VOL. 1

HIGHLINE WESTERN CANAL

FLOODPLAIN DELINEATION STUDY

FCD Contract No. 99-11

DRAFT

TECHNICAL DATA NOTEBOOK

Prepared for:

Flood Control District of Maricopa County

Prepared by:

WEST CONSULTANTS, INC.

WEST Consultants, Inc

September 2003

VOLUME 1

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Prepared for:

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September 2003

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1. Introduction

1.1 Scopes and Objectives

The Flood Control District of Maricopa County contracted with WEST Consultants, Inc. (WEST) to perform a floodplain delineation re-study which consists of approximately **11** miles of floodplain delineation for the Highline/Western Canal. The delineation for the Highline Canal extends from I-10 just north of Ray Road to one-half mile north of Elliot Road. In addition, the floodplain delineation study will include the laterals along the Southern Pacific Railroad track from approximately one-half mile south of Chandler Boulevard to the Western Canal. This project is officially referred to by the Flood Control District of Maricopa County (hereafter the District) as contract number FCD 99-11. Ms. Kathryn Gross is the project manager for the District. The delineation for the Western Highline Canal extends from the Price Freeway west 2.5 miles to its northern branch and then northwest to 48th street. The Kyrene branch of the Western Canal is also delineated from Ray to its connection to the main Western Canal.

The contact information for the District is:

Flood Control District of Maricopa County, 2801 West Durango Street, Phoenix Arizona 85009, Phone: 602-506-1501.

The primary objectives of the study can be summarized as:

Assimilate existing conditions data by collection all pertinent available data as well as any additional data needed.

Analyze the hydrologic and hydraulic conditions of the watershed in the area of study.

Identify the areas of potential flooding and quantify the flood hazards based on the hydrologic and hydraulic estimates.

Provide documentation for the data used, methodologies adopted and results obtained from the analyses.

1.2 Location Description

The study area consists of regions shown in Figure 1 with the main focus on the Western Canal and Highline Canal. The Highline Canal is located on the western portion of the study area and stretches from the Baseline Road in the North to the Ray Road/I-10 intersection on the South. The I-10 freeway located on the west side is the watershed boundary.

The Western Canal has two distinct sections with one aligned along the North-South direction and the other in the East-West direction. The North-South portion of the Western Canal stretches from 48th Street and the Superstition Freeway (US-60) on the North to the Ray Road on the South. The East-West portion of the Western Canal is located between Guadalupe Road and the Elliot Road and stretches west from the Loop 101 Price Freeway (located approximately one mile to the east from the right edge of Figure 1) for about distance of 2.5 miles.

In the western portion of the study area, since the general slope of the watershed is towards the east, the study area under consideration is west of the Western Canal, Highline Canal and Southern Pacific Railroad (SPRR). In the Eastern portion of the study area where the Western Canal has an East-West orientation, the study area consists of the region north of the Canal based on the southwest sloping trend in this region.

The area under consideration is heavily urbanized consisting mostly of residential areas and some industrial/commercial areas. While most of the study area falls under the jurisdiction of the City of Tempe, the areas south of Ray Road are part of the City of Chandler. The SPRR railroad runs through the study area in the North-South direction and acts a barrier to the flows leading to potential flood hazards.

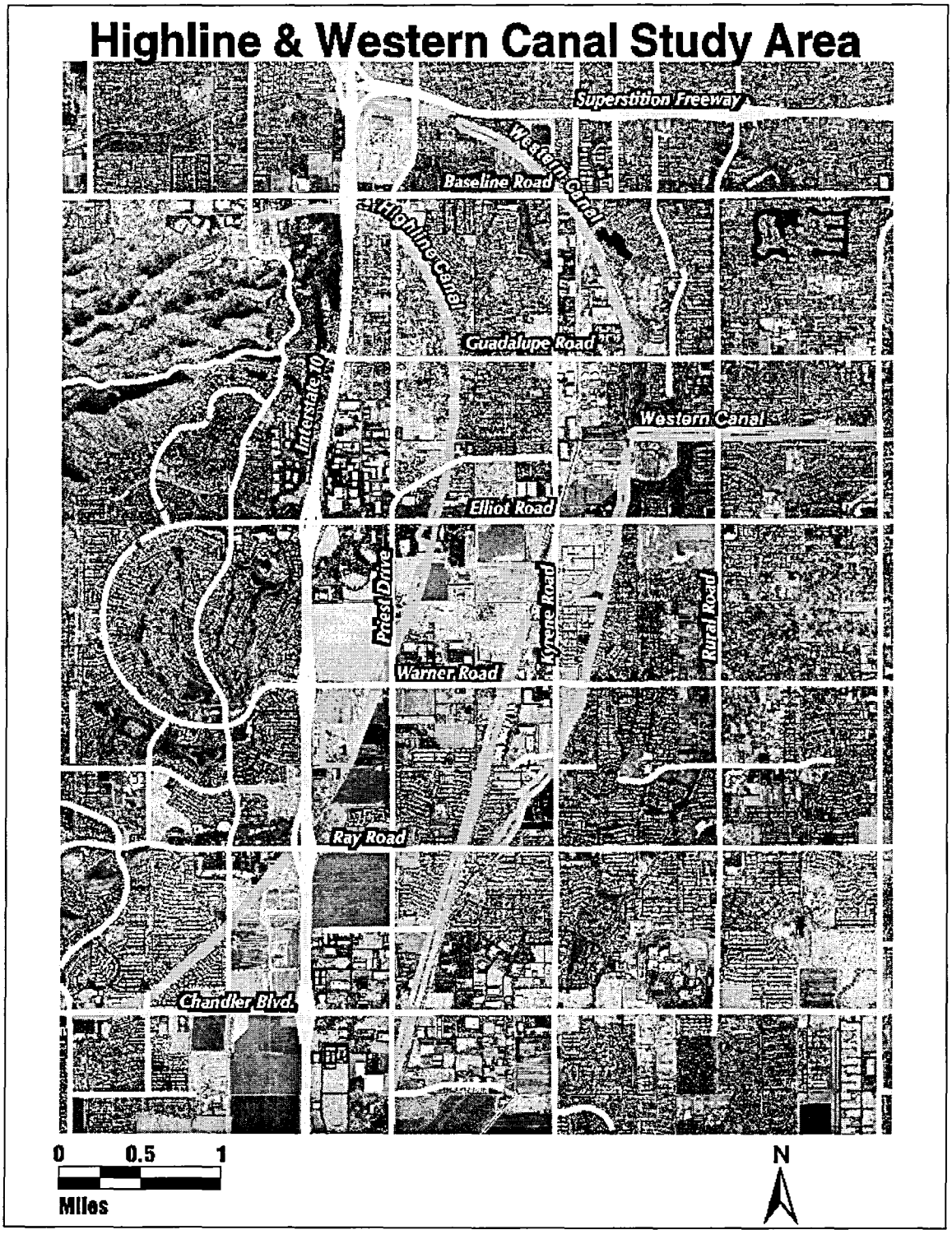

Figure 1 Vicinity Map

WESTERN/HIGHLINE FDS--FCD-99-11 AREA

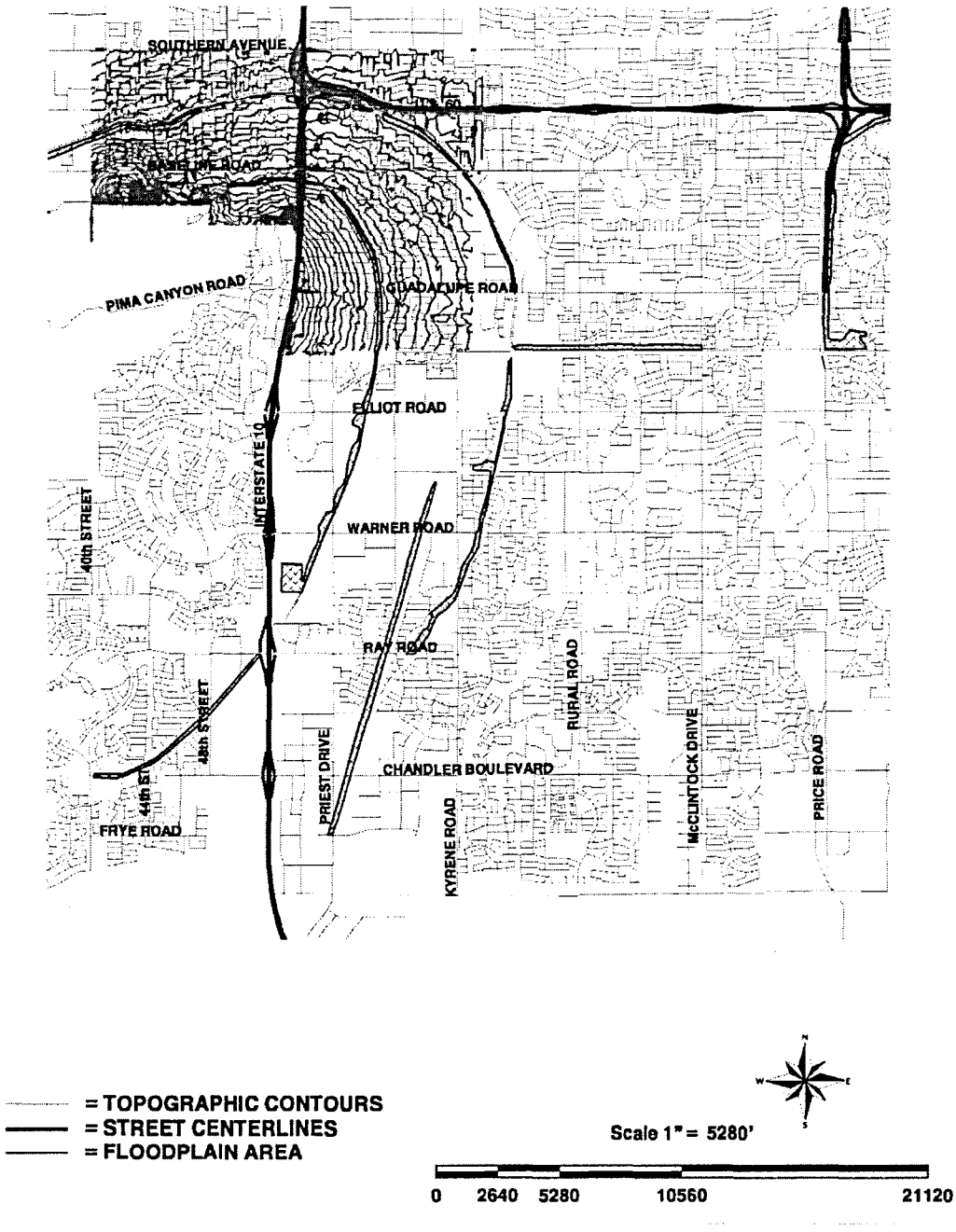

Figure 2 Map of Study Area

1.3 Summary of Methodology

The flow analyses are based on the hydrologic modeling of the watershed in the area under consideration. HEC-1 models were developed as part of the District's DDMSW pre/post-processing software system.

The major modeling tasks involved:

Determination of precipitation data for the area under consideration

Subbasin Delineation and parameter evaluation resulting in a hydrograph for each subbasin. To account for the influence of the urban retention on the outflow hydrograph, appropriate diversions were incorporated. Similar diversions were incorporated to account for the flow into storm drains.

The flow routing between the subbasins using normal depth assumptions

The combining of flow hydrographs from the subbasins

The flow-splits at intersections and other appropriate locations.

Estimation of Ponding limits by developing elevation-storage-outflow relationships.

The main methodologies adopted are based on the procedures described in the "Drainage Design Manual of the Maricopa County, Arizona" Volume I.

2. ADWR/FEMA Forms

2.1 Study Documentation Abstracts for FEMA Submittals

2.1.1 Date Study Accepted:

2.1.2 Study Contractor

Contractor: WEST Consultants Inc.

Address: 960 W Elliot Road Suite 201

Tempe, Arizona 85284-1137

Telephone: (480)-345-2155

Contract Number: FCD #99-11

Person to Contact: Dennis L. Richards

2.2 FEMA Forms

The information will be added in the next revision.

3. Surveying and Mapping Information

3.1 Field Survey Information

The field survey information with be provided by the District to be included in the next revision.

3.2 Mapping

Digital Terrain mapping for this study was provided by Cooper Aerial Surveys Co: A digital topographic map, scale 1 inch = 200 feet, with a contour interval of 2 feet, covering the majority of the study area along the canals and SPR. The mapping was provided in the National Geodetic Vertical Datum of 1929. The map is used in the delineation of the drainage sub-basins, and the definition of the flow concentration points and in the development of the stage-storage relationships for ponding areas along the canals.

The area covered by mapping is shown in Fig. 3. Since this does not cover the entire region being modeled for hydrology, USGS DTMs were used to obtain topographic information in the remainder of the modeled area.

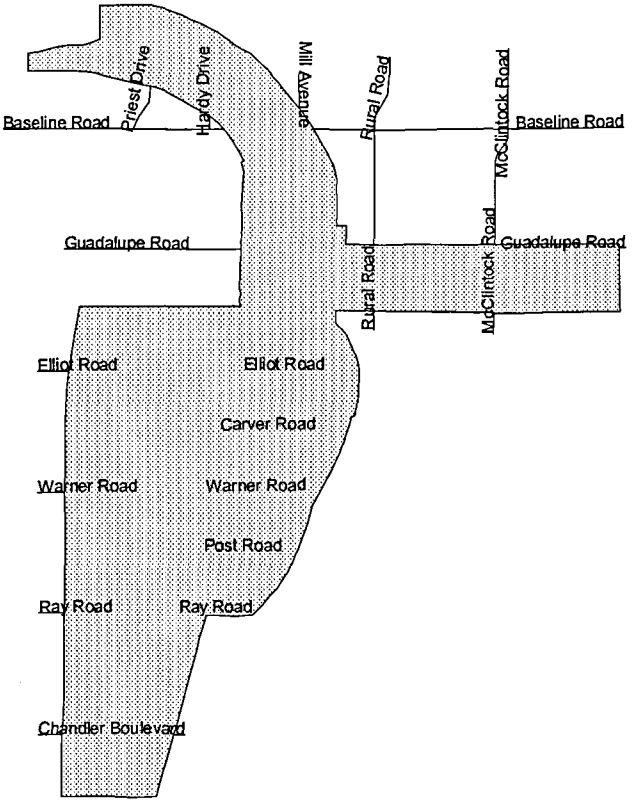

Figure 3. Topographic survey area

4. Hydrology

4.1 Method Description

4.1.1 Subbasin Delineations

The delineations of the subbasins were performed using Arcview GIS software. The delineations were achieved based on the available topography. The boundaries of the natural subbasins are influenced by the presence of the roadways, railroad and the canal.

4.1.2 Urban retention

The retention is calculated based on the retention requirement for the sub-basins. A survey of drainage reports submitted to the City of Tempe by the developments was performed. The retention capacity for each subbasin was determined using the ratio of the area of the subbasin and the area of the particular development. Since the urban retention regulations came into effect in the 970's and aerial photos are available for 1973, the areas developed prior to 1973 can be conservatively assumed to have no retention. Copies of these 1973 photos were obtained and comparisons with the recent photographs were used to identify the areas where developments had occurred prior to 1973.

The 100 year 24 hour storm runoff from each subbasin was calculated using a simple HEC-1 model where data for all subbasins were input. The data used in the calculations follow the procedures described in Section 4.2.1. Using the runoff estimate and the available retention capacity, a retention efficiency factor was determined. Based on all the retention data available, a weighted average of this retention efficiency factor was determined as 0.88 which is assumed to be applicable to all areas developed after 1973. In other words, based on the information in the drainage reports, it was determined that City of Tempe retention requirement handled 88% of the 100 year 24 hour storm runoff volume. Therefore, this retention efficiency factor was used to determine the urban retention diversion values in the HEC-1 models where 88% of the post 1973 development volume was diverted out of each subbasin.

4.1.3 Flow routings

The flow routings were determined based on the topographic information, subbasin delineations and the location of the concentration points. The length and the slope of the reaches were obtained from Arcview. The cross-sections of the flow routings were described using an 8-points approximate cross-section developed using typical roadway cross-section and the roadway widths measured in Arcview. Manning's-n values for the roadway were determined as 0.03 for the overbanks and 0.02 for the road itself.

4.1.4 Ponding relationships

The areas with significant potential of ponding were identified after initial runs of the HEC-1 models. Upon identifying the areas of ponding, an elevation-storage relationship was developed for each area using the Digital terrain model in the ArcView GIS software. For each elevation in the ponding relationship, the storage capacity is determined using the volume calculation capability of the Arcview software. Apart from the elevation-storage, the ponding relations also require an outflow value at each elevation in the relationship. To estimate the outflow at each elevation, it is assumed that the flows exiting the ponds are in the form of weirs or channels.

In most ponding locations, the weir outflow assumption was determined to be appropriate. Since outflow can occur at different elevations, the weir outflow values were determined by identifying smaller segments of weir with almost constant elevation within each segment. Using the length of the segment and the elevation, the weir outflow calculations were performed for each segment. The results all the segments were then combined to provide the total outflow from the ponding area.

In locations where the outflow is assumed to follow channel type flow, a channel cross-section was identified using topographic data. In addition, channel slope was also estimated using Arcview and, using a normal depth assumption, the outflow at each elevation in the relationship was determined.

In certain locations, the ponding areas were adjacent to a primary barrier such as the railroad as well as a secondary barrier such as roadway. In such situations, two separate weirs were identified with one being over the primary barrier and the other over the second. In the HEC-1 model implementation, the flow over both the barriers were incorporated first and then the flow over a particular barrier was diverted and the remainder of flow was allowed to follow the other barrier.

4.1.5 Storm drains

The storm drain details were provided in the Storm Drain Control map by City of Tempe. This map is available in electronic format. It is assumed that the storm drains can handle flows up to design capacity and the drain lengths were be obtained using Autocad/Arcview. Since the drain

slopes are not given in the map, it is assumed that the storm drains follows the topographic elevations, the slopes can be determined using topographic mapping. To determine the storm drain capacity, a Manning's n value for the storm drains of 0.013 was used. The pipes were also assumed circular in shape and the size obtained from the Storm Drain Control map.

4.1.6 Input hydrographs

Flows from neighboring areas are included in the model using input hydrographs. The flows from Guadalupe Study were provided by the District in "DSS" format. These "DSS" based data was input directly into the HEC-1 models at the appropriate locations.

4.1.7 Flow Diversions at Intersections

The flows reaching a roadway intersection has the potential to flow in to two or more directions. Due to the general slope in a particular direction, the tendency of the flow entering an intersection is to flow in the two down-slope directions. The flow diversions at the intersections were incorporated using a procedure that evaluates the fraction the flow that is directed in one dominant direction (with the remainder going in the other dominant direction) using a ratio that depends on the slope and the widths of the roadways in the region. The essence of this procedure is to direct more flows where the slopes are higher and the widths are larger. The details of the procedure are provided in Appendices. The slopes and widths needed to perform these calculations were determined using Arcview GIS software.

4.2 Parameter Estimation

4.2.1 Drainage Area Boundaries

The sub-basins are delineated in Arcview and the area, the length of watercourse, slope of watercourse and LCA are obtained using Arcview. The hydraulic conductivity, XKSAT, is obtained using log-weighted average from soil types obtained using soil-map in Arcview. The values for each soil type are obtained from Appendix B (Maricopa County – Central Part Loss Rate Parameters) of the District's Drainage Design Manual (DDM). Using land use data provided by the District in a dxf file and Table 4-1 from DDM, initial losses are calculated. Using aerial photos and land use data, impervious percentages are calculated. An adjustment to

XKSAT was made for vegetation covers. The landuse cover information was used to determine the vegetation cover. The Kn (Manning's n) values are determined using Table 5-6 in DDM.

The computer program MCUHP2 was used to develop the unit hydrograph using the data described above. The output of MCUHP2 was incorporated into the HEC-1 models.

4.2.2 Watershed Work Maps

The watershed work maps used in the study are:

1) Topography

2) Subbasin delineations, flow routings and concentrations

3) Soil Type Map

4) Land Use Map

5) Storm Drain Map

6) HEC-1 Flow schematic

4.2.3 Gage Data

Not applicable

4.2.4 Statistical Parameters

All pertinent statistical information for the study was adopted from the "Drainage Design Manual of the Maricopa County, Arizona -Volume I Hydrology" (DDM).

4.2.5 Precipitation

The Rainfall data was obtained using the NOAA Atlas isopluvials provided in the Drainage Design Manual of Maricopa County, Volume I Hydrology. The rainfall for the 100 year, 24 hour storm was determined to be 3.85 inches. The computer program PREFRE was used to develop the rainfall values for a range of storm events. The results are presented in Appendix. Based on these analyses, it was determined that the 100 year 24-hour storm event as the most

significant in terms of potential impact and the HEC-1 modeling was performed for this event. The rainfall distribution during the 24-hour event was based on the distribution pattern presented in the Drainage Design Manual.

4.2.6 Physical Parameters

4.2.6.1 Subbasin Boundaries

The subbasin boundaries delineations are presented in Exhibit I. The numbering scheme was approximately based on an existing planning level model provided by the District. Due to the reduced size of the subbasins when compared to this earlier, the numbers were modified to include letters as a suffix such as 34A. The delineations were based on the description provided in Section 4.2.1.

4.2.6.2 Unit Hydrograph Method

The Clark Unit Hydrograph method was adopted in the incorporation of the subbasin data into the HEC-1 model. The unit hydrograph was generated using the MCUHP2 software as part of the DDMSW software developed by the District.

4.2.6.3 Soil Types

The soil type data was provided by the District in electronic format. This soil map is based on the "Soil Conservation Soil Survey, Eastern Maricopa and Northern Pinal Counties Area, Arizona, November 1974". The soil map consisted of polygons covering the entire study area with each polygon having a soil type attribute attached to it. This soil map was imported into Arcview and was used in the estimation of rainfall losses.

4.2.6.4 Land Use

The land use data was provided by the district in electronic format. The land use map consisted of polygons covering the entire study area with each polygon having a soil type attribute attached to it. This soil map was imported into Arcview and was used in the estimation of rainfall losses. The land use data was updated in the study to reflect current conditions by using recent aerial photographs and data collected during site visits.

4.3 Problems Encountered During Study

4.3.1 Special Problems and Solutions

Storm drain information was extracted from City of Tempe's CAD file. Since some segments of storm drains did not have sufficient data, slope is calculated using segments where data was available. Representative diameters of pipes are being used where the diameter varies along the storm drain.

It is assumed that the storm drain operate at full capacity and the flow rate is calculated under normal depth assumption.

Only the storm drains leaving the entire site are modeled. The other storm drains are assumed to aid in onsite retention which is handled separately (see section "Urban Retention" above).

4.3.2 Modeling Warning and Error Messages

None

4.4 Calibration

No model calibration was performed as part of this study.

4.5 Final Results

4.5.1 Hydrologic Analysis Results

The hydrologic model for the study area that includes the Western and Highline canals was set up in DDMSW which is pre/postprocessor to HEC-1. Upon execution of the model, the results obtained provide the flow estimates from storm water run off for the subbasins. The other mechanisms such as routings, diversions etc. are also in effect and the results provide details on the ponding areas such as peak flows, time of peak, maximum stage and time of maximum stage. The magnitudes of the maximum stage are used to delineate the flood plain boundaries. A summary of the flow results for the subbasins and the ponding areas are presented in Tables 1 and 2.

Table 1. Flow results for subbasins

Station	Peak Flow (cfs)	Time of Peak (hrs)	Average Flow (cfs)	Basin Area (acres)
SUB01	217	12.67	24	0.43
SUB02	264	12.67	31	0.5
SUB03	163	12.7	19	0.33
SUB03A	118	12.23	9	0.11
SUB04	231	12.73	27	0.47
SUB05	125	12.9	20	0.34
SUB06	162	12.8	23	0.41
SUB07	295	12.7	33	0.49
SUB08	195	12.37	14	0.24
SUB09	175	12.3	11	0.17
SUB09A	250	12.77	32	0.53
SUB09B	66	12.3	4	0.07
SUB10	118	12.67	11	0.26
SUB11	232	12.6	23	0.37
SUB12	57	12.33	5	0.07
SUB12A	459	12.1	15	0.31
SUB13	117	12.37	10	0.16
SUB14	55	12.3	4	0.08
SUB15	101	12.13	6	0.07
SUB15A	223	12.3	14	0.28
SUB16	123	12.43	13	0.19
SUB17	40	12.23	3	0.05
SUB18	69	12.03	3	0.04
SUB19	334	12.13	14	0.24

SUB19	334	12.13	14	0.24
SUB20	73	12.17	5	0.07
SUB20A	179	12.23	10	0.2
SUB22	381	12.2	20	0.37
SUB23	373	12.1	17	0.21
SUB24	252	12.23	15	0.25
SUB24A	6	12.57	1	0.02
SUB25	32	12.83	5	0.09
SUB26	101	12.17	4	0.09
SUB26A	8	12.1	0	0.01
SUB30	267	12.13	12	0.18
SUB30A	28	12.23	2	0.03
SUB31	94	12.33	9	0.14
SUB32	157	12.23	8	0.17
SUB32A	36	12.17	3	0.04
SUB33	85	12.3	6	0.12
SUB33A	141	12.13	8	0.1
SUB34	251	12.3	16	0.32
SUB34A	329	12.17	16	0.27
SUB35	261	12.13	12	0.18
SUB35A	35	12.23	2	0.05
SUB36	70	12.13	3	0.05
SUB37	289	12.13	11	0.2
SUB39	127	12.27	6	0.17
SUB40	324	12.13	15	0.25
SUB40A	363	12.13	21	0.25
SUB41	152	12.17	8	0.12
SUB41A	192	12.2	9	0.18
SUB41B	29	12.4	2	0.05
SUB57A	187	12.17	9	0.15
SUB57B	235	12.17	14	0.19
SUB57C	215	12.13	10	0.16
SUB58	383	12.1	15	0.23
SUB58A	110	12.3	6	0.15
SUB58B	211	12.13	12	0.14
SUB58C	240	12.17	11	0.22
SUB59	469	12.13	27	0.33
SUB59A	386	12.07	10	0.25
SUB59B	482	12.07	16	0.25
SUB70	36	12.43	2	0.09

Table 2 Flow results for ponding areas.

Station	Peak Flow (cfs)	Time of Peak (hrs)	Average Flow (cfs)	Basin Area (acres)	Maximum Stage (ft)	Time of Max Stage (hrs)
PND08	261	13.3	26	0.24	1182.99	13.3
PND09	384	12.57	37	0.49	1181.67	12.57
PND10	0	0	0	0.75	1181.44	39.07
PND11	0	26.3	0	0.86	1185.55	27.7
PND12	146	12.67	4	0.39	1194.06	12.67
PND13	159	12.9	14	0.55	1183.79	12.9
PND15	42	12.53	1	0.07	1188.53	12.53
PND16	34	14.23	5	0.26	1182.12	14.2
PND20	357	12.7	21	0.89	1182.16	12.7
PND25	152	12.43	6	2.83	1181.09	12.43
PND25A	139	12.47	6	0	1180.74	12.47
PND30	52	13.2	2	0.57	1183.61	13.2
PND30A	28	12.93	1	0.03	1194.59	12.93
PND32	0	0	0	0.17	1183.11	25.97
PND33	272	12.93	9	0.12	1184.29	12.93
PND34	7	23.77	1	0.32	1190.52	23.17
PND34A	243	12.4	11	0.27	1197.32	12.4

4.5.2 Verification of Results

5. Hydraulics

5.1 Method Description

The Western Canal and the Highline Canal consists of elevated berms with the top of the berm located few feet above the existing surrounding ground. The existing topography in the study area is such that the stormwater runoff from flood events would flow towards the canal and there is a potential for flooding on the upstream side of the canals. This indicates that the flooding may result in ponding that can extend up to the top of the existing berm. As a result, floodplain delineations are based on ponding areas rather than flow conveyance. The existing conditions indicate that a lack of continuous stormwater conveyance along the canals and the runoff from the watershed tends to collect in low-lying areas adjacent to canal with the potential to overtop the berms and enter the canal. As a result, the floodplain delineations were based on the water surface elevations computed using the HEC-1 hydrologic models. The elevation-stage-outflow relationships for the ponding areas were established using the digital terrain model developed using existing topography. In most locations, the outflow from the ponding was assumed follow

a weir-like discharge and the flows were appropriately directed in the hydrologic models. The weir dimensions and characteristics were determined using Arcview GIS software and the methodology adopted is discussed in detail in Section 4.1.4.

5.2 Work Study Maps

The Work Study Maps were prepared with compliance to the Scope of Service. Full size maps were prepared at a scale of 1"=200' and are included in the report as part of the Appendices. A set of reduced maps at the scale of 1"=800' were also prepared and are included at the end of this report.

The maps depict the floodplain delineations along the Western and Highline Canals prepared using the existing 2-foot topographic mapping provided by the District. Several potential ponding areas were identified and are shown in the Work Study Maps. In areas with relatively flat topography, the ponding area delineations were based on point-elevations data rather than contour lines.

5.3 Parameter Estimation

5.3.1 Roughness Coefficients

Not applicable

5.3.2 Expansion and Contraction Coefficients

Not applicable

5.4 Cross Section Descriptions

Not applicable

5.5 Modeling Considerations

5.5.1 Hydraulic Jump and Drop Analysis

Not applicable

5.5.2 Bridges and Culverts

Not applicable

5.5.3 Levees and Dikes

Not applicable

5.5.4 Islands and Split Flows

Not applicable

5.5.5 Ineffective Flow Areas

Not applicable

5.5.6 Supercritical Flow

Not applicable

5.6 Floodway Modeling

Not applicable

5.7 Problems Encountered During the Study

5.7.1 Special Problems and Solutions

5.7.1.1 Lack of Stormwater conveyance

Traditionally, the floodplain delineations are established by analyzing the stormwater conveyance systems and obtaining estimates of the water surface elevations. The lack of a systematic stormwater conveyance along the canals and the nature of the existing topography in the study area is such that the stormwater has a tendency to accumulate and pond near the low-lying areas adjacent to the canals. This implies that the traditional hydraulic analysis based on open-channel flow is not feasible. Therefore, water surface elevations computed using hydrologic models were used to define the floodplains leading to isolated, discontinuous ponding areas along the canals.

5.7.1.2 Mild Topographic Slope in certain areas

Due to the presence of flat to mild topography in certain areas of the study, the floodplain delineations will cover extensive areas if 2-foot contour intervals are used in arriving at the delineations. The result would be unrealistic inclusion of large areas inside the floodplain. To

minimize this problem, point-elevation obtained from the topographic surveys was used to define the floodplain delineations.

5.7.2 Modeling Warning and Error Messages

Not applicable

5.8 Calibration

No model calibration was performed as part of this study.

5.9 Final Results

5.9.1 Hydraulic Analysis Results

Not applicable

5.9.2 Verification of Results

Not applicable

6. Erosion and Sediment Transport

Not applicable.

7. Draft FIS Report Data

7.1 Summary of Discharges

7.2 Floodway Data

7.3 Annotated Flood Insurance Rate Maps

7.4 Flood Profiles

APPENDIX A

References

A.1 DATA COLLECTION SUMMARY

A.2 REFERENCED DOCUMENTS

U.S. Army Corps of Engineers, "HEC-1 Flood Hydrograph Package User's Manual," Version 4.1, June 1998.

Sabol, G,V, Rumann, J.M, Khalili, D. Waters, S. D and Lehmen, T., "Drainage Design Manual for Maricopa County, Arizona-Hydrology" Volume I, Flood Control District of Maricopa County, January 1995.

APPENDIX B

General Documentation and Correspondence

B.1 Special Problem Reports

B.2 Contact (telephone) Reports

B.3 Meeting Minutes or Reports

B.4 General Correspondence

B.5 Contract Documents

APPENDIX C

Survey Field Notes

C.1 Survey Field Notes

To be included in the next revision

C.2 Survey Field Notes for Aerial Mapping

To be included in the next revision

C.3 Survey Field Notes for Hydrologic Modeling

To be included in the next revision

C.4 Survey Field Notes for Hydraulic Modeling

To be included in the next revision

VOLUME 2

HIGHLINE WESTERN CANAL

FLOODPLAIN DELINEATION STUDY

FCD Contract No. 99-11

DRAFT

Prepared for:

Flood Control District of Maricopa County

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September 2003

APPENDIX D

Hydrologic Analysis Supporting Documentation

D.1 Precipitation Data

Rainfall Data

Site	Western Highline Canal

Primary Zone	7

Short Duration Zone	8

Point-Values (inches)

	2-Year	100-Year
6-Hour	1.12	3.2
24-Hour	1.35	3.85

Rainfall Depths (inches):

Duration	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
5 min	0.29	0.41	0.48	0.59	0.67	0.75	0.94
10 min	0.44	0.62	0.74	0.9	1.03	1.15	1.44
15 min	0.54	0.77	0.93	1.14	1.31	1.48	1.86
30 min	0.71	1.03	1.25	1.55	1.78	2	2.53
1 hour	0.86	1.28	1.55	1.93	2.22	2.5	3.16
2 hour	0.95	1.4	1.7	2.11	2.43	2.74	3.46
3 hour	1.01	1.49	1.8	2.24	2.57	2.9	3.66
6 hour	1.12	1.65	1.99	2.47	2.84	3.2	4.04
12 hour	1.24	1.81	2.2	2.72	3.12	3.53	4.45
24 hour	1.35	1.98	2.4	2.97	3.41	3.85	4.86

Rainfall MCFCD Distribution 1-6 hr, 2-2 hr, 3-24 hr 4-Manual	1

D.2 Physical Parameter Calculations

Basin ID	SUB01

Area	(sq ft)	11929377
Area	(sq miles)	0.428

L	(feet)	6384.83
L	(miles)	1.209

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1194.2
Elev 2	(feet)	1188.1
Delta h	(feet)	6.1
Slope	(ft/mile)	5

Kb		0.048
Kn		0.046
Lag	(minutes)	0

IA	(inches)	0.22
DTHETA		0.25
PSIF	(inches)	5.8
XKSAT	(inches/hr)	0.23
RTIMP	(%)	38

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.500	1.500	1.500	1.500	1.496	1.254
R	(hours)	1.096	1.096	1.096	1.096	1.096	1.093	0.899

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.500	1.500	1.500	1.500	1.429	1.250
R	(hours)	1.096	1.096	1.096	1.096	1.096	1.039	0.896

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	7877794.6	0.2826	LAA	0.25
2	2849200.4	0.1022	LEA	0.04
3	1202359.1	0.0431	LAA	0.25
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	PARK	125452.8	1.1	Normal	90	0	0.2	0.1	0.139
2	M.D.R.	8143281	68.3	Normal	50	30	0.25	0.05	0.049
3	COMM	326177.3	2.7	Normal	75	80	0.1	0.03	0.035
4	COMM	273208.3	2.3	Normal	75	80	0.1	0.03	0.035
5	COMM	156119	1.3	Normal	75	80	0.1	0.03	0.037
6	M.D.R.	1268467	10.6	Normal	50	30	0.25	0.05	0.06
7	COMM	446054.4	3.7	Normal	75	80	0.1	0.03	0.034
8	COMM	493447.7	4.1	Normal	75	80	0.1	0.03	0.033
9	COMM	217451.5	1.8	Normal	75	80	0.1	0.03	0.036
10	COMM	253693.4	2.1	Normal	75	80	0.1	0.03	0.035
11	OPEN	192361	1.6	Dry	10	0	0.1	0.02	0.036
12	OPEN	30666.24	0.3	Dry	10	0	0.1	0.02	0.041
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
			99.9						

Comments:

Subbasin 01

Basin ID	SUB02

Area	(sq ft)	13851038
Area	(sq miles)	0.497

L	(feet)	6854.92
L	(miles)	1.298

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1187.5
Elev 2	(feet)	1180.3
Delta h	(feet)	7.2
Slope	(ft/mile)	5.5

Kb		0.048
Kn		0.044
Lag	(minutes)	0

IA	(inches)	0.2
DTHETA		0.25
PSIF	(inches)	5.7
XKSAT	(inches/hr)	0.26
RTIMP	(%)	46

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.500	1.500	1.500	1.500	1.488	1.258
R	(hours)	1.066	1.066	1.066	1.066	1.066	1.056	0.877

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.500	1.500	1.500	1.500	1.421	1.250
R	(hours)	1.066	1.066	1.066	1.066	1.066	1.004	0.871

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	3103813.8	0.1113	LEA	0.04
2	6564080.8	0.2355	LAA	0.25
3	4183098.2	0.15	LAA	0.25
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	M.D.R.	6557000	47.3	Normal	50	30	0.25	0.05	0.05
2	PARK	170058.2	1.2	Normal	90	0	0.2	0.1	0.135
3	COMM	354055.7	2.6	Normal	75	80	0.1	0.03	0.034
4	COMM	2787.84	0	Normal	75	80	0.1	0.03	0.047
5	COMM	568719.4	4.1	Normal	75	80	0.1	0.03	0.033
6	PARK	75271.68	0.5	Normal	90	0	0.2	0.1	0.144
7	COMM	2787.84	0	Normal	75	80	0.1	0.03	0.047
8	COMM	8363.52	0.1	Normal	75	80	0.1	0.03	0.044
9	M.F.R.	596597.8	4.3	Normal	50	45	0.25	0.05	0.064
10	COMM	94786.56	0.7	Normal	75	80	0.1	0.03	0.038
11	COMM	1240589	9	Normal	75	80	0.1	0.03	0.031
12	M.D.R.	652354.6	4.7	Normal	50	30	0.25	0.05	0.064
13	M.D.R.	1290770	9.3	Normal	50	30	0.25	0.05	0.06
14	COMM	1293558	9.3	Normal	75	80	0.1	0.03	0.031
15	COMM	376358.4	2.7	Normal	75	80	0.1	0.03	0.034
16	COMM	420963.8	3	Normal	75	80	0.1	0.03	0.034
17	COMM	5575.68	0	Normal	75	80	0.1	0.03	0.045
18	COMM	133816.3	1	Normal	75	80	0.1	0.03	0.037
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
			99.8						

Comments:

Subbasin 02

Basin ID	SUB03

Area	(sq ft)	9097772
Area	(sq miles)	0.326

L	(feet)	5184.7
L	(miles)	0.982

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1181.4
Elev 2	(feet)	1177.3
Delta h	(feet)	4.1
Slope	(ft/mile)	4.2

Kb		0.054
Kn		0.048
Lag	(minutes)	0

IA	(inches)	0.22
DTHETA		0.25
PSIF	(inches)	5.6
XKSAT	(inches/hr)	0.27
RTIMP	(%)	41

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.500	1.500	1.500	1.500	1.500	1.283
R	(hours)	1.082	1.082	1.082	1.082	1.082	1.082	0.910

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.500	1.500	1.500	1.500	1.450	1.271
R	(hours)	1.082	1.082	1.082	1.082	1.082	1.042	0.900

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	1634067.3	0.0586	LEA	0.04
2	7463688.9	0.2677	LAA	0.25
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	M.D.R.	4848054	53.3	Normal	50	30	0.25	0.05	0.052
2	PARK	387509.8	4.3	Normal	90	0	0.2	0.1	0.126
3	COMM	41817.6	0.5	Normal	75	80	0.1	0.03	0.04
4	COMM	387509.8	4.3	Normal	75	80	0.1	0.03	0.034
5	M.D.R.	407024.6	4.5	Normal	50	30	0.25	0.05	0.067
6	COMM	192361	2.1	Normal	75	80	0.1	0.03	0.036
7	COMM	270420.5	3	Normal	75	80	0.1	0.03	0.035
8	M.F.R.	549204.5	6	Normal	50	45	0.25	0.05	0.065
9	OPEN	41817.6	0.5	Dry	10	0	0.1	0.02	0.04
10	COMM	485084.2	5.3	Normal	75	80	0.1	0.03	0.033
11	M.F.R.	1123500	12.3	Normal	50	45	0.25	0.05	0.061
12	COMM	236966.4	2.6	Normal	75	80	0.1	0.03	0.035
13	COMM	114301.4	1.3	Normal	75	80	0.1	0.03	0.037
14	COMM	2787.84	0	Normal	75	80	0.1	0.03	0.047
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
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29									
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31									
32									
33									
34									
35									

Comments:

Subbasin 03

Basin ID	SUB03A

Area	(sq ft)	3067307
Area	(sq miles)	0.11

L	(feet)	3482.8
L	(miles)	0.66

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1176.3
Elev 2	(feet)	1170.1
Delta h	(feet)	6.2
Slope	(ft/mile)	9.4

Kb		0.041
Kn		0.036
Lag	(minutes)	0

IA	(inches)	0.14
DTHETA		0.17
PSIF	(inches)	6.8
XKSAT	(inches/hr)	0.18
RTIMP	(%)	69

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.183	0.925	0.825	0.733	0.688	0.650	0.583
R	(hours)	1.126	0.856	0.754	0.662	0.616	0.579	0.513

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.900	0.771	0.713	0.646	0.608	0.575	0.525
R	(hours)	0.831	0.699	0.641	0.575	0.538	0.505	0.457

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	1383624.5	0.0496	LEA	0.04
2	1683676.9	0.0604	LAA	0.25
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	M.F.R.	855866.9	27.9	Normal	50	45	0.25	0.05	0.062
2	M.D.R.	2787.84	0.1	Normal	50	30	0.25	0.05	0.094
3	COMM	747141.1	24.4	Normal	75	80	0.1	0.03	0.032
4	COMM	1296346	42.3	Normal	75	80	0.1	0.03	0.031
5	COMM	69696	2.3	Normal	75	80	0.1	0.03	0.039
6	COMM	64120.32	2.1	Normal	75	80	0.1	0.03	0.039
7	PARK	5575.68	0.2	Normal	90	0	0.2	0.1	0.172
8	OPEN	22302.72	0.7	Dry	10	0	0.1	0.02	0.042
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26									
27									
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31									
32									
33									
34									
35									

Comments:

Basin ID	SUB04

Area	(sq ft)	13250186
Area	(sq miles)	0.475

L	(feet)	7169.35
L	(miles)	1.358

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1194.2
Elev 2	(feet)	1189.4
Delta h	(feet)	4.8
Slope	(ft/mile)	3.5

Kb		0.048
Kn		0.048
Lag	(minutes)	0

IA	(inches)	0.23
DTHETA		0.21
PSIF	(inches)	6.4
XKSAT	(inches/hr)	0.19
RTIMP	(%)	36

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.500	1.500	1.500	1.500	1.500	1.500
R	(hours)	1.134	1.134	1.134	1.134	1.134	1.134	1.134

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.500	1.500	1.500	1.500	1.500	1.500
R	(hours)	1.134	1.134	1.134	1.134	1.134	1.134	1.134

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	7212839	0.2587	LAA	0.25
2	4433139.5	0.159	LEA	0.04
3	457208.55	0.0164	MV	0.25
4	666946.11	0.0239	LAA	0.25
5	389288.4	0.014	CO	0.04
6	90731.925	0.0033	LAA	0.25
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	M.D.R.	10663488	80.5	Normal	50	30	0.25	0.05	0.047
2	COMM	482296.3	3.6	Normal	75	80	0.1	0.03	0.033
3	COMM	574295	4.3	Normal	75	80	0.1	0.03	0.033
4	COMM	105937.9	0.8	Normal	75	80	0.1	0.03	0.038
5	M.D.R.	501811.2	3.8	Normal	50	30	0.25	0.05	0.065
6	COMM	100362.2	0.8	Normal	75	80	0.1	0.03	0.038
7	M.D.R.	5575.68	0	Normal	50	30	0.25	0.05	0.092
8	COMM	465569.3	3.5	Normal	75	80	0.1	0.03	0.034
9	PARK	192361	1.5	Normal	90	0	0.2	0.1	0.134
10	PARK	105937.9	0.8	Normal	90	0	0.2	0.1	0.14
11	COMM	22302.72	0.2	Normal	75	80	0.1	0.03	0.042
12	OPEN	30666.24	0.2	Dry	10	0	0.1	0.02	0.041
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									

Comments:

Subbasin 04

Basin ID	SUB05

Area	(sq ft)	9462829
Area	(sq miles)	0.339

L	(feet)	10102.7
L	(miles)	1.913

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1188.1
Elev 2	(feet)	1181.4
Delta h	(feet)	6.7
Slope	(ft/mile)	3.5

Kb		0.055
Kn		0.048
Lag	(minutes)	0

IA	(inches)	0.24
DTHETA		0.21
PSIF	(inches)	5.7
XKSAT	(inches/hr)	0.18
RTIMP	(%)	36

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.500	1.500	1.500	1.500	1.500	1.500
R	(hours)	1.804	1.804	1.804	1.804	1.804	1.804	1.804

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.083	1.500	1.500	1.500	1.500	1.500	1.500
R	(hours)	0.073	1.804	1.804	1.804	1.804	1.804	1.804

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	3342982.6	0.1199	LEA	0.04
2	2948475.3	0.1058	LAA	0.25
3	3171335.3	0.1138	LAA	0.25
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	M.D.R.	4003338	42.3	Normal	50	30	0.25	0.05	0.053
2	COMM	44605.44	0.5	Normal	75	80	0.1	0.03	0.04
3	COMM	585446.4	6.2	Normal	75	80	0.1	0.03	0.033
4	M.F.R.	326177.3	3.4	Normal	50	45	0.25	0.05	0.068
5	M.D.R.	348480	3.7	Normal	50	30	0.25	0.05	0.068
6	M.F.R.	1143014	12.1	Normal	50	45	0.25	0.05	0.06
7	M.F.R.	144967.7	1.5	Normal	50	45	0.25	0.05	0.073
8	M.F.R.	117089.3	1.2	Normal	50	45	0.25	0.05	0.074
9	OPEN	69696	0.7	Dry	10	0	0.1	0.02	0.039
10	OPEN	108725.8	1.1	Dry	10	0	0.1	0.02	0.038
11	COMM	78059.52	0.8	Normal	75	80	0.1	0.03	0.038
12	PARK	2787.84	0	Normal	90	0	0.2	0.1	0.178
13	M.D.R.	2478390	26.2	Normal	50	30	0.25	0.05	0.056
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
			99.7						

Comments:

Subbasin 05

Basin ID	SUB06

Area	(sq ft)	11465691
Area	(sq miles)	0.411

L	(feet)	8670.4
L	(miles)	1.642

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1183.4
Elev 2	(feet)	1176.3
Delta h	(feet)	7.1
Slope	(ft/mile)	4.3

Kb		0.046
Kn		0.046
Lag	(minutes)	0

IA	(inches)	0.22
DTHETA		0.25
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.37
RTIMP	(%)	41

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.500	1.500	1.500	1.500	1.500	1.500
R	(hours)	1.431	1.431	1.431	1.431	1.431	1.431	1.431

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.500	1.500	1.500	1.500	1.500	1.500
R	(hours)	1.431	1.431	1.431	1.431	1.431	1.431	1.431

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	11465661	0.4113	LAA	0.25
2		0		
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	M.D.R.	8344005	72.8	Normal	50	30	0.25	0.05	0.049
2	COMM	409812.5	3.6	Normal	75	80	0.1	0.03	0.034
3	PARK	11151.36	0.1	Normal	90	0	0.2	0.1	0.166
4	COMM	1195983	10.4	Normal	75	80	0.1	0.03	0.031
5	M.F.R.	2787.84	0	Normal	50	45	0.25	0.05	0.096
6	M.D.R.	632839.7	5.5	Normal	50	30	0.25	0.05	0.064
7	M.F.R.	2787.84	0	Normal	50	45	0.25	0.05	0.096
8	COMM	393085.4	3.4	Normal	75	80	0.1	0.03	0.034
9	COMM	462781.4	4	Normal	75	80	0.1	0.03	0.034
10	M.D.R.	8363.52	0.1	Normal	50	30	0.25	0.05	0.091
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
			99.9						

Comments:

Subbasin 06

Basin ID	SUB07

Area	(sq ft)	13780138
Area	(sq miles)	0.494

L	(feet)	7044.43
L	(miles)	1.334

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1193.9
Elev 2	(feet)	1187.7
Delta h	(feet)	6.2
Slope	(ft/mile)	4.6

Kb		0.045
Kn		0.046
Lag	(minutes)	0

IA	(inches)	0.22
DTHETA		0.15
PSIF	(inches)	9.7
XKSAT	(inches/hr)	0.06
RTIMP	(%)	37

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.500	1.500	1.500	1.500	1.425	1.242
R	(hours)	1.090	1.090	1.090	1.090	1.090	1.029	0.883

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.500	1.500	1.500	1.496	1.408	1.254
R	(hours)	1.090	1.090	1.090	1.090	1.086	1.016	0.893

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	45140.426	0.0016	LAA	0.25
2	12639258	0.4534	LEA	0.04
3	267109.08	0.0096	LAA	0.25
4	678203.41	0.0243	CO	0.04
5	150391.42	0.0054	LAA	0.25
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	M.D.R.	11173663	81.1	Normal	50	30	0.25	0.05	0.047
2	COMM	273208.3	2	Normal	75	80	0.1	0.03	0.035
3	COMM	75271.68	0.5	Normal	75	80	0.1	0.03	0.038
4	COMM	94786.56	0.7	Normal	75	80	0.1	0.03	0.038
5	COMM	206300.2	1.5	Normal	75	80	0.1	0.03	0.036
6	COMM	535265.3	3.9	Normal	75	80	0.1	0.03	0.033
7	COMM	370782.7	2.7	Normal	75	80	0.1	0.03	0.034
8	COMM	278784	2	Normal	75	80	0.1	0.03	0.035
9	COMM	259269.1	1.9	Normal	75	80	0.1	0.03	0.035
10	OPEN	111513.6	0.8	Dry	10	0	0.1	0.02	0.037
11	M.D.R.	11151.36	0.1	Normal	50	30	0.25	0.05	0.089
12	COMM	5575.68	0	Normal	75	80	0.1	0.03	0.046
13	OPEN	16727.04	0.1	Dry	10	0	0.1	0.02	0.042
14	OPEN	139392	1	Dry	10	0	0.1	0.02	0.037
15	M.D.R.	234178.6	1.7	Normal	50	30	0.25	0.05	0.07
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									

Comments:

Subbasin 07

Basin ID	SUB08

Area	(sq ft)	6754750
Area	(sq miles)	0.242

L	(feet)	3944.22
L	(miles)	0.747

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1187.7
Elev 2	(feet)	1182.3
Delta h	(feet)	5.4
Slope	(ft/mile)	7.2

Kb		0.053
Kn		0.048
Lag	(minutes)	0

IA	(inches)	0.21
DTHETA		0.24
PSIF	(inches)	6.2
XKSAT	(inches/hr)	0.2
RTIMP	(%)	36

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.500	1.421	1.179	1.063	0.975	0.842
R	(hours)	1.035	1.035	0.975	0.792	0.706	0.642	0.545

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.300	1.171	1.042	0.963	0.896	0.792
R	(hours)	1.035	0.883	0.786	0.690	0.632	0.584	0.509

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	2290865.7	0.0822	LEA	0.04
2	4463861.5	0.1601	LAA	0.25
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	8363.52	0.1	Dry	10	0	0.1	0.02	0.045
2	COMM	540841	8	Normal	75	80	0.1	0.03	0.033
3	COMM	170058.2	2.5	Normal	75	80	0.1	0.03	0.036
4	M.F.R.	8363.52	0.1	Normal	50	45	0.25	0.05	0.09
5	COMM	25090.56	0.4	Normal	75	80	0.1	0.03	0.041
6	M.D.R.	4613875	68.3	Normal	50	30	0.25	0.05	0.052
7	M.D.R.	5575.68	0.1	Normal	50	30	0.25	0.05	0.094
8	COMM	164482.6	2.4	Normal	75	80	0.1	0.03	0.036
9	COMM	89210.88	1.3	Normal	75	80	0.1	0.03	0.038
10	M.D.R.	284359.7	4.2	Normal	50	30	0.25	0.05	0.069
11	M.F.R.	11151.36	0.2	Normal	50	45	0.25	0.05	0.088
12	COMM	225815	3.3	Normal	75	80	0.1	0.03	0.036
13	PARK	183997.4	2.7	Normal	90	0	0.2	0.1	0.134
14	PARK	164482.6	2.4	Normal	90	0	0.2	0.1	0.135
15	OPEN	192361	2.8	Dry	10	0	0.1	0.02	0.036
16	M.F.R.	11151.36	0.2	Normal	50	45	0.25	0.05	0.088
17	OPEN	52968.96	0.8	Dry	10	0	0.1	0.02	0.04
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26									
27									
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31									
32									
33									
34									
35									
			99.8						

Comments:

Subbasin 08

Basin ID	SUB09

Area	(sq ft)	4866733
Area	(sq miles)	0.175

L	(feet)	2855.39
L	(miles)	0.541

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1184.4
Elev 2	(feet)	1181.3
Delta h	(feet)	3.1
Slope	(ft/mile)	5.7

Kb		0.055
Kn		0.047
Lag	(minutes)	0

IA	(inches)	0.23
DTHETA		0.15
PSIF	(inches)	7.6
XKSAT	(inches/hr)	0.14
RTIMP	(%)	38

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.371	1.533	1.004	0.917	0.850	0.746
R	(hours)	0.957	0.866	0.981	0.613	0.554	0.510	0.441

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.317	1.104	1.000	0.892	0.829	0.783	0.700
R	(hours)	0.828	0.681	0.610	0.537	0.496	0.465	0.411

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	3160211.8	0.1134	LEA	0.04
2	1567585.7	0.0562	LAA	0.25
3	138920.58	0.005	LAA	0.25
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	COMM	248117.8	5.1	Normal	75	80	0.1	0.03	0.035
2	COMM	94786.56	1.9	Normal	75	80	0.1	0.03	0.038
3	M.D.R.	2464451	50.6	Normal	50	30	0.25	0.05	0.056
4	COMM	164482.6	3.4	Normal	75	80	0.1	0.03	0.036
5	M.D.R.	942289.9	19.4	Normal	50	30	0.25	0.05	0.062
6	M.D.R.	8363.52	0.2	Normal	50	30	0.25	0.05	0.091
7	COMM	242542.1	5	Normal	75	80	0.1	0.03	0.035
8	M.D.R.	13939.2	0.3	Normal	50	30	0.25	0.05	0.087
9	M.D.R.	685808.6	14.1	Normal	50	30	0.25	0.05	0.064
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
			100						

Comments:

Subbasin 09

Basin ID	SUB09A

Area	(sq ft)	14671884
Area	(sq miles)	0.526

L	(feet)	8358.1
L	(miles)	1.583

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1187.7
Elev 2	(feet)	1185
Delta h	(feet)	2.7
Slope	(ft/mile)	1.7

Kb		0.054
Kn		0.05
Lag	(minutes)	0

IA	(inches)	0.21
DTHETA		0.21
PSIF	(inches)	6.4
XKSAT	(inches/hr)	0.2
RTIMP	(%)	41

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.000	1.500	1.500	1.500	1.500	1.500	1.500
R	(hours)	0.769	1.207	1.207	1.207	1.207	1.207	1.207

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.083	1.500	1.500	1.500	1.500	1.500	1.500
R	(hours)	0.049	1.207	1.207	1.207	1.207	1.207	1.207

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	5546574.9	0.199	LEA	0.04
2	1954512.8	0.0701	LAA	0.25
3	7170770.5	0.2572	LAA	0.25
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	M.D.R.	8302188	56.6	Normal	50	30	0.25	0.05	0.049
2	M.D.R.	44605.44	0.3	Normal	50	30	0.25	0.05	0.08
3	PARK	903260.2	6.2	Normal	90	0	0.2	0.1	0.117
4	M.F.R.	203512.3	1.4	Normal	50	45	0.25	0.05	0.071
5	COMM	479508.5	3.3	Normal	75	80	0.1	0.03	0.033
6	COMM	407024.6	2.8	Normal	75	80	0.1	0.03	0.034
7	COMM	122665	0.8	Normal	75	80	0.1	0.03	0.037
8	COMM	30666.24	0.2	Normal	75	80	0.1	0.03	0.041
9	COMM	64120.32	0.4	Normal	75	80	0.1	0.03	0.039
10	COMM	172846.1	1.2	Normal	75	80	0.1	0.03	0.036
11	COMM	992471	6.8	Normal	75	80	0.1	0.03	0.032
12	COMM	170058.2	1.2	Normal	75	80	0.1	0.03	0.036
13	COMM	384721.9	2.6	Normal	75	80	0.1	0.03	0.034
14	PARK	744353.3	5.1	Normal	90	0	0.2	0.1	0.119
15	COMM	5575.68	0	Normal	75	80	0.1	0.03	0.045
16	COMM	33454.08	0.2	Normal	75	80	0.1	0.03	0.041
17	COMM	13939.2	0.1	Normal	75	80	0.1	0.03	0.043
18	COMM	156119	1.1	Normal	75	80	0.1	0.03	0.037
19	COMM	103150.1	0.7	Normal	75	80	0.1	0.03	0.038
20	COMM	153331.2	1	Normal	75	80	0.1	0.03	0.037
21	COMM	183997.4	1.3	Normal	75	80	0.1	0.03	0.036
22	M.F.R.	331753	2.3	Normal	50	45	0.25	0.05	0.068
23	OPEN	78059.52	0.5	Dry	10	0	0.1	0.02	0.038
24	COMM	181209.6	1.2	Normal	75	80	0.1	0.03	0.036
25	M.F.R.	404236.8	2.8	Normal	50	45	0.25	0.05	0.067
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
			100.1						

Comments:

Subbasin 9A

Basin ID	SUB09B

Area	(sq ft)	1946182
Area	(sq miles)	0.07

L	(feet)	1901.59
L	(miles)	0.36

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1182.8
Elev 2	(feet)	1181.3
Delta h	(feet)	1.5
Slope	(ft/mile)	4.2

Kb		0.059
Kn		0.047
Lag	(minutes)	0

IA	(inches)	0.23
DTHETA		0.17
PSIF	(inches)	7
XKSAT	(inches/hr)	0.14
RTIMP	(%)	27

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.321	1.108	0.933	0.850	0.788	0.696
R	(hours)	1.167	1.013	0.834	0.689	0.621	0.571	0.497

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.263	1.542	0.933	0.825	0.767	0.717	0.642
R	(hours)	0.964	1.203	0.689	0.601	0.554	0.514	0.455

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	963979.32	0.0346	LEA	0.04
2	964096.4	0.0346	LAA	0.25
3	18101.278	0.0006	LAA	0.25
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	55756.8	2.9	Dry	10	0	0.1	0.02	0.039
2	M.D.R.	1098409	56.4	Normal	50	30	0.25	0.05	0.061
3	M.D.R.	5575.68	0.3	Normal	50	30	0.25	0.05	0.092
4	M.D.R.	618900.5	31.8	Normal	50	30	0.25	0.05	0.064
5	OPEN	167270.4	8.6	Dry	10	0	0.1	0.02	0.036
6			0						
7			0						
8			0						
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
			100						

Comments:

Subbasin 9B

Basin ID	SUB10

Area	(sq ft)	7235282
Area	(sq miles)	0.26

L	(feet)	3872.4
L	(miles)	0.733

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1186.5
Elev 2	(feet)	1182.9
Delta h	(feet)	3.6
Slope	(ft/mile)	4.9

Kb		0.074
Kn		0.065
Lag	(minutes)	0

IA	(inches)	0.21
DTHETA		0.26
PSIF	(inches)	5.4
XKSAT	(inches/hr)	0.3
RTIMP	(%)	21

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.500	1.500	1.500	1.500	1.500	1.304
R	(hours)	0.972	0.972	0.972	0.972	0.972	0.972	0.832

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.500	1.500	1.500	1.500	1.500	1.521
R	(hours)	0.972	0.972	0.972	0.972	0.972	0.972	0.987

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	6168597.8	0.2213	LAA	0.25
2	1066677.8	0.0383	LEA	0.04
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	M.D.R.	1274043	17.6	Normal	50	30	0.25	0.05	0.06
2	PARK	2673539	37	Normal	90	0	0.2	0.1	0.105
3	OPEN	206300.2	2.9	Dry	10	0	0.1	0.02	0.036
4	COMM	446054.4	6.2	Normal	75	80	0.1	0.03	0.034
5	M.D.R.	1031501	14.3	Normal	50	30	0.25	0.05	0.061
6	M.D.R.	1327012	18.3	Normal	50	30	0.25	0.05	0.06
7	OPEN	58544.64	0.8	Dry	10	0	0.1	0.02	0.039
8	OPEN	64120.32	0.9	Dry	10	0	0.1	0.02	0.039
9	OPEN	47393.28	0.7	Dry	10	0	0.1	0.02	0.04
10	IND	108725.8	1.5	Normal	60	55	0.15	0.03	0.038
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
			100.2						

Comments:

Subbasin 10

Basin ID	SUB11

Area	(sq ft)	10263919
Area	(sq miles)	0.368

L	(feet)	6508.29
L	(miles)	1.233

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1194.6
Elev 2	(feet)	1184.9
Delta h	(feet)	9.7
Slope	(ft/mile)	7.9

Kb		0.053
Kn		0.049
Lag	(minutes)	0

IA	(inches)	0.23
DTHETA		0.15
PSIF	(inches)	8.4
XKSAT	(inches/hr)	0.09
RTIMP	(%)	36

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.500	1.500	1.350	1.229	1.150	1.008
R	(hours)	1.061	1.061	1.061	0.944	0.851	0.790	0.683

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.500	1.408	1.263	1.179	1.108	0.992
R	(hours)	1.061	1.061	0.989	0.876	0.812	0.758	0.670

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	9528418.9	0.3418	LEA	0.04
2	735487.95	0.0264	LAA	0.25
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	M.D.R.	6537485	63.7	Normal	50	30	0.25	0.05	0.05
2	M.D.R.	499023.4	4.9	Normal	50	30	0.25	0.05	0.065
3	COMM	170058.2	1.7	Normal	75	80	0.1	0.03	0.036
4	M.F.R.	362419.2	3.5	Normal	50	45	0.25	0.05	0.067
5	COMM	925562.9	9	Normal	75	80	0.1	0.03	0.032
6	M.F.R.	992471	9.7	Normal	50	45	0.25	0.05	0.061
7	M.D.R.	479508.5	4.7	Normal	50	30	0.25	0.05	0.066
8	PARK	270420.5	2.6	Normal	90	0	0.2	0.1	0.13
9	OPEN	22302.72	0.2	Dry	10	0	0.1	0.02	0.042
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									

Comments:

Subbasin 11

Basin ID	SUB26

Area	(sq ft)	2404897
Area	(sq miles)	0.086

L	(feet)	2775.94
L	(miles)	0.526

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1181.9
Elev 2	(feet)	1170.1
Delta h	(feet)	11.8
Slope	(ft/mile)	22.4

Kb		0.055
Kn		0.046
Lag	(minutes)	0

IA	(inches)	0.23
DTHETA		0.25
PSIF	(inches)	6.2
XKSAT	(inches/hr)	0.19
RTIMP	(%)	27

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.500	1.267	1.038	0.846	0.754	0.704	0.621
R	(hours)	1.414	1.172	0.939	0.749	0.659	0.611	0.531

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.113	0.917	0.821	0.721	0.667	0.621	0.554
R	(hours)	1.015	0.818	0.724	0.627	0.575	0.531	0.468

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	773015.06	0.0277	LEA	0.04
2	792566.18	0.0284	ES	0.25
3	839309.9	0.0301	LAA	0.25
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	M.D.R.	2099244	87.3	Normal	50	30	0.25	0.05	0.057
2	COMM	27878.4	1.2	Normal	75	80	0.1	0.03	0.041
3	OPEN	178421.8	7.4	Dry	10	0	0.1	0.02	0.036
4	OPEN	94786.56	3.9	Dry	10	0	0.1	0.02	0.038
5	M.D.R.	2787.84	0.1	Normal	50	30	0.25	0.05	0.094
6			0						
7			0						
8			0						
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
			99.9						

Comments:

Subbasin 26

Basin ID	SUB26A

Area	(sq ft)	170440.9
Area	(sq miles)	0.006

L	(feet)	780.841
L	(miles)	0.148

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1181.7
Elev 2	(feet)	1179.5
Delta h	(feet)	2.2
Slope	(ft/mile)	14.9

Kb		0.053
Kn		0.034
Lag	(minutes)	0

IA	(inches)	0.11
DTHETA		0.29
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.36
RTIMP	(%)	39

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.638	0.492	0.417	0.358	0.329	0.308	0.271
R	(hours)	0.909	0.681	0.567	0.479	0.436	0.406	0.351

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.354	0.304	0.288	0.271	0.258	0.246	0.221
R	(hours)	0.473	0.400	0.376	0.351	0.333	0.316	0.280

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	170295.76	0.0061	ES	0.25
2		0		
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	PARK	19514.88	11.4	Normal	90	0	0.2	0.1	0.158
2	COMM	83635.2	49.1	Normal	75	80	0.1	0.03	0.038
3	OPEN	50181.12	29.4	Dry	10	0	0.1	0.02	0.04
4	OPEN	16727.04	9.8	Dry	10	0	0.1	0.02	0.043
5			0						
6			0						
7			0						
8			0						
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
			99.7						

Comments:

Subbasin 26A

Basin ID	SUB30

Area	(sq ft)	5089791.03
Area	(sq miles)	0.183

L	(feet)	3413.33
L	(miles)	0.646

Lca	(feet)	1936.62
Lca	(miles)	0.366784091

Elev 1	(feet)	1194.4
Elev 2	(feet)	1185.4
Delta h	(feet)	9
Slope	(ft/mile)	13.9

Kb		0.028
Kn		0.029
Lag	(minutes)	14.14855393

IA	(inches)	0.15
DTHETA		0.26
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.39
RTIMP	(%)	51

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.929	0.742	0.646	0.554	0.508	0.475	0.425
R	(hours)	0.636	0.495	0.425	0.358	0.326	0.302	0.267

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.592	0.508	0.471	0.433	0.408	0.392	0.354
R	(hours)	0.385	0.326	0.299	0.273	0.255	0.244	0.218

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	190807.02	0.0068	LAA	0.25
2	4898987.6	0.1757	MV	0.25
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	147755.5	2.9	Dry	10	0	0.1	0.02	0.037
2	PARK	13939.2	0.3	Normal	90	0	0.2	0.1	0.161
3	COMM	13939.2	0.3	Normal	75	80	0.1	0.03	0.043
4	IND	4672420	91.8	Normal	60	55	0.15	0.03	0.027
5	OPEN	211875.8	4.2	Dry	10	0	0.1	0.02	0.036
6	OPEN	19514.88	0.4	Dry	10	0	0.1	0.02	0.042
7	M.D.R.	11151.36	0.2	Normal	50	30	0.25	0.05	0.088
8			0						
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			100.1						

Comments:

Subbasin 30 - Elliot & Kyrene Canal

Basin ID	SUB30A

Area	(sq ft)	953944.6
Area	(sq miles)	0.034

L	(feet)	2723.73
L	(miles)	0.516

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1198.6
Elev 2	(feet)	1194.4
Delta h	(feet)	4.2
Slope	(ft/mile)	8.1

Kb		0.035
Kn		0.027
Lag	(minutes)	0

IA	(inches)	0.1
DTHETA		0.28
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.37
RTIMP	(%)	54

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.18	0.96	0.85	0.72	0.66	0.61	0.54
R	(hours)	1.81	1.44	1.25	1.04	0.95	0.87	0.76

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.97	0.77	0.7	0.61	0.56	0.52	0.46
R	(hours)	1.45	1.13	1.01	0.87	0.8	0.73	0.64

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	953943.09	0.0342	MV	0.25
2		0		
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	COMM	5575.68	0.6	Normal	75	80	0.1	0.03	0.046
2	COMM	398661.1	41.8	Normal	75	80	0.1	0.03	0.034
3	OPEN	91998.72	9.6	Dry	10	0	0.1	0.02	0.038
4	OPEN	223027.2	23.4	Dry	10	0	0.1	0.02	0.036
5	COMM	5575.68	0.6	Normal	75	80	0.1	0.03	0.046
6	COMM	231390.7	24.3	Normal	75	80	0.1	0.03	0.035
7			0						
8			0						
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			100.3						

Comments:

Basin ID	SUB31

Area	(sq ft)	3845546
Area	(sq miles)	0.138

L	(feet)	5667.73
L	(miles)	1.073

Lca	(feet)	2269.56
Lca	(miles)	0.69846

Elev 1	(feet)	1234.5
Elev 2	(feet)	1222
Delta h	(feet)	12.5
Slope	(ft/mile)	11.6

Kb		0.033
Kn		0.027
Lag	(minutes)	21.87162

IA	(inches)	0.1
DTHETA		0.29
PSIF	(inches)	4
XKSAT	(inches/hr)	0.57
RTIMP	(%)	51

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.5	1.254	1.108	0.938	0.842	0.767	0.667
R	(hours)	1.894	1.553	1.354	1.124	0.997	0.899	0.77

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.088	0.929	0.85	0.771	0.717	0.671	0.592
R	(hours)	1.326	1.113	1.008	0.905	0.834	0.775	0.675

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	169733.46	0.0061	ES	0.25
2	3675794.9	0.1319	VA	0.4
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	COMM	1533312	39.9	Normal	75	80	0.1	0.03	0.03
2	COMM	11151.36	0.3	Normal	75	80	0.1	0.03	0.044
3	COMM	186785.3	4.9	Normal	75	80	0.1	0.03	0.036
4	IND	13939.2	0.4	Normal	60	55	0.15	0.03	0.043
5	IND	125452.8	3.3	Normal	60	55	0.15	0.03	0.037
6	COMM	39029.76	1	Normal	75	80	0.1	0.03	0.04
7	COMM	404236.8	10.5	Normal	75	80	0.1	0.03	0.034
8	COMM	170058.2	4.4	Normal	75	80	0.1	0.03	0.036
9	M.D.R.	13939.2	0.4	Normal	50	30	0.25	0.05	0.087
10	OPEN	883745.3	23	Dry	10	0	0.1	0.02	0.032
11	OPEN	262057	6.8	Dry	10	0	0.1	0.02	0.035
12	OPEN	206300.2	5.4	Dry	10	0	0.1	0.02	0.036
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			100.3						

Comments:

Subbasin 31 - Priest & Highline

Basin ID	SUB32

Area	(sq ft)	4881788
Area	(sq miles)	0.175

L	(feet)	4047.45
L	(miles)	0.767

Lca	(feet)	1554.12
Lca	(miles)	0.294341

Elev 1	(feet)	1198.6
Elev 2	(feet)	1185
Delta h	(feet)	13.6
Slope	(ft/mile)	17.7

Kb		0.049
Kn		0.044
Lag	(minutes)	20.84902

IA	(inches)	0.22
DTHETA		0.27
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.33
RTIMP	(%)	24

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.5	1.425	1.121	0.875	0.763	0.7	0.608
R	(hours)	1.272	1.201	0.92	0.699	0.6	0.546	0.467

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.133	0.908	0.817	0.713	0.654	0.604	0.533
R	(hours)	0.932	0.729	0.647	0.556	0.506	0.463	0.403

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	4881786.6	0.1751	MV	0.25
2		0		
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	200724.5	4.1	Dry	10	0	0.1	0.02	0.036
2	OPEN	5575.68	0.1	Dry	10	0	0.1	0.02	0.045
3	OPEN	741565.4	15.2	Dry	10	0	0.1	0.02	0.032
4	M.D.R.	3933642	80.6	Normal	50	30	0.25	0.05	0.053
5			0						
6			0						
7			0						
8			0						
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			100						

Comments:

Subbasin 32 - Carver & Kyrene Canal

Basin ID	SUB32A

Area	(sq ft)	966534.8
Area	(sq miles)	0.035

L	(feet)	2682.26
L	(miles)	0.508

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1198.6
Elev 2	(feet)	1191.9
Delta h	(feet)	6.7
Slope	(ft/mile)	13.2

Kb		0.036
Kn		0.03
Lag	(minutes)	0

IA	(inches)	0.11
DTHETA		0.26
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.4
RTIMP	(%)	66

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.85	0.696	0.621	0.546	0.504	0.475	0.429
R	(hours)	1.218	0.976	0.86	0.745	0.682	0.639	0.571

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.596	0.517	0.483	0.446	0.421	0.4	0.367
R	(hours)	0.821	0.701	0.651	0.595	0.558	0.528	0.479

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	143054.66	0.0051	ES	0.25
2	823477.75	0.0295	MV	0.25
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	108725.8	11.2	Dry	10	0	0.1	0.02	0.037
2	OPEN	30666.24	3.2	Dry	10	0	0.1	0.02	0.041
3	M.D.R.	55756.8	5.8	Normal	50	30	0.25	0.05	0.078
4	COMM	769443.8	79.6	Normal	75	80	0.1	0.03	0.032
5			0						
6			0						
7			0						
8			0						
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			99.8						

Comments:

Subbasin 32A - Carver & Kyrene

Basin ID	SUB33

Area	(sq ft)	3361174
Area	(sq miles)	0.121

L	(feet)	3517.85
L	(miles)	0.666

Lca	(feet)	2193.37
Lca	(miles)	0.415411

Elev 1	(feet)	1192.1
Elev 2	(feet)	1184.2
Delta h	(feet)	7.9
Slope	(ft/mile)	11.9

Kb		0.057
Kn		0.048
Lag	(minutes)	26.49669

IA	(inches)	0.22
DTHETA		0.26
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.35
RTIMP	(%)	25

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.5	1.5	1.358	1.063	0.929	0.833	0.708
R	(hours)	1.404	1.404	1.258	0.957	0.825	0.731	0.61

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.513	1.108	1	0.875	0.8	0.742	0.642
R	(hours)	1.417	1.003	0.895	0.772	0.699	0.642	0.547

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	3361159.3	0.1206	MV	0.25
2		0		
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	223027.2	6.6	Dry	10	0	0.1	0.02	0.036
2	M.D.R.	2654024	79	Normal	50	30	0.25	0.05	0.055
3	PARK	103150.1	3.1	Normal	90	0	0.2	0.1	0.141
4	PARK	83635.2	2.5	Normal	90	0	0.2	0.1	0.143
5	COMM	64120.32	1.9	Normal	75	80	0.1	0.03	0.039
6	M.D.R.	11151.36	0.3	Normal	50	30	0.25	0.05	0.088
7	OPEN	214663.7	6.4	Dry	10	0	0.1	0.02	0.036
8	COMM	5575.68	0.2	Normal	75	80	0.1	0.03	0.046
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			100						

Comments:

Subbasin 33 - Warner & Kyrene Canal

Basin ID	SUB33A

Area	(sq ft)	2939596
Area	(sq miles)	0.105

L	(feet)	3248.85
L	(miles)	0.615

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1198.2
Elev 2	(feet)	1188.5
Delta h	(feet)	9.7
Slope	(ft/mile)	15.8

Kb		0.033
Kn		0.03
Lag	(minutes)	0

IA	(inches)	0.11
DTHETA		0.26
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.41
RTIMP	(%)	69

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.829	0.683	0.613	0.542	0.5	0.471	0.425
R	(hours)	0.741	0.598	0.529	0.462	0.423	0.395	0.353

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.592	0.513	0.479	0.442	0.421	0.4	0.363
R	(hours)	0.509	0.434	0.403	0.368	0.349	0.33	0.296

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	934545.3	0.0335	ES	0.25
2	2005045.2	0.0719	MV	0.25
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	M.D.R.	30666.24	1	Normal	50	30	0.25	0.05	0.082
2	IND	708111.4	24.1	Normal	60	55	0.15	0.03	0.032
3	COMM	97574.4	3.3	Normal	75	80	0.1	0.03	0.038
4	COMM	236966.4	8.1	Normal	75	80	0.1	0.03	0.035
5	COMM	381934.1	13	Normal	75	80	0.1	0.03	0.034
6	OPEN	80847.36	2.8	Dry	10	0	0.1	0.02	0.038
7	COMM	39029.76	1.3	Normal	75	80	0.1	0.03	0.04
8	COMM	5575.68	0.2	Normal	75	80	0.1	0.03	0.046
9	COMM	11151.36	0.4	Normal	75	80	0.1	0.03	0.044
10	OPEN	66908.16	2.3	Dry	10	0	0.1	0.02	0.039
11	COMM	1276831	43.4	Normal	75	80	0.1	0.03	0.031
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			99.9						

Comments:

Subbasin 33A - Warner & Kyrene

Basin ID	SUB34

Area	(sq ft)	9025198
Area	(sq miles)	0.324

L	(feet)	5603.52
L	(miles)	1.061

Lca	(feet)	2790.59
Lca	(miles)	0.528521

Elev 1	(feet)	1212.6
Elev 2	(feet)	1191.6
Delta h	(feet)	21
Slope	(ft/mile)	19.8

Kb		0.053
Kn		0.049
Lag	(minutes)	32.11646

IA	(inches)	0.22
DTHETA		0.26
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.36
RTIMP	(%)	30

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.5	1.5	1.367	1.092	0.958	0.867	0.733
R	(hours)	1.156	1.156	1.042	0.812	0.703	0.629	0.522

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.383	1.129	1.021	0.904	0.829	0.771	0.671
R	(hours)	1.056	0.843	0.754	0.659	0.599	0.552	0.473

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	6896809.5	0.2474	ES	0.25
2	2024473.7	0.0726	MV	0.25
3	103911.16	0.0037	GM	0.25
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	370782.7	4.1	Dry	10	0	0.1	0.02	0.034
2	PARK	103150.1	1.1	Normal	90	0	0.2	0.1	0.141
3	OPEN	175633.9	1.9	Dry	10	0	0.1	0.02	0.036
4	PARK	630051.8	7	Normal	90	0	0.2	0.1	0.121
5	COMM	342904.3	3.8	Normal	75	80	0.1	0.03	0.034
6	COMM	482296.3	5.3	Normal	75	80	0.1	0.03	0.033
7	OPEN	170058.2	1.9	Dry	10	0	0.1	0.02	0.036
8	OPEN	91998.72	1	Dry	10	0	0.1	0.02	0.038
9	COMM	142179.8	1.6	Normal	75	80	0.1	0.03	0.037
10	M.D.R.	6515182	72.2	Normal	50	30	0.25	0.05	0.05
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			99.9						

Comments:

Subbasin 34 - Ray & SPR

Basin ID	SUB34A

Area	(sq ft)	7458130
Area	(sq miles)	0.268

L	(feet)	4488.97
L	(miles)	0.85

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1219.1
Elev 2	(feet)	1195
Delta h	(feet)	24.1
Slope	(ft/mile)	28.4

Kb		0.046
Kn		0.039
Lag	(minutes)	0

IA	(inches)	0.19
DTHETA		0.26
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.38
RTIMP	(%)	44

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.529	0.975	0.829	0.692	0.629	0.583	0.513
R	(hours)	1.103	0.669	0.559	0.457	0.411	0.378	0.328

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.796	0.671	0.613	0.55	0.517	0.488	0.442
R	(hours)	0.534	0.442	0.399	0.354	0.331	0.31	0.278

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	4463722.1	0.1601	ES	0.25
2	2994391.1	0.1074	GM	0.25
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	IND	30666.24	0.4	Normal	60	55	0.15	0.03	0.041
2	COMM	8363.52	0.1	Normal	75	80	0.1	0.03	0.044
3	IND	2054638	27.5	Normal	60	55	0.15	0.03	0.03
4	COMM	172846.1	2.3	Normal	75	80	0.1	0.03	0.036
5	IND	117089.3	1.6	Normal	60	55	0.15	0.03	0.037
6	V.L.D.R.	825200.6	11.1	Normal	20	5	0.3	0.05	0.062
7	OPEN	5575.68	0.1	Dry	10	0	0.1	0.02	0.045
8	OPEN	248117.8	3.3	Dry	10	0	0.1	0.02	0.035
9	OPEN	5575.68	0.1	Dry	10	0	0.1	0.02	0.046
10	ROWCROP	867018.2	11.6	Normal	85	0	0.5	0.1	0.118
11	OPEN	616112.6	8.3	Dry	10	0	0.1	0.02	0.033
12	COMM	1385556	18.6	Normal	75	80	0.1	0.03	0.031
13	IND	117089.3	1.6	Normal	60	55	0.15	0.03	0.037
14	COMM	657930.2	8.8	Normal	75	80	0.1	0.03	0.033
15	IND	303874.6	4.1	Normal	60	55	0.15	0.03	0.035
16	M.D.R.	36241.92	0.5	Normal	50	30	0.25	0.05	0.081
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			100						

Comments:

Subbasin 34A - Myrna & SPR

Basin ID	SUB35

Area	(sq ft)	4970352
Area	(sq miles)	0.178

L	(feet)	3779.84
L	(miles)	0.716

Lca	(feet)	2303.18
Lca	(miles)	0.436208

Elev 1	(feet)	1198.6
Elev 2	(feet)	1182.8
Delta h	(feet)	15.8
Slope	(ft/mile)	22.1

Kb		0.031
Kn		0.029
Lag	(minutes)	14.9031

IA	(inches)	0.14
DTHETA		0.26
PSIF	(inches)	4.65
XKSAT	(inches/hr)	0.43
RTIMP	(%)	57

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.842	0.683	0.608	0.525	0.483	0.454	0.404
R	(hours)	0.628	0.499	0.438	0.372	0.34	0.317	0.278

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.554	0.479	0.446	0.413	0.388	0.371	0.338
R	(hours)	0.395	0.336	0.31	0.285	0.266	0.253	0.228

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	2327545.3	0.0835	ES	0.25
2	402739.73	0.0144	MV	0.25
3	1531589.1	0.0549	GM	0.25
4	708468.2	0.0254	ANA	0.4
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	5575.68	0.1	Dry	10	0	0.1	0.02	0.045
2	COMM	78059.52	1.6	Normal	75	80	0.1	0.03	0.038
3	COMM	869806.1	17.5	Normal	75	80	0.1	0.03	0.032
4	IND	284359.7	5.7	Normal	60	55	0.15	0.03	0.035
5	IND	139392	2.8	Normal	60	55	0.15	0.03	0.037
6	IND	381934.1	7.7	Normal	60	55	0.15	0.03	0.034
7	OPEN	50181.12	1	Dry	10	0	0.1	0.02	0.04
8	OPEN	8363.52	0.2	Dry	10	0	0.1	0.02	0.044
9	COMM	2787.84	0.1	Normal	75	80	0.1	0.03	0.047
10	OPEN	209088	4.2	Dry	10	0	0.1	0.02	0.036
11	IND	2941171	59.2	Normal	60	55	0.15	0.03	0.029
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			100.1						

Comments:

Subbasin 35 - Knox/Kyrene Canal

Basin ID	SUB35A

Area	(sq ft)	1377821
Area	(sq miles)	0.049

L	(feet)	3300.18
L	(miles)	0.625

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1188.5
Elev 2	(feet)	1182.8
Delta h	(feet)	5.7
Slope	(ft/mile)	9.1

Kb		0.034
Kn		0.024
Lag	(minutes)	0

IA	(inches)	0.12
DTHETA		0.31
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.31
RTIMP	(%)	24

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.5	1.233	0.971	0.763	0.683	0.633	0.55
R	(hours)	2.237	1.8	1.38	1.056	0.935	0.859	0.735

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.975	0.788	0.713	1.567	0.571	0.538	0.479
R	(hours)	1.387	1.094	0.979	2.348	0.766	0.716	0.63

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	289430.76	0.0104	ES	0.25
2	1088389.5	0.039	MV	0.25
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	231390.7	16.8	Dry	10	0	0.1	0.02	0.035
2	OPEN	585446.4	42.5	Dry	10	0	0.1	0.02	0.033
3	COMM	80847.36	5.9	Normal	75	80	0.1	0.03	0.038
4	IND	473932.8	34.4	Normal	60	55	0.15	0.03	0.034
5			0						
6			0						
7			0						
8			0						
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			99.6						

Comments:

Subbasin 35A - Knox & Kyrene Canal

Basin ID	SUB36

Area	(sq ft)	1517039
Area	(sq miles)	0.054

L	(feet)	2259.07
L	(miles)	0.428

Lca	(feet)	1257.52
Lca	(miles)	0.238167

Elev 1	(feet)	1230.3
Elev 2	(feet)	1223.9
Delta h	(feet)	6.4
Slope	(ft/mile)	15

Kb		0.039
Kn		0.03
Lag	(minutes)	10.84401

IA	(inches)	0.12
DTHETA		0.28
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.37
RTIMP	(%)	50

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.871	0.696	0.604	0.521	0.475	0.446	0.4
R	(hours)	0.853	0.665	0.568	0.482	0.435	0.406	0.36

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.546	0.471	0.438	0.404	0.379	0.363	0.329
R	(hours)	0.508	0.431	0.397	0.364	0.339	0.322	0.29

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	1507881.3	0.0541	ES	0.25
2		0		
3				
4				
5				
6				
7				

8				
9				
10				

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	256481.3	16.9	Dry	10	0	0.1	0.02	0.035
2	COMM	172846.1	11.4	Normal	75	80	0.1	0.03	0.036
3	OPEN	172846.1	11.4	Dry	10	0	0.1	0.02	0.036
4	COMM	733201.9	48.3	Normal	75	80	0.1	0.03	0.032
5	ROWCROP	64120.32	4.2	Normal	85	0	0.5	0.1	0.146
6	OPEN	5575.68	0.4	Dry	10	0	0.1	0.02	0.046
7	OPEN	66908.16	4.4	Dry	10	0	0.1	0.02	0.039
8	COMM	44605.44	2.9	Normal	75	80	0.1	0.03	0.04
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			99.9						

Comments:

Subbasin 36 I10 & Ray

Basin ID	SUB37

Area	(sq ft)	5464202
Area	(sq miles)	0.196

L	(feet)	3399.93
L	(miles)	0.644

Lca	(feet)	2006.53
Lca	(miles)	0.380025

Elev 1	(feet)	1220.1
Elev 2	(feet)	1200.1
Delta h	(feet)	20
Slope	(ft/mile)	31.1

Kb		0.043
Kn		0.034
Lag	(minutes)	14.92526

IA	(inches)	0.15
DTHETA		0.29
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.34
RTIMP	(%)	38

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.021	0.779	0.658	0.55	0.5	0.467	0.413
R	(hours)	0.671	0.497	0.412	0.338	0.304	0.281	0.245

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.596	0.504	0.463	0.425	0.396	0.379	0.342
R	(hours)	0.369	0.306	0.279	0.254	0.234	0.223	0.199

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	5453600.5	0.1956	ES	0.25
2	10589.359	0.0004	GM	0.25
3				
4				
5				
6				
7				

8				
9				
10				

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	ROWCROP	284359.7	5.2	Normal	85	0	0.5	0.1	0.13
2	OPEN	231390.7	4.2	Dry	10	0	0.1	0.02	0.035
3	M.F.R.	1151378	21.1	Normal	50	45	0.25	0.05	0.06
4	COMM	16727.04	0.3	Normal	75	80	0.1	0.03	0.043
5	ROWCROP	13939.2	0.3	Normal	85	0	0.5	0.1	0.162
6	M.D.R.	22302.72	0.4	Normal	50	30	0.25	0.05	0.084
7	OPEN	496235.5	9.1	Dry	10	0	0.1	0.02	0.033
8	OPEN	1352102	24.7	Dry	10	0	0.1	0.02	0.031
9	COMM	621688.3	11.4	Normal	75	80	0.1	0.03	0.033
10	COMM	1274043	23.3	Normal	75	80	0.1	0.03	0.031
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			100						

Comments:

Subbasin 37 - Ray & Priest

Basin ID	SUB39

Area	(sq ft)	4594592
Area	(sq miles)	0.165

L	(feet)	3933.83
L	(miles)	0.745

Lca	(feet)	1609.5
Lca	(miles)	0.30483

Elev 1	(feet)	1194.3
Elev 2	(feet)	1181.4
Delta h	(feet)	12.9
Slope	(ft/mile)	17.3

Kb		0.053
Kn		0.048
Lag	(minutes)	22.89476

IA	(inches)	0.29
DTHETA		0.26
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.28
RTIMP	(%)	6

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.5	1.5	1.375	0.988	0.829	0.742	0.638
R	(hours)	1.287	1.287	1.169	0.81	0.667	0.589	0.498

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.5	1.154	1	0.833	0.746	0.679	0.583
R	(hours)	1.287	0.963	0.821	0.67	0.593	0.534	0.451

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	2187130.2	0.0785	ES	0.25
2	2177422.9	0.0781	MV	0.25
3	230031.09	0.0083	GM	0.25
4				
5				
6				
7				

8				
9				
10				

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	2787.84	0.1	Dry	10	0	0.1	0.02	0.047
2	OPEN	128240.6	2.8	Dry	10	0	0.1	0.02	0.037
3	V.L.D.R.	507386.9	11	Normal	20	5	0.3	0.05	0.065
4	OPEN	64120.32	1.4	Dry	10	0	0.1	0.02	0.039
5	V.L.D.R.	3777523	82.2	Normal	20	5	0.3	0.05	0.053
6	M.D.R.	5575.68	0.1	Normal	50	30	0.25	0.05	0.092
7	OPEN	30666.24	0.7	Dry	10	0	0.1	0.02	0.041
8	IND	78059.52	1.7	Normal	60	55	0.15	0.03	0.038
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			100						

Comments:

Subbasin 39 - Ray & Kyrene Canal

Basin ID	SUB40

Area	(sq ft)	6899630
Area	(sq miles)	0.247

L	(feet)	4598.49
L	(miles)	0.871

Lca	(feet)	3716.65
Lca	(miles)	0.703911

Elev 1	(feet)	1239.1
Elev 2	(feet)	1187.7
Delta h	(feet)	51.4
Slope	(ft/mile)	59

Kb		0.056
Kn		0.054
Lag	(minutes)	29.75487

IA	(inches)	0.24
DTHETA		0.25
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.43
RTIMP	(%)	49

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.017	0.825	0.717	0.613	0.554	0.517	0.454
R	(hours)	0.748	0.593	0.507	0.426	0.381	0.353	0.306

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.663	0.563	0.517	0.471	0.446	0.425	0.383
R	(hours)	0.465	0.388	0.353	0.318	0.3	0.284	0.253

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	2630006.4	0.0943	ES	0.25
2	4269604.8	0.1532	GM	0.25
3				
4				
5				
6				
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	236966.4	3.4	Dry	10	0	0.1	0.02	0.035
2	M.D.R.	19514.88	0.3	Normal	50	30	0.25	0.05	0.084
3	COMM	8363.52	0.1	Normal	75	80	0.1	0.03	0.044
4	COMM	4243092	61.5	Normal	75	80	0.1	0.03	0.028
5	ROWCROP	2386391	34.6	Normal	85	0	0.5	0.1	0.107
6			0						
7			0						
8			0						
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			99.9						

Comments:

Subbasin 40 - Galveston & Priest

Basin ID	SUB40A

Area	(sq ft)	6964228
Area	(sq miles)	0.25

L	(feet)	5164.42
L	(miles)	0.978

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1201.2
Elev 2	(feet)	1175.7
Delta h	(feet)	25.5
Slope	(ft/mile)	26.1

Kb		0.029
Kn		0.03
Lag	(minutes)	0

IA	(inches)	0.1
DTHETA		0.25
PSIF	(inches)	4.7
XKSAT	(inches/hr)	0.44
RTIMP	(%)	79

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.783	0.654	0.596	0.529	0.496	0.467	0.425
R	(hours)	0.612	0.501	0.452	0.396	0.368	0.344	0.31

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.596	0.521	0.488	0.45	0.425	0.408	0.371
R	(hours)	0.452	0.389	0.361	0.331	0.31	0.297	0.267

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	4648360.8	0.1667	ES	0.25
2	1868142.7	0.067	GM	0.25
3	447699.23	0.0161	ANA	0.4
4				
5				
6				
7				

8				
9				
10				

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	8363.52	0.1	Dry	10	0	0.1	0.02	0.045
2	COMM	4633390	66.5	Normal	75	80	0.1	0.03	0.027
3	OPEN	69696	1	Dry	10	0	0.1	0.02	0.039
4	COMM	1505434	21.6	Normal	75	80	0.1	0.03	0.03
5	OPEN	5575.68	0.1	Dry	10	0	0.1	0.02	0.046
6	COMM	518538.2	7.4	Normal	75	80	0.1	0.03	0.033
7	COMM	167270.4	2.4	Normal	75	80	0.1	0.03	0.036
8	COMM	2787.84	0	Normal	75	80	0.1	0.03	0.047
9	COMM	33454.08	0.5	Normal	75	80	0.1	0.03	0.041
10	ROWCROP	22302.72	0.3	Normal	85	0	0.5	0.1	0.157
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			99.9						

Comments:

Subbasin 40A - Chandler & Priest

Basin ID	SUB41

Area	(sq ft)	3359886
Area	(sq miles)	0.121

L	(feet)	3853.24
L	(miles)	0.73

Lca	(feet)	2815.63
Lca	(miles)	0.533263

Elev 1	(feet)	1187.7
Elev 2	(feet)	1173.7
Delta h	(feet)	14
Slope	(ft/mile)	19.2

Kb		0.032
Kn		0.028
Lag	(minutes)	16.06918

IA	(inches)	0.11
DTHETA		0.27
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.39
RTIMP	(%)	59

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.896	0.725	0.642	0.558	0.513	0.483	0.433
R	(hours)	0.848	0.671	0.586	0.502	0.456	0.428	0.379

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.604	0.521	0.483	0.446	0.421	0.404	0.367
R	(hours)	0.548	0.465	0.428	0.391	0.367	0.351	0.315

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	2290372.3	0.0822	ES	0.25
2	1069507.4	0.0384	GM	0.25
3				
4				
5				
6				
7				

8				
9				
10				

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	209088	6.2	Dry	10	0	0.1	0.02	0.036
2	COMM	1834399	54.6	Normal	75	80	0.1	0.03	0.03
3	OPEN	136604.2	4.1	Dry	10	0	0.1	0.02	0.037
4	IND	844715.5	25.1	Normal	60	55	0.15	0.03	0.032
5	OPEN	256481.3	7.6	Dry	10	0	0.1	0.02	0.035
6	COMM	64120.32	1.9	Normal	75	80	0.1	0.03	0.039
7	COMM	5575.68	0.2	Normal	75	80	0.1	0.03	0.045
8	PARK	8363.52	0.2	Normal	90	0	0.2	0.1	0.166
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			99.9						

Comments:

Subbasin 41 - Chandler & SPR

Basin ID	SUB41A

Area	(sq ft)	5122235
Area	(sq miles)	0.184

L	(feet)	3813.56
L	(miles)	0.722

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1200.1
Elev 2	(feet)	1181.2
Delta h	(feet)	18.9
Slope	(ft/mile)	26.2

Kb		0.059
Kn		0.053
Lag	(minutes)	0

IA	(inches)	0.22
DTHETA		0.25
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.37
RTIMP	(%)	32

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.5	1.204	0.988	0.788	0.704	0.65	0.563
R	(hours)	1.171	0.918	0.736	0.573	0.506	0.463	0.394

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.963	0.788	0.717	0.633	0.583	0.546	0.492
R	(hours)	0.716	0.573	0.516	0.45	0.41	0.381	0.34

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	2556245.8	0.0917	ES	0.25
2	2559496.4	0.0918	MV	0.25
3	6484.488	0.0002	GM	0.25
4				
5				
6				
7				

8				
9				
10				

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	181209.6	3.5	Dry	10	0	0.1	0.02	0.036
2	M.D.R.	3484800	68	Normal	50	30	0.25	0.05	0.054
3	COMM	479508.5	9.4	Normal	75	80	0.1	0.03	0.033
4	COMM	284359.7	5.6	Normal	75	80	0.1	0.03	0.035
5	PARK	691384.3	13.5	Normal	90	0	0.2	0.1	0.12
6			0						
7			0						
8			0						
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						

Comments:

Subbasin 41A - Galveston & SPR

Basin ID	SUB41B

Area	(sq ft)	1272657
Area	(sq miles)	0.046

L	(feet)	1474.57
L	(miles)	0.279

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1181.6
Elev 2	(feet)	1181.1
Delta h	(feet)	0.5
Slope	(ft/mile)	1.8

Kb		0.057
Kn		0.045
Lag	(minutes)	0

IA	(inches)	0.22
DTHETA		0.27
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.33
RTIMP	(%)	25

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.5	1.5	1.5	1.304	1.142	1.025	0.854
R	(hours)	1.212	1.212	1.212	1.038	0.895	0.794	0.649

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.5	1.392	1.254	1.538	1.004	0.933	0.8
R	(hours)	1.212	1.116	0.994	1.246	0.777	0.716	0.603

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	1270828.5	0.0456	MV	0.25
2		0		
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	22302.72	1.8	Dry	10	0	0.1	0.02	0.042
2	OPEN	192361	15.1	Dry	10	0	0.1	0.02	0.036
3	M.D.R.	1059379	83.2	Normal	50	30	0.25	0.05	0.061
4			0						
5			0						
6			0						
7			0						
8			0						
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			100.1						

Comments:

Subbasin 41B - Kyrene Canal & SPR

Basin ID	SUB57B

Area	(sq ft)	5342497
Area	(sq miles)	0.192

L	(feet)	4957.81
L	(miles)	0.939

Lca	(feet)	1764.24
Lca	(miles)	0.334136

Elev 1	(feet)	1225.2
Elev 2	(feet)	1198.6
Delta h	(feet)	26.6
Slope	(ft/mile)	28.3

Kb		0.037
Kn		0.032
Lag	(minutes)	15.71727

IA	(inches)	0.13
DTHETA		0.26
PSIF	(inches)	4.6
XKSAT	(inches/hr)	0.44
RTIMP	(%)	64

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.954	0.779	0.696	0.608	0.563	0.525	0.471
R	(hours)	0.856	0.684	0.603	0.52	0.476	0.441	0.391

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.679	0.583	0.542	0.496	0.471	0.446	0.408
R	(hours)	0.587	0.496	0.457	0.414	0.391	0.368	0.334

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	3255360.8	0.1168	ES	0.25
2	1112604.6	0.0399	VA	0.4
3	974517.35	0.035	MV	0.25
4				
5				
6				
7				

8				
9				
10				

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	M.F.R.	164482.6	3.1	Normal	50	45	0.25	0.05	0.072
2	M.D.R.	599385.6	11.2	Normal	50	30	0.25	0.05	0.064
3	COMM	861442.6	16.1	Normal	75	80	0.1	0.03	0.032
4	OPEN	30666.24	0.6	Dry	10	0	0.1	0.02	0.041
5	M.F.R.	150543.4	2.8	Normal	50	45	0.25	0.05	0.073
6	OPEN	510174.7	9.5	Dry	10	0	0.1	0.02	0.033
7	COMM	125452.8	2.3	Normal	75	80	0.1	0.03	0.037
8	COMM	2854748	53.4	Normal	75	80	0.1	0.03	0.029
9	COMM	2787.84	0.1	Normal	75	80	0.1	0.03	0.047
10	OPEN	5575.68	0.1	Dry	10	0	0.1	0.02	0.046
11	COMM	13939.2	0.3	Normal	75	80	0.1	0.03	0.043
12	OPEN	16727.04	0.3	Dry	10	0	0.1	0.02	0.043
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			99.8						

Comments:

Subbasin 57B - Elliot & Kyrene

Basin ID	SUB57C

Area	(sq ft)	4494252
Area	(sq miles)	0.161

L	(feet)	3404.32
L	(miles)	0.645

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1244.8
Elev 2	(feet)	1226.4
Delta h	(feet)	18.4
Slope	(ft/mile)	28.5

Kb		0.043
Kn		0.035
Lag	(minutes)	0

IA	(inches)	0.16
DTHETA		0.27
PSIF	(inches)	3.95
XKSAT	(inches/hr)	0.57
RTIMP	(%)	49

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.946	0.783	0.692	0.588	0.529	0.492	0.433
R	(hours)	0.698	0.566	0.493	0.411	0.366	0.338	0.293

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.608	0.525	0.483	0.446	0.417	0.396	0.358
R	(hours)	0.428	0.363	0.331	0.303	0.281	0.265	0.238

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	4494249	0.1612	VA	0.4
2				
3				
4				
5				
6				
7				

8				
9				
10				

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	33454.08	0.7	Dry	10	0	0.1	0.02	0.041
2	M.F.R.	632839.7	14.1	Normal	50	45	0.25	0.05	0.064
3	COMM	1290770	28.7	Normal	75	80	0.1	0.03	0.031
4	OPEN	119877.1	2.7	Dry	10	0	0.1	0.02	0.037
5	COMM	11151.36	0.2	Normal	75	80	0.1	0.03	0.044
6	M.F.R.	1053804	23.4	Normal	50	45	0.25	0.05	0.061
7	COMM	485084.2	10.8	Normal	75	80	0.1	0.03	0.033
8	OPEN	867018.2	19.3	Dry	10	0	0.1	0.02	0.032
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			99.9						

Comments:

Subbasin 57C Elliot and Highline

Basin ID	SUB58

Area	(sq ft)	6344931
Area	(sq miles)	0.228

L	(feet)	3773.64
L	(miles)	0.715

Lca	(feet)	3375.98
Lca	(miles)	0.634902

Elev 1	(feet)	1222.1
Elev 2	(feet)	1203.7
Delta h	(feet)	18.4
Slope	(ft/mile)	25.7

Kb		0.027
Kn		0.03
Lag	(minutes)	17.26876

IA	(inches)	0.15
DTHETA		0.25
PSIF	(inches)	4.55
XKSAT	(inches/hr)	0.46
RTIMP	(%)	55

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.738	0.608	0.538	0.467	0.429	0.4	0.358
R	(hours)	0.471	0.381	0.332	0.284	0.258	0.239	0.211

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.475	0.417	0.383	0.354	0.333	0.321	0.296
R	(hours)	0.289	0.25	0.228	0.209	0.195	0.187	0.171

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	4484742.5	0.1609	ES	0.25
2	1860180.7	0.0667	VA	0.4
3				
4				
5				
6				
7				

8				
9				
10				

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	IND	6278216	98.9	Normal	60	55	0.15	0.03	0.027
2	COMM	2787.84	0	Normal	75	80	0.1	0.03	0.046
3	COMM	19514.88	0.3	Normal	75	80	0.1	0.03	0.042
4	OPEN	39029.76	0.6	Dry	10	0	0.1	0.02	0.04
5			0						
6			0						
7			0						
8			0						
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						

33			0						
34			0						
35			0						
			99.8						

Comments:

Subbasin 35A - Knox & Kyrene Canal

Basin ID	SUB58A

Area	(sq ft)	4103758
Area	(sq miles)	0.147

L	(feet)	3416.43
L	(miles)	0.647

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1209.8
Elev 2	(feet)	1198.6
Delta h	(feet)	11.2
Slope	(ft/mile)	17.3

Kb		0.068
Kn		0.06
Lag	(minutes)	0

IA	(inches)	0.15
DTHETA		0.27
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.41
RTIMP	(%)	23

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.5	1.5	1.379	1.058	0.913	0.817	0.688
R	(hours)	1.226	1.226	1.117	0.833	0.706	0.624	0.516

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.35	1.079	0.967	0.85	0.775	0.717	0.617
R	(hours)	1.091	0.851	0.753	0.653	0.589	0.54	0.457

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	4103756.2	0.1472	ES	0.25
2		0		
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	IND	8363.52	0.2	Normal	60	55	0.15	0.03	0.044
2	COMM	440478.7	10.7	Normal	75	80	0.1	0.03	0.034
3	COMM	685808.6	16.7	Normal	75	80	0.1	0.03	0.033
4	OPEN	259269.1	6.3	Dry	10	0	0.1	0.02	0.035
5	IND	89210.88	2.2	Normal	60	55	0.15	0.03	0.038
6	PARK	1898519	46.3	Normal	90	0	0.2	0.1	0.109
7	OPEN	722050.6	17.6	Dry	10	0	0.1	0.02	0.032
8			0						
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			100						

Comments:

Subbasin 58A - Warner & SPR

Basin ID	SUB58B

Area	(sq ft)	3879526
Area	(sq miles)	0.139

L	(feet)	3721.48
L	(miles)	0.705

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1226.4
Elev 2	(feet)	1209.8
Delta h	(feet)	16.6
Slope	(ft/mile)	23.5

Kb		0.03
Kn		0.03
Lag	(minutes)	0

IA	(inches)	0.1
DTHETA		0.25
PSIF	(inches)	4.2
XKSAT	(inches/hr)	0.61
RTIMP	(%)	80

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.683	0.579	0.529	0.475	0.442	0.421	0.379
R	(hours)	0.568	0.473	0.427	0.379	0.35	0.331	0.295

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.517	0.458	0.429	0.396	0.375	0.354	0.325
R	(hours)	0.416	0.364	0.339	0.31	0.292	0.274	0.249

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	993675.39	0.0356	ES	0.25
2	2885832.6	0.1035	VA	0.4
3				
4				
5				
6				
7				

8				
9				
10				

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	COMM	354055.7	9.1	Normal	75	80	0.1	0.03	0.034
2	COMM	1198771	30.9	Normal	75	80	0.1	0.03	0.031
3	IND	11151.36	0.3	Normal	60	55	0.15	0.03	0.043
4	COMM	103150.1	2.7	Normal	75	80	0.1	0.03	0.038
5	COMM	2213545	57.1	Normal	75	80	0.1	0.03	0.029
6			0						
7			0						
8			0						
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			100.1						

Comments:

Subbasin 58B - Carver & Hardy

Basin ID	SUB58C

Area	(sq ft)	6103810
Area	(sq miles)	0.219

L	(feet)	4795.94
L	(miles)	0.908

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1213.4
Elev 2	(feet)	1198.3
Delta h	(feet)	15.1
Slope	(ft/mile)	16.6

Kb		0.03
Kn		0.025
Lag	(minutes)	0

IA	(inches)	0.12
DTHETA		0.3
PSIF	(inches)	4.65
XKSAT	(inches/hr)	0.36
RTIMP	(%)	33

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.388	1.05	0.858	0.7	0.629	0.583	0.508
R	(hours)	1.173	0.861	0.688	0.549	0.488	0.448	0.385

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.821	0.679	0.617	0.55	0.513	0.483	0.438
R	(hours)	0.655	0.531	0.477	0.42	0.388	0.364	0.326

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	4604480.2	0.1652	ES	0.25
2	874578.86	0.0314	VA	0.4
3	624752.16	0.0224	MV	0.25
4				
5				
6				
7				

8				
9				
10				

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	153331.2	2.5	Dry	10	0	0.1	0.02	0.037
2	COMM	200724.5	3.3	Normal	75	80	0.1	0.03	0.036
3	OPEN	119877.1	2	Dry	10	0	0.1	0.02	0.037
4	COMM	2787.84	0	Normal	75	80	0.1	0.03	0.046
5	COMM	791746.6	13	Normal	75	80	0.1	0.03	0.032
6	COMM	30666.24	0.5	Normal	75	80	0.1	0.03	0.041
7	OPEN	2592691	42.5	Dry	10	0	0.1	0.02	0.029
8	IND	2213545	36.3	Normal	60	55	0.15	0.03	0.029
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			100.1						

Comments:

Subbasin 58C - Carver & SPR

Basin ID	SUB59

Area	(sq ft)	9187544
Area	(sq miles)	0.329557

L	(feet)	6011.87
L	(miles)	1.138

Lca	(feet)	2334.58
Lca	(miles)	0.442155

Elev 1	(feet)	1279.7
Elev 2	(feet)	1234.5
Delta h	(feet)	45.2
Slope	(ft/mile)	39.7

Kb		0.032
Kn		0.031
Lag	(minutes)	17.08467

IA	(inches)	0.11
DTHETA		0.25
PSIF	(inches)	3.95
XKSAT	(inches/hr)	0.66
RTIMP	(%)	75

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.954	0.796	0.717	0.633	0.579	0.542	0.479
R	(hours)	0.692	0.565	0.503	0.439	0.397	0.369	0.322

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.692	0.6	0.554	0.508	0.483	0.458	0.417
R	(hours)	0.484	0.413	0.378	0.344	0.325	0.306	0.276

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	9131765.1	0.3276	VA	0.4
2	55765.721	0.002	AOB	0.4
3				
4				
5				
6				
7				

8				
9				
10				

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	COMM	1028713	11.2	Normal	75	80	0.1	0.03	0.031
2	COMM	591022.1	6.4	Normal	75	80	0.1	0.03	0.033
3	COMM	4979082	54.2	Normal	75	80	0.1	0.03	0.027
4	COMM	30666.24	0.3	Normal	75	80	0.1	0.03	0.041
5	COMM	351267.8	3.8	Normal	75	80	0.1	0.03	0.034
6	COMM	769443.8	8.4	Normal	75	80	0.1	0.03	0.032
7	M.F.R.	183997.4	2	Normal	50	45	0.25	0.05	0.071
8	COMM	181209.6	2	Normal	75	80	0.1	0.03	0.036
9	M.D.R.	220239.4	2.4	Normal	50	30	0.25	0.05	0.07
10	OPEN	97574.4	1.1	Dry	10	0	0.1	0.02	0.038
11	COMM	78059.52	0.8	Normal	75	80	0.1	0.03	0.038
12	M.F.R.	33454.08	0.4	Normal	50	45	0.25	0.05	0.081
13	COMM	404236.8	4.4	Normal	75	80	0.1	0.03	0.034
14	OPEN	236966.4	2.6	Dry	10	0	0.1	0.02	0.035
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						

Comments:

Subbasin 59 - Elliot & Priest

Basin ID	SUB59A

Area	(sq ft)	6983814
Area	(sq miles)	0.251

L	(feet)	3856.2
L	(miles)	0.73

Lca	(feet)	2031.46
Lca	(miles)	0.384746

Elev 1	(feet)	1249.4
Elev 2	(feet)	1219.1
Delta h	(feet)	30.3
Slope	(ft/mile)	41.5

Kb		0.028
Kn		0.022
Lag	(minutes)	9.633519

IA	(inches)	0.1
DTHETA		0.33
PSIF	(inches)	3.95
XKSAT	(inches/hr)	0.47
RTIMP	(%)	19

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.046	0.792	0.621	0.475	0.417	0.383	0.333
R	(hours)	0.665	0.488	0.373	0.277	0.239	0.218	0.187

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.513	0.417	0.371	0.333	0.313	0.296	0.263
R	(hours)	0.301	0.239	0.21	0.187	0.174	0.164	0.143

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	12482.916	0.0004	ES	0.25
2	6971328.5	0.2501	VA	0.4
3				
4				
5				
6				
7				

8				
9				
10				

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	27878.4	0.4	Dry	10	0	0.1	0.02	0.041
2	IND	25090.56	0.4	Normal	60	55	0.15	0.03	0.041
3	IND	5575.68	0.1	Normal	60	55	0.15	0.03	0.046
4	OPEN	114301.4	1.6	Dry	10	0	0.1	0.02	0.037
5	COMM	8363.52	0.1	Normal	75	80	0.1	0.03	0.045
6	COMM	1597432	22.9	Normal	75	80	0.1	0.03	0.03
7	OPEN	5112899	73.2	Dry	10	0	0.1	0.02	0.027
8	OPEN	25090.56	0.4	Dry	10	0	0.1	0.02	0.042
9	OPEN	64120.32	0.9	Dry	10	0	0.1	0.02	0.039
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						

Comments:

Subbasin 59A - Warner & Priest

Basin ID	SUB59B

Area	(sq ft)	6928976
Area	(sq miles)	0.249

L	(feet)	3653.71
L	(miles)	0.692

Lca	(feet)	1895.23
Lca	(miles)	0.358945

Elev 1	(feet)	1284.1
Elev 2	(feet)	1226.6
Delta h	(feet)	57.5
Slope	(ft/mile)	83.1

Kb		0.031
Kn		0.027
Lag	(minutes)	9.889015

IA	(inches)	0.1
DTHETA		0.28
PSIF	(inches)	3.95
XKSAT	(inches/hr)	0.6
RTIMP	(%)	55

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.517	0.442	0.392	0.338	0.313	0.292	0.258
R	(hours)	0.292	0.245	0.215	0.182	0.167	0.155	0.135

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.579	0.288	0.271	0.258	0.246	0.233	0.213
R	(hours)	1.009	0.152	0.142	0.135	0.128	0.121	0.109

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	6554713.7	0.2351	VA	0.4
2	374253.58	0.0134	ANB	0.4
3				
4				
5				
6				
7				

8				
9				
10				

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	61332.48	0.9	Dry	10	0	0.1	0.02	0.039
2	COMM	33454.08	0.5	Normal	75	80	0.1	0.03	0.041
3	COMM	2581540	37.3	Normal	75	80	0.1	0.03	0.029
4	M.F.R.	8363.52	0.1	Normal	50	45	0.25	0.05	0.091
5	COMM	301086.7	4.3	Normal	75	80	0.1	0.03	0.035
6	OPEN	727626.2	10.5	Dry	10	0	0.1	0.02	0.032
7	IND	585446.4	8.4	Normal	60	55	0.15	0.03	0.033
8	COMM	8363.52	0.1	Normal	75	80	0.1	0.03	0.045
9	COMM	5575.68	0.1	Normal	75	80	0.1	0.03	0.046
10	COMM	1112348	16.1	Normal	75	80	0.1	0.03	0.031
11	COMM	270420.5	3.9	Normal	75	80	0.1	0.03	0.035
12	OPEN	1232225	17.8	Dry	10	0	0.1	0.02	0.031
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			100						

Comments:

Subbasin 59B - Carver & Priest

Basin ID	SUB70

Area	(sq ft)	2388964
Area	(sq miles)	0.086

L	(feet)	2819.65
L	(miles)	0.534

Lca	(feet)	1485.22
Lca	(miles)	0.281292

Elev 1	(feet)	1221.8
Elev 2	(feet)	1210.2
Delta h	(feet)	11.6
Slope	(ft/mile)	21.7

Kb		0.107
Kn		0.093
Lag	(minutes)	36.3131

IA	(inches)	0.46
DTHETA		0.25
PSIF	(inches)	4.65
XKSAT	(inches/hr)	0.48
RTIMP	(%)	4

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.5	1.5	1.5	1.5	1.342	1.1	0.813
R	(hours)	1.414	1.414	1.414	1.414	1.249	1.002	0.716

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.5	1.5	1.45	1.529	1.058	0.938	0.767
R	(hours)	1.414	1.414	1.362	1.444	0.96	0.839	0.671

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	1980495.5	0.071	ES	0.25
2	408465.95	0.0147	VA	0.4
3				
4				
5				
6				
7				

8				
9				
10				

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	COMM	89210.88	3.7	Normal	75	80	0.1	0.03	0.038
2	V.L.D.R.	2787.84	0.1	Normal	20	5	0.3	0.05	0.095
3	OPEN	36241.92	1.5	Dry	10	0	0.1	0.02	0.041
4	OPEN	30666.24	1.3	Dry	10	0	0.1	0.02	0.041
5	ROWCROP	1519373	63.6	Normal	85	0	0.5	0.1	0.111
6	COMM	41817.6	1.8	Normal	75	80	0.1	0.03	0.04
7	ROWCROP	621688.3	26	Normal	85	0	0.5	0.1	0.121
8	V.L.D.R.	44605.44	1.9	Normal	20	5	0.3	0.05	0.08
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			99.9						

Comments:

Subbasin 70 - Knox & Priest

Basin ID	SUB12

Area	(sq ft)	1984857
Area	(sq miles)	0.071

L	(feet)	2990.59
L	(miles)	0.566

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1196.4
Elev 2	(feet)	1194.3
Delta h	(feet)	2.1
Slope	(ft/mile)	3.7

Kb		0.034
Kn		0.028
Lag	(minutes)	0

IA	(inches)	0.1
DTHETA		0.27
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.39
RTIMP	(%)	63

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.45	1.15	1.013	0.875	0.8	0.746	0.663
R	(hours)	1.61	1.245	1.081	0.919	0.832	0.77	0.675

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.117	0.95	0.875	0.792	0.742	0.696	0.621
R	(hours)	1.205	1.007	0.919	0.822	0.765	0.713	0.628

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	120372.24	0.0043	ES	0.25
2	1864482.3	0.0669	MV	0.25
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	234178.6	11.8	Dry	10	0	0.1	0.02	0.035
2	COMM	529689.6	26.7	Normal	75	80	0.1	0.03	0.033
3	COMM	744353.3	37.5	Normal	75	80	0.1	0.03	0.032
4	COMM	289935.4	14.6	Normal	75	80	0.1	0.03	0.035
5	OPEN	172846.1	8.7	Dry	10	0	0.1	0.02	0.036
6	M.D.R.	5575.68	0.3	Normal	50	30	0.25	0.05	0.091
7			0						
8			0						
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			99.6						

Comments:

Subbasin 12 - Guadalupe & SPR

Basin ID	SUB12A

Area	(sq ft)	8765234
Area	(sq miles)	0.314

L	(feet)	5924.68
L	(miles)	1.122

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1225.8
Elev 2	(feet)	1196.9
Delta h	(feet)	28.9
Slope	(ft/mile)	25.8

Kb		0.762
Kn		0.049
Lag	(minutes)	0

IA	(inches)	0.24
DTHETA		0.26
PSIF	(inches)	4.65
XKSAT	(inches/hr)	0.37
RTIMP	(%)	28

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1	1	1	0.75	0.75	1.5	1.5
R	(hours)	0.784	0.784	0.784	0.57	0.57	1.23	1.23

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.083	0.083	0.333	0.333	0.333	0.333	0.25
R	(hours)	0.05	0.05	0.232	0.232	0.232	0.232	0.168

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	6312004.3	0.2264	ES	0.25
2	1320315.4	0.0474	VA	0.4
3	1132897.3	0.0406	MV	0.25
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	COMM	2787.84	0	Normal	75	80	0.1	0.03	0.047
2	OPEN	370782.7	4.2	Dry	10	0	0.1	0.02	0.034
3	COMM	52968.96	0.6	Normal	75	80	0.1	0.03	0.04
4	PARK	267632.6	3.1	Normal	90	0	0.2	0.1	0.13
5	M.D.R.	1265679	14.4	Normal	50	30	0.25	0.05	0.06
6	M.F.R.	504599	5.8	Normal	50	45	0.25	0.05	0.065
7	OPEN	214663.7	2.4	Dry	10	0	0.1	0.02	0.036
8	M.D.R.	5547802	63.3	Normal	50	30	0.25	0.05	0.051
9	M.D.R.	89210.88	1	Normal	50	30	0.25	0.05	0.076
10	M.D.R.	8363.52	0.1	Normal	50	30	0.25	0.05	0.09
11	OPEN	97574.4	1.1	Dry	10	0	0.1	0.02	0.038
12	M.F.R.	340116.5	3.9	Normal	50	45	0.25	0.05	0.068
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			99.9						

Comments:

Subbasin 12A - Guadalupe and Kyrene

Basin ID	SUB13

Area	(sq ft)	4537264
Area	(sq miles)	0.163

L	(feet)	4054.89
L	(miles)	0.768

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1194.4
Elev 2	(feet)	1186.1
Delta h	(feet)	8.3
Slope	(ft/mile)	10.8

Kb		0.06
Kn		0.051
Lag	(minutes)	0

IA	(inches)	0.15
DTHETA		0.26
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.41
RTIMP	(%)	48

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.5	1.5	1.3	1.092	0.983	0.904	0.775
R	(hours)	1.324	1.324	1.13	0.931	0.829	0.755	0.636

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.4	1.179	1.083	0.971	0.9	0.846	0.746
R	(hours)	1.226	1.014	0.923	0.817	0.751	0.701	0.61

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	1094400	0.0393	LAA	0.25
2	3442843	0.1235	MV	0.25
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	125452.8	2.8	Dry	10	0	0.1	0.02	0.037
2	COMM	36241.92	0.8	Normal	75	80	0.1	0.03	0.04
3	M.F.R.	800110.1	17.6	Normal	50	45	0.25	0.05	0.063
4	COMM	367994.9	8.1	Normal	75	80	0.1	0.03	0.034
5	COMM	479508.5	10.6	Normal	75	80	0.1	0.03	0.033
6	PARK	1154166	25.4	Normal	90	0	0.2	0.1	0.114
7	COMM	80847.36	1.8	Normal	75	80	0.1	0.03	0.038
8	COMM	390297.6	8.6	Normal	75	80	0.1	0.03	0.034
9	COMM	122665	2.7	Normal	75	80	0.1	0.03	0.037
10	COMM	30666.24	0.7	Normal	75	80	0.1	0.03	0.041
11	COMM	348480	7.7	Normal	75	80	0.1	0.03	0.034
12	COMM	317813.8	7	Normal	75	80	0.1	0.03	0.035
13	COMM	50181.12	1.1	Normal	75	80	0.1	0.03	0.04
14	COMM	69696	1.5	Normal	75	80	0.1	0.03	0.039
15	OPEN	158906.9	3.5	Dry	10	0	0.1	0.02	0.036
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			99.9						

Comments:

Subbasin 13 - Guadalupe & NBWC

Basin ID	SUB14

Area	(sq ft)	2251209
Area	(sq miles)	0.081

L	(feet)	3327.86
L	(miles)	0.63

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1220.9
Elev 2	(feet)	1212.3
Delta h	(feet)	8.6
Slope	(ft/mile)	13.7

Kb		0.059
Kn		0.05
Lag	(minutes)	0

IA	(inches)	0.25
DTHETA		0.25
PSIF	(inches)	4.4
XKSAT	(inches/hr)	0.45
RTIMP	(%)	30

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.5	1.475	1.204	0.954	0.833	0.75	0.646
R	(hours)	1.68	1.649	1.316	1.017	0.875	0.778	0.659

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.221	0.996	0.9	0.8	0.729	0.679	0.588
R	(hours)	1.337	1.066	0.953	0.836	0.754	0.697	0.594

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	1013432.8	0.0364	ES	0.25
2	1237773.1	0.0444	VA	0.4
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	36241.92	1.6	Dry	10	0	0.1	0.02	0.04
2	M.D.R.	1661553	73.8	Normal	50	30	0.25	0.05	0.058
3	M.D.R.	551992.3	24.5	Normal	50	30	0.25	0.05	0.065
4			0						
5			0						
6			0						
7			0						
8			0						
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			99.9						

Comments:

Subbasin 14 - Cornell & Hardy

Basin ID	SUB15

Area	(sq ft)	2040238
Area	(sq miles)	0.073

L	(feet)	2692.99
L	(miles)	0.51

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1194.3
Elev 2	(feet)	1188
Delta h	(feet)	6.3
Slope	(ft/mile)	12.4

Kb		0.032
Kn		0.029
Lag	(minutes)	0

IA	(inches)	0.1
DTHETA		0.26
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.4
RTIMP	(%)	68

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.771	0.633	0.567	0.5	0.467	0.442	0.396
R	(hours)	0.719	0.578	0.511	0.445	0.412	0.387	0.343

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.558	0.488	0.454	0.421	0.396	0.379	0.346
R	(hours)	0.503	0.432	0.4	0.367	0.343	0.327	0.295

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	1892784.5	0.0679	ES	0.25
2	147451.65	0.0053	MV	0.25
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	COMM	1614159	79.1	Normal	75	80	0.1	0.03	0.03
2	PARK	5575.68	0.3	Normal	90	0	0.2	0.1	0.175
3	COMM	128240.6	6.3	Normal	75	80	0.1	0.03	0.037
4	OPEN	8363.52	0.4	Dry	10	0	0.1	0.02	0.045
5	OPEN	284359.7	13.9	Dry	10	0	0.1	0.02	0.035
6			0						
7			0						
8			0						
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			100						

Comments:

Subbasin 15 - Cornell & SPR

Basin ID	SUB15A

Area	(sq ft)	7676823
Area	(sq miles)	0.275

L	(feet)	5266.17
L	(miles)	0.997

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1216.5
Elev 2	(feet)	1190.4
Delta h	(feet)	26.1
Slope	(ft/mile)	26.2

Kb		0.062
Kn		0.056
Lag	(minutes)	0

IA	(inches)	0.22
DTHETA		0.25
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.38
RTIMP	(%)	31

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.5	1.5	1.233	0.992	0.875	0.792	0.679
R	(hours)	1.211	1.211	0.975	0.765	0.666	0.596	0.503

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.296	1.058	0.958	0.85	0.779	0.725	1.567
R	(hours)	1.03	0.822	0.737	0.645	0.585	0.54	1.271

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	7676819.3	0.2754	ES	0.25
2		0		
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	PARK	2787.84	0	Normal	90	0	0.2	0.1	0.178
2	COMM	8363.52	0.1	Normal	75	80	0.1	0.03	0.045
3	M.D.R.	448842.2	5.8	Normal	50	30	0.25	0.05	0.066
4	M.D.R.	47393.28	0.6	Normal	50	30	0.25	0.05	0.08
5	OPEN	172846.1	2.3	Dry	10	0	0.1	0.02	0.036
6	COMM	683020.8	8.9	Normal	75	80	0.1	0.03	0.033
7	PARK	1198771	15.6	Normal	90	0	0.2	0.1	0.114
8	M.D.R.	33454.08	0.4	Normal	50	30	0.25	0.05	0.082
9	M.D.R.	4446605	57.9	Normal	50	30	0.25	0.05	0.052
10	COMM	381934.1	5	Normal	75	80	0.1	0.03	0.034
11	PARK	234178.6	3.1	Normal	90	0	0.2	0.1	0.132
12	M.D.R.	16727.04	0.2	Normal	50	30	0.25	0.05	0.086
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			99.9						

Comments:

Subbasin 15A - Cornell & Kyrene

Basin ID	SUB16

Area	(sq ft)	5215021
Area	(sq miles)	0.187

L	(feet)	5302.47
L	(miles)	1.004

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1186.1
Elev 2	(feet)	1181.7
Delta h	(feet)	4.4
Slope	(ft/mile)	4.4

Kb		0.031
Kn		0.027
Lag	(minutes)	0

IA	(inches)	0.1
DTHETA		0.28
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.38
RTIMP	(%)	58

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.5	1.5	1.321	1.133	1.029	0.954	0.829
R	(hours)	1.509	1.509	1.31	1.106	0.993	0.913	0.782

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.479	1.525	1.154	1.042	0.971	0.913	0.804
R	(hours)	1.486	1.537	1.128	1.007	0.931	0.869	0.755

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	2100807.5	0.0754	ES	0.25
2	977804.21	0.0351	LAA	0.25
3	2136402.6	0.0766	MV	0.25
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	178421.8	3.4	Dry	10	0	0.1	0.02	0.036
2	OPEN	493447.7	9.5	Dry	10	0	0.1	0.02	0.033
3	COMM	1781430	34.2	Normal	75	80	0.1	0.03	0.03
4	COMM	1731249	33.2	Normal	75	80	0.1	0.03	0.03
5	M.F.R.	2787.84	0.1	Normal	50	45	0.25	0.05	0.096
6	COMM	5575.68	0.1	Normal	75	80	0.1	0.03	0.046
7	COMM	8363.52	0.2	Normal	75	80	0.1	0.03	0.044
8	OPEN	22302.72	0.4	Dry	10	0	0.1	0.02	0.042
9	COMM	209088	4	Normal	75	80	0.1	0.03	0.036
10	COMM	61332.48	1.2	Normal	75	80	0.1	0.03	0.039
11	OPEN	722050.6	13.8	Dry	10	0	0.1	0.02	0.032
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			100.1						

Comments:

Subbasin 16 - SPR & NWBC

Basin ID	SUB17

Area	(sq ft)	1353764
Area	(sq miles)	0.049

L	(feet)	3131.06
L	(miles)	0.593

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1216.1
Elev 2	(feet)	1210.3
Delta h	(feet)	5.8
Slope	(ft/mile)	9.8

Kb		0.035
Kn		0.026
Lag	(minutes)	0

IA	(inches)	0.1
DTHETA		0.29
PSIF	(inches)	3.95
XKSAT	(inches/hr)	0.57
RTIMP	(%)	49

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.15	0.933	0.821	0.692	0.625	0.579	0.504
R	(hours)	1.581	1.254	1.087	0.899	0.803	0.738	0.633

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.788	0.675	0.617	0.558	0.525	0.496	0.446
R	(hours)	1.038	0.875	0.791	0.709	0.662	0.621	0.552

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	1353761.2	0.0486	ANA	0.4
2		0		
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	19514.88	1.4	Dry	10	0	0.1	0.02	0.042
2	COMM	22302.72	1.6	Normal	75	80	0.1	0.03	0.042
3	COMM	158906.9	11.7	Normal	75	80	0.1	0.03	0.036
4	OPEN	97574.4	7.2	Dry	10	0	0.1	0.02	0.038
5	COMM	501811.2	37.1	Normal	75	80	0.1	0.03	0.033
6	OPEN	5575.68	0.4	Dry	10	0	0.1	0.02	0.046
7	OPEN	19514.88	1.4	Dry	10	0	0.1	0.02	0.042
8	OPEN	94786.56	7	Dry	10	0	0.1	0.02	0.038
9	COMM	144967.7	10.7	Normal	75	80	0.1	0.03	0.037
10	OPEN	287147.5	21.2	Dry	10	0	0.1	0.02	0.035
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			99.7						

Comments:

Subbasin 17 - Baseline & 48th

Basin ID	SUB18

Area	(sq ft)	985152.2
Area	(sq miles)	0.035

L	(feet)	1484.54
L	(miles)	0.281

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1216.3
Elev 2	(feet)	1206.5
Delta h	(feet)	9.8
Slope	(ft/mile)	34.9

Kb		0.034
Kn		0.029
Lag	(minutes)	0

IA	(inches)	0.1
DTHETA		0.27
PSIF	(inches)	4.2
XKSAT	(inches/hr)	0.57
RTIMP	(%)	68

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.4	0.338	0.304	0.271	0.25	0.238	0.217
R	(hours)	0.327	0.271	0.241	0.212	0.194	0.183	0.165

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.275	0.25	0.238	0.221	0.208	0.2	0.183
R	(hours)	0.216	0.194	0.183	0.169	0.158	0.151	0.137

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	220752.88	0.0079	ES	0.25
2	764397.85	0.0274	ANA	0.4
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	COMM	780595.2	79.2	Normal	75	80	0.1	0.03	0.032
2	COMM	44605.44	4.5	Normal	75	80	0.1	0.03	0.04
3	OPEN	61332.48	6.2	Dry	10	0	0.1	0.02	0.039
4	OPEN	83635.2	8.5	Dry	10	0	0.1	0.02	0.038
5	OPEN	5575.68	0.6	Dry	10	0	0.1	0.02	0.045
6	PARK	2787.84	0.3	Normal	90	0	0.2	0.1	0.179
7	COMM	5575.68	0.6	Normal	75	80	0.1	0.03	0.046
8	COMM	5575.68	0.6	Normal	75	80	0.1	0.03	0.046
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			100.5						

Comments:

Subbasin 18 - Baseline & Priest

Basin ID	SUB19

Area	(sq ft)	6597893
Area	(sq miles)	0.237

L	(feet)	3880.44
L	(miles)	0.735

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1220.4
Elev 2	(feet)	1190.8
Delta h	(feet)	29.6
Slope	(ft/mile)	40.3

Kb		0.051
Kn		0.044
Lag	(minutes)	0

IA	(inches)	0.21
DTHETA		0.26
PSIF	(inches)	4.55
XKSAT	(inches/hr)	0.42
RTIMP	(%)	45

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.013	0.8	0.688	0.583	0.529	0.492	0.438
R	(hours)	0.67	0.516	0.436	0.363	0.326	0.3	0.264

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.658	0.554	0.508	0.467	0.438	0.417	0.375
R	(hours)	0.415	0.343	0.312	0.284	0.264	0.25	0.222

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	4751483	0.1704	ES	0.25
2	931303.04	0.0334	ANA	0.4
3	915091.75	0.0328	VA	0.4
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	M.D.R.	22302.72	0.3	Normal	50	30	0.25	0.05	0.084
2	M.F.R.	2520207	38.2	Normal	50	45	0.25	0.05	0.056
3	COMM	55756.8	0.8	Normal	75	80	0.1	0.03	0.039
4	COMM	22302.72	0.3	Normal	75	80	0.1	0.03	0.042
5	COMM	2787.84	0	Normal	75	80	0.1	0.03	0.047
6	COMM	19514.88	0.3	Normal	75	80	0.1	0.03	0.042
7	COMM	144967.7	2.2	Normal	75	80	0.1	0.03	0.037
8	COMM	25090.56	0.4	Normal	75	80	0.1	0.03	0.042
9	COMM	122665	1.9	Normal	75	80	0.1	0.03	0.037
10	OPEN	114301.4	1.7	Dry	10	0	0.1	0.02	0.037
11	M.D.R.	2207969	33.5	Normal	50	30	0.25	0.05	0.057
12	M.D.R.	2787.84	0	Normal	50	30	0.25	0.05	0.094
13	OPEN	22302.72	0.3	Dry	10	0	0.1	0.02	0.042
14	M.F.R.	61332.48	0.9	Normal	50	45	0.25	0.05	0.078
15	OPEN	72483.84	1.1	Dry	10	0	0.1	0.02	0.039
16	COMM	468357.1	7.1	Normal	75	80	0.1	0.03	0.034
17	COMM	546416.6	8.3	Normal	75	80	0.1	0.03	0.033
18	OPEN	161694.7	2.5	Dry	10	0	0.1	0.02	0.036
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			99.8						

Comments:

Subbasin 19 - Baseline & Hary

Basin ID	SUB20

Area	(sq ft)	1828835
Area	(sq miles)	0.066

L	(feet)	3196.1
L	(miles)	0.605

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1189.9
Elev 2	(feet)	1182.4
Delta h	(feet)	7.5
Slope	(ft/mile)	12.4

Kb		0.034
Kn		0.028
Lag	(minutes)	0

IA	(inches)	0.1
DTHETA		0.27
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.39
RTIMP	(%)	65

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.917	0.738	0.658	0.579	0.538	0.504	0.45
R	(hours)	1.065	0.837	0.738	0.64	0.589	0.549	0.483

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.667	0.575	0.533	0.488	0.463	0.442	0.4
R	(hours)	0.748	0.635	0.584	0.528	0.498	0.474	0.424

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	1828831.4	0.0656	ES	0.25
2		0		
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	103150.1	5.6	Dry	10	0	0.1	0.02	0.038
2	COMM	242542.1	13.3	Normal	75	80	0.1	0.03	0.035
3	OPEN	13939.2	0.8	Dry	10	0	0.1	0.02	0.043
4	COMM	278784	15.2	Normal	75	80	0.1	0.03	0.035
5	COMM	964592.6	52.7	Normal	75	80	0.1	0.03	0.032
6	OPEN	197936.6	10.8	Dry	10	0	0.1	0.02	0.036
7	OPEN	25090.56	1.4	Dry	10	0	0.1	0.02	0.042
8			0						
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			99.8						

Comments:

Subbasin 20 - Baseline & NBWC

Basin ID	SUB20A

Area	(sq ft)	5504433
Area	(sq miles)	0.197

L	(feet)	4450.93
L	(miles)	0.843

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1212.3
Elev 2	(feet)	1183.1
Delta h	(feet)	29.2
Slope	(ft/mile)	34.6

Kb		0.069
Kn		0.058
Lag	(minutes)	0

IA	(inches)	0.23
DTHETA		0.25
PSIF	(inches)	4.9
XKSAT	(inches/hr)	0.38
RTIMP	(%)	30

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.5	1.313	1.063	0.85	1.563	0.688	0.596
R	(hours)	1.274	1.099	0.869	0.678	1.333	0.536	0.457

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.096	0.892	0.808	0.713	0.654	0.608	0.538
R	(hours)	0.899	0.715	0.642	0.558	0.507	0.468	0.408

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	5504422.8	0.1974	ES	0.25
2		0		
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	PARK	998046.7	18.1	Normal	90	0	0.2	0.1	0.116
2	M.F.R.	727626.2	13.2	Normal	50	45	0.25	0.05	0.063
3	COMM	2787.84	0.1	Normal	75	80	0.1	0.03	0.047
4	M.D.R.	669081.6	12.2	Normal	50	30	0.25	0.05	0.064
5	COMM	8363.52	0.2	Normal	75	80	0.1	0.03	0.044
6	COMM	412600.3	7.5	Normal	75	80	0.1	0.03	0.034
7	M.D.R.	1407859	25.6	Normal	50	30	0.25	0.05	0.059
8	M.D.R.	1268467	23	Normal	50	30	0.25	0.05	0.06
9	M.F.R.	2787.84	0.1	Normal	50	45	0.25	0.05	0.096
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						

Comments:

Subbasin 20A - Baseline & Kyrene

Basin ID	SUB22

Area	(sq ft)	10164234
Area	(sq miles)	0.365

L	(feet)	5505.67
L	(miles)	1.043

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1210.9
Elev 2	(feet)	1179.3
Delta h	(feet)	31.6
Slope	(ft/mile)	30.3

Kb		0.049
Kn		0.043
Lag	(minutes)	0

IA	(inches)	0.19
DTHETA		0.26
PSIF	(inches)	4.35
XKSAT	(inches/hr)	0.47
RTIMP	(%)	38

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.5	1.175	0.992	0.808	0.721	0.663	0.575
R	(hours)	1.064	0.811	0.672	0.535	0.472	0.429	0.367

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.546	0.825	0.75	0.671	0.617	0.579	0.517
R	(hours)	1.1	0.548	0.493	0.435	0.397	0.37	0.326

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	4232080.5	0.1518	ES	0.25
2	2036129.6	0.073	VA	0.4
3	3896006.4	0.1397	ANA	0.4
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	52968.96	0.5	Dry	10	0	0.1	0.02	0.039
2	M.D.R.	4583209	45.1	Normal	50	30	0.25	0.05	0.052
3	OPEN	220239.4	2.2	Dry	10	0	0.1	0.02	0.036
4	PARK	359631.4	3.5	Normal	90	0	0.2	0.1	0.127
5	COMM	25090.56	0.2	Normal	75	80	0.1	0.03	0.042
6	COMM	11151.36	0.1	Normal	75	80	0.1	0.03	0.044
7	M.D.R.	724838.4	7.1	Normal	50	30	0.25	0.05	0.063
8	COMM	507386.9	5	Normal	75	80	0.1	0.03	0.033
9	PARK	69696	0.7	Normal	90	0	0.2	0.1	0.145
10	M.F.R.	331753	3.3	Normal	50	45	0.25	0.05	0.068
11	COMM	844715.5	8.3	Normal	75	80	0.1	0.03	0.032
12	COMM	331753	3.3	Normal	75	80	0.1	0.03	0.034
13	OPEN	457205.8	4.5	Dry	10	0	0.1	0.02	0.034
14	COMM	19514.88	0.2	Normal	75	80	0.1	0.03	0.042
15	COMM	117089.3	1.2	Normal	75	80	0.1	0.03	0.037
16	COMM	2787.84	0	Normal	75	80	0.1	0.03	0.047
17	OPEN	546416.6	5.4	Dry	10	0	0.1	0.02	0.033
18	COMM	236966.4	2.3	Normal	75	80	0.1	0.03	0.035
19	COMM	507386.9	5	Normal	75	80	0.1	0.03	0.033
20	OPEN	203512.3	2	Dry	10	0	0.1	0.02	0.036
21	OPEN	2787.84	0	Dry	10	0	0.1	0.02	0.047
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			99.9						

Comments:

Subbasin 22 - US60 & 48th

Basin ID	SUB23

Area	(sq ft)	5887454
Area	(sq miles)	0.211

L	(feet)	4212.86
L	(miles)	0.798

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1210.9
Elev 2	(feet)	1181.7
Delta h	(feet)	29.2
Slope	(ft/mile)	36.6

Kb		0.028
Kn		0.029
Lag	(minutes)	0

IA	(inches)	0.1
DTHETA		0.26
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.41
RTIMP	(%)	71

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.617	0.508	0.458	0.408	0.383	0.363	0.325
R	(hours)	0.439	0.355	0.316	0.278	0.259	0.244	0.216

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.442	0.388	0.363	0.333	0.321	0.304	0.279
R	(hours)	0.303	0.262	0.244	0.222	0.213	0.2	0.182

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	5822849.9	0.2089	ES	0.25
2	64579.198	0.0023	ANA	0.4
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	OPEN	635627.5	10.8	Dry	10	0	0.1	0.02	0.033
2	OPEN	11151.36	0.2	Dry	10	0	0.1	0.02	0.044
3	COMM	189573.1	3.2	Normal	75	80	0.1	0.03	0.036
4	COMM	5575.68	0.1	Normal	75	80	0.1	0.03	0.045
5	COMM	5043203	85.7	Normal	75	80	0.1	0.03	0.027
6			0						
7			0						
8			0						
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			100						

Comments:

Subbasin 23 - US60 & Priest

Basin ID	SUB24

Area	(sq ft)	7009481
Area	(sq miles)	0.251

L	(feet)	4956.96
L	(miles)	0.939

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1206.5
Elev 2	(feet)	1182.2
Delta h	(feet)	24.3
Slope	(ft/mile)	25.9

Kb		0.053
Kn		0.046
Lag	(minutes)	0

IA	(inches)	0.22
DTHETA		0.25
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.36
RTIMP	(%)	41

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.5	1.154	0.971	0.804	0.725	0.675	0.592
R	(hours)	1.214	0.908	0.749	0.608	0.542	0.501	0.432

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.013	0.842	0.771	0.688	0.638	0.596	0.533
R	(hours)	0.785	0.639	0.58	0.511	0.47	0.436	0.385

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	7009466.1	0.2514	ES	0.25
2		0		
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	COMM	250905.6	3.6	Normal	75	80	0.1	0.03	0.035
2	OPEN	83635.2	1.2	Dry	10	0	0.1	0.02	0.038
3	M.D.R.	2129910	30.4	Normal	50	30	0.25	0.05	0.057
4	M.D.R.	2049062	29.2	Normal	50	30	0.25	0.05	0.057
5	M.F.R.	1547251	22.1	Normal	50	45	0.25	0.05	0.059
6	COMM	292723.2	4.2	Normal	75	80	0.1	0.03	0.035
7	COMM	549204.5	7.8	Normal	75	80	0.1	0.03	0.033
8	COMM	97574.4	1.4	Normal	75	80	0.1	0.03	0.038
9	M.D.R.	8363.52	0.1	Normal	50	30	0.25	0.05	0.091
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						

Comments:

Subbasin 24 - NBWC & Hardy

Basin ID	SUB24A

Area	(sq ft)	473427.4
Area	(sq miles)	0.017

L	(feet)	3124.9
L	(miles)	0.592

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1181.7
Elev 2	(feet)	1177.3
Delta h	(feet)	4.4
Slope	(ft/mile)	7.4

Kb		0.058
Kn		0.04
Lag	(minutes)	0

IA	(inches)	0.2
DTHETA		0.28
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.32
RTIMP	(%)	30

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.5	1.5	1.375	1.108	0.979	0.892	0.754
R	(hours)	3.881	3.881	3.524	2.774	2.418	2.179	1.809

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.488	1.217	1.104	0.971	0.892	0.829	0.721
R	(hours)	3.846	3.077	2.762	2.395	2.179	2.01	1.721

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	473425.41	0.017	ES	0.25
2		0		
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	M.F.R.	317813.8	67.1	Normal	50	45	0.25	0.05	0.068
2	OPEN	80847.36	17.1	Dry	10	0	0.1	0.02	0.038
3	OPEN	72483.84	15.3	Dry	10	0	0.1	0.02	0.039
4			0						
5			0						
6			0						
7			0						
8			0						
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			99.5						

Comments:

Subbasin 24A - US60 & Priest

Basin ID	SUB25

Area	(sq ft)	2387492
Area	(sq miles)	0.086

L	(feet)	3089.57
L	(miles)	0.585

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1182.4
Elev 2	(feet)	1182.2
Delta h	(feet)	0.2
Slope	(ft/mile)	0.3

Kb		0.06
Kn		0.049
Lag	(minutes)	0

IA	(inches)	0.24
DTHETA		0.25
PSIF	(inches)	4.8
XKSAT	(inches/hr)	0.35
RTIMP	(%)	38

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1	1.5	1.5	1.5	1.5	1.5	1.5
R	(hours)	0.982	1.541	1.541	1.541	1.541	1.541	1.541

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.083	0.083	0.333	1.5	1.5	1.5	1.5
R	(hours)	0.062	0.062	0.29	1.541	1.541	1.541	1.541

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	2387489.4	0.0856	ES	0.25
2		0		
3		0		
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	COMM	75271.68	3.2	Normal	75	80	0.1	0.03	0.039
2	OPEN	11151.36	0.5	Dry	10	0	0.1	0.02	0.044
3	M.F.R.	1042652	43.7	Normal	50	45	0.25	0.05	0.061
4	M.D.R.	1257316	52.7	Normal	50	30	0.25	0.05	0.06
5			0						
6			0						
7			0						
8			0						
9			0						
10			0						
11			0						
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			100.1						

Comments:

Subbasin 25 - NBWC & Kyrene

Basin ID	SUB57A

Area	(sq ft)	4149149
Area	(sq miles)	0.149

L	(feet)	3821.1
L	(miles)	0.724

Lca	(feet)	
Lca	(miles)	0

Elev 1	(feet)	1228.3
Elev 2	(feet)	1196.4
Delta h	(feet)	31.9
Slope	(ft/mile)	44.1

Kb		0.058
Kn		0.049
Lag	(minutes)	0

IA	(inches)	0.23
DTHETA		0.25
PSIF	(inches)	4.7
XKSAT	(inches/hr)	0.38
RTIMP	(%)	46

Duration	(hours)	6						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	1.038	0.808	0.692	0.592	0.538	0.5	0.446
R	(hours)	0.877	0.665	0.559	0.47	0.423	0.39	0.344

Duration	(hours)	24						
Frequency	(years)	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
Tc	(hours)	0.675	0.571	0.525	0.475	0.45	0.429	0.388
R	(hours)	0.544	0.452	0.412	0.369	0.347	0.329	0.294

XKSAT Calculations:

Area No.	Area (sq ft)	Area (sq miles)	Soil Type	XKSAT (inches/hr)
1	2747282.5	0.0985	ES	0.25
2	396419.7	0.0142	VA	0.4
3	1005437.3	0.0361	MV	0.25
4		0		
5		0		
6		0		
7		0		

8		0		
9		0		
10		0		

Land Use Calculations

Land Use Group	Group ID	Area (sq. ft)	Area %	Dtheta Type	Veg Cover %	RTIMP %	IA (inches)	Kn	Kb
1	M.D.R.	11151.36	0.3	Normal	50	30	0.25	0.05	0.088
2	COMM	2787.84	0.1	Normal	75	80	0.1	0.03	0.047
3	M.F.R.	2263726	54.6	Normal	50	45	0.25	0.05	0.056
4	COMM	278784	6.7	Normal	75	80	0.1	0.03	0.035
5	COMM	197936.6	4.8	Normal	75	80	0.1	0.03	0.036
6	PARK	97574.4	2.4	Normal	90	0	0.2	0.1	0.141
7	M.D.R.	440478.7	10.6	Normal	50	30	0.25	0.05	0.066
8	OPEN	25090.56	0.6	Dry	10	0	0.1	0.02	0.042
9	M.D.R.	55756.8	1.3	Normal	50	30	0.25	0.05	0.078
10	OPEN	2787.84	0.1	Dry	10	0	0.1	0.02	0.047
11	M.F.R.	772231.7	18.6	Normal	50	45	0.25	0.05	0.063
12			0						
13			0						
14			0						
15			0						
16			0						
17			0						
18			0						
19			0						
20			0						
21			0						
22			0						
23			0						
24			0						
25			0						
26			0						
27			0						
28			0						
29			0						
30			0						
31			0						
32			0						
33			0						
34			0						
35			0						
			100.1						

Comments:

Subbasin 57A Grove & Kyrene

D.3 Hydrograph Routing Data

Reach ID	R0104

Reach Length	(ft)	2391.7

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1188.2
Ending Elevation	(ft)	1187.9
Delta h	(ft)	0.3
Slope	(ft/ft)	0.0001254

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	McClintock
XS Width	116.6

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	58	10.125
(5) [CHNL]	62	10.125
(6) [ROB]	110	10
(7) [ROB]	110.1	10.5
(8) [ROB]	120.1	10.5

Comments:

Reach ID	R0105

Reach Length	(ft)	5938.08

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1188.14
Ending Elevation	(ft)	1181.42
Delta h	(ft)	6.72
Slope	(ft/ft)	0.0011317

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Baseline
XS Width	227

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	121.5	10.28375
(5) [CHNL]	125.5	10.28375
(6) [ROB]	237	10
(7) [ROB]	237.1	10.5
(8) [ROB]	247.1	10.5

Comments:

Routing from Subbasin 01 to 05 along Baseline

Reach ID	R0203

Reach Length	(ft)	5009.1

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1180.27
Ending Elevation	(ft)	1177.28
Delta h	(ft)	2.99
Slope	(ft/ft)	0.0005969

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Carver
XS Width	48

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	32	10.06
(5) [CHNL]	36	10.06
(6) [ROB]	58	10
(7) [ROB]	58.1	10.5
(8) [ROB]	68.1	10.5

Comments:

Routing from Subbasin 02 to 03 along Freemont/Lakeshore

Reach ID	R0405

Reach Length	(ft)	5449.26

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1189.38
Ending Elevation	(ft)	1185
Delta h	(ft)	4.38
Slope	(ft/ft)	0.0008038

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Cornell
XS Width	45

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	30.5	10.05625
(5) [CHNL]	34.5	10.05625
(6) [ROB]	55	10
(7) [ROB]	55.1	10.5
(8) [ROB]	65.1	10.5

Comments:

Routing from Subbasin 04 to 05 along Cornell

Reach ID	R0506

Reach Length	(ft)	3266.65

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1181.42
Ending Elevation	(ft)	1176.25
Delta h	(ft)	5.17
Slope	(ft/ft)	0.0015827

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Baseline
XS Width	116.6

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	66.3	10.14575
(5) [CHNL]	70.3	10.14575
(6) [ROB]	126.6	10
(7) [ROB]	126.7	10.5
(8) [ROB]	136.7	10.5

Comments:

Routing from Subbasin 05 to 06 along Baseline

Reach ID	R0603

Reach Length	(ft)	2406.35

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1176.25	
Ending Elevation	(ft)	1172.5	1172.5
Delta h	(ft)	3.75	
Slope	(ft/ft)	0.0015584	

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Mill
XS Width	105

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	60.5	10.13125
(5) [CHNL]	64.5	10.13125
(6) [ROB]	115	10
(7) [ROB]	115.1	10.5
(8) [ROB]	125.1	10.5

Comments:

Routing from Subbasin 06 to 03 along Mill

Reach ID	R07081

Reach Length	(ft)	2638.17

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1187.67
Ending Elevation	(ft)	1184.89
Delta h	(ft)	2.78
Slope	(ft/ft)	0.0010538

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Guadalupe
XS Width	67.4

Station No.	X (ft)	Y (ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	41.7	10.08425
(5) [CHNL]	45.7	10.08425
(6) [ROB]	77.4	10
(7) [ROB]	77.5	10.5
(8) [ROB]	87.5	10.5

Comments:

Routing from Subbasin 07 to 08 part 1 along Guadalupe

Reach ID	R07082

Reach Length	(ft)	1729.76

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1184.89
Ending Elevation	(ft)	1182.32
Delta h	(ft)	2.57
Slope	(ft/ft)	0.0014858

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	
XS Width	67.4

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	41.7	10.08425
(5) [CHNL]	45.7	10.08425
(6) [ROB]	77.4	10
(7) [ROB]	77.5	10.5
(8) [ROB]	87.5	10.5

Comments:

Routing from Subbasin 07 to 08 part 2 along Lakeshore

Reach ID	R0711

Reach Length	(ft)	3266.65

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1181.42
Ending Elevation	(ft)	1176.25
Delta h	(ft)	5.17
Slope	(ft/ft)	0.0015827

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	McClintock
XS Width	116.6

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	58	10.125
(5) [CHNL]	62	10.125
(6) [ROB]	110	10
(7) [ROB]	110.1	10.5
(8) [ROB]	120.1	10.5

Comments:

Reach ID	R0809

Reach Length	(ft)	1361.91

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1182.32
Ending Elevation	(ft)	1181.34
Delta h	(ft)	0.98
Slope	(ft/ft)	0.0007196

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	
XS Width	40

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	28	10.05
(5) [CHNL]	32	10.05
(6) [ROB]	50	10
(7) [ROB]	50.1	10.5
(8) [ROB]	60.1	10.5

Comments:

Routing from Subbasin 08 to 09 along Bel De Mar

Reach ID	R0910

Reach Length	(ft)	1385.52

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1181.8
Ending Elevation	(ft)	1181.53
Delta h	(ft)	0.27
Slope	(ft/ft)	0.0001949

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	
XS Width	40

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	15.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	28	10.05
(5) [CHNL]	32	10.05
(6) [ROB]	50	10
(7) [ROB]	50.1	10.5
(8) [ROB]	60.1	15.5

Comments:

Routing from Subbasin 09 to Ponding at Rural

Reach ID	R09A05

Reach Length	(ft)	2244.72

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1185
Ending Elevation	(ft)	1181.42
Delta h	(ft)	3.58
Slope	(ft/ft)	0.0015949

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Rural
XS Width	110.8

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	63.4	10.1385
(5) [CHNL]	67.4	10.1385
(6) [ROB]	120.8	10
(7) [ROB]	120.9	10.5
(8) [ROB]	130.9	10.5

Comments:

Routing from Subbasin 09A to 05 along Rural

Reach ID	R1009A

Reach Length	(ft)	3036.75

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1189
Ending Elevation	(ft)	1185
Delta h	(ft)	4
Slope	(ft/ft)	0.0013172

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Rural
XS Width	109.7

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	62.85	10.137125
(5) [CHNL]	66.85	10.137125
(6) [ROB]	119.7	10
(7) [ROB]	119.8	10.5
(8) [ROB]	129.8	10.5

Comments:

Routing from Subbasin 10 to 9A along Rural

Reach ID	R26A06

Reach Length	(ft)	1239.41

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1179.53
Ending Elevation	(ft)	1176.25
Delta h	(ft)	3.28
Slope	(ft/ft)	0.0026464

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Baseline
XS Width	82.6

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	49.3	10.10325
(5) [CHNL]	53.3	10.10325
(6) [ROB]	92.6	10
(7) [ROB]	92.7	10.5
(8) [ROB]	102.7	10.5

Comments:

Routing from Subbasin 26A to 06 along Baseline

Reach ID	R26A26

Reach Length	(ft)	2488.47

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1179.53
Ending Elevation	(ft)	1176.64
Delta h	(ft)	2.89
Slope	(ft/ft)	0.0011614

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	R26A26
XS Width	0

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	76.07
(2) [LOB]	59	76.07
(3) [LOB]	59	76.07
(4) [CHNL]	147.43	74.73
(5) [CHNL]	147.43	74.73
(6) [ROB]	216.23	74.93
(7) [ROB]	216.23	74.93
(8) [ROB]	265.4	77.7

Comments:

Routing from Subbasin 26A to 26 along SPR

Reach ID	R32A33A

Reach Length	(ft)	2676.45

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1192.11
Ending Elevation		1188.48
Delta h		3.63
Slope		0.0013563

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Kyrene
XS Width	66.67

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	41.335	10.083338
(5) [CHNL]	45.335	10.083338
(6) [ROB]	76.67	10
(7) [ROB]	76.77	10.5
(8) [ROB]	86.77	10.5

Comments:

Routing from Subbasin 32A to 33A along Kyene

Reach ID	R33A33

Reach Length	(ft)	975.526

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1188.48
Ending Elevation	(ft)	1184.24
Delta h	(ft)	4.24
Slope	(ft/ft)	0.0043464

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Warner
XS Width	69

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	42.5	10.08625
(5) [CHNL]	46.5	10.08625
(6) [ROB]	79	10
(7) [ROB]	79.1	10.5
(8) [ROB]	89.1	10.5

Comments:

Routing from Subbasin 33A to 33 along Warner

Reach ID	R33A35

Reach Length	(ft)	2649.76

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1188.48
Ending Elevation		1182.75
Delta h		5.73
Slope		0.0021625

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Kyrene
XS Width	68.3

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	42.15	10.085375
(5) [CHNL]	46.15	10.085375
(6) [ROB]	78.3	10
(7) [ROB]	78.4	10.5
(8) [ROB]	88.4	10.5

Comments:

Routing from Subbasin 33A to 35 along Kyrene

Reach ID	R3637

Reach Length	(ft)	2879.78

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1223.94
Ending Elevation		1200.11
Delta h		23.83
Slope		0.0082749

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Ray
XS Width	100

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	58	10.125
(5) [CHNL]	62	10.125
(6) [ROB]	110	10
(7) [ROB]	110.1	10.5
(8) [ROB]	120.1	10.5

Comments:

Routing from Subbasin 36 to 37 along Ray

Reach ID	R3734

Reach Length	(ft)	2335.12

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1200.11
Ending Elevation	(ft)	1191.63
Delta h	(ft)	8.48
Slope	(ft/ft)	0.0036315

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Ray
XS Width	105

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	60.5	10.13125
(5) [CHNL]	64.5	10.13125
(6) [ROB]	115	10
(7) [ROB]	115.1	10.5
(8) [ROB]	125.1	10.5

Comments:

Routing from Subbasin 37 to 34 along Ray

Reach ID	R3740

Reach Length	(ft)	2620.6

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1200.11
Ending Elevation		1187.72
Delta h		12.39
Slope		0.0047279

Manning 's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Priest
XS Width	68

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	42	10.085
(5) [CHNL]	46	10.085
(6) [ROB]	78	10
(7) [ROB]	78.1	10.5
(8) [ROB]	88.1	10.5

Comments:

Routing from Subbasin 37 to 40 along Priest

Reach ID	R4040A

Reach Length	(ft)	2686.04

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1187.72
Ending Elevation		1175.72
Delta h		12
Slope		0.0044675

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Priest
XS Width	68

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	42	10.085
(5) [CHNL]	46	10.085
(6) [ROB]	78	10
(7) [ROB]	78.1	10.5
(8) [ROB]	88.1	10.5

Comments:

Routing from Subbasin 40 to 40A along Priest

Reach ID	R40A41

Reach Length	(ft)	893.618

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1175.72
Ending Elevation		1173.65
Delta h		2.07
Slope		0.0023164

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Chandler
XS Width	89

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	52.5	10.11125
(5) [CHNL]	56.5	10.11125
(6) [ROB]	99	10
(7) [ROB]	99.1	10.5
(8) [ROB]	109.1	10.5

Comments:

Routing from Subbasin 40A to 41 along Chandler

Reach ID	R57B30

Reach Length	(ft)	2135.31

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1198.64
Ending Elevation	(ft)	1185.4
Delta h	(ft)	13.24
Slope	(ft/ft)	0.0062005

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Elliot
XS Width	82

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	49	10.1025
(5) [CHNL]	53	10.1025
(6) [ROB]	92	10
(7) [ROB]	92.1	10.5
(8) [ROB]	102.1	10.5

Comments:

Routing from Subbasin 57B to 30 along Elliot

Reach ID	R57B32A

Reach Length	(ft)	2624.25

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1198.64
Ending Elevation	(ft)	1192.11
Delta h	(ft)	6.53
Slope	(ft/ft)	0.0024883

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Kyrene
XS Width	67.3

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	41.65	10.084125
(5) [CHNL]	45.65	10.084125
(6) [ROB]	77.3	10
(7) [ROB]	77.4	10.5
(8) [ROB]	87.4	10.5

Comments:

Routing from Subbasin 57B to 32A along Kyrene

Reach ID	R57C57B

Reach Length	(ft)	3896.61

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1226.4
Ending Elevation		1198.64
Delta h		27.76
Slope		0.0071241

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Elliot
XS Width	87

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	51.5	10.10875
(5) [CHNL]	55.5	10.10875
(6) [ROB]	97	10
(7) [ROB]	97.1	10.5
(8) [ROB]	107.1	10.5

Comments:

Routing from Subbasin 57C to 57B along Elliot

Reach ID	R5858A

Reach Length	(ft)	1159.9

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1203.71
Ending Elevation		1198.57
Delta h		5.14
Slope		0.0044314

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Warner
XS Width	67.3

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	41.65	10.084125
(5) [CHNL]	45.65	10.084125
(6) [ROB]	77.3	10
(7) [ROB]	77.4	10.5
(8) [ROB]	87.4	10.5

Comments:

Routing from Subbasin 58 to 58A along Warner

Reach ID	R58B58C

Reach Length	(ft)	1933.66

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1209.77
Ending Elevation		1200.29
Delta h		9.48
Slope		0.0049026

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Carver
XS Width	47.4

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	31.7	10.05925
(5) [CHNL]	35.7	10.05925
(6) [ROB]	57.4	10
(7) [ROB]	57.5	10.5
(8) [ROB]	67.5	10.5

Comments:

Routing from Subbasin 58B to 58C along Carver

Reach ID	R5957C

Reach Length	(ft)	1414.52

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1234.46
Ending Elevation	(ft)	1226.4
Delta h	(ft)	8.06
Slope	(ft/ft)	0.005698

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Elliot
XS Width	100.5

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	58.25	10.125625
(5) [CHNL]	62.25	10.125625
(6) [ROB]	110.5	10
(7) [ROB]	110.6	10.5
(8) [ROB]	120.6	10.5

Comments:

Routing from Subbasin 59 to 57C along Elliot

Reach ID	R5959B

Reach Length	(ft)	2704.9

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1234.46
Ending Elevation		1226.57
Delta h		7.89
Slope		0.0029169

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Priest
XS Width	90

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	53	10.1125
(5) [CHNL]	57	10.1125
(6) [ROB]	100	10
(7) [ROB]	100.1	10.5
(8) [ROB]	110.1	10.5

Comments:

Routing from Subbasin 59 to 59B along Priest

Reach ID	R59A58

Reach Length	(ft)	2675.68

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1219.06
Ending Elevation	(ft)	1203.71
Delta h	(ft)	15.35
Slope	(ft/ft)	0.0057369

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Warner
XS Width	67.3

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	41.65	10.084125
(5) [CHNL]	45.65	10.084125
(6) [ROB]	77.3	10
(7) [ROB]	77.4	10.5
(8) [ROB]	87.4	10.5

Comments:

Routing from Subbasin 59A to 58 along Warner

Reach ID	R59A70

Reach Length	(ft)	2686.44

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1219.06
Ending Elevation		1210.19
Delta h		8.87
Slope		0.0033018

Manning 's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Priest
XS Width	56

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	36	10.07
(5) [CHNL]	40	10.07
(6) [ROB]	66	10
(7) [ROB]	66.1	10.5
(8) [ROB]	76.1	10.5

Comments:

Routing from Subbasin 59A to 70 along Priest

Reach ID	R59B59A

Reach Length	(ft)	2606.14

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1226.57
Ending Elevation	(ft)	1219.06
Delta h	(ft)	7.51
Slope	(ft/ft)	0.0028817

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Priest
XS Width	69

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	42.5	10.08625
(5) [CHNL]	46.5	10.08625
(6) [ROB]	79	10
(7) [ROB]	79.1	10.5
(8) [ROB]	89.1	10.5

Comments:

Reach ID	R7037

Reach Length	(ft)	2646.43

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1210.19
Ending Elevation		1200.11
Delta h		10.08
Slope		0.0038089

Manning 's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Priest
XS Width	69

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	42.5	10.08625
(5) [CHNL]	46.5	10.08625
(6) [ROB]	79	10
(7) [ROB]	79.1	10.5
(8) [ROB]	89.1	10.5

Comments:

Routing from Subbasin 70 to 37 along Priest

Reach ID	R1213

Reach Length	(ft)	1795.38

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1194.27
Ending Elevation	(ft)	1186.31
Delta h	(ft)	7.96
Slope	(ft/ft)	0.0044336

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Guadalupe
XS Width	67

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	41.5	10.08375
(5) [CHNL]	45.5	10.08375
(6) [ROB]	77	10
(7) [ROB]	77.1	10.5
(8) [ROB]	87.1	10.5

Comments:

Routing from Subbasin 12 to 13 along Guadalupe

Reach ID	R12A12

Reach Length	(ft)	773.793

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1196.86
Ending Elevation	(ft)	1194.27
Delta h	(ft)	2.59
Slope	(ft/ft)	0.0033471

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Guadalupe
XS Width	67

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	41.5	10.08375
(5) [CHNL]	45.5	10.08375
(6) [ROB]	77	10
(7) [ROB]	77.1	10.5
(8) [ROB]	87.1	10.5

Comments:

Routing from Subbasin 12A to 12 along Guadalupe

Reach ID	R12A15A

Reach Length	(ft)	2938.05

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1196.86
Ending Elevation	(ft)	1190.36
Delta h	(ft)	6.5
Slope	(ft/ft)	0.0022124

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Kyrene
XS Width	70

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	43	10.0875
(5) [CHNL]	47	10.0875
(6) [ROB]	80	10
(7) [ROB]	80.1	10.5
(8) [ROB]	90.1	10.5

Routing from Subbasin 12A to 15A along Kyrene

Reach ID	R1310

Reach Length	(ft)	2713.03

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1186.5
Ending Elevation	(ft)	1183
Delta h	(ft)	3.5
Slope	(ft/ft)	0.0012901

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Guadalupe
XS Width	67

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	41.5	10.08375
(5) [CHNL]	45.5	10.08375
(6) [ROB]	77	10
(7) [ROB]	77.1	10.5
(8) [ROB]	87.1	10.5

Comments:

Routing from Subbasin 13 to 10 along Guadalupe

Reach ID	R1419

Reach Length	(ft)	2845.83

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1212.3
Ending Elevation		1190.8
Delta h		21.5
Slope		0.0075549

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Hardy
XS Width	66.6

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	41.3	10.08325
(5) [CHNL]	45.3	10.08325
(6) [ROB]	76.6	10
(7) [ROB]	76.7	10.5
(8) [ROB]	86.7	10.5

Comments:

Routing from Subbasin 14 to 19 along Hardy

Reach ID	R15A20A

Reach Length	(ft)	2355.77

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1190.36
Ending Elevation	(ft)	1183.13
Delta h	(ft)	7.23
Slope	(ft/ft)	0.0030691

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Kyrene
XS Width	67.5

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	41.75	10.084375
(5) [CHNL]	45.75	10.084375
(6) [ROB]	77.5	10
(7) [ROB]	77.6	10.5
(8) [ROB]	87.6	10.5

Routing from Subbasin 15A to 20A along Kyrene

Reach ID	R1722

Reach Length	(ft)	2955.36

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1210.27
Ending Elevation	(ft)	1179.15
Delta h	(ft)	31.12
Slope	(ft/ft)	0.01053

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	48th
XS Width	64.5

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	40.25	10.080625
(5) [CHNL]	44.25	10.080625
(6) [ROB]	74.5	10
(7) [ROB]	74.6	10.5
(8) [ROB]	84.6	10.5

Routing from Subbasin 15A to 20A along Kyrene

Reach ID	R1823

Reach Length	(ft)	3133.5

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1206.45
Ending Elevation		1181.72
Delta h		24.73
Slope		0.0078921

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Hardy
XS Width	82.5

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	49.25	10.103125
(5) [CHNL]	53.25	10.103125
(6) [ROB]	92.5	10
(7) [ROB]	92.6	10.5
(8) [ROB]	102.6	10.5

Comments:

Routing from Subbasin 18 to 23 along Hardy

Reach ID	R18GD

Reach Length	(ft)	1052.05

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1206.32
Ending Elevation	(ft)	1200
Delta h	(ft)	6.32
Slope	(ft/ft)	0.0060073

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Baseline
XS Width	111

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	63.5	10.13875
(5) [CHNL]	67.5	10.13875
(6) [ROB]	121	10
(7) [ROB]	121.1	10.5
(8) [ROB]	131.1	10.5

Comments:

Routing from Subbasin 18 towards 19 along Baseline

Reach ID	R1920A

Reach Length	(ft)	1997.17

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1190.8
Ending Elevation	(ft)	1183.13
Delta h	(ft)	7.67
Slope	(ft/ft)	0.0038404

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Baseline
XS Width	111

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	63.5	10.13875
(5) [CHNL]	67.5	10.13875
(6) [ROB]	121	10
(7) [ROB]	121.1	10.5
(8) [ROB]	131.1	10.5

Routing from Subbasin 19 to 20A along Baseline

Reach ID	R1924

Reach Length	(ft)	1974.96

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1190.8
Ending Elevation	(ft)	1182.19
Delta h	(ft)	8.61
Slope	(ft/ft)	0.0043596

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Hardy
XS Width	69

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	42.5	10.08625
(5) [CHNL]	46.5	10.08625
(6) [ROB]	79	10
(7) [ROB]	79.1	10.5
(8) [ROB]	89.1	10.5

Routing from Subbasin 19 to 24 along Hardy

Reach ID	R2026A

Reach Length	(ft)	534.975

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1182.41
Ending Elevation	(ft)	1179.53
Delta h	(ft)	2.88
Slope	(ft/ft)	0.0053834

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Baseline
XS Width	83

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	49.5	10.10375
(5) [CHNL]	53.5	10.10375
(6) [ROB]	93	10
(7) [ROB]	93.1	10.5
(8) [ROB]	103.1	10.5

Routing from Subbasin 20 to 26A along Baseline

Reach ID	R20A20

Reach Length	(ft)	232.436

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1183.13
Ending Elevation	(ft)	1182.41
Delta h	(ft)	0.72
Slope	(ft/ft)	0.0030976

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Baseline
XS Width	84

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	50	10.105
(5) [CHNL]	54	10.105
(6) [ROB]	94	10
(7) [ROB]	94.1	10.5
(8) [ROB]	104.1	10.5

Routing from Subbasin 20A to 20 along Baseline

Reach ID	R30A30

Reach Length	(ft)	1603.1

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1195.1
Ending Elevation	(ft)	1185.4
Delta h	(ft)	9.7
Slope	(ft/ft)	0.0060508

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	R57A30A
XS Width	68

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	42	10.085
(5) [CHNL]	46	10.085
(6) [ROB]	78	10
(7) [ROB]	78.1	10.5
(8) [ROB]	88.1	10.5

Routing from Subbasin 57A to 12 along Priest

Reach ID	R57A30A

Reach Length	(ft)	725.9

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1196.44
Ending Elevation	(ft)	1194.35
Delta h	(ft)	2.09
Slope	(ft/ft)	0.0028792

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	R57A30A
XS Width	68

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	42	10.085
(5) [CHNL]	46	10.085
(6) [ROB]	78	10
(7) [ROB]	78.1	10.5
(8) [ROB]	88.1	10.5

Routing from Subbasin 57A to 12 along Priest

Reach ID	RGD12A

Reach Length	(ft)	3227.95

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1221.1
Ending Elevation	(ft)	1196.86
Delta h	(ft)	24.24
Slope	(ft/ft)	0.0075094

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Guadalupe
XS Width	67

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	41.5	10.08375
(5) [CHNL]	45.5	10.08375
(6) [ROB]	77	10
(7) [ROB]	77.1	10.5
(8) [ROB]	87.1	10.5

Comments:

Routing from Guadalupe Study to 12A along Guadalupe Rd

Reach ID	RGD19

Reach Length	(ft)	2189.34

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1200
Ending Elevation	(ft)	1190.68
Delta h	(ft)	9.32
Slope	(ft/ft)	0.004257

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Baseline
XS Width	111

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	12.5
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	63.5	10.13875
(5) [CHNL]	67.5	10.13875
(6) [ROB]	121	10
(7) [ROB]	121.1	10.5
(8) [ROB]	131.1	10.5

Combine flows from 18 and Guadalupe Study to 19

Reach ID	RGD57A

Reach Length	(ft)	3380.07

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1226
Ending Elevation	(ft)	1196.8
Delta h	(ft)	29.2
Slope	(ft/ft)	0.0086389

Manning's n - LOB	0.03
Manning's n - Channel	0.03
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Ditch57a
XS Width	200

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	3
(2) [LOB]	25	2
(3) [LOB]	50	1
(4) [CHNL]	99.9	0
(5) [CHNL]	100.1	0
(6) [ROB]	150	1
(7) [ROB]	175	2
(8) [ROB]	200	3

Comments:

Routing from Guadalupe Study from south detention basin

Reach ID	RGDBECK

Reach Length	(ft)	1975

No. of Steps used in the Storage Routing	3

Starting Elevation	(ft)	1210
Ending Elevation	(ft)	1200
Delta h	(ft)	10
Slope	(ft/ft)	0.0050633

Manning's n - LOB	0.03
Manning's n - Channel	0.02
Manning's n - ROB	0.03

Max Elevation	(ft)	

XS id	Beck
XS Width	62

Station No.	X	Y
	(ft)	(ft)
(1) [LOB]	0	11
(2) [LOB]	10	10.5
(3) [LOB]	10.1	10
(4) [CHNL]	40.25	10.080625
(5) [CHNL]	44.25	10.080625
(6) [ROB]	74.5	10
(7) [ROB]	74.6	10.5
(8) [ROB]	84.6	11

Comments:

Routing from Guadalupe Study Along Beck

D.4 Reservoir Routing Data

PONDING WEIR CALCULATIONS

Pond **58c**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1198	697.0
2	1198.8	520.0
3	1199.1	1532.9

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1198.00	0.0
1198.50	665.4
1199.00	2007.5
1199.50	5326.7

PONDING WEIR CALCULATIONS

Pond **58a**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1198.9	273.0
2	1198.9	796.6
3	1199.1	547.6
4	1199.2	459.4
5	1199.2	280.0
6	1199.3	370.2

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1199.00	91.3
1199.50	2133.6
1200.00	6608.0

PONDING WEIR CALCULATIONS

Pond **41b**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1182.4	382.3
2	1183.2	180.2
3	1184	617.9
4	1184.3	275.1

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1182.5	32.6
1183.0	479.7
1183.5	1270.7
1184.0	2437.1
1184.5	4518.5
1185.0	7605.4

PONDING WEIR CALCULATIONS

Pond **41ad** Road weir

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1181.5	107.6
2	1182	148.7
3	1182.3	76.7
4	1183.5	118.6
5	1183.5	132.5

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1181.50	0.0
1182.00	102.7
1182.50	450.9
1183.00	1056.4
1183.50	1831.3
1184.00	2982.4

PONDING WEIR CALCULATIONS

Pond **41a**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1181.5	107.6
2	1182	148.7
3	1182.1	295.9
4	1182.3	76.7
5	1183.5	118.6
6	1183.5	132.5
7	1184.4	333.3
8	1184.9	442.8
9	1187	391.4
10	1188.1	246.5
11	1188.8	575.6

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1181.50	0.0
1182.00	102.7
1182.50	653.0
1183.00	1738.4
1183.50	3154.6
1184.00	5074.7
1184.50	7448.9
1185.00	10553.9
1185.50	14658.4
1186.00	19492.6
1186.50	24917.9
1187.00	30862.3
1187.50	37651.1
1188.00	45184.3
1188.50	53494.0

These should be the SQ records

1189.00	62720.8
1189.50	73218.9

PONDING WEIR CALCULATIONS

Pond **41d**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1174	103.6
2	1174.4	101.8
3	1174.6	71.7

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1174.00	0.0
1174.50	107.6
1175.00	456.5

PONDING WEIR CALCULATIONS

Pond **41**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1174	103.6
2	1174	185.4
3	1174.4	101.8
4	1174.6	71.7
5	1174.6	106.0
6	1175.3	281.5
7	1176	208.0
8	1177	297.5
9	1177.9	258.6
10	1178.7	281.8
11	1179.3	206.7
12	1180.1	204.6

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1174.00	0.0
1174.50	284.6
1175.00	1029.4
1175.50	2228.2
1176.00	4003.1
1176.50	6375.0
1177.00	9236.9
1177.50	12774.7
1178.00	16913.3
1178.50	21796.4
1179.00	27393.7
1179.50	33836.3
1180.00	41121.4
1180.50	49218.9

PONDING WEIR CALCULATIONS

Pond **39**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1182.3	557.9
2	1182.4	554.5
3	1182.6	295.2
4	1182.7	324.9
5	1182.9	279.5
6	1183.4	712.1
7	1184	534.0

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1182.5	182.1
1183.0	1947.6
1183.5	5427.1
1184.0	10753.7
1184.5	17932.7

PONDING WEIR CALCULATIONS

Pond **35a**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1183	241.6
2	1183.6	306.3
3	1184	779.8
4	1184.1	376.8
5	1184.3	326.7
6	1184.4	196.9
7	1186.6	522.5

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1183.0	0.0
1183.5	230.6
1184.0	861.6
1184.5	3002.0
1185.0	6952.8
1185.5	12070.5
1186.0	18115.0
1186.5	24956.8
1187.0	32866.7

PONDING WEIR CALCULATIONS

Pond **34A**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1194.4	70.3
2	1195.1	413.6
3	1195.4	98.2
4	1195.6	335.1
5	1195.7	104.8
6	1196	981.3
7	1196.6	427.7
8	1196.6	113.9
9	1197	98.8

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1194.5	6.0
1195.0	88.2
1195.5	509.8
1196.0	1736.1
1196.5	4644.9
1197.0	9194.4
1197.5	15257.9

Does not match SQ in HEC-1

PONDING WEIR CALCULATIONS

Diversion **34A34**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1194.4	70.3
2	1195.4	98.2
3	1195.7	104.8
4	1196.6	113.9
5	1197	98.8

Does not represent the roadway data instead represents the RR.

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1194.5	6.0
1195.0	88.2
1195.5	227.3
1196.0	553.7
1196.5	1085.7
1197.0	1829.1
1197.5	2882.5

WRONG Qs for Diversion

PONDING WEIR CALCULATIONS

Pond **34**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1188.7	94.0
2	1189	92.0
3	1189	101.0
4	1189.8	103.9
5	1190.1	91.9
6	1190.7	473.2
7	1190.7	99.9
8	1191	442.8
9	1191.5	156.4
10	1191.6	338.1
11	1191.6	133.6
12	1192	232.9
13	1192.5	258.0
14	1193.9	270.8

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1188.50	0.0
1189.00	41.7
1189.50	365.7
1190.00	922.2
1190.50	1797.0
1191.00	3193.7
1191.50	5811.3
1192.00	9754.7
1192.50	15124.3
1193.00	21802.5
1193.50	29553.0
1194.00	38222.9
1194.50	47985.5

Does not match SQ record for pond 34

PONDING WEIR CALCULATIONS

Pond **33d**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1184.5	168.6
2	1184.7	83.9
3	1185.2	83.9
4	1185.4	79.8

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1184.50	0.0
1185.00	198.2
1185.50	661.4
1186.00	1434.5

PONDING WEIR CALCULATIONS

Pond **33**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1184.1	419.4
2	1184.3	582.1
3	1184.4	265.3
4	1184.4	233.7
5	1184.5	512.7
6	1184.5	168.6
7	1184.7	83.9
8	1184.8	350.8
9	1185	355.2
10	1185.2	83.9
11	1185.4	79.8

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1184.00	0.0
1184.50	469.6
1185.00	3285.6
1185.50	8435.3
1186.00	15357.1

PONDING WEIR CALCULATIONS

Pond **32**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1185	666.1
2	1185	753.8
3	1185.7	790.6
4	1186	478.3

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1185.0	0.0
1185.5	1355.5
1186.0	4184.6
1186.5	9027.3

PONDING WEIR CALCULATIONS

Pond **30a**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1194.5	121.8
2	1194.8	177.8
3	1195.1	586.5
4	1195.5	234.4
5	1195.9	264.9
6	1196.3	177.0
7	1196.6	257.5
8	1196.8	208.2
9	1197.1	237.1
10	1197.3	184.2
11	1197.8	245.4

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1194.50	0.0
1195.00	159.2
1195.50	1010.6
1196.00	2833.7
1196.50	5625.4
1197.00	9507.5
1197.50	14721.3
1198.00	21246.9
1198.50	28990.6

PONDING WEIR CALCULATIONS

Pond **30**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1183.5	260.5
2	1185.5	160.4
3	1186	1530.7
4	1186.3	639.2

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1183.5	0.0
1184.0	248.6
1184.5	703.3
1185.0	1292.0
1185.5	1989.2
1186.0	2933.1
1186.5	5703.1
1187.0	10544.5

PONDING WEIR CALCULATIONS

Pond **25a**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1180	78.3
2	1182.7	253.0
3	1183	60.9
4	1183	130.6
5	1183.5	106.9

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1180.0	0.0
1180.5	74.7
1181.0	211.3
1181.5	388.2
1182.0	597.6
1182.5	835.2
1183.0	1210.1
1183.5	2055.0
1184.0	3321.6

PONDING WEIR CALCULATIONS

Pond **25**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1180.9	79.7
2	1181	528.8
3	1181.1	131.7
4	1181.2	40.8
5	1181.3	324.2
6	1181.6	86.8
7	1181.7	216.2
8	1181.8	46.0
9	1181.8	43.8
10	1181.8	78.3
11	1182	210.1
12	1182	97.6
13	1182	132.6
14	1182.1	41.3
15	1182.2	270.5
16	1182.3	49.3
17	1182.3	60.3
18	1182.5	47.6
19	1182.7	281.4
20	1182.9	79.2

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1181.00	6.8
1181.50	791.1
1182.00	2766.9
1182.50	6440.2
1183.00	11838.0
1183.50	18750.3

PONDING WEIR CALCULATIONS

Pond **24**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1182	576.9
2	1182	278.1
3	1182.1	249.6
4	1182.4	905.5
5	1182.5	697.9

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1182.0	0.0
1182.5	1064.0
1183.0	4686.5

PONDING WEIR CALCULATIONS

Pond **23**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1180	194.7

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1180.0	0.0
1180.5	185.9

PONDING WEIR CALCULATIONS

Pond **22**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1180	746.7
2	1180.4	219.9
3	1180.6	754.6
4	1181.2	889.9
5	1181.5	253.2

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1180.0	0.0
1180.5	731.5
1181.0	2807.4
1181.5	6523.0
1182.0	12239.8

PONDING WEIR CALCULATIONS

Pond **20**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1181.5	17.5
2	1181.7	174.4
3	1182	403.5
4	1182	178.3
5	1183.1	251.7
6	1183.5	104.3
7	1183.7	94.5
8	1184	105.1
9	1184.5	213.9
10	1184.9	99.8
11	1185.5	95.3
12	1185.7	102.1
13	1185.9	90.7
14	1186.2	135.3
15	1187	306.9
16	1187.3	94.5
17	1187.6	113.4
18	1188	146.7

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1181.50	0.0
1182.00	94.1
1182.50	939.7
1183.00	2355.8
1183.50	4328.9
1184.00	6994.5
1184.50	10352.0
1185.00	14467.4
1185.50	19316.6
1186.00	24895.8
1186.50	31325.4
1187.00	38529.8
1187.50	46686.2
1188.00	55837.0
1188.50	65977.3

PONDING WEIR CALCULATIONS

Pond **16**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1182	155.4
2	1182.7	247.9
3	1183	1412.9
4	1183.2	911.6
5	1183.7	397.1
6	1184	574.2

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1182.0	0.0
1182.5	148.4
1183.0	529.7
1183.5	3003.0
1184.0	7931.1
1184.5	15246.8

PONDING WEIR CALCULATIONS

Pond **15**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1188.3	101.7
2	1188.5	95.7
3	1188.8	98.8
4	1189.1	107.0
5	1189.3	98.7
6	1190	108.5
7	1190.5	187.7
8	1191	179.4
9	1191.1	155.3
10	1191.3	97.3
11	1191.5	160.5
12	1192	161.3
13	1192.4	255.5
14	1192.7	164.3
15	1193	245.7
16	1193.3	237.4
17	1193.6	182.4

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1188.50	24.6
1189.00	276.1
1189.50	872.7
1190.00	1837.2
1190.50	3151.4
1191.00	4930.7
1191.50	7389.0
1192.00	10693.1
1192.50	14798.3
1193.00	19885.8
1193.50	26139.5
1194.00	33662.0

PONDING WEIR CALCULATIONS

Pond **13**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1183.5	86.6
2	1183.7	339.7
3	1183.8	157.3
4	1184	168.8
5	1184.1	526.4
6	1184.1	155.0
7	1184.4	174.0
8	1184.4	105.8
9	1184.4	71.8
10	1184.5	266.9
11	1185.1	72.1
12	1185.3	65.9
13	1185.4	174.5

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1183.50	0.0
1184.00	271.4
1184.50	1795.4
1185.00	5069.7
1185.50	9598.1
1186.00	15350.7

PONDING WEIR CALCULATIONS

Pond **12**

Weir Coeff. **2.7**

ID	Weir Elev. (ft)	Weir Length (ft)
1	1193.9	95.7
2	1193.9	86.7
3	1194.1	482.4
4	1194.1	154.5
5	1194.2	440.2
6	1194.2	327.8
7	1194.2	81.4
8	1194.3	232.1
9	1194.3	168.1
10	1194.4	297.7
11	1194.4	82.2
12	1194.5	159.0

Weir Outflow Calculations

Weir Coef. C **2.7**

Weir Eq. : Q = CLH^(3/2)

Elevation (ft)	Outflow, Q (cfs)
1194.00	15.6
1194.50	1169.9
1195.00	4938.9

PONDING CHANNEL CALCULATIONS

Pond **11**

Slope Determination

Upstream Elevation	1186.7	ft
Downstream Elevation	1185.6	ft
Distance	299.3	ft
Slope S	0.004	

Mannings Coeff n 0.02

Channel XS

Pnt ID	X (ft)	Y (ft)
1	0	1190
2	394	1187.4
3	695	1187.4
4	1005	1186.7
5	1306	1187.4
6	1710	1187.7

Channel Outflow Q=(1.49/n) * A * R^(2/3) * S^(1/2)

Id	Elev (ft)	Perimeter (ft)	Area, A (sq ft)	Hydraulic Radius, R=A/P (ft)	Outflow, Q (ft)

1	1186.5	0.0	0.0	0.0	0.0
2	1187.0	261.9	39.3	0.1	50.1
3	1187.5	1061.8	312.5	0.3	624.6
4	1188.0	1406.9	970.1	0.7	3419.8
5	1188.5	1482.7	1692.5	1.1	8349.5
6	1189.0	1558.5	2452.8	1.6	14989.1
7	1189.5	1634.2	3251.0	2.0	23224.6
8	1190.0	1710.0	4087.0	2.4	32997.7

PONDING CHANNEL CALCULATIONS

Pond **9**

Slope Determination

Upstream Elevation	1182.5	ft
Downstream Elevation	1181.6	ft
Distance	171.1	ft
Slope S	0.005	

Mannings Coeff n 0.02

Channel XS

Pnt ID	X (ft)	Y (ft)
1	0	1189.4
2	470	1181.5
3	1060	1181.5
4	1715	1181.5
5	2580	1183

Channel Outflow Q=(1.49/n) * A * R^(2/3) * S^(1/2)

Id	Elev (ft)	Perimeter (ft)	Area, A (sq ft)	Hydraulic Radius, R=A/P (ft)	Outflow, Q (ft)

1	1181.5	1245.0	0.0	0.0	0.0
2	1182.0	1563.1	702.0	0.4	2224.6
3	1182.5	1881.2	1563.1	0.8	7464.5
4	1183.0	2199.3	2583.2	1.2	15537.9
5	1183.5	2229.0	3690.2	1.7	27904.2
6	1184.0	2258.8	4812.2	2.1	43050.1
7	1184.5	2288.5	5949.0	2.6	60769.7
8	1185.0	2318.3	7100.6	3.1	80917.3
9	1185.5	2348.0	8267.2	3.5	103383.2
10	1186.0	2377.8	9448.6	4.0	128082.0
11	1186.5	2407.5	10644.9	4.4	154945.0
12	1187.0	2437.3	11856.1	4.9	183916.3
13	1187.5	2467.0	13082.1	5.3	214949.2
14	1188.0	2496.8	14323.1	5.7	248004.8
15	1188.5	2526.5	15578.8	6.2	283050.1
16	1189.0	2556.3	16849.5	6.6	320056.9
17	1189.0	2556.3	17098.5	6.7	327978.6
18	1189.5	1738.2	12252.1	7.0	243376.1

PONDING CHANNEL CALCULATIONS

Pond **8**

Slope Determination

Upstream Elevation	1182.6	ft
Downstream Elevation	1181.3	ft
Distance	400.5	ft
Slope S	0.003	

Mannings Coeff n 0.02

Channel XS

Pnt ID	X (ft)	Y (ft)
1	0	1183.2
2	400	1183.0
3	710	1182.4
4	1095	1183.8
5	1500	1183
6	1900	1183.6
7	2195	1183.5

Channel Outflow Q=(1.49/n) * A * R^(2/3) * S^(1/2)

Id	Elev (ft)	Perimeter (ft)	Area, A (sq ft)	Hydraulic Radius, R=A/P (ft)	Outflow, Q (cfs)

1	1182.5	79.2	4.0	0.0	2.3
2	1183.0	475.0	142.5	0.3	271.1
3	1183.5	1599.0	721.0	0.5	1799.5
4	1182.5	1324.0	1546.3	1.2	7278.7
5	1183.0	1354.0	2215.2	1.6	13054.4
6	1183.5	1384.0	2898.8	2.1	20141.7
7	1184.0	1414.0	3597.1	2.5	28452.8
8	1184.5	1444.0	4310.2	3.0	37927.6
9	1185.0	1474.0	5038.1	3.4	48522.5
10	1185.5	1504.0	5780.7	3.8	60205.1
11	1186.0	1534.0	6538.1	4.3	72950.4
12	1186.5	1564.0	7310.2	4.7	86739.5
13	1187.0	1594.0	8097.0	5.1	101557.6
14	1187.5	1624.0	8898.6	5.5	117393.1
15	1188.0	1654.0	9714.9	5.9	134237.5
16	1188.5	1684.0	10546.0	6.3	152084.3
17	1189.0	1714.0	11391.8	6.6	170928.8
18	1189.5	1738.2	12252.1	7.0	191184.2

Ponding ID	PND08

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1181.45	0.00
2	0.04	1182.00	0.00
3	0.54	1182.50	2.28
4	1.36	1182.75	64.40
5	3.12	1183.00	271.05
6	10.71	1183.50	1799.49
7	26.29	1184.00	7278.73
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Comments:

Ponding ID	PND09

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1178.82	0.00
2	0.01	1179.50	0.00
3	0.12	1180.00	0.00
4	0.62	1180.50	0.00
5	2.36	1181.00	0.00
6	4.29	1181.25	0.00
7	7.83	1181.50	0.00
8	12.00	1181.75	682.96
9	23.74	1182.00	2224.57
10	49.66	1182.50	4493.17
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Comments:

Ponding at SUB09

Ponding ID	PND10

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1172.55	0.00
2	0.12	1173.50	0.00
3	0.39	1174.00	0.00
4	0.96	1174.50	0.00
5	2.10	1175.00	0.00
6	4.03	1175.50	0.00
7	7.07	1176.00	0.00
8	11.30	1176.50	0.00
9	16.54	1177.00	0.00
10	22.71	1177.50	0.00
11	29.82	1178.00	0.00
12	37.93	1178.50	0.00
13	47.24	1179.00	0.00
14	57.85	1179.50	0.00
15	69.78	1180.00	0.00
16	83.39	1180.50	0.00
17	99.73	1181.00	0.00
18	123.72	1181.50	0.00
19	160.66	1182.00	0.10
20			

Comments:

Ponding at SUB10

Ponding ID	PND11

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1176.55	0.00
2	0.02	1177.00	0.00
3	0.12	1177.50	0.00
4	0.33	1178.00	0.00
5	0.71	1178.50	0.00
6	1.26	1179.00	0.00
7	2.05	1179.50	0.00
8	3.11	1180.00	0.00
9	4.47	1180.50	0.00
10	6.00	1181.00	0.00
11	7.69	1181.50	0.00
12	9.56	1182.00	0.00
13	11.72	1182.50	0.00
14	14.30	1183.00	0.00
15	17.66	1183.50	0.00
16	22.26	1184.00	0.00
17	28.32	1184.50	0.00
18	36.87	1185.00	0.00
19	49.24	1185.50	0.00
20	66.81	1186.00	0.10

Comments:

Ponding at SUB11

Ponding ID	PND30

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1177.36	0.00
2	0.08	1178.50	0.00
3	0.27	1179.00	0.00
4	0.54	1179.50	0.00
5	0.91	1180.00	0.00
6	1.38	1180.50	0.00
7	1.95	1181.00	0.00
8	2.66	1181.50	0.00
9	3.55	1182.00	0.00
10	4.74	1182.50	0.00
11	6.35	1183.00	0.00
12	8.68	1183.50	0.00
13	12.42	1184.00	248.65
14	17.85	1184.50	703.28
15	25.47	1185.00	1292.01
16	35.84	1185.50	1989.18
17	49.68	1186.00	2933.09
18	67.43	1186.50	5703.06
19			
20			

Comments:

Ponding ID	PND30A

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1191.02	0.00
2	0.03	1192.00	0.00
3	0.32	1192.50	0.00
4	1.19	1193.00	0.00
5	2.06	1193.50	0.00
6	2.91	1194.00	0.00
7	3.86	1194.50	0.00
8	5.06	1195.00	159.21
9	5.67	1195.50	1010.65
10	5.73	1196.00	2833.67
11	5.75	1196.50	5625.42
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Comments:

Ponding ID	PND31

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	1	2	3
2	3	4	6
3			
4			
5			
6			
7			
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Comments:

Ponding ID	PND32

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1180.13	0.00
2	0.17	1180.50	0.00
3	1.35	1181.00	0.00
4	2.94	1181.50	0.00
5	4.88	1182.00	0.00
6	7.16	1182.50	0.00
7	9.76	1183.00	0.00
8	12.68	1183.50	0.00
9	15.91	1184.00	0.00
10	19.59	1184.50	0.00
11	23.81	1185.00	0.00
12	28.74	1185.50	1355.46
13	34.67	1186.00	4184.59
14	42.17	1186.50	9027.28

Comments:

Ponding ID	PND33

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1180.11	0.00
2	0.05	1180.50	0.00
3	0.44	1181.00	0.00
4	1.20	1181.50	0.00
5	2.48	1182.00	0.00
6	4.29	1182.50	0.00
7	6.65	1183.00	0.00
8	9.61	1183.50	0.00
9	13.23	1184.00	0.00
10	17.71	1184.50	469.62
11	23.58	1185.00	3087.43
12	31.65	1185.50	7773.86
13			
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Comments:

Ponding ID	PND34

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1183.80	0.00
2	0.01	1184.00	0.00
3	0.44	1184.50	0.00
4	1.66	1185.00	0.00
5	3.43	1185.50	0.00
6	5.66	1186.00	0.00
7	8.38	1186.50	0.00
8	11.69	1187.00	0.00
9	15.66	1187.50	0.00
10	20.31	1188.00	0.00
11	25.64	1188.50	0.00
12	31.69	1189.00	0.00
13	38.43	1189.50	0.00
14	45.88	1190.00	0.00
15	54.30	1190.50	0.00
16	63.90	1191.00	209.94
17	75.02	1191.50	1336.86
18	87.81	1192.00	3411.43
19	101.91	1192.50	6369.13
20	116.37	1193.00	10193.95

Comments:

Ponding ID	PND34A

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1194.38	0.00
2	0.09	1195.00	0.00
3	0.67	1195.50	0.00
4	2.10	1196.00	0.00
5	4.91	1196.50	0.00
6	9.34	1197.00	0.00
7	15.42	1197.50	375.08
8	23.50	1198.00	1106.17
9	32.86	1198.50	2614.43
10	42.34	1199.00	4989.56
11	51.87	1199.50	8683.25
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Comments:

Ponding ID	PND35A

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1179.24	0.00
2	0.02	1180.50	0.00
3	0.09	1181.00	0.00
4	0.25	1181.50	0.00
5	0.60	1182.00	0.00
6	1.30	1182.50	0.00
7	2.49	1183.00	0.00
8	4.41	1183.50	230.64
9	8.45	1184.00	861.56
10	15.21	1184.50	3002.00
11	24.45	1185.00	6952.76
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Comments:

Ponding ID	PND39

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1177.44	0.00
2	0.04	1178.50	0.00
3	0.24	1179.00	0.00
4	0.82	1179.50	0.00
5	1.90	1180.00	0.00
6	3.57	1180.50	0.00
7	5.90	1181.00	0.00
8	8.90	1181.50	0.00
9	12.62	1182.00	0.00
10	17.08	1182.50	182.07
11	22.28	1183.00	1947.63
12	28.45	1183.50	5427.11
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Comments:

Ponding ID	PND41

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1163.55	0.00
2	0.06	1168.00	0.00
3	0.08	1168.50	0.00
4	0.10	1169.00	0.00
5	0.12	1169.50	0.00
6	0.14	1170.00	0.00
7	0.17	1170.50	0.00
8	0.22	1171.00	0.00
9	0.29	1171.50	0.00
10	0.42	1172.00	0.00
11	0.63	1172.50	0.00
12	1.09	1173.00	0.00
13	2.03	1173.50	0.00
14	3.57	1174.00	0.00
15	4.76	1174.50	284.58
16	4.93	1175.00	1029.43
17	4.99	1175.50	2228.21
18			

Comments:

Ponding ID	PND41A

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1178.81	0.00
2	0.22	1180.50	0.00
3	0.61	1181.00	0.00
4	1.26	1181.50	0.00
5	2.36	1182.00	0.00
6	4.71	1182.50	202.10
7	9.23	1183.00	682.09
8	15.02	1183.50	1323.34
9	21.75	1184.00	2092.23
10	29.45	1184.50	2998.73
11	38.13	1185.00	4401.34
12	47.98	1185.50	6602.34
13	59.57	1186.00	9353.63
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Comments:

Ponding ID	PND41B

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1177.71	0.00
2	0.03	1178.50	0.00
3	0.07	1179.00	0.00
4	0.12	1179.50	0.00
5	0.17	1180.00	0.00
6	0.26	1180.50	0.00
7	0.41	1181.00	0.00
8	0.75	1181.50	0.00
9	1.37	1182.00	0.00
10	2.47	1182.50	32.64
11	4.35	1183.00	479.70
12	6.81	1183.50	1270.72
13	9.58	1184.00	2437.05
14	12.62	1184.50	4518.46
15	15.78	1185.00	7605.44

Comments:

Ponding ID	PND58A

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1194.17	0.00
2	0.03	1195.00	0.00
3	0.11	1195.50	0.00
4	0.46	1196.00	0.00
5	1.11	1196.50	0.00
6	1.99	1197.00	0.00
7	3.30	1197.50	0.00
8	5.26	1198.00	0.00
9	7.57	1198.50	0.00
10	10.32	1199.00	91.32
11	15.14	1199.50	2133.65
12	19.93	1200.00	6607.95
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Comments:

Ponding ID	PND58C

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1192.45	0.00
2	0.01	1193.00	0.00
3	0.02	1193.50	0.00
4	0.06	1194.00	0.00
5	0.11	1194.50	0.00
6	0.19	1195.00	0.00
7	0.32	1195.50	0.00
8	0.68	1196.00	0.00
9	1.62	1196.50	0.00
10	3.43	1197.00	0.00
11	6.37	1197.50	0.00
12	9.72	1198.00	0.00
13	12.79	1198.50	665.36
14	15.63	1199.00	2007.51
15	17.71	1199.50	5326.69
16			
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Comments:

Ponding ID	PND25A

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1177.49	0.00
2	0.03	1178.50	0.00
3	0.10	1179.00	0.00
4	0.25	1179.50	0.00
5	0.47	1180.00	0.00
6	0.77	1180.50	74.70
7	1.14	1181.00	211.29
8	1.57	1181.50	388.17
9	2.09	1182.00	597.62
10	2.75	1182.50	835.20
11	3.75	1183.00	1210.13
12	5.38	1183.50	2054.99
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Comments:

Ponding ID	PND12

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1189.18	0.00
2	0.02	1190.00	0.00
3	0.05	1190.50	0.00
4	0.14	1191.00	0.00
5	0.55	1191.50	0.00
6	1.78	1192.00	0.00
7	3.68	1192.50	0.00
8	5.96	1193.00	0.00
9	8.01	1193.50	0.00
10	9.66	1194.00	15.57
11	10.32	1194.50	1169.86
12	10.49	1195.00	4938.93
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Comments:

Ponding ID	PND13

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1182.01	0.00
2	0.03	1183.00	0.00
3	0.30	1183.50	0.00
4	1.74	1184.00	271.36
5	4.15	1184.50	1795.40
6	7.37	1185.00	5069.75
7	9.79	1185.50	9598.12
8	10.23	1186.00	15350.75
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Comments:

Ponding ID	PND15

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1185.65	0.00
2	0.01	1186.00	0.00
3	0.08	1186.50	0.00
4	0.32	1187.00	0.00
5	1.35	1187.50	0.00
6	2.34	1188.00	0.00
7	3.08	1188.50	24.57
8	3.97	1189.00	276.13
9	5.44	1189.50	872.75
10	7.53	1190.00	1837.21
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Comments:

Ponding ID	PND16

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1176.66	0.00
2	0.06	1177.50	0.00
3	0.15	1178.00	0.00
4	0.23	1178.50	0.00
5	0.35	1179.00	0.00
6	0.50	1179.50	0.00
7	0.74	1180.00	0.00
8	1.09	1180.50	0.00
9	1.72	1181.00	0.00
10	2.85	1181.50	0.00
11	5.63	1182.00	0.00
12	12.10	1182.50	148.38
13	22.54	1183.00	529.65
14	36.83	1183.50	3003.05
15	52.33	1184.00	7931.15
16			
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Comments:

Ponding ID	PND20

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.0	1176.85	0.00
2	0.1	1180.5	0.00
3	0.1	1181.5	0.00
4	0.3	1182	94.12
5	1.1	1182.5	939.67
6	3.4	1183	2355.80
7	6.5	1183.5	4328.86
8	8.8	1184	6994.51
9	9.7	1184.5	10351.99
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Comments:

Ponding ID	PND22

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1169.91	0.00
2	0.14	1171.00	0.00
3	0.47	1171.50	0.00
4	0.90	1172.00	0.00
5	2.02	1173.00	0.00
6	2.82	1173.50	0.00
7	3.90	1174.00	0.00
8	5.16	1174.50	0.00
9	6.60	1175.00	0.00
10	8.22	1175.50	0.00
11	10.03	1176.00	0.00
12	12.02	1176.50	0.00
13	14.22	1177.00	0.00
14	16.64	1177.50	0.00
15	19.28	1178.00	0.00
16	22.18	1178.50	0.00
17	25.39	1179.00	0.00
18	29.13	1179.50	0.00
19	34.03	1180.00	0.00
20	41.91	1180.50	731.54

Comments:

Ponding ID	PND23

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1171.43	0.00
2	0.04	1172.50	0.00
3	0.13	1173.00	0.00
4	0.31	1173.50	0.00
5	0.64	1174.00	0.00
6	1.08	1174.50	0.00
7	1.62	1175.00	0.00
8	2.30	1175.50	0.00
9	3.10	1176.00	0.00
10	4.01	1176.50	0.00
11	5.01	1177.00	0.00
12	6.09	1177.50	0.00
13	7.25	1178.00	0.00
14	8.48	1178.50	0.00
15	9.78	1179.00	0.00
16	11.15	1179.50	0.00
17	12.60	1180.00	0.00
18	14.10	1180.50	185.90
19			
20			

Comments:

Ponding ID	PND24

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1177.38	0.00
2	0.03	1178.50	0.00
3	0.08	1179.00	0.00
4	0.17	1179.50	0.00
5	0.29	1180.00	0.00
6	0.46	1180.50	0.00
7	0.75	1181.00	0.00
8	1.60	1181.50	0.00
9	4.34	1182.00	0.00
10	9.62	1182.50	1064.02
11	18.13	1183.00	4686.45
12			
13			
14			
15			
16			
17			
18			
19			
20			

Comments:

Ponding ID	PND25

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1176.10	0.00
2	0.05	1177.00	0.00
3	0.13	1177.50	0.00
4	0.30	1178.00	0.00
5	0.51	1178.50	0.00
6	0.72	1179.00	0.00
7	0.90	1179.50	0.00
8	1.06	1180.00	0.00
9	1.22	1180.50	0.00
10	1.40	1181.00	6.80
11	1.62	1181.50	791.13
12	2.00	1182.00	2766.91
13	2.36	1182.50	6440.18
14			
15			
16			
17			
18			
19			
20			

Comments:

Ponding ID	PND25A

No. of Steps used in the Storage Routing	1

Storage at first time period (acre-ft)	0

	Volume (acre-ft)	Elevation (ft)	Discharge (cfs)
1	0.00	1177.49	0.00
2	0.03	1178.50	0.00
3	0.10	1179.00	0.00
4	0.25	1179.50	0.00
5	0.47	1180.00	0.00
6	0.77	1180.50	74.70
7	1.14	1181.00	211.29
8	1.57	1181.50	388.17
9	2.09	1182.00	597.62
10	2.75	1182.50	835.20
11	3.75	1183.00	1210.13
12	5.38	1183.50	2054.99
13			
14			
15			
16			
17			
18			
19			
20			

Comments:

D.5 Flow Splits and Diversions Data

Diversion ID	D0105

Code for Retrieval	0105

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

			5
Slope1	id		SPH01
	slope		0.00180435
Width1	id		SWV01
	width	(ft)	109.956
Slope 2	id		SPV01
	slope		0.000272031
Width 2	id		SWH01
	width	(ft)	109.926
Diversion direction			1
Diversion Ratio			0.86901898

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	8690.2
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert flow from subbasin 01 to 05

Diversion ID	D0708

Code for Retrieval	0708

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

			8
Slope1	id		SPV07
	slope		0.000807175
Width1	id		SWH07
	width	(ft)	75.2368
Slope 2	id		SPH07
	slope		0.001571947
Width 2	id		SWV07
	width	(ft)	75.9271
Diversion direction			2
Diversion Ratio			0.66277003

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	6627.7
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert from Subbasin 6A0 to 6

Diversion ID	D07082

Code for Retrieval	07082

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			0.5

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	5000.0
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert from Subbasin 6A0 to 6

Diversion ID	D1009A

Code for Retrieval	1009A

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			0.13

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	1300.0
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Diversion ID	D26A26

Code for Retrieval	26A26

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

			6
Slope1	id		SPH26A
	slope		0.00288127
Width1	id		SWV26A
	width	(ft)	82.8269
Slope 2	id		SPV26A
	slope		0.00196761
Width 2	id		SWH26A
	width	(ft)	39.7165
Diversion direction			2
Diversion Ratio			0.246680079

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	2466.8
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Intersection

Diversion ID	DOT03

Code for Retrieval	OUT03

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10,000.0	10,000.0
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Out of System at Subbasin 03

Diversion ID	DOT03A

Code for Retrieval	OUT03A

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	10000.0
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Out of System at Subbasin 03A

Diversion ID	DOT11

Code for Retrieval	OUT11

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Out of System at Subbasin 11

Diversion ID	DOT26

Code for Retrieval	OUT26

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	10000.0
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

OUT OF SYSTEM?

Diversion ID	DS01_1

Code for Retrieval	S01_1

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN01_1

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	11.6	11.6
3	10,000.0	11.6
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 01_1

Diversion ID	DS01_2

Code for Retrieval	S01_2

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN01_2

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	18.5	18.5
3	10,000.0	18.5
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 01_2

Diversion ID	DS01_3

Code for Retrieval	S01_3

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN01_3

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	17.9	17.9
3	10,000.0	17.9
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 01_3

Diversion ID	DS02_1

Code for Retrieval	S02_1

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN02_1

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	12.2	12.2
3	10,000.0	12.2
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 02_1

Diversion ID	DS02_2

Code for Retrieval	S02_2

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN02_2

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	13.6	13.6
3	10,000.0	13.6
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 02_2

Diversion ID	DS02_3

Code for Retrieval	S02_3

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN02_3

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	92.7	92.7
3	10,000.0	92.7
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 02_3

Diversion ID	DS02_4

Code for Retrieval	S02_4

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN02_4

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	11.5	11.5
3	10,000.0	11.5
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 02_4

Diversion ID	DS02_5

Code for Retrieval	S02_5

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN02_5

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	42.7	42.7
3	10,000.0	42.7
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 02_5

Diversion ID	DS02_6

Code for Retrieval	S02_6

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN02_6

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	13.8	13.8
3	10,000.0	13.8
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 02_6

Diversion ID	DS02_7

Code for Retrieval	S02_7

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN02_7

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	34.2	34.2
3	10,000.0	34.2
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 02_7

Diversion ID	DS02_8

Code for Retrieval	S02_8

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN02_8

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	7.0	7.0
3	10,000.0	7.0
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 02_8

Diversion ID	DS02_9

Code for Retrieval	S02_9

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN02_9

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	65.6	65.6
3	10,000.0	65.6
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 02_9

Diversion ID	DS03_1

Code for Retrieval	S03_1

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN03_1

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	14.6	14.6
3	10,000.0	14.6
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 03_1

Diversion ID	DS03_2

Code for Retrieval	S03_2

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN03_2

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	12.4	12.4
3	10,000.0	12.4
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 03_2

Diversion ID	DS03_3

Code for Retrieval	S03_3

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN03_3

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	14.0	14.0
3	10,000.0	14.0
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 03_3

Diversion ID	DS03_4

Code for Retrieval	S03_4

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN03_4

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	19.8	19.8
3	10,000.0	19.8
4		
5		
6		
7		
8		
9		
10		
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12		
13		
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18		
19		
20		

Comments:

Divert to Storm Drain at 03_4

Diversion ID	D3335A

Code for Retrieval	3335A

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		0.02
Width1	id		
	width	(ft)	1
Slope 2	id		
	slope		0.01
Width 2	id		
	width	(ft)	1
Diversion direction			1
Diversion Ratio			0.666666667

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	469.6	0.0
2	3285.6	198.2
3	8435.3	661.4
4	15357.1	1434.5
5		
6		
7		
8		
9		
10		
11		
12		
13		
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15		
16		
17		
18		
19		
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Comments:

Int

This Should be removed - in assoc. w/ a pond

Diversion ID	D33A33

Code for Retrieval	33A33

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

			33
Slope1	id		SPH33A
	slope		0.00537444
Width1	id		SWV33A
	width	(ft)	74.7525
Slope 2	id		SPV33A
	slope		0.00232543
Width 2	id		SWH33A
	width	(ft)	85.2178
Diversion direction			1
Diversion Ratio			0.66967638

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	6696.8
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
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16		
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18		
19		
20		

Comments:

Divert from Subbasin 33A to 33

Diversion ID	D3441A

Code for Retrieval	3441A

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		0.02
Width1	id		
	width	(ft)	1
Slope 2	id		
	slope		0.02
Width 2	id		
	width	(ft)	1
Diversion direction			1
Diversion Ratio			0.5

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	5000.0
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Int

Should this be assoc w/ Pond or is this that special location?

Diversion ID	D34A34

Code for Retrieval	34A34

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		0.02
Width1	id		
	width	(ft)	1
Slope 2	id		
	slope		0.01
Width 2	id		
	width	(ft)	1
Diversion direction			1
Diversion Ratio			0.666666667

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	6.0	6.0
2	88.2	88.2
3	509.8	227.3
4	1736.1	553.7
5	4644.9	1085.7
6	9194.4	1829.1
7	15257.9	2882.5
8		
9		
10		
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18		
19		
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Comments:

Fnl

Diversion ID	D3734

Code for Retrieval	3734

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

			34
Slope1	id		SPH37
	slope		0.00605511
Width1	id		SWV37
	width	(ft)	91.9759
Slope 2	id		SPV37
	slope		0.00346355
Width 2	id		SWH37
	width	(ft)	77.7023
Diversion direction			1
Diversion Ratio			0.674201557

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	6742.0
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
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19		
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Comments:

Divert from Subbasin 37 to 34

Diversion ID	D40A41

Code for Retrieval	40A41

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

			41
Slope1	id		SPH40A
	slope		0.004723
Width1	id		SWV40A
	width	(ft)	88.6973
Slope 2	id		SPV40A
	slope		0.00193072
Width 2	id		SWH40A
	width	(ft)	64.8173
Diversion direction			1
Diversion Ratio			0.769981741

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	7699.8
3		
4		
5		
6		
7		
8		
9		
10		
11		
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18		
19		
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Comments:

Divert from Subbasin 40A to 41

Diversion ID	D41A41

Code for Retrieval		41A41

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		0.02
Width1	id		
	width	(ft)	1
Slope 2	id		
	slope		0.01
Width 2	id		
	width	(ft)	1
Diversion direction			1
Diversion Ratio			0.666666667

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	102.7	102.7
3	653.0	450.9
4	1738.4	1056.4
5	3154.6	1831.3
6	5074.7	2982.4
7		
8		
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18		
19		
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Comments:

TMA

Diversion ID	D57B32A

Code for Retrieval	57B32A

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

			32A
Slope1	id		SPV57B
	slope		0.000708879
Width1	id		SWH57B
	width	(ft)	82.1289
Slope 2	id		SPH57B
	slope		0.00699942
Width 2	id		SWV57B
	width	(ft)	105.918
Diversion direction			1
Diversion Ratio			0.072812176

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	728.1
3		
4		
5		
6		
7		
8		
9		
10		
11		
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13		
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16		
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18		
19		
20		

Comments:

Divert from Subbasin 57B to 32A

Diversion ID	D57C31

Code for Retrieval	57C31

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

			57B
Slope1	id		SPH57C
	slope		0.00896315
Width1	id		SWV57C
	width	(ft)	72.4
Slope 2	id		SPV57C
	slope		0.000473684
Width 2	id		SWH57C
	width	(ft)	95.2
Diversion direction			2
Diversion Ratio			0.064975471

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	649.7
3		
4		
5		
6		
7		
8		
9		
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Comments:

Diversion ID	D5957C

Code for Retrieval	5957C

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

			57C
Slope1	id		SPH59
	slope		0.00800439
Width1	id		SWV59
	width	(ft)	100.628
Slope 2	id		SPV59
	slope		0.00539586
Width 2	id		SWH59
	width	(ft)	100.381
Diversion direction			1
Diversion Ratio			0.59792237

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	5979.2
3		
4		
5		
6		
7		
8		
9		
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11		
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16		
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19		
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Comments:

Divert from Subbasin 59 to 57C

Diversion ID	D59A58

Code for Retrieval	59A58

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

			58
Slope1	id		SPH59A
	slope		0.00750187
Width1	id		SWV59A
	width	(ft)	84.639
Slope 2	id		SPV59A
	slope		0.00207218
Width 2	id		SWH59A
	width	(ft)	52.8199
Diversion direction			1
Diversion Ratio			0.852966305

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	8529.7
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
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16		
17		
18		
19		
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Comments:

Divert from Subbasin 59A to 58

Diversion ID	DOT30

Code for Retrieval	OUT30

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
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Comments:

Divert Out of System at Subbasin 30

Diversion ID	DOT32

Code for Retrieval	OUT32

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
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Comments:

Divert Out of System at Subbasin 32

Diversion ID	DOT33

Code for Retrieval	OUT33

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
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Comments:

Divert Out of System at Subbasin 33

Diversion ID	DOT35A

Code for Retrieval	OUT35A

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
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19		
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Comments:

Divert Out of System at Subbasin 35A

Diversion ID	DOT39

Code for Retrieval	OUT39

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Out of System at Subbasin 39

Diversion ID	DOT40A

Code for Retrieval	OUT40A

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Out of System at Subbasin 40A

Diversion ID	DOT41

Code for Retrieval	OUT41

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
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Comments:

Divert Out of System at Subbasin 41

Diversion ID	DOT41A

Code for Retrieval	OUT41A

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Out of System at Subbasin 41A

Diversion ID	DOT41B

Code for Retrieval	OUT41B

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
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Comments:

Divert Out of System at Subbasin 41B

Diversion ID	DS30

Code for Retrieval	S30

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

32

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN30

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	63.3	63.3
3	10000.0	63.3
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 30

Diversion ID	DS32A

Code for Retrieval	S32A

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN32A

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	58.9	58.9
3	10000.0	58.9
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 32A

Diversion ID	DS33

Code for Retrieval	S33

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN33

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	17.7	17.7
3	10000.0	17.7
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 33

Diversion ID	DS33A1

Code for Retrieval	S33A1

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

35

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN33A1

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	65.3	65.3
3	10000.0	65.3
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 33A1

Diversion ID	DS33A2

Code for Retrieval	S33A2

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

35

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN33A2

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	43.4	43.4
3	10000.0	43.4
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 33A2

Diversion ID	DS35

Code for Retrieval	S35

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN35

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	59.8	59.8
3	10000.0	59.8
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 35

Diversion ID	DS57B1

Code for Retrieval	S57B1

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN57B1

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	9.0	9.0
3	10000.0	9.0
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 57B1

Diversion ID	DS57B2

Code for Retrieval	S57B2

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN57B2

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	29.8	29.8
3	10000.0	29.8
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 57B2

Diversion ID	DS58A

Code for Retrieval	S58A

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

			34A
Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN58A

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	43.8	43.8
3	10000.0	43.8
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 58A

Diversion ID	DS59

Code for Retrieval	S59

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

			59B
Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN59

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	30.8	30.8
3	10000.0	30.8
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 59

Diversion ID	DS59A

Code for Retrieval	S59A

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

70

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN59A

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	68.3	68.3
3	10000.0	68.3
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 59A

Diversion ID	DS59B

Code for Retrieval	S59B

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN59B

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	91.0	91.0
3	10000.0	91.0
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 59B

Diversion ID	DS70

Code for Retrieval	S70

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN70

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	70.9	70.9
3	10000.0	70.9
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 70

Diversion ID	DU31

Code for Retrieval	31

Max. Diversion Volume	(acre-ft)	7.810490684

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 31

Diversion ID	DU32

Code for Retrieval		32

Max. Diversion Volume	(acre-ft)	5.528976155

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 32

Diversion ID	DU35

Code for Retrieval	35

Max. Diversion Volume	(acre-ft)	16.36772604

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 35

Diversion ID	DU36

Code for Retrieval	36

Max. Diversion Volume	(acre-ft)	2.63226754

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 36

Diversion ID	DU37

Code for Retrieval		37

Max. Diversion Volume	(acre-ft)	7.210062624

Peak Flow	(cfs)	

			34
Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 37

Diversion ID	DU40

Code for Retrieval	40

Max. Diversion Volume	(acre-ft)	12.78306105

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 40

Diversion ID	DU40A

Code for Retrieval	40A

Max. Diversion Volume	(acre-ft)	32.71254418

Peak Flow	(cfs)	

			41
Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 40A

Diversion ID	DU57B

Code for Retrieval	57B

Max. Diversion Volume	(acre-ft)	18.3227295

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 57B

Diversion ID	DU57C

Code for Retrieval	57C

Max. Diversion Volume	(acre-ft)	10.21509683

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 57C

Diversion ID	DU58

Code for Retrieval		58

Max. Diversion Volume	(acre-ft)	21.11664067

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 58

Diversion ID	DU58B

Code for Retrieval		58B

Max. Diversion Volume	(acre-ft)	18.86338771

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 58B

Diversion ID	DU59

Code for Retrieval		59

Max. Diversion Volume	(acre-ft)	41.5644157

Peak Flow	(cfs)	

			59B
Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 59

Diversion ID	DU59A

Code for Retrieval	59A

Max. Diversion Volume	(acre-ft)	1.869577972

Peak Flow	(cfs)	

			70
Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 59A

Diversion ID	DU59B

Code for Retrieval		59B

Max. Diversion Volume	(acre-ft)	16.36813201

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 59B

Diversion ID	D12A15A

Code for Retrieval	12A15A

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

			15A
Slope1	id		SPV12A
	slope		0.000667828
Width1	id		SWH12A
	width	(ft)	74.5972
Slope 2	id		SPH12A
	slope		0.00445831
Width 2	id		SWV12A
	width	(ft)	73.749
Diversion direction			1
Diversion Ratio			0.131580181

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	1315.8
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert from Subbasin 12A to 15A

Diversion ID	D1823

Code for Retrieval	1823

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

			23
Slope1	id		SPV18
	slope		0.00927557
Width1	id		SWH18
	width	(ft)	109.959
Slope 2	id		SPH18
	slope		0.00341263
Width 2	id		SWV18
	width	(ft)	114.295
Diversion direction			1
Diversion Ratio			0.723367114

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	7233.7
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Diversion ID	D1924

Code for Retrieval	1924

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

			24
Slope1	id		SPV19
	slope		0.0064484
Width1	id		SWH19
	width	(ft)	79.9366
Slope 2	id		SPH19
	slope		0.00299817
Width 2	id		SWV19
	width	(ft)	105.62
Diversion direction			1
Diversion Ratio			0.619450376

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	6194.5
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert from Subbasin 19 to 24

Diversion ID	D2525A

Code for Retrieval	2525A

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			0.5

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	5000.0
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

?

Diversion ID	D30A12

Code for Retrieval	30A12

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		0.02
Width1	id		
	width	(ft)	1
Slope 2	id		
	slope		0.01
Width 2	id		
	width	(ft)	1
Diversion direction			1
Diversion Ratio			0.5

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	5000.0
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Diversion ID	D30A30

Code for Retrieval	30A30

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		0.02
Width1	id		
	width	(ft)	1
Slope 2	id		
	slope		0.01
Width 2	id		
	width	(ft)	1
Diversion direction			1
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	20.0	20.0
3	10000.0	20.0
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Diversion ID	DOT13

Code for Retrieval	

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Out of System at Subbasin 13

Diversion ID	DOT16

Code for Retrieval	OUT16

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Out of System at Subbasin 16

Diversion ID	DOT22

Code for Retrieval	OUT22

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Out of System at Subbasin 22

Diversion ID	DOT23

Code for Retrieval	OUT23

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Out of System at Subbasin 23

Diversion ID	DOT24A

Code for Retrieval	OUT24A

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	10000.0
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Out of System at Subbasin 24A

Diversion ID	DOT25

Code for Retrieval	OUT25

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	10000.0
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Out of System at Subbasin 24A

Diversion ID	DOT25A

Code for Retrieval	OUT25A

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	10000.0
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Out of System at Subbasin 24A

Diversion ID	DOT26

Code for Retrieval	

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	10000.0
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Out of System at Subbasin 26

Diversion ID	DOT30

Code for Retrieval	

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			1

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	10000.0
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Out of System at Subbasin 30

Diversion ID	DOT30A

Code for Retrieval		

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		0.02
Width1	id		
	width	(ft)	1
Slope 2	id		
	slope		0.01
Width 2	id		
	width	(ft)	1
Diversion direction			1
Diversion Ratio			0.666666667

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Ent

Diversion ID	DS12

Code for Retrieval	S12

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

13

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN12

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	42.2	42.2
3	10000.0	42.2
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 12

Diversion ID	DS15

Code for Retrieval	S15

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN15

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	48.3	48.3
3	10000.0	48.3
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 15

Diversion ID	DS20A1

Code for Retrieval	S20A1

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN20A1

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	7.5	7.5
3	10000.0	7.5
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 20A_1

Diversion ID	DS20_1

Code for Retrieval	S20_1

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN20_1

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	75.0	75.0
3	10000.0	75.0
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 20_1

Diversion ID	DS22

Code for Retrieval	S22

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN22

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	74.6	74.6
3	10000.0	74.6
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 22

Diversion ID	DS23_1

Code for Retrieval	S23_1

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN23_1

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	62.5	62.5
3	10000.0	62.5
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 23_1

Diversion ID	DS23_2

Code for Retrieval	S23_2

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN23_2

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	33.5	33.5
3	10000.0	33.5
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 23_2

Diversion ID	DS24_1

Code for Retrieval	S24_1

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN24_1

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	203.5	203.5
3	10000.0	203.5
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 24_1

Diversion ID	DS24_2

Code for Retrieval	S24_2

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN24_2

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	88.0	88.0
3	10000.0	88.0
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 24_2

Diversion ID	DS25

Code for Retrieval	S25

Max. Diversion Volume	(acre-ft)	

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	DRN25

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	38.2	38.2
3	10000.0	38.2
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert to Storm Drain at 25_1

Diversion ID	DU12A

Code for Retrieval	12A

Max. Diversion Volume	(acre-ft)	13.48493671

Peak Flow	(cfs)	

			12
Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 12A

Diversion ID	DU14

Code for Retrieval	14

Max. Diversion Volume	(acre-ft)	3.987196974

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 14

Diversion ID	DU15A

Code for Retrieval	15A

Max. Diversion Volume	(acre-ft)	11.52677045

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 15A

Diversion ID	DU16

Code for Retrieval	16

Max. Diversion Volume	(acre-ft)	13.51468542

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 16

Diversion ID	DU17

Code for Retrieval		17

Max. Diversion Volume	(acre-ft)	2.526070497

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 17

Diversion ID	DU18

Code for Retrieval		18

Max. Diversion Volume	(acre-ft)	3.888812457

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 18

Diversion ID	DU19

Code for Retrieval		19

Max. Diversion Volume	(acre-ft)	14.00493645

Peak Flow	(cfs)	

			20A
Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 19

Diversion ID	DU20A

Code for Retrieval	20A

Max. Diversion Volume	(acre-ft)	8.28693507

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 20A

Diversion ID	DU24A

Code for Retrieval	24A

Max. Diversion Volume	(acre-ft)	0.680541285

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0.0	0.0
2	10000.0	10000.0
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 24A

Diversion ID	DU57A

Code for Retrieval		57A

Max. Diversion Volume	(acre-ft)	11.26242065

Peak Flow	(cfs)	

Slope1	id		
	slope		
Width1	id		
	width	(ft)	
Slope 2	id		
	slope		
Width 2	id		
	width	(ft)	
Diversion direction			
Diversion Ratio			

Stormdrain ID	

	Inflow (cfs)	Outflow (cfs)
1	0	0
2	10000	10000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments:

Divert Urban Retention at Subbasin 57A

Drain ID	DRN01_1

Drain Length	(ft)	1435.27

Start Elevation	(ft)	1284.06
End Elevation	(ft)	1282.76
Deltah	(ft)	1.3
Length (for slope calcs)	(ft)	496
Drain Slope	(ft/ft)	0.002621

Manning's n	0.013

Pipe Diameter	(inches)	24

Full Discharge	(cfs)	11.58162

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	11.58162

Drain ID	DRN01_2

Drain Length	(ft)	1853.33

Start Elevation	(ft)	1286.36
End Elevation	(ft)	1282.76
Deltah	(ft)	3.6
Length (for slope calcs)	(ft)	1779
Drain Slope	(ft/ft)	0.002024

Manning's n	0.013

Pipe Diameter	(inches)	30

Full Discharge	(cfs)	18.45136

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	18.45136

Drain ID	DRN01_3

Drain Length	(ft)	1781.51

Start Elevation	(ft)	1180.48
End Elevation	(ft)	1178.95
Deltah	(ft)	1.53
Length (for slope calcs)	(ft)	801
Drain Slope	(ft/ft)	0.00191

Manning's n	0.013

Pipe Diameter	(inches)	30

Full Discharge	(cfs)	17.92646

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	17.92646

Drain ID	DRN02_1

Drain Length	(ft)	1437.98

Start Elevation	(ft)	1177.35
End Elevation	(ft)	1176.5
Deltah	(ft)	0.85
Length (for slope calcs)	(ft)	953
Drain Slope	(ft/ft)	0.000892

Manning's n	0.013

Pipe Diameter	(inches)	30

Full Discharge	(cfs)	12.24977

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	12.24977

Drain ID	DRN02_2

Drain Length	(ft)	1371.18

Start Elevation	(ft)	1180.75
End Elevation	(ft)	1175.8
Deltah	(ft)	4.95
Length (for slope calcs)	(ft)	1371
Drain Slope	(ft/ft)	0.003611

Manning's n	0.013

Pipe Diameter	(inches)	24

Full Discharge	(cfs)	13.59321

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	13.59321

Drain ID	DRN02_3

Drain Length	(ft)	2646.37

Start Elevation	(ft)	1175.8
End Elevation	(ft)	1166.15
Deltah	(ft)	9.65
Length (for slope calcs)	(ft)	2656
Drain Slope	(ft/ft)	0.003633

Manning's n	0.013

Pipe Diameter	(inches)	54

Full Discharge	(cfs)	118.5336

Contributing Drains	Drain ID	Discharge
1	drn02_1	12.24977
2	drn02_2	13.59321

Adjusted Discharge	(cfs)	92.69057

Drain ID	DRN02_4

Drain Length	(ft)	2308.21

Start Elevation	(ft)	1175.11
End Elevation	(ft)	1169.9
Deltah	(ft)	5.21
Length (for slope calcs)	(ft)	2000
Drain Slope	(ft/ft)	0.002605

Manning's n	0.013

Pipe Diameter	(inches)	24

Full Discharge	(cfs)	11.54628

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	11.54628

Drain ID		DRN02_5

Drain Length	(ft)	1090.34

Start Elevation	(ft)	1176.48
End Elevation	(ft)	1171.96
Deltah	(ft)	4.52
Length (for slope calcs)	(ft)	1105
Drain Slope	(ft/ft)	0.00409

Manning's n	0.013

Pipe Diameter	(inches)	36

Full Discharge	(cfs)	42.65825

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	42.65825

Drain ID	DRN02_6

Drain Length	(ft)	907.21

Start Elevation	(ft)	1177.35
End Elevation	(ft)	1173.77
Deltah	(ft)	3.58
Length (for slope calcs)	(ft)	964
Drain Slope	(ft/ft)	0.003714

Manning's n	0.013

Pipe Diameter	(inches)	24

Full Discharge	(cfs)	13.7861

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	13.7861

Drain ID	DRN02_7

Drain Length	(ft)	579.46

Start Elevation	(ft)	1166.42
End Elevation	(ft)	1165.72
Deltah	(ft)	0.7
Length (for slope calcs)	(ft)	2317
Drain Slope	(ft/ft)	0.000302

Manning's n	0.013

Pipe Diameter	(inches)	54

Full Discharge	(cfs)	34.18044

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	34.18044

Drain ID		DRN02_8

Drain Length	(ft)	940.071

Start Elevation	(ft)	1173.77
End Elevation	(ft)	1171.96
Deltah	(ft)	1.81
Length (for slope calcs)	(ft)	2317
Drain Slope	(ft/ft)	0.000781

Manning's n		0.013

Pipe Diameter	(inches)	54

Full Discharge	(cfs)	54.96269

Contributing Drains	Drain ID	Discharge
1	drn02_6	13.7861
2	drn02_7	34.18044

Adjusted Discharge	(cfs)	6.996148

Drain ID	DRN02_9

Drain Length	(ft)	1021.43

Start Elevation	(ft)	1171.96
End Elevation	(ft)	1164
Deltah	(ft)	7.96
Length (for slope calcs)	(ft)	2317
Drain Slope	(ft/ft)	0.003435

Manning's n	0.013

Pipe Diameter	(inches)	54

Full Discharge	(cfs)	115.2617

Contributing Drains	Drain ID	Discharge
1	drn02_8	6.996148
2	drn02_5	42.65825

Adjusted Discharge	(cfs)	65.60735

Drain ID	DRN03_1

Drain Length	(ft)	3669.8

Start Elevation	(ft)	1173.4
End Elevation	(ft)	1167.5
Deltah	(ft)	5.9
Length (for slope calcs)	(ft)	4670.4
Drain Slope	(ft/ft)	0.001263

Manning's n	0.013

Pipe Diameter	(inches)	30

Full Discharge	(cfs)	14.57854

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	14.57854

Drain ID	DRN03_2

Drain Length	(ft)	2099.59

Start Elevation	(ft)	1167.45
End Elevation	(ft)	1161.26
Deltah	(ft)	6.19
Length (for slope calcs)	(ft)	2049
Drain Slope	(ft/ft)	0.003021

Manning's n	0.013

Pipe Diameter	(inches)	24

Full Discharge	(cfs)	12.43405

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	12.43405

Drain ID	DRN03_3

Drain Length	(ft)	2317.09

Start Elevation	(ft)	1173.75
End Elevation	(ft)	1167.5
Deltah	(ft)	6.25
Length (for slope calcs)	(ft)	1635
Drain Slope	(ft/ft)	0.003823

Manning's n	0.013

Pipe Diameter	(inches)	24

Full Discharge	(cfs)	13.98683

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	13.98683

Drain ID		DRN03_4

Drain Length	(ft)	724.113

Start Elevation	(ft)	1169.9
End Elevation	(ft)	1161.48
Deltah	(ft)	8.42
Length (for slope calcs)	(ft)	685
Drain Slope	(ft/ft)	0.012292

Manning's n	0.013

Pipe Diameter	(inches)	27

Full Discharge	(cfs)	34.33648

Contributing Drains	Drain ID	Discharge
1	drn03_1	14.57854
2		

Adjusted Discharge	(cfs)	19.75794

Drain ID		DRN04

Drain Length	(ft)	5154.52

Start Elevation	(ft)	1189
End Elevation	(ft)	1181.5
Deltah	(ft)	7.5
Length (for slope calcs)	(ft)	3768.3
Drain Slope	(ft/ft)	0.00199

Manning's n	0.013

Pipe Diameter	(inches)	24

Full Discharge	(cfs)	10.09244

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	10.09244

Drain ID	DRN05_1

Drain Length	(ft)	5939.12

Start Elevation	(ft)	1181.5
End Elevation	(ft)	1173.4
Deltah	(ft)	8.1
Length (for slope calcs)	(ft)	6464
Drain Slope	(ft/ft)	0.001253

Manning's n	0.013

Pipe Diameter	(inches)	30

Full Discharge	(cfs)	14.51967

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	14.51967

Drain ID		DRN05_2

Drain Length	(ft)	3089.84

Start Elevation	(ft)	1170.99
End Elevation	(ft)	1166.42
Deltah	(ft)	4.57
Length (for slope calcs)	(ft)	3189
Drain Slope	(ft/ft)	0.001433

Manning's n		0.013

Pipe Diameter	(inches)	54

Full Discharge	(cfs)	74.44277

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	74.44277

Drain ID		DRN101

Drain Length	(ft)	3237.82

Start Elevation	(ft)	1175.8
End Elevation	(ft)	1169.03
Deltah	(ft)	6.77
Length (for slope calcs)	(ft)	3124
Drain Slope	(ft/ft)	0.002167

Manning's n	0.013

Pipe Diameter	(inches)	42

Full Discharge	(cfs)	46.83587

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	46.83587

Drain ID		DRN101

Drain Length	(ft)	1091.99

Start Elevation	(ft)	1169.51
End Elevation	(ft)	1168.53
Deltah	(ft)	0.98
Length (for slope calcs)	(ft)	1099.5
Drain Slope	(ft/ft)	0.000891

Manning's n	0.013

Pipe Diameter	(inches)	42

Full Discharge	(cfs)	30.03691

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	30.03691

Drain ID	DRN06_3

Drain Length	(ft)	428.186

Start Elevation	(ft)	1167.53
End Elevation	(ft)	1166.89
Deltah	(ft)	0.64
Length (for slope calcs)	(ft)	400
Drain Slope	(ft/ft)	0.0016

Manning's n	0.013

Pipe Diameter	(inches)	54

Full Discharge	(cfs)	78.65959

Contributing Drains	Drain ID	Discharge
1	drn06_1	46.83587
2	drn06_2	30.03691

Adjusted Discharge	(cfs)	1.786815

Drain ID	DRN06_4

Drain Length	(ft)	461.191

Start Elevation	(ft)	1170
End Elevation	(ft)	1168.48
Deltah	(ft)	1.52
Length (for slope calcs)	(ft)	489.92
Drain Slope	(ft/ft)	0.003103

Manning's n	0.013

Pipe Diameter	(inches)	27

Full Discharge	(cfs)	17.2506

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	17.2506

Drain ID		DRN07_1

Drain Length	(ft)	4718.76

Start Elevation	(ft)	1184.04
End Elevation	(ft)	1177.91
Deltah	(ft)	6.13
Length (for slope calcs)	(ft)	4530.6
Drain Slope	(ft/ft)	0.001353

Manning's n		0.013

Pipe Diameter	(inches)	27

Full Discharge	(cfs)	11.39193

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	11.39193

Drain ID	DRN07_2

Drain Length	(ft)	1225.02

Start Elevation	(ft)	1180.53
End Elevation	(ft)	1177.91
Deltah	(ft)	2.62
Length (for slope calcs)	(ft)	1128
Drain Slope	(ft/ft)	0.002323

Manning's n	0.013

Pipe Diameter	(inches)	27

Full Discharge	(cfs)	14.92592

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	14.92592

Drain ID	DRN07_3

Drain Length	(ft)	2619.75

Start Elevation	(ft)	1180.5
End Elevation	(ft)	1175.62
Deltah	(ft)	4.88
Length (for slope calcs)	(ft)	2641
Drain Slope	(ft/ft)	0.001848

Manning's n	0.013

Pipe Diameter	(inches)	24

Full Discharge	(cfs)	9.724427

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	9.724427

Drain ID	DRN07_4

Drain Length	(ft)	638.833

Start Elevation	(ft)	1177.91
End Elevation	(ft)	1176.09
Deltah	(ft)	1.82
Length (for slope calcs)	(ft)	651
Drain Slope	(ft/ft)	0.002796

Manning's n	0.013

Pipe Diameter	(inches)	36

Full Discharge	(cfs)	35.26632

Contributing Drains	Drain ID	Discharge
1	drn07_1	11.39193
2	drn07_2	14.92592

Adjusted Discharge	(cfs)	8.948471

Drain ID		DRN09A1

Drain Length	(ft)	4882.73

Start Elevation	(ft)	1175.37
End Elevation	(ft)	1170.97
Deltah	(ft)	4.4
Length (for slope calcs)	(ft)	4525
Drain Slope	(ft/ft)	0.000972

Manning's n		0.013

Pipe Diameter	(inches)	39

Full Discharge	(cfs)	25.74726

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	25.74726

Drain ID		DRN09A2

Drain Length	(ft)	2118.02

Start Elevation	(ft)	1177.13
End Elevation	(ft)	1170.97
Deltah	(ft)	6.16
Length (for slope calcs)	(ft)	1770
Drain Slope	(ft/ft)	0.00348

Manning's n	0.013

Pipe Diameter	(inches)	27

Full Discharge	(cfs)	18.27043

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	18.27043

Drain ID		DRN30

Drain Length	(ft)	725.706

Start Elevation	(ft)	1183.79
End Elevation	(ft)	1182.56
Deltah	(ft)	1.23
Length (for slope calcs)	(ft)	634
Drain Slope	(ft/ft)	0.00194

Manning's n	0.013

Pipe Diameter	(inches)	48

Full Discharge	(cfs)	63.26928

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	63.26928

Comments:

Drain ID		DRN32A

Drain Length	(ft)	2702.67

Start Elevation	(ft)	1183.09
End Elevation	(ft)	1178.74
Deltah	(ft)	4.35
Length (for slope calcs)	(ft)	2583
Drain Slope	(ft/ft)	0.001684

Manning's n		0.013

Pipe Diameter	(inches)	48

Full Discharge	(cfs)	58.94777

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	58.94777

Comments:

Drain ID		DRN33

Drain Length	(ft)	883.788

Start Elevation	(ft)	1178.55
End Elevation	(ft)	1173.16
Deltah	(ft)	5.39
Length (for slope calcs)	(ft)	885
Drain Slope	(ft/ft)	0.00609

Manning's n	0.013

Pipe Diameter	(inches)	24

Full Discharge	(cfs)	17.65473

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	17.65473

Drain ID		DRN33A1

Drain Length	(ft)	2673.21

Start Elevation	(ft)	1178.74
End Elevation	(ft)	1173.26
Deltah	(ft)	5.48
Length (for slope calcs)	(ft)	2652
Drain Slope	(ft/ft)	0.002066

Manning's n	0.013

Pipe Diameter	(inches)	48

Full Discharge	(cfs)	65.29629

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	65.29629

Comments:

Drain ID	DRN33A2

Drain Length	(ft)	1473

Start Elevation	(ft)	1185.22
End Elevation	(ft)	1178.22
Deltah	(ft)	7
Length (for slope calcs)	(ft)	1655
Drain Slope	(ft/ft)	0.00423

Manning's n	0.013

Pipe Diameter	(inches)	36

Full Discharge	(cfs)	43.37755

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	43.37755

Comments:

Drain ID	DRN35

Drain Length	(ft)	2683.06

Start Elevation	(ft)	1173.16
End Elevation	(ft)	1170.76
Deltah	(ft)	2.4
Length (for slope calcs)	(ft)	2596
Drain Slope	(ft/ft)	0.000924

Manning's n	0.013

Pipe Diameter	(inches)	54

Full Discharge	(cfs)	59.79226

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	59.79226

Comments:

Drain ID		DRN57B1

Drain Length	(ft)	834.635

Start Elevation	(ft)	1186.67
End Elevation	(ft)	1185.6
Deltah	(ft)	1.07
Length (for slope calcs)	(ft)	680
Drain Slope	(ft/ft)	0.001574

Manning's n		0.013

Pipe Diameter	(inches)	24

Full Discharge	(cfs)	8.973786

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	8.973786

Comments:

Drain ID		DRN57B2

Drain Length	(ft)	3874.52

Start Elevation	(ft)	1204.74
End Elevation	(ft)	1184.1
Deltah	(ft)	20.64
Length (for slope calcs)	(ft)	3908
Drain Slope	(ft/ft)	0.005281

Manning's n	0.013

Pipe Diameter	(inches)	30

Full Discharge	(cfs)	29.80867

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	29.80867

Comments:

Drain ID		DRN58A

Drain Length	(ft)	1258.12

Start Elevation	(ft)	1189.75
End Elevation	(ft)	1185.22
Deltah	(ft)	4.53
Length (for slope calcs)	(ft)	1050
Drain Slope	(ft/ft)	0.004314

Manning's n		0.013

Pipe Diameter	(inches)	36

Full Discharge	(cfs)	43.80962

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	43.80962

Comments:

Drain ID		DRN59

Drain Length	(ft)	3875.92

Start Elevation	(ft)	1143.15
End Elevation	(ft)	1121.26
Deltah	(ft)	21.89
Length (for slope calcs)	(ft)	3878
Drain Slope	(ft/ft)	0.005645

Manning's n	0.013

Pipe Diameter	(inches)	30

Full Discharge	(cfs)	30.81655

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	30.81655

Comments:

Drain ID	DRN59A

Drain Length	(ft)	2631.34

Start Elevation	(ft)	1210.98
End Elevation	(ft)	1204.9
Deltah	(ft)	6.08
Length (for slope calcs)	(ft)	2689
Drain Slope	(ft/ft)	0.002261

Manning's n	0.013

Pipe Diameter	(inches)	48

Full Discharge	(cfs)	68.30325

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	68.30325

Comments:

Drain ID		DRN59B

Drain Length	(ft)	2688.5

Start Elevation	(ft)	1221.26
End Elevation	(ft)	1210.98
Deltah	(ft)	10.28
Length (for slope calcs)	(ft)	2562
Drain Slope	(ft/ft)	0.004012

Manning's n		0.013

Pipe Diameter	(inches)	48

Full Discharge	(cfs)	90.98964

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	90.98964

Comments:

Drain ID		DRN70

Drain Length	(ft)	4193.41

Start Elevation	(ft)	1203.8
End Elevation	(ft)	1197.41
Deltah	(ft)	6.39
Length (for slope calcs)	(ft)	2622
Drain Slope	(ft/ft)	0.002437

Manning's n		0.013

Pipe Diameter	(inches)	48

Full Discharge	(cfs)	70.91189

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	70.91189

Comments:

Drain ID	DRN12

Drain Length	(ft)	670.196

Start Elevation	(ft)	1186.4
End Elevation	(ft)	1183.72
Deltah	(ft)	2.68
Length (for slope calcs)	(ft)	668
Drain Slope	(ft/ft)	0.004012

Manning's n	0.013

Pipe Diameter	(inches)	36

Full Discharge	(cfs)	42.24683

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	42.24683

Drain ID	DRN15

Drain Length	(ft)	2576.42

Start Elevation	(ft)	1182.35
End Elevation	(ft)	1176.25
Deltah	(ft)	6.1
Length (for slope calcs)	(ft)	2647
Drain Slope	(ft/ft)	0.002304

Manning's n	0.013

Pipe Diameter	(inches)	42

Full Discharge	(cfs)	48.29784

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	48.29784

Drain ID	DRN20A1

Drain Length	(ft)	1571.5

Start Elevation	(ft)	1181.8
End Elevation	(ft)	1172.09
Deltah	(ft)	9.71
Length (for slope calcs)	(ft)	1912
Drain Slope	(ft/ft)	0.005078

Manning's n	0.013

Pipe Diameter	(inches)	18

Full Discharge	(cfs)	7.485727

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	7.485727

Drain ID		DRN20_1

Drain Length	(ft)	3092.16

Start Elevation	(ft)	1176.21
End Elevation	(ft)	1172.03
Deltah	(ft)	4.18
Length (for slope calcs)	(ft)	2876.5
Drain Slope	(ft/ft)	0.001453

Manning's n		0.013

Pipe Diameter	(inches)	54

Full Discharge	(cfs)	74.96312

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	74.96312

Drain ID	DRN22

Drain Length	(ft)	3042.74

Start Elevation	(ft)	1196.35
End Elevation	(ft)	1160.81
Deltah	(ft)	35.54
Length (for slope calcs)	(ft)	2842
Drain Slope	(ft/ft)	0.012505

Manning's n	0.013

Pipe Diameter	(inches)	36

Full Discharge	(cfs)	74.58675

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	74.58675

Drain ID	DRN23_1

Drain Length	(ft)	2929.84

Start Elevation	(ft)	1200.71
End Elevation	(ft)	1152.3
Deltah	(ft)	48.41
Length (for slope calcs)	(ft)	5512
Drain Slope	(ft/ft)	0.008783

Manning's n	0.013

Pipe Diameter	(inches)	36

Full Discharge	(cfs)	62.5069

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	62.5069

Drain ID	DRN23_2

Drain Length	(ft)	1834.98

Start Elevation	(ft)	1177.08
End Elevation	(ft)	1175.57
Deltah	(ft)	1.51
Length (for slope calcs)	(ft)	597
Drain Slope	(ft/ft)	0.002529

Manning's n	0.013

Pipe Diameter	(inches)	36

Full Discharge	(cfs)	33.54411

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	33.54411

Drain ID	DRN24_1

Drain Length	(ft)	2943.1

Start Elevation	(ft)	1171.34
End Elevation	(ft)	1165.45
Deltah	(ft)	5.89
Length (for slope calcs)	(ft)	3170
Drain Slope	(ft/ft)	0.001858

Manning's n	0.013

Pipe Diameter	(inches)	75

Full Discharge	(cfs)	203.5478

Contributing Drains	Drain ID	Discharge
1	DRN24_2	88
2	DRN_25	38.24

Adjusted Discharge	(cfs)	77.30778

Drain ID	DRN24_2

Drain Length	(ft)	1678.51

Start Elevation	(ft)	1183.71
End Elevation	(ft)	1171.34
Deltah	(ft)	12.37
Length (for slope calcs)	(ft)	1617
Drain Slope	(ft/ft)	0.00765

Manning's n	0.013

Pipe Diameter	(inches)	42

Full Discharge	(cfs)	87.99735

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	87.99735

Drain ID		DRN25

Drain Length	(ft)	2805.1

Start Elevation	(ft)	1171.08
End Elevation	(ft)	1169.61
Deltah	(ft)	1.47
Length (for slope calcs)	(ft)	2866
Drain Slope	(ft/ft)	0.000513

Manning's n	0.013

Pipe Diameter	(inches)	51

Full Discharge	(cfs)	38.23984

Contributing Drains	Drain ID	Discharge
1		
2		

Adjusted Discharge	(cfs)	38.23984