109.	571.5	1197.0	*	10 FEB 18101358		0.	203.0	1192.0

1	FEB	1200	25	174.	1910.1	1204.9	*	6	FEB	0310	692	109.	570.0	1197.0	*	10	FEB	18201359	0.	203.0	1192.0
1	FEB	1210	26	174.	1907.7	1204.9	*	6	FEB	0320	693	108.	568.5	1197.0	*	10	FEB	18301360	0.	203.0	1192.0
1	FEB	1220	27	174.	1905.3	1204.9	*	6	FEB	0330	694	108.	567.0	1196.9	*	10	FEB	18401361	0.	203.0	1192.0
1	FEB	1230	28	174.	1902.9	1204.9	*	6	FEB	0340	695	108.	565.5	1196.9	*	10	FEB	18501362	0.	203.0	1192.0
1	FEB	1240	29	174.	1900.5	1204.9	*	6	FEB	0350	696	108.	564.0	1196.9	*	10	FEB	19001363	0.	203.0	1192.0
1	FEB	1250	30	174.	1898.1	1204.8	*	6	FEB	0400	697	108.	562.6	1196.9	*	10	FEB	19101364	0.	203.0	1192.0
1	FEB	1300	31	174.	1895.7	1204.8	*	6	FEB	0410	698	108.	561.1	1196.9	*	10	FEB	19201365	0.	203.0	1192.0
1	FEB	1310	32	174.	1893.3	1204.8	*	6	FEB	0420	699	107.	559.6	1196.9	*	10	FEB	19301366	0.	203.0	1192.0
1	FEB	1320	33	174.	1890.9	1204.8	*	6	FEB	0430	700	107.	558.1	1196.8	*	10	FEB	19401367	0.	203.0	1192.0
1	FEB	1330	34	174.	1888.5	1204.8	*	6	FEB	0440	701	107.	556.6	1196.8	*	10	FEB	19501368	0.	203.0	1192.0
1	FEB	1340	35	174.	1886.1	1204.8	*	6	FEB	0450	702	107.	555.2	1196.8	*	10	FEB	20001369	0.	203.0	1192.0
1	FEB	1350	36	173.	1883.8	1204.8	*	6	FEB	0500	703	107.	553.7	1196.8	*	10	FEB	20101370	0.	203.0	1192.0
1	FEB	1400	37	173.	1881.4	1204.8	*	6	FEB	0510	704	106.	552.2	1196.8	*	10	FEB	20201371	0.	203.0	1192.0
1	FEB	1410	38	173.	1879.0	1204.8	*	6	FEB	0520	705	106.	550.8	1196.8	*	10	FEB	20301372	0.	203.0	1192.0
1	FEB	1420	39	173.	1876.6	1204.7	*	6	FEB	0530	706	106.	549.3	1196.8	*	10	FEB	20401373	0.	203.0	1192.0
1	FEB	1430	40	173.	1874.2	1204.7	*	6	FEB	0540	707	106.	547.8	1196.7	*	10	FEB	20501374	0.	203.0	1192.0
1	FEB	1440	41	173.	1871.8	1204.7	*	6	FEB	0550	708	106.	546.4	1196.7	*	10	FEB	21001375	0.	203.0	1192.0
1	FEB	1450	42	173.	1869.4	1204.7	*	6	FEB	0600	709	105.	544.9	1196.7	*	10	FEB	21101376	0.	203.0	1192.0
1	FEB	1500	43	173.	1867.1	1204.7	*	6	FEB	0610	710	105.	543.5	1196.7	*	10	FEB	21201377	0.	203.0	1192.0
1	FEB	1510	44	173.	1864.7	1204.7	*	6	FEB	0620	711	105.	542.0	1196.7	*	10	FEB	21301378	0.	203.0	1192.0
1	FEB	1520	45	173.	1862.3	1204.7	*	6	FEB	0630	712	105.	540.6	1196.7	*	10	FEB	21401379	0.	203.0	1192.0
1	FEB	1530	46	173.	1859.9	1204.7	*	6	FEB	0640	713	105.	539.1	1196.6	*	10	FEB	21501380	0.	203.0	1192.0
1	FEB	1540	47	173.	1857.5	1204.7	*	6	FEB	0650	714	105.	537.7	1196.6	*	10	FEB	22001381	0.	203.0	1192.0
1	FEB	1550	48	173.	1855.2	1204.6	*	6	FEB	0700	715	104.	536.3	1196.6	*	10	FEB	22101382	0.	203.0	1192.0
1	FEB	1600	49	172.	1852.8	1204.6	*	6	FEB	0710	716	104.	534.8	1196.6	*	10	FEB	22201383	0.	203.0	1192.0
1	FEB	1610	50	172.	1850.4	1204.6	*	6	FEB	0720	717	104.	533.4	1196.6	*	10	FEB	22301384	0.	203.0	1192.0
1	FEB	1620	51	172.	1848.0	1204.6	*	6	FEB	0730	718	104.	532.0	1196.6	*	10	FEB	22401385	0.	203.0	1192.0
1	FEB	1630	52	172.	1845.7	1204.6	*	6	FEB	0740	719	104.	530.5	1196.6	*	10	FEB	22501386	0.	203.0	1192.0
1	FEB	1640	53	172.	1843.3	1204.6	*	6	FEB	0750	720	104.	529.1	1196.5	*	10	FEB	23001387	0.	203.0	1192.0
1	FEB	1650	54	172.	1840.9	1204.6	*	6	FEB	0800	721	103.	527.7	1196.5	*	10	FEB	23101388	0.	203.0	1192.0
1	FEB	1700	55	172.	1838.6	1204.6	*	6	FEB	0810	722	103.	526.3	1196.5	*	10	FEB	23201389	0.	203.0	1192.0
1	FEB	1710	56	172.	1836.2	1204.6	*	6	FEB	0820	723	103.	524.8	1196.5	*	10	FEB	23301390	0.	203.0	1192.0
1	FEB	1720	57	172.	1833.8	1204.5	*	6	FEB	0830	724	103.	523.4	1196.5	*	10	FEB	23401391	0.	203.0	1192.0
1	FEB	1730	58	172.	1831.4	1204.5	*	6	FEB	0840	725	103.	522.0	1196.5	*	10	FEB	23501392	0.	203.0	1192.0
1	FEB	1740	59	172.	1829.1	1204.5	*	6	FEB	0850	726	102.	520.6	1196.5	*	11	FEB	00001393	0.	203.0	1192.0
1	FEB	1750	60	172.	1826.7	1204.5	*	6	FEB	0900	727	102.	519.2	1196.4	*	11	FEB	00101394	0.	203.0	1192.0
1	FEB	1800	61	172.	1824.4	1204.5	*	6	FEB	0910	728	102.	517.8	1196.4	*	11	FEB	00201395	0.	203.0	1192.0
1	FEB	1810	62	172.	1822.0	1204.5	*	6	FEB	0920	729	102.	516.4	1196.4	*	11	FEB	00301396	0.	203.0	1192.0
1	FEB	1820	63	171.	1819.6	1204.5	*	6	FEB	0930	730	102.	515.0	1196.4	*	11	FEB	00401397	0.	203.0	1192.0
1	FEB	1830	64	171.	1817.3	1204.5	*	6	FEB	0940	731	102.	513.6	1196.4	*	11	FEB	00501398	0.	203.0	1192.0
1	FEB	1840	65	171.	1814.9	1204.5	*	6	FEB	0950	732	101.	512.2	1196.4	*	11	FEB	01001399	0.	203.0	1192.0
1	FEB	1850	66	171.	1812.6	1204.4	*	6	FEB	1000	733	101.	510.8	1196.4	*	11	FEB	01101400	0.	203.0	1192.0
1	FEB	1900	67	171.	1810.2	1204.4	*	6	FEB	1010	734	101.	509.4	1196.3	*	11	FEB	01201401	0.	203.0	1192.0
1	FEB	1910	68	171.	1807.8	1204.4	*	6	FEB	1020	735	101.	508.0	1196.3	*	11	FEB	01301402	0.	203.0	1192.0
1	FEB	1920	69	171.	1805.5	1204.4	*	6	FEB	1030	736	101.	506.6	1196.3	*	11	FEB	01401403	0.	203.0	1192.0
1	FEB	1930	70	171.	1803.1	1204.4	*	6	FEB	1040	737	101.	505.2	1196.3	*	11	FEB	01501404	0.	203.0	1192.0
1	FEB	1940	71	171.	1800.8	1204.4	*	6	FEB	1050	738	100.	503.8	1196.3	*	11	FEB	02001405	0.	203.0	1192.0
1	FEB	1950	72	171.	1798.4	1204.4	*	6	FEB	1100	739	100.	502.4	1196.3	*	11	FEB	02101406	0.	203.0	1192.0
1	FEB	2000	73	171.	1796.1	1204.4	*	6	FEB	1110	740	100.	501.1	1196.3	*	11	FEB	02201407	0.	203.0	1192.0
1	FEB	2010	74	171.	1793.7	1204.4	*	6	FEB	1120	741	100.	499.7	1196.2	*	11	FEB	02301408	0.	203.0	1192.0
1	FEB	2020	75	171.	1791.4	1204.3	*	6	FEB	1130	742	100.	498.3	1196.2	*	11	FEB	02401409	0.	203.0	1192.0
1	FEB	2030	76	170.	1789.0	1204.3	*	6	FEB	1140	743	99.	496.9	1196.2	*	11	FEB	02501410	0.	203.0	1192.0
1	FEB	2040	77	170.	1786.7	1204.3	*	6	FEB	1150	744	99.	495.6	1196.2	*	11	FEB	03001411	0.	203.0	1192.0
1	FEB	2050	78	170.	1784.3	1204.3	*	6	FEB	1200	745	99.	494.2	1196.2	*	11	FEB	03101412	0.	203.0	1192.0
1	FEB	2100	79	170.	1782.0	1204.3	*	6	FEB	1210	746	99.	492.8	1196.2	*	11	FEB	03201413	0.	203.0	1192.0
1	FEB	2110	80	170.	1779.7	1204.3	*	6	FEB	1220	747	99.	491.5	1196.2	*	11	FEB	03301414	0.	203.0	1192.0
1	FEB	2120	81	170.	1777.3	1204.3	*	6	FEB	1230	748	99.	490.1	1196.1	*	11	FEB	03401415	0.	203.0	1192.0
1	FEB	2130	82	170.	1775.0	1204.3	*	6	FEB	1240	749	98.	488.8	1196.1	*	11	FEB	03501416	0.	203.0	1192.0
1	FEB	2140	83	170.	1772.7	1204.3	*	6	FEB	1250	750	98.	487.4	1196.1	*	11	FEB	04001417	0.	203.0	1192.0
1	FEB	2150	84	170.	1770.3	1204.2	*	6	FEB	1300	751	98.	486.1	1196.1	*	11	FEB	04101418	0.	203.0	1192.0
1	FEB	2200	85	170.	1768.0	1204.2	*	6	FEB	1310	752	98.	484.7	1196.1	*	11	FEB	04201419	0.	203.0	1192.0
1	FEB	2210	86	170.	1765.6	1204.2	*	6	FEB	1320	753	98.	483.4	1196.1	*	11	FEB	04301420	0.	203.0	1192.0
1	FEB	2220	87	170.	1763.3	1204.2	*	6	FEB	1330	754	98.	482.0	1196.1	*	11	FEB	04401421	0.	203.0	1192.0
1	FEB	2230	88	170.	1761.0	1204.2	*	6	FEB	1340	755	97.	480.7	1196.0	*	11	FEB	04501422	0.	203.0	1192.0
1	FEB	2240	89	170.	1758.6	1204.2	*	6	FEB	1350	756	97.	479.3	1196.0	*	11	FEB	05001423	0.	203.0	1192.0
1	FEB	2250	90	169.	1756.3	1204.2	*	6	FEB	1400	757	97.	478.0	1196.0	*	11	FEB	05101424	0.	203.0	1192.0
1	FEB	2300	91	169.	1754.0	1204.2	*	6	FEB	1410	758	97.	476.7	1196.0	*	11	FEB	05201425	0.	203.0	1192.0
1	FEB	2310	92	169.	1751.6	1204.2	*	6	FEB	1420	759	97.	475.3	1196.0	*	11	FEB	05301426	0.	203.0	1192.0
1	FEB	2320	93	169.	1749.3	1204.2	*	6	FEB	1430	760	97.	474.0	1196.0	*	11	FEB	05401427	0.	203.0	1192.0
1	FEB	2330	94	169.	1747.0	1204.1	*	6	FEB	1440	761	96.	472.7	1196.0	*	11	FEB	05501428	0.	203.0	1192.0
1	FEB	2340	95	169.	1744.7	1204.1	*	6	FEB	1450	762	96.	471.3	1195.9	*	11	FEB	06001429	0.	203.0	1192.0
1	FEB	2350	96	169.	1742.3	1204.1	*	6	FEB	1500	763	96.	470.0	1195.9	*	11	FEB	06101430	0.	203.0	1192.0
2	FEB	0000	97	169.	1740.0	1204.1	*	6	FEB	1510	764	96.	468.7	1195.9	*	11	FEB	06201431	0.	203.0	1192.0
2	FEB	0010	98	169.	1737.7	1204.1	*	6	FEB	1520	765	96.	467.4	1195.9	*	11	FEB	06301432	0.	203.0	1192.0
2	FEB	0020	99	169.	1735.3	1204.1	*	6	FEB	1530	766	96.	466.0	1195.9	*	11	FEB	06401433	0.	203.0	1192.0
2	FEB	0030	100	169.	1733.0	1204.1	*	6	FEB	1540	767	95.	464.7	1195.9	*	11	FEB	06501434	0.	203.0	1192.0
2	FEB	0040	101	169.	1730.7	1204.1	*	6	FEB	1550	768	95.	463.4	1195.9	*	11	FEB	07001435	0.	203.0	1192.0
2	FEB	0050	102	169.	1728.4	1204.1	*	6	FEB	1600	769	95.	462.1	1195.8	*	11	FEB	07101436	0.	203.0	1192.0
2	FEB	0100	103	168.	1726.1	1204.0	*	6	FEB	1610	770	95.	460.8	1195.8	*	11	FEB	07201437	0.	203.0	1192.0
2	FEB	0110	104	168.	1723.7	1204.0	*	6	FEB	1620	771	95.	459.5	1195.8	*	11	FEB	07301438	0.	203.0	1192.0
2	FEB	0120	105	168.	1721.4	1204.0	*	6	FEB	1630	772	95.	458.2	1195.8	*	11	FEB	07401439	0.	203.0	1192.0
2	FEB	0130	106	168.	1719.1	1204.0	*	6	FEB	1640	773	94.	456.9	1195.8	*	11	FEB	07501440	0.	203.0	1192.0
2	FEB	0140	107	168.	1716.8	1204.0	*	6	FEB	1650	774	94.	455.6	1195.8	*	11	FEB	08001441	0.	203.0	1192.0
2	FEB	0150	108	168.	1714.5	1204.0	*	6	FEB	1700	775	94.	454.3	1195.8	*	11	FEB	08101442	0.	203.0	1192.0
2	FEB	0200	109	168.	1712.2	1204.0	*	6	FEB	1710	776	94.	453.0	1195.7	*	11	FEB	08201443	0.	203.0	1192.0
2	FEB	0210	110	168.	1709.8	1204.0	*	6	FEB	1720	777	94.	451.7	1195.7	*	11	FEB	08301444	0.	203.0	1192.0
2	FEB	0220	111	168.	1707.5	1204.0	*	6	FEB	1730	778	94.	450.4	1195.7	*	11	FEB	08401445	0.	203.0	1192.0
2	FEB	0230	112	168.	1705.2	1203.9	*	6	FEB	1740	779	94.	449.1	1195.7	*	11	FEB	08501446	0.	203.0	1192.0
2	FEB	0240	113	168.	1702.9	1203.9	*	6	FEB	1750	780	93.	447.8	1195.7	*	11	FEB	09001447	0.	203.0	1192.0
2	FEB	0250	114	168.	1700.6	1203.9	*	6	FEB	1800	781	93.	446.5	1195.7	*	11	FEB	09101448	0.	203.0	1192.0
2	FEB	0300	115	168.	1698.3	1203.9	*	6	FEB	1810	782	93.	445.3	1195.7	*	11	FEB	09201449	0.	203.0	1192.0
2	FEB	0310	116	168.	1696.0	1203.9	*	6	FEB	1820	783	93.	444.0	1195.7	*	11	FEB	09301450	0.	203.0	1192.0
2	FEB	0320	117	167.	1693.7	1203.9	*	6	FEB	1830	784	93.	442.7	1195.6	*	11	FEB	09401451	0.	203.0	1192.0
2	FEB	0330	118	167.	1691.4	1203.9	*	6	FEB	1840	785	93.	441.4	1195.6	*	11	FEB	09501452	0.	203.0	1192.0
2	FEB	0340	119	167.	1689.1	1203.9	*	6	FEB	1850	786	92.	440.1	1195.6	*	11	FEB	10001453	0.	203.0	1192.0

2 FEB 0350 120	167.	1686.8	1203.9	*	6 FEB 1900 787	92.	438.9	1195.6	*	11 FEB 10101454	0.	203.0	1192.0
2 FEB 0400 121	167.	1684.5	1203.8	*	6 FEB 1910 788	92.	437.6	1195.6	*	11 FEB 10201455	0.	203.0	1192.0
2 FEB 0410 122	167.	1682.2	1203.8	*	6 FEB 1920 789	92.	436.3	1195.6	*	11 FEB 10301456	0.	203.0	1192.0
2 FEB 0420 123	167.	1679.9	1203.8	*	6 FEB 1930 790	92.	435.1	1195.6	*	11 FEB 10401457	0.	203.0	1192.0
2 FEB 0430 124	167.	1677.6	1203.8	*	6 FEB 1940 791	92.	433.8	1195.6	*	11 FEB 10501458	0.	203.0	1192.0
2 FEB 0440 125	167.	1675.3	1203.8	*	6 FEB 1950 792	91.	432.6	1195.5	*	11 FEB 11001459	0.	203.0	1192.0
2 FEB 0450 126	167.	1673.0	1203.8	*	6 FEB 2000 793	91.	431.3	1195.5	*	11 FEB 11101460	0.	203.0	1192.0
2 FEB 0500 127	167.	1670.7	1203.8	*	6 FEB 2010 794	91.	430.0	1195.5	*	11 FEB 11201461	0.	203.0	1192.0
2 FEB 0510 128	167.	1668.4	1203.8	*	6 FEB 2020 795	91.	428.8	1195.5	*	11 FEB 11301462	0.	203.0	1192.0
2 FEB 0520 129	167.	1666.1	1203.8	*	6 FEB 2030 796	91.	427.5	1195.5	*	11 FEB 11401463	0.	203.0	1192.0
2 FEB 0530 130	167.	1663.8	1203.8	*	6 FEB 2040 797	91.	426.3	1195.5	*	11 FEB 11501464	0.	203.0	1192.0
2 FEB 0540 131	166.	1661.5	1203.7	*	6 FEB 2050 798	91.	425.0	1195.5	*	11 FEB 12001465	0.	203.0	1192.0
2 FEB 0550 132	166.	1659.2	1203.7	*	6 FEB 2100 799	90.	423.8	1195.4	*	11 FEB 12101466	0.	203.0	1192.0
2 FEB 0600 133	166.	1656.9	1203.7	*	6 FEB 2110 800	90.	422.5	1195.4	*	11 FEB 12201467	0.	203.0	1192.0
2 FEB 0610 134	166.	1654.6	1203.7	*	6 FEB 2120 801	90.	421.3	1195.4	*	11 FEB 12301468	0.	203.0	1192.0
2 FEB 0620 135	166.	1652.3	1203.7	*	6 FEB 2130 802	90.	420.1	1195.4	*	11 FEB 12401469	0.	203.0	1192.0
2 FEB 0630 136	166.	1650.0	1203.7	*	6 FEB 2140 803	90.	418.8	1195.4	*	11 FEB 12501470	0.	203.0	1192.0
2 FEB 0640 137	166.	1647.7	1203.7	*	6 FEB 2150 804	90.	417.6	1195.4	*	11 FEB 13001471	0.	203.0	1192.0
2 FEB 0650 138	166.	1645.5	1203.7	*	6 FEB 2200 805	89.	416.4	1195.4	*	11 FEB 13101472	0.	203.0	1192.0
2 FEB 0700 139	166.	1643.2	1203.7	*	6 FEB 2210 806	89.	415.1	1195.4	*	11 FEB 13201473	0.	203.0	1192.0
2 FEB 0710 140	166.	1640.9	1203.6	*	6 FEB 2220 807	89.	413.9	1195.3	*	11 FEB 13301474	0.	203.0	1192.0
2 FEB 0720 141	166.	1638.6	1203.6	*	6 FEB 2230 808	89.	412.7	1195.3	*	11 FEB 13401475	0.	203.0	1192.0
2 FEB 0730 142	166.	1636.3	1203.6	*	6 FEB 2240 809	89.	411.4	1195.3	*	11 FEB 13501476	0.	203.0	1192.0
2 FEB 0740 143	166.	1634.0	1203.6	*	6 FEB 2250 810	89.	410.2	1195.3	*	11 FEB 14001477	0.	203.0	1192.0
2 FEB 0750 144	166.	1631.8	1203.6	*	6 FEB 2300 811	89.	409.0	1195.3	*	11 FEB 14101478	0.	203.0	1192.0
2 FEB 0800 145	165.	1629.5	1203.6	*	6 FEB 2310 812	88.	407.8	1195.3	*	11 FEB 14201479	0.	203.0	1192.0
2 FEB 0810 146	165.	1627.2	1203.6	*	6 FEB 2320 813	88.	406.6	1195.3	*	11 FEB 14301480	0.	203.0	1192.0
2 FEB 0820 147	165.	1624.9	1203.6	*	6 FEB 2330 814	88.	405.4	1195.3	*	11 FEB 14401481	0.	203.0	1192.0
2 FEB 0830 148	165.	1622.6	1203.6	*	6 FEB 2340 815	88.	404.1	1195.2	*	11 FEB 14501482	0.	203.0	1192.0
2 FEB 0840 149	165.	1620.4	1203.6	*	6 FEB 2350 816	88.	402.9	1195.2	*	11 FEB 15001483	0.	203.0	1192.0
2 FEB 0850 150	165.	1618.1	1203.5	*	7 FEB 0000 817	88.	401.7	1195.2	*	11 FEB 15101484	0.	203.0	1192.0
2 FEB 0900 151	165.	1615.8	1203.5	*	7 FEB 0010 818	87.	400.5	1195.2	*	11 FEB 15201485	0.	203.0	1192.0
2 FEB 0910 152	165.	1613.6	1203.5	*	7 FEB 0020 819	87.	399.3	1195.2	*	11 FEB 15301486	0.	203.0	1192.0
2 FEB 0920 153	165.	1611.3	1203.5	*	7 FEB 0030 820	87.	398.1	1195.2	*	11 FEB 15401487	0.	203.0	1192.0
2 FEB 0930 154	165.	1609.0	1203.5	*	7 FEB 0040 821	87.	396.9	1195.2	*	11 FEB 15501488	0.	203.0	1192.0
2 FEB 0940 155	165.	1606.7	1203.5	*	7 FEB 0050 822	87.	395.7	1195.2	*	11 FEB 16001489	0.	203.0	1192.0
2 FEB 0950 156	165.	1604.5	1203.5	*	7 FEB 0100 823	87.	394.5	1195.1	*	11 FEB 16101490	0.	203.0	1192.0
2 FEB 1000 157	165.	1602.2	1203.5	*	7 FEB 0110 824	87.	393.3	1195.1	*	11 FEB 16201491	0.	203.0	1192.0
2 FEB 1010 158	165.	1599.9	1203.5	*	7 FEB 0120 825	86.	392.1	1195.1	*	11 FEB 16301492	0.	203.0	1192.0
2 FEB 1020 159	164.	1597.7	1203.4	*	7 FEB 0130 826	86.	391.0	1195.1	*	11 FEB 16401493	0.	203.0	1192.0
2 FEB 1030 160	164.	1595.4	1203.4	*	7 FEB 0140 827	86.	389.8	1195.1	*	11 FEB 16501494	0.	203.0	1192.0
2 FEB 1040 161	164.	1593.1	1203.4	*	7 FEB 0150 828	86.	388.6	1195.1	*	11 FEB 17001495	0.	203.0	1192.0
2 FEB 1050 162	164.	1590.9	1203.4	*	7 FEB 0200 829	86.	387.4	1195.1	*	11 FEB 17101496	0.	203.0	1192.0
2 FEB 1100 163	164.	1588.6	1203.4	*	7 FEB 0210 830	86.	386.2	1195.1	*	11 FEB 17201497	0.	203.0	1192.0
2 FEB 1110 164	164.	1586.4	1203.4	*	7 FEB 0220 831	86.	385.0	1195.0	*	11 FEB 17301498	0.	203.0	1192.0
2 FEB 1120 165	164.	1584.1	1203.4	*	7 FEB 0230 832	85.	383.9	1195.0	*	11 FEB 17401499	0.	203.0	1192.0
2 FEB 1130 166	164.	1581.8	1203.4	*	7 FEB 0240 833	85.	382.7	1195.0	*	11 FEB 17501500	0.	203.0	1192.0
2 FEB 1140 167	164.	1579.6	1203.4	*	7 FEB 0250 834	85.	381.5	1195.0	*	11 FEB 18001501	0.	203.0	1192.0
2 FEB 1150 168	164.	1577.3	1203.4	*	7 FEB 0300 835	85.	380.3	1195.0	*	11 FEB 18101502	0.	203.0	1192.0
2 FEB 1200 169	164.	1575.1	1203.3	*	7 FEB 0310 836	85.	379.2	1195.0	*	11 FEB 18201503	0.	203.0	1192.0
2 FEB 1210 170	164.	1572.8	1203.3	*	7 FEB 0320 837	84.	378.0	1195.0	*	11 FEB 18301504	0.	203.0	1192.0
2 FEB 1220 171	164.	1570.6	1203.3	*	7 FEB 0330 838	84.	376.9	1194.9	*	11 FEB 18401505	0.	203.0	1192.0
2 FEB 1230 172	164.	1568.3	1203.3	*	7 FEB 0340 839	84.	375.7	1194.9	*	11 FEB 18501506	0.	203.0	1192.0
2 FEB 1240 173	163.	1566.1	1203.3	*	7 FEB 0350 840	83.	374.6	1194.9	*	11 FEB 19001507	0.	203.0	1192.0
2 FEB 1250 174	163.	1563.8	1203.3	*	7 FEB 0400 841	83.	373.4	1194.9	*	11 FEB 19101508	0.	203.0	1192.0
2 FEB 1300 175	163.	1561.6	1203.3	*	7 FEB 0410 842	83.	372.3	1194.9	*	11 FEB 19201509	0.	203.0	1192.0
2 FEB 1310 176	163.	1559.3	1203.3	*	7 FEB 0420 843	83.	371.1	1194.9	*	11 FEB 19301510	0.	203.0	1192.0
2 FEB 1320 177	163.	1557.1	1203.3	*	7 FEB 0430 844	82.	370.0	1194.8	*	11 FEB 19401511	0.	203.0	1192.0
2 FEB 1330 178	163.	1554.8	1203.2	*	7 FEB 0440 845	82.	368.8	1194.8	*	11 FEB 19501512	0.	203.0	1192.0
2 FEB 1340 179	163.	1552.6	1203.2	*	7 FEB 0450 846	82.	367.7	1194.8	*	11 FEB 20001513	0.	203.0	1192.0
2 FEB 1350 180	163.	1550.3	1203.2	*	7 FEB 0500 847	82.	366.6	1194.8	*	11 FEB 20101514	0.	203.0	1192.0
2 FEB 1400 181	163.	1548.1	1203.2	*	7 FEB 0510 848	81.	365.5	1194.8	*	11 FEB 20201515	0.	203.0	1192.0
2 FEB 1410 182	163.	1545.8	1203.2	*	7 FEB 0520 849	81.	364.3	1194.8	*	11 FEB 20301516	0.	203.0	1192.0
2 FEB 1420 183	163.	1543.6	1203.2	*	7 FEB 0530 850	81.	363.2	1194.7	*	11 FEB 20401517	0.	203.0	1192.0
2 FEB 1430 184	163.	1541.4	1203.2	*	7 FEB 0540 851	81.	362.1	1194.7	*	11 FEB 20501518	0.	203.0	1192.0
2 FEB 1440 185	163.	1539.1	1203.2	*	7 FEB 0550 852	80.	361.0	1194.7	*	11 FEB 21001519	0.	203.0	1192.0
2 FEB 1450 186	163.	1536.9	1203.2	*	7 FEB 0600 853	80.	359.9	1194.7	*	11 FEB 21101520	0.	203.0	1192.0
2 FEB 1500 187	162.	1534.6	1203.2	*	7 FEB 0610 854	80.	358.8	1194.7	*	11 FEB 21201521	0.	203.0	1192.0
2 FEB 1510 188	162.	1532.4	1203.1	*	7 FEB 0620 855	80.	357.7	1194.7	*	11 FEB 21301522	0.	203.0	1192.0
2 FEB 1520 189	162.	1530.2	1203.1	*	7 FEB 0630 856	79.	356.6	1194.6	*	11 FEB 21401523	0.	203.0	1192.0
2 FEB 1530 190	162.	1527.9	1203.1	*	7 FEB 0640 857	79.	355.5	1194.6	*	11 FEB 21501524	0.	203.0	1192.0
2 FEB 1540 191	162.	1525.7	1203.1	*	7 FEB 0650 858	79.	354.4	1194.6	*	11 FEB 22001525	0.	203.0	1192.0
2 FEB 1550 192	162.	1523.5	1203.1	*	7 FEB 0700 859	79.	353.4	1194.6	*	11 FEB 22101526	0.	203.0	1192.0
2 FEB 1600 193	162.	1521.2	1203.1	*	7 FEB 0710 860	78.	352.3	1194.6	*	11 FEB 22201527	0.	203.0	1192.0
2 FEB 1610 194	162.	1519.0	1203.1	*	7 FEB 0720 861	78.	351.2	1194.6	*	11 FEB 22301528	0.	203.0	1192.0
2 FEB 1620 195	162.	1516.8	1203.1	*	7 FEB 0730 862	78.	350.1	1194.6	*	11 FEB 22401529	0.	203.0	1192.0
2 FEB 1630 196	162.	1514.5	1203.1	*	7 FEB 0740 863	78.	349.1	1194.5	*	11 FEB 22501530	0.	203.0	1192.0
2 FEB 1640 197	162.	1512.3	1203.0	*	7 FEB 0750 864	77.	348.0	1194.5	*	11 FEB 23001531	0.	203.0	1192.0
2 FEB 1650 198	162.	1510.1	1203.0	*	7 FEB 0800 865	77.	346.9	1194.5	*	11 FEB 23101532	0.	203.0	1192.0
2 FEB 1700 199	162.	1507.9	1203.0	*	7 FEB 0810 866	77.	345.9	1194.5	*	11 FEB 23201533	0.	203.0	1192.0
2 FEB 1710 200	162.	1505.6	1203.0	*	7 FEB 0820 867	77.	344.8	1194.5	*	11 FEB 23301534	0.	203.0	1192.0
2 FEB 1720 201	161.	1503.4	1203.0	*	7 FEB 0830 868	76.	343.8	1194.5	*	11 FEB 23401535	0.	203.0	1192.0
2 FEB 1730 202	161.	1501.2	1203.0	*	7 FEB 0840 869	76.	342.7	1194.5	*	11 FEB 23501536	0.	203.0	1192.0
2 FEB 1740 203	161.	1499.0	1203.0	*	7 FEB 0850 870	76.	341.7	1194.4	*	12 FEB 00001537	0.	203.0	1192.0
2 FEB 1750 204	161.	1496.7	1203.0	*	7 FEB 0900 871	76.	340.6	1194.4	*	12 FEB 00101538	0.	203.0	1192.0
2 FEB 1800 205	161.	1494.5	1203.0	*	7 FEB 0910 872	75.	339.6	1194.4	*	12 FEB 00201539	0.	203.0	1192.0
2 FEB 1810 206	161.	1492.3	1203.0	*	7 FEB 0920 873	75.	338.5	1194.4	*	12 FEB 00301540	0.	203.0	1192.0
2 FEB 1820 207	161.	1490.1	1202.9	*	7 FEB 0930 874	75.	337.5	1194.4	*	12 FEB 00401541	0.	203.0	1192.0
2 FEB 1830 208	161.	1487.9	1202.9	*	7 FEB 0940 875	75.	336.5	1194.4	*	12 FEB 00501542	0.	203.0	1192.0
2 FEB 1840 209	161.	1485.7	1202.9	*	7 FEB 0950 876	74.	335.5	1194.3	*	12 FEB 01001543	0.	203.0	1192.0
2 FEB 1850 210	161.	1483.4	1202.9	*	7 FEB 1000 877	74.	334.4	1194.3	*	12 FEB 01101544	0.	203.0	1192.0
2 FEB 1900 211	161.	1481.2	1202.9	*	7 FEB 1010 878	74.	333.4	1194.3	*	12 FEB 01201545	0.	203.0	1192.0
2 FEB 1910 212	161.	1479.0	1202.9	*	7 FEB 1020 879	74.	332.4	1194.3	*	12 FEB 01301546	0.	203.0	1192.0
2 FEB 1920 213	161.	1476.8	1202.9	*	7 FEB 1030 880	73.	331.4	1194.3	*	12 FEB 01401547	0.	203.0	1192.0
2 FEB 1930 214	161.	1474.6	1202.9	*	7 FEB 1040 881	73.	330.4	1194.3	*	12 FEB 01501548	0.	203.0	1192.0

2	FEB	1940	215	160.	1472.4	1202.9	*	7	FEB	1050	882	73.	329.4	1194.3	*	12	FEB	02001549	0.	203.0	1192.0
2	FEB	1950	216	160.	1470.2	1202.9	*	7	FEB	1100	883	73.	328.4	1194.2	*	12	FEB	02101550	0.	203.0	1192.0
2	FEB	2000	217	160.	1468.0	1202.8	*	7	FEB	1110	884	72.	327.4	1194.2	*	12	FEB	02201551	0.	203.0	1192.0
2	FEB	2010	218	160.	1465.7	1202.8	*	7	FEB	1120	885	72.	326.4	1194.2	*	12	FEB	02301552	0.	203.0	1192.0
2	FEB	2020	219	160.	1463.5	1202.8	*	7	FEB	1130	886	72.	325.4	1194.2	*	12	FEB	02401553	0.	203.0	1192.0
2	FEB	2030	220	160.	1461.3	1202.8	*	7	FEB	1140	887	72.	324.4	1194.2	*	12	FEB	02501554	0.	203.0	1192.0
2	FEB	2040	221	160.	1459.1	1202.8	*	7	FEB	1150	888	72.	323.4	1194.2	*	12	FEB	03001555	0.	203.0	1192.0
2	FEB	2050	222	160.	1456.9	1202.8	*	7	FEB	1200	889	71.	322.4	1194.2	*	12	FEB	03101556	0.	203.0	1192.0
2	FEB	2100	223	160.	1454.7	1202.8	*	7	FEB	1210	890	71.	321.4	1194.1	*	12	FEB	03201557	0.	203.0	1192.0
2	FEB	2110	224	160.	1452.5	1202.8	*	7	FEB	1220	891	71.	320.5	1194.1	*	12	FEB	03301558	0.	203.0	1192.0
2	FEB	2120	225	160.	1450.3	1202.8	*	7	FEB	1230	892	71.	319.5	1194.1	*	12	FEB	03401559	0.	203.0	1192.0
2	FEB	2130	226	160.	1448.1	1202.8	*	7	FEB	1240	893	70.	318.5	1194.1	*	12	FEB	03501560	0.	203.0	1192.0
2	FEB	2140	227	160.	1445.9	1202.7	*	7	FEB	1250	894	70.	317.6	1194.1	*	12	FEB	04001561	0.	203.0	1192.0
2	FEB	2150	228	160.	1443.7	1202.7	*	7	FEB	1300	895	70.	316.6	1194.1	*	12	FEB	04101562	0.	203.0	1192.0
2	FEB	2200	229	160.	1441.5	1202.7	*	7	FEB	1310	896	70.	315.6	1194.1	*	12	FEB	04201563	0.	203.0	1192.0
2	FEB	2210	230	159.	1439.3	1202.7	*	7	FEB	1320	897	69.	314.7	1194.0	*	12	FEB	04301564	0.	203.0	1192.0
2	FEB	2220	231	159.	1437.1	1202.7	*	7	FEB	1330	898	69.	313.7	1194.0	*	12	FEB	04401565	0.	203.0	1192.0
2	FEB	2230	232	159.	1434.9	1202.7	*	7	FEB	1340	899	69.	312.8	1194.0	*	12	FEB	04501566	0.	203.0	1192.0
2	FEB	2240	233	159.	1432.7	1202.7	*	7	FEB	1350	900	69.	311.8	1194.0	*	12	FEB	05001567	0.	203.0	1192.0
2	FEB	2250	234	159.	1430.5	1202.7	*	7	FEB	1400	901	69.	310.9	1194.0	*	12	FEB	05101568	0.	203.0	1192.0
2	FEB	2300	235	159.	1428.4	1202.7	*	7	FEB	1410	902	68.	309.9	1194.0	*	12	FEB	05201569	0.	203.0	1192.0
2	FEB	2310	236	159.	1426.2	1202.6	*	7	FEB	1420	903	68.	309.0	1194.0	*	12	FEB	05301570	0.	203.0	1192.0
2	FEB	2320	237	159.	1424.0	1202.6	*	7	FEB	1430	904	68.	308.0	1194.0	*	12	FEB	05401571	0.	203.0	1192.0
2	FEB	2330	238	159.	1421.8	1202.6	*	7	FEB	1440	905	68.	307.1	1193.9	*	12	FEB	05501572	0.	203.0	1192.0
2	FEB	2340	239	159.	1419.6	1202.6	*	7	FEB	1450	906	67.	306.2	1193.9	*	12	FEB	06001573	0.	203.0	1192.0
2	FEB	2350	240	159.	1417.4	1202.6	*	7	FEB	1500	907	67.	305.3	1193.9	*	12	FEB	06101574	0.	203.0	1192.0
3	FEB	0000	241	159.	1415.2	1202.6	*	7	FEB	1510	908	67.	304.3	1193.9	*	12	FEB	06201575	0.	203.0	1192.0
3	FEB	0010	242	159.	1413.0	1202.6	*	7	FEB	1520	909	67.	303.4	1193.9	*	12	FEB	06301576	0.	203.0	1192.0
3	FEB	0020	243	159.	1410.9	1202.6	*	7	FEB	1530	910	67.	302.5	1193.9	*	12	FEB	06401577	0.	203.0	1192.0
3	FEB	0030	244	158.	1408.7	1202.6	*	7	FEB	1540	911	66.	301.6	1193.9	*	12	FEB	06501578	0.	203.0	1192.0
3	FEB	0040	245	158.	1406.5	1202.6	*	7	FEB	1550	912	66.	300.7	1193.8	*	12	FEB	07001579	0.	203.0	1192.0
3	FEB	0050	246	158.	1404.3	1202.5	*	7	FEB	1600	913	66.	299.7	1193.8	*	12	FEB	07101580	0.	203.0	1192.0
3	FEB	0100	247	158.	1402.1	1202.5	*	7	FEB	1610	914	66.	298.8	1193.8	*	12	FEB	07201581	0.	203.0	1192.0
3	FEB	0110	248	158.	1399.9	1202.5	*	7	FEB	1620	915	66.	297.9	1193.8	*	12	FEB	07301582	0.	203.0	1192.0
3	FEB	0120	249	158.	1397.8	1202.5	*	7	FEB	1630	916	65.	297.0	1193.8	*	12	FEB	07401583	0.	203.0	1192.0
3	FEB	0130	250	158.	1395.6	1202.5	*	7	FEB	1640	917	65.	296.1	1193.8	*	12	FEB	07501584	0.	203.0	1192.0
3	FEB	0140	251	158.	1393.4	1202.5	*	7	FEB	1650	918	65.	295.2	1193.8	*	12	FEB	08001585	0.	203.0	1192.0
3	FEB	0150	252	158.	1391.2	1202.5	*	7	FEB	1700	919	65.	294.3	1193.8	*	12	FEB	08101586	0.	203.0	1192.0
3	FEB	0200	253	158.	1389.1	1202.5	*	7	FEB	1710	920	65.	293.5	1193.7	*	12	FEB	08201587	0.	203.0	1192.0
3	FEB	0210	254	158.	1386.9	1202.5	*	7	FEB	1720	921	64.	292.6	1193.7	*	12	FEB	08301588	0.	203.0	1192.0
3	FEB	0220	255	158.	1384.7	1202.4	*	7	FEB	1730	922	64.	291.7	1193.7	*	12	FEB	08401589	0.	203.0	1192.0
3	FEB	0230	256	157.	1382.6	1202.4	*	7	FEB	1740	923	64.	290.8	1193.7	*	12	FEB	08501590	0.	203.0	1192.0
3	FEB	0240	257	157.	1380.4	1202.4	*	7	FEB	1750	924	64.	289.9	1193.7	*	12	FEB	09001591	0.	203.0	1192.0
3	FEB	0250	258	157.	1378.2	1202.4	*	7	FEB	1800	925	63.	289.0	1193.7	*	12	FEB	09101592	0.	203.0	1192.0
3	FEB	0300	259	157.	1376.1	1202.4	*	7	FEB	1810	926	63.	288.2	1193.7	*	12	FEB	09201593	0.	203.0	1192.0
3	FEB	0310	260	157.	1373.9	1202.4	*	7	FEB	1820	927	63.	287.3	1193.7	*	12	FEB	09301594	0.	203.0	1192.0
3	FEB	0320	261	157.	1371.7	1202.4	*	7	FEB	1830	928	63.	286.4	1193.6	*	12	FEB	09401595	0.	203.0	1192.0
3	FEB	0330	262	157.	1369.6	1202.4	*	7	FEB	1840	929	62.	285.6	1193.6	*	12	FEB	09501596	0.	203.0	1192.0
3	FEB	0340	263	157.	1367.4	1202.3	*	7	FEB	1850	930	62.	284.7	1193.6	*	12	FEB	10001597	0.	203.0	1192.0
3	FEB	0350	264	157.	1365.2	1202.3	*	7	FEB	1900	931	62.	283.9	1193.6	*	12	FEB	10101598	0.	203.0	1192.0
3	FEB	0400	265	157.	1363.1	1202.3	*	7	FEB	1910	932	61.	283.0	1193.6	*	12	FEB	10201599	0.	203.0	1192.0
3	FEB	0410	266	156.	1360.9	1202.3	*	7	FEB	1920	933	61.	282.2	1193.6	*	12	FEB	10301600	0.	203.0	1192.0
3	FEB	0420	267	156.	1358.8	1202.3	*	7	FEB	1930	934	60.	281.4	1193.5	*	12	FEB	10401601	0.	203.0	1192.0
3	FEB	0430	268	156.	1356.6	1202.3	*	7	FEB	1940	935	60.	280.5	1193.5	*	12	FEB	10501602	0.	203.0	1192.0
3	FEB	0440	269	156.	1354.5	1202.3	*	7	FEB	1950	936	60.	279.7	1193.5	*	12	FEB	11001603	0.	203.0	1192.0
3	FEB	0450	270	156.	1352.3	1202.3	*	7	FEB	2000	937	59.	278.9	1193.5	*	12	FEB	11101604	0.	203.0	1192.0
3	FEB	0500	271	156.	1350.2	1202.2	*	7	FEB	2010	938	59.	278.1	1193.5	*	12	FEB	11201605	0.	203.0	1192.0
3	FEB	0510	272	156.	1348.0	1202.2	*	7	FEB	2020	939	58.	277.3	1193.5	*	12	FEB	11301606	0.	203.0	1192.0
3	FEB	0520	273	156.	1345.9	1202.2	*	7	FEB	2030	940	58.	276.5	1193.5	*	12	FEB	11401607	0.	203.0	1192.0
3	FEB	0530	274	156.	1343.7	1202.2	*	7	FEB	2040	941	58.	275.7	1193.4	*	12	FEB	11501608	0.	203.0	1192.0
3	FEB	0540	275	156.	1341.6	1202.2	*	7	FEB	2050	942	57.	274.9	1193.4	*	12	FEB	12001609	0.	203.0	1192.0
3	FEB	0550	276	155.	1339.4	1202.2	*	7	FEB	2100	943	57.	274.1	1193.4	*	12	FEB	12101610	0.	203.0	1192.0
3	FEB	0600	277	155.	1337.3	1202.2	*	7	FEB	2110	944	57.	273.3	1193.4	*	12	FEB	12201611	0.	203.0	1192.0
3	FEB	0610	278	155.	1335.2	1202.2	*	7	FEB	2120	945	56.	272.5	1193.4	*	12	FEB	12301612	0.	203.0	1192.0
3	FEB	0620	279	155.	1333.0	1202.2	*	7	FEB	2130	946	56.	271.8	1193.4	*	12	FEB	12401613	0.	203.0	1192.0
3	FEB	0630	280	155.	1330.9	1202.1	*	7	FEB	2140	947	56.	271.0	1193.4	*	12	FEB	12501614	0.	203.0	1192.0
3	FEB	0640	281	155.	1328.8	1202.1	*	7	FEB	2150	948	55.	270.2	1193.3	*	12	FEB	13001615	0.	203.0	1192.0
3	FEB	0650	282	155.	1326.6	1202.1	*	7	FEB	2200	949	55.	269.5	1193.3	*	12	FEB	13101616	0.	203.0	1192.0
3	FEB	0700	283	155.	1324.5	1202.1	*	7	FEB	2210	950	54.	268.7	1193.3	*	12	FEB	13201617	0.	203.0	1192.0
3	FEB	0710	284	155.	1322.4	1202.1	*	7	FEB	2220	951	54.	268.0	1193.3	*	12	FEB	13301618	0.	203.0	1192.0
3	FEB	0720	285	155.	1320.2	1202.1	*	7	FEB	2230	952	54.	267.2	1193.3	*	12	FEB	13401619	0.	203.0	1192.0
3	FEB	0730	286	155.	1318.1	1202.1	*	7	FEB	2240	953	53.	266.5	1193.3	*	12	FEB	13501620	0.	203.0	1192.0
3	FEB	0740	287	154.	1316.0	1202.1	*	7	FEB	2250	954	53.	265.7	1193.3	*	12	FEB	14001621	0.	203.0	1192.0
3	FEB	0750	288	154.	1313.8	1202.0	*	7	FEB	2300	955	53.	265.0	1193.3	*	12	FEB	14101622	0.	203.0	1192.0
3	FEB	0800	289	154.	1311.7	1202.0	*	7	FEB	2310	956	52.	264.3	1193.2	*	12	FEB	14201623	0.	203.0	1192.0
3	FEB	0810	290	154.	1309.6	1202.0	*	7	FEB	2320	957	52.	263.6	1193.2	*	12	FEB	14301624	0.	203.0	1192.0
3	FEB	0820	291	154.	1307.5	1202.0	*	7	FEB	2330	958	52.	262.9	1193.2	*	12	FEB	14401625	0.	203.0	1192.0
3	FEB	0830	292	154.	1305.3	1202.0	*	7	FEB	2340	959	51.	262.2	1193.2	*	12	FEB	14501626	0.	203.0	1192.0
3	FEB	0840	293	154.	1303.2	1202.0	*	7	FEB	2350	960	51.	261.4	1193.2	*	12	FEB	15001627	0.	203.0	1192.0
3	FEB	0850	294	154.	1301.1	1202.0	*	8	FEB	0000	961	51.	260.7	1193.2	*	12	FEB	15101628	0.	203.0	1192.0
3	FEB	0900	295	154.	1299.0	1202.0	*	8	FEB	0010	962	50.	260.0	1193.2	*	12	FEB	15201629	0.	203.0	1192.0
3	FEB	0910	296	154.	1296.9	1201.9	*	8	FEB	0020	963	50.	259.4	1193.1	*	12	FEB	15301630	0.	203.0	1192.0
3	FEB	0920	297	153.	1294.8	1201.9	*	8	FEB	0030	964	50.	258.7	1193.1	*	12	FEB	15401631	0.	203.0	1192.0
3	FEB	0930	298	153.	1292.7	1201.9	*	8	FEB	0040	965	49.	258.0	1193.1	*	12	FEB	15501632	0.	203.0	1192.0
3	FEB	0940	299	153.	1290.5	1201.9	*	8	FEB	0050	966	49.	257.3	1193.1	*	12	FEB	16001633	0.	203.0	1192.0
3	FEB	0950	300	153.	1288.4	1201.9	*	8	FEB	0100	967	49.	256.6	1193.1	*	12	FEB	16101634	0.	203.0	1192.0
3	FEB	1000	301	153.	1286.3	1201.9	*	8	FEB	0110	968	49.	256.0	1193.1	*	12	FEB	16201635	0.	203.0	1192.0
3	FEB	1010	302	153.	1284.2	1201.9	*	8	FEB	0120	969	48.	255.3	1193.1	*	12	FEB	16301636	0.	203.0	1192.0
3	FEB	1020	303	153.	1282.1	1201.9	*	8	FEB	0130	970	48.	254.6	1193.1	*	12	FEB	16401637	0.	203.0	1192.0
3	FEB	1030	304	153.	1280.0	1201.8	*	8	FEB	0140	971	48.	254.0	1193.1	*	12	FEB	16501638	0.	203.0	1192.0
3	FEB	1040	305	153.	1277.9	1201.8	*	8	FEB	0150	972	47.	253.3	1193.0	*	12	FEB	17001639	0.	203.0	1192.0
3	FEB	1050	306	153.	1275.8	1201.8	*	8	FEB	0200	973	47.	252.7	1193.0	*	12	FEB	17101640	0.	203.0	1192.0
3	FEB	1100	307	152.	1273.7	1201.8	*	8	FEB	0210	974	47.	252.0	1193.0	*	12	FEB	17201641	0.	203.0	1192.0
3	FEB	1110	308	152.	1271.6	1201.8	*	8	FEB	0220	975	46.	251.4	1193.0	*	12	FEB	17301642	0.	203.0	1192.0
3	FEB	1120	309	152.	1269.5	1201.8	*	8	FEB	0230	976	46.	250.7	1193.0	*	12	FEB	17401643	0.	203.0	1192.0

3	FEB	1130	310	152.	1267.4	1201.8	*	8	FEB	0240	977	46.	250.1	1193.0	*	12	FEB	17501644	0.	203.0	1192.0
3	FEB	1140	311	152.	1265.3	1201.8	*	8	FEB	0250	978	45.	249.5	1193.0	*	12	FEB	18001645	0.	203.0	1192.0
3	FEB	1150	312	152.	1263.2	1201.8	*	8	FEB	0300	979	45.	248.9	1193.0	*	12	FEB	18101646	0.	203.0	1192.0
3	FEB	1200	313	152.	1261.1	1201.7	*	8	FEB	0310	980	45.	248.2	1192.9	*	12	FEB	18201647	0.	203.0	1192.0
3	FEB	1210	314	152.	1259.0	1201.7	*	8	FEB	0320	981	45.	247.6	1192.9	*	12	FEB	18301648	0.	203.0	1192.0
3	FEB	1220	315	152.	1256.9	1201.7	*	8	FEB	0330	982	44.	247.0	1192.9	*	12	FEB	18401649	0.	203.0	1192.0
3	FEB	1230	316	152.	1254.8	1201.7	*	8	FEB	0340	983	44.	246.4	1192.9	*	12	FEB	18501650	0.	203.0	1192.0
3	FEB	1240	317	152.	1252.8	1201.7	*	8	FEB	0350	984	44.	245.8	1192.9	*	12	FEB	19001651	0.	203.0	1192.0
3	FEB	1250	318	151.	1250.7	1201.7	*	8	FEB	0400	985	43.	245.2	1192.9	*	12	FEB	19101652	0.	203.0	1192.0
3	FEB	1300	319	151.	1248.6	1201.7	*	8	FEB	0410	986	43.	244.6	1192.9	*	12	FEB	19201653	0.	203.0	1192.0
3	FEB	1310	320	151.	1246.5	1201.7	*	8	FEB	0420	987	43.	244.0	1192.9	*	12	FEB	19301654	0.	203.0	1192.0
3	FEB	1320	321	151.	1244.4	1201.6	*	8	FEB	0430	988	43.	243.4	1192.9	*	12	FEB	19401655	0.	203.0	1192.0
3	FEB	1330	322	151.	1242.3	1201.6	*	8	FEB	0440	989	42.	242.8	1192.8	*	12	FEB	19501656	0.	203.0	1192.0
3	FEB	1340	323	151.	1240.3	1201.6	*	8	FEB	0450	990	42.	242.2	1192.8	*	12	FEB	20001657	0.	203.0	1192.0
3	FEB	1350	324	151.	1238.2	1201.6	*	8	FEB	0500	991	42.	241.7	1192.8	*	12	FEB	20101658	0.	203.0	1192.0
3	FEB	1400	325	151.	1236.1	1201.6	*	8	FEB	0510	992	42.	241.1	1192.8	*	12	FEB	20201659	0.	203.0	1192.0
3	FEB	1410	326	151.	1234.0	1201.6	*	8	FEB	0520	993	41.	240.5	1192.8	*	12	FEB	20301660	0.	203.0	1192.0
3	FEB	1420	327	151.	1232.0	1201.6	*	8	FEB	0530	994	41.	240.0	1192.8	*	12	FEB	20401661	0.	203.0	1192.0
3	FEB	1430	328	150.	1229.9	1201.6	*	8	FEB	0540	995	41.	239.4	1192.8	*	12	FEB	20501662	0.	203.0	1192.0
3	FEB	1440	329	150.	1227.8	1201.5	*	8	FEB	0550	996	41.	238.8	1192.8	*	12	FEB	21001663	0.	203.0	1192.0
3	FEB	1450	330	150.	1225.7	1201.5	*	8	FEB	0600	997	40.	238.3	1192.8	*	12	FEB	21101664	0.	203.0	1192.0
3	FEB	1500	331	150.	1223.7	1201.5	*	8	FEB	0610	998	40.	237.7	1192.8	*	12	FEB	21201665	0.	203.0	1192.0
3	FEB	1510	332	150.	1221.6	1201.5	*	8	FEB	0620	999	40.	237.2	1192.7	*	12	FEB	21301666	0.	203.0	1192.0
3	FEB	1520	333	150.	1219.5	1201.5	*	8	FEB	06301000		39.	236.6	1192.7	*	12	FEB	21401667	0.	203.0	1192.0
3	FEB	1530	334	150.	1217.5	1201.5	*	8	FEB	06401001		39.	236.1	1192.7	*	12	FEB	21501668	0.	203.0	1192.0
3	FEB	1540	335	150.	1215.4	1201.5	*	8	FEB	06501002		39.	235.6	1192.7	*	12	FEB	22001669	0.	203.0	1192.0
3	FEB	1550	336	150.	1213.3	1201.5	*	8	FEB	07001003		39.	235.0	1192.7	*	12	FEB	22101670	0.	203.0	1192.0
3	FEB	1600	337	150.	1211.3	1201.5	*	8	FEB	07101004		38.	234.5	1192.7	*	12	FEB	22201671	0.	203.0	1192.0
3	FEB	1610	338	150.	1209.2	1201.4	*	8	FEB	07201005		38.	234.0	1192.7	*	12	FEB	22301672	0.	203.0	1192.0
3	FEB	1620	339	149.	1207.2	1201.4	*	8	FEB	07301006		38.	233.4	1192.7	*	12	FEB	22401673	0.	203.0	1192.0
3	FEB	1630	340	149.	1205.1	1201.4	*	8	FEB	07401007		38.	232.9	1192.7	*	12	FEB	22501674	0.	203.0	1192.0
3	FEB	1640	341	149.	1203.0	1201.4	*	8	FEB	07501008		38.	232.4	1192.7	*	12	FEB	23001675	0.	203.0	1192.0
3	FEB	1650	342	149.	1201.0	1201.4	*	8	FEB	08001009		37.	231.9	1192.6	*	12	FEB	23101676	0.	203.0	1192.0
3	FEB	1700	343	149.	1198.9	1201.4	*	8	FEB	08101010		37.	231.4	1192.6	*	12	FEB	23201677	0.	203.0	1192.0
3	FEB	1710	344	149.	1196.9	1201.4	*	8	FEB	08201011		37.	230.9	1192.6	*	12	FEB	23301678	0.	203.0	1192.0
3	FEB	1720	345	149.	1194.8	1201.4	*	8	FEB	08301012		37.	230.3	1192.6	*	12	FEB	23401679	0.	203.0	1192.0
3	FEB	1730	346	149.	1192.8	1201.3	*	8	FEB	08401013		36.	229.8	1192.6	*	12	FEB	23501680	0.	203.0	1192.0
3	FEB	1740	347	149.	1190.7	1201.3	*	8	FEB	08501014		36.	229.3	1192.6	*	13	FEB	00001681	0.	203.0	1192.0
3	FEB	1750	348	149.	1188.7	1201.3	*	8	FEB	09001015		36.	228.9	1192.6	*	13	FEB	00101682	0.	203.0	1192.0
3	FEB	1800	349	148.	1186.6	1201.3	*	8	FEB	09101016		36.	228.4	1192.6	*	13	FEB	00201683	0.	203.0	1192.0
3	FEB	1810	350	148.	1184.6	1201.3	*	8	FEB	09201017		35.	227.9	1192.6	*	13	FEB	00301684	0.	203.0	1192.0
3	FEB	1820	351	148.	1182.6	1201.3	*	8	FEB	09301018		35.	227.4	1192.6	*	13	FEB	00401685	0.	203.0	1192.0
3	FEB	1830	352	148.	1180.5	1201.3	*	8	FEB	09401019		35.	226.9	1192.6	*	13	FEB	00501686	0.	203.0	1192.0
3	FEB	1840	353	148.	1178.5	1201.3	*	8	FEB	09501020		34.	226.4	1192.5	*	13	FEB	01001687	0.	203.0	1192.0
3	FEB	1850	354	148.	1176.4	1201.3	*	8	FEB	10001021		34.	226.0	1192.5	*	13	FEB	01101688	0.	203.0	1192.0
3	FEB	1900	355	148.	1174.4	1201.2	*	8	FEB	10101022		33.	225.5	1192.5	*	13	FEB	01201689	0.	203.0	1192.0
3	FEB	1910	356	148.	1172.4	1201.2	*	8	FEB	10201023		33.	225.0	1192.5	*	13	FEB	01301690	0.	203.0	1192.0
3	FEB	1920	357	148.	1170.3	1201.2	*	8	FEB	10301024		32.	224.6	1192.5	*	13	FEB	01401691	0.	203.0	1192.0
3	FEB	1930	358	148.	1168.3	1201.2	*	8	FEB	10401025		32.	224.1	1192.5	*	13	FEB	01501692	0.	203.0	1192.0
3	FEB	1940	359	148.	1166.3	1201.2	*	8	FEB	10501026		31.	223.7	1192.5	*	13	FEB	02001693	0.	203.0	1192.0
3	FEB	1950	360	147.	1164.2	1201.2	*	8	FEB	11001027		30.	223.3	1192.5	*	13	FEB	02101694	0.	203.0	1192.0
3	FEB	2000	361	147.	1162.2	1201.2	*	8	FEB	11101028		30.	222.9	1192.5	*	13	FEB	02201695	0.	203.0	1192.0
3	FEB	2010	362	147.	1160.2	1201.2	*	8	FEB	11201029		29.	222.5	1192.4	*	13	FEB	02301696	0.	203.0	1192.0
3	FEB	2020	363	147.	1158.1	1201.1	*	8	FEB	11301030		29.	222.1	1192.4	*	13	FEB	02401697	0.	203.0	1192.0
3	FEB	2030	364	147.	1156.1	1201.1	*	8	FEB	11401031		28.	221.7	1192.4	*	13	FEB	02501698	0.	203.0	1192.0
3	FEB	2040	365	147.	1154.1	1201.1	*	8	FEB	11501032		27.	221.3	1192.4	*	13	FEB	03001699	0.	203.0	1192.0
3	FEB	2050	366	147.	1152.1	1201.1	*	8	FEB	12001033		27.	220.9	1192.4	*	13	FEB	03101700	0.	203.0	1192.0
3	FEB	2100	367	147.	1150.0	1201.1	*	8	FEB	12101034		26.	220.6	1192.4	*	13	FEB	03201701	0.	203.0	1192.0
3	FEB	2110	368	147.	1148.0	1201.1	*	8	FEB	12201035		26.	220.2	1192.4	*	13	FEB	03301702	0.	203.0	1192.0
3	FEB	2120	369	147.	1146.0	1201.1	*	8	FEB	12301036		25.	219.8	1192.4	*	13	FEB	03401703	0.	203.0	1192.0
3	FEB	2130	370	147.	1144.0	1201.1	*	8	FEB	12401037		25.	219.5	1192.4	*	13	FEB	03501704	0.	203.0	1192.0
3	FEB	2140	371	146.	1142.0	1201.1	*	8	FEB	12501038		24.	219.2	1192.4	*	13	FEB	04001705	0.	203.0	1192.0
3	FEB	2150	372	146.	1139.9	1201.0	*	8	FEB	13001039		24.	218.8	1192.4	*	13	FEB	04101706	0.	203.0	1192.0
3	FEB	2200	373	146.	1137.9	1201.0	*	8	FEB	13101040		23.	218.5	1192.4	*	13	FEB	04201707	0.	203.0	1192.0
3	FEB	2210	374	146.	1135.9	1201.0	*	8	FEB	13201041		23.	218.2	1192.3	*	13	FEB	04301708	0.	203.0	1192.0
3	FEB	2220	375	146.	1133.9	1201.0	*	8	FEB	13301042		22.	217.9	1192.3	*	13	FEB	04401709	0.	203.0	1192.0
3	FEB	2230	376	146.	1131.9	1201.0	*	8	FEB	13401043		22.	217.6	1192.3	*	13	FEB	04501710	0.	203.0	1192.0
3	FEB	2240	377	146.	1129.9	1201.0	*	8	FEB	13501044		21.	217.3	1192.3	*	13	FEB	05001711	0.	203.0	1192.0
3	FEB	2250	378	146.	1127.9	1201.0	*	8	FEB	14001045		21.	217.0	1192.3	*	13	FEB	05101712	0.	203.0	1192.0
3	FEB	2300	379	146.	1125.9	1201.0	*	8	FEB	14101046		21.	216.7	1192.3	*	13	FEB	05201713	0.	203.0	1192.0
3	FEB	2310	380	146.	1123.9	1201.0	*	8	FEB	14201047		20.	216.4	1192.3	*	13	FEB	05301714	0.	203.0	1192.0
3	FEB	2320	381	146.	1121.8	1200.9	*	8	FEB	14301048		20.	216.1	1192.3	*	13	FEB	05401715	0.	203.0	1192.0
3	FEB	2330	382	145.	1119.8	1200.9	*	8	FEB	14401049		19.	215.9	1192.3	*	13	FEB	05501716	0.	203.0	1192.0
3	FEB	2340	383	145.	1117.8	1200.9	*	8	FEB	14501050		19.	215.6	1192.3	*	13	FEB	06001717	0.	203.0	1192.0
3	FEB	2350	384	145.	1115.8	1200.9	*	8	FEB	15001051		19.	215.4	1192.3	*	13	FEB	06101718	0.	203.0	1192.0
4	FEB	0000	385	145.	1113.8	1200.9	*	8	FEB	15101052		18.	215.1	1192.3	*	13	FEB	06201719	0.	203.0	1192.0
4	FEB	0010	386	145.	1111.8	1200.9	*	8	FEB	15201053		18.	214.9	1192.3	*	13	FEB	06301720	0.	203.0	1192.0
4	FEB	0020	387	145.	1109.8	1200.9	*	8	FEB	15301054		17.	214.6	1192.3	*	13	FEB	06401721	0.	203.0	1192.0
4	FEB	0030	388	145.	1107.8	1200.9	*	8	FEB	15401055		17.	214.4	1192.3	*	13	FEB	06501722	0.	203.0	1192.0
4	FEB	0040	389	145.	1105.9	1200.8	*	8	FEB	15501056		17.	214.1	1192.3	*	13	FEB	07001723	0.	203.0	1192.0
4	FEB	0050	390	145.	1103.9	1200.8	*	8	FEB	16001057		16.	213.9	1192.2	*	13	FEB	07101724	0.	203.0	1192.0
4	FEB	0100	391	145.	1101.9	1200.8	*	8	FEB	16101058		16.	213.7	1192.2	*	13	FEB	07201725	0.	203.0	1192.0
4	FEB	0110	392	145.	1099.9	1200.8	*	8	FEB	16201059		16.	213.5	1192.2	*	13	FEB	07301726	0.	203.0	1192.0
4	FEB	0120	393	144.	1097.9	1200.8	*	8	FEB	16301060		15.	213.3	1192.2	*	13	FEB	07401727	0.	203.0	1192.0
4	FEB	0130	394	144.	1095.9	1200.8	*	8	FEB	16401061		15.	213.0	1192.2	*	13	FEB	07501728	0.	203.0	1192.0
4	FEB	0140	395	144.	1093.9	1200.8	*	8	FEB	16501062		15.	212.8	1192.2	*	13	FEB	08001729	0.	203.0	1192.0
4	FEB	0150	396	144.	1091.9	1200.8	*	8	FEB	17001063		14.	212.6	1192.2	*	13	FEB	08101730	0.	203.0	1192.0
4	FEB	0200	397	144.	1089.9	1200.8	*	8	FEB	17101064		14.	212.4	1192.2	*	13	FEB	08201731	0.	203.0	1192.0
4	FEB	0210	398	144.	1088.0	1200.7	*	8	FEB	17201065		14.	212.3	1192.2	*	13	FEB	08301732	0.	203.0	1192.0
4	FEB	0220	399	144.	1086.0	1200.7	*	8	FEB	17301066		14.	212.1	1192.2	*	13	FEB	08401733	0.	203.0	1192.0
4	FEB	0230	400	144.	1084.0	1200.7	*	8	FEB	17401067		13.	211.9	1192.2	*	13	FEB	08501734	0.	203.0	1192.0
4	FEB	0240	401	144.	1082.0	1200.7	*	8	FEB	17501068		13.	211.7	1192.2	*	13	FEB	09001735	0.	203.0	1192.0
4	FEB	0250	402	144.	1080.0	1200.7	*	8	FEB	18001069		13.	211.5	1192.2	*	13	FEB	09101736	0.	203.0	1192.0
4	FEB	0300	403	144.	1078.1	1200.7	*	8	FEB	18101070		13.	211.3	1192.2	*	13	FEB	09201737	0.	203.0	1192.0
4	FEB	0310	404	143.	1076.1	1200.7	*	8	FEB	18201071		12.	211.2	1192.2	*	13	FEB	09301738	0.	203.0	1192.0

4	FEB	0320	405	143.	1074.1	1200.7	*	8	FEB	18301072	12.	211.0	1192.2	*	13	FEB	09401739	0.	203.0	1192.0
4	FEB	0330	406	143.	1072.1	1200.7	*	8	FEB	18401073	12.	210.8	1192.2	*	13	FEB	09501740	0.	203.0	1192.0
4	FEB	0340	407	143.	1070.2	1200.6	*	8	FEB	18501074	12.	210.7	1192.2	*	13	FEB	10001741	0.	203.0	1192.0
4	FEB	0350	408	143.	1068.2	1200.6	*	8	FEB	19001075	11.	210.5	1192.2	*	13	FEB	10101742	0.	203.0	1192.0
4	FEB	0400	409	143.	1066.2	1200.6	*	8	FEB	19101076	11.	210.4	1192.2	*	13	FEB	10201743	0.	203.0	1192.0
4	FEB	0410	410	143.	1064.3	1200.6	*	8	FEB	19201077	11.	210.2	1192.2	*	13	FEB	10301744	0.	203.0	1192.0
4	FEB	0420	411	143.	1062.3	1200.6	*	8	FEB	19301078	11.	210.1	1192.2	*	13	FEB	10401745	0.	203.0	1192.0
4	FEB	0430	412	143.	1060.3	1200.6	*	8	FEB	19401079	10.	209.9	1192.2	*	13	FEB	10501746	0.	203.0	1192.0
4	FEB	0440	413	143.	1058.4	1200.6	*	8	FEB	19501080	10.	209.8	1192.2	*	13	FEB	11001747	0.	203.0	1192.0
4	FEB	0450	414	143.	1056.4	1200.6	*	8	FEB	20001081	10.	209.6	1192.2	*	13	FEB	11101748	0.	203.0	1192.0
4	FEB	0500	415	142.	1054.4	1200.6	*	8	FEB	20101082	10.	209.5	1192.1	*	13	FEB	11201749	0.	203.0	1192.0
4	FEB	0510	416	142.	1052.5	1200.5	*	8	FEB	20201083	10.	209.4	1192.1	*	13	FEB	11301750	0.	203.0	1192.0
4	FEB	0520	417	142.	1050.5	1200.5	*	8	FEB	20301084	9.	209.2	1192.1	*	13	FEB	11401751	0.	203.0	1192.0
4	FEB	0530	418	142.	1048.5	1200.5	*	8	FEB	20401085	9.	209.1	1192.1	*	13	FEB	11501752	0.	203.0	1192.0
4	FEB	0540	419	142.	1046.6	1200.5	*	8	FEB	20501086	9.	209.0	1192.1	*	13	FEB	12001753	0.	203.0	1192.0
4	FEB	0550	420	142.	1044.6	1200.5	*	8	FEB	21001087	9.	208.9	1192.1	*	13	FEB	12101754	0.	203.0	1192.0
4	FEB	0600	421	142.	1042.7	1200.5	*	8	FEB	21101088	9.	208.8	1192.1	*	13	FEB	12201755	0.	203.0	1192.0
4	FEB	0610	422	142.	1040.7	1200.5	*	8	FEB	21201089	8.	208.6	1192.1	*	13	FEB	12301756	0.	203.0	1192.0
4	FEB	0620	423	142.	1038.8	1200.5	*	8	FEB	21301090	8.	208.5	1192.1	*	13	FEB	12401757	0.	203.0	1192.0
4	FEB	0630	424	142.	1036.8	1200.5	*	8	FEB	21401091	8.	208.4	1192.1	*	13	FEB	12501758	0.	203.0	1192.0
4	FEB	0640	425	142.	1034.9	1200.4	*	8	FEB	21501092	8.	208.3	1192.1	*	13	FEB	13001759	0.	203.0	1192.0
4	FEB	0650	426	141.	1032.9	1200.4	*	8	FEB	22001093	8.	208.2	1192.1	*	13	FEB	13101760	0.	203.0	1192.0
4	FEB	0700	427	141.	1031.0	1200.4	*	8	FEB	22101094	8.	208.1	1192.1	*	13	FEB	13201761	0.	203.0	1192.0
4	FEB	0710	428	141.	1029.0	1200.4	*	8	FEB	22201095	7.	208.0	1192.1	*	13	FEB	13301762	0.	203.0	1192.0
4	FEB	0720	429	141.	1027.1	1200.4	*	8	FEB	22301096	7.	207.9	1192.1	*	13	FEB	13401763	0.	203.0	1192.0
4	FEB	0730	430	141.	1025.1	1200.4	*	8	FEB	22401097	7.	207.8	1192.1	*	13	FEB	13501764	0.	203.0	1192.0
4	FEB	0740	431	141.	1023.2	1200.4	*	8	FEB	22501098	7.	207.7	1192.1	*	13	FEB	14001765	0.	203.0	1192.0
4	FEB	0750	432	141.	1021.3	1200.4	*	8	FEB	23001099	7.	207.6	1192.1	*	13	FEB	14101766	0.	203.0	1192.0
4	FEB	0800	433	141.	1019.3	1200.4	*	8	FEB	23101100	7.	207.5	1192.1	*	13	FEB	14201767	0.	203.0	1192.0
4	FEB	0810	434	141.	1017.4	1200.3	*	8	FEB	23201101	7.	207.4	1192.1	*	13	FEB	14301768	0.	203.0	1192.0
4	FEB	0820	435	141.	1015.4	1200.3	*	8	FEB	23301102	6.	207.3	1192.1	*	13	FEB	14401769	0.	203.0	1192.0
4	FEB	0830	436	141.	1013.5	1200.3	*	8	FEB	23401103	6.	207.2	1192.1	*	13	FEB	14501770	0.	203.0	1192.0
4	FEB	0840	437	140.	1011.6	1200.3	*	8	FEB	23501104	6.	207.1	1192.1	*	13	FEB	15001771	0.	203.0	1192.0
4	FEB	0850	438	140.	1009.6	1200.3	*	9	FEB	00001105	6.	207.0	1192.1	*	13	FEB	15101772	0.	203.0	1192.0
4	FEB	0900	439	140.	1007.7	1200.3	*	9	FEB	00101106	6.	207.0	1192.1	*	13	FEB	15201773	0.	203.0	1192.0
4	FEB	0910	440	140.	1005.8	1200.3	*	9	FEB	00201107	6.	206.9	1192.1	*	13	FEB	15301774	0.	203.0	1192.0
4	FEB	0920	441	140.	1003.8	1200.3	*	9	FEB	00301108	6.	206.8	1192.1	*	13	FEB	15401775	0.	203.0	1192.0
4	FEB	0930	442	140.	1001.9	1200.3	*	9	FEB	00401109	6.	206.7	1192.1	*	13	FEB	15501776	0.	203.0	1192.0
4	FEB	0940	443	140.	1000.0	1200.2	*	9	FEB	00501110	5.	206.7	1192.1	*	13	FEB	16001777	0.	203.0	1192.0
4	FEB	0950	444	140.	998.1	1200.2	*	9	FEB	01001111	5.	206.6	1192.1	*	13	FEB	16101778	0.	203.0	1192.0
4	FEB	1000	445	140.	996.1	1200.2	*	9	FEB	01101112	5.	206.5	1192.1	*	13	FEB	16201779	0.	203.0	1192.0
4	FEB	1010	446	140.	994.2	1200.2	*	9	FEB	01201113	5.	206.4	1192.1	*	13	FEB	16301780	0.	203.0	1192.0
4	FEB	1020	447	140.	992.3	1200.2	*	9	FEB	01301114	5.	206.4	1192.1	*	13	FEB	16401781	0.	203.0	1192.0
4	FEB	1030	448	139.	990.4	1200.2	*	9	FEB	01401115	5.	206.3	1192.1	*	13	FEB	16501782	0.	203.0	1192.0
4	FEB	1040	449	139.	988.4	1200.2	*	9	FEB	01501116	5.	206.2	1192.1	*	13	FEB	17001783	0.	203.0	1192.0
4	FEB	1050	450	139.	986.5	1200.2	*	9	FEB	02001117	5.	206.2	1192.1	*	13	FEB	17101784	0.	203.0	1192.0
4	FEB	1100	451	139.	984.6	1200.2	*	9	FEB	02101118	5.	206.1	1192.1	*	13	FEB	17201785	0.	203.0	1192.0
4	FEB	1110	452	139.	982.7	1200.1	*	9	FEB	02201119	5.	206.0	1192.1	*	13	FEB	17301786	0.	203.0	1192.0
4	FEB	1120	453	139.	980.8	1200.1	*	9	FEB	02301120	4.	206.0	1192.1	*	13	FEB	17401787	0.	203.0	1192.0
4	FEB	1130	454	139.	978.9	1200.1	*	9	FEB	02401121	4.	205.9	1192.1	*	13	FEB	17501788	0.	203.0	1192.0
4	FEB	1140	455	139.	976.9	1200.1	*	9	FEB	02501122	4.	205.8	1192.1	*	13	FEB	18001789	0.	203.0	1192.0
4	FEB	1150	456	139.	975.0	1200.1	*	9	FEB	03001123	4.	205.8	1192.1	*	13	FEB	18101790	0.	203.0	1192.0
4	FEB	1200	457	139.	973.1	1200.1	*	9	FEB	03101124	4.	205.7	1192.1	*	13	FEB	18201791	0.	203.0	1192.0
4	FEB	1210	458	139.	971.2	1200.1	*	9	FEB	03201125	4.	205.7	1192.1	*	13	FEB	18301792	0.	203.0	1192.0
4	FEB	1220	459	139.	969.3	1200.1	*	9	FEB	03301126	4.	205.6	1192.1	*	13	FEB	18401793	0.	203.0	1192.0
4	FEB	1230	460	138.	967.4	1200.1	*	9	FEB	03401127	4.	205.6	1192.1	*	13	FEB	18501794	0.	203.0	1192.0
4	FEB	1240	461	138.	965.5	1200.0	*	9	FEB	03501128	4.	205.5	1192.1	*	13	FEB	19001795	0.	203.0	1192.0
4	FEB	1250	462	138.	963.6	1200.0	*	9	FEB	04001129	4.	205.5	1192.1	*	13	FEB	19101796	0.	203.0	1192.0
4	FEB	1300	463	138.	961.7	1200.0	*	9	FEB	04101130	4.	205.4	1192.1	*	13	FEB	19201797	0.	203.0	1192.0
4	FEB	1310	464	138.	959.8	1200.0	*	9	FEB	04201131	4.	205.4	1192.1	*	13	FEB	19301798	0.	203.0	1192.0
4	FEB	1320	465	138.	957.9	1200.0	*	9	FEB	04301132	3.	205.3	1192.1	*	13	FEB	19401799	0.	203.0	1192.0
4	FEB	1330	466	138.	956.0	1200.0	*	9	FEB	04401133	3.	205.3	1192.1	*	13	FEB	19501800	0.	203.0	1192.0
4	FEB	1340	467	138.	954.1	1200.0	*	9	FEB	04501134	3.	205.2	1192.1	*	13	FEB	20001801	0.	203.0	1192.0
4	FEB	1350	468	138.	952.2	1200.0	*	9	FEB	05001135	3.	205.2	1192.0	*	13	FEB	20101802	0.	203.0	1192.0
4	FEB	1400	469	137.	950.3	1199.9	*	9	FEB	05101136	3.	205.1	1192.0	*	13	FEB	20201803	0.	203.0	1192.0
4	FEB	1410	470	137.	948.4	1199.9	*	9	FEB	05201137	3.	205.1	1192.0	*	13	FEB	20301804	0.	203.0	1192.0
4	FEB	1420	471	137.	946.5	1199.9	*	9	FEB	05301138	3.	205.0	1192.0	*	13	FEB	20401805	0.	203.0	1192.0
4	FEB	1430	472	137.	944.6	1199.9	*	9	FEB	05401139	3.	205.0	1192.0	*	13	FEB	20501806	0.	203.0	1192.0
4	FEB	1440	473	137.	942.7	1199.9	*	9	FEB	05501140	3.	205.0	1192.0	*	13	FEB	21001807	0.	203.0	1192.0
4	FEB	1450	474	137.	940.8	1199.9	*	9	FEB	06001141	3.	204.9	1192.0	*	13	FEB	21101808	0.	203.0	1192.0
4	FEB	1500	475	137.	939.0	1199.9	*	9	FEB	06101142	3.	204.9	1192.0	*	13	FEB	21201809	0.	203.0	1192.0
4	FEB	1510	476	137.	937.1	1199.8	*	9	FEB	06201143	3.	204.8	1192.0	*	13	FEB	21301810	0.	203.0	1192.0
4	FEB	1520	477	136.	935.2	1199.8	*	9	FEB	06301144	3.	204.8	1192.0	*	13	FEB	21401811	0.	203.0	1192.0
4	FEB	1530	478	136.	933.3	1199.8	*	9	FEB	06401145	3.	204.8	1192.0	*	13	FEB	21501812	0.	203.0	1192.0
4	FEB	1540	479	136.	931.4	1199.8	*	9	FEB	06501146	3.	204.7	1192.0	*	13	FEB	22001813	0.	203.0	1192.0
4	FEB	1550	480	136.	929.6	1199.8	*	9	FEB	07001147	3.	204.7	1192.0	*	13	FEB	22101814	0.	203.0	1192.0
4	FEB	1600	481	136.	927.7	1199.8	*	9	FEB	07101148	2.	204.7	1192.0	*	13	FEB	22201815	0.	203.0	1192.0
4	FEB	1610	482	136.	925.8	1199.8	*	9	FEB	07201149	2.	204.6	1192.0	*	13	FEB	22301816	0.	203.0	1192.0
4	FEB	1620	483	136.	923.9	1199.7	*	9	FEB	07301150	2.	204.6	1192.0	*	13	FEB	22401817	0.	203.0	1192.0
4	FEB	1630	484	136.	922.1	1199.7	*	9	FEB	07401151	2.	204.6	1192.0	*	13	FEB	22501818	0.	203.0	1192.0
4	FEB	1640	485	135.	920.2	1199.7	*	9	FEB	07501152	2.	204.5	1192.0	*	13	FEB	23001819	0.	203.0	1192.0
4	FEB	1650	486	135.	918.4	1199.7	*	9	FEB	08001153	2.	204.5	1192.0	*	13	FEB	23101820	0.	203.0	1192.0
4	FEB	1700	487	135.	916.5	1199.7	*	9	FEB	08101154	2.	204.5	1192.0	*	13	FEB	23201821	0.	203.0	1192.0
4	FEB	1710	488	135.	914.6	1199.7	*	9	FEB	08201155	2.	204.4	1192.0	*	13	FEB	23301822	0.	203.0	1192.0
4	FEB	1720	489	135.	912.8	1199.7	*	9	FEB	08301156	2.	204.4	1192.0	*	13	FEB	23401823	0.	203.0	1192.0
4	FEB	1730	490	135.	910.9	1199.7	*	9	FEB	08401157	2.	204.4	1192.0	*	13	FEB	23501824	0.	203.0	1192.0
4	FEB	1740	491	135.	909.1	1199.6	*	9	FEB	08501158	2.	204.4	1192.0	*	14	FEB	00001825	0.	203.0	1192.0
4	FEB	1750	492	135.	907.2	1199.6	*	9	FEB	09001159	2.	204.3	1192.0	*	14	FEB	00101826	0.	203.0	1192.0
4	FEB	1800	493	134.	905.3	1199.6	*	9	FEB	09101160	2.	204.3	1192.0	*	14	FEB	00201827	0.	203.0	1192.0
4	FEB	1810	494	134.	903.5	1199.6	*	9	FEB	09201161	2.	204.3	1192.0	*	14	FEB	00301828	0.	203.0	1192.0
4	FEB	1820	495	134.	901.6	1199.6	*	9	FEB	09301162	2.	204.2	1192.0	*	14	FEB	00401829	0.	203.0	1192.0
4	FEB	1830	496	134.	899.8	1199.6	*	9	FEB	09401163	2.	204.2	1192.0	*	14	FEB	00501830	0.	203.0	1192.0
4	FEB	1840	497	134.	898.0	1199.6	*	9	FEB	09501164	2.	204.2	1192.0	*	14	FEB	01001831	0.	203.0	1192.0
4	FEB	1850	498	134.	896.1	1199.5	*	9	FEB	10001165	2.	204.2	1192.0	*	14	FEB	01101832	0.	203.0	1192.0
4	FEB	1900	499	134.	894.3	1199.5	*	9	FEB	10101166	2.	204.1	1192.0	*	14	FEB	01201833	0.	203.0	1192.0

4 FEB 1910 500	134.	892.4	1199.5 *	9 FEB 10201167	2.	204.1	1192.0 *	14 FEB 01301834	0.	203.0	1192.0
4 FEB 1920 501	133.	890.6	1199.5 *	9 FEB 10301168	2.	204.1	1192.0 *	14 FEB 01401835	0.	203.0	1192.0
4 FEB 1930 502	133.	888.8	1199.5 *	9 FEB 10401169	2.	204.1	1192.0 *	14 FEB 01501836	0.	203.0	1192.0
4 FEB 1940 503	133.	886.9	1199.5 *	9 FEB 10501170	2.	204.1	1192.0 *	14 FEB 02001837	0.	203.0	1192.0
4 FEB 1950 504	133.	885.1	1199.5 *	9 FEB 11001171	2.	204.0	1192.0 *	14 FEB 02101838	0.	203.0	1192.0
4 FEB 2000 505	133.	883.3	1199.4 *	9 FEB 11101172	2.	204.0	1192.0 *	14 FEB 02201839	0.	203.0	1192.0
4 FEB 2010 506	133.	881.4	1199.4 *	9 FEB 11201173	1.	204.0	1192.0 *	14 FEB 02301840	0.	203.0	1192.0
4 FEB 2020 507	133.	879.6	1199.4 *	9 FEB 11301174	1.	204.0	1192.0 *	14 FEB 02401841	0.	203.0	1192.0
4 FEB 2030 508	133.	877.8	1199.4 *	9 FEB 11401175	1.	204.0	1192.0 *	14 FEB 02501842	0.	203.0	1192.0
4 FEB 2040 509	132.	875.9	1199.4 *	9 FEB 11501176	1.	203.9	1192.0 *	14 FEB 03001843	0.	203.0	1192.0
4 FEB 2050 510	132.	874.1	1199.4 *	9 FEB 12001177	1.	203.9	1192.0 *	14 FEB 03101844	0.	203.0	1192.0
4 FEB 2100 511	132.	872.3	1199.4 *	9 FEB 12101178	1.	203.9	1192.0 *	14 FEB 03201845	0.	203.0	1192.0
4 FEB 2110 512	132.	870.5	1199.4 *	9 FEB 12201179	1.	203.9	1192.0 *	14 FEB 03301846	0.	203.0	1192.0
4 FEB 2120 513	132.	868.7	1199.3 *	9 FEB 12301180	1.	203.9	1192.0 *	14 FEB 03401847	0.	203.0	1192.0
4 FEB 2130 514	132.	866.9	1199.3 *	9 FEB 12401181	1.	203.8	1192.0 *	14 FEB 03501848	0.	203.0	1192.0
4 FEB 2140 515	132.	865.0	1199.3 *	9 FEB 12501182	1.	203.8	1192.0 *	14 FEB 04001849	0.	203.0	1192.0
4 FEB 2150 516	132.	863.2	1199.3 *	9 FEB 13001183	1.	203.8	1192.0 *	14 FEB 04101850	0.	203.0	1192.0
4 FEB 2200 517	131.	861.4	1199.3 *	9 FEB 13101184	1.	203.8	1192.0 *	14 FEB 04201851	0.	203.0	1192.0
4 FEB 2210 518	131.	859.6	1199.3 *	9 FEB 13201185	1.	203.8	1192.0 *	14 FEB 04301852	0.	203.0	1192.0
4 FEB 2220 519	131.	857.8	1199.3 *	9 FEB 13301186	1.	203.8	1192.0 *	14 FEB 04401853	0.	203.0	1192.0
4 FEB 2230 520	131.	856.0	1199.2 *	9 FEB 13401187	1.	203.7	1192.0 *	14 FEB 04501854	0.	203.0	1192.0
4 FEB 2240 521	131.	854.2	1199.2 *	9 FEB 13501188	1.	203.7	1192.0 *	14 FEB 05001855	0.	203.0	1192.0
4 FEB 2250 522	131.	852.4	1199.2 *	9 FEB 14001189	1.	203.7	1192.0 *	14 FEB 05101856	0.	203.0	1192.0
4 FEB 2300 523	131.	850.6	1199.2 *	9 FEB 14101190	1.	203.7	1192.0 *	14 FEB 05201857	0.	203.0	1192.0
4 FEB 2310 524	131.	848.8	1199.2 *	9 FEB 14201191	1.	203.7	1192.0 *	14 FEB 05301858	0.	203.0	1192.0
4 FEB 2320 525	130.	847.0	1199.2 *	9 FEB 14301192	1.	203.7	1192.0 *	14 FEB 05401859	0.	203.0	1192.0
4 FEB 2330 526	130.	845.2	1199.2 *	9 FEB 14401193	1.	203.7	1192.0 *	14 FEB 05501860	0.	203.0	1192.0
4 FEB 2340 527	130.	843.4	1199.1 *	9 FEB 14501194	1.	203.6	1192.0 *	14 FEB 06001861	0.	203.0	1192.0
4 FEB 2350 528	130.	841.6	1199.1 *	9 FEB 15001195	1.	203.6	1192.0 *	14 FEB 06101862	0.	203.0	1192.0
5 FEB 0000 529	130.	839.8	1199.1 *	9 FEB 15101196	1.	203.6	1192.0 *	14 FEB 06201863	0.	203.0	1192.0
5 FEB 0010 530	130.	838.0	1199.1 *	9 FEB 15201197	1.	203.6	1192.0 *	14 FEB 06301864	0.	203.0	1192.0
5 FEB 0020 531	130.	836.2	1199.1 *	9 FEB 15301198	1.	203.6	1192.0 *	14 FEB 06401865	0.	203.0	1192.0
5 FEB 0030 532	130.	834.5	1199.1 *	9 FEB 15401199	1.	203.6	1192.0 *	14 FEB 06501866	0.	203.0	1192.0
5 FEB 0040 533	129.	832.7	1199.1 *	9 FEB 15501200	1.	203.6	1192.0 *	14 FEB 07001867	0.	203.0	1192.0
5 FEB 0050 534	129.	830.9	1199.1 *	9 FEB 16001201	1.	203.6	1192.0 *	14 FEB 07101868	0.	203.0	1192.0
5 FEB 0100 535	129.	829.1	1199.0 *	9 FEB 16101202	1.	203.5	1192.0 *	14 FEB 07201869	0.	203.0	1192.0
5 FEB 0110 536	129.	827.3	1199.0 *	9 FEB 16201203	1.	203.5	1192.0 *	14 FEB 07301870	0.	203.0	1192.0
5 FEB 0120 537	129.	825.6	1199.0 *	9 FEB 16301204	1.	203.5	1192.0 *	14 FEB 07401871	0.	203.0	1192.0
5 FEB 0130 538	129.	823.8	1199.0 *	9 FEB 16401205	1.	203.5	1192.0 *	14 FEB 07501872	0.	203.0	1192.0
5 FEB 0140 539	129.	822.0	1199.0 *	9 FEB 16501206	1.	203.5	1192.0 *	14 FEB 08001873	0.	203.0	1192.0
5 FEB 0150 540	129.	820.2	1199.0 *	9 FEB 17001207	1.	203.5	1192.0 *	14 FEB 08101874	0.	203.0	1192.0
5 FEB 0200 541	128.	818.5	1199.0 *	9 FEB 17101208	1.	203.5	1192.0 *	14 FEB 08201875	0.	203.0	1192.0
5 FEB 0210 542	128.	816.7	1199.0 *	9 FEB 17201209	1.	203.5	1192.0 *	14 FEB 08301876	0.	203.0	1192.0
5 FEB 0220 543	128.	814.9	1198.9 *	9 FEB 17301210	1.	203.5	1192.0 *	14 FEB 08401877	0.	203.0	1192.0
5 FEB 0230 544	128.	813.2	1198.9 *	9 FEB 17401211	1.	203.5	1192.0 *	14 FEB 08501878	0.	203.0	1192.0
5 FEB 0240 545	128.	811.4	1198.9 *	9 FEB 17501212	1.	203.4	1192.0 *	14 FEB 09001879	0.	203.0	1192.0
5 FEB 0250 546	128.	809.6	1198.9 *	9 FEB 18001213	1.	203.4	1192.0 *	14 FEB 09101880	0.	203.0	1192.0
5 FEB 0300 547	128.	807.9	1198.9 *	9 FEB 18101214	1.	203.4	1192.0 *	14 FEB 09201881	0.	203.0	1192.0
5 FEB 0310 548	128.	806.1	1198.9 *	9 FEB 18201215	1.	203.4	1192.0 *	14 FEB 09301882	0.	203.0	1192.0
5 FEB 0320 549	128.	804.4	1198.9 *	9 FEB 18301216	1.	203.4	1192.0 *	14 FEB 09401883	0.	203.0	1192.0
5 FEB 0330 550	127.	802.6	1198.8 *	9 FEB 18401217	1.	203.4	1192.0 *	14 FEB 09501884	0.	203.0	1192.0
5 FEB 0340 551	127.	800.8	1198.8 *	9 FEB 18501218	1.	203.4	1192.0 *	14 FEB 10001885	0.	203.0	1192.0
5 FEB 0350 552	127.	799.1	1198.8 *	9 FEB 19001219	1.	203.4	1192.0 *	14 FEB 10101886	0.	203.0	1192.0
5 FEB 0400 553	127.	797.3	1198.8 *	9 FEB 19101220	1.	203.4	1192.0 *	14 FEB 10201887	0.	203.0	1192.0
5 FEB 0410 554	127.	795.6	1198.8 *	9 FEB 19201221	1.	203.4	1192.0 *	14 FEB 10301888	0.	203.0	1192.0
5 FEB 0420 555	127.	793.8	1198.8 *	9 FEB 19301222	1.	203.4	1192.0 *	14 FEB 10401889	0.	203.0	1192.0
5 FEB 0430 556	127.	792.1	1198.8 *	9 FEB 19401223	1.	203.4	1192.0 *	14 FEB 10501890	0.	203.0	1192.0
5 FEB 0440 557	127.	790.4	1198.8 *	9 FEB 19501224	1.	203.3	1192.0 *	14 FEB 11001891	0.	203.0	1192.0
5 FEB 0450 558	126.	788.6	1198.7 *	9 FEB 20001225	1.	203.3	1192.0 *	14 FEB 11101892	0.	203.0	1192.0
5 FEB 0500 559	126.	786.9	1198.7 *	9 FEB 20101226	0.	203.3	1192.0 *	14 FEB 11201893	0.	203.0	1192.0
5 FEB 0510 560	126.	785.1	1198.7 *	9 FEB 20201227	0.	203.3	1192.0 *	14 FEB 11301894	0.	203.0	1192.0
5 FEB 0520 561	126.	783.4	1198.7 *	9 FEB 20301228	0.	203.3	1192.0 *	14 FEB 11401895	0.	203.0	1192.0
5 FEB 0530 562	126.	781.7	1198.7 *	9 FEB 20401229	0.	203.3	1192.0 *	14 FEB 11501896	0.	203.0	1192.0
5 FEB 0540 563	126.	779.9	1198.7 *	9 FEB 20501230	0.	203.3	1192.0 *	14 FEB 12001897	0.	203.0	1192.0
5 FEB 0550 564	126.	778.2	1198.7 *	9 FEB 21001231	0.	203.3	1192.0 *	14 FEB 12101898	0.	203.0	1192.0
5 FEB 0600 565	126.	776.5	1198.7 *	9 FEB 21101232	0.	203.3	1192.0 *	14 FEB 12201899	0.	203.0	1192.0
5 FEB 0610 566	125.	774.7	1198.6 *	9 FEB 21201233	0.	203.3	1192.0 *	14 FEB 12301900	0.	203.0	1192.0
5 FEB 0620 567	125.	773.0	1198.6 *	9 FEB 21301234	0.	203.3	1192.0 *	14 FEB 12401901	0.	203.0	1192.0
5 FEB 0630 568	125.	771.3	1198.6 *	9 FEB 21401235	0.	203.3	1192.0 *	14 FEB 12501902	0.	203.0	1192.0
5 FEB 0640 569	125.	769.6	1198.6 *	9 FEB 21501236	0.	203.3	1192.0 *	14 FEB 13001903	0.	203.0	1192.0
5 FEB 0650 570	125.	767.8	1198.6 *	9 FEB 22001237	0.	203.3	1192.0 *	14 FEB 13101904	0.	203.0	1192.0
5 FEB 0700 571	125.	766.1	1198.6 *	9 FEB 22101238	0.	203.3	1192.0 *	14 FEB 13201905	0.	203.0	1192.0
5 FEB 0710 572	125.	764.4	1198.6 *	9 FEB 22201239	0.	203.3	1192.0 *	14 FEB 13301906	0.	203.0	1192.0
5 FEB 0720 573	125.	762.7	1198.6 *	9 FEB 22301240	0.	203.2	1192.0 *	14 FEB 13401907	0.	203.0	1192.0
5 FEB 0730 574	125.	761.0	1198.5 *	9 FEB 22401241	0.	203.2	1192.0 *	14 FEB 13501908	0.	203.0	1192.0
5 FEB 0740 575	124.	759.2	1198.5 *	9 FEB 22501242	0.	203.2	1192.0 *	14 FEB 14001909	0.	203.0	1192.0
5 FEB 0750 576	124.	757.5	1198.5 *	9 FEB 23001243	0.	203.2	1192.0 *	14 FEB 14101910	0.	203.0	1192.0
5 FEB 0800 577	124.	755.8	1198.5 *	9 FEB 23101244	0.	203.2	1192.0 *	14 FEB 14201911	0.	203.0	1192.0
5 FEB 0810 578	124.	754.1	1198.5 *	9 FEB 23201245	0.	203.2	1192.0 *	14 FEB 14301912	0.	203.0	1192.0
5 FEB 0820 579	124.	752.4	1198.5 *	9 FEB 23301246	0.	203.2	1192.0 *	14 FEB 14401913	0.	203.0	1192.0
5 FEB 0830 580	124.	750.7	1198.5 *	9 FEB 23401247	0.	203.2	1192.0 *	14 FEB 14501914	0.	203.0	1192.0
5 FEB 0840 581	124.	749.0	1198.4 *	9 FEB 23501248	0.	203.2	1192.0 *	14 FEB 15001915	0.	203.0	1192.0
5 FEB 0850 582	124.	747.3	1198.4 *	10 FEB 00001249	0.	203.2	1192.0 *	14 FEB 15101916	0.	203.0	1192.0
5 FEB 0900 583	124.	745.6	1198.4 *	10 FEB 00101250	0.	203.2	1192.0 *	14 FEB 15201917	0.	203.0	1192.0
5 FEB 0910 584	123.	743.9	1198.4 *	10 FEB 00201251	0.	203.2	1192.0 *	14 FEB 15301918	0.	203.0	1192.0
5 FEB 0920 585	123.	742.2	1198.4 *	10 FEB 00301252	0.	203.2	1192.0 *	14 FEB 15401919	0.	203.0	1192.0
5 FEB 0930 586	123.	740.5	1198.4 *	10 FEB 00401253	0.	203.2	1192.0 *	14 FEB 15501920	0.	203.0	1192.0
5 FEB 0940 587	123.	738.8	1198.4 *	10 FEB 00501254	0.	203.2	1192.0 *	14 FEB 16001921	0.	203.0	1192.0
5 FEB 0950 588	123.	737.1	1198.4 *	10 FEB 01001255	0.	203.2	1192.0 *	14 FEB 16101922	0.	203.0	1192.0
5 FEB 1000 589	123.	735.4	1198.3 *	10 FEB 01101256	0.	203.2	1192.0 *	14 FEB 16201923	0.	203.0	1192.0
5 FEB 1010 590	123.	733.7	1198.3 *	10 FEB 01201257	0.	203.2	1192.0 *	14 FEB 16301924	0.	203.0	1192.0
5 FEB 1020 591	123.	732.0	1198.3 *	10 FEB 01301258	0.	203.2	1192.0 *	14 FEB 16401925	0.	203.0	1192.0
5 FEB 1030 592	122.	730.3	1198.3 *	10 FEB 01401259	0.	203.2	1192.0 *	14 FEB 16501926	0.	203.0	1192.0
5 FEB 1040 593	122.	728.7	1198.3 *	10 FEB 01501260	0.	203.2	1192.0 *	14 FEB 17001927	0.	203.0	1192.0
5 FEB 1050 594	122.	727.0	1198.3 *	10 FEB 02001261	0.	203.2	1192.0 *	14 FEB 17101928	0.	203.0	1192.0

5	FEB	1100	595	122.	725.3	1198.3	*	10	FEB	02101262	0.	203.2	1192.0	*	14	FEB	17201929	0.	203.0	1192.0
5	FEB	1110	596	122.	723.6	1198.3	*	10	FEB	02201263	0.	203.2	1192.0	*	14	FEB	17301930	0.	203.0	1192.0
5	FEB	1120	597	122.	721.9	1198.2	*	10	FEB	02301264	0.	203.2	1192.0	*	14	FEB	17401931	0.	203.0	1192.0
5	FEB	1130	598	122.	720.2	1198.2	*	10	FEB	02401265	0.	203.1	1192.0	*	14	FEB	17501932	0.	203.0	1192.0
5	FEB	1140	599	122.	718.6	1198.2	*	10	FEB	02501266	0.	203.1	1192.0	*	14	FEB	18001933	0.	203.0	1192.0
5	FEB	1150	600	122.	716.9	1198.2	*	10	FEB	03001267	0.	203.1	1192.0	*	14	FEB	18101934	0.	203.0	1192.0
5	FEB	1200	601	121.	715.2	1198.2	*	10	FEB	03101268	0.	203.1	1192.0	*	14	FEB	18201935	0.	203.0	1192.0
5	FEB	1210	602	121.	713.5	1198.2	*	10	FEB	03201269	0.	203.1	1192.0	*	14	FEB	18301936	0.	203.0	1192.0
5	FEB	1220	603	121.	711.9	1198.2	*	10	FEB	03301270	0.	203.1	1192.0	*	14	FEB	18401937	0.	203.0	1192.0
5	FEB	1230	604	121.	710.2	1198.2	*	10	FEB	03401271	0.	203.1	1192.0	*	14	FEB	18501938	0.	203.0	1192.0
5	FEB	1240	605	121.	708.5	1198.1	*	10	FEB	03501272	0.	203.1	1192.0	*	14	FEB	19001939	0.	203.0	1192.0
5	FEB	1250	606	121.	706.9	1198.1	*	10	FEB	04001273	0.	203.1	1192.0	*	14	FEB	19101940	0.	203.0	1192.0
5	FEB	1300	607	121.	705.2	1198.1	*	10	FEB	04101274	0.	203.1	1192.0	*	14	FEB	19201941	0.	203.0	1192.0
5	FEB	1310	608	121.	703.5	1198.1	*	10	FEB	04201275	0.	203.1	1192.0	*	14	FEB	19301942	0.	203.0	1192.0
5	FEB	1320	609	121.	701.9	1198.1	*	10	FEB	04301276	0.	203.1	1192.0	*	14	FEB	19401943	0.	203.0	1192.0
5	FEB	1330	610	120.	700.2	1198.1	*	10	FEB	04401277	0.	203.1	1192.0	*	14	FEB	19501944	0.	203.0	1192.0
5	FEB	1340	611	120.	698.6	1198.1	*	10	FEB	04501278	0.	203.1	1192.0	*	14	FEB	20001945	0.	203.0	1192.0
5	FEB	1350	612	120.	696.9	1198.1	*	10	FEB	05001279	0.	203.1	1192.0	*	14	FEB	20101946	0.	203.0	1192.0
5	FEB	1400	613	120.	695.3	1198.1	*	10	FEB	05101280	0.	203.1	1192.0	*	14	FEB	20201947	0.	203.0	1192.0
5	FEB	1410	614	120.	693.6	1198.0	*	10	FEB	05201281	0.	203.1	1192.0	*	14	FEB	20301948	0.	203.0	1192.0
5	FEB	1420	615	120.	692.0	1198.0	*	10	FEB	05301282	0.	203.1	1192.0	*	14	FEB	20401949	0.	203.0	1192.0
5	FEB	1430	616	120.	690.3	1198.0	*	10	FEB	05401283	0.	203.1	1192.0	*	14	FEB	20501950	0.	203.0	1192.0
5	FEB	1440	617	120.	688.7	1198.0	*	10	FEB	05501284	0.	203.1	1192.0	*	14	FEB	21001951	0.	203.0	1192.0
5	FEB	1450	618	120.	687.0	1198.0	*	10	FEB	06001285	0.	203.1	1192.0	*	14	FEB	21101952	0.	203.0	1192.0
5	FEB	1500	619	119.	685.4	1198.0	*	10	FEB	06101286	0.	203.1	1192.0	*	14	FEB	21201953	0.	203.0	1192.0
5	FEB	1510	620	119.	683.7	1198.0	*	10	FEB	06201287	0.	203.1	1192.0	*	14	FEB	21301954	0.	203.0	1192.0
5	FEB	1520	621	119.	682.1	1198.0	*	10	FEB	06301288	0.	203.1	1192.0	*	14	FEB	21401955	0.	203.0	1192.0
5	FEB	1530	622	119.	680.4	1197.9	*	10	FEB	06401289	0.	203.1	1192.0	*	14	FEB	21501956	0.	203.0	1192.0
5	FEB	1540	623	119.	678.8	1197.9	*	10	FEB	06501290	0.	203.1	1192.0	*	14	FEB	22001957	0.	203.0	1192.0
5	FEB	1550	624	119.	677.2	1197.9	*	10	FEB	07001291	0.	203.1	1192.0	*	14	FEB	22101958	0.	203.0	1192.0
5	FEB	1600	625	119.	675.5	1197.9	*	10	FEB	07101292	0.	203.1	1192.0	*	14	FEB	22201959	0.	203.0	1192.0
5	FEB	1610	626	119.	673.9	1197.9	*	10	FEB	07201293	0.	203.1	1192.0	*	14	FEB	22301960	0.	203.0	1192.0
5	FEB	1620	627	118.	672.3	1197.9	*	10	FEB	07301294	0.	203.1	1192.0	*	14	FEB	22401961	0.	203.0	1192.0
5	FEB	1630	628	118.	670.6	1197.9	*	10	FEB	07401295	0.	203.1	1192.0	*	14	FEB	22501962	0.	203.0	1192.0
5	FEB	1640	629	118.	669.0	1197.9	*	10	FEB	07501296	0.	203.1	1192.0	*	14	FEB	23001963	0.	203.0	1192.0
5	FEB	1650	630	118.	667.4	1197.8	*	10	FEB	08001297	0.	203.1	1192.0	*	14	FEB	23101964	0.	203.0	1192.0
5	FEB	1700	631	118.	665.7	1197.8	*	10	FEB	08101298	0.	203.1	1192.0	*	14	FEB	23201965	0.	203.0	1192.0
5	FEB	1710	632	118.	664.1	1197.8	*	10	FEB	08201299	0.	203.1	1192.0	*	14	FEB	23301966	0.	203.0	1192.0
5	FEB	1720	633	118.	662.5	1197.8	*	10	FEB	08301300	0.	203.1	1192.0	*	14	FEB	23401967	0.	203.0	1192.0
5	FEB	1730	634	118.	660.9	1197.8	*	10	FEB	08401301	0.	203.1	1192.0	*	14	FEB	23501968	0.	203.0	1192.0
5	FEB	1740	635	118.	659.3	1197.8	*	10	FEB	08501302	0.	203.1	1192.0	*	15	FEB	00001969	0.	203.0	1192.0
5	FEB	1750	636	118.	657.6	1197.8	*	10	FEB	09001303	0.	203.1	1192.0	*	15	FEB	00101970	0.	203.0	1192.0
5	FEB	1800	637	117.	656.0	1197.8	*	10	FEB	09101304	0.	203.1	1192.0	*	15	FEB	00201971	0.	203.0	1192.0
5	FEB	1810	638	117.	654.4	1197.7	*	10	FEB	09201305	0.	203.1	1192.0	*	15	FEB	00301972	0.	203.0	1192.0
5	FEB	1820	639	117.	652.8	1197.7	*	10	FEB	09301306	0.	203.1	1192.0	*	15	FEB	00401973	0.	203.0	1192.0
5	FEB	1830	640	117.	651.2	1197.7	*	10	FEB	09401307	0.	203.1	1192.0	*	15	FEB	00501974	0.	203.0	1192.0
5	FEB	1840	641	117.	649.6	1197.7	*	10	FEB	09501308	0.	203.1	1192.0	*	15	FEB	01001975	0.	203.0	1192.0
5	FEB	1850	642	117.	647.9	1197.7	*	10	FEB	10001309	0.	203.1	1192.0	*	15	FEB	01101976	0.	203.0	1192.0
5	FEB	1900	643	117.	646.3	1197.7	*	10	FEB	10101310	0.	203.1	1192.0	*	15	FEB	01201977	0.	203.0	1192.0
5	FEB	1910	644	117.	644.7	1197.7	*	10	FEB	10201311	0.	203.1	1192.0	*	15	FEB	01301978	0.	203.0	1192.0
5	FEB	1920	645	117.	643.1	1197.7	*	10	FEB	10301312	0.	203.1	1192.0	*	15	FEB	01401979	0.	203.0	1192.0
5	FEB	1930	646	116.	641.5	1197.7	*	10	FEB	10401313	0.	203.1	1192.0	*	15	FEB	01501980	0.	203.0	1192.0
5	FEB	1940	647	116.	639.9	1197.6	*	10	FEB	10501314	0.	203.1	1192.0	*	15	FEB	02001981	0.	203.0	1192.0
5	FEB	1950	648	116.	638.3	1197.6	*	10	FEB	11001315	0.	203.1	1192.0	*	15	FEB	02101982	0.	203.0	1192.0
5	FEB	2000	649	116.	636.7	1197.6	*	10	FEB	11101316	0.	203.1	1192.0	*	15	FEB	02201983	0.	203.0	1192.0
5	FEB	2010	650	116.	635.1	1197.6	*	10	FEB	11201317	0.	203.1	1192.0	*	15	FEB	02301984	0.	203.0	1192.0
5	FEB	2020	651	116.	633.5	1197.6	*	10	FEB	11301318	0.	203.0	1192.0	*	15	FEB	02401985	0.	203.0	1192.0
5	FEB	2030	652	116.	631.9	1197.6	*	10	FEB	11401319	0.	203.0	1192.0	*	15	FEB	02501986	0.	203.0	1192.0
5	FEB	2040	653	116.	630.3	1197.6	*	10	FEB	11501320	0.	203.0	1192.0	*	15	FEB	03001987	0.	203.0	1192.0
5	FEB	2050	654	116.	628.7	1197.6	*	10	FEB	12001321	0.	203.0	1192.0	*	15	FEB	03101988	0.	203.0	1192.0
5	FEB	2100	655	115.	627.2	1197.5	*	10	FEB	12101322	0.	203.0	1192.0	*	15	FEB	03201989	0.	203.0	1192.0
5	FEB	2110	656	115.	625.6	1197.5	*	10	FEB	12201323	0.	203.0	1192.0	*	15	FEB	03301990	0.	203.0	1192.0
5	FEB	2120	657	115.	624.0	1197.5	*	10	FEB	12301324	0.	203.0	1192.0	*	15	FEB	03401991	0.	203.0	1192.0
5	FEB	2130	658	115.	622.4	1197.5	*	10	FEB	12401325	0.	203.0	1192.0	*	15	FEB	03501992	0.	203.0	1192.0
5	FEB	2140	659	115.	620.8	1197.5	*	10	FEB	12501326	0.	203.0	1192.0	*	15	FEB	04001993	0.	203.0	1192.0
5	FEB	2150	660	115.	619.2	1197.5	*	10	FEB	13001327	0.	203.0	1192.0	*	15	FEB	04101994	0.	203.0	1192.0
5	FEB	2200	661	115.	617.6	1197.5	*	10	FEB	13101328	0.	203.0	1192.0	*	15	FEB	04201995	0.	203.0	1192.0
5	FEB	2210	662	114.	616.1	1197.4	*	10	FEB	13201329	0.	203.0	1192.0	*	15	FEB	04301996	0.	203.0	1192.0
5	FEB	2220	663	114.	614.5	1197.4	*	10	FEB	13301330	0.	203.0	1192.0	*	15	FEB	04401997	0.	203.0	1192.0
5	FEB	2230	664	114.	612.9	1197.4	*	10	FEB	13401331	0.	203.0	1192.0	*	15	FEB	04501998	0.	203.0	1192.0
5	FEB	2240	665	114.	611.4	1197.4	*	10	FEB	13501332	0.	203.0	1192.0	*	15	FEB	05001999	0.	203.0	1192.0
5	FEB	2250	666	114.	609.8	1197.4	*	10	FEB	14001333	0.	203.0	1192.0	*	15	FEB	05102000	0.	203.0	1192.0
5	FEB	2300	667	113.	608.2	1197.4	*	10	FEB	14101334	0.	203.0	1192.0	*						
							*							*						

****

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	333.17-HR
+ (CFS)	(HR)					
		(CFS)				
+ 176.	0.17		175.	171.	159.	64.
		(INCHES)	0.837	3.273	9.170	17.060
		(AC-FT)	87.	339.	949.	1765.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	333.17-HR
+ (AC-FT)	(HR)				
1968.	0.17	1925.	1797.	1476.	582.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	333.17-HR
+ (FEET)	(HR)				
1205.11	0.00	1204.95	1204.37	1202.79	1195.65

CUMULATIVE AREA = 1.94 SQ MI

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	1	0.	13.00	0.	0.	0.	1.94		
+	ROUTED TO	SRWT3	176.	0.17	175.	171.	159.	1.94		
+									1205.11	0.00

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

APPENDIX 6. INTERIM EMERGENCY SPILLWAY RATING CURE ANALYSES

Open Channel
n=0.022

Discharge	Elev
0	1207
114	1207.5
366	1208
729	1208.5
1193	1209
1755	1209.5
2411	1210
2831	1210.5
6160	1211
10444	1211.5
15585	1212
21516	1212.5
28187	1213
35558	1213.5
43597	1214

HEC-RAS
n=0.045

Discharge	Elev
0	1207
1000	1210.32
2000	1210.82
3000	1211.1
4000	1211.36
5000	1211.6
6000	1211.72
7000	1211.91
8000	1212.08
9000	1212.23
10000	1212.38
12000	1212.68
14000	1212.99
16000	1213.27
18000	1213.53
20000	1213.78

Open Channel
n=0.045

Discharge	Elev
0	1207
1000	1210.35
2000	1210.71
3000	1211
4000	1211.25
5000	1211.48
6000	1211.69
7000	1211.88
8000	1212.07
9000	1212.25
10000	1212.42
12000	1212.73
14000	1213.03
16000	1213.31
18000	1213.58
20000	1213.84

Table
Rating Table for Irregular Channel

Project Description	
Project File	c:\haestad\fmw\wt.fm2
Worksheet	wt3
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Constant Data	
Channel Slope	0.005000 ft/ft

Input Data			
	Minimum	Maximum	Increment
Discharge	0.00	35,000.00	100.00 cfs

Rating Table

Discharge (cfs)	Wtd. Mannings Coefficient	Water Surface Elevation (ft)	Velocity (ft/s)
0.00	0.045	1,207.00	0.00
100.00	0.045	1,207.71	1.80
200.00	0.045	1,208.07	2.33
300.00	0.045	1,208.36	2.71
400.00	0.045	1,208.60	3.00
500.00	0.045	1,208.83	3.25
600.00	0.045	1,209.03	3.47
700.00	0.045	1,209.22	3.66
800.00	0.045	1,209.40	3.83
900.00	0.045	1,209.57	3.99
1,000.00	0.045	1,210.35	1.82
1,100.00	0.045	1,210.39	1.90
1,200.00	0.045	1,210.43	1.96
1,300.00	0.045	1,210.47	2.03
1,400.00	0.045	1,210.51	2.09
1,500.00	0.045	1,210.54	2.15
1,600.00	0.045	1,210.58	2.20
1,700.00	0.045	1,210.61	2.25
1,800.00	0.045	1,210.64	2.31
1,900.00	0.045	1,210.68	2.36
2,000.00	0.045	1,210.71	2.41
2,100.00	0.045	1,210.74	2.45
2,200.00	0.045	1,210.77	2.50
2,300.00	0.045	1,210.80	2.54
2,400.00	0.045	1,210.83	2.59
2,500.00	0.045	1,210.86	2.63
2,600.00	0.045	1,210.89	2.67

Table
Rating Table for Irregular Channel

Rating Table

Discharge (cfs)	Wtd. Mannings Coefficient	Water Surface Elevation (ft)	Velocity (ft/s)
2,700.00	0.045	1,210.91	2.71
2,800.00	0.045	1,210.94	2.75
2,900.00	0.045	1,210.97	2.79
3,000.00	0.045	1,211.00	2.83
3,100.00	0.045	1,211.02	2.87
3,200.00	0.045	1,211.05	2.90
3,300.00	0.045	1,211.08	2.94
3,400.00	0.045	1,211.10	2.97
3,500.00	0.045	1,211.13	3.01
3,600.00	0.045	1,211.15	3.04
3,700.00	0.045	1,211.18	3.08
3,800.00	0.045	1,211.20	3.11
3,900.00	0.045	1,211.23	3.14
4,000.00	0.045	1,211.25	3.17
4,100.00	0.045	1,211.27	3.20
4,200.00	0.045	1,211.30	3.23
4,300.00	0.045	1,211.32	3.27
4,400.00	0.045	1,211.34	3.30
4,500.00	0.045	1,211.37	3.32
4,600.00	0.045	1,211.39	3.35
4,700.00	0.045	1,211.41	3.38
4,800.00	0.045	1,211.43	3.41
4,900.00	0.045	1,211.46	3.44
5,000.00	0.045	1,211.48	3.47
5,100.00	0.045	1,211.50	3.49
5,200.00	0.045	1,211.52	3.52
5,300.00	0.045	1,211.54	3.55
5,400.00	0.045	1,211.56	3.58
5,500.00	0.045	1,211.58	3.60
5,600.00	0.045	1,211.60	3.63
5,700.00	0.045	1,211.63	3.65
5,800.00	0.045	1,211.65	3.68
5,900.00	0.045	1,211.67	3.70
6,000.00	0.045	1,211.69	3.73
6,100.00	0.045	1,211.71	3.75
6,200.00	0.045	1,211.73	3.78
6,300.00	0.045	1,211.75	3.80
6,400.00	0.045	1,211.77	3.83
6,500.00	0.045	1,211.79	3.85
6,600.00	0.045	1,211.81	3.87
6,700.00	0.045	1,211.83	3.90
6,800.00	0.045	1,211.85	3.92
6,900.00	0.045	1,211.86	3.94
7,000.00	0.045	1,211.88	3.96
7,100.00	0.045	1,211.90	3.99

Table
Rating Table for Irregular Channel

Rating Table

Discharge (cfs)	Wtd. Mannings Coefficient	Water Surface Elevation (ft)	Velocity (ft/s)
7,200.00	0.045	1,211.92	4.01
7,300.00	0.045	1,211.94	4.03
7,400.00	0.045	1,211.96	4.05
7,500.00	0.045	1,211.98	4.08
7,600.00	0.045	1,212.00	4.10
7,700.00	0.045	1,212.01	4.12
7,800.00	0.045	1,212.03	4.14
7,900.00	0.045	1,212.05	4.16
8,000.00	0.045	1,212.07	4.18
8,100.00	0.045	1,212.09	4.20
8,200.00	0.045	1,212.11	4.22
8,300.00	0.045	1,212.12	4.24
8,400.00	0.045	1,212.14	4.26
8,500.00	0.045	1,212.16	4.28
8,600.00	0.045	1,212.18	4.30
8,700.00	0.045	1,212.19	4.32
8,800.00	0.045	1,212.21	4.34
8,900.00	0.045	1,212.23	4.36
9,000.00	0.045	1,212.25	4.38
9,100.00	0.045	1,212.26	4.40
9,200.00	0.045	1,212.28	4.42
9,300.00	0.045	1,212.30	4.44
9,400.00	0.045	1,212.31	4.46
9,500.00	0.045	1,212.33	4.48
9,600.00	0.045	1,212.35	4.50
9,700.00	0.045	1,212.37	4.51
9,800.00	0.045	1,212.38	4.53
9,900.00	0.045	1,212.40	4.55
10,000.00	0.045	1,212.42	4.57
10,100.00	0.045	1,212.43	4.59
10,200.00	0.045	1,212.45	4.61
10,300.00	0.045	1,212.46	4.62
10,400.00	0.045	1,212.48	4.64
10,500.00	0.045	1,212.50	4.66
10,600.00	0.045	1,212.51	4.68
10,700.00	0.045	1,212.53	4.69
10,800.00	0.045	1,212.55	4.71
10,900.00	0.045	1,212.56	4.73
11,000.00	0.045	1,212.58	4.75
11,100.00	0.045	1,212.59	4.76
11,200.00	0.045	1,212.61	4.78
11,300.00	0.045	1,212.62	4.80
11,400.00	0.045	1,212.64	4.81
11,500.00	0.045	1,212.66	4.83
11,600.00	0.045	1,212.67	4.85

Table
Rating Table for Irregular Channel

Rating Table

Discharge (cfs)	Wtd. Mannings Coefficient	Water Surface Elevation (ft)	Velocity (ft/s)
11,700.00	0.045	1,212.69	4.86
11,800.00	0.045	1,212.70	4.88
11,900.00	0.045	1,212.72	4.90
12,000.00	0.045	1,212.73	4.91
12,100.00	0.045	1,212.75	4.93
12,200.00	0.045	1,212.76	4.95
12,300.00	0.045	1,212.78	4.96
12,400.00	0.045	1,212.79	4.98
12,500.00	0.045	1,212.81	4.99
12,600.00	0.045	1,212.83	5.01
12,700.00	0.045	1,212.84	5.02
12,800.00	0.045	1,212.86	5.04
12,900.00	0.045	1,212.87	5.06
13,000.00	0.045	1,212.89	5.07
13,100.00	0.045	1,212.90	5.09
13,200.00	0.045	1,212.91	5.10
13,300.00	0.045	1,212.93	5.12
13,400.00	0.045	1,212.94	5.13
13,500.00	0.045	1,212.96	5.15
13,600.00	0.045	1,212.97	5.16
13,700.00	0.045	1,212.99	5.18
13,800.00	0.045	1,213.00	5.19
13,900.00	0.045	1,213.02	5.21
14,000.00	0.045	1,213.03	5.22
14,100.00	0.045	1,213.05	5.24
14,200.00	0.045	1,213.06	5.25
14,300.00	0.045	1,213.08	5.27
14,400.00	0.045	1,213.09	5.28
14,500.00	0.045	1,213.10	5.30
14,600.00	0.045	1,213.12	5.31
14,700.00	0.045	1,213.13	5.33
14,800.00	0.045	1,213.15	5.34
14,900.00	0.045	1,213.16	5.35
15,000.00	0.045	1,213.17	5.37
15,100.00	0.045	1,213.19	5.38
15,200.00	0.045	1,213.20	5.40
15,300.00	0.045	1,213.22	5.41
15,400.00	0.045	1,213.23	5.42
15,500.00	0.045	1,213.24	5.44
15,600.00	0.045	1,213.26	5.45
15,700.00	0.045	1,213.27	5.47
15,800.00	0.045	1,213.29	5.48
15,900.00	0.045	1,213.30	5.49
16,000.00	0.045	1,213.31	5.51
16,100.00	0.045	1,213.33	5.52

Table
Rating Table for Irregular Channel

Rating Table

Discharge (cfs)	Wtd. Mannings Coefficient	Water Surface Elevation (ft)	Velocity (ft/s)
16,200.00	0.045	1,213.34	5.53
16,300.00	0.045	1,213.35	5.55
16,400.00	0.045	1,213.37	5.56
16,500.00	0.045	1,213.38	5.58
16,600.00	0.045	1,213.40	5.59
16,700.00	0.045	1,213.41	5.60
16,800.00	0.045	1,213.42	5.62
16,900.00	0.045	1,213.44	5.63
17,000.00	0.045	1,213.45	5.64
17,100.00	0.045	1,213.46	5.65
17,200.00	0.045	1,213.48	5.67
17,300.00	0.045	1,213.49	5.68
17,400.00	0.045	1,213.50	5.69
17,500.00	0.045	1,213.52	5.71
17,600.00	0.045	1,213.53	5.72
17,700.00	0.045	1,213.54	5.73
17,800.00	0.045	1,213.55	5.75
17,900.00	0.045	1,213.57	5.76
18,000.00	0.045	1,213.58	5.77
18,100.00	0.045	1,213.59	5.78
18,200.00	0.045	1,213.61	5.80
18,300.00	0.045	1,213.62	5.81
18,400.00	0.045	1,213.63	5.82
18,500.00	0.045	1,213.65	5.83
18,600.00	0.045	1,213.66	5.85
18,700.00	0.045	1,213.67	5.86
18,800.00	0.045	1,213.68	5.87
18,900.00	0.045	1,213.70	5.88
19,000.00	0.045	1,213.71	5.90
19,100.00	0.045	1,213.72	5.91
19,200.00	0.045	1,213.74	5.92
19,300.00	0.045	1,213.75	5.93
19,400.00	0.045	1,213.76	5.94
19,500.00	0.045	1,213.77	5.96
19,600.00	0.045	1,213.79	5.97
19,700.00	0.045	1,213.80	5.98
19,800.00	0.045	1,213.81	5.99
19,900.00	0.045	1,213.82	6.01
20,000.00	0.045	1,213.84	6.02
20,100.00	0.045	1,213.85	6.03
20,200.00	0.045	1,213.86	6.04
20,300.00	0.045	1,213.87	6.05
20,400.00	0.045	1,213.89	6.06
20,500.00	0.045	1,213.90	6.08
20,600.00	0.045	1,213.91	6.09

Table
Rating Table for Irregular Channel

Rating Table

Discharge (cfs)	Wtd. Mannings Coefficient	Water Surface Elevation (ft)	Velocity (ft/s)
20,700.00	0.045	1,213.92	6.10
20,800.00	0.045	1,213.94	6.11
20,900.00	0.045	1,213.95	6.12
21,000.00	0.045	1,213.96	6.13
21,100.00	0.045	1,213.97	6.15
21,200.00	0.045	1,213.99	6.16
21,300.00	0.045	1,214.00	6.17
21,400.00	0.045	1,214.01	6.18
21,500.00	0.045	1,214.02	6.19
21,600.00	0.045	1,214.03	6.20
21,700.00	0.045	1,214.05	6.22
21,800.00	0.045	1,214.06	6.23
21,900.00	0.045	1,214.07	6.24
22,000.00	0.045	1,214.08	6.25
22,100.00	0.045	1,214.10	6.26
22,200.00	0.045	1,214.11	6.27
22,300.00	0.045	1,214.12	6.28
22,400.00	0.045	1,214.13	6.29
22,500.00	0.045	1,214.14	6.31
22,600.00	0.045	1,214.16	6.32
22,700.00	0.045	1,214.17	6.33
22,800.00	0.045	1,214.18	6.34
22,900.00	0.045	1,214.19	6.35
23,000.00	0.045	1,214.20	6.36
23,100.00	0.045	1,214.21	6.37
23,200.00	0.045	1,214.23	6.38
23,300.00	0.045	1,214.24	6.39
23,400.00	0.045	1,214.25	6.40
23,500.00	0.045	1,214.26	6.41
23,600.00	0.045	1,214.27	6.43
23,700.00	0.045	1,214.29	6.44
23,800.00	0.045	1,214.30	6.45
23,900.00	0.045	1,214.31	6.46
24,000.00	0.045	1,214.32	6.47
24,100.00	0.045	1,214.33	6.48
24,200.00	0.045	1,214.34	6.49
24,300.00	0.045	1,214.35	6.50
24,400.00	0.045	1,214.37	6.51
24,500.00	0.045	1,214.38	6.52
24,600.00	0.045	1,214.39	6.53
24,700.00	0.045	1,214.40	6.54
24,800.00	0.045	1,214.41	6.55
24,900.00	0.045	1,214.42	6.56
25,000.00	0.045	1,214.44	6.57
25,100.00	0.045	1,214.45	6.58

Table
Rating Table for Irregular Channel

Rating Table

Discharge (cfs)	Wtd. Mannings Coefficient	Water Surface Elevation (ft)	Velocity (ft/s)
25,200.00	0.045	1,214.46	6.60
25,300.00	0.045	1,214.47	6.61
25,400.00	0.045	1,214.48	6.62
25,500.00	0.045	1,214.49	6.63
25,600.00	0.045	1,214.50	6.64
25,700.00	0.045	1,214.52	6.65
25,800.00	0.045	1,214.53	6.66
25,900.00	0.045	1,214.54	6.67
26,000.00	0.045	1,214.55	6.68
26,100.00	0.045	1,214.56	6.69
26,200.00	0.045	1,214.57	6.70
26,300.00	0.045	1,214.58	6.71
26,400.00	0.045	1,214.59	6.72
26,500.00	0.045	1,214.61	6.73
26,600.00	0.045	1,214.62	6.74
26,700.00	0.045	1,214.63	6.75
26,800.00	0.045	1,214.64	6.76
26,900.00	0.045	1,214.65	6.77
27,000.00	0.045	1,214.66	6.78
27,100.00	0.045	1,214.67	6.79
27,200.00	0.045	1,214.68	6.80
27,300.00	0.045	1,214.69	6.81
27,400.00	0.045	1,214.71	6.82
27,500.00	0.045	1,214.72	6.83
27,600.00	0.045	1,214.73	6.84
27,700.00	0.045	1,214.74	6.85
27,800.00	0.045	1,214.75	6.86
27,900.00	0.045	1,214.76	6.87
28,000.00	0.045	1,214.77	6.88
28,100.00	0.045	1,214.78	6.89
28,200.00	0.045	1,214.79	6.90
28,300.00	0.045	1,214.80	6.91
28,400.00	0.045	1,214.82	6.92
28,500.00	0.045	1,214.83	6.93
28,600.00	0.045	1,214.84	6.94
28,700.00	0.045	1,214.85	6.94
28,800.00	0.045	1,214.86	6.95
28,900.00	0.045	1,214.87	6.96
29,000.00	0.045	1,214.88	6.97
29,100.00	0.045	1,214.89	6.98
29,200.00	0.045	1,214.90	6.99
29,300.00	0.045	1,214.91	7.00
29,400.00	0.045	1,214.92	7.01
29,500.00	0.045	1,214.93	7.02
29,600.00	0.045	1,214.95	7.03

Table
Rating Table for Irregular Channel

Rating Table

Discharge (cfs)	Wtd. Mannings Coefficient	Water Surface Elevation (ft)	Velocity (ft/s)
29,700.00	0.045	1,214.96	7.04
29,800.00	0.045	1,214.97	7.05
29,900.00	0.045	1,214.98	7.06
30,000.00	0.045	1,214.99	7.07
30,100.00	0.045	1,215.00	7.08
30,200.00	0.045	1,215.01	7.09
30,300.00	0.045	1,215.02	7.10
30,400.00	0.045	1,215.03	7.11
30,500.00	0.045	1,215.04	7.11
30,600.00	0.045	1,215.05	7.12
30,700.00	0.045	1,215.06	7.13
30,800.00	0.045	1,215.07	7.14
30,900.00	0.045	1,215.08	7.15
31,000.00	0.045	1,215.09	7.16
31,100.00	0.045	1,215.10	7.17
31,200.00	0.045	1,215.12	7.18
31,300.00	0.045	1,215.13	7.19
31,400.00	0.045	1,215.14	7.20
31,500.00	0.045	1,215.15	7.21
31,600.00	0.045	1,215.16	7.22
31,700.00	0.045	1,215.17	7.22
31,800.00	0.045	1,215.18	7.23
31,900.00	0.045	1,215.19	7.24
32,000.00	0.045	1,215.20	7.25
32,100.00	0.045	1,215.21	7.26
32,200.00	0.045	1,215.22	7.27
32,300.00	0.045	1,215.23	7.28
32,400.00	0.045	1,215.24	7.29
32,500.00	0.045	1,215.25	7.30
32,600.00	0.045	1,215.26	7.31
32,700.00	0.045	1,215.27	7.31
32,800.00	0.045	1,215.28	7.32
32,900.00	0.045	1,215.29	7.33
33,000.00	0.045	1,215.30	7.34
33,100.00	0.045	1,215.31	7.35
33,200.00	0.045	1,215.32	7.36
33,300.00	0.045	1,215.33	7.37
33,400.00	0.045	1,215.34	7.38
33,500.00	0.045	1,215.35	7.38
33,600.00	0.045	1,215.36	7.39
33,700.00	0.045	1,215.37	7.40
33,800.00	0.045	1,215.38	7.41
33,900.00	0.045	1,215.39	7.42
34,000.00	0.045	1,215.40	7.43
34,100.00	0.045	1,215.41	7.44

Table
Rating Table for Irregular Channel

Rating Table			
Discharge (cfs)	Wtd. Mannings Coefficient	Water Surface Elevation (ft)	Velocity (ft/s)
34,200.00	0.045	1,215.42	7.45
34,300.00	0.045	1,215.43	7.45
34,400.00	0.045	1,215.44	7.46
34,500.00	0.045	1,215.45	7.47
34,600.00	0.045	1,215.46	7.48
34,700.00	0.045	1,215.47	7.49
34,800.00	0.045	1,215.49	7.50
34,900.00	0.045	1,215.50	7.51
35,000.00	0.045	1,215.51	7.51

wt3fullspillway
Worksheet for Irregular Channel

Project Description	
Project File	c:\haestad\fmw\wt.fm2
Worksheet	wt3
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Input Data

Channel Slope 0.005000 ft/ft

Elevation range: 1,207.00 ft to 1,214.00 ft.

Station (ft)	Elevation (ft)	Start Station	End Station	Roughness
0.00	1,214.00	0.00	800.00	0.045
4.00	1,210.00			
616.00	1,210.00			
631.00	1,207.00			
706.00	1,207.00			
721.00	1,210.00			
796.00	1,210.00			
800.00	1,214.00			

Discharge 20,000.00 cfs

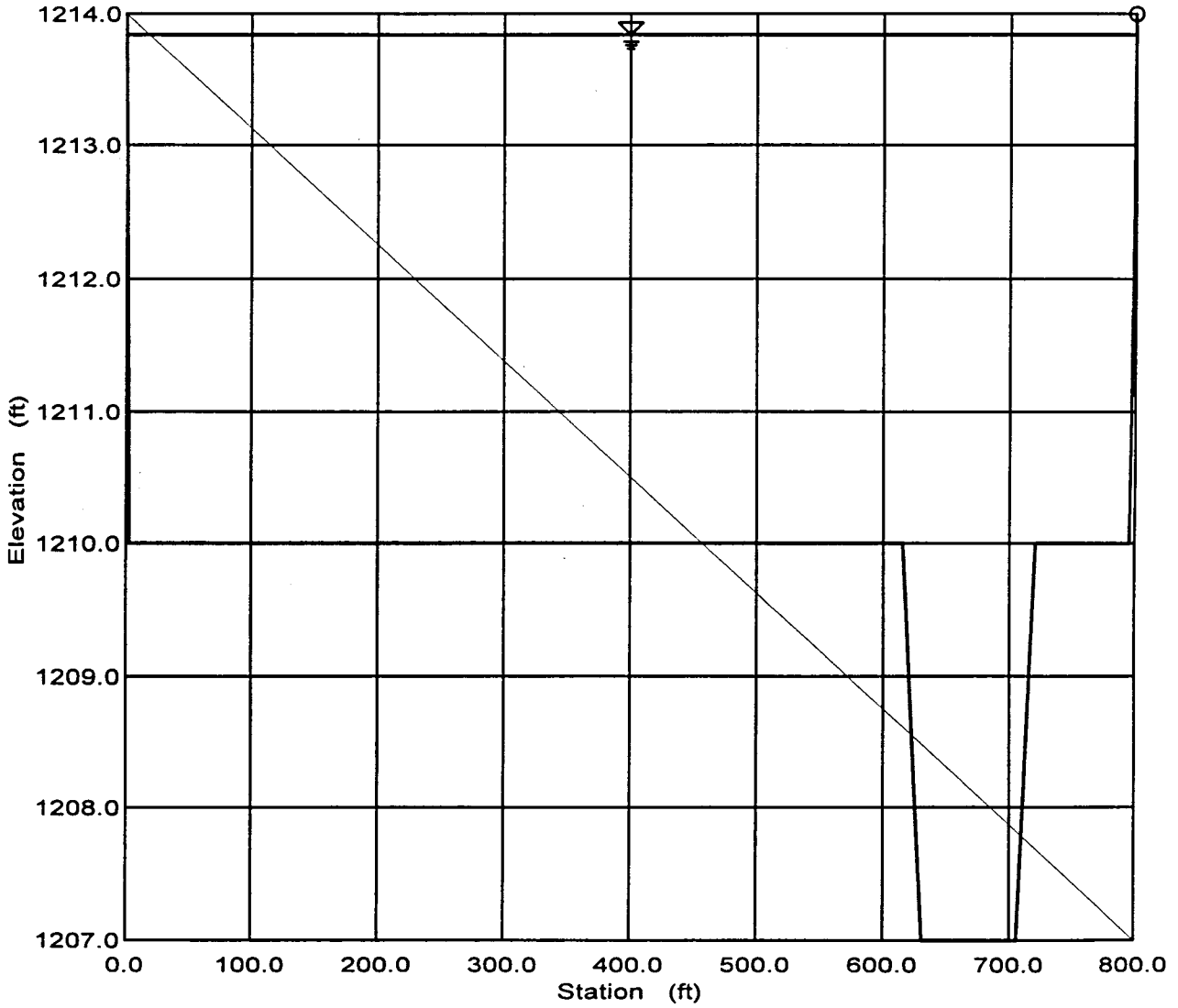
Results		
Wtd. Mannings Coefficient	0.045	
Water Surface Elevation	1,213.84	ft
Flow Area	3,323.84	ft²
Wetted Perimeter	803.45	ft
Top Width	799.67	ft
Height	6.84	ft
Critical Depth	1,212.36	ft
Critical Slope	0.021293	ft/ft
Velocity	6.02	ft/s
Velocity Head	0.56	ft
Specific Energy	1,214.40	ft
Froude Number	0.52	

Flow is subcritical.

wt3fullspillway
Cross Section for Irregular Channel

Project Description	
Project File	c:\haestad\fmw\wt.fm2
Worksheet	wt3
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0.045	
Channel Slope	0.005000	ft/ft
Water Surface Elevation	1,213.84	ft
Discharge	20,000.00	cfs



HEC-RAS River: RIVER-1 Reach: Reach-1

Reach	River Sta	Plan	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)	
Reach-1	10	Imported Pla	1000.00	1207.00	1210.32		1210.38	0.006061	2.00	501.11	732.12	0.43
Reach-1	10	Imported Pla	2000.00	1207.00	1210.82		1210.90	0.003957	2.29	874.30	755.91	0.37
Reach-1	10	Imported Pla	3000.00	1207.00	1211.10		1211.22	0.004372	2.75	1089.90	769.31	0.41
Reach-1	10	Imported Pla	4000.00	1207.00	1211.36		1211.51	0.004536	3.10	1289.05	781.49	0.43
Reach-1	10	Imported Pla	5000.00	1207.00	1211.60		1211.78	0.004600	3.39	1476.04	792.76	0.44
Reach-1	9	Imported Pla	1000.00	1205.00	1207.25		1207.66	0.009782	5.15	194.09	97.50	0.64
Reach-1	9	Imported Pla	2000.00	1205.00	1208.47		1208.62	0.012060	3.14	636.86	789.60	0.62
Reach-1	9	Imported Pla	3000.00	1205.00	1208.72	1208.40	1208.92	0.011029	3.58	838.79	800.19	0.62
Reach-1	9	Imported Pla	4000.00	1205.00	1208.94		1209.18	0.010555	3.94	1014.63	809.29	0.62
Reach-1	9	Imported Pla	5000.00	1205.00	1209.12	1208.73	1209.41	0.010807	4.33	1155.94	816.53	0.64
Reach-1	8	Imported Pla	1000.00	1201.00	1202.46	1202.24	1202.57	0.010227	3.46	429.52	619.78	0.59
Reach-1	8	Imported Pla	2000.00	1201.00	1202.86		1203.02	0.010382	4.22	686.52	665.57	0.63
Reach-1	8	Imported Pla	3000.00	1201.00	1203.13		1203.35	0.011510	4.92	872.28	696.79	0.68
Reach-1	8	Imported Pla	4000.00	1201.00	1203.40		1203.66	0.011423	5.34	1062.74	727.41	0.69
Reach-1	8	Imported Pla	5000.00	1201.00	1203.65		1203.94	0.011075	5.64	1250.02	756.32	0.69
Reach-1	7	Imported Pla	1000.00	1193.00	1195.12	1195.12	1195.55	0.020659	5.97	228.79	273.27	0.88
Reach-1	7	Imported Pla	2000.00	1193.00	1195.69	1195.69	1196.20	0.020968	6.87	416.63	383.62	0.92
Reach-1	7	Imported Pla	3000.00	1193.00	1196.13	1196.13	1196.64	0.018189	7.09	629.40	649.16	0.88
Reach-1	7	Imported Pla	4000.00	1193.00	1196.37	1196.37	1196.95	0.018863	7.73	788.99	677.43	0.91
Reach-1	7	Imported Pla	5000.00	1193.00	1196.56	1196.56	1197.21	0.020110	8.38	917.48	699.35	0.95
Reach-1	6	Imported Pla	1000.00	1186.00	1188.93		1189.30	0.007652	5.07	241.41	205.72	0.58
Reach-1	6	Imported Pla	2000.00	1186.00	1190.07		1190.40	0.005298	5.24	586.77	584.21	0.51
Reach-1	6	Imported Pla	3000.00	1186.00	1190.81		1191.04	0.003845	4.96	1068.46	729.38	0.45
Reach-1	6	Imported Pla	4000.00	1186.00	1191.42		1191.61	0.002947	4.68	1555.18	851.28	0.40
Reach-1	6	Imported Pla	5000.00	1186.00	1191.67		1191.88	0.003406	5.16	1767.92	899.39	0.43
Reach-1	5	Imported Pla	1000.00	1182.00	1185.15		1185.67	0.010925	5.76	173.62	80.13	0.69
Reach-1	5	Imported Pla	2000.00	1182.00	1186.14		1187.06	0.014350	7.68	260.53	95.83	0.82
Reach-1	5	Imported Pla	3000.00	1182.00	1186.82		1188.11	0.017083	9.12	329.12	106.60	0.91
Reach-1	5	Imported Pla	4000.00	1182.00	1187.32	1187.32	1189.00	0.019902	10.40	384.56	114.57	1.00
Reach-1	5	Imported Pla	5000.00	1182.00	1188.63	1188.63	1189.65	0.009720	8.44	765.17	485.70	0.73
Reach-1	4	Imported Pla	1000.00	1176.00	1179.08	1179.08	1179.65	0.013278	6.61	215.99	221.98	0.77
Reach-1	4	Imported Pla	2000.00	1176.00	1179.91		1180.48	0.011721	7.33	456.06	354.84	0.75
Reach-1	4	Imported Pla	3000.00	1176.00	1180.33		1180.88	0.011683	7.83	735.91	769.67	0.76
Reach-1	4	Imported Pla	4000.00	1176.00	1180.85		1181.20	0.007703	6.84	1153.62	834.23	0.63

HEC-RAS River: RIVER-1 Reach: Reach-1 (Continued)

Reach	River Sta	Plan	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)	
Reach-1	4	Imported Pla	5000.00	1176.00	1181.30	1180.81	1181.57	0.005869	6.31	1535.89	889.22	0.56
Reach-1	3	Imported Pla	1000.00	1172.00	1174.81		1174.99	0.005510	4.06	386.42	364.40	0.49
Reach-1	3	Imported Pla	2000.00	1172.00	1175.29		1175.59	0.007953	5.47	564.64	378.79	0.60
Reach-1	3	Imported Pla	3000.00	1172.00	1175.80		1176.13	0.007663	5.94	760.91	394.02	0.61
Reach-1	3	Imported Pla	4000.00	1172.00	1175.89		1176.42	0.011955	7.54	796.09	396.69	0.76
Reach-1	3	Imported Pla	5000.00	1172.00	1175.90	1175.84	1176.72	0.018396	9.37	800.31	397.01	0.95
Reach-1	2	Imported Pla	1000.00	1167.00	1169.29	1169.29	1170.00	0.021161	7.02	163.13	124.80	0.93
Reach-1	2	Imported Pla	2000.00	1167.00	1170.50	1170.50	1170.96	0.010006	6.31	543.08	598.07	0.68
Reach-1	2	Imported Pla	3000.00	1167.00	1170.83		1171.34	0.011072	7.10	752.12	654.60	0.73
Reach-1	2	Imported Pla	4000.00	1167.00	1171.44		1171.76	0.006701	6.14	1178.22	756.89	0.58
Reach-1	2	Imported Pla	5000.00	1167.00	1172.01		1172.25	0.004565	5.52	1635.66	852.54	0.49
Reach-1	1	Imported Pla	1000.00	1162.00	1165.20	1163.91	1165.44	0.004006	3.90	256.40	100.05	0.43
Reach-1	1	Imported Pla	2000.00	1162.00	1166.67	1164.91	1167.02	0.004002	4.81	415.93	118.31	0.45
Reach-1	1	Imported Pla	3000.00	1162.00	1167.77	1165.71	1168.23	0.004003	5.41	554.61	132.16	0.47
Reach-1	1	Imported Pla	4000.00	1162.00	1168.69	1166.40	1169.23	0.004008	5.87	681.29	143.64	0.48
Reach-1	1	Imported Pla	5000.00	1162.00	1169.49	1166.98	1170.10	0.004008	6.25	800.31	153.65	0.48

HEC-RAS River: RIVER-1 Reach: Reach-1

Reach	River Sta	Plan	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)	
Reach-1	10	Imported Pla	6000.00	1207.00	1211.72		1211.95	0.005390	3.81	1574.82	798.64	0.48
Reach-1	10	Imported Pla	7000.00	1207.00	1211.91		1212.16	0.005524	4.06	1722.24	807.35	0.49
Reach-1	10	Imported Pla	8000.00	1207.00	1212.08		1212.37	0.005609	4.29	1864.99	815.69	0.50
Reach-1	10	Imported Pla	9000.00	1207.00	1212.23		1212.55	0.005786	4.52	1990.01	822.92	0.51
Reach-1	10	Imported Pla	10000.00	1207.00	1212.38		1212.73	0.005918	4.73	2112.78	829.97	0.52
Reach-1	10	Imported Pla	12000.00	1207.00	1212.68		1213.08	0.005999	5.08	2363.33	844.16	0.53
Reach-1	10	Imported Pla	14000.00	1207.00	1212.99		1213.43	0.005890	5.33	2624.52	858.71	0.54
Reach-1	10	Imported Pla	16000.00	1207.00	1213.27		1213.76	0.005771	5.58	2869.57	864.91	0.54
Reach-1	10	Imported Pla	18000.00	1207.00	1213.53		1214.06	0.005716	5.81	3096.65	870.34	0.54
Reach-1	10	Imported Pla	20000.00	1207.00	1213.78		1214.35	0.005669	6.03	3315.20	875.54	0.55
Reach-1	9	Imported Pla	6000.00	1205.00	1209.48	1208.87	1209.75	0.007371	4.12	1457.15	831.76	0.55
Reach-1	9	Imported Pla	7000.00	1205.00	1209.68	1209.00	1209.97	0.007143	4.32	1619.78	839.87	0.55
Reach-1	9	Imported Pla	8000.00	1205.00	1209.85		1210.17	0.007034	4.52	1769.19	847.25	0.55
Reach-1	9	Imported Pla	9000.00	1205.00	1210.06	1209.25	1210.39	0.006586	4.63	1943.05	854.30	0.54
Reach-1	9	Imported Pla	10000.00	1205.00	1210.23	1209.37	1210.59	0.006390	4.78	2091.70	857.20	0.54
Reach-1	9	Imported Pla	12000.00	1205.00	1210.53		1210.94	0.006293	5.11	2350.07	862.21	0.55
Reach-1	9	Imported Pla	14000.00	1205.00	1210.71		1211.20	0.006944	5.59	2506.43	865.22	0.58
Reach-1	9	Imported Pla	16000.00	1205.00	1210.88		1211.45	0.007559	6.04	2650.94	868.00	0.61
Reach-1	9	Imported Pla	18000.00	1205.00	1211.04		1211.69	0.008057	6.44	2793.87	870.00	0.63
Reach-1	9	Imported Pla	20000.00	1205.00	1211.19		1211.92	0.008575	6.85	2921.52	870.00	0.66
Reach-1	8	Imported Pla	6000.00	1201.00	1203.53		1204.01	0.020139	7.34	1154.56	741.73	0.92
Reach-1	8	Imported Pla	7000.00	1201.00	1203.66	1203.46	1204.22	0.021511	7.87	1253.90	756.91	0.96
Reach-1	8	Imported Pla	8000.00	1201.00	1203.80	1203.60	1204.42	0.021911	8.24	1364.96	773.52	0.98
Reach-1	8	Imported Pla	9000.00	1201.00	1203.86	1203.77	1204.59	0.025185	8.96	1410.67	780.26	1.06
Reach-1	8	Imported Pla	10000.00	1201.00	1203.95	1203.80	1204.76	0.026922	9.46	1482.01	790.66	1.10
Reach-1	8	Imported Pla	12000.00	1201.00	1204.34	1203.87	1205.14	0.027499	10.37	2014.72	1480.31	1.13
Reach-1	8	Imported Pla	14000.00	1201.00	1204.57	1203.82	1205.32	0.023554	10.04	2367.12	1497.35	1.06
Reach-1	8	Imported Pla	16000.00	1201.00	1204.79	1203.98	1205.51	0.021162	9.88	2688.26	1512.72	1.01
Reach-1	8	Imported Pla	18000.00	1201.00	1204.98	1203.88	1205.70	0.019580	9.82	2986.02	1526.82	0.98
Reach-1	8	Imported Pla	20000.00	1201.00	1205.18	1203.95	1205.89	0.018086	9.73	3288.23	1541.01	0.95
Reach-1	7	Imported Pla	6000.00	1193.00	1196.08		1196.33	0.011315	5.51	1642.32	1294.99	0.69
Reach-1	7	Imported Pla	7000.00	1193.00	1196.26		1196.51	0.010780	5.66	1868.79	1321.65	0.68
Reach-1	7	Imported Pla	8000.00	1193.00	1196.39		1196.67	0.010866	5.90	2048.63	1342.45	0.69
Reach-1	7	Imported Pla	9000.00	1193.00	1196.58		1196.86	0.009779	5.88	2308.24	1371.92	0.67
Reach-1	7	Imported Pla	10000.00	1193.00	1196.73		1197.02	0.009417	5.99	2515.96	1395.06	0.66
Reach-1	7	Imported Pla	12000.00	1193.00	1196.96		1197.28	0.009516	6.34	2842.79	1430.69	0.67
Reach-1	7	Imported Pla	14000.00	1193.00	1197.11		1197.48	0.010593	6.89	3046.22	1452.43	0.71

HEC-RAS River: RIVER-1 Reach: Reach-1 (Continued)

Reach	River Sta	Plan	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)	
Reach-1	7	Imported Pla	16000.00	1193.00	1197.24		1197.67	0.011561	7.39	3239.94	1472.84	0.75
Reach-1	7	Imported Pla	18000.00	1193.00	1197.36		1197.85	0.012450	7.85	3424.52	1492.02	0.78
Reach-1	7	Imported Pla	20000.00	1193.00	1197.48		1198.02	0.013362	8.30	3593.05	1509.32	0.82
Reach-1	6	Imported Pla	6000.00	1186.00	1189.47		1189.95	0.016103	8.23	1335.98	975.64	0.87
Reach-1	6	Imported Pla	7000.00	1186.00	1189.59		1190.12	0.017195	8.71	1458.47	999.59	0.91
Reach-1	6	Imported Pla	8000.00	1186.00	1189.75		1190.29	0.016842	8.86	1617.77	1029.90	0.90
Reach-1	6	Imported Pla	9000.00	1186.00	1189.79	1189.79	1190.44	0.019870	9.69	1659.16	1037.63	0.98
Reach-1	6	Imported Pla	10000.00	1186.00	1189.89	1189.84	1190.59	0.020718	10.06	1762.96	1056.77	1.01
Reach-1	6	Imported Pla	12000.00	1186.00	1190.30	1189.89	1190.94	0.019431	10.39	2411.79	1802.58	0.99
Reach-1	6	Imported Pla	14000.00	1186.00	1190.53		1191.11	0.017055	10.06	2834.48	1859.69	0.94
Reach-1	6	Imported Pla	16000.00	1186.00	1190.74		1191.30	0.015485	9.87	3231.79	1911.81	0.90
Reach-1	6	Imported Pla	18000.00	1186.00	1190.94		1191.48	0.014325	9.73	3613.98	1960.64	0.87
Reach-1	6	Imported Pla	20000.00	1186.00	1191.13		1191.66	0.013379	9.63	3989.38	2007.45	0.85
Reach-1	5	Imported Pla	6000.00	1182.00	1185.48		1185.68	0.008329	5.31	1747.96	1008.18	0.61
Reach-1	5	Imported Pla	7000.00	1182.00	1185.71		1185.92	0.007782	5.32	1986.94	1040.79	0.60
Reach-1	5	Imported Pla	8000.00	1182.00	1185.88		1186.12	0.007839	5.48	2171.14	1065.24	0.60
Reach-1	5	Imported Pla	9000.00	1182.00	1186.20		1186.41	0.006303	5.13	2571.56	1395.32	0.54
Reach-1	5	Imported Pla	10000.00	1182.00	1186.35		1186.57	0.006306	5.23	2782.76	1413.33	0.55
Reach-1	5	Imported Pla	12000.00	1182.00	1186.56		1186.81	0.006881	5.61	3080.56	1438.35	0.58
Reach-1	5	Imported Pla	14000.00	1182.00	1186.74		1187.03	0.007496	5.98	3337.74	1459.61	0.60
Reach-1	5	Imported Pla	16000.00	1182.00	1186.90		1187.23	0.008043	6.31	3579.72	1479.34	0.63
Reach-1	5	Imported Pla	18000.00	1182.00	1187.06		1187.42	0.008525	6.62	3811.05	1497.95	0.65
Reach-1	5	Imported Pla	20000.00	1182.00	1187.20		1187.60	0.009030	6.91	4021.59	1514.70	0.67
Reach-1	4	Imported Pla	6000.00	1176.00	1179.36		1179.80	0.017660	8.11	1270.28	871.46	0.90
Reach-1	4	Imported Pla	7000.00	1176.00	1179.46	1179.26	1179.99	0.020058	8.82	1359.83	898.35	0.96
Reach-1	4	Imported Pla	8000.00	1176.00	1179.62	1179.41	1180.17	0.020240	9.13	1498.74	938.54	0.97
Reach-1	4	Imported Pla	9000.00	1176.00	1180.08	1179.56	1180.69	0.026234	11.27	2088.31	2564.18	1.13
Reach-1	4	Imported Pla	10000.00	1176.00	1180.13	1179.71	1180.77	0.027724	11.68	2215.91	2572.39	1.16
Reach-1	4	Imported Pla	12000.00	1176.00	1180.29	1179.91	1180.87	0.025392	11.46	2616.05	2597.94	1.12
Reach-1	4	Imported Pla	14000.00	1176.00	1180.45	1179.82	1180.98	0.022725	11.10	3032.32	2624.25	1.07
Reach-1	4	Imported Pla	16000.00	1176.00	1180.59	1179.98	1181.10	0.020878	10.87	3421.74	2648.63	1.03
Reach-1	4	Imported Pla	18000.00	1176.00	1180.73	1179.88	1181.23	0.019613	10.73	3784.42	2671.14	1.00
Reach-1	4	Imported Pla	20000.00	1176.00	1180.86	1179.95	1181.35	0.018574	10.63	4135.38	2692.74	0.98
Reach-1	3	Imported Pla	6000.00	1172.00	1175.08		1175.18	0.006184	4.60	2698.44	2400.23	0.53
Reach-1	3	Imported Pla	7000.00	1172.00	1175.23		1175.33	0.005796	4.60	3049.15	2436.49	0.51
Reach-1	3	Imported Pla	8000.00	1172.00	1175.33		1175.44	0.005893	4.75	3309.32	2463.04	0.52

HEC-RAS River: RIVER-1 Reach: Reach-1 (Continued)

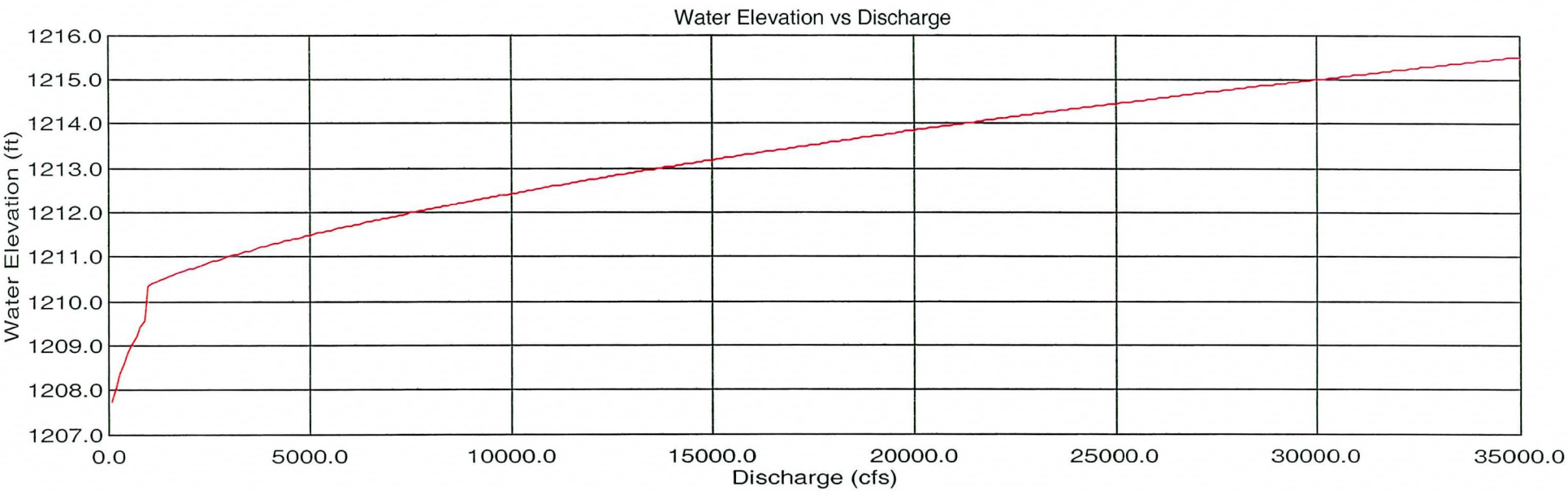
Reach	River Sta	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Reach-1	3	Imported Pla	9000.00	1172.00	1175.45		1175.57	0.005773	4.82	3598.45	2492.21	0.52
Reach-1	3	Imported Pla	10000.00	1172.00	1175.57		1175.69	0.005573	4.85	3899.92	2522.27	0.51
Reach-1	3	Imported Pla	12000.00	1172.00	1175.76		1175.89	0.005654	5.06	4373.79	2568.81	0.52
Reach-1	3	Imported Pla	14000.00	1172.00	1175.91		1176.06	0.005906	5.32	4770.26	2607.11	0.54
Reach-1	3	Imported Pla	16000.00	1172.00	1176.05		1176.22	0.006129	5.55	5141.40	2646.44	0.55
Reach-1	3	Imported Pla	18000.00	1172.00	1176.18		1176.36	0.006337	5.77	5487.58	2689.26	0.56
Reach-1	3	Imported Pla	20000.00	1172.00	1176.30		1176.50	0.006531	5.97	5818.31	2729.54	0.57
Reach-1	2	Imported Pla	6000.00	1167.00	1170.26	1170.26	1170.57	0.015978	7.55	1936.71	2501.52	0.85
Reach-1	2	Imported Pla	7000.00	1167.00	1170.31	1170.31	1170.66	0.018184	8.15	2066.75	2523.23	0.91
Reach-1	2	Imported Pla	8000.00	1167.00	1170.39	1170.39	1170.75	0.018543	8.38	2258.60	2554.92	0.92
Reach-1	2	Imported Pla	9000.00	1167.00	1170.45	1170.45	1170.83	0.019129	8.63	2428.56	2582.67	0.94
Reach-1	2	Imported Pla	10000.00	1167.00	1170.50	1170.50	1170.91	0.020271	8.99	2562.80	2604.37	0.97
Reach-1	2	Imported Pla	12000.00	1167.00	1170.62	1170.61	1171.05	0.021198	9.42	2866.02	2652.76	1.00
Reach-1	2	Imported Pla	14000.00	1167.00	1170.77	1170.71	1171.19	0.019830	9.38	3263.74	2714.91	0.97
Reach-1	2	Imported Pla	16000.00	1167.00	1170.91	1170.80	1171.33	0.018755	9.37	3647.64	2773.58	0.95
Reach-1	2	Imported Pla	18000.00	1167.00	1171.04	1170.89	1171.47	0.017845	9.37	4023.16	2829.80	0.94
Reach-1	2	Imported Pla	20000.00	1167.00	1171.17	1170.96	1171.60	0.017045	9.37	4393.19	2884.12	0.92
Reach-1	1	Imported Pla	6000.00	1162.00	1166.17	1165.37	1166.29	0.004002	4.52	2836.09	2179.68	0.45
Reach-1	1	Imported Pla	7000.00	1162.00	1166.32	1165.48	1166.44	0.004001	4.61	3161.65	2214.13	0.45
Reach-1	1	Imported Pla	8000.00	1162.00	1166.46	1165.57	1166.58	0.004004	4.69	3469.28	2246.20	0.45
Reach-1	1	Imported Pla	9000.00	1162.00	1166.59	1165.69	1166.72	0.004002	4.76	3764.93	2276.60	0.45
Reach-1	1	Imported Pla	10000.00	1162.00	1166.71	1165.78	1166.84	0.004001	4.83	4048.79	2305.41	0.45
Reach-1	1	Imported Pla	12000.00	1162.00	1166.94	1165.91	1167.08	0.004000	4.96	4588.30	2359.19	0.46
Reach-1	1	Imported Pla	14000.00	1162.00	1167.16	1165.86	1167.31	0.004002	5.08	5097.29	2408.83	0.46
Reach-1	1	Imported Pla	16000.00	1162.00	1167.36	1165.82	1167.51	0.004001	5.19	5584.19	2455.37	0.46
Reach-1	1	Imported Pla	18000.00	1162.00	1167.54	1166.47	1167.71	0.004002	5.29	6051.10	2499.19	0.46
Reach-1	1	Imported Pla	20000.00	1162.00	1167.72	1166.56	1167.90	0.004000	5.38	6502.68	2540.86	0.46

Curve
Plotted Curves for Irregular Channel

Project Description	
Project File	c:\haestad\fmw\wt.fm2
Worksheet	wt3
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Constant Data	
Channel Slope	0.005000 ft/ft

Input Data			
	Minimum	Maximum	Increment
Discharge	0.00	35,000.00	100.00 cfs



1210
1220
1206.5
1203.5
1187.0
1210
1190
1200
1180
1180.5
1181.5
1176.5
1175
1230
4311 CFS
1209.0
1195.0
190
1200
1221.0
Home
No.527
1191.97
No.131
1191.54
1186.9
1179.9
1212.5
1210
1230
1200
190
Trail
Road
Beardsley
Canal
(Extended)
4311 C
1173.8
1169.6
MATCH TO SHEET 3 OF 64
1160.6
1160.2
4.024
1166.2
1165.1
1164.6
3.929
1162.1
1160.2
1160.8
1160.3
3.829
1160.1
1161.3
1159.9
1'=400'
N

17

APPENDIX 7. HEC-RAS INUNDATION MODEL FOR THE CENTRAL 48" PRINCIPLE OUTLET PIPE

HEC-RAS September 1998 Version 2.2
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

INUNDATION AREA ANALYSIS
FOR CENTRAL PIPE

PROJECT DATA
Project Title: Center Pipe
Project File : cphecras06.prj
Run Date and Time: 8/22/00 2:56:50 PM

Project in English units

PLAN DATA

Plan Title: Plan 01
Plan File : C:\HEC\Ras2.2\cphecras06.p01

Geometry Title: Center Pipe
Geometry File : C:\HEC\Ras2.2\cphecras06.g01

Flow Title : Center Pipe
Flow File : C:\HEC\Ras2.2\cphecras06.f01

Plan Summary Information:
Number of: Cross Sections = 33 Mulitple Openings = 0

```
            Culverts        =    0    Inline Weirs      =    0
            Bridges         =    0
```

Computational Information

```
    Water surface calculation tolerance =  0.01
    Critical depth calculaton tolerance =  0.01
    Maximum number of interations       =  20
    Maximum difference tolerance        =  0.3
    Flow tolerance factor               =  0.001
```

Computation Options

```
    Critical depth computed only where necessary
    Conveyance Calculation Method: At breaks in n values only
    Friction Slope Method:         Average Conveyance
    Computational Flow Regime:     Subcritical Flow
```

FLOW DATA

Flow Title: Center Pipe
Flow File : C:\HEC\Ras2.2\cphecras06.f01

Flow Data (cfs)

River	Reach	RS	PF 1
cpchannel	rch00	1.207	210
cpchannel	rch00	0.016	210

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
cpchannel	rch00	PF 1	Normal S = .01	Known WS = 1152.1

GEOMETRY DATA

Geometry Title: Center Pipe
Geometry File : C:\HEC\Ras2.2\cphecras06.g01

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 1.207

INPUT
Description:
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1191.4	4.76	1191.66	6.3	1191.76	8.15	1191.81	9.4	1191.86
11.1	1191.94	12.63	1191.85	17.18	1191.55	18.41	1191.54	20.38	1191.54
21.45	1191.48	35.03	1191.5	36.97	1191.46	52.13	1190	52.21	189.965
56.09	1188	59.41	1186.34	64.45	1185.65	65.16	1185.66	69.44	1185.71
70.18	1185.78	72.41	1186	75.71	1187.54	76.62	1188	78.19	1188.72
81.11	189.987	81.13	1190	88.8	1190.39	94.11	1190.62	97.26	1190.71
99.55	1190.74	101.19	1190.75	110	1190.78	120.47	1190.71	125.35	1190.72
138.78	1190.18	156.14	1190.2						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.03	52.2	.03	81.1	.03

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
52.2	81.1	70.31	70.19	70.07	.1	.3

Left Levee Station= 46 Elevation= 1190.6
Right Levee Station= 88 Elevation= 1190.4

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1188.51	Element			
Vel Head (ft)	0.76	Wt. n-Val.		0.030	
W.S. Elev (ft)	1187.74	Reach Len. (ft)	70.31	70.19	70.07
Crit W.S. (ft)	1187.74	Flow Area (sq ft)		29.96	
E.G. Slope (ft/ft)	0.011920	Area (sq ft)		29.96	
Q Total (cfs)	210.00	Flow (cfs)		210.00	
Top Width (ft)	19.51	Top Width (ft)		19.51	
Vel Total (ft/s)	7.01	Avg. Vel. (ft/s)		7.01	
Max Chl Dpth (ft)	2.09	Hydr. Depth (ft)		1.54	
Conv. Total (cfs)	1923.4	Conv. (cfs)		1923.4	
Length Wtd. (ft)	70.19	Wetted Per. (ft)		20.30	
Min Ch El (ft)	1185.65	Shear (lb/sq ft)		1.10	

Alpha	1.00	Stream Power (lb/ft s)		7.70	
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	1.28	10.63	3.64
C & E Loss (ft)	0.19	Cum SA (acres)	3.81	9.48	9.00

Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 1.194

INPUT
Description:
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1187.74	6.8	1187.86	10.64	1188	52.11	1188	56.55	1188.04
65.92	1188.23	71.34	1188.31	83.5	1188.13	84.98	1188.14	91.66	1188.28
100.49	1188.67	123.53	1188.49	134.75	1188.009	134.95	1188	144.31	1186.03
154.58	1184.9	156.75	1184.66	159.59	1184.96	169.5	1186	176.93	1187.86
176.95	1187.861	196.38	1188.54	197.81	1188.47	202.26	1188.13	204.12	1188
216.39	1187.76	217.89	1187.74	218.91	1187.72	226.16	1187.37	252.96	1187.63
258.4	1187.88	260.34	1188	265.03	1188	278.19	1187.02	284.01	1186.66
299.43	1186.84	307.63	1186.82	338.56	1187.2	340.63	1187.2	342.19	1187.21
343.87	1187.21	372.96	1188	380.24	1188	389.04	1187.78	397.47	1187.96

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.03	134.75	.045	176.95	.03

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
134.75	176.95	168.88	168.56	168.25	.1	.3

Left Levee Station= 100 Elevation= 1188.7

Right Levee Station= 198 Elevation= 1188.45

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1187.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.12	Wt. n-Val.		0.045	
W.S. Elev (ft)	1187.79	Reach Len. (ft)	168.88	168.56	168.25
Crit W.S. (ft)	1186.64	Flow Area (sq ft)		75.70	
E.G. Slope (ft/ft)	0.003145	Area (sq ft)		75.70	
Q Total (cfs)	210.00	Flow (cfs)		210.00	
Top Width (ft)	40.74	Top Width (ft)		40.74	
Vel Total (ft/s)	2.77	Avg. Vel. (ft/s)		2.77	
Max Chl Dpth (ft)	3.13	Hydr. Depth (ft)		1.86	
Conv. Total (cfs)	3744.6	Conv. (cfs)		3744.6	
Length Wtd. (ft)	168.49	Wetted Per. (ft)		41.29	
Min Ch El (ft)	1184.66	Shear (lb/sq ft)		0.36	
Alpha	1.00	Stream Power (lb/ft s)		1.00	
Frctn Loss (ft)	0.54	Cum Volume (acre-ft)	1.28	10.55	3.64
C & E Loss (ft)	0.03	Cum SA (acres)	3.81	9.43	9.00

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 1.162

INPUT
Description:
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1186.79	12.75	1186.56	53.75	1187.12	91.25	1187.37	143.43	1187.16
173.88	1187.28	175.78	1187.3	185.15	1187.379	185.25	1187.38	193.21	1187.072
211.3	1186.37	214.53	1186.14	216.8	1186	220.39	1186	225.39	1186
228.07	1186	240.05	1187.066	240.21	1187.08	243.65	1187.368	251.2	1188
273.64	1188	322.62	1186.56	328.6	1186.51	369.63	1186.63	416.04	1186.29
433.44	1186.79	436.06	1186.84	454.05	1186.96				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	185.15	.045	243.65	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
185.15	243.65	143.38	139.74	136.05	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1187.35	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.02	Wt. n-Val.	0.060	0.045	0.060
W.S. Elev (ft)	1187.33	Reach Len. (ft)	143.38	139.74	136.05
Crit W.S. (ft)		Flow Area (sq ft)	38.07	42.91	108.51
E.G. Slope (ft/ft)	0.003215	Area (sq ft)	38.07	42.91	108.51
Q Total (cfs)	210.00	Flow (cfs)	24.50	66.82	118.68
Top Width (ft)	374.98	Top Width (ft)	161.04	56.48	157.46
Vel Total (ft/s)	1.11	Avg. Vel. (ft/s)	0.64	1.56	1.09
Max Chl Dpth (ft)	1.33	Hydr. Depth (ft)	0.24	0.76	0.69
Conv. Total (cfs)	3703.4	Conv. (cfs)	432.0	1178.3	2093.0
Length Wtd. (ft)	137.57	Wetted Per. (ft)	161.58	56.57	157.85
Min Ch El (ft)	1186.00	Shear (lb/sq ft)	0.05	0.15	0.14
Alpha	1.22	Stream Power (lb/ft s)	0.03	0.24	0.15
Frctn Loss (ft)	0.82	Cum Volume (acre-ft)	1.21	10.32	3.43
C & E Loss (ft)	0.00	Cum SA (acres)	3.50	9.24	8.70

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 1.136

INPUT
Description:
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1189.01	9.43	1188.68	19.14	1188.59	43.32	1188	66.74	1188
69.25	1187.91	74.65	1187.67	124.23	1187.14	154.02	1187.18	187.63	1186.88
206.73	1186.39	206.75	1186.389	217.04	1186	248.11	1186	255.58	1185.5
260.05	1186	290.56	1186	295.67	1186	306.19	1186	311.85	1186.375
313.14	1186.46	338.9	1186.33	344.04	1186	354.07	1185.73	356.18	1185.69
359	1185.65	361.63	1185.63	364.66	1185.63	396.34	1185.93	483.03	1186.23
495.18	1186.12	502.34	1186.12	528.79	1186.32	541.58	1186.61	547.22	1186.92
562.22	1188	567.94	1189						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val

```
       0     .06  206.75      .1  311.85     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        206.75  311.85            88.34   86.86   85.39            .1        .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1186.53   Element                   Left OB    Channel   Right OB
  Vel Head (ft)                0.04   Wt. n-Val.                 0.060      0.100      0.060
  W.S. Elev (ft)            1186.49   Reach Len. (ft)            88.34      86.86      85.39
  Crit W.S. (ft)                      Flow Area (sq ft)           0.21      51.82      92.42
  E.G. Slope (ft/ft)       0.014447   Area (sq ft)                0.21      51.82      92.42
  Q Total (cfs)              210.00   Flow (cfs)                  0.09      57.73     152.18
  Top Width (ft)             333.77   Top Width (ft)              4.06     105.10     224.61
  Vel Total (ft/s)             1.45   Avg. Vel. (ft/s)            0.42       1.11       1.65
  Max Chl Dpth (ft)            0.99   Hydr. Depth (ft)            0.05       0.49       0.41
  Conv. Total (cfs)          1747.2   Conv. (cfs)                  0.7      480.3     1266.1
  Length Wtd. (ft)            86.20   Wetted Per. (ft)            4.07     105.16     224.63
  Min Ch El (ft)            1185.50   Shear (lb/sq ft)            0.05       0.44       0.37
  Alpha                        1.09   Stream Power (lb/ft s)      0.02       0.50       0.61
  Frctn Loss (ft)              0.68   Cum Volume (acre-ft)        1.14      10.17       3.11
  C & E Loss (ft)              0.01   Cum SA (acres)              3.23       8.99       8.10


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: cpchannel
REACH: rch00              RS: 1.119

INPUT
Description:
Station Elevation Data    num=      56
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 1188.07   40.16 1187.19   48.66 1187.12   96.77 1187.05  126.79    1188
  144.02 1188.06  149.53 1188.05  182.15 1187.81  195.77 1187.89  200.99 1187.84
  207.02    1188  209.39    1188  210.62 1188.02  216.27 1188.07  262.24 1189.16
  281.02 1189.01  309.77 1188.15  313.98    1188  315.02 1187.91  329.99 1186.44
  334.24    1186   338.91185.472  351.88    1184  355.42    1184   360.4    1184
  366.34    1184  391.81 1185.43  391.85 1185.43  421.79 1185.45  430.46 1185.32
  495.48  1185.4  498.67 1185.42  500.04 1185.44  502.77 1185.46  533.43 1185.94
  547.59 1185.95  566.55 1185.81  567.93 1185.81  572.83 1185.84  583.19    1186
```

588.56	1186.51	594.52	1186.92	600.33	1187.42	610.42	1188	611.77	1188.17
616.26	1188.62	618.23	1188.83	620.62	1189.07	623.62	1189.41	624.68	1189.52
630.6	1190.25	639.54	1191.25	641.23	1191.45	645.47	1192	648.34	1192
654.92	1192.36								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	338.9	.045	391.85	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
338.9	391.85	99.68	98.9	98.12	.1	.3

Right Levee Station= 646 Elevation= 1192

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1185.84	Element			
Vel Head (ft)	0.09	Wt. n-Val.	0.060	0.045	0.060
W.S. Elev (ft)	1185.75	Reach Len. (ft)	99.68	98.90	98.12
Crit W.S. (ft)	1185.29	Flow Area (sq ft)	0.34	64.89	42.96
E.G. Slope (ft/ft)	0.005026	Area (sq ft)	0.34	64.89	42.96
Q Total (cfs)	210.00	Flow (cfs)	0.16	173.70	36.14
Top Width (ft)	184.92	Top Width (ft)	2.46	52.95	129.51
Vel Total (ft/s)	1.94	Avg. Vel. (ft/s)	0.47	2.68	0.84
Max Chl Dpth (ft)	1.75	Hydr. Depth (ft)	0.14	1.23	0.33
Conv. Total (cfs)	2962.2	Conv. (cfs)	2.3	2450.1	509.8
Length Wtd. (ft)	98.68	Wetted Per. (ft)	2.48	53.07	129.51
Min Ch El (ft)	1184.00	Shear (lb/sq ft)	0.04	0.38	0.10
Alpha	1.61	Stream Power (lb/ft s)	0.02	1.03	0.09
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	1.14	10.05	2.98
C & E Loss (ft)	0.02	Cum SA (acres)	3.22	8.83	7.76

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 1.101

INPUT
Description:
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1187.31	5.62	1187.21	45.39	1187.04	56.73	1187.16	93.86	1188
101.96	1188	142.37	1187.88	162.86	1187.92	170.82	1187.88	172.48	1187.88
205.49	1187.53	273.83	1187.69	278.54	1187.7	280.77	1187.73	281.96	1187.73

319.01	1187.99	362.41	1186.12	366	1186	377.89	1186	388.92	1185.6
392.89	1185.5	409.78	1184.75	429.31	1184.023	429.92	1184	432.4	1183.59
440.53	1183.02	445.46	1182.68	445.73	1182.66	446.88	1182.8	450.6	1183.54
452.7	1184	452.81	1184.001	490.98	1184.54	579.1	1185.06	614.72	1185.6
650.25	1185.4	653.72	1185.44	657.7	1185.57	674.72	1186.02	683.74	1186.68
686.4	1186.86	691.52	1187.16	692.64	1187.18	694.04	1187.27	699.25	1187.44
708.34	1187.52	713.1	1187.51	714.39	1187.56	719.79	1187.54	721.35	1187.59
722.87	1187.63	724.36	1187.66	739.05	1187.63	791.62	1187.18	794.07	1187.18
804.29	1187.05	827.98	1187.36	858.36	1187.62	866.64	1187.62	883.55	1187.83
893.02	1188	896.66	1188						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	429.3	.1	452.8	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
429.3	452.8	105.6	107.29	108.91	.1	.3

Left Levee Station= 200 Elevation= 1187.6
Right Levee Station= 725 Elevation= 1187.6

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1185.41	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.02	Wt. n-Val.	0.060	0.100	0.060
W.S. Elev (ft)	1185.39	Reach Len. (ft)	105.60	107.29	108.91
Crit W.S. (ft)	1184.64	Flow Area (sq ft)	24.10	49.80	97.87
E.G. Slope (ft/ft)	0.003538	Area (sq ft)	24.10	49.80	97.87
Q Total (cfs)	210.00	Flow (cfs)	28.28	72.23	109.49
Top Width (ft)	205.23	Top Width (ft)	33.86	23.50	147.87
Vel Total (ft/s)	1.22	Avg. Vel. (ft/s)	1.17	1.45	1.12
Max Chl Dpth (ft)	2.73	Hydr. Depth (ft)	0.71	2.12	0.66
Conv. Total (cfs)	3530.4	Conv. (cfs)	475.4	1214.2	1840.8
Length Wtd. (ft)	107.77	Wetted Per. (ft)	33.89	23.70	147.87
Min Ch El (ft)	1182.66	Shear (lb/sq ft)	0.16	0.46	0.15
Alpha	1.04	Stream Power (lb/ft s)	0.18	0.67	0.16
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	1.12	9.92	2.82
C & E Loss (ft)	0.00	Cum SA (acres)	3.18	8.74	7.44

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 1.080

INPUT
Description:
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1185.88	17.49	1186.07	31.79	1186.31	80.11	1186.82	94.76	1187.1
107.16	1186.68	108.78	1186.68	181.96	1186.35	192.15	1186.24	205.12	1186.2
210.35	1186.11	214.59	1186.07	238.24	1186.6	270.83	1187.51	322.58	1186.87
357.33	1186	387.3	1184.68	395.93	1184.3	415.92	1184.01	456.63	1184
461.73	1184	465.88	1184	501.25	1184.567	501.42	1184.57	591.27	1184.66
592.82	1184.67	596.32	1184.72	757.6	1184.87	843.23	1185.49	846.92	1185.54
867.58	1186	924.44	1187.94	925.74	1187.96	927.02	1187.99	931.62	1187.98
945.59	1187.83								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	387.3	.045	501.25	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
387.3	501.25	178.13	176.94	175.72	.1	.3

Left Levee Station= 240 Elevation= 1186.7
Right Levee Station= 867 Elevation= 1186

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1185.05	Element			
Vel Head (ft)	0.04	Wt. n-Val.	0.060	0.045	0.060
W.S. Elev (ft)	1185.02	Reach Len. (ft)	178.13	176.94	175.72
Crit W.S. (ft)	1184.67	Flow Area (sq ft)	1.29	98.28	75.06
E.G. Slope (ft/ft)	0.003171	Area (sq ft)	1.29	98.28	75.06
Q Total (cfs)	210.00	Flow (cfs)	0.55	165.58	43.88
Top Width (ft)	398.19	Top Width (ft)	7.64	113.95	276.60
Vel Total (ft/s)	1.20	Avg. Vel. (ft/s)	0.42	1.68	0.58
Max Chl Dpth (ft)	1.02	Hydr. Depth (ft)	0.17	0.86	0.27
Conv. Total (cfs)	3729.1	Conv. (cfs)	9.7	2940.3	779.1
Length Wtd. (ft)	176.81	Wetted Per. (ft)	7.65	113.97	276.60
Min Ch El (ft)	1184.00	Shear (lb/sq ft)	0.03	0.17	0.05
Alpha	1.60	Stream Power (lb/ft s)	0.01	0.29	0.03
Frctn Loss (ft)	1.08	Cum Volume (acre-ft)	1.08	9.74	2.61
C & E Loss (ft)	0.02	Cum SA (acres)	3.13	8.57	6.91

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less

than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 1.047

INPUT
Description:
Station Elevation Data num= 58

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1184	4.16	1184	15.37	1183.84	17.01	1183.88	19.68	1183.9
20.88	1183.9	24.55	1183.86	26.22	1183.83	27.94	1183.78	29.79	1183.71
32.16	1183.6	63.66	1182.71	71.03	1182.74	100.95	1183.34	105.43	1183.35
109.33	1183.3	149.64	1183.52	157.64	1183.37	174.21	1183.53	201.8	1184
206.92	1184.04	248.77	1185.06	292.48	1185.63	308.08	1185.92	338.99	1184.42
347.76	1184.06	349	1184	352.72	1184	364	1183.664	364.12	1183.66
373.6	1183.46	404.91	1182.11	408.73	1182	414.29	1182	423.26	1183.97
423.7	1183.97	427.58	1183.97	454.09	1183.74	454.7	1183.73	459.15	1183.72
503.22	1183.65	504.68	1183.67	545.2	1183.67	547.29	1183.65	576.23	1183.73
590.36	1183.92	598.31	1183.99	691.55	1183.93	804.6	1184.54	812.12	1184.76
813.81	1184.78	826.54	1185.03	865.1	1186	867.87	1186	881.51	1186.37
898.14	1186.73	925.2	1187.46	953.58	1187.19				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	364	.045	423.7	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
364	423.7	191.23	192.1	192.84	.1	.3

Left Levee Station= 206 Elevation= 1184
Right Levee Station= 867 Elevation= 1186

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1183.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.22	Wt. n-Val.	0.060	0.045	0.060
W.S. Elev (ft)	1183.74	Reach Len. (ft)	191.23	192.10	192.84
Crit W.S. (ft)	1183.48	Flow Area (sq ft)	0.10	54.66	7.15
E.G. Slope (ft/ft)	0.014346	Area (sq ft)	0.10	54.66	7.15
Q Total (cfs)	210.00	Flow (cfs)	0.03	206.78	3.18
Top Width (ft)	183.82	Top Width (ft)	2.58	58.22	123.02

Vel Total (ft/s)	3.39	Avg. Vel. (ft/s)	0.34	3.78	0.45
Max Chl Dpth (ft)	1.74	Hydr. Depth (ft)	0.04	0.94	0.06
Conv. Total (cfs)	1753.3	Conv. (cfs)	0.3	1726.4	26.6
Length Wtd. (ft)	191.98	Wetted Per. (ft)	2.58	58.44	123.02
Min Ch El (ft)	1182.00	Shear (lb/sq ft)	0.03	0.84	0.05
Alpha	1.23	Stream Power (lb/ft s)	0.01	3.17	0.02
Frctn Loss (ft)	1.32	Cum Volume (acre-ft)	1.08	9.43	2.44
C & E Loss (ft)	0.06	Cum SA (acres)	3.11	8.22	6.11

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 1.010

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1182	13.27	1182	34.9	1180.78	123.73	1180.87	135.36	1181.36
155.46	1182	177.66	1182.57	180.4	1182.67	182.55	1182.67	184.07	1182.73
224.1	1183.6	228.92	1183.6	246.21	1183.37	262.98	1183.06	304.07	1182.08
308.34	1182	338.48	1181.71	380.6	1182	405.74	1182	447	1182.339
447.17	1182.34	458.22	1182.13	459.35	1182.13	460.86	1182.14	464.69	1182.14
479.96	1182	483.08	1182	491.31	1182.06	493.3	1182.05	529.3	1182.01
534.36	1182	536.81	1182	572.78	1182.17	573	1182.169	599.82	1182.06
707.29	1182.44	708.56	1182.43	810.7	1182.4	833.21	1182.55	847.84	1183.26
882.5	1184.14	895.97	1184.22	914.92	1184.16	916.87	1184.18	921.8	1184.15
923.59	1184.1	926.02	1184.01	961.47	1184	976.97	1184.39	978.37	1184.38
979.44	1184.39	984.34	1184.47	1007.15	1184.38	1029.02	1184.02	1033.18	1183.99
1048.82	1184.02	1063.6	1184.92	1068.8	1185.14	1077.73	1185.73	1078.84	1185.81
1081.68	1186	1095.93	1186.77	1098.8	1186.83	1100.81	1186.79	1124.25	1186.11

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	447	.045	573	.06

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

```
          447     573           304.48  307.01  309.44              .1       .3
Left Levee      Station=     227      Elevation=  1183.6
Right Levee     Station=     940      Elevation=    1184
```

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1182.58	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.02	Wt. n-Val.	0.060	0.045	0.060
W.S. Elev (ft)	1182.56	Reach Len. (ft)	304.48	307.01	309.44
Crit W.S. (ft)	1182.28	Flow Area (sq ft)	88.43	61.58	62.54
E.G. Slope (ft/ft)	0.004010	Area (sq ft)	88.43	61.58	62.54
Q Total (cfs)	210.00	Flow (cfs)	92.21	79.90	37.89
Top Width (ft)	549.57	Top Width (ft)	163.12	126.00	260.45
Vel Total (ft/s)	0.99	Avg. Vel. (ft/s)	1.04	1.30	0.61
Max Chl Dpth (ft)	1.78	Hydr. Depth (ft)	0.54	0.49	0.24
Conv. Total (cfs)	3316.2	Conv. (cfs)	1456.1	1261.7	598.3
Length Wtd. (ft)	307.44	Wetted Per. (ft)	163.13	126.00	260.45
Min Ch El (ft)	1182.00	Shear (lb/sq ft)	0.14	0.12	0.06
Alpha	1.21	Stream Power (lb/ft s)	0.14	0.16	0.04
Frctn Loss (ft)	2.22	Cum Volume (acre-ft)	0.89	9.17	2.29
C & E Loss (ft)	0.00	Cum SA (acres)	2.74	7.82	5.26

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.952

INPUT
Description:
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1182.38	5.32	1182.24	18.14	1181.98	26	1181.55	30.7	1181.19
36.47	1180.78	46.27	1180	65.74	1179.05	114.39	1178.73	118.37	1178.75
120.07	1178.74	174.39	1179.21	267.78	1179.76	272.57	1179.75	283.16	1179.67
392.91	1179.78	418.17	1180	497.33	1180.29	537.51	1180.499	537.69	1180.5
578.97	1180.12	585.5	1180.01	609.19	1179.75	621.8	1179.82	626.8	1179.85
672	1180.118	672.27	1180.12	724.59	1180.02	767.99	1179.68	841.42	1180.05
900.44	1180.04	994.99	1180.76	1064.82	1180.97	1136.49	1181.54	1137.92	1181.54

1194.34 1181.89 1206.94 1181.67 1223.77 1181.52 1269.5 1181.78 1271.06 1181.77
1273.03 1181.77 1274.48 1181.78 1315.32 1181.87 1350.85 1182.21

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	537.5	.045	672	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
537.5	672	386.64	388.13	388.75	.1	.3

Left Levee Station= 536 Elevation= 1180.5
Right Levee Station= 1060 Elevation= 1181

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1180.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.05	Wt. n-Val.		0.045	0.060
W.S. Elev (ft)	1180.31	Reach Len. (ft)	386.64	388.13	388.75
Crit W.S. (ft)	1180.20	Flow Area (sq ft)		37.94	86.75
E.G. Slope (ft/ft)	0.016739	Area (sq ft)		37.94	86.75
Q Total (cfs)	210.00	Flow (cfs)		77.80	132.20
Top Width (ft)	378.54	Top Width (ft)		114.11	264.43
Vel Total (ft/s)	1.68	Avg. Vel. (ft/s)		2.05	1.52
Max Chl Dpth (ft)	1.58	Hydr. Depth (ft)		0.33	0.33
Conv. Total (cfs)	1623.2	Conv. (cfs)		601.3	1021.8
Length Wtd. (ft)	388.33	Wetted Per. (ft)		114.12	264.43
Min Ch El (ft)	1179.75	Shear (lb/sq ft)		0.35	0.34
Alpha	1.06	Stream Power (lb/ft s)		0.71	0.52
Frctn Loss (ft)	2.14	Cum Volume (acre-ft)	0.58	8.82	1.75
C & E Loss (ft)	0.00	Cum SA (acres)	2.17	6.97	3.39

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.
Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.879

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1177.07	67.6	1177.22	108	1177.58	119.68	1177.61	126.06	1177.69
223.94	1178.36	252.93	1179.43	257.93	1179.53	264.32	1179.62	290.25	1179.74
291.38	1179.76	293.37	1179.78	295.36	1179.78	297.94	1179.82	299.08	1179.85
300.51	1179.87	301.55	1179.87	306.54	1180	340.8	1180	348.33	1179.86
349.71	1179.85	367.67	1179.57	402.03	1178.73	453.79	1178.19	484.09	1178.33
485.21	1178.32	486.78	1178.33	504.06	1178.73	522.82	1179.07	579.6	1178.88
621.03	1178.05	642.51	1178.003	643.71	1178	682.62	1176	684.17	1176
689.2	1176	689.49	1176	721.84	1177.63	757.51	1177.999	757.63	1178
808.65	1178.02	813.24	1178.08	817.94	1178.09	821.96	1178.12	831.49	1178.62
846.14	1178.02	849.48	1178	858.69	1178	861.15	1178.09	865.84	1178.37
869.49	1178.75	872.26	1178.98	874.11	1179.04	875.47	1179.04	883.47	1179.63
885.64	1179.56	887.25	1179.49	901.3	1179.01	953.44	1178.86	1012.59	1179.27
1052.88	1179.12	1066.56	1179.2	1109.81	1179.67	1214	1180.13	1226.76	1180.67

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	642.5	.045	757.5	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
642.5	757.5	212.45	214	215.39	.1	.3

Left Levee Station= 523 Elevation= 1179
Right Levee Station= 883 Elevation= 1179.6

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1178.22	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.05	Wt. n-Val.	0.060	0.045	0.060
W.S. Elev (ft)	1178.17	Reach Len. (ft)	212.45	214.00	215.39
Crit W.S. (ft)	1177.31	Flow Area (sq ft)	3.56	117.64	12.53
E.G. Slope (ft/ft)	0.002688	Area (sq ft)	3.56	117.64	12.53
Q Total (cfs)	210.00	Flow (cfs)	1.16	204.37	4.46
Top Width (ft)	228.36	Top Width (ft)	27.67	115.00	85.69
Vel Total (ft/s)	1.57	Avg. Vel. (ft/s)	0.33	1.74	0.36
Max Chl Dpth (ft)	2.17	Hydr. Depth (ft)	0.13	1.02	0.15
Conv. Total (cfs)	4050.3	Conv. (cfs)	22.4	3941.8	86.1
Length Wtd. (ft)	213.85	Wetted Per. (ft)	27.67	115.09	85.69
Min Ch El (ft)	1176.00	Shear (lb/sq ft)	0.02	0.17	0.02

Alpha	1.19	Stream Power (lb/ft s)	0.01	0.30	0.01
Frctn Loss (ft)	1.02	Cum Volume (acre-ft)	0.56	8.13	1.31
C & E Loss (ft)	0.01	Cum SA (acres)	2.05	5.95	1.83

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.838

INPUT
Description:
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1177.09	7.71	1177.19	53.86	1177.11	64.89	1177.37	82.18	1178
89.3	1178.46	94.91	1178.77	96.52	1178.85	98.68	1178.99	149.41	1178.81
181.59	1179.44	186.05	1179.48	202.17	1179.11	282.95	1177.92	293.34	1177.87
317.82	1177.95	336.67	1177.93	368.64	1177.42	386.91	1177.24	413.06	1177.54
439.98	1177.62	461.27	1176.89	561.38	1176.55	564	1176.505	564.29	1176.5
578.78	1176	588.15	1176	593.2	1176	597.14	1176	625.51	1176.676
625.66	1176.68	635.57	1177.08	646.16	1177.01	838.96	1177.47	889.17	1177.92
939.37	1177.37	989.65	1177.58	998.82	1177.71	1039.13	1177.81	1043.31	1177.85
1050.76	1177.97	1051.94	1178	1065.32	1179.35	1074.11	1180	1075.46	1180.05
1101.2	1180.89	1108.75	1181.2	1112.28	1181.37	1117.75	1181.74	1123.92	1181.38

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	564	.045	625.5	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
564	625.5	168.96	168.5	167.89	.1	.3

Left Levee Station= 200 Elevation= 1179.1
Right Levee Station= 891 Elevation= 1178

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1177.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.12	Wt. n-Val.	0.060	0.045	0.060

W.S. Elev (ft)	1177.07	Reach Len. (ft)	168.96	168.50	167.89
Crit W.S. (ft)	1176.94	Flow Area (sq ft)	36.82	52.39	2.93
E.G. Slope (ft/ft)	0.010831	Area (sq ft)	36.82	52.39	2.93
Q Total (cfs)	210.00	Flow (cfs)	46.32	161.74	1.94
Top Width (ft)	212.89	Top Width (ft)	107.95	61.50	43.44
Vel Total (ft/s)	2.28	Avg. Vel. (ft/s)	1.26	3.09	0.66
Max Chl Dpth (ft)	1.07	Hydr. Depth (ft)	0.34	0.85	0.07
Conv. Total (cfs)	2017.9	Conv. (cfs)	445.1	1554.2	18.6
Length Wtd. (ft)	168.57	Wetted Per. (ft)	107.95	61.52	43.45
Min Ch El (ft)	1176.00	Shear (lb/sq ft)	0.23	0.58	0.05
Alpha	1.48	Stream Power (lb/ft s)	0.29	1.78	0.03
Frctn Loss (ft)	1.26	Cum Volume (acre-ft)	0.46	7.71	1.27
C & E Loss (ft)	0.01	Cum SA (acres)	1.72	5.52	1.51

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.806

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1176.81	19.7	1178	28.95	1178	54.22	1178.17	65.27	1178.09
72.69	1178.09	79.9	1178.16	97.61	1178.14	105.74	1178.18	119.89	1178.33
170.57	1177.44	212.07	1176.47	270.26	1177.39	273.66	1177.33	423.91	1175.44
458.36	1175.5	474.5	1175.669	474.64	1175.67	515.06	1174	517.42	1174
520.49	1174	522.63	1174.03	525.92	1174.07	534.66	1175.07	537.24	1175.39
540	1175.516	540.08	1175.52	545.1	1175.98	575.92	1175.81	620.99	1175.76
630.47	1175.81	677.32	1176.35	747.31	1176.5	778.66	1176.78	788.07	1176.81
828.31	1176.69	834.54	1176.97	835.95	1177.02	858.57	1177.99	887.27	1179.64
890.64	1179.81	893.8	1179.89	895.21	1179.91	902.24	1179.72	904.39	1179.62
908.5	1179.72	970.09	1179.99	971.13	1180	983.31	1180		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	474.5	.045	540	.06

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

728.64 1177.05 740.77 1178 755.85 1178.32 758.23 1178.32 759.38 1178.31
817.1 1177.15

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	469	.045	494	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
469	494	324.23	325.22	325.87	.1	.3

Left Levee Station= 285 Elevation= 1175
Right Levee Station= 520 Elevation= 1175

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1174.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.31	Wt. n-Val.	0.060	0.045	0.060
W.S. Elev (ft)	1174.40	Reach Len. (ft)	324.23	325.22	325.87
Crit W.S. (ft)	1173.90	Flow Area (sq ft)	4.84	44.41	3.32
E.G. Slope (ft/ft)	0.009127	Area (sq ft)	4.84	44.41	3.32
Q Total (cfs)	210.00	Flow (cfs)	4.22	202.71	3.07
Top Width (ft)	60.20	Top Width (ft)	21.59	25.00	13.61
Vel Total (ft/s)	3.99	Avg. Vel. (ft/s)	0.87	4.56	0.92
Max Chl Dpth (ft)	2.40	Hydr. Depth (ft)	0.22	1.78	0.24
Conv. Total (cfs)	2198.2	Conv. (cfs)	44.2	2121.9	32.1
Length Wtd. (ft)	325.24	Wetted Per. (ft)	21.60	25.52	13.62
Min Ch El (ft)	1172.00	Shear (lb/sq ft)	0.13	0.99	0.14
Alpha	1.26	Stream Power (lb/ft s)	0.11	4.53	0.13
Frctn Loss (ft)	1.87	Cum Volume (acre-ft)	0.30	7.23	1.25
C & E Loss (ft)	0.04	Cum SA (acres)	1.15	5.09	1.16

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.712

INPUT
Description:
Station Elevation Data num= 63

```
        474.5     540            169.7  171.02  172.13            .1       .3
Left Levee      Station=     271      Elevation= 1177.35
Right Levee     Station=     745      Elevation=  1176.5
```

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1175.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.10	Wt. n-Val.	0.060	0.045	0.060
W.S. Elev (ft)	1175.83	Reach Len. (ft)	169.70	171.02	172.13
Crit W.S. (ft)	1175.31	Flow Area (sq ft)	22.10	73.27	2.82
E.G. Slope (ft/ft)	0.005452	Area (sq ft)	22.10	73.27	2.82
Q Total (cfs)	210.00	Flow (cfs)	16.96	192.28	0.76
Top Width (ft)	209.09	Top Width (ft)	81.29	65.50	62.29
Vel Total (ft/s)	2.14	Avg. Vel. (ft/s)	0.77	2.62	0.27
Max Chl Dpth (ft)	1.83	Hydr. Depth (ft)	0.27	1.12	0.05
Conv. Total (cfs)	2844.0	Conv. (cfs)	229.7	2604.0	10.3
Length Wtd. (ft)	170.96	Wetted Per. (ft)	81.30	65.61	62.31
Min Ch El (ft)	1174.00	Shear (lb/sq ft)	0.09	0.38	0.02
Alpha	1.39	Stream Power (lb/ft s)	0.07	1.00	0.00
Frctn Loss (ft)	1.19	Cum Volume (acre-ft)	0.35	7.47	1.26
C & E Loss (ft)	0.02	Cum SA (acres)	1.35	5.27	1.31

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.774

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1177.29	31.36	1177.78	71.1	1176.99	77.76	1176.67	153.53	1175.59
165.71	1175.59	187.17	1176	209.44	1176.73	213.04	1176.87	220.82	1177.13
231.68	1176.83	249.63	1176	282.45	1174.98	369.72	1174.52	376.06	1174.61
420.55	1174.98	424.53	1174.86	426.27	1174.82	428.13	1174.79	429.47	1174.78
466.62	1174	469	1174	469.35	1174	476.6	1172	480.45	1172
485.52	1172	486.17	1172	489.65	1172.87	494	1173.985	494.06	1174
502.56	1174.17	519.64	1174.96	546.1	1174.16	555.54	1174	580.9	1174
584.19	1174.22	686.97	1174	701.51	1174.67	704.05	1174.87	717.26	1176

728.64 1177.05 740.77 1178 755.85 1178.32 758.23 1178.32 759.38 1178.31
817.1 1177.15

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	469	.045	494	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
469	494	324.23	325.22	325.87	.1	.3

Left Levee Station= 285 Elevation= 1175
Right Levee Station= 520 Elevation= 1175

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1174.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.31	Wt. n-Val.	0.060	0.045	0.060
W.S. Elev (ft)	1174.40	Reach Len. (ft)	324.23	325.22	325.87
Crit W.S. (ft)	1173.90	Flow Area (sq ft)	4.84	44.41	3.32
E.G. Slope (ft/ft)	0.009127	Area (sq ft)	4.84	44.41	3.32
Q Total (cfs)	210.00	Flow (cfs)	4.22	202.71	3.07
Top Width (ft)	60.20	Top Width (ft)	21.59	25.00	13.61
Vel Total (ft/s)	3.99	Avg. Vel. (ft/s)	0.87	4.56	0.92
Max Chl Dpth (ft)	2.40	Hydr. Depth (ft)	0.22	1.78	0.24
Conv. Total (cfs)	2198.2	Conv. (cfs)	44.2	2121.9	32.1
Length Wtd. (ft)	325.24	Wetted Per. (ft)	21.60	25.52	13.62
Min Ch El (ft)	1172.00	Shear (lb/sq ft)	0.13	0.99	0.14
Alpha	1.26	Stream Power (lb/ft s)	0.11	4.53	0.13
Frctn Loss (ft)	1.87	Cum Volume (acre-ft)	0.30	7.23	1.25
C & E Loss (ft)	0.04	Cum SA (acres)	1.15	5.09	1.16

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.712

INPUT
Description:
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1172.15	34.91	1172.2	51.45	1172.41	67.95	1173.18	104.28	1173.64
105.92	1173.64	108.09	1173.62	114.48	1173.63	122.02	1173.68	136.39	1173.6
137.4	1173.57	152.08	1174	199.01	1174	244.5	1172.73	246.3	1172.7
252.15	1172.53	351.07	1172.89	356.11	1172.7	368	1172.013	368.22	1172
369.97	1171.45	374.34	1170	377.87	1170	382.88	1170	388.32	1170
392.95	1172	393	1172.002	405.39	1172.61	413.78	1172.91	419.4	1172.79
429.65	1172.65	459.31	1172.45	467	1172.12	469.41	1172	485.37	1172
490.72	1172.08	497.32	1172.39	553.06	1172.95	595.89	1173.1	607.52	1172.65
623.87	1172.24	626.47	1172.14	630.72	1172	653.82	1172	657.35	1171.07
661.12	1170	665.46	1170	669.15	1170.74	677.36	1172	683.62	1172
690.39	1172.18	699.66	1172.3	731.27	1173.6	743.2	1173.99	753.16	1174
755.4	1173.98	758.28	1173.97	761.15	1173.99	765.76	1173.98	804.58	1173.68
806.85	1173.7	808.62	1173.7	820.57	1173.73				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	368	.045	393	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
368	393	272.59	269.63	266.54	.1	.3

Left Levee Station= 200 Elevation= 1174
Right Levee Station= 595 Elevation= 1173.1

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1172.80	Element			
Vel Head (ft)	0.16	Wt. n-Val.	0.060	0.045	0.060
W.S. Elev (ft)	1172.63	Reach Len. (ft)	272.59	269.63	266.54
Crit W.S. (ft)	1171.70	Flow Area (sq ft)	5.04	54.51	29.61
E.G. Slope (ft/ft)	0.003971	Area (sq ft)	5.04	54.51	29.61
Q Total (cfs)	210.00	Flow (cfs)	2.76	187.08	20.16
Top Width (ft)	170.93	Top Width (ft)	43.11	25.00	102.82
Vel Total (ft/s)	2.36	Avg. Vel. (ft/s)	0.55	3.43	0.68
Max Chl Dpth (ft)	2.63	Hydr. Depth (ft)	0.12	2.18	0.29
Conv. Total (cfs)	3332.4	Conv. (cfs)	43.8	2968.6	319.9
Length Wtd. (ft)	269.50	Wetted Per. (ft)	43.13	25.73	102.86
Min Ch El (ft)	1170.00	Shear (lb/sq ft)	0.03	0.53	0.07
Alpha	1.90	Stream Power (lb/ft s)	0.02	1.80	0.05
Frctn Loss (ft)	1.30	Cum Volume (acre-ft)	0.26	6.87	1.13
C & E Loss (ft)	0.02	Cum SA (acres)	0.91	4.91	0.72

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.661

INPUT
Description:
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1170.09	4.14	1170.12	54.23	1170	93.02	1170.35	104.69	1170.6
261.89	1171.57	314.28	1171.3	314.31	1171.299	347.3	1170.21	351.21	1170
362.1	1170	367.1	1170	383.39	1170	411.51	1171.715	411.58	1171.72
452.52	1171.86	478.6	1171.64	486.72	1172	498.47	1172	503.78	1170.51
508.58	1170.38	510.85	1170.52	512.17	1170.61	515.68	1170.83	529.87	1171.83
531.41	1171.89	532.8	1171.99	534.07	1171.99	535.92	1171.86	538.56	1171.82
544.5	1171.76	546.04	1171.72	548.79	1171.51	550.87	1171.38	568.1	1170
578.43	1170	584.11	1170.19	618.95	1171.79	637.92	1171.82	660.1	1172
671.67	1172	687.54	1172.5	701.48	1172.75	746.01	1172.87	780.22	1173.39

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	314.3	.045	411.5	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
314.3	411.5	213.52	215.28	216.99	.1	.3

Left Levee Station= 261 Elevation= 1171.6
Right Levee Station= 487 Elevation= 1172

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1171.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.09	Wt. n-Val.	0.060	0.045	
W.S. Elev (ft)	1171.38	Reach Len. (ft)	213.52	215.28	216.99
Crit W.S. (ft)	1170.90	Flow Area (sq ft)	0.60	85.51	
E.G. Slope (ft/ft)	0.006068	Area (sq ft)	0.60	85.51	
Q Total (cfs)	210.00	Flow (cfs)	0.13	209.87	
Top Width (ft)	106.94	Top Width (ft)	15.26	91.69	
Vel Total (ft/s)	2.44	Avg. Vel. (ft/s)	0.22	2.45	
Max Chl Dpth (ft)	1.38	Hydr. Depth (ft)	0.04	0.93	

Conv. Total (cfs)	2695.8	Conv. (cfs)	1.7	2694.1	
Length Wtd. (ft)	215.28	Wetted Per. (ft)	15.26	91.75	
Min Ch El (ft)	1170.00	Shear (lb/sq ft)	0.01	0.35	
Alpha	1.01	Stream Power (lb/ft s)	0.00	0.87	
Frctn Loss (ft)	1.74	Cum Volume (acre-ft)	0.24	6.43	1.04
C & E Loss (ft)	0.01	Cum SA (acres)	0.73	4.54	0.41

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.620

INPUT
Description:
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1169.03	1.11	1169.08	16.07	1168.64	30.55	1168	40.26	1168
44.55	1168.3	50.25	1168.55	62.95	1169.25	77.32	1169.82	81.2	1170
128.12	1170.39	142.96	1170.32	151.03	1170.21	170.44	1170	231.49	1170
234.68	1170.17	264.76	1170.7	296.45	1170.59	346.01	1169.99	349.86	1169.92
374.48	1169.7	379.04	1169.71	384	1169.561	384.02	1169.56	401.49	1168.91
408.82	1168.57	418.17	1168	427.32	1168	432.5	1168	440.52	1168
444.83	1170	445	1170	471.81	1170	481.2	1169.17	482.7	1169.11
486.9	1168.8	489.43	1168.71	491.73	1168.59	499.69	1168.83	501.27	1168.71
503.87	1168.69	506.18	1168.56	510.4	1168.28	512.58	1168	524.95	1168
530.65	1169.57	532.18	1169.95	533.18	1170	534.34	1170	535.57	1169.93
546.09	1170	550.96	1170.1	586.82	1170.8	636.88	1170.16	655.95	1170.5
677.16	1170.75	685.53	1170.59	686.94	1170.58	692.11	1170.64	739.59	1172
748.7	1172.01	750.87	1172.07						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	384	.045	445	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
384	445	184.92	186.4	187.84	.1	.3

Left Levee Station= 264 Elevation= 1170.7
Right Levee Station= 471 Elevation= 1170

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1169.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.20	Wt. n-Val.		0.045	
W.S. Elev (ft)	1169.53	Reach Len. (ft)	184.92	186.40	187.84
Crit W.S. (ft)	1169.18	Flow Area (sq ft)		59.14	
E.G. Slope (ft/ft)	0.011602	Area (sq ft)		59.14	
Q Total (cfs)	210.00	Flow (cfs)		210.00	
Top Width (ft)	58.90	Top Width (ft)		58.90	
Vel Total (ft/s)	3.55	Avg. Vel. (ft/s)		3.55	
Max Chl Dpth (ft)	1.53	Hydr. Depth (ft)		1.00	
Conv. Total (cfs)	1949.7	Conv. (cfs)		1949.7	
Length Wtd. (ft)	186.40	Wetted Per. (ft)		59.28	
Min Ch El (ft)	1168.00	Shear (lb/sq ft)		0.72	
Alpha	1.00	Stream Power (lb/ft s)		2.57	
Frctn Loss (ft)	1.52	Cum Volume (acre-ft)	0.24	6.07	1.04
C & E Loss (ft)	0.00	Cum SA (acres)	0.69	4.17	0.41

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.585

INPUT
Description:
Station Elevation Data num= 53

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1168.72	2.32	1169.03	4.05	1169.32	8.65	1170	25.56	1170.39
35.21	1170.39	60.7	1170.15	70.71	1170	89.7	1170	108.03	1168.65
109.51	1168.6	113.84	1168	126.28	1168	175.2	1169.28	225.58	1169.3
256.21	1168	260.83	1168	264.97	1168.27	295.08	1168.21	299.08	1168
311.36	1168	313.19	1168.02	316.84	1168.14	337.12	1168.66	366.29	1168.76
369.55	1168.58	378.99	1168	379	1167.997	386.59	1166	393.85	1165.76
394.51	1165.74	398.81	1165.79	399.91	1165.8	406.14	1166	415.61	1167.983
415.68	1168	432.09	1168.88	443.14	1168.65	473.1	1168.86	474.47	1168.88
480.74	1169.14	484.18	1168.97	516.93	1169.44	520.69	1169.53	534.51	1169.63
597.53	1169.2	614.05	1168.56	631.4	1168	638.62	1168.09	650.15	1168.33
662.1	1168.5	665.35	1168.42	689.15	1170				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val

```
       0     .06     379    .045   415.6     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           379   415.6           126.23  126.69  127.14            .1        .3
Left Levee      Station=     337      Elevation= 1168.65
Right Levee     Station=     532      Elevation= 1169.65

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1168.20   Element                   Left OB    Channel   Right OB
  Vel Head (ft)                0.19   Wt. n-Val.                 0.000      0.045      0.000
  W.S. Elev (ft)            1168.01   Reach Len. (ft)           126.23     126.69     127.14
  Crit W.S. (ft)            1167.27   Flow Area (sq ft)           0.00      59.49       0.00
  E.G. Slope (ft/ft)       0.006082   Area (sq ft)                0.00      59.49       0.00
  Q Total (cfs)              210.00   Flow (cfs)                  0.00     210.00       0.00
  Top Width (ft)              37.03   Top Width (ft)              0.17      36.60       0.26
  Vel Total (ft/s)             3.53   Avg. Vel. (ft/s)            0.06       3.53       0.08
  Max Chl Dpth (ft)            2.27   Hydr. Depth (ft)            0.01       1.63       0.01
  Conv. Total (cfs)          2692.8   Conv. (cfs)                  0.0     2692.8        0.0
  Length Wtd. (ft)           126.69   Wetted Per. (ft)            0.17      37.07       0.26
  Min Ch El (ft)            1165.74   Shear (lb/sq ft)                      0.61
  Alpha                        1.00   Stream Power (lb/ft s)                2.15
  Frctn Loss (ft)              0.74   Cum Volume (acre-ft)        0.24       5.82       1.04
  C & E Loss (ft)              0.03   Cum SA (acres)              0.69       3.97       0.41


CROSS SECTION          RIVER: cpchannel
REACH: rch00              RS: 0.561

INPUT
Description:
Station Elevation Data    num=      68
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0    1166    1.58    1166   14.22 1166.77   22.48 1167.08      30 1167.47
   32.07 1167.52    33.1 1167.51   42.65 1167.12   46.36 1166.68   49.68 1166.22
   51.45    1166   55.72 1166.39   57.58 1166.61   64.09 1167.34   68.93    1168
   80.48 1168.38    84.6 1168.49   90.89 1168.52   103.1 1168.12  107.52    1168
   128.2    1168  149.98 1168.32  171.23    1168     200    1168  200.25    1168
  204.92 1167.18  207.12 1167.28  212.76 1167.26  214.38 1167.21  234.44 1166.74
  236.61 1166.71  242.41 1166.51  246.62 1166.48  248.25 1166.45  250.29 1166.38
  253.95 1166.16  256.41    1166  271.61 1165.14  271.89 1165.15  276.89 1165.27
  281.84  1165.4  285.84    1166  290.98 1167.54     2921167.788  292.87    1168
```

302.63	1168.19	309.31	1168.19	317.99	1168.01	354.21	1168	379.5	1168.59
385.63	1168.65	386.95	1168.64	397.52	1168.84	398.82	1168.82	428.73	1168
435.08	1167.67	440.41	1167.61	441.55	1167.64	449.35	1167.67	461.86	1167.47
463.24	1167.52	464.59	1167.5	465.62	1167.47	467.83	1167.3	491.47	1167.87
496.55	1167.87	499.47	1168	505.09	1168.98				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	200	.045	292	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
200	292	176.63	177.4	178.13	.1	.3

Left Levee Station= 90 Elevation= 1168.5
Right Levee Station= 397 Elevation= 1168.8

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1167.44	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.09	Wt. n-Val.		0.045	
W.S. Elev (ft)	1167.34	Reach Len. (ft)	176.63	177.40	178.13
Crit W.S. (ft)	1166.67	Flow Area (sq ft)		85.47	
E.G. Slope (ft/ft)	0.005637	Area (sq ft)		85.47	
Q Total (cfs)	210.00	Flow (cfs)		210.00	
Top Width (ft)	86.32	Top Width (ft)		86.32	
Vel Total (ft/s)	2.46	Avg. Vel. (ft/s)		2.46	
Max Chl Dpth (ft)	2.20	Hydr. Depth (ft)		0.99	
Conv. Total (cfs)	2797.1	Conv. (cfs)		2797.1	
Length Wtd. (ft)	177.40	Wetted Per. (ft)		86.63	
Min Ch El (ft)	1165.14	Shear (lb/sq ft)		0.35	
Alpha	1.00	Stream Power (lb/ft s)		0.85	
Frctn Loss (ft)	1.05	Cum Volume (acre-ft)	0.24	5.61	1.04
C & E Loss (ft)	0.02	Cum SA (acres)	0.69	3.79	0.41

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.528

INPUT
Description:

Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1166.02	15.98	1166	25.7	1168	27.24	1168.29	32.41	1168
41.74	1168	45	1167.553	45.02	1167.55	55.88	1166	72.26	1165.05
86.92	1164.39	118.48	1164.18	118.77	1164.19	123.75	1164.4	125.31	1164.47
129.29	1164.79	147.12	1166	152.84	1166.59	157.51	1167.216	157.53	1167.22
164.17	1168	175.26	1170	185.17	1170	186.4	1169.8	188.22	1169.58
191.71	1169.05	196.06	1168.43	198.73	1168	213.32	1167.1	221.07	1167.27
223.93	1167.26	241.18	1167.62	242.34	1167.69	261.78	1167.21	265.28	1167.19

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	45	.1	157.5	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
45	157.5	127.1	130.87	134.61	.1	.3

Left Levee Station= 27.25 Elevation= 1168.3
Right Levee Station= 242 Elevation= 1167.7

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1166.36	Element			
Vel Head (ft)	0.04	Wt. n-Val.		0.100	
W.S. Elev (ft)	1166.33	Reach Len. (ft)	127.10	130.87	134.61
Crit W.S. (ft)	1165.18	Flow Area (sq ft)		139.23	
E.G. Slope (ft/ft)	0.006352	Area (sq ft)		139.23	
Q Total (cfs)	210.00	Flow (cfs)		210.00	
Top Width (ft)	96.72	Top Width (ft)		96.72	
Vel Total (ft/s)	1.51	Avg. Vel. (ft/s)		1.51	
Max Chl Dpth (ft)	2.15	Hydr. Depth (ft)		1.44	
Conv. Total (cfs)	2634.8	Conv. (cfs)		2634.8	
Length Wtd. (ft)	130.87	Wetted Per. (ft)		96.87	
Min Ch El (ft)	1164.18	Shear (lb/sq ft)		0.57	
Alpha	1.00	Stream Power (lb/ft s)		0.86	
Frctn Loss (ft)	0.96	Cum Volume (acre-ft)	0.24	5.15	1.04
C & E Loss (ft)	0.03	Cum SA (acres)	0.69	3.42	0.41

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.503

INPUT

Description:

Station Elevation Data num= 84

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1168	24.22	1168	40.05	1168.51	43.56	1168.5	60.77	1167.98
72.46	1168	86.29	1167.8	107.09	1167.77	108.48	1167.78	109.66	1167.78
111.09	1167.77	112.38	1167.75	126.38	1167.16	127.85	1167.14	131.4	1167.12
133.41	1167.12	147.88	1167.33	155.81	1167.34	162.43	1168	169.12	1168
175.83	1167.19	183.22	1167.28	194.25	1167.29	199.78	1167.38	201.92	1167.13
203.84	1166.88	206.6	1166.94	207.82	1166.62	209.88	1166.12	211.18	1165.97
212.88	1165.95	216.63	1165.93	222.48	1165.61	227.58	1165.48	229	1165.424
229.34	1165.41	234.63	1164.83	235.76	1164.75	238.3	1164.44	239.93	1164.32
242.5	1164	244.93	1163.91	246.05	1163.88	252.02	1163.94	255.15	1163.92
261.61	1163.92	266.3	1163.92	266.61	1163.93	271.11	1164	275.99	1164
277.07	1164.04	282.47	1165.02	283	1165.042	283.69	1165.07	290.2	1165.82
301.47	1165.89	303.62	1166	318.2	1166	320.45	1166.15	324.67	1166.58
326.64	1166	407.19	1166	415.26	1166.91	416.56	1166.98	424.21	1166.99
426.31	1166.94	428.47	1166.94	431.08	1166.83	440.78	1166	452.66	1166
460.15	1167.3	463.04	1167.46	469.54	1167.47	473.33	1167.32	475.47	1167.32
479.56	1167.1	486.46	1167.1	491.18	1166.9	501.46	1166	510.93	1166
523.28	1166.87	534.55	1166.87	539.25	1166.94	542.88	1166.94		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.03	229	.03	283	.03

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
229	283	16.14	16.07	16	.1	.3

Right Levee Station= 324 Elevation= 1166.6

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1165.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.30	Wt. n-Val.		0.030	0.030
W.S. Elev (ft)	1165.08	Reach Len. (ft)	16.14	16.07	16.00
Crit W.S. (ft)	1164.93	Flow Area (sq ft)		47.92	0.02
E.G. Slope (ft/ft)	0.008471	Area (sq ft)		47.92	0.02
Q Total (cfs)	210.00	Flow (cfs)		209.99	0.01
Top Width (ft)	51.50	Top Width (ft)		50.69	0.81
Vel Total (ft/s)	4.38	Avg. Vel. (ft/s)		4.38	0.39
Max Chl Dpth (ft)	1.20	Hydr. Depth (ft)		0.95	0.02
Conv. Total (cfs)	2281.7	Conv. (cfs)		2281.6	0.1
Length Wtd. (ft)	16.07	Wetted Per. (ft)		50.84	0.81

Min Ch El (ft)	1163.88	Shear (lb/sq ft)		0.50	0.01
Alpha	1.00	Stream Power (lb/ft s)		2.18	0.01
Frctn Loss (ft)	0.26	Cum Volume (acre-ft)	0.24	4.87	1.04
C & E Loss (ft)	0.03	Cum SA (acres)	0.69	3.19	0.41

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.500

INPUT
Description:
Station Elevation Data num= 58

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1166.97	4.52	1167.05	10.99	1167.08	16.48	1167.03	21.64	1167.07
28.17	1166.97	32.2	1166.97	40.56	1166.81	42	1166.79	44.33	1166.7
49.11	1166.64	50.55	1166.58	52.38	1166.69	54.62	1166.74	55.97	1166.97
57.21	1167.13	58.85	1168	72.78	1168	75.24	1167.16	77.31	1166.87
80.26	1166.01	85	1166	87.5	1165.87	90.19	1165.38	92.26	1164.76
93.55	1164.407	93.65	1164.38	96.72	1163.68	100.34	1163.35	109.95	1162.62
111.33	1162.51	112.78	1162.52	114.95	1162.97	119.7	1163.95	123.34	1165.35
125.25	1166	127.66	1166.78	128.83	1167	130.78	1167.47	132.31	1167.57
134.86	1167.71	136.78	1167.77	139.31	1167.97	141.8	1168	156.64	1168
159.22	1167.92	161.39	1167.91	167.37	1166.39	169.26	1166	170.23	1164.57
171.94	1163.91	173.91	1163.43	178.09	1163.12	187.34	1162.94	194.56	1162.9
195.82	1162.88	215.61	1162.81	231.14	1162.82				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.03	93.55	.06	119.7	.03

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
93.55	119.7	14.27	14.44	14.6	.1	.3

Right Levee Station= 156 Elevation= 1168

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1165.08	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.60	Wt. n-Val.	0.030	0.060	0.030
W.S. Elev (ft)	1164.48	Reach Len. (ft)	14.27	14.44	14.60

Crit W.S. (ft)	1164.48	Flow Area (sq ft)	0.01	33.43	0.37
E.G. Slope (ft/ft)	0.046332	Area (sq ft)	0.01	33.43	0.37
Q Total (cfs)	210.00	Flow (cfs)	0.01	208.43	1.56
Top Width (ft)	27.81	Top Width (ft)	0.28	26.15	1.39
Vel Total (ft/s)	6.21	Avg. Vel. (ft/s)	1.18	6.24	4.22
Max Chl Dpth (ft)	1.97	Hydr. Depth (ft)	0.04	1.28	0.27
Conv. Total (cfs)	975.6	Conv. (cfs)	0.1	968.3	7.2
Length Wtd. (ft)	14.44	Wetted Per. (ft)	0.29	26.43	1.48
Min Ch El (ft)	1162.51	Shear (lb/sq ft)	0.11	3.66	0.72
Alpha	1.00	Stream Power (lb/ft s)	0.12	22.81	3.03
Frctn Loss (ft)	0.13	Cum Volume (acre-ft)	0.24	4.86	1.04
C & E Loss (ft)	0.16	Cum SA (acres)	0.69	3.18	0.41

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.497

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1166	43.18	1166.13	45.76	1166	52.61	1166.12	58.2	1166.36
59.31	1166.83	60.65	1167.83	62.2	1168	63.92	1167.48	65.22	1166.93
67.61	1166.03	70.14	1165.13	71.85	1164.56	73.44	1164	73.6	1163.95
75.96	1163.21	78.08	1162.5	79.58	1162.04	81.3	1162	88.3	1162
90.39	1161.93	92.4	1161.93	94.1	1162	109.55	1162	114.57	1162
117.41	1162	120.91	1161.97	122.5	1161.97	123.78	1162	125.1	1162
127.56	1162.52	131.41	1164	131.5	1164	153.16	1164	155.11	1164.68
157.15	1166	159.5	1166.8	160.75	1167	162.26	1167.49	166.76	1166
168.51	1164.01	170.3	1163.43	171.74	1163.26	173.85	1163.2	178.14	1163.12

```
  182.68 1163.13  185.07 1163.16  190.39 1163.18  197.82 1163.26  202.39 1163.28
  231.22 1163.59

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .03    73.6     .06   131.5     .03

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          73.6   131.5             97.44   94.81   92.15          .1        .3
Right Levee     Station=     162      Elevation=  1167.5

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1163.96   Element                   Left OB    Channel   Right OB
  Vel Head (ft)                0.07   Wt. n-Val.                           0.060
  W.S. Elev (ft)            1163.89   Reach Len. (ft)             97.44     94.81     92.15
  Crit W.S. (ft)            1162.84   Flow Area (sq ft)                     98.13
  E.G. Slope (ft/ft)       0.003697   Area (sq ft)                          98.13
  Q Total (cfs)              210.00   Flow (cfs)                           210.00
  Top Width (ft)              57.33   Top Width (ft)                        57.33
  Vel Total (ft/s)             2.14   Avg. Vel. (ft/s)                       2.14
  Max Chl Dpth (ft)            1.96   Hydr. Depth (ft)                       1.71
  Conv. Total (cfs)          3453.8   Conv. (cfs)                          3453.8
  Length Wtd. (ft)            94.81   Wetted Per. (ft)                      57.93
  Min Ch El (ft)            1161.93   Shear (lb/sq ft)                       0.39
  Alpha                        1.00   Stream Power (lb/ft s)                 0.84
  Frctn Loss (ft)              0.78   Cum Volume (acre-ft)         0.24      4.83      1.04
  C & E Loss (ft)              0.03   Cum SA (acres)               0.69      3.17      0.41


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: cpchannel
REACH: rch00              RS: 0.479

INPUT
Description:
Station Elevation Data    num=      55
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 1165.79   12.96 1165.82   31.02    1166   58.28    1166   64.07    1164
  125.66    1164  128.75  1164.5   135.8 1164.05  142.21 1164.08  166.32 1164.05
```

167.78	1164.04	169.55	1164.04	174.24	1164	187.4	1164	187.65	1164
194.21	1162.66	197.16	1162	211.32	1162	225.03	1161.89	226.67	1161.92
228.3	1161.93	237.16	1161.98	239.28	1161.99	242.19	1162.1	250.28	1162.39
253.97	1162.77	260.76	1163.22	265.85	1163.943	266.25	1164	282.88	1167.84
301.2	1168	304.84	1167.1	309.15	1166	321.84	1164.23	323.49	1164.03
324.81	1164	335.3	1164	340.91	1164.22	343.23	1164.29	345.42	1164.37
348.41	1164.46	353.1	1164.55	354.73	1164.59	359.11	1164.77	360.55	1164.82
366.48	1164	371.37	1164	372.95	1164.08	383.08	1165.6	386.97	1165.99
404.6	1166	409.15	1165.97	410.64	1165.89	417.36	1166	433.57	1166

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	187.4	.045	265.85	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
187.4	265.85	148.92	148.04	147.16	.1	.3

Right Levee Station= 300 Elevation= 1168

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1163.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.34	Wt. n-Val.		0.045	
W.S. Elev (ft)	1162.81	Reach Len. (ft)	148.92	148.04	147.16
Crit W.S. (ft)	1162.79	Flow Area (sq ft)		44.72	
E.G. Slope (ft/ft)	0.030742	Area (sq ft)		44.72	
Q Total (cfs)	210.00	Flow (cfs)		210.00	
Top Width (ft)	61.10	Top Width (ft)		61.10	
Vel Total (ft/s)	4.70	Avg. Vel. (ft/s)		4.70	
Max Chl Dpth (ft)	0.92	Hydr. Depth (ft)		0.73	
Conv. Total (cfs)	1197.7	Conv. (cfs)		1197.7	
Length Wtd. (ft)	148.04	Wetted Per. (ft)		61.22	
Min Ch El (ft)	1161.89	Shear (lb/sq ft)		1.40	
Alpha	1.00	Stream Power (lb/ft s)		6.58	
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	0.24	4.68	1.04
C & E Loss (ft)	0.08	Cum SA (acres)	0.69	3.04	0.41

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.451

INPUT
Description:
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1164	106.46	1164	149.24	1164.36	191.88	1164.3	211.11	1164.06
217.22	1164.06	219.22	1164	285.57	1164	285.65	1163.984	287.37	1163.64
295.21	1162	305.25	1160	318.31	1160	323.32	1160	337.75	1160
342.85	1161.16	347.37	1162	357.09	1164	357.15	1164.021	362.74	1166
382.78	1166	384.45	1165.75	394.21	1164	424.75	1164	461.35	1165.99
469.75	1164.36	471.54	1164	494.39	1164	497.61	1164.46	499.98	1164.97
504.49	1166	511.13	1166.7	524.5	1168	530.78	1168	532.95	1167.92
537.64	1167.72	550.42	1167.34						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	285.65	.045	357.15	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
285.65	357.15	342.7	348.9	355.08	.1	.3

Right Levee Station= 382 Elevation= 1166

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1162.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.		0.045	
W.S. Elev (ft)	1162.32	Reach Len. (ft)	342.70	348.90	355.08
Crit W.S. (ft)	1161.03	Flow Area (sq ft)		101.61	
E.G. Slope (ft/ft)	0.001760	Area (sq ft)		101.61	
Q Total (cfs)	210.00	Flow (cfs)		210.00	
Top Width (ft)	55.29	Top Width (ft)		55.29	
Vel Total (ft/s)	2.07	Avg. Vel. (ft/s)		2.07	
Max Chl Dpth (ft)	2.32	Hydr. Depth (ft)		1.84	
Conv. Total (cfs)	5005.8	Conv. (cfs)		5005.8	
Length Wtd. (ft)	348.90	Wetted Per. (ft)		55.76	
Min Ch El (ft)	1160.00	Shear (lb/sq ft)		0.20	
Alpha	1.00	Stream Power (lb/ft s)		0.41	
Frctn Loss (ft)	1.14	Cum Volume (acre-ft)	0.24	4.43	1.04
C & E Loss (ft)	0.01	Cum SA (acres)	0.69	2.84	0.41

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less

than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.385

INPUT
Description:
Station Elevation Data num= 22

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1163.16	66.24	1162.24	70.8	1162.23	79.21	1162.12	85.05	1162.13
91.09	1162.07	94.7	1162	244	1162	244.04	1162	249.58	1161.19
253.06	1160.77	257.9	1160	293.41	1160	298.45	1160	315.01	1160
324.42	1161.48	327.41	1161.995	327.43	1162	387.18	1162	402.15	1161.79
525.4	1160.99	607.48	1161.07						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	244	.045	327.4	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
244	327.4	164.75	165.28	165.79	.1	.3

Right Levee Station= 389 Elevation= 1162

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1161.25	Element			
Vel Head (ft)	0.13	Wt. n-Val.		0.045	
W.S. Elev (ft)	1161.11	Reach Len. (ft)	164.75	165.28	165.79
Crit W.S. (ft)	1160.73	Flow Area (sq ft)		71.52	
E.G. Slope (ft/ft)	0.007985	Area (sq ft)		71.52	
Q Total (cfs)	210.00	Flow (cfs)		210.00	
Top Width (ft)	71.87	Top Width (ft)		71.87	
Vel Total (ft/s)	2.94	Avg. Vel. (ft/s)		2.94	
Max Chl Dpth (ft)	1.11	Hydr. Depth (ft)		1.00	
Conv. Total (cfs)	2350.0	Conv. (cfs)		2350.0	
Length Wtd. (ft)	165.28	Wetted Per. (ft)		72.04	
Min Ch El (ft)	1160.00	Shear (lb/sq ft)		0.49	
Alpha	1.00	Stream Power (lb/ft s)		1.45	
Frctn Loss (ft)	1.23	Cum Volume (acre-ft)	0.24	3.74	1.04
C & E Loss (ft)	0.00	Cum SA (acres)	0.69	2.33	0.41

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: cpchannel
REACH: rch00 . RS: 0.354

INPUT
Description:
Station Elevation Data num= 23

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1162.66	59.52	1162	132.24	1162	223.61	1160.007	223.94	1160
237.63	1159.06	259.51	1158	266	1158	271.11	1158	271.24	1158
276.68	1158.59	281.5	1159.87	281.99	1160	288.9	1161.93	297.13	1164
303.2	1164	310.93	1162.32	312.64	1162	328.31	1160.68	329.7	1160.72
390.5	1160.36	415.36	1160	531.79	1160				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	223.6	.045	281.5	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
223.6	281.5	236.38	237.18	237.98	.1	.3

Right Levee Station= 313 Elevation= 1162

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1160.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.15	Wt. n-Val.		0.045	
W.S. Elev (ft)	1159.86	Reach Len. (ft)	236.38	237.18	237.98
Crit W.S. (ft)	1159.31	Flow Area (sq ft)		67.34	
E.G. Slope (ft/ft)	0.006941	Area (sq ft)		67.34	
Q Total (cfs)	210.00	Flow (cfs)		210.00	
Top Width (ft)	55.55	Top Width (ft)		55.55	
Vel Total (ft/s)	3.12	Avg. Vel. (ft/s)		3.12	
Max Chl Dpth (ft)	1.86	Hydr. Depth (ft)		1.21	
Conv. Total (cfs)	2520.6	Conv. (cfs)		2520.6	
Length Wtd. (ft)	237.18	Wetted Per. (ft)		55.81	
Min Ch El (ft)	1158.00	Shear (lb/sq ft)		0.52	
Alpha	1.00	Stream Power (lb/ft s)		1.63	
Frctn Loss (ft)	0.99	Cum Volume (acre-ft)	0.24	3.47	1.04

C & E Loss (ft)	0.01	Cum SA (acres)	0.69	2.09	0.41

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.309

INPUT
Description:
Station Elevation Data num= 24

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1162	16.26	1162	168.48	1160	168.81	1159.952	174.8	1159.06
181.69	1158	190.94	1156	198.23	1156	202.45	1156	203.24	1156.07
204.39	1156.17	215.03	1158	221.75	1159.527	221.85	1159.55	224.11	1160
229.19	1161.64	230.34	1162	231.93	1162	247.58	1163	251.45	1162.7
255.61	1162	277.95	1160.66	295.23	1160	472.53	1159.84		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	168.8	.045	221.75	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
168.8	221.75	524.32	520.31	516.28	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1159.01	Element			
Vel Head (ft)	0.11	Wt. n-Val.		0.045	
W.S. Elev (ft)	1158.90	Reach Len. (ft)	524.32	520.31	516.28
Crit W.S. (ft)	1157.63	Flow Area (sq ft)		80.32	
E.G. Slope (ft/ft)	0.002789	Area (sq ft)		80.32	
Q Total (cfs)	210.00	Flow (cfs)		210.00	
Top Width (ft)	43.19	Top Width (ft)		43.19	
Vel Total (ft/s)	2.61	Avg. Vel. (ft/s)		2.61	
Max Chl Dpth (ft)	2.90	Hydr. Depth (ft)		1.86	
Conv. Total (cfs)	3976.6	Conv. (cfs)		3976.6	
Length Wtd. (ft)	520.31	Wetted Per. (ft)		43.74	
Min Ch El (ft)	1156.00	Shear (lb/sq ft)		0.32	

Alpha	1.00	Stream Power (lb/ft s)		0.84	
Frctn Loss (ft)	3.44	Cum Volume (acre-ft)	0.24	3.07	1.04
C & E Loss (ft)	0.03	Cum SA (acres)	0.69	1.82	0.41

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.210

INPUT
Description:
Station Elevation Data num= 26

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1158.72	98.55	1158	107.27	1157.81	157.72	1156.23	161.07	1156.19
165.58	1156	171.58	1156	171.61	1155.997	180	1154.86	193.32	1154
209.03	1154	214.04	1154	220.5	1154	221.4	1154.75	223.96	1156.11
224	1156.132	229.87	1159.4	232.41	1160	242.59	1160	260.03	1158
262.87	1158	298.89	1157.44	311.71	1157.31	316.1	1157.33	329.75	1157.2
385.44	1157.17								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	171.6	.045	224	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
171.6	224	366.35	366.34	366.32	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1155.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.		0.045	
W.S. Elev (ft)	1155.08	Reach Len. (ft)	366.35	366.34	366.32
Crit W.S. (ft)	1155.08	Flow Area (sq ft)		38.89	
E.G. Slope (ft/ft)	0.031549	Area (sq ft)		38.89	
Q Total (cfs)	210.00	Flow (cfs)		210.00	
Top Width (ft)	43.64	Top Width (ft)		43.64	
Vel Total (ft/s)	5.40	Avg. Vel. (ft/s)		5.40	
Max Chl Dpth (ft)	1.08	Hydr. Depth (ft)		0.89	

Conv. Total (cfs)	1182.3	Conv. (cfs)		1182.3	
Length Wtd. (ft)	366.34	Wetted Per. (ft)		44.04	
Min Ch El (ft)	1154.00	Shear (lb/sq ft)		1.74	
Alpha	1.00	Stream Power (lb/ft s)		9.39	
Frctn Loss (ft)	1.73	Cum Volume (acre-ft)	0.24	2.36	1.04
C & E Loss (ft)	0.11	Cum SA (acres)	0.69	1.30	0.41

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.141

INPUT
Description:
Station Elevation Data num= 19

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1156.68	85.83	1156	108.23	1156	168.57	1154	201	1152.005
201.08	1152	202.11	1151.54	205.32	1150	217.11	1150	222.1	1150
228.24	1150	234.51	1151.888	243.39	1154.57	247.68	1156	262.77	1156
273.07	1154.25	274.48	1154	347.19	1154	399.25	1154.37		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	201	.045	234.5	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
201	234.5	318.7	318.63	318.57	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1152.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.10	Wt. n-Val.	0.060	0.045	0.060
W.S. Elev (ft)	1152.76	Reach Len. (ft)	318.70	318.63	318.57

Crit W.S. (ft)		Flow Area (sq ft)	4.63	82.10	1.26
E.G. Slope (ft/ft)	0.001811	Area (sq ft)	4.63	82.10	1.26
Q Total (cfs)	210.00	Flow (cfs)	2.55	206.71	0.74
Top Width (ft)	48.66	Top Width (ft)	12.27	33.50	2.89
Vel Total (ft/s)	2.39	Avg. Vel. (ft/s)	0.55	2.52	0.59
Max Chl Dpth (ft)	2.76	Hydr. Depth (ft)	0.38	2.45	0.44
Conv. Total (cfs)	4934.7	Conv. (cfs)	59.9	4857.4	17.4
Length Wtd. (ft)	318.63	Wetted Per. (ft)	12.30	34.23	3.02
Min Ch El (ft)	1150.00	Shear (lb/sq ft)	0.04	0.27	0.05
Alpha	1.10	Stream Power (lb/ft s)	0.02	0.68	0.03
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	0.22	1.85	1.03
C & E Loss (ft)	0.02	Cum SA (acres)	0.64	0.98	0.39

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.080

INPUT
Description:
Station Elevation Data num= 20

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1153.83	76.45	1153.6	79	1153.61	81.89	1153.6	131.52	1152.77
141.19	1152.8	164	1152.016	164.45	1152	175.94	1151.27	179.97	1151.06
197.49	1150	211.9	1150	216.87	1150	227.35	1150	238	1151.976
238.13	1152	242.99	1154	259.42	1154	357.37	1152.8	397.64	1152.55

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	164	.045	238	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
164	238	208.59	208.67	208.75	.1	.3

Right Levee Station= 260 Elevation= 1154

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1152.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.04	Wt. n-Val.	0.060	0.045	0.060
W.S. Elev (ft)	1152.35	Reach Len. (ft)	208.59	208.67	208.75
Crit W.S. (ft)	1151.01	Flow Area (sq ft)	1.59	129.43	0.19
E.G. Slope (ft/ft)	0.001146	Area (sq ft)	1.59	129.43	0.19
Q Total (cfs)	210.00	Flow (cfs)	0.40	209.55	0.05

Top Width (ft)	84.58	Top Width (ft)	9.61	74.00	0.97
Vel Total (ft/s)	1.60	Avg. Vel. (ft/s)	0.25	1.62	0.27
Max Chl Dpth (ft)	2.35	Hydr. Depth (ft)	0.17	1.75	0.20
Conv. Total (cfs)	6203.7	Conv. (cfs)	11.8	6190.3	1.5
Length Wtd. (ft)	208.67	Wetted Per. (ft)	9.61	74.24	1.04
Min Ch El (ft)	1150.00	Shear (lb/sq ft)	0.01	0.12	0.01
Alpha	1.02	Stream Power (lb/ft s)	0.00	0.20	0.00
Frctn Loss (ft)	0.26	Cum Volume (acre-ft)	0.20	1.08	1.03
C & E Loss (ft)	0.00	Cum SA (acres)	0.56	0.58	0.38

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.041

INPUT
Description:
Station Elevation Data num= 24

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1153.04	25.18	1152.77	72.37	1152	98.28	1152	156.49	1151.49
170.31	1151.19	178.6	1151.12	178.62	1151.12	197.1	1150	214.45	1150
219.43	1150	228.48	1150	235.3	1151.09	240.99	1152	243.11	1152.63
248.53	1154	263.09	1154	264.73	1153.61	270.15	1152	285.4	1152
304.61	1151.7	307.34	1151.69	367.06	1150.88	398.75	1150.87		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	178.6	.045	235.3	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
178.6	235.3	130.08	130.01	129.94	.1	.3

Right Levee Station= 263 Elevation= 1154

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1152.12	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.05	Wt. n-Val.	0.060	0.045	0.060
W.S. Elev (ft)	1152.08	Reach Len. (ft)	130.08	130.01	129.94
Crit W.S. (ft)	1150.98	Flow Area (sq ft)	39.17	103.60	3.03
E.G. Slope (ft/ft)	0.001388	Area (sq ft)	39.17	103.60	3.03
Q Total (cfs)	210.00	Flow (cfs)	18.06	190.17	1.77
Top Width (ft)	173.51	Top Width (ft)	110.86	56.70	5.94
Vel Total (ft/s)	1.44	Avg. Vel. (ft/s)	0.46	1.84	0.58

Max Chl Dpth (ft)	2.08	Hydr. Depth (ft)	0.35	1.83	0.51
Conv. Total (cfs)	5637.6	Conv. (cfs)	484.9	5105.3	47.4
Length Wtd. (ft)	129.99	Wetted Per. (ft)	110.87	56.82	6.03
Min Ch El (ft)	1150.00	Shear (lb/sq ft)	0.03	0.16	0.04
Alpha	1.48	Stream Power (lb/ft s)	0.01	0.29	0.03
Frctn Loss (ft)	0.01	Cum Volume (acre-ft)	0.10	0.52	1.02
C & E Loss (ft)	0.01	Cum SA (acres)	0.27	0.27	0.36

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: cpchannel
REACH: rch00 RS: 0.016

INPUT
Description:
Station Elevation Data num= 30

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1154	29.05	1154	134.33	1152	157.38	1152	172.54	1151.66
199	1150.871	228.22	1150	284.07	1150	289.07	1150	314.76	1150
319.47	1150.64	323.75	1151.14	324	1151.146	332.32	1151.36	335.1	1151.47
338.64	1151.13	342.36	1150	345.83	1150	378.03	1148.74	380.99	1148.67
395.09	1148.39	405.57	1148.49	410.29	1148.41	414.87	1148.42	445.93	1148.99
475.98	1149.3	491.89	1149.2	517.53	1149.37	559.82	1149.3	561.75	1149.33

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	199	.045	324	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
199	324	86.08	86.17	85.87	.1	.3

Right Levee Station= 335 Elevation= 1151.5

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1152.10	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.00	Wt. n-Val.	0.060	0.045	0.060
W.S. Elev (ft)	1152.10	Reach Len. (ft)			
Crit W.S. (ft)	1150.54	Flow Area (sq ft)	28.74	244.17	679.60
E.G. Slope (ft/ft)	0.000020	Area (sq ft)	28.74	244.17	679.60
Q Total (cfs)	210.00	Flow (cfs)	1.77	56.75	151.47

Top Width (ft)	432.68	Top Width (ft)	69.93	125.00	237.75
Vel Total (ft/s)	0.22	Avg. Vel. (ft/s)	0.06	0.23	0.22
Max Chl Dpth (ft)	3.71	Hydr. Depth (ft)	0.41	1.95	2.86
Conv. Total (cfs)	46597.2	Conv. (cfs)	393.4	12593.1	33610.8
Length Wtd. (ft)		Wetted Per. (ft)	69.95	125.09	240.81
Min Ch El (ft)	1150.00	Shear (lb/sq ft)	0.00	0.00	0.00
Alpha	1.04	Stream Power (lb/ft s)	0.00	0.00	0.00
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

SUMMARY OF MANNING'S N VALUES

River:cpchannel

Reach	River Sta.	n1	n2	n3
rch00	1.207	.03	.03	.03
rch00	1.194	.03	.045	.03
rch00	1.162	.06	.045	.06
rch00	1.136	.06	.1	.06
rch00	1.119	.06	.045	.06
rch00	1.101	.06	.1	.06
rch00	1.080	.06	.045	.06
rch00	1.047	.06	.045	.06
rch00	1.010	.06	.045	.06
rch00	0.952	.06	.045	.06
rch00	0.879	.06	.045	.06
rch00	0.838	.06	.045	.06
rch00	0.806	.06	.045	.06
rch00	0.774	.06	.045	.06
rch00	0.712	.06	.045	.06
rch00	0.661	.06	.045	.06
rch00	0.620	.06	.045	.06
rch00	0.585	.06	.045	.06
rch00	0.561	.06	.045	.06
rch00	0.528	.1	.1	.1
rch00	0.503	.03	.03	.03
rch00	0.500	.03	.06	.03
rch00	0.497	.03	.06	.03

rch00	0.479	.06	.045	.06
rch00	0.451	.1	.045	.1
rch00	0.385	.1	.045	.1
rch00	0.354	.1	.045	.1
rch00	0.309	.06	.045	.06
rch00	0.210	.06	.045	.06
rch00	0.141	.06	.045	.06
rch00	0.080	.06	.045	.06
rch00	0.041	.06	.045	.06
rch00	0.016	.06	.045	.06

SUMMARY OF REACH LENGTHS

River: cpchannel

Reach	River Sta.	Left	Channel	Right
rch00	1.207	70.31	70.19	70.07
rch00	1.194	168.88	168.56	168.25
rch00	1.162	143.38	139.74	136.05
rch00	1.136	88.34	86.86	85.39
rch00	1.119	99.68	98.9	98.12
rch00	1.101	105.6	107.29	108.91
rch00	1.080	178.13	176.94	175.72
rch00	1.047	191.23	192.1	192.84
rch00	1.010	304.48	307.01	309.44
rch00	0.952	386.64	388.13	388.75
rch00	0.879	212.45	214	215.39
rch00	0.838	168.96	168.5	167.89
rch00	0.806	169.7	171.02	172.13
rch00	0.774	324.23	325.22	325.87
rch00	0.712	272.59	269.63	266.54
rch00	0.661	213.52	215.28	216.99
rch00	0.620	184.92	186.4	187.84
rch00	0.585	126.23	126.69	127.14
rch00	0.561	176.63	177.4	178.13
rch00	0.528	127.1	130.87	134.61
rch00	0.503	16.14	16.07	16
rch00	0.500	14.27	14.44	14.6

rch00	0.497	97.44	94.81	92.15
rch00	0.479	148.92	148.04	147.16
rch00	0.451	342.7	348.9	355.08
rch00	0.385	164.75	165.28	165.79
rch00	0.354	236.38	237.18	237.98
rch00	0.309	524.32	520.31	516.28
rch00	0.210	366.35	366.34	366.32
rch00	0.141	318.7	318.63	318.57
rch00	0.080	208.59	208.67	208.75
rch00	0.041	130.08	130.01	129.94
rch00	0.016	86.08	86.17	85.87

SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS
River: cpchannel

Reach	River Sta.	Contr.	Expan.
rch00	1.207	.1	.3
rch00	1.194	.1	.3
rch00	1.162	.1	.3
rch00	1.136	.1	.3
rch00	1.119	.1	.3
rch00	1.101	.1	.3
rch00	1.080	.1	.3
rch00	1.047	.1	.3
rch00	1.010	.1	.3
rch00	0.952	.1	.3
rch00	0.879	.1	.3
rch00	0.838	.1	.3
rch00	0.806	.1	.3
rch00	0.774	.1	.3
rch00	0.712	.1	.3
rch00	0.661	.1	.3
rch00	0.620	.1	.3
rch00	0.585	.1	.3
rch00	0.561	.1	.3
rch00	0.528	.1	.3
rch00	0.503	.1	.3

rch00	0.500	.1	.3
rch00	0.497	.1	.3
rch00	0.479	.1	.3
rch00	0.451	.1	.3
rch00	0.385	.1	.3
rch00	0.354	.1	.3
rch00	0.309	.1	.3
rch00	0.210	.1	.3
rch00	0.141	.1	.3
rch00	0.080	.1	.3
rch00	0.041	.1	.3
rch00	0.016	.1	.3

Profile Output Table - Standard Table 1

Reach	River Sta	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)	
rch00	1.207	210.00	1185.65	1187.74	1187.74	1188.51	0.011920	7.01	29.96	19.51	1.00
rch00	1.194	210.00	1184.66	1187.79	1186.64	1187.91	0.003145	2.77	75.70	40.74	0.36
rch00	1.162	210.00	1186.00	1187.33		1187.35	0.003215	1.56	189.49	374.98	0.31
rch00	1.136	210.00	1185.50	1186.49		1186.53	0.014447	1.11	144.45	333.77	0.28
rch00	1.119	210.00	1184.00	1185.75	1185.29	1185.84	0.005026	2.68	108.20	184.92	0.43
rch00	1.101	210.00	1182.66	1185.39	1184.64	1185.41	0.003538	1.45	171.77	205.23	0.18
rch00	1.080	210.00	1184.00	1185.02	1184.67	1185.05	0.003171	1.68	174.63	398.19	0.32
rch00	1.047	210.00	1182.00	1183.74	1183.48	1183.96	0.014346	3.78	61.91	183.82	0.69
rch00	1.010	210.00	1182.00	1182.56	1182.28	1182.58	0.004010	1.30	212.56	549.57	0.33
rch00	0.952	210.00	1179.75	1180.31	1180.20	1180.36	0.016739	2.05	124.69	378.54	0.63

rch00	0.879		210.00	1176.00	1178.17	1177.31	1178.22	0.002688	1.74	133.73	228.36	0.30
rch00	0.838		210.00	1176.00	1177.07	1176.94	1177.19	0.010831	3.09	92.13	212.89	0.59
rch00	0.806		210.00	1174.00	1175.83	1175.31	1175.92	0.005452	2.62	98.18	209.09	0.44
rch00	0.774		210.00	1172.00	1174.40	1173.90	1174.72	0.009127	4.56	52.57	60.20	0.60
rch00	0.712		210.00	1170.00	1172.63	1171.70	1172.80	0.003971	3.43	89.15	170.93	0.41
rch00	0.661		210.00	1170.00	1171.38	1170.90	1171.47	0.006068	2.45	86.11	106.94	0.45
rch00	0.620		210.00	1168.00	1169.53	1169.18	1169.72	0.011602	3.55	59.14	58.90	0.62
rch00	0.585		210.00	1165.74	1168.01	1167.27	1168.20	0.006082	3.53	59.50	37.03	0.49
rch00	0.561		210.00	1165.14	1167.34	1166.67	1167.44	0.005637	2.46	85.47	86.32	0.44
rch00	0.528		210.00	1164.18	1166.33	1165.18	1166.36	0.006352	1.51	139.23	96.72	0.22
rch00	0.503		210.00	1163.88	1165.08	1164.93	1165.38	0.008471	4.38	47.94	51.50	0.79
rch00	0.500		210.00	1162.51	1164.48	1164.48	1165.08	0.046332	6.24	33.81	27.81	0.97
rch00	0.497		210.00	1161.93	1163.89	1162.84	1163.96	0.003697	2.14	98.13	57.33	0.29
rch00	0.479		210.00	1161.89	1162.81	1162.79	1163.15	0.030742	4.70	44.72	61.10	0.97
rch00	0.451		210.00	1160.00	1162.32	1161.03	1162.39	0.001760	2.07	101.61	55.29	0.27
rch00	0.385		210.00	1160.00	1161.11	1160.73	1161.25	0.007985	2.94	71.52	71.87	0.52
rch00	0.354		210.00	1158.00	1159.86	1159.31	1160.01	0.006941	3.12	67.34	55.55	0.50
rch00	0.309		210.00	1156.00	1158.90	1157.63	1159.01	0.002789	2.61	80.32	43.19	0.34
rch00	0.210		210.00	1154.00	1155.08	1155.08	1155.53	0.031549	5.40	38.89	43.64	1.01
rch00	0.141		210.00	1150.00	1152.76		1152.86	0.001811	2.52	87.99	48.66	0.28
rch00	0.080		210.00	1150.00	1152.35	1151.01	1152.39	0.001146	1.62	131.20	84.58	0.22

rch00	0.041		210.00	1150.00	1152.08	1150.98	1152.12	0.001388	1.84	145.80	173.51	0.24
rch00	0.016		210.00	1150.00	1152.10	1150.54	1152.10	0.000020	0.23	952.51	432.68	0.03

Profile Output Table - Standard Table 2

Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
rch00	1.207	1188.51	1187.74	0.76	0.39	0.19		210.00	19.51	
rch00	1.194	1187.91	1187.79	0.12	0.54	0.03		210.00	40.74	
rch00	1.162	1187.35	1187.33	0.02	0.82	0.00	24.50	66.82	118.68	374.98
rch00	1.136	1186.53	1186.49	0.04	0.68	0.01	0.09	57.73	152.18	333.77
rch00	1.119	1185.84	1185.75	0.09	0.41	0.02	0.16	173.70	36.14	184.92
rch00	1.101	1185.41	1185.39	0.02	0.36	0.00	28.28	72.23	109.49	205.23
rch00	1.080	1185.05	1185.02	0.04	1.08	0.02	0.55	165.58	43.88	398.19
rch00	1.047	1183.96	1183.74	0.22	1.32	0.06	0.03	206.78	3.18	183.82
rch00	1.010	1182.58	1182.56	0.02	2.22	0.00	92.21	79.90	37.89	549.57
rch00	0.952	1180.36	1180.31	0.05	2.14	0.00		77.80	132.20	378.54
rch00	0.879	1178.22	1178.17	0.05	1.02	0.01	1.16	204.37	4.46	228.36
rch00	0.838	1177.19	1177.07	0.12	1.26	0.01	46.32	161.74	1.94	212.89
rch00	0.806	1175.92	1175.83	0.10	1.19	0.02	16.96	192.28	0.76	209.09
rch00	0.774	1174.72	1174.40	0.31	1.87	0.04	4.22	202.71	3.07	60.20

rch00		0.712	1172.80	1172.63	0.16	1.30	0.02	2.76	187.08	20.16	170.93
rch00		0.661	1171.47	1171.38	0.09	1.74	0.01	0.13	209.87	106.94	
rch00		0.620	1169.72	1169.53	0.20	1.52	0.00		210.00	58.90	
rch00		0.585	1168.20	1168.01	0.19	0.74	0.03	0.00	210.00	0.00	37.03
rch00		0.561	1167.44	1167.34	0.09	1.05	0.02		210.00	86.32	
rch00		0.528	1166.36	1166.33	0.04	0.96	0.03		210.00	96.72	
rch00		0.503	1165.38	1165.08	0.30	0.26	0.03		209.99	0.01	51.50
rch00		0.500	1165.08	1164.48	0.60	0.13	0.16	0.01	208.43	1.56	27.81
rch00		0.497	1163.96	1163.89	0.07	0.78	0.03		210.00	57.33	
rch00		0.479	1163.15	1162.81	0.34	0.68	0.08		210.00	61.10	
rch00		0.451	1162.39	1162.32	0.07	1.14	0.01		210.00	55.29	
rch00		0.385	1161.25	1161.11	0.13	1.23	0.00		210.00	71.87	
rch00		0.354	1160.01	1159.86	0.15	0.99	0.01		210.00	55.55	
rch00		0.309	1159.01	1158.90	0.11	3.44	0.03		210.00	43.19	
rch00		0.210	1155.53	1155.08	0.45	1.73	0.11		210.00	43.64	
rch00		0.141	1152.86	1152.76	0.10	0.45	0.02	2.55	206.71	0.74	48.66
rch00		0.080	1152.39	1152.35	0.04	0.26	0.00	0.40	209.55	0.05	84.58
rch00		0.041	1152.12	1152.08	0.05	0.01	0.01	18.06	190.17	1.77	173.51
rch00		0.016	1152.10	1152.10	0.00			1.77	56.75	151.47	432.68

HEC-RAS Plan: Plan 01 River: cpchannel Reach: rch00

Reach	River Sta	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)	
rch00	1.207	210.00	1185.65	1187.74	1187.74	1188.51	0.011920	7.01	29.96	19.51	1.00
rch00	1.194	210.00	1184.66	1187.79	1186.64	1187.91	0.003145	2.77	75.70	40.74	0.36
rch00	1.162	210.00	1186.00	1187.33		1187.35	0.003215	1.56	189.49	374.98	0.31
rch00	1.136	210.00	1185.50	1186.49		1186.53	0.014447	1.11	144.45	333.77	0.28
rch00	1.119	210.00	1184.00	1185.75	1185.29	1185.84	0.005026	2.68	108.20	184.92	0.43
rch00	1.101	210.00	1182.66	1185.39	1184.64	1185.41	0.003538	1.45	171.77	205.23	0.18
rch00	1.080	210.00	1184.00	1185.02	1184.67	1185.05	0.003171	1.68	174.63	398.19	0.32
rch00	1.047	210.00	1182.00	1183.74	1183.48	1183.96	0.014346	3.78	61.91	183.82	0.69
rch00	1.010	210.00	1182.00	1182.56	1182.28	1182.58	0.004010	1.30	212.56	549.57	0.33
rch00	0.952	210.00	1179.75	1180.31	1180.20	1180.36	0.016739	2.05	124.69	378.54	0.63
rch00	0.879	210.00	1176.00	1178.17	1177.31	1178.22	0.002688	1.74	133.73	228.36	0.30
rch00	0.838	210.00	1176.00	1177.07	1176.94	1177.19	0.010831	3.09	92.13	212.89	0.59
rch00	0.806	210.00	1174.00	1175.83	1175.31	1175.92	0.005452	2.62	98.18	209.09	0.44
rch00	0.774	210.00	1172.00	1174.40	1173.90	1174.72	0.009127	4.56	52.57	60.20	0.60
rch00	0.712	210.00	1170.00	1172.63	1171.70	1172.80	0.003971	3.43	89.15	170.93	0.41
rch00	0.661	210.00	1170.00	1171.38	1170.90	1171.47	0.006068	2.45	86.11	106.94	0.45
rch00	0.620	210.00	1168.00	1169.53	1169.18	1169.72	0.011602	3.55	59.14	58.90	0.62
rch00	0.585	210.00	1165.74	1168.01	1167.27	1168.20	0.006082	3.53	59.50	37.03	0.49
rch00	0.561	210.00	1165.14	1167.34	1166.67	1167.44	0.005637	2.46	85.47	86.32	0.44
rch00	0.528	210.00	1164.18	1166.33	1165.18	1166.36	0.006352	1.51	139.23	96.72	0.22
rch00	0.503	210.00	1163.88	1165.08	1164.93	1165.38	0.008471	4.38	47.94	51.50	0.79
rch00	0.500	210.00	1162.51	1164.48	1164.48	1165.08	0.046332	6.24	33.81	27.81	0.97
rch00	0.497	210.00	1161.93	1163.89	1162.84	1163.96	0.003697	2.14	98.13	57.33	0.29
rch00	0.479	210.00	1161.89	1162.81	1162.79	1163.15	0.030742	4.70	44.72	61.10	0.97
rch00	0.451	210.00	1160.00	1162.32	1161.03	1162.39	0.001760	2.07	101.61	55.29	0.27
rch00	0.385	210.00	1160.00	1161.11	1160.73	1161.25	0.007985	2.94	71.52	71.87	0.52
rch00	0.354	210.00	1158.00	1159.86	1159.31	1160.01	0.006941	3.12	67.34	55.55	0.50
rch00	0.309	210.00	1156.00	1158.90	1157.63	1159.01	0.002789	2.61	80.32	43.19	0.34
rch00	0.210	210.00	1154.00	1155.08	1155.08	1155.53	0.031549	5.40	38.89	43.64	1.01
rch00	0.141	210.00	1150.00	1152.76		1152.86	0.001811	2.52	87.99	48.66	0.28
rch00	0.080	210.00	1150.00	1152.35	1151.01	1152.39	0.001146	1.62	131.20	84.58	0.22
rch00	0.041	210.00	1150.00	1152.08	1150.98	1152.12	0.001388	1.84	145.80	173.51	0.24
rch00	0.016	210.00	1150.00	1152.10	1150.54	1152.10	0.000020	0.23	952.51	432.68	0.03

APPENDIX 8. EXCERPT FROM EXISTING FCDMC AND MCDEM EMERGENCY RESPONSE PLANS

FCDMC Significant Rainfall Event and Flood Emergency Response Manual

Standard Operating Procedure

I. General

A. Purpose

Outline a procedure of duties and responsibilities for District personnel to act upon during significant rainfall events and/or flood emergencies.

B. Scope

This procedure provides an overview of how the District as a whole will respond to significant rainfall events and flood emergencies, and therefore does not outline procedures for specific personal tasks and responsibilities. Division managers will assign personal tasks and responsibilities as necessary.

II. Concept of Operations

A. Rainfall Information

The District gathers rainfall and streamflow information through a variety of methods: the Automated Local Evaluation in Real Time (ALERT) system, the National Weather Service, special subscriptions, the internet, District observers, and citizen or media phone calls. The ALERT system gages transmit precipitation, weather and streamflow information instantaneously via radio waves. The Hydrologist-on-call (HOC) monitors these information sources, and alerts the Engineering Division Manager or his designee of any significant rainfall or streamflow. The Engineering Division Manager will evaluate the information and pass it to the Operation and Maintenance (O&M) Division Manager to allow him to dispatch structure observer teams when and where required, or remove equipment and personnel from construction or maintenance areas that may be subject to flooding.

B. Operations Centers

Once the Engineering Division Manager has contacted the O&M Division Manager, an ALERT Operations Center (AOC) will be set up in the conference room adjacent to the ALERT room. The purpose of the AOC is to provide a centralized location for staff members to collect and disseminate information, and to:

- Meet for daily (morning, afternoon, or hourly) briefings
- Staff check in before leaving for and upon returning from the field
- Maintain a log of activities (Event Historian)
- Exchange information on road/bridge closings, local drainage problems, etc.

Flood Control District personnel dispatched for streamgage monitoring or flood damage assessment will report to and be controlled from the AOC via telephone or ALERT room radio communications. Radio communications shall remain on the frequencies used during regular business days, and a radio log will be kept during the event.

The Public Works Operations Center (PWOC-Adobe, Harquahala and/or New River conference rooms) will be activated if the event is causing significant damage, is expected to last more than 24 hours, or is causing significant impoundments at more than one structure. It can also be activated at the discretion of the Chief Engineer and General Manager or the Public Works Director. These rooms will contain stations for the following people:

- Hydrology (ALERT) and Hydraulics representatives
- Chief of Engineering and Chief of Operations and Maintenance
- Receptionist, Runner and Plotter
- FCD Radio Operator and GIS station
- Public Involvement Coordinator (designated the "Event Historian")
- MCDOT representatives – Operations and EIS
- Chief Engineer and General Manager or his designee
- Public Works Director or his designee

Resources required in the PWOC in the event of an emergency include:

- Telephones, Cellular phones and radios
- Television (preferably with cable hookup)
- White boards (including computerized) and flip charts
- Intercom
- Personal computers
- Copy machine, Fax machine

Radio communications will be conducted on the combined frequencies of 61 Flood, Hydromet and Drainage, except Supervisors may still use the "FCD SUPV" frequency.

An "Event Historian" will be assigned to keep notes of the daily occurrences and will be the point of contact for non-assigned personnel leaving for and returning from the field.

The Public Works Operations Center will serve a support function for the Maricopa County Emergency Management Department's Emergency Operations Center (EOC), providing streamgage and rainfall data as required/requested. A District staff member (from the Regulatory or Engineering Division) will be sent to the EOC to act as a liaison between the District and other agencies involved.

III. Tasks

A. Chief Engineer and General Manager

1. Direct the emergency effort.

2. Assist in establishing early liaison with appropriate agencies to obtain estimates of the potential hazard.

3. Coordinate the implementation of the Flood Control District's Standard Operating Procedure.

4. Conduct daily briefings of all Division Managers.

B. Operations and Maintenance Division

1. Review emergency procedures and organization; inspect vehicles, radios, and equipment; assign vehicles as appropriate.

2. Deploy field observer teams as described in the Operations and Maintenance Division procedures.

3. Organize and deploy damage assessment teams upon request from Maricopa County Emergency Management Department. Engineering, Regulatory, Planning and Project Management, Land Management, and Administrative Divisions will furnish people to assist in this effort when required.

4. Assess damages to flood control structures and make repairs as needed.

5. Keep records of employee time and equipment used for the emergency efforts.

6. Attend daily briefings.

7. O&M staff going to the field who have not been assigned by the PWOC are to check in with the Event Historian and stay in contact by radio on a regular basis.

8. Provide input for the After Action Report (including copies of photographs, damage reports, and observation reports) by coordinating with the Event Historian.

9. Keep a journal to share at daily briefings and to contribute to the After Action Report. Track photographs taken by staff in the field.

10. Use the Emergency Information System (EIS) to track status and locations of equipment and supplies.

C. Engineering Division

1. Monitor storm development and rainfall information gathered from telemetry precipitation and streamgage network, weather radar and other sources.

2. Notify the O&M Division Manager as necessary to deploy field observer teams when monitored rainfall or runoff depths reach pre-set intensities and/or depths.

3. Periodically complete and update rainfall/runoff status reports for District structures and disseminate to appropriate personnel/agencies.

4. Notify MCDEM of critical depth impoundments at FCD structures, provide rainfall and runoff information as requested.

5. Coordinate with outside agencies, i.e., National Weather Service, Salt River Project, Maricopa County Department of Transportation (MCDOT), MCDEM EOC and the AZ Division of Emergency Management to determine potential areas of flood inundation.

6. Provide a representative to MCDEM as directed, and provide field observers as required.

7. Coordinate with observers/inspectors so they can be dispatched to areas where flooding is imminent or occurring.

8. Attend daily briefings.

9. Engineering staff going to the field who have not been assigned by AOC or PWAOC are to check in with the HOC or Event Historian and stay in contact with the appropriate Operations Center by radio on a regular basis.

10. Keep a journal to share at daily briefings and to contribute to the After Action Report. Track photographs taken by staff in the field.

11. Generate the technical portion of the After Action Report.

D. Administrative Division

1. Staff telephones during an event, properly route phone calls to the appropriate outside agency or internal department.

2. Provide GIS support for mapping needs.

3. Keep a log of Division activities for daily briefings and After Action Report.

4. Prepare Press Releases during and after the event for coordination with the EOC and assist in other public information activities. All press releases will be coordinated and approved by MCDEM prior to release.

5. Admin. staff going to the field who have not been assigned by the Operations Center are to check in with the Event Historian and stay in contact with the Operations Center by radio on a regular basis.

6. Attend daily briefings.

7. Prepare the After Action Report

8. Keep a journal to share at daily briefings and to contribute to the After Action Report. Track photographs taken by staff in the field.

9. Use the Emergency Information System (EIS) to track status and locations of equipment and supplies.

E. Regulatory Division

1. Respond to citizen inquiries and perform drainage inspections.

2. Provide a member to the EOC as directed, and provide field observers as required.

3. Regulatory staff (non-inspection) going to the field who have not been assigned by the Operations Center are to check in with the Event Historian and stay in contact with the Operations Center by radio on a regular basis.

4. Attend daily briefings.

5. Keep a log of daily activities to be used in preparing the After Action Report.

6. Keep a journal to share at daily briefings and to contribute to the After Action Report. Track photographs taken by staff in the field.

F. Planning and Project Management Division

1. Provide members of the emergency staff as directed, and provide field observers as required.

2. PPM staff going to the field who have not been assigned by the Operations Center are to check in with the Event Historian and stay in contact with the Operations Center by radio on a regular basis.

3. Attend daily briefings.

4. If a specific project is being impacted, the project engineer for that project will report to the PWOC to answer questions and give insight in resolving problems.

5. Keep a log of daily activities to be used in preparing the After Action Report.

6. Keep a journal to share at daily briefings and to contribute to the After Action Report. Track photographs taken by staff in the field.

G. Land Management Division

1. Provide members of the emergency staff as directed, and provide field observers as required.

2. Land Management staff going to the field who have not been assigned by the Operations Center are to check in with the Event Historian and stay in contact with the Operations Center by radio on a regular basis.

3. Obtain Rights of Entry and perform site assessments.

4. Notify rental property occupants of impending flood danger.

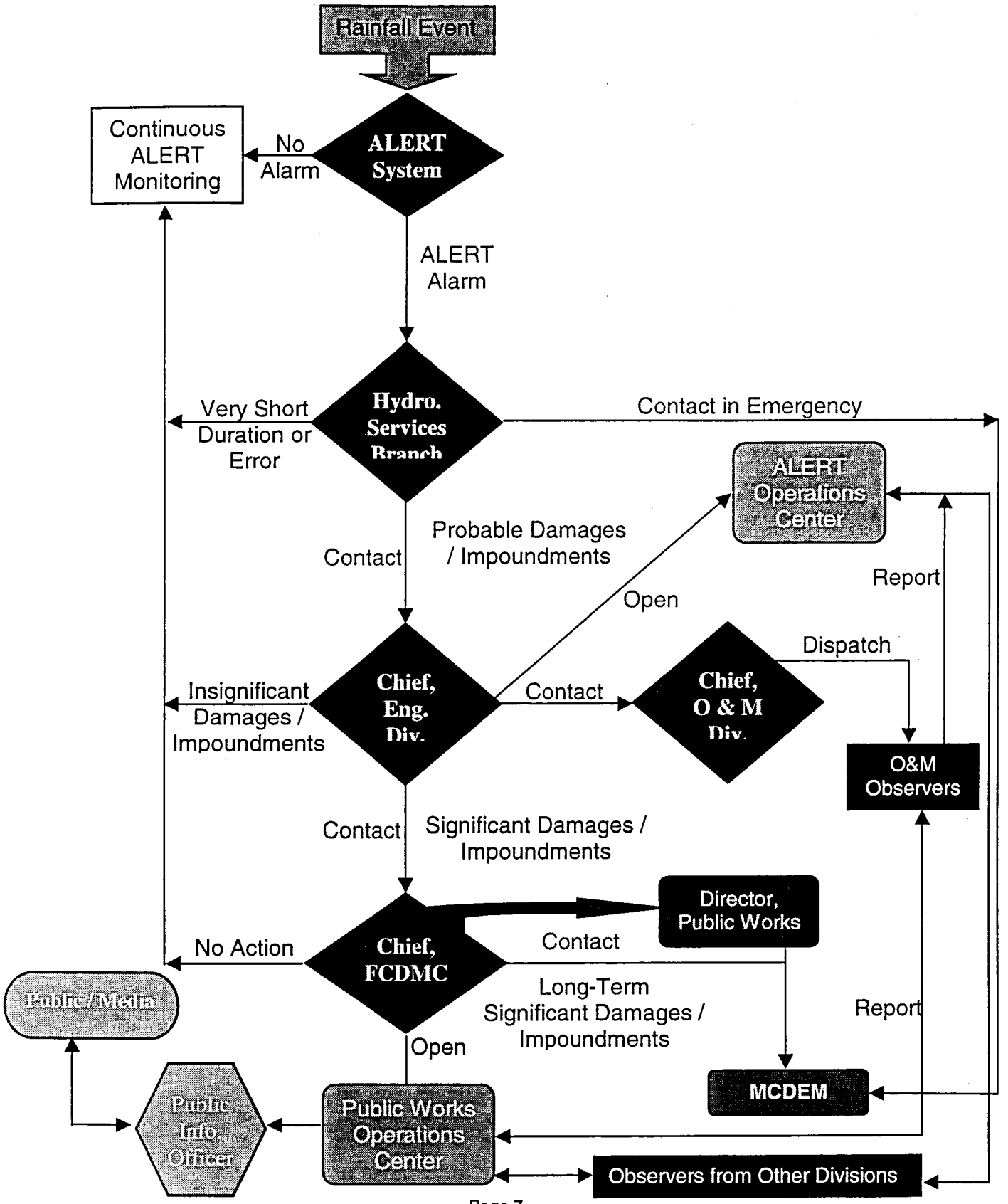
5. Identify access points to District property and bring keys.

6. Attend daily briefings.

7. Keep a log of daily activities to be used in preparing the After Action Report

8. Keep a journal to share at daily briefings and to contribute to the After Action Report. Track photographs taken by staff in the field.

FCDMC Flood Emergency Procedures Flowchart



Observation Instructions

Team 3: Far West Valley

Team 3 will observe stream and staff gage readings at:

- White Tanks FRS No. 4
- Buckeye Structures
- White Tanks FRS No. 3
- Agua Fria at SR 85
- Gila River at SR 85
- Gila River at Tuthill Bridge
- Gila River at 115th Avenue
- Salt River at 51st Avenue
- Jackrabbit Trail at Indian School Road

Primary Observation Points

1. **White Tanks No. 4:** Staff gage is located on the eastern gated outlet STA.17+32 (West of 195th Avenue north of Van Buren).

   Gated Outlet: The gated outlet is to remain closed unless otherwise directed by the District's Operations Center. Because this area is developed, a warning to the people downstream may be required before the gate is opened. The gate and outlet should be under responsible supervision whenever it is open.

2. **Buckeye FRS No. 1** (Approximately STA.907+79): Buckeye FRS No. 1 is north of I-10, with access from Palo Verde Road off ramp. Proceed on crest of structure west across Johnson Road to STA.907. Gage is visible from the crest of the dam.

   Gated Outlet: The irrigation gates should remain wide open at all times. They provide water to the vegetation along the washes downstream from the structures. STA.710+00.

3. **Buckeye FRS No. 2** (Approximately STA.321+11): Access to intake from Miller Road. Take I-10 to Miller Road off ramp. Proceed north ½ mile to dam, then west approximately 1/4 mile to intake. Use crest dam access, go west off Miller Road.

   Gated Outlet: The irrigation gates should remain wide open at all times. They provide water to the vegetation along the washes downstream from the structures. STA.88+00.

4. **Buckeye FRS No. 3** (Approximately STA.185+70): Access can be gained from McDowell Road, approximately 2 miles west of Jackrabbit Trail, or from Watson Road, approximately 1 mile north of Yuma Road.

   Gated Outlet: The irrigation gates should remain wide open at all times. They provide water to the vegetation along the washes downstream from the structures. L STA.155+00 and STA.239+00.

5. **White Tanks No. 3:** Staff gage is located at the north gated outlet STA.29+00 on the upstream side. Entrance to the dam from Northern Avenue just past Beardsley Canal. Proceed south along the canal to the structure. From south of Indian School Road go north approximately 3 miles on Jackrabbit Trail which dead ends into the structure.

   Gated Outlet: The gated outlet is to remain closed unless otherwise directed by the District Operations Center. **The Beardsley Water District needs to be notified before water is released into their canal.** The Water District has the right to open and close the gate at their discretion. They are required to notify the Flood Control District when they change the position of this gate.

Secondary Observation Points

1. **Agua Fria River at SR 85, Avondale:** The gage is painted on the second support from the north end on the downstream side. View from southwest bank looking east.

2. **Bridge at Gila and SR 85:** Gage is painted on the second support from the north end on the downstream side. Observe from the northwest bank at the stream gage house. Bridge is approximately 1/2 mile from old 85 turnoff, south.

3. **Gila at Tuthill Bridge (Jackrabbit):** Staff gage is on the downstream side of the bridge on the first support from the south end, approximately one mile from the intersection south from SR 85 (Buckeye Road) and Jackrabbit Road. Observe from the southwest abutment bank.

4. **Salt at 51st Avenue Bridge:** Staff gage is on the fourth pier north of the south end of the bridge on the downstream side. Observe from the south bank looking north.

5. **Jackrabbit Trail at Indian School Road:** Staff gage is on the headwall, downstream side of Indian School Road.

MARICOPA COUNTY, ARIZONA

EMERGENCY OPERATIONS PLAN

ANNEX I - STORMS AND FLOODS

APPENDIX 13 - WHITE TANKS FLOOD RETARDING STRUCTURE #3

1. Location. White Tanks Flood Retarding Structure (FRS) #3 is located southeast of the White Tank Mountains in western Maricopa County, approximately five miles west of Luke Air Force Base and five miles north of Interstate 10.

2. Description. The structure is a compacted earthfill embankment 7,670 feet in length with a maximum height of 29 feet above the streambed. It has three principal outlets and one emergency spillway. The Flood Control District of Maricopa County operates and maintains the flood control features of White Tanks FRS #3.

3. Purpose. To provide flood protection for Interstate 10, Perryville State Prison, and residences and agricultural areas downstream of the structure. It was designed to detain water only during times of flooding.

4. Inundation Area

   a. See Tab A to this appendix.

   b. Floodwaters from a failure of White Tanks FRS #3 would flow to the south-southeast, eventually emptying into the floodplain of the Gila River. With the exception of the first mile below the failure location, the width of the flooded area will vary between one and two miles. The Beardsley Canal, Perryville Prison, I-10, Roosevelt Canal, Union Pacific Railroad, and Buckeye Canal are all likely to sustain damage. **Approximate** depths, velocities and times to reach various locations are shown in the following table:

LOCATION	DEPTH (Feet)	VELOCITY (Feet/Second)	TIME (Hours)
Beardsley Canal	6-8	6-10	.1-.5
Perryville Prison	3-4	4-6	1.5-2
Interstate 10	10-12	8-13	2.5-3
Roosevelt Canal	3-4	5-6	2.5-3
Union Pacific RR	4-5	3-4	3.5-4
Gila River	4-5	3-4	4.5-5

c. The inundated area includes portions of the City of Goodyear and unincorporated Maricopa County.

5. Specific Tasks

a. Flood Control District of Maricopa County

(1) Dispatch observers to monitor the situation during times of severe weather when certain prescribed conditions of impoundment and rainfall intensity are reached.

(2) Notify the Maricopa County Department of Emergency Management when

(a) impounded water reaches a depth of 13 feet and rising with the principal outlets operating at full capacity. The emergency spillway will begin to operate when a water depth of 20 feet at the principal outlets is reached. If operation of the emergency spillway appears imminent, notification or evacuation of downstream developments should be considered.

(b) overtopping of the dam crest or failure of the structure appears imminent.

b. Maricopa County Department of Emergency Management

(1) Activate the EOC.

(2) Monitor the situation and coordinate support.

(3) Notify the following agencies:

(a) Arizona Department of Public Safety.

(b) Perryville State Prison.

(c) Sheriff's Office

(d) Maricopa County Department of Transportation.

(e) Goodyear City Manager, Police and Fire Departments (or EOC if activated).

(f) Maricopa County Municipal Water Conservation District #1.

(g) Roosevelt Irrigation District.

(h) Buckeye Water Conservation District.

(i) Union Pacific Railroad.

(j) Central Arizona Chapter, American Red Cross.

(k) Arizona Department of Water Resources, Dam Safety Division.

(l) Arizona Division of Emergency Management (ADEM).

(4) Recommend evacuation of the inundation area, or applicable portions thereof, to the above listed agencies in the event of failure or impending failure of the dam.

c. Sheriff's Office. Warn, evacuate, and secure those portions of the inundation area that are within the unincorporated areas of the county.

d. Department of Transportation. Furnish and place road closure barricades.

e. Central Arizona Chapter, American Red Cross. See Basic Plan and Annex A.

f. The government of the City of Goodyear will assume overall direction and control of emergency response operations within its jurisdiction, to include warning, evacuation and security of the affected areas.

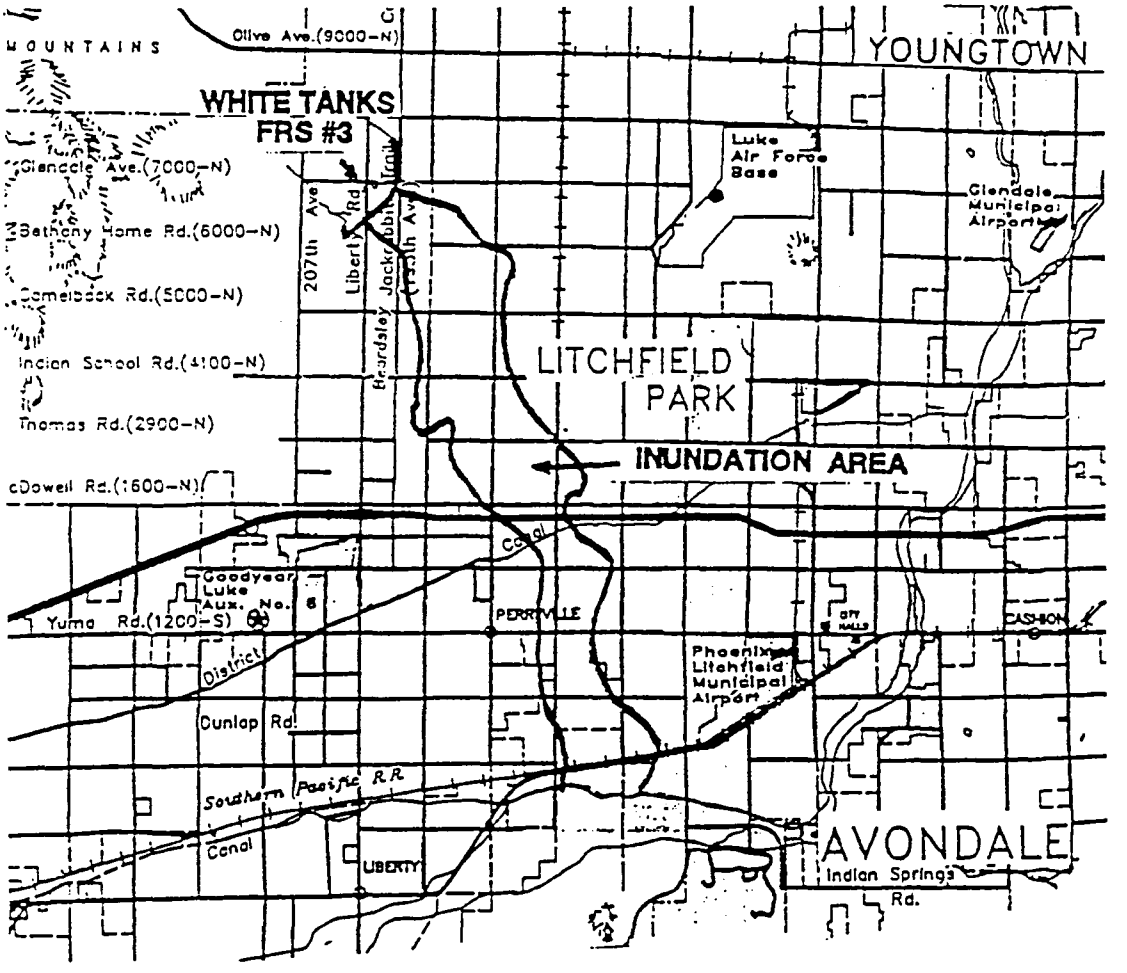
MARICOPA COUNTY, ARIZONA

EMERGENCY OPERATIONS PLAN

ANNEX I - STORMS AND FLOODS

APPENDIX 13 - WHITE TANKS FLOOD RETARDING STRUCTURE #3

TAB A - INUNDATION AREA MAP



MARICOPA COUNTY DEPARTMENT OF EMERGENCY MANAGEMENT

EMERGENCY RESPONSE MANUAL

ANNEX A - EMERGENCIES

APPENDIX 15 - WHITE TANKS FLOOD RETARDING STRUCTURE #3

A. SUMMARY

White Tanks Flood Retarding Structure (FRS) #3 is located southeast of the White Tank Mountains in western Maricopa County, approximately five miles west of Luke Air Force Base and five miles north of I-10. It was built to provide flood protection for I-10, Perryville State Prison, and residences and agricultural areas downstream of the structure. In the event of failure or impending failure of White Tanks FRS #3, perform the below-listed actions.

B. REQUIRED ACTIONS

1. Inform the Director, or in his absence, the next senior person available.

2. Notify the following:

		Business	Residence
a.	National Weather Service		
	Lead Forecaster	602-379-4607 602-379-4611	
b.	Department of Public Safety (I-10 & AZ Hwy 85 will be flooded)	602-223-2212 602-223-2190	
c.	Perryville State Prison	623-853-0304 602-542-1212	
d.	MCSO	602-256-1030	
e.	MCDOT		
	Cynthia Bodah	602-506-6063	(Office Hrs Only)

	Mary Ann Shobe	602-506-4514	(Office Hrs Only)
	Tom Goodman	602-506-4180 602-938-9765 Pager 602-450-2878	
	Kathy Baker	602-506-8664 Cellular 602-390-3148 Pager 602-201-9718	602-667-6030
	Gary Lasham	602-506-8670 Pager 602-238-5680	623-979-3332
	Kent Hamm	602-506-4618 Cellular 602-918-7001 Pager 602-450-9809	623-877-1512
f.	Goodyear City Manager, Police Department, and Fire Department (or EOC, if activated)		See Annex E - Directory of City/Town Officials
g.	Maricopa County Municipal Water Conservation District #1	623-975-2151	
h.	Roosevelt Irrigation District	623-935-4271 623-386-2046	
i.	Buckeye Water Conservation District	623-386-2196	
j.	Union Pacific Railroad	1-800-892-1283	
k.	American Red Cross	602-336-6660	
	Harry Coyle	602-336-6660 Pager 602-409-2296	602-547-3639
	Pedro Ayala	602-336 -6660 Pager 602-409-1853	602-252-4746
	After hours (Answering Service-ask for disaster supervisor on duty)	480-303-1184	

l. AZ Dept of Water Resources
Dam Safety Division 602-542-1541

m. AZ Division of Emergency Management

Duty Officer

Thru DPS Commo	602-223-2212
Digital Pager	602-227-8562
Cellular Phone	602-618-6396