APPENDIX D16

Preliminary Hydrology and Hydraulics Report

District at Jurupa Valley

Tentative Map XX

City of Jurupa Valley, CA

Preliminary Hydrology and Hydraulics Report

Prepared for

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CONTENTS

TABLES 2

FIGURES 2

APPENDICES 3

Project Description and Study Objectives 4

Project Overview 4

FEMA Floodplain 5

Study Objectives 5

Study Limitations 6

Basis of Analysis 6

overview of Hydrology & Hydraulic method 6

Hydrologic Modeling In AES Hydrowin 7

PC SWMM Modeling 9

Simulation Options 9

Storage Curves 9

Time Series (AES Flow Data) 11

AES Sub-Catchments 11

Junctions 11

Conduits 12

Storages 12

Weirs 13

Orifices 13

Outfalls 13

Design Development 14

Summary of Report Objectives 15

TABLES

Table 1 Proposed Land Use Areas 4

Table 2 Area-Stage Curve Summaries for Existing and Proposed Detention Basins 10

Table 3 Comparison of Pre-Development and Mitigated Post Development Project Flows 17

FIGURES

Figure 1 - Project Vicinity Map 5

APPENDICES

Appendix A – PC SWMM Reports

Appendix B – Hydrologic Work Maps

Appendix C – AES Input and Output

Appendix D – FEMA FIRM

Appendix E – Soils Information

Appendix F – Reference Information

Appendix G– RCFC and WCD Hydrology Manual Plates

PROJECT DESCRIPTION AND STUDY OBJECTIVES

PROJECT OVERVIEW

"The District Jurupa Valley" is an approximately 250-acre site located off the 60-Freeway and Rubidoux Blvd at the southeast corner of the Rubidoux neighborhood in the City of Jurupa Valley (the "Site"). Refer to **Figure 1 - Project Vicinity Map**. The Site is currently entitled under the Emerald Meadows Ranch Specific Plan, approved in 2005. The District at Jurupa Valley Specific Plan will rescind and replace the existing Emerald Meadow's Ranch Specific Plan. The District at Jurupa Valley Specific Plan will establish a new master plan community that will transform the Site into a mixed-use development comprised of warehouse/logistics, retail, commercial, hospitality, and mixed density residential, with the integration of open space and recreation uses.

The Site will be developed into the following land uses consistent with the attached concept plan (the "Project"). The acreage and densities are displayed for initial planning purposes and will be refined and established through the development of the specific plan and design documents. Refer to **Table 1 Proposed Land Use Areas.**

Table 1 Proposed Land Use Areas

Land Use	Acres (+/-)	Proposed Density/ Intensity [1]	Anticipated Units	Square Feet
Residential	50		998	---
Mixed Use	27		198	
Non-Residential	167		---	
Commercial Hospitality (CH)	17		---	---
Commercial Retail (CR)	70		---	---
Industrial (I)	80		---	1,500,000
Open Space	10		---	---
Project Totals	**254**	**---**	**1,196**	

Notes:

1. The densities above are preliminary and subject to change as the Specific Plan and Site Plan are developed. The Specific Plan will include the final land use designations, densities and allowable square footage for the non-residential designations.



Figure 1 - Project Vicinity Map

FEMA Floodplain

The National Flood Hazard Layer (NFHL) was used to obtain shape files for the Special Flood Hazard Area (SFHA) located near the project site. A portion of the project site is mapped as Zone X but is completely free of SFHA designation. The closest SFHA to the project site is the Santa Ana River located just to the east of the development. The project does not propose encroachment or alteration of any portion of the SFHA. For graphic depiction of SFHA limits relative to the development location refer to **Appendix D – FEMA FIRM.**

Study Objectives

This report will support preparation of the Tentative Map and City of Jurupa Valley approvals for the project by:

1. Quantifying existing 100-year offsite flow rates at the culvert crossing of State Route 60 (SR 60) based on 1 hour, 3 hour, 6 hour, and 24 hour duration storms ("the required durations").
2. Quantifying existing 100-year flow rates at pertinent site discharge locations from the development for the required durations.
3. Quantifying proposed, unmitigated 100-year flow rates at pertinent locations within the site for the required durations

4. Establishing location and size of peak flow basins required to mitigated proposed flows to levels required by Riverside County Flood Control and Water Conservation District (RCFC and WCD).
5. Confirming the existing hydraulic capacity of the existing culvert crossing at SR 60.
6. Determining preliminary hydraulic analysis of the backbone storm drain system including the extension of the SR 60 box culvert through the development.
7. Developing preliminary recommendations for the discharge condition at the Santa Ana River near the southeasterly corner of the project
8. At the request of the City of Jurupa Valley and Riverside County Flood Control District, apply objectives 1, 2, and 3 to the 10-year, 5-year, and 2-year storms.

STUDY LIMITATIONS

The report is limited to only the specific objectives described above. This report does not address post construction stormwater quality. A separate project-specific Water Quality Management Plan (WQMP) has been prepared for EM Ranch Owner, LLC by Kimley Horn for the District at Jurupa Valley project. The WQMP complies with the requirements of City of Jurupa Valley for Ordinance 2012-07 which includes the requirement for control of stormwater using Best Management Practices associated with new and re-development.

A stormwater pollution prevention plan (SWPPP) detailing the use construction phase best management practices (BMPs) and compliance with the California Statewide Construction General Permit will be prepared under separate cover prior to construction.

BASIS OF ANALYSIS

Throughout this report, reference will be made to the following regulations and standard design publications utilized by the City of Jurupa Valley:

1. *Riverside County Flood Control and Water Conservation District Hydrology Manual*, ("the County Hydrology Manual")

OVERVIEW OF HYDROLOGY & HYDRAULIC METHOD

Sub-area hydrology was performed using AES based upon the standards of the Riverside County Flood Control and Water Conservation District Hydrology Manual ("the County Hydrology Manual"). AES unit hydrograph modeling was done for both the pre-development and post development project conditions for the 100 year 1-hour, 3 hour, 6 hour, and 24 hour durations. Similar modeling was also done for the 10-year, 5-year, and 2-year storms. Resulting hydrographs were manually imported by spreadsheet into PC SWMM. PC SWMM was used solely for conduit and basin routing in accordance with provisions of the County Hydrology Manual Section E-9. PC SWMM offers the flexibility to incorporate hydrograph results developed using Riverside County standards and comprehensively evaluate project hydraulics dictated by weirs, orifices, and backwater effects – all of which having relevance to the project analysis. In addition to its computational flexibility and state-of the art accuracy, it also offers the following advantages:

- Streamlined workflow through import and export of geospatial data
- Built in graphic, mapping, and reporting functions

- Direct compatibility with HEC RAS

Numerous AES models were created – one for each sub-catchment area in both the existing and developed conditions.

Sixteen (16) PC SWMM models were created to meet the project objectives:

1. 4 models, one for each of the 4 durations analyzed (i.e., 1 hour, 3, hour, 6, hour, and 24 hour) for the 100-year event. Each model contains the 3 primary existing condition areas, as well as a unitized 20-acre assessment of the proposed condition.
2. 4 models, one for each of the 4 durations analyzed (i.e., 1 hour, 3, hour, 6, hour, and 24 hour) for the 10-year event. Each model contains the 3 primary existing condition areas, as well as a unitized 20-acre assessment of the proposed condition.
3. 4 models, one for each of the 4 durations analyzed (i.e., 1 hour, 3, hour, 6, hour, and 24 hour) for the 5-year event. Each model contains the 3 primary existing condition areas, as well as a unitized 20-acre assessment of the proposed condition.
4. 4 models, one for each of the 4 durations analyzed (i.e., 1 hour, 3, hour, 6, hour, and 24 hour) for the 2-year event. Each model contains the 3 primary existing condition areas, as well as a unitized 20-acre assessment of the proposed condition.

HYDROLOGIC MODELING IN AES HYDROWIN

Subcatchment hydrology was analyzed using AES. AES directly incorporates the hydrologic methods of Riverside County and the input is summarized as follows:

1. Drainage areas – Drainage areas for the existing condition were delineated and measured using the most accurate topographic data. In the case of offsite areas, USGS contours were used. A site specific topographic survey was used for the on-site pre-development areas. Proposed grading for the Tentative Map was used for the on-site post development areas. The project is generally delineated as follows:
    a. Area A – originates in the Rubidoux foothill area and flows in a southwesterly direction towards an existing double box culvert under SR-60.
    b. Area B – originates onsite and flows in a southwesterly direction towards 34th Street.
    c. Area C – originates onsite and flows in a southerly direction. Area C confluences with Area A prior to discharge through an existing 36" pipe within the embankment of the Santa Ana River Levee near the southeasterly corner of the project.
    d. Areas A & B are broken down further in the post development condition based upon the proposed layout of streets and individual planning area locations. Areas with an "S" designation are specific to streets. Areas A and B in the post development have been (for preliminary purposes) evaluated on a unitized 20-acre basis and the resulting hydrograph flow values scaled proportionately up or down based upon actual size. Refer also to "**Junctions**" under the "**PC SWMM Modeling"** section of this report.
2. Watercourse length – For all drainage areas, watercourse length was delineated and measured using the same topographic sources as was used for drainage area delineation.

3. Flow length from centroid - For all drainage areas, flow length from centroid was delineated and measured using the same topographic sources as was used for drainage area delineation.
4. Difference in node elevation - For all drainage areas, node elevation and elevation difference were calculated using the same topographic sources as was used for drainage area delineation.
5. Basin roughness ("N" value) – in the pre-development scenario, Area A is considered a developed watershed consisting of street flow and existing storm drain. Areas B and C in the predevelopment are considered largely natural. In the post development scenario, the roughness values for Areas B and C were decreased to account for construction of new streets and stormdrain pipe systems.
6. Determination of Lag – Areas B and C in the post development condition utilize an assumed lag time of 0.10 hours, the minimum accepted by AES. For all other drainage areas, lag is computed by AES based upon watercourse length, watershed roughness, elevation difference, etc.
7. S-Graph shape – all drainage areas assume the "Foothill" S Graph shape due to the proximity of the Rubidoux foothill area.
8. Slope of the intensity curve is based upon Plate D-4.6 of the County Hydrology Manual.
9. Point rainfall – Point rainfall was based upon values recommended by NOAA Atlas 14 for the City of Jurupa Valley. The values vary by storm duration for the 1-hour, 3 hour, 6 hour, and 24 hour duration.
10. Depth area adjustment – the size of the drainage areas analyzed does not warrant depth area adjustment
11. Land use acreage was estimated using current aerial photographs for the project study area. Impervious area fraction (Ai) was calculated based upon Plate E-6.2 of the County Hydrology Manual. For Areas B and C in the post development condition, impervious area fraction is assumed at 0.90 for conservatism.
12. Watershed soil types were taken based upon information provided within the NRCS Online Web Soil Survey. **Refer to Appendix E – Soils Information**.
13. Pervious area loss rates were calculated based upon Plate E-6.2 of the County Hydrology Manual. These rates vary by design storm and assumed antecedent moisture condition.
14. Constant adjusted loss rates were calculated based upon Plate E-7.1 of the County Hydrology Manual. These rates vary by design storm and assumed antecedent moisture condition.
15. Low loss rate percentage was derived based upon the technical guidance of Page E-9 of the County Hydrology Manual. These rates vary by design storm and assumed antecedent moisture condition.

A complete summary of input and computational output can be found within **Appendix C – AES Input and Output.** Subcatchment areas, nodes and links are graphically depicted in **Appendix B – Hydrologic Work Maps.**

PC SWMM MODELING

SIMULATION OPTIONS

General Settings - Both models prepared for the project utilize only the "flow routing" process. The "dynamic wave" routing method was selected. The dynamic wave model, like Muskingum, accurately accounts for conservation of mass at each node and within each conduit. The dynamic wave process also maintains conservation of momentum, allowing the model to simulate pressurized flow, account for channel storage, backwater, flow reversal, and entrance/exit losses. This setting is also well suited to simulate the performance of flow regulation via weirs and orifices.

Dates – the full simulation date range extends from January 1, 2022 to April 16, 2022. The start date is arbitrary. The total simulation allows the user to run all events sequentially, or on an individual basis by varying the start and end times within the overall date range. The dates associated with each storm frequency and duration are:

1. January 1, 5, 10, and 15 (100-year 1 hour, 3, hour, 6 hour, and 24 hour)
2. February 1, 5, 10, and 15 (10-year 1 hour, 3, hour, 6 hour, and 24 hour)
3. March 1, 5, 10, and 15 (5-year 1 hour, 3, hour, 6 hour, and 24 hour)
4. April 1, 5, 10, and 15 (2-year 1 hour, 3, hour, 6 hour, and 24 hour)

STORAGE CURVES

Storage curves based on area-stage relationships used for each detention basin are summarized in the **Table 2.** Detention basin modeling is discussed further in the **Storages** Section of this report.

Table 2 Area-Stage Curve Summaries for Existing and Proposed Detention Basins

Caputred Drainage Area	Area B.1.a	Area B.1.b.	Area B.1.c.	Area B.1.d.	Area B.2.a.	Area B.2.b.	Area B.2.c.	Area B.3.	Area B.4.	Area B.5.	Area B.6.	Area B.7.	Area C.1	Area C.2
Area (ac)	2.18	2.29	3.4	15.68	25.31	21.47	31.41	2.36	4.71	8.52	9.35	2.69	72.36	28
Receiving PC SWMM Modeling Element	Junction J10	Junction J12	Junction J13	Junction J14	Junction J15	Junction J16	Junction J28	Junction J19	Junction J21	Junction J30	Junction J32	Junction J22	Junction J23	Junction J26
PC SWMM Model Desciption	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow
Time Series Scale Factor	0.109	0.1145	0.17	0.784	1.2655	1.0735	1.5705	0.118	0.2355	0.426	0.4675	0.1345	3.618	1.4
PC SWMM Storage Element	SU1	SU2	SU3	SU4	SU5	SU6	SU7	SU8	SU9		SU11		SU 13	SU 14
PC SWMM Model Desciption	Future Basin 1a	Future Basin 1b	Future Basin 1c	Future Basin 1d	Future Basin 2a	Future Basin 2b	Future Basin 2c	Future Basin 3	Future Basin 4		Future Basin 6		Future Basin 8a	Future Basin 8b
PC SWMM Storage Curve	Curve1	Curve2	Curve3	Curve4	Curve5	Curve6	Curve7	Curve8	Curve9		Curve11		Curve13	Curve14
Ave Basin Area (ft^2)	4748.04	4987.62	7405.2	34151.04	55125.18	46761.66	68410.98	5140.08	10258.38		20364.3		157600.08	60984
Stage														
0	4748.04	4987.62	7405.2	34151.04	55125.18	46761.66	68410.98	5140.08	10258.38	0	20364.3	0	157600.08	60984
1	4748.04	4987.62	7405.2	34151.04	55125.18	46761.66	68410.98	5140.08	10258.38	0	20364.3	0	157600.08	60984
2	4748.04	4987.62	7405.2	34151.04	55125.18	46761.66	68410.98	5140.08	10258.38	0	20364.3	0	157600.08	60984
3	4748.04	4987.62	7405.2	34151.04	55125.18	46761.66	68410.98	5140.08	10258.38	0	20364.3	0	157600.08	60984
`	4748.04	4987.62	7405.2	34151.04	55125.18	46761.66	68410.98	5140.08	10258.38	0	20364.3	0	157600.08	60984
5	4748.04	4987.62	7405.2	34151.04	55125.18	46761.66	68410.98	5140.08	10258.38	0	20364.3	0	157600.08	60984

Caputred Drainage Area	Offsite Flow Basin (Mitigated C.2+Mitigated C.1+A)		Ex Flood Storage (C+A)	
Area (ac)	409		443	
Receiving PC SWMM Modeling Element	J2, J23, J26		J4	
PC SWMM Model Desciption	n/a		n/a	
Time Series Scale Factor	1		1	
PC SWMM Storage Element	SU15		J4	
PC SWMM Model Desciption	Proposed Basin		Existing Storage Volume	
PC SWMM Storage Curve	Curve15		(Pre Development) Curve1	
Ave Basin Area (ft^2)	182894		251200	
Stage			Stage	
0	182894		0	0
1	182894		1	35,000.00
2	182894		2	75,000.00
3	182894		3	100,000.00
4	182894		4	120,000.00
5	182894		5	160,000.00
6	182894		6	190,000.00
7	182894		7	220,000.00
			8	312,000.00
			9	1,300,000.00

Caputred Drainage Area	Area S.1	Area S.2.a.	Area S.2.b.	Area S.2.c.	Area S.3.	Area S.4.	Area S.5.a	Area S.5.b.	Area S.6.	Area S.7.a.	Area S.7.b.	Area S.7.c.
Area (ac)	0.77	0.87	1.09	1.57	1.69	3.42	1.3	1.97	3.88	1.44	0.38	0.54
Receiving PC SWMM Modeling Element	Junction 70	Junction 73	Junction 76	Junction 80	Outfall J17	Junction 129	Junction 89	Junction 87	Junction 82	Junction 82	Junction 94	Junction 92
PC SWMM Model Desciption	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow
Time Series Scale Factor	0.0385	0.0435	0.0545	0.0785	0.0845	0.171	0.065	0.0985	0.194	0.072	0.019	0.027
PC SWMM Storage Element	SU 10											
PC SWMM Model Desciption												
PC SWMM Storage Curve	Curve12											
Ave Basin Area (ft^2)	1000											
Stage	**Stage**											
0	**0**					1000						
1	**1**					1000						
2	**2**					1000						
3	**3**					1000						
4	**4**					1000						
5	**5**					1000						

TIME SERIES (AES FLOW DATA)

Time series flow data was imported based upon the results of the AES simulation for all storm frequencies and durations analyzed Each hydrograph was compiled sequentially and separated by a dry weather period using excel spreadsheets. A total of 4 time series files were created.

1. "Timeseries1" – represents sub-catchment flow from Area A in both the pre-development and post development conditions. Since this area is offsite and outside the limit of proposed development, flows are assumed unchanged.
2. "Timeseries3" – represents sub-catchment flow from Area B in the pre-development condition.
3. "Timeseries2" – represents sub-catchment flow from Area C in the pre-development condition.
4. "Timeseries4" – represents sub-catchment flows in Areas B and C in the post development condition. "Timeseries4" was developed on a unitized 20-acre basis and scaled proportionately at each junction based upon actual drainage area. Refer also to the **Junctions** Section of this report.

AES SUB-CATCHMENTS

"AES sub-catchments" is a *non-computational* layer developed solely for developing graphics and exhibits. User defined attributes were created to mirror the input from AES HydroWin modeling and include parameters such as drainage area, watercourse length, slope of the intensity curve, etc. Theses factors are discussed in **Hydrologic Modeling In AES Hydrowin.** Complete AES input and output are provided in **Appendix C – AES Input and Output.** AES input parameters are also duplicated within the AES Sub-Catchment Tables (1A and 1B) of **Appendix A – PC SWMM Reports** and are graphically illustrated in **Appendix B – Hydrologic Work Maps**.

JUNCTIONS

Junctions (aka "nodes") are used to illustrate relevant points of study where determination of a specific flow rate has relevancy to the study objectives. Nodes have been established at conduit entrances (catch basins, inlets, headwalls, etc.) and confluence points of concentrated surface drainage.

- Rim and Invert Elevations – The invert elevations of offsite junctions were mostly interpolated from USGS topography.
- The rim and invert elevations of the SR-60 culvert were taken from Caltrans As-Built Drawings.
- Rim and Invert elevation for the outlet works to the Santa Ana River Levee were taken from the Levee Rehabilitation Plans prepared by the US Army Corps of Engineers Los Angeles District. Refer to **Appendix F – Reference Information**.
- Invert elevation of onsite junctions was taken directly from site specific survey data for the predevelopment scenario and the project grading plans for the post development scenario. Due to the preliminary stage of the project, proposed and future storm drain systems were generally assumed at 5' depth from rim to invert.
- Where appropriate, "Inflow" rating tables were assigned at specific junctions to correlate with the AES HydroWin Modeling. Maximum hydrograph flow from AES correlates with the "Maximum Lateral Inflow" column. Due to the preliminary nature of the project, on-site junctions within the post development model were assigned an "inflow" hydrograph rating curve for a representative 20-acre drainage area developed in AES. A "scale factor" was used to

proportion the hydrograph flow ordinates up or down based upon the ratio of the actual drainage area to 20 acres.

For complete Junction input and output data, refer to Table 6 within **Appendix A – PC SWMM Reports**. Junction input and output data are graphically summarized in **Appendix B – Hydrologic Work Maps.**

CONDUITS

Conduit links are used to underground pipes and the flowline of overland channels.

- Length – Conduit length is auto-derived within PC SWMM, since all modeling elements are created on a coordinate base.
- Roughness – Manning's "n" values for closed conduits and open channels is based upon professional judgement and recommended guidance from the *American Society of Civil Engineers (ASCE) Manual of Practice Number 60* (ASCE, 1982).
- Cross Section – All conduits are assumed as having a closed circular cross section with 2 exceptions:
    - The existing culvert under SR-60 and its proposed extension have a "double" closed rectangular section based upon Caltrans As-Built Drawings
    - The existing channel that flows from the SR-60, through Area C has a highly variable cross section based upon project topographic survey. Representative trapezoidal sections have been developed using best professional judgement.
- Inlet and outlet "offset" information is used to represent upstream and downstream conduit invert. The "offset" value is vertically relative to the invert of the corresponding junction at the upstream and downstream sides of the conduit.
- Slope is auto-calculated by the software based upon length and upstream to downstream invert differential.
- Entry loss coefficient – For the proposed pipe system, minor losses are computed based upon coefficients applied to inlet velocity head. These coefficients were developed based upon professional judgement and consideration of technical guidance within Section B-2.3 of the *Los Angeles County Flood Control District Hydraulic Design Manual* (Los Angeles County, March 1982). The minor loss coefficient used for the SR-60 culvert was based upon technical guidance within *Design Series Number 5, Hydraulic Design of Highway Culverts, Third Edition* (FHWA, April 2012).

For complete Conduit input and output data, refer to Tables 2A and 2B within **Appendix A – PC SWMM Reports**. Conduit input and output data are graphically summarized in **Appendix B – Hydrologic Work Maps.** Improvements designated with a "Future" pre-fix are conceptual only and shall be further developed at the time of planning and design for the individual planning areas.

STORAGES

Storages are used to model the attenuation and mitigation provided by proposed detention basins as well as on-site flood storage in the existing condition. The invert elevation and tabular storage curve for each were developed based upon site specific topography and proposed contour information shown on the tentative map grading plans. "Future" detention basins associated with each planning area are

assumed to have a footprint ratio of 5% of the planning area size and a 5' storage depth. Refer also to **Table 2 Area-Stage Curve Summaries for Existing and Proposed Detention Basins.** Future basins shall be designed as part of the engineering approvals for each individual planning area. The only detention basin considered part of the backbone system proposed for this tentative map is the one that attenuates flow from the SR-60 box culvert extension. For complete "Storage" input and output data, refer to **Table 4** within **Appendix A – PC SWMM Reports**. Storage location are graphically illustrated in **Appendix B – Hydrologic Work Maps.**

WEIRS

A weirs elements was used to model the performance of the existing emergency spillway within the Santa Ana River Levee. Input data regarding the height, length side slope ratio, and offset from the basin bottom were developed from information on the US Army Corps Levee Rehabilitation Plans. Refer to Appendix F – Reference Information. Spillway capacity is expressed in the PC SWMM Weir Report output as a ratio of "Max/Full Depth". For complete "Weir" input and output data, refer to Table 5 within **Appendix A – PC SWMM Reports**. The weir location is graphically illustrated in **Appendix B – Hydrologic Work Maps.**

ORIFICES

Orifice elements are used to model regulated outflow from all proposed detention basins. Based upon the preliminary nature of design, all cross sections are assumed as circular. All dimensions were established based upon trial and error to restrict project discharge to the following objective conditions:

1. Restrict project flows from Area C to the Santa Ana River Levee outlet to pre-development level or less.
2. Restrict project flows to the levels from Area B to the quantity assumed as part of the original design for the Rubidoux Channel, as documented within the *Riverside County Flood Control and Water Conservation District Rubidoux Area Master Drainage Plan* (RCFC, April 1966). The Master Plan anticipates discharge from the project site as shown in Subareas S-3, S-1, S-2, T-3, T-4, T-5, and T-6. Based upon the design calculations for the East Mission Boulevard Drain (RCFC, April 1966), these subareas were allocated a collective discharge of 118 cfs for the 10-year event. Refer to **Appendix F – Reference Information.**

Final design of the outlet structures will require additional development as additional design details for the project evolve. It is anticipated that each of the basins serving a planning area will utilize a multi-stage outlet to perform multiple functions for both water quality and water quantity:

1. Lower stages will facilitate biotreatment based upon permanent water quality standards for the Santa Ana Region.
2. Middle stages will regulate Q2 and Q10 to meet Santa Ana Regional water quality requirements for Hydrologic Conditions of Concern (HCOC).
3. Upper stages will regulate Q100 to the previously stated objective discharge conditions.

OUTFALLS

Outfalls are used to establish the downstream computational limits of the PC SWMM analysis. They need not be "outfalls" in the traditional sense (i.e., pipe outlet to an existing channel through an end-

wall). Rim and invert elevation for each outfall was taken from site specific survey information as well as Levee Rehabilitation Plans for the Santa Ana River developed by the US Army Corps of Engineers. Refer to **Appendix F – Reference Information**. In the post development condition, the outfall location at 34th Street and Wallace Street is considered a modeling placeholder, until an offsite storm drain alignment can be identified to connect the proposed backbone system with the East Mission Boulevard Drain. The proposed flow at this location is regulated within tolerance of the values accounted for by Riverside County Flood Control District at the time of the original design of the East Mission Boulevard drainage system.

DESIGN DEVELOPMENT

Based upon the preliminary stage of the project, certain aspects of the design will require additional engineering design development as other details of the project continue to evolve. The most noteworthy of which are highlighted below:

1. Detailed Inlet and gutter capacity – Plates D-7.1. through D-7.8 within the Riverside County Hydrology Manual provide an estimate of gutter capacity based upon street slope, lane dimensions, and right of way width. Although project street sections are preliminary, these Plates can serve as a conservative planning tool for assumed physical dimensions. Assuming a minimum slope of 1% and maintenance of flows at or below a 6 inch top of curb, the Plates indicate a combined gutter capacity (on both sides of the streets) at around 50 cfs (25 cfs on each side). This estimate has been used to plan the length of proposed backbone storm drain within the streets so that gutter capacity meets or exceeds this general performance threshold. Refer to the "Maximum Lateral Inflow" column in Table 6 of Appendix A – PC SWMM Reports for J16, J17, and J23 for computed street flows at the upstream terminus of the planned storm drain system. The design and spacing of individual inlets will be addressed as part of final engineering design based upon required efficiency and inlet length.
2. Sub-catchment hydrologic parameters – will be refined throughout the planning and design process as more information becomes available regarding specific impervious percentages and storm drain routing within each planning area. These items will be addressed as part of the planning and final design of each individual planning area. For now, the parameters assumed are considered conservative.
3. Detention basin outlet structures – will be refined throughout the planning and design process as more information becomes available regarding the use of specific stage-discharge conditions created by riser pipes, outlet barrels, sub-drains, and emergency overflow weirs needed to control both water quantity and water quality. For now, the parameters assumed are considered reasonably conservative and suitable to justify adherence with objective outflow conditions. Additional consideration will also be given based on the ability to incorporate passive/minor amounts of infiltration based upon recommendation from the project geotechnical engineer.
4. Scour protection – individual planning area basins will require rip rap protection both at the inflow and outflow points to counter the effects of scour from concentrated flow. The design of rip rap protection will be done as part of final engineering for each individual planning area.

5. Offsite Storm Drain Connection to East Mission Boulevard. The alignment of this connection shall be coordinated and approved as part of this Tentative Map pending further discussion with Riverside County Flood Control and the City of Jurupa Valley.

SUMMARY OF REPORT OBJECTIVES

The results of the AES HydroWin and PC SWMM models are sufficient to meet the objectives defined for this report, which are preliminary in nature. Specifically, these objectives are:

Study Objective 1. *Quantify existing 100-year offsite flow rates at the culvert crossing of State Route 60 (SR 60) based on 1 hour, 3 hour, 6 hour, and 24 hour duration storms ("the required durations").*

Conclusion – Refer to **Table 2 Comparison of Pre-Development and Mitigated Post Development Project Flows** and **Table 6** within **Appendix A – PC SWMM Reports**.

Study Objective 2. *Quantify existing 100-year flow rates at pertinent site discharge locations from the development for the required durations.*

Conclusion – Refer to **Table 2 Comparison of Pre-Development and Mitigated Post Development Project Flows** and **Table 6** within **Appendix A – PC SWMM Reports**.

Study Objective 3. *Quantify proposed, unmitigated 100-year flow rates at pertinent locations within the site for the required durations*

Conclusion – Refer to **Table 6** within **Appendix A – PC SWMM Reports**.

Study Objective 4. *Coordinate location and size of peak flow basins required to mitigated proposed flows to levels required by Riverside County Flood Control and Water Conservation District (RCFC and WCD).*

Conclusion - **Table 2** demonstrates that the project detention basins are sized to meet the objective outflow condition at the Santa Ana River Levee, since values for OR15 are less than for C1, and since the sum of OR10+OR11 is less than the lateral inflow values for J4. The value for J6 shows that the project detention basins limit flows to less than the assumed values for the East Mission Boulevard Drain used during original design. Both aspects of mitigation are due to the collective size and location of peak flow basins within the development. Refer also to **Table 6** and **Table 4** within **Appendix A – PC SWMM Reports.**

Study Objective 5. Confirm the existing hydraulic capacity of the existing culvert crossing at SR 60.

Conclusion - The "zero" results for "Maximum Surcharge" and "Total Flood Volume" within **Table 6** of **Appendix A – PC SWMM Reports** for J2 demonstrate the hydraulic adequacy of the culvert at SR-60. This condition is unchanged by the project.

Study Objective 6. Perform preliminary hydraulic analysis of the backbone storm drain system including the extension of the SR 60 box culvert through the development.

Conclusion - The "zero" results for "Maximum Surcharge" and "Total Flood Volume" within **Table 6** of **Appendix A – PC SWMM Reports** for Junctions 117-122 demonstrate the hydraulic adequacy of the SR-60 culvert extension through the development.

Study Objective 7. Preliminary recommendations for the discharge condition at the Santa Ana River near the southeasterly corner of the project

Conclusion - A basin that is dedicated to regulating flows upstream of the Santa Ana River is analyzed as SU15 within the proposed condition model. The "Minimum Freeboard" and "Maximum Full %" values within **Table 4** of **Appendix A – PC SWMM Reports** for this junction demonstrate the sizing adequacy of the basin to limit 100-year discharge to levels at or below the existing condition, while considering the hydraulic restriction of the existing 36" pipe (C13). Refer also to **Table 2.**

Table 5 within **Appendix A – PC SWMM Reports** indicates that under operational conditions (i.e., no clogging or similar malfunction) existing flows do not crest above the existing spillway (W1), and that this condition will not change because of the project. The basin provided at J32 is sufficient to eliminate local flooding outside of the FEMA mapped SFHA and within the project development.

Study Objective 8. At the request of the City of Jurupa Valley and Riverside County Flood Control District, apply objectives 1, 2, and 3 to the 10-year, 5-year, and 2-year storms.

Conclusion - Modeling results for the 10-year, 5-year, and 2-year event storms are included Project Description and Study Objectives. Due to the size of the model and range of statistical events analyzed, it is impractical to include a summary flow rate table for all study nodes in the main body of this report. Within Table 6 of the pre-development models, and Table 7 of the post development models, the reader may find complete summary information for all nodes including lateral and total flow. Drainage area size and connection with each node are graphically illustrated in Appendices B.1, B.2., B.4., and B.5. Information regarding time of concentration is found within Appendix C.

Table 3 Comparison of Pre-Development and Mitigated Post Development Project Flows

Point of Comparison	Model Element	Q100 Pre-Development (cfs)	Model Element	Q100 Mitigated Post Development (cfs)
"Area A" Offsite flows upstream of Existing Dual Box Culvert under SR-60	J2 Pre-Development PC SWMM Model =AES Node 101	699 (1 hour)	[1]J2 Post Development PC SWMM Model = AES Node 101	699 (1 hour)
		380 (3 hour)		380 (3 hour)
		329 (6 hour)		329 (6 hour)
		104 (24 hour)		104 (24 hour)
Onsite Flows from "Area B" towards 34th Street and Wallace	J6 Pre-development PC SWMM Model = AES Node 105	219 (1 hour)	[2]J6 Post Development PC SWMM Model	48 (1 hour)
		123 (3 hour)		33 (3 hour)
		102 (6 hour)		32 (6 hour)
		31 (24 hour)		31 (24 hour)
Onsite Flows from "Area C" towards Santa Ana River Levee	J4 Pre-development PC SWMM Model (Lateral Inflow Values Only) = AES Node 103	243 cfs (1 hour)	[3]OR10+OR11 Post Development PC SWMM Model	0 cfs (1 hour)
		141 cfs (3 hour)		0.2 cfs (3 hour)
		118 cfs (6 hour)		8 cfs (6 hour)
		38 cfs (24 hour)		21 cfs (24 hour)
Total Flow through Ex 36" Pipe within Santa Ana River Levee Berm from Project	[4]C1 Pre-Development PC SWMM Model	119 cfs (1 hour)	OR15 Post Development PC SWMM Model	72 cfs (1 hour)
		116 cfs (3 hour)		72 cfs (3 hour)
		115 cfs (6 hour)		73 cfs (6 hour)
		88 cfs (24 hour)		72 cfs (24 hour)
Total Flow through Spillway within Santa Ana River Levee Berm	W1 Pre-Development PC SWMM Model	0 cfs (1 hour)	W1 Post Development PC SWMM Model	0 cfs (1 hour)
		0 cfs (3 hour)		0 cfs (3 hour)
		0 cfs (6 hour)		0 cfs (6 hour)
		0 cfs (24 hour)		0 cfs (24 hour)

[1] No development mitigation or changes to flow rates upstream of SR-60.
[2] Flow values consider attenuation provided by project detention basins.
[3] Flow values consider attenuation provided by project detention basins.
[4] Flows shown consider storage within existing areas of local flooding within site (Not FEMA SFHA). The project proposes to eliminate areas of local flooding.

Point of Comparison	Model Element	Q10 Pre-Development (cfs)	Model Element	Q10 Mitigated Post Development (cfs)
"Area A" Offsite flows upstream of Existing Dual Box Culvert under SR-60	J2 Pre-Development PC SWMM Model =AES Node 101	397 (1 hour)	[5]J2 Post Development PC SWMM Model = AES Node 101	397 (1 hour)
		213 (3 hour)		213 (3 hour)
		184 (6 hour)		184 (6 hour)
		47 (24 hour)		47 (24 hour)
Onsite Flows from "Area B" towards 34th Street and Wallace	J6 Pre-development PC SWMM Model = AES Node 105	119 (1 hour)	[6]J6 Post Development PC SWMM Model	27 (1 hour)
		64 (3 hour)		33 (3 hour)
		52 (6 hour)		17 (6 hour)
		6 (24 hour)		11 (24 hour)
Onsite Flows from "Area C" towards Santa Ana River Levee	J4 Pre-development PC SWMM Model (Lateral Inflow Values Only) = AES Node 103	133 cfs (1 hour)	[7]OR10+OR11 Post Development PC SWMM Model	0 cfs (1 hour)
		75 cfs (3 hour)		0 cfs (3 hour)
		62 cfs (6 hour)		0 cfs (6 hour)
		9 cfs (24 hour)		6.5 cfs (24 hour)
Total Flow through Ex 36" Pipe within Santa Ana River Levee Berm from Project	[8]C1 Pre-Development PC SWMM Model	96 cfs (1 hour)	OR15 Post Development PC SWMM Model	72 cfs (1 hour)
		94 cfs (3 hour)		72 cfs (3 hour)
		91 cfs (6 hour)		92 cfs (6 hour)
		44 cfs (24 hour)		24 cfs (24 hour)
Total Flow through Spillway within Santa Ana River Levee Berm	W1 Pre-Development PC SWMM Model	0 cfs (1 hour)	W1 Post Development PC SWMM Model	0 cfs (1 hour)
		0 cfs (3 hour)		0 cfs (3 hour)
		0 cfs (6 hour)		0 cfs (6 hour)
		0 cfs (24 hour)		0 cfs (24 hour)

[5] No development mitigation or changes to flow rates upstream of SR-60.
[6] Flow values consider attenuation provided by project detention basins.
[7] Flow values consider attenuation provided by project detention basins.
[8] Flows shown consider storage within existing areas of local flooding within site (Not FEMA SFHA). The project proposes to eliminate areas of local flooding.

APPENDIX A – PC SWMM REPORTS

PCSWMM Report

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PreDevelopment 100Yr 1 Hour

Model Rubidoux Existing Conditions.inp

Kimley-Horn and Associates Inc.

May 31, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas Pre 3
Table 2A: Conduits Report 3
Table 2B: Conduits Report 3
Table 3: Outfalls Report 4
Table 4: Storages 5
Table 5: Weirs 6
Table 6: Junctions 1D 6

DRAFT

Table 1: AES Drainage Areas Pre

NAME	AREA	Impervious Area Fraction	Upstream Node	Downstream Node	Longest Watercourse	Length From Centroid	Elevation Difference	Watershed N Value	SGRAPH	Slope of Intensity Curve	Depth Adjustment Factor
Area A	308.71	0.25	100	101	4582	2749	76	.015	Foothill	0.55	1
Area B	121.08	0.00	104	105	3781	2268	62.9	.03	Foothill	0.55	1.00
Area C	136.7	0.00	106	103	2948	1768	14.7	.03	Foothill	0.55	1.00

Table 2A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)
C1	J4	77.166	0.013	0	0	0.5	CIRCULAR	3	1		0.00648	119.08	30.5	0
C1_1	J3	925.789	0.024	0	0	0	TRAPEZOIDAL	5	1		0.00864	674.16	8.15	0
C1_2	J8	2565.133	0.024	0	0	0	TRAPEZOIDAL	10	1		0.00273	563.58	5.93	0
C2	J2	205.396	0.013	0	0	1	RECT_CLOSED	9	2		0.00487	698.82	9.55	0
C3	J9	63.024	0.01	0	0	0	DUMMY	0	1		0.00539	119.08	0	0

Table 2B: Conduits Report

Name	Contributing Imp. Area (ac)	Description
C1	0	
C1_1	0	
C1_2	0	
C2	0	
C3	0	

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Table 3: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J6	YES	785.6	786.6		785.6	219.39	219.39	0	0	0		2.32
OF1	NO	777.16	795		785	0	119.08	0	0	0		9.15

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Table 4: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
J4	778	795	17	TABULAR	1.57	6.4	784.4	799.48	2.71	9.3	10.6	2	0	0	

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Table 5: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	J4	J9	TRANSVERSE	6	150	0	11	3.33	0	0	

Table 6: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J1	NO	870	871	1	0	870	0	0	0	0		1
J2	YES	794	812	18	5	797.4	698.69	698.69	0	0		1
J3	NO	793	812	19	0	795.74	0	698.82	0	0		1
J5	NO	848.5	849.5	1	0	848.5	0	0	0	0		1
J7	NO	795	796	1	0	795	0	0	0	0		1
J8	NO	785	790	5	0	788.9	0	674.16	0	0		1
J9	NO	777.5	795	17.5	0	777.9	0	119.08	0	0		1

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PCSWMM Report

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PreDevelopment 100Yr 3 Hour

Model Rubidoux Existing Conditions.inp

Kimley-Horn and Associates Inc.

May 31, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas Pre 3
Table 2A: Conduits Report 3
Table 2B: Conduits Report 3
Table 3: Outfalls Report 4
Table 4: Storages 5
Table 5: Junctions 1D 6

DRAFT

Table 1: AES Drainage Areas Pre

NAME	AREA	Impervious Area Fraction	Upstream Node	Downstream Node	Longest Watercourse	Length From Centroid	Elevation Difference	Watershed N Value	SGRAPH	Slope of Intensity Curve	Depth Adjustment Factor
Area A	308.71	0.25	100	101	4582	2749	76	.015	Foothill	0.55	1
Area B	121.08	0.00	104	105	3781	2268	62.9	.03	Foothill	0.55	1.00
Area C	136.7	0.00	106	103	2948	1768	14.7	.03	Foothill	0.55	1.00

Table 2A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)
C1	J4	77.166	0.013	0	0	0.5	CIRCULAR	3	1		0.00648	116.31	32.4	0
C1_1	J3	925.789	0.024	0	0	0	TRAPEZOIDAL	5	1		0.00864	375.63	6.18	0
C1_2	J8	2565.133	0.024	0	0	0	TRAPEZOIDAL	10	1		0.00273	348.09	3.77	0
C2	J2	205.396	0.013	0	0	1	RECT_CLOSED	9	2		0.00487	379.98	7.55	0
C3	J9	63.024	0.01	0	0	0	DUMMY	0	1		0.00539	116.31	0	0

Table 2B: Conduits Report

Name	Contributing Imp. Area (ac)	Description
C1	0	
C1_1	0	
C1_2	0	
C2	0	
C3	0	

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Table 3: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J6	YES	785.6	786.6		785.6	122.84	122.84	0	0	0		2.38
OF1	NO	777.16	795		785	0	116.31	0	0	0		11.1

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Table 4: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
J4	778	795	17	TABULAR	1.71	6.26	784.26	487.39	2.86	11.2	10.74	1	0	0	

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Table 5: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J1	NO	870	871	1	0	870	0	0	0	0		1
J2	YES	794	812	18	5	796.24	380.27	380.27	0	0		1
J3	NO	793	812	19	0	794.97	0	379.98	0	0		1
J5	NO	848.5	849.5	1	0	848.5	0	0	0	0		1
J7	NO	795	796	1	0	795	0	0	0	0		1
J8	NO	785	790	5	0	788.01	0	375.63	0	0		1
J9	NO	777.5	795	17.5	0	777.91	0	116.31	0	0		1

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PCSWMM Report

DRAFT

PreDevelopment 100Yr 6 Hour

Model Rubidoux Existing Conditions.inp

Kimley-Horn and Associates Inc.

May 31, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas Pre 3
Table 2A: Conduits Report 3
Table 2B: Conduits Report 3
Table 3: Outfalls Report 4
Table 4: Storages 5
Table 5: Junctions 1D 6

DRAFT

Table 1: AES Drainage Areas Pre

NAME	AREA	Impervious Area Fraction	Upstream Node	Downstream Node	Longest Watercourse	Length From Centroid	Elevation Difference	Watershed N Value	SGRAPH	Slope of Intensity Curve	Depth Adjustment Factor
Area A	308.71	0.25	100	101	4582	2749	76	.015	Foothill	0.55	1
Area B	121.08	0.00	104	105	3781	2268	62.9	.03	Foothill	0.55	1.00
Area C	136.7	0.00	106	103	2948	1768	14.7	.03	Foothill	0.55	1.00

Table 2A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)
C1	J4	77.166	0.013	0	0	0.5	CIRCULAR	3	1		0.00648	114.89	32.02	0
C1_1	J3	925.789	0.024	0	0	0	TRAPEZOIDAL	5	1		0.00864	324.98	5.8	0
C1_2	J8	2565.133	0.024	0	0	0	TRAPEZOIDAL	10	1		0.00273	302.58	3.26	0
C2	J2	205.396	0.013	0	0	1	RECT_CLOSED	9	2		0.00487	328.46	7.18	0
C3	J9	63.024	0.01	0	0	0	DUMMY	0	1		0.00539	114.89	0	0

Table 2B: Conduits Report

Name	Contributing Imp. Area (ac)	Description
C1	0	
C1_1	0	
C1_2	0	
C2	0	
C3	0	

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Table 3: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J6	YES	785.6	786.6		785.6	102.09	102.09	0	0	0		2.55
OF1	NO	777.16	795		785	0	114.89	0	0	0		13.2

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Table 4: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
J4	778	795	17	TABULAR	1.8	6.1	784.1	420.2	3.07	13.3	10.9	1	0	0	

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Table 5: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J1	NO	870	871	1	0	870	0	0	0	0		1
J2	YES	794	812	18	5	796.01	328.98	328.98	0	0		1
J3	NO	793	812	19	0	794.81	0	328.46	0	0		1
J5	NO	848.5	849.5	1	0	848.5	0	0	0	0		1
J7	NO	795	796	1	0	795	0	0	0	0		1
J8	NO	785	790	5	0	787.79	0	324.98	0	0		1
J9	NO	777.5	795	17.5	0	777.91	0	114.89	0	0		1

DRAFT

PCSWMM Report

DRAFT

PreDevelopment 100Yr 24 Hour

Model Rubidoux Existing Conditions.inp

Kimley-Horn and Associates Inc.

May 31, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas Pre 3
Table 2A: Conduits Report 3
Table 2B: Conduits Report 3
Table 3: Outfalls Report 4
Table 4: Storages 5
Table 5: Weirs 6
Table 6: Junctions 1D 6

DRAFT

Table 1: AES Drainage Areas Pre

NAME	AREA	Impervious Area Fraction	Upstream Node	Downstream Node	Longest Watercourse	Length From Centroid	Elevation Difference	Watershed N Value	SGRAPH	Slope of Intensity Curve	Depth Adjustment Factor
Area A	308.71	0.25	100	101	4582	2749	76	.015	Foothill	0.55	1
Area B	121.08	0.00	104	105	3781	2268	62.9	.03	Foothill	0.55	1.00
Area C	136.7	0.00	106	103	2948	1768	14.7	.03	Foothill	0.55	1.00

Table 2A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)
C1	J4	77.166	0.013	0	0	0.5	CIRCULAR	3	1		0.00648	88.47	25.93	0
C1_1	J3	925.789	0.024	0	0	0	TRAPEZOIDAL	5	1		0.00864	103.66	3.91	0
C1_2	J8	2565.133	0.024	0	0	0	TRAPEZOIDAL	10	1		0.00273	101.33	2.24	0
C2	J2	205.396	0.013	0	0	1	RECT_CLOSED	9	2		0.00487	103.85	4.89	0
C3	J9	63.024	0.01	0	0	0	DUMMY	0	1		0.00539	88.47	0	0

Table 2B: Conduits Report

Name	Contributing Imp. Area (ac)	Description
C1	0	
C1_1	0	
C1_2	0	
C2	0	
C3	0	

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Table 3: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J6	YES	785.6	786.6		785.6	30.47	30.47	0	0	0		2.67
OF1	NO	777.16	795		785	0	88.47	0	0	0		18.8

DRAFT

Table 4: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
J4	778	795	17	TABULAR	1.12	3.43	781.43	138.59	3.4	18.8	13.57	0	0	0	

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Table 5: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	J4	J9	TRANSVERSE	6	150	0	11	3.33	0	0	

Table 6: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J1	NO	870	871	1	0	870	0	0	0	0		1
J2	YES	794	812	18	5	794.86	103.66	103.66	0	0		1
J3	NO	793	812	19	0	793.93	0	103.85	0	0		1
J5	NO	848.5	849.5	1	0	848.5	0	0	0	0		1
J7	NO	795	796	1	0	795	0	0	0	0		1
J8	NO	785	790	5	0	786.5	0	103.66	0	0		1
J9	NO	777.5	795	17.5	0	777.91	0	88.47	0	0		1

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PCSWMM Report

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PostDevelopment 100Yr 1 Hour

Model Rubidoux Proposed Conditions.inp

Kimley-Horn and Associates Inc.

June 15, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas 3
Table 2: Orifices 4
Table 3A: Conduits Report 4
Table 3B: Conduits Report 6
Table 4: Outfalls Report 8
Table 5: Storages 9
Table 6: Weirs 10
Table 7: Junctions 1D 10

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Table 1: AES Drainage Areas

NAME	AREA
Area S.7.c.	0.54
Area S.7.b.	0.38
Area S.2.c.	1.57
Area S.2.a.	0.87
Area S.2.b.	1.09
Area S.4.	3.42
Area S.7.a.	1.44
Area S.6.	3.88
Area S.5.a	1.30
Area S.5.b.	1.97
Area B.4.	4.71
Area S.3.	1.69
Area B.1.c.	3.40
Area B.1.b.	2.29
Area B.5.	8.52
Area B.2.c.	31.41
Area B.7.	2.69
Area S.1	0.77
Area B.2.b.	21.47
Area B.3.	2.36
Area C.2	28.00
Area B.6.	9.35
Area B.2.a.	25.31
Area B.1.a	2.18
Area B.1.d.	15.68
Area C.1	72.36
Area A	308.71

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Table 2: Orifices

Name	Inlet Node	Outlet Node	Type	Cross-Section	Height (ft)	Inlet Offset (ft)	Discharge Coeff.	Flap Gate	Max. |Flow| (cfs)
OR1	SU1	70	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR10	SU14	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	YES	0
OR11	SU13	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR13	SU9	90	SIDE	RECT_CLOSED	1	2.5	0.65	NO	1.16
OR14	SU8	133	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR15	SU15	J4	SIDE	CIRCULAR	3	0	0.65	NO	71.91
OR2	SU2	73	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR3	SU3	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR4	SU5	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR5	SU6	78	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR6	SU4	80	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR7	SU7	82	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.08
OR8	SU11	92	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR9	SU10	92	SIDE	CIRCULAR	0.65	0	0.65	NO	3.12

Table 3A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C1	J3	59.834	0.025	0	0	0	RECT_OPEN	6	1	
C10	J28	1617.564	0.013	0	0	0.5	CIRCULAR	4	1	
C11	J32	656.105	0.01	0	0	0	CIRCULAR	2	1	
C12	J30	224.87	0.01	0	0	0	DUMMY	0	1	
C13	J19	27.937	0.01	0	0	0	DUMMY	0	1	
C14	J21	40.164	0.01	0	0	0	DUMMY	0	1	
C15	J22	238.647	0.01	0	0	0	CIRCULAR	1.5	1	
C16	J23	2089.708	0.013	0	0	0.5	RECT_CLOSED	4	1	
C17	J26	690.03	0.013	0	0	0.5	CIRCULAR	3.5	1	
C18	J4	15.862	0.01	0	0	0	CIRCULAR	3	1	
C19	128	145.306	0.01	0	0	0	DUMMY	0	1	
C2	J2	197.281	0.013	0	0	1	RECT_CLOSED	9	2	
C20	122	141.03	0.01	0	0	0	DUMMY	0	1	
C3	J3	62.706	0.025	0	0	0	RECT_OPEN	6	1	
C4	J10	48.065	0.01	0	0	0	DUMMY	0	1	
C5	J12	38.438	0.01	0	0	0	DUMMY	0	1	
C6	J13	46.177	0.01	0	0	0	DUMMY	0	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C7	J15	767.982	0.013	0	0	0.5	CIRCULAR	3	1	
C8	J16	1290.738	0.01	0	0	0	CIRCULAR	3	1	
C9	J14	809.99	0.01	0	0	0	CIRCULAR	2.5	1	
PIPE_-101	117	50.357	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-102	118	52.595	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-103	119	691.84	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-104	120	63.638	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105	121	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105_(1)	142	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-106	123	49.239	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-107	124	47.059	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-108	125	690.51	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-109	126	73.537	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110	127	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110_(1)	137	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-111	129	323.894	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-112	130	193.054	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-113	131	210.946	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-114	132	62.943	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-115	133	70.858	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-117	138	53.74	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-118	139	73.538	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-119	143	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-120	144	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-59	69	272.938	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-60	70	44.563	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-61	71	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-62	72	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-63	73	88.222	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-64	74	35.138	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-65	75	287.159	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-66	76	287.158	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-67	77	219.443	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-68	78	219.443	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-69	79	50.65	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-70	80	106.481	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-71	81	120.477	0.013	0	0	0.5	CIRCULAR	2	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
PIPE_-72	83	124.993	0.013	0	0	0.5	RECT_CLOSED	2	1	
PIPE_-73	84	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-74	85	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-75	86	83.535	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-76	87	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-77	102	309.74	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-77_(1)	88	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-78	89	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-79	90	435.736	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-80	92	136.34	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-81	93	142.205	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-82	94	255.962	0.013	3.7	0	0.5	RECT_CLOSED	2	1	
PIPE_-83	82	305.558	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-89	101	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
W2	94	344.214	0.01	0	0	0	RECT_CLOSED	2	1	

Table 3B: Conduits Report

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C1	0.02508	345.27	11.79	0	0	
C10	0.00371	83.88	11.52	0	0	
C11	0.01524	25.73	13.66	0	0	
C12	0.00076	15.36	0	0	0	
C13	0.18191	6.53	0	0	0	
C14	0.12547	13.07	0	0	0	
C15	0.02934	4.8	3.92	0	0	
C16	0.00335	189.21	13.42	0	0	
C17	0.00435	73.98	11.98	0	0	
C18	0.02144	104.65	14.8	0	0	
C19	0.01115	375.09	0	0	0	
C2	0.00507	691.41	6.4	0	0	Ex Box Culvert
C20	0.01149	390.25	0	0	0	
C3	0.02393	341.85	11.72	0	0	
C4	0.10459	6.04	0	0	0	
C5	0.13119	6.31	0	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C6	0.13105	9.41	0	0	0	
C7	0.01563	68.89	16.43	0	0	
C8	0.01007	58.31	16.63	0	0	
C9	0.00741	42.64	13.45	0	0	
PIPE_-101	0.00238	345.11	7.11	0	0	
PIPE_-102	0.00209	343.82	7.77	0	0	
PIPE_-103	0.00236	339.98	8.18	0	0	
PIPE_-104	0.00251	328.2	8.57	0	0	
PIPE_-105	0.00234	322.11	8.41	0	0	
PIPE_-105_(1)	0.00223	389.47	30.99	0	0	
PIPE_-106	0.00244	341.3	7.06	0	0	
PIPE_-107	0.00234	340.46	7.75	0	0	
PIPE_-108	0.00235	336.76	8.15	0	0	
PIPE_-109	0.00231	325.23	8.53	0	0	
PIPE_-110	0.00234	319.1	8.42	0	0	
PIPE_-110_(1)	0.00223	373.96	30.63	0	0	
PIPE_-111	0.03661	8.79	5.85	0	0	
PIPE_-112	0.03592	0	0	0	0	
PIPE_-113	0.03596	0	0	0	0	
PIPE_-114	0.03593	0	0	0	0	
PIPE_-115	0.03601	0	0	0	0	
PIPE_-117	0.00279	375.66	12.18	0	0	
PIPE_-118	0.00258	342.9	9.12	0	0	
PIPE_-119	0.00236	353.55	12.34	0	0	
PIPE_-120	0.00299	336.55	8.99	0	0	
PIPE_-59	0.0461	0	0	0	0	
PIPE_-60	0.04605	2.08	4.55	0	0	
PIPE_-61	0.0035	2.07	2.81	0	0	
PIPE_-62	0.00303	1.99	1.81	0	0	
PIPE_-63	0.00306	4.14	3.21	0	0	
PIPE_-64	0.00285	3.97	3.39	0	0	
PIPE_-65	0.00303	3.65	2.63	0	0	
PIPE_-66	0.00303	5.58	3.57	0	0	
PIPE_-67	0.00301	5.2	3.39	0	0	
PIPE_-68	0.00301	5.52	2.56	0	0	
PIPE_-69	0.00316	5.57	2.11	0	0	
PIPE_-70	0.00291	8.48	3.92	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
PIPE_-71	0.01004	8.48	2.7	0	0	
PIPE_-72	0.0184	28.38	3.57	0	0	
PIPE_-73	0.00309	14.33	6.19	0	0	
PIPE_-74	0.00306	14.53	4.68	0	0	
PIPE_-75	0.00299	14.51	4.67	0	0	
PIPE_-76	0.00301	14.49	4.61	0	0	
PIPE_-77	0.003	9.86	5.58	0	0	
PIPE_-77_(1)	0.00299	9.86	5.58	0	0	
PIPE_-78	0.00299	9.86	5.58	0	0	
PIPE_-79	0.01591	3.46	2.5	0	0	
PIPE_-80	0.00301	47.95	6.09	0	0	
PIPE_-81	0.00302	18.97	2.43	0	0	
PIPE_-82	0.01751	19.36	3.79	0	0	
PIPE_-83	0.00301	47.5	5.17	0	0	
PIPE_-89	0.00301	14.5	4.61	0	0	
W2	0.00177	28.37	3.55	0	0	

Table 4: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J17	YES	838	839		838	4.65	4.65	0	0	0		0.049
J6	NO	774.99	781		777.51	0	47.95	0	0	0		0.66
OF1	NO	777.16	795		785	0	104.65	0	0	0		4.52

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Table 5: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
SU1	794	799	5	TABULAR	1.34	1.67	795.67	6.04	0	0.063	3.33	33	0	0	Future Basin
SU11	776	781	5	TABULAR	1.31	1.63	777.63	25.73	0	0.273	3.37	33	0	0	Future Basin
SU13	787	792	5	TABULAR	1.29	1.6	788.6	189.21	0	2.1	3.4	32	0	0	Future Basin
SU14	785	790	5	TABULAR	1.32	1.65	786.65	73.98	0	0.816	3.35	33	0	0	Future Basin
SU15	782	790	8	TABULAR	3.06	4.92	786.92	742.26	0	7.55	8.08	56	0	0	RCFC Basin
SU2	788	793	5	TABULAR	1.33	1.66	789.66	6.31	0	0.066	3.34	33	0	0	Future Basin
SU3	784	790	6	TABULAR	1.34	1.67	785.67	9.41	0	0.099	4.33	28	0	0	Future Basin
SU4	781	786	5	TABULAR	1.31	1.63	782.63	42.64	0	0.457	3.37	33	0	0	Future Basin
SU5	787	792	5	TABULAR	1.32	1.64	788.64	68.89	0	0.737	3.36	33	0	0	Future Basin
SU6	782	787	5	TABULAR	1.3	1.62	783.62	58.31	0	0.627	3.38	32	0	0	Future Basin
SU7	780	785	5	TABULAR	1.38	1.7	781.7	83.88	0	0.97	3.3	34	0	0	Future Basin
SU8	824	829	5	TABULAR	1.34	1.67	825.67	6.53	0	0.068	3.33	33	0	0	Future Basin
SU9	796	801	5	TABULAR	1.34	1.68	797.68	13.07	0	0.137	3.32	34	0	0	Future Basin
SU10	776	781	5	TABULAR	0.3	4.54	780.54	28.37	0	0.536	0.96	91	0	0	Streets Basin

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Table 6: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	SU15	J4	TRANSVERSE	6	150	0	7	3.33	0	0	
W3	SU10	92	TRANSVERSE	2.5	4	0	3	3.33	25.42	0.62	

Table 7: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
101	NO	783.36	791.999	8.639	0	789.25	0	14.49	3.89	0		1
102	NO	784.82	794.636	9.816	0	794.64	0	9.86	8.316	0		1
117	NO	791.5	798	6.5	0	796.61	0	345.27	0	0		1
118	NO	791.38	803.5	12.12	0	796.11	0	345.11	0	0		1
119	NO	791.27	803.5	12.23	0	795.48	0	343.82	0	0		1
120	NO	789.64	803.5	13.86	0	793.91	0	339.98	0	0		1
121	NO	789.48	803.1	13.62	0	793.22	0	328.2	0	0		1
122	NO	783.62	789	5.38	0	783.69	0	389.47	0	0		1
123	NO	791.5	798	6.5	0	796.57	0	341.85	0	0		1
124	NO	791.38	803.5	12.12	0	796.07	0	341.3	0	0		1
125	NO	791.27	803.5	12.23	0	795.46	0	340.46	0	0		1
126	NO	789.65	803.5	13.85	0	793.89	0	336.76	0	0		1
127	NO	789.48	803.1	13.62	0	793.19	0	325.23	0	0		1
128	NO	783.62	789	5.38	0	783.69	0	373.96	0	0		1
129	YES	799.45	806.592	7.142	0	800.59	9.47	9.47	0	0		0.171
130	NO	806.38	814.314	7.934	0	806.38	0	0	0	0		1
131	NO	813.96	822.712	8.752	0	813.96	0	0	0	0		1
132	NO	816.22	825	8.78	0	816.22	0	0	0	0		1
133	NO	818.77	828	9.23	0	818.77	0	0	0	0		1
137	NO	783.8	790.5	6.7	0	787.09	0	375.66	0	0		1
138	NO	783.95	791	7.05	0	787.92	0	342.9	0	0		1
139	NO	784.14	791.2	7.06	0	788.26	0	319.1	0	0		1
142	NO	783.8	790.5	6.7	0	787.11	0	353.55	0	0		1
143	NO	783.95	791	7.05	0	787.91	0	336.55	0	0		1
144	NO	784.14	791.2	7.06	0	788.36	0	322.11	0	0		1
69	NO	798.23	808.924	10.694	0	798.23	0	0	0	0		1
70	YES	785.66	801	15.34	0	785.97	2.1	2.1	0	0		0.038
71	NO	783.61	799.185	15.575	0	784.22	0	2.08	0	0		1
72	NO	783.09	793.562	10.472	0	784.09	0	2.07	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
73	YES	782.64	790.823	8.183	0	784.07	2.44	4.22	0	0		0.044
74	NO	782.37	790.3	7.93	0	783.99	0	4.14	0.124	0		1
75	NO	782.27	790.213	7.943	0	783.94	0	3.97	0.174	0		1
76	YES	781.4	788.716	7.316	0	783.63	2.99	6.59	0	0		0.054
77	NO	780.53	787.219	6.689	0	787.06	0	5.58	5.026	0		1
78	NO	779.87	786.135	6.265	0	782.33	0	5.2	0	0		1
79	NO	779.21	785	5.79	0	782.22	0	5.52	1.013	0		1
80	YES	779.05	784.799	5.749	0	782.17	4.32	8.55	0	0		0.078
81	NO	778.74	784.1	5.36	0	782.31	0	8.48	1.567	0		1
82	YES	777.53	783.678	6.148	0	782.66	14.73	47.41	1.629	0		0.266
83	NO	779.83	783.143	3.313	0	783.14	0	28.37	1.313	0		1
84	NO	781.21	785.539	4.329	0	785.54	0	14.53	2.329	0		1
85	NO	782.58	789.954	7.374	0	787.88	0	14.51	3.3	0		1
86	NO	782.83	791	8.17	0	788.41	0	14.5	3.58	0		1
87	YES	783.89	793	9.11	0	790.02	5.43	14.49	4.128	0		0.098
88	NO	786.21	797.158	10.948	0	797.16	0	9.86	9.448	0		1
89	YES	787.6	799.681	12.081	0	799.68	3.6	12.39	10.581	0		0.065
90	NO	794.53	802.046	7.516	0	802.05	0	3.46	4.016	0		1
92	YES	775.4	781.023	5.623	0	778.22	1.49	48.03	0	0		0.027
93	NO	775.83	781.99	6.16	0	778.3	0	19.36	0	0		1
94	YES	776.61	783	6.39	0	780.87	1.05	48.37	0	0		0.019
J1	NO	870	871	1	0	870	0	0	0	0		1
J10	YES	799	799	0	0	799	6.04	6.04	0	0		0.109
J11	NO	793	794	1	0	793	0	0	0	0		1
J12	YES	793	794	1	0	793	6.31	6.31	0	0		0.114
J13	YES	790	791	1	0	790	9.41	9.41	0	0		0.17
J14	YES	787	792	5	0	789.07	43.41	43.41	0	0		0.784
J15	YES	799	804	5	0	801.42	70.09	70.09	0	0		1.266
J16	YES	795	800	5	0	796.98	59.46	59.46	0	0		1.074
J18	NO	806	807	1	0	806	0	0	0	0		1
J19	YES	829	830	1	0	829	6.53	6.53	0	0		0.118
J2	YES	794	812	18	5	798.38	698.57	698.57	0	0		1
J20	NO	802	803	1	0	802	0	0	0	0		1
J21	YES	801	802	1	0	801	13.07	13.07	0	0		0.236
J22	YES	793	798	5	0	793.46	4.83	4.83	0	0		0.022
J23	YES	794	803	9	0	797.76	200.32	200.32	0	0		3.618
J24	NO	794	795	1	0	794	0	0	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J25	NO	833	834	1	0	833	0	0	0	0		1
J26	YES	788	793	5	0	791.43	77.51	77.51	0	0		1.4
J27	NO	795	796	1	0	795	0	0	0	0		1
J28	YES	786	793	7	0	789.49	86.93	90.18	0	0		1.57
J29	NO	792	793	1	0	792	0	0	0	0		1
J3	NO	793	812	19	0	797.66	0	691.41	0	0		1
J30	YES	780	785	5	0	780	15.36	15.36	0	0		0.07
J31	NO	805	806	1	0	805	0	0	0	0		1
J32	YES	786	791	5	0	787.3	25.91	25.91	0	0		0.468
J33	NO	799	800	1	0	799	0	0	0	0		1
J34	NO	792	793	1	0	792	0	0	0	0		1
J37	NO	787.5	788.5	1	0	787.5	0	0	0	0		1
J4	NO	777.5	795	17.5	0	787.26	0	104.65	0	0		1
J5	NO	800	801	1	0	800	0	0	0	0		1
J7	NO	792	793	1	0	792	0	0	0	0		1
J8	NO	803	804	1	0	803	0	0	0	0		1
J9	NO	845	846	1	0	845	0	0	0	0		1

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PCSWMM Report

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PostDevelopment 100Yr 3 Hour

Model Rubidoux Proposed Conditions.inp

Kimley-Horn and Associates Inc.

June 15, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas 3
Table 2: Orifices 4
Table 3A: Conduits Report 4
Table 3B: Conduits Report 6
Table 4: Outfalls Report 8
Table 5: Storages 9
Table 6: Weirs 10
Table 7: Junctions 1D 10

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Table 1: AES Drainage Areas

NAME	AREA
Area S.7.c.	0.54
Area S.7.b.	0.38
Area S.2.c.	1.57
Area S.2.a.	0.87
Area S.2.b.	1.09
Area S.4.	3.42
Area S.7.a.	1.44
Area S.6.	3.88
Area S.5.a	1.30
Area S.5.b.	1.97
Area B.4.	4.71
Area S.3.	1.69
Area B.1.c.	3.40
Area B.1.b.	2.29
Area B.5.	8.52
Area B.2.c.	31.41
Area B.7.	2.69
Area S.1	0.77
Area B.2.b.	21.47
Area B.3.	2.36
Area C.2	28.00
Area B.6.	9.35
Area B.2.a.	25.31
Area B.1.a	2.18
Area B.1.d.	15.68
Area C.1	72.36
Area A	308.71

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Table 2: Orifices

Name	Inlet Node	Outlet Node	Type	Cross-Section	Height (ft)	Inlet Offset (ft)	Discharge Coeff.	Flap Gate	Max. |Flow| (cfs)
OR1	SU1	70	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.01
OR10	SU14	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	YES	0.04
OR11	SU13	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR13	SU9	90	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.02
OR14	SU8	133	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.01
OR15	SU15	J4	SIDE	CIRCULAR	3	0	0.65	NO	71.91
OR2	SU2	73	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.01
OR3	SU3	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.01
OR4	SU5	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.04
OR5	SU6	78	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.01
OR6	SU4	80	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.02
OR7	SU7	82	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.12
OR8	SU11	92	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.01
OR9	SU10	92	SIDE	CIRCULAR	0.65	0	0.65	NO	3.09

Table 3A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C1	J3	59.834	0.025	0	0	0	RECT_OPEN	6	1	
C10	J28	1617.564	0.013	0	0	0.5	CIRCULAR	4	1	
C11	J32	656.105	0.01	0	0	0	CIRCULAR	2	1	
C12	J30	224.87	0.01	0	0	0	DUMMY	0	1	
C13	J19	27.937	0.01	0	0	0	DUMMY	0	1	
C14	J21	40.164	0.01	0	0	0	DUMMY	0	1	
C15	J22	238.647	0.01	0	0	0	CIRCULAR	1.5	1	
C16	J23	2089.708	0.013	0	0	0.5	RECT_CLOSED	4	1	
C17	J26	690.03	0.013	0	0	0.5	CIRCULAR	3.5	1	
C18	J4	15.862	0.01	0	0	0	CIRCULAR	3	1	
C19	128	145.306	0.01	0	0	0	DUMMY	0	1	
C2	J2	197.281	0.013	0	0	1	RECT_CLOSED	9	2	
C20	122	141.03	0.01	0	0	0	DUMMY	0	1	
C3	J3	62.706	0.025	0	0	0	RECT_OPEN	6	1	
C4	J10	48.065	0.01	0	0	0	DUMMY	0	1	
C5	J12	38.438	0.01	0	0	0	DUMMY	0	1	
C6	J13	46.177	0.01	0	0	0	DUMMY	0	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C7	J15	767.982	0.013	0	0	0.5	CIRCULAR	3	1	
C8	J16	1290.738	0.01	0	0	0	CIRCULAR	3	1	
C9	J14	809.99	0.01	0	0	0	CIRCULAR	2.5	1	
PIPE_-101	117	50.357	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-102	118	52.595	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-103	119	691.84	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-104	120	63.638	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105	121	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105_(1)	142	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-106	123	49.239	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-107	124	47.059	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-108	125	690.51	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-109	126	73.537	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110	127	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110_(1)	137	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-111	129	323.894	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-112	130	193.054	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-113	131	210.946	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-114	132	62.943	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-115	133	70.858	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-117	138	53.74	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-118	139	73.538	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-119	143	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-120	144	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-59	69	272.938	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-60	70	44.563	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-61	71	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-62	72	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-63	73	88.222	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-64	74	35.138	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-65	75	287.159	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-66	76	287.158	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-67	77	219.443	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-68	78	219.443	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-69	79	50.65	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-70	80	106.481	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-71	81	120.477	0.013	0	0	0.5	CIRCULAR	2	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
PIPE_-72	83	124.993	0.013	0	0	0.5	RECT_CLOSED	2	1	
PIPE_-73	84	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-74	85	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-75	86	83.535	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-76	87	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-77	102	309.74	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-77_(1)	88	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-78	89	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-79	90	435.736	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-80	92	136.34	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-81	93	142.205	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-82	94	255.962	0.013	3.7	0	0.5	RECT_CLOSED	2	1	
PIPE_-83	82	305.558	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-89	101	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
W2	94	344.214	0.01	0	0	0	RECT_CLOSED	2	1	

Table 3B: Conduits Report

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C1	0.02508	190.21	10.09	0	0	
C10	0.00371	50.67	8.21	0	0	
C11	0.01524	14.5	11.21	0	0	
C12	0.00076	8.6	0	0	0	
C13	0.18191	3.67	0	0	0	
C14	0.12547	7.34	0	0	0	
C15	0.02934	2.7	2.37	0	0	
C16	0.00335	110.87	8.48	0	0	
C17	0.00435	43.28	8.66	0	0	
C18	0.02144	104.65	14.8	0	0	
C19	0.01115	222.38	0	0	0	
C2	0.00507	379.13	5.71	0	0	Ex Box Culvert
C20	0.01149	224.19	0	0	0	
C3	0.02393	188.11	10.03	0	0	
C4	0.10459	3.39	0	0	0	
C5	0.13119	3.55	0	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C6	0.13105	5.29	0	0	0	
C7	0.01563	39.18	12.3	0	0	
C8	0.01007	33.11	12.05	0	0	
C9	0.00741	24.23	10.14	0	0	
PIPE_-101	0.00238	190.12	5.91	0	0	
PIPE_-102	0.00209	189.98	6.57	0	0	
PIPE_-103	0.00236	189.22	6.86	0	0	
PIPE_-104	0.00251	187.72	7.19	0	0	
PIPE_-105	0.00234	185.99	7.05	0	0	
PIPE_-105_(1)	0.00223	223.75	24.72	0	0	
PIPE_-106	0.00244	188.01	5.9	0	0	
PIPE_-107	0.00234	187.87	6.55	0	0	
PIPE_-108	0.00235	187.14	6.82	0	0	
PIPE_-109	0.00231	185.82	7.16	0	0	
PIPE_-110	0.00234	183.55	7.02	0	0	
PIPE_-110_(1)	0.00223	221.82	24.9	0	0	
PIPE_-111	0.03661	5.3	4.3	0	0	
PIPE_-112	0.03592	0.01	1.27	0	0	
PIPE_-113	0.03596	0.01	1.53	0	0	
PIPE_-114	0.03593	0.01	1.45	0	0	
PIPE_-115	0.03601	0.01	1.45	0	0	
PIPE_-117	0.00279	205.48	10.01	0	0	
PIPE_-118	0.00258	195.68	7.36	0	0	
PIPE_-119	0.00236	206.75	10	0	0	
PIPE_-120	0.00299	199.77	7.5	0	0	
PIPE_-59	0.0461	0	0	0	0	
PIPE_-60	0.04605	1.18	3.86	0	0	
PIPE_-61	0.0035	1.18	2.59	0	0	
PIPE_-62	0.00303	1.17	1.76	0	0	
PIPE_-63	0.00306	2.51	2.83	0	0	
PIPE_-64	0.00285	2.51	2.98	0	0	
PIPE_-65	0.00303	2.5	2.51	0	0	
PIPE_-66	0.00303	4.14	3.38	0	0	
PIPE_-67	0.00301	4.01	3.28	0	0	
PIPE_-68	0.00301	4.11	2.26	0	0	
PIPE_-69	0.00316	4.28	1.84	0	0	
PIPE_-70	0.00291	6.08	3.18	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
PIPE_-71	0.01004	6.08	2	0	0	
PIPE_-72	0.0184	18.49	2.9	0	0	
PIPE_-73	0.00309	9.82	6.18	0	0	
PIPE_-74	0.00306	10	4.3	0	0	
PIPE_-75	0.00299	10.04	4.18	0	0	
PIPE_-76	0.00301	10.26	4.08	0	0	
PIPE_-77	0.003	7.32	4.16	0	0	
PIPE_-77_(1)	0.00299	7.32	4.14	0	0	
PIPE_-78	0.00299	7.32	4.14	0	0	
PIPE_-79	0.01591	0.04	0.63	0	0	
PIPE_-80	0.00301	32.51	5.61	0	0	
PIPE_-81	0.00302	7.59	1.39	0	0	
PIPE_-82	0.01751	7.63	1.88	0	0	
PIPE_-83	0.00301	31.49	4.55	0	0	
PIPE_-89	0.00301	10.15	4.02	0	0	
W2	0.00177	24.33	3.04	0	0	

Table 4: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J17	YES	838	839		838	2.61	2.61	0	0	0		0.076
J6	NO	774.99	781		776.92	0	32.51	0	0	0		0.953
OF1	NO	777.16	795		785	0	104.65	0	0	0		8.11

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Table 5: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
SU1	794	799	5	TABULAR	2.12	2.6	796.6	3.39	0	0.099	2.4	52	0	0	Future Basin
SU11	776	781	5	TABULAR	2.08	2.54	778.54	14.5	0	0.425	2.46	51	0	0	Future Basin
SU13	787	792	5	TABULAR	2.05	2.5	789.5	110.87	0	3.28	2.5	50	0	0	Future Basin
SU14	785	790	5	TABULAR	2.09	2.56	787.56	43.28	0	1.27	2.44	51	0	0	Future Basin
SU15	782	790	8	TABULAR	3.2	6.24	788.24	423.35	0	10.2	6.76	72	0	0	RCFC Basin
SU2	788	793	5	TABULAR	2.11	2.59	790.59	3.55	0	0.103	2.41	52	0	0	Future Basin
SU3	784	790	6	TABULAR	2.12	2.6	786.6	5.29	0	0.154	3.4	43	0	0	Future Basin
SU4	781	786	5	TABULAR	2.08	2.54	783.54	24.23	0	0.713	2.46	51	0	0	Future Basin
SU5	787	792	5	TABULAR	2.09	2.56	789.56	39.18	0	1.15	2.44	51	0	0	Future Basin
SU6	782	787	5	TABULAR	2.06	2.52	784.52	33.11	0	0.978	2.48	50	0	0	Future Basin
SU7	780	785	5	TABULAR	2.13	2.6	782.6	50.67	0	1.48	2.4	52	0	0	Future Basin
SU8	824	829	5	TABULAR	2.12	2.6	826.6	3.67	0	0.107	2.4	52	0	0	Future Basin
SU9	796	801	5	TABULAR	2.12	2.61	798.61	7.34	0	0.214	2.39	52	0	0	Future Basin
SU10	776	781	5	TABULAR	0.53	4.37	780.37	24.33	0	0.883	1.13	87	0	0	Streets Basin

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Table 6: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	SU15	J4	TRANSVERSE	6	150	0	7	3.33	0	0	
W3	SU10	92	TRANSVERSE	2.5	4	0	3	3.33	21.35	0.55	

Table 7: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
101	NO	783.36	791.999	8.639	0	784.87	0	10.26	0	0		1
102	NO	784.82	794.636	9.816	0	790.68	0	7.32	4.358	0		1
117	NO	791.5	798	6.5	0	794.85	0	190.21	0	0		1
118	NO	791.38	803.5	12.12	0	794.46	0	190.12	0	0		1
119	NO	791.27	803.5	12.23	0	793.98	0	189.98	0	0		1
120	NO	789.64	803.5	13.86	0	792.47	0	189.22	0	0		1
121	NO	789.48	803.1	13.62	0	791.91	0	187.72	0	0		1
122	NO	783.62	789	5.38	0	783.64	0	223.75	0	0		1
123	NO	791.5	798	6.5	0	794.82	0	188.11	0	0		1
124	NO	791.38	803.5	12.12	0	794.43	0	188.01	0	0		1
125	NO	791.27	803.5	12.23	0	793.96	0	187.87	0	0		1
126	NO	789.65	803.5	13.85	0	792.46	0	187.14	0	0		1
127	NO	789.48	803.1	13.62	0	791.88	0	185.82	0	0		1
128	NO	783.62	789	5.38	0	783.64	0	221.82	0	0		1
129	YES	799.45	806.592	7.142	0	799.98	5.32	5.32	0	0		0.171
130	NO	806.38	814.314	7.934	0	806.41	0	0.01	0	0		1
131	NO	813.96	822.712	8.752	0	813.99	0	0.01	0	0		1
132	NO	816.22	825	8.78	0	816.25	0	0.01	0	0		1
133	NO	818.77	828	9.23	0	818.8	0	0.01	0	0		1
137	NO	783.8	790.5	6.7	0	786.14	0	205.48	0	0		1
138	NO	783.95	791	7.05	0	786.75	0	195.68	0	0		1
139	NO	784.14	791.2	7.06	0	787.03	0	183.55	0	0		1
142	NO	783.8	790.5	6.7	0	786.13	0	206.75	0	0		1
143	NO	783.95	791	7.05	0	786.78	0	199.77	0	0		1
144	NO	784.14	791.2	7.06	0	787.05	0	185.99	0	0		1
69	NO	798.23	808.924	10.694	0	798.23	0	0	0	0		1
70	YES	785.66	801	15.34	0	785.89	1.18	1.18	0	0		0.038
71	NO	783.61	799.185	15.575	0	784.06	0	1.18	0	0		1
72	NO	783.09	793.562	10.472	0	783.55	0	1.18	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
73	YES	782.64	790.823	8.183	0	783.39	1.37	2.52	0	0		0.044
74	NO	782.37	790.3	7.93	0	783.13	0	2.51	0	0		1
75	NO	782.27	790.213	7.943	0	782.96	0	2.51	0	0		1
76	YES	781.4	788.716	7.316	0	782.37	1.68	4.14	0	0		0.054
77	NO	780.53	787.219	6.689	0	781.61	0	4.14	0	0		1
78	NO	779.87	786.135	6.265	0	781.3	0	4.01	0	0		1
79	NO	779.21	785	5.79	0	781.24	0	4.11	0.025	0		1
80	YES	779.05	784.799	5.749	0	781.21	2.43	6.11	0	0		0.078
81	NO	778.74	784.1	5.36	0	781.1	0	6.08	0.364	0		1
82	YES	777.53	783.678	6.148	0	780.99	8.28	31.5	0	0		0.266
83	NO	779.83	783.143	3.313	0	781.04	0	18.38	0	0		1
84	NO	781.21	785.539	4.329	0	782.61	0	10	0	0		1
85	NO	782.58	789.954	7.374	0	783.99	0	10.04	0	0		1
86	NO	782.83	791	8.17	0	784.35	0	10.15	0	0		1
87	YES	783.89	793	9.11	0	785.41	3.05	10.37	0	0		0.098
88	NO	786.21	797.158	10.948	0	793.63	0	7.32	5.919	0		1
89	YES	787.6	799.681	12.081	0	795.42	2.02	7.32	6.319	0		0.065
90	NO	794.53	802.046	7.516	0	794.57	0	0.04	0	0		1
92	YES	775.4	781.023	5.623	0	777.53	0.84	32.51	0	0		0.027
93	NO	775.83	781.99	6.16	0	777.56	0	7.63	0	0		1
94	YES	776.61	783	6.39	0	780.62	0.59	31.99	0	0		0.019
J1	NO	870	871	1	0	870	0	0	0	0		1
J10	YES	799	799	0	0	799	3.39	3.39	0	0		0.109
J11	NO	793	794	1	0	793	0	0	0	0		1
J12	YES	793	794	1	0	793	3.55	3.55	0	0		0.114
J13	YES	790	791	1	0	790	5.29	5.29	0	0		0.17
J14	YES	787	792	5	0	788.29	24.39	24.39	0	0		0.784
J15	YES	799	804	5	0	800.45	39.39	39.39	0	0		1.266
J16	YES	795	800	5	0	796.28	33.42	33.42	0	0		1.074
J18	NO	806	807	1	0	806	0	0	0	0		1
J19	YES	829	830	1	0	829	3.67	3.67	0	0		0.118
J2	YES	794	812	18	5	796.6	380.29	380.29	0	0		1
J20	NO	802	803	1	0	802	0	0	0	0		1
J21	YES	801	802	1	0	801	7.34	7.34	0	0		0.236
J22	YES	793	798	5	0	793.34	2.7	2.7	0	0		0.022
J23	YES	794	803	9	0	796.42	112.58	112.58	0	0		3.618
J24	NO	794	795	1	0	794	0	0	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J25	NO	833	834	1	0	833	0	0	0	0		1
J26	YES	788	793	5	0	790.15	43.56	43.56	0	0		1.4
J27	NO	795	796	1	0	795	0	0	0	0		1
J28	YES	786	793	7	0	788.25	48.85	51.38	0	0		1.57
J29	NO	792	793	1	0	792	0	0	0	0		1
J3	NO	793	812	19	0	795.94	0	379.13	0	0		1
J30	YES	780	785	5	0	780	8.6	8.6	0	0		0.07
J31	NO	805	806	1	0	805	0	0	0	0		1
J32	YES	786	791	5	0	786.88	14.56	14.56	0	0		0.468
J33	NO	799	800	1	0	799	0	0	0	0		1
J34	NO	792	793	1	0	792	0	0	0	0		1
J37	NO	787.5	788.5	1	0	787.5	0	0	0	0		1
J4	NO	777.5	795	17.5	0	787.26	0	104.65	0	0		1
J5	NO	800	801	1	0	800	0	0	0	0		1
J7	NO	792	793	1	0	792	0	0	0	0		1
J8	NO	803	804	1	0	803	0	0	0	0		1
J9	NO	845	846	1	0	845	0	0	0	0		1

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PCSWMM Report

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PostDevelopment 100Yr 6 Hour

Model Rubidoux Proposed Conditions.inp

Kimley-Horn and Associates Inc.

June 15, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas 3
Table 2: Orifices 4
Table 3A: Conduits Report 4
Table 3B: Conduits Report 6
Table 4: Outfalls Report 8
Table 5: Storages 9
Table 6: Weirs 10
Table 7: Junctions 1D 10

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Table 1: AES Drainage Areas

NAME	AREA
Area S.7.c.	0.54
Area S.7.b.	0.38
Area S.2.c.	1.57
Area S.2.a.	0.87
Area S.2.b.	1.09
Area S.4.	3.42
Area S.7.a.	1.44
Area S.6.	3.88
Area S.5.a	1.30
Area S.5.b.	1.97
Area B.4.	4.71
Area S.3.	1.69
Area B.1.c.	3.40
Area B.1.b.	2.29
Area B.5.	8.52
Area B.2.c.	31.41
Area B.7.	2.69
Area S.1	0.77
Area B.2.b.	21.47
Area B.3.	2.36
Area C.2	28.00
Area B.6.	9.35
Area B.2.a.	25.31
Area B.1.a	2.18
Area B.1.d.	15.68
Area C.1	72.36
Area A	308.71

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Table 2: Orifices

Name	Inlet Node	Outlet Node	Type	Cross-Section	Height (ft)	Inlet Offset (ft)	Discharge Coeff.	Flap Gate	Max. |Flow| (cfs)
OR1	SU1	70	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.17
OR10	SU14	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	YES	3.03
OR11	SU13	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	NO	4.63
OR13	SU9	90	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.43
OR14	SU8	133	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.23
OR15	SU15	J4	SIDE	CIRCULAR	3	0	0.65	NO	71.91
OR2	SU2	73	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.22
OR3	SU3	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.29
OR4	SU5	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	1.86
OR5	SU6	78	SIDE	RECT_CLOSED	1	2.5	0.65	NO	1.67
OR6	SU4	80	SIDE	RECT_CLOSED	1	2.5	0.65	NO	1.26
OR7	SU7	82	SIDE	RECT_CLOSED	1	2.5	0.65	NO	2.72
OR8	SU11	92	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.76
OR9	SU10	92	SIDE	CIRCULAR	0.65	0	0.65	NO	3.09

Table 3A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C1	J3	59.834	0.025	0	0	0	RECT_OPEN	6	1	
C10	J28	1617.564	0.013	0	0	0.5	CIRCULAR	4	1	
C11	J32	656.105	0.01	0	0	0	CIRCULAR	2	1	
C12	J30	224.87	0.01	0	0	0	DUMMY	0	1	
C13	J19	27.937	0.01	0	0	0	DUMMY	0	1	
C14	J21	40.164	0.01	0	0	0	DUMMY	0	1	
C15	J22	238.647	0.01	0	0	0	CIRCULAR	1.5	1	
C16	J23	2089.708	0.013	0	0	0.5	RECT_CLOSED	4	1	
C17	J26	690.03	0.013	0	0	0.5	CIRCULAR	3.5	1	
C18	J4	15.862	0.01	0	0	0	CIRCULAR	3	1	
C19	128	145.306	0.01	0	0	0	DUMMY	0	1	
C2	J2	197.281	0.013	0	0	1	RECT_CLOSED	9	2	
C20	122	141.03	0.01	0	0	0	DUMMY	0	1	
C3	J3	62.706	0.025	0	0	0	RECT_OPEN	6	1	
C4	J10	48.065	0.01	0	0	0	DUMMY	0	1	
C5	J12	38.438	0.01	0	0	0	DUMMY	0	1	
C6	J13	46.177	0.01	0	0	0	DUMMY	0	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C7	J15	767.982	0.013	0	0	0.5	CIRCULAR	3	1	
C8	J16	1290.738	0.01	0	0	0	CIRCULAR	3	1	
C9	J14	809.99	0.01	0	0	0	CIRCULAR	2.5	1	
PIPE_-101	117	50.357	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-102	118	52.595	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-103	119	691.84	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-104	120	63.638	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105	121	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105_(1)	142	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-106	123	49.239	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-107	124	47.059	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-108	125	690.51	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-109	126	73.537	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110	127	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110_(1)	137	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-111	129	323.894	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-112	130	193.054	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-113	131	210.946	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-114	132	62.943	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-115	133	70.858	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-117	138	53.74	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-118	139	73.538	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-119	143	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-120	144	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-59	69	272.938	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-60	70	44.563	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-61	71	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-62	72	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-63	73	88.222	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-64	74	35.138	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-65	75	287.159	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-66	76	287.158	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-67	77	219.443	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-68	78	219.443	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-69	79	50.65	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-70	80	106.481	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-71	81	120.477	0.013	0	0	0.5	CIRCULAR	2	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
PIPE_-72	83	124.993	0.013	0	0	0.5	RECT_CLOSED	2	1	
PIPE_-73	84	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-74	85	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-75	86	83.535	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-76	87	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-77	102	309.74	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-77_(1)	88	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-78	89	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-79	90	435.736	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-80	92	136.34	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-81	93	142.205	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-82	94	255.962	0.013	3.7	0	0.5	RECT_CLOSED	2	1	
PIPE_-83	82	305.558	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-89	101	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
W2	94	344.214	0.01	0	0	0	RECT_CLOSED	2	1	

Table 3B: Conduits Report

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C1	0.02508	164.61	9.74	0	0	
C10	0.00371	44.61	7.06	0	0	
C11	0.01524	12.81	10.1	0	0	
C12	0.00076	7.15	0	0	0	
C13	0.18191	3.24	0	0	0	
C14	0.12547	6.48	0	0	0	
C15	0.02934	2.25	2.01	0	0	
C16	0.00335	97.61	6.5	0	0	
C17	0.00435	38.22	7.48	0	0	
C18	0.02144	104.65	14.8	0	0	
C19	0.01115	189.02	0	0	0	
C2	0.00507	327.97	5.58	0	0	Ex Box Culvert
C20	0.01149	193.24	0	0	0	
C3	0.02393	162.63	9.68	0	0	
C4	0.10459	2.99	0	0	0	
C5	0.13119	3.13	0	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C6	0.13105	4.67	0	0	0	
C7	0.01563	34.63	10.94	0	0	
C8	0.01007	29.29	10.78	0	0	
C9	0.00741	21.42	9.07	0	0	
PIPE_-101	0.00238	164.54	5.69	0	0	
PIPE_-102	0.00209	164.46	6.33	0	0	
PIPE_-103	0.00236	163.61	6.6	0	0	
PIPE_-104	0.00251	162.42	6.91	0	0	
PIPE_-105	0.00234	158.82	6.68	0	0	
PIPE_-105_(1)	0.00223	192.88	22.98	0	0	
PIPE_-106	0.00244	162.56	5.68	0	0	
PIPE_-107	0.00234	162.48	6.31	0	0	
PIPE_-108	0.00235	161.64	6.57	0	0	
PIPE_-109	0.00231	160.49	6.88	0	0	
PIPE_-110	0.00234	156.86	6.64	0	0	
PIPE_-110_(1)	0.00223	188.68	22.63	0	0	
PIPE_-111	0.03661	4.78	4.09	0	0	
PIPE_-112	0.03592	0.23	3.58	0	0	
PIPE_-113	0.03596	0.23	3.75	0	0	
PIPE_-114	0.03593	0.23	3.71	0	0	
PIPE_-115	0.03601	0.23	3.7	0	0	
PIPE_-117	0.00279	175.24	9.43	0	0	
PIPE_-118	0.00258	170.56	7.2	0	0	
PIPE_-119	0.00236	176.51	9.4	0	0	
PIPE_-120	0.00299	170.88	7.14	0	0	
PIPE_-59	0.0461	0	0	0	0	
PIPE_-60	0.04605	1.13	3.83	0	0	
PIPE_-61	0.0035	1.13	2.57	0	0	
PIPE_-62	0.00303	1.12	1.75	0	0	
PIPE_-63	0.00306	2.42	2.81	0	0	
PIPE_-64	0.00285	2.42	2.95	0	0	
PIPE_-65	0.00303	2.4	2.28	0	0	
PIPE_-66	0.00303	4.85	3.42	0	0	
PIPE_-67	0.00301	4.69	3.31	0	0	
PIPE_-68	0.00301	6.15	3.04	0	0	
PIPE_-69	0.00316	6.23	2.66	0	0	
PIPE_-70	0.00291	8.24	3.57	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
PIPE_-71	0.01004	8.24	2.62	0	0	
PIPE_-72	0.0184	15.76	2.52	0	0	
PIPE_-73	0.00309	8.4	5.91	0	0	
PIPE_-74	0.00306	8.46	4.12	0	0	
PIPE_-75	0.00299	8.48	3.95	0	0	
PIPE_-76	0.00301	8.52	3.87	0	0	
PIPE_-77	0.003	6.1	3.72	0	0	
PIPE_-77_(1)	0.00299	6.15	3.6	0	0	
PIPE_-78	0.00299	6.75	3.85	0	0	
PIPE_-79	0.01591	0.43	1.95	0	0	
PIPE_-80	0.00301	32.14	5.59	0	0	
PIPE_-81	0.00302	7.05	1.31	0	0	
PIPE_-82	0.01751	7.08	1.77	0	0	
PIPE_-83	0.00301	30.8	4.13	0	0	
PIPE_-89	0.00301	8.49	3.82	0	0	
W2	0.00177	24.13	3.02	0	0	

Table 4: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J17	YES	838	839		838	2.31	2.31	0	0	0		0.101
J6	NO	774.99	781		776.91	0	32.14	0	0	0		2.19
OF1	NO	777.16	795		785	0	104.65	0	0	0		11.8

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Table 5: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
SU1	794	799	5	TABULAR	2.32	3.35	797.35	2.99	0	0.131	1.65	67	0	0	Future Basin
SU11	776	781	5	TABULAR	2.28	3.28	779.28	12.81	0	0.563	1.72	66	0	0	Future Basin
SU13	787	792	5	TABULAR	2.28	3.23	790.23	97.61	0	4.34	1.77	65	0	0	Future Basin
SU14	785	790	5	TABULAR	2.27	3.35	788.35	38.22	0	1.68	1.65	67	0	0	Future Basin
SU15	782	790	8	TABULAR	3.37	6.81	788.81	382.87	0	13.4	6.19	78	0	0	RCFC Basin
SU2	788	793	5	TABULAR	2.28	3.32	791.32	3.13	0	0.137	1.68	66	0	0	Future Basin
SU3	784	790	6	TABULAR	2.31	3.35	787.35	4.67	0	0.204	2.65	56	0	0	Future Basin
SU4	781	786	5	TABULAR	2.28	3.28	784.28	21.42	0	0.943	1.72	66	0	0	Future Basin
SU5	787	792	5	TABULAR	2.3	3.3	790.3	34.63	0	1.52	1.7	66	0	0	Future Basin
SU6	782	787	5	TABULAR	2.27	3.25	785.25	29.29	0	1.29	1.75	65	0	0	Future Basin
SU7	780	785	5	TABULAR	2.29	3.32	783.32	44.61	0	1.95	1.68	66	0	0	Future Basin
SU8	824	829	5	TABULAR	2.29	3.34	827.34	3.24	0	0.142	1.66	67	0	0	Future Basin
SU9	796	801	5	TABULAR	2.3	3.35	799.35	6.48	0	0.283	1.65	67	0	0	Future Basin
SU10	776	781	5	TABULAR	1.69	4.36	780.36	24.13	0	2.04	1.14	87	0	0	Streets Basin

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Table 6: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	SU15	J4	TRANSVERSE	6	150	0	7	3.33	0	0	
W3	SU10	92	TRANSVERSE	2.5	4	0	3	3.33	21.13	0.54	

Table 7: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
101	NO	783.36	791.999	8.639	0	784.68	0	8.52	0	0		1
102	NO	784.82	794.636	9.816	0	786.24	0	6.15	0	0		1
117	NO	791.5	798	6.5	0	794.52	0	164.61	0	0		1
118	NO	791.38	803.5	12.12	0	794.15	0	164.54	0	0		1
119	NO	791.27	803.5	12.23	0	793.7	0	164.46	0	0		1
120	NO	789.64	803.5	13.86	0	792.18	0	163.61	0	0		1
121	NO	789.48	803.1	13.62	0	791.66	0	162.42	0	0		1
122	NO	783.62	789	5.38	0	783.64	0	192.88	0	0		1
123	NO	791.5	798	6.5	0	794.48	0	162.63	0	0		1
124	NO	791.38	803.5	12.12	0	794.12	0	162.56	0	0		1
125	NO	791.27	803.5	12.23	0	793.68	0	162.48	0	0		1
126	NO	789.65	803.5	13.85	0	792.17	0	161.64	0	0		1
127	NO	789.48	803.1	13.62	0	791.64	0	160.49	0	0		1
128	NO	783.62	789	5.38	0	783.64	0	188.68	0	0		1
129	YES	799.45	806.592	7.142	0	799.95	4.7	4.8	0	0		0.171
130	NO	806.38	814.314	7.934	0	806.49	0	0.23	0	0		1
131	NO	813.96	822.712	8.752	0	814.07	0	0.23	0	0		1
132	NO	816.22	825	8.78	0	816.33	0	0.23	0	0		1
133	NO	818.77	828	9.23	0	818.88	0	0.23	0	0		1
137	NO	783.8	790.5	6.7	0	785.92	0	175.24	0	0		1
138	NO	783.95	791	7.05	0	786.48	0	170.56	0	0		1
139	NO	784.14	791.2	7.06	0	786.75	0	156.86	0	0		1
142	NO	783.8	790.5	6.7	0	785.9	0	176.51	0	0		1
143	NO	783.95	791	7.05	0	786.5	0	170.88	0	0		1
144	NO	784.14	791.2	7.06	0	786.78	0	158.82	0	0		1
69	NO	798.23	808.924	10.694	0	798.23	0	0	0	0		1
70	YES	785.66	801	15.34	0	785.89	1.04	1.14	0	0		0.038
71	NO	783.61	799.185	15.575	0	784.05	0	1.13	0	0		1
72	NO	783.09	793.562	10.472	0	783.54	0	1.13	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
73	YES	782.64	790.823	8.183	0	783.37	1.21	2.44	0	0		0.044
74	NO	782.37	790.3	7.93	0	783.11	0	2.42	0	0		1
75	NO	782.27	790.213	7.943	0	782.94	0	2.42	0	0		1
76	YES	781.4	788.716	7.316	0	782.53	1.48	4.94	0	0		0.054
77	NO	780.53	787.219	6.689	0	781.99	0	4.85	0	0		1
78	NO	779.87	786.135	6.265	0	781.54	0	5.96	0	0		1
79	NO	779.21	785	5.79	0	781.4	0	6.15	0.186	0		1
80	YES	779.05	784.799	5.749	0	781.34	2.14	8.19	0	0		0.078
81	NO	778.74	784.1	5.36	0	781.15	0	8.24	0.411	0		1
82	YES	777.53	783.678	6.148	0	780.95	7.31	30.82	0	0		0.266
83	NO	779.83	783.143	3.313	0	780.98	0	15.54	0	0		1
84	NO	781.21	785.539	4.329	0	782.46	0	8.46	0	0		1
85	NO	782.58	789.954	7.374	0	783.83	0	8.48	0	0		1
86	NO	782.83	791	8.17	0	784.17	0	8.49	0	0		1
87	YES	783.89	793	9.11	0	785.21	2.69	8.56	0	0		0.098
88	NO	786.21	797.158	10.948	0	787.73	0	6.75	0.016	0		1
89	YES	787.6	799.681	12.081	0	792.47	1.79	6.77	3.371	0		0.065
90	NO	794.53	802.046	7.516	0	794.72	0	0.43	0	0		1
92	YES	775.4	781.023	5.623	0	777.52	0.74	32.14	0	0		0.027
93	NO	775.83	781.99	6.16	0	777.54	0	7.08	0	0		1
94	YES	776.61	783	6.39	0	780.6	0.52	31.22	0	0		0.019
J1	NO	870	871	1	0	870	0	0	0	0		1
J10	YES	799	799	0	0	799	2.99	2.99	0	0		0.109
J11	NO	793	794	1	0	793	0	0	0	0		1
J12	YES	793	794	1	0	793	3.13	3.13	0	0		0.114
J13	YES	790	791	1	0	790	4.67	4.67	0	0		0.17
J14	YES	787	792	5	0	788.2	21.53	21.53	0	0		0.784
J15	YES	799	804	5	0	800.35	34.77	34.77	0	0		1.266
J16	YES	795	800	5	0	796.2	29.5	29.5	0	0		1.074
J18	NO	806	807	1	0	806	0	0	0	0		1
J19	YES	829	830	1	0	829	3.24	3.24	0	0		0.118
J2	YES	794	812	18	5	796.28	329.03	329.03	0	0		1
J20	NO	802	803	1	0	802	0	0	0	0		1
J21	YES	801	802	1	0	801	6.48	6.48	0	0		0.236
J22	YES	793	798	5	0	793.31	2.25	2.25	0	0		0.022
J23	YES	794	803	9	0	796.13	99.38	99.38	0	0		3.618
J24	NO	794	795	1	0	794	0	0	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J25	NO	833	834	1	0	833	0	0	0	0		1
J26	YES	788	793	5	0	789.91	38.46	38.46	0	0		1.4
J27	NO	795	796	1	0	795	0	0	0	0		1
J28	YES	786	793	7	0	788.02	43.12	45.36	0	0		1.57
J29	NO	792	793	1	0	792	0	0	0	0		1
J3	NO	793	812	19	0	795.62	0	327.97	0	0		1
J30	YES	780	785	5	0	780	7.15	7.15	0	0		0.07
J31	NO	805	806	1	0	805	0	0	0	0		1
J32	YES	786	791	5	0	786.82	12.85	12.85	0	0		0.468
J33	NO	799	800	1	0	799	0	0	0	0		1
J34	NO	792	793	1	0	792	0	0	0	0		1
J37	NO	787.5	788.5	1	0	787.5	0	0	0	0		1
J4	NO	777.5	795	17.5	0	787.26	0	104.65	0	0		1
J5	NO	800	801	1	0	800	0	0	0	0		1
J7	NO	792	793	1	0	792	0	0	0	0		1
J8	NO	803	804	1	0	803	0	0	0	0		1
J9	NO	845	846	1	0	845	0	0	0	0		1

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PCSWMM Report

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PostDevelopment 100Yr 24 Hour

Model Rubidoux Proposed Conditions.inp

Kimley-Horn and Associates Inc.

June 15, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas 3
Table 2: Orifices 4
Table 3A: Conduits Report 4
Table 3B: Conduits Report 6
Table 4: Outfalls Report 8
Table 5: Storages 9
Table 6: Weirs 10
Table 7: Junctions 1D 10

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Table 1: AES Drainage Areas

NAME	AREA
Area S.7.c.	0.54
Area S.7.b.	0.38
Area S.2.c.	1.57
Area S.2.a.	0.87
Area S.2.b.	1.09
Area S.4.	3.42
Area S.7.a.	1.44
Area S.6.	3.88
Area S.5.a	1.30
Area S.5.b.	1.97
Area B.4.	4.71
Area S.3.	1.69
Area B.1.c.	3.40
Area B.1.b.	2.29
Area B.5.	8.52
Area B.2.c.	31.41
Area B.7.	2.69
Area S.1	0.77
Area B.2.b.	21.47
Area B.3.	2.36
Area C.2	28.00
Area B.6.	9.35
Area B.2.a.	25.31
Area B.1.a	2.18
Area B.1.d.	15.68
Area C.1	72.36
Area A	308.71

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Table 2: Orifices

Name	Inlet Node	Outlet Node	Type	Cross-Section	Height (ft)	Inlet Offset (ft)	Discharge Coeff.	Flap Gate	Max. |Flow| (cfs)
OR1	SU1	70	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.41
OR10	SU14	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	YES	8.22
OR11	SU13	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	NO	13.14
OR13	SU9	90	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.99
OR14	SU8	133	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.52
OR15	SU15	J4	SIDE	CIRCULAR	3	0	0.65	NO	71.91
OR2	SU2	73	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.51
OR3	SU3	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.67
OR4	SU5	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	4.71
OR5	SU6	78	SIDE	RECT_CLOSED	1	2.5	0.65	NO	4.47
OR6	SU4	80	SIDE	RECT_CLOSED	1	2.5	0.65	NO	3.24
OR7	SU7	82	SIDE	RECT_CLOSED	1	2.5	0.65	NO	6.53
OR8	SU11	92	SIDE	RECT_CLOSED	1	2.5	0.65	NO	1.94
OR9	SU10	92	SIDE	CIRCULAR	0.65	0	0.65	NO	3.07

Table 3A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C1	J3	59.834	0.025	0	0	0	RECT_OPEN	6	1	
C10	J28	1617.564	0.013	0	0	0.5	CIRCULAR	4	1	
C11	J32	656.105	0.01	0	0	0	CIRCULAR	2	1	
C12	J30	224.87	0.01	0	0	0	DUMMY	0	1	
C13	J19	27.937	0.01	0	0	0	DUMMY	0	1	
C14	J21	40.164	0.01	0	0	0	DUMMY	0	1	
C15	J22	238.647	0.01	0	0	0	CIRCULAR	1.5	1	
C16	J23	2089.708	0.013	0	0	0.5	RECT_CLOSED	4	1	
C17	J26	690.03	0.013	0	0	0.5	CIRCULAR	3.5	1	
C18	J4	15.862	0.01	0	0	0	CIRCULAR	3	1	
C19	128	145.306	0.01	0	0	0	DUMMY	0	1	
C2	J2	197.281	0.013	0	0	1	RECT_CLOSED	9	2	
C20	122	141.03	0.01	0	0	0	DUMMY	0	1	
C3	J3	62.706	0.025	0	0	0	RECT_OPEN	6	1	
C4	J10	48.065	0.01	0	0	0	DUMMY	0	1	
C5	J12	38.438	0.01	0	0	0	DUMMY	0	1	
C6	J13	46.177	0.01	0	0	0	DUMMY	0	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C7	J15	767.982	0.013	0	0	0.5	CIRCULAR	3	1	
C8	J16	1290.738	0.01	0	0	0	CIRCULAR	3	1	
C9	J14	809.99	0.01	0	0	0	CIRCULAR	2.5	1	
PIPE_-101	117	50.357	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-102	118	52.595	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-103	119	691.84	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-104	120	63.638	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105	121	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105_(1)	142	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-106	123	49.239	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-107	124	47.059	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-108	125	690.51	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-109	126	73.537	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110	127	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110_(1)	137	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-111	129	323.894	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-112	130	193.054	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-113	131	210.946	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-114	132	62.943	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-115	133	70.858	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-117	138	53.74	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-118	139	73.538	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-119	143	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-120	144	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-59	69	272.938	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-60	70	44.563	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-61	71	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-62	72	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-63	73	88.222	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-64	74	35.138	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-65	75	287.159	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-66	76	287.158	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-67	77	219.443	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-68	78	219.443	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-69	79	50.65	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-70	80	106.481	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-71	81	120.477	0.013	0	0	0.5	CIRCULAR	2	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
PIPE_-72	83	124.993	0.013	0	0	0.5	RECT_CLOSED	2	1	
PIPE_-73	84	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-74	85	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-75	86	83.535	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-76	87	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-77	102	309.74	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-77_(1)	88	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-78	89	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-79	90	435.736	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-80	92	136.34	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-81	93	142.205	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-82	94	255.962	0.013	3.7	0	0.5	RECT_CLOSED	2	1	
PIPE_-83	82	305.558	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-89	101	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
W2	94	344.214	0.01	0	0	0	RECT_CLOSED	2	1	

Table 3B: Conduits Report

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C1	0.02508	52.34	7.19	0	0	
C10	0.00371	19.21	5.33	0	0	
C11	0.01524	5.53	7.72	0	0	
C12	0.00076	2.13	0	0	0	
C13	0.18191	1.39	0	0	0	
C14	0.12547	2.79	0	0	0	
C15	0.02934	0.67	0.8	0	0	
C16	0.00335	42.72	4.04	0	0	
C17	0.00435	16.53	5.64	0	0	
C18	0.02144	104.65	14.8	0	0	
C19	0.01115	57.72	0	0	0	
C2	0.00507	103.82	4.43	0	0	Ex Box Culvert
C20	0.01149	59.43	0	0	0	
C3	0.02393	51.36	7.13	0	0	
C4	0.10459	1.29	0	0	0	
C5	0.13119	1.35	0	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C6	0.13105	2.01	0	0	0	
C7	0.01563	14.95	8.4	0	0	
C8	0.01007	12.68	8.18	0	0	
C9	0.00741	9.26	6.95	0	0	
PIPE_-101	0.00238	52.33	4.1	0	0	
PIPE_-102	0.00209	52.34	4.56	0	0	
PIPE_-103	0.00236	52.48	4.7	0	0	
PIPE_-104	0.00251	52.29	4.8	0	0	
PIPE_-105	0.00234	52.15	4.74	0	0	
PIPE_-105_(1)	0.00223	59.38	13.48	0	0	
PIPE_-106	0.00244	51.35	4.1	0	0	
PIPE_-107	0.00234	51.36	4.54	0	0	
PIPE_-108	0.00235	51.5	4.66	0	0	
PIPE_-109	0.00231	51.31	4.76	0	0	
PIPE_-110	0.00234	51.17	4.7	0	0	
PIPE_-110_(1)	0.00223	57.68	13.29	0	0	
PIPE_-111	0.03661	2.36	3.43	0	0	
PIPE_-112	0.03592	0.52	4.29	0	0	
PIPE_-113	0.03596	0.52	4.8	0	0	
PIPE_-114	0.03593	0.52	4.73	0	0	
PIPE_-115	0.03601	0.52	4.7	0	0	
PIPE_-117	0.00279	55.04	5.79	0	0	
PIPE_-118	0.00258	52.84	4.79	0	0	
PIPE_-119	0.00236	55.25	5.79	0	0	
PIPE_-120	0.00299	54.09	4.75	0	0	
PIPE_-59	0.0461	0	0	0	0	
PIPE_-60	0.04605	0.72	3.37	0	0	
PIPE_-61	0.0035	0.71	2.26	0	0	
PIPE_-62	0.00303	0.71	1.54	0	0	
PIPE_-63	0.00306	1.54	2.51	0	0	
PIPE_-64	0.00285	1.54	2.6	0	0	
PIPE_-65	0.00303	1.54	1.72	0	0	
PIPE_-66	0.00303	7.14	4.04	0	0	
PIPE_-67	0.00301	7.14	4.04	0	0	
PIPE_-68	0.00301	11.63	3.7	0	0	
PIPE_-69	0.00316	11.63	3.7	0	0	
PIPE_-70	0.00291	15.33	4.88	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
PIPE_-71	0.01004	15.33	4.88	0	0	
PIPE_-72	0.0184	6.92	1.21	0	0	
PIPE_-73	0.00309	4.86	5.65	0	0	
PIPE_-74	0.00306	4.87	3.63	0	0	
PIPE_-75	0.00299	4.87	3.48	0	0	
PIPE_-76	0.00301	4.88	3.46	0	0	
PIPE_-77	0.003	3.75	3.34	0	0	
PIPE_-77_(1)	0.00299	3.76	3.37	0	0	
PIPE_-78	0.00299	3.77	3.38	0	0	
PIPE_-79	0.01591	0.99	2.35	0	0	
PIPE_-80	0.00301	31.03	5.55	0	0	
PIPE_-81	0.00302	5.55	1.07	0	0	
PIPE_-82	0.01751	5.56	1.46	0	0	
PIPE_-83	0.00301	28.81	3.46	0	0	
PIPE_-89	0.00301	4.88	3.4	0	0	
W2	0.00177	23.4	2.93	0	0	

Table 4: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J17	YES	838	839		838	0.99	0.99	0	0	0		0.184
J6	NO	774.99	781		776.87	0	31.03	0	0	0		7.22
OF1	NO	777.16	795		785	0	104.65	0	0	0		22.1

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Table 5: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
SU1	794	799	5	TABULAR	2.4	4.71	798.71	1.29	0	0.239	0.29	94	0	0	Future Basin
SU11	776	781	5	TABULAR	2.3	4.54	780.54	5.53	0	1.02	0.46	91	0	0	Future Basin
SU13	787	792	5	TABULAR	2.33	4.59	791.59	42.72	0	7.91	0.41	92	0	0	Future Basin
SU14	785	790	5	TABULAR	2.12	4.11	789.11	16.53	0	3.07	0.89	82	0	0	Future Basin
SU15	782	790	8	TABULAR	3.71	6.01	788.01	127.27	0	23.1	6.99	69	0	0	RCFC Basin
SU2	788	793	5	TABULAR	2.29	4.51	792.51	1.35	0	0.25	0.49	90	0	0	Future Basin
SU3	784	790	6	TABULAR	2.37	4.66	788.66	2.01	0	0.372	1.34	78	0	0	Future Basin
SU4	781	786	5	TABULAR	2.3	4.54	785.54	9.26	0	1.72	0.46	91	0	0	Future Basin
SU5	787	792	5	TABULAR	2.37	4.66	791.66	14.95	0	2.77	0.34	93	0	0	Future Basin
SU6	782	787	5	TABULAR	2.28	4.5	786.5	12.68	0	2.35	0.5	90	0	0	Future Basin
SU7	780	785	5	TABULAR	2.31	4.57	784.57	19.21	0	3.5	0.43	91	0	0	Future Basin
SU8	824	829	5	TABULAR	2.31	4.55	828.55	1.39	0	0.258	0.45	91	0	0	Future Basin
SU9	796	801	5	TABULAR	2.34	4.61	800.61	2.79	0	0.517	0.39	92	0	0	Future Basin
SU10	776	781	5	TABULAR	2.91	4.33	780.33	23.4	0	6.42	1.17	87	0	0	Streets Basin

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Table 6: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	SU15	J4	TRANSVERSE	6	150	0	7	3.33	0	0	
W3	SU10	92	TRANSVERSE	2.5	4	0	3	3.33	20.46	0.53	

Table 7: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
101	NO	783.36	791.999	8.639	0	784.28	0	4.88	0	0		1
102	NO	784.82	794.636	9.816	0	785.73	0	3.76	0	0		1
117	NO	791.5	798	6.5	0	792.83	0	52.34	0	0		1
118	NO	791.38	803.5	12.12	0	792.62	0	52.33	0	0		1
119	NO	791.27	803.5	12.23	0	792.34	0	52.34	0	0		1
120	NO	789.64	803.5	13.86	0	790.83	0	52.48	0	0		1
121	NO	789.48	803.1	13.62	0	790.52	0	52.29	0	0		1
122	NO	783.62	789	5.38	0	783.62	0	59.38	0	0		1
123	NO	791.5	798	6.5	0	792.8	0	51.36	0	0		1
124	NO	791.38	803.5	12.12	0	792.59	0	51.35	0	0		1
125	NO	791.27	803.5	12.23	0	792.33	0	51.36	0	0		1
126	NO	789.65	803.5	13.85	0	790.83	0	51.5	0	0		1
127	NO	789.48	803.1	13.62	0	790.51	0	51.31	0	0		1
128	NO	783.62	789	5.38	0	783.62	0	57.68	0	0		1
129	YES	799.45	806.592	7.142	0	799.8	2.02	2.36	0	0		0.171
130	NO	806.38	814.314	7.934	0	806.55	0	0.52	0	0		1
131	NO	813.96	822.712	8.752	0	814.13	0	0.52	0	0		1
132	NO	816.22	825	8.78	0	816.39	0	0.52	0	0		1
133	NO	818.77	828	9.23	0	818.94	0	0.52	0	0		1
137	NO	783.8	790.5	6.7	0	784.77	0	55.04	0	0		1
138	NO	783.95	791	7.05	0	785.08	0	52.84	0	0		1
139	NO	784.14	791.2	7.06	0	785.33	0	51.17	0	0		1
142	NO	783.8	790.5	6.7	0	784.8	0	55.25	0	0		1
143	NO	783.95	791	7.05	0	785.13	0	54.09	0	0		1
144	NO	784.14	791.2	7.06	0	785.35	0	52.15	0	0		1
69	NO	798.23	808.924	10.694	0	798.23	0	0	0	0		1
70	YES	785.66	801	15.34	0	785.86	0.45	0.72	0	0		0.038
71	NO	783.61	799.185	15.575	0	785.85	0	0.72	0.738	0		1
72	NO	783.09	793.562	10.472	0	785.84	0	0.71	1.251	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
73	YES	782.64	790.823	8.183	0	785.83	0.52	1.57	0	0		0.044
74	NO	782.37	790.3	7.93	0	785.81	0	1.54	1.941	0		1
75	NO	782.27	790.213	7.943	0	785.8	0	1.54	2.028	0		1
76	YES	781.4	788.716	7.316	0	785.74	0.64	7.14	0.836	0		0.054
77	NO	780.53	787.219	6.689	0	784.28	0	7.14	2.253	0		1
78	NO	779.87	786.135	6.265	0	783.14	0	11.61	0	0		1
79	NO	779.21	785	5.79	0	782.47	0	11.63	1.258	0		1
80	YES	779.05	784.799	5.749	0	782.24	0.92	15.33	0	0		0.078
81	NO	778.74	784.1	5.36	0	781.57	0	15.33	0.833	0		1
82	YES	777.53	783.678	6.148	0	780.85	3.14	28.82	0	0		0.266
83	NO	779.83	783.143	3.313	0	780.85	0	6.94	0	0		1
84	NO	781.21	785.539	4.329	0	782.1	0	4.87	0	0		1
85	NO	782.58	789.954	7.374	0	783.47	0	4.87	0	0		1
86	NO	782.83	791	8.17	0	783.77	0	4.88	0	0		1
87	YES	783.89	793	9.11	0	784.81	1.16	4.89	0	0		0.098
88	NO	786.21	797.158	10.948	0	787.11	0	3.77	0	0		1
89	YES	787.6	799.681	12.081	0	788.51	0.77	3.79	0	0		0.065
90	NO	794.53	802.046	7.516	0	794.81	0	0.99	0	0		1
92	YES	775.4	781.023	5.623	0	777.47	0.32	31.03	0	0		0.027
93	NO	775.83	781.99	6.16	0	777.48	0	5.56	0	0		1
94	YES	776.61	783	6.39	0	780.56	0.22	28.97	0	0		0.019
J1	NO	870	871	1	0	870	0	0	0	0		1
J10	YES	799	799	0	0	799	1.29	1.29	0	0		0.109
J11	NO	793	794	1	0	793	0	0	0	0		1
J12	YES	793	794	1	0	793	1.35	1.35	0	0		0.114
J13	YES	790	791	1	0	790	2.01	2.01	0	0		0.17
J14	YES	787	792	5	0	787.76	9.26	9.26	0	0		0.784
J15	YES	799	804	5	0	799.86	14.95	14.95	0	0		1.266
J16	YES	795	800	5	0	795.77	12.68	12.68	0	0		1.074
J18	NO	806	807	1	0	806	0	0	0	0		1
J19	YES	829	830	1	0	829	1.39	1.39	0	0		0.118
J2	YES	794	812	18	5	794.85	103.66	103.66	0	0		1
J20	NO	802	803	1	0	802	0	0	0	0		1
J21	YES	801	802	1	0	801	2.79	2.79	0	0		0.236
J22	YES	793	798	5	0	793.17	0.67	0.67	0	0		0.022
J23	YES	794	803	9	0	795.2	42.73	42.73	0	0		3.618
J24	NO	794	795	1	0	794	0	0	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J25	NO	833	834	1	0	833	0	0	0	0		1
J26	YES	788	793	5	0	789.19	16.53	16.53	0	0		1.4
J27	NO	795	796	1	0	795	0	0	0	0		1
J28	YES	786	793	7	0	787.27	18.54	19.21	0	0		1.57
J29	NO	792	793	1	0	792	0	0	0	0		1
J3	NO	793	812	19	0	794.1	0	103.82	0	0		1
J30	YES	780	785	5	0	780	2.13	2.13	0	0		0.07
J31	NO	805	806	1	0	805	0	0	0	0		1
J32	YES	786	791	5	0	786.53	5.53	5.53	0	0		0.468
J33	NO	799	800	1	0	799	0	0	0	0		1
J34	NO	792	793	1	0	792	0	0	0	0		1
J37	NO	787.5	788.5	1	0	787.5	0	0	0	0		1
J4	NO	777.5	795	17.5	0	787.26	0	104.65	0	0		1
J5	NO	800	801	1	0	800	0	0	0	0		1
J7	NO	792	793	1	0	792	0	0	0	0		1
J8	NO	803	804	1	0	803	0	0	0	0		1
J9	NO	845	846	1	0	845	0	0	0	0		1

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PCSWMM Report

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PreDevelopment 10Yr 1 Hour

Model Rubidoux Existing Conditions.inp

Kimley-Horn and Associates Inc.

May 31, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas Pre 3
Table 2A: Conduits Report 3
Table 2B: Conduits Report 3
Table 3: Outfalls Report 4
Table 4: Storages 5
Table 5: Weirs 6
Table 6: Junctions 1D 6

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Table 1: AES Drainage Areas Pre

NAME	AREA	Impervious Area Fraction	Upstream Node	Downstream Node	Longest Watercourse	Length From Centroid	Elevation Difference	Watershed N Value	SGRAPH	Slope of Intensity Curve	Depth Adjustment Factor
Area A	308.71	0.25	100	101	4582	2749	76	.015	Foothill	0.55	1
Area B	121.08	0.00	104	105	3781	2268	62.9	.03	Foothill	0.55	1.00
Area C	136.7	0.00	106	103	2948	1768	14.7	.03	Foothill	0.55	1.00

Table 2A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)
C1	J4	77.166	0.013	0	0	0.5	CIRCULAR	3	1		0.00648	96.36	25.95	0
C1_1	J3	925.789	0.024	0	0	0	TRAPEZOIDAL	5	1		0.00864	379.59	6.99	0
C1_2	J8	2565.133	0.024	0	0	0	TRAPEZOIDAL	10	1		0.00273	313.35	5.3	0
C2	J2	205.396	0.013	0	0	1	RECT_CLOSED	9	2		0.00487	397.49	7.84	0
C3	J9	63.024	0.01	0	0	0	DUMMY	0	1		0.00539	96.36	0	0

Table 2B: Conduits Report

Name	Contributing Imp. Area (ac)	Description
C1	0	
C1_1	0	
C1_2	0	
C2	0	
C3	0	

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Table 3: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J6	YES	785.6	786.6		785.6	119.09	119.09	0	0	0		1.06
OF1	NO	777.16	795		785	0	96.36	0	0	0		4.65

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Table 4: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
J4	778	795	17	TABULAR	0.72	4.1	782.1	444.21	1.25	4.72	12.9	1	0	0	

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Table 5: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	J4	J9	TRANSVERSE	6	150	0	11	3.33	0	0	

Table 6: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J1	NO	870	871	1	0	870	0	0	0	0		1
J2	YES	794	812	18	5	796.29	397.21	397.21	0	0		1
J3	NO	793	812	19	0	794.98	0	397.49	0	0		1
J5	NO	848.5	849.5	1	0	848.5	0	0	0	0		1
J7	NO	795	796	1	0	795	0	0	0	0		1
J8	NO	785	790	5	0	787.84	0	379.59	0	0		1
J9	NO	777.5	795	17.5	0	777.9	0	96.36	0	0		1

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PCSWMM Report

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PreDevelopment 10Yr 3 Hour

Model Rubidoux Existing Conditions.inp

Kimley-Horn and Associates Inc.

May 31, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas Pre 3
Table 2A: Conduits Report 3
Table 2B: Conduits Report 3
Table 3: Outfalls Report 4
Table 4: Storages 5
Table 5: Weirs 6
Table 6: Junctions 1D 6

DRAFT

Table 1: AES Drainage Areas Pre

NAME	AREA	Impervious Area Fraction	Upstream Node	Downstream Node	Longest Watercourse	Length From Centroid	Elevation Difference	Watershed N Value	SGRAPH	Slope of Intensity Curve	Depth Adjustment Factor
Area A	308.71	0.25	100	101	4582	2749	76	.015	Foothill	0.55	1
Area B	121.08	0.00	104	105	3781	2268	62.9	.03	Foothill	0.55	1.00
Area C	136.7	0.00	106	103	2948	1768	14.7	.03	Foothill	0.55	1.00

Table 2A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)
C1	J4	77.166	0.013	0	0	0.5	CIRCULAR	3	1		0.00648	93.83	25.95	0
C1_1	J3	925.789	0.024	0	0	0	TRAPEZOIDAL	5	1		0.00864	209.2	5.18	0
C1_2	J8	2565.133	0.024	0	0	0	TRAPEZOIDAL	10	1		0.00273	188.58	3.51	0
C2	J2	205.396	0.013	0	0	1	RECT_CLOSED	9	2		0.00487	212.55	6.21	0
C3	J9	63.024	0.01	0	0	0	DUMMY	0	1		0.00539	93.83	0	0

Table 2B: Conduits Report

Name	Contributing Imp. Area (ac)	Description
C1	0	
C1_1	0	
C1_2	0	
C2	0	
C3	0	

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Table 3: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J6	YES	785.6	786.6		785.6	63.7	63.7	0	0	0		1.04
OF1	NO	777.16	795		785	0	93.83	0	0	0		5.84

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Table 4: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
J4	778	795	17	TABULAR	0.82	3.91	781.91	262.99	1.25	5.89	13.09	1	0	0	

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Table 5: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	J4	J9	TRANSVERSE	6	150	0	11	3.33	0	0	

Table 6: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J1	NO	870	871	1	0	870	0	0	0	0		1
J2	YES	794	812	18	5	795.46	212.87	212.87	0	0		1
J3	NO	793	812	19	0	794.4	0	212.55	0	0		1
J5	NO	848.5	849.5	1	0	848.5	0	0	0	0		1
J7	NO	795	796	1	0	795	0	0	0	0		1
J8	NO	785	790	5	0	787.14	0	209.2	0	0		1
J9	NO	777.5	795	17.5	0	777.91	0	93.83	0	0		1

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PCSWMM Report

DRAFT

PreDevelopment 10Yr 6 Hour

Model Rubidoux Existing Conditions.inp

Kimley-Horn and Associates Inc.

May 31, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas Pre 3
Table 2A: Conduits Report 3
Table 2B: Conduits Report 3
Table 3: Outfalls Report 4
Table 4: Storages 5
Table 5: Weirs 6
Table 6: Junctions 1D 6

DRAFT

Table 1: AES Drainage Areas Pre

NAME	AREA	Impervious Area Fraction	Upstream Node	Downstream Node	Longest Watercourse	Length From Centroid	Elevation Difference	Watershed N Value	SGRAPH	Slope of Intensity Curve	Depth Adjustment Factor
Area A	308.71	0.25	100	101	4582	2749	76	.015	Foothill	0.55	1
Area B	121.08	0.00	104	105	3781	2268	62.9	.03	Foothill	0.55	1.00
Area C	136.7	0.00	106	103	2948	1768	14.7	.03	Foothill	0.55	1.00

Table 2A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)
C1	J4	77.166	0.013	0	0	0.5	CIRCULAR	3	1		0.00648	91.43	25.95	0
C1_1	J3	925.789	0.024	0	0	0	TRAPEZOIDAL	5	1		0.00864	180.94	4.85	0
C1_2	J8	2565.133	0.024	0	0	0	TRAPEZOIDAL	10	1		0.00273	163.09	3.12	0
C2	J2	205.396	0.013	0	0	1	RECT_CLOSED	9	2		0.00487	183.98	5.91	0
C3	J9	63.024	0.01	0	0	0	DUMMY	0	1		0.00539	91.43	0	0

Table 2B: Conduits Report

Name	Contributing Imp. Area (ac)	Description
C1	0	
C1_1	0	
C1_2	0	
C2	0	
C3	0	

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Table 3: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J6	YES	785.6	786.6		785.6	52.25	52.25	0	0	0		1.1
OF1	NO	777.16	795		785	0	91.43	0	0	0		7.15

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Table 4: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
J4	778	795	17	TABULAR	0.92	3.7	781.7	224.07	1.34	7.19	13.3	1	0	0	

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Table 5: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	J4	J9	TRANSVERSE	6	150	0	11	3.33	0	0	

Table 6: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J1	NO	870	871	1	0	870	0	0	0	0		1
J2	YES	794	812	18	5	795.31	184.44	184.44	0	0		1
J3	NO	793	812	19	0	794.29	0	183.98	0	0		1
J5	NO	848.5	849.5	1	0	848.5	0	0	0	0		1
J7	NO	795	796	1	0	795	0	0	0	0		1
J8	NO	785	790	5	0	786.97	0	180.94	0	0		1
J9	NO	777.5	795	17.5	0	777.91	0	91.43	0	0		1

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PCSWMM Report

DRAFT

PreDevelopment 10Yr 24 Hour

Model Rubidoux Existing Conditions.inp

Kimley-Horn and Associates Inc.

May 31, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas Pre 3
Table 2A: Conduits Report 3
Table 2B: Conduits Report 3
Table 3: Outfalls Report 4
Table 4: Storages 5
Table 5: Weirs 6
Table 6: Junctions 1D 6

DRAFT

Table 1: AES Drainage Areas Pre

NAME	AREA	Impervious Area Fraction	Upstream Node	Downstream Node	Longest Watercourse	Length From Centroid	Elevation Difference	Watershed N Value	SGRAPH	Slope of Intensity Curve	Depth Adjustment Factor
Area A	308.71	0.25	100	101	4582	2749	76	.015	Foothill	0.55	1
Area B	121.08	0.00	104	105	3781	2268	62.9	.03	Foothill	0.55	1.00
Area C	136.7	0.00	106	103	2948	1768	14.7	.03	Foothill	0.55	1.00

Table 2A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)
C1	J4	77.166	0.013	0	0	0.5	CIRCULAR	3	1		0.00648	44.33	16.85	0
C1_1	J3	925.789	0.024	0	0	0	TRAPEZOIDAL	5	1		0.00864	46.79	2.88	0
C1_2	J8	2565.133	0.024	0	0	0	TRAPEZOIDAL	10	1		0.00273	45.97	1.75	0
C2	J2	205.396	0.013	0	0	1	RECT_CLOSED	9	2		0.00487	46.83	3.71	0
C3	J9	63.024	0.01	0	0	0	DUMMY	0	1		0.00539	44.33	0	0

Table 2B: Conduits Report

Name	Contributing Imp. Area (ac)	Description
C1	0	
C1_1	0	
C1_2	0	
C2	0	
C3	0	

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Table 3: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J6	YES	785.6	786.6		785.6	5.59	5.59	0	0	0		1.01
OF1	NO	777.16	795		785	0	44.33	0	0	0		10.5

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Table 4: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
J4	778	795	17	TABULAR	0.72	2.08	780.08	55.03	1.18	10.5	14.92	0	0	0	

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Table 5: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	J4	J9	TRANSVERSE	6	150	0	11	3.33	0	0	

Table 6: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J1	NO	870	871	1	0	870	0	0	0	0		1
J2	YES	794	812	18	5	794.48	46.79	46.79	0	0		1
J3	NO	793	812	19	0	793.58	0	46.83	0	0		1
J5	NO	848.5	849.5	1	0	848.5	0	0	0	0		1
J7	NO	795	796	1	0	795	0	0	0	0		1
J8	NO	785	790	5	0	785.95	0	46.79	0	0		1
J9	NO	777.5	795	17.5	0	777.82	0	44.33	0	0		1

DRAFT

PCSWMM Report

DRAFT

PostDevelopment 10Yr 1 Hour

Model Rubidoux Proposed Conditions.inp

Kimley-Horn and Associates Inc.

June 15, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas 3
Table 2: Orifices 4
Table 3A: Conduits Report 4
Table 3B: Conduits Report 6
Table 4: Outfalls Report 8
Table 5: Storages 9
Table 6: Weirs 10
Table 7: Junctions 1D 10

DRAFT

Table 1: AES Drainage Areas

NAME	AREA
Area S.7.c.	0.54
Area S.7.b.	0.38
Area S.2.c.	1.57
Area S.2.a.	0.87
Area S.2.b.	1.09
Area S.4.	3.42
Area S.7.a.	1.44
Area S.6.	3.88
Area S.5.a	1.30
Area S.5.b.	1.97
Area B.4.	4.71
Area S.3.	1.69
Area B.1.c.	3.40
Area B.1.b.	2.29
Area B.5.	8.52
Area B.2.c.	31.41
Area B.7.	2.69
Area S.1	0.77
Area B.2.b.	21.47
Area B.3.	2.36
Area C.2	28.00
Area B.6.	9.35
Area B.2.a.	25.31
Area B.1.a	2.18
Area B.1.d.	15.68
Area C.1	72.36
Area A	308.71

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Table 2: Orifices

Name	Inlet Node	Outlet Node	Type	Cross-Section	Height (ft)	Inlet Offset (ft)	Discharge Coeff.	Flap Gate	Max. |Flow| (cfs)
OR1	SU1	70	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR10	SU14	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	YES	0
OR11	SU13	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR13	SU9	90	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR14	SU8	133	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR15	SU15	J4	SIDE	CIRCULAR	3	0	0.65	NO	71.91
OR2	SU2	73	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR3	SU3	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR4	SU5	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR5	SU6	78	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR6	SU4	80	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR7	SU7	82	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR8	SU11	92	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR9	SU10	92	SIDE	CIRCULAR	0.65	0	0.65	NO	3.12

Table 3A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C1	J3	59.834	0.025	0	0	0	RECT_OPEN	6	1	
C10	J28	1617.564	0.013	0	0	0.5	CIRCULAR	4	1	
C11	J32	656.105	0.01	0	0	0	CIRCULAR	2	1	
C12	J30	224.87	0.01	0	0	0	DUMMY	0	1	
C13	J19	27.937	0.01	0	0	0	DUMMY	0	1	
C14	J21	40.164	0.01	0	0	0	DUMMY	0	1	
C15	J22	238.647	0.01	0	0	0	CIRCULAR	1.5	1	
C16	J23	2089.708	0.013	0	0	0.5	RECT_CLOSED	4	1	
C17	J26	690.03	0.013	0	0	0.5	CIRCULAR	3.5	1	
C18	J4	15.862	0.01	0	0	0	CIRCULAR	3	1	
C19	128	145.306	0.01	0	0	0	DUMMY	0	1	
C2	J2	197.281	0.013	0	0	1	RECT_CLOSED	9	2	
C20	122	141.03	0.01	0	0	0	DUMMY	0	1	
C3	J3	62.706	0.025	0	0	0	RECT_OPEN	6	1	
C4	J10	48.065	0.01	0	0	0	DUMMY	0	1	
C5	J12	38.438	0.01	0	0	0	DUMMY	0	1	
C6	J13	46.177	0.01	0	0	0	DUMMY	0	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C7	J15	767.982	0.013	0	0	0.5	CIRCULAR	3	1	
C8	J16	1290.738	0.01	0	0	0	CIRCULAR	3	1	
C9	J14	809.99	0.01	0	0	0	CIRCULAR	2.5	1	
PIPE_-101	117	50.357	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-102	118	52.595	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-103	119	691.84	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-104	120	63.638	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105	121	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105_(1)	142	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-106	123	49.239	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-107	124	47.059	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-108	125	690.51	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-109	126	73.537	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110	127	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110_(1)	137	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-111	129	323.894	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-112	130	193.054	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-113	131	210.946	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-114	132	62.943	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-115	133	70.858	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-117	138	53.74	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-118	139	73.538	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-119	143	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-120	144	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-59	69	272.938	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-60	70	44.563	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-61	71	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-62	72	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-63	73	88.222	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-64	74	35.138	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-65	75	287.159	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-66	76	287.158	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-67	77	219.443	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-68	78	219.443	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-69	79	50.65	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-70	80	106.481	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-71	81	120.477	0.013	0	0	0.5	CIRCULAR	2	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
PIPE_-72	83	124.993	0.013	0	0	0.5	RECT_CLOSED	2	1	
PIPE_-73	84	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-74	85	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-75	86	83.535	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-76	87	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-77	102	309.74	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-77_(1)	88	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-78	89	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-79	90	435.736	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-80	92	136.34	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-81	93	142.205	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-82	94	255.962	0.013	3.7	0	0.5	RECT_CLOSED	2	1	
PIPE_-83	82	305.558	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-89	101	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
W2	94	344.214	0.01	0	0	0	RECT_CLOSED	2	1	

Table 3B: Conduits Report

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C1	0.02508	196.52	10.26	0	0	
C10	0.00371	51.78	11.58	0	0	
C11	0.01524	15.87	13.57	0	0	
C12	0.00076	8.35	0	0	0	
C13	0.18191	4.04	0	0	0	
C14	0.12547	8.08	0	0	0	
C15	0.02934	2.6	2.29	0	0	
C16	0.00335	115.17	11.92	0	0	
C17	0.00435	47.06	12.29	0	0	
C18	0.02144	104.65	14.8	0	0	
C19	0.01115	201.68	0	0	0	
C2	0.00507	393.81	5.82	0	0	Ex Box Culvert
C20	0.01149	206.68	0	0	0	
C3	0.02393	194.28	10.2	0	0	
C4	0.10459	3.73	0	0	0	
C5	0.13119	3.9	0	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C6	0.13105	5.82	0	0	0	
C7	0.01563	42.65	16.47	0	0	
C8	0.01007	35.88	16.23	0	0	
C9	0.00741	26.42	13.48	0	0	
PIPE_-101	0.00238	196.14	6.04	0	0	
PIPE_-102	0.00209	195.52	6.73	0	0	
PIPE_-103	0.00236	193.9	7.14	0	0	
PIPE_-104	0.00251	185.44	7.4	0	0	
PIPE_-105	0.00234	181.15	7.27	0	0	
PIPE_-105_(1)	0.00223	206.18	24.28	0	0	
PIPE_-106	0.00244	193.89	6.03	0	0	
PIPE_-107	0.00234	193.26	6.7	0	0	
PIPE_-108	0.00235	191.77	7.1	0	0	
PIPE_-109	0.00231	183.49	7.37	0	0	
PIPE_-110	0.00234	179.17	7.27	0	0	
PIPE_-110_(1)	0.00223	201.18	23.91	0	0	
PIPE_-111	0.03661	5.76	4.64	0	0	
PIPE_-112	0.03592	0	0	0	0	
PIPE_-113	0.03596	0	0	0	0	
PIPE_-114	0.03593	0	0	0	0	
PIPE_-115	0.03601	0	0	0	0	
PIPE_-117	0.00279	187.89	9.66	0	0	
PIPE_-118	0.00258	181.54	7.22	0	0	
PIPE_-119	0.00236	188.39	9.6	0	0	
PIPE_-120	0.00299	184.47	7.33	0	0	
PIPE_-59	0.0461	0	0	0	0	
PIPE_-60	0.04605	1.28	3.98	0	0	
PIPE_-61	0.0035	1.27	2.68	0	0	
PIPE_-62	0.00303	1.24	1.81	0	0	
PIPE_-63	0.00306	2.63	2.89	0	0	
PIPE_-64	0.00285	2.61	3.07	0	0	
PIPE_-65	0.00303	2.58	2.53	0	0	
PIPE_-66	0.00303	4.16	3.44	0	0	
PIPE_-67	0.00301	4.12	3.65	0	0	
PIPE_-68	0.00301	3.81	2.5	0	0	
PIPE_-69	0.00316	3.81	1.96	0	0	
PIPE_-70	0.00291	5.41	3.89	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
PIPE_-71	0.01004	5.39	2.23	0	0	
PIPE_-72	0.0184	16.41	2.79	0	0	
PIPE_-73	0.00309	8.55	6.39	0	0	
PIPE_-74	0.00306	8.61	4.19	0	0	
PIPE_-75	0.00299	8.65	3.99	0	0	
PIPE_-76	0.00301	8.78	3.93	0	0	
PIPE_-77	0.003	6.25	3.71	0	0	
PIPE_-77_(1)	0.00299	7.35	4.35	0	0	
PIPE_-78	0.00299	7.85	4.59	0	0	
PIPE_-79	0.01591	0.15	0.17	0	0	
PIPE_-80	0.00301	27.22	5.38	0	0	
PIPE_-81	0.00302	3.97	1.08	0	0	
PIPE_-82	0.01751	4.15	1.23	0	0	
PIPE_-83	0.00301	26.96	4.78	0	0	
PIPE_-89	0.00301	8.71	3.87	0	0	
W2	0.00177	23.02	2.88	0	0	

Table 4: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J17	YES	838	839		838	2.88	2.88	0	0	0		0.03
J6	NO	774.99	781		776.73	0	27.22	0	0	0		0.376
OF1	NO	777.16	795		785	0	104.65	0	0	0		1.88

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Table 5: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
SU1	794	799	5	TABULAR	0.72	0.99	794.99	3.73	0	0.038	4.01	20	0	0	Future Basin
SU11	776	781	5	TABULAR	0.7	0.97	776.97	15.87	0	0.166	4.03	19	0	0	Future Basin
SU13	787	792	5	TABULAR	0.69	0.95	787.95	115.17	0	1.28	4.05	19	0	0	Future Basin
SU14	785	790	5	TABULAR	0.71	0.98	785.98	47.06	0	0.496	4.02	20	0	0	Future Basin
SU15	782	790	8	TABULAR	2.92	3.24	785.24	411.24	0	4.71	9.76	37	0	0	RCFC Basin
SU2	788	793	5	TABULAR	0.71	0.98	788.98	3.9	0	0.04	4.02	20	0	0	Future Basin
SU3	784	790	6	TABULAR	0.72	0.99	784.99	5.82	0	0.06	5.01	16	0	0	Future Basin
SU4	781	786	5	TABULAR	0.7	0.97	781.97	26.42	0	0.278	4.03	19	0	0	Future Basin
SU5	787	792	5	TABULAR	0.71	0.98	787.98	42.65	0	0.448	4.02	20	0	0	Future Basin
SU6	782	787	5	TABULAR	0.7	0.96	782.96	35.88	0	0.381	4.04	19	0	0	Future Basin
SU7	780	785	5	TABULAR	0.74	1	781	51.78	0	0.582	4	20	0	0	Future Basin
SU8	824	829	5	TABULAR	0.72	0.99	824.99	4.04	0	0.042	4.01	20	0	0	Future Basin
SU9	796	801	5	TABULAR	0.72	0.99	796.99	8.08	0	0.083	4.01	20	0	0	Future Basin
SU10	776	781	5	TABULAR	0.26	4.3	780.3	23.02	0	0.356	1.2	86	0	0	Streets Basin

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Table 6: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	SU15	J4	TRANSVERSE	6	150	0	7	3.33	0	0	
W3	SU10	92	TRANSVERSE	2.5	4	0	3	3.33	19.8	0.52	

Table 7: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
101	NO	783.36	791.999	8.639	0	784.71	0	8.78	0	0		1
102	NO	784.82	794.636	9.816	0	786.31	0	7.35	0	0		1
117	NO	791.5	798	6.5	0	794.89	0	196.52	0	0		1
118	NO	791.38	803.5	12.12	0	794.5	0	196.14	0	0		1
119	NO	791.27	803.5	12.23	0	794.02	0	195.52	0	0		1
120	NO	789.64	803.5	13.86	0	792.46	0	193.9	0	0		1
121	NO	789.48	803.1	13.62	0	791.95	0	185.44	0	0		1
122	NO	783.62	789	5.38	0	783.64	0	206.18	0	0		1
123	NO	791.5	798	6.5	0	794.86	0	194.28	0	0		1
124	NO	791.38	803.5	12.12	0	794.47	0	193.89	0	0		1
125	NO	791.27	803.5	12.23	0	794	0	193.26	0	0		1
126	NO	789.65	803.5	13.85	0	792.45	0	191.77	0	0		1
127	NO	789.48	803.1	13.62	0	791.93	0	183.49	0	0		1
128	NO	783.62	789	5.38	0	783.63	0	201.18	0	0		1
129	YES	799.45	806.592	7.142	0	800	5.85	5.85	0	0		0.171
130	NO	806.38	814.314	7.934	0	806.38	0	0	0	0		1
131	NO	813.96	822.712	8.752	0	813.96	0	0	0	0		1
132	NO	816.22	825	8.78	0	816.22	0	0	0	0		1
133	NO	818.77	828	9.23	0	818.77	0	0	0	0		1
137	NO	783.8	790.5	6.7	0	786.02	0	187.89	0	0		1
138	NO	783.95	791	7.05	0	786.59	0	181.54	0	0		1
139	NO	784.14	791.2	7.06	0	786.86	0	179.17	0	0		1
142	NO	783.8	790.5	6.7	0	786.01	0	188.39	0	0		1
143	NO	783.95	791	7.05	0	786.63	0	184.47	0	0		1
144	NO	784.14	791.2	7.06	0	786.86	0	181.15	0	0		1
69	NO	798.23	808.924	10.694	0	798.23	0	0	0	0		1
70	YES	785.66	801	15.34	0	785.9	1.3	1.3	0	0		0.038
71	NO	783.61	799.185	15.575	0	784.09	0	1.28	0	0		1
72	NO	783.09	793.562	10.472	0	783.56	0	1.27	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
73	YES	782.64	790.823	8.183	0	783.41	1.51	2.66	0	0		0.044
74	NO	782.37	790.3	7.93	0	783.14	0	2.63	0	0		1
75	NO	782.27	790.213	7.943	0	782.97	0	2.61	0	0		1
76	YES	781.4	788.716	7.316	0	782.38	1.85	4.23	0	0		0.054
77	NO	780.53	787.219	6.689	0	781.51	0	4.16	0	0		1
78	NO	779.87	786.135	6.265	0	781.01	0	4.12	0	0		1
79	NO	779.21	785	5.79	0	780.94	0	3.81	0	0		1
80	YES	779.05	784.799	5.749	0	780.92	2.67	5.45	0	0		0.078
81	NO	778.74	784.1	5.36	0	780.85	0	5.41	0.11	0		1
82	YES	777.53	783.678	6.148	0	780.76	9.1	27	0	0		0.266
83	NO	779.83	783.143	3.313	0	780.78	0	16.41	0	0		1
84	NO	781.21	785.539	4.329	0	782.46	0	8.61	0	0		1
85	NO	782.58	789.954	7.374	0	783.85	0	8.65	0	0		1
86	NO	782.83	791	8.17	0	784.19	0	8.71	0	0		1
87	YES	783.89	793	9.11	0	785.24	3.35	8.85	0	0		0.098
88	NO	786.21	797.158	10.948	0	794.07	0	7.85	6.363	0		1
89	YES	787.6	799.681	12.081	0	799.68	2.22	7.95	10.581	0		0.065
90	NO	794.53	802.046	7.516	0	794.53	0	0.15	0	0		1
92	YES	775.4	781.023	5.623	0	777.31	0.92	27.23	0	0		0.027
93	NO	775.83	781.99	6.16	0	777.31	0	4.15	0	0		1
94	YES	776.61	783	6.39	0	780.52	0.65	27.32	0	0		0.019
J1	NO	870	871	1	0	870	0	0	0	0		1
J10	YES	799	799	0	0	799	3.73	3.73	0	0		0.109
J11	NO	793	794	1	0	793	0	0	0	0		1
J12	YES	793	794	1	0	793	3.9	3.9	0	0		0.114
J13	YES	790	791	1	0	790	5.82	5.82	0	0		0.17
J14	YES	787	792	5	0	788.51	26.83	26.83	0	0		0.784
J15	YES	799	804	5	0	800.77	43.33	43.33	0	0		1.266
J16	YES	795	800	5	0	796.52	36.76	36.76	0	0		1.074
J18	NO	806	807	1	0	806	0	0	0	0		1
J19	YES	829	830	1	0	829	4.04	4.04	0	0		0.118
J2	YES	794	812	18	5	796.66	397.92	397.92	0	0		1
J20	NO	802	803	1	0	802	0	0	0	0		1
J21	YES	801	802	1	0	801	8.08	8.08	0	0		0.236
J22	YES	793	798	5	0	793.34	2.62	2.62	0	0		0.022
J23	YES	794	803	9	0	796.68	123.84	123.84	0	0		3.618
J24	NO	794	795	1	0	794	0	0	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J25	NO	833	834	1	0	833	0	0	0	0		1
J26	YES	788	793	5	0	790.35	47.92	47.92	0	0		1.4
J27	NO	795	796	1	0	795	0	0	0	0		1
J28	YES	786	793	7	0	788.51	53.74	55.37	0	0		1.57
J29	NO	792	793	1	0	792	0	0	0	0		1
J3	NO	793	812	19	0	796	0	393.81	0	0		1
J30	YES	780	785	5	0	780	8.35	8.35	0	0		0.07
J31	NO	805	806	1	0	805	0	0	0	0		1
J32	YES	786	791	5	0	787	16.02	16.02	0	0		0.468
J33	NO	799	800	1	0	799	0	0	0	0		1
J34	NO	792	793	1	0	792	0	0	0	0		1
J37	NO	787.5	788.5	1	0	787.5	0	0	0	0		1
J4	NO	777.5	795	17.5	0	787.26	0	104.65	0	0		1
J5	NO	800	801	1	0	800	0	0	0	0		1
J7	NO	792	793	1	0	792	0	0	0	0		1
J8	NO	803	804	1	0	803	0	0	0	0		1
J9	NO	845	846	1	0	845	0	0	0	0		1

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PCSWMM Report

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PostDevelopment 10Yr 3 Hour

Model Rubidoux Proposed Conditions.inp

Kimley-Horn and Associates Inc.

June 15, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas 3
Table 2: Orifices 4
Table 3A: Conduits Report 4
Table 3B: Conduits Report 6
Table 4: Outfalls Report 8
Table 5: Storages 9
Table 6: Weirs 10
Table 7: Junctions 1D 10

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Table 1: AES Drainage Areas

NAME	AREA
Area S.7.c.	0.54
Area S.7.b.	0.38
Area S.2.c.	1.57
Area S.2.a.	0.87
Area S.2.b.	1.09
Area S.4.	3.42
Area S.7.a.	1.44
Area S.6.	3.88
Area S.5.a	1.30
Area S.5.b.	1.97
Area B.4.	4.71
Area S.3.	1.69
Area B.1.c.	3.40
Area B.1.b.	2.29
Area B.5.	8.52
Area B.2.c.	31.41
Area B.7.	2.69
Area S.1	0.77
Area B.2.b.	21.47
Area B.3.	2.36
Area C.2	28.00
Area B.6.	9.35
Area B.2.a.	25.31
Area B.1.a	2.18
Area B.1.d.	15.68
Area C.1	72.36
Area A	308.71

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Table 2: Orifices

Name	Inlet Node	Outlet Node	Type	Cross-Section	Height (ft)	Inlet Offset (ft)	Discharge Coeff.	Flap Gate	Max. |Flow| (cfs)
OR1	SU1	70	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR10	SU14	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	YES	0
OR11	SU13	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR13	SU9	90	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR14	SU8	133	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR15	SU15	J4	SIDE	CIRCULAR	3	0	0.65	NO	71.91
OR2	SU2	73	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR3	SU3	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR4	SU5	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR5	SU6	78	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR6	SU4	80	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR7	SU7	82	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR8	SU11	92	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR9	SU10	92	SIDE	CIRCULAR	0.65	0	0.65	NO	3.09

Table 3A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C1	J3	59.834	0.025	0	0	0	RECT_OPEN	6	1	
C10	J28	1617.564	0.013	0	0	0.5	CIRCULAR	4	1	
C11	J32	656.105	0.01	0	0	0	CIRCULAR	2	1	
C12	J30	224.87	0.01	0	0	0	DUMMY	0	1	
C13	J19	27.937	0.01	0	0	0	DUMMY	0	1	
C14	J21	40.164	0.01	0	0	0	DUMMY	0	1	
C15	J22	238.647	0.01	0	0	0	CIRCULAR	1.5	1	
C16	J23	2089.708	0.013	0	0	0.5	RECT_CLOSED	4	1	
C17	J26	690.03	0.013	0	0	0.5	CIRCULAR	3.5	1	
C18	J4	15.862	0.01	0	0	0	CIRCULAR	3	1	
C19	128	145.306	0.01	0	0	0	DUMMY	0	1	
C2	J2	197.281	0.013	0	0	1	RECT_CLOSED	9	2	
C20	122	141.03	0.01	0	0	0	DUMMY	0	1	
C3	J3	62.706	0.025	0	0	0	RECT_OPEN	6	1	
C4	J10	48.065	0.01	0	0	0	DUMMY	0	1	
C5	J12	38.438	0.01	0	0	0	DUMMY	0	1	
C6	J13	46.177	0.01	0	0	0	DUMMY	0	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C7	J15	767.982	0.013	0	0	0.5	CIRCULAR	3	1	
C8	J16	1290.738	0.01	0	0	0	CIRCULAR	3	1	
C9	J14	809.99	0.01	0	0	0	CIRCULAR	2.5	1	
PIPE_-101	117	50.357	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-102	118	52.595	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-103	119	691.84	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-104	120	63.638	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105	121	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105_(1)	142	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-106	123	49.239	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-107	124	47.059	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-108	125	690.51	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-109	126	73.537	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110	127	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110_(1)	137	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-111	129	323.894	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-112	130	193.054	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-113	131	210.946	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-114	132	62.943	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-115	133	70.858	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-117	138	53.74	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-118	139	73.538	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-119	143	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-120	144	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-59	69	272.938	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-60	70	44.563	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-61	71	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-62	72	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-63	73	88.222	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-64	74	35.138	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-65	75	287.159	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-66	76	287.158	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-67	77	219.443	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-68	78	219.443	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-69	79	50.65	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-70	80	106.481	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-71	81	120.477	0.013	0	0	0.5	CIRCULAR	2	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
PIPE_-72	83	124.993	0.013	0	0	0.5	RECT_CLOSED	2	1	
PIPE_-73	84	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-74	85	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-75	86	83.535	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-76	87	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-77	102	309.74	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-77_(1)	88	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-78	89	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-79	90	435.736	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-80	92	136.34	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-81	93	142.205	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-82	94	255.962	0.013	3.7	0	0.5	RECT_CLOSED	2	1	
PIPE_-83	82	305.558	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-89	101	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
W2	94	344.214	0.01	0	0	0	RECT_CLOSED	2	1	

Table 3B: Conduits Report

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C1	0.02508	106.63	8.74	0	0	
C10	0.00371	32.16	7.55	0	0	
C11	0.01524	9.31	10.13	0	0	
C12	0.00076	4.46	0	0	0	
C13	0.18191	2.36	0	0	0	
C14	0.12547	4.72	0	0	0	
C15	0.02934	1.4	1.31	0	0	
C16	0.00335	71.06	7.98	0	0	
C17	0.00435	27.85	7.8	0	0	
C18	0.02144	104.65	14.8	0	0	
C19	0.01115	118.89	0	0	0	
C2	0.00507	212.22	5.19	0	0	Ex Box Culvert
C20	0.01149	120.13	0	0	0	
C3	0.02393	105.08	8.68	0	0	
C4	0.10459	2.18	0	0	0	
C5	0.13119	2.28	0	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C6	0.13105	3.4	0	0	0	
C7	0.01563	25.25	11.18	0	0	
C8	0.01007	21.25	10.95	0	0	
C9	0.00741	15.55	9.22	0	0	
PIPE_-101	0.00238	106.58	5.05	0	0	
PIPE_-102	0.00209	106.5	5.63	0	0	
PIPE_-103	0.00236	106.01	5.83	0	0	
PIPE_-104	0.00251	104.95	6.01	0	0	
PIPE_-105	0.00234	103.4	6.01	0	0	
PIPE_-105_(1)	0.00223	119.96	18.63	0	0	
PIPE_-106	0.00244	105.03	5.04	0	0	
PIPE_-107	0.00234	104.94	5.61	0	0	
PIPE_-108	0.00235	104.46	5.79	0	0	
PIPE_-109	0.00231	103.5	5.97	0	0	
PIPE_-110	0.00234	101.8	5.97	0	0	
PIPE_-110_(1)	0.00223	118.73	18.6	0	0	
PIPE_-111	0.03661	3.4	4.03	0	0	
PIPE_-112	0.03592	0	0	0	0	
PIPE_-113	0.03596	0	0	0	0	
PIPE_-114	0.03593	0	0	0	0	
PIPE_-115	0.03601	0	0	0	0	
PIPE_-117	0.00279	113.23	7.81	0	0	
PIPE_-118	0.00258	107.02	6.1	0	0	
PIPE_-119	0.00236	110.69	7.77	0	0	
PIPE_-120	0.00299	108.57	6.17	0	0	
PIPE_-59	0.0461	0	0	0	0	
PIPE_-60	0.04605	0.76	3.43	0	0	
PIPE_-61	0.0035	0.75	2.3	0	0	
PIPE_-62	0.00303	0.75	1.59	0	0	
PIPE_-63	0.00306	1.61	2.55	0	0	
PIPE_-64	0.00285	1.61	2.65	0	0	
PIPE_-65	0.00303	1.6	2.26	0	0	
PIPE_-66	0.00303	2.64	3.07	0	0	
PIPE_-67	0.00301	2.63	3.35	0	0	
PIPE_-68	0.00301	2.55	2.26	0	0	
PIPE_-69	0.00316	2.58	1.82	0	0	
PIPE_-70	0.00291	3.81	3.11	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
PIPE_-71	0.01004	3.77	1.81	0	0	
PIPE_-72	0.0184	10.56	2.11	0	0	
PIPE_-73	0.00309	6.15	6.19	0	0	
PIPE_-74	0.00306	6.17	3.83	0	0	
PIPE_-75	0.00299	6.17	3.68	0	0	
PIPE_-76	0.00301	6.18	3.64	0	0	
PIPE_-77	0.003	4.49	3.42	0	0	
PIPE_-77_(1)	0.00299	4.54	3.52	0	0	
PIPE_-78	0.00299	4.57	3.52	0	0	
PIPE_-79	0.01591	0	0	0	0	
PIPE_-80	0.00301	18.96	4.91	0	0	
PIPE_-81	0.00302	0.53	0.33	0	0	
PIPE_-82	0.01751	0	0	0	0	
PIPE_-83	0.00301	18.56	4.24	0	0	
PIPE_-89	0.00301	6.18	3.58	0	0	
W2	0.00177	18.76	2.35	0	0	

Table 4: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J17	YES	838	839		838	1.68	1.68	0	0	0		0.048
J6	NO	774.99	781		776.41	0	18.96	0	0	0		0.562
OF1	NO	777.16	795		785	0	104.65	0	0	0		5.11

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Table 5: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
SU1	794	799	5	TABULAR	1.24	1.6	795.6	2.18	0	0.062	3.4	32	0	0	Future Basin
SU11	776	781	5	TABULAR	1.22	1.56	777.56	9.31	0	0.268	3.44	31	0	0	Future Basin
SU13	787	792	5	TABULAR	1.2	1.54	788.54	71.06	0	2.07	3.46	31	0	0	Future Basin
SU14	785	790	5	TABULAR	1.23	1.58	786.58	27.85	0	0.803	3.42	32	0	0	Future Basin
SU15	782	790	8	TABULAR	2.95	4.38	786.38	232.45	0	6.97	8.62	50	0	0	RCFC Basin
SU2	788	793	5	TABULAR	1.24	1.59	789.59	2.28	0	0.065	3.41	32	0	0	Future Basin
SU3	784	790	6	TABULAR	1.24	1.6	785.6	3.4	0	0.097	4.4	27	0	0	Future Basin
SU4	781	786	5	TABULAR	1.22	1.56	782.56	15.55	0	0.45	3.44	31	0	0	Future Basin
SU5	787	792	5	TABULAR	1.23	1.58	788.58	25.25	0	0.726	3.42	32	0	0	Future Basin
SU6	782	787	5	TABULAR	1.21	1.55	783.55	21.25	0	0.617	3.45	31	0	0	Future Basin
SU7	780	785	5	TABULAR	1.24	1.59	781.59	32.16	0	0.926	3.41	32	0	0	Future Basin
SU8	824	829	5	TABULAR	1.24	1.6	825.6	2.36	0	0.068	3.4	32	0	0	Future Basin
SU9	796	801	5	TABULAR	1.25	1.6	797.6	4.72	0	0.135	3.4	32	0	0	Future Basin
SU10	776	781	5	TABULAR	0.45	4.11	780.11	18.76	0	0.549	1.39	82	0	0	Streets Basin

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Table 6: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	SU15	J4	TRANSVERSE	6	150	0	7	3.33	0	0	
W3	SU10	92	TRANSVERSE	2.5	4	0	3	3.33	15.54	0.44	

Table 7: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
101	NO	783.36	791.999	8.639	0	784.43	0	6.18	0	0		1
102	NO	784.82	794.636	9.816	0	785.85	0	4.54	0	0		1
117	NO	791.5	798	6.5	0	793.7	0	106.63	0	0		1
118	NO	791.38	803.5	12.12	0	793.41	0	106.58	0	0		1
119	NO	791.27	803.5	12.23	0	793.04	0	106.5	0	0		1
120	NO	789.64	803.5	13.86	0	791.53	0	106.01	0	0		1
121	NO	789.48	803.1	13.62	0	791.11	0	104.95	0	0		1
122	NO	783.62	789	5.38	0	783.63	0	119.96	0	0		1
123	NO	791.5	798	6.5	0	793.67	0	105.08	0	0		1
124	NO	791.38	803.5	12.12	0	793.38	0	105.03	0	0		1
125	NO	791.27	803.5	12.23	0	793.02	0	104.94	0	0		1
126	NO	789.65	803.5	13.85	0	791.52	0	104.46	0	0		1
127	NO	789.48	803.1	13.62	0	791.09	0	103.5	0	0		1
128	NO	783.62	789	5.38	0	783.64	0	118.73	0	0		1
129	YES	799.45	806.592	7.142	0	799.87	3.42	3.42	0	0		0.171
130	NO	806.38	814.314	7.934	0	806.38	0	0	0	0		1
131	NO	813.96	822.712	8.752	0	813.96	0	0	0	0		1
132	NO	816.22	825	8.78	0	816.22	0	0	0	0		1
133	NO	818.77	828	9.23	0	818.77	0	0	0	0		1
137	NO	783.8	790.5	6.7	0	785.36	0	113.23	0	0		1
138	NO	783.95	791	7.05	0	785.8	0	107.02	0	0		1
139	NO	784.14	791.2	7.06	0	786.05	0	101.8	0	0		1
142	NO	783.8	790.5	6.7	0	785.36	0	110.69	0	0		1
143	NO	783.95	791	7.05	0	785.82	0	108.57	0	0		1
144	NO	784.14	791.2	7.06	0	786.06	0	103.4	0	0		1
69	NO	798.23	808.924	10.694	0	798.23	0	0	0	0		1
70	YES	785.66	801	15.34	0	785.85	0.76	0.76	0	0		0.038
71	NO	783.61	799.185	15.575	0	783.97	0	0.76	0	0		1
72	NO	783.09	793.562	10.472	0	783.45	0	0.75	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
73	YES	782.64	790.823	8.183	0	783.21	0.88	1.62	0	0		0.044
74	NO	782.37	790.3	7.93	0	782.96	0	1.61	0	0		1
75	NO	782.27	790.213	7.943	0	782.81	0	1.61	0	0		1
76	YES	781.4	788.716	7.316	0	782.13	1.08	2.65	0	0		0.054
77	NO	780.53	787.219	6.689	0	781.27	0	2.64	0	0		1
78	NO	779.87	786.135	6.265	0	780.54	0	2.63	0	0		1
79	NO	779.21	785	5.79	0	780.45	0	2.55	0	0		1
80	YES	779.05	784.799	5.749	0	780.43	1.56	3.9	0	0		0.078
81	NO	778.74	784.1	5.36	0	780.39	0	3.81	0	0		1
82	YES	777.53	783.678	6.148	0	780.36	5.32	18.64	0	0		0.266
83	NO	779.83	783.143	3.313	0	780.34	0	10.56	0	0		1
84	NO	781.21	785.539	4.329	0	782.23	0	6.17	0	0		1
85	NO	782.58	789.954	7.374	0	783.6	0	6.17	0	0		1
86	NO	782.83	791	8.17	0	783.92	0	6.18	0	0		1
87	YES	783.89	793	9.11	0	784.95	1.96	6.19	0	0		0.098
88	NO	786.21	797.158	10.948	0	787.24	0	4.57	0	0		1
89	YES	787.6	799.681	12.081	0	788.64	1.3	4.7	0	0		0.065
90	NO	794.53	802.046	7.516	0	794.53	0	0	0	0		1
92	YES	775.4	781.023	5.623	0	776.94	0.54	19.01	0	0		0.027
93	NO	775.83	781.99	6.16	0	776.94	0	0.42	0	0		1
94	YES	776.61	783	6.39	0	780.25	0.38	18.87	0	0		0.019
J1	NO	870	871	1	0	870	0	0	0	0		1
J10	YES	799	799	0	0	799	2.18	2.18	0	0		0.109
J11	NO	793	794	1	0	793	0	0	0	0		1
J12	YES	793	794	1	0	793	2.28	2.28	0	0		0.114
J13	YES	790	791	1	0	790	3.4	3.4	0	0		0.17
J14	YES	787	792	5	0	788	15.68	15.68	0	0		0.784
J15	YES	799	804	5	0	800.14	25.32	25.32	0	0		1.266
J16	YES	795	800	5	0	796.01	21.48	21.48	0	0		1.074
J18	NO	806	807	1	0	806	0	0	0	0		1
J19	YES	829	830	1	0	829	2.36	2.36	0	0		0.118
J2	YES	794	812	18	5	795.55	212.87	212.87	0	0		1
J20	NO	802	803	1	0	802	0	0	0	0		1
J21	YES	801	802	1	0	801	4.72	4.72	0	0		0.236
J22	YES	793	798	5	0	793.25	1.4	1.4	0	0		0.022
J23	YES	794	803	9	0	795.79	72.36	72.36	0	0		3.618
J24	NO	794	795	1	0	794	0	0	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J25	NO	833	834	1	0	833	0	0	0	0		1
J26	YES	788	793	5	0	789.65	28	28	0	0		1.4
J27	NO	795	796	1	0	795	0	0	0	0		1
J28	YES	786	793	7	0	787.77	31.4	32.67	0	0		1.57
J29	NO	792	793	1	0	792	0	0	0	0		1
J3	NO	793	812	19	0	794.87	0	212.22	0	0		1
J30	YES	780	785	5	0	780	4.46	4.46	0	0		0.07
J31	NO	805	806	1	0	805	0	0	0	0		1
J32	YES	786	791	5	0	786.69	9.36	9.36	0	0		0.468
J33	NO	799	800	1	0	799	0	0	0	0		1
J34	NO	792	793	1	0	792	0	0	0	0		1
J37	NO	787.5	788.5	1	0	787.5	0	0	0	0		1
J4	NO	777.5	795	17.5	0	787.26	0	104.65	0	0		1
J5	NO	800	801	1	0	800	0	0	0	0		1
J7	NO	792	793	1	0	792	0	0	0	0		1
J8	NO	803	804	1	0	803	0	0	0	0		1
J9	NO	845	846	1	0	845	0	0	0	0		1

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PCSWMM Report

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PostDevelopment 10Yr 6 Hour

Model Rubidoux Proposed Conditions.inp

Kimley-Horn and Associates Inc.

June 15, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas 3
Table 2: Orifices 4
Table 3A: Conduits Report 4
Table 3B: Conduits Report 6
Table 4: Outfalls Report 8
Table 5: Storages 9
Table 6: Weirs 10
Table 7: Junctions 1D 10

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Table 1: AES Drainage Areas

NAME	AREA
Area S.7.c.	0.54
Area S.7.b.	0.38
Area S.2.c.	1.57
Area S.2.a.	0.87
Area S.2.b.	1.09
Area S.4.	3.42
Area S.7.a.	1.44
Area S.6.	3.88
Area S.5.a	1.30
Area S.5.b.	1.97
Area B.4.	4.71
Area S.3.	1.69
Area B.1.c.	3.40
Area B.1.b.	2.29
Area B.5.	8.52
Area B.2.c.	31.41
Area B.7.	2.69
Area S.1	0.77
Area B.2.b.	21.47
Area B.3.	2.36
Area C.2	28.00
Area B.6.	9.35
Area B.2.a.	25.31
Area B.1.a	2.18
Area B.1.d.	15.68
Area C.1	72.36
Area A	308.71

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Table 2: Orifices

Name	Inlet Node	Outlet Node	Type	Cross-Section	Height (ft)	Inlet Offset (ft)	Discharge Coeff.	Flap Gate	Max. |Flow| (cfs)
OR1	SU1	70	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR10	SU14	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	YES	0
OR11	SU13	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR13	SU9	90	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR14	SU8	133	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR15	SU15	J4	SIDE	CIRCULAR	3	0	0.65	NO	71.91
OR2	SU2	73	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR3	SU3	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR4	SU5	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR5	SU6	78	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR6	SU4	80	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR7	SU7	82	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR8	SU11	92	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR9	SU10	92	SIDE	CIRCULAR	0.65	0	0.65	NO	3.08

Table 3A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C1	J3	59.834	0.025	0	0	0	RECT_OPEN	6	1	
C10	J28	1617.564	0.013	0	0	0.5	CIRCULAR	4	1	
C11	J32	656.105	0.01	0	0	0	CIRCULAR	2	1	
C12	J30	224.87	0.01	0	0	0	DUMMY	0	1	
C13	J19	27.937	0.01	0	0	0	DUMMY	0	1	
C14	J21	40.164	0.01	0	0	0	DUMMY	0	1	
C15	J22	238.647	0.01	0	0	0	CIRCULAR	1.5	1	
C16	J23	2089.708	0.013	0	0	0.5	RECT_CLOSED	4	1	
C17	J26	690.03	0.013	0	0	0.5	CIRCULAR	3.5	1	
C18	J4	15.862	0.01	0	0	0	CIRCULAR	3	1	
C19	128	145.306	0.01	0	0	0	DUMMY	0	1	
C2	J2	197.281	0.013	0	0	1	RECT_CLOSED	9	2	
C20	122	141.03	0.01	0	0	0	DUMMY	0	1	
C3	J3	62.706	0.025	0	0	0	RECT_OPEN	6	1	
C4	J10	48.065	0.01	0	0	0	DUMMY	0	1	
C5	J12	38.438	0.01	0	0	0	DUMMY	0	1	
C6	J13	46.177	0.01	0	0	0	DUMMY	0	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C7	J15	767.982	0.013	0	0	0.5	CIRCULAR	3	1	
C8	J16	1290.738	0.01	0	0	0	CIRCULAR	3	1	
C9	J14	809.99	0.01	0	0	0	CIRCULAR	2.5	1	
PIPE_-101	117	50.357	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-102	118	52.595	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-103	119	691.84	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-104	120	63.638	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105	121	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105_(1)	142	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-106	123	49.239	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-107	124	47.059	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-108	125	690.51	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-109	126	73.537	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110	127	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110_(1)	137	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-111	129	323.894	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-112	130	193.054	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-113	131	210.946	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-114	132	62.943	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-115	133	70.858	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-117	138	53.74	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-118	139	73.538	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-119	143	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-120	144	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-59	69	272.938	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-60	70	44.563	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-61	71	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-62	72	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-63	73	88.222	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-64	74	35.138	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-65	75	287.159	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-66	76	287.158	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-67	77	219.443	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-68	78	219.443	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-69	79	50.65	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-70	80	106.481	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-71	81	120.477	0.013	0	0	0.5	CIRCULAR	2	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
PIPE_-72	83	124.993	0.013	0	0	0.5	RECT_CLOSED	2	1	
PIPE_-73	84	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-74	85	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-75	86	83.535	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-76	87	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-77	102	309.74	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-77_(1)	88	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-78	89	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-79	90	435.736	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-80	92	136.34	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-81	93	142.205	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-82	94	255.962	0.013	3.7	0	0.5	RECT_CLOSED	2	1	
PIPE_-83	82	305.558	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-89	101	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
W2	94	344.214	0.01	0	0	0	RECT_CLOSED	2	1	

Table 3B: Conduits Report

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C1	0.02508	92.34	8.42	0	0	
C10	0.00371	28.53	6.41	0	0	
C11	0.01524	8.3	9.14	0	0	
C12	0.00076	3.66	0	0	0	
C13	0.18191	2.1	0	0	0	
C14	0.12547	4.21	0	0	0	
C15	0.02934	1.15	1.21	0	0	
C16	0.00335	63.17	6.27	0	0	
C17	0.00435	24.77	6.76	0	0	
C18	0.02144	104.65	14.8	0	0	
C19	0.01115	101.29	0	0	0	
C2	0.00507	183.77	5.04	0	0	Ex Box Culvert
C20	0.01149	104.14	0	0	0	
C3	0.02393	90.92	8.35	0	0	
C4	0.10459	1.94	0	0	0	
C5	0.13119	2.03	0	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C6	0.13105	3.03	0	0	0	
C7	0.01563	22.45	9.91	0	0	
C8	0.01007	18.97	9.71	0	0	
C9	0.00741	13.88	8.21	0	0	
PIPE_-101	0.00238	92.3	4.84	0	0	
PIPE_-102	0.00209	92.25	5.4	0	0	
PIPE_-103	0.00236	91.65	5.6	0	0	
PIPE_-104	0.00251	90.74	5.77	0	0	
PIPE_-105	0.00234	87.94	5.63	0	0	
PIPE_-105_(1)	0.00223	103.99	17.7	0	0	
PIPE_-106	0.00244	90.87	4.84	0	0	
PIPE_-107	0.00234	90.82	5.39	0	0	
PIPE_-108	0.00235	90.24	5.56	0	0	
PIPE_-109	0.00231	89.32	5.74	0	0	
PIPE_-110	0.00234	86.4	5.6	0	0	
PIPE_-110_(1)	0.00223	101.14	17.47	0	0	
PIPE_-111	0.03661	3.04	3.93	0	0	
PIPE_-112	0.03592	0	0	0	0	
PIPE_-113	0.03596	0	0	0	0	
PIPE_-114	0.03593	0	0	0	0	
PIPE_-115	0.03601	0	0	0	0	
PIPE_-117	0.00279	96.45	7.26	0	0	
PIPE_-118	0.00258	88.97	5.68	0	0	
PIPE_-119	0.00236	91.98	7.23	0	0	
PIPE_-120	0.00299	91.63	5.74	0	0	
PIPE_-59	0.0461	0	0	0	0	
PIPE_-60	0.04605	0.68	3.32	0	0	
PIPE_-61	0.0035	0.67	2.22	0	0	
PIPE_-62	0.00303	0.67	1.56	0	0	
PIPE_-63	0.00306	1.44	2.48	0	0	
PIPE_-64	0.00285	1.44	2.57	0	0	
PIPE_-65	0.00303	1.43	2.2	0	0	
PIPE_-66	0.00303	2.36	2.99	0	0	
PIPE_-67	0.00301	2.35	3.26	0	0	
PIPE_-68	0.00301	2.34	2.24	0	0	
PIPE_-69	0.00316	2.38	1.78	0	0	
PIPE_-70	0.00291	3.55	2.93	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
PIPE_-71	0.01004	3.52	1.58	0	0	
PIPE_-72	0.0184	9.29	1.98	0	0	
PIPE_-73	0.00309	5.49	6.11	0	0	
PIPE_-74	0.00306	5.53	3.7	0	0	
PIPE_-75	0.00299	5.54	3.61	0	0	
PIPE_-76	0.00301	5.56	3.57	0	0	
PIPE_-77	0.003	4	3.36	0	0	
PIPE_-77_(1)	0.00299	4.06	3.45	0	0	
PIPE_-78	0.00299	4.1	3.45	0	0	
PIPE_-79	0.01591	0	0	0	0	
PIPE_-80	0.00301	16.93	4.78	0	0	
PIPE_-81	0.00302	0.48	0.29	0	0	
PIPE_-82	0.01751	0	0	0	0	
PIPE_-83	0.00301	16.6	3.8	0	0	
PIPE_-89	0.00301	5.55	3.51	0	0	
W2	0.00177	16.77	2.1	0	0	

Table 4: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J17	YES	838	839		838	1.5	1.5	0	0	0		0.065
J6	NO	774.99	781		776.32	0	16.93	0	0	0		0.738
OF1	NO	777.16	795		785	0	104.65	0	0	0		7.45

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Table 5: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
SU1	794	799	5	TABULAR	1.6	2.14	796.14	1.94	0	0.084	2.86	43	0	0	Future Basin
SU11	776	781	5	TABULAR	1.57	2.09	778.09	8.3	0	0.362	2.91	42	0	0	Future Basin
SU13	787	792	5	TABULAR	1.54	2.06	789.06	63.17	0	2.8	2.94	41	0	0	Future Basin
SU14	785	790	5	TABULAR	1.58	2.11	787.11	24.77	0	1.08	2.89	42	0	0	Future Basin
SU15	782	790	8	TABULAR	2.99	4.74	786.74	203.45	0	8.7	8.26	55	0	0	RCFC Basin
SU2	788	793	5	TABULAR	1.6	2.13	790.13	2.03	0	0.088	2.87	43	0	0	Future Basin
SU3	784	790	6	TABULAR	1.6	2.14	786.14	3.03	0	0.131	3.86	36	0	0	Future Basin
SU4	781	786	5	TABULAR	1.57	2.09	783.09	13.88	0	0.607	2.91	42	0	0	Future Basin
SU5	787	792	5	TABULAR	1.58	2.11	789.11	22.45	0	0.98	2.89	42	0	0	Future Basin
SU6	782	787	5	TABULAR	1.56	2.08	784.08	18.97	0	0.832	2.92	42	0	0	Future Basin
SU7	780	785	5	TABULAR	1.59	2.11	782.11	28.53	0	1.24	2.89	42	0	0	Future Basin
SU8	824	829	5	TABULAR	1.6	2.14	826.14	2.1	0	0.091	2.86	43	0	0	Future Basin
SU9	796	801	5	TABULAR	1.61	2.15	798.15	4.21	0	0.182	2.85	43	0	0	Future Basin
SU10	776	781	5	TABULAR	0.67	4.01	780.01	16.77	0	0.721	1.49	80	0	0	Streets Basin

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Table 6: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	SU15	J4	TRANSVERSE	6	150	0	7	3.33	0	0	
W3	SU10	92	TRANSVERSE	2.5	4	0	3	3.33	13.52	0.4	

Table 7: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
101	NO	783.36	791.999	8.639	0	784.36	0	5.56	0	0		1
102	NO	784.82	794.636	9.816	0	785.77	0	4.06	0	0		1
117	NO	791.5	798	6.5	0	793.48	0	92.34	0	0		1
118	NO	791.38	803.5	12.12	0	793.21	0	92.3	0	0		1
119	NO	791.27	803.5	12.23	0	792.86	0	92.25	0	0		1
120	NO	789.64	803.5	13.86	0	791.33	0	91.65	0	0		1
121	NO	789.48	803.1	13.62	0	790.94	0	90.74	0	0		1
122	NO	783.62	789	5.38	0	783.63	0	103.99	0	0		1
123	NO	791.5	798	6.5	0	793.46	0	90.92	0	0		1
124	NO	791.38	803.5	12.12	0	793.18	0	90.87	0	0		1
125	NO	791.27	803.5	12.23	0	792.85	0	90.82	0	0		1
126	NO	789.65	803.5	13.85	0	791.33	0	90.24	0	0		1
127	NO	789.48	803.1	13.62	0	790.93	0	89.32	0	0		1
128	NO	783.62	789	5.38	0	783.63	0	101.14	0	0		1
129	YES	799.45	806.592	7.142	0	799.84	3.05	3.05	0	0		0.171
130	NO	806.38	814.314	7.934	0	806.38	0	0	0	0		1
131	NO	813.96	822.712	8.752	0	813.96	0	0	0	0		1
132	NO	816.22	825	8.78	0	816.22	0	0	0	0		1
133	NO	818.77	828	9.23	0	818.77	0	0	0	0		1
137	NO	783.8	790.5	6.7	0	785.18	0	96.45	0	0		1
138	NO	783.95	791	7.05	0	785.58	0	88.97	0	0		1
139	NO	784.14	791.2	7.06	0	785.82	0	86.4	0	0		1
142	NO	783.8	790.5	6.7	0	785.2	0	91.98	0	0		1
143	NO	783.95	791	7.05	0	785.62	0	91.63	0	0		1
144	NO	784.14	791.2	7.06	0	785.84	0	87.94	0	0		1
69	NO	798.23	808.924	10.694	0	798.23	0	0	0	0		1
70	YES	785.66	801	15.34	0	785.84	0.68	0.68	0	0		0.038
71	NO	783.61	799.185	15.575	0	783.95	0	0.68	0	0		1
72	NO	783.09	793.562	10.472	0	783.43	0	0.67	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
73	YES	782.64	790.823	8.183	0	783.18	0.78	1.45	0	0		0.044
74	NO	782.37	790.3	7.93	0	782.93	0	1.44	0	0		1
75	NO	782.27	790.213	7.943	0	782.78	0	1.44	0	0		1
76	YES	781.4	788.716	7.316	0	782.08	0.96	2.38	0	0		0.054
77	NO	780.53	787.219	6.689	0	781.23	0	2.36	0	0		1
78	NO	779.87	786.135	6.265	0	780.46	0	2.35	0	0		1
79	NO	779.21	785	5.79	0	780.3	0	2.34	0	0		1
80	YES	779.05	784.799	5.749	0	780.28	1.39	3.59	0	0		0.078
81	NO	778.74	784.1	5.36	0	780.23	0	3.55	0	0		1
82	YES	777.53	783.678	6.148	0	780.2	4.74	16.73	0	0		0.266
83	NO	779.83	783.143	3.313	0	780.19	0	9.13	0	0		1
84	NO	781.21	785.539	4.329	0	782.19	0	5.53	0	0		1
85	NO	782.58	789.954	7.374	0	783.53	0	5.54	0	0		1
86	NO	782.83	791	8.17	0	783.85	0	5.55	0	0		1
87	YES	783.89	793	9.11	0	784.89	1.75	5.6	0	0		0.098
88	NO	786.21	797.158	10.948	0	787.17	0	4.1	0	0		1
89	YES	787.6	799.681	12.081	0	788.56	1.16	4.19	0	0		0.065
90	NO	794.53	802.046	7.516	0	794.53	0	0	0	0		1
92	YES	775.4	781.023	5.623	0	776.84	0.48	16.98	0	0		0.027
93	NO	775.83	781.99	6.16	0	776.84	0	0.25	0	0		1
94	YES	776.61	783	6.39	0	780.12	0.34	16.91	0	0		0.019
J1	NO	870	871	1	0	870	0	0	0	0		1
J10	YES	799	799	0	0	799	1.94	1.94	0	0		0.109
J11	NO	793	794	1	0	793	0	0	0	0		1
J12	YES	793	794	1	0	793	2.03	2.03	0	0		0.114
J13	YES	790	791	1	0	790	3.03	3.03	0	0		0.17
J14	YES	787	792	5	0	787.94	13.97	13.97	0	0		0.784
J15	YES	799	804	5	0	800.06	22.56	22.56	0	0		1.266
J16	YES	795	800	5	0	795.95	19.14	19.14	0	0		1.074
J18	NO	806	807	1	0	806	0	0	0	0		1
J19	YES	829	830	1	0	829	2.1	2.1	0	0		0.118
J2	YES	794	812	18	5	795.37	184.47	184.47	0	0		1
J20	NO	802	803	1	0	802	0	0	0	0		1
J21	YES	801	802	1	0	801	4.21	4.21	0	0		0.236
J22	YES	793	798	5	0	793.23	1.15	1.15	0	0		0.022
J23	YES	794	803	9	0	795.56	64.47	64.47	0	0		3.618
J24	NO	794	795	1	0	794	0	0	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J25	NO	833	834	1	0	833	0	0	0	0		1
J26	YES	788	793	5	0	789.48	24.95	24.95	0	0		1.4
J27	NO	795	796	1	0	795	0	0	0	0		1
J28	YES	786	793	7	0	787.57	27.98	29.09	0	0		1.57
J29	NO	792	793	1	0	792	0	0	0	0		1
J3	NO	793	812	19	0	794.67	0	183.77	0	0		1
J30	YES	780	785	5	0	780	3.66	3.66	0	0		0.07
J31	NO	805	806	1	0	805	0	0	0	0		1
J32	YES	786	791	5	0	786.65	8.34	8.34	0	0		0.468
J33	NO	799	800	1	0	799	0	0	0	0		1
J34	NO	792	793	1	0	792	0	0	0	0		1
J37	NO	787.5	788.5	1	0	787.5	0	0	0	0		1
J4	NO	777.5	795	17.5	0	787.26	0	104.65	0	0		1
J5	NO	800	801	1	0	800	0	0	0	0		1
J7	NO	792	793	1	0	792	0	0	0	0		1
J8	NO	803	804	1	0	803	0	0	0	0		1
J9	NO	845	846	1	0	845	0	0	0	0		1

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PCSWMM Report

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PostDevelopment 10Yr 24 Hour

Model Rubidoux Proposed Conditions.inp

Kimley-Horn and Associates Inc.

June 15, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas 3
Table 2: Orifices 4
Table 3A: Conduits Report 4
Table 3B: Conduits Report 6
Table 4: Outfalls Report 8
Table 5: Storages 9
Table 6: Weirs 10
Table 7: Junctions 1D 10

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Table 1: AES Drainage Areas

NAME	AREA
Area S.7.c.	0.54
Area S.7.b.	0.38
Area S.2.c.	1.57
Area S.2.a.	0.87
Area S.2.b.	1.09
Area S.4.	3.42
Area S.7.a.	1.44
Area S.6.	3.88
Area S.5.a	1.30
Area S.5.b.	1.97
Area B.4.	4.71
Area S.3.	1.69
Area B.1.c.	3.40
Area B.1.b.	2.29
Area B.5.	8.52
Area B.2.c.	31.41
Area B.7.	2.69
Area S.1	0.77
Area B.2.b.	21.47
Area B.3.	2.36
Area C.2	28.00
Area B.6.	9.35
Area B.2.a.	25.31
Area B.1.a	2.18
Area B.1.d.	15.68
Area C.1	72.36
Area A	308.71

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Table 2: Orifices

Name	Inlet Node	Outlet Node	Type	Cross-Section	Height (ft)	Inlet Offset (ft)	Discharge Coeff.	Flap Gate	Max. |Flow| (cfs)
OR1	SU1	70	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.14
OR10	SU14	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	YES	2.62
OR11	SU13	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	NO	3.92
OR13	SU9	90	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.35
OR14	SU8	133	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.18
OR15	SU15	J4	SIDE	CIRCULAR	3	0	0.65	NO	71.91
OR2	SU2	73	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.18
OR3	SU3	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.24
OR4	SU5	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	1.55
OR5	SU6	78	SIDE	RECT_CLOSED	1	2.5	0.65	NO	1.38
OR6	SU4	80	SIDE	RECT_CLOSED	1	2.5	0.65	NO	1.04
OR7	SU7	82	SIDE	RECT_CLOSED	1	2.5	0.65	NO	2.03
OR8	SU11	92	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.62
OR9	SU10	92	SIDE	CIRCULAR	0.65	0	0.65	NO	3.06

Table 3A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C1	J3	59.834	0.025	0	0	0	RECT_OPEN	6	1	
C10	J28	1617.564	0.013	0	0	0.5	CIRCULAR	4	1	
C11	J32	656.105	0.01	0	0	0	CIRCULAR	2	1	
C12	J30	224.87	0.01	0	0	0	DUMMY	0	1	
C13	J19	27.937	0.01	0	0	0	DUMMY	0	1	
C14	J21	40.164	0.01	0	0	0	DUMMY	0	1	
C15	J22	238.647	0.01	0	0	0	CIRCULAR	1.5	1	
C16	J23	2089.708	0.013	0	0	0.5	RECT_CLOSED	4	1	
C17	J26	690.03	0.013	0	0	0.5	CIRCULAR	3.5	1	
C18	J4	15.862	0.01	0	0	0	CIRCULAR	3	1	
C19	128	145.306	0.01	0	0	0	DUMMY	0	1	
C2	J2	197.281	0.013	0	0	1	RECT_CLOSED	9	2	
C20	122	141.03	0.01	0	0	0	DUMMY	0	1	
C3	J3	62.706	0.025	0	0	0	RECT_OPEN	6	1	
C4	J10	48.065	0.01	0	0	0	DUMMY	0	1	
C5	J12	38.438	0.01	0	0	0	DUMMY	0	1	
C6	J13	46.177	0.01	0	0	0	DUMMY	0	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C7	J15	767.982	0.013	0	0	0.5	CIRCULAR	3	1	
C8	J16	1290.738	0.01	0	0	0	CIRCULAR	3	1	
C9	J14	809.99	0.01	0	0	0	CIRCULAR	2.5	1	
PIPE_-101	117	50.357	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-102	118	52.595	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-103	119	691.84	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-104	120	63.638	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105	121	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105_(1)	142	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-106	123	49.239	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-107	124	47.059	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-108	125	690.51	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-109	126	73.537	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110	127	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110_(1)	137	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-111	129	323.894	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-112	130	193.054	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-113	131	210.946	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-114	132	62.943	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-115	133	70.858	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-117	138	53.74	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-118	139	73.538	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-119	143	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-120	144	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-59	69	272.938	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-60	70	44.563	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-61	71	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-62	72	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-63	73	88.222	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-64	74	35.138	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-65	75	287.159	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-66	76	287.158	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-67	77	219.443	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-68	78	219.443	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-69	79	50.65	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-70	80	106.481	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-71	81	120.477	0.013	0	0	0.5	CIRCULAR	2	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
PIPE_-72	83	124.993	0.013	0	0	0.5	RECT_CLOSED	2	1	
PIPE_-73	84	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-74	85	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-75	86	83.535	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-76	87	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-77	102	309.74	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-77_(1)	88	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-78	89	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-79	90	435.736	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-80	92	136.34	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-81	93	142.205	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-82	94	255.962	0.013	3.7	0	0.5	RECT_CLOSED	2	1	
PIPE_-83	82	305.558	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-89	101	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
W2	94	344.214	0.01	0	0	0	RECT_CLOSED	2	1	

Table 3B: Conduits Report

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C1	0.02508	23.67	5.64	0	0	
C10	0.00371	11.61	4.72	0	0	
C11	0.01524	3.43	7.02	0	0	
C12	0.00076	0.39	0	0	0	
C13	0.18191	0.86	0	0	0	
C14	0.12547	1.73	0	0	0	
C15	0.02934	0.12	0.24	0	0	
C16	0.00335	26.47	3.51	0	0	
C17	0.00435	10.25	5	0	0	
C18	0.02144	104.65	14.8	0	0	
C19	0.01115	22.85	0	0	0	
C2	0.00507	46.83	3.54	0	0	Ex Box Culvert
C20	0.01149	23.4	0	0	0	
C3	0.02393	23.12	5.58	0	0	
C4	0.10459	0.8	0	0	0	
C5	0.13119	0.83	0	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C6	0.13105	1.24	0	0	0	
C7	0.01563	9.27	7.51	0	0	
C8	0.01007	7.86	7.39	0	0	
C9	0.00741	5.74	6.2	0	0	
PIPE_-101	0.00238	23.67	3.2	0	0	
PIPE_-102	0.00209	23.67	3.51	0	0	
PIPE_-103	0.00236	23.71	3.59	0	0	
PIPE_-104	0.00251	23.65	3.6	0	0	
PIPE_-105	0.00234	23.57	3.6	0	0	
PIPE_-105_(1)	0.00223	23.4	8.57	0	0	
PIPE_-106	0.00244	23.12	3.21	0	0	
PIPE_-107	0.00234	23.12	3.51	0	0	
PIPE_-108	0.00235	23.12	3.54	0	0	
PIPE_-109	0.00231	23.1	3.55	0	0	
PIPE_-110	0.00234	23.02	3.55	0	0	
PIPE_-110_(1)	0.00223	22.85	8.48	0	0	
PIPE_-111	0.03661	1.25	3.22	0	0	
PIPE_-112	0.03592	0.18	2.84	0	0	
PIPE_-113	0.03596	0.18	3.5	0	0	
PIPE_-114	0.03593	0.18	3.47	0	0	
PIPE_-115	0.03601	0.18	3.46	0	0	
PIPE_-117	0.00279	22.85	3.89	0	0	
PIPE_-118	0.00258	22.85	3.47	0	0	
PIPE_-119	0.00236	23.4	3.88	0	0	
PIPE_-120	0.00299	23.4	3.48	0	0	
PIPE_-59	0.0461	0	0	0	0	
PIPE_-60	0.04605	0.29	2.62	0	0	
PIPE_-61	0.0035	0.29	1.75	0	0	
PIPE_-62	0.00303	0.29	1.24	0	0	
PIPE_-63	0.00306	0.64	2.01	0	0	
PIPE_-64	0.00285	0.64	2.05	0	0	
PIPE_-65	0.00303	0.64	1.74	0	0	
PIPE_-66	0.00303	2.52	3.07	0	0	
PIPE_-67	0.00301	2.52	2.9	0	0	
PIPE_-68	0.00301	3.85	3	0	0	
PIPE_-69	0.00316	3.85	2.62	0	0	
PIPE_-70	0.00291	5.08	3.55	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
PIPE_-71	0.01004	5.09	2	0	0	
PIPE_-72	0.0184	2.81	0.97	0	0	
PIPE_-73	0.00309	2.42	5.23	0	0	
PIPE_-74	0.00306	2.43	2.88	0	0	
PIPE_-75	0.00299	2.43	2.95	0	0	
PIPE_-76	0.00301	2.44	2.93	0	0	
PIPE_-77	0.003	1.73	2.68	0	0	
PIPE_-77_(1)	0.00299	1.73	2.82	0	0	
PIPE_-78	0.00299	1.73	2.79	0	0	
PIPE_-79	0.01591	0.35	1.64	0	0	
PIPE_-80	0.00301	10.64	4.22	0	0	
PIPE_-81	0.00302	0.08	0.09	0	0	
PIPE_-82	0.01751	0	0	0	0	
PIPE_-83	0.00301	9.96	3.44	0	0	
PIPE_-89	0.00301	2.43	2.88	0	0	
W2	0.00177	10.01	1.25	0	0	

Table 4: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J17	YES	838	839		838	0.61	0.61	0	0	0		0.115
J6	NO	774.99	781		776.03	0	10.64	0	0	0		2.43
OF1	NO	777.16	795		785	0	104.65	0	0	0		13.4

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Table 5: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
SU1	794	799	5	TABULAR	1.69	3.25	797.25	0.8	0	0.149	1.75	65	0	0	Future Basin
SU11	776	781	5	TABULAR	1.65	3.18	779.18	3.43	0	0.641	1.82	64	0	0	Future Basin
SU13	787	792	5	TABULAR	1.64	3.16	790.16	26.47	0	4.95	1.84	63	0	0	Future Basin
SU14	785	790	5	TABULAR	1.62	3.14	788.14	10.25	0	1.92	1.86	63	0	0	Future Basin
SU15	782	790	8	TABULAR	3.04	3.93	785.93	71.91	0	14	9.07	45	0	0	RCFC Basin
SU2	788	793	5	TABULAR	1.66	3.21	791.21	0.83	0	0.156	1.79	64	0	0	Future Basin
SU3	784	790	6	TABULAR	1.68	3.24	787.24	1.24	0	0.233	2.76	54	0	0	Future Basin
SU4	781	786	5	TABULAR	1.65	3.18	784.18	5.74	0	1.07	1.82	64	0	0	Future Basin
SU5	787	792	5	TABULAR	1.67	3.21	790.21	9.27	0	1.73	1.79	64	0	0	Future Basin
SU6	782	787	5	TABULAR	1.64	3.16	785.16	7.86	0	1.47	1.84	63	0	0	Future Basin
SU7	780	785	5	TABULAR	1.65	3.17	783.17	11.61	0	2.17	1.83	63	0	0	Future Basin
SU8	824	829	5	TABULAR	1.67	3.22	827.22	0.86	0	0.162	1.78	64	0	0	Future Basin
SU9	796	801	5	TABULAR	1.68	3.24	799.24	1.73	0	0.323	1.76	65	0	0	Future Basin
SU10	776	781	5	TABULAR	2.31	3.65	779.65	10.01	0	2.34	1.85	73	0	0	Streets Basin

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Table 6: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	SU15	J4	TRANSVERSE	6	150	0	7	3.33	0	0	
W3	SU10	92	TRANSVERSE	2.5	4	0	3	3.33	6.91	0.26	

Table 7: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
101	NO	783.36	791.999	8.639	0	783.98	0	2.44	0	0		1
102	NO	784.82	794.636	9.816	0	785.38	0	1.73	0	0		1
117	NO	791.5	798	6.5	0	792.26	0	23.67	0	0		1
118	NO	791.38	803.5	12.12	0	792.1	0	23.67	0	0		1
119	NO	791.27	803.5	12.23	0	791.9	0	23.67	0	0		1
120	NO	789.64	803.5	13.86	0	790.34	0	23.71	0	0		1
121	NO	789.48	803.1	13.62	0	790.11	0	23.65	0	0		1
122	NO	783.62	789	5.38	0	783.62	0	23.4	0	0		1
123	NO	791.5	798	6.5	0	792.24	0	23.12	0	0		1
124	NO	791.38	803.5	12.12	0	792.08	0	23.12	0	0		1
125	NO	791.27	803.5	12.23	0	791.89	0	23.12	0	0		1
126	NO	789.65	803.5	13.85	0	790.34	0	23.12	0	0		1
127	NO	789.48	803.1	13.62	0	790.1	0	23.1	0	0		1
128	NO	783.62	789	5.38	0	783.62	0	22.85	0	0		1
129	YES	799.45	806.592	7.142	0	799.7	1.25	1.25	0	0		0.171
130	NO	806.38	814.314	7.934	0	806.48	0	0.18	0	0		1
131	NO	813.96	822.712	8.752	0	814.06	0	0.18	0	0		1
132	NO	816.22	825	8.78	0	816.32	0	0.18	0	0		1
133	NO	818.77	828	9.23	0	818.87	0	0.18	0	0		1
137	NO	783.8	790.5	6.7	0	784.34	0	22.85	0	0		1
138	NO	783.95	791	7.05	0	784.58	0	22.85	0	0		1
139	NO	784.14	791.2	7.06	0	784.82	0	23.02	0	0		1
142	NO	783.8	790.5	6.7	0	784.35	0	23.4	0	0		1
143	NO	783.95	791	7.05	0	784.61	0	23.4	0	0		1
144	NO	784.14	791.2	7.06	0	784.82	0	23.57	0	0		1
69	NO	798.23	808.924	10.694	0	798.23	0	0	0	0		1
70	YES	785.66	801	15.34	0	785.78	0.28	0.29	0	0		0.038
71	NO	783.61	799.185	15.575	0	783.83	0	0.29	0	0		1
72	NO	783.09	793.562	10.472	0	783.32	0	0.29	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
73	YES	782.64	790.823	8.183	0	782.99	0.32	0.64	0	0		0.044
74	NO	782.37	790.3	7.93	0	782.73	0	0.64	0	0		1
75	NO	782.27	790.213	7.943	0	782.61	0	0.64	0	0		1
76	YES	781.4	788.716	7.316	0	782.11	0.4	2.53	0	0		0.054
77	NO	780.53	787.219	6.689	0	781.24	0	2.52	0	0		1
78	NO	779.87	786.135	6.265	0	780.65	0	3.85	0	0		1
79	NO	779.21	785	5.79	0	780.15	0	3.85	0	0		1
80	YES	779.05	784.799	5.749	0	780.05	0.57	5.07	0	0		0.078
81	NO	778.74	784.1	5.36	0	779.77	0	5.08	0	0		1
82	YES	777.53	783.678	6.148	0	779.72	1.95	9.98	0	0		0.266
83	NO	779.83	783.143	3.313	0	779.99	0	2.81	0	0		1
84	NO	781.21	785.539	4.329	0	781.87	0	2.43	0	0		1
85	NO	782.58	789.954	7.374	0	783.18	0	2.43	0	0		1
86	NO	782.83	791	8.17	0	783.47	0	2.43	0	0		1
87	YES	783.89	793	9.11	0	784.51	0.72	2.44	0	0		0.098
88	NO	786.21	797.158	10.948	0	786.78	0	1.73	0	0		1
89	YES	787.6	799.681	12.081	0	788.17	0.48	1.73	0	0		0.065
90	NO	794.53	802.046	7.516	0	794.7	0	0.35	0	0		1
92	YES	775.4	781.023	5.623	0	776.51	0.2	10.66	0	0		0.027
93	NO	775.83	781.99	6.16	0	776.52	0	0.06	0	0		1
94	YES	776.61	783	6.39	0	779.69	0.14	10.03	0	0		0.019
J1	NO	870	871	1	0	870	0	0	0	0		1
J10	YES	799	799	0	0	799	0.8	0.8	0	0		0.109
J11	NO	793	794	1	0	793	0	0	0	0		1
J12	YES	793	794	1	0	793	0.83	0.83	0	0		0.114
J13	YES	790	791	1	0	790	1.24	1.24	0	0		0.17
J14	YES	787	792	5	0	787.6	5.74	5.74	0	0		0.784
J15	YES	799	804	5	0	799.68	9.27	9.27	0	0		1.266
J16	YES	795	800	5	0	795.61	7.86	7.86	0	0		1.074
J18	NO	806	807	1	0	806	0	0	0	0		1
J19	YES	829	830	1	0	829	0.86	0.86	0	0		0.118
J2	YES	794	812	18	5	794.46	46.79	46.79	0	0		1
J20	NO	802	803	1	0	802	0	0	0	0		1
J21	YES	801	802	1	0	801	1.73	1.73	0	0		0.236
J22	YES	793	798	5	0	793.08	0.12	0.12	0	0		0.022
J23	YES	794	803	9	0	794.87	26.48	26.48	0	0		3.618
J24	NO	794	795	1	0	794	0	0	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J25	NO	833	834	1	0	833	0	0	0	0		1
J26	YES	788	793	5	0	788.93	10.25	10.25	0	0		1.4
J27	NO	795	796	1	0	795	0	0	0	0		1
J28	YES	786	793	7	0	786.98	11.49	11.62	0	0		1.57
J29	NO	792	793	1	0	792	0	0	0	0		1
J3	NO	793	812	19	0	793.64	0	46.83	0	0		1
J30	YES	780	785	5	0	780	0.39	0.39	0	0		0.07
J31	NO	805	806	1	0	805	0	0	0	0		1
J32	YES	786	791	5	0	786.42	3.43	3.43	0	0		0.468
J33	NO	799	800	1	0	799	0	0	0	0		1
J34	NO	792	793	1	0	792	0	0	0	0		1
J37	NO	787.5	788.5	1	0	787.5	0	0	0	0		1
J4	NO	777.5	795	17.5	0	787.26	0	104.65	0	0		1
J5	NO	800	801	1	0	800	0	0	0	0		1
J7	NO	792	793	1	0	792	0	0	0	0		1
J8	NO	803	804	1	0	803	0	0	0	0		1
J9	NO	845	846	1	0	845	0	0	0	0		1

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PCSWMM Report

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PreDevelopment 5Yr 1 Hour

Model Rubidoux Existing Conditions.inp

Kimley-Horn and Associates Inc.

May 31, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas Pre 3
Table 2A: Conduits Report 3
Table 2B: Conduits Report 3
Table 3: Outfalls Report 4
Table 4: Storages 5
Table 5: Weirs 6
Table 6: Junctions 1D 6

DRAFT

Table 1: AES Drainage Areas Pre

NAME	AREA	Impervious Area Fraction	Upstream Node	Downstream Node	Longest Watercourse	Length From Centroid	Elevation Difference	Watershed N Value	SGRAPH	Slope of Intensity Curve	Depth Adjustment Factor
Area A	308.71	0.25	100	101	4582	2749	76	.015	Foothill	0.55	1
Area B	121.08	0.00	104	105	3781	2268	62.9	.03	Foothill	0.55	1.00
Area C	136.7	0.00	106	103	2948	1768	14.7	.03	Foothill	0.55	1.00

Table 2A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)
C1	J4	77.166	0.013	0	0	0.5	CIRCULAR	3	1		0.00648	85.28	25.94	0
C1_1	J3	925.789	0.024	0	0	0	TRAPEZOIDAL	5	1		0.00864	273.54	6.46	0
C1_2	J8	2565.133	0.024	0	0	0	TRAPEZOIDAL	10	1		0.00273	221.3	4.79	0
C2	J2	205.396	0.013	0	0	1	RECT_CLOSED	9	2		0.00487	289.12	7.07	0
C3	J9	63.024	0.01	0	0	0	DUMMY	0	1		0.00539	85.28	0	0

Table 2B: Conduits Report

Name	Contributing Imp. Area (ac)	Description
C1	0	
C1_1	0	
C1_2	0	
C2	0	
C3	0	

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Table 3: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J6	YES	785.6	786.6		785.6	78.53	78.53	0	0	0		0.636
OF1	NO	777.16	795		785	0	85.28	0	0	0		3.25

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Table 4: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
J4	778	795	17	TABULAR	0.5	3.16	781.16	305.03	0.74	3.29	13.84	0	0	0	

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Table 5: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	J4	J9	TRANSVERSE	6	150	0	11	3.33	0	0	

Table 6: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J1	NO	870	871	1	0	870	0	0	0	0		1
J2	YES	794	812	18	5	795.82	289.24	289.24	0	0		1
J3	NO	793	812	19	0	794.64	0	289.12	0	0		1
J5	NO	848.5	849.5	1	0	848.5	0	0	0	0		1
J7	NO	795	796	1	0	795	0	0	0	0		1
J8	NO	785	790	5	0	787.35	0	273.54	0	0		1
J9	NO	777.5	795	17.5	0	777.91	0	85.28	0	0		1

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PCSWMM Report

DRAFT

PreDevelopment 5Yr 3 Hour

Model Rubidoux Existing Conditions.inp

Kimley-Horn and Associates Inc.

May 31, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas Pre 3
Table 2A: Conduits Report 3
Table 2B: Conduits Report 3
Table 3: Outfalls Report 4
Table 4: Storages 5
Table 5: Weirs 6
Table 6: Junctions 1D 6

DRAFT

Table 1: AES Drainage Areas Pre

NAME	AREA	Impervious Area Fraction	Upstream Node	Downstream Node	Longest Watercourse	Length From Centroid	Elevation Difference	Watershed N Value	SGRAPH	Slope of Intensity Curve	Depth Adjustment Factor
Area A	308.71	0.25	100	101	4582	2749	76	.015	Foothill	0.55	1
Area B	121.08	0.00	104	105	3781	2268	62.9	.03	Foothill	0.55	1.00
Area C	136.7	0.00	106	103	2948	1768	14.7	.03	Foothill	0.55	1.00

Table 2A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)
C1	J4	77.166	0.013	0	0	0.5	CIRCULAR	3	1		0.00648	81.96	25.93	0
C1_1	J3	925.789	0.024	0	0	0	TRAPEZOIDAL	5	1		0.00864	126.85	4.4	0
C1_2	J8	2565.133	0.024	0	0	0	TRAPEZOIDAL	10	1		0.00273	111.82	2.92	0
C2	J2	205.396	0.013	0	0	1	RECT_CLOSED	9	2		0.00487	129.6	5.27	0
C3	J9	63.024	0.01	0	0	0	DUMMY	0	1		0.00539	81.96	0	0

Table 2B: Conduits Report

Name	Contributing Imp. Area (ac)	Description
C1	0	
C1_1	0	
C1_2	0	
C2	0	
C3	0	

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Table 3: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J6	YES	785.6	786.6		785.6	28.62	28.62	0	0	0		0.511
OF1	NO	777.16	795		785	0	81.96	0	0	0		3.95

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Table 4: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
J4	778	795	17	TABULAR	0.56	2.77	780.77	147.69	0.624	3.97	14.23	0	0	0	

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Table 5: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	J4	J9	TRANSVERSE	6	150	0	11	3.33	0	0	

Table 6: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J1	NO	870	871	1	0	870	0	0	0	0		1
J2	YES	794	812	18	5	795.01	129.82	129.82	0	0		1
J3	NO	793	812	19	0	794.04	0	129.6	0	0		1
J5	NO	848.5	849.5	1	0	848.5	0	0	0	0		1
J7	NO	795	796	1	0	795	0	0	0	0		1
J8	NO	785	790	5	0	786.59	0	126.85	0	0		1
J9	NO	777.5	795	17.5	0	777.91	0	81.96	0	0		1

DRAFT

PCSWMM Report

DRAFT

PreDevelopment 5Yr 6 Hour

Model Rubidoux Existing Conditions.inp

Kimley-Horn and Associates Inc.

May 31, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas Pre 3
Table 2A: Conduits Report 3
Table 2B: Conduits Report 3
Table 3: Outfalls Report 4
Table 4: Storages 5
Table 5: Weirs 6
Table 6: Junctions 1D 6

DRAFT

Table 1: AES Drainage Areas Pre

NAME	AREA	Impervious Area Fraction	Upstream Node	Downstream Node	Longest Watercourse	Length From Centroid	Elevation Difference	Watershed N Value	SGRAPH	Slope of Intensity Curve	Depth Adjustment Factor
Area A	308.71	0.25	100	101	4582	2749	76	.015	Foothill	0.55	1
Area B	121.08	0.00	104	105	3781	2268	62.9	.03	Foothill	0.55	1.00
Area C	136.7	0.00	106	103	2948	1768	14.7	.03	Foothill	0.55	1.00

Table 2A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)
C1	J4	77.166	0.013	0	0	0.5	CIRCULAR	3	1		0.00648	77.47	25.92	0
C1_1	J3	925.789	0.024	0	0	0	TRAPEZOIDAL	5	1		0.00864	104.94	4.06	0
C1_2	J8	2565.133	0.024	0	0	0	TRAPEZOIDAL	10	1		0.00273	92.48	2.55	0
C2	J2	205.396	0.013	0	0	1	RECT_CLOSED	9	2		0.00487	107.83	4.97	0
C3	J9	63.024	0.01	0	0	0	DUMMY	0	1		0.00539	77.47	0	0

Table 2B: Conduits Report

Name	Contributing Imp. Area (ac)	Description
C1	0	
C1_1	0	
C1_2	0	
C2	0	
C3	0	

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Table 3: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J6	YES	785.6	786.6		785.6	21.16	21.16	0	0	0		0.555
OF1	NO	777.16	795		785	0	77.47	0	0	0		5.06

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Table 4: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
J4	778	795	17	TABULAR	0.68	2.64	780.64	118.81	0.668	5.08	14.36	0	0	0	

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Table 5: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	J4	J9	TRANSVERSE	6	150	0	11	3.33	0	0	

Table 6: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J1	NO	870	871	1	0	870	0	0	0	0		1
J2	YES	794	812	18	5	794.88	108.11	108.11	0	0		1
J3	NO	793	812	19	0	793.93	0	107.83	0	0		1
J5	NO	848.5	849.5	1	0	848.5	0	0	0	0		1
J7	NO	795	796	1	0	795	0	0	0	0		1
J8	NO	785	790	5	0	786.43	0	104.94	0	0		1
J9	NO	777.5	795	17.5	0	777.91	0	77.47	0	0		1

DRAFT

PCSWMM Report

DRAFT

PreDevelopment 5Yr 24 Hour

Model Rubidoux Existing Conditions.inp

Kimley-Horn and Associates Inc.

May 31, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas Pre 3
Table 2A: Conduits Report 3
Table 2B: Conduits Report 3
Table 3: Outfalls Report 4
Table 4: Storages 5
Table 5: Weirs 6
Table 6: Junctions 1D 6

DRAFT

Table 1: AES Drainage Areas Pre

NAME	AREA	Impervious Area Fraction	Upstream Node	Downstream Node	Longest Watercourse	Length From Centroid	Elevation Difference	Watershed N Value	SGRAPH	Slope of Intensity Curve	Depth Adjustment Factor
Area A	308.71	0.25	100	101	4582	2749	76	.015	Foothill	0.55	1
Area B	121.08	0.00	104	105	3781	2268	62.9	.03	Foothill	0.55	1.00
Area C	136.7	0.00	106	103	2948	1768	14.7	.03	Foothill	0.55	1.00

Table 2A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)
C1	J4	77.166	0.013	0	0	0.5	CIRCULAR	3	1		0.00648	36.5	16.72	0
C1_1	J3	925.789	0.024	0	0	0	TRAPEZOIDAL	5	1		0.00864	39.36	2.7	0
C1_2	J8	2565.133	0.024	0	0	0	TRAPEZOIDAL	10	1		0.00273	38.59	1.68	0
C2	J2	205.396	0.013	0	0	1	RECT_CLOSED	9	2		0.00487	39.4	3.49	0
C3	J9	63.024	0.01	0	0	0	DUMMY	0	1		0.00539	36.5	0	0

Table 2B: Conduits Report

Name	Contributing Imp. Area (ac)	Description
C1	0	
C1_1	0	
C1_2	0	
C2	0	
C3	0	

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Table 3: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J6	YES	785.6	786.6		785.6	4.07	4.07	0	0	0		0.835
OF1	NO	777.16	795		785	0	36.5	0	0	0		8.8

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Table 4: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
J4	778	795	17	TABULAR	0.64	1.81	779.81	43.07	0.938	8.81	15.19	0	0	0	

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Table 5: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	J4	J9	TRANSVERSE	6	150	0	11	3.33	0	0	

Table 6: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J1	NO	870	871	1	0	870	0	0	0	0		1
J2	YES	794	812	18	5	794.42	39.36	39.36	0	0		1
J3	NO	793	812	19	0	793.52	0	39.4	0	0		1
J5	NO	848.5	849.5	1	0	848.5	0	0	0	0		1
J7	NO	795	796	1	0	795	0	0	0	0		1
J8	NO	785	790	5	0	785.86	0	39.36	0	0		1
J9	NO	777.5	795	17.5	0	777.77	0	36.5	0	0		1

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PCSWMM Report

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PostDevelopment 5Yr 1 Hour

Model Rubidoux Proposed Conditions.inp

Kimley-Horn and Associates Inc.

June 15, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas 3
Table 2: Orifices 4
Table 3A: Conduits Report 4
Table 3B: Conduits Report 6
Table 4: Outfalls Report 8
Table 5: Storages 9
Table 6: Weirs 10
Table 7: Junctions 1D 10

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Table 1: AES Drainage Areas

NAME	AREA
Area S.7.c.	0.54
Area S.7.b.	0.38
Area S.2.c.	1.57
Area S.2.a.	0.87
Area S.2.b.	1.09
Area S.4.	3.42
Area S.7.a.	1.44
Area S.6.	3.88
Area S.5.a	1.30
Area S.5.b.	1.97
Area B.4.	4.71
Area S.3.	1.69
Area B.1.c.	3.40
Area B.1.b.	2.29
Area B.5.	8.52
Area B.2.c.	31.41
Area B.7.	2.69
Area S.1	0.77
Area B.2.b.	21.47
Area B.3.	2.36
Area C.2	28.00
Area B.6.	9.35
Area B.2.a.	25.31
Area B.1.a	2.18
Area B.1.d.	15.68
Area C.1	72.36
Area A	308.71

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Table 2: Orifices

Name	Inlet Node	Outlet Node	Type	Cross-Section	Height (ft)	Inlet Offset (ft)	Discharge Coeff.	Flap Gate	Max. |Flow| (cfs)
OR1	SU1	70	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR10	SU14	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	YES	0
OR11	SU13	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR13	SU9	90	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR14	SU8	133	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR15	SU15	J4	SIDE	CIRCULAR	3	0	0.65	NO	71.91
OR2	SU2	73	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR3	SU3	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR4	SU5	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR5	SU6	78	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR6	SU4	80	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR7	SU7	82	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR8	SU11	92	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR9	SU10	92	SIDE	CIRCULAR	0.65	0	0.65	NO	3.13

Table 3A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C1	J3	59.834	0.025	0	0	0	RECT_OPEN	6	1	
C10	J28	1617.564	0.013	0	0	0.5	CIRCULAR	4	1	
C11	J32	656.105	0.01	0	0	0	CIRCULAR	2	1	
C12	J30	224.87	0.01	0	0	0	DUMMY	0	1	
C13	J19	27.937	0.01	0	0	0	DUMMY	0	1	
C14	J21	40.164	0.01	0	0	0	DUMMY	0	1	
C15	J22	238.647	0.01	0	0	0	CIRCULAR	1.5	1	
C16	J23	2089.708	0.013	0	0	0.5	RECT_CLOSED	4	1	
C17	J26	690.03	0.013	0	0	0.5	CIRCULAR	3.5	1	
C18	J4	15.862	0.01	0	0	0	CIRCULAR	3	1	
C19	128	145.306	0.01	0	0	0	DUMMY	0	1	
C2	J2	197.281	0.013	0	0	1	RECT_CLOSED	9	2	
C20	122	141.03	0.01	0	0	0	DUMMY	0	1	
C3	J3	62.706	0.025	0	0	0	RECT_OPEN	6	1	
C4	J10	48.065	0.01	0	0	0	DUMMY	0	1	
C5	J12	38.438	0.01	0	0	0	DUMMY	0	1	
C6	J13	46.177	0.01	0	0	0	DUMMY	0	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C7	J15	767.982	0.013	0	0	0.5	CIRCULAR	3	1	
C8	J16	1290.738	0.01	0	0	0	CIRCULAR	3	1	
C9	J14	809.99	0.01	0	0	0	CIRCULAR	2.5	1	
PIPE_-101	117	50.357	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-102	118	52.595	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-103	119	691.84	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-104	120	63.638	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105	121	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105_(1)	142	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-106	123	49.239	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-107	124	47.059	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-108	125	690.51	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-109	126	73.537	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110	127	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110_(1)	137	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-111	129	323.894	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-112	130	193.054	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-113	131	210.946	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-114	132	62.943	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-115	133	70.858	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-117	138	53.74	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-118	139	73.538	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-119	143	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-120	144	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-59	69	272.938	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-60	70	44.563	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-61	71	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-62	72	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-63	73	88.222	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-64	74	35.138	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-65	75	287.159	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-66	76	287.158	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-67	77	219.443	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-68	78	219.443	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-69	79	50.65	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-70	80	106.481	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-71	81	120.477	0.013	0	0	0.5	CIRCULAR	2	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
PIPE_-72	83	124.993	0.013	0	0	0.5	RECT_CLOSED	2	1	
PIPE_-73	84	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-74	85	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-75	86	83.535	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-76	87	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-77	102	309.74	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-77_(1)	88	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-78	89	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-79	90	435.736	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-80	92	136.34	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-81	93	142.205	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-82	94	255.962	0.013	3.7	0	0.5	RECT_CLOSED	2	1	
PIPE_-83	82	305.558	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-89	101	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
W2	94	344.214	0.01	0	0	0	RECT_CLOSED	2	1	

Table 3B: Conduits Report

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C1	0.02508	143.21	9.49	0	0	
C10	0.00371	42.53	11.34	0	0	
C11	0.01524	13.22	13.51	0	0	
C12	0.00076	5.5	0	0	0	
C13	0.18191	3.37	0	0	0	
C14	0.12547	6.74	0	0	0	
C15	0.02934	1.71	1.57	0	0	
C16	0.00335	95.35	11.37	0	0	
C17	0.00435	39.18	12.09	0	0	
C18	0.02144	104.65	14.8	0	0	
C19	0.01115	134.43	0	0	0	
C2	0.00507	286.82	5.52	0	0	Ex Box Culvert
C20	0.01149	142.23	0	0	0	
C3	0.02393	141.33	9.42	0	0	
C4	0.10459	3.11	0	0	0	
C5	0.13119	3.25	0	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C6	0.13105	4.85	0	0	0	
C7	0.01563	35.53	16.28	0	0	
C8	0.01007	29.83	16	0	0	
C9	0.00741	22	13.34	0	0	
PIPE_-101	0.00238	142.95	5.53	0	0	
PIPE_-102	0.00209	142.47	6.17	0	0	
PIPE_-103	0.00236	141.59	6.63	0	0	
PIPE_-104	0.00251	133.91	6.87	0	0	
PIPE_-105	0.00234	129.54	6.67	0	0	
PIPE_-105_(1)	0.00223	142.02	20.1	0	0	
PIPE_-106	0.00244	141.07	5.52	0	0	
PIPE_-107	0.00234	140.58	6.15	0	0	
PIPE_-108	0.00235	139.77	6.59	0	0	
PIPE_-109	0.00231	132.29	6.84	0	0	
PIPE_-110	0.00234	127.73	6.64	0	0	
PIPE_-110_(1)	0.00223	134.24	19.57	0	0	
PIPE_-111	0.03661	4.79	4.57	0	0	
PIPE_-112	0.03592	0	0	0	0	
PIPE_-113	0.03596	0	0	0	0	
PIPE_-114	0.03593	0	0	0	0	
PIPE_-115	0.03601	0	0	0	0	
PIPE_-117	0.00279	126.62	8.24	0	0	
PIPE_-118	0.00258	124.44	6.36	0	0	
PIPE_-119	0.00236	130.26	8.33	0	0	
PIPE_-120	0.00299	127.72	6.5	0	0	
PIPE_-59	0.0461	0	0	0	0	
PIPE_-60	0.04605	1.07	3.79	0	0	
PIPE_-61	0.0035	1.06	2.55	0	0	
PIPE_-62	0.00303	1.03	1.73	0	0	
PIPE_-63	0.00306	2.19	2.77	0	0	
PIPE_-64	0.00285	2.17	2.92	0	0	
PIPE_-65	0.00303	2.15	2.44	0	0	
PIPE_-66	0.00303	3.46	3.3	0	0	
PIPE_-67	0.00301	3.42	3.63	0	0	
PIPE_-68	0.00301	3.38	2.6	0	0	
PIPE_-69	0.00316	3.19	1.92	0	0	
PIPE_-70	0.00291	4.51	4.11	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
PIPE_-71	0.01004	4.27	2.25	0	0	
PIPE_-72	0.0184	11.95	2.36	0	0	
PIPE_-73	0.00309	7.1	6.47	0	0	
PIPE_-74	0.00306	7.14	3.99	0	0	
PIPE_-75	0.00299	7.15	3.81	0	0	
PIPE_-76	0.00301	7.19	3.76	0	0	
PIPE_-77	0.003	5.5	3.63	0	0	
PIPE_-77_(1)	0.00299	5.65	3.71	0	0	
PIPE_-78	0.00299	5.84	3.72	0	0	
PIPE_-79	0.01591	0	0	0	0	
PIPE_-80	0.00301	19.58	4.96	0	0	
PIPE_-81	0.00302	2.15	1.22	0	0	
PIPE_-82	0.01751	0	0	0	0	
PIPE_-83	0.00301	19.95	4.65	0	0	
PIPE_-89	0.00301	7.17	3.7	0	0	
W2	0.00177	19.87	2.48	0	0	

Table 4: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J17	YES	838	839		838	2.4	2.4	0	0	0		0.024
J6	NO	774.99	781		776.43	0	19.58	0	0	0		0.293
OF1	NO	777.16	795		785	0	104.65	0	0	0		1.64

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Table 5: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
SU1	794	799	5	TABULAR	0.55	0.81	794.81	3.11	0	0.032	4.19	16	0	0	Future Basin
SU11	776	781	5	TABULAR	0.54	0.79	776.79	13.22	0	0.137	4.21	16	0	0	Future Basin
SU13	787	792	5	TABULAR	0.53	0.77	787.77	95.35	0	1.05	4.23	15	0	0	Future Basin
SU14	785	790	5	TABULAR	0.55	0.8	785.8	39.18	0	0.41	4.2	16	0	0	Future Basin
SU15	782	790	8	TABULAR	2.9	3.03	785.03	301.96	0	4.18	9.97	35	0	0	RCFC Basin
SU2	788	793	5	TABULAR	0.55	0.8	788.8	3.25	0	0.033	4.2	16	0	0	Future Basin
SU3	784	790	6	TABULAR	0.55	0.81	784.81	4.85	0	0.05	5.19	13	0	0	Future Basin
SU4	781	786	5	TABULAR	0.54	0.79	781.79	22	0	0.23	4.21	16	0	0	Future Basin
SU5	787	792	5	TABULAR	0.55	0.8	787.8	35.53	0	0.37	4.2	16	0	0	Future Basin
SU6	782	787	5	TABULAR	0.54	0.79	782.79	29.83	0	0.315	4.21	16	0	0	Future Basin
SU7	780	785	5	TABULAR	0.56	0.81	780.81	42.53	0	0.476	4.19	16	0	0	Future Basin
SU8	824	829	5	TABULAR	0.55	0.81	824.81	3.37	0	0.034	4.19	16	0	0	Future Basin
SU9	796	801	5	TABULAR	0.55	0.81	796.81	6.74	0	0.069	4.19	16	0	0	Future Basin
SU10	776	781	5	TABULAR	0.24	4.14	780.14	19.87	0	0.287	1.36	83	0	0	Streets Basin

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Table 6: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	SU15	J4	TRANSVERSE	6	150	0	7	3.33	0	0	
W3	SU10	92	TRANSVERSE	2.5	4	0	3	3.33	16.21	0.46	

Table 7: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
101	NO	783.36	791.999	8.639	0	784.54	0	7.19	0	0		1
102	NO	784.82	794.636	9.816	0	786.06	0	5.65	0	0		1
117	NO	791.5	798	6.5	0	794.2	0	143.21	0	0		1
118	NO	791.38	803.5	12.12	0	793.86	0	142.95	0	0		1
119	NO	791.27	803.5	12.23	0	793.45	0	142.47	0	0		1
120	NO	789.64	803.5	13.86	0	791.87	0	141.59	0	0		1
121	NO	789.48	803.1	13.62	0	791.44	0	133.91	0	0		1
122	NO	783.62	789	5.38	0	783.63	0	142.02	0	0		1
123	NO	791.5	798	6.5	0	794.17	0	141.33	0	0		1
124	NO	791.38	803.5	12.12	0	793.83	0	141.07	0	0		1
125	NO	791.27	803.5	12.23	0	793.44	0	140.58	0	0		1
126	NO	789.65	803.5	13.85	0	791.86	0	139.77	0	0		1
127	NO	789.48	803.1	13.62	0	791.42	0	132.29	0	0		1
128	NO	783.62	789	5.38	0	783.63	0	134.24	0	0		1
129	YES	799.45	806.592	7.142	0	799.95	4.88	4.88	0	0		0.171
130	NO	806.38	814.314	7.934	0	806.38	0	0	0	0		1
131	NO	813.96	822.712	8.752	0	813.96	0	0	0	0		1
132	NO	816.22	825	8.78	0	816.22	0	0	0	0		1
133	NO	818.77	828	9.23	0	818.77	0	0	0	0		1
137	NO	783.8	790.5	6.7	0	785.53	0	126.62	0	0		1
138	NO	783.95	791	7.05	0	786	0	124.44	0	0		1
139	NO	784.14	791.2	7.06	0	786.25	0	127.73	0	0		1
142	NO	783.8	790.5	6.7	0	785.53	0	130.26	0	0		1
143	NO	783.95	791	7.05	0	786.03	0	127.72	0	0		1
144	NO	784.14	791.2	7.06	0	786.29	0	129.54	0	0		1
69	NO	798.23	808.924	10.694	0	798.23	0	0	0	0		1
70	YES	785.66	801	15.34	0	785.88	1.08	1.08	0	0		0.038
71	NO	783.61	799.185	15.575	0	784.04	0	1.07	0	0		1
72	NO	783.09	793.562	10.472	0	783.52	0	1.06	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
73	YES	782.64	790.823	8.183	0	783.33	1.26	2.21	0	0		0.044
74	NO	782.37	790.3	7.93	0	783.07	0	2.19	0	0		1
75	NO	782.27	790.213	7.943	0	782.9	0	2.17	0	0		1
76	YES	781.4	788.716	7.316	0	782.26	1.54	3.51	0	0		0.054
77	NO	780.53	787.219	6.689	0	781.4	0	3.46	0	0		1
78	NO	779.87	786.135	6.265	0	780.6	0	3.42	0	0		1
79	NO	779.21	785	5.79	0	780.51	0	3.38	0	0		1
80	YES	779.05	784.799	5.749	0	780.49	2.23	4.62	0	0		0.078
81	NO	778.74	784.1	5.36	0	780.44	0	4.51	0	0		1
82	YES	777.53	783.678	6.148	0	780.4	7.59	20.4	0	0		0.266
83	NO	779.83	783.143	3.313	0	780.38	0	12.27	0	0		1
84	NO	781.21	785.539	4.329	0	782.32	0	7.14	0	0		1
85	NO	782.58	789.954	7.374	0	783.7	0	7.15	0	0		1
86	NO	782.83	791	8.17	0	784.03	0	7.17	0	0		1
87	YES	783.89	793	9.11	0	785.06	2.8	7.21	0	0		0.098
88	NO	786.21	797.158	10.948	0	787.47	0	5.84	0	0		1
89	YES	787.6	799.681	12.081	0	788.91	1.85	6.62	0	0		0.065
90	NO	794.53	802.046	7.516	0	794.53	0	0	0	0		1
92	YES	775.4	781.023	5.623	0	776.97	0.77	19.66	0	0		0.027
93	NO	775.83	781.99	6.16	0	776.97	0	2.15	0	0		1
94	YES	776.61	783	6.39	0	780.29	0.54	20.26	0	0		0.019
J1	NO	870	871	1	0	870	0	0	0	0		1
J10	YES	799	799	0	0	799	3.11	3.11	0	0		0.109
J11	NO	793	794	1	0	793	0	0	0	0		1
J12	YES	793	794	1	0	793	3.25	3.25	0	0		0.114
J13	YES	790	791	1	0	790	4.85	4.85	0	0		0.17
J14	YES	787	792	5	0	788.37	22.37	22.37	0	0		0.784
J15	YES	799	804	5	0	800.6	36.13	36.13	0	0		1.266
J16	YES	795	800	5	0	796.39	30.65	30.65	0	0		1.074
J18	NO	806	807	1	0	806	0	0	0	0		1
J19	YES	829	830	1	0	829	3.37	3.37	0	0		0.118
J2	YES	794	812	18	5	796.01	289.5	289.5	0	0		1
J20	NO	802	803	1	0	802	0	0	0	0		1
J21	YES	801	802	1	0	801	6.74	6.74	0	0		0.236
J22	YES	793	798	5	0	793.27	1.73	1.73	0	0		0.022
J23	YES	794	803	9	0	796.36	103.25	103.25	0	0		3.618
J24	NO	794	795	1	0	794	0	0	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J25	NO	833	834	1	0	833	0	0	0	0		1
J26	YES	788	793	5	0	790.11	39.95	39.95	0	0		1.4
J27	NO	795	796	1	0	795	0	0	0	0		1
J28	YES	786	793	7	0	788.25	44.81	45.71	0	0		1.57
J29	NO	792	793	1	0	792	0	0	0	0		1
J3	NO	793	812	19	0	795.34	0	286.82	0	0		1
J30	YES	780	785	5	0	780	5.5	5.5	0	0		0.07
J31	NO	805	806	1	0	805	0	0	0	0		1
J32	YES	786	791	5	0	786.91	13.36	13.36	0	0		0.468
J33	NO	799	800	1	0	799	0	0	0	0		1
J34	NO	792	793	1	0	792	0	0	0	0		1
J37	NO	787.5	788.5	1	0	787.5	0	0	0	0		1
J4	NO	777.5	795	17.5	0	787.26	0	104.65	0	0		1
J5	NO	800	801	1	0	800	0	0	0	0		1
J7	NO	792	793	1	0	792	0	0	0	0		1
J8	NO	803	804	1	0	803	0	0	0	0		1
J9	NO	845	846	1	0	845	0	0	0	0		1

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PCSWMM Report

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PostDevelopment 5Yr 3 Hour

Model Rubidoux Proposed Conditions.inp

Kimley-Horn and Associates Inc.

June 15, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas 3
Table 2: Orifices 4
Table 3A: Conduits Report 4
Table 3B: Conduits Report 6
Table 4: Outfalls Report 8
Table 5: Storages 9
Table 6: Weirs 10
Table 7: Junctions 1D 10

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Table 1: AES Drainage Areas

NAME	AREA
Area S.7.c.	0.54
Area S.7.b.	0.38
Area S.2.c.	1.57
Area S.2.a.	0.87
Area S.2.b.	1.09
Area S.4.	3.42
Area S.7.a.	1.44
Area S.6.	3.88
Area S.5.a	1.30
Area S.5.b.	1.97
Area B.4.	4.71
Area S.3.	1.69
Area B.1.c.	3.40
Area B.1.b.	2.29
Area B.5.	8.52
Area B.2.c.	31.41
Area B.7.	2.69
Area S.1	0.77
Area B.2.b.	21.47
Area B.3.	2.36
Area C.2	28.00
Area B.6.	9.35
Area B.2.a.	25.31
Area B.1.a	2.18
Area B.1.d.	15.68
Area C.1	72.36
Area A	308.71

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Table 2: Orifices

Name	Inlet Node	Outlet Node	Type	Cross-Section	Height (ft)	Inlet Offset (ft)	Discharge Coeff.	Flap Gate	Max. |Flow| (cfs)
OR1	SU1	70	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR10	SU14	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	YES	0
OR11	SU13	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR13	SU9	90	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR14	SU8	133	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR15	SU15	J4	SIDE	CIRCULAR	3	0	0.65	NO	71.91
OR2	SU2	73	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR3	SU3	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR4	SU5	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR5	SU6	78	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR6	SU4	80	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR7	SU7	82	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR8	SU11	92	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR9	SU10	92	SIDE	CIRCULAR	0.65	0	0.65	NO	3.08

Table 3A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C1	J3	59.834	0.025	0	0	0	RECT_OPEN	6	1	
C10	J28	1617.564	0.013	0	0	0.5	CIRCULAR	4	1	
C11	J32	656.105	0.01	0	0	0	CIRCULAR	2	1	
C12	J30	224.87	0.01	0	0	0	DUMMY	0	1	
C13	J19	27.937	0.01	0	0	0	DUMMY	0	1	
C14	J21	40.164	0.01	0	0	0	DUMMY	0	1	
C15	J22	238.647	0.01	0	0	0	CIRCULAR	1.5	1	
C16	J23	2089.708	0.013	0	0	0.5	RECT_CLOSED	4	1	
C17	J26	690.03	0.013	0	0	0.5	CIRCULAR	3.5	1	
C18	J4	15.862	0.01	0	0	0	CIRCULAR	3	1	
C19	128	145.306	0.01	0	0	0	DUMMY	0	1	
C2	J2	197.281	0.013	0	0	1	RECT_CLOSED	9	2	
C20	122	141.03	0.01	0	0	0	DUMMY	0	1	
C3	J3	62.706	0.025	0	0	0	RECT_OPEN	6	1	
C4	J10	48.065	0.01	0	0	0	DUMMY	0	1	
C5	J12	38.438	0.01	0	0	0	DUMMY	0	1	
C6	J13	46.177	0.01	0	0	0	DUMMY	0	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C7	J15	767.982	0.013	0	0	0.5	CIRCULAR	3	1	
C8	J16	1290.738	0.01	0	0	0	CIRCULAR	3	1	
C9	J14	809.99	0.01	0	0	0	CIRCULAR	2.5	1	
PIPE_-101	117	50.357	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-102	118	52.595	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-103	119	691.84	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-104	120	63.638	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105	121	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105_(1)	142	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-106	123	49.239	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-107	124	47.059	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-108	125	690.51	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-109	126	73.537	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110	127	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110_(1)	137	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-111	129	323.894	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-112	130	193.054	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-113	131	210.946	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-114	132	62.943	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-115	133	70.858	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-117	138	53.74	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-118	139	73.538	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-119	143	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-120	144	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-59	69	272.938	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-60	70	44.563	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-61	71	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-62	72	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-63	73	88.222	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-64	74	35.138	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-65	75	287.159	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-66	76	287.158	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-67	77	219.443	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-68	78	219.443	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-69	79	50.65	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-70	80	106.481	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-71	81	120.477	0.013	0	0	0.5	CIRCULAR	2	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
PIPE_-72	83	124.993	0.013	0	0	0.5	RECT_CLOSED	2	1	
PIPE_-73	84	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-74	85	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-75	86	83.535	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-76	87	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-77	102	309.74	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-77_(1)	88	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-78	89	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-79	90	435.736	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-80	92	136.34	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-81	93	142.205	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-82	94	255.962	0.013	3.7	0	0.5	RECT_CLOSED	2	1	
PIPE_-83	82	305.558	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-89	101	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
W2	94	344.214	0.01	0	0	0	RECT_CLOSED	2	1	

Table 3B: Conduits Report

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C1	0.02508	65.13	7.65	0	0	
C10	0.00371	26.51	7.49	0	0	
C11	0.01524	7.82	9.81	0	0	
C12	0.00076	2	0	0	0	
C13	0.18191	1.98	0	0	0	
C14	0.12547	3.97	0	0	0	
C15	0.02934	0.63	0.62	0	0	
C16	0.00335	59.67	7.75	0	0	
C17	0.00435	23.42	7.52	0	0	
C18	0.02144	104.65	14.8	0	0	
C19	0.01115	67.79	0	0	0	
C2	0.00507	129.49	4.68	0	0	Ex Box Culvert
C20	0.01149	67.97	0	0	0	
C3	0.02393	63.98	7.59	0	0	
C4	0.10459	1.83	0	0	0	
C5	0.13119	1.92	0	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C6	0.13105	2.86	0	0	0	
C7	0.01563	21.23	10.84	0	0	
C8	0.01007	17.86	10.6	0	0	
C9	0.00741	13.08	8.91	0	0	
PIPE_-101	0.00238	65.1	4.37	0	0	
PIPE_-102	0.00209	65.05	4.87	0	0	
PIPE_-103	0.00236	64.69	5.04	0	0	
PIPE_-104	0.00251	63.76	5.13	0	0	
PIPE_-105	0.00234	62.33	5.12	0	0	
PIPE_-105_(1)	0.00223	67.9	14.47	0	0	
PIPE_-106	0.00244	63.95	4.37	0	0	
PIPE_-107	0.00234	63.91	4.86	0	0	
PIPE_-108	0.00235	63.55	4.99	0	0	
PIPE_-109	0.00231	62.65	5.09	0	0	
PIPE_-110	0.00234	61.1	5.09	0	0	
PIPE_-110_(1)	0.00223	67.72	14.44	0	0	
PIPE_-111	0.03661	2.86	3.91	0	0	
PIPE_-112	0.03592	0	0	0	0	
PIPE_-113	0.03596	0	0	0	0	
PIPE_-114	0.03593	0	0	0	0	
PIPE_-115	0.03601	0	0	0	0	
PIPE_-117	0.00279	64.02	6.16	0	0	
PIPE_-118	0.00258	60.8	5.07	0	0	
PIPE_-119	0.00236	66.13	6.18	0	0	
PIPE_-120	0.00299	62.3	5.02	0	0	
PIPE_-59	0.0461	0	0	0	0	
PIPE_-60	0.04605	0.64	3.27	0	0	
PIPE_-61	0.0035	0.63	2.19	0	0	
PIPE_-62	0.00303	0.63	1.53	0	0	
PIPE_-63	0.00306	1.35	2.44	0	0	
PIPE_-64	0.00285	1.35	2.53	0	0	
PIPE_-65	0.00303	1.35	2.16	0	0	
PIPE_-66	0.00303	2.22	2.94	0	0	
PIPE_-67	0.00301	2.21	3.2	0	0	
PIPE_-68	0.00301	2.2	2.3	0	0	
PIPE_-69	0.00316	2.17	1.82	0	0	
PIPE_-70	0.00291	3.29	3.12	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
PIPE_-71	0.01004	3.23	1.78	0	0	
PIPE_-72	0.0184	7.09	1.55	0	0	
PIPE_-73	0.00309	5.17	6.26	0	0	
PIPE_-74	0.00306	5.19	3.62	0	0	
PIPE_-75	0.00299	5.19	3.56	0	0	
PIPE_-76	0.00301	5.2	3.51	0	0	
PIPE_-77	0.003	3.78	3.29	0	0	
PIPE_-77_(1)	0.00299	3.82	3.42	0	0	
PIPE_-78	0.00299	3.85	3.4	0	0	
PIPE_-79	0.01591	0	0	0	0	
PIPE_-80	0.00301	14.27	4.57	0	0	
PIPE_-81	0.00302	0.38	0.31	0	0	
PIPE_-82	0.01751	0	0	0	0	
PIPE_-83	0.00301	13.95	4.1	0	0	
PIPE_-89	0.00301	5.19	3.45	0	0	
W2	0.00177	14.11	1.78	0	0	

Table 4: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J17	YES	838	839		838	1.41	1.41	0	0	0		0.04
J6	NO	774.99	781		776.2	0	14.27	0	0	0		0.445
OF1	NO	777.16	795		785	0	104.65	0	0	0		4.05

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Table 5: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
SU1	794	799	5	TABULAR	1	1.32	795.32	1.83	0	0.052	3.68	26	0	0	Future Basin
SU11	776	781	5	TABULAR	0.98	1.29	777.29	7.82	0	0.225	3.71	26	0	0	Future Basin
SU13	787	792	5	TABULAR	0.96	1.27	788.27	59.67	0	1.73	3.73	25	0	0	Future Basin
SU14	785	790	5	TABULAR	0.99	1.3	786.3	23.42	0	0.673	3.7	26	0	0	Future Basin
SU15	782	790	8	TABULAR	2.89	3.73	785.73	131.75	0	5.76	9.27	43	0	0	RCFC Basin
SU2	788	793	5	TABULAR	1	1.32	789.32	1.92	0	0.055	3.68	26	0	0	Future Basin
SU3	784	790	6	TABULAR	1	1.32	785.32	2.86	0	0.082	4.68	22	0	0	Future Basin
SU4	781	786	5	TABULAR	0.98	1.29	782.29	13.08	0	0.377	3.71	26	0	0	Future Basin
SU5	787	792	5	TABULAR	0.99	1.3	788.3	21.23	0	0.608	3.7	26	0	0	Future Basin
SU6	782	787	5	TABULAR	0.98	1.29	783.29	17.86	0	0.517	3.71	26	0	0	Future Basin
SU7	780	785	5	TABULAR	0.99	1.3	781.3	26.51	0	0.768	3.7	26	0	0	Future Basin
SU8	824	829	5	TABULAR	1	1.32	825.32	1.98	0	0.056	3.68	26	0	0	Future Basin
SU9	796	801	5	TABULAR	1	1.33	797.33	3.97	0	0.113	3.67	27	0	0	Future Basin
SU10	776	781	5	TABULAR	0.41	3.88	779.88	14.11	0	0.435	1.62	78	0	0	Streets Basin

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Table 6: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	SU15	J4	TRANSVERSE	6	150	0	7	3.33	0	0	
W3	SU10	92	TRANSVERSE	2.5	4	0	3	3.33	10.91	0.35	

Table 7: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
101	NO	783.36	791.999	8.639	0	784.32	0	5.2	0	0		1
102	NO	784.82	794.636	9.816	0	785.73	0	3.82	0	0		1
117	NO	791.5	798	6.5	0	793.05	0	65.13	0	0		1
118	NO	791.38	803.5	12.12	0	792.81	0	65.1	0	0		1
119	NO	791.27	803.5	12.23	0	792.52	0	65.05	0	0		1
120	NO	789.64	803.5	13.86	0	790.98	0	64.69	0	0		1
121	NO	789.48	803.1	13.62	0	790.65	0	63.76	0	0		1
122	NO	783.62	789	5.38	0	783.63	0	67.9	0	0		1
123	NO	791.5	798	6.5	0	793.02	0	63.98	0	0		1
124	NO	791.38	803.5	12.12	0	792.79	0	63.95	0	0		1
125	NO	791.27	803.5	12.23	0	792.5	0	63.91	0	0		1
126	NO	789.65	803.5	13.85	0	790.98	0	63.55	0	0		1
127	NO	789.48	803.1	13.62	0	790.63	0	62.65	0	0		1
128	NO	783.62	789	5.38	0	783.63	0	67.72	0	0		1
129	YES	799.45	806.592	7.142	0	799.83	2.88	2.88	0	0		0.171
130	NO	806.38	814.314	7.934	0	806.38	0	0	0	0		1
131	NO	813.96	822.712	8.752	0	813.96	0	0	0	0		1
132	NO	816.22	825	8.78	0	816.22	0	0	0	0		1
133	NO	818.77	828	9.23	0	818.77	0	0	0	0		1
137	NO	783.8	790.5	6.7	0	784.88	0	64.02	0	0		1
138	NO	783.95	791	7.05	0	785.2	0	60.8	0	0		1
139	NO	784.14	791.2	7.06	0	785.44	0	61.1	0	0		1
142	NO	783.8	790.5	6.7	0	784.88	0	66.13	0	0		1
143	NO	783.95	791	7.05	0	785.22	0	62.3	0	0		1
144	NO	784.14	791.2	7.06	0	785.45	0	62.33	0	0		1
69	NO	798.23	808.924	10.694	0	798.23	0	0	0	0		1
70	YES	785.66	801	15.34	0	785.83	0.64	0.64	0	0		0.038
71	NO	783.61	799.185	15.575	0	783.94	0	0.64	0	0		1
72	NO	783.09	793.562	10.472	0	783.42	0	0.63	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
73	YES	782.64	790.823	8.183	0	783.16	0.74	1.36	0	0		0.044
74	NO	782.37	790.3	7.93	0	782.91	0	1.35	0	0		1
75	NO	782.27	790.213	7.943	0	782.76	0	1.35	0	0		1
76	YES	781.4	788.716	7.316	0	782.06	0.91	2.23	0	0		0.054
77	NO	780.53	787.219	6.689	0	781.2	0	2.22	0	0		1
78	NO	779.87	786.135	6.265	0	780.44	0	2.21	0	0		1
79	NO	779.21	785	5.79	0	780.12	0	2.2	0	0		1
80	YES	779.05	784.799	5.749	0	780.09	1.31	3.33	0	0		0.078
81	NO	778.74	784.1	5.36	0	780.04	0	3.29	0	0		1
82	YES	777.53	783.678	6.148	0	780.01	4.47	14.05	0	0		0.266
83	NO	779.83	783.143	3.313	0	780.12	0	7.11	0	0		1
84	NO	781.21	785.539	4.329	0	782.16	0	5.19	0	0		1
85	NO	782.58	789.954	7.374	0	783.49	0	5.19	0	0		1
86	NO	782.83	791	8.17	0	783.81	0	5.19	0	0		1
87	YES	783.89	793	9.11	0	784.85	1.65	5.2	0	0		0.098
88	NO	786.21	797.158	10.948	0	787.13	0	3.85	0	0		1
89	YES	787.6	799.681	12.081	0	788.52	1.09	3.95	0	0		0.065
90	NO	794.53	802.046	7.516	0	794.53	0	0	0	0		1
92	YES	775.4	781.023	5.623	0	776.71	0.45	14.32	0	0		0.027
93	NO	775.83	781.99	6.16	0	776.71	0	0.31	0	0		1
94	YES	776.61	783	6.39	0	779.96	0.32	14.22	0	0		0.019
J1	NO	870	871	1	0	870	0	0	0	0		1
J10	YES	799	799	0	0	799	1.83	1.83	0	0		0.109
J11	NO	793	794	1	0	793	0	0	0	0		1
J12	YES	793	794	1	0	793	1.92	1.92	0	0		0.114
J13	YES	790	791	1	0	790	2.86	2.86	0	0		0.17
J14	YES	787	792	5	0	787.91	13.19	13.19	0	0		0.784
J15	YES	799	804	5	0	800.06	21.29	21.29	0	0		1.266
J16	YES	795	800	5	0	795.92	18.06	18.06	0	0		1.074
J18	NO	806	807	1	0	806	0	0	0	0		1
J19	YES	829	830	1	0	829	1.98	1.98	0	0		0.118
J2	YES	794	812	18	5	795.02	129.9	129.9	0	0		1
J20	NO	802	803	1	0	802	0	0	0	0		1
J21	YES	801	802	1	0	801	3.97	3.97	0	0		0.236
J22	YES	793	798	5	0	793.17	0.63	0.63	0	0		0.022
J23	YES	794	803	9	0	795.6	60.85	60.85	0	0		3.618
J24	NO	794	795	1	0	794	0	0	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J25	NO	833	834	1	0	833	0	0	0	0		1
J26	YES	788	793	5	0	789.51	23.55	23.55	0	0		1.4
J27	NO	795	796	1	0	795	0	0	0	0		1
J28	YES	786	793	7	0	787.61	26.41	26.96	0	0		1.57
J29	NO	792	793	1	0	792	0	0	0	0		1
J3	NO	793	812	19	0	794.29	0	129.49	0	0		1
J30	YES	780	785	5	0	780	2	2	0	0		0.07
J31	NO	805	806	1	0	805	0	0	0	0		1
J32	YES	786	791	5	0	786.63	7.87	7.87	0	0		0.468
J33	NO	799	800	1	0	799	0	0	0	0		1
J34	NO	792	793	1	0	792	0	0	0	0		1
J37	NO	787.5	788.5	1	0	787.5	0	0	0	0		1
J4	NO	777.5	795	17.5	0	787.26	0	104.65	0	0		1
J5	NO	800	801	1	0	800	0	0	0	0		1
J7	NO	792	793	1	0	792	0	0	0	0		1
J8	NO	803	804	1	0	803	0	0	0	0		1
J9	NO	845	846	1	0	845	0	0	0	0		1

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PCSWMM Report

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PostDevelopment 5Yr 6 Hour

Model Rubidoux Proposed Conditions.inp

Kimley-Horn and Associates Inc.

June 15, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas 3
Table 2: Orifices 4
Table 3A: Conduits Report 4
Table 3B: Conduits Report 6
Table 4: Outfalls Report 8
Table 5: Storages 9
Table 6: Weirs 10
Table 7: Junctions 1D 10

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Table 1: AES Drainage Areas

NAME	AREA
Area S.7.c.	0.54
Area S.7.b.	0.38
Area S.2.c.	1.57
Area S.2.a.	0.87
Area S.2.b.	1.09
Area S.4.	3.42
Area S.7.a.	1.44
Area S.6.	3.88
Area S.5.a	1.30
Area S.5.b.	1.97
Area B.4.	4.71
Area S.3.	1.69
Area B.1.c.	3.40
Area B.1.b.	2.29
Area B.5.	8.52
Area B.2.c.	31.41
Area B.7.	2.69
Area S.1	0.77
Area B.2.b.	21.47
Area B.3.	2.36
Area C.2	28.00
Area B.6.	9.35
Area B.2.a.	25.31
Area B.1.a	2.18
Area B.1.d.	15.68
Area C.1	72.36
Area A	308.71

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Table 2: Orifices

Name	Inlet Node	Outlet Node	Type	Cross-Section	Height (ft)	Inlet Offset (ft)	Discharge Coeff.	Flap Gate	Max. |Flow| (cfs)
OR1	SU1	70	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR10	SU14	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	YES	0
OR11	SU13	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR13	SU9	90	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR14	SU8	133	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR15	SU15	J4	SIDE	CIRCULAR	3	0	0.65	NO	71.91
OR2	SU2	73	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR3	SU3	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR4	SU5	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR5	SU6	78	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR6	SU4	80	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR7	SU7	82	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR8	SU11	92	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR9	SU10	92	SIDE	CIRCULAR	0.65	0	0.65	NO	3.08

Table 3A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C1	J3	59.834	0.025	0	0	0	RECT_OPEN	6	1	
C10	J28	1617.564	0.013	0	0	0.5	CIRCULAR	4	1	
C11	J32	656.105	0.01	0	0	0	CIRCULAR	2	1	
C12	J30	224.87	0.01	0	0	0	DUMMY	0	1	
C13	J19	27.937	0.01	0	0	0	DUMMY	0	1	
C14	J21	40.164	0.01	0	0	0	DUMMY	0	1	
C15	J22	238.647	0.01	0	0	0	CIRCULAR	1.5	1	
C16	J23	2089.708	0.013	0	0	0.5	RECT_CLOSED	4	1	
C17	J26	690.03	0.013	0	0	0.5	CIRCULAR	3.5	1	
C18	J4	15.862	0.01	0	0	0	CIRCULAR	3	1	
C19	128	145.306	0.01	0	0	0	DUMMY	0	1	
C2	J2	197.281	0.013	0	0	1	RECT_CLOSED	9	2	
C20	122	141.03	0.01	0	0	0	DUMMY	0	1	
C3	J3	62.706	0.025	0	0	0	RECT_OPEN	6	1	
C4	J10	48.065	0.01	0	0	0	DUMMY	0	1	
C5	J12	38.438	0.01	0	0	0	DUMMY	0	1	
C6	J13	46.177	0.01	0	0	0	DUMMY	0	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C7	J15	767.982	0.013	0	0	0.5	CIRCULAR	3	1	
C8	J16	1290.738	0.01	0	0	0	CIRCULAR	3	1	
C9	J14	809.99	0.01	0	0	0	CIRCULAR	2.5	1	
PIPE_-101	117	50.357	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-102	118	52.595	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-103	119	691.84	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-104	120	63.638	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105	121	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105_(1)	142	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-106	123	49.239	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-107	124	47.059	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-108	125	690.51	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-109	126	73.537	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110	127	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110_(1)	137	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-111	129	323.894	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-112	130	193.054	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-113	131	210.946	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-114	132	62.943	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-115	133	70.858	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-117	138	53.74	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-118	139	73.538	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-119	143	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-120	144	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-59	69	272.938	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-60	70	44.563	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-61	71	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-62	72	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-63	73	88.222	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-64	74	35.138	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-65	75	287.159	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-66	76	287.158	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-67	77	219.443	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-68	78	219.443	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-69	79	50.65	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-70	80	106.481	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-71	81	120.477	0.013	0	0	0.5	CIRCULAR	2	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
PIPE_-72	83	124.993	0.013	0	0	0.5	RECT_CLOSED	2	1	
PIPE_-73	84	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-74	85	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-75	86	83.535	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-76	87	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-77	102	309.74	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-77_(1)	88	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-78	89	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-79	90	435.736	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-80	92	136.34	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-81	93	142.205	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-82	94	255.962	0.013	3.7	0	0.5	RECT_CLOSED	2	1	
PIPE_-83	82	305.558	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-89	101	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
W2	94	344.214	0.01	0	0	0	RECT_CLOSED	2	1	

Table 3B: Conduits Report

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C1	0.02508	54.17	7.26	0	0	
C10	0.00371	23.5	6.19	0	0	
C11	0.01524	6.96	8.81	0	0	
C12	0.00076	1.48	0	0	0	
C13	0.18191	1.76	0	0	0	
C14	0.12547	3.53	0	0	0	
C15	0.02934	0.46	0.59	0	0	
C16	0.00335	53.21	6.15	0	0	
C17	0.00435	20.83	6.51	0	0	
C18	0.02144	104.65	14.8	0	0	
C19	0.01115	52.38	0	0	0	
C2	0.00507	107.75	4.48	0	0	Ex Box Culvert
C20	0.01149	53.18	0	0	0	
C3	0.02393	53.16	7.2	0	0	
C4	0.10459	1.63	0	0	0	
C5	0.13119	1.7	0	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C6	0.13105	2.54	0	0	0	
C7	0.01563	18.83	9.55	0	0	
C8	0.01007	15.91	9.36	0	0	
C9	0.00741	11.64	7.9	0	0	
PIPE_-101	0.00238	54.14	4.14	0	0	
PIPE_-102	0.00209	54.1	4.6	0	0	
PIPE_-103	0.00236	53.64	4.76	0	0	
PIPE_-104	0.00251	52.73	4.87	0	0	
PIPE_-105	0.00234	50.69	4.8	0	0	
PIPE_-105_(1)	0.00223	53.15	12.77	0	0	
PIPE_-106	0.00244	53.13	4.14	0	0	
PIPE_-107	0.00234	53.09	4.59	0	0	
PIPE_-108	0.00235	52.64	4.72	0	0	
PIPE_-109	0.00231	51.76	4.82	0	0	
PIPE_-110	0.00234	49.62	4.75	0	0	
PIPE_-110_(1)	0.00223	52.36	12.71	0	0	
PIPE_-111	0.03661	2.55	3.8	0	0	
PIPE_-112	0.03592	0	0	0	0	
PIPE_-113	0.03596	0	0	0	0	
PIPE_-114	0.03593	0	0	0	0	
PIPE_-115	0.03601	0	0	0	0	
PIPE_-117	0.00279	50.81	5.59	0	0	
PIPE_-118	0.00258	48.6	4.66	0	0	
PIPE_-119	0.00236	51.53	5.6	0	0	
PIPE_-120	0.00299	49.32	4.65	0	0	
PIPE_-59	0.0461	0	0	0	0	
PIPE_-60	0.04605	0.57	3.16	0	0	
PIPE_-61	0.0035	0.56	2.12	0	0	
PIPE_-62	0.00303	0.56	1.49	0	0	
PIPE_-63	0.00306	1.21	2.37	0	0	
PIPE_-64	0.00285	1.21	2.45	0	0	
PIPE_-65	0.00303	1.2	2.1	0	0	
PIPE_-66	0.00303	1.98	2.86	0	0	
PIPE_-67	0.00301	1.97	3.1	0	0	
PIPE_-68	0.00301	1.96	2.3	0	0	
PIPE_-69	0.00316	1.98	1.78	0	0	
PIPE_-70	0.00291	2.97	3	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
PIPE_-71	0.01004	2.96	1.66	0	0	
PIPE_-72	0.0184	6.07	1.34	0	0	
PIPE_-73	0.00309	4.61	6.09	0	0	
PIPE_-74	0.00306	4.63	3.51	0	0	
PIPE_-75	0.00299	4.64	3.48	0	0	
PIPE_-76	0.00301	4.66	3.43	0	0	
PIPE_-77	0.003	3.35	3.22	0	0	
PIPE_-77_(1)	0.00299	3.41	3.33	0	0	
PIPE_-78	0.00299	3.44	3.32	0	0	
PIPE_-79	0.01591	0	0	0	0	
PIPE_-80	0.00301	12.39	4.4	0	0	
PIPE_-81	0.00302	0.36	0.28	0	0	
PIPE_-82	0.01751	0	0	0	0	
PIPE_-83	0.00301	12.19	3.66	0	0	
PIPE_-89	0.00301	4.65	3.38	0	0	
W2	0.00177	12.3	1.55	0	0	

Table 4: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J17	YES	838	839		838	1.26	1.26	0	0	0		0.054
J6	NO	774.99	781		776.12	0	12.39	0	0	0		0.593
OF1	NO	777.16	795		785	0	104.65	0	0	0		6.32

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Table 5: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
SU1	794	799	5	TABULAR	1.3	1.77	795.77	1.63	0	0.071	3.23	35	0	0	Future Basin
SU11	776	781	5	TABULAR	1.27	1.73	777.73	6.96	0	0.304	3.27	35	0	0	Future Basin
SU13	787	792	5	TABULAR	1.25	1.7	788.7	53.21	0	2.34	3.3	34	0	0	Future Basin
SU14	785	790	5	TABULAR	1.28	1.74	786.74	20.83	0	0.908	3.26	35	0	0	Future Basin
SU15	782	790	8	TABULAR	2.91	4.08	786.08	105.31	0	7.43	8.92	47	0	0	RCFC Basin
SU2	788	793	5	TABULAR	1.29	1.76	789.76	1.7	0	0.074	3.24	35	0	0	Future Basin
SU3	784	790	6	TABULAR	1.3	1.77	785.77	2.54	0	0.11	4.23	30	0	0	Future Basin
SU4	781	786	5	TABULAR	1.27	1.73	782.73	11.64	0	0.509	3.27	35	0	0	Future Basin
SU5	787	792	5	TABULAR	1.28	1.74	788.74	18.83	0	0.821	3.26	35	0	0	Future Basin
SU6	782	787	5	TABULAR	1.27	1.72	783.72	15.91	0	0.698	3.28	34	0	0	Future Basin
SU7	780	785	5	TABULAR	1.28	1.73	781.73	23.5	0	1.03	3.27	35	0	0	Future Basin
SU8	824	829	5	TABULAR	1.3	1.77	825.77	1.76	0	0.076	3.23	35	0	0	Future Basin
SU9	796	801	5	TABULAR	1.3	1.77	797.77	3.53	0	0.153	3.23	35	0	0	Future Basin
SU10	776	781	5	TABULAR	0.6	3.77	779.77	12.3	0	0.578	1.73	75	0	0	Streets Basin

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Table 6: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	SU15	J4	TRANSVERSE	6	150	0	7	3.33	0	0	
W3	SU10	92	TRANSVERSE	2.5	4	0	3	3.33	9.02	0.31	

Table 7: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
101	NO	783.36	791.999	8.639	0	784.25	0	4.66	0	0		1
102	NO	784.82	794.636	9.816	0	785.66	0	3.41	0	0		1
117	NO	791.5	798	6.5	0	792.86	0	54.17	0	0		1
118	NO	791.38	803.5	12.12	0	792.64	0	54.14	0	0		1
119	NO	791.27	803.5	12.23	0	792.37	0	54.1	0	0		1
120	NO	789.64	803.5	13.86	0	790.81	0	53.64	0	0		1
121	NO	789.48	803.1	13.62	0	790.5	0	52.73	0	0		1
122	NO	783.62	789	5.38	0	783.62	0	53.15	0	0		1
123	NO	791.5	798	6.5	0	792.83	0	53.16	0	0		1
124	NO	791.38	803.5	12.12	0	792.62	0	53.13	0	0		1
125	NO	791.27	803.5	12.23	0	792.35	0	53.09	0	0		1
126	NO	789.65	803.5	13.85	0	790.81	0	52.64	0	0		1
127	NO	789.48	803.1	13.62	0	790.49	0	51.76	0	0		1
128	NO	783.62	789	5.38	0	783.62	0	52.36	0	0		1
129	YES	799.45	806.592	7.142	0	799.81	2.56	2.56	0	0		0.171
130	NO	806.38	814.314	7.934	0	806.38	0	0	0	0		1
131	NO	813.96	822.712	8.752	0	813.96	0	0	0	0		1
132	NO	816.22	825	8.78	0	816.22	0	0	0	0		1
133	NO	818.77	828	9.23	0	818.77	0	0	0	0		1
137	NO	783.8	790.5	6.7	0	784.72	0	50.81	0	0		1
138	NO	783.95	791	7.05	0	785.03	0	48.6	0	0		1
139	NO	784.14	791.2	7.06	0	785.25	0	49.62	0	0		1
142	NO	783.8	790.5	6.7	0	784.72	0	51.53	0	0		1
143	NO	783.95	791	7.05	0	785.04	0	49.32	0	0		1
144	NO	784.14	791.2	7.06	0	785.26	0	50.69	0	0		1
69	NO	798.23	808.924	10.694	0	798.23	0	0	0	0		1
70	YES	785.66	801	15.34	0	785.82	0.57	0.57	0	0		0.038
71	NO	783.61	799.185	15.575	0	783.92	0	0.57	0	0		1
72	NO	783.09	793.562	10.472	0	783.41	0	0.56	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
73	YES	782.64	790.823	8.183	0	783.13	0.66	1.21	0	0		0.044
74	NO	782.37	790.3	7.93	0	782.87	0	1.21	0	0		1
75	NO	782.27	790.213	7.943	0	782.73	0	1.21	0	0		1
76	YES	781.4	788.716	7.316	0	782.02	0.81	2	0	0		0.054
77	NO	780.53	787.219	6.689	0	781.16	0	1.98	0	0		1
78	NO	779.87	786.135	6.265	0	780.41	0	1.97	0	0		1
79	NO	779.21	785	5.79	0	779.99	0	1.96	0	0		1
80	YES	779.05	784.799	5.749	0	779.96	1.17	3	0	0		0.078
81	NO	778.74	784.1	5.36	0	779.89	0	2.97	0	0		1
82	YES	777.53	783.678	6.148	0	779.87	3.98	12.34	0	0		0.266
83	NO	779.83	783.143	3.313	0	780.09	0	6.08	0	0		1
84	NO	781.21	785.539	4.329	0	782.11	0	4.63	0	0		1
85	NO	782.58	789.954	7.374	0	783.43	0	4.64	0	0		1
86	NO	782.83	791	8.17	0	783.74	0	4.65	0	0		1
87	YES	783.89	793	9.11	0	784.79	1.47	4.69	0	0		0.098
88	NO	786.21	797.158	10.948	0	787.06	0	3.44	0	0		1
89	YES	787.6	799.681	12.081	0	788.45	0.97	3.52	0	0		0.065
90	NO	794.53	802.046	7.516	0	794.53	0	0	0	0		1
92	YES	775.4	781.023	5.623	0	776.61	0.4	12.42	0	0		0.027
93	NO	775.83	781.99	6.16	0	776.61	0	0.19	0	0		1
94	YES	776.61	783	6.39	0	779.83	0.28	12.45	0	0		0.019
J1	NO	870	871	1	0	870	0	0	0	0		1
J10	YES	799	799	0	0	799	1.63	1.63	0	0		0.109
J11	NO	793	794	1	0	793	0	0	0	0		1
J12	YES	793	794	1	0	793	1.7	1.7	0	0		0.114
J13	YES	790	791	1	0	790	2.54	2.54	0	0		0.17
J14	YES	787	792	5	0	787.86	11.72	11.72	0	0		0.784
J15	YES	799	804	5	0	799.97	18.93	18.93	0	0		1.266
J16	YES	795	800	5	0	795.87	16.06	16.06	0	0		1.074
J18	NO	806	807	1	0	806	0	0	0	0		1
J19	YES	829	830	1	0	829	1.76	1.76	0	0		0.118
J2	YES	794	812	18	5	794.88	108.2	108.2	0	0		1
J20	NO	802	803	1	0	802	0	0	0	0		1
J21	YES	801	802	1	0	801	3.53	3.53	0	0		0.236
J22	YES	793	798	5	0	793.15	0.47	0.47	0	0		0.022
J23	YES	794	803	9	0	795.4	54.09	54.09	0	0		3.618
J24	NO	794	795	1	0	794	0	0	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J25	NO	833	834	1	0	833	0	0	0	0		1
J26	YES	788	793	5	0	789.37	20.93	20.93	0	0		1.4
J27	NO	795	796	1	0	795	0	0	0	0		1
J28	YES	786	793	7	0	787.42	23.47	23.84	0	0		1.57
J29	NO	792	793	1	0	792	0	0	0	0		1
J3	NO	793	812	19	0	794.13	0	107.75	0	0		1
J30	YES	780	785	5	0	780	1.48	1.48	0	0		0.07
J31	NO	805	806	1	0	805	0	0	0	0		1
J32	YES	786	791	5	0	786.59	7	7	0	0		0.468
J33	NO	799	800	1	0	799	0	0	0	0		1
J34	NO	792	793	1	0	792	0	0	0	0		1
J37	NO	787.5	788.5	1	0	787.5	0	0	0	0		1
J4	NO	777.5	795	17.5	0	787.26	0	104.65	0	0		1
J5	NO	800	801	1	0	800	0	0	0	0		1
J7	NO	792	793	1	0	792	0	0	0	0		1
J8	NO	803	804	1	0	803	0	0	0	0		1
J9	NO	845	846	1	0	845	0	0	0	0		1

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PCSWMM Report

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PostDevelopment 5Yr 24 Hour

Model Rubidoux Proposed Conditions.inp

Kimley-Horn and Associates Inc.

June 15, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas 3
Table 2: Orifices 4
Table 3A: Conduits Report 4
Table 3B: Conduits Report 6
Table 4: Outfalls Report 8
Table 5: Storages 9
Table 6: Weirs 10
Table 7: Junctions 1D 10

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Table 1: AES Drainage Areas

NAME	AREA
Area S.7.c.	0.54
Area S.7.b.	0.38
Area S.2.c.	1.57
Area S.2.a.	0.87
Area S.2.b.	1.09
Area S.4.	3.42
Area S.7.a.	1.44
Area S.6.	3.88
Area S.5.a	1.30
Area S.5.b.	1.97
Area B.4.	4.71
Area S.3.	1.69
Area B.1.c.	3.40
Area B.1.b.	2.29
Area B.5.	8.52
Area B.2.c.	31.41
Area B.7.	2.69
Area S.1	0.77
Area B.2.b.	21.47
Area B.3.	2.36
Area C.2	28.00
Area B.6.	9.35
Area B.2.a.	25.31
Area B.1.a	2.18
Area B.1.d.	15.68
Area C.1	72.36
Area A	308.71

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Table 2: Orifices

Name	Inlet Node	Outlet Node	Type	Cross-Section	Height (ft)	Inlet Offset (ft)	Discharge Coeff.	Flap Gate	Max. |Flow| (cfs)
OR1	SU1	70	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.03
OR10	SU14	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	YES	0.5
OR11	SU13	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.65
OR13	SU9	90	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.08
OR14	SU8	133	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.04
OR15	SU15	J4	SIDE	CIRCULAR	3	0	0.65	NO	71.91
OR2	SU2	73	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.04
OR3	SU3	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.05
OR4	SU5	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.3
OR5	SU6	78	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.24
OR6	SU4	80	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.19
OR7	SU7	82	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.37
OR8	SU11	92	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0.11
OR9	SU10	92	SIDE	CIRCULAR	0.65	0	0.65	NO	2.98

Table 3A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C1	J3	59.834	0.025	0	0	0	RECT_OPEN	6	1	
C10	J28	1617.564	0.013	0	0	0.5	CIRCULAR	4	1	
C11	J32	656.105	0.01	0	0	0	CIRCULAR	2	1	
C12	J30	224.87	0.01	0	0	0	DUMMY	0	1	
C13	J19	27.937	0.01	0	0	0	DUMMY	0	1	
C14	J21	40.164	0.01	0	0	0	DUMMY	0	1	
C15	J22	238.647	0.01	0	0	0	CIRCULAR	1.5	1	
C16	J23	2089.708	0.013	0	0	0.5	RECT_CLOSED	4	1	
C17	J26	690.03	0.013	0	0	0.5	CIRCULAR	3.5	1	
C18	J4	15.862	0.01	0	0	0	CIRCULAR	3	1	
C19	128	145.306	0.01	0	0	0	DUMMY	0	1	
C2	J2	197.281	0.013	0	0	1	RECT_CLOSED	9	2	
C20	122	141.03	0.01	0	0	0	DUMMY	0	1	
C3	J3	62.706	0.025	0	0	0	RECT_OPEN	6	1	
C4	J10	48.065	0.01	0	0	0	DUMMY	0	1	
C5	J12	38.438	0.01	0	0	0	DUMMY	0	1	
C6	J13	46.177	0.01	0	0	0	DUMMY	0	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C7	J15	767.982	0.013	0	0	0.5	CIRCULAR	3	1	
C8	J16	1290.738	0.01	0	0	0	CIRCULAR	3	1	
C9	J14	809.99	0.01	0	0	0	CIRCULAR	2.5	1	
PIPE_-101	117	50.357	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-102	118	52.595	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-103	119	691.84	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-104	120	63.638	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105	121	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105_(1)	142	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-106	123	49.239	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-107	124	47.059	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-108	125	690.51	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-109	126	73.537	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110	127	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110_(1)	137	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-111	129	323.894	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-112	130	193.054	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-113	131	210.946	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-114	132	62.943	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-115	133	70.858	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-117	138	53.74	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-118	139	73.538	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-119	143	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-120	144	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-59	69	272.938	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-60	70	44.563	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-61	71	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-62	72	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-63	73	88.222	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-64	74	35.138	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-65	75	287.159	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-66	76	287.158	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-67	77	219.443	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-68	78	219.443	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-69	79	50.65	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-70	80	106.481	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-71	81	120.477	0.013	0	0	0.5	CIRCULAR	2	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
PIPE_-72	83	124.993	0.013	0	0	0.5	RECT_CLOSED	2	1	
PIPE_-73	84	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-74	85	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-75	86	83.535	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-76	87	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-77	102	309.74	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-77_(1)	88	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-78	89	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-79	90	435.736	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-80	92	136.34	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-81	93	142.205	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-82	94	255.962	0.013	3.7	0	0.5	RECT_CLOSED	2	1	
PIPE_-83	82	305.558	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-89	101	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
W2	94	344.214	0.01	0	0	0	RECT_CLOSED	2	1	

Table 3B: Conduits Report

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C1	0.02508	19.91	5.33	0	0	
C10	0.00371	9.52	4.59	0	0	
C11	0.01524	2.81	6.7	0	0	
C12	0.00076	0.28	0	0	0	
C13	0.18191	0.71	0	0	0	
C14	0.12547	1.42	0	0	0	
C15	0.02934	0.09	0.2	0	0	
C16	0.00335	21.73	3.4	0	0	
C17	0.00435	8.41	4.84	0	0	
C18	0.02144	104.65	14.8	0	0	
C19	0.01115	19.18	0	0	0	
C2	0.00507	39.4	3.35	0	0	Ex Box Culvert
C20	0.01149	19.64	0	0	0	
C3	0.02393	19.45	5.27	0	0	
C4	0.10459	0.66	0	0	0	
C5	0.13119	0.69	0	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C6	0.13105	1.02	0	0	0	
C7	0.01563	7.61	7.16	0	0	
C8	0.01007	6.45	7.05	0	0	
C9	0.00741	4.71	5.91	0	0	
PIPE_-101	0.00238	19.91	3.03	0	0	
PIPE_-102	0.00209	19.91	3.31	0	0	
PIPE_-103	0.00236	19.91	3.38	0	0	
PIPE_-104	0.00251	19.89	3.39	0	0	
PIPE_-105	0.00234	19.81	3.39	0	0	
PIPE_-105_(1)	0.00223	19.64	7.89	0	0	
PIPE_-106	0.00244	19.45	3.04	0	0	
PIPE_-107	0.00234	19.45	3.3	0	0	
PIPE_-108	0.00235	19.45	3.33	0	0	
PIPE_-109	0.00231	19.43	3.34	0	0	
PIPE_-110	0.00234	19.35	3.34	0	0	
PIPE_-110_(1)	0.00223	19.18	7.81	0	0	
PIPE_-111	0.03661	1.03	3.06	0	0	
PIPE_-112	0.03592	0.04	1.44	0	0	
PIPE_-113	0.03596	0.04	2.19	0	0	
PIPE_-114	0.03593	0.04	2.19	0	0	
PIPE_-115	0.03601	0.04	2.18	0	0	
PIPE_-117	0.00279	19.18	3.61	0	0	
PIPE_-118	0.00258	19.18	3.26	0	0	
PIPE_-119	0.00236	19.64	3.6	0	0	
PIPE_-120	0.00299	19.64	3.27	0	0	
PIPE_-59	0.0461	0	0	0	0	
PIPE_-60	0.04605	0.23	2.44	0	0	
PIPE_-61	0.0035	0.23	1.63	0	0	
PIPE_-62	0.00303	0.23	1.17	0	0	
PIPE_-63	0.00306	0.49	1.88	0	0	
PIPE_-64	0.00285	0.49	1.9	0	0	
PIPE_-65	0.00303	0.49	1.65	0	0	
PIPE_-66	0.00303	0.82	2.25	0	0	
PIPE_-67	0.00301	0.82	2.39	0	0	
PIPE_-68	0.00301	0.82	2.13	0	0	
PIPE_-69	0.00316	0.82	1.88	0	0	
PIPE_-70	0.00291	1.28	2.83	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
PIPE_-71	0.01004	1.28	2.53	0	0	
PIPE_-72	0.0184	2.26	0.98	0	0	
PIPE_-73	0.00309	1.98	4.97	0	0	
PIPE_-74	0.00306	1.99	2.71	0	0	
PIPE_-75	0.00299	1.99	2.8	0	0	
PIPE_-76	0.00301	2	2.78	0	0	
PIPE_-77	0.003	1.42	2.54	0	0	
PIPE_-77_(1)	0.00299	1.42	2.67	0	0	
PIPE_-78	0.00299	1.42	2.65	0	0	
PIPE_-79	0.01591	0.08	0.89	0	0	
PIPE_-80	0.00301	5.26	3.48	0	0	
PIPE_-81	0.00302	0.08	0.13	0	0	
PIPE_-82	0.01751	0	0	0	0	
PIPE_-83	0.00301	5.08	3.44	0	0	
PIPE_-89	0.00301	2	2.74	0	0	
W2	0.00177	5.17	1.02	0	0	

Table 4: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J17	YES	838	839		838	0.5	0.5	0	0	0		0.096
J6	NO	774.99	781		775.72	0	5.26	0	0	0		1.3
OF1	NO	777.16	795		785	0	104.65	0	0	0		11.2

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Table 5: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
SU1	794	799	5	TABULAR	1.46	2.77	796.77	0.66	0	0.124	2.23	55	0	0	Future Basin
SU11	776	781	5	TABULAR	1.43	2.72	778.72	2.81	0	0.533	2.28	54	0	0	Future Basin
SU13	787	792	5	TABULAR	1.41	2.7	789.7	21.73	0	4.12	2.3	54	0	0	Future Basin
SU14	785	790	5	TABULAR	1.43	2.71	787.71	8.41	0	1.6	2.29	54	0	0	Future Basin
SU15	782	790	8	TABULAR	2.95	3.63	785.63	71.91	0	11.7	9.37	42	0	0	RCFC Basin
SU2	788	793	5	TABULAR	1.45	2.75	790.75	0.69	0	0.13	2.25	55	0	0	Future Basin
SU3	784	790	6	TABULAR	1.46	2.77	786.77	1.02	0	0.194	3.23	46	0	0	Future Basin
SU4	781	786	5	TABULAR	1.43	2.72	783.72	4.71	0	0.893	2.28	54	0	0	Future Basin
SU5	787	792	5	TABULAR	1.44	2.74	789.74	7.61	0	1.44	2.26	55	0	0	Future Basin
SU6	782	787	5	TABULAR	1.42	2.7	784.7	6.45	0	1.22	2.3	54	0	0	Future Basin
SU7	780	785	5	TABULAR	1.43	2.72	782.72	9.52	0	1.81	2.28	54	0	0	Future Basin
SU8	824	829	5	TABULAR	1.46	2.76	826.76	0.71	0	0.134	2.24	55	0	0	Future Basin
SU9	796	801	5	TABULAR	1.46	2.77	798.77	1.42	0	0.269	2.23	55	0	0	Future Basin
SU10	776	781	5	TABULAR	1.61	3.3	779.3	5.17	0	1.26	2.2	66	0	0	Streets Basin

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Table 6: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	SU15	J4	TRANSVERSE	6	150	0	7	3.33	0	0	
W3	SU10	92	TRANSVERSE	2.5	4	0	3	3.33	2.14	0.12	

Table 7: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
101	NO	783.36	791.999	8.639	0	783.92	0	2	0	0		1
102	NO	784.82	794.636	9.816	0	785.33	0	1.42	0	0		1
117	NO	791.5	798	6.5	0	792.17	0	19.91	0	0		1
118	NO	791.38	803.5	12.12	0	792.03	0	19.91	0	0		1
119	NO	791.27	803.5	12.23	0	791.83	0	19.91	0	0		1
120	NO	789.64	803.5	13.86	0	790.26	0	19.91	0	0		1
121	NO	789.48	803.1	13.62	0	790.04	0	19.89	0	0		1
122	NO	783.62	789	5.38	0	783.62	0	19.64	0	0		1
123	NO	791.5	798	6.5	0	792.16	0	19.45	0	0		1
124	NO	791.38	803.5	12.12	0	792.01	0	19.45	0	0		1
125	NO	791.27	803.5	12.23	0	791.83	0	19.45	0	0		1
126	NO	789.65	803.5	13.85	0	790.27	0	19.45	0	0		1
127	NO	789.48	803.1	13.62	0	790.04	0	19.43	0	0		1
128	NO	783.62	789	5.38	0	783.62	0	19.18	0	0		1
129	YES	799.45	806.592	7.142	0	799.68	1.03	1.03	0	0		0.171
130	NO	806.38	814.314	7.934	0	806.43	0	0.04	0	0		1
131	NO	813.96	822.712	8.752	0	814.01	0	0.04	0	0		1
132	NO	816.22	825	8.78	0	816.27	0	0.04	0	0		1
133	NO	818.77	828	9.23	0	818.82	0	0.04	0	0		1
137	NO	783.8	790.5	6.7	0	784.29	0	19.18	0	0		1
138	NO	783.95	791	7.05	0	784.52	0	19.18	0	0		1
139	NO	784.14	791.2	7.06	0	784.75	0	19.35	0	0		1
142	NO	783.8	790.5	6.7	0	784.3	0	19.64	0	0		1
143	NO	783.95	791	7.05	0	784.54	0	19.64	0	0		1
144	NO	784.14	791.2	7.06	0	784.75	0	19.81	0	0		1
69	NO	798.23	808.924	10.694	0	798.23	0	0	0	0		1
70	YES	785.66	801	15.34	0	785.77	0.23	0.23	0	0		0.038
71	NO	783.61	799.185	15.575	0	783.81	0	0.23	0	0		1
72	NO	783.09	793.562	10.472	0	783.29	0	0.23	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
73	YES	782.64	790.823	8.183	0	782.94	0.26	0.49	0	0		0.044
74	NO	782.37	790.3	7.93	0	782.69	0	0.49	0	0		1
75	NO	782.27	790.213	7.943	0	782.57	0	0.49	0	0		1
76	YES	781.4	788.716	7.316	0	781.78	0.32	0.82	0	0		0.054
77	NO	780.53	787.219	6.689	0	780.93	0	0.82	0	0		1
78	NO	779.87	786.135	6.265	0	780.22	0	0.82	0	0		1
79	NO	779.21	785	5.79	0	779.58	0	0.82	0	0		1
80	YES	779.05	784.799	5.749	0	779.5	0.47	1.28	0	0		0.078
81	NO	778.74	784.1	5.36	0	779.32	0	1.28	0	0		1
82	YES	777.53	783.678	6.148	0	779.32	1.6	5.11	0	0		0.266
83	NO	779.83	783.143	3.313	0	779.97	0	2.26	0	0		1
84	NO	781.21	785.539	4.329	0	781.81	0	1.99	0	0		1
85	NO	782.58	789.954	7.374	0	783.12	0	1.99	0	0		1
86	NO	782.83	791	8.17	0	783.4	0	2	0	0		1
87	YES	783.89	793	9.11	0	784.45	0.59	2	0	0		0.098
88	NO	786.21	797.158	10.948	0	786.73	0	1.42	0	0		1
89	YES	787.6	799.681	12.081	0	788.11	0.39	1.42	0	0		0.065
90	NO	794.53	802.046	7.516	0	794.61	0	0.08	0	0		1
92	YES	775.4	781.023	5.623	0	776.17	0.16	5.27	0	0		0.027
93	NO	775.83	781.99	6.16	0	776.17	0	0.08	0	0		1
94	YES	776.61	783	6.39	0	779.31	0.11	5.2	0	0		0.019
J1	NO	870	871	1	0	870	0	0	0	0		1
J10	YES	799	799	0	0	799	0.66	0.66	0	0		0.109
J11	NO	793	794	1	0	793	0	0	0	0		1
J12	YES	793	794	1	0	793	0.69	0.69	0	0		0.114
J13	YES	790	791	1	0	790	1.02	1.02	0	0		0.17
J14	YES	787	792	5	0	787.54	4.71	4.71	0	0		0.784
J15	YES	799	804	5	0	799.61	7.61	7.61	0	0		1.266
J16	YES	795	800	5	0	795.55	6.45	6.45	0	0		1.074
J18	NO	806	807	1	0	806	0	0	0	0		1
J19	YES	829	830	1	0	829	0.71	0.71	0	0		0.118
J2	YES	794	812	18	5	794.41	39.36	39.36	0	0		1
J20	NO	802	803	1	0	802	0	0	0	0		1
J21	YES	801	802	1	0	801	1.42	1.42	0	0		0.236
J22	YES	793	798	5	0	793.07	0.09	0.09	0	0		0.022
J23	YES	794	803	9	0	794.76	21.74	21.74	0	0		3.618
J24	NO	794	795	1	0	794	0	0	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J25	NO	833	834	1	0	833	0	0	0	0		1
J26	YES	788	793	5	0	788.84	8.41	8.41	0	0		1.4
J27	NO	795	796	1	0	795	0	0	0	0		1
J28	YES	786	793	7	0	786.89	9.44	9.53	0	0		1.57
J29	NO	792	793	1	0	792	0	0	0	0		1
J3	NO	793	812	19	0	793.57	0	39.4	0	0		1
J30	YES	780	785	5	0	780	0.28	0.28	0	0		0.07
J31	NO	805	806	1	0	805	0	0	0	0		1
J32	YES	786	791	5	0	786.38	2.81	2.81	0	0		0.468
J33	NO	799	800	1	0	799	0	0	0	0		1
J34	NO	792	793	1	0	792	0	0	0	0		1
J37	NO	787.5	788.5	1	0	787.5	0	0	0	0		1
J4	NO	777.5	795	17.5	0	787.26	0	104.65	0	0		1
J5	NO	800	801	1	0	800	0	0	0	0		1
J7	NO	792	793	1	0	792	0	0	0	0		1
J8	NO	803	804	1	0	803	0	0	0	0		1
J9	NO	845	846	1	0	845	0	0	0	0		1

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PCSWMM Report

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PreDevelopment 2Yr 1 Hour

Model Rubidoux Existing Conditions.inp

Kimley-Horn and Associates Inc.

May 31, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas Pre 3
Table 2A: Conduits Report 3
Table 2B: Conduits Report 3
Table 3: Outfalls Report 4
Table 4: Storages 5
Table 5: Weirs 6
Table 6: Junctions 1D 6

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Table 1: AES Drainage Areas Pre

NAME	AREA	Impervious Area Fraction	Upstream Node	Downstream Node	Longest Watercourse	Length From Centroid	Elevation Difference	Watershed N Value	SGRAPH	Slope of Intensity Curve	Depth Adjustment Factor
Area A	308.71	0.25	100	101	4582	2749	76	.015	Foothill	0.55	1
Area B	121.08	0.00	104	105	3781	2268	62.9	.03	Foothill	0.55	1.00
Area C	136.7	0.00	106	103	2948	1768	14.7	.03	Foothill	0.55	1.00

Table 2A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)
C1	J4	77.166	0.013	0	0	0.5	CIRCULAR	3	1		0.00648	71.07	25.86	0
C1_1	J3	925.789	0.024	0	0	0	TRAPEZOIDAL	5	1		0.00864	188.57	5.79	0
C1_2	J8	2565.133	0.024	0	0	0	TRAPEZOIDAL	10	1		0.00273	148.2	4.22	0
C2	J2	205.396	0.013	0	0	1	RECT_CLOSED	9	2		0.00487	201.01	6.28	0
C3	J9	63.024	0.01	0	0	0	DUMMY	0	1		0.00539	71.07	0	0

Table 2B: Conduits Report

Name	Contributing Imp. Area (ac)	Description
C1	0	
C1_1	0	
C1_2	0	
C2	0	
C3	0	

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Table 3: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J6	YES	785.6	786.6		785.6	51.22	51.22	0	0	0		0.414
OF1	NO	777.16	795		785	0	71.07	0	0	0		2.29

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Table 4: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
J4	778	795	17	TABULAR	0.38	2.56	780.56	203.08	0.49	2.32	14.44	0	0	0	

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Table 5: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	J4	J9	TRANSVERSE	6	150	0	11	3.33	0	0	

Table 6: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J1	NO	870	871	1	0	870	0	0	0	0		1
J2	YES	794	812	18	5	795.39	201.04	201.04	0	0		1
J3	NO	793	812	19	0	794.32	0	201.01	0	0		1
J5	NO	848.5	849.5	1	0	848.5	0	0	0	0		1
J7	NO	795	796	1	0	795	0	0	0	0		1
J8	NO	785	790	5	0	786.87	0	188.57	0	0		1
J9	NO	777.5	795	17.5	0	777.91	0	71.07	0	0		1

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PCSWMM Report

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PreDevelopment 2Yr 3 Hour

Model Rubidoux Existing Conditions.inp

Kimley-Horn and Associates Inc.

May 31, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas Pre 3
Table 2A: Conduits Report 3
Table 2B: Conduits Report 3
Table 3: Outfalls Report 4
Table 4: Storages 5
Table 5: Weirs 6
Table 6: Junctions 1D 6

DRAFT

Table 1: AES Drainage Areas Pre

NAME	AREA	Impervious Area Fraction	Upstream Node	Downstream Node	Longest Watercourse	Length From Centroid	Elevation Difference	Watershed N Value	SGRAPH	Slope of Intensity Curve	Depth Adjustment Factor
Area A	308.71	0.25	100	101	4582	2749	76	.015	Foothill	0.55	1
Area B	121.08	0.00	104	105	3781	2268	62.9	.03	Foothill	0.55	1.00
Area C	136.7	0.00	106	103	2948	1768	14.7	.03	Foothill	0.55	1.00

Table 2A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)
C1	J4	77.166	0.013	0	0	0.5	CIRCULAR	3	1		0.00648	47.46	16.86	0
C1_1	J3	925.789	0.024	0	0	0	TRAPEZOIDAL	5	1		0.00864	79.03	3.67	0
C1_2	J8	2565.133	0.024	0	0	0	TRAPEZOIDAL	10	1		0.00273	71.26	2.44	0
C2	J2	205.396	0.013	0	0	1	RECT_CLOSED	9	2		0.00487	80.53	4.48	0
C3	J9	63.024	0.01	0	0	0	DUMMY	0	1		0.00539	47.46	0	0

Table 2B: Conduits Report

Name	Contributing Imp. Area (ac)	Description
C1	0	
C1_1	0	
C1_2	0	
C2	0	
C3	0	

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Table 3: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J6	YES	785.6	786.6		785.6	11.93	11.93	0	0	0		0.29
OF1	NO	777.16	795		785	0	47.46	0	0	0		2.81

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Table 4: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
J4	778	795	17	TABULAR	0.44	2.19	780.19	87.31	0.355	2.83	14.81	0	0	0	

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Table 5: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	J4	J9	TRANSVERSE	6	150	0	11	3.33	0	0	

Table 6: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J1	NO	870	871	1	0	870	0	0	0	0		1
J2	YES	794	812	18	5	794.71	80.67	80.67	0	0		1
J3	NO	793	812	19	0	793.79	0	80.53	0	0		1
J5	NO	848.5	849.5	1	0	848.5	0	0	0	0		1
J7	NO	795	796	1	0	795	0	0	0	0		1
J8	NO	785	790	5	0	786.23	0	79.03	0	0		1
J9	NO	777.5	795	17.5	0	777.83	0	47.46	0	0		1

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PCSWMM Report

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PreDevelopment 2Yr 6 Hour

Model Rubidoux Existing Conditions.inp

Kimley-Horn and Associates Inc.

May 31, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas Pre 3
Table 2A: Conduits Report 3
Table 2B: Conduits Report 3
Table 3: Outfalls Report 4
Table 4: Storages 5
Table 5: Weirs 6
Table 6: Junctions 1D 6

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Table 1: AES Drainage Areas Pre

NAME	AREA	Impervious Area Fraction	Upstream Node	Downstream Node	Longest Watercourse	Length From Centroid	Elevation Difference	Watershed N Value	SGRAPH	Slope of Intensity Curve	Depth Adjustment Factor
Area A	308.71	0.25	100	101	4582	2749	76	.015	Foothill	0.55	1
Area B	121.08	0.00	104	105	3781	2268	62.9	.03	Foothill	0.55	1.00
Area C	136.7	0.00	106	103	2948	1768	14.7	.03	Foothill	0.55	1.00

Table 2A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)
C1	J4	77.166	0.013	0	0	0.5	CIRCULAR	3	1		0.00648	45.96	16.85	0
C1_1	J3	925.789	0.024	0	0	0	TRAPEZOIDAL	5	1		0.00864	69.57	3.41	0
C1_2	J8	2565.133	0.024	0	0	0	TRAPEZOIDAL	10	1		0.00273	63.92	2.24	0
C2	J2	205.396	0.013	0	0	1	RECT_CLOSED	9	2		0.00487	70.55	4.27	0
C3	J9	63.024	0.01	0	0	0	DUMMY	0	1		0.00539	45.96	0	0

Table 2B: Conduits Report

Name	Contributing Imp. Area (ac)	Description
C1	0	
C1_1	0	
C1_2	0	
C2	0	
C3	0	

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Table 3: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J6	YES	785.6	786.6		785.6	8.95	8.95	0	0	0		0.373
OF1	NO	777.16	795		785	0	45.96	0	0	0		3.8

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Table 4: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
J4	778	795	17	TABULAR	0.56	2.14	780.14	74.91	0.432	3.82	14.86	0	0	0	

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Table 5: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	J4	J9	TRANSVERSE	6	150	0	11	3.33	0	0	

Table 6: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J1	NO	870	871	1	0	870	0	0	0	0		1
J2	YES	794	812	18	5	794.65	70.7	70.7	0	0		1
J3	NO	793	812	19	0	793.73	0	70.55	0	0		1
J5	NO	848.5	849.5	1	0	848.5	0	0	0	0		1
J7	NO	795	796	1	0	795	0	0	0	0		1
J8	NO	785	790	5	0	786.15	0	69.57	0	0		1
J9	NO	777.5	795	17.5	0	777.83	0	45.96	0	0		1

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PCSWMM Report

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PreDevelopment 2Yr 24 Hour HCOC

Model Rubidoux Existing Conditions.inp

Kimley-Horn and Associates Inc.

May 31, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas Pre 3
Table 2A: Conduits Report 3
Table 2B: Conduits Report 3
Table 3: Outfalls Report 4
Table 4: Storages 5
Table 5: Weirs 6
Table 6: Junctions 1D 6

DRAFT

Table 1: AES Drainage Areas Pre

NAME	AREA	Impervious Area Fraction	Upstream Node	Downstream Node	Longest Watercourse	Length From Centroid	Elevation Difference	Watershed N Value	SGRAPH	Slope of Intensity Curve	Depth Adjustment Factor
Area A	308.71	0.25	100	101	4582	2749	76	.015	Foothill	0.55	1
Area B	121.08	0.00	104	105	3781	2268	62.9	.03	Foothill	0.55	1.00
Area C	136.7	0.00	106	103	2948	1768	14.7	.03	Foothill	0.55	1.00

Table 2A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)
C1	J4	77.166	0.013	0	0	0.5	CIRCULAR	3	1		0.00648	28.36	16.33	0
C1_1	J3	925.789	0.024	0	0	0	TRAPEZOIDAL	5	1		0.00864	30.21	2.45	0
C1_2	J8	2565.133	0.024	0	0	0	TRAPEZOIDAL	10	1		0.00273	29.52	1.53	0
C2	J2	205.396	0.013	0	0	1	RECT_CLOSED	9	2		0.00487	30.24	3.18	0
C3	J9	63.024	0.01	0	0	0	DUMMY	0	1		0.00539	28.36	0	0

Table 2B: Conduits Report

Name	Contributing Imp. Area (ac)	Description
C1	0	
C1_1	0	
C1_2	0	
C2	0	
C3	0	

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Table 3: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J6	YES	785.6	786.6		785.6	3.12	3.12	0	0	0		0.641
OF1	NO	777.16	795		785	0	28.36	0	0	0		6.76

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Table 4: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
J4	778	795	17	TABULAR	0.54	1.55	779.55	32.95	0.72	6.76	15.45	0	0	0	

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Table 5: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	J4	J9	TRANSVERSE	6	150	0	11	3.33	0	0	

Table 6: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J1	NO	870	871	1	0	870	0	0	0	0		1
J2	YES	794	812	18	5	794.35	30.21	30.21	0	0		1
J3	NO	793	812	19	0	793.45	0	30.24	0	0		1
J5	NO	848.5	849.5	1	0	848.5	0	0	0	0		1
J7	NO	795	796	1	0	795	0	0	0	0		1
J8	NO	785	790	5	0	785.73	0	30.21	0	0		1
J9	NO	777.5	795	17.5	0	777.72	0	28.36	0	0		1

DRAFT

PCSWMM Report

DRAFT

PostDevelopment 2Yr 1 Hour

Model Rubidoux Proposed Conditions.inp

Kimley-Horn and Associates Inc.

June 15, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas 3
Table 2: Orifices 4
Table 3A: Conduits Report 4
Table 3B: Conduits Report 6
Table 4: Outfalls Report 8
Table 5: Storages 9
Table 6: Weirs 10
Table 7: Junctions 1D 10

DRAFT

Table 1: AES Drainage Areas

NAME	AREA
Area S.7.c.	0.54
Area S.7.b.	0.38
Area S.2.c.	1.57
Area S.2.a.	0.87
Area S.2.b.	1.09
Area S.4.	3.42
Area S.7.a.	1.44
Area S.6.	3.88
Area S.5.a	1.30
Area S.5.b.	1.97
Area B.4.	4.71
Area S.3.	1.69
Area B.1.c.	3.40
Area B.1.b.	2.29
Area B.5.	8.52
Area B.2.c.	31.41
Area B.7.	2.69
Area S.1	0.77
Area B.2.b.	21.47
Area B.3.	2.36
Area C.2	28.00
Area B.6.	9.35
Area B.2.a.	25.31
Area B.1.a	2.18
Area B.1.d.	15.68
Area C.1	72.36
Area A	308.71

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Table 2: Orifices

Name	Inlet Node	Outlet Node	Type	Cross-Section	Height (ft)	Inlet Offset (ft)	Discharge Coeff.	Flap Gate	Max. |Flow| (cfs)
OR1	SU1	70	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR10	SU14	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	YES	0
OR11	SU13	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR13	SU9	90	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR14	SU8	133	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR15	SU15	J4	SIDE	CIRCULAR	3	0	0.65	NO	71.91
OR2	SU2	73	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR3	SU3	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR4	SU5	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR5	SU6	78	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR6	SU4	80	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR7	SU7	82	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR8	SU11	92	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR9	SU10	92	SIDE	CIRCULAR	0.65	0	0.65	NO	3.12

Table 3A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C1	J3	59.834	0.025	0	0	0	RECT_OPEN	6	1	
C10	J28	1617.564	0.013	0	0	0.5	CIRCULAR	4	1	
C11	J32	656.105	0.01	0	0	0	CIRCULAR	2	1	
C12	J30	224.87	0.01	0	0	0	DUMMY	0	1	
C13	J19	27.937	0.01	0	0	0	DUMMY	0	1	
C14	J21	40.164	0.01	0	0	0	DUMMY	0	1	
C15	J22	238.647	0.01	0	0	0	CIRCULAR	1.5	1	
C16	J23	2089.708	0.013	0	0	0.5	RECT_CLOSED	4	1	
C17	J26	690.03	0.013	0	0	0.5	CIRCULAR	3.5	1	
C18	J4	15.862	0.01	0	0	0	CIRCULAR	3	1	
C19	128	145.306	0.01	0	0	0	DUMMY	0	1	
C2	J2	197.281	0.013	0	0	1	RECT_CLOSED	9	2	
C20	122	141.03	0.01	0	0	0	DUMMY	0	1	
C3	J3	62.706	0.025	0	0	0	RECT_OPEN	6	1	
C4	J10	48.065	0.01	0	0	0	DUMMY	0	1	
C5	J12	38.438	0.01	0	0	0	DUMMY	0	1	
C6	J13	46.177	0.01	0	0	0	DUMMY	0	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C7	J15	767.982	0.013	0	0	0.5	CIRCULAR	3	1	
C8	J16	1290.738	0.01	0	0	0	CIRCULAR	3	1	
C9	J14	809.99	0.01	0	0	0	CIRCULAR	2.5	1	
PIPE_-101	117	50.357	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-102	118	52.595	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-103	119	691.84	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-104	120	63.638	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105	121	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105_(1)	142	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-106	123	49.239	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-107	124	47.059	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-108	125	690.51	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-109	126	73.537	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110	127	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110_(1)	137	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-111	129	323.894	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-112	130	193.054	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-113	131	210.946	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-114	132	62.943	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-115	133	70.858	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-117	138	53.74	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-118	139	73.538	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-119	143	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-120	144	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-59	69	272.938	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-60	70	44.563	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-61	71	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-62	72	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-63	73	88.222	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-64	74	35.138	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-65	75	287.159	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-66	76	287.158	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-67	77	219.443	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-68	78	219.443	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-69	79	50.65	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-70	80	106.481	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-71	81	120.477	0.013	0	0	0.5	CIRCULAR	2	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
PIPE_-72	83	124.993	0.013	0	0	0.5	RECT_CLOSED	2	1	
PIPE_-73	84	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-74	85	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-75	86	83.535	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-76	87	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-77	102	309.74	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-77_(1)	88	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-78	89	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-79	90	435.736	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-80	92	136.34	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-81	93	142.205	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-82	94	255.962	0.013	3.7	0	0.5	RECT_CLOSED	2	1	
PIPE_-83	82	305.558	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-89	101	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
W2	94	344.214	0.01	0	0	0	RECT_CLOSED	2	1	

Table 3B: Conduits Report

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C1	0.02508	99.9	8.63	0	0	
C10	0.00371	31.96	10.89	0	0	
C11	0.01524	10.05	13.34	0	0	
C12	0.00076	3.59	0	0	0	
C13	0.18191	2.57	0	0	0	
C14	0.12547	5.13	0	0	0	
C15	0.02934	1.11	1.06	0	0	
C16	0.00335	71.8	10.55	0	0	
C17	0.00435	29.78	11.69	0	0	
C18	0.02144	104.65	14.8	0	0	
C19	0.01115	92.02	0	0	0	
C2	0.00507	199.91	5.17	0	0	Ex Box Culvert
C20	0.01149	94.26	0	0	0	
C3	0.02393	98.38	8.57	0	0	
C4	0.10459	2.37	0	0	0	
C5	0.13119	2.48	0	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C6	0.13105	3.7	0	0	0	
C7	0.01563	27.01	15.88	0	0	
C8	0.01007	22.62	15.56	0	0	
C9	0.00741	16.71	13.03	0	0	
PIPE_-101	0.00238	99.72	4.98	0	0	
PIPE_-102	0.00209	99.38	5.56	0	0	
PIPE_-103	0.00236	98.84	6.03	0	0	
PIPE_-104	0.00251	92.75	6.26	0	0	
PIPE_-105	0.00234	88.13	5.99	0	0	
PIPE_-105_(1)	0.00223	94.13	16.9	0	0	
PIPE_-106	0.00244	98.19	4.98	0	0	
PIPE_-107	0.00234	97.84	5.53	0	0	
PIPE_-108	0.00235	97.36	5.98	0	0	
PIPE_-109	0.00231	91.44	6.23	0	0	
PIPE_-110	0.00234	86.67	5.95	0	0	
PIPE_-110_(1)	0.00223	91.9	16.69	0	0	
PIPE_-111	0.03661	3.65	4.41	0	0	
PIPE_-112	0.03592	0	0	0	0	
PIPE_-113	0.03596	0	0	0	0	
PIPE_-114	0.03593	0	0	0	0	
PIPE_-115	0.03601	0	0	0	0	
PIPE_-117	0.00279	83.9	6.99	0	0	
PIPE_-118	0.00258	81.33	5.49	0	0	
PIPE_-119	0.00236	85.52	6.96	0	0	
PIPE_-120	0.00299	84.37	5.58	0	0	
PIPE_-59	0.0461	0	0	0	0	
PIPE_-60	0.04605	0.81	3.52	0	0	
PIPE_-61	0.0035	0.81	2.37	0	0	
PIPE_-62	0.00303	0.78	1.63	0	0	
PIPE_-63	0.00306	1.66	2.59	0	0	
PIPE_-64	0.00285	1.65	2.72	0	0	
PIPE_-65	0.00303	1.63	2.28	0	0	
PIPE_-66	0.00303	2.62	3.09	0	0	
PIPE_-67	0.00301	2.58	3.35	0	0	
PIPE_-68	0.00301	2.59	2.79	0	0	
PIPE_-69	0.00316	2.51	2.32	0	0	
PIPE_-70	0.00291	3.62	4.21	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
PIPE_-71	0.01004	3.56	2.35	0	0	
PIPE_-72	0.0184	8.56	1.84	0	0	
PIPE_-73	0.00309	5.43	6.25	0	0	
PIPE_-74	0.00306	5.5	3.7	0	0	
PIPE_-75	0.00299	5.5	3.6	0	0	
PIPE_-76	0.00301	5.52	3.56	0	0	
PIPE_-77	0.003	4.27	3.44	0	0	
PIPE_-77_(1)	0.00299	4.42	3.58	0	0	
PIPE_-78	0.00299	4.55	3.58	0	0	
PIPE_-79	0.01591	0	0	0	0	
PIPE_-80	0.00301	12.76	4.44	0	0	
PIPE_-81	0.00302	1.52	1.06	0	0	
PIPE_-82	0.01751	0	0	0	0	
PIPE_-83	0.00301	14.05	4.46	0	0	
PIPE_-89	0.00301	5.51	3.5	0	0	
W2	0.00177	13.11	1.96	0	0	

Table 4: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J17	YES	838	839		838	1.83	1.83	0	0	0		0.018
J6	NO	774.99	781		776.13	0	12.76	0	0	0		0.216
OF1	NO	777.16	795		785	0	104.65	0	0	0		2.47

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Table 5: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
SU1	794	799	5	TABULAR	0.36	0.59	794.59	2.37	0	0.024	4.41	12	0	0	Future Basin
SU11	776	781	5	TABULAR	0.36	0.58	776.58	10.05	0	0.103	4.42	12	0	0	Future Basin
SU13	787	792	5	TABULAR	0.35	0.57	787.57	71.8	0	0.796	4.43	11	0	0	Future Basin
SU14	785	790	5	TABULAR	0.36	0.59	785.59	29.78	0	0.309	4.41	12	0	0	Future Basin
SU15	782	790	8	TABULAR	2.85	2.99	784.99	220.83	0	4.59	10.01	34	0	0	RCFC Basin
SU2	788	793	5	TABULAR	0.36	0.59	788.59	2.48	0	0.025	4.41	12	0	0	Future Basin
SU3	784	790	6	TABULAR	0.36	0.59	784.59	3.7	0	0.037	5.41	10	0	0	Future Basin
SU4	781	786	5	TABULAR	0.36	0.58	781.58	16.71	0	0.173	4.42	12	0	0	Future Basin
SU5	787	792	5	TABULAR	0.36	0.59	787.59	27.01	0	0.279	4.41	12	0	0	Future Basin
SU6	782	787	5	TABULAR	0.35	0.58	782.58	22.62	0	0.238	4.42	12	0	0	Future Basin
SU7	780	785	5	TABULAR	0.37	0.59	780.59	31.96	0	0.358	4.41	12	0	0	Future Basin
SU8	824	829	5	TABULAR	0.36	0.59	824.59	2.57	0	0.026	4.41	12	0	0	Future Basin
SU9	796	801	5	TABULAR	0.36	0.59	796.59	5.13	0	0.052	4.41	12	0	0	Future Basin
SU10	776	781	5	TABULAR	0.22	3.8	779.8	13.11	0	0.212	1.7	76	0	0	Streets Basin

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Table 6: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	SU15	J4	TRANSVERSE	6	150	0	7	3.33	0	0	
W3	SU10	92	TRANSVERSE	2.5	4	0	3	3.33	9.51	0.32	

Table 7: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
101	NO	783.36	791.999	8.639	0	784.35	0	5.52	0	0		1
102	NO	784.82	794.636	9.816	0	785.82	0	4.42	0	0		1
117	NO	791.5	798	6.5	0	793.59	0	99.9	0	0		1
118	NO	791.38	803.5	12.12	0	793.3	0	99.72	0	0		1
119	NO	791.27	803.5	12.23	0	792.96	0	99.38	0	0		1
120	NO	789.64	803.5	13.86	0	791.35	0	98.84	0	0		1
121	NO	789.48	803.1	13.62	0	790.99	0	92.75	0	0		1
122	NO	783.62	789	5.38	0	783.63	0	94.13	0	0		1
123	NO	791.5	798	6.5	0	793.56	0	98.38	0	0		1
124	NO	791.38	803.5	12.12	0	793.28	0	98.19	0	0		1
125	NO	791.27	803.5	12.23	0	792.95	0	97.84	0	0		1
126	NO	789.65	803.5	13.85	0	791.35	0	97.36	0	0		1
127	NO	789.48	803.1	13.62	0	790.98	0	91.44	0	0		1
128	NO	783.62	789	5.38	0	783.62	0	91.9	0	0		1
129	YES	799.45	806.592	7.142	0	799.88	3.72	3.72	0	0		0.171
130	NO	806.38	814.314	7.934	0	806.38	0	0	0	0		1
131	NO	813.96	822.712	8.752	0	813.96	0	0	0	0		1
132	NO	816.22	825	8.78	0	816.22	0	0	0	0		1
133	NO	818.77	828	9.23	0	818.77	0	0	0	0		1
137	NO	783.8	790.5	6.7	0	785.11	0	83.9	0	0		1
138	NO	783.95	791	7.05	0	785.49	0	81.33	0	0		1
139	NO	784.14	791.2	7.06	0	785.73	0	86.67	0	0		1
142	NO	783.8	790.5	6.7	0	785.13	0	85.52	0	0		1
143	NO	783.95	791	7.05	0	785.53	0	84.37	0	0		1
144	NO	784.14	791.2	7.06	0	785.75	0	88.13	0	0		1
69	NO	798.23	808.924	10.694	0	798.23	0	0	0	0		1
70	YES	785.66	801	15.34	0	785.85	0.83	0.83	0	0		0.038
71	NO	783.61	799.185	15.575	0	783.98	0	0.81	0	0		1
72	NO	783.09	793.562	10.472	0	783.46	0	0.81	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
73	YES	782.64	790.823	8.183	0	783.22	0.96	1.67	0	0		0.044
74	NO	782.37	790.3	7.93	0	782.97	0	1.66	0	0		1
75	NO	782.27	790.213	7.943	0	782.81	0	1.65	0	0		1
76	YES	781.4	788.716	7.316	0	782.13	1.17	2.65	0	0		0.054
77	NO	780.53	787.219	6.689	0	781.26	0	2.62	0	0		1
78	NO	779.87	786.135	6.265	0	780.49	0	2.58	0	0		1
79	NO	779.21	785	5.79	0	779.99	0	2.59	0	0		1
80	YES	779.05	784.799	5.749	0	779.96	1.7	3.67	0	0		0.078
81	NO	778.74	784.1	5.36	0	779.92	0	3.62	0	0		1
82	YES	777.53	783.678	6.148	0	779.9	5.79	15.06	0	0		0.266
83	NO	779.83	783.143	3.313	0	780.15	0	8.6	0	0		1
84	NO	781.21	785.539	4.329	0	782.19	0	5.5	0	0		1
85	NO	782.58	789.954	7.374	0	783.53	0	5.5	0	0		1
86	NO	782.83	791	8.17	0	783.84	0	5.51	0	0		1
87	YES	783.89	793	9.11	0	784.88	2.13	5.53	0	0		0.098
88	NO	786.21	797.158	10.948	0	787.23	0	4.55	0	0		1
89	YES	787.6	799.681	12.081	0	788.64	1.41	5.04	0	0		0.065
90	NO	794.53	802.046	7.516	0	794.53	0	0	0	0		1
92	YES	775.4	781.023	5.623	0	776.63	0.59	12.8	0	0		0.027
93	NO	775.83	781.99	6.16	0	776.63	0	1.52	0	0		1
94	YES	776.61	783	6.39	0	779.86	0.41	14.27	0	0		0.019
J1	NO	870	871	1	0	870	0	0	0	0		1
J10	YES	799	799	0	0	799	2.37	2.37	0	0		0.109
J11	NO	793	794	1	0	793	0	0	0	0		1
J12	YES	793	794	1	0	793	2.48	2.48	0	0		0.114
J13	YES	790	791	1	0	790	3.7	3.7	0	0		0.17
J14	YES	787	792	5	0	788.19	17.05	17.05	0	0		0.784
J15	YES	799	804	5	0	800.39	27.53	27.53	0	0		1.266
J16	YES	795	800	5	0	796.21	23.36	23.36	0	0		1.074
J18	NO	806	807	1	0	806	0	0	0	0		1
J19	YES	829	830	1	0	829	2.57	2.57	0	0		0.118
J2	YES	794	812	18	5	795.47	201.38	201.38	0	0		1
J20	NO	802	803	1	0	802	0	0	0	0		1
J21	YES	801	802	1	0	801	5.13	5.13	0	0		0.236
J22	YES	793	798	5	0	793.22	1.13	1.13	0	0		0.022
J23	YES	794	803	9	0	795.95	78.69	78.69	0	0		3.618
J24	NO	794	795	1	0	794	0	0	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J25	NO	833	834	1	0	833	0	0	0	0		1
J26	YES	788	793	5	0	789.83	30.45	30.45	0	0		1.4
J27	NO	795	796	1	0	795	0	0	0	0		1
J28	YES	786	793	7	0	787.94	34.15	34.66	0	0		1.57
J29	NO	792	793	1	0	792	0	0	0	0		1
J3	NO	793	812	19	0	794.77	0	199.91	0	0		1
J30	YES	780	785	5	0	780	3.59	3.59	0	0		0.07
J31	NO	805	806	1	0	805	0	0	0	0		1
J32	YES	786	791	5	0	786.8	10.18	10.18	0	0		0.468
J33	NO	799	800	1	0	799	0	0	0	0		1
J34	NO	792	793	1	0	792	0	0	0	0		1
J37	NO	787.5	788.5	1	0	787.5	0	0	0	0		1
J4	NO	777.5	795	17.5	0	787.26	0	104.65	0	0		1
J5	NO	800	801	1	0	800	0	0	0	0		1
J7	NO	792	793	1	0	792	0	0	0	0		1
J8	NO	803	804	1	0	803	0	0	0	0		1
J9	NO	845	846	1	0	845	0	0	0	0		1

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PCSWMM Report

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PostDevelopment 2Yr 3 Hour

Model Rubidoux Proposed Conditions.inp

Kimley-Horn and Associates Inc.

June 15, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas 3
Table 2: Orifices 4
Table 3A: Conduits Report 4
Table 3B: Conduits Report 6
Table 4: Outfalls Report 8
Table 5: Storages 9
Table 6: Weirs 10
Table 7: Junctions 1D 10

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Table 1: AES Drainage Areas

NAME	AREA
Area S.7.c.	0.54
Area S.7.b.	0.38
Area S.2.c.	1.57
Area S.2.a.	0.87
Area S.2.b.	1.09
Area S.4.	3.42
Area S.7.a.	1.44
Area S.6.	3.88
Area S.5.a	1.30
Area S.5.b.	1.97
Area B.4.	4.71
Area S.3.	1.69
Area B.1.c.	3.40
Area B.1.b.	2.29
Area B.5.	8.52
Area B.2.c.	31.41
Area B.7.	2.69
Area S.1	0.77
Area B.2.b.	21.47
Area B.3.	2.36
Area C.2	28.00
Area B.6.	9.35
Area B.2.a.	25.31
Area B.1.a	2.18
Area B.1.d.	15.68
Area C.1	72.36
Area A	308.71

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Table 2: Orifices

Name	Inlet Node	Outlet Node	Type	Cross-Section	Height (ft)	Inlet Offset (ft)	Discharge Coeff.	Flap Gate	Max. |Flow| (cfs)
OR1	SU1	70	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR10	SU14	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	YES	0
OR11	SU13	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR13	SU9	90	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR14	SU8	133	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR15	SU15	J4	SIDE	CIRCULAR	3	0	0.65	NO	71.91
OR2	SU2	73	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR3	SU3	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR4	SU5	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR5	SU6	78	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR6	SU4	80	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR7	SU7	82	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR8	SU11	92	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR9	SU10	92	SIDE	CIRCULAR	0.65	0	0.65	NO	3.08

Table 3A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C1	J3	59.834	0.025	0	0	0	RECT_OPEN	6	1	
C10	J28	1617.564	0.013	0	0	0.5	CIRCULAR	4	1	
C11	J32	656.105	0.01	0	0	0	CIRCULAR	2	1	
C12	J30	224.87	0.01	0	0	0	DUMMY	0	1	
C13	J19	27.937	0.01	0	0	0	DUMMY	0	1	
C14	J21	40.164	0.01	0	0	0	DUMMY	0	1	
C15	J22	238.647	0.01	0	0	0	CIRCULAR	1.5	1	
C16	J23	2089.708	0.013	0	0	0.5	RECT_CLOSED	4	1	
C17	J26	690.03	0.013	0	0	0.5	CIRCULAR	3.5	1	
C18	J4	15.862	0.01	0	0	0	CIRCULAR	3	1	
C19	128	145.306	0.01	0	0	0	DUMMY	0	1	
C2	J2	197.281	0.013	0	0	1	RECT_CLOSED	9	2	
C20	122	141.03	0.01	0	0	0	DUMMY	0	1	
C3	J3	62.706	0.025	0	0	0	RECT_OPEN	6	1	
C4	J10	48.065	0.01	0	0	0	DUMMY	0	1	
C5	J12	38.438	0.01	0	0	0	DUMMY	0	1	
C6	J13	46.177	0.01	0	0	0	DUMMY	0	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C7	J15	767.982	0.013	0	0	0.5	CIRCULAR	3	1	
C8	J16	1290.738	0.01	0	0	0	CIRCULAR	3	1	
C9	J14	809.99	0.01	0	0	0	CIRCULAR	2.5	1	
PIPE_-101	117	50.357	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-102	118	52.595	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-103	119	691.84	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-104	120	63.638	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105	121	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105_(1)	142	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-106	123	49.239	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-107	124	47.059	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-108	125	690.51	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-109	126	73.537	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110	127	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110_(1)	137	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-111	129	323.894	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-112	130	193.054	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-113	131	210.946	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-114	132	62.943	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-115	133	70.858	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-117	138	53.74	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-118	139	73.538	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-119	143	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-120	144	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-59	69	272.938	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-60	70	44.563	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-61	71	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-62	72	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-63	73	88.222	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-64	74	35.138	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-65	75	287.159	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-66	76	287.158	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-67	77	219.443	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-68	78	219.443	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-69	79	50.65	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-70	80	106.481	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-71	81	120.477	0.013	0	0	0.5	CIRCULAR	2	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
PIPE_-72	83	124.993	0.013	0	0	0.5	RECT_CLOSED	2	1	
PIPE_-73	84	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-74	85	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-75	86	83.535	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-76	87	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-77	102	309.74	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-77_(1)	88	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-78	89	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-79	90	435.736	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-80	92	136.34	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-81	93	142.205	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-82	94	255.962	0.013	3.7	0	0.5	RECT_CLOSED	2	1	
PIPE_-83	82	305.558	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-89	101	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
W2	94	344.214	0.01	0	0	0	RECT_CLOSED	2	1	

Table 3B: Conduits Report

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C1	0.02508	40.57	6.66	0	0	
C10	0.00371	20.13	7.4	0	0	
C11	0.01524	6.02	9.34	0	0	
C12	0.00076	0.84	0	0	0	
C13	0.18191	1.53	0	0	0	
C14	0.12547	3.05	0	0	0	
C15	0.02934	0.26	0.32	0	0	
C16	0.00335	45.76	7.38	0	0	
C17	0.00435	18.01	7.51	0	0	
C18	0.02144	104.65	14.8	0	0	
C19	0.01115	39.53	0	0	0	
C2	0.00507	80.51	4.15	0	0	Ex Box Culvert
C20	0.01149	38.25	0	0	0	
C3	0.02393	39.74	6.6	0	0	
C4	0.10459	1.41	0	0	0	
C5	0.13119	1.48	0	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C6	0.13105	2.2	0	0	0	
C7	0.01563	16.33	10.32	0	0	
C8	0.01007	13.83	10.13	0	0	
C9	0.00741	10.11	8.5	0	0	
PIPE_-101	0.00238	40.56	3.79	0	0	
PIPE_-102	0.00209	40.54	4.19	0	0	
PIPE_-103	0.00236	40.36	4.32	0	0	
PIPE_-104	0.00251	39.84	4.37	0	0	
PIPE_-105	0.00234	38.9	4.39	0	0	
PIPE_-105_(1)	0.00223	38.24	10.85	0	0	
PIPE_-106	0.00244	39.73	3.79	0	0	
PIPE_-107	0.00234	39.71	4.18	0	0	
PIPE_-108	0.00235	39.54	4.28	0	0	
PIPE_-109	0.00231	39.04	4.34	0	0	
PIPE_-110	0.00234	37.95	4.35	0	0	
PIPE_-110_(1)	0.00223	39.51	11.05	0	0	
PIPE_-111	0.03661	2.2	3.71	0	0	
PIPE_-112	0.03592	0	0	0	0	
PIPE_-113	0.03596	0	0	0	0	
PIPE_-114	0.03593	0	0	0	0	
PIPE_-115	0.03601	0	0	0	0	
PIPE_-117	0.00279	37.95	4.93	0	0	
PIPE_-118	0.00258	37.28	4.2	0	0	
PIPE_-119	0.00236	37.55	4.81	0	0	
PIPE_-120	0.00299	37.54	4.16	0	0	
PIPE_-59	0.0461	0	0	0	0	
PIPE_-60	0.04605	0.49	3.04	0	0	
PIPE_-61	0.0035	0.49	2.03	0	0	
PIPE_-62	0.00303	0.48	1.43	0	0	
PIPE_-63	0.00306	1.04	2.28	0	0	
PIPE_-64	0.00285	1.04	2.35	0	0	
PIPE_-65	0.00303	1.03	2.02	0	0	
PIPE_-66	0.00303	1.7	2.75	0	0	
PIPE_-67	0.00301	1.69	2.97	0	0	
PIPE_-68	0.00301	1.69	2.35	0	0	
PIPE_-69	0.00316	1.67	1.8	0	0	
PIPE_-70	0.00291	2.54	3.17	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
PIPE_-71	0.01004	2.48	1.75	0	0	
PIPE_-72	0.0184	4.73	1.06	0	0	
PIPE_-73	0.00309	3.96	5.96	0	0	
PIPE_-74	0.00306	3.98	3.36	0	0	
PIPE_-75	0.00299	3.98	3.35	0	0	
PIPE_-76	0.00301	3.98	3.3	0	0	
PIPE_-77	0.003	2.9	3.09	0	0	
PIPE_-77_(1)	0.00299	2.94	3.23	0	0	
PIPE_-78	0.00299	2.96	3.21	0	0	
PIPE_-79	0.01591	0	0	0	0	
PIPE_-80	0.00301	10.11	4.16	0	0	
PIPE_-81	0.00302	0.32	0.36	0	0	
PIPE_-82	0.01751	0	0	0	0	
PIPE_-83	0.00301	9.95	3.92	0	0	
PIPE_-89	0.00301	3.98	3.25	0	0	
W2	0.00177	10.04	1.65	0	0	

Table 4: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J17	YES	838	839		838	1.09	1.09	0	0	0		0.031
J6	NO	774.99	781		776	0	10.11	0	0	0		0.334
OF1	NO	777.16	795		785	0	104.65	0	0	0		3.49

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Table 5: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
SU1	794	799	5	TABULAR	0.71	0.99	794.99	1.41	0	0.04	4.01	20	0	0	Future Basin
SU11	776	781	5	TABULAR	0.7	0.97	776.97	6.02	0	0.173	4.03	19	0	0	Future Basin
SU13	787	792	5	TABULAR	0.69	0.95	787.95	45.76	0	1.33	4.05	19	0	0	Future Basin
SU14	785	790	5	TABULAR	0.71	0.98	785.98	18.01	0	0.516	4.02	20	0	0	Future Basin
SU15	782	790	8	TABULAR	2.85	3.37	785.37	76.8	0	5.04	9.63	39	0	0	RCFC Basin
SU2	788	793	5	TABULAR	0.71	0.99	788.99	1.48	0	0.042	4.01	20	0	0	Future Basin
SU3	784	790	6	TABULAR	0.71	0.99	784.99	2.2	0	0.062	5.01	17	0	0	Future Basin
SU4	781	786	5	TABULAR	0.7	0.97	781.97	10.11	0	0.289	4.03	19	0	0	Future Basin
SU5	787	792	5	TABULAR	0.71	0.98	787.98	16.33	0	0.467	4.02	20	0	0	Future Basin
SU6	782	787	5	TABULAR	0.7	0.97	782.97	13.83	0	0.397	4.03	19	0	0	Future Basin
SU7	780	785	5	TABULAR	0.71	0.97	780.97	20.13	0	0.588	4.03	19	0	0	Future Basin
SU8	824	829	5	TABULAR	0.71	0.99	824.99	1.53	0	0.043	4.01	20	0	0	Future Basin
SU9	796	801	5	TABULAR	0.72	0.99	796.99	3.05	0	0.087	4.01	20	0	0	Future Basin
SU10	776	781	5	TABULAR	0.36	3.64	779.64	10.04	0	0.327	1.86	73	0	0	Streets Basin

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Table 6: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	SU15	J4	TRANSVERSE	6	150	0	7	3.33	0	0	
W3	SU10	92	TRANSVERSE	2.5	4	0	3	3.33	6.83	0.26	

Table 7: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
101	NO	783.36	791.999	8.639	0	784.18	0	3.98	0	0		1
102	NO	784.82	794.636	9.816	0	785.58	0	2.94	0	0		1
117	NO	791.5	798	6.5	0	792.61	0	40.57	0	0		1
118	NO	791.38	803.5	12.12	0	792.42	0	40.56	0	0		1
119	NO	791.27	803.5	12.23	0	792.17	0	40.54	0	0		1
120	NO	789.64	803.5	13.86	0	790.62	0	40.36	0	0		1
121	NO	789.48	803.1	13.62	0	790.34	0	39.84	0	0		1
122	NO	783.62	789	5.38	0	783.62	0	38.24	0	0		1
123	NO	791.5	798	6.5	0	792.58	0	39.74	0	0		1
124	NO	791.38	803.5	12.12	0	792.39	0	39.73	0	0		1
125	NO	791.27	803.5	12.23	0	792.16	0	39.71	0	0		1
126	NO	789.65	803.5	13.85	0	790.62	0	39.54	0	0		1
127	NO	789.48	803.1	13.62	0	790.33	0	39.04	0	0		1
128	NO	783.62	789	5.38	0	783.62	0	39.51	0	0		1
129	YES	799.45	806.592	7.142	0	799.79	2.21	2.21	0	0		0.171
130	NO	806.38	814.314	7.934	0	806.38	0	0	0	0		1
131	NO	813.96	822.712	8.752	0	813.96	0	0	0	0		1
132	NO	816.22	825	8.78	0	816.22	0	0	0	0		1
133	NO	818.77	828	9.23	0	818.77	0	0	0	0		1
137	NO	783.8	790.5	6.7	0	784.57	0	37.95	0	0		1
138	NO	783.95	791	7.05	0	784.84	0	37.28	0	0		1
139	NO	784.14	791.2	7.06	0	785.08	0	37.95	0	0		1
142	NO	783.8	790.5	6.7	0	784.55	0	37.55	0	0		1
143	NO	783.95	791	7.05	0	784.84	0	37.54	0	0		1
144	NO	784.14	791.2	7.06	0	785.08	0	38.9	0	0		1
69	NO	798.23	808.924	10.694	0	798.23	0	0	0	0		1
70	YES	785.66	801	15.34	0	785.81	0.49	0.49	0	0		0.038
71	NO	783.61	799.185	15.575	0	783.9	0	0.49	0	0		1
72	NO	783.09	793.562	10.472	0	783.38	0	0.49	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
73	YES	782.64	790.823	8.183	0	783.09	0.57	1.05	0	0		0.044
74	NO	782.37	790.3	7.93	0	782.84	0	1.04	0	0		1
75	NO	782.27	790.213	7.943	0	782.7	0	1.04	0	0		1
76	YES	781.4	788.716	7.316	0	781.97	0.7	1.71	0	0		0.054
77	NO	780.53	787.219	6.689	0	781.11	0	1.7	0	0		1
78	NO	779.87	786.135	6.265	0	780.37	0	1.69	0	0		1
79	NO	779.21	785	5.79	0	779.84	0	1.69	0	0		1
80	YES	779.05	784.799	5.749	0	779.8	1.01	2.56	0	0		0.078
81	NO	778.74	784.1	5.36	0	779.72	0	2.54	0	0		1
82	YES	777.53	783.678	6.148	0	779.71	3.44	10.05	0	0		0.266
83	NO	779.83	783.143	3.313	0	780.05	0	4.73	0	0		1
84	NO	781.21	785.539	4.329	0	782.05	0	3.98	0	0		1
85	NO	782.58	789.954	7.374	0	783.36	0	3.98	0	0		1
86	NO	782.83	791	8.17	0	783.67	0	3.98	0	0		1
87	YES	783.89	793	9.11	0	784.71	1.27	3.99	0	0		0.098
88	NO	786.21	797.158	10.948	0	786.99	0	2.96	0	0		1
89	YES	787.6	799.681	12.081	0	788.38	0.84	3.04	0	0		0.065
90	NO	794.53	802.046	7.516	0	794.53	0	0	0	0		1
92	YES	775.4	781.023	5.623	0	776.48	0.35	10.15	0	0		0.027
93	NO	775.83	781.99	6.16	0	776.49	0	0.32	0	0		1
94	YES	776.61	783	6.39	0	779.68	0.25	10.15	0	0		0.019
J1	NO	870	871	1	0	870	0	0	0	0		1
J10	YES	799	799	0	0	799	1.41	1.41	0	0		0.109
J11	NO	793	794	1	0	793	0	0	0	0		1
J12	YES	793	794	1	0	793	1.48	1.48	0	0		0.114
J13	YES	790	791	1	0	790	2.2	2.2	0	0		0.17
J14	YES	787	792	5	0	787.81	10.14	10.14	0	0		0.784
J15	YES	799	804	5	0	799.94	16.38	16.38	0	0		1.266
J16	YES	795	800	5	0	795.82	13.9	13.9	0	0		1.074
J18	NO	806	807	1	0	806	0	0	0	0		1
J19	YES	829	830	1	0	829	1.53	1.53	0	0		0.118
J2	YES	794	812	18	5	794.7	80.68	80.68	0	0		1
J20	NO	802	803	1	0	802	0	0	0	0		1
J21	YES	801	802	1	0	801	3.05	3.05	0	0		0.236
J22	YES	793	798	5	0	793.11	0.26	0.26	0	0		0.022
J23	YES	794	803	9	0	795.35	46.82	46.82	0	0		3.618
J24	NO	794	795	1	0	794	0	0	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J25	NO	833	834	1	0	833	0	0	0	0		1
J26	YES	788	793	5	0	789.32	18.12	18.12	0	0		1.4
J27	NO	795	796	1	0	795	0	0	0	0		1
J28	YES	786	793	7	0	787.41	20.32	20.52	0	0		1.57
J29	NO	792	793	1	0	792	0	0	0	0		1
J3	NO	793	812	19	0	793.92	0	80.51	0	0		1
J30	YES	780	785	5	0	780	0.84	0.84	0	0		0.07
J31	NO	805	806	1	0	805	0	0	0	0		1
J32	YES	786	791	5	0	786.55	6.06	6.06	0	0		0.468
J33	NO	799	800	1	0	799	0	0	0	0		1
J34	NO	792	793	1	0	792	0	0	0	0		1
J37	NO	787.5	788.5	1	0	787.5	0	0	0	0		1
J4	NO	777.5	795	17.5	0	787.26	0	104.65	0	0		1
J5	NO	800	801	1	0	800	0	0	0	0		1
J7	NO	792	793	1	0	792	0	0	0	0		1
J8	NO	803	804	1	0	803	0	0	0	0		1
J9	NO	845	846	1	0	845	0	0	0	0		1

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PCSWMM Report

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PostDevelopment 2Yr 6 Hour

Model Rubidoux Proposed Conditions.inp

Kimley-Horn and Associates Inc.

June 15, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas 3
Table 2: Orifices 4
Table 3A: Conduits Report 4
Table 3B: Conduits Report 6
Table 4: Outfalls Report 8
Table 5: Storages 9
Table 6: Weirs 10
Table 7: Junctions 1D 10

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Table 1: AES Drainage Areas

NAME	AREA
Area S.7.c.	0.54
Area S.7.b.	0.38
Area S.2.c.	1.57
Area S.2.a.	0.87
Area S.2.b.	1.09
Area S.4.	3.42
Area S.7.a.	1.44
Area S.6.	3.88
Area S.5.a	1.30
Area S.5.b.	1.97
Area B.4.	4.71
Area S.3.	1.69
Area B.1.c.	3.40
Area B.1.b.	2.29
Area B.5.	8.52
Area B.2.c.	31.41
Area B.7.	2.69
Area S.1	0.77
Area B.2.b.	21.47
Area B.3.	2.36
Area C.2	28.00
Area B.6.	9.35
Area B.2.a.	25.31
Area B.1.a	2.18
Area B.1.d.	15.68
Area C.1	72.36
Area A	308.71

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Table 2: Orifices

Name	Inlet Node	Outlet Node	Type	Cross-Section	Height (ft)	Inlet Offset (ft)	Discharge Coeff.	Flap Gate	Max. |Flow| (cfs)
OR1	SU1	70	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR10	SU14	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	YES	0
OR11	SU13	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR13	SU9	90	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR14	SU8	133	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR15	SU15	J4	SIDE	CIRCULAR	3	0	0.65	NO	71.91
OR2	SU2	73	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR3	SU3	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR4	SU5	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR5	SU6	78	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR6	SU4	80	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR7	SU7	82	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR8	SU11	92	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR9	SU10	92	SIDE	CIRCULAR	0.65	0	0.65	NO	3.07

Table 3A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C1	J3	59.834	0.025	0	0	0	RECT_OPEN	6	1	
C10	J28	1617.564	0.013	0	0	0.5	CIRCULAR	4	1	
C11	J32	656.105	0.01	0	0	0	CIRCULAR	2	1	
C12	J30	224.87	0.01	0	0	0	DUMMY	0	1	
C13	J19	27.937	0.01	0	0	0	DUMMY	0	1	
C14	J21	40.164	0.01	0	0	0	DUMMY	0	1	
C15	J22	238.647	0.01	0	0	0	CIRCULAR	1.5	1	
C16	J23	2089.708	0.013	0	0	0.5	RECT_CLOSED	4	1	
C17	J26	690.03	0.013	0	0	0.5	CIRCULAR	3.5	1	
C18	J4	15.862	0.01	0	0	0	CIRCULAR	3	1	
C19	128	145.306	0.01	0	0	0	DUMMY	0	1	
C2	J2	197.281	0.013	0	0	1	RECT_CLOSED	9	2	
C20	122	141.03	0.01	0	0	0	DUMMY	0	1	
C3	J3	62.706	0.025	0	0	0	RECT_OPEN	6	1	
C4	J10	48.065	0.01	0	0	0	DUMMY	0	1	
C5	J12	38.438	0.01	0	0	0	DUMMY	0	1	
C6	J13	46.177	0.01	0	0	0	DUMMY	0	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C7	J15	767.982	0.013	0	0	0.5	CIRCULAR	3	1	
C8	J16	1290.738	0.01	0	0	0	CIRCULAR	3	1	
C9	J14	809.99	0.01	0	0	0	CIRCULAR	2.5	1	
PIPE_-101	117	50.357	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-102	118	52.595	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-103	119	691.84	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-104	120	63.638	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105	121	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105_(1)	142	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-106	123	49.239	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-107	124	47.059	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-108	125	690.51	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-109	126	73.537	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110	127	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110_(1)	137	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-111	129	323.894	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-112	130	193.054	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-113	131	210.946	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-114	132	62.943	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-115	133	70.858	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-117	138	53.74	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-118	139	73.538	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-119	143	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-120	144	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-59	69	272.938	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-60	70	44.563	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-61	71	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-62	72	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-63	73	88.222	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-64	74	35.138	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-65	75	287.159	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-66	76	287.158	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-67	77	219.443	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-68	78	219.443	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-69	79	50.65	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-70	80	106.481	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-71	81	120.477	0.013	0	0	0.5	CIRCULAR	2	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
PIPE_-72	83	124.993	0.013	0	0	0.5	RECT_CLOSED	2	1	
PIPE_-73	84	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-74	85	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-75	86	83.535	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-76	87	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-77	102	309.74	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-77_(1)	88	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-78	89	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-79	90	435.736	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-80	92	136.34	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-81	93	142.205	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-82	94	255.962	0.013	3.7	0	0.5	RECT_CLOSED	2	1	
PIPE_-83	82	305.558	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-89	101	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
W2	94	344.214	0.01	0	0	0	RECT_CLOSED	2	1	

Table 3B: Conduits Report

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C1	0.02508	35.57	6.4	0	0	
C10	0.00371	17.94	5.8	0	0	
C11	0.01524	5.36	8.35	0	0	
C12	0.00076	0.63	0	0	0	
C13	0.18191	1.36	0	0	0	
C14	0.12547	2.72	0	0	0	
C15	0.02934	0.19	0.31	0	0	
C16	0.00335	40.86	5.93	0	0	
C17	0.00435	16.03	6.13	0	0	
C18	0.02144	104.65	14.8	0	0	
C19	0.01115	32.27	0	0	0	
C2	0.00507	70.54	4	0	0	Ex Box Culvert
C20	0.01149	32.98	0	0	0	
C3	0.02393	34.82	6.34	0	0	
C4	0.10459	1.26	0	0	0	
C5	0.13119	1.31	0	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C6	0.13105	1.96	0	0	0	
C7	0.01563	14.5	9.06	0	0	
C8	0.01007	12.25	8.91	0	0	
C9	0.00741	8.96	7.47	0	0	
PIPE_-101	0.00238	35.56	3.64	0	0	
PIPE_-102	0.00209	35.55	4.02	0	0	
PIPE_-103	0.00236	35.37	4.12	0	0	
PIPE_-104	0.00251	35.06	4.17	0	0	
PIPE_-105	0.00234	34.02	4.14	0	0	
PIPE_-105_(1)	0.00223	32.98	10.04	0	0	
PIPE_-106	0.00244	34.81	3.64	0	0	
PIPE_-107	0.00234	34.8	4.01	0	0	
PIPE_-108	0.00235	34.63	4.08	0	0	
PIPE_-109	0.00231	34.32	4.12	0	0	
PIPE_-110	0.00234	33.28	4.09	0	0	
PIPE_-110_(1)	0.00223	32.27	9.94	0	0	
PIPE_-111	0.03661	1.96	3.59	0	0	
PIPE_-112	0.03592	0	0	0	0	
PIPE_-113	0.03596	0	0	0	0	
PIPE_-114	0.03593	0	0	0	0	
PIPE_-115	0.03601	0	0	0	0	
PIPE_-117	0.00279	32.27	4.52	0	0	
PIPE_-118	0.00258	32.26	3.95	0	0	
PIPE_-119	0.00236	32.98	4.51	0	0	
PIPE_-120	0.00299	32.97	3.95	0	0	
PIPE_-59	0.0461	0	0	0	0	
PIPE_-60	0.04605	0.44	2.94	0	0	
PIPE_-61	0.0035	0.43	1.96	0	0	
PIPE_-62	0.00303	0.43	1.39	0	0	
PIPE_-63	0.00306	0.93	2.22	0	0	
PIPE_-64	0.00285	0.93	2.28	0	0	
PIPE_-65	0.00303	0.92	1.96	0	0	
PIPE_-66	0.00303	1.52	2.67	0	0	
PIPE_-67	0.00301	1.51	2.87	0	0	
PIPE_-68	0.00301	1.5	2.31	0	0	
PIPE_-69	0.00316	1.52	1.86	0	0	
PIPE_-70	0.00291	2.29	2.98	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
PIPE_-71	0.01004	2.29	1.7	0	0	
PIPE_-72	0.0184	4.14	1.02	0	0	
PIPE_-73	0.00309	3.52	5.78	0	0	
PIPE_-74	0.00306	3.56	3.25	0	0	
PIPE_-75	0.00299	3.56	3.27	0	0	
PIPE_-76	0.00301	3.58	3.23	0	0	
PIPE_-77	0.003	2.57	3.02	0	0	
PIPE_-77_(1)	0.00299	2.62	3.15	0	0	
PIPE_-78	0.00299	2.65	3.12	0	0	
PIPE_-79	0.01591	0	0	0	0	
PIPE_-80	0.00301	9.07	4.05	0	0	
PIPE_-81	0.00302	0.27	0.27	0	0	
PIPE_-82	0.01751	0	0	0	0	
PIPE_-83	0.00301	8.97	3.52	0	0	
PIPE_-89	0.00301	3.57	3.17	0	0	
W2	0.00177	9.04	1.44	0	0	

Table 4: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J17	YES	838	839		838	0.97	0.97	0	0	0		0.042
J6	NO	774.99	781		775.95	0	9.07	0	0	0		0.453
OF1	NO	777.16	795		785	0	104.65	0	0	0		5.57

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Table 5: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
SU1	794	799	5	TABULAR	0.95	1.33	795.33	1.26	0	0.054	3.67	27	0	0	Future Basin
SU11	776	781	5	TABULAR	0.94	1.3	777.3	5.36	0	0.234	3.7	26	0	0	Future Basin
SU13	787	792	5	TABULAR	0.92	1.28	788.28	40.86	0	1.81	3.72	26	0	0	Future Basin
SU14	785	790	5	TABULAR	0.94	1.31	786.31	16.03	0	0.701	3.69	26	0	0	Future Basin
SU15	782	790	8	TABULAR	2.87	3.72	785.72	71.91	0	6.54	9.28	43	0	0	RCFC Basin
SU2	788	793	5	TABULAR	0.95	1.32	789.32	1.31	0	0.057	3.68	26	0	0	Future Basin
SU3	784	790	6	TABULAR	0.95	1.33	785.33	1.96	0	0.085	4.67	22	0	0	Future Basin
SU4	781	786	5	TABULAR	0.94	1.3	782.3	8.96	0	0.393	3.7	26	0	0	Future Basin
SU5	787	792	5	TABULAR	0.94	1.31	788.31	14.5	0	0.634	3.69	26	0	0	Future Basin
SU6	782	787	5	TABULAR	0.93	1.29	783.29	12.25	0	0.539	3.71	26	0	0	Future Basin
SU7	780	785	5	TABULAR	0.94	1.3	781.3	17.94	0	0.797	3.7	26	0	0	Future Basin
SU8	824	829	5	TABULAR	0.95	1.33	825.33	1.36	0	0.059	3.67	27	0	0	Future Basin
SU9	796	801	5	TABULAR	0.96	1.33	797.33	2.72	0	0.118	3.67	27	0	0	Future Basin
SU10	776	781	5	TABULAR	0.5	3.57	779.57	9.04	0	0.443	1.93	71	0	0	Streets Basin

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Table 6: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	SU15	J4	TRANSVERSE	6	150	0	7	3.33	0	0	
W3	SU10	92	TRANSVERSE	2.5	4	0	3	3.33	5.79	0.23	

Table 7: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
101	NO	783.36	791.999	8.639	0	784.13	0	3.58	0	0		1
102	NO	784.82	794.636	9.816	0	785.53	0	2.62	0	0		1
117	NO	791.5	798	6.5	0	792.51	0	35.57	0	0		1
118	NO	791.38	803.5	12.12	0	792.33	0	35.56	0	0		1
119	NO	791.27	803.5	12.23	0	792.09	0	35.55	0	0		1
120	NO	789.64	803.5	13.86	0	790.54	0	35.37	0	0		1
121	NO	789.48	803.1	13.62	0	790.27	0	35.06	0	0		1
122	NO	783.62	789	5.38	0	783.62	0	32.98	0	0		1
123	NO	791.5	798	6.5	0	792.49	0	34.82	0	0		1
124	NO	791.38	803.5	12.12	0	792.31	0	34.81	0	0		1
125	NO	791.27	803.5	12.23	0	792.08	0	34.8	0	0		1
126	NO	789.65	803.5	13.85	0	790.54	0	34.63	0	0		1
127	NO	789.48	803.1	13.62	0	790.26	0	34.32	0	0		1
128	NO	783.62	789	5.38	0	783.62	0	32.27	0	0		1
129	YES	799.45	806.592	7.142	0	799.77	1.97	1.97	0	0		0.171
130	NO	806.38	814.314	7.934	0	806.38	0	0	0	0		1
131	NO	813.96	822.712	8.752	0	813.96	0	0	0	0		1
132	NO	816.22	825	8.78	0	816.22	0	0	0	0		1
133	NO	818.77	828	9.23	0	818.77	0	0	0	0		1
137	NO	783.8	790.5	6.7	0	784.46	0	32.27	0	0		1
138	NO	783.95	791	7.05	0	784.73	0	32.26	0	0		1
139	NO	784.14	791.2	7.06	0	785	0	33.28	0	0		1
142	NO	783.8	790.5	6.7	0	784.46	0	32.98	0	0		1
143	NO	783.95	791	7.05	0	784.76	0	32.97	0	0		1
144	NO	784.14	791.2	7.06	0	785	0	34.02	0	0		1
69	NO	798.23	808.924	10.694	0	798.23	0	0	0	0		1
70	YES	785.66	801	15.34	0	785.8	0.44	0.44	0	0		0.038
71	NO	783.61	799.185	15.575	0	783.88	0	0.44	0	0		1
72	NO	783.09	793.562	10.472	0	783.37	0	0.43	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
73	YES	782.64	790.823	8.183	0	783.06	0.51	0.93	0	0		0.044
74	NO	782.37	790.3	7.93	0	782.81	0	0.93	0	0		1
75	NO	782.27	790.213	7.943	0	782.68	0	0.93	0	0		1
76	YES	781.4	788.716	7.316	0	781.93	0.62	1.54	0	0		0.054
77	NO	780.53	787.219	6.689	0	781.08	0	1.52	0	0		1
78	NO	779.87	786.135	6.265	0	780.34	0	1.51	0	0		1
79	NO	779.21	785	5.79	0	779.78	0	1.5	0	0		1
80	YES	779.05	784.799	5.749	0	779.73	0.9	2.31	0	0		0.078
81	NO	778.74	784.1	5.36	0	779.64	0	2.29	0	0		1
82	YES	777.53	783.678	6.148	0	779.63	3.06	9.09	0	0		0.266
83	NO	779.83	783.143	3.313	0	780.04	0	4.15	0	0		1
84	NO	781.21	785.539	4.329	0	782	0	3.56	0	0		1
85	NO	782.58	789.954	7.374	0	783.31	0	3.56	0	0		1
86	NO	782.83	791	8.17	0	783.61	0	3.57	0	0		1
87	YES	783.89	793	9.11	0	784.66	1.13	3.6	0	0		0.098
88	NO	786.21	797.158	10.948	0	786.94	0	2.65	0	0		1
89	YES	787.6	799.681	12.081	0	788.33	0.75	2.71	0	0		0.065
90	NO	794.53	802.046	7.516	0	794.53	0	0	0	0		1
92	YES	775.4	781.023	5.623	0	776.42	0.31	9.11	0	0		0.027
93	NO	775.83	781.99	6.16	0	776.43	0	0.17	0	0		1
94	YES	776.61	783	6.39	0	779.6	0.22	9.18	0	0		0.019
J1	NO	870	871	1	0	870	0	0	0	0		1
J10	YES	799	799	0	0	799	1.26	1.26	0	0		0.109
J11	NO	793	794	1	0	793	0	0	0	0		1
J12	YES	793	794	1	0	793	1.31	1.31	0	0		0.114
J13	YES	790	791	1	0	790	1.96	1.96	0	0		0.17
J14	YES	787	792	5	0	787.75	9.03	9.03	0	0		0.784
J15	YES	799	804	5	0	799.85	14.58	14.58	0	0		1.266
J16	YES	795	800	5	0	795.76	12.37	12.37	0	0		1.074
J18	NO	806	807	1	0	806	0	0	0	0		1
J19	YES	829	830	1	0	829	1.36	1.36	0	0		0.118
J2	YES	794	812	18	5	794.63	70.71	70.71	0	0		1
J20	NO	802	803	1	0	802	0	0	0	0		1
J21	YES	801	802	1	0	801	2.72	2.72	0	0		0.236
J22	YES	793	798	5	0	793.1	0.2	0.2	0	0		0.022
J23	YES	794	803	9	0	795.19	41.68	41.68	0	0		3.618
J24	NO	794	795	1	0	794	0	0	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J25	NO	833	834	1	0	833	0	0	0	0		1
J26	YES	788	793	5	0	789.2	16.13	16.13	0	0		1.4
J27	NO	795	796	1	0	795	0	0	0	0		1
J28	YES	786	793	7	0	787.26	18.09	18.25	0	0		1.57
J29	NO	792	793	1	0	792	0	0	0	0		1
J3	NO	793	812	19	0	793.84	0	70.54	0	0		1
J30	YES	780	785	5	0	780	0.63	0.63	0	0		0.07
J31	NO	805	806	1	0	805	0	0	0	0		1
J32	YES	786	791	5	0	786.52	5.39	5.39	0	0		0.468
J33	NO	799	800	1	0	799	0	0	0	0		1
J34	NO	792	793	1	0	792	0	0	0	0		1
J37	NO	787.5	788.5	1	0	787.5	0	0	0	0		1
J4	NO	777.5	795	17.5	0	787.26	0	104.65	0	0		1
J5	NO	800	801	1	0	800	0	0	0	0		1
J7	NO	792	793	1	0	792	0	0	0	0		1
J8	NO	803	804	1	0	803	0	0	0	0		1
J9	NO	845	846	1	0	845	0	0	0	0		1

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PCSWMM Report

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PostDevelopment 2Yr 24 Hour HCOC

Model Rubidoux Proposed Conditions.inp

Kimley-Horn and Associates Inc.

June 15, 2022

Table of Contents

Tables

Table 1: AES Drainage Areas 3
Table 2: Orifices 4
Table 3A: Conduits Report 4
Table 3B: Conduits Report 6
Table 4: Outfalls Report 8
Table 5: Storages 9
Table 6: Weirs 10
Table 7: Junctions 1D 10

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Table 1: AES Drainage Areas

NAME	AREA
Area S.7.c.	0.54
Area S.7.b.	0.38
Area S.2.c.	1.57
Area S.2.a.	0.87
Area S.2.b.	1.09
Area S.4.	3.42
Area S.7.a.	1.44
Area S.6.	3.88
Area S.5.a	1.30
Area S.5.b.	1.97
Area B.4.	4.71
Area S.3.	1.69
Area B.1.c.	3.40
Area B.1.b.	2.29
Area B.5.	8.52
Area B.2.c.	31.41
Area B.7.	2.69
Area S.1	0.77
Area B.2.b.	21.47
Area B.3.	2.36
Area C.2	28.00
Area B.6.	9.35
Area B.2.a.	25.31
Area B.1.a	2.18
Area B.1.d.	15.68
Area C.1	72.36
Area A	308.71

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Table 2: Orifices

Name	Inlet Node	Outlet Node	Type	Cross-Section	Height (ft)	Inlet Offset (ft)	Discharge Coeff.	Flap Gate	Max. |Flow| (cfs)
OR1	SU1	70	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR10	SU14	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	YES	0
OR11	SU13	SU15	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR13	SU9	90	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR14	SU8	133	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR15	SU15	J4	SIDE	CIRCULAR	3	0	0.65	NO	71.91
OR2	SU2	73	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR3	SU3	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR4	SU5	76	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR5	SU6	78	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR6	SU4	80	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR7	SU7	82	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR8	SU11	92	SIDE	RECT_CLOSED	1	2.5	0.65	NO	0
OR9	SU10	92	SIDE	CIRCULAR	0.65	0	0.65	NO	2.85

Table 3A: Conduits Report

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C1	J3	59.834	0.025	0	0	0	RECT_OPEN	6	1	
C10	J28	1617.564	0.013	0	0	0.5	CIRCULAR	4	1	
C11	J32	656.105	0.01	0	0	0	CIRCULAR	2	1	
C12	J30	224.87	0.01	0	0	0	DUMMY	0	1	
C13	J19	27.937	0.01	0	0	0	DUMMY	0	1	
C14	J21	40.164	0.01	0	0	0	DUMMY	0	1	
C15	J22	238.647	0.01	0	0	0	CIRCULAR	1.5	1	
C16	J23	2089.708	0.013	0	0	0.5	RECT_CLOSED	4	1	
C17	J26	690.03	0.013	0	0	0.5	CIRCULAR	3.5	1	
C18	J4	15.862	0.01	0	0	0	CIRCULAR	3	1	
C19	128	145.306	0.01	0	0	0	DUMMY	0	1	
C2	J2	197.281	0.013	0	0	1	RECT_CLOSED	9	2	
C20	122	141.03	0.01	0	0	0	DUMMY	0	1	
C3	J3	62.706	0.025	0	0	0	RECT_OPEN	6	1	
C4	J10	48.065	0.01	0	0	0	DUMMY	0	1	
C5	J12	38.438	0.01	0	0	0	DUMMY	0	1	
C6	J13	46.177	0.01	0	0	0	DUMMY	0	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
C7	J15	767.982	0.013	0	0	0.5	CIRCULAR	3	1	
C8	J16	1290.738	0.01	0	0	0	CIRCULAR	3	1	
C9	J14	809.99	0.01	0	0	0	CIRCULAR	2.5	1	
PIPE_-101	117	50.357	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-102	118	52.595	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-103	119	691.84	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-104	120	63.638	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105	121	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-105_(1)	142	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-106	123	49.239	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-107	124	47.059	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-108	125	690.51	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-109	126	73.537	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110	127	2282.402	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-110_(1)	137	80.674	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-111	129	323.894	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-112	130	193.054	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-113	131	210.946	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-114	132	62.943	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-115	133	70.858	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-117	138	53.74	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-118	139	73.538	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-119	143	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-120	144	63.639	0.013	0	0	0.5	RECT_CLOSED	5	1	
PIPE_-59	69	272.938	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-60	70	44.563	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-61	71	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-62	72	148.577	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-63	73	88.222	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-64	74	35.138	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-65	75	287.159	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-66	76	287.158	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-67	77	219.443	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-68	78	219.443	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-69	79	50.65	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-70	80	106.481	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-71	81	120.477	0.013	0	0	0.5	CIRCULAR	2	1	

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Table 3A: Conduits Report (continued...)

Name	Inlet Node	Length (ft)	Roughness	Inlet Offset (ft)	Outlet Offset (ft)	Entry Loss Coeff.	Cross-Section	Geom1 (ft)	Barrels	Transect
PIPE_-72	83	124.993	0.013	0	0	0.5	RECT_CLOSED	2	1	
PIPE_-73	84	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-74	85	447.151	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-75	86	83.535	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-76	87	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
PIPE_-77	102	309.74	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-77_(1)	88	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-78	89	464.61	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-79	90	435.736	0.013	0	0	0.5	CIRCULAR	1.5	1	
PIPE_-80	92	136.34	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-81	93	142.205	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-82	94	255.962	0.013	3.7	0	0.5	RECT_CLOSED	2	1	
PIPE_-83	82	305.558	0.013	0	0	0.5	CIRCULAR	3.5	1	
PIPE_-89	101	176.016	0.013	0	0	0.5	CIRCULAR	2	1	
W2	94	344.214	0.01	0	0	0	RECT_CLOSED	2	1	

Table 3B: Conduits Report

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C1	0.02508	15.29	4.88	0	0	
C10	0.00371	6.99	4.41	0	0	
C11	0.01524	2.06	6.33	0	0	
C12	0.00076	0.22	0	0	0	
C13	0.18191	0.52	0	0	0	
C14	0.12547	1.04	0	0	0	
C15	0.02934	0.07	0.18	0	0	
C16	0.00335	15.94	3.24	0	0	
C17	0.00435	6.17	4.65	0	0	
C18	0.02144	104.65	14.8	0	0	
C19	0.01115	14.68	0	0	0	
C2	0.00507	30.24	3.07	0	0	Ex Box Culvert
C20	0.01149	15.03	0	0	0	
C3	0.02393	14.93	4.83	0	0	
C4	0.10459	0.48	0	0	0	
C5	0.13119	0.5	0	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
C6	0.13105	0.75	0	0	0	
C7	0.01563	5.58	6.91	0	0	
C8	0.01007	4.74	6.77	0	0	
C9	0.00741	3.46	5.66	0	0	
PIPE_-101	0.00238	15.28	2.77	0	0	
PIPE_-102	0.00209	15.28	3.01	0	0	
PIPE_-103	0.00236	15.28	3.07	0	0	
PIPE_-104	0.00251	15.26	3.08	0	0	
PIPE_-105	0.00234	15.18	3.1	0	0	
PIPE_-105_(1)	0.00223	15.03	6.97	0	0	
PIPE_-106	0.00244	14.93	2.78	0	0	
PIPE_-107	0.00234	14.93	3	0	0	
PIPE_-108	0.00235	14.93	3.02	0	0	
PIPE_-109	0.00231	14.91	3.03	0	0	
PIPE_-110	0.00234	14.83	3.04	0	0	
PIPE_-110_(1)	0.00223	14.68	6.89	0	0	
PIPE_-111	0.03661	0.75	2.8	0	0	
PIPE_-112	0.03592	0	0	0	0	
PIPE_-113	0.03596	0	0	0	0	
PIPE_-114	0.03593	0	0	0	0	
PIPE_-115	0.03601	0	0	0	0	
PIPE_-117	0.00279	14.68	3.22	0	0	
PIPE_-118	0.00258	14.68	2.96	0	0	
PIPE_-119	0.00236	15.03	3.21	0	0	
PIPE_-120	0.00299	15.03	2.97	0	0	
PIPE_-59	0.0461	0	0	0	0	
PIPE_-60	0.04605	0.17	2.23	0	0	
PIPE_-61	0.0035	0.17	1.49	0	0	
PIPE_-62	0.00303	0.17	1.07	0	0	
PIPE_-63	0.00306	0.36	1.73	0	0	
PIPE_-64	0.00285	0.36	1.74	0	0	
PIPE_-65	0.00303	0.36	1.51	0	0	
PIPE_-66	0.00303	0.6	2.06	0	0	
PIPE_-67	0.00301	0.6	2.18	0	0	
PIPE_-68	0.00301	0.6	1.97	0	0	
PIPE_-69	0.00316	0.6	1.68	0	0	
PIPE_-70	0.00291	0.94	2.8	0	0	

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Table 3B: Conduits Report (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Max. |Velocity| (ft/s)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
PIPE_-71	0.01004	0.94	1.64	0	0	
PIPE_-72	0.0184	1.66	0.97	0	0	
PIPE_-73	0.00309	1.45	4.55	0	0	
PIPE_-74	0.00306	1.46	2.46	0	0	
PIPE_-75	0.00299	1.46	2.57	0	0	
PIPE_-76	0.00301	1.46	2.57	0	0	
PIPE_-77	0.003	1.04	2.32	0	0	
PIPE_-77_(1)	0.00299	1.04	2.45	0	0	
PIPE_-78	0.00299	1.04	2.44	0	0	
PIPE_-79	0.01591	0	0	0	0	
PIPE_-80	0.00301	3.02	2.98	0	0	
PIPE_-81	0.00302	0.02	0.07	0	0	
PIPE_-82	0.01751	0	0	0	0	
PIPE_-83	0.00301	3.5	3.42	0	0	
PIPE_-89	0.00301	1.46	2.52	0	0	
W2	0.00177	3.23	0.95	0	0	

Table 4: Outfalls Report

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Outlet	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Contributing Area (ac)	Description	Total inflow (MG)
J17	YES	838	839		838	0.37	0.37	0	0	0		0.073
J6	NO	774.99	781		775.55	0	3.02	0	0	0		0.78
OF1	NO	777.16	795		785	0	104.65	0	0	0		9.38

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Table 5: Storages

Name	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Storage Curve	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Min. Freeboard (ft)	Max. Percent Full (%)	Contributing Area (ac)	Contributing Imp. Area (ac)	Description
SU1	794	799	5	TABULAR	1.09	2.11	796.11	0.48	0	0.095	2.89	42	0	0	Future Basin
SU11	776	781	5	TABULAR	1.06	2.06	778.06	2.06	0	0.406	2.94	41	0	0	Future Basin
SU13	787	792	5	TABULAR	1.04	2.03	789.03	15.94	0	3.13	2.97	41	0	0	Future Basin
SU14	785	790	5	TABULAR	1.07	2.08	787.08	6.17	0	1.21	2.92	42	0	0	Future Basin
SU15	782	790	8	TABULAR	2.88	3.39	785.39	71.91	0	9.77	9.61	39	0	0	RCFC Basin
SU2	788	793	5	TABULAR	1.08	2.1	790.1	0.5	0	0.099	2.9	42	0	0	Future Basin
SU3	784	790	6	TABULAR	1.09	2.11	786.11	0.75	0	0.147	3.89	35	0	0	Future Basin
SU4	781	786	5	TABULAR	1.06	2.06	783.06	3.46	0	0.68	2.94	41	0	0	Future Basin
SU5	787	792	5	TABULAR	1.07	2.08	789.08	5.58	0	1.1	2.92	42	0	0	Future Basin
SU6	782	787	5	TABULAR	1.05	2.05	784.05	4.74	0	0.932	2.95	41	0	0	Future Basin
SU7	780	785	5	TABULAR	1.06	2.07	782.07	6.99	0	1.38	2.93	41	0	0	Future Basin
SU8	824	829	5	TABULAR	1.09	2.11	826.11	0.52	0	0.102	2.89	42	0	0	Future Basin
SU9	796	801	5	TABULAR	1.09	2.11	798.11	1.04	0	0.205	2.89	42	0	0	Future Basin
SU10	776	781	5	TABULAR	1.04	3.03	779.03	3.23	0	0.765	2.47	61	0	0	Streets Basin

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Table 6: Weirs

Name	Inlet Node	Outlet Node	Type	Height (ft)	Length (ft)	Side Slope (ft/ft)	Inlet Offset (ft)	Discharge Coeff. (CFS)	Max. |Flow| (cfs)	Max/Full Depth	Description
W1	SU15	J4	TRANSVERSE	6	150	0	7	3.33	0	0	
W3	SU10	92	TRANSVERSE	2.5	4	0	3	3.33	0.08	0.01	

Table 7: Junctions 1D

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
101	NO	783.36	791.999	8.639	0	783.83	0	1.46	0	0		1
102	NO	784.82	794.636	9.816	0	785.25	0	1.04	0	0		1
117	NO	791.5	798	6.5	0	792.06	0	15.29	0	0		1
118	NO	791.38	803.5	12.12	0	791.92	0	15.28	0	0		1
119	NO	791.27	803.5	12.23	0	791.75	0	15.28	0	0		1
120	NO	789.64	803.5	13.86	0	790.16	0	15.28	0	0		1
121	NO	789.48	803.1	13.62	0	789.96	0	15.26	0	0		1
122	NO	783.62	789	5.38	0	783.62	0	15.03	0	0		1
123	NO	791.5	798	6.5	0	792.05	0	14.93	0	0		1
124	NO	791.38	803.5	12.12	0	791.91	0	14.93	0	0		1
125	NO	791.27	803.5	12.23	0	791.74	0	14.93	0	0		1
126	NO	789.65	803.5	13.85	0	790.17	0	14.93	0	0		1
127	NO	789.48	803.1	13.62	0	789.95	0	14.91	0	0		1
128	NO	783.62	789	5.38	0	783.62	0	14.68	0	0		1
129	YES	799.45	806.592	7.142	0	799.65	0.75	0.75	0	0		0.171
130	NO	806.38	814.314	7.934	0	806.38	0	0	0	0		1
131	NO	813.96	822.712	8.752	0	813.96	0	0	0	0		1
132	NO	816.22	825	8.78	0	816.22	0	0	0	0		1
133	NO	818.77	828	9.23	0	818.77	0	0	0	0		1
137	NO	783.8	790.5	6.7	0	784.23	0	14.68	0	0		1
138	NO	783.95	791	7.05	0	784.44	0	14.68	0	0		1
139	NO	784.14	791.2	7.06	0	784.65	0	14.83	0	0		1
142	NO	783.8	790.5	6.7	0	784.23	0	15.03	0	0		1
143	NO	783.95	791	7.05	0	784.46	0	15.03	0	0		1
144	NO	784.14	791.2	7.06	0	784.65	0	15.18	0	0		1
69	NO	798.23	808.924	10.694	0	798.23	0	0	0	0		1
70	YES	785.66	801	15.34	0	785.75	0.17	0.17	0	0		0.038
71	NO	783.61	799.185	15.575	0	783.78	0	0.17	0	0		1
72	NO	783.09	793.562	10.472	0	783.27	0	0.17	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
73	YES	782.64	790.823	8.183	0	782.9	0.19	0.36	0	0		0.044
74	NO	782.37	790.3	7.93	0	782.64	0	0.36	0	0		1
75	NO	782.27	790.213	7.943	0	782.52	0	0.36	0	0		1
76	YES	781.4	788.716	7.316	0	781.73	0.24	0.6	0	0		0.054
77	NO	780.53	787.219	6.689	0	780.87	0	0.6	0	0		1
78	NO	779.87	786.135	6.265	0	780.17	0	0.6	0	0		1
79	NO	779.21	785	5.79	0	779.52	0	0.6	0	0		1
80	YES	779.05	784.799	5.749	0	779.43	0.34	0.94	0	0		0.078
81	NO	778.74	784.1	5.36	0	779.05	0	0.94	0	0		1
82	YES	777.53	783.678	6.148	0	779.04	1.17	3.76	0	0		0.266
83	NO	779.83	783.143	3.313	0	779.95	0	1.66	0	0		1
84	NO	781.21	785.539	4.329	0	781.73	0	1.46	0	0		1
85	NO	782.58	789.954	7.374	0	783.04	0	1.46	0	0		1
86	NO	782.83	791	8.17	0	783.32	0	1.46	0	0		1
87	YES	783.89	793	9.11	0	784.37	0.43	1.47	0	0		0.098
88	NO	786.21	797.158	10.948	0	786.65	0	1.04	0	0		1
89	YES	787.6	799.681	12.081	0	788.04	0.29	1.04	0	0		0.065
90	NO	794.53	802.046	7.516	0	794.53	0	0	0	0		1
92	YES	775.4	781.023	5.623	0	775.98	0.12	3.02	0	0		0.027
93	NO	775.83	781.99	6.16	0	775.98	0	0.01	0	0		1
94	YES	776.61	783	6.39	0	779.04	0.08	3.58	0	0		0.019
J1	NO	870	871	1	0	870	0	0	0	0		1
J10	YES	799	799	0	0	799	0.48	0.48	0	0		0.109
J11	NO	793	794	1	0	793	0	0	0	0		1
J12	YES	793	794	1	0	793	0.5	0.5	0	0		0.114
J13	YES	790	791	1	0	790	0.75	0.75	0	0		0.17
J14	YES	787	792	5	0	787.46	3.46	3.46	0	0		0.784
J15	YES	799	804	5	0	799.53	5.58	5.58	0	0		1.266
J16	YES	795	800	5	0	795.48	4.74	4.74	0	0		1.074
J18	NO	806	807	1	0	806	0	0	0	0		1
J19	YES	829	830	1	0	829	0.52	0.52	0	0		0.118
J2	YES	794	812	18	5	794.34	30.21	30.21	0	0		1
J20	NO	802	803	1	0	802	0	0	0	0		1
J21	YES	801	802	1	0	801	1.04	1.04	0	0		0.236
J22	YES	793	798	5	0	793.06	0.07	0.07	0	0		0.022
J23	YES	794	803	9	0	794.62	15.96	15.96	0	0		3.618
J24	NO	794	795	1	0	794	0	0	0	0		1

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Table 7: Junctions 1D (continued...)

Name	Inflows	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Surcharge Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Max. Surcharge (ft)	Total Flood Vol. (MG)	Description	Scale Factor
J25	NO	833	834	1	0	833	0	0	0	0		1
J26	YES	788	793	5	0	788.72	6.17	6.17	0	0		1.4
J27	NO	795	796	1	0	795	0	0	0	0		1
J28	YES	786	793	7	0	786.76	6.92	6.99	0	0		1.57
J29	NO	792	793	1	0	792	0	0	0	0		1
J3	NO	793	812	19	0	793.48	0	30.24	0	0		1
J30	YES	780	785	5	0	780	0.22	0.22	0	0		0.07
J31	NO	805	806	1	0	805	0	0	0	0		1
J32	YES	786	791	5	0	786.32	2.06	2.06	0	0		0.468
J33	NO	799	800	1	0	799	0	0	0	0		1
J34	NO	792	793	1	0	792	0	0	0	0		1
J37	NO	787.5	788.5	1	0	787.5	0	0	0	0		1
J4	NO	777.5	795	17.5	0	787.26	0	104.65	0	0		1
J5	NO	800	801	1	0	800	0	0	0	0		1
J7	NO	792	793	1	0	792	0	0	0	0		1
J8	NO	803	804	1	0	803	0	0	0	0		1
J9	NO	845	846	1	0	845	0	0	0	0		1

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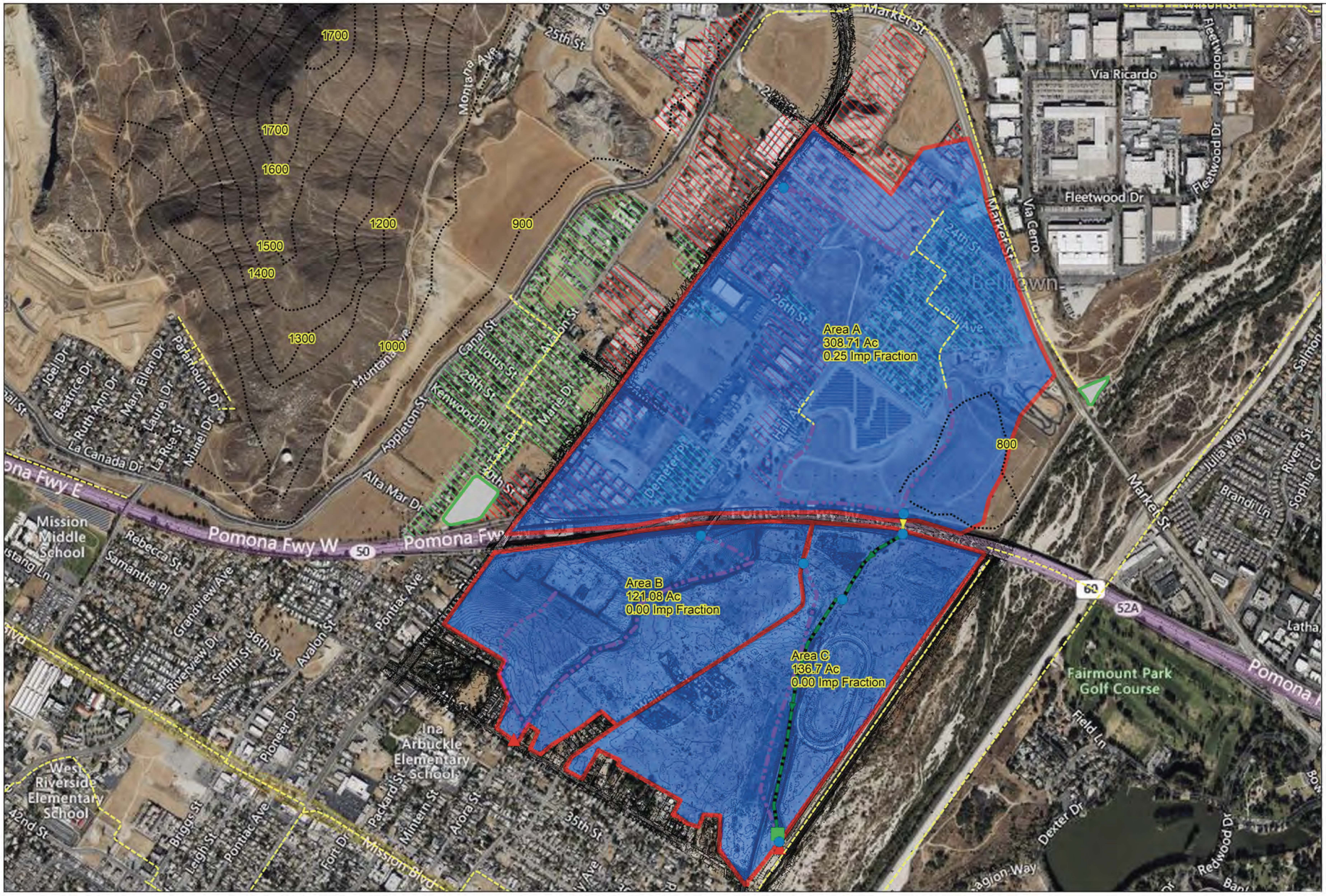
APPENDIX B – HYDROLOGIC WORK MAPS



Legend

- RCFC_Facs_Area
- RCFC_Facs_Lines
- USGS Topo
- Junctions
- Outfalls
- Storages

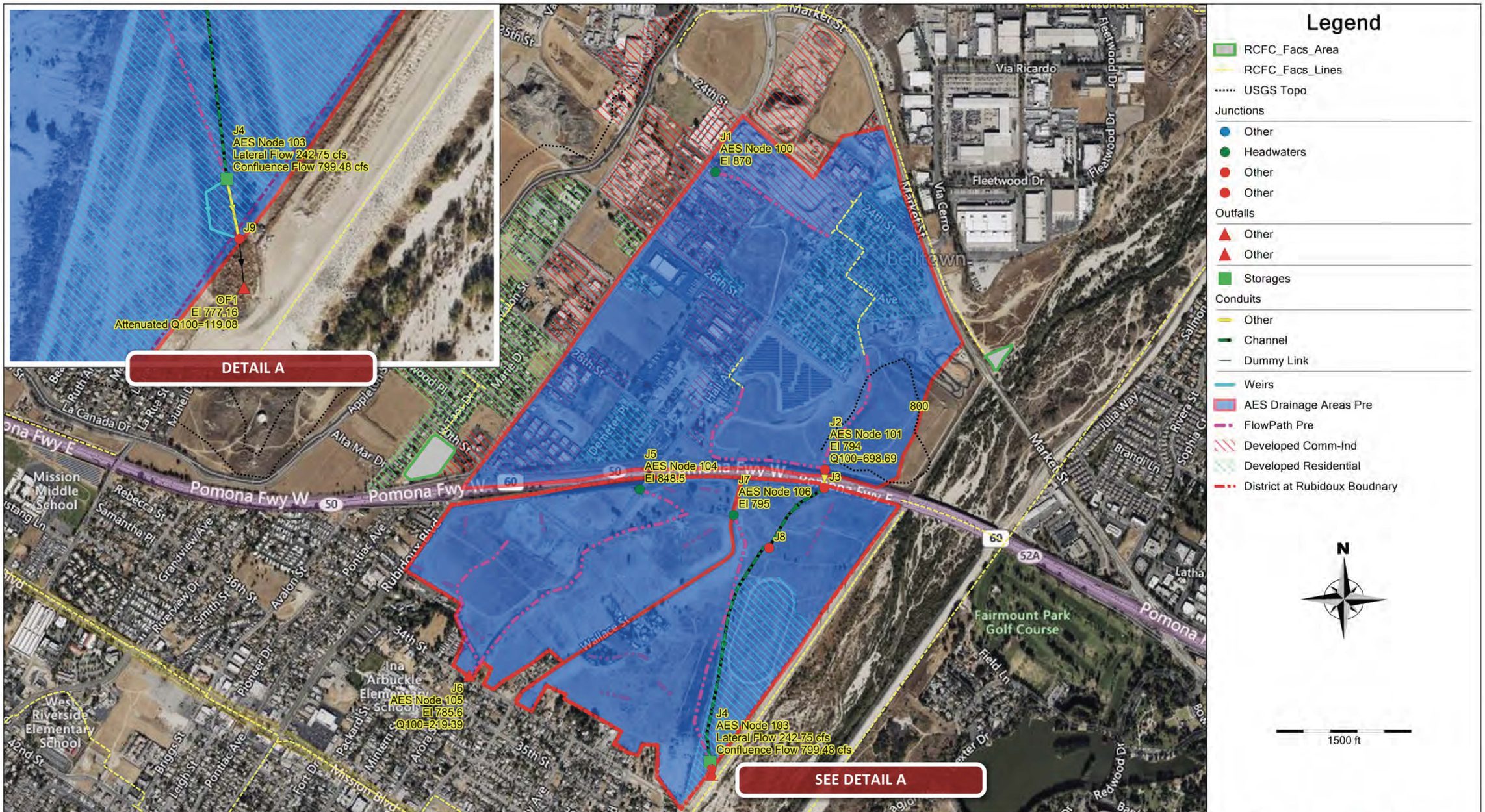
Conduits

- Other
- Channel

- Weirs
- AES Drainage Areas Pre
- FlowPath Pre
- ExContours
- Developed Comm-Ind
- Developed Residential
- District at Rubidoux Boudnary

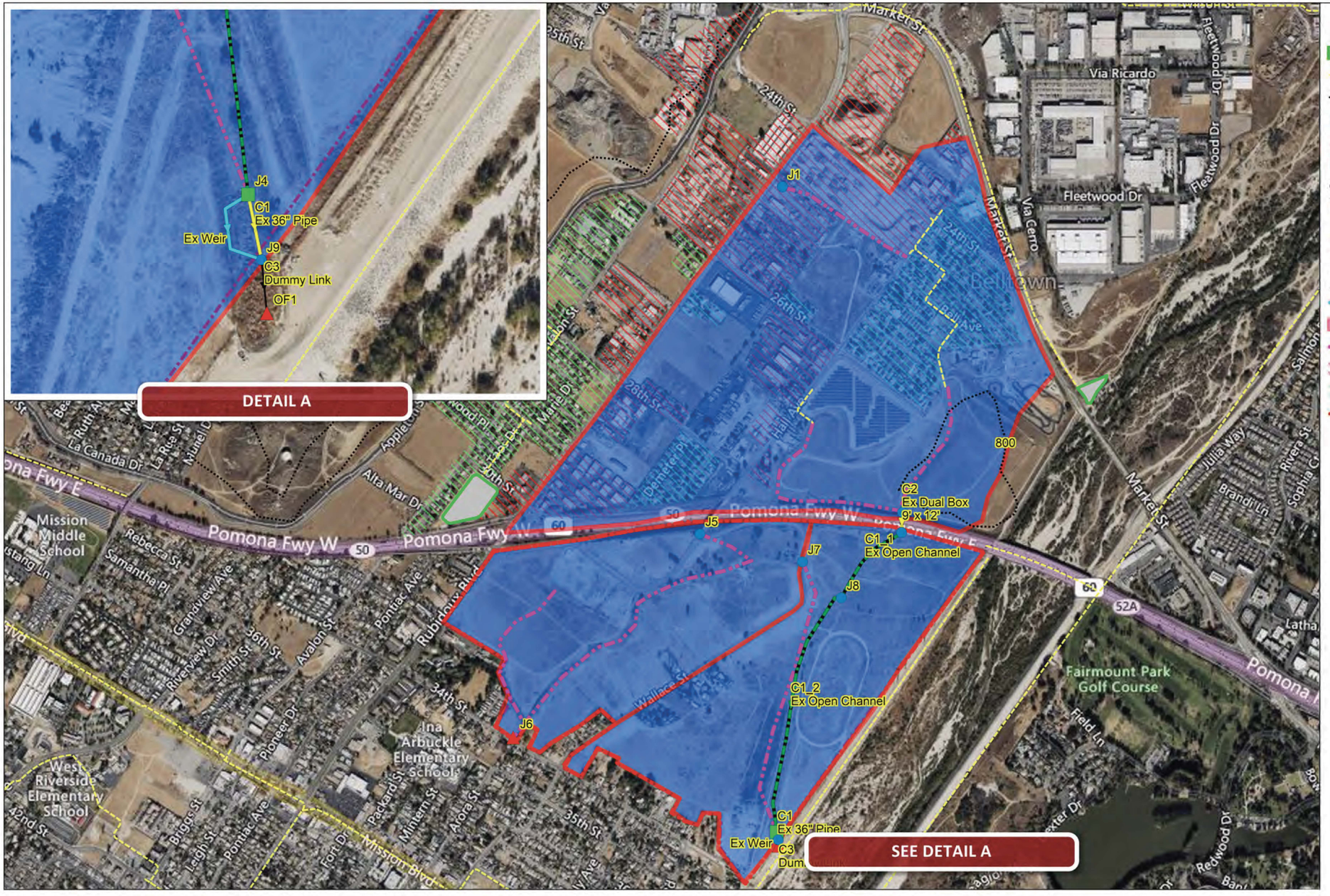
THE DISTRICT AT JURUPA VALLEY
PRE DEVELOPMENT SUBCATCHMENTS

Kimley»Horn



THE DISTRICT AT JURUPA VALLEY
PRE DEVELOPMENT JUNCTIONS

Kimley»Horn



Legend

- RCFC_Facs_Area
- RCFC_Facs_Lines
- USGS Topo
- Junctions
- Outfalls
- Storages

Conduits

- Other
- Dual Box
- Channel
- Dummy Link

- Weirs
- AES Drainage Areas Pre
- FlowPath Pre
- Developed Comm-Ind
- Developed Residential
- District at Rubidoux Boudnary

THE DISTRICT AT JURUPA VALLEY
PRE DEVELOPMENT CONDUITS

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Legend

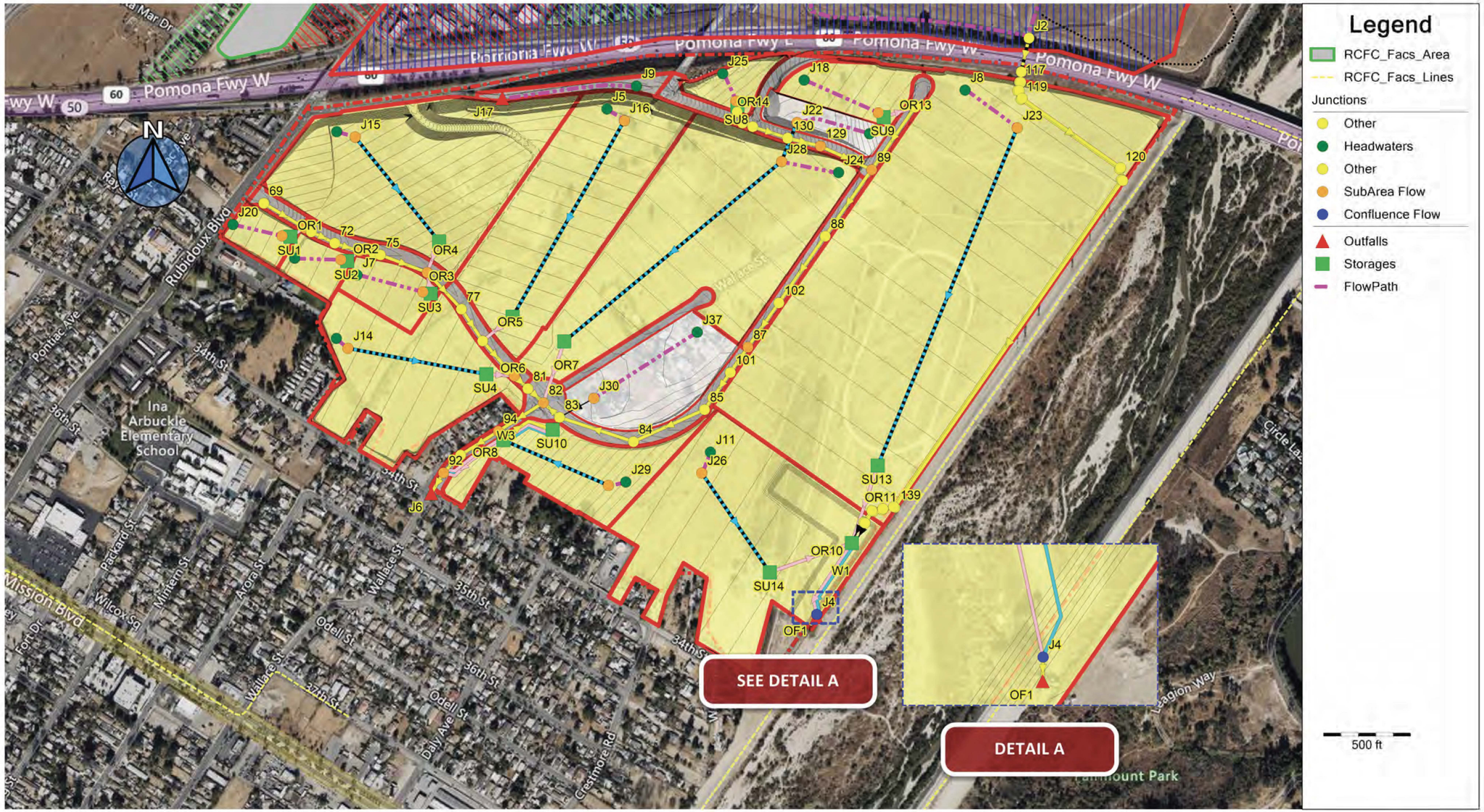
- RCFC_Facs_Area
- RCFC_Facs_Lines
- Outfalls

AES Drainage Areas

- Offsite
- Future Planning Area
- Streets
- District at Rubidoux Boudnary

THE DISTRICT AT JURUPA VALLEY
POST DEVELOPMENT SUBCATCHMENTS

Kimley»Horn



THE DISTRICT AT JURUPA VALLEY
POST DEVELOPMENT JUNCTIONS

Kimley»Horn



THE DISTRICT AT JURUPA VALLEY
POST DEVELOPMENT CONDUITS

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APPENDIX C – AES INPUT AND OUTPUT

Drainage Area	**Area A**	**Area B**	**Area C**	**Post Development Unitized**
Upstream Node	100	104	106	500
Downstream Node	101	105	103	501
Longest Watercourse (feet)	4582	3781	2948	n/a
Length From Centroid (feet)	2749.2	2268.6	1768.8	n/a
Difference in Elevation (feet)	76	62.9	14.7	n/a
N	0.015	0.03	0.03	0.015
Watershed Area(ac)	308.71	121.08	136.17	20
Baseflow (cfs)	0	0	0	0
S Graph Option	Foothill	Foothill	Foothill	Foothill
Slope of Intensity Curve Plate D-4.6	0.55	0.55	0.55	0.55
100 Yr Point Rainfall (inches)				
NOAA Atlas 14				
1 Hour	1.12	1.12	1.12	1.12
3 Hour	1.82	1.82	1.82	1.82
6 Hour	2.48	2.48	2.48	2.48
24 Hour	4.67	4.67	4.67	4.67
Depth Area Adjustment	1	1	1	1
Developed Residential (acreage)	58.6	0	0	
Developed Ind/Commercial (acreage)	85	0	0	
Impervious Area Fraction (Ai) Plate E-6.2	0.34	0.00	0.00	0.9
Fair Quality Grass Type A Soil (acres)	231.5325	60.54	68.085	0
Fair Quality Grass Type B Soil (acres)	0	0	0	0
Fair Quality Grass Type C Soil (acres)	77.1775	60.54	0	0
Fair Quality Grass Type D Soil (acres)	0	0	68.085	20
Pervious Area Loss Rate Fp, (inches per hour) Plate E-6.2 (AMC II)	0.49	0.42	0.39	0.20
Constant Adjusted Loss Rate (inch/hour) Plate E-7.1	0.34	0.415	0.385	0.050
Minimum Loss Rate (in/hr) Plate E-7.1	0.17	0.21	0.19	0.03
Low Loss Rate Percentage Page E-9	0.63	0.9	0.9	0.18

Drainage Area	**Area A**	**Area B**	**Area C**	**Post Development Unitized**
Upstream Node	100	104	106	500
Downstream Node	101	105	103	501
Longest Watercourse (feet)	4582	3781	2948	n/a
Length From Centroid (feet)	2749.2	2268.6	1768.8	n/a
Difference in Elevation (feet)	76	62.9	14.7	n/a
N	0.015	0.03	0.03	0.015
Watershed Area(ac)	308.71	121.08	136.17	20
Baseflow (cfs)	0	0	0	0
S Graph Option	Foothill	Foothill	Foothill	Foothill
Slope of Intensity Curve Plate D-4.6	0.55	0.55	0.55	0.55
10 Yr Point Rainfall (inches)				
NOAA Atlas 14				
1 Hour	0.7	0.7	0.7	0.7
3 Hour	1.19	1.19	1.19	1.19
6 Hour	1.64	1.64	1.64	1.64
24 Hour	3.02	3.02	3.02	3.02
Depth Area Adjustment	1	1	1	1
Developed Residential (acreage)	58.6	0	0	
Developed Ind/Commercial (acreage)	85	0	0	
Impervious Area Fraction (Ai) Plate E-6.2	0.34	0.00	0.00	0.9
Fair Quality Grass Type A Soil (acres)	231.5325	60.54	68.085	0
Fair Quality Grass Type B Soil (acres)	0	0	0	0
Fair Quality Grass Type C Soil (acres)	77.1775	60.54	0	0
Fair Quality Grass Type D Soil (acres)	0	0	68.085	20
Pervious Area Loss Rate Fp, (inches per hour) Plate E-6.2 (AMC II)	0.49	0.42	0.39	0.20
Constant Adjusted Loss Rate (inch/hour) Plate E-7.1	0.34	0.415	0.385	0.050
Minimum Loss Rate (in/hr) Plate E-7.1	0.17	0.21	0.19	0.03
Low Loss Rate Percentage Page E-9	0.63	0.9	0.9	0.18

Drainage Area	**Area A**	**Area B**	**Area C**	**Post Development Unitized**
Upstream Node	100	104	106	500
Downstream Node	101	105	103	501
Longest Watercourse (feet)	4582	3781	2948	n/a
Length From Centroid (feet)	2749.2	2268.6	1768.8	n/a
Difference in Elevation (feet)	76	62.9	14.7	n/a
N	0.015	0.03	0.03	0.015
Watershed Area(ac)	308.71	121.08	136.17	20
Baseflow (cfs)	0	0	0	0
S Graph Option	Foothill	Foothill	Foothill	Foothill
Slope of Intensity Curve Plate D-4.6	0.55	0.55	0.55	0.55
5 Yr Point Rainfall (inches)				
NOAA Atlas 14				
1 Hour	0.587	0.587	0.587	0.587
3 Hour	1.01	1.01	1.01	1.01
6 Hour	1.39	1.39	1.39	1.39
24 Hour	2.54	2.54	2.54	2.54
Depth Area Adjustment	1	1	1	1
Developed Residential (acreage)	58.6	0	0	
Developed Ind/Commercial (acreage)	85	0	0	
Impervious Area Fraction (Ai) Plate E-6.2	0.34	0.00	0.00	0.9
Fair Quality Grass Type A Soil (acres)	231.5325	60.54	68.085	0
Fair Quality Grass Type B Soil (acres)	0	0	0	0
Fair Quality Grass Type C Soil (acres)	77.1775	60.54	0	0
Fair Quality Grass Type D Soil (acres)	0	0	68.085	20
Pervious Area Loss Rate Fp, (inches per hour) Plate E-6.2 (AMC I)	0.68	0.61	0.57	0.37
Constant Adjusted Loss Rate (inch/hour) Plate E-7.1	0.47	0.605	0.565	0.050
Minimum Loss Rate (in/hr) Plate E-7.1	0.24	0.30	0.28	0.03
Low Loss Rate Percentage Page E-9	0.63	0.9	0.9	0.18

Drainage Area	**Area A**	**Area B**	**Area C**	**Post Development Unitized**
Upstream Node	100	104	106	500
Downstream Node	101	105	103	501
Longest Watercourse (feet)	4582	3781	2948	n/a
Length From Centroid (feet)	2749.2	2268.6	1768.8	n/a
Difference in Elevation (feet)	76	62.9	14.7	n/a
N	0.015	0.03	0.03	0.015
Watershed Area(ac)	308.71	121.08	136.17	20
Baseflow (cfs)	0	0	0	0
S Graph Option	Foothill	Foothill	Foothill	Foothill
Slope of Intensity Curve Plate D-4.6	0.55	0.55	0.55	0.55
2 Yr Point Rainfall (inches)				
NOAA Atlas 14				
1 Hour	0.452	0.452	0.452	0.452
3 Hour	0.79	0.79	0.79	0.79
6 Hour	1.09	1.09	1.09	1.09
24 Hour	1.95	1.95	1.95	1.95
Depth Area Adjustment	1	1	1	1
Developed Residential (acreage)	58.6	0	0	
Developed Ind/Commercial (acreage)	85	0	0	
Impervious Area Fraction (Ai) Plate E-6.2	0.34	0.00	0.00	0.9
Fair Quality Grass Type A Soil (acres)	231.5325	60.54	68.085	0
Fair Quality Grass Type B Soil (acres)	0	0	0	0
Fair Quality Grass Type C Soil (acres)	77.1775	60.54	0	0
Fair Quality Grass Type D Soil (acres)	0	0	68.085	20
Pervious Area Loss Rate Fp, (inches per hour) Plate E-6.2 (AMC I)	0.68	0.61	0.57	0.37
Constant Adjusted Loss Rate (inch/hour) Plate E-7.1	0.47	0.605	0.565	0.050
Minimum Loss Rate (in/hr) Plate E-7.1	0.24	0.30	0.28	0.03
Low Loss Rate Percentage Page E-9	0.63	0.9	0.9	0.18

		Area A	Area B	Area C	Post Development Unitized (20 acres basis)
1/1/2022	0:00	0.00	0.00	0.00	0.00
1/1/2022	0:05	4.59	0.45	0.61	0.92
1/1/2022	0:10	30.99	2.30	3.03	5.77
1/1/2022	0:15	50.70	7.51	9.86	8.38
1/1/2022	0:20	65.60	12.42	16.33	9.96
1/1/2022	0:25	83.45	17.48	22.32	11.44
1/1/2022	0:30	100.99	23.80	29.54	12.65
1/1/2022	0:35	127.22	31.09	37.80	14.54
1/1/2022	0:40	164.97	41.73	49.48	17.16
1/1/2022	0:45	214.96	57.68	67.04	20.67
1/1/2022	0:50	380.35	89.84	101.84	33.22
1/1/2022	0:55	698.76	149.99	165.25	55.38
1/1/2022	1:00	476.55	219.48	242.85	33.84
1/1/2022	1:05	239.79	141.83	172.12	19.31
1/1/2022	1:10	121.68	81.48	98.33	8.63
1/1/2022	1:15	55.88	51.55	62.66	3.35
1/1/2022	1:20	21.65	34.39	41.89	1.41
1/1/2022	1:25	11.31	23.72	29.44	0.84
1/1/2022	1:30	8.56	15.44	19.80	0.64
1/1/2022	1:35	7.47	9.55	12.57	0.49
1/1/2022	1:40	6.11	4.49	7.28	0.14
1/1/2022	1:45	2.66	2.59	3.30	0.05
1/1/2022	1:50	0.53	2.22	2.64	0.00
1/1/2022	1:55	0.11	2.10	2.41	0.00
1/1/2022	2:00	0.00	2.03	2.32	0.00
1/1/2022	2:05	0.00	1.93	2.23	0.00
1/1/2022	2:10	0.00	1.79	2.11	0.00
1/1/2022	2:15	0.00	1.61	1.94	0.00
1/1/2022	2:20	0.00	1.31	1.73	0.00
1/1/2022	2:25	0.00	0.48	1.35	0.00
1/1/2022	2:30	0.00	0.08	0.27	0.00

1/1/2022	2:35	0.00	0.01	0.07	0.00
1/1/2022	2:40	0.00	0.00	0.00	0.00
1/1/2022	23:55	0.00	0.00	0.00	0.00
1/4/2022	23:55	0.00	0.00	0.00	0.00
1/5/2022	0:00	0.00	0.00	0.00	0.00
1/5/2022	0:05	2.52	0.12	0.13	0.46
1/5/2022	0:10	16.78	0.58	0.60	2.83
1/5/2022	0:15	25.33	1.76	1.85	3.85
1/5/2022	0:20	27.34	2.40	2.64	4.07
1/5/2022	0:25	32.19	2.69	2.98	4.92
1/5/2022	0:30	35.87	3.20	3.53	5.42
1/5/2022	0:35	39.59	3.59	3.98	6.10
1/5/2022	0:40	39.50	3.97	4.40	5.95
1/5/2022	0:45	41.88	4.07	4.55	6.47
1/5/2022	0:50	43.17	4.31	4.80	6.61
1/5/2022	0:55	40.79	4.39	4.92	6.07
1/5/2022	1:00	40.55	4.24	4.78	6.12
1/5/2022	1:05	43.61	4.42	5.08	6.74
1/5/2022	1:10	49.30	5.04	6.23	7.82
1/5/2022	1:15	52.56	6.24	8.85	8.32
1/5/2022	1:20	53.55	6.82	10.36	8.43
1/5/2022	1:25	53.64	7.27	11.01	8.34
1/5/2022	1:30	62.03	8.43	11.88	9.53
1/5/2022	1:35	68.82	12.77	16.90	10.16
1/5/2022	1:40	66.40	15.38	20.59	9.95
1/5/2022	1:45	74.13	15.91	21.55	10.72
1/5/2022	1:50	94.72	20.07	25.86	12.21
1/5/2022	1:55	100.09	26.22	32.70	12.36
1/5/2022	2:00	95.87	27.63	34.87	12.06
1/5/2022	2:05	96.94	27.20	34.50	12.17
1/5/2022	2:10	106.58	29.27	36.62	12.90
1/5/2022	2:15	145.22	35.35	43.13	15.78
1/5/2022	2:20	182.34	47.77	56.31	18.09
1/5/2022	2:25	178.47	59.10	69.43	17.47

1/5/2022	2:30	261.28	64.56	76.02	24.02
1/5/2022	2:35	336.64	93.84	106.03	28.48
1/5/2022	2:40	380.36	115.67	131.78	31.12
1/5/2022	2:45	324.08	122.86	140.72	26.07
1/5/2022	2:50	188.36	99.38	117.38	15.69
1/5/2022	2:55	109.01	58.80	72.18	10.62
1/5/2022	3:00	73.71	37.31	45.18	8.03
1/5/2022	3:05	42.25	26.10	31.91	4.50
1/5/2022	3:10	20.30	17.79	22.02	2.08
1/5/2022	3:15	11.55	11.38	14.68	1.04
1/5/2022	3:20	7.40	6.91	9.20	0.52
1/5/2022	3:25	4.48	4.01	5.56	0.24
1/5/2022	3:30	2.41	2.43	3.30	0.11
1/5/2022	3:35	1.01	1.94	2.29	0.07
1/5/2022	3:40	0.47	1.76	2.07	0.04
1/5/2022	3:45	0.29	1.58	1.90	0.01
1/5/2022	3:50	0.12	1.39	1.71	0.00
1/5/2022	3:55	0.02	1.27	1.50	0.00
1/5/2022	4:00	0.00	1.04	1.38	0.00
1/5/2022	4:05	0.00	0.73	1.08	0.00
1/5/2022	4:10	0.00	0.38	0.73	0.00
1/5/2022	4:15	0.00	0.10	0.32	0.00
1/5/2022	4:20	0.00	0.03	0.06	0.00
1/5/2022	4:25	0.00	0.02	0.03	0.00
1/5/2022	4:30	0.00	0.01	0.02	0.00
1/5/2022	4:35	0.00	0.00	0.00	0.00
1/5/2022	23:55	0.00	0.00	0.00	0.00
1/9/2022	23:55	0.00	0.00	0.00	0.00
1/10/2022	0:00	0.00	0.00	0.00	0.00
1/10/2022	0:05	1.32	0.06	0.07	0.24
1/10/2022	0:10	9.06	0.31	0.33	1.52
1/10/2022	0:15	15.24	0.99	1.04	2.34
1/10/2022	0:20	17.98	1.47	1.61	2.68
1/10/2022	0:25	19.30	1.72	1.90	2.84

1/10/2022	0:30	20.22	1.88	2.09	2.94
1/10/2022	0:35	21.93	2.03	2.25	3.21
1/10/2022	0:40	22.96	2.23	2.47	3.33
1/10/2022	0:45	23.40	2.35	2.62	3.39
1/10/2022	0:50	23.67	2.42	2.70	3.42
1/10/2022	0:55	23.84	2.45	2.75	3.43
1/10/2022	1:00	24.16	2.49	2.79	3.48
1/10/2022	1:05	25.68	2.55	2.86	3.73
1/10/2022	1:10	26.63	2.69	3.00	3.85
1/10/2022	1:15	27.00	2.77	3.10	3.90
1/10/2022	1:20	27.20	2.81	3.15	3.92
1/10/2022	1:25	27.30	2.84	3.18	3.93
1/10/2022	1:30	27.33	2.86	3.21	3.93
1/10/2022	1:35	27.34	2.88	3.23	3.93
1/10/2022	1:40	27.35	2.89	3.24	3.93
1/10/2022	1:45	27.36	2.89	3.25	3.93
1/10/2022	1:50	27.38	2.90	3.26	3.93
1/10/2022	1:55	27.38	2.90	3.26	3.93
1/10/2022	2:00	27.65	2.91	3.27	3.98
1/10/2022	2:05	28.88	2.95	3.31	4.18
1/10/2022	2:10	28.58	3.04	3.41	4.10
1/10/2022	2:15	29.50	3.03	3.41	4.28
1/10/2022	2:20	30.27	3.12	3.50	4.37
1/10/2022	2:25	30.53	3.18	3.57	4.40
1/10/2022	2:30	30.66	3.21	3.61	4.41
1/10/2022	2:35	30.74	3.23	3.63	4.42
1/10/2022	2:40	30.76	3.24	3.64	4.42
1/10/2022	2:45	31.04	3.26	3.67	4.48
1/10/2022	2:50	32.55	3.32	3.72	4.76
1/10/2022	2:55	33.49	3.45	3.86	4.90
1/10/2022	3:00	33.86	3.52	3.95	4.95
1/10/2022	3:05	34.05	3.55	3.99	4.97
1/10/2022	3:10	34.41	3.59	4.03	5.04
1/10/2022	3:15	35.93	3.66	4.10	5.34

1/10/2022	3:20	36.88	3.79	4.25	5.48
1/10/2022	3:25	37.52	3.89	4.36	5.60
1/10/2022	3:30	39.48	3.99	4.47	5.99
1/10/2022	3:35	42.29	4.20	4.70	6.50
1/10/2022	3:40	45.11	4.46	4.98	7.00
1/10/2022	3:45	46.87	4.72	5.35	7.28
1/10/2022	3:50	49.03	4.90	5.84	7.67
1/10/2022	3:55	50.55	5.18	6.94	7.91
1/10/2022	4:00	52.55	5.56	8.07	8.28
1/10/2022	4:05	54.00	6.45	9.84	8.51
1/10/2022	4:10	56.25	7.50	11.54	8.94
1/10/2022	4:15	59.58	9.58	14.05	9.48
1/10/2022	4:20	65.39	12.30	17.24	10.04
1/10/2022	4:25	73.05	15.32	20.72	10.63
1/10/2022	4:30	80.81	18.42	24.27	11.17
1/10/2022	4:35	85.65	21.30	27.57	11.46
1/10/2022	4:40	92.18	23.49	30.13	11.92
1/10/2022	4:45	100.34	26.29	33.22	12.46
1/10/2022	4:50	108.26	29.38	36.67	12.97
1/10/2022	4:55	113.16	32.24	39.93	13.26
1/10/2022	5:00	119.78	34.40	42.44	13.72
1/10/2022	5:05	130.87	37.66	46.00	14.50
1/10/2022	5:10	158.59	43.25	52.07	16.51
1/10/2022	5:15	195.28	53.78	63.35	18.98
1/10/2022	5:20	227.95	66.30	77.25	21.07
1/10/2022	5:25	259.13	78.01	90.45	23.11
1/10/2022	5:30	300.31	90.71	104.54	25.91
1/10/2022	5:35	329.06	102.09	117.15	27.47
1/10/2022	5:40	207.08	102.00	118.29	17.38
1/10/2022	5:45	108.22	63.73	79.04	9.81
1/10/2022	5:50	63.43	37.79	46.56	5.91
1/10/2022	5:55	38.38	25.35	31.23	3.81
1/10/2022	6:00	22.91	17.48	21.83	2.49
1/10/2022	6:05	15.27	11.88	15.13	1.67

1/10/2022	6:10	9.21	7.65	10.02	0.84
1/10/2022	6:15	5.51	4.63	6.25	0.42
1/10/2022	6:20	3.28	2.61	3.77	0.16
1/10/2022	6:25	1.38	1.86	2.30	0.07
1/10/2022	6:30	0.45	1.64	1.96	0.04
1/10/2022	6:35	0.25	1.49	1.77	0.02
1/10/2022	6:40	0.16	1.33	1.62	0.01
1/10/2022	6:45	0.09	1.14	1.44	0.00
1/10/2022	6:50	0.04	0.94	1.23	0.00
1/10/2022	6:55	0.01	0.72	1.00	0.00
1/10/2022	7:00	0.00	0.47	0.75	0.00
1/10/2022	7:05	0.00	0.16	0.46	0.00
1/10/2022	7:10	0.00	0.03	0.09	0.00
1/10/2022	7:15	0.00	0.01	0.02	0.00
1/10/2022	7:20	0.00	0.01	0.01	0.00
1/10/2022	7:25	0.00	0.00	0.01	0.00
1/10/2022	7:30	0.00	0.00	0.00	0.00
1/10/2022	23:55	0.00	0.00	0.00	0.00
1/14/2022	23:55	0.00	0.00	0.00	0.00
1/15/2022	0:00	0.00	0.00	0.00	0.00
1/15/2022	0:05	1.98	0.11	0.11	0.31
1/15/2022	0:10	1.98	0.11	0.11	0.31
1/15/2022	0:15	1.98	0.11	0.11	0.31
1/15/2022	0:20	5.03	0.42	0.46	0.75
1/15/2022	0:25	5.03	0.42	0.46	0.75
1/15/2022	0:30	5.03	0.42	0.46	0.75
1/15/2022	0:35	6.26	0.61	0.68	0.91
1/15/2022	0:40	6.26	0.61	0.68	0.91
1/15/2022	0:45	6.26	0.61	0.68	0.91
1/15/2022	0:50	7.39	0.72	0.80	1.08
1/15/2022	0:55	7.39	0.72	0.80	1.08
1/15/2022	1:00	7.39	0.72	0.80	1.08
1/15/2022	1:05	7.46	0.80	0.90	1.06
1/15/2022	1:10	7.46	0.80	0.90	1.06

1/15/2022	1:15	7.46	0.80	0.90	1.06
1/15/2022	1:20	6.54	0.71	0.80	0.94
1/15/2022	1:25	6.54	0.71	0.80	0.94
1/15/2022	1:30	6.54	0.71	0.80	0.94
1/15/2022	1:35	6.46	0.69	0.78	0.93
1/15/2022	1:40	6.46	0.69	0.78	0.93
1/15/2022	1:45	6.46	0.69	0.78	0.93
1/15/2022	1:50	7.44	0.74	0.83	1.08
1/15/2022	1:55	7.44	0.74	0.83	1.08
1/15/2022	2:00	7.44	0.74	0.83	1.08
1/15/2022	2:05	8.47	0.87	0.97	1.22
1/15/2022	2:10	8.47	0.87	0.97	1.22
1/15/2022	2:15	8.47	0.87	0.97	1.22
1/15/2022	2:20	8.57	0.90	1.01	1.23
1/15/2022	2:25	8.57	0.90	1.01	1.23
1/15/2022	2:30	8.57	0.90	1.01	1.23
1/15/2022	2:35	9.57	0.96	1.08	1.39
1/15/2022	2:40	9.57	0.96	1.08	1.39
1/15/2022	2:45	9.57	0.96	1.08	1.39
1/15/2022	2:50	10.61	1.09	1.22	1.53
1/15/2022	2:55	10.61	1.09	1.22	1.53
1/15/2022	3:00	10.61	1.09	1.22	1.53
1/15/2022	3:05	10.72	1.12	1.26	1.54
1/15/2022	3:10	10.72	1.12	1.26	1.54
1/15/2022	3:15	10.72	1.12	1.26	1.54
1/15/2022	3:20	10.74	1.13	1.28	1.54
1/15/2022	3:25	10.74	1.13	1.28	1.54
1/15/2022	3:30	10.74	1.13	1.28	1.54
1/15/2022	3:35	10.74	1.14	1.28	1.54
1/15/2022	3:40	10.74	1.14	1.28	1.54
1/15/2022	3:45	10.74	1.14	1.28	1.54
1/15/2022	3:50	11.73	1.19	1.34	1.70
1/15/2022	3:55	11.73	1.19	1.34	1.70
1/15/2022	4:00	11.73	1.19	1.34	1.70

1/15/2022	4:05	12.76	1.32	1.48	1.84
1/15/2022	4:10	12.76	1.32	1.48	1.84
1/15/2022	4:15	12.76	1.32	1.48	1.84
1/15/2022	4:20	13.86	1.41	1.58	2.01
1/15/2022	4:25	13.86	1.41	1.58	2.01
1/15/2022	4:30	13.86	1.41	1.58	2.01
1/15/2022	4:35	14.90	1.54	1.73	2.15
1/15/2022	4:40	14.90	1.54	1.73	2.15
1/15/2022	4:45	14.90	1.54	1.73	2.15
1/15/2022	4:50	16.00	1.63	1.83	2.32
1/15/2022	4:55	16.00	1.63	1.83	2.32
1/15/2022	5:00	16.00	1.63	1.83	2.32
1/15/2022	5:05	15.08	1.66	1.87	2.14
1/15/2022	5:10	15.08	1.66	1.87	2.14
1/15/2022	5:15	15.08	1.66	1.87	2.14
1/15/2022	5:20	14.11	1.50	1.69	2.03
1/15/2022	5:25	14.11	1.50	1.69	2.03
1/15/2022	5:30	14.11	1.50	1.69	2.03
1/15/2022	5:35	15.95	1.62	1.82	2.31
1/15/2022	5:40	15.95	1.62	1.82	2.31
1/15/2022	5:45	15.95	1.62	1.82	2.31
1/15/2022	5:50	17.05	1.77	1.98	2.46
1/15/2022	5:55	17.05	1.77	1.98	2.46
1/15/2022	6:00	17.05	1.77	1.98	2.46
1/15/2022	6:05	18.15	1.86	2.09	2.62
1/15/2022	6:10	18.15	1.86	2.09	2.62
1/15/2022	6:15	18.15	1.86	2.09	2.62
1/15/2022	6:20	19.20	2.00	2.24	2.76
1/15/2022	6:25	19.20	2.00	2.24	2.76
1/15/2022	6:30	19.20	2.00	2.24	2.76
1/15/2022	6:35	20.30	2.09	2.34	2.93
1/15/2022	6:40	20.30	2.09	2.34	2.93
1/15/2022	6:45	20.30	2.09	2.34	2.93
1/15/2022	6:50	21.35	2.23	2.50	3.07

1/15/2022	6:55	21.35	2.23	2.50	3.07
1/15/2022	7:00	21.35	2.23	2.50	3.07
1/15/2022	7:05	21.46	2.26	2.54	3.08
1/15/2022	7:10	21.46	2.26	2.54	3.08
1/15/2022	7:15	21.46	2.26	2.54	3.08
1/15/2022	7:20	22.47	2.33	2.61	3.24
1/15/2022	7:25	22.47	2.33	2.61	3.24
1/15/2022	7:30	22.47	2.33	2.61	3.24
1/15/2022	7:35	24.49	2.51	2.82	3.54
1/15/2022	7:40	24.49	2.51	2.82	3.54
1/15/2022	7:45	24.49	2.51	2.82	3.54
1/15/2022	7:50	26.62	2.73	3.06	3.85
1/15/2022	7:55	26.62	2.73	3.06	3.85
1/15/2022	8:00	26.62	2.73	3.06	3.85
1/15/2022	8:05	29.75	3.01	3.37	4.31
1/15/2022	8:10	29.75	3.01	3.37	4.31
1/15/2022	8:15	29.75	3.01	3.37	4.31
1/15/2022	8:20	31.93	3.30	3.71	4.60
1/15/2022	8:25	31.93	3.30	3.71	4.60
1/15/2022	8:30	31.93	3.30	3.71	4.60
1/15/2022	8:35	33.15	3.44	3.86	4.78
1/15/2022	8:40	33.15	3.44	3.86	4.78
1/15/2022	8:45	33.15	3.44	3.86	4.78
1/15/2022	8:50	35.22	3.64	4.08	5.10
1/15/2022	8:55	35.22	3.64	4.08	5.10
1/15/2022	9:00	35.22	3.64	4.08	5.10
1/15/2022	9:05	38.34	3.91	4.39	5.67
1/15/2022	9:10	38.34	3.91	4.39	5.67
1/15/2022	9:15	38.34	3.91	4.39	5.67
1/15/2022	9:20	41.52	4.27	4.79	6.22
1/15/2022	9:25	41.52	4.27	4.79	6.22
1/15/2022	9:30	41.52	4.27	4.79	6.22
1/15/2022	9:35	43.77	4.53	5.08	6.62
1/15/2022	9:40	43.77	4.53	5.08	6.62

1/15/2022	9:45	43.77	4.53	5.08	6.62
1/15/2022	9:50	45.94	4.77	5.35	7.01
1/15/2022	9:55	45.94	4.77	5.35	7.01
1/15/2022	10:00	45.94	4.77	5.35	7.01
1/15/2022	10:05	40.19	4.56	5.15	5.88
1/15/2022	10:10	40.19	4.56	5.15	5.88
1/15/2022	10:15	40.19	4.56	5.15	5.88
1/15/2022	10:20	33.11	3.72	4.21	4.73
1/15/2022	10:25	33.11	3.72	4.21	4.73
1/15/2022	10:30	33.11	3.72	4.21	4.73
1/15/2022	10:35	37.35	3.78	4.24	5.61
1/15/2022	10:40	37.35	3.78	4.24	5.61
1/15/2022	10:45	37.35	3.78	4.24	5.61
1/15/2022	10:50	42.40	4.35	4.88	6.45
1/15/2022	10:55	42.40	4.35	4.88	6.45
1/15/2022	11:00	42.40	4.35	4.88	6.45
1/15/2022	11:05	41.88	4.45	5.00	6.32
1/15/2022	11:10	41.88	4.45	5.00	6.32
1/15/2022	11:15	41.88	4.45	5.00	6.32
1/15/2022	11:20	40.92	4.36	4.91	6.17
1/15/2022	11:25	40.92	4.36	4.91	6.17
1/15/2022	11:30	40.92	4.36	4.91	6.17
1/15/2022	11:35	38.86	4.23	4.76	5.79
1/15/2022	11:40	38.86	4.23	4.76	5.79
1/15/2022	11:45	38.86	4.23	4.76	5.79
1/15/2022	11:50	37.79	4.02	4.52	5.66
1/15/2022	11:55	37.79	4.02	4.52	5.66
1/15/2022	12:00	37.79	4.02	4.52	5.66
1/15/2022	12:05	45.53	5.46	6.91	7.16
1/15/2022	12:10	45.53	5.46	6.91	7.16
1/15/2022	12:15	45.53	5.46	6.91	7.16
1/15/2022	12:20	53.80	9.41	13.48	8.55
1/15/2022	12:25	53.80	9.41	13.48	8.55
1/15/2022	12:30	53.80	9.41	13.48	8.55

1/15/2022	12:35	60.81	13.16	18.22	9.20
1/15/2022	12:40	60.81	13.16	18.22	9.20
1/15/2022	12:45	60.81	13.16	18.22	9.20
1/15/2022	12:50	69.85	17.45	23.21	9.77
1/15/2022	12:55	69.85	17.45	23.21	9.77
1/15/2022	13:00	69.85	17.45	23.21	9.77
1/15/2022	13:05	87.94	22.90	29.18	10.94
1/15/2022	13:10	87.94	22.90	29.18	10.94
1/15/2022	13:15	87.94	22.90	29.18	10.94
1/15/2022	13:20	103.66	30.47	37.76	11.81
1/15/2022	13:25	103.66	30.47	37.76	11.81
1/15/2022	13:30	103.66	30.47	37.76	11.81
1/15/2022	13:35	79.69	26.98	34.38	9.78
1/15/2022	13:40	79.69	26.98	34.38	9.78
1/15/2022	13:45	79.69	26.98	34.38	9.78
1/15/2022	13:50	52.71	14.22	20.02	7.95
1/15/2022	13:55	52.71	14.22	20.02	7.95
1/15/2022	14:00	52.71	14.22	20.02	7.95
1/15/2022	14:05	59.48	13.51	18.86	8.59
1/15/2022	14:10	59.48	13.51	18.86	8.59
1/15/2022	14:15	59.48	13.51	18.86	8.59
1/15/2022	14:20	66.81	17.73	23.48	9.07
1/15/2022	14:25	66.81	17.73	23.48	9.07
1/15/2022	14:30	66.81	17.73	23.48	9.07
1/15/2022	14:35	66.10	18.27	24.10	8.95
1/15/2022	14:40	66.10	18.27	24.10	8.95
1/15/2022	14:45	66.10	18.27	24.10	8.95
1/15/2022	14:50	64.52	18.27	24.14	8.76
1/15/2022	14:55	64.52	18.27	24.14	8.76
1/15/2022	15:00	64.52	18.27	24.14	8.76
1/15/2022	15:05	60.32	16.96	22.66	8.41
1/15/2022	15:10	60.32	16.96	22.66	8.41
1/15/2022	15:15	60.32	16.96	22.66	8.41
1/15/2022	15:20	55.86	15.42	20.90	8.04

1/15/2022	15:25	55.86	15.42	20.90	8.04
1/15/2022	15:30	55.86	15.42	20.90	8.04
1/15/2022	15:35	47.80	12.15	17.33	7.10
1/15/2022	15:40	47.80	12.15	17.33	7.10
1/15/2022	15:45	47.80	12.15	17.33	7.10
1/15/2022	15:50	41.66	7.23	11.70	6.42
1/15/2022	15:55	41.66	7.23	11.70	6.42
1/15/2022	16:00	41.66	7.23	11.70	6.42
1/15/2022	16:05	26.20	5.06	8.51	3.76
1/15/2022	16:10	26.20	5.06	8.51	3.76
1/15/2022	16:15	26.20	5.06	8.51	3.76
1/15/2022	16:20	10.62	2.07	3.17	1.45
1/15/2022	16:25	10.62	2.07	3.17	1.45
1/15/2022	16:30	10.62	2.07	3.17	1.45
1/15/2022	16:35	8.05	1.25	1.70	1.13
1/15/2022	16:40	8.05	1.25	1.70	1.13
1/15/2022	16:45	8.05	1.25	1.70	1.13
1/15/2022	16:50	6.74	0.87	1.08	0.96
1/15/2022	16:55	6.74	0.87	1.08	0.96
1/15/2022	17:00	6.74	0.87	1.08	0.96
1/15/2022	17:05	8.51	0.88	1.04	1.25
1/15/2022	17:10	8.51	0.88	1.04	1.25
1/15/2022	17:15	8.51	0.88	1.04	1.25
1/15/2022	17:20	10.51	1.08	1.24	1.52
1/15/2022	17:25	10.51	1.08	1.24	1.52
1/15/2022	17:30	10.51	1.08	1.24	1.52
1/15/2022	17:35	10.69	1.13	1.27	1.54
1/15/2022	17:40	10.69	1.13	1.27	1.54
1/15/2022	17:45	10.69	1.13	1.27	1.54
1/15/2022	17:50	9.74	1.08	1.22	1.38
1/15/2022	17:55	9.74	1.08	1.22	1.38
1/15/2022	18:00	9.74	1.08	1.22	1.38
1/15/2022	18:05	8.72	0.95	1.08	1.25
1/15/2022	18:10	8.72	0.95	1.08	1.25

1/15/2022	18:15	8.72	0.95	1.08	1.25
1/15/2022	18:20	8.62	0.92	1.04	1.24
1/15/2022	18:25	8.62	0.92	1.04	1.24
1/15/2022	18:30	8.62	0.92	1.04	1.24
1/15/2022	18:35	7.62	0.86	0.97	1.08
1/15/2022	18:40	7.62	0.86	0.97	1.08
1/15/2022	18:45	7.62	0.86	0.97	1.08
1/15/2022	18:50	5.59	0.68	0.77	0.78
1/15/2022	18:55	5.59	0.68	0.77	0.78
1/15/2022	19:00	5.59	0.68	0.77	0.78
1/15/2022	19:05	5.45	0.57	0.64	0.79
1/15/2022	19:10	5.45	0.57	0.64	0.79
1/15/2022	19:15	5.45	0.57	0.64	0.79
1/15/2022	19:20	7.34	0.71	0.79	1.07
1/15/2022	19:25	7.34	0.71	0.79	1.07
1/15/2022	19:30	7.34	0.71	0.79	1.07
1/15/2022	19:35	7.46	0.80	0.90	1.06
1/15/2022	19:40	7.46	0.80	0.90	1.06
1/15/2022	19:45	7.46	0.80	0.90	1.06
1/15/2022	19:50	5.56	0.66	0.75	0.78
1/15/2022	19:55	5.56	0.66	0.75	0.78
1/15/2022	20:00	5.56	0.66	0.75	0.78
1/15/2022	20:05	5.43	0.57	0.64	0.79
1/15/2022	20:10	5.43	0.57	0.64	0.79
1/15/2022	20:15	5.43	0.57	0.64	0.79
1/15/2022	20:20	6.35	0.65	0.73	0.92
1/15/2022	20:25	6.35	0.65	0.73	0.92
1/15/2022	20:30	6.35	0.65	0.73	0.92
1/15/2022	20:35	6.43	0.68	0.76	0.92
1/15/2022	20:40	6.43	0.68	0.76	0.92
1/15/2022	20:45	6.43	0.68	0.76	0.92
1/15/2022	20:50	5.45	0.63	0.71	0.77
1/15/2022	20:55	5.45	0.63	0.71	0.77
1/15/2022	21:00	5.45	0.63	0.71	0.77

1/15/2022	21:05	5.41	0.56	0.62	0.79
1/15/2022	21:10	5.41	0.56	0.62	0.79
1/15/2022	21:15	5.41	0.56	0.62	0.79
1/15/2022	21:20	5.36	0.60	0.67	0.76
1/15/2022	21:25	5.36	0.60	0.67	0.76
1/15/2022	21:30	5.36	0.60	0.67	0.76
1/15/2022	21:35	5.40	0.55	0.61	0.79
1/15/2022	21:40	5.40	0.55	0.61	0.79
1/15/2022	21:45	5.40	0.55	0.61	0.79
1/15/2022	21:50	5.35	0.59	0.67	0.76
1/15/2022	21:55	5.35	0.59	0.67	0.76
1/15/2022	22:00	5.35	0.59	0.67	0.76
1/15/2022	22:05	5.40	0.55	0.61	0.79
1/15/2022	22:10	5.40	0.55	0.61	0.79
1/15/2022	22:15	5.40	0.55	0.61	0.79
1/15/2022	22:20	5.35	0.59	0.67	0.76
1/15/2022	22:25	5.35	0.59	0.67	0.76
1/15/2022	22:30	5.35	0.59	0.67	0.76
1/15/2022	22:35	4.41	0.49	0.55	0.63
1/15/2022	22:40	4.41	0.49	0.55	0.63
1/15/2022	22:45	4.41	0.49	0.55	0.63
1/15/2022	22:50	4.32	0.47	0.53	0.62
1/15/2022	22:55	4.32	0.47	0.53	0.62
1/15/2022	23:00	4.32	0.47	0.53	0.62
1/15/2022	23:05	4.31	0.46	0.52	0.62
1/15/2022	23:10	4.31	0.46	0.52	0.62
1/15/2022	23:15	4.31	0.46	0.52	0.62
1/15/2022	23:20	4.30	0.46	0.51	0.62
1/15/2022	23:25	4.30	0.46	0.51	0.62
1/15/2022	23:30	4.30	0.46	0.51	0.62
1/15/2022	23:35	4.30	0.46	0.51	0.62
1/15/2022	23:40	4.30	0.46	0.51	0.62
1/15/2022	23:45	4.30	0.46	0.51	0.62
1/15/2022	23:50	4.30	0.46	0.51	0.62

1/15/2022	23:55	4.30	0.46	0.51	0.62
1/16/2022	0:00	4.30	0.46	0.51	0.62
1/16/2022	0:05	2.32	0.35	0.40	0.30
1/16/2022	0:10	2.32	0.35	0.40	0.30
1/16/2022	0:15	2.32	0.35	0.40	0.30
1/16/2022	0:20	0.26	0.09	0.11	0.03
1/16/2022	0:25	0.26	0.09	0.11	0.03
1/16/2022	0:30	0.26	0.09	0.11	0.03
1/16/2022	0:35	0.06	0.03	0.03	0.01
1/16/2022	0:40	0.06	0.03	0.03	0.01
1/16/2022	0:45	0.06	0.03	0.03	0.01
1/16/2022	0:50	0.02	0.01	0.01	0.00
1/16/2022	0:55	0.02	0.01	0.01	0.00
1/16/2022	1:00	0.02	0.01	0.01	0.00
1/16/2022	1:05	0.01	0.00	0.01	0.00
1/16/2022	1:10	0.01	0.00	0.01	0.00
1/16/2022	1:15	0.01	0.00	0.01	0.00
1/16/2022	23:55	0.00	0.00	0.00	0.00
1/17/2022	0:00	0.00	0.00	0.00	0.00
1/19/2022	23:55	0.00	0.00	0.00	0.00
1/20/2022	0:00	0.00	0.00	0.00	0.00
2/1/2022	0:00	0.00	0.00	0.00	0.00
2/1/2022	0:05	2.87	0.14	0.15	0.54
2/1/2022	0:10	19.28	0.67	0.70	3.38
2/1/2022	0:15	30.70	2.09	2.20	4.92
2/1/2022	0:20	36.90	3.02	3.31	5.88
2/1/2022	0:25	42.45	3.64	4.07	6.78
2/1/2022	0:30	47.20	4.43	5.24	7.54
2/1/2022	0:35	54.55	6.17	7.97	8.71
2/1/2022	0:40	70.50	10.67	13.86	10.35
2/1/2022	0:45	98.04	19.38	23.94	12.54
2/1/2022	0:50	199.75	38.70	45.08	20.39
2/1/2022	0:55	397.95	75.78	84.30	34.23
2/1/2022	1:00	261.42	119.24	132.81	20.77

2/1/2022	1:05	128.90	72.17	89.76	11.73
2/1/2022	1:10	66.57	39.10	47.53	5.24
2/1/2022	1:15	30.31	25.32	30.77	2.03
2/1/2022	1:20	11.30	17.22	21.09	0.85
2/1/2022	1:25	6.00	11.98	14.96	0.51
2/1/2022	1:30	4.66	7.76	10.04	0.39
2/1/2022	1:35	4.14	4.74	6.29	0.30
2/1/2022	1:40	3.44	2.02	3.51	0.09
2/1/2022	1:45	1.44	1.12	1.39	0.03
2/1/2022	1:50	0.26	1.02	1.19	0.00
2/1/2022	1:55	0.06	1.00	1.15	0.00
2/1/2022	2:00	0.00	0.99	1.13	0.00
2/1/2022	2:05	0.00	0.97	1.12	0.00
2/1/2022	2:10	0.00	0.92	1.08	0.00
2/1/2022	2:15	0.00	0.85	1.02	0.00
2/1/2022	2:20	0.00	0.70	0.93	0.00
2/1/2022	2:25	0.00	0.23	0.73	0.00
2/1/2022	2:30	0.00	0.02	0.10	0.00
2/1/2022	2:35	0.00	0.00	0.01	0.00
2/1/2022	2:40	0.00	0.00	0.00	0.00
2/1/2022	23:55	0.00	0.00	0.00	0.00
2/4/2022	23:55	0.00	0.00	0.00	0.00
2/5/2022	0:00	0.00	0.00	0.00	0.00
2/5/2022	0:05	1.65	0.08	0.08	0.30
2/5/2022	0:10	10.97	0.38	0.39	1.84
2/5/2022	0:15	16.56	1.15	1.21	2.50
2/5/2022	0:20	17.88	1.57	1.73	2.64
2/5/2022	0:25	21.05	1.76	1.95	3.15
2/5/2022	0:30	23.46	2.09	2.30	3.43
2/5/2022	0:35	25.89	2.35	2.60	3.80
2/5/2022	0:40	25.83	2.59	2.88	3.72
2/5/2022	0:45	27.38	2.66	2.97	4.01
2/5/2022	0:50	28.23	2.82	3.14	4.08
2/5/2022	0:55	26.67	2.87	3.22	3.80

2/5/2022	1:00	26.51	2.78	3.13	3.82
2/5/2022	1:05	28.52	2.84	3.18	4.17
2/5/2022	1:10	32.24	3.06	3.42	4.81
2/5/2022	1:15	34.36	3.38	3.76	5.11
2/5/2022	1:20	35.01	3.53	3.96	5.17
2/5/2022	1:25	34.80	3.62	4.05	5.11
2/5/2022	1:30	38.53	3.70	4.14	5.89
2/5/2022	1:35	41.27	4.04	4.50	6.30
2/5/2022	1:40	40.83	4.26	4.76	6.15
2/5/2022	1:45	43.07	4.35	5.01	6.66
2/5/2022	1:50	48.32	4.74	5.84	7.63
2/5/2022	1:55	49.70	5.38	7.54	7.74
2/5/2022	2:00	48.72	5.32	7.46	7.53
2/5/2022	2:05	49.00	5.18	6.68	7.61
2/5/2022	2:10	52.25	5.81	7.29	8.08
2/5/2022	2:15	68.42	8.62	10.95	9.97
2/5/2022	2:20	87.73	15.54	19.26	11.48
2/5/2022	2:25	85.81	22.27	27.62	11.07
2/5/2022	2:30	137.45	25.48	31.77	15.36
2/5/2022	2:35	184.81	44.41	51.30	18.27
2/5/2022	2:40	212.87	58.52	68.09	20.00
2/5/2022	2:45	178.60	63.70	74.46	16.70
2/5/2022	2:50	105.62	50.56	61.32	9.91
2/5/2022	2:55	63.64	30.05	37.54	6.64
2/5/2022	3:00	44.33	19.40	23.83	4.99
2/5/2022	3:05	25.79	13.73	17.03	2.83
2/5/2022	3:10	12.43	9.38	11.77	1.31
2/5/2022	3:15	6.96	5.93	7.79	0.66
2/5/2022	3:20	4.37	3.55	4.81	0.33
2/5/2022	3:25	2.60	2.01	2.85	0.15
2/5/2022	3:30	1.38	1.20	1.65	0.07
2/5/2022	3:35	0.61	0.96	1.14	0.04
2/5/2022	3:40	0.31	0.87	1.04	0.03
2/5/2022	3:45	0.19	0.79	0.97	0.01

2/5/2022	3:50	0.08	0.71	0.88	0.00
2/5/2022	3:55	0.01	0.66	0.78	0.00
2/5/2022	4:00	0.00	0.55	0.75	0.00
2/5/2022	4:05	0.00	0.39	0.58	0.00
2/5/2022	4:10	0.00	0.20	0.40	0.00
2/5/2022	4:15	0.00	0.06	0.17	0.00
2/5/2022	4:20	0.00	0.02	0.03	0.00
2/5/2022	4:25	0.00	0.01	0.02	0.00
2/5/2022	4:30	0.00	0.00	0.01	0.00
2/5/2022	4:35	0.00	0.00	0.00	0.00
2/5/2022	23:55	0.00	0.00	0.00	0.00
2/9/2022	23:55	0.00	0.00	0.00	0.00
2/10/2022	0:00	0.00	0.00	0.00	0.00
2/10/2022	0:05	0.87	0.04	0.04	0.16
2/10/2022	0:10	5.99	0.21	0.22	1.01
2/10/2022	0:15	10.08	0.66	0.69	1.55
2/10/2022	0:20	11.89	0.97	1.06	1.77
2/10/2022	0:25	12.76	1.14	1.26	1.88
2/10/2022	0:30	13.37	1.24	1.38	1.94
2/10/2022	0:35	14.50	1.34	1.49	2.12
2/10/2022	0:40	15.18	1.47	1.64	2.20
2/10/2022	0:45	15.47	1.55	1.73	2.24
2/10/2022	0:50	15.65	1.60	1.79	2.26
2/10/2022	0:55	15.76	1.62	1.82	2.27
2/10/2022	1:00	15.98	1.64	1.84	2.30
2/10/2022	1:05	16.98	1.69	1.89	2.47
2/10/2022	1:10	17.61	1.78	1.99	2.55
2/10/2022	1:15	17.85	1.83	2.05	2.58
2/10/2022	1:20	17.99	1.86	2.08	2.59
2/10/2022	1:25	18.05	1.88	2.11	2.60
2/10/2022	1:30	18.07	1.89	2.12	2.60
2/10/2022	1:35	18.08	1.90	2.13	2.60
2/10/2022	1:40	18.09	1.91	2.14	2.60
2/10/2022	1:45	18.10	1.91	2.15	2.60

2/10/2022	1:50	18.10	1.91	2.15	2.60
2/10/2022	1:55	18.11	1.92	2.15	2.60
2/10/2022	2:00	18.28	1.93	2.16	2.63
2/10/2022	2:05	19.10	1.95	2.19	2.77
2/10/2022	2:10	18.90	2.01	2.25	2.71
2/10/2022	2:15	19.51	2.01	2.26	2.83
2/10/2022	2:20	20.02	2.07	2.31	2.89
2/10/2022	2:25	20.19	2.11	2.36	2.91
2/10/2022	2:30	20.27	2.12	2.39	2.92
2/10/2022	2:35	20.33	2.14	2.40	2.92
2/10/2022	2:40	20.34	2.14	2.41	2.92
2/10/2022	2:45	20.53	2.16	2.42	2.96
2/10/2022	2:50	21.52	2.19	2.46	3.12
2/10/2022	2:55	22.15	2.28	2.55	3.20
2/10/2022	3:00	22.39	2.33	2.61	3.23
2/10/2022	3:05	22.52	2.35	2.64	3.24
2/10/2022	3:10	22.76	2.37	2.67	3.28
2/10/2022	3:15	23.76	2.42	2.71	3.44
2/10/2022	3:20	24.39	2.51	2.81	3.52
2/10/2022	3:25	24.81	2.57	2.88	3.58
2/10/2022	3:30	26.11	2.64	2.96	3.79
2/10/2022	3:35	27.96	2.78	3.10	4.07
2/10/2022	3:40	29.83	2.95	3.30	4.34
2/10/2022	3:45	31.00	3.12	3.49	4.50
2/10/2022	3:50	32.42	3.24	3.63	4.74
2/10/2022	3:55	33.43	3.39	3.79	4.89
2/10/2022	4:00	34.75	3.50	3.92	5.14
2/10/2022	4:05	35.71	3.64	4.07	5.29
2/10/2022	4:10	37.20	3.76	4.21	5.57
2/10/2022	4:15	39.15	3.92	4.39	5.93
2/10/2022	4:20	41.26	4.12	4.61	6.30
2/10/2022	4:25	43.45	4.33	4.85	6.69
2/10/2022	4:30	45.50	4.55	5.08	7.04
2/10/2022	4:35	46.75	4.74	5.33	7.24

2/10/2022	4:40	48.38	4.89	5.65	7.54
2/10/2022	4:45	50.40	5.12	6.43	7.90
2/10/2022	4:50	52.35	5.49	7.88	8.24
2/10/2022	4:55	53.56	6.17	9.55	8.43
2/10/2022	5:00	55.19	6.91	10.89	8.73
2/10/2022	5:05	58.96	8.65	13.03	9.25
2/10/2022	5:10	73.22	12.07	16.90	10.58
2/10/2022	5:15	95.25	18.85	24.28	12.21
2/10/2022	5:20	115.90	27.00	33.41	13.59
2/10/2022	5:25	136.03	34.66	42.09	14.94
2/10/2022	5:30	163.04	43.01	51.37	16.79
2/10/2022	5:35	184.47	50.82	59.90	17.82
2/10/2022	5:40	118.23	52.26	61.80	11.19
2/10/2022	5:45	63.14	31.25	39.34	6.35
2/10/2022	5:50	37.79	18.58	22.93	3.85
2/10/2022	5:55	23.38	12.73	15.83	2.49
2/10/2022	6:00	14.20	8.85	11.14	1.63
2/10/2022	6:05	9.48	6.03	7.75	1.10
2/10/2022	6:10	5.62	3.85	5.10	0.55
2/10/2022	6:15	3.31	2.29	3.13	0.27
2/10/2022	6:20	1.97	1.23	1.84	0.10
2/10/2022	6:25	0.85	0.89	1.09	0.04
2/10/2022	6:30	0.29	0.79	0.97	0.02
2/10/2022	6:35	0.17	0.73	0.88	0.01
2/10/2022	6:40	0.11	0.66	0.82	0.01
2/10/2022	6:45	0.06	0.58	0.74	0.00
2/10/2022	6:50	0.03	0.48	0.63	0.00
2/10/2022	6:55	0.01	0.38	0.52	0.00
2/10/2022	7:00	0.00	0.25	0.40	0.00
2/10/2022	7:05	0.00	0.08	0.24	0.00
2/10/2022	7:10	0.00	0.02	0.04	0.00
2/10/2022	7:15	0.00	0.01	0.01	0.00
2/10/2022	7:20	0.00	0.00	0.01	0.00
2/10/2022	7:25	0.00	0.00	0.00	0.00

2/10/2022	7:30	0.00	0.00	0.00	0.00
2/10/2022	23:55	0.00	0.00	0.00	0.00
2/14/2022	23:55	0.00	0.00	0.00	0.00
2/15/2022	0:00	0.00	0.00	0.00	0.00
2/15/2022	0:05	1.28	0.07	0.07	0.20
2/15/2022	0:10	1.28	0.07	0.07	0.20
2/15/2022	0:15	1.28	0.07	0.07	0.20
2/15/2022	0:20	3.25	0.27	0.30	0.48
2/15/2022	0:25	3.25	0.27	0.30	0.48
2/15/2022	0:30	3.25	0.27	0.30	0.48
2/15/2022	0:35	4.05	0.39	0.44	0.59
2/15/2022	0:40	4.05	0.39	0.44	0.59
2/15/2022	0:45	4.05	0.39	0.44	0.59
2/15/2022	0:50	4.78	0.46	0.52	0.70
2/15/2022	0:55	4.78	0.46	0.52	0.70
2/15/2022	1:00	4.78	0.46	0.52	0.70
2/15/2022	1:05	4.82	0.52	0.58	0.69
2/15/2022	1:10	4.82	0.52	0.58	0.69
2/15/2022	1:15	4.82	0.52	0.58	0.69
2/15/2022	1:20	4.23	0.46	0.52	0.61
2/15/2022	1:25	4.23	0.46	0.52	0.61
2/15/2022	1:30	4.23	0.46	0.52	0.61
2/15/2022	1:35	4.18	0.45	0.50	0.60
2/15/2022	1:40	4.18	0.45	0.50	0.60
2/15/2022	1:45	4.18	0.45	0.50	0.60
2/15/2022	1:50	4.81	0.48	0.53	0.70
2/15/2022	1:55	4.81	0.48	0.53	0.70
2/15/2022	2:00	4.81	0.48	0.53	0.70
2/15/2022	2:05	5.48	0.56	0.63	0.79
2/15/2022	2:10	5.48	0.56	0.63	0.79
2/15/2022	2:15	5.48	0.56	0.63	0.79
2/15/2022	2:20	5.54	0.58	0.65	0.80
2/15/2022	2:25	5.54	0.58	0.65	0.80
2/15/2022	2:30	5.54	0.58	0.65	0.80

2/15/2022	2:35	6.19	0.62	0.70	0.90
2/15/2022	2:40	6.19	0.62	0.70	0.90
2/15/2022	2:45	6.19	0.62	0.70	0.90
2/15/2022	2:50	6.86	0.70	0.79	0.99
2/15/2022	2:55	6.86	0.70	0.79	0.99
2/15/2022	3:00	6.86	0.70	0.79	0.99
2/15/2022	3:05	6.93	0.73	0.82	1.00
2/15/2022	3:10	6.93	0.73	0.82	1.00
2/15/2022	3:15	6.93	0.73	0.82	1.00
2/15/2022	3:20	6.94	0.73	0.82	1.00
2/15/2022	3:25	6.94	0.73	0.82	1.00
2/15/2022	3:30	6.94	0.73	0.82	1.00
2/15/2022	3:35	6.95	0.74	0.83	1.00
2/15/2022	3:40	6.95	0.74	0.83	1.00
2/15/2022	3:45	6.95	0.74	0.83	1.00
2/15/2022	3:50	7.59	0.77	0.86	1.10
2/15/2022	3:55	7.59	0.77	0.86	1.10
2/15/2022	4:00	7.59	0.77	0.86	1.10
2/15/2022	4:05	8.25	0.85	0.96	1.19
2/15/2022	4:10	8.25	0.85	0.96	1.19
2/15/2022	4:15	8.25	0.85	0.96	1.19
2/15/2022	4:20	8.96	0.91	1.02	1.30
2/15/2022	4:25	8.96	0.91	1.02	1.30
2/15/2022	4:30	8.96	0.91	1.02	1.30
2/15/2022	4:35	9.64	1.00	1.12	1.39
2/15/2022	4:40	9.64	1.00	1.12	1.39
2/15/2022	4:45	9.64	1.00	1.12	1.39
2/15/2022	4:50	10.35	1.06	1.18	1.50
2/15/2022	4:55	10.35	1.06	1.18	1.50
2/15/2022	5:00	10.35	1.06	1.18	1.50
2/15/2022	5:05	9.75	1.07	1.21	1.38
2/15/2022	5:10	9.75	1.07	1.21	1.38
2/15/2022	5:15	9.75	1.07	1.21	1.38
2/15/2022	5:20	9.13	0.97	1.09	1.31

2/15/2022	5:25	9.13	0.97	1.09	1.31
2/15/2022	5:30	9.13	0.97	1.09	1.31
2/15/2022	5:35	10.31	1.05	1.18	1.49
2/15/2022	5:40	10.31	1.05	1.18	1.49
2/15/2022	5:45	10.31	1.05	1.18	1.49
2/15/2022	5:50	11.03	1.14	1.28	1.59
2/15/2022	5:55	11.03	1.14	1.28	1.59
2/15/2022	6:00	11.03	1.14	1.28	1.59
2/15/2022	6:05	11.74	1.20	1.35	1.70
2/15/2022	6:10	11.74	1.20	1.35	1.70
2/15/2022	6:15	11.74	1.20	1.35	1.70
2/15/2022	6:20	12.42	1.29	1.45	1.79
2/15/2022	6:25	12.42	1.29	1.45	1.79
2/15/2022	6:30	12.42	1.29	1.45	1.79
2/15/2022	6:35	13.13	1.35	1.51	1.90
2/15/2022	6:40	13.13	1.35	1.51	1.90
2/15/2022	6:45	13.13	1.35	1.51	1.90
2/15/2022	6:50	13.81	1.44	1.62	1.99
2/15/2022	6:55	13.81	1.44	1.62	1.99
2/15/2022	7:00	13.81	1.44	1.62	1.99
2/15/2022	7:05	13.88	1.46	1.64	1.99
2/15/2022	7:10	13.88	1.46	1.64	1.99
2/15/2022	7:15	13.88	1.46	1.64	1.99
2/15/2022	7:20	14.53	1.51	1.69	2.10
2/15/2022	7:25	14.53	1.51	1.69	2.10
2/15/2022	7:30	14.53	1.51	1.69	2.10
2/15/2022	7:35	15.84	1.62	1.82	2.29
2/15/2022	7:40	15.84	1.62	1.82	2.29
2/15/2022	7:45	15.84	1.62	1.82	2.29
2/15/2022	7:50	17.21	1.76	1.98	2.49
2/15/2022	7:55	17.21	1.76	1.98	2.49
2/15/2022	8:00	17.21	1.76	1.98	2.49
2/15/2022	8:05	19.24	1.94	2.18	2.79
2/15/2022	8:10	19.24	1.94	2.18	2.79

2/15/2022	8:15	19.24	1.94	2.18	2.79
2/15/2022	8:20	20.65	2.14	2.40	2.98
2/15/2022	8:25	20.65	2.14	2.40	2.98
2/15/2022	8:30	20.65	2.14	2.40	2.98
2/15/2022	8:35	21.44	2.22	2.49	3.09
2/15/2022	8:40	21.44	2.22	2.49	3.09
2/15/2022	8:45	21.44	2.22	2.49	3.09
2/15/2022	8:50	22.78	2.35	2.64	3.29
2/15/2022	8:55	22.78	2.35	2.64	3.29
2/15/2022	9:00	22.78	2.35	2.64	3.29
2/15/2022	9:05	24.80	2.53	2.84	3.59
2/15/2022	9:10	24.80	2.53	2.84	3.59
2/15/2022	9:15	24.80	2.53	2.84	3.59
2/15/2022	9:20	26.85	2.76	3.10	3.88
2/15/2022	9:25	26.85	2.76	3.10	3.88
2/15/2022	9:30	26.85	2.76	3.10	3.88
2/15/2022	9:35	28.31	2.93	3.29	4.08
2/15/2022	9:40	28.31	2.93	3.29	4.08
2/15/2022	9:45	28.31	2.93	3.29	4.08
2/15/2022	9:50	29.71	3.08	3.46	4.28
2/15/2022	9:55	29.71	3.08	3.46	4.28
2/15/2022	10:00	29.71	3.08	3.46	4.28
2/15/2022	10:05	25.99	2.95	3.33	3.67
2/15/2022	10:10	25.99	2.95	3.33	3.67
2/15/2022	10:15	25.99	2.95	3.33	3.67
2/15/2022	10:20	21.41	2.41	2.72	3.05
2/15/2022	10:25	21.41	2.41	2.72	3.05
2/15/2022	10:30	21.41	2.41	2.72	3.05
2/15/2022	10:35	24.16	2.44	2.74	3.52
2/15/2022	10:40	24.16	2.44	2.74	3.52
2/15/2022	10:45	24.16	2.44	2.74	3.52
2/15/2022	10:50	27.42	2.81	3.15	3.96
2/15/2022	10:55	27.42	2.81	3.15	3.96
2/15/2022	11:00	27.42	2.81	3.15	3.96

2/15/2022	11:05	27.09	2.88	3.23	3.88
2/15/2022	11:10	27.09	2.88	3.23	3.88
2/15/2022	11:15	27.09	2.88	3.23	3.88
2/15/2022	11:20	26.46	2.82	3.18	3.80
2/15/2022	11:25	26.46	2.82	3.18	3.80
2/15/2022	11:30	26.46	2.82	3.18	3.80
2/15/2022	11:35	25.13	2.73	3.08	3.59
2/15/2022	11:40	25.13	2.73	3.08	3.59
2/15/2022	11:45	25.13	2.73	3.08	3.59
2/15/2022	11:50	24.44	2.60	2.93	3.51
2/15/2022	11:55	24.44	2.60	2.93	3.51
2/15/2022	12:00	24.44	2.60	2.93	3.51
2/15/2022	12:05	29.44	2.89	3.23	4.38
2/15/2022	12:10	29.44	2.89	3.23	4.38
2/15/2022	12:15	29.44	2.89	3.23	4.38
2/15/2022	12:20	34.79	3.50	3.92	5.20
2/15/2022	12:25	34.79	3.50	3.92	5.20
2/15/2022	12:30	34.79	3.50	3.92	5.20
2/15/2022	12:35	37.20	3.81	4.27	5.62
2/15/2022	12:40	37.20	3.81	4.27	5.62
2/15/2022	12:45	37.20	3.81	4.27	5.62
2/15/2022	12:50	39.32	4.07	4.57	5.99
2/15/2022	12:55	39.32	4.07	4.57	5.99
2/15/2022	13:00	39.32	4.07	4.57	5.99
2/15/2022	13:05	43.35	4.57	5.94	6.75
2/15/2022	13:10	43.35	4.57	5.94	6.75
2/15/2022	13:15	43.35	4.57	5.94	6.75
2/15/2022	13:20	46.79	5.59	9.18	7.32
2/15/2022	13:25	46.79	5.59	9.18	7.32
2/15/2022	13:30	46.79	5.59	9.18	7.32
2/15/2022	13:35	40.12	5.47	8.84	6.01
2/15/2022	13:40	40.12	5.47	8.84	6.01
2/15/2022	13:45	40.12	5.47	8.84	6.01
2/15/2022	13:50	32.86	3.94	5.21	4.83

2/15/2022	13:55	32.86	3.94	5.21	4.83
2/15/2022	14:00	32.86	3.94	5.21	4.83
2/15/2022	14:05	34.70	3.68	4.36	5.25
2/15/2022	14:10	34.70	3.68	4.36	5.25
2/15/2022	14:15	34.70	3.68	4.36	5.25
2/15/2022	14:20	36.62	3.86	4.40	5.56
2/15/2022	14:25	36.62	3.86	4.40	5.56
2/15/2022	14:30	36.62	3.86	4.40	5.56
2/15/2022	14:35	36.18	3.85	4.37	5.48
2/15/2022	14:40	36.18	3.85	4.37	5.48
2/15/2022	14:45	36.18	3.85	4.37	5.48
2/15/2022	14:50	35.49	3.81	4.31	5.37
2/15/2022	14:55	35.49	3.81	4.31	5.37
2/15/2022	15:00	35.49	3.81	4.31	5.37
2/15/2022	15:05	34.19	3.68	4.16	5.14
2/15/2022	15:10	34.19	3.68	4.16	5.14
2/15/2022	15:15	34.19	3.68	4.16	5.14
2/15/2022	15:20	32.82	3.54	3.99	4.91
2/15/2022	15:25	32.82	3.54	3.99	4.91
2/15/2022	15:30	32.82	3.54	3.99	4.91
2/15/2022	15:35	29.52	3.29	3.72	4.31
2/15/2022	15:40	29.52	3.29	3.72	4.31
2/15/2022	15:45	29.52	3.29	3.72	4.31
2/15/2022	15:50	26.77	2.93	3.31	3.87
2/15/2022	15:55	26.77	2.93	3.31	3.87
2/15/2022	16:00	26.77	2.93	3.31	3.87
2/15/2022	16:05	16.90	2.31	2.65	2.29
2/15/2022	16:10	16.90	2.31	2.65	2.29
2/15/2022	16:15	16.90	2.31	2.65	2.29
2/15/2022	16:20	6.85	1.06	1.23	0.93
2/15/2022	16:25	6.85	1.06	1.23	0.93
2/15/2022	16:30	6.85	1.06	1.23	0.93
2/15/2022	16:35	5.20	0.70	0.81	0.73
2/15/2022	16:40	5.20	0.70	0.81	0.73

2/15/2022	16:45	5.20	0.70	0.81	0.73
2/15/2022	16:50	4.36	0.52	0.59	0.62
2/15/2022	16:55	4.36	0.52	0.59	0.62
2/15/2022	17:00	4.36	0.52	0.59	0.62
2/15/2022	17:05	5.50	0.55	0.62	0.81
2/15/2022	17:10	5.50	0.55	0.62	0.81
2/15/2022	17:15	5.50	0.55	0.62	0.81
2/15/2022	17:20	6.80	0.69	0.78	0.98
2/15/2022	17:25	6.80	0.69	0.78	0.98
2/15/2022	17:30	6.80	0.69	0.78	0.98
2/15/2022	17:35	6.92	0.73	0.81	0.99
2/15/2022	17:40	6.92	0.73	0.81	0.99
2/15/2022	17:45	6.92	0.73	0.81	0.99
2/15/2022	17:50	6.30	0.70	0.79	0.90
2/15/2022	17:55	6.30	0.70	0.79	0.90
2/15/2022	18:00	6.30	0.70	0.79	0.90
2/15/2022	18:05	5.64	0.62	0.70	0.81
2/15/2022	18:10	5.64	0.62	0.70	0.81
2/15/2022	18:15	5.64	0.62	0.70	0.81
2/15/2022	18:20	5.58	0.60	0.67	0.80
2/15/2022	18:25	5.58	0.60	0.67	0.80
2/15/2022	18:30	5.58	0.60	0.67	0.80
2/15/2022	18:35	4.93	0.56	0.63	0.70
2/15/2022	18:40	4.93	0.56	0.63	0.70
2/15/2022	18:45	4.93	0.56	0.63	0.70
2/15/2022	18:50	3.62	0.44	0.50	0.51
2/15/2022	18:55	3.62	0.44	0.50	0.51
2/15/2022	19:00	3.62	0.44	0.50	0.51
2/15/2022	19:05	3.52	0.37	0.42	0.51
2/15/2022	19:10	3.52	0.37	0.42	0.51
2/15/2022	19:15	3.52	0.37	0.42	0.51
2/15/2022	19:20	4.75	0.46	0.51	0.69
2/15/2022	19:25	4.75	0.46	0.51	0.69
2/15/2022	19:30	4.75	0.46	0.51	0.69

2/15/2022	19:35	4.83	0.52	0.58	0.69
2/15/2022	19:40	4.83	0.52	0.58	0.69
2/15/2022	19:45	4.83	0.52	0.58	0.69
2/15/2022	19:50	3.59	0.43	0.49	0.50
2/15/2022	19:55	3.59	0.43	0.49	0.50
2/15/2022	20:00	3.59	0.43	0.49	0.50
2/15/2022	20:05	3.51	0.37	0.41	0.51
2/15/2022	20:10	3.51	0.37	0.41	0.51
2/15/2022	20:15	3.51	0.37	0.41	0.51
2/15/2022	20:20	4.11	0.42	0.47	0.59
2/15/2022	20:25	4.11	0.42	0.47	0.59
2/15/2022	20:30	4.11	0.42	0.47	0.59
2/15/2022	20:35	4.16	0.44	0.49	0.60
2/15/2022	20:40	4.16	0.44	0.49	0.60
2/15/2022	20:45	4.16	0.44	0.49	0.60
2/15/2022	20:50	3.53	0.41	0.46	0.50
2/15/2022	20:55	3.53	0.41	0.46	0.50
2/15/2022	21:00	3.53	0.41	0.46	0.50
2/15/2022	21:05	3.50	0.36	0.40	0.51
2/15/2022	21:10	3.50	0.36	0.40	0.51
2/15/2022	21:15	3.50	0.36	0.40	0.51
2/15/2022	21:20	3.46	0.39	0.43	0.49
2/15/2022	21:25	3.46	0.39	0.43	0.49
2/15/2022	21:30	3.46	0.39	0.43	0.49
2/15/2022	21:35	3.49	0.35	0.40	0.51
2/15/2022	21:40	3.49	0.35	0.40	0.51
2/15/2022	21:45	3.49	0.35	0.40	0.51
2/15/2022	21:50	3.46	0.38	0.43	0.49
2/15/2022	21:55	3.46	0.38	0.43	0.49
2/15/2022	22:00	3.46	0.38	0.43	0.49
2/15/2022	22:05	3.49	0.35	0.40	0.51
2/15/2022	22:10	3.49	0.35	0.40	0.51
2/15/2022	22:15	3.49	0.35	0.40	0.51
2/15/2022	22:20	3.46	0.38	0.43	0.49

2/15/2022	22:25	3.46	0.38	0.43	0.49
2/15/2022	22:30	3.46	0.38	0.43	0.49
2/15/2022	22:35	2.85	0.32	0.36	0.41
2/15/2022	22:40	2.85	0.32	0.36	0.41
2/15/2022	22:45	2.85	0.32	0.36	0.41
2/15/2022	22:50	2.79	0.30	0.34	0.40
2/15/2022	22:55	2.79	0.30	0.34	0.40
2/15/2022	23:00	2.79	0.30	0.34	0.40
2/15/2022	23:05	2.78	0.30	0.33	0.40
2/15/2022	23:10	2.78	0.30	0.33	0.40
2/15/2022	23:15	2.78	0.30	0.33	0.40
2/15/2022	23:20	2.78	0.30	0.33	0.40
2/15/2022	23:25	2.78	0.30	0.33	0.40
2/15/2022	23:30	2.78	0.30	0.33	0.40
2/15/2022	23:35	2.78	0.30	0.33	0.40
2/15/2022	23:40	2.78	0.30	0.33	0.40
2/15/2022	23:45	2.78	0.30	0.33	0.40
2/15/2022	23:50	2.78	0.30	0.33	0.40
2/15/2022	23:55	2.78	0.30	0.33	0.40
2/16/2022	0:00	2.78	0.30	0.33	0.40
2/16/2022	0:05	1.50	0.22	0.26	0.20
2/16/2022	0:10	1.50	0.22	0.26	0.20
2/16/2022	0:15	1.50	0.22	0.26	0.20
2/16/2022	0:20	0.17	0.06	0.07	0.02
2/16/2022	0:25	0.17	0.06	0.07	0.02
2/16/2022	0:30	0.17	0.06	0.07	0.02
2/16/2022	0:35	0.04	0.02	0.02	0.00
2/16/2022	0:40	0.04	0.02	0.02	0.00
2/16/2022	0:45	0.04	0.02	0.02	0.00
2/16/2022	0:50	0.01	0.01	0.01	0.00
2/16/2022	0:55	0.01	0.01	0.01	0.00
2/16/2022	1:00	0.01	0.01	0.01	0.00
2/16/2022	1:05	0.01	0.00	0.00	0.00
2/16/2022	1:10	0.01	0.00	0.00	0.00

2/16/2022	1:15	0.01	0.00	0.00	0.00
2/16/2022	23:55	0.00	0.00	0.00	0.00
2/17/2022	0:00	0.00	0.00	0.00	0.00
2/19/2022	23:55	0.00	0.00	0.00	0.00
2/20/2022	0:00	0.00	0.00	0.00	0.00
3/1/2022	0:00	0.00	0.00	0.00	0.00
3/1/2022	0:05	2.41	0.11	0.12	0.44
3/1/2022	0:10	16.16	0.56	0.58	2.74
3/1/2022	0:15	25.75	1.76	1.84	4.00
3/1/2022	0:20	30.94	2.53	2.77	4.78
3/1/2022	0:25	35.60	3.05	3.36	5.53
3/1/2022	0:30	39.58	3.55	3.92	6.16
3/1/2022	0:35	44.84	4.05	4.48	7.14
3/1/2022	0:40	52.24	4.69	5.18	8.52
3/1/2022	0:45	64.52	6.52	7.34	10.36
3/1/2022	0:50	130.41	16.77	18.82	16.93
3/1/2022	0:55	289.52	42.46	47.09	28.54
3/1/2022	1:00	194.44	78.60	87.36	17.26
3/1/2022	1:05	97.23	45.98	57.31	9.69
3/1/2022	1:10	50.49	24.48	29.29	4.33
3/1/2022	1:15	23.13	15.96	19.25	1.67
3/1/2022	1:20	8.62	10.84	13.18	0.70
3/1/2022	1:25	4.44	7.65	9.47	0.42
3/1/2022	1:30	3.36	5.01	6.43	0.33
3/1/2022	1:35	2.99	3.12	4.07	0.25
3/1/2022	1:40	2.58	1.26	2.27	0.07
3/1/2022	1:45	1.11	0.67	0.79	0.02
3/1/2022	1:50	0.21	0.61	0.71	0.00
3/1/2022	1:55	0.05	0.59	0.67	0.00
3/1/2022	2:00	0.00	0.58	0.66	0.00
3/1/2022	2:05	0.00	0.57	0.65	0.00
3/1/2022	2:10	0.00	0.56	0.64	0.00
3/1/2022	2:15	0.00	0.54	0.62	0.00
3/1/2022	2:20	0.00	0.48	0.61	0.00

3/1/2022	2:25	0.00	0.15	0.51	0.00
3/1/2022	2:30	0.00	0.01	0.05	0.00
3/1/2022	2:35	0.00	0.00	0.01	0.00
3/1/2022	2:40	0.00	0.00	0.00	0.00
3/1/2022	23:55	0.00	0.00	0.00	0.00
3/4/2022	23:55	0.00	0.00	0.00	0.00
3/5/2022	0:00	0.00	0.00	0.00	0.00
3/5/2022	0:05	1.40	0.07	0.07	0.25
3/5/2022	0:10	9.31	0.32	0.33	1.56
3/5/2022	0:15	14.06	0.98	1.02	2.13
3/5/2022	0:20	15.17	1.33	1.47	2.24
3/5/2022	0:25	17.86	1.49	1.65	2.67
3/5/2022	0:30	19.91	1.78	1.96	2.91
3/5/2022	0:35	21.97	1.99	2.21	3.22
3/5/2022	0:40	21.92	2.20	2.44	3.16
3/5/2022	0:45	23.24	2.26	2.52	3.40
3/5/2022	0:50	23.96	2.39	2.66	3.46
3/5/2022	0:55	22.63	2.43	2.73	3.22
3/5/2022	1:00	22.50	2.36	2.65	3.25
3/5/2022	1:05	24.20	2.41	2.70	3.53
3/5/2022	1:10	27.36	2.60	2.90	4.02
3/5/2022	1:15	29.17	2.87	3.19	4.24
3/5/2022	1:20	29.72	3.00	3.36	4.30
3/5/2022	1:25	29.53	3.07	3.44	4.27
3/5/2022	1:30	32.70	3.14	3.52	4.88
3/5/2022	1:35	35.03	3.43	3.82	5.21
3/5/2022	1:40	34.65	3.61	4.04	5.08
3/5/2022	1:45	36.55	3.66	4.11	5.50
3/5/2022	1:50	41.01	3.90	4.35	6.33
3/5/2022	1:55	42.18	4.25	4.74	6.41
3/5/2022	2:00	41.35	4.33	4.86	6.24
3/5/2022	2:05	41.59	4.31	4.84	6.31
3/5/2022	2:10	43.58	4.43	4.96	6.71
3/5/2022	2:15	51.53	4.77	5.32	8.31

3/5/2022	2:20	59.16	5.46	6.05	9.59
3/5/2022	2:25	59.53	6.66	7.57	9.25
3/5/2022	2:30	84.06	9.39	11.11	12.88
3/5/2022	2:35	110.50	18.08	22.00	15.36
3/5/2022	2:40	129.90	25.39	31.55	16.82
3/5/2022	2:45	104.85	28.63	35.89	14.03
3/5/2022	2:50	65.12	20.11	27.28	8.34
3/5/2022	2:55	43.48	12.44	16.82	5.61
3/5/2022	3:00	32.50	8.80	11.52	4.22
3/5/2022	3:05	19.57	6.56	8.59	2.40
3/5/2022	3:10	9.49	4.51	6.02	1.11
3/5/2022	3:15	5.07	2.79	3.91	0.56
3/5/2022	3:20	3.01	1.67	2.39	0.28
3/5/2022	3:25	1.72	0.93	1.42	0.13
3/5/2022	3:30	0.90	0.58	0.80	0.06
3/5/2022	3:35	0.45	0.45	0.57	0.04
3/5/2022	3:40	0.26	0.38	0.49	0.02
3/5/2022	3:45	0.16	0.33	0.43	0.01
3/5/2022	3:50	0.07	0.30	0.39	0.00
3/5/2022	3:55	0.01	0.29	0.37	0.00
3/5/2022	4:00	0.00	0.25	0.36	0.00
3/5/2022	4:05	0.00	0.18	0.29	0.00
3/5/2022	4:10	0.00	0.08	0.19	0.00
3/5/2022	4:15	0.00	0.03	0.07	0.00
3/5/2022	4:20	0.00	0.02	0.02	0.00
3/5/2022	4:25	0.00	0.01	0.02	0.00
3/5/2022	4:30	0.00	0.00	0.01	0.00
3/5/2022	4:35	0.00	0.00	0.00	0.00
3/5/2022	23:55	0.00	0.00	0.00	0.00
3/9/2022	23:55	0.00	0.00	0.00	0.00
3/10/2022	0:00	0.00	0.00	0.00	0.00
3/10/2022	0:05	0.00	0.00	0.00	0.00
3/10/2022	0:10	0.74	0.03	0.04	0.13
3/10/2022	0:15	5.08	0.18	0.18	0.85

3/10/2022	0:20	8.54	0.56	0.58	1.31
3/10/2022	0:25	10.08	0.83	0.90	1.50
3/10/2022	0:30	10.82	0.96	1.06	1.59
3/10/2022	0:35	11.33	1.05	1.17	1.65
3/10/2022	0:40	12.29	1.14	1.26	1.80
3/10/2022	0:45	12.87	1.25	1.39	1.87
3/10/2022	0:50	13.11	1.32	1.47	1.90
3/10/2022	0:55	13.26	1.35	1.51	1.92
3/10/2022	1:00	13.36	1.37	1.54	1.92
3/10/2022	1:05	13.54	1.39	1.56	1.95
3/10/2022	1:10	14.39	1.43	1.60	2.09
3/10/2022	1:15	14.92	1.51	1.68	2.16
3/10/2022	1:20	15.13	1.55	1.74	2.18
3/10/2022	1:25	15.25	1.58	1.77	2.20
3/10/2022	1:30	15.30	1.59	1.78	2.20
3/10/2022	1:35	15.32	1.60	1.80	2.20
3/10/2022	1:40	15.32	1.61	1.81	2.20
3/10/2022	1:45	15.33	1.62	1.82	2.20
3/10/2022	1:50	15.34	1.62	1.82	2.21
3/10/2022	1:55	15.34	1.62	1.82	2.21
3/10/2022	2:00	15.35	1.62	1.83	2.21
3/10/2022	2:05	15.50	1.63	1.83	2.23
3/10/2022	2:10	16.19	1.65	1.86	2.34
3/10/2022	2:15	16.02	1.70	1.91	2.30
3/10/2022	2:20	16.54	1.70	1.91	2.40
3/10/2022	2:25	16.97	1.75	1.96	2.45
3/10/2022	2:30	17.11	1.78	2.00	2.46
3/10/2022	2:35	17.18	1.80	2.02	2.47
3/10/2022	2:40	17.23	1.81	2.03	2.48
3/10/2022	2:45	17.24	1.82	2.04	2.48
3/10/2022	2:50	17.40	1.83	2.06	2.51
3/10/2022	2:55	18.24	1.86	2.09	2.65
3/10/2022	3:00	18.77	1.93	2.16	2.71
3/10/2022	3:05	18.98	1.97	2.21	2.74

3/10/2022	3:10	19.09	1.99	2.24	2.75
3/10/2022	3:15	19.29	2.01	2.26	2.78
3/10/2022	3:20	20.14	2.05	2.30	2.92
3/10/2022	3:25	20.67	2.13	2.38	2.98
3/10/2022	3:30	21.03	2.18	2.44	3.04
3/10/2022	3:35	22.13	2.23	2.50	3.22
3/10/2022	3:40	23.70	2.35	2.63	3.45
3/10/2022	3:45	25.28	2.50	2.79	3.68
3/10/2022	3:50	26.27	2.64	2.96	3.81
3/10/2022	3:55	27.48	2.75	3.08	3.99
3/10/2022	4:00	28.33	2.87	3.21	4.10
3/10/2022	4:05	29.45	2.97	3.32	4.27
3/10/2022	4:10	30.27	3.08	3.45	4.38
3/10/2022	4:15	31.53	3.18	3.57	4.59
3/10/2022	4:20	33.18	3.32	3.72	4.88
3/10/2022	4:25	34.97	3.49	3.91	5.19
3/10/2022	4:30	36.82	3.67	4.11	5.52
3/10/2022	4:35	38.56	3.85	4.31	5.82
3/10/2022	4:40	39.63	4.02	4.50	5.98
3/10/2022	4:45	41.01	4.14	4.64	6.24
3/10/2022	4:50	42.71	4.30	4.82	6.54
3/10/2022	4:55	44.37	4.48	5.01	6.83
3/10/2022	5:00	45.39	4.64	5.20	6.99
3/10/2022	5:05	46.77	4.76	5.34	7.25
3/10/2022	5:10	49.08	4.95	5.54	7.68
3/10/2022	5:15	54.82	5.26	5.88	8.81
3/10/2022	5:20	62.43	5.85	6.60	10.19
3/10/2022	5:25	69.21	6.66	7.92	11.37
3/10/2022	5:30	76.24	8.04	10.65	12.51
3/10/2022	5:35	90.24	11.60	15.89	14.08
3/10/2022	5:40	108.20	17.21	22.56	14.95
3/10/2022	5:45	74.84	21.17	27.03	9.34
3/10/2022	5:50	42.68	13.19	17.88	5.32
3/10/2022	5:55	26.68	7.90	10.43	3.24

3/10/2022	6:00	17.40	5.54	7.31	2.10
3/10/2022	6:05	10.96	4.01	5.31	1.38
3/10/2022	6:10	7.24	2.86	3.83	0.93
3/10/2022	6:15	4.10	1.91	2.60	0.47
3/10/2022	6:20	2.30	1.15	1.61	0.23
3/10/2022	6:25	1.37	0.60	0.93	0.09
3/10/2022	6:30	0.64	0.39	0.50	0.04
3/10/2022	6:35	0.25	0.31	0.41	0.02
3/10/2022	6:40	0.14	0.27	0.35	0.01
3/10/2022	6:45	0.09	0.24	0.31	0.01
3/10/2022	6:50	0.05	0.21	0.28	0.00
3/10/2022	6:55	0.02	0.19	0.26	0.00
3/10/2022	7:00	0.01	0.16	0.23	0.00
3/10/2022	7:05	0.00	0.12	0.19	0.00
3/10/2022	7:10	0.00	0.05	0.13	0.00
3/10/2022	7:15	0.00	0.01	0.03	0.00
3/10/2022	7:20	0.00	0.01	0.01	0.00
3/10/2022	7:25	0.00	0.00	0.01	0.00
3/10/2022	7:30	0.00	0.00	0.00	0.00
3/10/2022	23:55	0.00	0.00	0.00	0.00
3/14/2022	23:55	0.00	0.00	0.00	0.00
3/15/2022	0:00	0.00	0.00	0.00	0.00
3/15/2022	0:05	1.07	0.06	0.06	0.17
3/15/2022	0:10	1.07	0.06	0.06	0.17
3/15/2022	0:15	1.07	0.06	0.06	0.17
3/15/2022	0:20	2.73	0.23	0.25	0.41
3/15/2022	0:25	2.73	0.23	0.25	0.41
3/15/2022	0:30	2.73	0.23	0.25	0.41
3/15/2022	0:35	3.41	0.33	0.37	0.49
3/15/2022	0:40	3.41	0.33	0.37	0.49
3/15/2022	0:45	3.41	0.33	0.37	0.49
3/15/2022	0:50	4.02	0.39	0.43	0.59
3/15/2022	0:55	4.02	0.39	0.43	0.59
3/15/2022	1:00	4.02	0.39	0.43	0.59

3/15/2022	1:05	4.06	0.44	0.49	0.58
3/15/2022	1:10	4.06	0.44	0.49	0.58
3/15/2022	1:15	4.06	0.44	0.49	0.58
3/15/2022	1:20	3.56	0.39	0.44	0.51
3/15/2022	1:25	3.56	0.39	0.44	0.51
3/15/2022	1:30	3.56	0.39	0.44	0.51
3/15/2022	1:35	3.52	0.38	0.42	0.50
3/15/2022	1:40	3.52	0.38	0.42	0.50
3/15/2022	1:45	3.52	0.38	0.42	0.50
3/15/2022	1:50	4.05	0.40	0.45	0.59
3/15/2022	1:55	4.05	0.40	0.45	0.59
3/15/2022	2:00	4.05	0.40	0.45	0.59
3/15/2022	2:05	4.61	0.47	0.53	0.66
3/15/2022	2:10	4.61	0.47	0.53	0.66
3/15/2022	2:15	4.61	0.47	0.53	0.66
3/15/2022	2:20	4.66	0.49	0.55	0.67
3/15/2022	2:25	4.66	0.49	0.55	0.67
3/15/2022	2:30	4.66	0.49	0.55	0.67
3/15/2022	2:35	5.21	0.52	0.59	0.76
3/15/2022	2:40	5.21	0.52	0.59	0.76
3/15/2022	2:45	5.21	0.52	0.59	0.76
3/15/2022	2:50	5.77	0.59	0.66	0.83
3/15/2022	2:55	5.77	0.59	0.66	0.83
3/15/2022	3:00	5.77	0.59	0.66	0.83
3/15/2022	3:05	5.83	0.61	0.69	0.84
3/15/2022	3:10	5.83	0.61	0.69	0.84
3/15/2022	3:15	5.83	0.61	0.69	0.84
3/15/2022	3:20	5.84	0.62	0.69	0.84
3/15/2022	3:25	5.84	0.62	0.69	0.84
3/15/2022	3:30	5.84	0.62	0.69	0.84
3/15/2022	3:35	5.84	0.62	0.70	0.84
3/15/2022	3:40	5.84	0.62	0.70	0.84
3/15/2022	3:45	5.84	0.62	0.70	0.84
3/15/2022	3:50	6.38	0.65	0.73	0.93

3/15/2022	3:55	6.38	0.65	0.73	0.93
3/15/2022	4:00	6.38	0.65	0.73	0.93
3/15/2022	4:05	6.94	0.72	0.81	1.00
3/15/2022	4:10	6.94	0.72	0.81	1.00
3/15/2022	4:15	6.94	0.72	0.81	1.00
3/15/2022	4:20	7.54	0.77	0.86	1.09
3/15/2022	4:25	7.54	0.77	0.86	1.09
3/15/2022	4:30	7.54	0.77	0.86	1.09
3/15/2022	4:35	8.11	0.84	0.94	1.17
3/15/2022	4:40	8.11	0.84	0.94	1.17
3/15/2022	4:45	8.11	0.84	0.94	1.17
3/15/2022	4:50	8.70	0.89	1.00	1.26
3/15/2022	4:55	8.70	0.89	1.00	1.26
3/15/2022	5:00	8.70	0.89	1.00	1.26
3/15/2022	5:05	8.20	0.90	1.02	1.16
3/15/2022	5:10	8.20	0.90	1.02	1.16
3/15/2022	5:15	8.20	0.90	1.02	1.16
3/15/2022	5:20	7.68	0.82	0.92	1.11
3/15/2022	5:25	7.68	0.82	0.92	1.11
3/15/2022	5:30	7.68	0.82	0.92	1.11
3/15/2022	5:35	8.67	0.88	0.99	1.26
3/15/2022	5:40	8.67	0.88	0.99	1.26
3/15/2022	5:45	8.67	0.88	0.99	1.26
3/15/2022	5:50	9.27	0.96	1.08	1.34
3/15/2022	5:55	9.27	0.96	1.08	1.34
3/15/2022	6:00	9.27	0.96	1.08	1.34
3/15/2022	6:05	9.87	1.01	1.14	1.43
3/15/2022	6:10	9.87	1.01	1.14	1.43
3/15/2022	6:15	9.87	1.01	1.14	1.43
3/15/2022	6:20	10.44	1.09	1.22	1.50
3/15/2022	6:25	10.44	1.09	1.22	1.50
3/15/2022	6:30	10.44	1.09	1.22	1.50
3/15/2022	6:35	11.04	1.14	1.27	1.60
3/15/2022	6:40	11.04	1.14	1.27	1.60

3/15/2022	6:45	11.04	1.14	1.27	1.60
3/15/2022	6:50	11.61	1.21	1.36	1.67
3/15/2022	6:55	11.61	1.21	1.36	1.67
3/15/2022	7:00	11.61	1.21	1.36	1.67
3/15/2022	7:05	11.67	1.23	1.38	1.68
3/15/2022	7:10	11.67	1.23	1.38	1.68
3/15/2022	7:15	11.67	1.23	1.38	1.68
3/15/2022	7:20	12.22	1.27	1.42	1.76
3/15/2022	7:25	12.22	1.27	1.42	1.76
3/15/2022	7:30	12.22	1.27	1.42	1.76
3/15/2022	7:35	13.32	1.37	1.53	1.93
3/15/2022	7:40	13.32	1.37	1.53	1.93
3/15/2022	7:45	13.32	1.37	1.53	1.93
3/15/2022	7:50	14.48	1.48	1.66	2.09
3/15/2022	7:55	14.48	1.48	1.66	2.09
3/15/2022	8:00	14.48	1.48	1.66	2.09
3/15/2022	8:05	16.18	1.63	1.83	2.34
3/15/2022	8:10	16.18	1.63	1.83	2.34
3/15/2022	8:15	16.18	1.63	1.83	2.34
3/15/2022	8:20	17.37	1.80	2.02	2.50
3/15/2022	8:25	17.37	1.80	2.02	2.50
3/15/2022	8:30	17.37	1.80	2.02	2.50
3/15/2022	8:35	18.03	1.87	2.10	2.60
3/15/2022	8:40	18.03	1.87	2.10	2.60
3/15/2022	8:45	18.03	1.87	2.10	2.60
3/15/2022	8:50	19.16	1.98	2.22	2.76
3/15/2022	8:55	19.16	1.98	2.22	2.76
3/15/2022	9:00	19.16	1.98	2.22	2.76
3/15/2022	9:05	20.86	2.13	2.39	3.02
3/15/2022	9:10	20.86	2.13	2.39	3.02
3/15/2022	9:15	20.86	2.13	2.39	3.02
3/15/2022	9:20	22.58	2.32	2.60	3.26
3/15/2022	9:25	22.58	2.32	2.60	3.26
3/15/2022	9:30	22.58	2.32	2.60	3.26

3/15/2022	9:35	23.81	2.46	2.76	3.43
3/15/2022	9:40	23.81	2.46	2.76	3.43
3/15/2022	9:45	23.81	2.46	2.76	3.43
3/15/2022	9:50	24.98	2.59	2.91	3.60
3/15/2022	9:55	24.98	2.59	2.91	3.60
3/15/2022	10:00	24.98	2.59	2.91	3.60
3/15/2022	10:05	21.86	2.48	2.80	3.09
3/15/2022	10:10	21.86	2.48	2.80	3.09
3/15/2022	10:15	21.86	2.48	2.80	3.09
3/15/2022	10:20	18.01	2.02	2.29	2.57
3/15/2022	10:25	18.01	2.02	2.29	2.57
3/15/2022	10:30	18.01	2.02	2.29	2.57
3/15/2022	10:35	20.32	2.05	2.31	2.96
3/15/2022	10:40	20.32	2.05	2.31	2.96
3/15/2022	10:45	20.32	2.05	2.31	2.96
3/15/2022	10:50	23.06	2.37	2.65	3.33
3/15/2022	10:55	23.06	2.37	2.65	3.33
3/15/2022	11:00	23.06	2.37	2.65	3.33
3/15/2022	11:05	22.78	2.42	2.72	3.27
3/15/2022	11:10	22.78	2.42	2.72	3.27
3/15/2022	11:15	22.78	2.42	2.72	3.27
3/15/2022	11:20	22.26	2.37	2.67	3.19
3/15/2022	11:25	22.26	2.37	2.67	3.19
3/15/2022	11:30	22.26	2.37	2.67	3.19
3/15/2022	11:35	21.14	2.30	2.59	3.02
3/15/2022	11:40	21.14	2.30	2.59	3.02
3/15/2022	11:45	21.14	2.30	2.59	3.02
3/15/2022	11:50	20.55	2.19	2.46	2.95
3/15/2022	11:55	20.55	2.19	2.46	2.95
3/15/2022	12:00	20.55	2.19	2.46	2.95
3/15/2022	12:05	24.76	2.43	2.71	3.62
3/15/2022	12:10	24.76	2.43	2.71	3.62
3/15/2022	12:15	24.76	2.43	2.71	3.62
3/15/2022	12:20	29.26	2.95	3.30	4.24

3/15/2022	12:25	29.26	2.95	3.30	4.24
3/15/2022	12:30	29.26	2.95	3.30	4.24
3/15/2022	12:35	31.29	3.20	3.59	4.58
3/15/2022	12:40	31.29	3.20	3.59	4.58
3/15/2022	12:45	31.29	3.20	3.59	4.58
3/15/2022	12:50	33.07	3.43	3.84	4.89
3/15/2022	12:55	33.07	3.43	3.84	4.89
3/15/2022	13:00	33.07	3.43	3.84	4.89
3/15/2022	13:05	36.46	3.69	4.13	5.53
3/15/2022	13:10	36.46	3.69	4.13	5.53
3/15/2022	13:15	36.46	3.69	4.13	5.53
3/15/2022	13:20	39.36	4.07	4.56	6.01
3/15/2022	13:25	39.36	4.07	4.56	6.01
3/15/2022	13:30	39.36	4.07	4.56	6.01
3/15/2022	13:35	33.75	3.84	4.34	4.93
3/15/2022	13:40	33.75	3.84	4.34	4.93
3/15/2022	13:45	33.75	3.84	4.34	4.93
3/15/2022	13:50	27.63	3.12	3.52	3.95
3/15/2022	13:55	27.63	3.12	3.52	3.95
3/15/2022	14:00	27.63	3.12	3.52	3.95
3/15/2022	14:05	29.19	3.04	3.42	4.29
3/15/2022	14:10	29.19	3.04	3.42	4.29
3/15/2022	14:15	29.19	3.04	3.42	4.29
3/15/2022	14:20	30.80	3.24	3.64	4.54
3/15/2022	14:25	30.80	3.24	3.64	4.54
3/15/2022	14:30	30.80	3.24	3.64	4.54
3/15/2022	14:35	30.43	3.23	3.63	4.48
3/15/2022	14:40	30.43	3.23	3.63	4.48
3/15/2022	14:45	30.43	3.23	3.63	4.48
3/15/2022	14:50	29.85	3.20	3.60	4.38
3/15/2022	14:55	29.85	3.20	3.60	4.38
3/15/2022	15:00	29.85	3.20	3.60	4.38
3/15/2022	15:05	28.75	3.09	3.48	4.19
3/15/2022	15:10	28.75	3.09	3.48	4.19

3/15/2022	15:15	28.75	3.09	3.48	4.19
3/15/2022	15:20	27.60	2.98	3.35	4.00
3/15/2022	15:25	27.60	2.98	3.35	4.00
3/15/2022	15:30	27.60	2.98	3.35	4.00
3/15/2022	15:35	24.83	2.77	3.12	3.55
3/15/2022	15:40	24.83	2.77	3.12	3.55
3/15/2022	15:45	24.83	2.77	3.12	3.55
3/15/2022	15:50	22.52	2.47	2.79	3.22
3/15/2022	15:55	22.52	2.47	2.79	3.22
3/15/2022	16:00	22.52	2.47	2.79	3.22
3/15/2022	16:05	14.22	1.95	2.23	1.91
3/15/2022	16:10	14.22	1.95	2.23	1.91
3/15/2022	16:15	14.22	1.95	2.23	1.91
3/15/2022	16:20	5.76	0.89	1.03	0.78
3/15/2022	16:25	5.76	0.89	1.03	0.78
3/15/2022	16:30	5.76	0.89	1.03	0.78
3/15/2022	16:35	4.37	0.59	0.68	0.61
3/15/2022	16:40	4.37	0.59	0.68	0.61
3/15/2022	16:45	4.37	0.59	0.68	0.61
3/15/2022	16:50	3.66	0.44	0.50	0.52
3/15/2022	16:55	3.66	0.44	0.50	0.52
3/15/2022	17:00	3.66	0.44	0.50	0.52
3/15/2022	17:05	4.63	0.46	0.52	0.68
3/15/2022	17:10	4.63	0.46	0.52	0.68
3/15/2022	17:15	4.63	0.46	0.52	0.68
3/15/2022	17:20	5.72	0.58	0.65	0.83
3/15/2022	17:25	5.72	0.58	0.65	0.83
3/15/2022	17:30	5.72	0.58	0.65	0.83
3/15/2022	17:35	5.82	0.61	0.69	0.84
3/15/2022	17:40	5.82	0.61	0.69	0.84
3/15/2022	17:45	5.82	0.61	0.69	0.84
3/15/2022	17:50	5.30	0.59	0.66	0.75
3/15/2022	17:55	5.30	0.59	0.66	0.75
3/15/2022	18:00	5.30	0.59	0.66	0.75

3/15/2022	18:05	4.74	0.52	0.59	0.68
3/15/2022	18:10	4.74	0.52	0.59	0.68
3/15/2022	18:15	4.74	0.52	0.59	0.68
3/15/2022	18:20	4.69	0.50	0.57	0.67
3/15/2022	18:25	4.69	0.50	0.57	0.67
3/15/2022	18:30	4.69	0.50	0.57	0.67
3/15/2022	18:35	4.14	0.47	0.53	0.59
3/15/2022	18:40	4.14	0.47	0.53	0.59
3/15/2022	18:45	4.14	0.47	0.53	0.59
3/15/2022	18:50	3.04	0.37	0.42	0.43
3/15/2022	18:55	3.04	0.37	0.42	0.43
3/15/2022	19:00	3.04	0.37	0.42	0.43
3/15/2022	19:05	2.96	0.31	0.35	0.43
3/15/2022	19:10	2.96	0.31	0.35	0.43
3/15/2022	19:15	2.96	0.31	0.35	0.43
3/15/2022	19:20	3.99	0.39	0.43	0.58
3/15/2022	19:25	3.99	0.39	0.43	0.58
3/15/2022	19:30	3.99	0.39	0.43	0.58
3/15/2022	19:35	4.06	0.44	0.49	0.58
3/15/2022	19:40	4.06	0.44	0.49	0.58
3/15/2022	19:45	4.06	0.44	0.49	0.58
3/15/2022	19:50	3.02	0.36	0.41	0.42
3/15/2022	19:55	3.02	0.36	0.41	0.42
3/15/2022	20:00	3.02	0.36	0.41	0.42
3/15/2022	20:05	2.95	0.31	0.35	0.43
3/15/2022	20:10	2.95	0.31	0.35	0.43
3/15/2022	20:15	2.95	0.31	0.35	0.43
3/15/2022	20:20	3.45	0.35	0.40	0.50
3/15/2022	20:25	3.45	0.35	0.40	0.50
3/15/2022	20:30	3.45	0.35	0.40	0.50
3/15/2022	20:35	3.50	0.37	0.41	0.50
3/15/2022	20:40	3.50	0.37	0.41	0.50
3/15/2022	20:45	3.50	0.37	0.41	0.50
3/15/2022	20:50	2.97	0.34	0.39	0.42

3/15/2022	20:55	2.97	0.34	0.39	0.42
3/15/2022	21:00	2.97	0.34	0.39	0.42
3/15/2022	21:05	2.94	0.30	0.34	0.43
3/15/2022	21:10	2.94	0.30	0.34	0.43
3/15/2022	21:15	2.94	0.30	0.34	0.43
3/15/2022	21:20	2.91	0.32	0.37	0.41
3/15/2022	21:25	2.91	0.32	0.37	0.41
3/15/2022	21:30	2.91	0.32	0.37	0.41
3/15/2022	21:35	2.94	0.30	0.33	0.43
3/15/2022	21:40	2.94	0.30	0.33	0.43
3/15/2022	21:45	2.94	0.30	0.33	0.43
3/15/2022	21:50	2.91	0.32	0.36	0.41
3/15/2022	21:55	2.91	0.32	0.36	0.41
3/15/2022	22:00	2.91	0.32	0.36	0.41
3/15/2022	22:05	2.94	0.30	0.33	0.43
3/15/2022	22:10	2.94	0.30	0.33	0.43
3/15/2022	22:15	2.94	0.30	0.33	0.43
3/15/2022	22:20	2.91	0.32	0.36	0.41
3/15/2022	22:25	2.91	0.32	0.36	0.41
3/15/2022	22:30	2.91	0.32	0.36	0.41
3/15/2022	22:35	2.40	0.27	0.30	0.34
3/15/2022	22:40	2.40	0.27	0.30	0.34
3/15/2022	22:45	2.40	0.27	0.30	0.34
3/15/2022	22:50	2.35	0.25	0.29	0.34
3/15/2022	22:55	2.35	0.25	0.29	0.34
3/15/2022	23:00	2.35	0.25	0.29	0.34
3/15/2022	23:05	2.34	0.25	0.28	0.34
3/15/2022	23:10	2.34	0.25	0.28	0.34
3/15/2022	23:15	2.34	0.25	0.28	0.34
3/15/2022	23:20	2.34	0.25	0.28	0.34
3/15/2022	23:25	2.34	0.25	0.28	0.34
3/15/2022	23:30	2.34	0.25	0.28	0.34
3/15/2022	23:35	2.34	0.25	0.28	0.34
3/15/2022	23:40	2.34	0.25	0.28	0.34

3/15/2022	23:45	2.34	0.25	0.28	0.34
3/15/2022	23:50	2.34	0.25	0.28	0.34
3/15/2022	23:55	2.34	0.25	0.28	0.34
3/16/2022	0	2.34	0.25	0.28	0.34
3/16/2022	0:05	1.26	0.19	0.22	0.16
3/16/2022	0:10	1.26	0.19	0.22	0.16
3/16/2022	0:15	1.26	0.19	0.22	0.16
3/16/2022	0:20	0.14	0.05	0.06	0.01
3/16/2022	0:25	0.14	0.05	0.06	0.01
3/16/2022	0:30	0.14	0.05	0.06	0.01
3/16/2022	0:35	0.03	0.01	0.02	0.00
3/16/2022	0:40	0.03	0.01	0.02	0.00
3/16/2022	0:45	0.03	0.01	0.02	0.00
3/16/2022	0:50	0.01	0.00	0.01	0.00
3/16/2022	0:55	0.01	0.00	0.01	0.00
3/16/2022	1:00	0.01	0.00	0.01	0.00
3/16/2022	1:05	0.00	0.00	0.00	0.00
3/16/2022	1:10	0.00	0.00	0.00	0.00
3/16/2022	1:15	0.00	0.00	0.00	0.00
3/16/2022	23:55	0.00	0.00	0.00	0.00
3/17/2022	0:00	0.00	0.00	0.00	0.00
3/19/2022	23:55	0.00	0.00	0.00	0.00
3/20/2022	0:00	0.00	0.00	0.00	0.00
4/1/2022	0:00	0.00	0.00	0.00	0.00
4/1/2022	0:05	1.85	0.09	0.09	0.34
4/1/2022	0:10	12.45	0.43	0.45	2.11
4/1/2022	0:15	19.83	1.35	1.42	3.05
4/1/2022	0:20	23.83	1.95	2.14	3.61
4/1/2022	0:25	27.41	2.35	2.59	4.11
4/1/2022	0:30	30.48	2.74	3.02	4.55
4/1/2022	0:35	34.53	3.12	3.45	5.29
4/1/2022	0:40	40.22	3.61	3.99	6.34
4/1/2022	0:45	47.75	4.44	5.08	7.75
4/1/2022	0:50	86.89	10.09	11.75	12.81

4/1/2022	0:55	201.40	24.56	28.29	21.75
4/1/2022	1:00	137.89	51.31	57.66	13.07
4/1/2022	1:05	69.93	30.45	38.56	7.33
4/1/2022	1:10	36.31	16.15	19.63	3.28
4/1/2022	1:15	16.72	10.47	12.84	1.26
4/1/2022	1:20	6.29	7.08	8.75	0.53
4/1/2022	1:25	3.20	5.01	6.30	0.32
4/1/2022	1:30	2.36	3.28	4.29	0.25
4/1/2022	1:35	2.08	2.10	2.73	0.19
4/1/2022	1:40	1.82	0.85	1.57	0.05
4/1/2022	1:45	0.81	0.44	0.53	0.02
4/1/2022	1:50	0.16	0.40	0.47	0.00
4/1/2022	1:55	0.04	0.38	0.44	0.00
4/1/2022	2:00	0.00	0.37	0.43	0.00
4/1/2022	2:05	0.00	0.37	0.43	0.00
4/1/2022	2:10	0.00	0.36	0.42	0.00
4/1/2022	2:15	0.00	0.34	0.40	0.00
4/1/2022	2:20	0.00	0.32	0.39	0.00
4/1/2022	2:25	0.00	0.10	0.35	0.00
4/1/2022	2:30	0.00	0.01	0.04	0.00
4/1/2022	2:35	0.00	0.00	0.01	0.00
4/1/2022	2:40	0.00	0.00	0.00	0.00
4/1/2022	23:55	0.00	0.00	0.00	0.00
4/4/2022	23:55	0.00	0.00	0.00	0.00
4/5/2022	0:00	0.00	0.00	0.00	0.00
4/5/2022	0:05	1.10	0.05	0.05	0.20
4/5/2022	0:10	7.28	0.25	0.26	1.22
4/5/2022	0:15	10.99	0.76	0.80	1.66
4/5/2022	0:20	11.87	1.04	1.15	1.75
4/5/2022	0:25	13.97	1.17	1.29	2.09
4/5/2022	0:30	15.57	1.39	1.53	2.28
4/5/2022	0:35	17.19	1.56	1.73	2.52
4/5/2022	0:40	17.15	1.72	1.91	2.47
4/5/2022	0:45	18.18	1.77	1.97	2.66

4/5/2022	0:50	18.74	1.87	2.08	2.71
4/5/2022	0:55	17.70	1.90	2.14	2.52
4/5/2022	1:00	17.60	1.84	2.07	2.54
4/5/2022	1:05	18.93	1.89	2.11	2.76
4/5/2022	1:10	21.40	2.03	2.27	3.14
4/5/2022	1:15	22.81	2.24	2.50	3.32
4/5/2022	1:20	23.24	2.35	2.63	3.36
4/5/2022	1:25	23.10	2.40	2.69	3.33
4/5/2022	1:30	25.58	2.46	2.75	3.75
4/5/2022	1:35	27.40	2.69	2.99	3.98
4/5/2022	1:40	27.10	2.83	3.16	3.90
4/5/2022	1:45	28.59	2.86	3.21	4.19
4/5/2022	1:50	32.08	3.05	3.41	4.77
4/5/2022	1:55	32.99	3.32	3.71	4.82
4/5/2022	2:00	32.34	3.39	3.80	4.68
4/5/2022	2:05	32.53	3.37	3.79	4.72
4/5/2022	2:10	34.09	3.46	3.88	5.03
4/5/2022	2:15	40.31	3.73	4.16	6.28
4/5/2022	2:20	46.27	4.27	4.73	7.28
4/5/2022	2:25	45.65	4.76	5.37	7.01
4/5/2022	2:30	58.95	5.07	6.10	9.86
4/5/2022	2:35	71.52	6.95	9.11	11.79
4/5/2022	2:40	80.68	9.48	13.25	12.94
4/5/2022	2:45	70.42	11.94	16.28	10.78
4/5/2022	2:50	46.09	8.94	12.23	6.44
4/5/2022	2:55	31.56	5.89	7.82	4.35
4/5/2022	3:00	24.36	4.41	5.75	3.29
4/5/2022	3:05	14.95	3.43	4.46	1.87
4/5/2022	3:10	7.18	2.36	3.14	0.86
4/5/2022	3:15	3.72	1.46	2.01	0.43
4/5/2022	3:20	2.14	0.91	1.26	0.22
4/5/2022	3:25	1.20	0.54	0.77	0.10
4/5/2022	3:30	0.66	0.34	0.45	0.04
4/5/2022	3:35	0.35	0.25	0.32	0.03

4/5/2022	3:40	0.20	0.19	0.26	0.02
4/5/2022	3:45	0.13	0.15	0.21	0.00
4/5/2022	3:50	0.05	0.13	0.18	0.00
4/5/2022	3:55	0.01	0.12	0.16	0.00
4/5/2022	4:00	0.00	0.10	0.15	0.00
4/5/2022	4:05	0.00	0.08	0.13	0.00
4/5/2022	4:10	0.00	0.04	0.10	0.00
4/5/2022	4:15	0.00	0.02	0.04	0.00
4/5/2022	4:20	0.00	0.01	0.02	0.00
4/5/2022	4:25	0.00	0.01	0.01	0.00
4/5/2022	4:30	0.00	0.00	0.01	0.00
4/5/2022	4:35	0.00	0.00	0.00	0.00
4/5/2022	23:55	0.00	0.00	0.00	0.00
4/9/2022	23:55	0.00	0.00	0.00	0.00
4/10/2022	0:00	0.00	0.00	0.00	0.00
4/10/2022	0:05	0.58	0.03	0.03	0.10
4/10/2022	0:10	3.98	0.14	0.14	0.67
4/10/2022	0:15	6.70	0.44	0.46	1.03
4/10/2022	0:20	7.90	0.65	0.71	1.18
4/10/2022	0:25	8.48	0.76	0.83	1.25
4/10/2022	0:30	8.89	0.83	0.92	1.29
4/10/2022	0:35	9.64	0.89	0.99	1.41
4/10/2022	0:40	10.09	0.98	1.09	1.46
4/10/2022	0:45	10.28	1.03	1.15	1.49
4/10/2022	0:50	10.40	1.06	1.19	1.51
4/10/2022	0:55	10.48	1.08	1.21	1.51
4/10/2022	1:00	10.62	1.09	1.23	1.53
4/10/2022	1:05	11.28	1.12	1.26	1.64
4/10/2022	1:10	11.70	1.18	1.32	1.69
4/10/2022	1:15	11.87	1.22	1.36	1.71
4/10/2022	1:20	11.96	1.24	1.39	1.72
4/10/2022	1:25	12.00	1.25	1.40	1.73
4/10/2022	1:30	12.01	1.26	1.41	1.73
4/10/2022	1:35	12.02	1.26	1.42	1.73

4/10/2022	1:40	12.02	1.27	1.43	1.73
4/10/2022	1:45	12.03	1.27	1.43	1.73
4/10/2022	1:50	12.03	1.27	1.43	1.73
4/10/2022	1:55	12.04	1.27	1.43	1.73
4/10/2022	2:00	12.15	1.28	1.44	1.75
4/10/2022	2:05	12.69	1.30	1.45	1.84
4/10/2022	2:10	12.56	1.34	1.50	1.80
4/10/2022	2:15	12.97	1.33	1.50	1.88
4/10/2022	2:20	13.30	1.37	1.54	1.92
4/10/2022	2:25	13.42	1.40	1.57	1.93
4/10/2022	2:30	13.47	1.41	1.59	1.94
4/10/2022	2:35	13.51	1.42	1.60	1.94
4/10/2022	2:40	13.52	1.43	1.60	1.94
4/10/2022	2:45	13.64	1.43	1.61	1.97
4/10/2022	2:50	14.31	1.46	1.64	2.07
4/10/2022	2:55	14.72	1.51	1.70	2.13
4/10/2022	3:00	14.88	1.55	1.74	2.15
4/10/2022	3:05	14.97	1.56	1.75	2.15
4/10/2022	3:10	15.12	1.58	1.77	2.18
4/10/2022	3:15	15.79	1.61	1.80	2.29
4/10/2022	3:20	16.21	1.67	1.87	2.34
4/10/2022	3:25	16.49	1.71	1.92	2.38
4/10/2022	3:30	17.35	1.75	1.96	2.52
4/10/2022	3:35	18.59	1.84	2.06	2.70
4/10/2022	3:40	19.83	1.96	2.19	2.88
4/10/2022	3:45	20.60	2.07	2.32	2.99
4/10/2022	3:50	21.55	2.15	2.41	3.13
4/10/2022	3:55	22.22	2.25	2.52	3.21
4/10/2022	4:00	23.10	2.33	2.60	3.35
4/10/2022	4:05	23.73	2.42	2.71	3.43
4/10/2022	4:10	24.72	2.50	2.80	3.59
4/10/2022	4:15	26.02	2.61	2.92	3.78
4/10/2022	4:20	27.42	2.74	3.06	3.98
4/10/2022	4:25	28.88	2.88	3.22	4.19

4/10/2022	4:30	30.24	3.02	3.38	4.39
4/10/2022	4:35	31.07	3.15	3.53	4.50
4/10/2022	4:40	32.16	3.25	3.64	4.68
4/10/2022	4:45	33.49	3.38	3.78	4.92
4/10/2022	4:50	34.79	3.51	3.93	5.14
4/10/2022	4:55	35.60	3.64	4.07	5.27
4/10/2022	5:00	36.68	3.74	4.19	5.47
4/10/2022	5:05	38.48	3.88	4.34	5.81
4/10/2022	5:10	42.99	4.13	4.61	6.69
4/10/2022	5:15	48.96	4.59	5.11	7.78
4/10/2022	5:20	54.27	5.14	5.72	8.70
4/10/2022	5:25	59.34	5.65	6.30	9.59
4/10/2022	5:30	66.04	6.44	7.34	10.82
4/10/2022	5:35	70.71	7.58	9.04	11.52
4/10/2022	5:40	50.21	8.96	11.69	7.18
4/10/2022	5:45	30.12	6.15	8.40	4.11
4/10/2022	5:50	19.15	3.96	5.15	2.51
4/10/2022	5:55	12.83	2.84	3.67	1.63
4/10/2022	6:00	8.36	2.10	2.71	1.08
4/10/2022	6:05	5.55	1.51	1.99	0.72
4/10/2022	6:10	3.08	1.03	1.38	0.36
4/10/2022	6:15	1.68	0.64	0.87	0.18
4/10/2022	6:20	0.96	0.37	0.54	0.07
4/10/2022	6:25	0.46	0.24	0.31	0.03
4/10/2022	6:30	0.19	0.19	0.23	0.02
4/10/2022	6:35	0.11	0.15	0.19	0.01
4/10/2022	6:40	0.07	0.12	0.16	0.00
4/10/2022	6:45	0.04	0.10	0.14	0.00
4/10/2022	6:50	0.02	0.09	0.12	0.00
4/10/2022	6:55	0.00	0.07	0.10	0.00
4/10/2022	7:00	0.00	0.05	0.08	0.00
4/10/2022	7:05	0.00	0.03	0.07	0.00
4/10/2022	7:10	0.00	0.01	0.02	0.00
4/10/2022	7:15	0.00	0.01	0.01	0.00

4/10/2022	7:20	0.00	0.00	0.00	0.00
4/10/2022	7:25	0.00	0.00	0.00	0.00
4/10/2022	7:30	0.00	0.00	0.00	0.00
4/10/2022	23:55	0.00	0.00	0.00	0.00
4/14/2022	23:55	0.00	0.00	0.00	0.00
4/15/2022	0:00	0.00	0.00	0.00	0.00
4/15/2022	0:05	0.83	0.05	0.05	0.13
4/15/2022	0:10	0.83	0.05	0.05	0.13
4/15/2022	0:15	0.83	0.05	0.05	0.13
4/15/2022	0:20	2.10	0.17	0.19	0.31
4/15/2022	0:25	2.10	0.17	0.19	0.31
4/15/2022	0:30	2.10	0.17	0.19	0.31
4/15/2022	0:35	2.61	0.25	0.28	0.38
4/15/2022	0:40	2.61	0.25	0.28	0.38
4/15/2022	0:45	2.61	0.25	0.28	0.38
4/15/2022	0:50	3.08	0.30	0.33	0.45
4/15/2022	0:55	3.08	0.30	0.33	0.45
4/15/2022	1:00	3.08	0.30	0.33	0.45
4/15/2022	1:05	3.11	0.33	0.38	0.44
4/15/2022	1:10	3.11	0.33	0.38	0.44
4/15/2022	1:15	3.11	0.33	0.38	0.44
4/15/2022	1:20	2.73	0.30	0.33	0.39
4/15/2022	1:25	2.73	0.30	0.33	0.39
4/15/2022	1:30	2.73	0.30	0.33	0.39
4/15/2022	1:35	2.70	0.29	0.32	0.39
4/15/2022	1:40	2.70	0.29	0.32	0.39
4/15/2022	1:45	2.70	0.29	0.32	0.39
4/15/2022	1:50	3.11	0.31	0.35	0.45
4/15/2022	1:55	3.11	0.31	0.35	0.45
4/15/2022	2:00	3.11	0.31	0.35	0.45
4/15/2022	2:05	3.54	0.36	0.41	0.51
4/15/2022	2:10	3.54	0.36	0.41	0.51
4/15/2022	2:15	3.54	0.36	0.41	0.51
4/15/2022	2:20	3.58	0.38	0.42	0.51

4/15/2022	2:25	3.58	0.38	0.42	0.51
4/15/2022	2:30	3.58	0.38	0.42	0.51
4/15/2022	2:35	4.00	0.40	0.45	0.58
4/15/2022	2:40	4.00	0.40	0.45	0.58
4/15/2022	2:45	4.00	0.40	0.45	0.58
4/15/2022	2:50	4.43	0.46	0.51	0.64
4/15/2022	2:55	4.43	0.46	0.51	0.64
4/15/2022	3:00	4.43	0.46	0.51	0.64
4/15/2022	3:05	4.48	0.47	0.53	0.64
4/15/2022	3:10	4.48	0.47	0.53	0.64
4/15/2022	3:15	4.48	0.47	0.53	0.64
4/15/2022	3:20	4.48	0.47	0.53	0.64
4/15/2022	3:25	4.48	0.47	0.53	0.64
4/15/2022	3:30	4.48	0.47	0.53	0.64
4/15/2022	3:35	4.49	0.47	0.53	0.64
4/15/2022	3:40	4.49	0.47	0.53	0.64
4/15/2022	3:45	4.49	0.47	0.53	0.64
4/15/2022	3:50	4.90	0.50	0.56	0.71
4/15/2022	3:55	4.90	0.50	0.56	0.71
4/15/2022	4:00	4.90	0.50	0.56	0.71
4/15/2022	4:05	5.33	0.55	0.62	0.77
4/15/2022	4:10	5.33	0.55	0.62	0.77
4/15/2022	4:15	5.33	0.55	0.62	0.77
4/15/2022	4:20	5.79	0.59	0.66	0.84
4/15/2022	4:25	5.79	0.59	0.66	0.84
4/15/2022	4:30	5.79	0.59	0.66	0.84
4/15/2022	4:35	6.22	0.64	0.72	0.90
4/15/2022	4:40	6.22	0.64	0.72	0.90
4/15/2022	4:45	6.22	0.64	0.72	0.90
4/15/2022	4:50	6.68	0.68	0.76	0.97
4/15/2022	4:55	6.68	0.68	0.76	0.97
4/15/2022	5:00	6.68	0.68	0.76	0.97
4/15/2022	5:05	6.29	0.69	0.78	0.89
4/15/2022	5:10	6.29	0.69	0.78	0.89

4/15/2022	5:15	6.29	0.69	0.78	0.89
4/15/2022	5:20	5.89	0.63	0.70	0.85
4/15/2022	5:25	5.89	0.63	0.70	0.85
4/15/2022	5:30	5.89	0.63	0.70	0.85
4/15/2022	5:35	6.66	0.68	0.76	0.96
4/15/2022	5:40	6.66	0.68	0.76	0.96
4/15/2022	5:45	6.66	0.68	0.76	0.96
4/15/2022	5:50	7.12	0.74	0.83	1.03
4/15/2022	5:55	7.12	0.74	0.83	1.03
4/15/2022	6:00	7.12	0.74	0.83	1.03
4/15/2022	6:05	7.58	0.78	0.87	1.10
4/15/2022	6:10	7.58	0.78	0.87	1.10
4/15/2022	6:15	7.58	0.78	0.87	1.10
4/15/2022	6:20	8.02	0.83	0.94	1.15
4/15/2022	6:25	8.02	0.83	0.94	1.15
4/15/2022	6:30	8.02	0.83	0.94	1.15
4/15/2022	6:35	8.48	0.87	0.98	1.22
4/15/2022	6:40	8.48	0.87	0.98	1.22
4/15/2022	6:45	8.48	0.87	0.98	1.22
4/15/2022	6:50	8.91	0.93	1.04	1.28
4/15/2022	6:55	8.91	0.93	1.04	1.28
4/15/2022	7:00	8.91	0.93	1.04	1.28
4/15/2022	7:05	8.96	0.94	1.06	1.29
4/15/2022	7:10	8.96	0.94	1.06	1.29
4/15/2022	7:15	8.96	0.94	1.06	1.29
4/15/2022	7:20	9.38	0.97	1.09	1.35
4/15/2022	7:25	9.38	0.97	1.09	1.35
4/15/2022	7:30	9.38	0.97	1.09	1.35
4/15/2022	7:35	10.23	1.05	1.18	1.48
4/15/2022	7:40	10.23	1.05	1.18	1.48
4/15/2022	7:45	10.23	1.05	1.18	1.48
4/15/2022	7:50	11.11	1.14	1.28	1.61
4/15/2022	7:55	11.11	1.14	1.28	1.61
4/15/2022	8:00	11.11	1.14	1.28	1.61

4/15/2022	8:05	12.42	1.26	1.41	1.80
4/15/2022	8:10	12.42	1.26	1.41	1.80
4/15/2022	8:15	12.42	1.26	1.41	1.80
4/15/2022	8:20	13.33	1.38	1.55	1.92
4/15/2022	8:25	13.33	1.38	1.55	1.92
4/15/2022	8:30	13.33	1.38	1.55	1.92
4/15/2022	8:35	13.84	1.44	1.61	2.00
4/15/2022	8:40	13.84	1.44	1.61	2.00
4/15/2022	8:45	13.84	1.44	1.61	2.00
4/15/2022	8:50	14.71	1.52	1.71	2.12
4/15/2022	8:55	14.71	1.52	1.71	2.12
4/15/2022	9:00	14.71	1.52	1.71	2.12
4/15/2022	9:05	16.01	1.63	1.83	2.32
4/15/2022	9:10	16.01	1.63	1.83	2.32
4/15/2022	9:15	16.01	1.63	1.83	2.32
4/15/2022	9:20	17.34	1.78	2.00	2.50
4/15/2022	9:25	17.34	1.78	2.00	2.50
4/15/2022	9:30	17.34	1.78	2.00	2.50
4/15/2022	9:35	18.28	1.89	2.12	2.64
4/15/2022	9:40	18.28	1.89	2.12	2.64
4/15/2022	9:45	18.28	1.89	2.12	2.64
4/15/2022	9:50	19.18	1.99	2.23	2.77
4/15/2022	9:55	19.18	1.99	2.23	2.77
4/15/2022	10:00	19.18	1.99	2.23	2.77
4/15/2022	10:05	16.78	1.90	2.15	2.37
4/15/2022	10:10	16.78	1.90	2.15	2.37
4/15/2022	10:15	16.78	1.90	2.15	2.37
4/15/2022	10:20	13.82	1.55	1.76	1.97
4/15/2022	10:25	13.82	1.55	1.76	1.97
4/15/2022	10:30	13.82	1.55	1.76	1.97
4/15/2022	10:35	15.60	1.58	1.77	2.27
4/15/2022	10:40	15.60	1.58	1.77	2.27
4/15/2022	10:45	15.60	1.58	1.77	2.27
4/15/2022	10:50	17.70	1.82	2.04	2.55

4/15/2022	10:55	17.70	1.82	2.04	2.55
4/15/2022	11:00	17.70	1.82	2.04	2.55
4/15/2022	11:05	17.49	1.86	2.09	2.51
4/15/2022	11:10	17.49	1.86	2.09	2.51
4/15/2022	11:15	17.49	1.86	2.09	2.51
4/15/2022	11:20	17.09	1.82	2.05	2.45
4/15/2022	11:25	17.09	1.82	2.05	2.45
4/15/2022	11:30	17.09	1.82	2.05	2.45
4/15/2022	11:35	16.23	1.76	1.99	2.32
4/15/2022	11:40	16.23	1.76	1.99	2.32
4/15/2022	11:45	16.23	1.76	1.99	2.32
4/15/2022	11:50	15.78	1.68	1.89	2.27
4/15/2022	11:55	15.78	1.68	1.89	2.27
4/15/2022	12:00	15.78	1.68	1.89	2.27
4/15/2022	12:05	19.01	1.86	2.08	2.78
4/15/2022	12:10	19.01	1.86	2.08	2.78
4/15/2022	12:15	19.01	1.86	2.08	2.78
4/15/2022	12:20	22.46	2.26	2.53	3.25
4/15/2022	12:25	22.46	2.26	2.53	3.25
4/15/2022	12:30	22.46	2.26	2.53	3.25
4/15/2022	12:35	24.02	2.46	2.76	3.47
4/15/2022	12:40	24.02	2.46	2.76	3.47
4/15/2022	12:45	24.02	2.46	2.76	3.47
4/15/2022	12:50	25.39	2.63	2.95	3.66
4/15/2022	12:55	25.39	2.63	2.95	3.66
4/15/2022	13:00	25.39	2.63	2.95	3.66
4/15/2022	13:05	27.99	2.83	3.17	4.09
4/15/2022	13:10	27.99	2.83	3.17	4.09
4/15/2022	13:15	27.99	2.83	3.17	4.09
4/15/2022	13:20	30.21	3.12	3.50	4.41
4/15/2022	13:25	30.21	3.12	3.50	4.41
4/15/2022	13:30	30.21	3.12	3.50	4.41
4/15/2022	13:35	25.91	2.95	3.33	3.69
4/15/2022	13:40	25.91	2.95	3.33	3.69

4/15/2022	13:45	25.91	2.95	3.33	3.69
4/15/2022	13:50	21.22	2.39	2.71	3.02
4/15/2022	13:55	21.22	2.39	2.71	3.02
4/15/2022	14:00	21.22	2.39	2.71	3.02
4/15/2022	14:05	22.41	2.34	2.63	3.24
4/15/2022	14:10	22.41	2.34	2.63	3.24
4/15/2022	14:15	22.41	2.34	2.63	3.24
4/15/2022	14:20	23.64	2.49	2.79	3.40
4/15/2022	14:25	23.64	2.49	2.79	3.40
4/15/2022	14:30	23.64	2.49	2.79	3.40
4/15/2022	14:35	23.36	2.48	2.79	3.35
4/15/2022	14:40	23.36	2.48	2.79	3.35
4/15/2022	14:45	23.36	2.48	2.79	3.35
4/15/2022	14:50	22.92	2.46	2.76	3.29
4/15/2022	14:55	22.92	2.46	2.76	3.29
4/15/2022	15:00	22.92	2.46	2.76	3.29
4/15/2022	15:05	22.07	2.38	2.68	3.16
4/15/2022	15:10	22.07	2.38	2.68	3.16
4/15/2022	15:15	22.07	2.38	2.68	3.16
4/15/2022	15:20	21.19	2.29	2.57	3.03
4/15/2022	15:25	21.19	2.29	2.57	3.03
4/15/2022	15:30	21.19	2.29	2.57	3.03
4/15/2022	15:35	19.06	2.12	2.40	2.71
4/15/2022	15:40	19.06	2.12	2.40	2.71
4/15/2022	15:45	19.06	2.12	2.40	2.71
4/15/2022	15:50	17.29	1.90	2.14	2.47
4/15/2022	15:55	17.29	1.90	2.14	2.47
4/15/2022	16:00	17.29	1.90	2.14	2.47
4/15/2022	16:05	10.91	1.49	1.71	1.47
4/15/2022	16:10	10.91	1.49	1.71	1.47
4/15/2022	16:15	10.91	1.49	1.71	1.47
4/15/2022	16:20	4.43	0.68	0.79	0.60
4/15/2022	16:25	4.43	0.68	0.79	0.60
4/15/2022	16:30	4.43	0.68	0.79	0.60

4/15/2022	16:35	3.36	0.45	0.52	0.47
4/15/2022	16:40	3.36	0.45	0.52	0.47
4/15/2022	16:45	3.36	0.45	0.52	0.47
4/15/2022	16:50	2.81	0.33	0.38	0.40
4/15/2022	16:55	2.81	0.33	0.38	0.40
4/15/2022	17:00	2.81	0.33	0.38	0.40
4/15/2022	17:05	3.55	0.35	0.40	0.52
4/15/2022	17:10	3.55	0.35	0.40	0.52
4/15/2022	17:15	3.55	0.35	0.40	0.52
4/15/2022	17:20	4.39	0.45	0.50	0.63
4/15/2022	17:25	4.39	0.45	0.50	0.63
4/15/2022	17:30	4.39	0.45	0.50	0.63
4/15/2022	17:35	4.47	0.47	0.53	0.64
4/15/2022	17:40	4.47	0.47	0.53	0.64
4/15/2022	17:45	4.47	0.47	0.53	0.64
4/15/2022	17:50	4.07	0.45	0.51	0.58
4/15/2022	17:55	4.07	0.45	0.51	0.58
4/15/2022	18:00	4.07	0.45	0.51	0.58
4/15/2022	18:05	3.64	0.40	0.45	0.52
4/15/2022	18:10	3.64	0.40	0.45	0.52
4/15/2022	18:15	3.64	0.40	0.45	0.52
4/15/2022	18:20	3.60	0.39	0.43	0.52
4/15/2022	18:25	3.60	0.39	0.43	0.52
4/15/2022	18:30	3.60	0.39	0.43	0.52
4/15/2022	18:35	3.18	0.36	0.41	0.45
4/15/2022	18:40	3.18	0.36	0.41	0.45
4/15/2022	18:45	3.18	0.36	0.41	0.45
4/15/2022	18:50	2.34	0.28	0.32	0.33
4/15/2022	18:55	2.34	0.28	0.32	0.33
4/15/2022	19:00	2.34	0.28	0.32	0.33
4/15/2022	19:05	2.27	0.24	0.27	0.33
4/15/2022	19:10	2.27	0.24	0.27	0.33
4/15/2022	19:15	2.27	0.24	0.27	0.33
4/15/2022	19:20	3.07	0.30	0.33	0.45

4/15/2022	19:25	3.07	0.30	0.33	0.45
4/15/2022	19:30	3.07	0.30	0.33	0.45
4/15/2022	19:35	3.12	0.34	0.38	0.44
4/15/2022	19:40	3.12	0.34	0.38	0.44
4/15/2022	19:45	3.12	0.34	0.38	0.44
4/15/2022	19:50	2.32	0.28	0.31	0.32
4/15/2022	19:55	2.32	0.28	0.31	0.32
4/15/2022	20:00	2.32	0.28	0.31	0.32
4/15/2022	20:05	2.27	0.24	0.27	0.33
4/15/2022	20:10	2.27	0.24	0.27	0.33
4/15/2022	20:15	2.27	0.24	0.27	0.33
4/15/2022	20:20	2.65	0.27	0.31	0.38
4/15/2022	20:25	2.65	0.27	0.31	0.38
4/15/2022	20:30	2.65	0.27	0.31	0.38
4/15/2022	20:35	2.69	0.28	0.32	0.39
4/15/2022	20:40	2.69	0.28	0.32	0.39
4/15/2022	20:45	2.69	0.28	0.32	0.39
4/15/2022	20:50	2.28	0.26	0.30	0.32
4/15/2022	20:55	2.28	0.26	0.30	0.32
4/15/2022	21:00	2.28	0.26	0.30	0.32
4/15/2022	21:05	2.26	0.23	0.26	0.33
4/15/2022	21:10	2.26	0.23	0.26	0.33
4/15/2022	21:15	2.26	0.23	0.26	0.33
4/15/2022	21:20	2.24	0.25	0.28	0.32
4/15/2022	21:25	2.24	0.25	0.28	0.32
4/15/2022	21:30	2.24	0.25	0.28	0.32
4/15/2022	21:35	2.25	0.23	0.26	0.33
4/15/2022	21:40	2.25	0.23	0.26	0.33
4/15/2022	21:45	2.25	0.23	0.26	0.33
4/15/2022	21:50	2.23	0.25	0.28	0.32
4/15/2022	21:55	2.23	0.25	0.28	0.32
4/15/2022	22:00	2.23	0.25	0.28	0.32
4/15/2022	22:05	2.25	0.23	0.26	0.33
4/15/2022	22:10	2.25	0.23	0.26	0.33

4/15/2022	22:15	2.25	0.23	0.26	0.33
4/15/2022	22:20	2.23	0.25	0.28	0.32
4/15/2022	22:25	2.23	0.25	0.28	0.32
4/15/2022	22:30	2.23	0.25	0.28	0.32
4/15/2022	22:35	1.84	0.21	0.23	0.26
4/15/2022	22:40	1.84	0.21	0.23	0.26
4/15/2022	22:45	1.84	0.21	0.23	0.26
4/15/2022	22:50	1.80	0.19	0.22	0.26
4/15/2022	22:55	1.80	0.19	0.22	0.26
4/15/2022	23:00	1.80	0.19	0.22	0.26
4/15/2022	23:05	1.80	0.19	0.22	0.26
4/15/2022	23:10	1.80	0.19	0.22	0.26
4/15/2022	23:15	1.80	0.19	0.22	0.26
4/15/2022	23:20	1.80	0.19	0.21	0.26
4/15/2022	23:25	1.80	0.19	0.21	0.26
4/15/2022	23:30	1.80	0.19	0.21	0.26
4/15/2022	23:35	1.80	0.19	0.21	0.26
4/15/2022	23:40	1.80	0.19	0.21	0.26
4/15/2022	23:45	1.80	0.19	0.21	0.26
4/15/2022	23:50	1.79	0.19	0.21	0.26
4/15/2022	23:55	1.79	0.19	0.21	0.26
4/16/2022	0	1.79	0.19	0.21	0.26
4/16/2022	0:05	0.97	0.15	0.17	0.13
4/16/2022	0:10	0.97	0.15	0.17	0.13
4/16/2022	0:15	0.97	0.15	0.17	0.13
4/16/2022	0:20	0.11	0.04	0.05	0.01
4/16/2022	0:25	0.11	0.04	0.05	0.01
4/16/2022	0:30	0.11	0.04	0.05	0.01
4/16/2022	0:35	0.02	0.01	0.01	0.00
4/16/2022	0:40	0.02	0.01	0.01	0.00
4/16/2022	0:45	0.02	0.01	0.01	0.00
4/16/2022	0:50	0.01	0.00	0.00	0.00
4/16/2022	0:55	0.01	0.00	0.00	0.00
4/16/2022	1:00	0.01	0.00	0.00	0.00

4/16/2022	1:05	0.00	0.00	0.00		0.00
4/16/2022	1:10	0.00	0.00	0.00		0.00
4/16/2022	1:15	0.00	0.00	0.00		0.00
4/16/2022	23:55	0.00	0.00	0.00		0.00
4/17/2022	0:00	0.00	0.00	0.00		0.00
4/19/2022	23:55	0.00	0.00	0.00		0.00
4/20/2022	0:00	0.00	0.00	0.00		0.00
		698.76	219.48	242.85	0.00	55.38

Caputred Drainage Area	Area B.1.a	Area B.1.b.	Area B.1.c.	Area B.1.d.	Area B.2.a.	Area B.2.b.	Area B.2.c.	Area B.3.	Area B.4.	Area B.5.	Area B.6.	Area B.7.	Area C.1	Area C.2	Area S.1	Area S.2.a.	Area S.2.b.
Area (ac)	2.18	2.29	3.4	15.68	25.31	21.47	31.41	2.36	4.71	8.52	9.35	2.69	72.36	28	0.77	0.87	1.09
Receiving PC SWMM Modeling Element	Junction J10	Junction J12	Junction J13	Junction J14	Junction J15	Junction J16	Junction J28	Junction J19	Junction J21	Junction J30	Junction J32	Junction J22	Junction J23	Junction J26	Junction 70	Junction 73	Junction 76
PC SWMM Model Desciption	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow
Time Series Scale Factor	0.109	0.1145	0.17	0.784	1.2655	1.0735	1.5705	0.118	0.2355	0.07	0.4675	0.022	3.618	1.4	0.0385	0.0435	0.0545
PC SWMM Storage Element	SU1	SU2	SU3	SU4	SU5	SU6	SU7	SU8	SU9		SU11		SU 13	SU 14			
PC SWMM Model Desciption	Future Basin 1a	Future Basin 1b	Future Basin 1c	Future Basin 1d	Future Basin 2a	Future Basin 2b	Future Basin 2c	Future Basin 3	Future Basin 4		Future Basin 6		Future Basin 8a	Future Basin 8b			
PC SWMM Storage Curve	Curve1	Curve2	Curve3	Curve4	Curve5	Curve6	Curve7	Curve8	Curve9		Curve11		Curve13	Curve14			
Ave Basin Area (ft^2)	4748.04	4987.62	7405.2	34151.04	55125.18	46761.66	68410.98	5140.08	10258.38		20364.3		157600.08	60984			
Stage															**Stage**		
0	4748.04	4987.62	7405.2	34151.04	55125.18	46761.66	68410.98	5140.08	10258.38	0	20364.3	0	157600.08	60984	**0**		
1	4748.04	4987.62	7405.2	34151.04	55125.18	46761.66	68410.98	5140.08	10258.38	0	20364.3	0	157600.08	60984	**1**		
2	4748.04	4987.62	7405.2	34151.04	55125.18	46761.66	68410.98	5140.08	10258.38	0	20364.3	0	157600.08	60984	**2**		
3	4748.04	4987.62	7405.2	34151.04	55125.18	46761.66	68410.98	5140.08	10258.38	0	20364.3	0	157600.08	60984	**3**		
4	4748.04	4987.62	7405.2	34151.04	55125.18	46761.66	68410.98	5140.08	10258.38	0	20364.3	0	157600.08	60984	**4**		
5	4748.04	4987.62	7405.2	34151.04	55125.18	46761.66	68410.98	5140.08	10258.38	0	20364.3	0	157600.08	60984	**5**		

Caputred Drainage Area	Offsite Flow Basin (Mitigated C.2+Mitigated C.1+A)	Ex Flood Storage (C+A)
Area (ac)	409	443
Receiving PC SWMM Modeling Element	J2, J23, J26	J4
PC SWMM Model Desciption	n/a	n/a
Time Series Scale Factor	1	1
PC SWMM Storage Element	SU15	J4
PC SWMM Model Desciption	RCFC Basin	Existing Storage Volume
PC SWMM Storage Curve	Curve15	(Pre Development) Curve1
Ave Basin Area (ft^2)	182894	251200
Stage		Stage	
0	182894	0	0
1	182894	1	35,000.00
2	182894	2	75,000.00
3	182894	3	100,000.00
4	182894	4	120,000.00
5	182894	5	160,000.00
6	182894	6	190,000.00
7	182894	7	220,000.00
		8	312,000.00
		9	1,300,000.00

Area S.2.c.	Area S.3.	Area S.4.	Area S.5.a	Area S.5.b.	Area S.6.	Area S.7.a.	Area S.7.b.	Area S.7.c.
1.57	1.69	3.42	1.3	1.97	3.88	1.44	0.38	0.54
Junction 80	Outfall J17	Junction 129	Junction 89	Junction 87	Junction 82	Junction 82	Junction 94	Junction 92
SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow	SubArea Flow
0.0785	0.0845	0.171	0.065	0.0985	0.194	0.072	0.019	0.027

SU 10

Curve12

1000

1000
1000
1000
1000
1000
1000

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

            F L O O D   R O U T I N G   A N A L Y S I S

ACCORDING TO RIVERSIDE COUNTY FLOOD CONTORL AND WATER CONSERVATION DISTRICT
                    (RCFC&WCD) 1978 HYDROLOGY MANUAL
         (c) Copyright 1989-2011 Advanced Engineering Software (aes)
                 (Synthetic Unit Hydrograph Version 18.0)
                 Release Date: 05/01/2011  License ID 1499

                           Analysis prepared by:



 ************************* DESCRIPTION OF STUDY *************************
* District at Jurupa Valley                                             *
* Preliminary Hydrology 100 year 1 Hour Event                           *
* Kimley Horn May 26, 2022                                              *
 ************************************************************************

  FILE NAME: C:\aes2011\hydrosft\floodX\J100Y1H.fld
  TIME/DATE OF STUDY: 17:40 05/26/2022


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  FLOW PROCESS FROM NODE   100.00 TO NODE   101.00 IS CODE =   1
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  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
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      (UNIT-HYDROGRAPH ADDED TO STREAM #1)

         WATERCOURSE LENGTH =    4582.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2749.200 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      76.000 FEET
         BASIN FACTOR = 0.015
         WATERSHED AREA =     308.710 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.114 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.340
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.630
         USER-ENTERED RAINFALL =  1.12 INCHES
         RCFC&WCD 1-Hour Storm (5-Minute period) SELECTED
         (SLOPE OF INTENSITY-DURATION CURVE = 0.55)
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9900


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  73.227


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                      UNIT HYDROGRAPH DETERMINATION

------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
------------------------------------------------------------------------
        1                7.731               288.648
        2               51.410              1630.718
        3               78.778              1021.768
        4               89.283               392.203
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5	94.908	209.999
6	97.607	100.770
7	98.341	27.426
8	98.720	14.141
9	99.099	14.140
10	99.478	14.140
11	99.856	14.140
12	100.000	5.366

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UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0430	0.0271	0.0159
2	0.0458	0.0283	0.0174
3	0.0491	0.0283	0.0208
4	0.0549	0.0283	0.0266
5	0.0584	0.0283	0.0301
6	0.0677	0.0283	0.0394
7	0.0814	0.0283	0.0531
8	0.0906	0.0283	0.0623
9	0.1450	0.0283	0.1166
10	0.3501	0.0283	0.3218
11	0.0745	0.0283	0.0462
12	0.0482	0.0283	0.0199

TOTAL STORM RAINFALL(INCHES) = 1.11
TOTAL SOIL-LOSS(INCHES) = 0.34
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.77

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 8.7150
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 19.7996

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1 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 175.0 350.0 525.0 700.0
0.083	0.0316	4.59	Q . . . .
0.167	0.2451	30.99	VQ . . . .
0.250	0.5942	50.70	.VQ . . . .
0.333	1.0460	65.60	. VQ . . . .
0.417	1.6207	83.45	. VQ . . . .
0.500	2.3163	100.99	. VQ . . . .
0.583	3.1925	127.22	. VQ . . . .
0.667	4.3286	164.97	. VQ. . . . .
0.750	5.8091	214.96	. .VQ . . . .
0.833	8.4286	380.35	. . V .Q . . .
0.917	13.2410	698.76	. . . V . Q.
1.000	16.5230	476.55	. . . Q . V .
1.083	18.1745	239.79	. . Q . . V .
1.167	19.0125	121.68	. Q . . . V .
1.250	19.3973	55.88	. Q . . . V.
1.333	19.5465	21.65	.Q . . . V.
1.417	19.6244	11.31	Q . . . V.
1.500	19.6833	8.56	Q . . . V.
1.583	19.7348	7.47	Q . . . V.
1.667	19.7769	6.11	Q . . . V.
1.750	19.7952	2.66	Q . . . V.

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   1.833     19.7988      0.53  Q         .         .         .        V.
   1.917     19.7996      0.11  Q         .         .         .        V.
-------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated                Duration
       Peak Flow Rate                     (minutes)
   ======================                 =========
             0%                             115.0
            10%                              50.0
            20%                              30.0
            30%                              25.0
            40%                              15.0
            50%                              15.0
            60%                              10.0
            70%                               5.0
            80%                               5.0
            90%                               5.0


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  FLOW PROCESS FROM NODE   104.00 TO NODE   105.00 IS CODE =   1
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  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
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      (UNIT-HYDROGRAPH ADDED TO STREAM #2)

         WATERCOURSE LENGTH =    3781.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2268.600 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      62.900 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     121.080 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.197 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.415
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
         USER-ENTERED RAINFALL =  1.12 INCHES
         RCFC&WCD 1-Hour Storm (5-Minute period) SELECTED
         (SLOPE OF INTENSITY-DURATION CURVE = 0.55)
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 1.0000


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  42.394



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                      UNIT HYDROGRAPH DETERMINATION

-------------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
-------------------------------------------------------------------------------
        1                3.436                50.316
        2               16.643               193.384
        3               51.336               508.022
        4               70.934               286.979
        5               80.497               140.019
        6               86.833                92.788
        7               91.194                63.863
        8               94.328                45.888
        9               96.378                30.020
       10               97.704                19.410
```

11	98.182	6.997
12	98.401	3.211
13	98.620	3.211
14	98.840	3.210
15	99.059	3.212
16	99.278	3.210
17	99.497	3.210
18	99.717	3.210
19	99.936	3.210
20	100.000	0.940

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UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0434	0.0346	0.0089
2	0.0462	0.0346	0.0117
3	0.0496	0.0346	0.0150
4	0.0555	0.0346	0.0209
5	0.0590	0.0346	0.0244
6	0.0684	0.0346	0.0338
7	0.0823	0.0346	0.0477
8	0.0915	0.0346	0.0569
9	0.1464	0.0346	0.1119
10	0.3537	0.0346	0.3191
11	0.0753	0.0346	0.0407
12	0.0487	0.0346	0.0141

TOTAL STORM RAINFALL(INCHES) = 1.12
TOTAL SOIL-LOSS(INCHES) = 0.41
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.70

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 4.1873
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 7.1098

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1 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 75.0 150.0 225.0 300.0
0.083	0.0031	0.45	Q . . . .
0.167	0.0189	2.30	Q . . . .
0.250	0.0707	7.51	VQ . . . .
0.333	0.1562	12.42	VQ . . . .
0.417	0.2766	17.48	.VQ . . . .
0.500	0.4405	23.80	. VQ . . . .
0.583	0.6546	31.09	. VQ . . . .
0.667	0.9420	41.73	. Q . . . .
0.750	1.3392	57.68	. Q . . . .
0.833	1.9579	89.84	. .Q . . .
0.917	2.9909	149.99	. . V Q. . .
1.000	4.5025	219.48	. . . V Q. .
1.083	5.4792	141.83	. . Q . V .
1.167	6.0404	81.48	. Q . . V .
1.250	6.3954	51.55	. Q . . . V .
1.333	6.6323	34.39	. Q . . . V .
1.417	6.7956	23.72	. Q . . . V .
1.500	6.9019	15.44	. Q . . . V .
1.583	6.9677	9.55	.Q . . . V.
1.667	6.9986	4.49	Q . . . V.

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   1.750      7.0165      2.59  Q         .         .         .        V.
   1.833      7.0317      2.22  Q         .         .         .        V.
   1.917      7.0462      2.10  Q         .         .         .        V.
   2.000      7.0602      2.03  Q         .         .         .        V.
   2.083      7.0734      1.93  Q         .         .         .        V.
   2.167      7.0857      1.79  Q         .         .         .        V.
   2.250      7.0968      1.61  Q         .         .         .        V.
   2.333      7.1058      1.31  Q         .         .         .        V.
   2.417      7.1091      0.48  Q         .         .         .        V.
   2.500      7.1097      0.08  Q         .         .         .        V.
   2.583      7.1098      0.01  Q         .         .         .        V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated               Duration
       Peak Flow Rate                    (minutes)
   ======================              =========
              0%                         155.0
             10%                          60.0
             20%                          35.0
             30%                          25.0
             40%                          20.0
             50%                          15.0
             60%                          15.0
             70%                           5.0
             80%                           5.0
             90%                           5.0


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  FLOW PROCESS FROM NODE   106.00 TO NODE   103.00 IS CODE =   1
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  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
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      (UNIT-HYDROGRAPH ADDED TO STREAM #3)

         WATERCOURSE LENGTH =    2948.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    1769.000 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      14.700 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     136.170 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.205 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.385
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
         USER-ENTERED RAINFALL =  1.12 INCHES
         RCFC&WCD 1-Hour Storm (5-Minute period) SELECTED
         (SLOPE OF INTENSITY-DURATION CURVE = 0.55)
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 1.0000


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  40.739



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                      UNIT HYDROGRAPH DETERMINATION

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    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
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        1                3.245                53.439
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2	15.376	199.781
3	47.925	536.006
4	69.267	351.465
5	79.135	162.508
6	85.680	107.781
7	90.220	74.770
8	93.541	54.689
9	95.814	37.431
10	97.259	23.791
11	98.090	13.683
12	98.303	3.507
13	98.513	3.471
14	98.724	3.469
15	98.935	3.470
16	99.145	3.471
17	99.356	3.470
18	99.567	3.470
19	99.778	3.470
20	99.988	3.470
21	100.000	0.191

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UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0434	0.0321	0.0114
2	0.0462	0.0321	0.0142
3	0.0496	0.0321	0.0175
4	0.0555	0.0321	0.0234
5	0.0590	0.0321	0.0269
6	0.0684	0.0321	0.0363
7	0.0823	0.0321	0.0502
8	0.0915	0.0321	0.0594
9	0.1464	0.0321	0.1144
10	0.3537	0.0321	0.3216
11	0.0753	0.0321	0.0432
12	0.0487	0.0321	0.0166

TOTAL STORM RAINFALL(INCHES) = 1.12
TOTAL SOIL-LOSS(INCHES) = 0.38
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.74

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 4.3688
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 8.3361

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1 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 75.0 150.0 225.0 300.0
0.083	0.0042	0.61	Q . . . .
0.167	0.0250	3.03	Q . . . .
0.250	0.0929	9.86	VQ . . . .
0.333	0.2054	16.33	V Q . . . .
0.417	0.3591	22.32	.VQ . . . .
0.500	0.5625	29.54	. VQ . . . .
0.583	0.8229	37.80	. V Q . . . .
0.667	1.1637	49.48	. VQ . . . .
0.750	1.6254	67.04	. VQ . . . .
0.833	2.3268	101.84	. .V Q . . .
0.917	3.4648	165.25	. . V . Q . .

```
   1.000      5.1374    242.85  .         .         .   V     . Q       .
   1.083      6.3228    172.12  .         .         . Q       V         .
   1.167      7.0000     98.33  .         .  Q      .         .  V      .
   1.250      7.4315     62.66  .       Q .         .         .    V    .
   1.333      7.7200     41.89  .    Q    .         .         .      V  .
   1.417      7.9228     29.44  .  Q      .         .         .       V .
   1.500      8.0591     19.80  . Q       .         .         .       V .
   1.583      8.1457     12.57  .Q        .         .         .        V.
   1.667      8.1959      7.28  Q         .         .         .        V.
   1.750      8.2186      3.30  Q         .         .         .        V.
   1.833      8.2368      2.64  Q         .         .         .        V.
   1.917      8.2534      2.41  Q         .         .         .        V.
   2.000      8.2694      2.32  Q         .         .         .        V.
   2.083      8.2847      2.23  Q         .         .         .        V.
   2.167      8.2992      2.11  Q         .         .         .        V.
   2.250      8.3126      1.94  Q         .         .         .        V.
   2.333      8.3245      1.73  Q         .         .         .        V.
   2.417      8.3338      1.35  Q         .         .         .        V.
   2.500      8.3356      0.27  Q         .         .         .        V.
   2.583      8.3361      0.07  Q         .         .         .        V.
   2.667      8.3361      0.00  Q         .         .         .         V
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated                Duration
       Peak Flow Rate                     (minutes)
   ======================                 =========
              0%                            160.0
             10%                             60.0
             20%                             40.0
             30%                             25.0
             40%                             25.0
             50%                             15.0
             60%                             15.0
             70%                             10.0
             80%                              5.0
             90%                              5.0


 ********************************************************************************
   FLOW PROCESS FROM NODE   500.00 TO NODE   501.00 IS CODE =   1
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   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
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      (UNIT-HYDROGRAPH ADDED TO STREAM #4)

         WATERSHED AREA =      20.000 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         *USER ENTERED "LAG" TIME =    0.100 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.050
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.180
         USER-ENTERED RAINFALL =  1.12 INCHES
         RCFC&WCD 1-Hour Storm (5-Minute period) SELECTED
         (SLOPE OF INTENSITY-DURATION CURVE = 0.55)
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 1.0000


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  83.333
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UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	9.713	23.494
2	60.041	121.730
3	83.125	55.836
4	92.383	22.393
5	96.836	10.769
6	98.250	3.421
7	98.681	1.043
8	99.112	1.043
9	99.543	1.043
10	99.974	1.043
11	100.000	0.063

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0434	0.0042	0.0393
2	0.0462	0.0042	0.0421
3	0.0496	0.0042	0.0454
4	0.0555	0.0042	0.0513
5	0.0590	0.0042	0.0548
6	0.0684	0.0042	0.0642
7	0.0823	0.0042	0.0781
8	0.0915	0.0042	0.0874
9	0.1464	0.0042	0.1423
10	0.3537	0.0042	0.3495
11	0.0753	0.0042	0.0711
12	0.0487	0.0042	0.0445

TOTAL STORM RAINFALL(INCHES) = 1.12
TOTAL SOIL-LOSS(INCHES) = 0.05
TOTAL EFFECTIVE RAINFALL(INCHES) = 1.07

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 0.0833
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 1.7824

1 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 15.0 30.0 45.0 60.0
0.083	0.0064	0.92	Q . . . .
0.167	0.0461	5.77	.V Q . . . .
0.250	0.1038	8.38	. V Q . . . .
0.333	0.1724	9.96	. V Q . . . .
0.417	0.2512	11.44	. V Q . . . .
0.500	0.3384	12.65	. VQ . . . .
0.583	0.4385	14.54	. Q. . . . .
0.667	0.5567	17.16	. .QV . . . .
0.750	0.6991	20.67	. . Q V . . . .
0.833	0.9279	33.22	. . V Q . . .
0.917	1.3092	55.38	. . . V. Q .
1.000	1.5423	33.84	. . . Q . V .

1.083	1.6753	19.31	.	. Q	.	.	V .
1.167	1.7347	8.63	. Q	.	.	.	V .
1.250	1.7578	3.35	. Q	.	.	.	V.
1.333	1.7675	1.41	Q	.	.	.	V.
1.417	1.7733	0.84	Q	.	.	.	V.
1.500	1.7777	0.64	Q	.	.	.	V.
1.583	1.7811	0.49	Q	.	.	.	V.
1.667	1.7820	0.14	Q	.	.	.	V.
1.750	1.7824	0.05	Q	.	.	.	V.
1.833	1.7824	0.00	Q	.	.	.	V

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	110.0
10%	65.0
20%	45.0
30%	30.0
40%	15.0
50%	15.0
60%	10.0
70%	5.0
80%	5.0
90%	5.0

END OF FLOODSCx ROUTING ANALYSIS

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             F L O O D    R O U T I N G    A N A L Y S I S

ACCORDING TO RIVERSIDE COUNTY FLOOD CONTORL AND WATER CONSERVATION DISTRICT
                    (RCFC&WCD) 1978 HYDROLOGY MANUAL
         (c) Copyright 1989-2011 Advanced Engineering Software (aes)
                 (Synthetic Unit Hydrograph Version 18.0)
                 Release Date: 05/01/2011  License ID 1499

                           Analysis prepared by:

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                                 Suite 200
                              Orange, CA 92868

 ************************* DESCRIPTION OF STUDY *************************
* District at Jurupa Valley                                             *
* Preliminary Hydrology 100 year 3 Hour Event                           *
* Kimley Horn May 26, 2022                                              *
 *************************************************************************

  FILE NAME: C:\aes2011\hydrosft\floodX\J100Y3H.fld
  TIME/DATE OF STUDY: 14:27 05/26/2022


**************************************************************************
  FLOW PROCESS FROM NODE   100.00 TO NODE   101.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
==========================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #1)

         WATERCOURSE LENGTH =    4582.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2749.200 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      76.000 FEET
         BASIN FACTOR = 0.015
         WATERSHED AREA =     308.710 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.114 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.340
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.630
         USER-ENTERED RAINFALL =  1.82 INCHES
         RCFC&WCD 3-Hour Storm (5-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9988


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  73.227



==========================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------
        1                7.731               288.648
        2               51.410              1630.718
        3               78.778              1021.768
        4               89.283               392.203
        5               94.908               209.999
```

6	97.607	100.770
7	98.341	27.426
8	98.720	14.141
9	99.099	14.140
10	99.478	14.140
11	99.856	14.140
12	100.000	5.366

****

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0236	0.0149	0.0087
2	0.0236	0.0149	0.0087
3	0.0200	0.0126	0.0074
4	0.0273	0.0172	0.0101
5	0.0273	0.0172	0.0101
6	0.0327	0.0206	0.0121
7	0.0273	0.0172	0.0101
8	0.0327	0.0206	0.0121
9	0.0327	0.0206	0.0121
10	0.0273	0.0172	0.0101
11	0.0291	0.0183	0.0108
12	0.0327	0.0206	0.0121
13	0.0400	0.0252	0.0148
14	0.0400	0.0252	0.0148
15	0.0400	0.0252	0.0148
16	0.0364	0.0229	0.0135
17	0.0473	0.0283	0.0189
18	0.0491	0.0283	0.0207
19	0.0436	0.0275	0.0161
20	0.0491	0.0283	0.0207
21	0.0600	0.0283	0.0317
22	0.0564	0.0283	0.0280
23	0.0527	0.0283	0.0244
24	0.0545	0.0283	0.0262
25	0.0564	0.0283	0.0280
26	0.0763	0.0283	0.0480
27	0.0909	0.0283	0.0626
28	0.0636	0.0283	0.0353
29	0.1236	0.0283	0.0953
30	0.1327	0.0283	0.1044
31	0.1491	0.0283	0.1207
32	0.1072	0.0283	0.0789
33	0.0364	0.0229	0.0135
34	0.0327	0.0206	0.0121
35	0.0327	0.0206	0.0121
36	0.0109	0.0069	0.0040

TOTAL STORM RAINFALL(INCHES) = 1.82
TOTAL SOIL-LOSS(INCHES) = 0.83
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.98

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 21.4512
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 25.2998

==========

3 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 100.0 200.0 300.0 400.0
0.083	0.0174	2.52	Q . . . .
0.167	0.1330	16.78	VQ . . . .
0.250	0.3074	25.33	V Q . . . .
0.333	0.4957	27.34	V Q . . . .
0.417	0.7174	32.19	.V Q . . . .
0.500	0.9644	35.87	.V Q . . . .
0.583	1.2371	39.59	.V Q . . . .
0.667	1.5092	39.50	. VQ . . . .
0.750	1.7976	41.88	. V Q . . . .
0.833	2.0949	43.17	. VQ . . . .
0.917	2.3758	40.79	. VQ . . . .
1.000	2.6551	40.55	. Q . . . .
1.083	2.9554	43.61	. Q . . . .
1.167	3.2950	49.30	. QV . . . .
1.250	3.6569	52.56	. Q . . . .
1.333	4.0257	53.55	. QV . . . .
1.417	4.3951	53.64	. QV . . . .
1.500	4.8223	62.03	. QV . . . .
1.583	5.2962	68.82	. Q V . . . .
1.667	5.7535	66.40	. Q V. . . .
1.750	6.2641	74.13	. Q V. . . .
1.833	6.9164	94.72	. QV . . .
1.917	7.6058	100.09	. Q V . . .
2.000	8.2661	95.87	. Q. V . . .
2.083	8.9337	96.94	. Q. V . . .
2.167	9.6677	106.58	. Q V . . .
2.250	10.6679	145.22	. . Q V . . .
2.333	11.9236	182.34	. . Q . . .
2.417	13.1527	178.47	. . Q V . . .
2.500	14.9522	261.28	. . . V Q . .
2.583	17.2706	336.64	. . . V . Q .
2.667	19.8902	380.36	. . . .V Q .
2.750	22.1222	324.08	. . . . Q V .
2.833	23.4194	188.36	. . Q . . V .
2.917	24.1702	109.01	. Q . . . V .
3.000	24.6779	73.71	. Q . . . . V.
3.083	24.9688	42.25	. Q . . . . V.
3.167	25.1086	20.30	. Q . . . . V.
3.250	25.1882	11.55	.Q . . . . V.
3.333	25.2391	7.40	Q . . . . V.
3.417	25.2700	4.48	Q . . . . V.
3.500	25.2866	2.41	Q . . . . V.
3.583	25.2936	1.01	Q . . . . V.
3.667	25.2968	0.47	Q . . . . V.
3.750	25.2988	0.29	Q . . . . V.
3.833	25.2997	0.12	Q . . . . V.
3.917	25.2998	0.02	Q V

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	235.0
10%	155.0
20%	70.0
30%	40.0
40%	35.0
50%	20.0
60%	20.0
70%	15.0
80%	15.0
90%	5.0

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  FLOW PROCESS FROM NODE   104.00 TO NODE   105.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
============================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #2)

         WATERCOURSE LENGTH =    3781.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2268.600 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      62.900 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     121.080 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.197 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.415
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
         USER-ENTERED RAINFALL =  1.82 INCHES
         RCFC&WCD 3-Hour Storm (5-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9995


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  42.394


============================================================================
                      UNIT HYDROGRAPH DETERMINATION

----------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
----------------------------------------------------------------------------
        1                3.436               50.316
        2               16.643              193.384
        3               51.336              508.022
        4               70.934              286.979
        5               80.497              140.019
        6               86.833               92.788
        7               91.194               63.863
        8               94.328               45.888
        9               96.378               30.020
       10               97.704               19.410
       11               98.182                6.997
       12               98.401                3.211
       13               98.620                3.211
       14               98.840                3.210
       15               99.059                3.212
       16               99.278                3.210
       17               99.497                3.210
       18               99.717                3.210
       19               99.936                3.210
       20              100.000                0.940


****************************************************************************
        UNIT             UNIT            UNIT             EFFECTIVE
       PERIOD           RAINFALL       SOIL-LOSS           RAINFALL
      (NUMBER)          (INCHES)        (INCHES)           (INCHES)
----------------------------------------------------------------------------
          1            0.0236          0.0213             0.0024
          2            0.0236          0.0213             0.0024
          3            0.0200          0.0180             0.0020
          4            0.0273          0.0246             0.0027
          5            0.0273          0.0246             0.0027
          6            0.0327          0.0295             0.0033
```

7	0.0273	0.0246	0.0027
8	0.0327	0.0295	0.0033
9	0.0327	0.0295	0.0033
10	0.0273	0.0246	0.0027
11	0.0291	0.0262	0.0029
12	0.0327	0.0295	0.0033
13	0.0400	0.0346	0.0054
14	0.0400	0.0346	0.0054
15	0.0400	0.0346	0.0054
16	0.0364	0.0327	0.0036
17	0.0473	0.0346	0.0127
18	0.0491	0.0346	0.0145
19	0.0437	0.0346	0.0091
20	0.0491	0.0346	0.0145
21	0.0600	0.0346	0.0254
22	0.0564	0.0346	0.0218
23	0.0528	0.0346	0.0182
24	0.0546	0.0346	0.0200
25	0.0564	0.0346	0.0218
26	0.0764	0.0346	0.0418
27	0.0910	0.0346	0.0564
28	0.0637	0.0346	0.0291
29	0.1237	0.0346	0.0891
30	0.1328	0.0346	0.0982
31	0.1492	0.0346	0.1146
32	0.1073	0.0346	0.0727
33	0.0364	0.0327	0.0036
34	0.0327	0.0295	0.0033
35	0.0327	0.0295	0.0033
36	0.0109	0.0098	0.0011

TOTAL STORM RAINFALL(INCHES) = 1.82
TOTAL SOIL-LOSS(INCHES) = 1.09
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.72

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 11.0407
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 7.3106

==========

3 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 50.0 100.0 150.0 200.0
0.083	0.0008	0.12	Q . . . .
0.167	0.0048	0.58	Q . . . .
0.250	0.0169	1.76	Q . . . .
0.333	0.0335	2.40	Q . . . .
0.417	0.0520	2.69	Q . . . .
0.500	0.0741	3.20	Q . . . .
0.583	0.0988	3.59	Q . . . .
0.667	0.1261	3.97	Q . . . .
0.750	0.1541	4.07	Q . . . .
0.833	0.1838	4.31	QV . . . .
0.917	0.2140	4.39	QV . . . .
1.000	0.2432	4.24	QV . . . .
1.083	0.2737	4.42	QV . . . .
1.167	0.3084	5.04	.Q . . . .
1.250	0.3514	6.24	.Q . . . .
1.333	0.3983	6.82	.QV . . . .
1.417	0.4484	7.27	.QV . . . .
1.500	0.5065	8.43	.QV . . . .
1.583	0.5944	12.77	. QV . . . .
1.667	0.7003	15.38	. Q . . . .

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   1.750      0.8099     15.91  .  QV     .         .         .         .
   1.833      0.9482     20.07  .   QV    .         .         .         .
   1.917      1.1287     26.22  .    QV   .         .         .         .
   2.000      1.3190     27.63  .    Q V  .         .         .         .
   2.083      1.5063     27.20  .    Q  V .         .         .         .
   2.167      1.7079     29.27  .    Q   V.         .         .         .
   2.250      1.9513     35.35  .      Q  V         .         .         .
   2.333      2.2803     47.77  .        Q. V       .         .         .
   2.417      2.6874     59.10  .         .Q  V     .         .         .
   2.500      3.1320     64.56  .         . Q    V  .         .         .
   2.583      3.7783     93.84  .         .       Q V         .         .
   2.667      4.5749    115.67  .         .         .  Q V    .         .
   2.750      5.4211    122.86  .         .         .   Q    V.         .
   2.833      6.1055     99.38  .         .        Q.         .  V      .
   2.917      6.5105     58.80  .        .Q        .         .    V    .
   3.000      6.7675     37.31  .      Q  .        .         .      V  .
   3.083      6.9472     26.10  .    Q    .        .         .       V .
   3.167      7.0698     17.79  .  Q      .        .         .       V .
   3.250      7.1482     11.38  . Q       .        .         .        V.
   3.333      7.1957      6.91  .Q        .        .         .        V.
   3.417      7.2233      4.01  Q         .        .         .        V.
   3.500      7.2401      2.43  Q         .        .         .        V.
   3.583      7.2534      1.94  Q         .        .         .        V.
   3.667      7.2655      1.76  Q         .        .         .        V.
   3.750      7.2764      1.58  Q         .        .         .        V.
   3.833      7.2860      1.39  Q         .        .         .        V.
   3.917      7.2947      1.27  Q         .        .         .        V.
   4.000      7.3019      1.04  Q         .        .         .        V.
   4.083      7.3069      0.73  Q         .        .         .        V.
   4.167      7.3095      0.38  Q         .        .         .        V.
   4.250      7.3102      0.10  Q         .        .         .        V.
   4.333      7.3104      0.03  Q         .        .         .        V.
   4.417      7.3105      0.02  Q         .        .         .        V.
   4.500      7.3106      0.01  Q         .        .         .        V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated               Duration
       Peak Flow Rate                    (minutes)
   ======================              =========
              0%                         270.0
             10%                         100.0
             20%                          75.0
             30%                          45.0
             40%                          35.0
             50%                          25.0
             60%                          20.0
             70%                          20.0
             80%                          15.0
             90%                          10.0


 ********************************************************************************
   FLOW PROCESS FROM NODE   106.00 TO NODE   103.00 IS CODE =   1
 --------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
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       (UNIT-HYDROGRAPH ADDED TO STREAM #3)

          WATERCOURSE LENGTH =    2948.000 FEET
          LENGTH FROM CONCENTRATION POINT TO CENTROID =    1768.800 FEET
          ELEVATION VARIATION ALONG WATERCOURSE =      14.700 FEET
          BASIN FACTOR = 0.030
          WATERSHED AREA =     136.170 ACRES
          BASEFLOW =   0.000 CFS/SQUARE-MILE
          WATERCOURSE "LAG" TIME =    0.205 HOURS
           CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
           THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
```

MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
FOOTHILL S-GRAPH SELECTED
UNIFORM MEAN SOIL-LOSS(INCH/HOUR) = 0.385
LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
USER-ENTERED RAINFALL = 1.82 INCHES
RCFC&WCD 3-Hour Storm (5-Minute period) SELECTED
RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9995

UNIT HYDROGRAPH TIME UNIT = 5.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 40.741

UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	3.245	53.442
2	15.378	199.799
3	47.928	536.047
4	69.269	351.433
5	79.137	162.503
6	85.681	107.777
7	90.221	74.767
8	93.542	54.686
9	95.815	37.427
10	97.259	23.789
11	98.090	13.676
12	98.303	3.507
13	98.513	3.470
14	98.724	3.471
15	98.935	3.470
16	99.146	3.471
17	99.356	3.470
18	99.567	3.470
19	99.778	3.470
20	99.989	3.470
21	100.000	0.188

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0236	0.0213	0.0024
2	0.0236	0.0213	0.0024
3	0.0200	0.0180	0.0020
4	0.0273	0.0246	0.0027
5	0.0273	0.0246	0.0027
6	0.0327	0.0295	0.0033
7	0.0273	0.0246	0.0027
8	0.0327	0.0295	0.0033
9	0.0327	0.0295	0.0033
10	0.0273	0.0246	0.0027
11	0.0291	0.0262	0.0029
12	0.0327	0.0295	0.0033
13	0.0400	0.0321	0.0079
14	0.0400	0.0321	0.0079
15	0.0400	0.0321	0.0079
16	0.0364	0.0321	0.0043
17	0.0473	0.0321	0.0152
18	0.0491	0.0321	0.0170
19	0.0437	0.0321	0.0116
20	0.0491	0.0321	0.0170
21	0.0600	0.0321	0.0279
22	0.0564	0.0321	0.0243

23	0.0528	0.0321	0.0207
24	0.0546	0.0321	0.0225
25	0.0564	0.0321	0.0243
26	0.0764	0.0321	0.0443
27	0.0910	0.0321	0.0589
28	0.0637	0.0321	0.0316
29	0.1237	0.0321	0.0916
30	0.1328	0.0321	0.1007
31	0.1492	0.0321	0.1171
32	0.1073	0.0321	0.0752
33	0.0364	0.0321	0.0043
34	0.0327	0.0295	0.0033
35	0.0327	0.0295	0.0033
36	0.0109	0.0098	0.0011

TOTAL STORM RAINFALL(INCHES) = 1.82
TOTAL SOIL-LOSS(INCHES) = 1.05
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.77

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 11.8624
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 8.7744

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3 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 50.0 100.0 150.0 200.0
0.083	0.0009	0.13	Q . . . .
0.167	0.0050	0.60	Q . . . .
0.250	0.0177	1.85	Q . . . .
0.333	0.0359	2.64	Q . . . .
0.417	0.0564	2.98	Q . . . .
0.500	0.0807	3.53	Q . . . .
0.583	0.1081	3.98	Q . . . .
0.667	0.1384	4.40	Q . . . .
0.750	0.1697	4.55	Q . . . .
0.833	0.2028	4.80	Q . . . .
0.917	0.2367	4.92	QV . . . .
1.000	0.2696	4.78	QV . . . .
1.083	0.3045	5.08	.Q . . . .
1.167	0.3474	6.23	.Q . . . .
1.250	0.4084	8.85	.Q . . . .
1.333	0.4798	10.36	. Q . . . .
1.417	0.5556	11.01	. Q . . . .
1.500	0.6374	11.88	. Q . . . .
1.583	0.7538	16.90	. Q . . . .
1.667	0.8956	20.59	. Q . . . .
1.750	1.0440	21.55	. Q . . . .
1.833	1.2221	25.86	. Q . . . .
1.917	1.4474	32.70	. Q . . . .
2.000	1.6875	34.87	. QV . . . .
2.083	1.9251	34.50	. Q V . . . .
2.167	2.1773	36.62	. Q V. . . .
2.250	2.4743	43.13	. Q .V . . .
2.333	2.8621	56.31	. .Q V . . .
2.417	3.3403	69.43	. . Q V . . .
2.500	3.8639	76.02	. . Q V . . .
2.583	4.5941	106.03	. . VQ . .
2.667	5.5017	131.78	. . . VQ . .
2.750	6.4708	140.72	. . . QV. .
2.833	7.2793	117.38	. . . Q . V .
2.917	7.7764	72.18	. . Q . . V .
3.000	8.0875	45.18	. Q. . . V .

```
   3.083      8.3073     31.91  .     Q   .         .         .      V  .
   3.167      8.4589     22.02  .   Q     .         .         .       V .
   3.250      8.5600     14.68  . Q       .         .         .        V.
   3.333      8.6233      9.20  .Q        .         .         .        V.
   3.417      8.6616      5.56  .Q        .         .         .        V.
   3.500      8.6843      3.30  Q         .         .         .        V.
   3.583      8.7001      2.29  Q         .         .         .        V.
   3.667      8.7143      2.07  Q         .         .         .        V.
   3.750      8.7275      1.90  Q         .         .         .        V.
   3.833      8.7392      1.71  Q         .         .         .        V.
   3.917      8.7495      1.50  Q         .         .         .        V.
   4.000      8.7591      1.38  Q         .         .         .        V.
   4.083      8.7665      1.08  Q         .         .         .        V.
   4.167      8.7715      0.73  Q         .         .         .        V.
   4.250      8.7737      0.32  Q         .         .         .        V.
   4.333      8.7741      0.06  Q         .         .         .        V.
   4.417      8.7743      0.03  Q         .         .         .        V.
   4.500      8.7744      0.02  Q         .         .         .        V.
   4.583      8.7744      0.00  Q         .         .         .        V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated                Duration
       Peak Flow Rate                     (minutes)
   ======================                 =========
              0%                            275.0
             10%                            105.0
             20%                             75.0
             30%                             50.0
             40%                             40.0
             50%                             30.0
             60%                             20.0
             70%                             20.0
             80%                             15.0
             90%                             10.0


********************************************************************************
  FLOW PROCESS FROM NODE   500.00 TO NODE   501.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
================================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #4)

         WATERSHED AREA =      20.000 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         *USER ENTERED "LAG" TIME =    0.100 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.050
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.180
         USER-ENTERED RAINFALL =  1.82 INCHES
         RCFC&WCD 3-Hour Storm (5-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9999


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  83.333



================================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
```

NUMBER	MEAN VALUES	ORDINATES(CFS)
1	9.713	23.494
2	60.041	121.730
3	83.125	55.836
4	92.383	22.393
5	96.836	10.769
6	98.250	3.421
7	98.681	1.043
8	99.112	1.043
9	99.543	1.043
10	99.974	1.043
11	100.000	0.063

****

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0237	0.0042	0.0195
2	0.0237	0.0042	0.0195
3	0.0200	0.0036	0.0164
4	0.0273	0.0042	0.0231
5	0.0273	0.0042	0.0231
6	0.0328	0.0042	0.0286
7	0.0273	0.0042	0.0231
8	0.0328	0.0042	0.0286
9	0.0328	0.0042	0.0286
10	0.0273	0.0042	0.0231
11	0.0291	0.0042	0.0250
12	0.0328	0.0042	0.0286
13	0.0400	0.0042	0.0359
14	0.0400	0.0042	0.0359
15	0.0400	0.0042	0.0359
16	0.0364	0.0042	0.0322
17	0.0473	0.0042	0.0431
18	0.0491	0.0042	0.0450
19	0.0437	0.0042	0.0395
20	0.0491	0.0042	0.0450
21	0.0601	0.0042	0.0559
22	0.0564	0.0042	0.0522
23	0.0528	0.0042	0.0486
24	0.0546	0.0042	0.0504
25	0.0564	0.0042	0.0522
26	0.0764	0.0042	0.0723
27	0.0910	0.0042	0.0868
28	0.0637	0.0042	0.0595
29	0.1238	0.0042	0.1196
30	0.1328	0.0042	0.1287
31	0.1492	0.0042	0.1451
32	0.1074	0.0042	0.1032
33	0.0364	0.0042	0.0322
34	0.0328	0.0042	0.0286
35	0.0328	0.0042	0.0286
36	0.0109	0.0020	0.0090

TOTAL STORM RAINFALL(INCHES) = 1.82
TOTAL SOIL-LOSS(INCHES) = 0.15
TOTAL EFFECTIVE RAINFALL(INCHES) = 1.67

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 0.2454
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 2.7863

3 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 10.0 20.0 30.0 40.0
0.083	0.0032	0.46	Q . . . .
0.167	0.0226	2.83	V Q . . . .
0.250	0.0491	3.85	V Q . . . .
0.333	0.0771	4.07	.V Q . . . .
0.417	0.1110	4.92	.V Q . . . .
0.500	0.1484	5.42	. V Q . . . .
0.583	0.1904	6.10	. V Q . . . .
0.667	0.2313	5.95	. V Q . . . .
0.750	0.2759	6.47	. V Q . . . .
0.833	0.3214	6.61	. V Q . . . .
0.917	0.3632	6.07	. VQ . . . .
1.000	0.4054	6.12	. VQ . . . .
1.083	0.4518	6.74	. Q . . . .
1.167	0.5057	7.82	. Q . . . .
1.250	0.5630	8.32	. Q . . . .
1.333	0.6211	8.43	. Q . . . .
1.417	0.6785	8.34	. QV. . . .
1.500	0.7441	9.53	. QV . . .
1.583	0.8141	10.16	. QV . . .
1.667	0.8826	9.95	. Q. V . . .
1.750	0.9564	10.72	. Q V . . .
1.833	1.0405	12.21	. . Q V . . .
1.917	1.1256	12.36	. . Q V . . .
2.000	1.2087	12.06	. . Q V . . .
2.083	1.2925	12.17	. . Q V . . .
2.167	1.3813	12.90	. . Q V. . .
2.250	1.4900	15.78	. . Q .V . .
2.333	1.6146	18.09	. . Q . V . .
2.417	1.7349	17.47	. . Q . V . .
2.500	1.9004	24.02	. . . Q V . .
2.583	2.0965	28.48	. . . Q V .
2.667	2.3108	31.12	. . . .Q V .
2.750	2.4904	26.07	. . . Q . V .
2.833	2.5984	15.69	. . Q . . V .
2.917	2.6716	10.62	. Q . . . V .
3.000	2.7269	8.03	. Q . . . . V.
3.083	2.7579	4.50	. Q . . . . V.
3.167	2.7722	2.08	. Q . . . . V.
3.250	2.7794	1.04	.Q . . . . V.
3.333	2.7830	0.52	Q . . . . V.
3.417	2.7847	0.24	Q . . . . V.
3.500	2.7854	0.11	Q . . . . V.
3.583	2.7859	0.07	Q . . . . V.
3.667	2.7862	0.04	Q . . . . V.
3.750	2.7863	0.01	Q . . . . V.
3.833	2.7863	0.00	Q . . . . V.

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	230.0
10%	175.0
20%	130.0
30%	90.0
40%	45.0
50%	40.0

60%	20.0
70%	20.0
80%	15.0
90%	10.0

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END OF FLOODSCx ROUTING ANALYSIS

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             F L O O D    R O U T I N G    A N A L Y S I S

ACCORDING TO RIVERSIDE COUNTY FLOOD CONTORL AND WATER CONSERVATION DISTRICT
                    (RCFC&WCD) 1978 HYDROLOGY MANUAL
         (c) Copyright 1989-2011 Advanced Engineering Software (aes)
                 (Synthetic Unit Hydrograph Version 18.0)
                 Release Date: 05/01/2011  License ID 1499

                           Analysis prepared by:

                      Kimley-Horn and Associates, Inc.
                             765 The City Drive
                                 Suite 200
                              Orange, CA 92868

 ************************* DESCRIPTION OF STUDY *************************
* District at Jurupa Valley                                             *
* Preliminary Hydrology 100 year 6 Hour Event                           *
* Kimley Horn May 26, 2022                                              *
 *************************************************************************

  FILE NAME: C:\aes2011\hydrosft\floodX\J100Y6H.fld
  TIME/DATE OF STUDY: 14:55 05/26/2022


**************************************************************************
  FLOW PROCESS FROM NODE   100.00 TO NODE   101.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
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      (UNIT-HYDROGRAPH ADDED TO STREAM #1)

         WATERCOURSE LENGTH =    4582.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2749.200 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      76.000 FEET
         BASIN FACTOR = 0.015
         WATERSHED AREA =     308.710 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.114 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.340
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.630
         USER-ENTERED RAINFALL =  2.48 INCHES
         RCFC&WCD 6-Hour Storm (5-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9991


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  73.227



==========================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------
        1                7.731               288.648
        2               51.410              1630.718
        3               78.778              1021.768
        4               89.283               392.203
        5               94.908               209.999
```

6	97.607	100.770
7	98.341	27.426
8	98.720	14.141
9	99.099	14.140
10	99.478	14.140
11	99.856	14.140
12	100.000	5.366

****

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0124	0.0078	0.0046
2	0.0149	0.0094	0.0055
3	0.0149	0.0094	0.0055
4	0.0149	0.0094	0.0055
5	0.0149	0.0094	0.0055
6	0.0173	0.0109	0.0064
7	0.0173	0.0109	0.0064
8	0.0173	0.0109	0.0064
9	0.0173	0.0109	0.0064
10	0.0173	0.0109	0.0064
11	0.0173	0.0109	0.0064
12	0.0198	0.0125	0.0073
13	0.0198	0.0125	0.0073
14	0.0198	0.0125	0.0073
15	0.0198	0.0125	0.0073
16	0.0198	0.0125	0.0073
17	0.0198	0.0125	0.0073
18	0.0198	0.0125	0.0073
19	0.0198	0.0125	0.0073
20	0.0198	0.0125	0.0073
21	0.0198	0.0125	0.0073
22	0.0198	0.0125	0.0073
23	0.0198	0.0125	0.0073
24	0.0223	0.0140	0.0083
25	0.0198	0.0125	0.0073
26	0.0223	0.0140	0.0083
27	0.0223	0.0140	0.0083
28	0.0223	0.0140	0.0083
29	0.0223	0.0140	0.0083
30	0.0223	0.0140	0.0083
31	0.0223	0.0140	0.0083
32	0.0223	0.0140	0.0083
33	0.0248	0.0156	0.0092
34	0.0248	0.0156	0.0092
35	0.0248	0.0156	0.0092
36	0.0248	0.0156	0.0092
37	0.0248	0.0156	0.0092
38	0.0273	0.0172	0.0101
39	0.0273	0.0172	0.0101
40	0.0273	0.0172	0.0101
41	0.0297	0.0187	0.0110
42	0.0322	0.0203	0.0119
43	0.0347	0.0219	0.0128
44	0.0347	0.0219	0.0128
45	0.0372	0.0234	0.0138
46	0.0372	0.0234	0.0138
47	0.0396	0.0250	0.0147
48	0.0396	0.0250	0.0147
49	0.0421	0.0265	0.0156
50	0.0446	0.0281	0.0165
51	0.0471	0.0283	0.0187
52	0.0496	0.0283	0.0212
53	0.0520	0.0283	0.0237
54	0.0520	0.0283	0.0237
55	0.0545	0.0283	0.0262
56	0.0570	0.0283	0.0287
57	0.0595	0.0283	0.0311

58	0.0595	0.0283	0.0311
59	0.0619	0.0283	0.0336
60	0.0644	0.0283	0.0361
61	0.0768	0.0283	0.0485
62	0.0892	0.0283	0.0609
63	0.0966	0.0283	0.0683
64	0.1041	0.0283	0.0757
65	0.1165	0.0283	0.0881
66	0.1388	0.0283	0.1104
67	0.0471	0.0283	0.0187
68	0.0223	0.0140	0.0083
69	0.0149	0.0094	0.0055
70	0.0124	0.0078	0.0046
71	0.0074	0.0047	0.0028
72	0.0050	0.0031	0.0018

TOTAL STORM RAINFALL(INCHES) = 2.48
TOTAL SOIL-LOSS(INCHES) = 1.27
TOTAL EFFECTIVE RAINFALL(INCHES) = 1.21

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 32.6716
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 31.0570

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6 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 100.0 200.0 300.0 400.0
0.083	0.0091	1.32	Q . . . .
0.167	0.0715	9.06	Q . . . .
0.250	0.1765	15.24	VQ . . . .
0.333	0.3003	17.98	VQ . . . .
0.417	0.4332	19.30	VQ . . . .
0.500	0.5725	20.22	V Q . . . .
0.583	0.7235	21.93	V Q . . . .
0.667	0.8816	22.96	.VQ . . . .
0.750	1.0427	23.40	.VQ . . . .
0.833	1.2057	23.67	.VQ . . . .
0.917	1.3699	23.84	.VQ . . . .
1.000	1.5363	24.16	.VQ . . . .
1.083	1.7131	25.68	. Q . . . .
1.167	1.8965	26.63	. Q . . . .
1.250	2.0824	27.00	. Q . . . .
1.333	2.2698	27.20	. Q . . . .
1.417	2.4578	27.30	. QV . . . .
1.500	2.6460	27.33	. QV . . . .
1.583	2.8343	27.34	. QV . . . .
1.667	3.0227	27.35	. QV . . . .
1.750	3.2111	27.36	. Q V . . . .
1.833	3.3997	27.38	. Q V . . . .
1.917	3.5883	27.38	. Q V . . . .
2.000	3.7787	27.65	. Q V . . . .
2.083	3.9776	28.88	. Q V . . . .
2.167	4.1744	28.58	. Q V . . . .
2.250	4.3776	29.50	. Q V . . . .
2.333	4.5861	30.27	. Q V . . . .
2.417	4.7963	30.53	. Q V . . . .
2.500	5.0075	30.66	. Q V . . . .
2.583	5.2192	30.74	. Q V . . . .
2.667	5.4310	30.76	. Q V . . . .
2.750	5.6448	31.04	. Q V . . . .
2.833	5.8690	32.55	. Q V . . . .

2.917	6.0996	33.49	. Q V . . . .
3.000	6.3328	33.86	. Q V . . . .
3.083	6.5673	34.05	. Q V . . . .
3.167	6.8043	34.41	. Q V . . . .
3.250	7.0518	35.93	. Q V. . . .
3.333	7.3058	36.88	. Q V. . . .
3.417	7.5641	37.52	. Q V. . . .
3.500	7.8361	39.48	. Q V . . .
3.583	8.1273	42.29	. Q V . . .
3.667	8.4379	45.11	. Q V . . .
3.750	8.7608	46.87	. Q .V . . .
3.833	9.0984	49.03	. Q .V . . .
3.917	9.4465	50.55	. Q . V . . .
4.000	9.8084	52.55	. Q . V . . .
4.083	10.1803	54.00	. Q . V . . .
4.167	10.5677	56.25	. Q . V . . .
4.250	10.9781	59.58	. Q . V . . .
4.333	11.4284	65.39	. Q . V . . .
4.417	11.9315	73.05	. Q . V . . .
4.500	12.4881	80.81	. Q . V . . .
4.583	13.0779	85.65	. Q . V . . .
4.667	13.7128	92.18	. Q. V . . .
4.750	14.4038	100.34	. Q V . . .
4.833	15.1494	108.26	. Q V. . .
4.917	15.9287	113.16	. .Q V . .
5.000	16.7537	119.78	. .Q .V . .
5.083	17.6550	130.87	. . Q . V . .
5.167	18.7472	158.59	. . Q . V . .
5.250	20.0921	195.28	. . Q. V . .
5.333	21.6620	227.95	. . . Q V . .
5.417	23.4466	259.13	. . . Q V . .
5.500	25.5149	300.31	. . . Q V .
5.583	27.7811	329.06	. . . . Q V .
5.667	29.2073	207.08	. . Q . . V .
5.750	29.9526	108.22	. Q . . . V .
5.833	30.3894	63.43	. Q . . . . V.
5.917	30.6537	38.38	. Q . . . . V.
6.000	30.8115	22.91	. Q . . . . V.
6.083	30.9167	15.27	.Q . . . . V.
6.167	30.9801	9.21	Q . . . . V.
6.250	31.0180	5.51	Q . . . . V.
6.333	31.0406	3.28	Q . . . . V.
6.417	31.0501	1.38	Q . . . . V.
6.500	31.0532	0.45	Q . . . . V.
6.583	31.0549	0.25	Q . . . . V.
6.667	31.0560	0.16	Q . . . . V.
6.750	31.0566	0.09	Q . . . . V.
6.833	31.0569	0.04	Q . . . . V.
6.917	31.0570	0.01	Q V

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	415.0
10%	185.0
20%	85.0
30%	65.0
40%	35.0
50%	30.0
60%	25.0
70%	15.0
80%	10.0
90%	10.0

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****************************************************************************
  FLOW PROCESS FROM NODE   104.00 TO NODE   105.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
============================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #2)

         WATERCOURSE LENGTH =    3781.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2268.600 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      62.900 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     121.080 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.197 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.415
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
         USER-ENTERED RAINFALL =  2.48 INCHES
         RCFC&WCD 6-Hour Storm (5-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9997


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  42.394


============================================================================
                      UNIT HYDROGRAPH DETERMINATION

----------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
----------------------------------------------------------------------------
        1                3.436               50.316
        2               16.643              193.384
        3               51.336              508.022
        4               70.934              286.979
        5               80.497              140.019
        6               86.833               92.788
        7               91.194               63.863
        8               94.328               45.888
        9               96.378               30.020
       10               97.704               19.410
       11               98.182                6.997
       12               98.401                3.211
       13               98.620                3.211
       14               98.840                3.210
       15               99.059                3.212
       16               99.278                3.210
       17               99.497                3.210
       18               99.717                3.210
       19               99.936                3.210
       20              100.000                0.940


****************************************************************************
        UNIT             UNIT            UNIT             EFFECTIVE
       PERIOD           RAINFALL       SOIL-LOSS           RAINFALL
      (NUMBER)          (INCHES)        (INCHES)           (INCHES)
----------------------------------------------------------------------------
          1            0.0124          0.0112             0.0012
          2            0.0149          0.0134             0.0015
          3            0.0149          0.0134             0.0015
          4            0.0149          0.0134             0.0015
          5            0.0149          0.0134             0.0015
```

6	0.0174	0.0156	0.0017
7	0.0174	0.0156	0.0017
8	0.0174	0.0156	0.0017
9	0.0174	0.0156	0.0017
10	0.0174	0.0156	0.0017
11	0.0174	0.0156	0.0017
12	0.0198	0.0178	0.0020
13	0.0198	0.0178	0.0020
14	0.0198	0.0178	0.0020
15	0.0198	0.0178	0.0020
16	0.0198	0.0178	0.0020
17	0.0198	0.0178	0.0020
18	0.0198	0.0178	0.0020
19	0.0198	0.0178	0.0020
20	0.0198	0.0178	0.0020
21	0.0198	0.0178	0.0020
22	0.0198	0.0178	0.0020
23	0.0198	0.0178	0.0020
24	0.0223	0.0201	0.0022
25	0.0198	0.0178	0.0020
26	0.0223	0.0201	0.0022
27	0.0223	0.0201	0.0022
28	0.0223	0.0201	0.0022
29	0.0223	0.0201	0.0022
30	0.0223	0.0201	0.0022
31	0.0223	0.0201	0.0022
32	0.0223	0.0201	0.0022
33	0.0248	0.0223	0.0025
34	0.0248	0.0223	0.0025
35	0.0248	0.0223	0.0025
36	0.0248	0.0223	0.0025
37	0.0248	0.0223	0.0025
38	0.0273	0.0245	0.0027
39	0.0273	0.0245	0.0027
40	0.0273	0.0245	0.0027
41	0.0297	0.0268	0.0030
42	0.0322	0.0290	0.0032
43	0.0347	0.0312	0.0035
44	0.0347	0.0312	0.0035
45	0.0372	0.0335	0.0037
46	0.0372	0.0335	0.0037
47	0.0397	0.0346	0.0051
48	0.0397	0.0346	0.0051
49	0.0421	0.0346	0.0076
50	0.0446	0.0346	0.0100
51	0.0471	0.0346	0.0125
52	0.0496	0.0346	0.0150
53	0.0521	0.0346	0.0175
54	0.0521	0.0346	0.0175
55	0.0545	0.0346	0.0200
56	0.0570	0.0346	0.0224
57	0.0595	0.0346	0.0249
58	0.0595	0.0346	0.0249
59	0.0620	0.0346	0.0274
60	0.0645	0.0346	0.0299
61	0.0769	0.0346	0.0423
62	0.0892	0.0346	0.0547
63	0.0967	0.0346	0.0621
64	0.1041	0.0346	0.0695
65	0.1165	0.0346	0.0819
66	0.1388	0.0346	0.1042
67	0.0471	0.0346	0.0125
68	0.0223	0.0201	0.0022
69	0.0149	0.0134	0.0015
70	0.0124	0.0112	0.0012
71	0.0074	0.0067	0.0007
72	0.0050	0.0045	0.0005

TOTAL STORM RAINFALL(INCHES) = 2.48
TOTAL SOIL-LOSS(INCHES) = 1.70
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.78

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    TOTAL SOIL-LOSS VOLUME(ACRE-FEET) =      17.1887
    TOTAL STORM RUNOFF VOLUME(ACRE-FEET) =       7.8220
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                        6 - H O U R    S T O R M
                    R U N O F F    H Y D R O G R A P H

================================================================================
              HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
        (Note: Time indicated is at END of Each Unit Intervals)
--------------------------------------------------------------------------------
 TIME(HRS) VOLUME(AF)   Q(CFS) 0.       50.0     100.0     150.0     200.0
--------------------------------------------------------------------------------
   0.083      0.0004      0.06  Q         .         .         .         .
   0.167      0.0026      0.31  Q         .         .         .         .
   0.250      0.0094      0.99  Q         .         .         .         .
   0.333      0.0196      1.47  Q         .         .         .         .
   0.417      0.0314      1.72  Q         .         .         .         .
   0.500      0.0444      1.88  Q         .         .         .         .
   0.583      0.0584      2.03  Q         .         .         .         .
   0.667      0.0737      2.23  Q         .         .         .         .
   0.750      0.0899      2.35  Q         .         .         .         .
   0.833      0.1065      2.42  Q         .         .         .         .
   0.917      0.1234      2.45  Q         .         .         .         .
   1.000      0.1405      2.49  Q         .         .         .         .
   1.083      0.1581      2.55  Q         .         .         .         .
   1.167      0.1766      2.69  Q         .         .         .         .
   1.250      0.1957      2.77  QV        .         .         .         .
   1.333      0.2150      2.81  QV        .         .         .         .
   1.417      0.2346      2.84  QV        .         .         .         .
   1.500      0.2543      2.86  QV        .         .         .         .
   1.583      0.2741      2.88  QV        .         .         .         .
   1.667      0.2940      2.89  QV        .         .         .         .
   1.750      0.3139      2.89  QV        .         .         .         .
   1.833      0.3339      2.90  QV        .         .         .         .
   1.917      0.3538      2.90  QV        .         .         .         .
   2.000      0.3739      2.91  QV        .         .         .         .
   2.083      0.3942      2.95  Q V       .         .         .         .
   2.167      0.4151      3.04  Q V       .         .         .         .
   2.250      0.4360      3.03  Q V       .         .         .         .
   2.333      0.4575      3.12  Q V       .         .         .         .
   2.417      0.4794      3.18  Q V       .         .         .         .
   2.500      0.5015      3.21  Q V       .         .         .         .
   2.583      0.5238      3.23  Q V       .         .         .         .
   2.667      0.5461      3.24  Q V       .         .         .         .
   2.750      0.5686      3.26  Q V       .         .         .         .
   2.833      0.5915      3.32  Q  V      .         .         .         .
   2.917      0.6152      3.45  Q  V      .         .         .         .
   3.000      0.6394      3.52  Q  V      .         .         .         .
   3.083      0.6639      3.55  Q  V      .         .         .         .
   3.167      0.6886      3.59  Q  V      .         .         .         .
   3.250      0.7138      3.66  Q  V      .         .         .         .
   3.333      0.7399      3.79  Q  V      .         .         .         .
   3.417      0.7667      3.89  Q  V      .         .         .         .
   3.500      0.7941      3.99  Q   V     .         .         .         .
   3.583      0.8230      4.20  Q   V     .         .         .         .
   3.667      0.8538      4.46  Q   V     .         .         .         .
   3.750      0.8862      4.72  Q   V     .         .         .         .
   3.833      0.9200      4.90  Q   V     .         .         .         .
   3.917      0.9556      5.18  .Q  V     .         .         .         .
   4.000      0.9939      5.56  .Q   V    .         .         .         .
   4.083      1.0384      6.45  .Q   V    .         .         .         .
   4.167      1.0900      7.50  .Q   V    .         .         .         .
   4.250      1.1560      9.58  .Q   V    .         .         .         .
   4.333      1.2407     12.30  . Q   V   .         .         .         .
   4.417      1.3463     15.32  .  Q  V   .         .         .         .
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   4.500      1.4731     18.42  .  Q   V  .         .         .         .
   4.583      1.6198     21.30  .   Q   V .         .         .         .
   4.667      1.7816     23.49  .   Q    V.         .         .         .
   4.750      1.9627     26.29  .    Q    V         .         .         .
   4.833      2.1651     29.38  .    Q    .V        .         .         .
   4.917      2.3871     32.24  .     Q   . V       .         .         .
   5.000      2.6240     34.40  .     Q   .  V      .         .         .
   5.083      2.8834     37.66  .      Q  .   V     .         .         .
   5.167      3.1813     43.25  .       Q .     V   .         .         .
   5.250      3.5516     53.78  .         Q       V .         .         .
   5.333      4.0083     66.30  .          .  Q      V         .         .
   5.417      4.5455     78.01  .          .    Q    .  V      .         .
   5.500      5.1703     90.71  .          .       Q .     V   .         .
   5.583      5.8734    102.09  .          .         Q         V         .
   5.667      6.5758    102.00  .          .         Q         .  V      .
   5.750      7.0148     63.73  .          . Q       .         .    V    .
   5.833      7.2750     37.79  .      Q   .         .         .      V  .
   5.917      7.4496     25.35  .    Q     .         .         .       V .
   6.000      7.5700     17.48  .  Q       .         .         .       V .
   6.083      7.6518     11.88  . Q        .         .         .        V.
   6.167      7.7045      7.65  .Q         .         .         .        V.
   6.250      7.7364      4.63  Q          .         .         .        V.
   6.333      7.7544      2.61  Q          .         .         .        V.
   6.417      7.7672      1.86  Q          .         .         .        V.
   6.500      7.7785      1.64  Q          .         .         .        V.
   6.583      7.7887      1.49  Q          .         .         .        V.
   6.667      7.7979      1.33  Q          .         .         .        V.
   6.750      7.8057      1.14  Q          .         .         .        V.
   6.833      7.8122      0.94  Q          .         .         .        V.
   6.917      7.8172      0.72  Q          .         .         .        V.
   7.000      7.8205      0.47  Q          .         .         .        V.
   7.083      7.8215      0.16  Q          .         .         .        V.
   7.167      7.8218      0.03  Q          .         .         .        V.
   7.250      7.8219      0.01  Q          .         .         .        V.
   7.333      7.8219      0.01  Q          .         .         .        V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated               Duration
       Peak Flow Rate                    (minutes)
   ======================              =========
             0%                          440.0
            10%                          110.0
            20%                           85.0
            30%                           60.0
            40%                           40.0
            50%                           35.0
            60%                           30.0
            70%                           20.0
            80%                           15.0
            90%                           10.0


 ****************************************************************************
   FLOW PROCESS FROM NODE   106.00 TO NODE   103.00 IS CODE =   1
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   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
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      (UNIT-HYDROGRAPH ADDED TO STREAM #3)

         WATERCOURSE LENGTH =    2948.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    1768.800 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      14.700 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     136.170 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.205 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
```

THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
FOOTHILL S-GRAPH SELECTED
UNIFORM MEAN SOIL-LOSS(INCH/HOUR) = 0.385
LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
USER-ENTERED RAINFALL = 2.48 INCHES
RCFC&WCD 6-Hour Storm (5-Minute period) SELECTED
RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9996

UNIT HYDROGRAPH TIME UNIT = 5.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 40.741

UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	3.245	53.442
2	15.378	199.799
3	47.928	536.047
4	69.269	351.433
5	79.137	162.503
6	85.681	107.777
7	90.221	74.767
8	93.542	54.686
9	95.815	37.427
10	97.259	23.789
11	98.090	13.676
12	98.303	3.507
13	98.513	3.470
14	98.724	3.471
15	98.935	3.470
16	99.146	3.471
17	99.356	3.470
18	99.567	3.470
19	99.778	3.470
20	99.989	3.470
21	100.000	0.188

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0124	0.0112	0.0012
2	0.0149	0.0134	0.0015
3	0.0149	0.0134	0.0015
4	0.0149	0.0134	0.0015
5	0.0149	0.0134	0.0015
6	0.0174	0.0156	0.0017
7	0.0174	0.0156	0.0017
8	0.0174	0.0156	0.0017
9	0.0174	0.0156	0.0017
10	0.0174	0.0156	0.0017
11	0.0174	0.0156	0.0017
12	0.0198	0.0178	0.0020
13	0.0198	0.0178	0.0020
14	0.0198	0.0178	0.0020
15	0.0198	0.0178	0.0020
16	0.0198	0.0178	0.0020
17	0.0198	0.0178	0.0020
18	0.0198	0.0178	0.0020
19	0.0198	0.0178	0.0020
20	0.0198	0.0178	0.0020

21	0.0198	0.0178	0.0020
22	0.0198	0.0178	0.0020
23	0.0198	0.0178	0.0020
24	0.0223	0.0201	0.0022
25	0.0198	0.0178	0.0020
26	0.0223	0.0201	0.0022
27	0.0223	0.0201	0.0022
28	0.0223	0.0201	0.0022
29	0.0223	0.0201	0.0022
30	0.0223	0.0201	0.0022
31	0.0223	0.0201	0.0022
32	0.0223	0.0201	0.0022
33	0.0248	0.0223	0.0025
34	0.0248	0.0223	0.0025
35	0.0248	0.0223	0.0025
36	0.0248	0.0223	0.0025
37	0.0248	0.0223	0.0025
38	0.0273	0.0245	0.0027
39	0.0273	0.0245	0.0027
40	0.0273	0.0245	0.0027
41	0.0297	0.0268	0.0030
42	0.0322	0.0290	0.0032
43	0.0347	0.0312	0.0035
44	0.0347	0.0312	0.0035
45	0.0372	0.0321	0.0051
46	0.0372	0.0321	0.0051
47	0.0397	0.0321	0.0076
48	0.0397	0.0321	0.0076
49	0.0421	0.0321	0.0101
50	0.0446	0.0321	0.0125
51	0.0471	0.0321	0.0150
52	0.0496	0.0321	0.0175
53	0.0521	0.0321	0.0200
54	0.0521	0.0321	0.0200
55	0.0545	0.0321	0.0225
56	0.0570	0.0321	0.0249
57	0.0595	0.0321	0.0274
58	0.0595	0.0321	0.0274
59	0.0620	0.0321	0.0299
60	0.0645	0.0321	0.0324
61	0.0769	0.0321	0.0448
62	0.0892	0.0321	0.0572
63	0.0967	0.0321	0.0646
64	0.1041	0.0321	0.0720
65	0.1165	0.0321	0.0844
66	0.1388	0.0321	0.1067
67	0.0471	0.0321	0.0150
68	0.0223	0.0201	0.0022
69	0.0149	0.0134	0.0015
70	0.0124	0.0112	0.0012
71	0.0074	0.0067	0.0007
72	0.0050	0.0045	0.0005

TOTAL STORM RAINFALL(INCHES) = 2.48
TOTAL SOIL-LOSS(INCHES) = 1.65
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.83

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 18.7032
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 9.4229

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6 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	50.0	100.0	150.0	200.0
0.083	0.0005	0.07	Q	.	.	.	.
0.167	0.0027	0.33	Q	.	.	.	.
0.250	0.0099	1.04	Q	.	.	.	.
0.333	0.0210	1.61	Q	.	.	.	.
0.417	0.0340	1.90	Q	.	.	.	.
0.500	0.0484	2.09	Q	.	.	.	.
0.583	0.0639	2.25	Q	.	.	.	.
0.667	0.0810	2.47	Q	.	.	.	.
0.750	0.0990	2.62	Q	.	.	.	.
0.833	0.1176	2.70	Q	.	.	.	.
0.917	0.1365	2.75	Q	.	.	.	.
1.000	0.1557	2.79	Q	.	.	.	.
1.083	0.1754	2.86	Q	.	.	.	.
1.167	0.1961	3.00	Q	.	.	.	.
1.250	0.2175	3.10	Q	.	.	.	.
1.333	0.2392	3.15	QV	.	.	.	.
1.417	0.2611	3.18	QV	.	.	.	.
1.500	0.2832	3.21	QV	.	.	.	.
1.583	0.3054	3.23	QV	.	.	.	.
1.667	0.3278	3.24	QV	.	.	.	.
1.750	0.3502	3.25	QV	.	.	.	.
1.833	0.3726	3.26	QV	.	.	.	.
1.917	0.3950	3.26	QV	.	.	.	.
2.000	0.4176	3.27	QV	.	.	.	.
2.083	0.4403	3.31	QV	.	.	.	.
2.167	0.4638	3.41	QV	.	.	.	.
2.250	0.4873	3.41	Q V	.	.	.	.
2.333	0.5114	3.50	Q V	.	.	.	.
2.417	0.5360	3.57	Q V	.	.	.	.
2.500	0.5609	3.61	Q V	.	.	.	.
2.583	0.5859	3.63	Q V	.	.	.	.
2.667	0.6110	3.64	Q V	.	.	.	.
2.750	0.6362	3.67	Q V	.	.	.	.
2.833	0.6619	3.72	Q V	.	.	.	.
2.917	0.6884	3.86	Q V	.	.	.	.
3.000	0.7156	3.95	Q V	.	.	.	.
3.083	0.7431	3.99	Q V	.	.	.	.
3.167	0.7709	4.03	Q V	.	.	.	.
3.250	0.7991	4.10	Q V	.	.	.	.
3.333	0.8284	4.25	Q V	.	.	.	.
3.417	0.8584	4.36	Q V	.	.	.	.
3.500	0.8892	4.47	Q V	.	.	.	.
3.583	0.9215	4.70	Q V	.	.	.	.
3.667	0.9559	4.98	Q V	.	.	.	.
3.750	0.9927	5.35	.Q V	.	.	.	.
3.833	1.0329	5.84	.Q V	.	.	.	.
3.917	1.0807	6.94	.Q V	.	.	.	.
4.000	1.1362	8.07	.Q V	.	.	.	.
4.083	1.2040	9.84	.Q V	.	.	.	.
4.167	1.2835	11.54	. Q V	.	.	.	.
4.250	1.3802	14.05	. Q V	.	.	.	.
4.333	1.4990	17.24	. Q V	.	.	.	.
4.417	1.6417	20.72	. Q V	.	.	.	.
4.500	1.8088	24.27	. Q V	.	.	.	.
4.583	1.9987	27.57	. Q V	.	.	.	.
4.667	2.2063	30.13	. Q V.	.	.	.	.
4.750	2.4350	33.22	. Q V	.	.	.	.
4.833	2.6876	36.67	. Q .V	.	.	.	.
4.917	2.9626	39.93	. Q . V	.	.	.	.
5.000	3.2549	42.44	. Q . V	.	.	.	.
5.083	3.5717	46.00	. Q. V	.	.	.	.
5.167	3.9303	52.07	. Q V	.	.	.	.
5.250	4.3666	63.35	. . Q V .	.	.	.	.
5.333	4.8986	77.25	. . Q V	.	.	.	.
5.417	5.5216	90.45	. . Q . V	.	.	.	.
5.500	6.2416	104.54	. . Q V	.	.	.	.
5.583	7.0484	117.15	. . . Q V.	.	.	.	.
5.667	7.8631	118.29	. . . Q . V	.	.	.	.

```
   5.750      8.4074     79.04  .         .    Q    .         .    V    .
   5.833      8.7281     46.56  .        Q.         .         .      V  .
   5.917      8.9432     31.23  .     Q   .         .         .      V  .
   6.000      9.0935     21.83  .   Q     .         .         .       V .
   6.083      9.1977     15.13  .  Q      .         .         .        V.
   6.167      9.2667     10.02  . Q       .         .         .        V.
   6.250      9.3097      6.25  .Q        .         .         .        V.
   6.333      9.3357      3.77  Q         .         .         .        V.
   6.417      9.3515      2.30  Q         .         .         .        V.
   6.500      9.3650      1.96  Q         .         .         .        V.
   6.583      9.3772      1.77  Q         .         .         .        V.
   6.667      9.3884      1.62  Q         .         .         .        V.
   6.750      9.3982      1.44  Q         .         .         .        V.
   6.833      9.4067      1.23  Q         .         .         .        V.
   6.917      9.4136      1.00  Q         .         .         .        V.
   7.000      9.4187      0.75  Q         .         .         .        V.
   7.083      9.4219      0.46  Q         .         .         .        V.
   7.167      9.4226      0.09  Q         .         .         .        V.
   7.250      9.4227      0.02  Q         .         .         .        V.
   7.333      9.4228      0.01  Q         .         .         .        V.
   7.417      9.4229      0.01  Q         .         .         .        V.
-------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated               Duration
       Peak Flow Rate                    (minutes)
   ======================                =========
              0%                           445.0
             10%                           115.0
             20%                            90.0
             30%                            65.0
             40%                            40.0
             50%                            35.0
             60%                            30.0
             70%                            20.0
             80%                            15.0
             90%                            10.0


 ****************************************************************************
   FLOW PROCESS FROM NODE   500.00 TO NODE   501.00 IS CODE =   1
 ----------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
 ============================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #4)

         WATERSHED AREA =      20.000 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         *USER ENTERED "LAG" TIME =    0.100 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.050
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.180
         USER-ENTERED RAINFALL =  2.48 INCHES
         RCFC&WCD 6-Hour Storm (5-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9999


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  83.333
```

UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	9.713	23.494
2	60.041	121.730
3	83.125	55.836
4	92.383	22.393
5	96.836	10.769
6	98.250	3.421
7	98.681	1.043
8	99.112	1.043
9	99.543	1.043
10	99.974	1.043
11	100.000	0.063

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0124	0.0022	0.0102
2	0.0149	0.0027	0.0122
3	0.0149	0.0027	0.0122
4	0.0149	0.0027	0.0122
5	0.0149	0.0027	0.0122
6	0.0174	0.0031	0.0142
7	0.0174	0.0031	0.0142
8	0.0174	0.0031	0.0142
9	0.0174	0.0031	0.0142
10	0.0174	0.0031	0.0142
11	0.0174	0.0031	0.0142
12	0.0198	0.0036	0.0163
13	0.0198	0.0036	0.0163
14	0.0198	0.0036	0.0163
15	0.0198	0.0036	0.0163
16	0.0198	0.0036	0.0163
17	0.0198	0.0036	0.0163
18	0.0198	0.0036	0.0163
19	0.0198	0.0036	0.0163
20	0.0198	0.0036	0.0163
21	0.0198	0.0036	0.0163
22	0.0198	0.0036	0.0163
23	0.0198	0.0036	0.0163
24	0.0223	0.0040	0.0183
25	0.0198	0.0036	0.0163
26	0.0223	0.0040	0.0183
27	0.0223	0.0040	0.0183
28	0.0223	0.0040	0.0183
29	0.0223	0.0040	0.0183
30	0.0223	0.0040	0.0183
31	0.0223	0.0040	0.0183
32	0.0223	0.0040	0.0183
33	0.0248	0.0042	0.0206
34	0.0248	0.0042	0.0206
35	0.0248	0.0042	0.0206
36	0.0248	0.0042	0.0206
37	0.0248	0.0042	0.0206
38	0.0273	0.0042	0.0231
39	0.0273	0.0042	0.0231
40	0.0273	0.0042	0.0231
41	0.0298	0.0042	0.0256
42	0.0322	0.0042	0.0281
43	0.0347	0.0042	0.0306
44	0.0347	0.0042	0.0306
45	0.0372	0.0042	0.0330

46	0.0372	0.0042	0.0330
47	0.0397	0.0042	0.0355
48	0.0397	0.0042	0.0355
49	0.0422	0.0042	0.0380
50	0.0446	0.0042	0.0405
51	0.0471	0.0042	0.0430
52	0.0496	0.0042	0.0454
53	0.0521	0.0042	0.0479
54	0.0521	0.0042	0.0479
55	0.0546	0.0042	0.0504
56	0.0570	0.0042	0.0529
57	0.0595	0.0042	0.0553
58	0.0595	0.0042	0.0553
59	0.0620	0.0042	0.0578
60	0.0645	0.0042	0.0603
61	0.0769	0.0042	0.0727
62	0.0893	0.0042	0.0851
63	0.0967	0.0042	0.0925
64	0.1042	0.0042	0.1000
65	0.1166	0.0042	0.1124
66	0.1389	0.0042	0.1347
67	0.0471	0.0042	0.0430
68	0.0223	0.0040	0.0183
69	0.0149	0.0027	0.0122
70	0.0124	0.0022	0.0102
71	0.0074	0.0013	0.0061
72	0.0050	0.0009	0.0041

TOTAL STORM RAINFALL(INCHES) = 2.48
TOTAL SOIL-LOSS(INCHES) = 0.27
TOTAL EFFECTIVE RAINFALL(INCHES) = 2.21

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 0.4454
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 3.6858

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6 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	7.5	15.0	22.5	30.0
0.083	0.0016	0.24	Q	.	.	.	.
0.167	0.0121	1.52	V Q	.	.	.	.
0.250	0.0283	2.34	V Q	.	.	.	.
0.333	0.0467	2.68	V Q	.	.	.	.
0.417	0.0662	2.84	V Q	.	.	.	.
0.500	0.0865	2.94	V Q	.	.	.	.
0.583	0.1086	3.21	.V Q	.	.	.	.
0.667	0.1315	3.33	.V Q	.	.	.	.
0.750	0.1549	3.39	.V Q	.	.	.	.
0.833	0.1785	3.42	.V Q	.	.	.	.
0.917	0.2021	3.43	. V Q	.	.	.	.
1.000	0.2261	3.48	. V Q	.	.	.	.
1.083	0.2518	3.73	. V Q	.	.	.	.
1.167	0.2783	3.85	. V Q	.	.	.	.
1.250	0.3052	3.90	. V Q	.	.	.	.
1.333	0.3322	3.92	. V Q	.	.	.	.
1.417	0.3592	3.93	. V Q	.	.	.	.
1.500	0.3863	3.93	. VQ	.	.	.	.
1.583	0.4133	3.93	. VQ	.	.	.	.
1.667	0.4404	3.93	. VQ	.	.	.	.
1.750	0.4675	3.93	. Q	.	.	.	.
1.833	0.4946	3.93	. Q	.	.	.	.

```
1.917      0.5217      3.93  .    Q    .         .         .         .
2.000      0.5491      3.98  .    Q    .         .         .         .
2.083      0.5779      4.18  .    QV   .         .         .         .
2.167      0.6061      4.10  .    QV   .         .         .         .
2.250      0.6356      4.28  .    QV   .         .         .         .
2.333      0.6657      4.37  .    Q V  .         .         .         .
2.417      0.6959      4.40  .    Q V  .         .         .         .
2.500      0.7263      4.41  .    Q V  .         .         .         .
2.583      0.7568      4.42  .    Q  V .         .         .         .
2.667      0.7872      4.42  .    Q  V .         .         .         .
2.750      0.8181      4.48  .    Q  V .         .         .         .
2.833      0.8509      4.76  .     Q  V.         .         .         .
2.917      0.8846      4.90  .     Q  V.         .         .         .
3.000      0.9187      4.95  .     Q  V.         .         .         .
3.083      0.9529      4.97  .     Q   V         .         .         .
3.167      0.9876      5.04  .     Q   V         .         .         .
3.250      1.0244      5.34  .      Q  .V        .         .         .
3.333      1.0622      5.48  .      Q  .V        .         .         .
3.417      1.1007      5.60  .      Q  .V        .         .         .
3.500      1.1420      5.99  .      Q  . V       .         .         .
3.583      1.1867      6.50  .       Q . V       .         .         .
3.667      1.2349      7.00  .        Q.  V      .         .         .
3.750      1.2850      7.28  .        Q.  V      .         .         .
3.833      1.3379      7.67  .         Q   V     .         .         .
3.917      1.3923      7.91  .         Q    V    .         .         .
4.000      1.4494      8.28  .         .Q   V    .         .         .
4.083      1.5080      8.51  .         .Q    V   .         .         .
4.167      1.5696      8.94  .         .Q     V  .         .         .
4.250      1.6348      9.48  .         . Q    V  .         .         .
4.333      1.7040     10.04  .         .  Q    V .         .         .
4.417      1.7772     10.63  .         .   Q    V.         .         .
4.500      1.8541     11.17  .         .   Q     V         .         .
4.583      1.9331     11.46  .         .    Q    V         .         .
4.667      2.0151     11.92  .         .    Q    .V        .         .
4.750      2.1009     12.46  .         .     Q   . V       .         .
4.833      2.1903     12.97  .         .      Q  .  V      .         .
4.917      2.2817     13.26  .         .      Q  .   V     .         .
5.000      2.3762     13.72  .         .       Q .    V    .         .
5.083      2.4760     14.50  .         .        Q.     V   .         .
5.167      2.5897     16.51  .         .          . Q     V .         .
5.250      2.7204     18.98  .         .          .    Q   V.         .
5.333      2.8655     21.07  .         .          .       Q .V        .
5.417      3.0246     23.11  .         .          .         Q V       .
5.500      3.2031     25.91  .         .          .          .   Q     .
5.583      3.3922     27.47  .         .          .          .     Q   .
5.667      3.5119     17.38  .         .          .  Q       .       V .
5.750      3.5795      9.81  .         .  Q       .          .       V .
5.833      3.6202      5.91  .      Q  .          .          .        V.
5.917      3.6464      3.81  .    Q    .          .          .        V.
6.000      3.6636      2.49  .  Q      .          .          .        V.
6.083      3.6751      1.67  . Q       .          .          .        V.
6.167      3.6809      0.84  .Q        .          .          .        V.
6.250      3.6837      0.42  Q         .          .          .        V.
6.333      3.6848      0.16  Q         .          .          .        V.
6.417      3.6853      0.07  Q         .          .          .        V.
6.500      3.6855      0.04  Q         .          .          .        V.
6.583      3.6857      0.02  Q         .          .          .        V.
6.667      3.6858      0.01  Q         .          .          .        V.
6.750      3.6858      0.00  Q         .          .          .        V.
```

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	405.0
10%	335.0
20%	150.0
30%	110.0

40%	75.0
50%	40.0
60%	35.0
70%	20.0
80%	15.0
90%	10.0

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END OF FLOODSCx ROUTING ANALYSIS

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

             F L O O D    R O U T I N G    A N A L Y S I S

ACCORDING TO RIVERSIDE COUNTY FLOOD CONTORL AND WATER CONSERVATION DISTRICT
                    (RCFC&WCD) 1978 HYDROLOGY MANUAL
         (c) Copyright 1989-2011 Advanced Engineering Software (aes)
                 (Synthetic Unit Hydrograph Version 18.0)
                 Release Date: 05/01/2011  License ID 1499

                           Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* District at Jurupa Valley                                             *
* Preliminary Hydrology 100 year 24 Hour Event                          *
* Kimley Horn May 26, 2022                                              *
 *************************************************************************

  FILE NAME: C:\aes2011\hydrosft\floodX\J100Y24H.fld
  TIME/DATE OF STUDY: 17:28 05/26/2022


**************************************************************************
  FLOW PROCESS FROM NODE   100.00 TO NODE   101.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
==========================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #1)

         WATERCOURSE LENGTH =    4582.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2749.200 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      76.000 FEET
         BASIN FACTOR = 0.015
         WATERSHED AREA =     308.710 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.114 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.340
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.630
         MINIMUM SOIL-LOSS RATE(INCH/HOUR) =   0.170
         USER-ENTERED RAINFALL =  4.67 INCHES
         RCFC&WCD 24-Hour Storm (15-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9994


         UNIT HYDROGRAPH TIME UNIT =  15.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME = 219.682



==========================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------
        1               45.973               572.128
        2               93.932               596.848
        3               98.720                59.582
        4               99.526                10.027
```

5	99.810	3.542
6	99.953	1.771
7	100.000	0.590

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0093	0.0059	0.0035
2	0.0140	0.0088	0.0052
3	0.0140	0.0088	0.0052
4	0.0187	0.0118	0.0069
5	0.0140	0.0088	0.0052
6	0.0140	0.0088	0.0052
7	0.0140	0.0088	0.0052
8	0.0187	0.0118	0.0069
9	0.0187	0.0118	0.0069
10	0.0187	0.0118	0.0069
11	0.0233	0.0147	0.0086
12	0.0233	0.0147	0.0086
13	0.0233	0.0147	0.0086
14	0.0233	0.0147	0.0086
15	0.0233	0.0147	0.0086
16	0.0280	0.0176	0.0104
17	0.0280	0.0176	0.0104
18	0.0327	0.0206	0.0121
19	0.0327	0.0206	0.0121
20	0.0373	0.0235	0.0138
21	0.0280	0.0176	0.0104
22	0.0327	0.0206	0.0121
23	0.0373	0.0235	0.0138
24	0.0373	0.0235	0.0138
25	0.0420	0.0265	0.0155
26	0.0420	0.0265	0.0155
27	0.0467	0.0294	0.0173
28	0.0467	0.0294	0.0173
29	0.0467	0.0294	0.0173
30	0.0513	0.0323	0.0190
31	0.0560	0.0353	0.0207
32	0.0607	0.0382	0.0225
33	0.0700	0.0441	0.0259
34	0.0700	0.0441	0.0259
35	0.0747	0.0470	0.0276
36	0.0793	0.0500	0.0294
37	0.0887	0.0559	0.0328
38	0.0933	0.0588	0.0345
39	0.0980	0.0617	0.0363
40	0.1027	0.0647	0.0380
41	0.0700	0.0441	0.0259
42	0.0700	0.0441	0.0259
43	0.0933	0.0588	0.0345
44	0.0933	0.0588	0.0345
45	0.0887	0.0559	0.0328
46	0.0887	0.0559	0.0328
47	0.0793	0.0500	0.0294
48	0.0840	0.0529	0.0311
49	0.1167	0.0735	0.0432
50	0.1214	0.0765	0.0449
51	0.1307	0.0766	0.0541
52	0.1354	0.0754	0.0599
53	0.1587	0.0743	0.0844
54	0.1587	0.0732	0.0855
55	0.1073	0.0676	0.0397
56	0.1073	0.0676	0.0397
57	0.1260	0.0699	0.0561
58	0.1214	0.0688	0.0525
59	0.1214	0.0678	0.0536
60	0.1167	0.0667	0.0500

61	0.1120	0.0657	0.0463
62	0.1073	0.0647	0.0426
63	0.0887	0.0559	0.0328
64	0.0887	0.0559	0.0328
65	0.0187	0.0118	0.0069
66	0.0187	0.0118	0.0069
67	0.0140	0.0088	0.0052
68	0.0140	0.0088	0.0052
69	0.0233	0.0147	0.0086
70	0.0233	0.0147	0.0086
71	0.0233	0.0147	0.0086
72	0.0187	0.0118	0.0069
73	0.0187	0.0118	0.0069
74	0.0187	0.0118	0.0069
75	0.0140	0.0088	0.0052
76	0.0093	0.0059	0.0035
77	0.0140	0.0088	0.0052
78	0.0187	0.0118	0.0069
79	0.0140	0.0088	0.0052
80	0.0093	0.0059	0.0035
81	0.0140	0.0088	0.0052
82	0.0140	0.0088	0.0052
83	0.0140	0.0088	0.0052
84	0.0093	0.0059	0.0035
85	0.0140	0.0088	0.0052
86	0.0093	0.0059	0.0035
87	0.0140	0.0088	0.0052
88	0.0093	0.0059	0.0035
89	0.0140	0.0088	0.0052
90	0.0093	0.0059	0.0035
91	0.0093	0.0059	0.0035
92	0.0093	0.0059	0.0035
93	0.0093	0.0059	0.0035
94	0.0093	0.0059	0.0035
95	0.0093	0.0059	0.0035
96	0.0093	0.0059	0.0035

TOTAL STORM RAINFALL(INCHES) = 4.67
TOTAL SOIL-LOSS(INCHES) = 2.83
TOTAL EFFECTIVE RAINFALL(INCHES) = 1.84

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 72.8561
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 47.1919

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2 4 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	50.0	100.0	150.0	200.0
0.083	0.0136	1.98	Q	.	.	.	.
0.167	0.0272	1.98	Q	.	.	.	.
0.250	0.0408	1.98	Q	.	.	.	.
0.333	0.0754	5.03	VQ	.	.	.	.
0.417	0.1100	5.03	VQ	.	.	.	.
0.500	0.1447	5.03	VQ	.	.	.	.
0.583	0.1878	6.26	VQ	.	.	.	.
0.667	0.2309	6.26	VQ	.	.	.	.
0.750	0.2740	6.26	VQ	.	.	.	.
0.833	0.3249	7.39	VQ	.	.	.	.
0.917	0.3758	7.39	VQ	.	.	.	.
1.000	0.4267	7.39	VQ	.	.	.	.
1.083	0.4781	7.46	VQ	.	.	.	.
1.167	0.5294	7.46	VQ	.	.	.	.

1.250	0.5808	7.46	VQ	.	.	.	.
1.333	0.6259	6.54	VQ	.	.	.	.
1.417	0.6709	6.54	VQ	.	.	.	.
1.500	0.7160	6.54	VQ	.	.	.	.
1.583	0.7605	6.46	VQ	.	.	.	.
1.667	0.8050	6.46	VQ	.	.	.	.
1.750	0.8496	6.46	VQ	.	.	.	.
1.833	0.9008	7.44	VQ	.	.	.	.
1.917	0.9521	7.44	VQ	.	.	.	.
2.000	1.0033	7.44	VQ	.	.	.	.
2.083	1.0616	8.47	VQ	.	.	.	.
2.167	1.1200	8.47	VQ	.	.	.	.
2.250	1.1783	8.47	VQ	.	.	.	.
2.333	1.2373	8.57	.Q	.	.	.	.
2.417	1.2963	8.57	.Q	.	.	.	.
2.500	1.3554	8.57	.Q	.	.	.	.
2.583	1.4213	9.57	.Q	.	.	.	.
2.667	1.4872	9.57	.Q	.	.	.	.
2.750	1.5532	9.57	.Q	.	.	.	.
2.833	1.6263	10.61	.VQ	.	.	.	.
2.917	1.6993	10.61	.VQ	.	.	.	.
3.000	1.7724	10.61	.VQ	.	.	.	.
3.083	1.8462	10.72	.VQ	.	.	.	.
3.167	1.9200	10.72	.VQ	.	.	.	.
3.250	1.9939	10.72	.VQ	.	.	.	.
3.333	2.0678	10.74	.VQ	.	.	.	.
3.417	2.1417	10.74	.VQ	.	.	.	.
3.500	2.2157	10.74	.VQ	.	.	.	.
3.583	2.2896	10.74	.VQ	.	.	.	.
3.667	2.3636	10.74	. Q	.	.	.	.
3.750	2.4376	10.74	. Q	.	.	.	.
3.833	2.5184	11.73	. Q	.	.	.	.
3.917	2.5992	11.73	. Q	.	.	.	.
4.000	2.6800	11.73	. Q	.	.	.	.
4.083	2.7679	12.76	. Q	.	.	.	.
4.167	2.8558	12.76	. Q	.	.	.	.
4.250	2.9437	12.76	. Q	.	.	.	.
4.333	3.0392	13.86	. Q	.	.	.	.
4.417	3.1346	13.86	. Q	.	.	.	.
4.500	3.2300	13.86	. Q	.	.	.	.
4.583	3.3327	14.90	. Q	.	.	.	.
4.667	3.4353	14.90	. Q	.	.	.	.
4.750	3.5379	14.90	. Q	.	.	.	.
4.833	3.6481	16.00	. Q	.	.	.	.
4.917	3.7583	16.00	. Q	.	.	.	.
5.000	3.8685	16.00	. Q	.	.	.	.
5.083	3.9723	15.08	. Q	.	.	.	.
5.167	4.0762	15.08	. Q	.	.	.	.
5.250	4.1800	15.08	. Q	.	.	.	.
5.333	4.2772	14.11	. QV	.	.	.	.
5.417	4.3744	14.11	. QV	.	.	.	.
5.500	4.4716	14.11	. QV	.	.	.	.
5.583	4.5814	15.95	. Q	.	.	.	.
5.667	4.6912	15.95	. Q	.	.	.	.
5.750	4.8010	15.95	. QV	.	.	.	.
5.833	4.9185	17.05	. QV	.	.	.	.
5.917	5.0359	17.05	. QV	.	.	.	.
6.000	5.1533	17.05	. QV	.	.	.	.
6.083	5.2783	18.15	. QV	.	.	.	.
6.167	5.4033	18.15	. QV	.	.	.	.
6.250	5.5283	18.15	. QV	.	.	.	.
6.333	5.6606	19.20	. QV	.	.	.	.
6.417	5.7928	19.20	. QV	.	.	.	.
6.500	5.9250	19.20	. Q V	.	.	.	.
6.583	6.0648	20.30	. QV	.	.	.	.
6.667	6.2046	20.30	. QV	.	.	.	.
6.750	6.3444	20.30	. QV	.	.	.	.
6.833	6.4914	21.35	. QV	.	.	.	.
6.917	6.6385	21.35	. QV	.	.	.	.
7.000	6.7855	21.35	. QV	.	.	.	.
7.083	6.9333	21.46	. QV	.	.	.	.

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 7.167      7.0811     21.46  .   Q V   .         .         .         .
 7.250      7.2289     21.46  .   Q V   .         .         .         .
 7.333      7.3836     22.47  .   Q V   .         .         .         .
 7.417      7.5384     22.47  .   Q V   .         .         .         .
 7.500      7.6931     22.47  .   Q V   .         .         .         .
 7.583      7.8618     24.49  .   Q V   .         .         .         .
 7.667      8.0305     24.49  .   Q V   .         .         .         .
 7.750      8.1992     24.49  .   Q V   .         .         .         .
 7.833      8.3825     26.62  .    Q V  .         .         .         .
 7.917      8.5658     26.62  .    Q V  .         .         .         .
 8.000      8.7492     26.62  .    Q V  .         .         .         .
 8.083      8.9540     29.75  .    Q V  .         .         .         .
 8.167      9.1589     29.75  .    Q V  .         .         .         .
 8.250      9.3638     29.75  .    Q V  .         .         .         .
 8.333      9.5837     31.93  .     Q V .         .         .         .
 8.417      9.8037     31.93  .     Q V .         .         .         .
 8.500     10.0236     31.93  .     Q V .         .         .         .
 8.583     10.2519     33.15  .     Q V .         .         .         .
 8.667     10.4803     33.15  .     Q V .         .         .         .
 8.750     10.7086     33.15  .     Q  V.         .         .         .
 8.833     10.9512     35.22  .      Q V.         .         .         .
 8.917     11.1937     35.22  .      Q V.         .         .         .
 9.000     11.4363     35.22  .      Q V.         .         .         .
 9.083     11.7003     38.34  .      Q V.         .         .         .
 9.167     11.9644     38.34  .      Q  V         .         .         .
 9.250     12.2285     38.34  .      Q  V         .         .         .
 9.333     12.5145     41.52  .       Q V         .         .         .
 9.417     12.8004     41.52  .       Q V         .         .         .
 9.500     13.0864     41.52  .       Q  V        .         .         .
 9.583     13.3878     43.77  .       Q .V        .         .         .
 9.667     13.6893     43.77  .       Q .V        .         .         .
 9.750     13.9907     43.77  .       Q .V        .         .         .
 9.833     14.3071     45.94  .        Q. V       .         .         .
 9.917     14.6235     45.94  .        Q. V       .         .         .
10.000     14.9398     45.94  .        Q. V       .         .         .
10.083     15.2166     40.19  .       Q . V       .         .         .
10.167     15.4934     40.19  .       Q .  V      .         .         .
10.250     15.7702     40.19  .       Q .  V      .         .         .
10.333     15.9982     33.11  .     Q   .  V      .         .         .
10.417     16.2262     33.11  .     Q   .  V      .         .         .
10.500     16.4542     33.11  .     Q   .  V      .         .         .
10.583     16.7114     37.35  .      Q  .   V     .         .         .
10.667     16.9687     37.35  .      Q  .   V     .         .         .
10.750     17.2260     37.35  .      Q  .   V     .         .         .
10.833     17.5180     42.40  .       Q .   V     .         .         .
10.917     17.8100     42.40  .       Q .    V    .         .         .
11.000     18.1019     42.40  .       Q .    V    .         .         .
11.083     18.3904     41.88  .       Q .    V    .         .         .
11.167     18.6789     41.88  .       Q .    V    .         .         .
11.250     18.9673     41.88  .       Q .     V   .         .         .
11.333     19.2492     40.92  .       Q .     V   .         .         .
11.417     19.5310     40.92  .       Q .     V   .         .         .
11.500     19.8128     40.92  .       Q .     V   .         .         .
11.583     20.0805     38.86  .      Q  .      V  .         .         .
11.667     20.3481     38.86  .      Q  .      V  .         .         .
11.750     20.6158     38.86  .      Q  .      V  .         .         .
11.833     20.8761     37.79  .      Q  .      V  .         .         .
11.917     21.1363     37.79  .      Q  .      V  .         .         .
12.000     21.3966     37.79  .      Q  .       V .         .         .
12.083     21.7101     45.53  .        Q.       V .         .         .
12.167     22.0237     45.53  .        Q.       V .         .         .
12.250     22.3373     45.53  .        Q.       V .         .         .
12.333     22.7078     53.80  .         Q        V.         .         .
12.417     23.0783     53.80  .         Q        V.         .         .
12.500     23.4488     53.80  .         Q        V.         .         .
12.583     23.8676     60.81  .         . Q       V         .         .
12.667     24.2864     60.81  .         . Q       V         .         .
12.750     24.7052     60.81  .         . Q       V         .         .
12.833     25.1863     69.85  .         .  Q      .V        .         .
12.917     25.6673     69.85  .         .  Q      .V        .         .
13.000     26.1484     69.85  .         .  Q      . V       .         .
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13.083     26.7540     87.94  .          .      Q  . V       .          .
13.167     27.3596     87.94  .          .      Q  .  V      .          .
13.250     27.9653     87.94  .          .      Q  .  V      .          .
13.333     28.6792    103.66  .          .         Q   V     .          .
13.417     29.3931    103.66  .          .         Q   V     .          .
13.500     30.1070    103.66  .          .         Q    V    .          .
13.583     30.6558     79.69  .          .    Q    .    V    .          .
13.667     31.2046     79.69  .          .    Q    .     V   .          .
13.750     31.7534     79.69  .          .    Q    .     V   .          .
13.833     32.1164     52.71  .          Q         .      V  .          .
13.917     32.4794     52.71  .          Q         .      V  .          .
14.000     32.8424     52.71  .          Q         .      V  .          .
14.083     33.2521     59.48  .          .Q        .       V .          .
14.167     33.6617     59.48  .          .Q        .       V .          .
14.250     34.0714     59.48  .          .Q        .       V .          .
14.333     34.5315     66.81  .          .  Q      .        V.          .
14.417     34.9917     66.81  .          .  Q      .        V.          .
14.500     35.4518     66.81  .          .  Q      .         V          .
14.583     35.9070     66.10  .          .  Q      .         V          .
14.667     36.3622     66.10  .          .  Q      .         V          .
14.750     36.8174     66.10  .          .  Q      .          V         .
14.833     37.2618     64.52  .          . Q       .          .V        .
14.917     37.7061     64.52  .          . Q       .          .V        .
15.000     38.1504     64.52  .          . Q       .          . V       .
15.083     38.5659     60.32  .          . Q       .          . V       .
15.167     38.9813     60.32  .          . Q       .          .  V      .
15.250     39.3968     60.32  .          . Q       .          .  V      .
15.333     39.7815     55.86  .          .Q        .          .  V      .
15.417     40.1662     55.86  .          .Q        .          .   V     .
15.500     40.5509     55.86  .          .Q        .          .   V     .
15.583     40.8801     47.80  .        Q.          .          .   V     .
15.667     41.2093     47.80  .        Q.          .          .   V     .
15.750     41.5385     47.80  .        Q.          .          .    V    .
15.833     41.8255     41.66  .       Q .          .          .    V    .
15.917     42.1124     41.66  .       Q .          .          .    V    .
16.000     42.3994     41.66  .       Q .          .          .    V    .
16.083     42.5798     26.20  .    Q    .          .          .     V   .
16.167     42.7603     26.20  .    Q    .          .          .     V   .
16.250     42.9408     26.20  .    Q    .          .          .     V   .
16.333     43.0139     10.62  . Q       .          .          .     V   .
16.417     43.0871     10.62  . Q       .          .          .     V   .
16.500     43.1602     10.62  . Q       .          .          .     V   .
16.583     43.2156      8.05  .Q        .          .          .     V   .
16.667     43.2710      8.05  .Q        .          .          .     V   .
16.750     43.3265      8.05  .Q        .          .          .     V   .
16.833     43.3728      6.74  .Q        .          .          .     V   .
16.917     43.4192      6.74  .Q        .          .          .     V   .
17.000     43.4656      6.74  .Q        .          .          .     V   .
17.083     43.5243      8.51  .Q        .          .          .     V   .
17.167     43.5829      8.51  .Q        .          .          .     V   .
17.250     43.6415      8.51  .Q        .          .          .     V   .
17.333     43.7139     10.51  . Q       .          .          .      V  .
17.417     43.7863     10.51  . Q       .          .          .      V  .
17.500     43.8587     10.51  . Q       .          .          .      V  .
17.583     43.9323     10.69  . Q       .          .          .      V  .
17.667     44.0060     10.69  . Q       .          .          .      V  .
17.750     44.0796     10.69  . Q       .          .          .      V  .
17.833     44.1467      9.74  .Q        .          .          .      V  .
17.917     44.2138      9.74  .Q        .          .          .      V  .
18.000     44.2808      9.74  .Q        .          .          .      V  .
18.083     44.3409      8.72  .Q        .          .          .      V  .
18.167     44.4009      8.72  .Q        .          .          .      V  .
18.250     44.4610      8.72  .Q        .          .          .      V  .
18.333     44.5204      8.62  .Q        .          .          .      V  .
18.417     44.5797      8.62  .Q        .          .          .      V  .
18.500     44.6391      8.62  .Q        .          .          .      V  .
18.583     44.6916      7.62  .Q        .          .          .      V  .
18.667     44.7441      7.62  .Q        .          .          .      V  .
18.750     44.7965      7.62  .Q        .          .          .      V  .
18.833     44.8350      5.59  .Q        .          .          .       V .
18.917     44.8736      5.59  .Q        .          .          .       V .
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19.000	44.9121	5.59	.Q	.	.	.	V .
19.083	44.9496	5.45	.Q	.	.	.	V .
19.167	44.9871	5.45	.Q	.	.	.	V .
19.250	45.0246	5.45	.Q	.	.	.	V .
19.333	45.0752	7.34	.Q	.	.	.	V .
19.417	45.1257	7.34	.Q	.	.	.	V .
19.500	45.1763	7.34	.Q	.	.	.	V .
19.583	45.2277	7.46	.Q	.	.	.	V .
19.667	45.2791	7.46	.Q	.	.	.	V .
19.750	45.3306	7.46	.Q	.	.	.	V .
19.833	45.3688	5.56	.Q	.	.	.	V .
19.917	45.4071	5.56	.Q	.	.	.	V .
20.000	45.4454	5.56	.Q	.	.	.	V .
20.083	45.4828	5.43	.Q	.	.	.	V .
20.167	45.5202	5.43	.Q	.	.	.	V .
20.250	45.5576	5.43	.Q	.	.	.	V .
20.333	45.6013	6.35	.Q	.	.	.	V .
20.417	45.6450	6.35	.Q	.	.	.	V .
20.500	45.6888	6.35	.Q	.	.	.	V .
20.583	45.7331	6.43	.Q	.	.	.	V .
20.667	45.7774	6.43	.Q	.	.	.	V .
20.750	45.8217	6.43	.Q	.	.	.	V .
20.833	45.8592	5.45	.Q	.	.	.	V .
20.917	45.8968	5.45	.Q	.	.	.	V .
21.000	45.9344	5.45	.Q	.	.	.	V .
21.083	45.9717	5.41	.Q	.	.	.	V .
21.167	46.0089	5.41	.Q	.	.	.	V .
21.250	46.0462	5.41	.Q	.	.	.	V.
21.333	46.0831	5.36	.Q	.	.	.	V.
21.417	46.1200	5.36	.Q	.	.	.	V.
21.500	46.1569	5.36	.Q	.	.	.	V.
21.583	46.1941	5.40	.Q	.	.	.	V.
21.667	46.2313	5.40	.Q	.	.	.	V.
21.750	46.2684	5.40	.Q	.	.	.	V.
21.833	46.3053	5.35	.Q	.	.	.	V.
21.917	46.3421	5.35	.Q	.	.	.	V.
22.000	46.3790	5.35	.Q	.	.	.	V.
22.083	46.4162	5.40	.Q	.	.	.	V.
22.167	46.4533	5.40	.Q	.	.	.	V.
22.250	46.4905	5.40	.Q	.	.	.	V.
22.333	46.5273	5.35	.Q	.	.	.	V.
22.417	46.5642	5.35	.Q	.	.	.	V.
22.500	46.6010	5.35	.Q	.	.	.	V.
22.583	46.6314	4.41	Q	.	.	.	V.
22.667	46.6617	4.41	Q	.	.	.	V.
22.750	46.6921	4.41	Q	.	.	.	V.
22.833	46.7218	4.32	Q	.	.	.	V.
22.917	46.7516	4.32	Q	.	.	.	V.
23.000	46.7813	4.32	Q	.	.	.	V.
23.083	46.8110	4.31	Q	.	.	.	V.
23.166	46.8406	4.31	Q	.	.	.	V.
23.250	46.8703	4.31	Q	.	.	.	V.
23.333	46.8999	4.30	Q	.	.	.	V.
23.416	46.9295	4.30	Q	.	.	.	V.
23.500	46.9592	4.30	Q	.	.	.	V.
23.583	46.9888	4.30	Q	.	.	.	V.
23.666	47.0184	4.30	Q	.	.	.	V.
23.750	47.0480	4.30	Q	.	.	.	V.
23.833	47.0776	4.30	Q	.	.	.	V.
23.916	47.1072	4.30	Q	.	.	.	V.
24.000	47.1368	4.30	Q	.	.	.	V.
24.083	47.1528	2.32	Q	.	.	.	V.
24.166	47.1688	2.32	Q	.	.	.	V.
24.250	47.1848	2.32	Q	.	.	.	V.
24.333	47.1866	0.26	Q	.	.	.	V.
24.416	47.1884	0.26	Q	.	.	.	V.
24.500	47.1902	0.26	Q	.	.	.	V.
24.583	47.1905	0.06	Q	.	.	.	V.
24.666	47.1909	0.06	Q	.	.	.	V.
24.750	47.1913	0.06	Q	.	.	.	V.
24.833	47.1914	0.02	Q	.	.	.	V.

```
  24.916     47.1916      0.02  Q         .         .         .       V.
  25.000     47.1917      0.02  Q         .         .         .       V.
  25.083     47.1918      0.01  Q         .         .         .       V.
  25.166     47.1918      0.01  Q         .         .         .       V.
  25.250     47.1919      0.01  Q         .         .         .       V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated               Duration
       Peak Flow Rate                    (minutes)
   ======================              =========
              0%                        1515.0
             10%                         855.0
             20%                         570.0
             30%                         465.0
             40%                         315.0
             50%                         195.0
             60%                         105.0
             70%                          45.0
             80%                          30.0
             90%                          15.0


********************************************************************************
  FLOW PROCESS FROM NODE   104.00 TO NODE   105.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
================================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #2)

         WATERCOURSE LENGTH =    3781.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2268.600 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      62.900 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     121.080 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.197 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.415
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
         MINIMUM SOIL-LOSS RATE(INCH/HOUR) =   0.210
         USER-ENTERED RAINFALL =  4.67 INCHES
         RCFC&WCD 24-Hour Storm (15-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9998


         UNIT HYDROGRAPH TIME UNIT =  15.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME = 127.183


================================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------------
        1               23.805               116.193
        2               79.421               271.466
        3               93.967                70.998
        4               98.096                20.152
        5               98.840                 3.632
        6               99.426                 2.864
        7               99.771                 1.680
```

8	99.943	0.840
9	100.000	0.280

****

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0093	0.0084	0.0009
2	0.0140	0.0126	0.0014
3	0.0140	0.0126	0.0014
4	0.0187	0.0168	0.0019
5	0.0140	0.0126	0.0014
6	0.0140	0.0126	0.0014
7	0.0140	0.0126	0.0014
8	0.0187	0.0168	0.0019
9	0.0187	0.0168	0.0019
10	0.0187	0.0168	0.0019
11	0.0233	0.0210	0.0023
12	0.0233	0.0210	0.0023
13	0.0233	0.0210	0.0023
14	0.0233	0.0210	0.0023
15	0.0233	0.0210	0.0023
16	0.0280	0.0252	0.0028
17	0.0280	0.0252	0.0028
18	0.0327	0.0294	0.0033
19	0.0327	0.0294	0.0033
20	0.0374	0.0336	0.0037
21	0.0280	0.0252	0.0028
22	0.0327	0.0294	0.0033
23	0.0374	0.0336	0.0037
24	0.0374	0.0336	0.0037
25	0.0420	0.0378	0.0042
26	0.0420	0.0378	0.0042
27	0.0467	0.0420	0.0047
28	0.0467	0.0420	0.0047
29	0.0467	0.0420	0.0047
30	0.0514	0.0462	0.0051
31	0.0560	0.0504	0.0056
32	0.0607	0.0546	0.0061
33	0.0700	0.0630	0.0070
34	0.0700	0.0630	0.0070
35	0.0747	0.0672	0.0075
36	0.0794	0.0714	0.0079
37	0.0887	0.0798	0.0089
38	0.0934	0.0840	0.0093
39	0.0980	0.0882	0.0098
40	0.1027	0.0924	0.0103
41	0.0700	0.0630	0.0070
42	0.0700	0.0630	0.0070
43	0.0934	0.0840	0.0093
44	0.0934	0.0840	0.0093
45	0.0887	0.0798	0.0089
46	0.0887	0.0798	0.0089
47	0.0794	0.0714	0.0079
48	0.0840	0.0756	0.0084
49	0.1167	0.0965	0.0203
50	0.1214	0.0950	0.0264
51	0.1307	0.0936	0.0371
52	0.1354	0.0922	0.0432
53	0.1587	0.0909	0.0679
54	0.1587	0.0895	0.0693
55	0.1074	0.0882	0.0192
56	0.1074	0.0868	0.0206
57	0.1261	0.0855	0.0405
58	0.1214	0.0842	0.0372
59	0.1214	0.0830	0.0384
60	0.1167	0.0817	0.0350
61	0.1121	0.0805	0.0316
62	0.1074	0.0793	0.0281

63	0.0887	0.0781	0.0106
64	0.0887	0.0769	0.0118
65	0.0187	0.0168	0.0019
66	0.0187	0.0168	0.0019
67	0.0140	0.0126	0.0014
68	0.0140	0.0126	0.0014
69	0.0233	0.0210	0.0023
70	0.0233	0.0210	0.0023
71	0.0233	0.0210	0.0023
72	0.0187	0.0168	0.0019
73	0.0187	0.0168	0.0019
74	0.0187	0.0168	0.0019
75	0.0140	0.0126	0.0014
76	0.0093	0.0084	0.0009
77	0.0140	0.0126	0.0014
78	0.0187	0.0168	0.0019
79	0.0140	0.0126	0.0014
80	0.0093	0.0084	0.0009
81	0.0140	0.0126	0.0014
82	0.0140	0.0126	0.0014
83	0.0140	0.0126	0.0014
84	0.0093	0.0084	0.0009
85	0.0140	0.0126	0.0014
86	0.0093	0.0084	0.0009
87	0.0140	0.0126	0.0014
88	0.0093	0.0084	0.0009
89	0.0140	0.0126	0.0014
90	0.0093	0.0084	0.0009
91	0.0093	0.0084	0.0009
92	0.0093	0.0084	0.0009
93	0.0093	0.0084	0.0009
94	0.0093	0.0084	0.0009
95	0.0093	0.0084	0.0009
96	0.0093	0.0084	0.0009

TOTAL STORM RAINFALL(INCHES) = 4.67
TOTAL SOIL-LOSS(INCHES) = 3.86
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.81

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 38.9158
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 8.1899

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2 4 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	10.0	20.0	30.0	40.0
0.083	0.0007	0.11	Q	.	.	.	.
0.167	0.0015	0.11	Q	.	.	.	.
0.250	0.0022	0.11	Q	.	.	.	.
0.333	0.0051	0.42	Q	.	.	.	.
0.417	0.0080	0.42	Q	.	.	.	.
0.500	0.0108	0.42	Q	.	.	.	.
0.583	0.0150	0.61	Q	.	.	.	.
0.667	0.0192	0.61	Q	.	.	.	.
0.750	0.0234	0.61	Q	.	.	.	.
0.833	0.0284	0.72	Q	.	.	.	.
0.917	0.0333	0.72	Q	.	.	.	.
1.000	0.0382	0.72	Q	.	.	.	.
1.083	0.0437	0.80	Q	.	.	.	.
1.167	0.0492	0.80	Q	.	.	.	.
1.250	0.0548	0.80	Q	.	.	.	.
1.333	0.0597	0.71	Q	.	.	.	.

1.417	0.0646	0.71	Q	.	.	.	.
1.500	0.0695	0.71	Q	.	.	.	.
1.583	0.0742	0.69	Q	.	.	.	.
1.667	0.0790	0.69	Q	.	.	.	.
1.750	0.0837	0.69	Q	.	.	.	.
1.833	0.0888	0.74	Q	.	.	.	.
1.917	0.0939	0.74	Q	.	.	.	.
2.000	0.0990	0.74	Q	.	.	.	.
2.083	0.1050	0.87	Q	.	.	.	.
2.167	0.1109	0.87	Q	.	.	.	.
2.250	0.1169	0.87	Q	.	.	.	.
2.333	0.1231	0.90	Q	.	.	.	.
2.417	0.1293	0.90	Q	.	.	.	.
2.500	0.1355	0.90	Q	.	.	.	.
2.583	0.1421	0.96	Q	.	.	.	.
2.667	0.1487	0.96	Q	.	.	.	.
2.750	0.1553	0.96	Q	.	.	.	.
2.833	0.1628	1.09	VQ	.	.	.	.
2.917	0.1703	1.09	VQ	.	.	.	.
3.000	0.1778	1.09	VQ	.	.	.	.
3.083	0.1856	1.12	VQ	.	.	.	.
3.167	0.1933	1.12	VQ	.	.	.	.
3.250	0.2011	1.12	VQ	.	.	.	.
3.333	0.2089	1.13	.Q	.	.	.	.
3.417	0.2167	1.13	.Q	.	.	.	.
3.500	0.2245	1.13	.Q	.	.	.	.
3.583	0.2324	1.14	.Q	.	.	.	.
3.667	0.2402	1.14	.Q	.	.	.	.
3.750	0.2480	1.14	.Q	.	.	.	.
3.833	0.2562	1.19	.Q	.	.	.	.
3.917	0.2644	1.19	.Q	.	.	.	.
4.000	0.2726	1.19	.Q	.	.	.	.
4.083	0.2817	1.32	.Q	.	.	.	.
4.167	0.2908	1.32	.Q	.	.	.	.
4.250	0.2999	1.32	.Q	.	.	.	.
4.333	0.3096	1.41	.Q	.	.	.	.
4.417	0.3193	1.41	.Q	.	.	.	.
4.500	0.3290	1.41	.Q	.	.	.	.
4.583	0.3396	1.54	.Q	.	.	.	.
4.667	0.3503	1.54	.Q	.	.	.	.
4.750	0.3609	1.54	.Q	.	.	.	.
4.833	0.3722	1.63	.Q	.	.	.	.
4.917	0.3834	1.63	.Q	.	.	.	.
5.000	0.3946	1.63	.Q	.	.	.	.
5.083	0.4061	1.66	.Q	.	.	.	.
5.167	0.4175	1.66	.QV	.	.	.	.
5.250	0.4290	1.66	.QV	.	.	.	.
5.333	0.4393	1.50	.QV	.	.	.	.
5.417	0.4496	1.50	.QV	.	.	.	.
5.500	0.4599	1.50	.QV	.	.	.	.
5.583	0.4711	1.62	.QV	.	.	.	.
5.667	0.4823	1.62	.QV	.	.	.	.
5.750	0.4935	1.62	.QV	.	.	.	.
5.833	0.5057	1.77	.QV	.	.	.	.
5.917	0.5179	1.77	.QV	.	.	.	.
6.000	0.5300	1.77	.QV	.	.	.	.
6.083	0.5429	1.86	.QV	.	.	.	.
6.167	0.5557	1.86	.QV	.	.	.	.
6.250	0.5685	1.86	.QV	.	.	.	.
6.333	0.5823	2.00	.QV	.	.	.	.
6.417	0.5961	2.00	.QV	.	.	.	.
6.500	0.6098	2.00	.QV	.	.	.	.
6.583	0.6242	2.09	. QV	.	.	.	.
6.667	0.6386	2.09	. QV	.	.	.	.
6.750	0.6530	2.09	. QV	.	.	.	.
6.833	0.6683	2.23	. QV	.	.	.	.
6.917	0.6837	2.23	. QV	.	.	.	.
7.000	0.6990	2.23	. QV	.	.	.	.
7.083	0.7146	2.26	. QV	.	.	.	.
7.167	0.7301	2.26	. QV	.	.	.	.
7.250	0.7457	2.26	. QV	.	.	.	.

7.333	0.7617	2.33	. QV	.	.	.	.
7.417	0.7778	2.33	. QV	.	.	.	.
7.500	0.7938	2.33	. QV	.	.	.	.
7.583	0.8111	2.51	. QV	.	.	.	.
7.667	0.8284	2.51	. Q V	.	.	.	.
7.750	0.8457	2.51	. Q V	.	.	.	.
7.833	0.8645	2.73	. Q V	.	.	.	.
7.917	0.8832	2.73	. Q V	.	.	.	.
8.000	0.9020	2.73	. Q V	.	.	.	.
8.083	0.9227	3.01	. QV	.	.	.	.
8.167	0.9434	3.01	. QV	.	.	.	.
8.250	0.9641	3.01	. QV	.	.	.	.
8.333	0.9869	3.30	. QV	.	.	.	.
8.417	1.0096	3.30	. QV	.	.	.	.
8.500	1.0324	3.30	. Q V	.	.	.	.
8.583	1.0561	3.44	. Q V	.	.	.	.
8.667	1.0797	3.44	. Q V	.	.	.	.
8.750	1.1034	3.44	. Q V	.	.	.	.
8.833	1.1285	3.64	. Q V	.	.	.	.
8.917	1.1535	3.64	. Q V	.	.	.	.
9.000	1.1786	3.64	. Q V	.	.	.	.
9.083	1.2056	3.91	. Q V	.	.	.	.
9.167	1.2325	3.91	. Q V	.	.	.	.
9.250	1.2595	3.91	. Q V	.	.	.	.
9.333	1.2889	4.27	. Q V	.	.	.	.
9.417	1.3183	4.27	. Q V	.	.	.	.
9.500	1.3477	4.27	. Q V	.	.	.	.
9.583	1.3789	4.53	. Q V	.	.	.	.
9.667	1.4101	4.53	. Q V	.	.	.	.
9.750	1.4413	4.53	. Q V	.	.	.	.
9.833	1.4741	4.77	. Q V	.	.	.	.
9.917	1.5069	4.77	. Q V	.	.	.	.
10.000	1.5398	4.77	. Q V	.	.	.	.
10.083	1.5712	4.56	. Q V	.	.	.	.
10.167	1.6026	4.56	. Q V	.	.	.	.
10.250	1.6340	4.56	. Q V	.	.	.	.
10.333	1.6597	3.72	. Q V	.	.	.	.
10.417	1.6853	3.72	. Q V	.	.	.	.
10.500	1.7109	3.72	. Q V	.	.	.	.
10.583	1.7369	3.78	. Q V	.	.	.	.
10.667	1.7630	3.78	. Q V	.	.	.	.
10.750	1.7890	3.78	. Q V	.	.	.	.
10.833	1.8189	4.35	. Q V	.	.	.	.
10.917	1.8489	4.35	. Q V.	.	.	.	.
11.000	1.8788	4.35	. Q V.	.	.	.	.
11.083	1.9095	4.45	. Q V.	.	.	.	.
11.167	1.9401	4.45	. Q V.	.	.	.	.
11.250	1.9708	4.45	. Q V.	.	.	.	.
11.333	2.0008	4.36	. Q V.	.	.	.	.
11.417	2.0309	4.36	. Q V.	.	.	.	.
11.500	2.0610	4.36	. Q V	.	.	.	.
11.583	2.0901	4.23	. Q V	.	.	.	.
11.667	2.1192	4.23	. Q V	.	.	.	.
11.750	2.1483	4.23	. Q V	.	.	.	.
11.833	2.1759	4.02	. Q V	.	.	.	.
11.917	2.2036	4.02	. Q V	.	.	.	.
12.000	2.2313	4.02	. Q V	.	.	.	.
12.083	2.2689	5.46	. Q .V	.	.	.	.
12.167	2.3066	5.46	. Q .V	.	.	.	.
12.250	2.3442	5.46	. Q .V	.	.	.	.
12.333	2.4090	9.41	. Q.V	.	.	.	.
12.417	2.4737	9.41	. Q. V	.	.	.	.
12.500	2.5385	9.41	. Q. V	.	.	.	.
12.583	2.6292	13.16	. . VQ	.	.	.	.
12.667	2.7198	13.16	. . Q	.	.	.	.
12.750	2.8104	13.16	. . Q	.	.	.	.
12.833	2.9306	17.45	. . V Q	.	.	.	.
12.917	3.0508	17.45	. . V Q	.	.	.	.
13.000	3.1709	17.45	. . V Q	.	.	.	.
13.083	3.3286	22.90	. . V . Q	.	.	.	.
13.167	3.4863	22.90	. . V . Q	.	.	.	.

13.250	3.6440	22.90	. . V . Q . .
13.333	3.8539	30.47	. . V . Q .
13.417	4.0637	30.47	. . V. Q .
13.500	4.2735	30.47	. . V Q .
13.583	4.4593	26.98	. . .V Q . .
13.667	4.6451	26.98	. . . V Q . .
13.750	4.8309	26.98	. . . V Q . .
13.833	4.9289	14.22	. . Q . V . .
13.917	5.0268	14.22	. . Q . V . .
14.000	5.1248	14.22	. . Q . V . .
14.083	5.2178	13.51	. . Q . V . .
14.167	5.3109	13.51	. . Q . V . .
14.250	5.4040	13.51	. . Q . V . .
14.333	5.5260	17.73	. . Q . V . .
14.417	5.6481	17.73	. . Q . V . .
14.500	5.7702	17.73	. . Q . V . .
14.583	5.8961	18.27	. . Q . V . .
14.667	6.0219	18.27	. . Q . V. .
14.750	6.1477	18.27	. . Q . V .
14.833	6.2736	18.27	. . Q . V .
14.917	6.3994	18.27	. . Q . V .
15.000	6.5252	18.27	. . Q . V .
15.083	6.6420	16.96	. . Q . . V .
15.167	6.7588	16.96	. . Q . . V .
15.250	6.8757	16.96	. . Q . . V .
15.333	6.9818	15.42	. . Q . . V .
15.417	7.0880	15.42	. . Q . . V .
15.500	7.1942	15.42	. . Q . . V .
15.583	7.2779	12.15	. . Q . . V .
15.667	7.3615	12.15	. . Q . . V .
15.750	7.4452	12.15	. . Q . . V .
15.833	7.4950	7.23	. Q . . V .
15.917	7.5448	7.23	. Q . . V .
16.000	7.5946	7.23	. Q . . V .
16.083	7.6294	5.06	. Q . . V .
16.167	7.6643	5.06	. Q . . V .
16.250	7.6992	5.06	. Q . . V .
16.333	7.7135	2.07	. Q . . V .
16.417	7.7277	2.07	. Q . . V .
16.500	7.7420	2.07	. Q . . V .
16.583	7.7506	1.25	.Q . . V .
16.667	7.7592	1.25	.Q . . V .
16.750	7.7679	1.25	.Q . . V .
16.833	7.7738	0.87	Q . . V .
16.917	7.7798	0.87	Q . . V .
17.000	7.7858	0.87	Q . . V .
17.083	7.7919	0.88	Q . . V .
17.167	7.7979	0.88	Q . . V .
17.250	7.8040	0.88	Q . . V .
17.333	7.8114	1.08	.Q . . V .
17.417	7.8189	1.08	.Q . . V .
17.500	7.8263	1.08	.Q . . V .
17.583	7.8341	1.13	.Q . . V .
17.667	7.8418	1.13	.Q . . V .
17.750	7.8496	1.13	.Q . . V .
17.833	7.8570	1.08	.Q . . V .
17.917	7.8645	1.08	.Q . . V .
18.000	7.8719	1.08	.Q . . V .
18.083	7.8785	0.95	Q . . V .
18.167	7.8851	0.95	Q . . V .
18.250	7.8916	0.95	Q . . V .
18.333	7.8980	0.92	Q . . V .
18.417	7.9043	0.92	Q . . V .
18.500	7.9107	0.92	Q . . V .
18.583	7.9166	0.86	Q . . V .
18.667	7.9226	0.86	Q . . V .
18.750	7.9285	0.86	Q . . V .
18.833	7.9332	0.68	Q . . V .
18.917	7.9378	0.68	Q . . V .
19.000	7.9425	0.68	Q . . V .
19.083	7.9464	0.57	Q . . V .

19.167	7.9504	0.57	Q	.	.	.	V .
19.250	7.9543	0.57	Q	.	.	.	V .
19.333	7.9592	0.71	Q	.	.	.	V .
19.417	7.9641	0.71	Q	.	.	.	V .
19.500	7.9690	0.71	Q	.	.	.	V .
19.583	7.9745	0.80	Q	.	.	.	V .
19.667	7.9801	0.80	Q	.	.	.	V .
19.750	7.9856	0.80	Q	.	.	.	V.
19.833	7.9901	0.66	Q	.	.	.	V.
19.917	7.9947	0.66	Q	.	.	.	V.
20.000	7.9993	0.66	Q	.	.	.	V.
20.083	8.0032	0.57	Q	.	.	.	V.
20.167	8.0071	0.57	Q	.	.	.	V.
20.250	8.0110	0.57	Q	.	.	.	V.
20.333	8.0154	0.65	Q	.	.	.	V.
20.417	8.0199	0.65	Q	.	.	.	V.
20.500	8.0244	0.65	Q	.	.	.	V.
20.583	8.0291	0.68	Q	.	.	.	V.
20.667	8.0337	0.68	Q	.	.	.	V.
20.750	8.0384	0.68	Q	.	.	.	V.
20.833	8.0427	0.63	Q	.	.	.	V.
20.917	8.0470	0.63	Q	.	.	.	V.
21.000	8.0513	0.63	Q	.	.	.	V.
21.083	8.0552	0.56	Q	.	.	.	V.
21.167	8.0590	0.56	Q	.	.	.	V.
21.250	8.0628	0.56	Q	.	.	.	V.
21.333	8.0669	0.60	Q	.	.	.	V.
21.417	8.0710	0.60	Q	.	.	.	V.
21.500	8.0751	0.60	Q	.	.	.	V.
21.583	8.0789	0.55	Q	.	.	.	V.
21.667	8.0827	0.55	Q	.	.	.	V.
21.750	8.0864	0.55	Q	.	.	.	V.
21.833	8.0905	0.59	Q	.	.	.	V.
21.917	8.0946	0.59	Q	.	.	.	V.
22.000	8.0987	0.59	Q	.	.	.	V.
22.083	8.1025	0.55	Q	.	.	.	V.
22.167	8.1062	0.55	Q	.	.	.	V.
22.250	8.1100	0.55	Q	.	.	.	V.
22.333	8.1141	0.59	Q	.	.	.	V.
22.417	8.1182	0.59	Q	.	.	.	V.
22.500	8.1223	0.59	Q	.	.	.	V.
22.583	8.1257	0.49	Q	.	.	.	V.
22.667	8.1291	0.49	Q	.	.	.	V.
22.750	8.1324	0.49	Q	.	.	.	V.
22.833	8.1357	0.47	Q	.	.	.	V.
22.917	8.1389	0.47	Q	.	.	.	V.
23.000	8.1421	0.47	Q	.	.	.	V.
23.083	8.1452	0.46	Q	.	.	.	V.
23.166	8.1484	0.46	Q	.	.	.	V.
23.250	8.1516	0.46	Q	.	.	.	V.
23.333	8.1547	0.46	Q	.	.	.	V.
23.416	8.1579	0.46	Q	.	.	.	V.
23.500	8.1610	0.46	Q	.	.	.	V.
23.583	8.1642	0.46	Q	.	.	.	V.
23.666	8.1673	0.46	Q	.	.	.	V.
23.750	8.1704	0.46	Q	.	.	.	V.
23.833	8.1736	0.46	Q	.	.	.	V.
23.916	8.1767	0.46	Q	.	.	.	V.
24.000	8.1799	0.46	Q	.	.	.	V.
24.083	8.1823	0.35	Q	.	.	.	V.
24.166	8.1847	0.35	Q	.	.	.	V.
24.250	8.1870	0.35	Q	.	.	.	V.
24.333	8.1877	0.09	Q	.	.	.	V.
24.416	8.1883	0.09	Q	.	.	.	V.
24.500	8.1890	0.09	Q	.	.	.	V.
24.583	8.1892	0.03	Q	.	.	.	V.
24.666	8.1894	0.03	Q	.	.	.	V.
24.750	8.1896	0.03	Q	.	.	.	V.
24.833	8.1896	0.01	Q	.	.	.	V.
24.916	8.1897	0.01	Q	.	.	.	V.
25.000	8.1897	0.01	Q	.	.	.	V.

```
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated               Duration
       Peak Flow Rate                    (minutes)
   ======================              =========
              0%                        1500.0
             10%                         480.0
             20%                         225.0
             30%                         210.0
             40%                         180.0
             50%                         135.0
             60%                          45.0
             70%                          45.0
             80%                          30.0
             90%                          15.0


 ****************************************************************************
   FLOW PROCESS FROM NODE   106.00 TO NODE   103.00 IS CODE =   1
 ----------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
 ============================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #3)

         WATERCOURSE LENGTH =    2948.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    1768.800 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      14.700 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     136.170 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.205 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.385
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
         MINIMUM SOIL-LOSS RATE(INCH/HOUR) =   0.190
         USER-ENTERED RAINFALL =  4.67 INCHES
         RCFC&WCD 24-Hour Storm (15-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9998


         UNIT HYDROGRAPH TIME UNIT =  15.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME = 122.223


 ============================================================================
                      UNIT HYDROGRAPH DETERMINATION

 ----------------------------------------------------------------------------
     INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
      NUMBER          MEAN VALUES          ORDINATES(CFS)
 ----------------------------------------------------------------------------
         1               22.184               121.775
         2               78.029               306.553
         3               93.193                83.240
         4               97.884                25.752
         5               98.724                 4.612
         6               99.336                 3.357
         7               99.734                 2.188
         8               99.934                 1.094
         9              100.000                 0.365
```

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0093	0.0084	0.0009
2	0.0140	0.0126	0.0014
3	0.0140	0.0126	0.0014
4	0.0187	0.0168	0.0019
5	0.0140	0.0126	0.0014
6	0.0140	0.0126	0.0014
7	0.0140	0.0126	0.0014
8	0.0187	0.0168	0.0019
9	0.0187	0.0168	0.0019
10	0.0187	0.0168	0.0019
11	0.0233	0.0210	0.0023
12	0.0233	0.0210	0.0023
13	0.0233	0.0210	0.0023
14	0.0233	0.0210	0.0023
15	0.0233	0.0210	0.0023
16	0.0280	0.0252	0.0028
17	0.0280	0.0252	0.0028
18	0.0327	0.0294	0.0033
19	0.0327	0.0294	0.0033
20	0.0374	0.0336	0.0037
21	0.0280	0.0252	0.0028
22	0.0327	0.0294	0.0033
23	0.0374	0.0336	0.0037
24	0.0374	0.0336	0.0037
25	0.0420	0.0378	0.0042
26	0.0420	0.0378	0.0042
27	0.0467	0.0420	0.0047
28	0.0467	0.0420	0.0047
29	0.0467	0.0420	0.0047
30	0.0514	0.0462	0.0051
31	0.0560	0.0504	0.0056
32	0.0607	0.0546	0.0061
33	0.0700	0.0630	0.0070
34	0.0700	0.0630	0.0070
35	0.0747	0.0672	0.0075
36	0.0794	0.0714	0.0079
37	0.0887	0.0798	0.0089
38	0.0934	0.0840	0.0093
39	0.0980	0.0882	0.0098
40	0.1027	0.0924	0.0103
41	0.0700	0.0630	0.0070
42	0.0700	0.0630	0.0070
43	0.0934	0.0840	0.0093
44	0.0934	0.0840	0.0093
45	0.0887	0.0798	0.0089
46	0.0887	0.0798	0.0089
47	0.0794	0.0714	0.0079
48	0.0840	0.0756	0.0084
49	0.1167	0.0893	0.0274
50	0.1214	0.0880	0.0334
51	0.1307	0.0866	0.0441
52	0.1354	0.0853	0.0501
53	0.1587	0.0840	0.0748
54	0.1587	0.0827	0.0761
55	0.1074	0.0814	0.0260
56	0.1074	0.0802	0.0272
57	0.1261	0.0789	0.0471
58	0.1214	0.0777	0.0437
59	0.1214	0.0765	0.0449
60	0.1167	0.0753	0.0414
61	0.1121	0.0741	0.0379
62	0.1074	0.0730	0.0344
63	0.0887	0.0718	0.0169
64	0.0887	0.0707	0.0180
65	0.0187	0.0168	0.0019
66	0.0187	0.0168	0.0019

67	0.0140	0.0126	0.0014
68	0.0140	0.0126	0.0014
69	0.0233	0.0210	0.0023
70	0.0233	0.0210	0.0023
71	0.0233	0.0210	0.0023
72	0.0187	0.0168	0.0019
73	0.0187	0.0168	0.0019
74	0.0187	0.0168	0.0019
75	0.0140	0.0126	0.0014
76	0.0093	0.0084	0.0009
77	0.0140	0.0126	0.0014
78	0.0187	0.0168	0.0019
79	0.0140	0.0126	0.0014
80	0.0093	0.0084	0.0009
81	0.0140	0.0126	0.0014
82	0.0140	0.0126	0.0014
83	0.0140	0.0126	0.0014
84	0.0093	0.0084	0.0009
85	0.0140	0.0126	0.0014
86	0.0093	0.0084	0.0009
87	0.0140	0.0126	0.0014
88	0.0093	0.0084	0.0009
89	0.0140	0.0126	0.0014
90	0.0093	0.0084	0.0009
91	0.0093	0.0084	0.0009
92	0.0093	0.0084	0.0009
93	0.0093	0.0084	0.0009
94	0.0093	0.0084	0.0009
95	0.0093	0.0084	0.0009
96	0.0093	0.0084	0.0009

TOTAL STORM RAINFALL(INCHES) = 4.67
TOTAL SOIL-LOSS(INCHES) = 3.75
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.92

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 42.5573
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 10.4170

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2 4 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	10.0	20.0	30.0	40.0
0.083	0.0008	0.11	Q	.	.	.	.
0.167	0.0016	0.11	Q	.	.	.	.
0.250	0.0023	0.11	Q	.	.	.	.
0.333	0.0055	0.46	Q	.	.	.	.
0.417	0.0086	0.46	Q	.	.	.	.
0.500	0.0118	0.46	Q	.	.	.	.
0.583	0.0165	0.68	Q	.	.	.	.
0.667	0.0211	0.68	Q	.	.	.	.
0.750	0.0258	0.68	Q	.	.	.	.
0.833	0.0313	0.80	Q	.	.	.	.
0.917	0.0368	0.80	Q	.	.	.	.
1.000	0.0423	0.80	Q	.	.	.	.
1.083	0.0485	0.90	Q	.	.	.	.
1.167	0.0547	0.90	Q	.	.	.	.
1.250	0.0609	0.90	Q	.	.	.	.
1.333	0.0664	0.80	Q	.	.	.	.
1.417	0.0719	0.80	Q	.	.	.	.
1.500	0.0774	0.80	Q	.	.	.	.
1.583	0.0828	0.78	Q	.	.	.	.

1.667	0.0881	0.78	Q	.	.	.	.
1.750	0.0935	0.78	Q	.	.	.	.
1.833	0.0992	0.83	Q	.	.	.	.
1.917	0.1049	0.83	Q	.	.	.	.
2.000	0.1106	0.83	Q	.	.	.	.
2.083	0.1172	0.97	Q	.	.	.	.
2.167	0.1239	0.97	Q	.	.	.	.
2.250	0.1306	0.97	Q	.	.	.	.
2.333	0.1376	1.01	VQ	.	.	.	.
2.417	0.1445	1.01	VQ	.	.	.	.
2.500	0.1515	1.01	VQ	.	.	.	.
2.583	0.1589	1.08	VQ	.	.	.	.
2.667	0.1663	1.08	VQ	.	.	.	.
2.750	0.1737	1.08	VQ	.	.	.	.
2.833	0.1821	1.22	VQ	.	.	.	.
2.917	0.1905	1.22	VQ	.	.	.	.
3.000	0.1990	1.22	VQ	.	.	.	.
3.083	0.2077	1.26	VQ	.	.	.	.
3.167	0.2163	1.26	VQ	.	.	.	.
3.250	0.2250	1.26	VQ	.	.	.	.
3.333	0.2338	1.28	VQ	.	.	.	.
3.417	0.2426	1.28	VQ	.	.	.	.
3.500	0.2514	1.28	VQ	.	.	.	.
3.583	0.2602	1.28	VQ	.	.	.	.
3.667	0.2690	1.28	Q	.	.	.	.
3.750	0.2778	1.28	Q	.	.	.	.
3.833	0.2870	1.34	.Q	.	.	.	.
3.917	0.2962	1.34	.Q	.	.	.	.
4.000	0.3054	1.34	.Q	.	.	.	.
4.083	0.3156	1.48	.Q	.	.	.	.
4.167	0.3258	1.48	.Q	.	.	.	.
4.250	0.3360	1.48	.Q	.	.	.	.
4.333	0.3469	1.58	.Q	.	.	.	.
4.417	0.3577	1.58	.Q	.	.	.	.
4.500	0.3686	1.58	.Q	.	.	.	.
4.583	0.3805	1.73	.Q	.	.	.	.
4.667	0.3924	1.73	.Q	.	.	.	.
4.750	0.4044	1.73	.Q	.	.	.	.
4.833	0.4170	1.83	.Q	.	.	.	.
4.917	0.4296	1.83	.Q	.	.	.	.
5.000	0.4422	1.83	.Q	.	.	.	.
5.083	0.4551	1.87	.Q	.	.	.	.
5.167	0.4680	1.87	.Q	.	.	.	.
5.250	0.4809	1.87	.Q	.	.	.	.
5.333	0.4925	1.69	.Q	.	.	.	.
5.417	0.5041	1.69	.Q	.	.	.	.
5.500	0.5157	1.69	.Q	.	.	.	.
5.583	0.5283	1.82	.QV	.	.	.	.
5.667	0.5408	1.82	.QV	.	.	.	.
5.750	0.5534	1.82	.QV	.	.	.	.
5.833	0.5670	1.98	.QV	.	.	.	.
5.917	0.5807	1.98	.QV	.	.	.	.
6.000	0.5944	1.98	.QV	.	.	.	.
6.083	0.6087	2.09	. Q	.	.	.	.
6.167	0.6231	2.09	. Q	.	.	.	.
6.250	0.6375	2.09	. Q	.	.	.	.
6.333	0.6530	2.24	. Q	.	.	.	.
6.417	0.6684	2.24	. Q	.	.	.	.
6.500	0.6839	2.24	. Q	.	.	.	.
6.583	0.7000	2.34	. Q	.	.	.	.
6.667	0.7161	2.34	. Q	.	.	.	.
6.750	0.7323	2.34	. Q	.	.	.	.
6.833	0.7495	2.50	. Q	.	.	.	.
6.917	0.7667	2.50	. Q	.	.	.	.
7.000	0.7839	2.50	. QV	.	.	.	.
7.083	0.8014	2.54	. QV	.	.	.	.
7.167	0.8189	2.54	. QV	.	.	.	.
7.250	0.8364	2.54	. QV	.	.	.	.
7.333	0.8544	2.61	. QV	.	.	.	.
7.417	0.8724	2.61	. QV	.	.	.	.
7.500	0.8904	2.61	. QV	.	.	.	.

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 7.583     0.9098     2.82  . QV      .         .         .         .
 7.667     0.9292     2.82  . QV      .         .         .         .
 7.750     0.9486     2.82  . QV      .         .         .         .
 7.833     0.9696     3.06  .  Q      .         .         .         .
 7.917     0.9907     3.06  .  Q      .         .         .         .
 8.000     1.0117     3.06  .  Q      .         .         .         .
 8.083     1.0349     3.37  .  Q      .         .         .         .
 8.167     1.0581     3.37  .  QV     .         .         .         .
 8.250     1.0813     3.37  .  QV     .         .         .         .
 8.333     1.1068     3.71  .  QV     .         .         .         .
 8.417     1.1323     3.71  .  QV     .         .         .         .
 8.500     1.1578     3.71  .  QV     .         .         .         .
 8.583     1.1844     3.86  .  QV     .         .         .         .
 8.667     1.2109     3.86  .  QV     .         .         .         .
 8.750     1.2375     3.86  .  QV     .         .         .         .
 8.833     1.2656     4.08  .   Q     .         .         .         .
 8.917     1.2938     4.08  .   Q     .         .         .         .
 9.000     1.3219     4.08  .   QV    .         .         .         .
 9.083     1.3521     4.39  .   QV    .         .         .         .
 9.167     1.3823     4.39  .   QV    .         .         .         .
 9.250     1.4125     4.39  .   QV    .         .         .         .
 9.333     1.4455     4.79  .   QV    .         .         .         .
 9.417     1.4785     4.79  .   QV    .         .         .         .
 9.500     1.5114     4.79  .   QV    .         .         .         .
 9.583     1.5464     5.08  .    Q    .         .         .         .
 9.667     1.5814     5.08  .    QV   .         .         .         .
 9.750     1.6164     5.08  .    QV   .         .         .         .
 9.833     1.6533     5.35  .    QV   .         .         .         .
 9.917     1.6901     5.35  .    QV   .         .         .         .
10.000     1.7269     5.35  .    QV   .         .         .         .
10.083     1.7624     5.15  .    QV   .         .         .         .
10.167     1.7979     5.15  .    QV   .         .         .         .
10.250     1.8334     5.15  .    Q V  .         .         .         .
10.333     1.8624     4.21  .   Q  V  .         .         .         .
10.417     1.8914     4.21  .   Q  V  .         .         .         .
10.500     1.9203     4.21  .   Q  V  .         .         .         .
10.583     1.9495     4.24  .   Q  V  .         .         .         .
10.667     1.9787     4.24  .   Q  V  .         .         .         .
10.750     2.0079     4.24  .   Q  V  .         .         .         .
10.833     2.0415     4.88  .   Q  V  .         .         .         .
10.917     2.0751     4.88  .   Q  V  .         .         .         .
11.000     2.1087     4.88  .   Q   V .         .         .         .
11.083     2.1431     5.00  .    Q  V .         .         .         .
11.167     2.1776     5.00  .    Q  V .         .         .         .
11.250     2.2120     5.00  .    Q  V .         .         .         .
11.333     2.2458     4.91  .   Q   V .         .         .         .
11.417     2.2796     4.91  .   Q   V .         .         .         .
11.500     2.3134     4.91  .   Q   V .         .         .         .
11.583     2.3462     4.76  .   Q    V.         .         .         .
11.667     2.3790     4.76  .   Q    V.         .         .         .
11.750     2.4118     4.76  .   Q    V.         .         .         .
11.833     2.4430     4.52  .   Q    V.         .         .         .
11.917     2.4741     4.52  .   Q    V.         .         .         .
12.000     2.5053     4.52  .   Q    V.         .         .         .
12.083     2.5529     6.91  .     Q  V.         .         .         .
12.167     2.6004     6.91  .     Q  V.         .         .         .
12.250     2.6480     6.91  .     Q   V         .         .         .
12.333     2.7409    13.48  .         V  Q      .         .         .
12.417     2.8337    13.48  .         V  Q      .         .         .
12.500     2.9266    13.48  .          V Q      .         .         .
12.583     3.0521    18.22  .         .V      Q .         .         .
12.667     3.1776    18.22  .         . V     Q .         .         .
12.750     3.3030    18.22  .         . V     Q .         .         .
12.833     3.4629    23.21  .         .  V       .  Q      .         .
12.917     3.6228    23.21  .         .  V       .  Q      .         .
13.000     3.7827    23.21  .         .   V      .  Q      .         .
13.083     3.9836    29.18  .         .    V     .        Q.         .
13.167     4.1846    29.18  .         .     V    .        Q.         .
13.250     4.3856    29.18  .         .     V    .        Q.         .
13.333     4.6457    37.76  .         .      V   .         .      Q  .
13.417     4.9058    37.76  .         .       V  .         .      Q  .
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13.500	5.1659	37.76	. . V. . Q .
13.583	5.4026	34.38	. . V . Q .
13.667	5.6394	34.38	. . V . Q .
13.750	5.8761	34.38	. . V . Q .
13.833	6.0140	20.02	. . Q V . .
13.917	6.1519	20.02	. . Q V . .
14.000	6.2898	20.02	. . Q V . .
14.083	6.4197	18.86	. . Q . V . .
14.167	6.5496	18.86	. . Q . V . .
14.250	6.6795	18.86	. . Q . V . .
14.333	6.8412	23.48	. . . Q V . .
14.417	7.0030	23.48	. . . Q V . .
14.500	7.1647	23.48	. . . Q V . .
14.583	7.3307	24.10	. . . Q V . .
14.667	7.4966	24.10	. . . Q V . .
14.750	7.6626	24.10	. . . Q V. .
14.833	7.8289	24.14	. . . Q V .
14.917	7.9952	24.14	. . . Q V .
15.000	8.1614	24.14	. . . Q V .
15.083	8.3175	22.66	. . . Q .V .
15.167	8.4735	22.66	. . . Q . V .
15.250	8.6296	22.66	. . . Q . V .
15.333	8.7735	20.90	. . Q . V .
15.417	8.9174	20.90	. . Q . V .
15.500	9.0614	20.90	. . Q . V .
15.583	9.1807	17.33	. Q . . V .
15.667	9.3000	17.33	. Q . . V .
15.750	9.4193	17.33	. Q . . V .
15.833	9.4999	11.70	.Q . . V .
15.917	9.5805	11.70	.Q . . V .
16.000	9.6612	11.70	.Q . . V .
16.083	9.7198	8.51	. Q . . V .
16.167	9.7784	8.51	. Q . . V .
16.250	9.8370	8.51	. Q . . V .
16.333	9.8589	3.17	. Q . . V .
16.417	9.8807	3.17	. Q . . V .
16.500	9.9026	3.17	. Q . . V .
16.583	9.9143	1.70	.Q . . V .
16.667	9.9260	1.70	.Q . . V .
16.750	9.9377	1.70	.Q . . V .
16.833	9.9451	1.08	.Q . . V .
16.917	9.9525	1.08	.Q . . V .
17.000	9.9599	1.08	.Q . . V .
17.083	9.9670	1.04	.Q . . V .
17.167	9.9742	1.04	.Q . . V .
17.250	9.9813	1.04	.Q . . V .
17.333	9.9898	1.24	.Q . . V .
17.417	9.9984	1.24	.Q . . V .
17.500	10.0069	1.24	.Q . . V .
17.583	10.0156	1.27	.Q . . V .
17.667	10.0244	1.27	.Q . . V .
17.750	10.0332	1.27	.Q . . V .
17.833	10.0416	1.22	.Q . . V .
17.917	10.0500	1.22	.Q . . V .
18.000	10.0584	1.22	.Q . . V .
18.083	10.0658	1.08	.Q . . V .
18.167	10.0732	1.08	.Q . . V .
18.250	10.0806	1.08	.Q . . V .
18.333	10.0878	1.04	.Q . . V .
18.417	10.0950	1.04	.Q . . V .
18.500	10.1021	1.04	.Q . . V .
18.583	10.1088	0.97	Q . . V .
18.667	10.1155	0.97	Q . . V .
18.750	10.1222	0.97	Q . . V .
18.833	10.1275	0.77	Q . . V .
18.917	10.1328	0.77	Q . . V .
19.000	10.1381	0.77	Q . . V .
19.083	10.1426	0.64	Q . . V .
19.167	10.1470	0.64	Q . . V .
19.250	10.1515	0.64	Q . . V .
19.333	10.1569	0.79	Q . . . V.

19.417	10.1624	0.79	Q	.	.	.	V.
19.500	10.1678	0.79	Q	.	.	.	V.
19.583	10.1741	0.90	Q	.	.	.	V.
19.667	10.1803	0.90	Q	.	.	.	V.
19.750	10.1865	0.90	Q	.	.	.	V.
19.833	10.1917	0.75	Q	.	.	.	V.
19.917	10.1968	0.75	Q	.	.	.	V.
20.000	10.2020	0.75	Q	.	.	.	V.
20.083	10.2064	0.64	Q	.	.	.	V.
20.167	10.2108	0.64	Q	.	.	.	V.
20.250	10.2152	0.64	Q	.	.	.	V.
20.333	10.2202	0.73	Q	.	.	.	V.
20.417	10.2252	0.73	Q	.	.	.	V.
20.500	10.2303	0.73	Q	.	.	.	V.
20.583	10.2355	0.76	Q	.	.	.	V.
20.667	10.2407	0.76	Q	.	.	.	V.
20.750	10.2459	0.76	Q	.	.	.	V.
20.833	10.2508	0.71	Q	.	.	.	V.
20.917	10.2557	0.71	Q	.	.	.	V.
21.000	10.2606	0.71	Q	.	.	.	V.
21.083	10.2649	0.62	Q	.	.	.	V.
21.167	10.2692	0.62	Q	.	.	.	V.
21.250	10.2735	0.62	Q	.	.	.	V.
21.333	10.2782	0.67	Q	.	.	.	V.
21.417	10.2828	0.67	Q	.	.	.	V.
21.500	10.2874	0.67	Q	.	.	.	V.
21.583	10.2916	0.61	Q	.	.	.	V.
21.667	10.2959	0.61	Q	.	.	.	V.
21.750	10.3001	0.61	Q	.	.	.	V.
21.833	10.3047	0.67	Q	.	.	.	V.
21.917	10.3093	0.67	Q	.	.	.	V.
22.000	10.3139	0.67	Q	.	.	.	V.
22.083	10.3182	0.61	Q	.	.	.	V.
22.167	10.3224	0.61	Q	.	.	.	V.
22.250	10.3266	0.61	Q	.	.	.	V.
22.333	10.3312	0.67	Q	.	.	.	V.
22.417	10.3358	0.67	Q	.	.	.	V.
22.500	10.3404	0.67	Q	.	.	.	V.
22.583	10.3443	0.55	Q	.	.	.	V.
22.667	10.3481	0.55	Q	.	.	.	V.
22.750	10.3519	0.55	Q	.	.	.	V.
22.833	10.3555	0.53	Q	.	.	.	V.
22.917	10.3591	0.53	Q	.	.	.	V.
23.000	10.3628	0.53	Q	.	.	.	V.
23.083	10.3663	0.52	Q	.	.	.	V.
23.166	10.3699	0.52	Q	.	.	.	V.
23.250	10.3734	0.52	Q	.	.	.	V.
23.333	10.3770	0.51	Q	.	.	.	V.
23.416	10.3805	0.51	Q	.	.	.	V.
23.500	10.3841	0.51	Q	.	.	.	V.
23.583	10.3876	0.51	Q	.	.	.	V.
23.666	10.3911	0.51	Q	.	.	.	V.
23.750	10.3947	0.51	Q	.	.	.	V.
23.833	10.3982	0.51	Q	.	.	.	V.
23.916	10.4018	0.51	Q	.	.	.	V.
24.000	10.4053	0.51	Q	.	.	.	V.
24.083	10.4080	0.40	Q	.	.	.	V.
24.166	10.4108	0.40	Q	.	.	.	V.
24.250	10.4135	0.40	Q	.	.	.	V.
24.333	10.4143	0.11	Q	.	.	.	V.
24.416	10.4151	0.11	Q	.	.	.	V.
24.500	10.4159	0.11	Q	.	.	.	V.
24.583	10.4161	0.03	Q	.	.	.	V.
24.666	10.4163	0.03	Q	.	.	.	V.
24.750	10.4166	0.03	Q	.	.	.	V.
24.833	10.4167	0.01	Q	.	.	.	V.
24.916	10.4167	0.01	Q	.	.	.	V.
25.000	10.4168	0.01	Q	.	.	.	V.
25.083	10.4168	0.01	Q	.	.	.	V.
25.166	10.4169	0.01	Q	.	.	.	V.
25.250	10.4169	0.01	Q	.	.	.	V.

```
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated                Duration
       Peak Flow Rate                     (minutes)
   ======================               =========
              0%                         1515.0
             10%                          465.0
             20%                          240.0
             30%                          225.0
             40%                          195.0
             50%                          150.0
             60%                          120.0
             70%                           45.0
             80%                           30.0
             90%                           30.0


 ****************************************************************************
   FLOW PROCESS FROM NODE   500.00 TO NODE   501.00 IS CODE =   1
 ----------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
 ============================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #4)

         WATERSHED AREA =      20.000 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         *USER ENTERED "LAG" TIME =    0.100 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.050
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.180
         MINIMUM SOIL-LOSS RATE(INCH/HOUR) =   0.030
         USER-ENTERED RAINFALL =  4.67 INCHES
         RCFC&WCD 24-Hour Storm (15-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 1.0000


         UNIT HYDROGRAPH TIME UNIT =  15.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME = 250.000



 ============================================================================
                       UNIT HYDROGRAPH DETERMINATION

 ----------------------------------------------------------------------------
     INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
      NUMBER          MEAN VALUES          ORDINATES(CFS)
 ----------------------------------------------------------------------------
        1                50.960                41.086
        2                95.823                36.171
        3                99.089                 2.633
        4                99.636                 0.441
        5                99.909                 0.220
        6               100.000                 0.073
```

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0093	0.0017	0.0077
2	0.0140	0.0025	0.0115
3	0.0140	0.0025	0.0115
4	0.0187	0.0034	0.0153
5	0.0140	0.0025	0.0115
6	0.0140	0.0025	0.0115
7	0.0140	0.0025	0.0115
8	0.0187	0.0034	0.0153
9	0.0187	0.0034	0.0153
10	0.0187	0.0034	0.0153
11	0.0233	0.0042	0.0191
12	0.0233	0.0042	0.0191
13	0.0233	0.0042	0.0191
14	0.0233	0.0042	0.0191
15	0.0233	0.0042	0.0191
16	0.0280	0.0050	0.0230
17	0.0280	0.0050	0.0230
18	0.0327	0.0059	0.0268
19	0.0327	0.0059	0.0268
20	0.0374	0.0067	0.0306
21	0.0280	0.0050	0.0230
22	0.0327	0.0059	0.0268
23	0.0374	0.0067	0.0306
24	0.0374	0.0067	0.0306
25	0.0420	0.0076	0.0345
26	0.0420	0.0076	0.0345
27	0.0467	0.0084	0.0383
28	0.0467	0.0084	0.0383
29	0.0467	0.0084	0.0383
30	0.0514	0.0092	0.0421
31	0.0560	0.0101	0.0460
32	0.0607	0.0109	0.0498
33	0.0700	0.0126	0.0574
34	0.0700	0.0126	0.0574
35	0.0747	0.0134	0.0613
36	0.0794	0.0137	0.0656
37	0.0887	0.0136	0.0751
38	0.0934	0.0134	0.0800
39	0.0981	0.0133	0.0848
40	0.1027	0.0131	0.0896
41	0.0700	0.0126	0.0574
42	0.0700	0.0126	0.0574
43	0.0934	0.0127	0.0807
44	0.0934	0.0125	0.0809
45	0.0887	0.0124	0.0764
46	0.0887	0.0122	0.0765
47	0.0794	0.0121	0.0673
48	0.0841	0.0119	0.0721
49	0.1167	0.0118	0.1050
50	0.1214	0.0116	0.1098
51	0.1308	0.0115	0.1192
52	0.1354	0.0114	0.1240
53	0.1588	0.0112	0.1475
54	0.1588	0.0111	0.1477
55	0.1074	0.0110	0.0964
56	0.1074	0.0108	0.0966
57	0.1261	0.0107	0.1154
58	0.1214	0.0106	0.1108
59	0.1214	0.0105	0.1109
60	0.1167	0.0104	0.1064
61	0.1121	0.0102	0.1018
62	0.1074	0.0101	0.0973
63	0.0887	0.0100	0.0787
64	0.0887	0.0099	0.0788
65	0.0187	0.0034	0.0153
66	0.0187	0.0034	0.0153

67	0.0140	0.0025	0.0115
68	0.0140	0.0025	0.0115
69	0.0233	0.0042	0.0191
70	0.0233	0.0042	0.0191
71	0.0233	0.0042	0.0191
72	0.0187	0.0034	0.0153
73	0.0187	0.0034	0.0153
74	0.0187	0.0034	0.0153
75	0.0140	0.0025	0.0115
76	0.0093	0.0017	0.0077
77	0.0140	0.0025	0.0115
78	0.0187	0.0034	0.0153
79	0.0140	0.0025	0.0115
80	0.0093	0.0017	0.0077
81	0.0140	0.0025	0.0115
82	0.0140	0.0025	0.0115
83	0.0140	0.0025	0.0115
84	0.0093	0.0017	0.0077
85	0.0140	0.0025	0.0115
86	0.0093	0.0017	0.0077
87	0.0140	0.0025	0.0115
88	0.0093	0.0017	0.0077
89	0.0140	0.0025	0.0115
90	0.0093	0.0017	0.0077
91	0.0093	0.0017	0.0077
92	0.0093	0.0017	0.0077
93	0.0093	0.0017	0.0077
94	0.0093	0.0017	0.0077
95	0.0093	0.0017	0.0077
96	0.0093	0.0017	0.0077

TOTAL STORM RAINFALL(INCHES) = 4.67
TOTAL SOIL-LOSS(INCHES) = 0.63
TOTAL EFFECTIVE RAINFALL(INCHES) = 4.04

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 1.0510
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 6.7285

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2 4 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	5.0	10.0	15.0	20.0
0.083	0.0022	0.31	Q	.	.	.	.
0.167	0.0043	0.31	Q	.	.	.	.
0.250	0.0065	0.31	Q	.	.	.	.
0.333	0.0117	0.75	VQ	.	.	.	.
0.417	0.0168	0.75	VQ	.	.	.	.
0.500	0.0220	0.75	VQ	.	.	.	.
0.583	0.0282	0.91	VQ	.	.	.	.
0.667	0.0345	0.91	VQ	.	.	.	.
0.750	0.0407	0.91	VQ	.	.	.	.
0.833	0.0482	1.08	V Q	.	.	.	.
0.917	0.0556	1.08	V Q	.	.	.	.
1.000	0.0630	1.08	V Q	.	.	.	.
1.083	0.0703	1.06	V Q	.	.	.	.
1.167	0.0777	1.06	V Q	.	.	.	.
1.250	0.0850	1.06	V Q	.	.	.	.
1.333	0.0914	0.94	VQ	.	.	.	.
1.417	0.0979	0.94	VQ	.	.	.	.
1.500	0.1043	0.94	VQ	.	.	.	.
1.583	0.1107	0.93	VQ	.	.	.	.
1.667	0.1171	0.93	VQ	.	.	.	.

```
1.750      0.1235      0.93  VQ        .         .         .         .
1.833      0.1310      1.08  V Q       .         .         .         .
1.917      0.1384      1.08  V Q       .         .         .         .
2.000      0.1459      1.08  V Q       .         .         .         .
2.083      0.1543      1.22  V Q       .         .         .         .
2.167      0.1627      1.22  V Q       .         .         .         .
2.250      0.1711      1.22   VQ       .         .         .         .
2.333      0.1796      1.23  .VQ       .         .         .         .
2.417      0.1881      1.23  .VQ       .         .         .         .
2.500      0.1966      1.23  .VQ       .         .         .         .
2.583      0.2062      1.39  .VQ       .         .         .         .
2.667      0.2158      1.39  .VQ       .         .         .         .
2.750      0.2253      1.39  .VQ       .         .         .         .
2.833      0.2359      1.53  .V Q      .         .         .         .
2.917      0.2464      1.53  .V Q      .         .         .         .
3.000      0.2570      1.53  .V Q      .         .         .         .
3.083      0.2676      1.54  .V Q      .         .         .         .
3.167      0.2782      1.54  .V Q      .         .         .         .
3.250      0.2888      1.54  .V Q      .         .         .         .
3.333      0.2994      1.54  .V Q      .         .         .         .
3.417      0.3101      1.54  .V Q      .         .         .         .
3.500      0.3207      1.54  .V Q      .         .         .         .
3.583      0.3313      1.54  .V Q      .         .         .         .
3.667      0.3419      1.54  . VQ      .         .         .         .
3.750      0.3526      1.54  . VQ      .         .         .         .
3.833      0.3643      1.70  . VQ      .         .         .         .
3.917      0.3760      1.70  . VQ      .         .         .         .
4.000      0.3877      1.70  . VQ      .         .         .         .
4.083      0.4004      1.84  . VQ      .         .         .         .
4.167      0.4130      1.84  . VQ      .         .         .         .
4.250      0.4257      1.84  . VQ      .         .         .         .
4.333      0.4395      2.01  . V Q     .         .         .         .
4.417      0.4534      2.01  . V Q     .         .         .         .
4.500      0.4672      2.01  . V Q     .         .         .         .
4.583      0.4820      2.15  . V Q     .         .         .         .
4.667      0.4968      2.15  . V Q     .         .         .         .
4.750      0.5115      2.15  .  VQ     .         .         .         .
4.833      0.5275      2.32  .  VQ     .         .         .         .
4.917      0.5434      2.32  .  VQ     .         .         .         .
5.000      0.5594      2.32  .  VQ     .         .         .         .
5.083      0.5741      2.14  .  VQ     .         .         .         .
5.167      0.5889      2.14  .  VQ     .         .         .         .
5.250      0.6036      2.14  .  VQ     .         .         .         .
5.333      0.6176      2.03  .  VQ     .         .         .         .
5.417      0.6316      2.03  .  VQ     .         .         .         .
5.500      0.6456      2.03  .  VQ     .         .         .         .
5.583      0.6615      2.31  .  VQ     .         .         .         .
5.667      0.6774      2.31  .   Q     .         .         .         .
5.750      0.6933      2.31  .   Q     .         .         .         .
5.833      0.7103      2.46  .   Q     .         .         .         .
5.917      0.7272      2.46  .   Q     .         .         .         .
6.000      0.7441      2.46  .   Q     .         .         .         .
6.083      0.7622      2.62  .   VQ    .         .         .         .
6.167      0.7802      2.62  .   VQ    .         .         .         .
6.250      0.7983      2.62  .   VQ    .         .         .         .
6.333      0.8173      2.76  .   VQ    .         .         .         .
6.417      0.8364      2.76  .   VQ    .         .         .         .
6.500      0.8554      2.76  .    Q    .         .         .         .
6.583      0.8756      2.93  .    Q    .         .         .         .
6.667      0.8958      2.93  .    Q    .         .         .         .
6.750      0.9160      2.93  .    Q    .         .         .         .
6.833      0.9372      3.07  .    VQ   .         .         .         .
6.917      0.9583      3.07  .    VQ   .         .         .         .
7.000      0.9795      3.07  .    VQ   .         .         .         .
7.083      1.0007      3.08  .    VQ   .         .         .         .
7.167      1.0220      3.08  .     Q   .         .         .         .
7.250      1.0432      3.08  .     Q   .         .         .         .
7.333      1.0656      3.24  .     Q   .         .         .         .
7.417      1.0879      3.24  .     Q   .         .         .         .
7.500      1.1102      3.24  .     Q   .         .         .         .
7.583      1.1346      3.54  .     VQ  .         .         .         .
```

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 7.667      1.1590      3.54  .     VQ  .         .         .         .
 7.750      1.1834      3.54  .      Q  .         .         .         .
 7.833      1.2099      3.85  .      Q  .         .         .         .
 7.917      1.2364      3.85  .      Q  .         .         .         .
 8.000      1.2629      3.85  .      Q  .         .         .         .
 8.083      1.2926      4.31  .      VQ .         .         .         .
 8.167      1.3222      4.31  .      VQ .         .         .         .
 8.250      1.3519      4.31  .       Q .         .         .         .
 8.333      1.3836      4.60  .       VQ.         .         .         .
 8.417      1.4153      4.60  .       VQ.         .         .         .
 8.500      1.4470      4.60  .       VQ.         .         .         .
 8.583      1.4799      4.78  .       VQ.         .         .         .
 8.667      1.5129      4.78  .       VQ.         .         .         .
 8.750      1.5458      4.78  .        Q.         .         .         .
 8.833      1.5809      5.10  .        VQ         .         .         .
 8.917      1.6161      5.10  .        VQ         .         .         .
 9.000      1.6513      5.10  .        VQ         .         .         .
 9.083      1.6903      5.67  .         VQ        .         .         .
 9.167      1.7293      5.67  .         VQ        .         .         .
 9.250      1.7683      5.67  .         VQ        .         .         .
 9.333      1.8111      6.22  .         V Q       .         .         .
 9.417      1.8540      6.22  .          VQ       .         .         .
 9.500      1.8968      6.22  .          VQ       .         .         .
 9.583      1.9424      6.62  .         .V Q      .         .         .
 9.667      1.9880      6.62  .         .V Q      .         .         .
 9.750      2.0336      6.62  .         . VQ      .         .         .
 9.833      2.0819      7.01  .         . V Q     .         .         .
 9.917      2.1302      7.01  .         . V Q     .         .         .
10.000      2.1785      7.01  .         . V Q     .         .         .
10.083      2.2190      5.88  .         .Q V      .         .         .
10.167      2.2595      5.88  .         .Q V      .         .         .
10.250      2.3000      5.88  .         .Q V      .         .         .
10.333      2.3326      4.73  .        Q.  V      .         .         .
10.417      2.3652      4.73  .        Q.   V     .         .         .
10.500      2.3978      4.73  .        Q.   V     .         .         .
10.583      2.4365      5.61  .         .Q  V     .         .         .
10.667      2.4751      5.61  .         .Q  V     .         .         .
10.750      2.5138      5.61  .         .Q  V     .         .         .
10.833      2.5582      6.45  .         . Q  V    .         .         .
10.917      2.6026      6.45  .         . Q  V    .         .         .
11.000      2.6470      6.45  .         . Q  V    .         .         .
11.083      2.6905      6.32  .         . Q  V    .         .         .
11.167      2.7340      6.32  .         . Q   V   .         .         .
11.250      2.7775      6.32  .         . Q   V   .         .         .
11.333      2.8200      6.17  .         . Q   V   .         .         .
11.417      2.8625      6.17  .         . Q    V  .         .         .
11.500      2.9051      6.17  .         . Q    V  .         .         .
11.583      2.9449      5.79  .         .Q     V  .         .         .
11.667      2.9848      5.79  .         .Q     V  .         .         .
11.750      3.0247      5.79  .         .Q     V  .         .         .
11.833      3.0637      5.66  .         .Q      V .         .         .
11.917      3.1026      5.66  .         .Q      V .         .         .
12.000      3.1416      5.66  .         .Q      V .         .         .
12.083      3.1909      7.16  .         .   Q   V .         .         .
12.167      3.2402      7.16  .         .   Q    V.         .         .
12.250      3.2894      7.16  .         .   Q    V.         .         .
12.333      3.3483      8.55  .         .      Q V.         .         .
12.417      3.4072      8.55  .         .      Q  V         .         .
12.500      3.4661      8.55  .         .      Q  V         .         .
12.583      3.5294      9.20  .         .       Q V         .         .
12.667      3.5928      9.20  .         .       Q  V        .         .
12.750      3.6561      9.20  .         .       Q  V        .         .
12.833      3.7234      9.77  .         .        Q. V       .         .
12.917      3.7906      9.77  .         .        Q. V       .         .
13.000      3.8579      9.77  .         .        Q. V       .         .
13.083      3.9332     10.94  .         .         .Q V      .         .
13.167      4.0086     10.94  .         .         .Q V      .         .
13.250      4.0839     10.94  .         .         .Q  V     .         .
13.333      4.1653     11.81  .         .         .  QV     .         .
13.417      4.2466     11.81  .         .         .  Q V    .         .
13.500      4.3280     11.81  .         .         .  Q V    .         .
```

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13.583      4.3954      9.78  .          .         Q.      V   .          .
13.667      4.4627      9.78  .          .         Q.      V   .          .
13.750      4.5301      9.78  .          .         Q.      V   .          .
13.833      4.5848      7.95  .          .     Q     .       V  .          .
13.917      4.6395      7.95  .          .     Q     .       V  .          .
14.000      4.6942      7.95  .          .     Q     .       V  .          .
14.083      4.7534      8.59  .          .       Q   .        V .          .
14.167      4.8126      8.59  .          .       Q   .        V .          .
14.250      4.8718      8.59  .          .       Q   .        V .          .
14.333      4.9342      9.07  .          .        Q  .         V.          .
14.417      4.9967      9.07  .          .        Q  .         V.          .
14.500      5.0591      9.07  .          .        Q  .          V          .
14.583      5.1207      8.95  .          .       Q   .          V         .
14.667      5.1823      8.95  .          .       Q   .          V         .
14.750      5.2439      8.95  .          .       Q   .           V        .
14.833      5.3042      8.76  .          .       Q   .          .V        .
14.917      5.3645      8.76  .          .       Q   .          .V        .
15.000      5.4248      8.76  .          .       Q   .          . V       .
15.083      5.4827      8.41  .          .      Q    .          . V       .
15.167      5.5406      8.41  .          .      Q    .          . V       .
15.250      5.5985      8.41  .          .      Q    .          .  V      .
15.333      5.6539      8.04  .          .      Q    .          .  V      .
15.417      5.7093      8.04  .          .      Q    .          .  V      .
15.500      5.7647      8.04  .          .      Q    .          .   V     .
15.583      5.8136      7.10  .          .    Q      .          .   V     .
15.667      5.8625      7.10  .          .    Q      .          .   V     .
15.750      5.9114      7.10  .          .    Q      .          .    V    .
15.833      5.9556      6.42  .          . Q         .          .    V    .
15.917      5.9998      6.42  .          . Q         .          .    V    .
16.000      6.0440      6.42  .          . Q         .          .    V    .
16.083      6.0699      3.76  .       Q  .           .          .     V   .
16.167      6.0959      3.76  .       Q  .           .          .     V   .
16.250      6.1218      3.76  .       Q  .           .          .     V   .
16.333      6.1318      1.45  . Q        .           .          .     V   .
16.417      6.1418      1.45  . Q        .           .          .     V   .
16.500      6.1518      1.45  . Q        .           .          .     V   .
16.583      6.1596      1.13  . Q        .           .          .     V   .
16.667      6.1673      1.13  . Q        .           .          .     V   .
16.750      6.1751      1.13  . Q        .           .          .     V   .
16.833      6.1817      0.96  .Q         .           .          .     V   .
16.917      6.1883      0.96  .Q         .           .          .     V   .
17.000      6.1949      0.96  .Q         .           .          .     V   .
17.083      6.2035      1.25  . Q        .           .          .     V   .
17.167      6.2121      1.25  . Q        .           .          .     V   .
17.250      6.2207      1.25  . Q        .           .          .     V   .
17.333      6.2311      1.52  .  Q       .           .          .      V  .
17.417      6.2416      1.52  .  Q       .           .          .      V  .
17.500      6.2520      1.52  .  Q       .           .          .      V  .
17.583      6.2626      1.54  .  Q       .           .          .      V  .
17.667      6.2732      1.54  .  Q       .           .          .      V  .
17.750      6.2838      1.54  .  Q       .           .          .      V  .
17.833      6.2933      1.38  . Q        .           .          .      V  .
17.917      6.3029      1.38  . Q        .           .          .      V  .
18.000      6.3124      1.38  . Q        .           .          .      V  .
18.083      6.3210      1.25  . Q        .           .          .      V  .
18.167      6.3296      1.25  . Q        .           .          .      V  .
18.250      6.3382      1.25  . Q        .           .          .      V  .
18.333      6.3467      1.24  . Q        .           .          .      V  .
18.417      6.3552      1.24  . Q        .           .          .      V  .
18.500      6.3638      1.24  . Q        .           .          .      V  .
18.583      6.3712      1.08  . Q        .           .          .      V  .
18.667      6.3786      1.08  . Q        .           .          .      V  .
18.750      6.3860      1.08  . Q        .           .          .      V  .
18.833      6.3914      0.78  .Q         .           .          .      V  .
18.917      6.3968      0.78  .Q         .           .          .       V .
19.000      6.4022      0.78  .Q         .           .          .       V .
19.083      6.4076      0.79  .Q         .           .          .       V .
19.167      6.4131      0.79  .Q         .           .          .       V .
19.250      6.4185      0.79  .Q         .           .          .       V .
19.333      6.4259      1.07  . Q        .           .          .       V .
19.417      6.4333      1.07  . Q        .           .          .       V .
```

19.500	6.4407	1.07	. Q	.	.	.	V .
19.583	6.4481	1.06	. Q	.	.	.	V .
19.667	6.4554	1.06	. Q	.	.	.	V .
19.750	6.4627	1.06	. Q	.	.	.	V .
19.833	6.4681	0.78	.Q	.	.	.	V .
19.917	6.4734	0.78	.Q	.	.	.	V .
20.000	6.4788	0.78	.Q	.	.	.	V .
20.083	6.4842	0.79	.Q	.	.	.	V .
20.167	6.4897	0.79	.Q	.	.	.	V .
20.250	6.4951	0.79	.Q	.	.	.	V .
20.333	6.5014	0.92	.Q	.	.	.	V .
20.417	6.5077	0.92	.Q	.	.	.	V .
20.500	6.5140	0.92	.Q	.	.	.	V .
20.583	6.5204	0.92	.Q	.	.	.	V .
20.667	6.5268	0.92	.Q	.	.	.	V .
20.750	6.5331	0.92	.Q	.	.	.	V .
20.833	6.5384	0.77	.Q	.	.	.	V .
20.917	6.5437	0.77	.Q	.	.	.	V .
21.000	6.5490	0.77	.Q	.	.	.	V .
21.083	6.5544	0.79	.Q	.	.	.	V .
21.167	6.5599	0.79	.Q	.	.	.	V .
21.250	6.5653	0.79	.Q	.	.	.	V.
21.333	6.5705	0.76	.Q	.	.	.	V.
21.417	6.5757	0.76	.Q	.	.	.	V.
21.500	6.5810	0.76	.Q	.	.	.	V.
21.583	6.5864	0.79	.Q	.	.	.	V.
21.667	6.5918	0.79	.Q	.	.	.	V.
21.750	6.5972	0.79	.Q	.	.	.	V.
21.833	6.6024	0.76	.Q	.	.	.	V.
21.917	6.6076	0.76	.Q	.	.	.	V.
22.000	6.6129	0.76	.Q	.	.	.	V.
22.083	6.6183	0.79	.Q	.	.	.	V.
22.167	6.6237	0.79	.Q	.	.	.	V.
22.250	6.6291	0.79	.Q	.	.	.	V.
22.333	6.6343	0.76	.Q	.	.	.	V.
22.417	6.6395	0.76	.Q	.	.	.	V.
22.500	6.6447	0.76	.Q	.	.	.	V.
22.583	6.6491	0.63	.Q	.	.	.	V.
22.667	6.6534	0.63	.Q	.	.	.	V.
22.750	6.6577	0.63	.Q	.	.	.	V.
22.833	6.6620	0.62	.Q	.	.	.	V.
22.917	6.6663	0.62	.Q	.	.	.	V.
23.000	6.6705	0.62	.Q	.	.	.	V.
23.083	6.6748	0.62	.Q	.	.	.	V.
23.166	6.6790	0.62	.Q	.	.	.	V.
23.250	6.6833	0.62	.Q	.	.	.	V.
23.333	6.6876	0.62	.Q	.	.	.	V.
23.416	6.6918	0.62	.Q	.	.	.	V.
23.500	6.6961	0.62	.Q	.	.	.	V.
23.583	6.7003	0.62	.Q	.	.	.	V.
23.666	6.7046	0.62	.Q	.	.	.	V.
23.750	6.7088	0.62	.Q	.	.	.	V.
23.833	6.7131	0.62	.Q	.	.	.	V.
23.916	6.7173	0.62	.Q	.	.	.	V.
24.000	6.7216	0.62	.Q	.	.	.	V.
24.083	6.7237	0.30	Q	.	.	.	V.
24.166	6.7258	0.30	Q	.	.	.	V.
24.250	6.7278	0.30	Q	.	.	.	V.
24.333	6.7280	0.03	Q	.	.	.	V.
24.416	6.7282	0.03	Q	.	.	.	V.
24.500	6.7284	0.03	Q	.	.	.	V.
24.583	6.7284	0.01	Q	.	.	.	V.
24.666	6.7284	0.01	Q	.	.	.	V.
24.750	6.7285	0.01	Q	.	.	.	V.

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)

0%	1485.0
10%	960.0
20%	630.0
30%	510.0
40%	450.0
50%	330.0
60%	225.0
70%	165.0
80%	60.0
90%	30.0

END OF FLOODSCx ROUTING ANALYSIS

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

        F L O O D   R O U T I N G   A N A L Y S I S

ACCORDING TO RIVERSIDE COUNTY FLOOD CONTORL AND WATER CONSERVATION DISTRICT
                (RCFC&WCD) 1978 HYDROLOGY MANUAL
       (c) Copyright 1989-2011 Advanced Engineering Software (aes)
            (Synthetic Unit Hydrograph Version 18.0)
            Release Date: 05/01/2011  License ID 1499

                    Analysis prepared by:

                  Kimley-Horn and Associates, Inc.
                       765 The City Drive
                          Suite 200
                        Orange, CA 92868

 ************************* DESCRIPTION OF STUDY **************************
* District at Jurupa Valley                                     *
* Preliminary Hydrology 10 year 1 Hour Event                    *
* Kimley Horn May 26, 2022                                      *
 *************************************************************************

  FILE NAME: C:\aes2011\hydrosft\floodX\J10Y1H.fld
  TIME/DATE OF STUDY: 09:48 05/27/2022


**************************************************************************
 FLOW PROCESS FROM NODE   100.00 TO NODE   101.00 IS CODE =   1
--------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
==========================================================================

    (UNIT-HYDROGRAPH ADDED TO STREAM #1)

      WATERCOURSE LENGTH =    4582.000 FEET
      LENGTH FROM CONCENTRATION POINT TO CENTROID =    2749.200 FEET
      ELEVATION VARIATION ALONG WATERCOURSE =      76.000 FEET
      BASIN FACTOR = 0.015
      WATERSHED AREA =     308.710 ACRES
      BASEFLOW =   0.000 CFS/SQUARE-MILE
      WATERCOURSE "LAG" TIME =    0.114 HOURS
       CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
       THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
       MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
      FOOTHILL S-GRAPH SELECTED
      UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.340
      LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.630
      USER-ENTERED RAINFALL =  0.70 INCHES
      RCFC&WCD 1-Hour Storm (5-Minute period) SELECTED
      (SLOPE OF INTENSITY-DURATION CURVE = 0.55)
      RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9900


      UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
      UNIT INTERVAL PERCENTAGE OF LAG-TIME =  73.227



==========================================================================
              UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------
   INTERVAL        "S" GRAPH        UNIT HYDROGRAPH
    NUMBER        MEAN VALUES        ORDINATES(CFS)
--------------------------------------------------------------------------
      1             7.731             288.648
      2            51.410            1630.718
```

3	78.778	1021.768
4	89.283	392.203
5	94.908	209.999
6	97.607	100.770
7	98.341	27.426
8	98.720	14.141
9	99.099	14.140
10	99.478	14.140
11	99.856	14.140
12	100.000	5.366

****

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0269	0.0169	0.0099
2	0.0286	0.0180	0.0106
3	0.0307	0.0193	0.0114
4	0.0343	0.0216	0.0127
5	0.0365	0.0230	0.0135
6	0.0423	0.0267	0.0157
7	0.0509	0.0283	0.0226
8	0.0566	0.0283	0.0283
9	0.0906	0.0283	0.0623
10	0.2188	0.0283	0.1905
11	0.0466	0.0283	0.0183
12	0.0301	0.0190	0.0111

TOTAL STORM RAINFALL(INCHES) = 0.69
TOTAL SOIL-LOSS(INCHES) = 0.29
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.41

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 7.3632
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 10.4594

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1-HOUR STORM
RUNOFF HYDROGRAPH

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 100.0 200.0 300.0 400.0
0.083	0.0198	2.87	Q . . . .
0.167	0.1525	19.28	VQ . . . .
0.250	0.3640	30.70	.V Q . . . .
0.333	0.6181	36.90	. VQ . . . .
0.417	0.9105	42.45	. VQ . . . .
0.500	1.2356	47.20	. Q . . . .
0.583	1.6112	54.55	. QV . . . .
0.667	2.0968	70.50	. QV . . . .
0.750	2.7720	98.04	. QV . . . .
0.833	4.1477	199.75	. . V Q. . .
0.917	6.8884	397.95	. . . V . Q.
1.000	8.6889	261.42	. . . Q . V .
1.083	9.5766	128.90	. . Q . . V .
1.167	10.0351	66.57	. Q . . . V .
1.250	10.2438	30.31	. Q . . . V.
1.333	10.3216	11.30	.Q . . . V.
1.417	10.3630	6.00	Q . . . V.
1.500	10.3951	4.66	Q . . . V.

1.583	10.4236	4.14	Q	.	.	.	V.
1.667	10.4473	3.44	Q	.	.	.	V.
1.750	10.4572	1.44	Q	.	.	.	V.
1.833	10.4590	0.26	Q	.	.	.	V.
1.917	10.4594	0.06	Q	.	.	.	V.

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	115.0
10%	50.0
20%	25.0
30%	20.0
40%	15.0
50%	15.0
60%	10.0
70%	5.0
80%	5.0
90%	5.0

****
FLOW PROCESS FROM NODE 104.00 TO NODE 105.00 IS CODE = 1

>>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
==========

(UNIT-HYDROGRAPH ADDED TO STREAM #2)

WATERCOURSE LENGTH = 3781.000 FEET
LENGTH FROM CONCENTRATION POINT TO CENTROID = 2268.600 FEET
ELEVATION VARIATION ALONG WATERCOURSE = 62.900 FEET
BASIN FACTOR = 0.030
WATERSHED AREA = 121.080 ACRES
BASEFLOW = 0.000 CFS/SQUARE-MILE
WATERCOURSE "LAG" TIME = 0.197 HOURS
CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
FOOTHILL S-GRAPH SELECTED
UNIFORM MEAN SOIL-LOSS(INCH/HOUR) = 0.415
LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
USER-ENTERED RAINFALL = 0.70 INCHES
RCFC&WCD 1-Hour Storm (5-Minute period) SELECTED
(SLOPE OF INTENSITY-DURATION CURVE = 0.55)
RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 1.0000

UNIT HYDROGRAPH TIME UNIT = 5.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 42.394

==========
UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	3.436	50.316
2	16.643	193.384
3	51.336	508.022
4	70.934	286.979
5	80.497	140.019

6	86.833	92.788
7	91.194	63.863
8	94.328	45.888
9	96.378	30.020
10	97.704	19.410
11	98.182	6.997
12	98.401	3.211
13	98.620	3.211
14	98.840	3.210
15	99.059	3.212
16	99.278	3.210
17	99.497	3.210
18	99.717	3.210
19	99.936	3.210
20	100.000	0.940

****

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0272	0.0244	0.0027
2	0.0289	0.0260	0.0029
3	0.0310	0.0279	0.0031
4	0.0347	0.0312	0.0035
5	0.0369	0.0332	0.0037
6	0.0427	0.0346	0.0081
7	0.0514	0.0346	0.0168
8	0.0572	0.0346	0.0226
9	0.0915	0.0346	0.0569
10	0.2210	0.0346	0.1864
11	0.0471	0.0346	0.0125
12	0.0304	0.0274	0.0030

TOTAL STORM RAINFALL(INCHES) = 0.70
TOTAL SOIL-LOSS(INCHES) = 0.38
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.32

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 3.8103
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 3.2510

==========

1-HOUR STORM
RUNOFF HYDROGRAPH

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	50.0	100.0	150.0	200.0
0.083	0.0009	0.14	Q	.	.	.	.
0.167	0.0056	0.67	Q	.	.	.	.
0.250	0.0200	2.09	Q	.	.	.	.
0.333	0.0408	3.02	Q	.	.	.	.
0.417	0.0659	3.64	Q	.	.	.	.
0.500	0.0964	4.43	QV	.	.	.	.
0.583	0.1388	6.17	.Q	.	.	.	.
0.667	0.2124	10.67	. Q	.	.	.	.
0.750	0.3458	19.38	. QV	.	.	.	.
0.833	0.6124	38.70	. Q	.	.	.	.
0.917	1.1343	75.78	.	. V Q	.	.	.
1.000	1.9555	119.24	.	.	. QV	.	.
1.083	2.4525	72.17	.	. Q	.	V	.

```
 1.167    2.7218   39.10 .     Q .      .      . V     .
 1.250    2.8962   25.32 .    Q  .      .      .  V    .
 1.333    3.0148   17.22 .   Q    .      .      .   V   .
 1.417    3.0973   11.98 .  Q     .      .      .    V  .
 1.500    3.1507    7.76 .Q      .      .      .     V .
 1.583    3.1833    4.74 Q       .      .      .      V.
 1.667    3.1972    2.02 Q       .      .      .      V.
 1.750    3.2049    1.12 Q       .      .      .      V.
 1.833    3.2119    1.02 Q       .      .      .      V.
 1.917    3.2188    1.00 Q       .      .      .      V.
 2.000    3.2256    0.99 Q       .      .      .      V.
 2.083    3.2323    0.97 Q       .      .      .      V.
 2.167    3.2386    0.92 Q       .      .      .      V.
 2.250    3.2445    0.85 Q       .      .      .      V.
 2.333    3.2493    0.70 Q       .      .      .      V.
 2.417    3.2509    0.23 Q       .      .      .      V.
 2.500    3.2510    0.02 Q       .      .      .      V.
 2.583    3.2510    0.00 Q       .      .      .       V
--------------------------------------------------------------------------------
  TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
  (Note: 100% of Peak Flow Rate estimate assumed to have
  an instantaneous time duration)

  Percentile of Estimated          Duration
     Peak Flow Rate               (minutes)
  ======================          =========
         0%                        155.0
        10%                         45.0
        20%                         30.0
        30%                         25.0
        40%                         15.0
        50%                         15.0
        60%                         15.0
        70%                          5.0
        80%                          5.0
        90%                          5.0


****************************************************************************
 FLOW PROCESS FROM NODE   106.00 TO NODE   103.00 IS CODE =   1
----------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
============================================================================

    (UNIT-HYDROGRAPH ADDED TO STREAM #3)

      WATERCOURSE LENGTH =    2948.000 FEET
      LENGTH FROM CONCENTRATION POINT TO CENTROID =    1768.800 FEET
      ELEVATION VARIATION ALONG WATERCOURSE =      14.700 FEET
      BASIN FACTOR = 0.030
      WATERSHED AREA =     136.170 ACRES
      BASEFLOW =   0.000 CFS/SQUARE-MILE
      WATERCOURSE "LAG" TIME =    0.205 HOURS
       CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
       THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
       MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
      FOOTHILL S-GRAPH SELECTED
      UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.385
      LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
      USER-ENTERED RAINFALL =  0.70 INCHES
      RCFC&WCD 1-Hour Storm (5-Minute period) SELECTED
      (SLOPE OF INTENSITY-DURATION CURVE = 0.55)
      RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 1.0000


      UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
      UNIT INTERVAL PERCENTAGE OF LAG-TIME =  40.741
```

UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	3.245	53.442
2	15.378	199.799
3	47.928	536.047
4	69.269	351.433
5	79.137	162.503
6	85.681	107.777
7	90.221	74.767
8	93.542	54.686
9	95.815	37.427
10	97.259	23.789
11	98.090	13.676
12	98.303	3.507
13	98.513	3.470
14	98.724	3.471
15	98.935	3.470
16	99.146	3.471
17	99.356	3.470
18	99.567	3.470
19	99.778	3.470
20	99.989	3.470
21	100.000	0.188

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0272	0.0244	0.0027
2	0.0289	0.0260	0.0029
3	0.0310	0.0279	0.0031
4	0.0347	0.0312	0.0035
5	0.0369	0.0321	0.0048
6	0.0427	0.0321	0.0106
7	0.0514	0.0321	0.0193
8	0.0572	0.0321	0.0251
9	0.0915	0.0321	0.0594
10	0.2210	0.0321	0.1889
11	0.0471	0.0321	0.0150
12	0.0304	0.0274	0.0030

TOTAL STORM RAINFALL(INCHES) = 0.70
TOTAL SOIL-LOSS(INCHES) = 0.36
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.34

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 4.1024
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 3.8388

1-HOUR STORM
RUNOFF HYDROGRAPH

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS) VOLUME(AF) Q(CFS) 0. 50.0 100.0 150.0 200.0

```
---------------------------------------------------------------------------
  0.083    0.0010    0.15 Q       .       .       .       .
  0.167    0.0058    0.70 Q       .       .       .       .
  0.250    0.0209    2.20 Q       .       .       .       .
  0.333    0.0437    3.31 Q       .       .       .       .
  0.417    0.0717    4.07 Q       .       .       .       .
  0.500    0.1078    5.24 .Q      .       .       .       .
  0.583    0.1627    7.97 .Q      .       .       .       .
  0.667    0.2581   13.86 . Q     .       .       .       .
  0.750    0.4230   23.94 .  Q    .       .       .       .
  0.833    0.7335   45.08 .    V Q.        .       .       .
  0.917    1.3141   84.30 .       . V  Q   .       .       .
  1.000    2.2288  132.81 .       .       . V  Q   .       .
  1.083    2.8469   89.76 .       .     Q .      V.       .
  1.167    3.1743   47.53 .      Q.       .       . V      .
  1.250    3.3862   30.77 .    Q  .       .       .  V     .
  1.333    3.5314   21.09 .  Q    .       .       .   V    .
  1.417    3.6345   14.96 . Q     .       .       .    V   .
  1.500    3.7036   10.04 . Q     .       .       .     V  .
  1.583    3.7469    6.29 .Q      .       .       .      V.
  1.667    3.7711    3.51 Q       .       .       .      V.
  1.750    3.7807    1.39 Q       .       .       .      V.
  1.833    3.7888    1.19 Q       .       .       .      V.
  1.917    3.7967    1.15 Q       .       .       .      V.
  2.000    3.8045    1.13 Q       .       .       .      V.
  2.083    3.8122    1.12 Q       .       .       .      V.
  2.167    3.8197    1.08 Q       .       .       .      V.
  2.250    3.8267    1.02 Q       .       .       .      V.
  2.333    3.8331    0.93 Q       .       .       .      V.
  2.417    3.8381    0.73 Q       .       .       .      V.
  2.500    3.8388    0.10 Q       .       .       .      V.
  2.583    3.8388    0.01 Q       .       .       .      V.
  2.667    3.8388    0.00 Q       .       .       .       V
---------------------------------------------------------------------------
 TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
 (Note: 100% of Peak Flow Rate estimate assumed to have
 an instantaneous time duration)

 Percentile of Estimated          Duration
    Peak Flow Rate               (minutes)
 ======================          =========
        0%                        160.0
       10%                         50.0
       20%                         30.0
       30%                         25.0
       40%                         15.0
       50%                         15.0
       60%                         15.0
       70%                          5.0
       80%                          5.0
       90%                          5.0


****************************************************************************
 FLOW PROCESS FROM NODE   500.00 TO NODE   501.00 IS CODE =   1
----------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
============================================================================

    (UNIT-HYDROGRAPH ADDED TO STREAM #4)

      WATERSHED AREA =      20.000 ACRES
      BASEFLOW =   0.000 CFS/SQUARE-MILE
      *USER ENTERED "LAG" TIME =    0.100 HOURS
       CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
       THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
       MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
      FOOTHILL S-GRAPH SELECTED
      UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.050
```

LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.180
USER-ENTERED RAINFALL = 0.70 INCHES
RCFC&WCD 1-Hour Storm (5-Minute period) SELECTED
(SLOPE OF INTENSITY-DURATION CURVE = 0.55)
RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 1.0000

UNIT HYDROGRAPH TIME UNIT = 5.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 83.333

==========

UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	9.713	23.494
2	60.041	121.730
3	83.125	55.836
4	92.383	22.393
5	96.836	10.769
6	98.250	3.421
7	98.681	1.043
8	99.112	1.043
9	99.543	1.043
10	99.974	1.043
11	100.000	0.063

****

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0272	0.0042	0.0230
2	0.0289	0.0042	0.0247
3	0.0310	0.0042	0.0268
4	0.0347	0.0042	0.0305
5	0.0369	0.0042	0.0327
6	0.0427	0.0042	0.0386
7	0.0514	0.0042	0.0472
8	0.0572	0.0042	0.0530
9	0.0915	0.0042	0.0874
10	0.2210	0.0042	0.2169
11	0.0471	0.0042	0.0429
12	0.0304	0.0042	0.0263

TOTAL STORM RAINFALL(INCHES) = 0.70
TOTAL SOIL-LOSS(INCHES) = 0.05
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.65

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 0.0833
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 1.0828

==========

1-HOUR STORM
RUNOFF HYDROGRAPH

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	10.0	20.0	30.0	40.0
0.083	0.0037	0.54	Q	.	.	.	.
0.167	0.0270	3.38	V Q	.	.	.	.
0.250	0.0609	4.92	. V Q	.	.	.	.
0.333	0.1014	5.88	. V Q	.	.	.	.
0.417	0.1481	6.78	. VQ	.	.	.	.
0.500	0.2000	7.54	. Q	.	.	.	.
0.583	0.2600	8.71	. QV.	.	.	.	.
0.667	0.3313	10.35	. Q V	.	.	.	.
0.750	0.4177	12.54	. Q V	.	.	.	.
0.833	0.5581	20.39	.	. Q	.	.	.
0.917	0.7939	34.23	.	.	. V.	Q	.
1.000	0.9369	20.77	.	. Q	.	V	.
1.083	1.0177	11.73	. .Q	.	.	V	.
1.167	1.0538	5.24	. Q	.	.	.	V .
1.250	1.0678	2.03	. Q	.	.	.	V.
1.333	1.0737	0.85	Q	.	.	.	V.
1.417	1.0772	0.51	Q	.	.	.	V.
1.500	1.0799	0.39	Q	.	.	.	V.
1.583	1.0820	0.30	Q	.	.	.	V.
1.667	1.0826	0.09	Q	.	.	.	V.
1.750	1.0828	0.03	Q	.	.	.	V.
1.833	1.0828	0.00	Q	.	.	.	V

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	110.0
10%	60.0
20%	40.0
30%	30.0
40%	15.0
50%	15.0
60%	10.0
70%	5.0
80%	5.0
90%	5.0

END OF FLOODSCx ROUTING ANALYSIS

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             F L O O D    R O U T I N G    A N A L Y S I S

ACCORDING TO RIVERSIDE COUNTY FLOOD CONTORL AND WATER CONSERVATION DISTRICT
                    (RCFC&WCD) 1978 HYDROLOGY MANUAL
         (c) Copyright 1989-2011 Advanced Engineering Software (aes)
                 (Synthetic Unit Hydrograph Version 18.0)
                 Release Date: 05/01/2011  License ID 1499

                           Analysis prepared by:

                      Kimley-Horn and Associates, Inc.
                             765 The City Drive
                                 Suite 200
                              Orange, CA 92868

 ************************* DESCRIPTION OF STUDY *************************
* District at Jurupa Valley                                             *
* Preliminary Hydrology 10 year 3 Hour Event                            *
* Kimley Horn May 26, 2022                                              *
 *************************************************************************

  FILE NAME: C:\aes2011\hydrosft\floodX\J10Y3H.fld
  TIME/DATE OF STUDY: 13:43 05/26/2022


**************************************************************************
  FLOW PROCESS FROM NODE   100.00 TO NODE   101.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
==========================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #1)

         WATERCOURSE LENGTH =    4582.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2749.200 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      76.000 FEET
         BASIN FACTOR = 0.015
         WATERSHED AREA =     308.710 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.114 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.340
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.630
         USER-ENTERED RAINFALL =  1.19 INCHES
         RCFC&WCD 3-Hour Storm (5-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9988


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  73.227



==========================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------
        1                7.731               288.648
        2               51.410              1630.718
        3               78.778              1021.768
        4               89.283               392.203
        5               94.908               209.999
```

6	97.607	100.770
7	98.341	27.426
8	98.720	14.141
9	99.099	14.140
10	99.478	14.140
11	99.856	14.140
12	100.000	5.366

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0155	0.0097	0.0057
2	0.0155	0.0097	0.0057
3	0.0131	0.0082	0.0048
4	0.0178	0.0112	0.0066
5	0.0178	0.0112	0.0066
6	0.0214	0.0135	0.0079
7	0.0178	0.0112	0.0066
8	0.0214	0.0135	0.0079
9	0.0214	0.0135	0.0079
10	0.0178	0.0112	0.0066
11	0.0190	0.0120	0.0070
12	0.0214	0.0135	0.0079
13	0.0261	0.0165	0.0097
14	0.0261	0.0165	0.0097
15	0.0261	0.0165	0.0097
16	0.0238	0.0150	0.0088
17	0.0309	0.0195	0.0114
18	0.0321	0.0202	0.0119
19	0.0285	0.0180	0.0106
20	0.0321	0.0202	0.0119
21	0.0392	0.0247	0.0145
22	0.0368	0.0232	0.0136
23	0.0345	0.0217	0.0128
24	0.0357	0.0225	0.0132
25	0.0368	0.0232	0.0136
26	0.0499	0.0283	0.0216
27	0.0594	0.0283	0.0311
28	0.0416	0.0262	0.0154
29	0.0808	0.0283	0.0525
30	0.0868	0.0283	0.0584
31	0.0975	0.0283	0.0691
32	0.0701	0.0283	0.0418
33	0.0238	0.0150	0.0088
34	0.0214	0.0135	0.0079
35	0.0214	0.0135	0.0079
36	0.0071	0.0045	0.0026

TOTAL STORM RAINFALL(INCHES) = 1.19
TOTAL SOIL-LOSS(INCHES) = 0.64
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.55

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 16.4322
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 14.1371

3 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS) VOLUME(AF) Q(CFS) 0. 75.0 150.0 225.0 300.0

```
   0.083      0.0114      1.65  Q         .         .         .         .
   0.167      0.0869     10.97  VQ        .         .         .         .
   0.250      0.2010     16.56  V Q       .         .         .         .
   0.333      0.3241     17.88  V Q       .         .         .         .
   0.417      0.4691     21.05  .VQ       .         .         .         .
   0.500      0.6306     23.46  .V Q      .         .         .         .
   0.583      0.8089     25.89  . VQ      .         .         .         .
   0.667      0.9868     25.83  . VQ      .         .         .         .
   0.750      1.1753     27.38  .  Q      .         .         .         .
   0.833      1.3697     28.23  .  Q      .         .         .         .
   0.917      1.5534     26.67  .  QV     .         .         .         .
   1.000      1.7360     26.51  .  QV     .         .         .         .
   1.083      1.9324     28.52  .  Q V    .         .         .         .
   1.167      2.1544     32.24  .   Q V   .         .         .         .
   1.250      2.3911     34.36  .   Q V   .         .         .         .
   1.333      2.6322     35.01  .   Q  V  .         .         .         .
   1.417      2.8719     34.80  .   Q   V .         .         .         .
   1.500      3.1372     38.53  .    Q  V .         .         .         .
   1.583      3.4215     41.27  .    Q   V.         .         .         .
   1.667      3.7026     40.83  .    Q    V         .         .         .
   1.750      3.9992     43.07  .    Q    .V        .         .         .
   1.833      4.3320     48.32  .     Q   . V       .         .         .
   1.917      4.6743     49.70  .     Q   .  V      .         .         .
   2.000      5.0098     48.72  .     Q   .   V     .         .         .
   2.083      5.3473     49.00  .     Q   .    V    .         .         .
   2.167      5.7072     52.25  .     Q   .     V   .         .         .
   2.250      6.1784     68.42  .        Q.      V  .         .         .
   2.333      6.7826     87.73  .         .Q       V.         .         .
   2.417      7.3736     85.81  .         .Q        V         .         .
   2.500      8.3202    137.45  .         .       Q .  V      .         .
   2.583      9.5931    184.81  .         .         .   Q  V  .         .
   2.667     11.0591    212.87  .         .         .       Q .V        .
   2.750     12.2891    178.60  .         .         .  Q      .   V     .
   2.833     13.0165    105.62  .         .   Q     .         .     V   .
   2.917     13.4548     63.64  .       Q .         .         .       V .
   3.000     13.7601     44.33  .    Q    .         .         .       V .
   3.083     13.9378     25.79  .  Q      .         .         .        V.
   3.167     14.0233     12.43  .Q        .         .         .        V.
   3.250     14.0712      6.96  Q         .         .         .        V.
   3.333     14.1013      4.37  Q         .         .         .        V.
   3.417     14.1192      2.60  Q         .         .         .        V.
   3.500     14.1288      1.38  Q         .         .         .        V.
   3.583     14.1330      0.61  Q         .         .         .        V.
   3.667     14.1351      0.31  Q         .         .         .        V.
   3.750     14.1364      0.19  Q         .         .         .        V.
   3.833     14.1370      0.08  Q         .         .         .        V.
   3.917     14.1371      0.01  Q         .         .         .         V
```

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	235.0
10%	160.0
20%	80.0
30%	40.0
40%	35.0
50%	20.0
60%	20.0
70%	15.0
80%	15.0
90%	5.0

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  FLOW PROCESS FROM NODE   104.00 TO NODE   105.00 IS CODE =   1
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>>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<

(UNIT-HYDROGRAPH ADDED TO STREAM #2)

WATERCOURSE LENGTH = 3781.000 FEET
LENGTH FROM CONCENTRATION POINT TO CENTROID = 2268.600 FEET
ELEVATION VARIATION ALONG WATERCOURSE = 62.900 FEET
BASIN FACTOR = 0.030
WATERSHED AREA = 121.080 ACRES
BASEFLOW = 0.000 CFS/SQUARE-MILE
WATERCOURSE "LAG" TIME = 0.197 HOURS
CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
FOOTHILL S-GRAPH SELECTED
UNIFORM MEAN SOIL-LOSS(INCH/HOUR) = 0.415
LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
USER-ENTERED RAINFALL = 1.19 INCHES
RCFC&WCD 3-Hour Storm (5-Minute period) SELECTED
RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9995

UNIT HYDROGRAPH TIME UNIT = 5.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 42.394

UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	3.436	50.316
2	16.643	193.384
3	51.336	508.022
4	70.934	286.979
5	80.497	140.019
6	86.833	92.788
7	91.194	63.863
8	94.328	45.888
9	96.378	30.020
10	97.704	19.410
11	98.182	6.997
12	98.401	3.211
13	98.620	3.211
14	98.840	3.210
15	99.059	3.212
16	99.278	3.210
17	99.497	3.210
18	99.717	3.210
19	99.936	3.210
20	100.000	0.940

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0155	0.0139	0.0015
2	0.0155	0.0139	0.0015
3	0.0131	0.0118	0.0013
4	0.0178	0.0161	0.0018
5	0.0178	0.0161	0.0018
6	0.0214	0.0193	0.0021
7	0.0178	0.0161	0.0018
8	0.0214	0.0193	0.0021
9	0.0214	0.0193	0.0021

10	0.0178	0.0161	0.0018
11	0.0190	0.0171	0.0019
12	0.0214	0.0193	0.0021
13	0.0262	0.0236	0.0026
14	0.0262	0.0236	0.0026
15	0.0262	0.0236	0.0026
16	0.0238	0.0214	0.0024
17	0.0309	0.0278	0.0031
18	0.0321	0.0289	0.0032
19	0.0285	0.0257	0.0029
20	0.0321	0.0289	0.0032
21	0.0393	0.0346	0.0047
22	0.0369	0.0332	0.0037
23	0.0345	0.0310	0.0034
24	0.0357	0.0321	0.0036
25	0.0369	0.0332	0.0037
26	0.0500	0.0346	0.0154
27	0.0595	0.0346	0.0249
28	0.0416	0.0346	0.0070
29	0.0809	0.0346	0.0463
30	0.0868	0.0346	0.0522
31	0.0975	0.0346	0.0630
32	0.0702	0.0346	0.0356
33	0.0238	0.0214	0.0024
34	0.0214	0.0193	0.0021
35	0.0214	0.0193	0.0021
36	0.0071	0.0064	0.0007

TOTAL STORM RAINFALL(INCHES) = 1.19
TOTAL SOIL-LOSS(INCHES) = 0.87
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.32

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 8.8187
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 3.1811

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3 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 17.5 35.0 52.5 70.0
0.083	0.0005	0.08	Q . . . .
0.167	0.0031	0.38	Q . . . .
0.250	0.0111	1.15	Q . . . .
0.333	0.0219	1.57	Q . . . .
0.417	0.0340	1.76	VQ . . . .
0.500	0.0484	2.09	VQ . . . .
0.583	0.0646	2.35	VQ . . . .
0.667	0.0825	2.59	.Q . . . .
0.750	0.1008	2.66	.Q . . . .
0.833	0.1202	2.82	.Q . . . .
0.917	0.1399	2.87	.Q . . . .
1.000	0.1590	2.78	.Q . . . .
1.083	0.1786	2.84	.QV . . . .
1.167	0.1997	3.06	.QV . . . .
1.250	0.2230	3.38	.QV . . . .
1.333	0.2473	3.53	. QV . . . .
1.417	0.2722	3.62	. QV . . . .
1.500	0.2977	3.70	. QV . . . .
1.583	0.3256	4.04	. Q V . . . .
1.667	0.3549	4.26	. Q V . . . .
1.750	0.3848	4.35	. Q V . . . .
1.833	0.4175	4.74	. Q V . . . .
1.917	0.4546	5.38	. Q V . . . .

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   2.000      0.4912      5.32  .  Q  V   .         .         .         .
   2.083      0.5269      5.18  . Q   V   .         .         .         .
   2.167      0.5669      5.81  .  Q   V  .         .         .         .
   2.250      0.6263      8.62  .   Q  V  .         .         .         .
   2.333      0.7333     15.54  .       QV.         .         .         .
   2.417      0.8867     22.27  .         .VQ       .         .         .
   2.500      1.0622     25.48  .         .  VQ     .         .         .
   2.583      1.3680     44.41  .         .      V  .    Q    .         .
   2.667      1.7711     58.52  .         .         . V       .  Q      .
   2.750      2.2098     63.70  .         .         .      V  .    Q    .
   2.833      2.5580     50.56  .         .         .       Q . V       .
   2.917      2.7649     30.05  .         .      Q  .         .   V     .
   3.000      2.8986     19.40  .         .Q        .         .     V   .
   3.083      2.9931     13.73  .      Q  .         .         .      V  .
   3.167      3.0577      9.38  .    Q    .         .         .       V .
   3.250      3.0986      5.93  .  Q      .         .         .       V .
   3.333      3.1230      3.55  . Q       .         .         .        V.
   3.417      3.1369      2.01  .Q        .         .         .        V.
   3.500      3.1451      1.20  Q         .         .         .        V.
   3.583      3.1517      0.96  Q         .         .         .        V.
   3.667      3.1577      0.87  Q         .         .         .        V.
   3.750      3.1632      0.79  Q         .         .         .        V.
   3.833      3.1680      0.71  Q         .         .         .        V.
   3.917      3.1726      0.66  Q         .         .         .        V.
   4.000      3.1764      0.55  Q         .         .         .        V.
   4.083      3.1791      0.39  Q         .         .         .        V.
   4.167      3.1804      0.20  Q         .         .         .        V.
   4.250      3.1808      0.06  Q         .         .         .        V.
   4.333      3.1810      0.02  Q         .         .         .        V.
   4.417      3.1810      0.01  Q         .         .         .        V.
   4.500      3.1811      0.00  Q         .         .         .        V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated               Duration
       Peak Flow Rate                    (minutes)
   ======================                =========
             0%                            270.0
            10%                             60.0
            20%                             50.0
            30%                             40.0
            40%                             30.0
            50%                             20.0
            60%                             20.0
            70%                             15.0
            80%                             10.0
            90%                             10.0


 ********************************************************************************
   FLOW PROCESS FROM NODE   106.00 TO NODE   103.00 IS CODE =   1
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   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
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      (UNIT-HYDROGRAPH ADDED TO STREAM #3)

         WATERCOURSE LENGTH =    2948.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    1768.800 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      14.700 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     136.170 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.205 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.385
```

LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
USER-ENTERED RAINFALL = 1.19 INCHES
RCFC&WCD 3-Hour Storm (5-Minute period) SELECTED
RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9995

UNIT HYDROGRAPH TIME UNIT = 5.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 40.741

UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	3.245	53.442
2	15.378	199.799
3	47.928	536.047
4	69.269	351.433
5	79.137	162.503
6	85.681	107.777
7	90.221	74.767
8	93.542	54.686
9	95.815	37.427
10	97.259	23.789
11	98.090	13.676
12	98.303	3.507
13	98.513	3.470
14	98.724	3.471
15	98.935	3.470
16	99.146	3.471
17	99.356	3.470
18	99.567	3.470
19	99.778	3.470
20	99.989	3.470
21	100.000	0.188

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0155	0.0139	0.0015
2	0.0155	0.0139	0.0015
3	0.0131	0.0118	0.0013
4	0.0178	0.0161	0.0018
5	0.0178	0.0161	0.0018
6	0.0214	0.0193	0.0021
7	0.0178	0.0161	0.0018
8	0.0214	0.0193	0.0021
9	0.0214	0.0193	0.0021
10	0.0178	0.0161	0.0018
11	0.0190	0.0171	0.0019
12	0.0214	0.0193	0.0021
13	0.0262	0.0235	0.0026
14	0.0262	0.0235	0.0026
15	0.0262	0.0235	0.0026
16	0.0238	0.0214	0.0024
17	0.0309	0.0278	0.0031
18	0.0321	0.0289	0.0032
19	0.0285	0.0257	0.0029
20	0.0321	0.0289	0.0032
21	0.0392	0.0321	0.0072
22	0.0369	0.0321	0.0048
23	0.0345	0.0310	0.0034
24	0.0357	0.0321	0.0036
25	0.0369	0.0321	0.0048

26	0.0500	0.0321	0.0179
27	0.0595	0.0321	0.0274
28	0.0416	0.0321	0.0095
29	0.0809	0.0321	0.0488
30	0.0868	0.0321	0.0547
31	0.0975	0.0321	0.0654
32	0.0702	0.0321	0.0381
33	0.0238	0.0214	0.0024
34	0.0214	0.0193	0.0021
35	0.0214	0.0193	0.0021
36	0.0071	0.0064	0.0007

TOTAL STORM RAINFALL(INCHES) = 1.19
TOTAL SOIL-LOSS(INCHES) = 0.85
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.34

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 9.6651
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 3.8292

==========

3 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 20.0 40.0 60.0 80.0
0.083	0.0006	0.08	Q . . . .
0.167	0.0033	0.39	Q . . . .
0.250	0.0116	1.21	Q . . . .
0.333	0.0235	1.73	Q . . . .
0.417	0.0369	1.95	Q . . . .
0.500	0.0528	2.30	VQ . . . .
0.583	0.0707	2.60	VQ . . . .
0.667	0.0905	2.88	VQ . . . .
0.750	0.1110	2.97	.Q . . . .
0.833	0.1326	3.14	.Q . . . .
0.917	0.1547	3.22	.Q . . . .
1.000	0.1763	3.13	.Q . . . .
1.083	0.1982	3.18	.QV . . . .
1.167	0.2217	3.42	.QV . . . .
1.250	0.2476	3.76	.QV . . . .
1.333	0.2749	3.96	.QV . . . .
1.417	0.3028	4.05	. QV . . . .
1.500	0.3313	4.14	. QV . . . .
1.583	0.3623	4.50	. QV . . . .
1.667	0.3951	4.76	. Q V . . . .
1.750	0.4296	5.01	. Q V . . . .
1.833	0.4698	5.84	. Q V . . . .
1.917	0.5217	7.54	. Q V . . . .
2.000	0.5731	7.46	. Q V . . . .
2.083	0.6191	6.68	. Q V . . . .
2.167	0.6693	7.29	. Q V . . . .
2.250	0.7447	10.95	. Q V . . . .
2.333	0.8773	19.26	. Q. . . .
2.417	1.0676	27.62	. .V Q . . .
2.500	1.2863	31.77	. . V Q . . .
2.583	1.6397	51.30	. . V . Q . .
2.667	2.1086	68.09	. . . V . Q .
2.750	2.6214	74.46	. . . V . Q .
2.833	3.0437	61.32	. . . QV .
2.917	3.3023	37.54	. Q . . V .
3.000	3.4664	23.83	. .Q . . V .
3.083	3.5837	17.03	. Q . . . V .
3.167	3.6647	11.77	. Q . . . V .
3.250	3.7184	7.79	. Q . . . V .

3.333	3.7515	4.81	. Q	.	.	.	V.
3.417	3.7712	2.85	.Q	.	.	.	V.
3.500	3.7825	1.65	Q	.	.	.	V.
3.583	3.7904	1.14	Q	.	.	.	V.
3.667	3.7976	1.04	Q	.	.	.	V.
3.750	3.8043	0.97	Q	.	.	.	V.
3.833	3.8104	0.88	Q	.	.	.	V.
3.917	3.8157	0.78	Q	.	.	.	V.
4.000	3.8209	0.75	Q	.	.	.	V.
4.083	3.8249	0.58	Q	.	.	.	V.
4.167	3.8276	0.40	Q	.	.	.	V.
4.250	3.8288	0.17	Q	.	.	.	V.
4.333	3.8290	0.03	Q	.	.	.	V.
4.417	3.8292	0.02	Q	.	.	.	V.
4.500	3.8292	0.01	Q	.	.	.	V.
4.583	3.8292	0.00	Q	.	.	.	V.

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	275.0
10%	75.0
20%	50.0
30%	40.0
40%	30.0
50%	25.0
60%	20.0
70%	15.0
80%	15.0
90%	10.0

****
FLOW PROCESS FROM NODE 500.00 TO NODE 501.00 IS CODE = 1

>>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
==========

(UNIT-HYDROGRAPH ADDED TO STREAM #4)

WATERSHED AREA = 20.000 ACRES
BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.100 HOURS
CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
FOOTHILL S-GRAPH SELECTED
UNIFORM MEAN SOIL-LOSS(INCH/HOUR) = 0.050
LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.180
USER-ENTERED RAINFALL = 1.19 INCHES
RCFC&WCD 3-Hour Storm (5-Minute period) SELECTED
RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9999

UNIT HYDROGRAPH TIME UNIT = 5.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 83.333

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UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	9.713	23.494
2	60.041	121.730

3	83.125	55.836
4	92.383	22.393
5	96.836	10.769
6	98.250	3.421
7	98.681	1.043
8	99.112	1.043
9	99.543	1.043
10	99.974	1.043
11	100.000	0.063

****

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0155	0.0028	0.0127
2	0.0155	0.0028	0.0127
3	0.0131	0.0024	0.0107
4	0.0178	0.0032	0.0146
5	0.0178	0.0032	0.0146
6	0.0214	0.0039	0.0176
7	0.0178	0.0032	0.0146
8	0.0214	0.0039	0.0176
9	0.0214	0.0039	0.0176
10	0.0178	0.0032	0.0146
11	0.0190	0.0034	0.0156
12	0.0214	0.0039	0.0176
13	0.0262	0.0042	0.0220
14	0.0262	0.0042	0.0220
15	0.0262	0.0042	0.0220
16	0.0238	0.0042	0.0196
17	0.0309	0.0042	0.0268
18	0.0321	0.0042	0.0280
19	0.0286	0.0042	0.0244
20	0.0321	0.0042	0.0280
21	0.0393	0.0042	0.0351
22	0.0369	0.0042	0.0327
23	0.0345	0.0042	0.0303
24	0.0357	0.0042	0.0315
25	0.0369	0.0042	0.0327
26	0.0500	0.0042	0.0458
27	0.0595	0.0042	0.0553
28	0.0416	0.0042	0.0375
29	0.0809	0.0042	0.0767
30	0.0869	0.0042	0.0827
31	0.0976	0.0042	0.0934
32	0.0702	0.0042	0.0660
33	0.0238	0.0042	0.0196
34	0.0214	0.0039	0.0176
35	0.0214	0.0039	0.0176
36	0.0071	0.0013	0.0059

TOTAL STORM RAINFALL(INCHES) = 1.19
TOTAL SOIL-LOSS(INCHES) = 0.14
TOTAL EFFECTIVE RAINFALL(INCHES) = 1.05

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 0.2269
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 1.7554

==========

3 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 5.0 10.0 15.0 20.0
0.083	0.0021	0.30	Q . . . .
0.167	0.0147	1.84	V Q . . . .
0.250	0.0320	2.50	V Q . . . .
0.333	0.0502	2.64	.V Q . . . .
0.417	0.0718	3.15	.V Q . . . .
0.500	0.0955	3.43	. V Q . . . .
0.583	0.1216	3.80	. V Q . . . .
0.667	0.1473	3.72	. V Q . . . .
0.750	0.1749	4.01	. V Q . . . .
0.833	0.2030	4.08	. V Q . . . .
0.917	0.2291	3.80	. V Q . . . .
1.000	0.2555	3.82	. V Q . . . .
1.083	0.2842	4.17	. V Q . . . .
1.167	0.3173	4.81	. V Q. . . . .
1.250	0.3525	5.11	. V Q . . . .
1.333	0.3881	5.17	. V Q . . . .
1.417	0.4233	5.11	. VQ . . . .
1.500	0.4638	5.89	. VQ . . . .
1.583	0.5072	6.30	. VQ . . . .
1.667	0.5496	6.15	. Q . . . .
1.750	0.5955	6.66	. Q . . . .
1.833	0.6480	7.63	. VQ . . . .
1.917	0.7013	7.74	. Q . . . .
2.000	0.7532	7.53	. Q V . . . .
2.083	0.8056	7.61	. Q V . . . .
2.167	0.8613	8.08	. Q V. . . . .
2.250	0.9300	9.97	. Q.V . . . .
2.333	1.0090	11.48	. . Q . . . .
2.417	1.0853	11.07	. . Q V . . . .
2.500	1.1910	15.36	. . V Q . . . .
2.583	1.3169	18.27	. . V Q . . . .
2.667	1.4546	20.00	. . V Q. . . . .
2.750	1.5696	16.70	. . Q V . . . .
2.833	1.6379	9.91	. Q. . . . .
2.917	1.6836	6.64	. Q . . . .
3.000	1.7180	4.99	. Q. . . . .
3.083	1.7375	2.83	. Q . . . .
3.167	1.7465	1.31	. Q . . . .
3.250	1.7511	0.66	.Q . . . .
3.333	1.7534	0.33	Q . . . .
3.417	1.7544	0.15	Q . . . .
3.500	1.7549	0.07	Q . . . .
3.583	1.7552	0.04	Q . . . .
3.667	1.7554	0.03	Q . . . .
3.750	1.7554	0.01	Q . . . .

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	225.0
10%	175.0
20%	130.0
30%	85.0
40%	45.0
50%	30.0
60%	20.0
70%	20.0
80%	15.0
90%	10.0

END OF FLOODSCx ROUTING ANALYSIS

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

             F L O O D    R O U T I N G    A N A L Y S I S

ACCORDING TO RIVERSIDE COUNTY FLOOD CONTORL AND WATER CONSERVATION DISTRICT
                    (RCFC&WCD) 1978 HYDROLOGY MANUAL
         (c) Copyright 1989-2011 Advanced Engineering Software (aes)
                 (Synthetic Unit Hydrograph Version 18.0)
                 Release Date: 05/01/2011  License ID 1499

                           Analysis prepared by:

                      Kimley-Horn and Associates, Inc.
                             765 The City Drive
                                 Suite 200
                              Orange, CA 92868

 ************************* DESCRIPTION OF STUDY *************************
* District at Jurupa Valley                                             *
* Preliminary Hydrology 10 year 6 Hour Event                            *
* Kimley Horn May 26, 2022                                              *
 *************************************************************************

  FILE NAME: C:\aes2011\hydrosft\floodX\J10Y6H.fld
  TIME/DATE OF STUDY: 13:56 05/26/2022


**************************************************************************
  FLOW PROCESS FROM NODE   100.00 TO NODE   101.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
==========================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #1)

         WATERCOURSE LENGTH =    4582.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2749.200 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      76.000 FEET
         BASIN FACTOR = 0.015
         WATERSHED AREA =     308.710 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.114 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.340
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.630
         USER-ENTERED RAINFALL =  1.64 INCHES
         RCFC&WCD 6-Hour Storm (5-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9991


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  73.227



==========================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------
        1                7.731               288.648
        2               51.410              1630.718
        3               78.778              1021.768
        4               89.283               392.203
        5               94.908               209.999
```

6	97.607	100.770
7	98.341	27.426
8	98.720	14.141
9	99.099	14.140
10	99.478	14.140
11	99.856	14.140
12	100.000	5.366

****

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0082	0.0052	0.0030
2	0.0098	0.0062	0.0036
3	0.0098	0.0062	0.0036
4	0.0098	0.0062	0.0036
5	0.0098	0.0062	0.0036
6	0.0115	0.0072	0.0042
7	0.0115	0.0072	0.0042
8	0.0115	0.0072	0.0042
9	0.0115	0.0072	0.0042
10	0.0115	0.0072	0.0042
11	0.0115	0.0072	0.0042
12	0.0131	0.0083	0.0049
13	0.0131	0.0083	0.0049
14	0.0131	0.0083	0.0049
15	0.0131	0.0083	0.0049
16	0.0131	0.0083	0.0049
17	0.0131	0.0083	0.0049
18	0.0131	0.0083	0.0049
19	0.0131	0.0083	0.0049
20	0.0131	0.0083	0.0049
21	0.0131	0.0083	0.0049
22	0.0131	0.0083	0.0049
23	0.0131	0.0083	0.0049
24	0.0147	0.0093	0.0055
25	0.0131	0.0083	0.0049
26	0.0147	0.0093	0.0055
27	0.0147	0.0093	0.0055
28	0.0147	0.0093	0.0055
29	0.0147	0.0093	0.0055
30	0.0147	0.0093	0.0055
31	0.0147	0.0093	0.0055
32	0.0147	0.0093	0.0055
33	0.0164	0.0103	0.0061
34	0.0164	0.0103	0.0061
35	0.0164	0.0103	0.0061
36	0.0164	0.0103	0.0061
37	0.0164	0.0103	0.0061
38	0.0180	0.0114	0.0067
39	0.0180	0.0114	0.0067
40	0.0180	0.0114	0.0067
41	0.0197	0.0124	0.0073
42	0.0213	0.0134	0.0079
43	0.0229	0.0145	0.0085
44	0.0229	0.0145	0.0085
45	0.0246	0.0155	0.0091
46	0.0246	0.0155	0.0091
47	0.0262	0.0165	0.0097
48	0.0262	0.0165	0.0097
49	0.0279	0.0175	0.0103
50	0.0295	0.0186	0.0109
51	0.0311	0.0196	0.0115
52	0.0328	0.0206	0.0121
53	0.0344	0.0217	0.0127
54	0.0344	0.0217	0.0127
55	0.0360	0.0227	0.0133
56	0.0377	0.0237	0.0139
57	0.0393	0.0248	0.0146

58	0.0393	0.0248	0.0146
59	0.0410	0.0258	0.0152
60	0.0426	0.0268	0.0158
61	0.0508	0.0283	0.0225
62	0.0590	0.0283	0.0307
63	0.0639	0.0283	0.0356
64	0.0688	0.0283	0.0405
65	0.0770	0.0283	0.0487
66	0.0918	0.0283	0.0634
67	0.0311	0.0196	0.0115
68	0.0147	0.0093	0.0055
69	0.0098	0.0062	0.0036
70	0.0082	0.0052	0.0030
71	0.0049	0.0031	0.0018
72	0.0033	0.0021	0.0012

TOTAL STORM RAINFALL(INCHES) = 1.64
TOTAL SOIL-LOSS(INCHES) = 0.94
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.70

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 24.2645
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 17.8800

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6 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 50.0 100.0 150.0 200.0
0.083	0.0060	0.87	Q . . . .
0.167	0.0473	5.99	VQ . . . .
0.250	0.1167	10.08	V Q . . . .
0.333	0.1986	11.89	V Q . . . .
0.417	0.2865	12.76	V Q . . . .
0.500	0.3786	13.37	V Q . . . .
0.583	0.4784	14.50	.VQ . . . .
0.667	0.5830	15.18	.V Q . . . .
0.750	0.6895	15.47	.V Q . . . .
0.833	0.7973	15.65	.V Q . . . .
0.917	0.9059	15.76	. VQ . . . .
1.000	1.0159	15.98	. VQ . . . .
1.083	1.1329	16.98	. VQ . . . .
1.167	1.2541	17.61	. VQ . . . .
1.250	1.3771	17.85	. Q . . . .
1.333	1.5010	17.99	. Q . . . .
1.417	1.6253	18.05	. Q . . . .
1.500	1.7498	18.07	. Q . . . .
1.583	1.8743	18.08	. QV . . . .
1.667	1.9989	18.09	. QV . . . .
1.750	2.1235	18.10	. QV . . . .
1.833	2.2482	18.10	. Q V . . . .
1.917	2.3729	18.11	. Q V . . . .
2.000	2.4988	18.28	. Q V . . . .
2.083	2.6303	19.10	. Q V . . . .
2.167	2.7605	18.90	. Q V . . . .
2.250	2.8949	19.51	. Q V . . . .
2.333	3.0327	20.02	. Q V . . . .
2.417	3.1718	20.19	. Q V . . . .
2.500	3.3114	20.27	. Q V . . . .
2.583	3.4514	20.33	. Q V . . . .
2.667	3.5915	20.34	. Q V . . . .
2.750	3.7328	20.53	. Q V . . . .
2.833	3.8811	21.52	. Q V . . . .
2.917	4.0336	22.15	. Q V. . . .

```
   3.000      4.1878     22.39  .   Q    V.         .         .         .
   3.083      4.3429     22.52  .   Q    V.         .         .         .
   3.167      4.4996     22.76  .   Q     V         .         .         .
   3.250      4.6633     23.76  .   Q     V         .         .         .
   3.333      4.8312     24.39  .   Q     V         .         .         .
   3.417      5.0021     24.81  .   Q     .V        .         .         .
   3.500      5.1819     26.11  .    Q    .V        .         .         .
   3.583      5.3745     27.96  .    Q    . V       .         .         .
   3.667      5.5799     29.83  .    Q    . V       .         .         .
   3.750      5.7934     31.00  .     Q   . V       .         .         .
   3.833      6.0167     32.42  .     Q   .  V      .         .         .
   3.917      6.2469     33.43  .     Q   .  V      .         .         .
   4.000      6.4862     34.75  .     Q   .   V     .         .         .
   4.083      6.7322     35.71  .      Q  .    V    .         .         .
   4.167      6.9883     37.20  .      Q  .    V    .         .         .
   4.250      7.2580     39.15  .      Q  .     V   .         .         .
   4.333      7.5421     41.26  .       Q .     V   .         .         .
   4.417      7.8413     43.45  .       Q .      V  .         .         .
   4.500      8.1547     45.50  .        Q.       V .         .         .
   4.583      8.4767     46.75  .        Q.       V .         .         .
   4.667      8.8099     48.38  .        Q.        V.         .         .
   4.750      9.1570     50.40  .         Q         V         .         .
   4.833      9.5175     52.35  .         Q         .V        .         .
   4.917      9.8864     53.56  .         Q         . V       .         .
   5.000     10.2664     55.19  .         .Q        . V       .         .
   5.083     10.6725     58.96  .         .Q        .  V      .         .
   5.167     11.1768     73.22  .         .   Q     .    V    .         .
   5.250     11.8328     95.25  .         .        Q.     V   .         .
   5.333     12.6310    115.90  .         .         .  Q    V .         .
   5.417     13.5678    136.03  .         .         .     Q  V         .
   5.500     14.6907    163.04  .         .         .         . Q       .
   5.583     15.9611    184.47  .         .         .         .   VQ    .
   5.667     16.7754    118.23  .         .         .  Q      .     V   .
   5.750     17.2102     63.14  .         . Q       .         .      V  .
   5.833     17.4705     37.79  .      Q  .         .         .        V.
   5.917     17.6315     23.38  .   Q     .         .         .        V.
   6.000     17.7294     14.20  . Q       .         .         .        V.
   6.083     17.7946      9.48  .Q        .         .         .        V.
   6.167     17.8333      5.62  .Q        .         .         .        V.
   6.250     17.8561      3.31  Q         .         .         .        V.
   6.333     17.8697      1.97  Q         .         .         .        V.
   6.417     17.8755      0.85  Q         .         .         .        V.
   6.500     17.8775      0.29  Q         .         .         .        V.
   6.583     17.8787      0.17  Q         .         .         .        V.
   6.667     17.8794      0.11  Q         .         .         .        V.
   6.750     17.8798      0.06  Q         .         .         .        V.
   6.833     17.8800      0.03  Q         .         .         .        V.
   6.917     17.8800      0.01  Q         .         .         .         V
--------------------------------------------------------------------------------
    TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
    (Note: 100% of Peak Flow Rate estimate assumed to have
    an instantaneous time duration)

    Percentile of Estimated                Duration
        Peak Flow Rate                     (minutes)
    ======================                 =========
               0%                            415.0
              10%                            235.0
              20%                            105.0
              30%                             45.0
              40%                             30.0
              50%                             30.0
              60%                             25.0
              70%                             15.0
              80%                             10.0
              90%                              5.0


 ********************************************************************************
   FLOW PROCESS FROM NODE   104.00 TO NODE   105.00 IS CODE =   1
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>>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<

(UNIT-HYDROGRAPH ADDED TO STREAM #2)

WATERCOURSE LENGTH = 3781.000 FEET
LENGTH FROM CONCENTRATION POINT TO CENTROID = 2268.600 FEET
ELEVATION VARIATION ALONG WATERCOURSE = 62.900 FEET
BASIN FACTOR = 0.030
WATERSHED AREA = 121.080 ACRES
BASEFLOW = 0.000 CFS/SQUARE-MILE
WATERCOURSE "LAG" TIME = 0.197 HOURS
CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
FOOTHILL S-GRAPH SELECTED
UNIFORM MEAN SOIL-LOSS(INCH/HOUR) = 0.415
LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
USER-ENTERED RAINFALL = 1.64 INCHES
RCFC&WCD 6-Hour Storm (5-Minute period) SELECTED
RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9997

UNIT HYDROGRAPH TIME UNIT = 5.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 42.394

UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	3.436	50.316
2	16.643	193.384
3	51.336	508.022
4	70.934	286.979
5	80.497	140.019
6	86.833	92.788
7	91.194	63.863
8	94.328	45.888
9	96.378	30.020
10	97.704	19.410
11	98.182	6.997
12	98.401	3.211
13	98.620	3.211
14	98.840	3.210
15	99.059	3.212
16	99.278	3.210
17	99.497	3.210
18	99.717	3.210
19	99.936	3.210
20	100.000	0.940

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0082	0.0074	0.0008
2	0.0098	0.0089	0.0010
3	0.0098	0.0089	0.0010
4	0.0098	0.0089	0.0010
5	0.0098	0.0089	0.0010
6	0.0115	0.0103	0.0011
7	0.0115	0.0103	0.0011
8	0.0115	0.0103	0.0011
9	0.0115	0.0103	0.0011
10	0.0115	0.0103	0.0011

11	0.0115	0.0103	0.0011
12	0.0131	0.0118	0.0013
13	0.0131	0.0118	0.0013
14	0.0131	0.0118	0.0013
15	0.0131	0.0118	0.0013
16	0.0131	0.0118	0.0013
17	0.0131	0.0118	0.0013
18	0.0131	0.0118	0.0013
19	0.0131	0.0118	0.0013
20	0.0131	0.0118	0.0013
21	0.0131	0.0118	0.0013
22	0.0131	0.0118	0.0013
23	0.0131	0.0118	0.0013
24	0.0148	0.0133	0.0015
25	0.0131	0.0118	0.0013
26	0.0148	0.0133	0.0015
27	0.0148	0.0133	0.0015
28	0.0148	0.0133	0.0015
29	0.0148	0.0133	0.0015
30	0.0148	0.0133	0.0015
31	0.0148	0.0133	0.0015
32	0.0148	0.0133	0.0015
33	0.0164	0.0148	0.0016
34	0.0164	0.0148	0.0016
35	0.0164	0.0148	0.0016
36	0.0164	0.0148	0.0016
37	0.0164	0.0148	0.0016
38	0.0180	0.0162	0.0018
39	0.0180	0.0162	0.0018
40	0.0180	0.0162	0.0018
41	0.0197	0.0177	0.0020
42	0.0213	0.0192	0.0021
43	0.0230	0.0207	0.0023
44	0.0230	0.0207	0.0023
45	0.0246	0.0221	0.0025
46	0.0246	0.0221	0.0025
47	0.0262	0.0236	0.0026
48	0.0262	0.0236	0.0026
49	0.0279	0.0251	0.0028
50	0.0295	0.0266	0.0030
51	0.0311	0.0280	0.0031
52	0.0328	0.0295	0.0033
53	0.0344	0.0310	0.0034
54	0.0344	0.0310	0.0034
55	0.0361	0.0325	0.0036
56	0.0377	0.0339	0.0038
57	0.0393	0.0346	0.0048
58	0.0393	0.0346	0.0048
59	0.0410	0.0346	0.0064
60	0.0426	0.0346	0.0080
61	0.0508	0.0346	0.0162
62	0.0590	0.0346	0.0244
63	0.0639	0.0346	0.0294
64	0.0689	0.0346	0.0343
65	0.0771	0.0346	0.0425
66	0.0918	0.0346	0.0572
67	0.0311	0.0280	0.0031
68	0.0148	0.0133	0.0015
69	0.0098	0.0089	0.0010
70	0.0082	0.0074	0.0008
71	0.0049	0.0044	0.0005
72	0.0033	0.0030	0.0003

TOTAL STORM RAINFALL(INCHES) = 1.64
TOTAL SOIL-LOSS(INCHES) = 1.30
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.33

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 13.1665
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 3.3737

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6 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 15.0 30.0 45.0 60.0
0.083	0.0003	0.04	Q . . . .
0.167	0.0017	0.21	Q . . . .
0.250	0.0062	0.66	Q . . . .
0.333	0.0129	0.97	Q . . . .
0.417	0.0208	1.14	Q . . . .
0.500	0.0293	1.24	Q . . . .
0.583	0.0386	1.34	Q . . . .
0.667	0.0487	1.47	Q . . . .
0.750	0.0594	1.55	VQ . . . .
0.833	0.0704	1.60	VQ . . . .
0.917	0.0816	1.62	VQ . . . .
1.000	0.0929	1.64	.Q . . . .
1.083	0.1046	1.69	.Q . . . .
1.167	0.1168	1.78	.Q . . . .
1.250	0.1294	1.83	.Q . . . .
1.333	0.1422	1.86	.Q . . . .
1.417	0.1551	1.88	.Q . . . .
1.500	0.1682	1.89	.Q . . . .
1.583	0.1813	1.90	.QV . . . .
1.667	0.1944	1.91	.QV . . . .
1.750	0.2076	1.91	.QV . . . .
1.833	0.2208	1.91	.QV . . . .
1.917	0.2340	1.92	.QV . . . .
2.000	0.2472	1.93	.QV . . . .
2.083	0.2607	1.95	.Q V . . . .
2.167	0.2745	2.01	.Q V . . . .
2.250	0.2883	2.01	.Q V . . . .
2.333	0.3025	2.07	.Q V . . . .
2.417	0.3170	2.11	.Q V . . . .
2.500	0.3317	2.12	.Q V . . . .
2.583	0.3464	2.14	.Q V . . . .
2.667	0.3612	2.14	.Q V . . . .
2.750	0.3760	2.16	.Q V . . . .
2.833	0.3911	2.19	.Q V . . . .
2.917	0.4068	2.28	.Q V . . . .
3.000	0.4228	2.33	.Q V . . . .
3.083	0.4390	2.35	.Q V . . . .
3.167	0.4554	2.37	.Q V . . . .
3.250	0.4720	2.42	.Q V . . . .
3.333	0.4893	2.51	.Q V . . . .
3.417	0.5070	2.57	.Q V . . . .
3.500	0.5252	2.64	.Q V . . . .
3.583	0.5443	2.78	.Q V . . . .
3.667	0.5646	2.95	.Q V . . . .
3.750	0.5861	3.12	. Q V . . . .
3.833	0.6084	3.24	. Q V . . . .
3.917	0.6317	3.39	. Q V . . . .
4.000	0.6558	3.50	. Q V . . . .
4.083	0.6808	3.64	. Q V . . . .
4.167	0.7067	3.76	. Q V . . . .
4.250	0.7337	3.92	. Q V . . . .
4.333	0.7621	4.12	. Q V . . . .
4.417	0.7920	4.33	. Q V . . . .
4.500	0.8233	4.55	. Q V . . . .
4.583	0.8559	4.74	. Q V . . . .
4.667	0.8896	4.89	. Q V . . . .
4.750	0.9249	5.12	. Q V . . . .
4.833	0.9626	5.49	. Q .V . . . .
4.917	1.0051	6.17	. Q .V . . . .
5.000	1.0528	6.91	. Q . V . . . .

```
   5.083      1.1124      8.65  .    Q    .  V      .         .         .
   5.167      1.1955     12.07  .       Q .   V     .         .         .
   5.250      1.3253     18.85  .         . Q  V    .         .         .
   5.333      1.5113     27.00  .         .      VQ .         .         .
   5.417      1.7500     34.66  .         .         V  Q      .         .
   5.500      2.0462     43.01  .         .         .   V   Q .         .
   5.583      2.3962     50.82  .         .         .       V .  Q      .
   5.667      2.7561     52.26  .         .         .         . V Q     .
   5.750      2.9714     31.25  .         .         Q         .    V    .
   5.833      3.0993     18.58  .         . Q       .         .     V   .
   5.917      3.1870     12.73  .       Q .         .         .      V  .
   6.000      3.2479      8.85  .    Q    .         .         .       V .
   6.083      3.2894      6.03  .   Q     .         .         .        V.
   6.167      3.3160      3.85  . Q       .         .         .        V.
   6.250      3.3317      2.29  .Q        .         .         .        V.
   6.333      3.3402      1.23  Q         .         .         .        V.
   6.417      3.3463      0.89  Q         .         .         .        V.
   6.500      3.3518      0.79  Q         .         .         .        V.
   6.583      3.3568      0.73  Q         .         .         .        V.
   6.667      3.3613      0.66  Q         .         .         .        V.
   6.750      3.3653      0.58  Q         .         .         .        V.
   6.833      3.3686      0.48  Q         .         .         .        V.
   6.917      3.3712      0.38  Q         .         .         .        V.
   7.000      3.3729      0.25  Q         .         .         .        V.
   7.083      3.3735      0.08  Q         .         .         .        V.
   7.167      3.3736      0.02  Q         .         .         .        V.
   7.250      3.3736      0.01  Q         .         .         .        V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated               Duration
       Peak Flow Rate                    (minutes)
   ======================              =========
              0%                         435.0
             10%                          80.0
             20%                          50.0
             30%                          40.0
             40%                          30.0
             50%                          30.0
             60%                          20.0
             70%                          15.0
             80%                          15.0
             90%                          10.0


 ********************************************************************************
   FLOW PROCESS FROM NODE   106.00 TO NODE   103.00 IS CODE =   1
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   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
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       (UNIT-HYDROGRAPH ADDED TO STREAM #3)

          WATERCOURSE LENGTH =    2948.000 FEET
          LENGTH FROM CONCENTRATION POINT TO CENTROID =    1768.800 FEET
          ELEVATION VARIATION ALONG WATERCOURSE =      14.700 FEET
          BASIN FACTOR = 0.030
          WATERSHED AREA =     136.170 ACRES
          BASEFLOW =   0.000 CFS/SQUARE-MILE
          WATERCOURSE "LAG" TIME =    0.205 HOURS
           CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
           THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
           MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
          FOOTHILL S-GRAPH SELECTED
          UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.385
          LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
          USER-ENTERED RAINFALL =  1.64 INCHES
          RCFC&WCD 6-Hour Storm (5-Minute period) SELECTED
          RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9996
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UNIT HYDROGRAPH TIME UNIT = 5.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 40.741

UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	3.245	53.442
2	15.378	199.799
3	47.928	536.047
4	69.269	351.433
5	79.137	162.503
6	85.681	107.777
7	90.221	74.767
8	93.542	54.686
9	95.815	37.427
10	97.259	23.789
11	98.090	13.676
12	98.303	3.507
13	98.513	3.470
14	98.724	3.471
15	98.935	3.470
16	99.146	3.471
17	99.356	3.470
18	99.567	3.470
19	99.778	3.470
20	99.989	3.470
21	100.000	0.188

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0082	0.0074	0.0008
2	0.0098	0.0089	0.0010
3	0.0098	0.0089	0.0010
4	0.0098	0.0089	0.0010
5	0.0098	0.0089	0.0010
6	0.0115	0.0103	0.0011
7	0.0115	0.0103	0.0011
8	0.0115	0.0103	0.0011
9	0.0115	0.0103	0.0011
10	0.0115	0.0103	0.0011
11	0.0115	0.0103	0.0011
12	0.0131	0.0118	0.0013
13	0.0131	0.0118	0.0013
14	0.0131	0.0118	0.0013
15	0.0131	0.0118	0.0013
16	0.0131	0.0118	0.0013
17	0.0131	0.0118	0.0013
18	0.0131	0.0118	0.0013
19	0.0131	0.0118	0.0013
20	0.0131	0.0118	0.0013
21	0.0131	0.0118	0.0013
22	0.0131	0.0118	0.0013
23	0.0131	0.0118	0.0013
24	0.0148	0.0133	0.0015
25	0.0131	0.0118	0.0013
26	0.0148	0.0133	0.0015
27	0.0148	0.0133	0.0015
28	0.0148	0.0133	0.0015
29	0.0148	0.0133	0.0015

30	0.0148	0.0133	0.0015
31	0.0148	0.0133	0.0015
32	0.0148	0.0133	0.0015
33	0.0164	0.0148	0.0016
34	0.0164	0.0148	0.0016
35	0.0164	0.0148	0.0016
36	0.0164	0.0148	0.0016
37	0.0164	0.0148	0.0016
38	0.0180	0.0162	0.0018
39	0.0180	0.0162	0.0018
40	0.0180	0.0162	0.0018
41	0.0197	0.0177	0.0020
42	0.0213	0.0192	0.0021
43	0.0230	0.0207	0.0023
44	0.0230	0.0207	0.0023
45	0.0246	0.0221	0.0025
46	0.0246	0.0221	0.0025
47	0.0262	0.0236	0.0026
48	0.0262	0.0236	0.0026
49	0.0279	0.0251	0.0028
50	0.0295	0.0266	0.0030
51	0.0311	0.0280	0.0031
52	0.0328	0.0295	0.0033
53	0.0344	0.0310	0.0034
54	0.0344	0.0310	0.0034
55	0.0361	0.0321	0.0040
56	0.0377	0.0321	0.0056
57	0.0393	0.0321	0.0073
58	0.0393	0.0321	0.0073
59	0.0410	0.0321	0.0089
60	0.0426	0.0321	0.0105
61	0.0508	0.0321	0.0187
62	0.0590	0.0321	0.0269
63	0.0639	0.0321	0.0319
64	0.0689	0.0321	0.0368
65	0.0771	0.0321	0.0450
66	0.0918	0.0321	0.0597
67	0.0311	0.0280	0.0031
68	0.0148	0.0133	0.0015
69	0.0098	0.0089	0.0010
70	0.0082	0.0074	0.0008
71	0.0049	0.0044	0.0005
72	0.0033	0.0030	0.0003

TOTAL STORM RAINFALL(INCHES) = 1.64
TOTAL SOIL-LOSS(INCHES) = 1.28
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.36

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 14.4980
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 4.1027

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6 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	17.5	35.0	52.5	70.0
0.083	0.0003	0.04	Q	.	.	.	.
0.167	0.0018	0.22	Q	.	.	.	.
0.250	0.0065	0.69	Q	.	.	.	.
0.333	0.0139	1.06	Q	.	.	.	.
0.417	0.0225	1.26	Q	.	.	.	.
0.500	0.0320	1.38	Q	.	.	.	.
0.583	0.0423	1.49	Q	.	.	.	.

```
0.667      0.0535      1.64  Q         .         .         .         .
0.750      0.0655      1.73  Q         .         .         .         .
0.833      0.0778      1.79  VQ        .         .         .         .
0.917      0.0903      1.82  VQ        .         .         .         .
1.000      0.1030      1.84  .Q        .         .         .         .
1.083      0.1160      1.89  .Q        .         .         .         .
1.167      0.1297      1.99  .Q        .         .         .         .
1.250      0.1438      2.05  .Q        .         .         .         .
1.333      0.1582      2.08  .Q        .         .         .         .
1.417      0.1727      2.11  .Q        .         .         .         .
1.500      0.1873      2.12  .Q        .         .         .         .
1.583      0.2020      2.13  .Q        .         .         .         .
1.667      0.2168      2.14  .QV       .         .         .         .
1.750      0.2316      2.15  .QV       .         .         .         .
1.833      0.2464      2.15  .QV       .         .         .         .
1.917      0.2612      2.15  .QV       .         .         .         .
2.000      0.2761      2.16  .QV       .         .         .         .
2.083      0.2912      2.19  .QV       .         .         .         .
2.167      0.3067      2.25  .QV       .         .         .         .
2.250      0.3223      2.26  .Q V      .         .         .         .
2.333      0.3382      2.31  .Q V      .         .         .         .
2.417      0.3545      2.36  .Q V      .         .         .         .
2.500      0.3709      2.39  .Q V      .         .         .         .
2.583      0.3874      2.40  .Q V      .         .         .         .
2.667      0.4040      2.41  .Q V      .         .         .         .
2.750      0.4207      2.42  .Q  V     .         .         .         .
2.833      0.4377      2.46  .Q  V     .         .         .         .
2.917      0.4553      2.55  .Q  V     .         .         .         .
3.000      0.4733      2.61  .Q  V     .         .         .         .
3.083      0.4914      2.64  .Q  V     .         .         .         .
3.167      0.5098      2.67  .Q  V     .         .         .         .
3.250      0.5285      2.71  .Q   V    .         .         .         .
3.333      0.5478      2.81  .Q   V    .         .         .         .
3.417      0.5677      2.88  .Q   V    .         .         .         .
3.500      0.5880      2.96  .Q   V    .         .         .         .
3.583      0.6094      3.10  .Q   V    .         .         .         .
3.667      0.6321      3.30  .Q    V   .         .         .         .
3.750      0.6561      3.49  .Q    V   .         .         .         .
3.833      0.6811      3.63  . Q   V   .         .         .         .
3.917      0.7072      3.79  . Q   V   .         .         .         .
4.000      0.7342      3.92  . Q    V  .         .         .         .
4.083      0.7622      4.07  . Q    V  .         .         .         .
4.167      0.7912      4.21  . Q    V  .         .         .         .
4.250      0.8214      4.39  . Q     V .         .         .         .
4.333      0.8531      4.61  . Q     V .         .         .         .
4.417      0.8865      4.85  . Q     V .         .         .         .
4.500      0.9215      5.08  . Q     V .         .         .         .
4.583      0.9582      5.33  .  Q     V.         .         .         .
4.667      0.9971      5.65  .  Q     V.         .         .         .
4.750      1.0414      6.43  .  Q      V         .         .         .
4.833      1.0957      7.88  .   Q     V         .         .         .
4.917      1.1615      9.55  .    Q    .V         .         .         .
5.000      1.2364     10.89  .     Q   . V       .         .         .
5.083      1.3262     13.03  .      Q  . V       .         .         .
5.167      1.4426     16.90  .        Q.   V     .         .         .
5.250      1.6098     24.28  .          .  Q V    .         .         .
5.333      1.8398     33.41  .          .      V Q.         .         .
5.417      2.1297     42.09  .          .         V   Q     .         .
5.500      2.4835     51.37  .          .         .   V    Q.         .
5.583      2.8960     59.90  .          .         .       V .   Q     .
5.667      3.3216     61.80  .          .         .         . V  Q    .
5.750      3.5925     39.34  .          .         . Q       .    V    .
5.833      3.7504     22.93  .          .  Q      .         .     V   .
5.917      3.8595     15.83  .        Q.          .         .      V  .
6.000      3.9362     11.14  .     Q    .         .         .       V .
6.083      3.9896      7.75  .   Q      .         .         .       V .
6.167      4.0247      5.10  . Q        .         .         .        V.
6.250      4.0462      3.13  .Q         .         .         .        V.
6.333      4.0589      1.84  .Q         .         .         .        V.
6.417      4.0664      1.09  Q          .         .         .        V.
6.500      4.0731      0.97  Q          .         .         .        V.
```

6.583	4.0791	0.88	Q	.	.	.	V.
6.667	4.0848	0.82	Q	.	.	.	V.
6.750	4.0898	0.74	Q	.	.	.	V.
6.833	4.0942	0.63	Q	.	.	.	V.
6.917	4.0978	0.52	Q	.	.	.	V.
7.000	4.1005	0.40	Q	.	.	.	V.
7.083	4.1022	0.24	Q	.	.	.	V.
7.167	4.1024	0.04	Q	.	.	.	V.
7.250	4.1025	0.01	Q	.	.	.	V.
7.333	4.1026	0.01	Q	.	.	.	V.

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	440.0
10%	85.0
20%	55.0
30%	40.0
40%	30.0
50%	30.0
60%	25.0
70%	15.0
80%	15.0
90%	10.0

****
FLOW PROCESS FROM NODE 500.00 TO NODE 501.00 IS CODE = 1

>>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
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(UNIT-HYDROGRAPH ADDED TO STREAM #4)

WATERSHED AREA = 20.000 ACRES
BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.100 HOURS
CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
FOOTHILL S-GRAPH SELECTED
UNIFORM MEAN SOIL-LOSS(INCH/HOUR) = 0.050
LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.180
USER-ENTERED RAINFALL = 1.64 INCHES
RCFC&WCD 6-Hour Storm (5-Minute period) SELECTED
RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9999

UNIT HYDROGRAPH TIME UNIT = 5.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 83.333

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UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	9.713	23.494
2	60.041	121.730
3	83.125	55.836
4	92.383	22.393
5	96.836	10.769
6	98.250	3.421
7	98.681	1.043

8	99.112	1.043
9	99.543	1.043
10	99.974	1.043
11	100.000	0.063

****

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0082	0.0015	0.0067
2	0.0098	0.0018	0.0081
3	0.0098	0.0018	0.0081
4	0.0098	0.0018	0.0081
5	0.0098	0.0018	0.0081
6	0.0115	0.0021	0.0094
7	0.0115	0.0021	0.0094
8	0.0115	0.0021	0.0094
9	0.0115	0.0021	0.0094
10	0.0115	0.0021	0.0094
11	0.0115	0.0021	0.0094
12	0.0131	0.0024	0.0108
13	0.0131	0.0024	0.0108
14	0.0131	0.0024	0.0108
15	0.0131	0.0024	0.0108
16	0.0131	0.0024	0.0108
17	0.0131	0.0024	0.0108
18	0.0131	0.0024	0.0108
19	0.0131	0.0024	0.0108
20	0.0131	0.0024	0.0108
21	0.0131	0.0024	0.0108
22	0.0131	0.0024	0.0108
23	0.0131	0.0024	0.0108
24	0.0148	0.0027	0.0121
25	0.0131	0.0024	0.0108
26	0.0148	0.0027	0.0121
27	0.0148	0.0027	0.0121
28	0.0148	0.0027	0.0121
29	0.0148	0.0027	0.0121
30	0.0148	0.0027	0.0121
31	0.0148	0.0027	0.0121
32	0.0148	0.0027	0.0121
33	0.0164	0.0030	0.0134
34	0.0164	0.0030	0.0134
35	0.0164	0.0030	0.0134
36	0.0164	0.0030	0.0134
37	0.0164	0.0030	0.0134
38	0.0180	0.0032	0.0148
39	0.0180	0.0032	0.0148
40	0.0180	0.0032	0.0148
41	0.0197	0.0035	0.0161
42	0.0213	0.0038	0.0175
43	0.0230	0.0041	0.0188
44	0.0230	0.0041	0.0188
45	0.0246	0.0042	0.0204
46	0.0246	0.0042	0.0204
47	0.0262	0.0042	0.0221
48	0.0262	0.0042	0.0221
49	0.0279	0.0042	0.0237
50	0.0295	0.0042	0.0254
51	0.0312	0.0042	0.0270
52	0.0328	0.0042	0.0286
53	0.0344	0.0042	0.0303
54	0.0344	0.0042	0.0303
55	0.0361	0.0042	0.0319
56	0.0377	0.0042	0.0336
57	0.0394	0.0042	0.0352
58	0.0394	0.0042	0.0352
59	0.0410	0.0042	0.0368
60	0.0426	0.0042	0.0385

61	0.0508	0.0042	0.0467
62	0.0590	0.0042	0.0549
63	0.0640	0.0042	0.0598
64	0.0689	0.0042	0.0647
65	0.0771	0.0042	0.0729
66	0.0918	0.0042	0.0877
67	0.0312	0.0042	0.0270
68	0.0148	0.0027	0.0121
69	0.0098	0.0018	0.0081
70	0.0082	0.0015	0.0067
71	0.0049	0.0009	0.0040
72	0.0033	0.0006	0.0027

TOTAL STORM RAINFALL(INCHES) = 1.64
TOTAL SOIL-LOSS(INCHES) = 0.22
TOTAL EFFECTIVE RAINFALL(INCHES) = 1.42

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 0.3604
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 2.3715

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6 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	5.0	10.0	15.0	20.0
0.083	0.0011	0.16	Q	.	.	.	.
0.167	0.0080	1.01	V Q	.	.	.	.
0.250	0.0187	1.55	V Q	.	.	.	.
0.333	0.0309	1.77	V Q	.	.	.	.
0.417	0.0438	1.88	V Q	.	.	.	.
0.500	0.0572	1.94	V Q	.	.	.	.
0.583	0.0718	2.12	.V Q	.	.	.	.
0.667	0.0870	2.20	.V Q	.	.	.	.
0.750	0.1024	2.24	.V Q	.	.	.	.
0.833	0.1180	2.26	.V Q	.	.	.	.
0.917	0.1336	2.27	. V Q	.	.	.	.
1.000	0.1495	2.30	. V Q	.	.	.	.
1.083	0.1665	2.47	. V Q	.	.	.	.
1.167	0.1841	2.55	. V Q	.	.	.	.
1.250	0.2018	2.58	. V Q	.	.	.	.
1.333	0.2197	2.59	. V Q	.	.	.	.
1.417	0.2375	2.60	. VQ	.	.	.	.
1.500	0.2554	2.60	. VQ	.	.	.	.
1.583	0.2733	2.60	. VQ	.	.	.	.
1.667	0.2912	2.60	. VQ	.	.	.	.
1.750	0.3092	2.60	. Q	.	.	.	.
1.833	0.3271	2.60	. Q	.	.	.	.
1.917	0.3450	2.60	. Q	.	.	.	.
2.000	0.3631	2.63	. QV	.	.	.	.
2.083	0.3822	2.77	. QV	.	.	.	.
2.167	0.4008	2.71	. QV	.	.	.	.
2.250	0.4203	2.83	. Q V	.	.	.	.
2.333	0.4402	2.89	. Q V	.	.	.	.
2.417	0.4602	2.91	. Q V	.	.	.	.
2.500	0.4803	2.92	. Q V	.	.	.	.
2.583	0.5004	2.92	. Q V	.	.	.	.
2.667	0.5206	2.92	. Q V	.	.	.	.
2.750	0.5410	2.96	. Q V.	.	.	.	.
2.833	0.5624	3.12	. Q V.	.	.	.	.
2.917	0.5845	3.20	. Q V.	.	.	.	.
3.000	0.6067	3.23	. Q V	.	.	.	.
3.083	0.6290	3.24	. Q V	.	.	.	.
3.167	0.6516	3.28	. Q V	.	.	.	.

3.250	0.6753	3.44	. Q .V . . .
3.333	0.6996	3.52	. Q .V . . .
3.417	0.7242	3.58	. Q . V . . .
3.500	0.7504	3.79	. Q . V . . .
3.583	0.7784	4.07	. Q . V . . .
3.667	0.8083	4.34	. Q . V . . .
3.750	0.8393	4.50	. Q . V . . .
3.833	0.8719	4.74	. Q. V . . .
3.917	0.9057	4.89	. Q. V . . .
4.000	0.9410	5.14	. Q V . . .
4.083	0.9775	5.29	. Q V . . .
4.167	1.0159	5.57	. .Q V . . .
4.250	1.0567	5.93	. .Q V . . .
4.333	1.1001	6.30	. . Q V . . .
4.417	1.1461	6.69	. . Q V. . .
4.500	1.1946	7.04	. . Q V . .
4.583	1.2445	7.24	. . Q V . .
4.667	1.2964	7.54	. . Q .V . .
4.750	1.3508	7.90	. . Q . V . .
4.833	1.4075	8.24	. . Q . V . .
4.917	1.4656	8.43	. . Q . V . .
5.000	1.5257	8.73	. . Q . V . .
5.083	1.5894	9.25	. . Q . V . .
5.167	1.6623	10.58	. . .Q V . .
5.250	1.7463	12.21	. . . Q V. .
5.333	1.8399	13.59	. . . Q .V .
5.417	1.9428	14.94	. . . Q. V .
5.500	2.0585	16.79	. . . . QV .
5.583	2.1812	17.82	. . . . QV .
5.667	2.2582	11.19	. . . Q . V .
5.750	2.3020	6.35	. . Q . . V .
5.833	2.3285	3.85	. Q . . . V.
5.917	2.3457	2.49	. Q . . . V.
6.000	2.3569	1.63	. Q . . . V.
6.083	2.3645	1.10	. Q . . . V.
6.167	2.3683	0.55	.Q . . . V.
6.250	2.3702	0.27	Q . . . V.
6.333	2.3709	0.10	Q . . . V.
6.417	2.3712	0.04	Q . . . V.
6.500	2.3713	0.02	Q . . . V.
6.583	2.3714	0.01	Q . . . V.
6.667	2.3715	0.01	Q . . . V.

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	400.0
10%	335.0
20%	150.0
30%	100.0
40%	70.0
50%	40.0
60%	30.0
70%	20.0
80%	15.0
90%	10.0

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END OF FLOODSCx ROUTING ANALYSIS

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             F L O O D    R O U T I N G    A N A L Y S I S

ACCORDING TO RIVERSIDE COUNTY FLOOD CONTORL AND WATER CONSERVATION DISTRICT
                    (RCFC&WCD) 1978 HYDROLOGY MANUAL
         (c) Copyright 1989-2011 Advanced Engineering Software (aes)
                 (Synthetic Unit Hydrograph Version 18.0)
                 Release Date: 05/01/2011  License ID 1499

                           Analysis prepared by:

                      Kimley-Horn and Associates, Inc.
                             765 The City Drive
                                 Suite 200
                              Orange, CA 92868

 ************************* DESCRIPTION OF STUDY *************************
* District at Jurupa Valley                                             *
* Preliminary Hydrology 10 year 24 Hour Event                           *
* Kimley Horn May 26, 2022                                              *
 *************************************************************************

  FILE NAME: C:\aes2011\hydrosft\floodX\J10Y24H.fld
  TIME/DATE OF STUDY: 14:05 05/26/2022


**************************************************************************
  FLOW PROCESS FROM NODE   100.00 TO NODE   101.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
==========================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #1)

         WATERCOURSE LENGTH =    4582.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2749.200 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      76.000 FEET
         BASIN FACTOR = 0.015
         WATERSHED AREA =     308.710 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.114 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.340
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.630
         MINIMUM SOIL-LOSS RATE(INCH/HOUR) =   0.170
         USER-ENTERED RAINFALL =  3.02 INCHES
         RCFC&WCD 24-Hour Storm (15-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9994


         UNIT HYDROGRAPH TIME UNIT =  15.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME = 219.682


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                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------
       1                45.973               572.128
       2                93.932               596.848
       3                98.720                59.582
       4                99.526                10.027
       5                99.810                 3.542
```

6	99.953	1.771
7	100.000	0.590

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0060	0.0038	0.0022
2	0.0091	0.0057	0.0034
3	0.0091	0.0057	0.0034
4	0.0121	0.0076	0.0045
5	0.0091	0.0057	0.0034
6	0.0091	0.0057	0.0034
7	0.0091	0.0057	0.0034
8	0.0121	0.0076	0.0045
9	0.0121	0.0076	0.0045
10	0.0121	0.0076	0.0045
11	0.0151	0.0095	0.0056
12	0.0151	0.0095	0.0056
13	0.0151	0.0095	0.0056
14	0.0151	0.0095	0.0056
15	0.0151	0.0095	0.0056
16	0.0181	0.0114	0.0067
17	0.0181	0.0114	0.0067
18	0.0211	0.0133	0.0078
19	0.0211	0.0133	0.0078
20	0.0241	0.0152	0.0089
21	0.0181	0.0114	0.0067
22	0.0211	0.0133	0.0078
23	0.0241	0.0152	0.0089
24	0.0241	0.0152	0.0089
25	0.0272	0.0171	0.0101
26	0.0272	0.0171	0.0101
27	0.0302	0.0190	0.0112
28	0.0302	0.0190	0.0112
29	0.0302	0.0190	0.0112
30	0.0332	0.0209	0.0123
31	0.0362	0.0228	0.0134
32	0.0392	0.0247	0.0145
33	0.0453	0.0285	0.0168
34	0.0453	0.0285	0.0168
35	0.0483	0.0304	0.0179
36	0.0513	0.0323	0.0190
37	0.0573	0.0361	0.0212
38	0.0604	0.0380	0.0223
39	0.0634	0.0399	0.0235
40	0.0664	0.0418	0.0246
41	0.0453	0.0285	0.0168
42	0.0453	0.0285	0.0168
43	0.0604	0.0380	0.0223
44	0.0604	0.0380	0.0223
45	0.0573	0.0361	0.0212
46	0.0573	0.0361	0.0212
47	0.0513	0.0323	0.0190
48	0.0543	0.0342	0.0201
49	0.0755	0.0475	0.0279
50	0.0785	0.0494	0.0290
51	0.0845	0.0532	0.0313
52	0.0875	0.0551	0.0324
53	0.1026	0.0647	0.0380
54	0.1026	0.0647	0.0380
55	0.0694	0.0437	0.0257
56	0.0694	0.0437	0.0257
57	0.0815	0.0513	0.0302
58	0.0785	0.0494	0.0290
59	0.0785	0.0494	0.0290
60	0.0755	0.0475	0.0279
61	0.0724	0.0456	0.0268
62	0.0694	0.0437	0.0257

63	0.0573	0.0361	0.0212
64	0.0573	0.0361	0.0212
65	0.0121	0.0076	0.0045
66	0.0121	0.0076	0.0045
67	0.0091	0.0057	0.0034
68	0.0091	0.0057	0.0034
69	0.0151	0.0095	0.0056
70	0.0151	0.0095	0.0056
71	0.0151	0.0095	0.0056
72	0.0121	0.0076	0.0045
73	0.0121	0.0076	0.0045
74	0.0121	0.0076	0.0045
75	0.0091	0.0057	0.0034
76	0.0060	0.0038	0.0022
77	0.0091	0.0057	0.0034
78	0.0121	0.0076	0.0045
79	0.0091	0.0057	0.0034
80	0.0060	0.0038	0.0022
81	0.0091	0.0057	0.0034
82	0.0091	0.0057	0.0034
83	0.0091	0.0057	0.0034
84	0.0060	0.0038	0.0022
85	0.0091	0.0057	0.0034
86	0.0060	0.0038	0.0022
87	0.0091	0.0057	0.0034
88	0.0060	0.0038	0.0022
89	0.0091	0.0057	0.0034
90	0.0060	0.0038	0.0022
91	0.0060	0.0038	0.0022
92	0.0060	0.0038	0.0022
93	0.0060	0.0038	0.0022
94	0.0060	0.0038	0.0022
95	0.0060	0.0038	0.0022
96	0.0060	0.0038	0.0022

TOTAL STORM RAINFALL(INCHES) = 3.02
TOTAL SOIL-LOSS(INCHES) = 1.90
TOTAL EFFECTIVE RAINFALL(INCHES) = 1.12

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 48.9186
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 28.7151

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2 4 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 12.5 25.0 37.5 50.0
0.083	0.0088	1.28	VQ . . . .
0.167	0.0176	1.28	VQ . . . .
0.250	0.0264	1.28	VQ . . . .
0.333	0.0488	3.25	V Q . . . .
0.417	0.0712	3.25	V Q . . . .
0.500	0.0935	3.25	V Q . . . .
0.583	0.1214	4.05	V Q . . . .
0.667	0.1493	4.05	V Q . . . .
0.750	0.1772	4.05	V Q . . . .
0.833	0.2101	4.78	V Q . . . .
0.917	0.2430	4.78	V Q . . . .
1.000	0.2759	4.78	V Q . . . .
1.083	0.3091	4.82	V Q . . . .
1.167	0.3424	4.82	V Q . . . .
1.250	0.3756	4.82	V Q . . . .
1.333	0.4047	4.23	V Q . . . .

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1.417      0.4339      4.23  V  Q      .         .         .         .
1.500      0.4630      4.23  V  Q      .         .         .         .
1.583      0.4918      4.18  V  Q      .         .         .         .
1.667      0.5206      4.18  V  Q      .         .         .         .
1.750      0.5494      4.18  V  Q      .         .         .         .
1.833      0.5825      4.81  V  Q      .         .         .         .
1.917      0.6157      4.81  V  Q      .         .         .         .
2.000      0.6488      4.81  V  Q      .         .         .         .
2.083      0.6865      5.48  V   Q     .         .         .         .
2.167      0.7243      5.48   V  Q     .         .         .         .
2.250      0.7620      5.48   V  Q     .         .         .         .
2.333      0.8002      5.54  .V  Q     .         .         .         .
2.417      0.8383      5.54  .V  Q     .         .         .         .
2.500      0.8765      5.54  .V  Q     .         .         .         .
2.583      0.9191      6.19  .V  Q     .         .         .         .
2.667      0.9618      6.19  .V  Q     .         .         .         .
2.750      1.0044      6.19  .V  Q     .         .         .         .
2.833      1.0517      6.86  .V   Q    .         .         .         .
2.917      1.0989      6.86  .V   Q    .         .         .         .
3.000      1.1462      6.86  .V   Q    .         .         .         .
3.083      1.1939      6.93  .V   Q    .         .         .         .
3.167      1.2417      6.93  .V   Q    .         .         .         .
3.250      1.2894      6.93  .V   Q    .         .         .         .
3.333      1.3372      6.94  .V   Q    .         .         .         .
3.417      1.3850      6.94  .V   Q    .         .         .         .
3.500      1.4328      6.94  .V   Q    .         .         .         .
3.583      1.4807      6.95  . V  Q    .         .         .         .
3.667      1.5285      6.95  . V  Q    .         .         .         .
3.750      1.5764      6.95  . V  Q    .         .         .         .
3.833      1.6286      7.59  . V   Q   .         .         .         .
3.917      1.6809      7.59  . V   Q   .         .         .         .
4.000      1.7331      7.59  . V   Q   .         .         .         .
4.083      1.7900      8.25  . V   Q   .         .         .         .
4.167      1.8468      8.25  . V   Q   .         .         .         .
4.250      1.9037      8.25  . V   Q   .         .         .         .
4.333      1.9654      8.96  . V    Q  .         .         .         .
4.417      2.0271      8.96  . V    Q  .         .         .         .
4.500      2.0888      8.96  . V    Q  .         .         .         .
4.583      2.1552      9.64  .  V   Q  .         .         .         .
4.667      2.2215      9.64  .  V   Q  .         .         .         .
4.750      2.2879      9.64  .  V   Q  .         .         .         .
4.833      2.3592     10.35  .  V    Q .         .         .         .
4.917      2.4304     10.35  .  V    Q .         .         .         .
5.000      2.5017     10.35  .  V    Q .         .         .         .
5.083      2.5688      9.75  .  V   Q  .         .         .         .
5.167      2.6360      9.75  .  V   Q  .         .         .         .
5.250      2.7031      9.75  .  V   Q  .         .         .         .
5.333      2.7660      9.13  .  V   Q  .         .         .         .
5.417      2.8288      9.13  .  V   Q  .         .         .         .
5.500      2.8917      9.13  .   V  Q  .         .         .         .
5.583      2.9627     10.31  .   V   Q .         .         .         .
5.667      3.0337     10.31  .   V   Q .         .         .         .
5.750      3.1047     10.31  .   V   Q .         .         .         .
5.833      3.1807     11.03  .   V   Q .         .         .         .
5.917      3.2566     11.03  .   V   Q .         .         .         .
6.000      3.3326     11.03  .   V   Q .         .         .         .
6.083      3.4134     11.74  .   V    Q.         .         .         .
6.167      3.4942     11.74  .   V    Q.         .         .         .
6.250      3.5751     11.74  .   V    Q.         .         .         .
6.333      3.6606     12.42  .    V   Q.         .         .         .
6.417      3.7461     12.42  .    V   Q.         .         .         .
6.500      3.8316     12.42  .    V   Q.         .         .         .
6.583      3.9220     13.13  .    V    Q         .         .         .
6.667      4.0124     13.13  .    V    Q         .         .         .
6.750      4.1028     13.13  .    V    Q         .         .         .
6.833      4.1979     13.81  .    V    .Q        .         .         .
6.917      4.2930     13.81  .    V    .Q        .         .         .
7.000      4.3881     13.81  .     V   .Q        .         .         .
7.083      4.4836     13.88  .     V   .Q        .         .         .
7.167      4.5792     13.88  .     V   .Q        .         .         .
7.250      4.6748     13.88  .     V   .Q        .         .         .
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 7.333      4.7749     14.53  .     V   .Q        .         .         .
 7.417      4.8749     14.53  .     V   .Q        .         .         .
 7.500      4.9750     14.53  .     V   .Q        .         .         .
 7.583      5.0841     15.84  .      V  . Q       .         .         .
 7.667      5.1932     15.84  .      V  . Q       .         .         .
 7.750      5.3023     15.84  .      V  . Q       .         .         .
 7.833      5.4208     17.21  .      V  .  Q      .         .         .
 7.917      5.5394     17.21  .      V  .  Q      .         .         .
 8.000      5.6579     17.21  .      V  .  Q      .         .         .
 8.083      5.7904     19.24  .       V .    Q    .         .         .
 8.167      5.9229     19.24  .       V .    Q    .         .         .
 8.250      6.0554     19.24  .       V .    Q    .         .         .
 8.333      6.1976     20.65  .       V .     Q   .         .         .
 8.417      6.3398     20.65  .       V .     Q   .         .         .
 8.500      6.4821     20.65  .        V.     Q   .         .         .
 8.583      6.6297     21.44  .        V.      Q  .         .         .
 8.667      6.7774     21.44  .        V.      Q  .         .         .
 8.750      6.9251     21.44  .        V.      Q  .         .         .
 8.833      7.0819     22.78  .        V.       Q .         .         .
 8.917      7.2388     22.78  .         V       Q .         .         .
 9.000      7.3956     22.78  .         V       Q .         .         .
 9.083      7.5664     24.80  .         V        Q.         .         .
 9.167      7.7372     24.80  .         V        Q.         .         .
 9.250      7.9079     24.80  .          V       Q.         .         .
 9.333      8.0929     26.85  .         .V        .Q       .         .
 9.417      8.2778     26.85  .         .V        .Q       .         .
 9.500      8.4627     26.85  .         .V        .Q       .         .
 9.583      8.6577     28.31  .         . V       . Q      .         .
 9.667      8.8526     28.31  .         . V       . Q      .         .
 9.750      9.0475     28.31  .         . V       . Q      .         .
 9.833      9.2521     29.71  .         . V       .  Q     .         .
 9.917      9.4567     29.71  .         .  V      .  Q     .         .
10.000      9.6613     29.71  .         .  V      .  Q     .         .
10.083      9.8403     25.99  .         .  V      Q        .         .
10.167     10.0193     25.99  .         .  V      Q        .         .
10.250     10.1983     25.99  .         .   V     Q        .         .
10.333     10.3457     21.41  .         .   V  Q  .        .         .
10.417     10.4932     21.41  .         .   V  Q  .        .         .
10.500     10.6406     21.41  .         .   V  Q  .        .         .
10.583     10.8070     24.16  .         .    V   Q.        .         .
10.667     10.9733     24.16  .         .    V   Q.        .         .
10.750     11.1397     24.16  .         .    V   Q.        .         .
10.833     11.3285     27.42  .         .    V    .Q       .         .
10.917     11.5174     27.42  .         .     V   .Q       .         .
11.000     11.7062     27.42  .         .     V   .Q       .         .
11.083     11.8927     27.09  .         .     V   .Q       .         .
11.167     12.0793     27.09  .         .     V   .Q       .         .
11.250     12.2658     27.09  .         .      V  .Q       .         .
11.333     12.4481     26.46  .         .      V  .Q       .         .
11.417     12.6303     26.46  .         .      V  .Q       .         .
11.500     12.8126     26.46  .         .      V  .Q       .         .
11.583     12.9857     25.13  .         .       V Q        .         .
11.667     13.1588     25.13  .         .       V Q        .         .
11.750     13.3318     25.13  .         .       V Q        .         .
11.833     13.5001     24.44  .         .       VQ.        .         .
11.917     13.6685     24.44  .         .        Q.        .         .
12.000     13.8368     24.44  .         .        Q.        .         .
12.083     14.0395     29.44  .         .        V.  Q     .         .
12.167     14.2423     29.44  .         .        V.  Q     .         .
12.250     14.4451     29.44  .         .         V  Q     .         .
12.333     14.6847     34.79  .         .         V      Q  .         .
12.417     14.9243     34.79  .         .         V      Q  .         .
12.500     15.1639     34.79  .         .          V     Q  .         .
12.583     15.4201     37.20  .         .         .V       Q.        .
12.667     15.6763     37.20  .         .         .V       Q.        .
12.750     15.9325     37.20  .         .         . V      Q.        .
12.833     16.2033     39.32  .         .         . V       .Q       .
12.917     16.4741     39.32  .         .         . V       .Q       .
13.000     16.7449     39.32  .         .         .  V      .Q       .
13.083     17.0435     43.35  .         .         .  V      .   Q    .
13.167     17.3421     43.35  .         .         .   V     .   Q    .
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13.250     17.6407     43.35  .          .          .   V      .    Q     .
13.333     17.9629     46.79  .          .          .    V     .       Q  .
13.417     18.2852     46.79  .          .          .    V     .       Q  .
13.500     18.6075     46.79  .          .          .    V     .       Q  .
13.583     18.8838     40.12  .          .          .     V    . Q        .
13.667     19.1601     40.12  .          .          .     V    . Q        .
13.750     19.4365     40.12  .          .          .      V   . Q        .
13.833     19.6628     32.86  .          .          .     QV   .          .
13.917     19.8891     32.86  .          .          .     QV   .          .
14.000     20.1153     32.86  .          .          .     Q V  .          .
14.083     20.3543     34.70  .          .          .      QV  .          .
14.167     20.5933     34.70  .          .          .      QV  .          .
14.250     20.8323     34.70  .          .          .      Q V.          .
14.333     21.0845     36.62  .          .          .        Q.          .
14.417     21.3367     36.62  .          .          .        Q.          .
14.500     21.5889     36.62  .          .          .        QV          .
14.583     21.8381     36.18  .          .          .       Q V          .
14.667     22.0872     36.18  .          .          .       Q V          .
14.750     22.3364     36.18  .          .          .       Q  V         .
14.833     22.5808     35.49  .          .          .       Q .V         .
14.917     22.8253     35.49  .          .          .       Q .V         .
15.000     23.0697     35.49  .          .          .       Q . V        .
15.083     23.3052     34.19  .          .          .      Q  . V        .
15.167     23.5406     34.19  .          .          .      Q  . V        .
15.250     23.7761     34.19  .          .          .      Q  .  V       .
15.333     24.0021     32.82  .          .          .     Q   .  V       .
15.417     24.2281     32.82  .          .          .     Q   .  V       .
15.500     24.4542     32.82  .          .          .     Q   .   V      .
15.583     24.6575     29.52  .          .          .  Q       .   V      .
15.667     24.8608     29.52  .          .          .  Q       .   V      .
15.750     25.0641     29.52  .          .          .  Q       .   V      .
15.833     25.2484     26.77  .          .         .Q        .    V     .
15.917     25.4328     26.77  .          .         .Q        .    V     .
16.000     25.6172     26.77  .          .         .Q        .    V     .
16.083     25.7336     16.90  .          .  Q      .         .    V     .
16.167     25.8500     16.90  .          .  Q      .         .     V    .
16.250     25.9664     16.90  .          .  Q      .         .     V    .
16.333     26.0136      6.85  .    Q     .         .         .     V    .
16.417     26.0608      6.85  .    Q     .         .         .     V    .
16.500     26.1080      6.85  .    Q     .         .         .     V    .
16.583     26.1438      5.20  .   Q      .         .         .     V    .
16.667     26.1796      5.20  .   Q      .         .         .     V    .
16.750     26.2154      5.20  .   Q      .         .         .     V    .
16.833     26.2454      4.36  .  Q       .         .         .     V    .
16.917     26.2754      4.36  .  Q       .         .         .     V    .
17.000     26.3054      4.36  .  Q       .         .         .     V    .
17.083     26.3433      5.50  .   Q      .         .         .     V    .
17.167     26.3812      5.50  .   Q      .         .         .     V    .
17.250     26.4191      5.50  .   Q      .         .         .     V    .
17.333     26.4660      6.80  .    Q     .         .         .     V    .
17.417     26.5128      6.80  .    Q     .         .         .     V    .
17.500     26.5596      6.80  .    Q     .         .         .     V    .
17.583     26.6072      6.92  .    Q     .         .         .      V   .
17.667     26.6548      6.92  .    Q     .         .         .      V   .
17.750     26.7025      6.92  .    Q     .         .         .      V   .
17.833     26.7458      6.30  .    Q     .         .         .      V   .
17.917     26.7892      6.30  .    Q     .         .         .      V   .
18.000     26.8326      6.30  .    Q     .         .         .      V   .
18.083     26.8714      5.64  .   Q      .         .         .      V   .
18.167     26.9102      5.64  .   Q      .         .         .      V   .
18.250     26.9491      5.64  .   Q      .         .         .      V   .
18.333     26.9875      5.58  .   Q      .         .         .      V   .
18.417     27.0259      5.58  .   Q      .         .         .      V   .
18.500     27.0643      5.58  .   Q      .         .         .      V   .
18.583     27.0982      4.93  .  Q       .         .         .      V   .
18.667     27.1321      4.93  .  Q       .         .         .      V   .
18.750     27.1661      4.93  .  Q       .         .         .      V   .
18.833     27.1910      3.62  . Q        .         .         .      V   .
18.917     27.2159      3.62  . Q        .         .         .      V   .
19.000     27.2408      3.62  . Q        .         .         .      V   .
19.083     27.2651      3.52  . Q        .         .         .      V   .
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19.167	27.2893	3.52	. Q	.	.	.	V .
19.250	27.3136	3.52	. Q	.	.	.	V .
19.333	27.3463	4.75	. Q	.	.	.	V .
19.417	27.3790	4.75	. Q	.	.	.	V .
19.500	27.4117	4.75	. Q	.	.	.	V .
19.583	27.4449	4.83	. Q	.	.	.	V .
19.667	27.4782	4.83	. Q	.	.	.	V .
19.750	27.5114	4.83	. Q	.	.	.	V .
19.833	27.5362	3.59	. Q	.	.	.	V .
19.917	27.5609	3.59	. Q	.	.	.	V .
20.000	27.5857	3.59	. Q	.	.	.	V .
20.083	27.6099	3.51	. Q	.	.	.	V .
20.167	27.6341	3.51	. Q	.	.	.	V .
20.250	27.6582	3.51	. Q	.	.	.	V .
20.333	27.6865	4.11	. Q	.	.	.	V .
20.417	27.7148	4.11	. Q	.	.	.	V .
20.500	27.7431	4.11	. Q	.	.	.	V .
20.583	27.7717	4.16	. Q	.	.	.	V .
20.667	27.8004	4.16	. Q	.	.	.	V .
20.750	27.8290	4.16	. Q	.	.	.	V .
20.833	27.8533	3.53	. Q	.	.	.	V .
20.917	27.8776	3.53	. Q	.	.	.	V .
21.000	27.9019	3.53	. Q	.	.	.	V .
21.083	27.9260	3.50	. Q	.	.	.	V .
21.167	27.9501	3.50	. Q	.	.	.	V .
21.250	27.9742	3.50	. Q	.	.	.	V .
21.333	27.9981	3.46	. Q	.	.	.	V.
21.417	28.0219	3.46	. Q	.	.	.	V.
21.500	28.0458	3.46	. Q	.	.	.	V.
21.583	28.0698	3.49	. Q	.	.	.	V.
21.667	28.0939	3.49	. Q	.	.	.	V.
21.750	28.1179	3.49	. Q	.	.	.	V.
21.833	28.1418	3.46	. Q	.	.	.	V.
21.917	28.1656	3.46	. Q	.	.	.	V.
22.000	28.1894	3.46	. Q	.	.	.	V.
22.083	28.2135	3.49	. Q	.	.	.	V.
22.167	28.2375	3.49	. Q	.	.	.	V.
22.250	28.2615	3.49	. Q	.	.	.	V.
22.333	28.2854	3.46	. Q	.	.	.	V.
22.417	28.3092	3.46	. Q	.	.	.	V.
22.500	28.3330	3.46	. Q	.	.	.	V.
22.583	28.3526	2.85	. Q	.	.	.	V.
22.667	28.3723	2.85	. Q	.	.	.	V.
22.750	28.3919	2.85	. Q	.	.	.	V.
22.833	28.4111	2.79	. Q	.	.	.	V.
22.917	28.4304	2.79	. Q	.	.	.	V.
23.000	28.4496	2.79	. Q	.	.	.	V.
23.083	28.4688	2.78	. Q	.	.	.	V.
23.166	28.4880	2.78	. Q	.	.	.	V.
23.250	28.5071	2.78	. Q	.	.	.	V.
23.333	28.5263	2.78	. Q	.	.	.	V.
23.416	28.5455	2.78	. Q	.	.	.	V.
23.500	28.5646	2.78	. Q	.	.	.	V.
23.583	28.5838	2.78	. Q	.	.	.	V.
23.666	28.6029	2.78	. Q	.	.	.	V.
23.750	28.6221	2.78	. Q	.	.	.	V.
23.833	28.6412	2.78	. Q	.	.	.	V.
23.916	28.6603	2.78	. Q	.	.	.	V.
24.000	28.6795	2.78	. Q	.	.	.	V.
24.083	28.6898	1.50	.Q	.	.	.	V.
24.166	28.7002	1.50	.Q	.	.	.	V.
24.250	28.7105	1.50	.Q	.	.	.	V.
24.333	28.7117	0.17	Q	.	.	.	V.
24.416	28.7128	0.17	Q	.	.	.	V.
24.500	28.7140	0.17	Q	.	.	.	V.
24.583	28.7142	0.04	Q	.	.	.	V.
24.666	28.7145	0.04	Q	.	.	.	V.
24.750	28.7147	0.04	Q	.	.	.	V.
24.833	28.7148	0.01	Q	.	.	.	V.
24.916	28.7149	0.01	Q	.	.	.	V.
25.000	28.7150	0.01	Q	.	.	.	V.

```
  25.083     28.7150      0.01  Q         .         .         .       V.
  25.166     28.7151      0.01  Q         .         .         .       V.
  25.250     28.7151      0.01  Q         .         .         .       V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated                Duration
       Peak Flow Rate                     (minutes)
   ======================                 =========
              0%                           1515.0
             10%                           1065.0
             20%                            690.0
             30%                            540.0
             40%                            480.0
             50%                            405.0
             60%                            255.0
             70%                            195.0
             80%                             60.0
             90%                             30.0


********************************************************************************
  FLOW PROCESS FROM NODE   104.00 TO NODE   105.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
================================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #2)

         WATERCOURSE LENGTH =    3781.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2268.600 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      62.900 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     121.080 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.197 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.415
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
         MINIMUM SOIL-LOSS RATE(INCH/HOUR) =   0.210
         USER-ENTERED RAINFALL =  3.02 INCHES
         RCFC&WCD 24-Hour Storm (15-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9998


         UNIT HYDROGRAPH TIME UNIT =  15.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME = 127.183


================================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------------
        1                23.805               116.193
        2                79.421               271.466
        3                93.967                70.998
        4                98.096                20.152
        5                98.840                 3.632
        6                99.426                 2.864
        7                99.771                 1.680
        8                99.943                 0.840
        9               100.000                 0.280
 ********************************************************************************
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UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0060	0.0054	0.0006
2	0.0091	0.0082	0.0009
3	0.0091	0.0082	0.0009
4	0.0121	0.0109	0.0012
5	0.0091	0.0082	0.0009
6	0.0091	0.0082	0.0009
7	0.0091	0.0082	0.0009
8	0.0121	0.0109	0.0012
9	0.0121	0.0109	0.0012
10	0.0121	0.0109	0.0012
11	0.0151	0.0136	0.0015
12	0.0151	0.0136	0.0015
13	0.0151	0.0136	0.0015
14	0.0151	0.0136	0.0015
15	0.0151	0.0136	0.0015
16	0.0181	0.0163	0.0018
17	0.0181	0.0163	0.0018
18	0.0211	0.0190	0.0021
19	0.0211	0.0190	0.0021
20	0.0242	0.0217	0.0024
21	0.0181	0.0163	0.0018
22	0.0211	0.0190	0.0021
23	0.0242	0.0217	0.0024
24	0.0242	0.0217	0.0024
25	0.0272	0.0245	0.0027
26	0.0272	0.0245	0.0027
27	0.0302	0.0272	0.0030
28	0.0302	0.0272	0.0030
29	0.0302	0.0272	0.0030
30	0.0332	0.0299	0.0033
31	0.0362	0.0326	0.0036
32	0.0393	0.0353	0.0039
33	0.0453	0.0408	0.0045
34	0.0453	0.0408	0.0045
35	0.0483	0.0435	0.0048
36	0.0513	0.0462	0.0051
37	0.0574	0.0516	0.0057
38	0.0604	0.0543	0.0060
39	0.0634	0.0571	0.0063
40	0.0664	0.0598	0.0066
41	0.0453	0.0408	0.0045
42	0.0453	0.0408	0.0045
43	0.0604	0.0543	0.0060
44	0.0604	0.0543	0.0060
45	0.0574	0.0516	0.0057
46	0.0574	0.0516	0.0057
47	0.0513	0.0462	0.0051
48	0.0543	0.0489	0.0054
49	0.0755	0.0679	0.0075
50	0.0785	0.0707	0.0079
51	0.0845	0.0761	0.0085
52	0.0876	0.0788	0.0088
53	0.1027	0.0909	0.0118
54	0.1027	0.0895	0.0132
55	0.0694	0.0625	0.0069
56	0.0694	0.0625	0.0069
57	0.0815	0.0734	0.0082
58	0.0785	0.0707	0.0079
59	0.0785	0.0707	0.0079
60	0.0755	0.0679	0.0075
61	0.0725	0.0652	0.0072
62	0.0694	0.0625	0.0069
63	0.0574	0.0516	0.0057
64	0.0574	0.0516	0.0057
65	0.0121	0.0109	0.0012
66	0.0121	0.0109	0.0012
67	0.0091	0.0082	0.0009

68	0.0091	0.0082	0.0009
69	0.0151	0.0136	0.0015
70	0.0151	0.0136	0.0015
71	0.0151	0.0136	0.0015
72	0.0121	0.0109	0.0012
73	0.0121	0.0109	0.0012
74	0.0121	0.0109	0.0012
75	0.0091	0.0082	0.0009
76	0.0060	0.0054	0.0006
77	0.0091	0.0082	0.0009
78	0.0121	0.0109	0.0012
79	0.0091	0.0082	0.0009
80	0.0060	0.0054	0.0006
81	0.0091	0.0082	0.0009
82	0.0091	0.0082	0.0009
83	0.0091	0.0082	0.0009
84	0.0060	0.0054	0.0006
85	0.0091	0.0082	0.0009
86	0.0060	0.0054	0.0006
87	0.0091	0.0082	0.0009
88	0.0060	0.0054	0.0006
89	0.0091	0.0082	0.0009
90	0.0060	0.0054	0.0006
91	0.0060	0.0054	0.0006
92	0.0060	0.0054	0.0006
93	0.0060	0.0054	0.0006
94	0.0060	0.0054	0.0006
95	0.0060	0.0054	0.0006
96	0.0060	0.0054	0.0006

TOTAL STORM RAINFALL(INCHES) = 3.02
TOTAL SOIL-LOSS(INCHES) = 2.71
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.31

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 27.3738
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 3.0897

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2 4 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 2.5 5.0 7.5 10.0
0.083	0.0005	0.07	Q . . . .
0.167	0.0010	0.07	Q . . . .
0.250	0.0014	0.07	Q . . . .
0.333	0.0033	0.27	VQ . . . .
0.417	0.0052	0.27	VQ . . . .
0.500	0.0070	0.27	VQ . . . .
0.583	0.0097	0.39	VQ . . . .
0.667	0.0124	0.39	VQ . . . .
0.750	0.0152	0.39	VQ . . . .
0.833	0.0183	0.46	VQ . . . .
0.917	0.0215	0.46	VQ . . . .
1.000	0.0247	0.46	VQ . . . .
1.083	0.0283	0.52	V Q . . . .
1.167	0.0318	0.52	V Q . . . .
1.250	0.0354	0.52	V Q . . . .
1.333	0.0386	0.46	VQ . . . .
1.417	0.0417	0.46	VQ . . . .
1.500	0.0449	0.46	VQ . . . .
1.583	0.0480	0.45	VQ . . . .
1.667	0.0511	0.45	VQ . . . .
1.750	0.0541	0.45	VQ . . . .

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1.833      0.0574      0.48  VQ        .         .         .         .
1.917      0.0607      0.48  VQ        .         .         .         .
2.000      0.0640      0.48  VQ        .         .         .         .
2.083      0.0679      0.56  V Q       .         .         .         .
2.167      0.0717      0.56  V Q       .         .         .         .
2.250      0.0756      0.56  V Q       .         .         .         .
2.333      0.0796      0.58  .VQ       .         .         .         .
2.417      0.0836      0.58  .VQ       .         .         .         .
2.500      0.0876      0.58  .VQ       .         .         .         .
2.583      0.0919      0.62  .VQ       .         .         .         .
2.667      0.0962      0.62  .VQ       .         .         .         .
2.750      0.1004      0.62  .VQ       .         .         .         .
2.833      0.1053      0.70  .VQ       .         .         .         .
2.917      0.1102      0.70  .VQ       .         .         .         .
3.000      0.1150      0.70  .VQ       .         .         .         .
3.083      0.1200      0.73  .VQ       .         .         .         .
3.167      0.1250      0.73  .VQ       .         .         .         .
3.250      0.1300      0.73  .VQ       .         .         .         .
3.333      0.1351      0.73  .VQ       .         .         .         .
3.417      0.1401      0.73  .VQ       .         .         .         .
3.500      0.1452      0.73  .VQ       .         .         .         .
3.583      0.1503      0.74  .VQ       .         .         .         .
3.667      0.1553      0.74  . Q       .         .         .         .
3.750      0.1604      0.74  . Q       .         .         .         .
3.833      0.1657      0.77  . VQ      .         .         .         .
3.917      0.1710      0.77  . VQ      .         .         .         .
4.000      0.1763      0.77  . VQ      .         .         .         .
4.083      0.1822      0.85  . VQ      .         .         .         .
4.167      0.1881      0.85  . VQ      .         .         .         .
4.250      0.1940      0.85  . VQ      .         .         .         .
4.333      0.2002      0.91  . VQ      .         .         .         .
4.417      0.2065      0.91  . VQ      .         .         .         .
4.500      0.2128      0.91  . VQ      .         .         .         .
4.583      0.2196      1.00  . VQ      .         .         .         .
4.667      0.2265      1.00  . VQ      .         .         .         .
4.750      0.2334      1.00  .  Q      .         .         .         .
4.833      0.2407      1.06  .  VQ     .         .         .         .
4.917      0.2479      1.06  .  VQ     .         .         .         .
5.000      0.2552      1.06  .  VQ     .         .         .         .
5.083      0.2626      1.07  .  VQ     .         .         .         .
5.167      0.2700      1.07  .  VQ     .         .         .         .
5.250      0.2774      1.07  .  VQ     .         .         .         .
5.333      0.2841      0.97  .  Q      .         .         .         .
5.417      0.2908      0.97  .  Q      .         .         .         .
5.500      0.2974      0.97  .  Q      .         .         .         .
5.583      0.3047      1.05  .  VQ     .         .         .         .
5.667      0.3119      1.05  .   Q     .         .         .         .
5.750      0.3191      1.05  .   Q     .         .         .         .
5.833      0.3270      1.14  .   Q     .         .         .         .
5.917      0.3349      1.14  .   Q     .         .         .         .
6.000      0.3428      1.14  .   Q     .         .         .         .
6.083      0.3511      1.20  .   Q     .         .         .         .
6.167      0.3594      1.20  .   Q     .         .         .         .
6.250      0.3677      1.20  .   Q     .         .         .         .
6.333      0.3766      1.29  .   VQ    .         .         .         .
6.417      0.3855      1.29  .   VQ    .         .         .         .
6.500      0.3944      1.29  .    Q    .         .         .         .
6.583      0.4037      1.35  .    Q    .         .         .         .
6.667      0.4130      1.35  .    Q    .         .         .         .
6.750      0.4223      1.35  .    Q    .         .         .         .
6.833      0.4322      1.44  .    Q    .         .         .         .
6.917      0.4421      1.44  .    Q    .         .         .         .
7.000      0.4520      1.44  .    Q    .         .         .         .
7.083      0.4621      1.46  .    Q    .         .         .         .
7.167      0.4722      1.46  .    QV   .         .         .         .
7.250      0.4822      1.46  .    QV   .         .         .         .
7.333      0.4926      1.51  .     Q   .         .         .         .
7.417      0.5030      1.51  .     Q   .         .         .         .
7.500      0.5133      1.51  .     Q   .         .         .         .
7.583      0.5245      1.62  .     Q   .         .         .         .
7.667      0.5357      1.62  .     Q   .         .         .         .
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 7.750      0.5469      1.62  .     QV  .         .         .         .
 7.833      0.5590      1.76  .      Q  .         .         .         .
 7.917      0.5712      1.76  .      Q  .         .         .         .
 8.000      0.5833      1.76  .      Q  .         .         .         .
 8.083      0.5967      1.94  .      Q  .         .         .         .
 8.167      0.6101      1.94  .      Q  .         .         .         .
 8.250      0.6235      1.94  .      QV .         .         .         .
 8.333      0.6382      2.14  .       Q .         .         .         .
 8.417      0.6529      2.14  .       Q .         .         .         .
 8.500      0.6676      2.14  .       Q .         .         .         .
 8.583      0.6829      2.22  .       Q .         .         .         .
 8.667      0.6982      2.22  .       QV.         .         .         .
 8.750      0.7135      2.22  .       QV.         .         .         .
 8.833      0.7298      2.35  .        Q.         .         .         .
 8.917      0.7460      2.35  .        Q.         .         .         .
 9.000      0.7622      2.35  .        Q.         .         .         .
 9.083      0.7796      2.53  .         Q         .         .         .
 9.167      0.7971      2.53  .         Q         .         .         .
 9.250      0.8145      2.53  .         Q         .         .         .
 9.333      0.8335      2.76  .         VQ        .         .         .
 9.417      0.8525      2.76  .          Q        .         .         .
 9.500      0.8715      2.76  .          Q        .         .         .
 9.583      0.8917      2.93  .         .Q        .         .         .
 9.667      0.9119      2.93  .         .Q        .         .         .
 9.750      0.9321      2.93  .         .QV       .         .         .
 9.833      0.9533      3.08  .         . Q       .         .         .
 9.917      0.9745      3.08  .         . Q       .         .         .
10.000      0.9957      3.08  .         . Q       .         .         .
10.083      1.0161      2.95  .         .Q V      .         .         .
10.167      1.0364      2.95  .         .Q V      .         .         .
10.250      1.0567      2.95  .         .Q V      .         .         .
10.333      1.0733      2.41  .        Q.  V      .         .         .
10.417      1.0899      2.41  .        Q.   V     .         .         .
10.500      1.1064      2.41  .        Q.   V     .         .         .
10.583      1.1233      2.44  .        Q.   V     .         .         .
10.667      1.1401      2.44  .        Q.   V     .         .         .
10.750      1.1569      2.44  .        Q.   V     .         .         .
10.833      1.1763      2.81  .         .Q   V    .         .         .
10.917      1.1956      2.81  .         .Q   V    .         .         .
11.000      1.2150      2.81  .         .Q   V    .         .         .
11.083      1.2348      2.88  .         .Q   V    .         .         .
11.167      1.2546      2.88  .         .Q    V   .         .         .
11.250      1.2745      2.88  .         .Q    V   .         .         .
11.333      1.2939      2.82  .         .Q    V   .         .         .
11.417      1.3133      2.82  .         .Q     V  .         .         .
11.500      1.3328      2.82  .         .Q     V  .         .         .
11.583      1.3516      2.73  .         Q      V  .         .         .
11.667      1.3704      2.73  .         Q      V  .         .         .
11.750      1.3892      2.73  .         Q      V  .         .         .
11.833      1.4071      2.60  .         Q       V .         .         .
11.917      1.4251      2.60  .         Q       V .         .         .
12.000      1.4430      2.60  .         Q       V .         .         .
12.083      1.4628      2.89  .         .Q      V .         .         .
12.167      1.4827      2.89  .         .Q       V.         .         .
12.250      1.5026      2.89  .         .Q       V.         .         .
12.333      1.5267      3.50  .         .   Q    V.         .         .
12.417      1.5509      3.50  .         .   Q     V         .         .
12.500      1.5750      3.50  .         .   Q     V         .         .
12.583      1.6012      3.81  .         .    Q    V         .         .
12.667      1.6275      3.81  .         .    Q     V        .         .
12.750      1.6537      3.81  .         .    Q     V        .         .
12.833      1.6818      4.07  .         .     Q   .V        .         .
12.917      1.7098      4.07  .         .     Q   . V       .         .
13.000      1.7379      4.07  .         .     Q   . V       .         .
13.083      1.7693      4.57  .         .       Q . V       .         .
13.167      1.8007      4.57  .         .       Q .  V      .         .
13.250      1.8322      4.57  .         .       Q .  V      .         .
13.333      1.8707      5.59  .         .         . Q V     .         .
13.417      1.9092      5.59  .         .         . Q V     .         .
13.500      1.9477      5.59  .         .         . Q  V    .         .
13.583      1.9854      5.47  .         .         .Q   V    .         .
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13.667      2.0230      5.47  .          .          .Q    V   .          .
13.750      2.0607      5.47  .          .          .Q    V   .          .
13.833      2.0878      3.94  .          .    Q     .     V   .          .
13.917      2.1150      3.94  .          .    Q     .     V   .          .
14.000      2.1421      3.94  .          .    Q     .     V   .          .
14.083      2.1675      3.68  .          .   Q      .      V  .          .
14.167      2.1928      3.68  .          .   Q      .      V  .          .
14.250      2.2182      3.68  .          .   Q      .      V  .          .
14.333      2.2448      3.86  .          .    Q     .       V.          .
14.417      2.2714      3.86  .          .    Q     .       V.          .
14.500      2.2980      3.86  .          .    Q     .       V.          .
14.583      2.3246      3.85  .          .    Q     .        V          .
14.667      2.3511      3.85  .          .    Q     .        V          .
14.750      2.3777      3.85  .          .    Q     .        V          .
14.833      2.4039      3.81  .          .    Q     .        .V         .
14.917      2.4301      3.81  .          .    Q     .        .V         .
15.000      2.4564      3.81  .          .    Q     .        .V         .
15.083      2.4817      3.68  .          .   Q      .        . V        .
15.167      2.5071      3.68  .          .   Q      .        . V        .
15.250      2.5324      3.68  .          .   Q      .        . V        .
15.333      2.5568      3.54  .          .   Q      .        .  V       .
15.417      2.5812      3.54  .          .   Q      .        .  V       .
15.500      2.6056      3.54  .          .   Q      .        .  V       .
15.583      2.6283      3.29  .          .  Q       .        .   V      .
15.667      2.6509      3.29  .          .  Q       .        .   V      .
15.750      2.6736      3.29  .          .  Q       .        .   V      .
15.833      2.6938      2.93  .          .Q         .        .   V      .
15.917      2.7140      2.93  .          .Q         .        .    V     .
16.000      2.7342      2.93  .          .Q         .        .    V     .
16.083      2.7502      2.31  .        Q.           .        .    V     .
16.167      2.7661      2.31  .        Q.           .        .    V     .
16.250      2.7821      2.31  .        Q.           .        .     V    .
16.333      2.7894      1.06  .   Q    .           .        .     V    .
16.417      2.7967      1.06  .   Q    .           .        .     V    .
16.500      2.8039      1.06  .   Q    .           .        .     V    .
16.583      2.8087      0.70  . Q      .           .        .     V    .
16.667      2.8135      0.70  . Q      .           .        .     V    .
16.750      2.8183      0.70  . Q      .           .        .     V    .
16.833      2.8219      0.52  . Q      .           .        .     V    .
16.917      2.8255      0.52  . Q      .           .        .     V    .
17.000      2.8290      0.52  . Q      .           .        .     V    .
17.083      2.8328      0.55  . Q      .           .        .     V    .
17.167      2.8366      0.55  . Q      .           .        .     V    .
17.250      2.8404      0.55  . Q      .           .        .     V    .
17.333      2.8451      0.69  . Q      .           .        .     V    .
17.417      2.8499      0.69  . Q      .           .        .     V    .
17.500      2.8547      0.69  . Q      .           .        .     V    .
17.583      2.8597      0.73  . Q      .           .        .      V   .
17.667      2.8647      0.73  . Q      .           .        .      V   .
17.750      2.8697      0.73  . Q      .           .        .      V   .
17.833      2.8745      0.70  . Q      .           .        .      V   .
17.917      2.8793      0.70  . Q      .           .        .      V   .
18.000      2.8841      0.70  . Q      .           .        .      V   .
18.083      2.8883      0.62  . Q      .           .        .      V   .
18.167      2.8926      0.62  . Q      .           .        .      V   .
18.250      2.8968      0.62  . Q      .           .        .      V   .
18.333      2.9009      0.60  . Q      .           .        .      V   .
18.417      2.9050      0.60  . Q      .           .        .      V   .
18.500      2.9092      0.60  . Q      .           .        .      V   .
18.583      2.9130      0.56  . Q      .           .        .      V   .
18.667      2.9168      0.56  . Q      .           .        .      V   .
18.750      2.9207      0.56  . Q      .           .        .      V   .
18.833      2.9237      0.44  .Q       .           .        .      V   .
18.917      2.9267      0.44  .Q       .           .        .      V   .
19.000      2.9297      0.44  .Q       .           .        .      V   .
19.083      2.9323      0.37  .Q       .           .        .      V   .
19.167      2.9348      0.37  .Q       .           .        .      V   .
19.250      2.9374      0.37  .Q       .           .        .       V  .
19.333      2.9405      0.46  .Q       .           .        .       V  .
19.417      2.9437      0.46  .Q       .           .        .       V  .
19.500      2.9468      0.46  .Q       .           .        .       V  .
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19.583	2.9504	0.52	. Q	.	.	.	V .
19.667	2.9540	0.52	. Q	.	.	.	V .
19.750	2.9576	0.52	. Q	.	.	.	V .
19.833	2.9605	0.43	.Q	.	.	.	V .
19.917	2.9635	0.43	.Q	.	.	.	V .
20.000	2.9664	0.43	.Q	.	.	.	V .
20.083	2.9690	0.37	.Q	.	.	.	V .
20.167	2.9715	0.37	.Q	.	.	.	V .
20.250	2.9740	0.37	.Q	.	.	.	V .
20.333	2.9769	0.42	.Q	.	.	.	V .
20.417	2.9798	0.42	.Q	.	.	.	V .
20.500	2.9827	0.42	.Q	.	.	.	V .
20.583	2.9857	0.44	.Q	.	.	.	V .
20.667	2.9887	0.44	.Q	.	.	.	V .
20.750	2.9917	0.44	.Q	.	.	.	V .
20.833	2.9945	0.41	.Q	.	.	.	V .
20.917	2.9973	0.41	.Q	.	.	.	V .
21.000	3.0001	0.41	.Q	.	.	.	V .
21.083	3.0026	0.36	.Q	.	.	.	V .
21.167	3.0051	0.36	.Q	.	.	.	V .
21.250	3.0075	0.36	.Q	.	.	.	V .
21.333	3.0102	0.39	.Q	.	.	.	V .
21.417	3.0128	0.39	.Q	.	.	.	V.
21.500	3.0155	0.39	.Q	.	.	.	V.
21.583	3.0179	0.35	.Q	.	.	.	V.
21.667	3.0204	0.35	.Q	.	.	.	V.
21.750	3.0228	0.35	.Q	.	.	.	V.
21.833	3.0255	0.38	.Q	.	.	.	V.
21.917	3.0281	0.38	.Q	.	.	.	V.
22.000	3.0308	0.38	.Q	.	.	.	V.
22.083	3.0332	0.35	.Q	.	.	.	V.
22.167	3.0356	0.35	.Q	.	.	.	V.
22.250	3.0381	0.35	.Q	.	.	.	V.
22.333	3.0407	0.38	.Q	.	.	.	V.
22.417	3.0433	0.38	.Q	.	.	.	V.
22.500	3.0460	0.38	.Q	.	.	.	V.
22.583	3.0482	0.32	.Q	.	.	.	V.
22.667	3.0504	0.32	.Q	.	.	.	V.
22.750	3.0526	0.32	.Q	.	.	.	V.
22.833	3.0546	0.30	.Q	.	.	.	V.
22.917	3.0567	0.30	.Q	.	.	.	V.
23.000	3.0588	0.30	.Q	.	.	.	V.
23.083	3.0608	0.30	.Q	.	.	.	V.
23.166	3.0629	0.30	.Q	.	.	.	V.
23.250	3.0649	0.30	.Q	.	.	.	V.
23.333	3.0670	0.30	.Q	.	.	.	V.
23.416	3.0690	0.30	.Q	.	.	.	V.
23.500	3.0710	0.30	.Q	.	.	.	V.
23.583	3.0731	0.30	.Q	.	.	.	V.
23.666	3.0751	0.30	.Q	.	.	.	V.
23.750	3.0771	0.30	.Q	.	.	.	V.
23.833	3.0792	0.30	.Q	.	.	.	V.
23.916	3.0812	0.30	.Q	.	.	.	V.
24.000	3.0832	0.30	.Q	.	.	.	V.
24.083	3.0848	0.22	Q	.	.	.	V.
24.166	3.0863	0.22	Q	.	.	.	V.
24.250	3.0879	0.22	Q	.	.	.	V.
24.333	3.0883	0.06	Q	.	.	.	V.
24.416	3.0887	0.06	Q	.	.	.	V.
24.500	3.0891	0.06	Q	.	.	.	V.
24.583	3.0892	0.02	Q	.	.	.	V.
24.666	3.0894	0.02	Q	.	.	.	V.
24.750	3.0895	0.02	Q	.	.	.	V.
24.833	3.0895	0.01	Q	.	.	.	V.
24.916	3.0896	0.01	Q	.	.	.	V.
25.000	3.0896	0.01	Q	.	.	.	V.

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	1500.0
10%	960.0
20%	630.0
30%	510.0
40%	450.0
50%	330.0
60%	195.0
70%	75.0
80%	45.0
90%	30.0

****
FLOW PROCESS FROM NODE 106.00 TO NODE 103.00 IS CODE = 1

>>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
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(UNIT-HYDROGRAPH ADDED TO STREAM #3)

WATERCOURSE LENGTH = 2948.000 FEET
LENGTH FROM CONCENTRATION POINT TO CENTROID = 1768.800 FEET
ELEVATION VARIATION ALONG WATERCOURSE = 14.700 FEET
BASIN FACTOR = 0.030
WATERSHED AREA = 136.170 ACRES
BASEFLOW = 0.000 CFS/SQUARE-MILE
WATERCOURSE "LAG" TIME = 0.205 HOURS
CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
FOOTHILL S-GRAPH SELECTED
UNIFORM MEAN SOIL-LOSS(INCH/HOUR) = 0.385
LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
MINIMUM SOIL-LOSS RATE(INCH/HOUR) = 0.190
USER-ENTERED RAINFALL = 3.02 INCHES
RCFC&WCD 24-Hour Storm (15-Minute period) SELECTED
RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9998

UNIT HYDROGRAPH TIME UNIT = 15.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 122.223

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UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	22.184	121.775
2	78.029	306.553
3	93.193	83.240
4	97.884	25.752
5	98.724	4.612
6	99.336	3.357
7	99.734	2.188
8	99.934	1.094
9	100.000	0.365

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0060	0.0054	0.0006
2	0.0091	0.0082	0.0009
3	0.0091	0.0082	0.0009
4	0.0121	0.0109	0.0012
5	0.0091	0.0082	0.0009
6	0.0091	0.0082	0.0009
7	0.0091	0.0082	0.0009
8	0.0121	0.0109	0.0012
9	0.0121	0.0109	0.0012
10	0.0121	0.0109	0.0012
11	0.0151	0.0136	0.0015
12	0.0151	0.0136	0.0015
13	0.0151	0.0136	0.0015
14	0.0151	0.0136	0.0015
15	0.0151	0.0136	0.0015
16	0.0181	0.0163	0.0018
17	0.0181	0.0163	0.0018
18	0.0211	0.0190	0.0021
19	0.0211	0.0190	0.0021
20	0.0242	0.0217	0.0024
21	0.0181	0.0163	0.0018
22	0.0211	0.0190	0.0021
23	0.0242	0.0217	0.0024
24	0.0242	0.0217	0.0024
25	0.0272	0.0245	0.0027
26	0.0272	0.0245	0.0027
27	0.0302	0.0272	0.0030
28	0.0302	0.0272	0.0030
29	0.0302	0.0272	0.0030
30	0.0332	0.0299	0.0033
31	0.0362	0.0326	0.0036
32	0.0393	0.0353	0.0039
33	0.0453	0.0408	0.0045
34	0.0453	0.0408	0.0045
35	0.0483	0.0435	0.0048
36	0.0513	0.0462	0.0051
37	0.0574	0.0516	0.0057
38	0.0604	0.0543	0.0060
39	0.0634	0.0571	0.0063
40	0.0664	0.0598	0.0066
41	0.0453	0.0408	0.0045
42	0.0453	0.0408	0.0045
43	0.0604	0.0543	0.0060
44	0.0604	0.0543	0.0060
45	0.0574	0.0516	0.0057
46	0.0574	0.0516	0.0057
47	0.0513	0.0462	0.0051
48	0.0543	0.0489	0.0054
49	0.0755	0.0679	0.0075
50	0.0785	0.0707	0.0079
51	0.0845	0.0761	0.0085
52	0.0876	0.0788	0.0088
53	0.1027	0.0840	0.0187
54	0.1027	0.0827	0.0200
55	0.0694	0.0625	0.0069
56	0.0694	0.0625	0.0069
57	0.0815	0.0734	0.0082
58	0.0785	0.0707	0.0079
59	0.0785	0.0707	0.0079
60	0.0755	0.0679	0.0075
61	0.0725	0.0652	0.0072
62	0.0694	0.0625	0.0069
63	0.0574	0.0516	0.0057
64	0.0574	0.0516	0.0057
65	0.0121	0.0109	0.0012
66	0.0121	0.0109	0.0012

67	0.0091	0.0082	0.0009
68	0.0091	0.0082	0.0009
69	0.0151	0.0136	0.0015
70	0.0151	0.0136	0.0015
71	0.0151	0.0136	0.0015
72	0.0121	0.0109	0.0012
73	0.0121	0.0109	0.0012
74	0.0121	0.0109	0.0012
75	0.0091	0.0082	0.0009
76	0.0060	0.0054	0.0006
77	0.0091	0.0082	0.0009
78	0.0121	0.0109	0.0012
79	0.0091	0.0082	0.0009
80	0.0060	0.0054	0.0006
81	0.0091	0.0082	0.0009
82	0.0091	0.0082	0.0009
83	0.0091	0.0082	0.0009
84	0.0060	0.0054	0.0006
85	0.0091	0.0082	0.0009
86	0.0060	0.0054	0.0006
87	0.0091	0.0082	0.0009
88	0.0060	0.0054	0.0006
89	0.0091	0.0082	0.0009
90	0.0060	0.0054	0.0006
91	0.0060	0.0054	0.0006
92	0.0060	0.0054	0.0006
93	0.0060	0.0054	0.0006
94	0.0060	0.0054	0.0006
95	0.0060	0.0054	0.0006
96	0.0060	0.0054	0.0006

TOTAL STORM RAINFALL(INCHES) = 3.02
TOTAL SOIL-LOSS(INCHES) = 2.70
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.32

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 30.6294
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 3.6297

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2 4 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	2.5	5.0	7.5	10.0
0.083	0.0005	0.07	Q	.	.	.	.
0.167	0.0010	0.07	Q	.	.	.	.
0.250	0.0015	0.07	Q	.	.	.	.
0.333	0.0036	0.30	VQ	.	.	.	.
0.417	0.0056	0.30	VQ	.	.	.	.
0.500	0.0076	0.30	VQ	.	.	.	.
0.583	0.0106	0.44	VQ	.	.	.	.
0.667	0.0137	0.44	VQ	.	.	.	.
0.750	0.0167	0.44	VQ	.	.	.	.
0.833	0.0202	0.52	V Q	.	.	.	.
0.917	0.0238	0.52	V Q	.	.	.	.
1.000	0.0273	0.52	V Q	.	.	.	.
1.083	0.0313	0.58	V Q	.	.	.	.
1.167	0.0353	0.58	V Q	.	.	.	.
1.250	0.0394	0.58	V Q	.	.	.	.
1.333	0.0429	0.52	V Q	.	.	.	.
1.417	0.0465	0.52	V Q	.	.	.	.
1.500	0.0501	0.52	V Q	.	.	.	.
1.583	0.0535	0.50	V Q	.	.	.	.
1.667	0.0570	0.50	V Q	.	.	.	.

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1.750      0.0605      0.50  V Q       .         .         .         .
1.833      0.0641      0.53  V Q       .         .         .         .
1.917      0.0678      0.53  V Q       .         .         .         .
2.000      0.0715      0.53  V Q       .         .         .         .
2.083      0.0758      0.63  V Q       .         .         .         .
2.167      0.0801      0.63  V Q       .         .         .         .
2.250      0.0845      0.63  V Q       .         .         .         .
2.333      0.0890      0.65  V Q       .         .         .         .
2.417      0.0934      0.65   VQ       .         .         .         .
2.500      0.0979      0.65   VQ       .         .         .         .
2.583      0.1027      0.70  .VQ       .         .         .         .
2.667      0.1075      0.70  .VQ       .         .         .         .
2.750      0.1123      0.70  .VQ       .         .         .         .
2.833      0.1178      0.79  .V Q      .         .         .         .
2.917      0.1232      0.79  .V Q      .         .         .         .
3.000      0.1287      0.79  .V Q      .         .         .         .
3.083      0.1343      0.82  .V Q      .         .         .         .
3.167      0.1399      0.82  .V Q      .         .         .         .
3.250      0.1455      0.82  .V Q      .         .         .         .
3.333      0.1512      0.82  .V Q      .         .         .         .
3.417      0.1569      0.82  .V Q      .         .         .         .
3.500      0.1626      0.82  .V Q      .         .         .         .
3.583      0.1683      0.83  .V Q      .         .         .         .
3.667      0.1740      0.83  .V Q      .         .         .         .
3.750      0.1796      0.83  .V Q      .         .         .         .
3.833      0.1856      0.86  . VQ      .         .         .         .
3.917      0.1915      0.86  . VQ      .         .         .         .
4.000      0.1975      0.86  . VQ      .         .         .         .
4.083      0.2041      0.96  . VQ      .         .         .         .
4.167      0.2107      0.96  . VQ      .         .         .         .
4.250      0.2173      0.96  . VQ      .         .         .         .
4.333      0.2243      1.02  . V Q     .         .         .         .
4.417      0.2313      1.02  . V Q     .         .         .         .
4.500      0.2384      1.02  . V Q     .         .         .         .
4.583      0.2461      1.12  . V Q     .         .         .         .
4.667      0.2538      1.12  . V Q     .         .         .         .
4.750      0.2615      1.12  . V Q     .         .         .         .
4.833      0.2697      1.18  . V Q     .         .         .         .
4.917      0.2778      1.18  .  VQ     .         .         .         .
5.000      0.2860      1.18  .  VQ     .         .         .         .
5.083      0.2943      1.21  .  VQ     .         .         .         .
5.167      0.3026      1.21  .  VQ     .         .         .         .
5.250      0.3110      1.21  .  VQ     .         .         .         .
5.333      0.3185      1.09  .  VQ     .         .         .         .
5.417      0.3260      1.09  .  VQ     .         .         .         .
5.500      0.3335      1.09  .  VQ     .         .         .         .
5.583      0.3416      1.18  .  VQ     .         .         .         .
5.667      0.3497      1.18  .  VQ     .         .         .         .
5.750      0.3579      1.18  .  VQ     .         .         .         .
5.833      0.3667      1.28  .   VQ    .         .         .         .
5.917      0.3755      1.28  .   VQ    .         .         .         .
6.000      0.3844      1.28  .   VQ    .         .         .         .
6.083      0.3937      1.35  .   VQ    .         .         .         .
6.167      0.4030      1.35  .   VQ    .         .         .         .
6.250      0.4123      1.35  .   VQ    .         .         .         .
6.333      0.4223      1.45  .   VQ    .         .         .         .
6.417      0.4323      1.45  .   VQ    .         .         .         .
6.500      0.4423      1.45  .   VQ    .         .         .         .
6.583      0.4527      1.51  .   V Q   .         .         .         .
6.667      0.4631      1.51  .    VQ   .         .         .         .
6.750      0.4735      1.51  .    VQ   .         .         .         .
6.833      0.4847      1.62  .    VQ   .         .         .         .
6.917      0.4958      1.62  .    VQ   .         .         .         .
7.000      0.5069      1.62  .    VQ   .         .         .         .
7.083      0.5183      1.64  .    VQ   .         .         .         .
7.167      0.5296      1.64  .    VQ   .         .         .         .
7.250      0.5409      1.64  .    VQ   .         .         .         .
7.333      0.5525      1.69  .     Q   .         .         .         .
7.417      0.5642      1.69  .     Q   .         .         .         .
7.500      0.5758      1.69  .     Q   .         .         .         .
7.583      0.5883      1.82  .     VQ  .         .         .         .
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 7.667      0.6009      1.82  .     VQ  .         .         .         .
 7.750      0.6134      1.82  .     VQ  .         .         .         .
 7.833      0.6270      1.98  .     VQ  .         .         .         .
 7.917      0.6406      1.98  .      Q  .         .         .         .
 8.000      0.6543      1.98  .      Q  .         .         .         .
 8.083      0.6693      2.18  .      VQ .         .         .         .
 8.167      0.6842      2.18  .      VQ .         .         .         .
 8.250      0.6992      2.18  .      VQ .         .         .         .
 8.333      0.7157      2.40  .      V Q.         .         .         .
 8.417      0.7322      2.40  .       VQ.         .         .         .
 8.500      0.7487      2.40  .       VQ.         .         .         .
 8.583      0.7659      2.49  .       VQ.         .         .         .
 8.667      0.7831      2.49  .       VQ.         .         .         .
 8.750      0.8003      2.49  .       VQ.         .         .         .
 8.833      0.8185      2.64  .        VQ         .         .         .
 8.917      0.8366      2.64  .        VQ         .         .         .
 9.000      0.8548      2.64  .        VQ         .         .         .
 9.083      0.8744      2.84  .        V.Q        .         .         .
 9.167      0.8939      2.84  .        V.Q        .         .         .
 9.250      0.9135      2.84  .         VQ        .         .         .
 9.333      0.9348      3.10  .         V Q       .         .         .
 9.417      0.9561      3.10  .         V Q       .         .         .
 9.500      0.9774      3.10  .         V Q       .         .         .
 9.583      1.0000      3.29  .         .V Q      .         .         .
 9.667      1.0227      3.29  .         .V Q      .         .         .
 9.750      1.0453      3.29  .         .V Q      .         .         .
 9.833      1.0691      3.46  .         .V Q      .         .         .
 9.917      1.0930      3.46  .         . VQ      .         .         .
10.000      1.1168      3.46  .         . VQ      .         .         .
10.083      1.1397      3.33  .         . VQ      .         .         .
10.167      1.1627      3.33  .         . VQ      .         .         .
10.250      1.1856      3.33  .         .  Q      .         .         .
10.333      1.2044      2.72  .         Q  V      .         .         .
10.417      1.2231      2.72  .         Q  V      .         .         .
10.500      1.2418      2.72  .         Q  V      .         .         .
10.583      1.2607      2.74  .         Q  V      .         .         .
10.667      1.2796      2.74  .         Q   V     .         .         .
10.750      1.2985      2.74  .         Q   V     .         .         .
10.833      1.3202      3.15  .         . Q V     .         .         .
10.917      1.3419      3.15  .         . Q V     .         .         .
11.000      1.3636      3.15  .         . Q  V    .         .         .
11.083      1.3859      3.23  .         . Q  V    .         .         .
11.167      1.4082      3.23  .         . Q  V    .         .         .
11.250      1.4305      3.23  .         . Q  V    .         .         .
11.333      1.4523      3.18  .         . Q   V   .         .         .
11.417      1.4742      3.18  .         . Q   V   .         .         .
11.500      1.4961      3.18  .         . Q   V   .         .         .
11.583      1.5173      3.08  .         . Q   V   .         .         .
11.667      1.5385      3.08  .         . Q   V   .         .         .
11.750      1.5597      3.08  .         . Q    V  .         .         .
11.833      1.5798      2.93  .         .Q     V  .         .         .
11.917      1.6000      2.93  .         .Q     V  .         .         .
12.000      1.6201      2.93  .         .Q     V  .         .         .
12.083      1.6424      3.23  .         . Q     V .         .         .
12.167      1.6646      3.23  .         . Q     V .         .         .
12.250      1.6868      3.23  .         . Q     V .         .         .
12.333      1.7138      3.92  .         .    Q  V .         .         .
12.417      1.7408      3.92  .         .    Q   V.         .         .
12.500      1.7678      3.92  .         .    Q   V.         .         .
12.583      1.7972      4.27  .         .      Q V.         .         .
12.667      1.8266      4.27  .         .      Q  V         .         .
12.750      1.8560      4.27  .         .      Q  V         .         .
12.833      1.8875      4.57  .         .       Q V         .         .
12.917      1.9190      4.57  .         .       Q  V        .         .
13.000      1.9504      4.57  .         .       Q  V        .         .
13.083      1.9913      5.94  .         .         .V Q      .         .
13.167      2.0322      5.94  .         .         . VQ      .         .
13.250      2.0731      5.94  .         .         . VQ      .         .
13.333      2.1363      9.18  .         .         .  V      .     Q   .
13.417      2.1996      9.18  .         .         .   V     .     Q   .
13.500      2.2628      9.18  .         .         .   V     .     Q   .
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13.583      2.3237      8.84  .         .         .    V    .    Q    .
13.667      2.3845      8.84  .         .         .     V   .    Q    .
13.750      2.4454      8.84  .         .         .     V   .    Q    .
13.833      2.4813      5.21  .         .        Q      V   .         .
13.917      2.5172      5.21  .         .        Q      V   .         .
14.000      2.5531      5.21  .         .        Q       V  .         .
14.083      2.5831      4.36  .         .      Q  .       V  .         .
14.167      2.6132      4.36  .         .      Q  .       V  .         .
14.250      2.6432      4.36  .         .      Q  .        V.         .
14.333      2.6735      4.40  .         .      Q  .        V.         .
14.417      2.7038      4.40  .         .      Q  .        V.         .
14.500      2.7341      4.40  .         .      Q  .         V         .
14.583      2.7642      4.37  .         .      Q  .         V         .
14.667      2.7943      4.37  .         .      Q  .         V         .
14.750      2.8244      4.37  .         .      Q  .          V        .
14.833      2.8541      4.31  .         .      Q  .         .V        .
14.917      2.8838      4.31  .         .      Q  .         .V        .
15.000      2.9135      4.31  .         .      Q  .          . V      .
15.083      2.9421      4.16  .         .     Q   .          . V      .
15.167      2.9707      4.16  .         .     Q   .          . V      .
15.250      2.9994      4.16  .         .     Q   .          .  V     .
15.333      3.0268      3.99  .         .    Q    .          .  V     .
15.417      3.0543      3.99  .         .    Q    .          .  V     .
15.500      3.0818      3.99  .         .    Q    .          .  V     .
15.583      3.1074      3.72  .         .   Q     .          .   V    .
15.667      3.1330      3.72  .         .   Q     .          .   V    .
15.750      3.1586      3.72  .         .   Q     .          .   V    .
15.833      3.1814      3.31  .         .  Q      .          .    V   .
15.917      3.2042      3.31  .         .  Q      .          .    V   .
16.000      3.2270      3.31  .         .  Q      .          .    V   .
16.083      3.2452      2.65  .        Q          .          .    V   .
16.167      3.2635      2.65  .        Q          .          .    V   .
16.250      3.2817      2.65  .        Q          .          .     V  .
16.333      3.2902      1.23  .   Q     .         .          .     V  .
16.417      3.2986      1.23  .   Q     .         .          .     V  .
16.500      3.3071      1.23  .   Q     .         .          .     V  .
16.583      3.3126      0.81  .  Q      .         .          .     V  .
16.667      3.3182      0.81  .  Q      .         .          .     V  .
16.750      3.3237      0.81  .  Q      .         .          .     V  .
16.833      3.3278      0.59  . Q       .         .          .     V  .
16.917      3.3319      0.59  . Q       .         .          .     V  .
17.000      3.3359      0.59  . Q       .         .          .     V  .
17.083      3.3402      0.62  . Q       .         .          .     V  .
17.167      3.3444      0.62  . Q       .         .          .     V  .
17.250      3.3487      0.62  . Q       .         .          .     V  .
17.333      3.3540      0.78  .  Q      .         .          .     V  .
17.417      3.3594      0.78  .  Q      .         .          .      V .
17.500      3.3647      0.78  .  Q      .         .          .      V .
17.583      3.3703      0.81  .  Q      .         .          .      V .
17.667      3.3759      0.81  .  Q      .         .          .      V .
17.750      3.3815      0.81  .  Q      .         .          .      V .
17.833      3.3870      0.79  .  Q      .         .          .      V .
17.917      3.3924      0.79  .  Q      .         .          .      V .
18.000      3.3978      0.79  .  Q      .         .          .      V .
18.083      3.4026      0.70  . Q       .         .          .      V .
18.167      3.4074      0.70  . Q       .         .          .      V .
18.250      3.4122      0.70  . Q       .         .          .      V .
18.333      3.4168      0.67  . Q       .         .          .      V .
18.417      3.4214      0.67  . Q       .         .          .      V .
18.500      3.4261      0.67  . Q       .         .          .      V .
18.583      3.4304      0.63  . Q       .         .          .      V .
18.667      3.4347      0.63  . Q       .         .          .      V .
18.750      3.4391      0.63  . Q       .         .          .      V .
18.833      3.4425      0.50  .Q        .         .          .      V .
18.917      3.4459      0.50  .Q        .         .          .      V .
19.000      3.4494      0.50  .Q        .         .          .       V.
19.083      3.4522      0.42  .Q        .         .          .       V.
19.167      3.4551      0.42  .Q        .         .          .       V.
19.250      3.4580      0.42  .Q        .         .          .       V.
19.333      3.4615      0.51  . Q       .         .          .       V.
19.417      3.4651      0.51  . Q       .         .          .       V.
```

19.500	3.4686	0.51	. Q	.	.	.	V .
19.583	3.4726	0.58	. Q	.	.	.	V .
19.667	3.4766	0.58	. Q	.	.	.	V .
19.750	3.4807	0.58	. Q	.	.	.	V .
19.833	3.4840	0.49	.Q	.	.	.	V .
19.917	3.4873	0.49	.Q	.	.	.	V .
20.000	3.4907	0.49	.Q	.	.	.	V .
20.083	3.4935	0.41	.Q	.	.	.	V .
20.167	3.4964	0.41	.Q	.	.	.	V .
20.250	3.4992	0.41	.Q	.	.	.	V .
20.333	3.5024	0.47	.Q	.	.	.	V .
20.417	3.5057	0.47	.Q	.	.	.	V .
20.500	3.5090	0.47	.Q	.	.	.	V .
20.583	3.5123	0.49	.Q	.	.	.	V .
20.667	3.5157	0.49	.Q	.	.	.	V .
20.750	3.5191	0.49	.Q	.	.	.	V .
20.833	3.5223	0.46	.Q	.	.	.	V .
20.917	3.5254	0.46	.Q	.	.	.	V .
21.000	3.5286	0.46	.Q	.	.	.	V .
21.083	3.5314	0.40	.Q	.	.	.	V .
21.167	3.5341	0.40	.Q	.	.	.	V .
21.250	3.5369	0.40	.Q	.	.	.	V .
21.333	3.5399	0.43	.Q	.	.	.	V.
21.417	3.5429	0.43	.Q	.	.	.	V.
21.500	3.5459	0.43	.Q	.	.	.	V.
21.583	3.5486	0.40	.Q	.	.	.	V.
21.667	3.5514	0.40	.Q	.	.	.	V.
21.750	3.5541	0.40	.Q	.	.	.	V.
21.833	3.5571	0.43	.Q	.	.	.	V.
21.917	3.5601	0.43	.Q	.	.	.	V.
22.000	3.5631	0.43	.Q	.	.	.	V.
22.083	3.5658	0.40	.Q	.	.	.	V.
22.167	3.5685	0.40	.Q	.	.	.	V.
22.250	3.5712	0.40	.Q	.	.	.	V.
22.333	3.5742	0.43	.Q	.	.	.	V.
22.417	3.5772	0.43	.Q	.	.	.	V.
22.500	3.5802	0.43	.Q	.	.	.	V.
22.583	3.5827	0.36	.Q	.	.	.	V.
22.667	3.5851	0.36	.Q	.	.	.	V.
22.750	3.5876	0.36	.Q	.	.	.	V.
22.833	3.5900	0.34	.Q	.	.	.	V.
22.917	3.5923	0.34	.Q	.	.	.	V.
23.000	3.5947	0.34	.Q	.	.	.	V.
23.083	3.5969	0.33	.Q	.	.	.	V.
23.166	3.5992	0.33	.Q	.	.	.	V.
23.250	3.6015	0.33	.Q	.	.	.	V.
23.333	3.6038	0.33	.Q	.	.	.	V.
23.416	3.6061	0.33	.Q	.	.	.	V.
23.500	3.6084	0.33	.Q	.	.	.	V.
23.583	3.6107	0.33	.Q	.	.	.	V.
23.666	3.6130	0.33	.Q	.	.	.	V.
23.750	3.6153	0.33	.Q	.	.	.	V.
23.833	3.6176	0.33	.Q	.	.	.	V.
23.916	3.6199	0.33	.Q	.	.	.	V.
24.000	3.6221	0.33	.Q	.	.	.	V.
24.083	3.6239	0.26	.Q	.	.	.	V.
24.166	3.6257	0.26	.Q	.	.	.	V.
24.250	3.6275	0.26	.Q	.	.	.	V.
24.333	3.6280	0.07	Q	.	.	.	V.
24.416	3.6285	0.07	Q	.	.	.	V.
24.500	3.6290	0.07	Q	.	.	.	V.
24.583	3.6291	0.02	Q	.	.	.	V.
24.666	3.6293	0.02	Q	.	.	.	V.
24.750	3.6294	0.02	Q	.	.	.	V.
24.833	3.6295	0.01	Q	.	.	.	V.
24.916	3.6295	0.01	Q	.	.	.	V.
25.000	3.6296	0.01	Q	.	.	.	V.

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	1500.0
10%	750.0
20%	510.0
30%	390.0
40%	210.0
50%	60.0
60%	45.0
70%	30.0
80%	30.0
90%	30.0

****
FLOW PROCESS FROM NODE 500.00 TO NODE 501.00 IS CODE = 1

>>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
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(UNIT-HYDROGRAPH ADDED TO STREAM #4)

WATERSHED AREA = 20.000 ACRES
BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.100 HOURS
CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
FOOTHILL S-GRAPH SELECTED
UNIFORM MEAN SOIL-LOSS(INCH/HOUR) = 0.050
LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.180
MINIMUM SOIL-LOSS RATE(INCH/HOUR) = 0.030
USER-ENTERED RAINFALL = 3.02 INCHES
RCFC&WCD 24-Hour Storm (15-Minute period) SELECTED
RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 1.0000

UNIT HYDROGRAPH TIME UNIT = 15.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 250.000

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UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	50.960	41.086
2	95.823	36.171
3	99.089	2.633
4	99.636	0.441
5	99.909	0.220
6	100.000	0.073

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UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0060	0.0011	0.0050
2	0.0091	0.0016	0.0074
3	0.0091	0.0016	0.0074
4	0.0121	0.0022	0.0099
5	0.0091	0.0016	0.0074
6	0.0091	0.0016	0.0074
7	0.0091	0.0016	0.0074
8	0.0121	0.0022	0.0099
9	0.0121	0.0022	0.0099
10	0.0121	0.0022	0.0099

11	0.0151	0.0027	0.0124
12	0.0151	0.0027	0.0124
13	0.0151	0.0027	0.0124
14	0.0151	0.0027	0.0124
15	0.0151	0.0027	0.0124
16	0.0181	0.0033	0.0149
17	0.0181	0.0033	0.0149
18	0.0211	0.0038	0.0173
19	0.0211	0.0038	0.0173
20	0.0242	0.0043	0.0198
21	0.0181	0.0033	0.0149
22	0.0211	0.0038	0.0173
23	0.0242	0.0043	0.0198
24	0.0242	0.0043	0.0198
25	0.0272	0.0049	0.0223
26	0.0272	0.0049	0.0223
27	0.0302	0.0054	0.0248
28	0.0302	0.0054	0.0248
29	0.0302	0.0054	0.0248
30	0.0332	0.0060	0.0272
31	0.0362	0.0065	0.0297
32	0.0393	0.0071	0.0322
33	0.0453	0.0082	0.0371
34	0.0453	0.0082	0.0371
35	0.0483	0.0087	0.0396
36	0.0513	0.0092	0.0421
37	0.0574	0.0103	0.0470
38	0.0604	0.0109	0.0495
39	0.0634	0.0114	0.0520
40	0.0664	0.0120	0.0545
41	0.0453	0.0082	0.0371
42	0.0453	0.0082	0.0371
43	0.0604	0.0109	0.0495
44	0.0604	0.0109	0.0495
45	0.0574	0.0103	0.0470
46	0.0574	0.0103	0.0470
47	0.0513	0.0092	0.0421
48	0.0544	0.0098	0.0446
49	0.0755	0.0118	0.0637
50	0.0785	0.0116	0.0669
51	0.0846	0.0115	0.0730
52	0.0876	0.0114	0.0762
53	0.1027	0.0112	0.0914
54	0.1027	0.0111	0.0916
55	0.0695	0.0110	0.0585
56	0.0695	0.0108	0.0586
57	0.0815	0.0107	0.0708
58	0.0785	0.0106	0.0679
59	0.0785	0.0105	0.0680
60	0.0755	0.0104	0.0651
61	0.0725	0.0102	0.0622
62	0.0695	0.0101	0.0593
63	0.0574	0.0100	0.0474
64	0.0574	0.0099	0.0475
65	0.0121	0.0022	0.0099
66	0.0121	0.0022	0.0099
67	0.0091	0.0016	0.0074
68	0.0091	0.0016	0.0074
69	0.0151	0.0027	0.0124
70	0.0151	0.0027	0.0124
71	0.0151	0.0027	0.0124
72	0.0121	0.0022	0.0099
73	0.0121	0.0022	0.0099
74	0.0121	0.0022	0.0099
75	0.0091	0.0016	0.0074
76	0.0060	0.0011	0.0050
77	0.0091	0.0016	0.0074
78	0.0121	0.0022	0.0099
79	0.0091	0.0016	0.0074
80	0.0060	0.0011	0.0050
81	0.0091	0.0016	0.0074

82	0.0091	0.0016	0.0074
83	0.0091	0.0016	0.0074
84	0.0060	0.0011	0.0050
85	0.0091	0.0016	0.0074
86	0.0060	0.0011	0.0050
87	0.0091	0.0016	0.0074
88	0.0060	0.0011	0.0050
89	0.0091	0.0016	0.0074
90	0.0060	0.0011	0.0050
91	0.0060	0.0011	0.0050
92	0.0060	0.0011	0.0050
93	0.0060	0.0011	0.0050
94	0.0060	0.0011	0.0050
95	0.0060	0.0011	0.0050
96	0.0060	0.0011	0.0050

TOTAL STORM RAINFALL(INCHES) = 3.02
TOTAL SOIL-LOSS(INCHES) = 0.49
TOTAL EFFECTIVE RAINFALL(INCHES) = 2.53

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 0.8217
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 4.2093

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2 4 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 2.5 5.0 7.5 10.0
0.083	0.0014	0.20	Q . . . .
0.167	0.0028	0.20	Q . . . .
0.250	0.0042	0.20	Q . . . .
0.333	0.0075	0.48	VQ . . . .
0.417	0.0109	0.48	VQ . . . .
0.500	0.0142	0.48	VQ . . . .
0.583	0.0183	0.59	V Q . . . .
0.667	0.0223	0.59	V Q . . . .
0.750	0.0263	0.59	V Q . . . .
0.833	0.0311	0.70	V Q . . . .
0.917	0.0359	0.70	V Q . . . .
1.000	0.0407	0.70	V Q . . . .
1.083	0.0455	0.69	V Q . . . .
1.167	0.0502	0.69	V Q . . . .
1.250	0.0550	0.69	V Q . . . .
1.333	0.0591	0.61	V Q . . . .
1.417	0.0633	0.61	V Q . . . .
1.500	0.0675	0.61	V Q . . . .
1.583	0.0716	0.60	V Q . . . .
1.667	0.0757	0.60	V Q . . . .
1.750	0.0799	0.60	V Q . . . .
1.833	0.0847	0.70	V Q . . . .
1.917	0.0895	0.70	V Q . . . .
2.000	0.0943	0.70	V Q . . . .
2.083	0.0998	0.79	V Q . . . .
2.167	0.1052	0.79	V Q . . . .
2.250	0.1107	0.79	V Q . . . .
2.333	0.1162	0.80	.V Q . . . .
2.417	0.1217	0.80	.V Q . . . .
2.500	0.1271	0.80	.V Q . . . .
2.583	0.1333	0.90	.V Q . . . .
2.667	0.1395	0.90	.V Q . . . .
2.750	0.1457	0.90	.V Q . . . .
2.833	0.1525	0.99	.V Q . . . .
2.917	0.1594	0.99	.V Q . . . .

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3.000      0.1662      0.99  .V Q      .         .         .         .
3.083      0.1730      1.00  .V Q      .         .         .         .
3.167      0.1799      1.00  .V Q      .         .         .         .
3.250      0.1868      1.00  .V Q      .         .         .         .
3.333      0.1936      1.00  .V Q      .         .         .         .
3.417      0.2005      1.00  .V Q      .         .         .         .
3.500      0.2074      1.00  .V Q      .         .         .         .
3.583      0.2142      1.00  . VQ      .         .         .         .
3.667      0.2211      1.00  . VQ      .         .         .         .
3.750      0.2280      1.00  . VQ      .         .         .         .
3.833      0.2356      1.10  . V Q     .         .         .         .
3.917      0.2431      1.10  . V Q     .         .         .         .
4.000      0.2507      1.10  . V Q     .         .         .         .
4.083      0.2589      1.19  . V Q     .         .         .         .
4.167      0.2671      1.19  . V Q     .         .         .         .
4.250      0.2753      1.19  . V Q     .         .         .         .
4.333      0.2842      1.30  . V  Q    .         .         .         .
4.417      0.2932      1.30  . V  Q    .         .         .         .
4.500      0.3021      1.30  . V  Q    .         .         .         .
4.583      0.3117      1.39  . V  Q    .         .         .         .
4.667      0.3212      1.39  .  V Q    .         .         .         .
4.750      0.3308      1.39  .  V Q    .         .         .         .
4.833      0.3411      1.50  .  V Q    .         .         .         .
4.917      0.3514      1.50  .  V Q    .         .         .         .
5.000      0.3617      1.50  .  V Q    .         .         .         .
5.083      0.3713      1.38  .  V Q    .         .         .         .
5.167      0.3808      1.38  .  V Q    .         .         .         .
5.250      0.3903      1.38  .  V Q    .         .         .         .
5.333      0.3994      1.31  .  V Q    .         .         .         .
5.417      0.4085      1.31  .  V Q    .         .         .         .
5.500      0.4175      1.31  .  V Q    .         .         .         .
5.583      0.4278      1.49  .   VQ    .         .         .         .
5.667      0.4381      1.49  .   VQ    .         .         .         .
5.750      0.4484      1.49  .   VQ    .         .         .         .
5.833      0.4593      1.59  .   V Q   .         .         .         .
5.917      0.4702      1.59  .   V Q   .         .         .         .
6.000      0.4812      1.59  .   V Q   .         .         .         .
6.083      0.4929      1.70  .   V Q   .         .         .         .
6.167      0.5046      1.70  .   V Q   .         .         .         .
6.250      0.5162      1.70  .   V Q   .         .         .         .
6.333      0.5286      1.79  .    V Q  .         .         .         .
6.417      0.5409      1.79  .    V Q  .         .         .         .
6.500      0.5532      1.79  .    V Q  .         .         .         .
6.583      0.5662      1.90  .    V Q  .         .         .         .
6.667      0.5793      1.90  .    V Q  .         .         .         .
6.750      0.5924      1.90  .    V Q  .         .         .         .
6.833      0.6061      1.99  .    V Q  .         .         .         .
6.917      0.6197      1.99  .    V Q  .         .         .         .
7.000      0.6334      1.99  .     VQ  .         .         .         .
7.083      0.6472      1.99  .     VQ  .         .         .         .
7.167      0.6609      1.99  .     VQ  .         .         .         .
7.250      0.6746      1.99  .     VQ  .         .         .         .
7.333      0.6891      2.10  .     V Q .         .         .         .
7.417      0.7035      2.10  .     V Q .         .         .         .
7.500      0.7180      2.10  .     V Q .         .         .         .
7.583      0.7337      2.29  .     V  Q.         .         .         .
7.667      0.7495      2.29  .      V Q.         .         .         .
7.750      0.7653      2.29  .      V Q.         .         .         .
7.833      0.7824      2.49  .      V Q.         .         .         .
7.917      0.7995      2.49  .      V Q.         .         .         .
8.000      0.8167      2.49  .      V Q.         .         .         .
8.083      0.8359      2.79  .      V  .Q        .         .         .
8.167      0.8551      2.79  .       V .Q        .         .         .
8.250      0.8743      2.79  .       V .Q        .         .         .
8.333      0.8948      2.98  .       V .Q        .         .         .
8.417      0.9153      2.98  .       V .Q        .         .         .
8.500      0.9357      2.98  .       V .Q        .         .         .
8.583      0.9570      3.09  .        V. Q       .         .         .
8.667      0.9783      3.09  .        V. Q       .         .         .
8.750      0.9996      3.09  .        V. Q       .         .         .
8.833      1.0223      3.29  .        V.  Q      .         .         .
```

```
 8.917      1.0449      3.29  .        V.  Q      .         .         .
 9.000      1.0675      3.29  .         V  Q      .         .         .
 9.083      1.0922      3.59  .         V   Q     .         .         .
 9.167      1.1169      3.59  .         V   Q     .         .         .
 9.250      1.1416      3.59  .         V   Q     .         .         .
 9.333      1.1683      3.88  .         .V   Q    .         .         .
 9.417      1.1950      3.88  .         .V   Q    .         .         .
 9.500      1.2217      3.88  .         .V   Q    .         .         .
 9.583      1.2498      4.08  .         .V    Q   .         .         .
 9.667      1.2779      4.08  .         . V   Q   .         .         .
 9.750      1.3061      4.08  .         . V   Q   .         .         .
 9.833      1.3356      4.28  .         . V    Q  .         .         .
 9.917      1.3650      4.28  .         . V    Q  .         .         .
10.000      1.3945      4.28  .         .  V   Q  .         .         .
10.083      1.4198      3.67  .         .  VQ     .         .         .
10.167      1.4451      3.67  .         .  VQ     .         .         .
10.250      1.4703      3.67  .         .  VQ     .         .         .
10.333      1.4914      3.05  .         . Q V     .         .         .
10.417      1.5124      3.05  .         . Q V     .         .         .
10.500      1.5334      3.05  .         . Q V     .         .         .
10.583      1.5576      3.52  .         .   Q     .         .         .
10.667      1.5818      3.52  .         .   QV    .         .         .
10.750      1.6060      3.52  .         .   QV    .         .         .
10.833      1.6333      3.96  .         .    Q    .         .         .
10.917      1.6605      3.96  .         .    Q    .         .         .
11.000      1.6877      3.96  .         .    QV   .         .         .
11.083      1.7145      3.88  .         .    QV   .         .         .
11.167      1.7412      3.88  .         .    QV   .         .         .
11.250      1.7680      3.88  .         .    QV   .         .         .
11.333      1.7941      3.80  .         .    Q V  .         .         .
11.417      1.8203      3.80  .         .    Q V  .         .         .
11.500      1.8465      3.80  .         .    Q V  .         .         .
11.583      1.8712      3.59  .         .   Q  V  .         .         .
11.667      1.8959      3.59  .         .   Q   V .         .         .
11.750      1.9206      3.59  .         .   Q   V .         .         .
11.833      1.9448      3.51  .         .   Q   V .         .         .
11.917      1.9690      3.51  .         .   Q   V .         .         .
12.000      1.9932      3.51  .         .   Q   V .         .         .
12.083      2.0234      4.38  .         .      Q V.         .         .
12.167      2.0535      4.38  .         .      Q V.         .         .
12.250      2.0836      4.38  .         .      Q V.         .         .
12.333      2.1195      5.20  .         .         Q         .         .
12.417      2.1553      5.20  .         .         Q         .         .
12.500      2.1911      5.20  .         .         Q         .         .
12.583      2.2298      5.62  .         .        .VQ        .         .
12.667      2.2685      5.62  .         .        .VQ        .         .
12.750      2.3072      5.62  .         .        .VQ        .         .
12.833      2.3485      5.99  .         .        . VQ       .         .
12.917      2.3897      5.99  .         .        . VQ       .         .
13.000      2.4310      5.99  .         .        .  Q       .         .
13.083      2.4775      6.75  .         .        .  V   Q   .         .
13.167      2.5240      6.75  .         .        .  V   Q   .         .
13.250      2.5705      6.75  .         .        .   V  Q   .         .
13.333      2.6209      7.32  .         .        .   V    Q.         .
13.417      2.6713      7.32  .         .        .    V   Q.         .
13.500      2.7218      7.32  .         .        .    V   Q.         .
13.583      2.7632      6.01  .         .        .   Q V    .         .
13.667      2.8045      6.01  .         .        .   Q V    .         .
13.750      2.8459      6.01  .         .        .   Q  V   .         .
13.833      2.8792      4.83  .         .       Q.      V   .         .
13.917      2.9124      4.83  .         .       Q.      V   .         .
14.000      2.9457      4.83  .         .       Q.      V   .         .
14.083      2.9818      5.25  .         .        Q       V  .         .
14.167      3.0180      5.25  .         .        Q       V  .         .
14.250      3.0541      5.25  .         .        Q        V.         .
14.333      3.0924      5.56  .         .        . Q      V.         .
14.417      3.1307      5.56  .         .        . Q      V.         .
14.500      3.1690      5.56  .         .        . Q       V         .
14.583      3.2068      5.48  .         .        .Q        V         .
14.667      3.2445      5.48  .         .        .Q        V         .
14.750      3.2823      5.48  .         .        .Q         V        .
```

```
14.833      3.3192      5.37  .          .          .Q         .V         .
14.917      3.3562      5.37  .          .          .Q         .V         .
15.000      3.3931      5.37  .          .          .Q         . V        .
15.083      3.4286      5.14  .          .          Q          . V        .
15.167      3.4640      5.14  .          .          Q          . V        .
15.250      3.4994      5.14  .          .          Q          .  V       .
15.333      3.5332      4.91  .          .         Q.          .  V       .
15.417      3.5671      4.91  .          .         Q.          .  V       .
15.500      3.6009      4.91  .          .         Q.          .   V      .
15.583      3.6305      4.31  .          .       Q  .          .   V      .
15.667      3.6602      4.31  .          .       Q  .          .   V      .
15.750      3.6899      4.31  .          .       Q  .          .    V     .
15.833      3.7165      3.87  .          .     Q    .          .    V     .
15.917      3.7431      3.87  .          .     Q    .          .    V     .
16.000      3.7698      3.87  .          .     Q    .          .    V     .
16.083      3.7856      2.29  .        Q.          .          .    V     .
16.167      3.8014      2.29  .        Q.          .          .     V    .
16.250      3.8172      2.29  .        Q.          .          .     V    .
16.333      3.8236      0.93  .  Q       .          .          .     V    .
16.417      3.8300      0.93  .  Q       .          .          .     V    .
16.500      3.8364      0.93  .  Q       .          .          .     V    .
16.583      3.8414      0.73  . Q        .          .          .     V    .
16.667      3.8464      0.73  . Q        .          .          .     V    .
16.750      3.8514      0.73  . Q        .          .          .     V    .
16.833      3.8556      0.62  . Q        .          .          .     V    .
16.917      3.8599      0.62  . Q        .          .          .     V    .
17.000      3.8641      0.62  . Q        .          .          .     V    .
17.083      3.8697      0.81  .  Q       .          .          .     V    .
17.167      3.8753      0.81  .  Q       .          .          .     V    .
17.250      3.8808      0.81  .  Q       .          .          .     V    .
17.333      3.8876      0.98  .  Q       .          .          .     V    .
17.417      3.8943      0.98  .  Q       .          .          .      V   .
17.500      3.9011      0.98  .  Q       .          .          .      V   .
17.583      3.9080      0.99  .  Q       .          .          .      V   .
17.667      3.9148      0.99  .  Q       .          .          .      V   .
17.750      3.9217      0.99  .  Q       .          .          .      V   .
17.833      3.9278      0.90  .  Q       .          .          .      V   .
17.917      3.9340      0.90  .  Q       .          .          .      V   .
18.000      3.9402      0.90  .  Q       .          .          .      V   .
18.083      3.9457      0.81  .  Q       .          .          .      V   .
18.167      3.9513      0.81  .  Q       .          .          .      V   .
18.250      3.9568      0.81  .  Q       .          .          .      V   .
18.333      3.9623      0.80  .  Q       .          .          .      V   .
18.417      3.9678      0.80  .  Q       .          .          .      V   .
18.500      3.9734      0.80  .  Q       .          .          .      V   .
18.583      3.9782      0.70  . Q        .          .          .      V   .
18.667      3.9830      0.70  . Q        .          .          .      V   .
18.750      3.9878      0.70  . Q        .          .          .      V   .
18.833      3.9912      0.51  . Q        .          .          .      V   .
18.917      3.9947      0.51  . Q        .          .          .      V   .
19.000      3.9982      0.51  . Q        .          .          .      V   .
19.083      4.0017      0.51  . Q        .          .          .       V  .
19.167      4.0053      0.51  . Q        .          .          .       V  .
19.250      4.0088      0.51  . Q        .          .          .       V  .
19.333      4.0136      0.69  . Q        .          .          .       V  .
19.417      4.0183      0.69  . Q        .          .          .       V  .
19.500      4.0231      0.69  . Q        .          .          .       V  .
19.583      4.0279      0.69  . Q        .          .          .       V  .
19.667      4.0326      0.69  . Q        .          .          .       V  .
19.750      4.0373      0.69  . Q        .          .          .       V  .
19.833      4.0408      0.50  . Q        .          .          .       V  .
19.917      4.0443      0.50  . Q        .          .          .       V  .
20.000      4.0477      0.50  . Q        .          .          .       V  .
20.083      4.0513      0.51  . Q        .          .          .       V  .
20.167      4.0548      0.51  . Q        .          .          .       V  .
20.250      4.0583      0.51  . Q        .          .          .       V  .
20.333      4.0624      0.59  . Q        .          .          .       V  .
20.417      4.0664      0.59  . Q        .          .          .       V  .
20.500      4.0705      0.59  . Q        .          .          .       V  .
20.583      4.0747      0.60  . Q        .          .          .       V  .
20.667      4.0788      0.60  . Q        .          .          .       V  .
```

20.750	4.0829	0.60	. Q	.	.	.	V .
20.833	4.0863	0.50	.Q	.	.	.	V .
20.917	4.0897	0.50	.Q	.	.	.	V .
21.000	4.0932	0.50	.Q	.	.	.	V .
21.083	4.0967	0.51	. Q	.	.	.	V .
21.167	4.1002	0.51	. Q	.	.	.	V .
21.250	4.1037	0.51	. Q	.	.	.	V .
21.333	4.1071	0.49	.Q	.	.	.	V.
21.417	4.1104	0.49	.Q	.	.	.	V.
21.500	4.1138	0.49	.Q	.	.	.	V.
21.583	4.1173	0.51	. Q	.	.	.	V.
21.667	4.1208	0.51	. Q	.	.	.	V.
21.750	4.1243	0.51	. Q	.	.	.	V.
21.833	4.1277	0.49	.Q	.	.	.	V.
21.917	4.1311	0.49	.Q	.	.	.	V.
22.000	4.1344	0.49	.Q	.	.	.	V.
22.083	4.1379	0.51	. Q	.	.	.	V.
22.167	4.1414	0.51	. Q	.	.	.	V.
22.250	4.1449	0.51	. Q	.	.	.	V.
22.333	4.1483	0.49	.Q	.	.	.	V.
22.417	4.1517	0.49	.Q	.	.	.	V.
22.500	4.1551	0.49	.Q	.	.	.	V.
22.583	4.1579	0.41	.Q	.	.	.	V.
22.667	4.1607	0.41	.Q	.	.	.	V.
22.750	4.1635	0.41	.Q	.	.	.	V.
22.833	4.1662	0.40	.Q	.	.	.	V.
22.917	4.1690	0.40	.Q	.	.	.	V.
23.000	4.1717	0.40	.Q	.	.	.	V.
23.083	4.1745	0.40	.Q	.	.	.	V.
23.166	4.1772	0.40	.Q	.	.	.	V.
23.250	4.1800	0.40	.Q	.	.	.	V.
23.333	4.1827	0.40	.Q	.	.	.	V.
23.416	4.1855	0.40	.Q	.	.	.	V.
23.500	4.1883	0.40	.Q	.	.	.	V.
23.583	4.1910	0.40	.Q	.	.	.	V.
23.666	4.1938	0.40	.Q	.	.	.	V.
23.750	4.1965	0.40	.Q	.	.	.	V.
23.833	4.1993	0.40	.Q	.	.	.	V.
23.916	4.2020	0.40	.Q	.	.	.	V.
24.000	4.2048	0.40	.Q	.	.	.	V.
24.083	4.2061	0.20	Q	.	.	.	V.
24.166	4.2074	0.20	Q	.	.	.	V.
24.250	4.2088	0.20	Q	.	.	.	V.
24.333	4.2089	0.02	Q	.	.	.	V.
24.416	4.2090	0.02	Q	.	.	.	V.
24.500	4.2091	0.02	Q	.	.	.	V.
24.583	4.2092	0.00	Q	.	.	.	V.
24.666	4.2092	0.00	Q	.	.	.	V.
24.750	4.2092	0.00	Q	.	.	.	V.

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	1485.0
10%	960.0
20%	660.0
30%	525.0
40%	465.0
50%	345.0
60%	195.0
70%	165.0
80%	60.0
90%	30.0

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END OF FLOODSCx ROUTING ANALYSIS

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             F L O O D    R O U T I N G    A N A L Y S I S

ACCORDING TO RIVERSIDE COUNTY FLOOD CONTORL AND WATER CONSERVATION DISTRICT
                    (RCFC&WCD) 1978 HYDROLOGY MANUAL
         (c) Copyright 1989-2011 Advanced Engineering Software (aes)
                 (Synthetic Unit Hydrograph Version 18.0)
                 Release Date: 05/01/2011  License ID 1499

                           Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* District at Jurupa Valley                                             *
* Preliminary Hydrology 5 year 1 Hour Event                             *
* Kimley Horn May 26, 2022                                              *
 ************************************************************************

  FILE NAME: C:\aes2011\hydrosft\floodX\J5Y1H.fld
  TIME/DATE OF STUDY: 14:58 05/26/2022


******************************************************************************
  FLOW PROCESS FROM NODE   100.00 TO NODE   101.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
==============================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #1)

         WATERCOURSE LENGTH =    4582.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2749.200 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      76.000 FEET
         BASIN FACTOR = 0.015
         WATERSHED AREA =     308.710 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.114 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.470
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.630
         USER-ENTERED RAINFALL =  0.59 INCHES
         RCFC&WCD 1-Hour Storm (5-Minute period) SELECTED
         (SLOPE OF INTENSITY-DURATION CURVE = 0.55)
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9900


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  73.227



==============================================================================
                      UNIT HYDROGRAPH DETERMINATION

------------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
------------------------------------------------------------------------------
        1                7.731               288.648
        2               51.410              1630.718
        3               78.778              1021.768
        4               89.283               392.203
```

5	94.908	209.999
6	97.607	100.770
7	98.341	27.426
8	98.720	14.141
9	99.099	14.140
10	99.478	14.140
11	99.856	14.140
12	100.000	5.366

****

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0225	0.0142	0.0083
2	0.0240	0.0151	0.0089
3	0.0257	0.0162	0.0095
4	0.0288	0.0181	0.0107
5	0.0306	0.0193	0.0113
6	0.0355	0.0223	0.0131
7	0.0427	0.0269	0.0158
8	0.0475	0.0299	0.0176
9	0.0760	0.0392	0.0368
10	0.1835	0.0392	0.1443
11	0.0391	0.0246	0.0145
12	0.0253	0.0159	0.0093

TOTAL STORM RAINFALL(INCHES) = 0.58
TOTAL SOIL-LOSS(INCHES) = 0.28
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.30

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 7.2282
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 7.7178

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1 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 75.0 150.0 225.0 300.0
0.083	0.0166	2.41	Q
0.167	0.1279	16.16	V Q
0.250	0.3052	25.75	.V Q
0.333	0.5183	30.94	. V Q
0.417	0.7635	35.60	. VQ
0.500	1.0361	39.58	. Q
0.583	1.3449	44.84	. QV
0.667	1.7047	52.24	. Q V
0.750	2.1490	64.52	. Q .V
0.833	3.0472	130.41	. V Q
0.917	5.0412	289.52	. V Q .
1.000	6.3803	194.44	. Q . V .
1.083	7.0499	97.23	. Q V .
1.167	7.3977	50.49	. Q V .
1.250	7.5570	23.13	. Q V.
1.333	7.6163	8.62	.Q V.
1.417	7.6469	4.44	Q V.
1.500	7.6700	3.36	Q V.
1.583	7.6906	2.99	Q V.
1.667	7.7084	2.58	Q V.
1.750	7.7160	1.11	Q V.
1.833	7.7175	0.21	Q V.

```
   1.917      7.7178      0.05  Q         .         .         .         V
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated               Duration
       Peak Flow Rate                    (minutes)
   ======================              =========
              0%                         115.0
             10%                          55.0
             20%                          25.0
             30%                          20.0
             40%                          15.0
             50%                          10.0
             60%                          10.0
             70%                           5.0
             80%                           5.0
             90%                           5.0


****************************************************************************
  FLOW PROCESS FROM NODE   104.00 TO NODE   105.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
============================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #2)

         WATERCOURSE LENGTH =    3781.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2268.600 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      62.900 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     121.080 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.197 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.605
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
         USER-ENTERED RAINFALL =  0.59 INCHES
         RCFC&WCD 1-Hour Storm (5-Minute period) SELECTED
         (SLOPE OF INTENSITY-DURATION CURVE = 0.55)
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 1.0000


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  42.394


============================================================================
                      UNIT HYDROGRAPH DETERMINATION

----------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
----------------------------------------------------------------------------
        1                3.436               50.316
        2               16.643              193.384
        3               51.336              508.022
        4               70.934              286.979
        5               80.497              140.019
        6               86.833               92.788
        7               91.194               63.863
        8               94.328               45.888
        9               96.378               30.020
       10               97.704               19.410
       11               98.182                6.997
```

12	98.401	3.211
13	98.620	3.211
14	98.840	3.210
15	99.059	3.212
16	99.278	3.210
17	99.497	3.210
18	99.717	3.210
19	99.936	3.210
20	100.000	0.940

****

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0228	0.0205	0.0023
2	0.0242	0.0218	0.0024
3	0.0260	0.0234	0.0026
4	0.0291	0.0262	0.0029
5	0.0309	0.0278	0.0031
6	0.0358	0.0323	0.0036
7	0.0431	0.0388	0.0043
8	0.0480	0.0432	0.0048
9	0.0768	0.0504	0.0263
10	0.1854	0.0504	0.1349
11	0.0395	0.0355	0.0039
12	0.0255	0.0230	0.0026

TOTAL STORM RAINFALL(INCHES) = 0.59
TOTAL SOIL-LOSS(INCHES) = 0.39
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.19

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 3.9678
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 1.9540

==========

1 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 20.0 40.0 60.0 80.0
0.083	0.0008	0.11	Q . . . .
0.167	0.0047	0.56	Q . . . .
0.250	0.0168	1.76	Q . . . .
0.333	0.0342	2.53	VQ . . . .
0.417	0.0552	3.05	.Q . . . .
0.500	0.0797	3.55	.Q . . . .
0.583	0.1076	4.05	. Q . . . .
0.667	0.1399	4.69	. Q . . . .
0.750	0.1848	6.52	. Q . . . .
0.833	0.3003	16.77	. V Q . . . .
0.917	0.5927	42.46	. V .Q . .
1.000	1.1340	78.60	. . . V . Q.
1.083	1.4506	45.98	. . . Q V. .
1.167	1.6192	24.48	. . Q . . V .
1.250	1.7292	15.96	. Q . . . V .
1.333	1.8039	10.84	. Q . . . V .
1.417	1.8565	7.65	. Q . . . V .
1.500	1.8910	5.01	. Q . . . V .
1.583	1.9125	3.12	.Q . . . V.
1.667	1.9212	1.26	Q . . . V.
1.750	1.9258	0.67	Q . . . V.
1.833	1.9300	0.61	Q . . . V.

```
   1.917      1.9341      0.59  Q         .         .         .        V.
   2.000      1.9381      0.58  Q         .         .         .        V.
   2.083      1.9420      0.57  Q         .         .         .        V.
   2.167      1.9459      0.56  Q         .         .         .        V.
   2.250      1.9496      0.54  Q         .         .         .        V.
   2.333      1.9529      0.48  Q         .         .         .        V.
   2.417      1.9539      0.15  Q         .         .         .        V.
   2.500      1.9540      0.01  Q         .         .         .        V.
   2.583      1.9540      0.00  Q         .         .         .         V
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated               Duration
       Peak Flow Rate                    (minutes)
   ======================              =========
             0%                          155.0
            10%                           35.0
            20%                           30.0
            30%                           20.0
            40%                           15.0
            50%                           15.0
            60%                            5.0
            70%                            5.0
            80%                            5.0
            90%                            5.0


********************************************************************************
  FLOW PROCESS FROM NODE   106.00 TO NODE   103.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
================================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #3)

         WATERCOURSE LENGTH =    2948.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    1768.800 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      14.700 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     136.170 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.205 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.565
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
         USER-ENTERED RAINFALL =  0.59 INCHES
         RCFC&WCD 1-Hour Storm (5-Minute period) SELECTED
         (SLOPE OF INTENSITY-DURATION CURVE = 0.55)
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 1.0000


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  40.741



================================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------------
        1                3.245                53.442
        2               15.378               199.799
        3               47.928               536.047
```

4	69.269	351.433
5	79.137	162.503
6	85.681	107.777
7	90.221	74.767
8	93.542	54.686
9	95.815	37.427
10	97.259	23.789
11	98.090	13.676
12	98.303	3.507
13	98.513	3.470
14	98.724	3.471
15	98.935	3.470
16	99.146	3.471
17	99.356	3.470
18	99.567	3.470
19	99.778	3.470
20	99.989	3.470
21	100.000	0.188

****

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0228	0.0205	0.0023
2	0.0242	0.0218	0.0024
3	0.0260	0.0234	0.0026
4	0.0291	0.0262	0.0029
5	0.0309	0.0278	0.0031
6	0.0358	0.0323	0.0036
7	0.0431	0.0388	0.0043
8	0.0480	0.0432	0.0048
9	0.0768	0.0471	0.0297
10	0.1854	0.0471	0.1383
11	0.0395	0.0355	0.0039
12	0.0255	0.0230	0.0026

TOTAL STORM RAINFALL(INCHES) = 0.59
TOTAL SOIL-LOSS(INCHES) = 0.39
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.20

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 4.3867
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 2.2731

==========

1 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	22.5	45.0	67.5	90.0
0.083	0.0008	0.12	Q	.	.	.	.
0.167	0.0049	0.58	Q	.	.	.	.
0.250	0.0176	1.84	Q	.	.	.	.
0.333	0.0367	2.77	VQ	.	.	.	.
0.417	0.0598	3.36	.Q	.	.	.	.
0.500	0.0868	3.92	.Q	.	.	.	.
0.583	0.1177	4.48	.QV	.	.	.	.
0.667	0.1534	5.18	. Q	.	.	.	.
0.750	0.2039	7.34	. Q	.	.	.	.
0.833	0.3336	18.82	. V Q	.	.	.	.
0.917	0.6579	47.09	.	.V	Q	.	.
1.000	1.2595	87.36	.	.	. V	.	Q .

```
   1.083      1.6542     57.31  .         .         .    Q   V.         .
   1.167      1.8560     29.29  .         .  Q      .         . V       .
   1.250      1.9885     19.25  .       Q .         .         .   V     .
   1.333      2.0793     13.18  .    Q    .         .         .     V   .
   1.417      2.1445      9.47  .   Q     .         .         .      V  .
   1.500      2.1888      6.43  . Q       .         .         .       V .
   1.583      2.2168      4.07  .Q        .         .         .        V.
   1.667      2.2325      2.27  .Q        .         .         .        V.
   1.750      2.2379      0.79  Q         .         .         .        V.
   1.833      2.2427      0.71  Q         .         .         .        V.
   1.917      2.2474      0.67  Q         .         .         .        V.
   2.000      2.2519      0.66  Q         .         .         .        V.
   2.083      2.2564      0.65  Q         .         .         .        V.
   2.167      2.2608      0.64  Q         .         .         .        V.
   2.250      2.2651      0.62  Q         .         .         .        V.
   2.333      2.2692      0.61  Q         .         .         .        V.
   2.417      2.2727      0.51  Q         .         .         .        V.
   2.500      2.2731      0.05  Q         .         .         .        V.
   2.583      2.2731      0.01  Q         .         .         .        V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated               Duration
       Peak Flow Rate                    (minutes)
   ======================              =========
              0%                         155.0
             10%                          40.0
             20%                          30.0
             30%                          20.0
             40%                          15.0
             50%                          15.0
             60%                          10.0
             70%                           5.0
             80%                           5.0
             90%                           5.0


 ********************************************************************************
   FLOW PROCESS FROM NODE   500.00 TO NODE   501.00 IS CODE =   1
 --------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
 ================================================================================

       (UNIT-HYDROGRAPH ADDED TO STREAM #4)

          WATERSHED AREA =      20.000 ACRES
          BASEFLOW =   0.000 CFS/SQUARE-MILE
          *USER ENTERED "LAG" TIME =    0.100 HOURS
           CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
           THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
           MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
          FOOTHILL S-GRAPH SELECTED
          UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.050
          LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.180
          USER-ENTERED RAINFALL =  0.59 INCHES
          RCFC&WCD 1-Hour Storm (5-Minute period) SELECTED
          (SLOPE OF INTENSITY-DURATION CURVE = 0.55)
          RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 1.0000


          UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
          UNIT INTERVAL PERCENTAGE OF LAG-TIME =  83.333
```

UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	9.713	23.494
2	60.041	121.730
3	83.125	55.836
4	92.383	22.393
5	96.836	10.769
6	98.250	3.421
7	98.681	1.043
8	99.112	1.043
9	99.543	1.043
10	99.974	1.043
11	100.000	0.063

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0228	0.0041	0.0187
2	0.0242	0.0042	0.0201
3	0.0260	0.0042	0.0218
4	0.0291	0.0042	0.0249
5	0.0309	0.0042	0.0268
6	0.0358	0.0042	0.0317
7	0.0431	0.0042	0.0389
8	0.0480	0.0042	0.0438
9	0.0768	0.0042	0.0726
10	0.1854	0.0042	0.1812
11	0.0395	0.0042	0.0353
12	0.0255	0.0042	0.0214

TOTAL STORM RAINFALL(INCHES) = 0.59
TOTAL SOIL-LOSS(INCHES) = 0.05
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.54

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 0.0832
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 0.8947

1 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 7.5 15.0 22.5 30.0
0.083	0.0030	0.44	Q . . . .
0.167	0.0219	2.74	V Q . . . .
0.250	0.0495	4.00	. V Q . . . .
0.333	0.0824	4.78	. V Q . . . .
0.417	0.1205	5.53	. V Q . . . .
0.500	0.1629	6.16	. VQ . . . .
0.583	0.2121	7.14	. Q. . . . .
0.667	0.2708	8.52	. .QV . . . .
0.750	0.3421	10.36	. . Q V . . . .
0.833	0.4587	16.93	. . V Q . . .
0.917	0.6553	28.54	. . . V. . Q .
1.000	0.7742	17.26	. . . Q . V .
1.083	0.8409	9.69	. . Q . . V .

```
   1.167      0.8707      4.33  .    Q    .         .         .       V .
   1.250      0.8822      1.67  . Q       .         .         .        V.
   1.333      0.8871      0.70  Q         .         .         .        V.
   1.417      0.8900      0.42  Q         .         .         .        V.
   1.500      0.8922      0.33  Q         .         .         .        V.
   1.583      0.8940      0.25  Q         .         .         .        V.
   1.667      0.8945      0.07  Q         .         .         .        V.
   1.750      0.8946      0.02  Q         .         .         .        V.
   1.833      0.8947      0.00  Q         .         .         .        V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated               Duration
       Peak Flow Rate                    (minutes)
   ======================               =========
              0%                          110.0
             10%                           60.0
             20%                           40.0
             30%                           25.0
             40%                           15.0
             50%                           15.0
             60%                           10.0
             70%                            5.0
             80%                            5.0
             90%                            5.0
================================================================================

  END OF FLOODSCx ROUTING ANALYSIS
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             F L O O D    R O U T I N G    A N A L Y S I S

ACCORDING TO RIVERSIDE COUNTY FLOOD CONTORL AND WATER CONSERVATION DISTRICT
                    (RCFC&WCD) 1978 HYDROLOGY MANUAL
         (c) Copyright 1989-2011 Advanced Engineering Software (aes)
                 (Synthetic Unit Hydrograph Version 18.0)
                 Release Date: 05/01/2011  License ID 1499

                           Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* District at Jurupa Valley                                             *
* Preliminary Hydrology 5 year 3 Hour Event                             *
* Kimley Horn May 26, 2022                                              *
 ************************************************************************

  FILE NAME: C:\aes2011\hydrosft\floodX\J5Y3H.fld
  TIME/DATE OF STUDY: 18:07 05/26/2022


**************************************************************************
  FLOW PROCESS FROM NODE   100.00 TO NODE   101.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
==========================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #1)

         WATERCOURSE LENGTH =    4582.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2749.200 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      76.000 FEET
         BASIN FACTOR = 0.015
         WATERSHED AREA =     308.710 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.114 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.470
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.630
         USER-ENTERED RAINFALL =  1.01 INCHES
         RCFC&WCD 3-Hour Storm (5-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9988


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  73.227



==========================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------
        1                7.731               288.648
        2               51.410              1630.718
        3               78.778              1021.768
        4               89.283               392.203
        5               94.908               209.999
```

6	97.607	100.770
7	98.341	27.426
8	98.720	14.141
9	99.099	14.140
10	99.478	14.140
11	99.856	14.140
12	100.000	5.366

****

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0131	0.0083	0.0049
2	0.0131	0.0083	0.0049
3	0.0111	0.0070	0.0041
4	0.0151	0.0095	0.0056
5	0.0151	0.0095	0.0056
6	0.0182	0.0114	0.0067
7	0.0151	0.0095	0.0056
8	0.0182	0.0114	0.0067
9	0.0182	0.0114	0.0067
10	0.0151	0.0095	0.0056
11	0.0161	0.0102	0.0060
12	0.0182	0.0114	0.0067
13	0.0222	0.0140	0.0082
14	0.0222	0.0140	0.0082
15	0.0222	0.0140	0.0082
16	0.0202	0.0127	0.0075
17	0.0262	0.0165	0.0097
18	0.0272	0.0172	0.0101
19	0.0242	0.0153	0.0090
20	0.0272	0.0172	0.0101
21	0.0333	0.0210	0.0123
22	0.0313	0.0197	0.0116
23	0.0293	0.0184	0.0108
24	0.0303	0.0191	0.0112
25	0.0313	0.0197	0.0116
26	0.0424	0.0267	0.0157
27	0.0504	0.0318	0.0187
28	0.0353	0.0222	0.0131
29	0.0686	0.0392	0.0294
30	0.0736	0.0392	0.0345
31	0.0827	0.0392	0.0436
32	0.0595	0.0375	0.0220
33	0.0202	0.0127	0.0075
34	0.0182	0.0114	0.0067
35	0.0182	0.0114	0.0067
36	0.0061	0.0038	0.0022

TOTAL STORM RAINFALL(INCHES) = 1.01
TOTAL SOIL-LOSS(INCHES) = 0.61
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.40

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 15.7263
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 10.2199

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3 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS) VOLUME(AF) Q(CFS) 0. 50.0 100.0 150.0 200.0

```
   0.083      0.0096      1.40  Q         .         .         .         .
   0.167      0.0738      9.31  VQ        .         .         .         .
   0.250      0.1706     14.06  V Q       .         .         .         .
   0.333      0.2751     15.17  .V Q      .         .         .         .
   0.417      0.3981     17.86  .V Q      .         .         .         .
   0.500      0.5352     19.91  . VQ      .         .         .         .
   0.583      0.6865     21.97  . V Q     .         .         .         .
   0.667      0.8375     21.92  .  VQ     .         .         .         .
   0.750      0.9976     23.24  .  VQ     .         .         .         .
   0.833      1.1625     23.96  .   Q     .         .         .         .
   0.917      1.3184     22.63  .   QV    .         .         .         .
   1.000      1.4734     22.50  .   QV    .         .         .         .
   1.083      1.6401     24.20  .   Q V   .         .         .         .
   1.167      1.8285     27.36  .    Q V  .         .         .         .
   1.250      2.0294     29.17  .    Q V  .         .         .         .
   1.333      2.2341     29.72  .    Q  V .         .         .         .
   1.417      2.4375     29.53  .    Q   V.         .         .         .
   1.500      2.6627     32.70  .     Q   V         .         .         .
   1.583      2.9039     35.03  .      Q  .V        .         .         .
   1.667      3.1426     34.65  .     Q   . V       .         .         .
   1.750      3.3943     36.55  .      Q  .  V      .         .         .
   1.833      3.6767     41.01  .       Q .   V     .         .         .
   1.917      3.9673     42.18  .       Q .    V    .         .         .
   2.000      4.2521     41.35  .       Q .     V   .         .         .
   2.083      4.5385     41.59  .       Q .      V  .         .         .
   2.167      4.8386     43.58  .       Q .       V .         .         .
   2.250      5.1935     51.53  .         Q         V         .         .
   2.333      5.6010     59.16  .         .Q        .V        .         .
   2.417      6.0109     59.53  .         .Q        .  V      .         .
   2.500      6.5898     84.06  .         .     Q   .    V    .         .
   2.583      7.3509    110.50  .         .         . Q     V .         .
   2.667      8.2455    129.90  .         .         .    Q    . V       .
   2.750      8.9677    104.85  .         .         Q         .    V    .
   2.833      9.4162     65.12  .         .  Q      .         .     V   .
   2.917      9.7156     43.48  .       Q .         .         .       V .
   3.000      9.9395     32.50  .     Q   .         .         .       V .
   3.083     10.0743     19.57  .  Q      .         .         .        V.
   3.167     10.1396      9.49  .Q        .         .         .        V.
   3.250     10.1746      5.07  .Q        .         .         .        V.
   3.333     10.1953      3.01  Q         .         .         .        V.
   3.417     10.2072      1.72  Q         .         .         .        V.
   3.500     10.2134      0.90  Q         .         .         .        V.
   3.583     10.2164      0.45  Q         .         .         .        V.
   3.667     10.2182      0.26  Q         .         .         .        V.
   3.750     10.2194      0.16  Q         .         .         .        V.
   3.833     10.2198      0.07  Q         .         .         .        V.
   3.917     10.2199      0.01  Q         .         .         .         V
```

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	235.0
10%	175.0
20%	115.0
30%	70.0
40%	35.0
50%	25.0
60%	20.0
70%	15.0
80%	15.0
90%	5.0

```
****************************************************************************
  FLOW PROCESS FROM NODE   104.00 TO NODE   105.00 IS CODE =   1
----------------------------------------------------------------------------
```

```
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
================================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #2)

         WATERCOURSE LENGTH =    3781.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2268.600 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      62.900 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     121.080 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.197 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.605
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
         USER-ENTERED RAINFALL =  1.01 INCHES
         RCFC&WCD 3-Hour Storm (5-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9995


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  42.394


================================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------------
        1                3.436               50.316
        2               16.643              193.384
        3               51.336              508.022
        4               70.934              286.979
        5               80.497              140.019
        6               86.833               92.788
        7               91.194               63.863
        8               94.328               45.888
        9               96.378               30.020
       10               97.704               19.410
       11               98.182                6.997
       12               98.401                3.211
       13               98.620                3.211
       14               98.840                3.210
       15               99.059                3.212
       16               99.278                3.210
       17               99.497                3.210
       18               99.717                3.210
       19               99.936                3.210
       20              100.000                0.940


********************************************************************************
        UNIT              UNIT             UNIT             EFFECTIVE
       PERIOD           RAINFALL       SOIL-LOSS            RAINFALL
      (NUMBER)          (INCHES)        (INCHES)            (INCHES)
--------------------------------------------------------------------------------
          1             0.0131           0.0118              0.0013
          2             0.0131           0.0118              0.0013
          3             0.0111           0.0100              0.0011
          4             0.0151           0.0136              0.0015
          5             0.0151           0.0136              0.0015
          6             0.0182           0.0164              0.0018
          7             0.0151           0.0136              0.0015
          8             0.0182           0.0164              0.0018
```

9	0.0182	0.0164	0.0018
10	0.0151	0.0136	0.0015
11	0.0162	0.0145	0.0016
12	0.0182	0.0164	0.0018
13	0.0222	0.0200	0.0022
14	0.0222	0.0200	0.0022
15	0.0222	0.0200	0.0022
16	0.0202	0.0182	0.0020
17	0.0262	0.0236	0.0026
18	0.0273	0.0245	0.0027
19	0.0242	0.0218	0.0024
20	0.0273	0.0245	0.0027
21	0.0333	0.0300	0.0033
22	0.0313	0.0282	0.0031
23	0.0293	0.0263	0.0029
24	0.0303	0.0273	0.0030
25	0.0313	0.0282	0.0031
26	0.0424	0.0382	0.0042
27	0.0505	0.0454	0.0050
28	0.0353	0.0318	0.0035
29	0.0686	0.0504	0.0182
30	0.0737	0.0504	0.0233
31	0.0828	0.0504	0.0324
32	0.0596	0.0504	0.0091
33	0.0202	0.0182	0.0020
34	0.0182	0.0164	0.0018
35	0.0182	0.0164	0.0018
36	0.0061	0.0055	0.0006

TOTAL STORM RAINFALL(INCHES) = 1.01
TOTAL SOIL-LOSS(INCHES) = 0.85
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.16

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 8.6170
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 1.5682

==========

3 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 7.5 15.0 22.5 30.0
0.083	0.0005	0.07	Q . . . .
0.167	0.0027	0.32	Q . . . .
0.250	0.0094	0.98	VQ . . . .
0.333	0.0186	1.33	VQ . . . .
0.417	0.0289	1.49	VQ . . . .
0.500	0.0411	1.78	.VQ . . . .
0.583	0.0548	1.99	.VQ . . . .
0.667	0.0700	2.20	.VQ . . . .
0.750	0.0855	2.26	. VQ . . . .
0.833	0.1020	2.39	. VQ . . . .
0.917	0.1188	2.43	. Q . . . .
1.000	0.1350	2.36	. Q . . . .
1.083	0.1516	2.41	. Q . . . .
1.167	0.1695	2.60	. QV . . . .
1.250	0.1892	2.87	. QV . . . .
1.333	0.2099	3.00	. Q V . . . .
1.417	0.2310	3.07	. QV . . . .
1.500	0.2527	3.14	. Q V . . . .
1.583	0.2763	3.43	. Q V . . . .
1.667	0.3012	3.61	. Q V . . . .
1.750	0.3264	3.66	. Q V . . . .
1.833	0.3533	3.90	. Q V. . . .

```
   1.917      0.3826      4.25  .    Q   V.          .          .          .
   2.000      0.4124      4.33  .    Q    V          .          .          .
   2.083      0.4421      4.31  .    Q    .V         .          .          .
   2.167      0.4726      4.43  .    Q    . V        .          .          .
   2.250      0.5054      4.77  .     Q   . V        .          .          .
   2.333      0.5430      5.46  .      Q  .  V       .          .          .
   2.417      0.5888      6.66  .       Q .    V     .          .          .
   2.500      0.6535      9.39  .         . Q   V     .          .          .
   2.583      0.7780     18.08  .         .         V.   Q      .          .
   2.667      0.9529     25.39  .         .          .   V      .  Q       .
   2.750      1.1501     28.63  .         .          .       V.        Q .
   2.833      1.2885     20.11  .         .          .     Q   . V        .
   2.917      1.3742     12.44  .         .     Q    .          .    V     .
   3.000      1.4349      8.80  .        .Q         .          .     V    .
   3.083      1.4800      6.56  .       Q .         .          .      V   .
   3.167      1.5111      4.51  .     Q   .         .          .       V  .
   3.250      1.5303      2.79  .  Q      .         .          .        V.
   3.333      1.5418      1.67  . Q       .         .          .        V.
   3.417      1.5482      0.93  .Q        .         .          .        V.
   3.500      1.5522      0.58  Q         .         .          .        V.
   3.583      1.5553      0.45  Q         .         .          .        V.
   3.667      1.5579      0.38  Q         .         .          .        V.
   3.750      1.5603      0.33  Q         .         .          .        V.
   3.833      1.5624      0.30  Q         .         .          .        V.
   3.917      1.5644      0.29  Q         .         .          .        V.
   4.000      1.5660      0.25  Q         .         .          .        V.
   4.083      1.5672      0.18  Q         .         .          .        V.
   4.167      1.5678      0.08  Q         .         .          .        V.
   4.250      1.5680      0.03  Q         .         .          .        V.
   4.333      1.5681      0.02  Q         .         .          .        V.
   4.417      1.5682      0.01  Q         .         .          .        V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated               Duration
       Peak Flow Rate                    (minutes)
   ======================                =========
             0%                            265.0
            10%                            120.0
            20%                             45.0
            30%                             35.0
            40%                             25.0
            50%                             20.0
            60%                             20.0
            70%                             15.0
            80%                             10.0
            90%                              5.0

 ********************************************************************************
   FLOW PROCESS FROM NODE   106.00 TO NODE   103.00 IS CODE =   1
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   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
 ================================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #3)

         WATERCOURSE LENGTH =    2948.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    1768.800 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      14.700 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     136.170 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.205 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.565
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
```

USER-ENTERED RAINFALL = 1.01 INCHES
RCFC&WCD 3-Hour Storm (5-Minute period) SELECTED
RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9995

UNIT HYDROGRAPH TIME UNIT = 5.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 40.741

UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	3.245	53.442
2	15.378	199.799
3	47.928	536.047
4	69.269	351.433
5	79.137	162.503
6	85.681	107.777
7	90.221	74.767
8	93.542	54.686
9	95.815	37.427
10	97.259	23.789
11	98.090	13.676
12	98.303	3.507
13	98.513	3.470
14	98.724	3.471
15	98.935	3.470
16	99.146	3.471
17	99.356	3.470
18	99.567	3.470
19	99.778	3.470
20	99.989	3.470
21	100.000	0.188

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0131	0.0118	0.0013
2	0.0131	0.0118	0.0013
3	0.0111	0.0100	0.0011
4	0.0151	0.0136	0.0015
5	0.0151	0.0136	0.0015
6	0.0182	0.0164	0.0018
7	0.0151	0.0136	0.0015
8	0.0182	0.0164	0.0018
9	0.0182	0.0164	0.0018
10	0.0151	0.0136	0.0015
11	0.0162	0.0145	0.0016
12	0.0182	0.0164	0.0018
13	0.0222	0.0200	0.0022
14	0.0222	0.0200	0.0022
15	0.0222	0.0200	0.0022
16	0.0202	0.0182	0.0020
17	0.0262	0.0236	0.0026
18	0.0273	0.0245	0.0027
19	0.0242	0.0218	0.0024
20	0.0273	0.0245	0.0027
21	0.0333	0.0300	0.0033
22	0.0313	0.0282	0.0031
23	0.0293	0.0263	0.0029
24	0.0303	0.0273	0.0030
25	0.0313	0.0282	0.0031
26	0.0424	0.0382	0.0042
27	0.0505	0.0454	0.0050

28	0.0353	0.0318	0.0035
29	0.0686	0.0471	0.0216
30	0.0737	0.0471	0.0266
31	0.0828	0.0471	0.0357
32	0.0596	0.0471	0.0125
33	0.0202	0.0182	0.0020
34	0.0182	0.0164	0.0018
35	0.0182	0.0164	0.0018
36	0.0061	0.0055	0.0006

TOTAL STORM RAINFALL(INCHES) = 1.01
TOTAL SOIL-LOSS(INCHES) = 0.84
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.17

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 9.5392
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 1.9146

==========

3 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 10.0 20.0 30.0 40.0
0.083	0.0005	0.07	Q . . . .
0.167	0.0028	0.33	Q . . . .
0.250	0.0098	1.02	VQ . . . .
0.333	0.0199	1.47	VQ . . . .
0.417	0.0313	1.65	VQ . . . .
0.500	0.0448	1.96	VQ . . . .
0.583	0.0600	2.21	.VQ . . . .
0.667	0.0768	2.44	.VQ . . . .
0.750	0.0942	2.52	.VQ . . . .
0.833	0.1125	2.66	. Q . . . .
0.917	0.1313	2.73	. Q . . . .
1.000	0.1496	2.65	. QV . . . .
1.083	0.1682	2.70	. QV . . . .
1.167	0.1882	2.90	. QV . . . .
1.250	0.2102	3.19	. QV . . . .
1.333	0.2333	3.36	. QV . . . .
1.417	0.2570	3.44	. Q V . . . .
1.500	0.2812	3.52	. Q V . . . .
1.583	0.3075	3.82	. Q V . . . .
1.667	0.3353	4.04	. Q V . . . .
1.750	0.3636	4.11	. Q V . . . .
1.833	0.3936	4.35	. Q V . . . .
1.917	0.4262	4.74	. Q V . . . .
2.000	0.4597	4.86	. Q V. . . .
2.083	0.4930	4.84	. Q V . . .
2.167	0.5272	4.96	. Q .V . . .
2.250	0.5638	5.32	. Q .V . . .
2.333	0.6055	6.05	. Q . V . . .
2.417	0.6576	7.57	. Q . V . . .
2.500	0.7342	11.11	. .Q V . . .
2.583	0.8857	22.00	. . V . Q . .
2.667	1.1030	31.55	. . . V .Q .
2.750	1.3501	35.89	. . . V . Q .
2.833	1.5380	27.28	. . . Q . V .
2.917	1.6538	16.82	. . Q . . V .
3.000	1.7332	11.52	. .Q . . V .
3.083	1.7923	8.59	. Q . . . V .
3.167	1.8338	6.02	. Q . . . V .
3.250	1.8607	3.91	. Q . . . V .
3.333	1.8772	2.39	. Q . . . V.
3.417	1.8870	1.42	.Q . . . V.

```
   3.500      1.8925      0.80  Q         .         .         .        V.
   3.583      1.8964      0.57  Q         .         .         .        V.
   3.667      1.8998      0.49  Q         .         .         .        V.
   3.750      1.9028      0.43  Q         .         .         .        V.
   3.833      1.9055      0.39  Q         .         .         .        V.
   3.917      1.9080      0.37  Q         .         .         .        V.
   4.000      1.9105      0.36  Q         .         .         .        V.
   4.083      1.9124      0.29  Q         .         .         .        V.
   4.167      1.9138      0.19  Q         .         .         .        V.
   4.250      1.9143      0.07  Q         .         .         .        V.
   4.333      1.9144      0.02  Q         .         .         .        V.
   4.417      1.9145      0.02  Q         .         .         .        V.
   4.500      1.9146      0.01  Q         .         .         .        V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated                Duration
       Peak Flow Rate                     (minutes)
   ======================                 =========
              0%                            270.0
             10%                            105.0
             20%                             45.0
             30%                             35.0
             40%                             25.0
             50%                             20.0
             60%                             20.0
             70%                             15.0
             80%                             10.0
             90%                              5.0

********************************************************************************
  FLOW PROCESS FROM NODE   500.00 TO NODE   501.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
================================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #4)

         WATERSHED AREA =      20.000 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         *USER ENTERED "LAG" TIME =    0.100 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.050
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.180
         USER-ENTERED RAINFALL =  1.01 INCHES
         RCFC&WCD 3-Hour Storm (5-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9999


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  83.333


================================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------------
        1                9.713               23.494
        2               60.041              121.730
        3               83.125               55.836
        4               92.383               22.393
        5               96.836               10.769
        6               98.250                3.421
```

7	98.681	1.043
8	99.112	1.043
9	99.543	1.043
10	99.974	1.043
11	100.000	0.063

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0131	0.0024	0.0108
2	0.0131	0.0024	0.0108
3	0.0111	0.0020	0.0091
4	0.0151	0.0027	0.0124
5	0.0151	0.0027	0.0124
6	0.0182	0.0033	0.0149
7	0.0151	0.0027	0.0124
8	0.0182	0.0033	0.0149
9	0.0182	0.0033	0.0149
10	0.0151	0.0027	0.0124
11	0.0162	0.0029	0.0133
12	0.0182	0.0033	0.0149
13	0.0222	0.0040	0.0182
14	0.0222	0.0040	0.0182
15	0.0222	0.0040	0.0182
16	0.0202	0.0036	0.0166
17	0.0263	0.0042	0.0221
18	0.0273	0.0042	0.0231
19	0.0242	0.0042	0.0201
20	0.0273	0.0042	0.0231
21	0.0333	0.0042	0.0292
22	0.0313	0.0042	0.0271
23	0.0293	0.0042	0.0251
24	0.0303	0.0042	0.0261
25	0.0313	0.0042	0.0271
26	0.0424	0.0042	0.0382
27	0.0505	0.0042	0.0463
28	0.0353	0.0042	0.0312
29	0.0687	0.0042	0.0645
30	0.0737	0.0042	0.0696
31	0.0828	0.0042	0.0786
32	0.0596	0.0042	0.0554
33	0.0202	0.0036	0.0166
34	0.0182	0.0033	0.0149
35	0.0182	0.0033	0.0149
36	0.0061	0.0011	0.0050

TOTAL STORM RAINFALL(INCHES) = 1.01
TOTAL SOIL-LOSS(INCHES) = 0.13
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.88

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 0.2120
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 1.4704

3 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 5.0 10.0 15.0 20.0
0.083	0.0017	0.25	Q . . . .
0.167	0.0125	1.56	V Q . . . .

```
   0.250      0.0271      2.13  V   Q     .         .         .         .
   0.333      0.0426      2.24  .V  Q     .         .         .         .
   0.417      0.0610      2.67  .V   Q    .         .         .         .
   0.500      0.0810      2.91  . V  Q    .         .         .         .
   0.583      0.1032      3.22  . V   Q   .         .         .         .
   0.667      0.1250      3.16  .  V  Q   .         .         .         .
   0.750      0.1484      3.40  .   V Q   .         .         .         .
   0.833      0.1723      3.46  .   V Q   .         .         .         .
   0.917      0.1945      3.22  .    VQ   .         .         .         .
   1.000      0.2168      3.25  .    VQ   .         .         .         .
   1.083      0.2411      3.53  .     VQ  .         .         .         .
   1.167      0.2688      4.02  .      VQ .         .         .         .
   1.250      0.2980      4.24  .       Q .         .         .         .
   1.333      0.3276      4.30  .       Q .         .         .         .
   1.417      0.3570      4.27  .       QV.         .         .         .
   1.500      0.3906      4.88  .        QV         .         .         .
   1.583      0.4265      5.21  .         QV        .         .         .
   1.667      0.4615      5.08  .         Q V       .         .         .
   1.750      0.4994      5.50  .         .Q V      .         .         .
   1.833      0.5429      6.33  .         . Q V     .         .         .
   1.917      0.5871      6.41  .         . Q  V    .         .         .
   2.000      0.6301      6.24  .         . Q    V  .         .         .
   2.083      0.6735      6.31  .         . Q     V .         .         .
   2.167      0.7197      6.71  .         .  Q     V.         .         .
   2.250      0.7770      8.31  .         .     Q   .V        .         .
   2.333      0.8430      9.59  .         .        Q. V       .         .
   2.417      0.9067      9.25  .         .       Q .   V     .         .
   2.500      0.9954     12.88  .         .         .    Q V  .         .
   2.583      1.1012     15.36  .         .         .        VQ        .
   2.667      1.2170     16.82  .         .         .         .  Q      .
   2.750      1.3137     14.03  .         .         .       Q .    V    .
   2.833      1.3711      8.34  .         .     Q   .         .      V  .
   2.917      1.4097      5.61  .         .Q        .         .       V .
   3.000      1.4388      4.22  .       Q .         .         .        V.
   3.083      1.4553      2.40  .   Q     .         .         .        V.
   3.167      1.4629      1.11  . Q       .         .         .        V.
   3.250      1.4668      0.56  .Q        .         .         .        V.
   3.333      1.4687      0.28  Q         .         .         .        V.
   3.417      1.4696      0.13  Q         .         .         .        V.
   3.500      1.4700      0.06  Q         .         .         .        V.
   3.583      1.4702      0.04  Q         .         .         .        V.
   3.667      1.4704      0.02  Q         .         .         .        V.
   3.750      1.4704      0.01  Q         .         .         .        V.
-------------------------------------------------------------------------------
    TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
    (Note: 100% of Peak Flow Rate estimate assumed to have
    an instantaneous time duration)

    Percentile of Estimated                Duration
        Peak Flow Rate                     (minutes)
    ======================                 =========
              0%                             225.0
             10%                             175.0
             20%                             130.0
             30%                              85.0
             40%                              40.0
             50%                              30.0
             60%                              20.0
             70%                              20.0
             80%                              15.0
             90%                              10.0
 ===============================================================================

   END OF FLOODSCx ROUTING ANALYSIS
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**************************************************************************

             F L O O D    R O U T I N G    A N A L Y S I S

ACCORDING TO RIVERSIDE COUNTY FLOOD CONTORL AND WATER CONSERVATION DISTRICT
                    (RCFC&WCD) 1978 HYDROLOGY MANUAL
         (c) Copyright 1989-2011 Advanced Engineering Software (aes)
                 (Synthetic Unit Hydrograph Version 18.0)
                 Release Date: 05/01/2011  License ID 1499

                           Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* District at Jurupa Valley                                             *
* Preliminary Hydrology 5 year 6 Hour Event                             *
* Kimley Horn May 26, 2022                                              *
 ************************************************************************

  FILE NAME: C:\aes2011\hydrosft\floodX\J5Y6H.fld
  TIME/DATE OF STUDY: 14:51 05/26/2022


**************************************************************************
  FLOW PROCESS FROM NODE   100.00 TO NODE   101.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
==========================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #1)

         WATERCOURSE LENGTH =    4582.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2749.200 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      76.000 FEET
         BASIN FACTOR = 0.015
         WATERSHED AREA =     308.710 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.114 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.470
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.630
         USER-ENTERED RAINFALL =  1.39 INCHES
         RCFC&WCD 6-Hour Storm (5-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9991


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  73.227


==========================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------
        1                7.731               288.648
        2               51.410              1630.718
        3               78.778              1021.768
        4               89.283               392.203
        5               94.908               209.999
        6               97.607               100.770
```

7	98.341	27.426
8	98.720	14.141
9	99.099	14.140
10	99.478	14.140
11	99.856	14.140
12	100.000	5.366

****

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0069	0.0044	0.0026
2	0.0083	0.0052	0.0031
3	0.0083	0.0052	0.0031
4	0.0083	0.0052	0.0031
5	0.0083	0.0052	0.0031
6	0.0097	0.0061	0.0036
7	0.0097	0.0061	0.0036
8	0.0097	0.0061	0.0036
9	0.0097	0.0061	0.0036
10	0.0097	0.0061	0.0036
11	0.0097	0.0061	0.0036
12	0.0111	0.0070	0.0041
13	0.0111	0.0070	0.0041
14	0.0111	0.0070	0.0041
15	0.0111	0.0070	0.0041
16	0.0111	0.0070	0.0041
17	0.0111	0.0070	0.0041
18	0.0111	0.0070	0.0041
19	0.0111	0.0070	0.0041
20	0.0111	0.0070	0.0041
21	0.0111	0.0070	0.0041
22	0.0111	0.0070	0.0041
23	0.0111	0.0070	0.0041
24	0.0125	0.0079	0.0046
25	0.0111	0.0070	0.0041
26	0.0125	0.0079	0.0046
27	0.0125	0.0079	0.0046
28	0.0125	0.0079	0.0046
29	0.0125	0.0079	0.0046
30	0.0125	0.0079	0.0046
31	0.0125	0.0079	0.0046
32	0.0125	0.0079	0.0046
33	0.0139	0.0087	0.0051
34	0.0139	0.0087	0.0051
35	0.0139	0.0087	0.0051
36	0.0139	0.0087	0.0051
37	0.0139	0.0087	0.0051
38	0.0153	0.0096	0.0057
39	0.0153	0.0096	0.0057
40	0.0153	0.0096	0.0057
41	0.0167	0.0105	0.0062
42	0.0181	0.0114	0.0067
43	0.0194	0.0122	0.0072
44	0.0194	0.0122	0.0072
45	0.0208	0.0131	0.0077
46	0.0208	0.0131	0.0077
47	0.0222	0.0140	0.0082
48	0.0222	0.0140	0.0082
49	0.0236	0.0149	0.0087
50	0.0250	0.0157	0.0092
51	0.0264	0.0166	0.0098
52	0.0278	0.0175	0.0103
53	0.0292	0.0184	0.0108
54	0.0292	0.0184	0.0108
55	0.0306	0.0192	0.0113
56	0.0319	0.0201	0.0118
57	0.0333	0.0210	0.0123
58	0.0333	0.0210	0.0123

59	0.0347	0.0219	0.0128
60	0.0361	0.0227	0.0134
61	0.0431	0.0271	0.0159
62	0.0500	0.0315	0.0185
63	0.0542	0.0341	0.0200
64	0.0583	0.0367	0.0216
65	0.0653	0.0392	0.0261
66	0.0778	0.0392	0.0386
67	0.0264	0.0166	0.0098
68	0.0125	0.0079	0.0046
69	0.0083	0.0052	0.0031
70	0.0069	0.0044	0.0026
71	0.0042	0.0026	0.0015
72	0.0028	0.0017	0.0010

TOTAL STORM RAINFALL(INCHES) = 1.39
TOTAL SOIL-LOSS(INCHES) = 0.86
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.53

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 22.2054
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 13.5155

==========

6 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 50.0 100.0 150.0 200.0
0.083	0.0051	0.74	Q . . . .
0.167	0.0401	5.08	VQ . . . .
0.250	0.0989	8.54	VQ . . . .
0.333	0.1683	10.08	V Q . . . .
0.417	0.2428	10.82	V Q . . . .
0.500	0.3209	11.33	V Q . . . .
0.583	0.4055	12.29	.VQ . . . .
0.667	0.4941	12.87	.VQ . . . .
0.750	0.5844	13.11	.VQ . . . .
0.833	0.6758	13.26	. Q . . . .
0.917	0.7678	13.36	. Q . . . .
1.000	0.8611	13.54	. Q . . . .
1.083	0.9602	14.39	. Q . . . .
1.167	1.0630	14.92	. QV . . . .
1.250	1.1672	15.13	. Q . . . .
1.333	1.2722	15.25	. Q . . . .
1.417	1.3776	15.30	. QV . . . .
1.500	1.4830	15.32	. QV . . . .
1.583	1.5886	15.32	. QV . . . .
1.667	1.6941	15.33	. Q V . . . .
1.750	1.7998	15.34	. Q V . . . .
1.833	1.9055	15.34	. Q V . . . .
1.917	2.0112	15.35	. Q V . . . .
2.000	2.1179	15.50	. Q V . . . .
2.083	2.2294	16.19	. Q V . . . .
2.167	2.3397	16.02	. Q V . . . .
2.250	2.4536	16.54	. Q V . . . .
2.333	2.5704	16.97	. Q V . . . .
2.417	2.6883	17.11	. Q V . . . .
2.500	2.8066	17.18	. Q V . . . .
2.583	2.9253	17.23	. Q V . . . .
2.667	3.0440	17.24	. Q V. . . .
2.750	3.1638	17.40	. Q V. . . .
2.833	3.2895	18.24	. Q V. . . .
2.917	3.4187	18.77	. Q V . . .
3.000	3.5494	18.98	. Q V . . .

```
   3.083      3.6809     19.09  .  Q      V         .         .         .
   3.167      3.8137     19.29  .  Q      .V        .         .         .
   3.250      3.9524     20.14  .   Q     .V        .         .         .
   3.333      4.0948     20.67  .   Q     . V       .         .         .
   3.417      4.2396     21.03  .   Q     . V       .         .         .
   3.500      4.3920     22.13  .   Q     . V       .         .         .
   3.583      4.5552     23.70  .   Q     .  V      .         .         .
   3.667      4.7293     25.28  .    Q    .  V      .         .         .
   3.750      4.9103     26.27  .    Q    .   V     .         .         .
   3.833      5.0995     27.48  .    Q    .    V    .         .         .
   3.917      5.2946     28.33  .    Q    .    V    .         .         .
   4.000      5.4975     29.45  .    Q    .     V   .         .         .
   4.083      5.7059     30.27  .     Q   .     V   .         .         .
   4.167      5.9230     31.53  .     Q   .      V  .         .         .
   4.250      6.1516     33.18  .     Q   .       V .         .         .
   4.333      6.3924     34.97  .     Q   .       V .         .         .
   4.417      6.6460     36.82  .      Q  .        V.         .         .
   4.500      6.9116     38.56  .      Q  .         V         .         .
   4.583      7.1845     39.63  .      Q  .         .V        .         .
   4.667      7.4669     41.01  .       Q .         . V       .         .
   4.750      7.7611     42.71  .       Q .         . V       .         .
   4.833      8.0667     44.37  .       Q .         .  V      .         .
   4.917      8.3793     45.39  .        Q.         .   V     .         .
   5.000      8.7014     46.77  .        Q.         .    V    .         .
   5.083      9.0394     49.08  .        Q.         .     V   .         .
   5.167      9.4170     54.82  .         Q         .      V  .         .
   5.250      9.8470     62.43  .         . Q       .        V.         .
   5.333     10.3236     69.21  .         .  Q      .         V         .
   5.417     10.8487     76.24  .         .    Q    .         . V       .
   5.500     11.4702     90.24  .         .       Q .         .  V      .
   5.583     12.2154    108.20  .         .         .Q        .     V   .
   5.667     12.7308     74.84  .         .   Q     .         .      V  .
   5.750     13.0247     42.68  .       Q .         .         .       V .
   5.833     13.2085     26.68  .    Q    .         .         .        V.
   5.917     13.3284     17.40  .  Q      .         .         .        V.
   6.000     13.4039     10.96  . Q       .         .         .        V.
   6.083     13.4537      7.24  .Q        .         .         .        V.
   6.167     13.4820      4.10  Q         .         .         .        V.
   6.250     13.4978      2.30  Q         .         .         .        V.
   6.333     13.5073      1.37  Q         .         .         .        V.
   6.417     13.5117      0.64  Q         .         .         .        V.
   6.500     13.5134      0.25  Q         .         .         .        V.
   6.583     13.5144      0.14  Q         .         .         .        V.
   6.667     13.5150      0.09  Q         .         .         .        V.
   6.750     13.5153      0.05  Q         .         .         .        V.
   6.833     13.5155      0.02  Q         .         .         .        V.
   6.917     13.5155      0.01  Q         .         .         .         V
--------------------------------------------------------------------------------
    TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
    (Note: 100% of Peak Flow Rate estimate assumed to have
    an instantaneous time duration)

    Percentile of Estimated               Duration
        Peak Flow Rate                    (minutes)
    ======================                =========
              0%                            415.0
             10%                            335.0
             20%                            145.0
             30%                             95.0
             40%                             55.0
             50%                             35.0
             60%                             25.0
             70%                             15.0
             80%                             10.0
             90%                              5.0


 ********************************************************************************
   FLOW PROCESS FROM NODE   104.00 TO NODE   105.00 IS CODE =   1
 --------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
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================================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #2)

         WATERCOURSE LENGTH =    3781.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2268.600 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      62.900 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     121.080 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.197 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.605
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
         USER-ENTERED RAINFALL =  1.39 INCHES
         RCFC&WCD 6-Hour Storm (5-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9997


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  42.394


================================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------------
        1                3.436               50.316
        2               16.643              193.384
        3               51.336              508.022
        4               70.934              286.979
        5               80.497              140.019
        6               86.833               92.788
        7               91.194               63.863
        8               94.328               45.888
        9               96.378               30.020
       10               97.704               19.410
       11               98.182                6.997
       12               98.401                3.211
       13               98.620                3.211
       14               98.840                3.210
       15               99.059                3.212
       16               99.278                3.210
       17               99.497                3.210
       18               99.717                3.210
       19               99.936                3.210
       20              100.000                0.940

********************************************************************************
        UNIT             UNIT             UNIT             EFFECTIVE
       PERIOD          RAINFALL       SOIL-LOSS            RAINFALL
      (NUMBER)         (INCHES)        (INCHES)            (INCHES)
--------------------------------------------------------------------------------
          1             0.0069           0.0063              0.0007
          2             0.0083           0.0075              0.0008
          3             0.0083           0.0075              0.0008
          4             0.0083           0.0075              0.0008
          5             0.0083           0.0075              0.0008
          6             0.0097           0.0088              0.0010
          7             0.0097           0.0088              0.0010
          8             0.0097           0.0088              0.0010
          9             0.0097           0.0088              0.0010
         10             0.0097           0.0088              0.0010
```

11	0.0097	0.0088	0.0010
12	0.0111	0.0100	0.0011
13	0.0111	0.0100	0.0011
14	0.0111	0.0100	0.0011
15	0.0111	0.0100	0.0011
16	0.0111	0.0100	0.0011
17	0.0111	0.0100	0.0011
18	0.0111	0.0100	0.0011
19	0.0111	0.0100	0.0011
20	0.0111	0.0100	0.0011
21	0.0111	0.0100	0.0011
22	0.0111	0.0100	0.0011
23	0.0111	0.0100	0.0011
24	0.0125	0.0113	0.0013
25	0.0111	0.0100	0.0011
26	0.0125	0.0113	0.0013
27	0.0125	0.0113	0.0013
28	0.0125	0.0113	0.0013
29	0.0125	0.0113	0.0013
30	0.0125	0.0113	0.0013
31	0.0125	0.0113	0.0013
32	0.0125	0.0113	0.0013
33	0.0139	0.0125	0.0014
34	0.0139	0.0125	0.0014
35	0.0139	0.0125	0.0014
36	0.0139	0.0125	0.0014
37	0.0139	0.0125	0.0014
38	0.0153	0.0138	0.0015
39	0.0153	0.0138	0.0015
40	0.0153	0.0138	0.0015
41	0.0167	0.0150	0.0017
42	0.0181	0.0163	0.0018
43	0.0195	0.0175	0.0019
44	0.0195	0.0175	0.0019
45	0.0208	0.0188	0.0021
46	0.0208	0.0188	0.0021
47	0.0222	0.0200	0.0022
48	0.0222	0.0200	0.0022
49	0.0236	0.0213	0.0024
50	0.0250	0.0225	0.0025
51	0.0264	0.0238	0.0026
52	0.0278	0.0250	0.0028
53	0.0292	0.0263	0.0029
54	0.0292	0.0263	0.0029
55	0.0306	0.0275	0.0031
56	0.0320	0.0288	0.0032
57	0.0333	0.0300	0.0033
58	0.0333	0.0300	0.0033
59	0.0347	0.0313	0.0035
60	0.0361	0.0325	0.0036
61	0.0431	0.0388	0.0043
62	0.0500	0.0450	0.0050
63	0.0542	0.0488	0.0054
64	0.0584	0.0504	0.0079
65	0.0653	0.0504	0.0149
66	0.0778	0.0504	0.0274
67	0.0264	0.0238	0.0026
68	0.0125	0.0113	0.0013
69	0.0083	0.0075	0.0008
70	0.0069	0.0063	0.0007
71	0.0042	0.0038	0.0004
72	0.0028	0.0025	0.0003

TOTAL STORM RAINFALL(INCHES) = 1.39
TOTAL SOIL-LOSS(INCHES) = 1.22
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.17

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 12.3148
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 1.7047

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6 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 7.5 15.0 22.5 30.0
0.083	0.0002	0.03	Q . . . .
0.167	0.0015	0.18	Q . . . .
0.250	0.0053	0.56	Q . . . .
0.333	0.0110	0.83	VQ . . . .
0.417	0.0176	0.96	VQ . . . .
0.500	0.0249	1.05	VQ . . . .
0.583	0.0327	1.14	VQ . . . .
0.667	0.0413	1.25	VQ . . . .
0.750	0.0504	1.32	.Q . . . .
0.833	0.0597	1.35	.Q . . . .
0.917	0.0692	1.37	.Q . . . .
1.000	0.0788	1.39	.Q . . . .
1.083	0.0886	1.43	.QV . . . .
1.167	0.0990	1.51	. Q . . . .
1.250	0.1097	1.55	. Q . . . .
1.333	0.1205	1.58	. Q . . . .
1.417	0.1315	1.59	. QV . . . .
1.500	0.1425	1.60	. QV . . . .
1.583	0.1536	1.61	. QV . . . .
1.667	0.1648	1.62	. QV . . . .
1.750	0.1759	1.62	. Q V . . . .
1.833	0.1871	1.62	. Q V . . . .
1.917	0.1983	1.62	. Q V . . . .
2.000	0.2095	1.63	. Q V . . . .
2.083	0.2209	1.65	. Q V . . . .
2.167	0.2327	1.70	. Q V . . . .
2.250	0.2444	1.70	. Q V . . . .
2.333	0.2564	1.75	. Q V . . . .
2.417	0.2687	1.78	. Q V . . . .
2.500	0.2811	1.80	. Q V . . . .
2.583	0.2936	1.81	. Q V . . . .
2.667	0.3061	1.82	. Q V . . . .
2.750	0.3187	1.83	. Q V . . . .
2.833	0.3315	1.86	. Q V . . . .
2.917	0.3448	1.93	. Q V . . . .
3.000	0.3584	1.97	. Q V . . . .
3.083	0.3721	1.99	. Q V . . . .
3.167	0.3860	2.01	. Q V. . . . .
3.250	0.4001	2.05	. Q V. . . . .
3.333	0.4147	2.13	. Q V. . . . .
3.417	0.4297	2.18	. Q V . . . .
3.500	0.4451	2.23	. Q V . . . .
3.583	0.4613	2.35	. Q V . . . .
3.667	0.4785	2.50	. Q .V . . . .
3.750	0.4967	2.64	. Q .V . . . .
3.833	0.5156	2.75	. Q . V . . . .
3.917	0.5354	2.87	. Q . V . . . .
4.000	0.5558	2.97	. Q . V . . . .
4.083	0.5771	3.08	. Q . V . . . .
4.167	0.5990	3.18	. Q . V . . . .
4.250	0.6219	3.32	. Q . V . . . .
4.333	0.6459	3.49	. Q . V . . . .
4.417	0.6712	3.67	. Q . V . . . .
4.500	0.6978	3.85	. Q . V . . . .
4.583	0.7254	4.02	. Q . V . . . .
4.667	0.7540	4.14	. Q . V . . . .
4.750	0.7836	4.30	. Q . V . . . .
4.833	0.8145	4.48	. Q . V. . . . .
4.917	0.8464	4.64	. Q . V. . . . .
5.000	0.8792	4.76	. Q . V . . . .

```
   5.083      0.9133      4.95  .     Q   .         .V        .         .
   5.167      0.9495      5.26  .      Q  .         . V       .         .
   5.250      0.9898      5.85  .      Q  .         .  V      .         .
   5.333      1.0357      6.66  .       Q .         .   V     .         .
   5.417      1.0911      8.04  .         Q         .    V    .         .
   5.500      1.1710     11.60  .         .    Q    .      V  .         .
   5.583      1.2894     17.21  .         .         . Q       V         .
   5.667      1.4353     21.17  .         .         .       Q .  V      .
   5.750      1.5261     13.19  .         .      Q  .         .    V    .
   5.833      1.5805      7.90  .         Q         .         .      V  .
   5.917      1.6187      5.54  .      Q  .         .         .      V  .
   6.000      1.6463      4.01  .    Q    .         .         .       V .
   6.083      1.6660      2.86  .  Q      .         .         .        V.
   6.167      1.6791      1.91  . Q       .         .         .        V.
   6.250      1.6871      1.15  .Q        .         .         .        V.
   6.333      1.6912      0.60  Q         .         .         .        V.
   6.417      1.6938      0.39  Q         .         .         .        V.
   6.500      1.6960      0.31  Q         .         .         .        V.
   6.583      1.6979      0.27  Q         .         .         .        V.
   6.667      1.6995      0.24  Q         .         .         .        V.
   6.750      1.7009      0.21  Q         .         .         .        V.
   6.833      1.7022      0.19  Q         .         .         .        V.
   6.917      1.7033      0.16  Q         .         .         .        V.
   7.000      1.7042      0.12  Q         .         .         .        V.
   7.083      1.7045      0.05  Q         .         .         .        V.
   7.167      1.7046      0.01  Q         .         .         .        V.
   7.250      1.7046      0.01  Q         .         .         .        V.
-------------------------------------------------------------------------------
```

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	435.0
10%	170.0
20%	75.0
30%	35.0
40%	20.0
50%	20.0
60%	15.0
70%	10.0
80%	10.0
90%	5.0

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*******************************************************************************
  FLOW PROCESS FROM NODE   106.00 TO NODE   103.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
===============================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #3)

         WATERCOURSE LENGTH =    2948.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    1768.800 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      14.700 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     136.170 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.205 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.565
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
         USER-ENTERED RAINFALL =  1.39 INCHES
         RCFC&WCD 6-Hour Storm (5-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9996
```

UNIT HYDROGRAPH TIME UNIT = 5.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 40.741

UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	3.245	53.442
2	15.378	199.799
3	47.928	536.047
4	69.269	351.433
5	79.137	162.503
6	85.681	107.777
7	90.221	74.767
8	93.542	54.686
9	95.815	37.427
10	97.259	23.789
11	98.090	13.676
12	98.303	3.507
13	98.513	3.470
14	98.724	3.471
15	98.935	3.470
16	99.146	3.471
17	99.356	3.470
18	99.567	3.470
19	99.778	3.470
20	99.989	3.470
21	100.000	0.188

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0069	0.0063	0.0007
2	0.0083	0.0075	0.0008
3	0.0083	0.0075	0.0008
4	0.0083	0.0075	0.0008
5	0.0083	0.0075	0.0008
6	0.0097	0.0088	0.0010
7	0.0097	0.0088	0.0010
8	0.0097	0.0088	0.0010
9	0.0097	0.0088	0.0010
10	0.0097	0.0088	0.0010
11	0.0097	0.0088	0.0010
12	0.0111	0.0100	0.0011
13	0.0111	0.0100	0.0011
14	0.0111	0.0100	0.0011
15	0.0111	0.0100	0.0011
16	0.0111	0.0100	0.0011
17	0.0111	0.0100	0.0011
18	0.0111	0.0100	0.0011
19	0.0111	0.0100	0.0011
20	0.0111	0.0100	0.0011
21	0.0111	0.0100	0.0011
22	0.0111	0.0100	0.0011
23	0.0111	0.0100	0.0011
24	0.0125	0.0113	0.0013
25	0.0111	0.0100	0.0011
26	0.0125	0.0113	0.0013
27	0.0125	0.0113	0.0013
28	0.0125	0.0113	0.0013
29	0.0125	0.0113	0.0013

30	0.0125	0.0113	0.0013
31	0.0125	0.0113	0.0013
32	0.0125	0.0113	0.0013
33	0.0139	0.0125	0.0014
34	0.0139	0.0125	0.0014
35	0.0139	0.0125	0.0014
36	0.0139	0.0125	0.0014
37	0.0139	0.0125	0.0014
38	0.0153	0.0138	0.0015
39	0.0153	0.0138	0.0015
40	0.0153	0.0138	0.0015
41	0.0167	0.0150	0.0017
42	0.0181	0.0163	0.0018
43	0.0195	0.0175	0.0019
44	0.0195	0.0175	0.0019
45	0.0208	0.0188	0.0021
46	0.0208	0.0188	0.0021
47	0.0222	0.0200	0.0022
48	0.0222	0.0200	0.0022
49	0.0236	0.0213	0.0024
50	0.0250	0.0225	0.0025
51	0.0264	0.0238	0.0026
52	0.0278	0.0250	0.0028
53	0.0292	0.0263	0.0029
54	0.0292	0.0263	0.0029
55	0.0306	0.0275	0.0031
56	0.0320	0.0288	0.0032
57	0.0333	0.0300	0.0033
58	0.0333	0.0300	0.0033
59	0.0347	0.0313	0.0035
60	0.0361	0.0325	0.0036
61	0.0431	0.0388	0.0043
62	0.0500	0.0450	0.0050
63	0.0542	0.0471	0.0071
64	0.0584	0.0471	0.0113
65	0.0653	0.0471	0.0182
66	0.0778	0.0471	0.0307
67	0.0264	0.0238	0.0026
68	0.0125	0.0113	0.0013
69	0.0083	0.0075	0.0008
70	0.0069	0.0063	0.0007
71	0.0042	0.0038	0.0004
72	0.0028	0.0025	0.0003

TOTAL STORM RAINFALL(INCHES) = 1.39
TOTAL SOIL-LOSS(INCHES) = 1.21
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.18

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 13.7164
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 2.0495

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6 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	7.5	15.0	22.5	30.0
0.083	0.0003	0.04	Q	.	.	.	.
0.167	0.0015	0.18	Q	.	.	.	.
0.250	0.0055	0.58	Q	.	.	.	.
0.333	0.0118	0.90	VQ	.	.	.	.
0.417	0.0191	1.06	VQ	.	.	.	.
0.500	0.0271	1.17	VQ	.	.	.	.
0.583	0.0358	1.26	VQ	.	.	.	.

```
0.667      0.0454      1.39  VQ        .         .         .         .
0.750      0.0555      1.47  .Q        .         .         .         .
0.833      0.0659      1.51  .VQ       .         .         .         .
0.917      0.0765      1.54  .VQ       .         .         .         .
1.000      0.0873      1.56  .VQ       .         .         .         .
1.083      0.0983      1.60  .VQ       .         .         .         .
1.167      0.1099      1.68  . Q       .         .         .         .
1.250      0.1219      1.74  . Q       .         .         .         .
1.333      0.1341      1.77  . Q       .         .         .         .
1.417      0.1463      1.78  . Q       .         .         .         .
1.500      0.1587      1.80  . QV      .         .         .         .
1.583      0.1712      1.81  . QV      .         .         .         .
1.667      0.1837      1.82  . QV      .         .         .         .
1.750      0.1963      1.82  . QV      .         .         .         .
1.833      0.2088      1.82  . Q V     .         .         .         .
1.917      0.2214      1.83  . Q V     .         .         .         .
2.000      0.2340      1.83  . Q V     .         .         .         .
2.083      0.2468      1.86  . Q V     .         .         .         .
2.167      0.2600      1.91  . Q  V    .         .         .         .
2.250      0.2731      1.91  . Q  V    .         .         .         .
2.333      0.2866      1.96  . Q  V    .         .         .         .
2.417      0.3004      2.00  . Q  V    .         .         .         .
2.500      0.3144      2.02  . Q   V   .         .         .         .
2.583      0.3284      2.03  . Q   V   .         .         .         .
2.667      0.3424      2.04  . Q   V   .         .         .         .
2.750      0.3566      2.06  . Q   V   .         .         .         .
2.833      0.3710      2.09  . Q    V  .         .         .         .
2.917      0.3859      2.16  . Q    V  .         .         .         .
3.000      0.4011      2.21  . Q    V  .         .         .         .
3.083      0.4165      2.24  . Q     V .         .         .         .
3.167      0.4321      2.26  .  Q    V .         .         .         .
3.250      0.4479      2.30  .  Q    V .         .         .         .
3.333      0.4643      2.38  .  Q     V.         .         .         .
3.417      0.4811      2.44  .  Q     V.         .         .         .
3.500      0.4984      2.50  .  Q     V.         .         .         .
3.583      0.5165      2.63  .  Q      V         .         .         .
3.667      0.5357      2.79  .  Q      V         .         .         .
3.750      0.5561      2.96  .  Q      V         .         .         .
3.833      0.5773      3.08  .   Q     .V        .         .         .
3.917      0.5994      3.21  .   Q     .V        .         .         .
4.000      0.6223      3.32  .   Q     . V       .         .         .
4.083      0.6460      3.45  .   Q     . V       .         .         .
4.167      0.6706      3.57  .   Q     .  V      .         .         .
4.250      0.6962      3.72  .   Q     .  V      .         .         .
4.333      0.7231      3.91  .    Q    .   V     .         .         .
4.417      0.7514      4.11  .    Q    .   V     .         .         .
4.500      0.7811      4.31  .    Q    .    V    .         .         .
4.583      0.8120      4.50  .    Q    .    V    .         .         .
4.667      0.8440      4.64  .     Q   .     V   .         .         .
4.750      0.8772      4.82  .     Q   .      V  .         .         .
4.833      0.9117      5.01  .     Q   .      V  .         .         .
4.917      0.9475      5.20  .     Q   .       V .         .         .
5.000      0.9842      5.34  .      Q  .        V.         .         .
5.083      1.0224      5.54  .      Q  .        V.         .         .
5.167      1.0629      5.88  .      Q  .         V         .         .
5.250      1.1083      6.60  .       Q .         .V        .         .
5.333      1.1629      7.92  .         Q         . V       .         .
5.417      1.2362     10.65  .         .   Q     .   V     .         .
5.500      1.3456     15.89  .         .         .Q    V   .         .
5.583      1.5010     22.56  .         .         .        VQ         .
5.667      1.6872     27.03  .         .         .         . V   Q   .
5.750      1.8103     17.88  .         .         .  Q      .    V    .
5.833      1.8821     10.43  .         .  Q      .         .     V   .
5.917      1.9325      7.31  .        Q.         .         .      V  .
6.000      1.9690      5.31  .      Q  .         .         .       V .
6.083      1.9954      3.83  .    Q    .         .         .       V .
6.167      2.0133      2.60  .  Q      .         .         .        V.
6.250      2.0244      1.61  . Q       .         .         .        V.
6.333      2.0308      0.93  .Q        .         .         .        V.
6.417      2.0342      0.50  Q         .         .         .        V.
6.500      2.0370      0.41  Q         .         .         .        V.
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   6.583      2.0394      0.35  Q         .         .         .        V.
   6.667      2.0416      0.31  Q         .         .         .        V.
   6.750      2.0435      0.28  Q         .         .         .        V.
   6.833      2.0453      0.26  Q         .         .         .        V.
   6.917      2.0469      0.23  Q         .         .         .        V.
   7.000      2.0482      0.19  Q         .         .         .        V.
   7.083      2.0492      0.13  Q         .         .         .        V.
   7.167      2.0493      0.03  Q         .         .         .        V.
   7.250      2.0494      0.01  Q         .         .         .        V.
   7.333      2.0495      0.01  Q         .         .         .        V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated                Duration
       Peak Flow Rate                     (minutes)
   ======================                 =========
              0%                            440.0
             10%                            150.0
             20%                             55.0
             30%                             30.0
             40%                             20.0
             50%                             20.0
             60%                             15.0
             70%                             10.0
             80%                             10.0
             90%                              5.0


********************************************************************************
  FLOW PROCESS FROM NODE   500.00 TO NODE   501.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
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      (UNIT-HYDROGRAPH ADDED TO STREAM #4)

         WATERSHED AREA =      20.000 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         *USER ENTERED "LAG" TIME =    0.100 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.050
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.180
         USER-ENTERED RAINFALL =  1.39 INCHES
         RCFC&WCD 6-Hour Storm (5-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9999


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  83.333



================================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------------
        1                9.713               23.494
        2               60.041              121.730
        3               83.125               55.836
        4               92.383               22.393
        5               96.836               10.769
        6               98.250                3.421
        7               98.681                1.043
```

8	99.112	1.043
9	99.543	1.043
10	99.974	1.043
11	100.000	0.063

****

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0069	0.0013	0.0057
2	0.0083	0.0015	0.0068
3	0.0083	0.0015	0.0068
4	0.0083	0.0015	0.0068
5	0.0083	0.0015	0.0068
6	0.0097	0.0018	0.0080
7	0.0097	0.0018	0.0080
8	0.0097	0.0018	0.0080
9	0.0097	0.0018	0.0080
10	0.0097	0.0018	0.0080
11	0.0097	0.0018	0.0080
12	0.0111	0.0020	0.0091
13	0.0111	0.0020	0.0091
14	0.0111	0.0020	0.0091
15	0.0111	0.0020	0.0091
16	0.0111	0.0020	0.0091
17	0.0111	0.0020	0.0091
18	0.0111	0.0020	0.0091
19	0.0111	0.0020	0.0091
20	0.0111	0.0020	0.0091
21	0.0111	0.0020	0.0091
22	0.0111	0.0020	0.0091
23	0.0111	0.0020	0.0091
24	0.0125	0.0023	0.0103
25	0.0111	0.0020	0.0091
26	0.0125	0.0023	0.0103
27	0.0125	0.0023	0.0103
28	0.0125	0.0023	0.0103
29	0.0125	0.0023	0.0103
30	0.0125	0.0023	0.0103
31	0.0125	0.0023	0.0103
32	0.0125	0.0023	0.0103
33	0.0139	0.0025	0.0114
34	0.0139	0.0025	0.0114
35	0.0139	0.0025	0.0114
36	0.0139	0.0025	0.0114
37	0.0139	0.0025	0.0114
38	0.0153	0.0028	0.0125
39	0.0153	0.0028	0.0125
40	0.0153	0.0028	0.0125
41	0.0167	0.0030	0.0137
42	0.0181	0.0033	0.0148
43	0.0195	0.0035	0.0160
44	0.0195	0.0035	0.0160
45	0.0208	0.0038	0.0171
46	0.0208	0.0038	0.0171
47	0.0222	0.0040	0.0182
48	0.0222	0.0040	0.0182
49	0.0236	0.0042	0.0195
50	0.0250	0.0042	0.0209
51	0.0264	0.0042	0.0222
52	0.0278	0.0042	0.0236
53	0.0292	0.0042	0.0250
54	0.0292	0.0042	0.0250
55	0.0306	0.0042	0.0264
56	0.0320	0.0042	0.0278
57	0.0334	0.0042	0.0292
58	0.0334	0.0042	0.0292
59	0.0347	0.0042	0.0306
60	0.0361	0.0042	0.0320

61	0.0431	0.0042	0.0389
62	0.0500	0.0042	0.0459
63	0.0542	0.0042	0.0500
64	0.0584	0.0042	0.0542
65	0.0653	0.0042	0.0612
66	0.0778	0.0042	0.0737
67	0.0264	0.0042	0.0222
68	0.0125	0.0023	0.0103
69	0.0083	0.0015	0.0068
70	0.0069	0.0013	0.0057
71	0.0042	0.0008	0.0034
72	0.0028	0.0005	0.0023

TOTAL STORM RAINFALL(INCHES) = 1.39
TOTAL SOIL-LOSS(INCHES) = 0.20
TOTAL EFFECTIVE RAINFALL(INCHES) = 1.19

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 0.3279
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 1.9876

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6 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 5.0 10.0 15.0 20.0
0.083	0.0009	0.13	Q . . . .
0.167	0.0068	0.85	VQ . . . .
0.250	0.0158	1.31	V Q . . . .
0.333	0.0262	1.50	V Q . . . .
0.417	0.0371	1.59	V Q . . . .
0.500	0.0485	1.65	V Q . . . .
0.583	0.0609	1.80	.V Q . . . .
0.667	0.0737	1.87	.V Q . . . .
0.750	0.0868	1.90	.V Q . . . .
0.833	0.1000	1.92	. VQ . . . .
0.917	0.1133	1.92	. VQ . . . .
1.000	0.1267	1.95	. VQ . . . .
1.083	0.1411	2.09	. V Q . . . .
1.167	0.1560	2.16	. VQ . . . .
1.250	0.1710	2.18	. VQ . . . .
1.333	0.1862	2.20	. VQ . . . .
1.417	0.2013	2.20	. Q . . . .
1.500	0.2165	2.20	. Q . . . .
1.583	0.2317	2.20	. Q . . . .
1.667	0.2468	2.20	. Q . . . .
1.750	0.2620	2.21	. QV . . . .
1.833	0.2772	2.21	. QV . . . .
1.917	0.2924	2.21	. QV . . . .
2.000	0.3078	2.23	. Q V . . . .
2.083	0.3239	2.34	. Q V . . . .
2.167	0.3397	2.30	. Q V . . . .
2.250	0.3562	2.40	. Q V . . . .
2.333	0.3731	2.45	. Q V . . . .
2.417	0.3901	2.46	. Q V . . . .
2.500	0.4071	2.47	. Q V . . . .
2.583	0.4242	2.48	. Q V . . . .
2.667	0.4412	2.48	. Q V . . . .
2.750	0.4585	2.51	. Q V. . . . .
2.833	0.4767	2.65	. Q V. . . . .
2.917	0.4954	2.71	. Q V. . . . .
3.000	0.5142	2.74	. Q V . . . .
3.083	0.5331	2.75	. Q V . . . .
3.167	0.5523	2.78	. Q .V . . . .

3.250	0.5724	2.92	. Q .V . . .
3.333	0.5929	2.98	. Q .V . . .
3.417	0.6138	3.04	. Q . V . . .
3.500	0.6360	3.22	. Q . V . . .
3.583	0.6597	3.45	. Q . V . . .
3.667	0.6851	3.68	. Q . V . . .
3.750	0.7113	3.81	. Q . V . . .
3.833	0.7388	3.99	. Q . V . . .
3.917	0.7670	4.10	. Q . V . . .
4.000	0.7964	4.27	. Q . V . . .
4.083	0.8265	4.38	. Q . V . . .
4.167	0.8582	4.59	. Q. V . . .
4.250	0.8918	4.88	. Q. V . . .
4.333	0.9275	5.19	. Q V . . .
4.417	0.9655	5.52	. .Q V. . .
4.500	1.0056	5.82	. .Q V . .
4.583	1.0468	5.98	. .Q .V . .
4.667	1.0897	6.24	. . Q .V . .
4.750	1.1348	6.54	. . Q . V . .
4.833	1.1818	6.83	. . Q . V . .
4.917	1.2299	6.99	. . Q . V . .
5.000	1.2799	7.25	. . Q . V . .
5.083	1.3328	7.68	. . Q . V . .
5.167	1.3935	8.81	. . Q . V . .
5.250	1.4637	10.19	. . Q V. .
5.333	1.5419	11.37	. . . Q .V .
5.417	1.6281	12.51	. . . Q . V .
5.500	1.7250	14.08	. . . Q . V .
5.583	1.8280	14.95	. . . Q. V .
5.667	1.8924	9.34	. . Q . . V .
5.750	1.9290	5.32	. Q . . V .
5.833	1.9513	3.24	. Q . . . V.
5.917	1.9658	2.10	. Q . . . V.
6.000	1.9753	1.38	. Q . . . V.
6.083	1.9817	0.93	.Q . . . V.
6.167	1.9849	0.47	Q . . . V.
6.250	1.9864	0.23	Q . . . V.
6.333	1.9871	0.09	Q . . . V.
6.417	1.9873	0.04	Q . . . V.
6.500	1.9874	0.02	Q . . . V.
6.583	1.9875	0.01	Q . . . V.
6.667	1.9876	0.01	Q . . . V.

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	400.0
10%	340.0
20%	150.0
30%	100.0
40%	65.0
50%	40.0
60%	30.0
70%	20.0
80%	15.0
90%	10.0

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END OF FLOODSCx ROUTING ANALYSIS

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             F L O O D    R O U T I N G    A N A L Y S I S

ACCORDING TO RIVERSIDE COUNTY FLOOD CONTORL AND WATER CONSERVATION DISTRICT
                    (RCFC&WCD) 1978 HYDROLOGY MANUAL
         (c) Copyright 1989-2011 Advanced Engineering Software (aes)
                 (Synthetic Unit Hydrograph Version 18.0)
                 Release Date: 05/01/2011  License ID 1499

                           Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* District at Jurupa Valley                                             *
* Preliminary Hydrology 5 year 24 Hour Event                            *
* Kimley Horn May 26, 2022                                              *
 ************************************************************************

  FILE NAME: C:\aes2011\hydrosft\floodX\J5Y24H.fld
  TIME/DATE OF STUDY: 14:29 05/26/2022



**************************************************************************
  FLOW PROCESS FROM NODE   100.00 TO NODE   101.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
==========================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #1)

         WATERCOURSE LENGTH =    4582.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2749.200 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      76.000 FEET
         BASIN FACTOR = 0.015
         WATERSHED AREA =     308.710 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.114 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.470
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.630
         MINIMUM SOIL-LOSS RATE(INCH/HOUR) =   0.240
         USER-ENTERED RAINFALL =  2.54 INCHES
         RCFC&WCD 24-Hour Storm (15-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9994


         UNIT HYDROGRAPH TIME UNIT =  15.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME = 219.682


==========================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------
        1               45.973               572.128
        2               93.932               596.848
        3               98.720                59.582
        4               99.526                10.027
```

5	99.810	3.542
6	99.953	1.771
7	100.000	0.590

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0051	0.0032	0.0019
2	0.0076	0.0048	0.0028
3	0.0076	0.0048	0.0028
4	0.0102	0.0064	0.0038
5	0.0076	0.0048	0.0028
6	0.0076	0.0048	0.0028
7	0.0076	0.0048	0.0028
8	0.0102	0.0064	0.0038
9	0.0102	0.0064	0.0038
10	0.0102	0.0064	0.0038
11	0.0127	0.0080	0.0047
12	0.0127	0.0080	0.0047
13	0.0127	0.0080	0.0047
14	0.0127	0.0080	0.0047
15	0.0127	0.0080	0.0047
16	0.0152	0.0096	0.0056
17	0.0152	0.0096	0.0056
18	0.0178	0.0112	0.0066
19	0.0178	0.0112	0.0066
20	0.0203	0.0128	0.0075
21	0.0152	0.0096	0.0056
22	0.0178	0.0112	0.0066
23	0.0203	0.0128	0.0075
24	0.0203	0.0128	0.0075
25	0.0228	0.0144	0.0085
26	0.0228	0.0144	0.0085
27	0.0254	0.0160	0.0094
28	0.0254	0.0160	0.0094
29	0.0254	0.0160	0.0094
30	0.0279	0.0176	0.0103
31	0.0305	0.0192	0.0113
32	0.0330	0.0208	0.0122
33	0.0381	0.0240	0.0141
34	0.0381	0.0240	0.0141
35	0.0406	0.0256	0.0150
36	0.0432	0.0272	0.0160
37	0.0482	0.0304	0.0178
38	0.0508	0.0320	0.0188
39	0.0533	0.0336	0.0197
40	0.0558	0.0352	0.0207
41	0.0381	0.0240	0.0141
42	0.0381	0.0240	0.0141
43	0.0508	0.0320	0.0188
44	0.0508	0.0320	0.0188
45	0.0482	0.0304	0.0178
46	0.0482	0.0304	0.0178
47	0.0432	0.0272	0.0160
48	0.0457	0.0288	0.0169
49	0.0635	0.0400	0.0235
50	0.0660	0.0416	0.0244
51	0.0711	0.0448	0.0263
52	0.0736	0.0464	0.0272
53	0.0863	0.0544	0.0319
54	0.0863	0.0544	0.0319
55	0.0584	0.0368	0.0216
56	0.0584	0.0368	0.0216
57	0.0685	0.0432	0.0254
58	0.0660	0.0416	0.0244
59	0.0660	0.0416	0.0244
60	0.0635	0.0400	0.0235
61	0.0609	0.0384	0.0225

62	0.0584	0.0368	0.0216
63	0.0482	0.0304	0.0178
64	0.0482	0.0304	0.0178
65	0.0102	0.0064	0.0038
66	0.0102	0.0064	0.0038
67	0.0076	0.0048	0.0028
68	0.0076	0.0048	0.0028
69	0.0127	0.0080	0.0047
70	0.0127	0.0080	0.0047
71	0.0127	0.0080	0.0047
72	0.0102	0.0064	0.0038
73	0.0102	0.0064	0.0038
74	0.0102	0.0064	0.0038
75	0.0076	0.0048	0.0028
76	0.0051	0.0032	0.0019
77	0.0076	0.0048	0.0028
78	0.0102	0.0064	0.0038
79	0.0076	0.0048	0.0028
80	0.0051	0.0032	0.0019
81	0.0076	0.0048	0.0028
82	0.0076	0.0048	0.0028
83	0.0076	0.0048	0.0028
84	0.0051	0.0032	0.0019
85	0.0076	0.0048	0.0028
86	0.0051	0.0032	0.0019
87	0.0076	0.0048	0.0028
88	0.0051	0.0032	0.0019
89	0.0076	0.0048	0.0028
90	0.0051	0.0032	0.0019
91	0.0051	0.0032	0.0019
92	0.0051	0.0032	0.0019
93	0.0051	0.0032	0.0019
94	0.0051	0.0032	0.0019
95	0.0051	0.0032	0.0019
96	0.0051	0.0032	0.0019

TOTAL STORM RAINFALL(INCHES) = 2.54
TOTAL SOIL-LOSS(INCHES) = 1.60
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.94

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 41.1435
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 24.1511

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2 4 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 10.0 20.0 30.0 40.0
0.083	0.0074	1.07	VQ . . . .
0.167	0.0148	1.07	VQ . . . .
0.250	0.0222	1.07	VQ . . . .
0.333	0.0410	2.73	V Q . . . .
0.417	0.0599	2.73	V Q . . . .
0.500	0.0787	2.73	V Q . . . .
0.583	0.1021	3.41	V Q . . . .
0.667	0.1256	3.41	V Q . . . .
0.750	0.1491	3.41	V Q . . . .
0.833	0.1767	4.02	V Q . . . .
0.917	0.2044	4.02	V Q . . . .
1.000	0.2321	4.02	V Q . . . .
1.083	0.2600	4.06	V Q . . . .
1.167	0.2880	4.06	V Q . . . .
1.250	0.3159	4.06	V Q . . . .

1.333	0.3404	3.56	V	Q	.	.	.	.
1.417	0.3649	3.56	V	Q	.	.	.	.
1.500	0.3894	3.56	V	Q	.	.	.	.
1.583	0.4137	3.52	V	Q	.	.	.	.
1.667	0.4379	3.52	V	Q	.	.	.	.
1.750	0.4621	3.52	V	Q	.	.	.	.
1.833	0.4900	4.05	V	Q	.	.	.	.
1.917	0.5178	4.05	V	Q	.	.	.	.
2.000	0.5457	4.05	V	Q	.	.	.	.
2.083	0.5774	4.61	V	Q	.	.	.	.
2.167	0.6091	4.61	V	Q	.	.	.	.
2.250	0.6409	4.61	V	Q	.	.	.	.
2.333	0.6730	4.66	. V	Q	.	.	.	.
2.417	0.7051	4.66	. V	Q	.	.	.	.
2.500	0.7372	4.66	. V	Q	.	.	.	.
2.583	0.7730	5.21	. V	Q	.	.	.	.
2.667	0.8089	5.21	. V	Q	.	.	.	.
2.750	0.8448	5.21	. V	Q	.	.	.	.
2.833	0.8845	5.77	. V	Q	.	.	.	.
2.917	0.9243	5.77	. V	Q	.	.	.	.
3.000	0.9640	5.77	. V	Q	.	.	.	.
3.083	1.0042	5.83	. V	Q	.	.	.	.
3.167	1.0443	5.83	. V	Q	.	.	.	.
3.250	1.0845	5.83	. V	Q	.	.	.	.
3.333	1.1247	5.84	. V	Q	.	.	.	.
3.417	1.1649	5.84	. V	Q	.	.	.	.
3.500	1.2051	5.84	. V	Q	.	.	.	.
3.583	1.2453	5.84	. V	Q	.	.	.	.
3.667	1.2856	5.84	. V	Q	.	.	.	.
3.750	1.3258	5.84	. V	Q	.	.	.	.
3.833	1.3698	6.38	. V	Q	.	.	.	.
3.917	1.4137	6.38	. V	Q	.	.	.	.
4.000	1.4577	6.38	. V	Q	.	.	.	.
4.083	1.5055	6.94	. V	Q	.	.	.	.
4.167	1.5533	6.94	. V	Q	.	.	.	.
4.250	1.6011	6.94	. V	Q	.	.	.	.
4.333	1.6530	7.54	. V	Q	.	.	.	.
4.417	1.7049	7.54	. V	Q	.	.	.	.
4.500	1.7568	7.54	. V	Q	.	.	.	.
4.583	1.8126	8.11	. V	Q	.	.	.	.
4.667	1.8684	8.11	. V	Q	.	.	.	.
4.750	1.9243	8.11	. V	Q	.	.	.	.
4.833	1.9842	8.70	. V	Q	.	.	.	.
4.917	2.0441	8.70	. V	Q	.	.	.	.
5.000	2.1041	8.70	. V	Q	.	.	.	.
5.083	2.1605	8.20	. V	Q	.	.	.	.
5.167	2.2170	8.20	. V	Q	.	.	.	.
5.250	2.2735	8.20	. V	Q	.	.	.	.
5.333	2.3264	7.68	. V	Q	.	.	.	.
5.417	2.3792	7.68	. V	Q	.	.	.	.
5.500	2.4321	7.68	. V	Q	.	.	.	.
5.583	2.4918	8.67	. V	Q	.	.	.	.
5.667	2.5515	8.67	. V	Q	.	.	.	.
5.750	2.6113	8.67	. V	Q	.	.	.	.
5.833	2.6751	9.27	. V	Q	.	.	.	.
5.917	2.7390	9.27	. V	Q	.	.	.	.
6.000	2.8029	9.27	. V	Q	.	.	.	.
6.083	2.8709	9.87	. V	Q	.	.	.	.
6.167	2.9389	9.87	. V	Q	.	.	.	.
6.250	3.0068	9.87	. V	Q	.	.	.	.
6.333	3.0788	10.44	. V	Q	.	.	.	.
6.417	3.1507	10.44	. V	Q	.	.	.	.
6.500	3.2226	10.44	. V	Q	.	.	.	.
6.583	3.2986	11.04	. V	Q	.	.	.	.
6.667	3.3747	11.04	. V	Q	.	.	.	.
6.750	3.4507	11.04	. V	Q	.	.	.	.
6.833	3.5307	11.61	. V	Q	.	.	.	.
6.917	3.6106	11.61	. V	Q	.	.	.	.
7.000	3.6906	11.61	. V	Q	.	.	.	.
7.083	3.7710	11.67	. V	Q	.	.	.	.
7.167	3.8514	11.67	. V	Q	.	.	.	.

```
 7.250      3.9318     11.67  .     V   .Q        .         .         .
 7.333      4.0159     12.22  .     V   . Q       .         .         .
 7.417      4.1001     12.22  .     V   . Q       .         .         .
 7.500      4.1843     12.22  .     V   . Q       .         .         .
 7.583      4.2760     13.32  .      V  .  Q      .         .         .
 7.667      4.3678     13.32  .      V  .  Q      .         .         .
 7.750      4.4595     13.32  .      V  .  Q      .         .         .
 7.833      4.5592     14.48  .      V  .   Q     .         .         .
 7.917      4.6589     14.48  .      V  .   Q     .         .         .
 8.000      4.7587     14.48  .      V  .   Q     .         .         .
 8.083      4.8701     16.18  .       V .     Q   .         .         .
 8.167      4.9815     16.18  .       V .     Q   .         .         .
 8.250      5.0929     16.18  .       V .     Q   .         .         .
 8.333      5.2126     17.37  .       V .      Q  .         .         .
 8.417      5.3322     17.37  .       V .      Q  .         .         .
 8.500      5.4518     17.37  .        V.      Q  .         .         .
 8.583      5.5760     18.03  .        V.       Q .         .         .
 8.667      5.7002     18.03  .        V.       Q .         .         .
 8.750      5.8244     18.03  .        V.       Q .         .         .
 8.833      5.9563     19.16  .        V.        Q.         .         .
 8.917      6.0882     19.16  .         V        Q.         .         .
 9.000      6.2201     19.16  .         V        Q.         .         .
 9.083      6.3638     20.86  .         V         Q         .         .
 9.167      6.5074     20.86  .         V         Q         .         .
 9.250      6.6510     20.86  .          V        Q         .         .
 9.333      6.8066     22.58  .         .V        . Q       .         .
 9.417      6.9621     22.58  .         .V        . Q       .         .
 9.500      7.1176     22.58  .         .V        . Q       .         .
 9.583      7.2816     23.81  .         . V       .  Q      .         .
 9.667      7.4456     23.81  .         . V       .  Q      .         .
 9.750      7.6095     23.81  .         . V       .  Q      .         .
 9.833      7.7816     24.98  .         . V       .   Q     .         .
 9.917      7.9537     24.98  .         .  V      .   Q     .         .
10.000      8.1257     24.98  .         .  V      .   Q     .         .
10.083      8.2763     21.86  .         .  V      .Q        .         .
10.167      8.4268     21.86  .         .  V      .Q        .         .
10.250      8.5774     21.86  .         .   V     .Q        .         .
10.333      8.7014     18.01  .         .   V   Q .         .         .
10.417      8.8254     18.01  .         .   V   Q .         .         .
10.500      8.9494     18.01  .         .   V   Q .         .         .
10.583      9.0893     20.32  .         .    V    Q         .         .
10.667      9.2292     20.32  .         .    V    Q         .         .
10.750      9.3692     20.32  .         .    V    Q         .         .
10.833      9.5280     23.06  .         .    V     .  Q      .         .
10.917      9.6868     23.06  .         .     V    .  Q      .         .
11.000      9.8456     23.06  .         .     V    .  Q      .         .
11.083     10.0025     22.78  .         .     V    . Q       .         .
11.167     10.1594     22.78  .         .     V    . Q       .         .
11.250     10.3163     22.78  .         .      V   . Q       .         .
11.333     10.4696     22.26  .         .      V   . Q       .         .
11.417     10.6228     22.26  .         .      V   . Q       .         .
11.500     10.7761     22.26  .         .      V   . Q       .         .
```

TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	10.0	20.0	30.0	40.0
11.583	10.9217	21.14	.	.	V .Q	.	.
11.667	11.0673	21.14	.	.	V .Q	.	.
11.750	11.2129	21.14	.	.	V .Q	.	.
11.833	11.3544	20.55	.	.	V Q	.	.
11.917	11.4960	20.55	.	.	VQ	.	.
12.000	11.6375	20.55	.	.	VQ	.	.
12.083	11.8081	24.76	.	.	V. Q	.	.
12.167	11.9786	24.76	.	.	V. Q	.	.
12.250	12.1492	24.76	.	.	V Q	.	.
12.333	12.3507	29.26	.	.	V	Q.	.
12.417	12.5522	29.26	.	.	V	Q.	.
12.500	12.7537	29.26	.	.	V	Q.	.
12.583	12.9692	31.29	.	.	.V	.Q	.
12.667	13.1847	31.29	.	.	.V	.Q	.
12.750	13.4002	31.29	.	.	. V	.Q	.
12.833	13.6280	33.07	.	.	. V	. Q	.
12.917	13.8557	33.07	.	.	. V	. Q	.
13.000	14.0835	33.07	.	.	. V	. Q	.
13.083	14.3346	36.46	.	.	. V	. Q	.
13.167	14.5857	36.46	.	.	. V	. Q	.
13.250	14.8369	36.46	.	.	. V	. Q	.
13.333	15.1079	39.36	.	.	. V	.	Q.
13.417	15.3790	39.36	.	.	. V	.	Q.
13.500	15.6500	39.36	.	.	. V	.	Q.
13.583	15.8824	33.75	.	.	. V	. Q	.
13.667	16.1148	33.75	.	.	. V	. Q	.
13.750	16.3472	33.75	.	.	. V	. Q	.
13.833	16.5376	27.63	.	.	. Q	.	.
13.917	16.7279	27.63	.	.	. Q	.	.
14.000	16.9182	27.63	.	.	. QV	.	.
14.083	17.1192	29.19	.	.	. VQ	.	.
14.167	17.3202	29.19	.	.	. VQ	.	.
14.250	17.5212	29.19	.	.	. Q	.	.
14.333	17.7333	30.80	.	.	. VQ	.	.
14.417	17.9455	30.80	.	.	. VQ	.	.
14.500	18.1576	30.80	.	.	. Q	.	.
14.583	18.3671	30.43	.	.	. Q	.	.
14.667	18.5767	30.43	.	.	. Q	.	.
14.750	18.7862	30.43	.	.	. QV	.	.
14.833	18.9918	29.85	.	.	. Q.V	.	.
14.917	19.1974	29.85	.	.	. Q.V	.	.
15.000	19.4030	29.85	.	.	. Q. V	.	.
15.083	19.6011	28.75	.	.	. Q . V	.	.
15.167	19.7991	28.75	.	.	. Q . V	.	.
15.250	19.9971	28.75	.	.	. Q . V	.	.
15.333	20.1872	27.60	.	.	. Q . V	.	.
15.417	20.3773	27.60	.	.	. Q . V	.	.
15.500	20.5674	27.60	.	.	. Q . V	.	.
15.583	20.7384	24.83	.	.	. Q . V	.	.
15.667	20.9094	24.83	.	.	. Q . V	.	.
15.750	21.0804	24.83	.	.	. Q . V	.	.
15.833	21.2354	22.52	.	.	. Q . V	.	.
15.917	21.3905	22.52	.	.	. Q . V	.	.
16.000	21.5456	22.52	.	.	. Q . V	.	.
16.083	21.6435	14.22	.	. Q	.	. V	.
16.167	21.7414	14.22	.	. Q	.	. V	.
16.250	21.8393	14.22	.	. Q	.	. V	.
16.333	21.8790	5.76	. Q	.	.	. V	.
16.417	21.9187	5.76	. Q	.	.	. V	.
16.500	21.9584	5.76	. Q	.	.	. V	.
16.583	21.9885	4.37	. Q	.	.	. V	.
16.667	22.0186	4.37	. Q	.	.	. V	.
16.750	22.0487	4.37	. Q	.	.	. V	.
16.833	22.0740	3.66	. Q	.	.	. V	.
16.917	22.0992	3.66	. Q	.	.	. V	.
17.000	22.1244	3.66	. Q	.	.	. V	.
17.083	22.1563	4.63	. Q	.	.	. V	.
17.167	22.1882	4.63	. Q	.	.	. V	.

17.250	22.2201	4.63	.	Q	.	.	.	V	.
17.333	22.2594	5.72	.	Q	.	.	.	V	.
17.417	22.2988	5.72	.	Q	.	.	.	V	.
17.500	22.3382	5.72	.	Q	.	.	.	V	.
17.583	22.3782	5.82	.	Q	.	.	.	V	.
17.667	22.4183	5.82	.	Q	.	.	.	V	.
17.750	22.4584	5.82	.	Q	.	.	.	V	.
17.833	22.4948	5.30	.	Q	.	.	.	V	.
17.917	22.5313	5.30	.	Q	.	.	.	V	.
18.000	22.5678	5.30	.	Q	.	.	.	V	.
18.083	22.6005	4.74	.	Q	.	.	.	V	.
18.167	22.6331	4.74	.	Q	.	.	.	V	.
18.250	22.6658	4.74	.	Q	.	.	.	V	.
18.333	22.6981	4.69	.	Q	.	.	.	V	.
18.417	22.7304	4.69	.	Q	.	.	.	V	.
18.500	22.7627	4.69	.	Q	.	.	.	V	.
18.583	22.7912	4.14	.	Q	.	.	.	V	.
18.667	22.8197	4.14	.	Q	.	.	.	V	.
18.750	22.8483	4.14	.	Q	.	.	.	V	.
18.833	22.8692	3.04	.	Q	.	.	.	V	.
18.917	22.8902	3.04	.	Q	.	.	.	V	.
19.000	22.9111	3.04	.	Q	.	.	.	V	.
19.083	22.9315	2.96	.	Q	.	.	.	V	.
19.167	22.9519	2.96	.	Q	.	.	.	V	.
19.250	22.9723	2.96	.	Q	.	.	.	V	.
19.333	22.9998	3.99	.	Q	.	.	.	V	.
19.417	23.0273	3.99	.	Q	.	.	.	V	.
19.500	23.0549	3.99	.	Q	.	.	.	V	.
19.583	23.0828	4.06	.	Q	.	.	.	V	.
19.667	23.1108	4.06	.	Q	.	.	.	V	.
19.750	23.1387	4.06	.	Q	.	.	.	V	.
19.833	23.1596	3.02	.	Q	.	.	.	V	.
19.917	23.1804	3.02	.	Q	.	.	.	V	.
20.000	23.2012	3.02	.	Q	.	.	.	V	.
20.083	23.2215	2.95	.	Q	.	.	.	V	.
20.167	23.2419	2.95	.	Q	.	.	.	V	.
20.250	23.2622	2.95	.	Q	.	.	.	V	.
20.333	23.2860	3.45	.	Q	.	.	.	V	.
20.417	23.3098	3.45	.	Q	.	.	.	V	.
20.500	23.3336	3.45	.	Q	.	.	.	V	.
20.583	23.3577	3.50	.	Q	.	.	.	V	.
20.667	23.3818	3.50	.	Q	.	.	.	V	.
20.750	23.4059	3.50	.	Q	.	.	.	V	.
20.833	23.4263	2.97	.	Q	.	.	.	V	.
20.917	23.4467	2.97	.	Q	.	.	.	V	.
21.000	23.4672	2.97	.	Q	.	.	.	V	.
21.083	23.4874	2.94	.	Q	.	.	.	V	.
21.167	23.5077	2.94	.	Q	.	.	.	V	.
21.250	23.5280	2.94	.	Q	.	.	.	V	.
21.333	23.5481	2.91	.	Q	.	.	.	V	.
21.417	23.5681	2.91	.	Q	.	.	.	V	.
21.500	23.5882	2.91	.	Q	.	.	.	V	.
21.583	23.6084	2.94	.	Q	.	.	.	V	.
21.667	23.6286	2.94	.	Q	.	.	.	V	.
21.750	23.6489	2.94	.	Q	.	.	.	V	.
21.833	23.6689	2.91	.	Q	.	.	.	V	.
21.917	23.6889	2.91	.	Q	.	.	.	V	.
22.000	23.7090	2.91	.	Q	.	.	.	V	.
22.083	23.7292	2.94	.	Q	.	.	.	V	.
22.167	23.7494	2.94	.	Q	.	.	.	V	.
22.250	23.7696	2.94	.	Q	.	.	.	V	.
22.333	23.7897	2.91	.	Q	.	.	.	V	.
22.417	23.8097	2.91	.	Q	.	.	.	V	.
22.500	23.8297	2.91	.	Q	.	.	.	V	.
22.583	23.8463	2.40	.	Q	.	.	.	V	.
22.667	23.8628	2.40	.	Q	.	.	.	V	.
22.750	23.8793	2.40	.	Q	.	.	.	V	.
22.833	23.8955	2.35	.	Q	.	.	.	V	.
22.917	23.9116	2.35	.	Q	.	.	.	V	.
23.000	23.9278	2.35	.	Q	.	.	.	V	.
23.083	23.9439	2.34	.	Q	.	.	.	V	.

```
  23.166     23.9601      2.34  . Q       .         .         .         V.
  23.250     23.9762      2.34  . Q       .         .         .         V.
  23.333     23.9923      2.34  . Q       .         .         .         V.
  23.416     24.0084      2.34  . Q       .         .         .         V.
  23.500     24.0245      2.34  . Q       .         .         .         V.
  23.583     24.0406      2.34  . Q       .         .         .         V.
  23.666     24.0567      2.34  . Q       .         .         .         V.
  23.750     24.0728      2.34  . Q       .         .         .         V.
  23.833     24.0889      2.34  . Q       .         .         .         V.
  23.916     24.1050      2.34  . Q       .         .         .         V.
  24.000     24.1211      2.34  . Q       .         .         .         V.

--------------------------------------------------------------------------------
 TIME(HRS) VOLUME(AF)   Q(CFS) 0.       10.0      20.0      30.0      40.0
--------------------------------------------------------------------------------
  24.083     24.1298      1.26  .Q       .         .         .         V.
  24.166     24.1385      1.26  .Q       .         .         .         V.
  24.250     24.1472      1.26  .Q       .         .         .         V.
  24.333     24.1482      0.14  Q        .         .         .         V.
  24.416     24.1492      0.14  Q        .         .         .         V.
  24.500     24.1502      0.14  Q        .         .         .         V.
  24.583     24.1504      0.03  Q        .         .         .         V.
  24.666     24.1506      0.03  Q        .         .         .         V.
  24.750     24.1508      0.03  Q        .         .         .         V.
  24.833     24.1509      0.01  Q        .         .         .         V.
  24.916     24.1509      0.01  Q        .         .         .         V.
  25.000     24.1510      0.01  Q        .         .         .         V.
  25.083     24.1510      0.00  Q        .         .         .         V.
  25.166     24.1511      0.00  Q        .         .         .         V.
  25.250     24.1511      0.00  Q        .         .         .         V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated               Duration
       Peak Flow Rate                    (minutes)
   ======================                =========
             0%                           1515.0
            10%                           1065.0
            20%                            690.0
            30%                            540.0
            40%                            480.0
            50%                            405.0
            60%                            255.0
            70%                            195.0
            80%                             60.0
            90%                             30.0


****************************************************************************
  FLOW PROCESS FROM NODE   104.00 TO NODE   105.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
============================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #2)

         WATERCOURSE LENGTH =    3781.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2268.600 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      62.900 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     121.080 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.197 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.605
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LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
MINIMUM SOIL-LOSS RATE(INCH/HOUR) = 0.300
USER-ENTERED RAINFALL = 2.54 INCHES
RCFC&WCD 24-Hour Storm (15-Minute period) SELECTED
RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9998

UNIT HYDROGRAPH TIME UNIT = 15.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 127.183

UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	23.805	116.193
2	79.421	271.466
3	93.967	70.998
4	98.096	20.152
5	98.840	3.632
6	99.426	2.864
7	99.771	1.680
8	99.943	0.840
9	100.000	0.280

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0051	0.0046	0.0005
2	0.0076	0.0069	0.0008
3	0.0076	0.0069	0.0008
4	0.0102	0.0091	0.0010
5	0.0076	0.0069	0.0008
6	0.0076	0.0069	0.0008
7	0.0076	0.0069	0.0008
8	0.0102	0.0091	0.0010
9	0.0102	0.0091	0.0010
10	0.0102	0.0091	0.0010
11	0.0127	0.0114	0.0013
12	0.0127	0.0114	0.0013
13	0.0127	0.0114	0.0013
14	0.0127	0.0114	0.0013
15	0.0127	0.0114	0.0013
16	0.0152	0.0137	0.0015
17	0.0152	0.0137	0.0015
18	0.0178	0.0160	0.0018
19	0.0178	0.0160	0.0018
20	0.0203	0.0183	0.0020
21	0.0152	0.0137	0.0015
22	0.0178	0.0160	0.0018
23	0.0203	0.0183	0.0020
24	0.0203	0.0183	0.0020
25	0.0229	0.0206	0.0023
26	0.0229	0.0206	0.0023
27	0.0254	0.0229	0.0025
28	0.0254	0.0229	0.0025
29	0.0254	0.0229	0.0025
30	0.0279	0.0251	0.0028
31	0.0305	0.0274	0.0030
32	0.0330	0.0297	0.0033
33	0.0381	0.0343	0.0038
34	0.0381	0.0343	0.0038
35	0.0406	0.0366	0.0041
36	0.0432	0.0389	0.0043
37	0.0482	0.0434	0.0048

38	0.0508	0.0457	0.0051
39	0.0533	0.0480	0.0053
40	0.0559	0.0503	0.0056
41	0.0381	0.0343	0.0038
42	0.0381	0.0343	0.0038
43	0.0508	0.0457	0.0051
44	0.0508	0.0457	0.0051
45	0.0482	0.0434	0.0048
46	0.0482	0.0434	0.0048
47	0.0432	0.0389	0.0043
48	0.0457	0.0411	0.0046
49	0.0635	0.0571	0.0063
50	0.0660	0.0594	0.0066
51	0.0711	0.0640	0.0071
52	0.0736	0.0663	0.0074
53	0.0863	0.0777	0.0086
54	0.0863	0.0777	0.0086
55	0.0584	0.0526	0.0058
56	0.0584	0.0526	0.0058
57	0.0686	0.0617	0.0069
58	0.0660	0.0594	0.0066
59	0.0660	0.0594	0.0066
60	0.0635	0.0571	0.0063
61	0.0609	0.0549	0.0061
62	0.0584	0.0526	0.0058
63	0.0482	0.0434	0.0048
64	0.0482	0.0434	0.0048
65	0.0102	0.0091	0.0010
66	0.0102	0.0091	0.0010
67	0.0076	0.0069	0.0008
68	0.0076	0.0069	0.0008
69	0.0127	0.0114	0.0013
70	0.0127	0.0114	0.0013
71	0.0127	0.0114	0.0013
72	0.0102	0.0091	0.0010
73	0.0102	0.0091	0.0010
74	0.0102	0.0091	0.0010
75	0.0076	0.0069	0.0008
76	0.0051	0.0046	0.0005
77	0.0076	0.0069	0.0008
78	0.0102	0.0091	0.0010
79	0.0076	0.0069	0.0008
80	0.0051	0.0046	0.0005
81	0.0076	0.0069	0.0008
82	0.0076	0.0069	0.0008
83	0.0076	0.0069	0.0008
84	0.0051	0.0046	0.0005
85	0.0076	0.0069	0.0008
86	0.0051	0.0046	0.0005
87	0.0076	0.0069	0.0008
88	0.0051	0.0046	0.0005
89	0.0076	0.0069	0.0008
90	0.0051	0.0046	0.0005
91	0.0051	0.0046	0.0005
92	0.0051	0.0046	0.0005
93	0.0051	0.0046	0.0005
94	0.0051	0.0046	0.0005
95	0.0051	0.0046	0.0005
96	0.0051	0.0046	0.0005

TOTAL STORM RAINFALL(INCHES) = 2.54
TOTAL SOIL-LOSS(INCHES) = 2.29
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.25

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 23.0607
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 2.5610

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2 4 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 2.5 5.0 7.5 10.0
0.083	0.0004	0.06	Q . . . .
0.167	0.0008	0.06	Q . . . .
0.250	0.0012	0.06	Q . . . .
0.333	0.0028	0.23	Q . . . .
0.417	0.0043	0.23	Q . . . .
0.500	0.0059	0.23	Q . . . .
0.583	0.0082	0.33	VQ . . . .
0.667	0.0105	0.33	VQ . . . .
0.750	0.0127	0.33	VQ . . . .
0.833	0.0154	0.39	VQ . . . .
0.917	0.0181	0.39	VQ . . . .
1.000	0.0208	0.39	VQ . . . .
1.083	0.0238	0.44	VQ . . . .
1.167	0.0268	0.44	VQ . . . .
1.250	0.0298	0.44	VQ . . . .
1.333	0.0324	0.39	VQ . . . .
1.417	0.0351	0.39	VQ . . . .
1.500	0.0378	0.39	VQ . . . .
1.583	0.0404	0.38	VQ . . . .
1.667	0.0430	0.38	VQ . . . .
1.750	0.0455	0.38	VQ . . . .
1.833	0.0483	0.40	VQ . . . .
1.917	0.0511	0.40	VQ . . . .
2.000	0.0538	0.40	VQ . . . .
2.083	0.0571	0.47	VQ . . . .
2.167	0.0603	0.47	VQ . . . .
2.250	0.0636	0.47	VQ . . . .
2.333	0.0669	0.49	.Q . . . .
2.417	0.0703	0.49	.Q . . . .
2.500	0.0737	0.49	.Q . . . .
2.583	0.0773	0.52	.VQ . . . .
2.667	0.0809	0.52	.VQ . . . .
2.750	0.0845	0.52	.VQ . . . .
2.833	0.0886	0.59	.VQ . . . .
2.917	0.0926	0.59	.VQ . . . .
3.000	0.0967	0.59	.VQ . . . .
3.083	0.1009	0.61	.VQ . . . .
3.167	0.1052	0.61	.VQ . . . .
3.250	0.1094	0.61	.VQ . . . .
3.333	0.1136	0.62	.VQ . . . .
3.417	0.1179	0.62	.VQ . . . .
3.500	0.1221	0.62	.VQ . . . .
3.583	0.1264	0.62	.VQ . . . .
3.667	0.1306	0.62	. Q . . . .
3.750	0.1349	0.62	. Q . . . .
3.833	0.1394	0.65	. Q . . . .
3.917	0.1438	0.65	. Q . . . .
4.000	0.1483	0.65	. Q . . . .
4.083	0.1532	0.72	. Q . . . .
4.167	0.1582	0.72	. Q . . . .
4.250	0.1631	0.72	. Q . . . .
4.333	0.1684	0.77	. VQ . . . .
4.417	0.1737	0.77	. VQ . . . .
4.500	0.1789	0.77	. VQ . . . .
4.583	0.1847	0.84	. VQ . . . .
4.667	0.1905	0.84	. VQ . . . .
4.750	0.1963	0.84	. Q . . . .
4.833	0.2024	0.89	. Q . . . .
4.917	0.2085	0.89	. Q . . . .
5.000	0.2146	0.89	. Q . . . .

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 5.083      0.2209      0.90  .  Q      .         .         .         .
 5.167      0.2271      0.90  .  Q      .         .         .         .
 5.250      0.2333      0.90  .  Q      .         .         .         .
 5.333      0.2389      0.82  .  Q      .         .         .         .
 5.417      0.2446      0.82  .  Q      .         .         .         .
 5.500      0.2502      0.82  .  Q      .         .         .         .
 5.583      0.2562      0.88  .  QV     .         .         .         .
 5.667      0.2623      0.88  .  QV     .         .         .         .
 5.750      0.2684      0.88  .  QV     .         .         .         .
 5.833      0.2750      0.96  .  QV     .         .         .         .
 5.917      0.2817      0.96  .  QV     .         .         .         .
 6.000      0.2883      0.96  .  QV     .         .         .         .
 6.083      0.2953      1.01  .   Q     .         .         .         .
 6.167      0.3022      1.01  .   Q     .         .         .         .
 6.250      0.3092      1.01  .   Q     .         .         .         .
 6.333      0.3167      1.09  .   Q     .         .         .         .
 6.417      0.3242      1.09  .   QV    .         .         .         .
 6.500      0.3317      1.09  .   QV    .         .         .         .
 6.583      0.3395      1.14  .   QV    .         .         .         .
 6.667      0.3473      1.14  .   QV    .         .         .         .
 6.750      0.3552      1.14  .   QV    .         .         .         .
 6.833      0.3635      1.21  .   QV    .         .         .         .
 6.917      0.3718      1.21  .   QV    .         .         .         .
 7.000      0.3802      1.21  .   QV    .         .         .         .
 7.083      0.3886      1.23  .   Q V   .         .         .         .
 7.167      0.3971      1.23  .   Q V   .         .         .         .
 7.250      0.4056      1.23  .   Q V   .         .         .         .
 7.333      0.4143      1.27  .    QV   .         .         .         .
 7.417      0.4230      1.27  .    QV   .         .         .         .
 7.500      0.4317      1.27  .    QV   .         .         .         .
 7.583      0.4412      1.37  .    QV   .         .         .         .
 7.667      0.4506      1.37  .    Q V  .         .         .         .
 7.750      0.4600      1.37  .    Q V  .         .         .         .
 7.833      0.4702      1.48  .    Q V  .         .         .         .
 7.917      0.4804      1.48  .    Q V  .         .         .         .
 8.000      0.4906      1.48  .    Q V  .         .         .         .
 8.083      0.5019      1.63  .     QV  .         .         .         .
 8.167      0.5131      1.63  .     Q V .         .         .         .
 8.250      0.5244      1.63  .     Q V .         .         .         .
 8.333      0.5368      1.80  .      QV .         .         .         .
 8.417      0.5491      1.80  .      QV .         .         .         .
 8.500      0.5615      1.80  .      QV .         .         .         .
 8.583      0.5744      1.87  .      QV .         .         .         .
 8.667      0.5873      1.87  .      Q V.         .         .         .
 8.750      0.6001      1.87  .      Q V.         .         .         .
 8.833      0.6138      1.98  .      Q V.         .         .         .
 8.917      0.6274      1.98  .      Q V.         .         .         .
 9.000      0.6410      1.98  .      Q  V         .         .         .
 9.083      0.6557      2.13  .       Q V         .         .         .
 9.167      0.6704      2.13  .       Q V         .         .         .
 9.250      0.6850      2.13  .       Q V         .         .         .
 9.333      0.7010      2.32  .        QV         .         .         .
 9.417      0.7170      2.32  .        Q V        .         .         .
 9.500      0.7330      2.32  .        Q V        .         .         .
 9.583      0.7500      2.46  .        Q.V        .         .         .
 9.667      0.7669      2.46  .        Q.V        .         .         .
 9.750      0.7839      2.46  .        Q. V       .         .         .
 9.833      0.8018      2.59  .         Q V       .         .         .
 9.917      0.8196      2.59  .         Q V       .         .         .
10.000      0.8375      2.59  .         Q  V      .         .         .
10.083      0.8546      2.48  .        Q.  V      .         .         .
10.167      0.8717      2.48  .        Q.  V      .         .         .
10.250      0.8887      2.48  .        Q.  V      .         .         .
10.333      0.9027      2.02  .       Q .   V     .         .         .
10.417      0.9166      2.02  .       Q .   V     .         .         .
10.500      0.9306      2.02  .       Q .   V     .         .         .
10.583      0.9447      2.05  .       Q .   V     .         .         .
10.667      0.9589      2.05  .       Q .   V     .         .         .
10.750      0.9730      2.05  .       Q .    V    .         .         .
10.833      0.9893      2.37  .        Q.    V    .         .         .
10.917      1.0056      2.37  .        Q.    V    .         .         .
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TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 2.5 5.0 7.5 10.0
11.000	1.0219	2.37	. Q. V . . .
11.083	1.0386	2.42	. Q. V . . .
11.167	1.0552	2.42	. Q. V . . .
11.250	1.0719	2.42	. Q. V . . .
11.333	1.0883	2.37	. Q. V . . .
11.417	1.1046	2.37	. Q. V . . .
11.500	1.1209	2.37	. Q. V . . .
11.583	1.1368	2.30	. Q. V . . .
11.667	1.1526	2.30	. Q. V . . .
11.750	1.1684	2.30	. Q. V . . .
11.833	1.1835	2.19	. Q . V . . .
11.917	1.1986	2.19	. Q . V . . .
12.000	1.2136	2.19	. Q . V . . .
12.083	1.2303	2.43	. Q. V. . .
12.167	1.2470	2.43	. Q. V. . .
12.250	1.2638	2.43	. Q. V. . .
12.333	1.2841	2.95	. .Q V . .
12.417	1.3044	2.95	. .Q V . .
12.500	1.3247	2.95	. .Q V . .
12.583	1.3467	3.20	. Q .V . .
12.667	1.3688	3.20	. Q .V . .
12.750	1.3909	3.20	. Q .V . .
12.833	1.4145	3.43	. Q . V . .
12.917	1.4381	3.43	. Q . V . .
13.000	1.4616	3.43	. Q . V . .
13.083	1.4870	3.69	. Q . V . .
13.167	1.5125	3.69	. Q . V . .
13.250	1.5379	3.69	. Q . V . .
13.333	1.5659	4.07	. Q . V . .
13.417	1.5939	4.07	. Q . V . .
13.500	1.6219	4.07	. Q . V . .
13.583	1.6484	3.84	. Q . V . .
13.667	1.6749	3.84	. Q . V . .
13.750	1.7013	3.84	. Q . V . .
13.833	1.7228	3.12	. Q . V . .
13.917	1.7443	3.12	. Q . V . .
14.000	1.7657	3.12	. Q . V . .
14.083	1.7867	3.04	. Q . V . .
14.167	1.8076	3.04	. Q . V . .
14.250	1.8286	3.04	. Q . V . .
14.333	1.8509	3.24	. Q . V . .
14.417	1.8732	3.24	. Q . V. .
14.500	1.8955	3.24	. Q . V. .
14.583	1.9177	3.23	. Q . V. .
14.667	1.9400	3.23	. Q . V .
14.750	1.9623	3.23	. Q . V .
14.833	1.9843	3.20	. Q . V .
14.917	2.0063	3.20	. Q . V .
15.000	2.0283	3.20	. Q . V .
15.083	2.0497	3.09	. Q . . V .
15.167	2.0710	3.09	. Q . . V .
15.250	2.0923	3.09	. Q . . V .
15.333	2.1128	2.98	. .Q . . V .
15.417	2.1333	2.98	. .Q . . . V .
15.500	2.1538	2.98	. .Q . . . V .
15.583	2.1729	2.77	. .Q . . . V .
15.667	2.1919	2.77	. .Q . . . V .
15.750	2.2110	2.77	. .Q . . . V .
15.833	2.2280	2.47	. Q. . . V .
15.917	2.2450	2.47	. Q. . . . V .
16.000	2.2620	2.47	. Q. . . . V .
16.083	2.2754	1.95	. Q . . . . V .
16.167	2.2888	1.95	. Q . . . . V .
16.250	2.3022	1.95	. Q . . . . V .
16.333	2.3083	0.89	. Q . . . . V .
16.417	2.3145	0.89	. Q . . . . V .
16.500	2.3206	0.89	. Q . . . . V .

16.583	2.3246	0.59	. Q	.	.	.	V .
16.667	2.3287	0.59	. Q	.	.	.	V .
16.750	2.3327	0.59	. Q	.	.	.	V .
16.833	2.3357	0.44	.Q	.	.	.	V .
16.917	2.3387	0.44	.Q	.	.	.	V .
17.000	2.3417	0.44	.Q	.	.	.	V .
17.083	2.3449	0.46	.Q	.	.	.	V .
17.167	2.3481	0.46	.Q	.	.	.	V .
17.250	2.3512	0.46	.Q	.	.	.	V .
17.333	2.3552	0.58	. Q	.	.	.	V .
17.417	2.3593	0.58	. Q	.	.	.	V .
17.500	2.3633	0.58	. Q	.	.	.	V .
17.583	2.3675	0.61	. Q	.	.	.	V .
17.667	2.3717	0.61	. Q	.	.	.	V .
17.750	2.3759	0.61	. Q	.	.	.	V .
17.833	2.3799	0.59	. Q	.	.	.	V .
17.917	2.3840	0.59	. Q	.	.	.	V .
18.000	2.3880	0.59	. Q	.	.	.	V .
18.083	2.3916	0.52	. Q	.	.	.	V .
18.167	2.3952	0.52	. Q	.	.	.	V .
18.250	2.3987	0.52	. Q	.	.	.	V .
18.333	2.4022	0.50	. Q	.	.	.	V .
18.417	2.4056	0.50	. Q	.	.	.	V .
18.500	2.4091	0.50	. Q	.	.	.	V .
18.583	2.4123	0.47	.Q	.	.	.	V .
18.667	2.4155	0.47	.Q	.	.	.	V .
18.750	2.4188	0.47	.Q	.	.	.	V .
18.833	2.4213	0.37	.Q	.	.	.	V .
18.917	2.4239	0.37	.Q	.	.	.	V .
19.000	2.4264	0.37	.Q	.	.	.	V .
19.083	2.4285	0.31	.Q	.	.	.	V .
19.167	2.4307	0.31	.Q	.	.	.	V .
19.250	2.4328	0.31	.Q	.	.	.	V .
19.333	2.4355	0.39	.Q	.	.	.	V .
19.417	2.4381	0.39	.Q	.	.	.	V .
19.500	2.4408	0.39	.Q	.	.	.	V .
19.583	2.4438	0.44	.Q	.	.	.	V .
19.667	2.4468	0.44	.Q	.	.	.	V .
19.750	2.4498	0.44	.Q	.	.	.	V .
19.833	2.4523	0.36	.Q	.	.	.	V .
19.917	2.4548	0.36	.Q	.	.	.	V .
20.000	2.4573	0.36	.Q	.	.	.	V .
20.083	2.4594	0.31	.Q	.	.	.	V .
20.167	2.4615	0.31	.Q	.	.	.	V .
20.250	2.4636	0.31	.Q	.	.	.	V .
20.333	2.4661	0.35	.Q	.	.	.	V .
20.417	2.4685	0.35	.Q	.	.	.	V .
20.500	2.4710	0.35	.Q	.	.	.	V .
20.583	2.4735	0.37	.Q	.	.	.	V .
20.667	2.4760	0.37	.Q	.	.	.	V .
20.750	2.4785	0.37	.Q	.	.	.	V .
20.833	2.4809	0.34	.Q	.	.	.	V .
20.917	2.4832	0.34	.Q	.	.	.	V .
21.000	2.4856	0.34	.Q	.	.	.	V .
21.083	2.4877	0.30	.Q	.	.	.	V .
21.167	2.4898	0.30	.Q	.	.	.	V .
21.250	2.4919	0.30	.Q	.	.	.	V .
21.333	2.4941	0.32	.Q	.	.	.	V .
21.417	2.4963	0.32	.Q	.	.	.	V .
21.500	2.4985	0.32	.Q	.	.	.	V.
21.583	2.5006	0.30	.Q	.	.	.	V.
21.667	2.5026	0.30	.Q	.	.	.	V.
21.750	2.5047	0.30	.Q	.	.	.	V.
21.833	2.5069	0.32	.Q	.	.	.	V.
21.917	2.5091	0.32	.Q	.	.	.	V.
22.000	2.5114	0.32	.Q	.	.	.	V.
22.083	2.5134	0.30	.Q	.	.	.	V.
22.167	2.5155	0.30	.Q	.	.	.	V.
22.250	2.5175	0.30	.Q	.	.	.	V.
22.333	2.5197	0.32	.Q	.	.	.	V.
22.417	2.5220	0.32	.Q	.	.	.	V.

```
  22.500      2.5242      0.32  .Q        .         .         .        V.
  22.583      2.5260      0.27  .Q        .         .         .        V.
  22.667      2.5279      0.27  .Q        .         .         .        V.
  22.750      2.5297      0.27  .Q        .         .         .        V.
  22.833      2.5315      0.25  .Q        .         .         .        V.
  22.917      2.5332      0.25  .Q        .         .         .        V.
  23.000      2.5350      0.25  .Q        .         .         .        V.
  23.083      2.5367      0.25  Q         .         .         .        V.
  23.166      2.5384      0.25  Q         .         .         .        V.
  23.250      2.5401      0.25  Q         .         .         .        V.
  23.333      2.5418      0.25  Q         .         .         .        V.
  23.416      2.5435      0.25  Q         .         .         .        V.
  23.500      2.5452      0.25  Q         .         .         .        V.
  23.583      2.5470      0.25  Q         .         .         .        V.
  23.666      2.5487      0.25  Q         .         .         .        V.
  23.750      2.5504      0.25  Q         .         .         .        V.
  23.833      2.5521      0.25  Q         .         .         .        V.
  23.916      2.5538      0.25  Q         .         .         .        V.
  24.000      2.5555      0.25  Q         .         .         .        V.

--------------------------------------------------------------------------------
 TIME(HRS) VOLUME(AF)   Q(CFS) 0.        2.5       5.0       7.5      10.0
--------------------------------------------------------------------------------
  24.083      2.5568      0.19  Q         .         .         .        V.
  24.166      2.5581      0.19  Q         .         .         .        V.
  24.250      2.5594      0.19  Q         .         .         .        V.
  24.333      2.5598      0.05  Q         .         .         .        V.
  24.416      2.5601      0.05  Q         .         .         .        V.
  24.500      2.5605      0.05  Q         .         .         .        V.
  24.583      2.5606      0.01  Q         .         .         .        V.
  24.666      2.5607      0.01  Q         .         .         .        V.
  24.750      2.5608      0.01  Q         .         .         .        V.
  24.833      2.5608      0.00  Q         .         .         .        V.
  24.916      2.5608      0.00  Q         .         .         .        V.
  25.000      2.5609      0.00  Q         .         .         .        V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated              Duration
       Peak Flow Rate                   (minutes)
   ======================             =========
             0%                         1500.0
            10%                         1035.0
            20%                          720.0
            30%                          555.0
            40%                          495.0
            50%                          405.0
            60%                          270.0
            70%                          195.0
            80%                           60.0
            90%                           45.0

********************************************************************************
  FLOW PROCESS FROM NODE   106.00 TO NODE   103.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
================================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #3)

         WATERCOURSE LENGTH =    2948.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    1768.800 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      14.700 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     136.170 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.205 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
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MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
FOOTHILL S-GRAPH SELECTED
UNIFORM MEAN SOIL-LOSS(INCH/HOUR) = 0.565
LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
MINIMUM SOIL-LOSS RATE(INCH/HOUR) = 0.280
USER-ENTERED RAINFALL = 2.54 INCHES
RCFC&WCD 24-Hour Storm (15-Minute period) SELECTED
RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9998

UNIT HYDROGRAPH TIME UNIT = 15.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 122.223

UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	22.184	121.775
2	78.029	306.553
3	93.193	83.240
4	97.884	25.752
5	98.724	4.612
6	99.336	3.357
7	99.734	2.188
8	99.934	1.094
9	100.000	0.365

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0051	0.0046	0.0005
2	0.0076	0.0069	0.0008
3	0.0076	0.0069	0.0008
4	0.0102	0.0091	0.0010
5	0.0076	0.0069	0.0008
6	0.0076	0.0069	0.0008
7	0.0076	0.0069	0.0008
8	0.0102	0.0091	0.0010
9	0.0102	0.0091	0.0010
10	0.0102	0.0091	0.0010
11	0.0127	0.0114	0.0013
12	0.0127	0.0114	0.0013
13	0.0127	0.0114	0.0013
14	0.0127	0.0114	0.0013
15	0.0127	0.0114	0.0013
16	0.0152	0.0137	0.0015
17	0.0152	0.0137	0.0015
18	0.0178	0.0160	0.0018
19	0.0178	0.0160	0.0018
20	0.0203	0.0183	0.0020
21	0.0152	0.0137	0.0015
22	0.0178	0.0160	0.0018
23	0.0203	0.0183	0.0020
24	0.0203	0.0183	0.0020
25	0.0229	0.0206	0.0023
26	0.0229	0.0206	0.0023
27	0.0254	0.0229	0.0025
28	0.0254	0.0229	0.0025
29	0.0254	0.0229	0.0025
30	0.0279	0.0251	0.0028
31	0.0305	0.0274	0.0030
32	0.0330	0.0297	0.0033
33	0.0381	0.0343	0.0038
34	0.0381	0.0343	0.0038

35	0.0406	0.0366	0.0041
36	0.0432	0.0389	0.0043
37	0.0482	0.0434	0.0048
38	0.0508	0.0457	0.0051
39	0.0533	0.0480	0.0053
40	0.0559	0.0503	0.0056
41	0.0381	0.0343	0.0038
42	0.0381	0.0343	0.0038
43	0.0508	0.0457	0.0051
44	0.0508	0.0457	0.0051
45	0.0482	0.0434	0.0048
46	0.0482	0.0434	0.0048
47	0.0432	0.0389	0.0043
48	0.0457	0.0411	0.0046
49	0.0635	0.0571	0.0063
50	0.0660	0.0594	0.0066
51	0.0711	0.0640	0.0071
52	0.0736	0.0663	0.0074
53	0.0863	0.0777	0.0086
54	0.0863	0.0777	0.0086
55	0.0584	0.0526	0.0058
56	0.0584	0.0526	0.0058
57	0.0686	0.0617	0.0069
58	0.0660	0.0594	0.0066
59	0.0660	0.0594	0.0066
60	0.0635	0.0571	0.0063
61	0.0609	0.0549	0.0061
62	0.0584	0.0526	0.0058
63	0.0482	0.0434	0.0048
64	0.0482	0.0434	0.0048
65	0.0102	0.0091	0.0010
66	0.0102	0.0091	0.0010
67	0.0076	0.0069	0.0008
68	0.0076	0.0069	0.0008
69	0.0127	0.0114	0.0013
70	0.0127	0.0114	0.0013
71	0.0127	0.0114	0.0013
72	0.0102	0.0091	0.0010
73	0.0102	0.0091	0.0010
74	0.0102	0.0091	0.0010
75	0.0076	0.0069	0.0008
76	0.0051	0.0046	0.0005
77	0.0076	0.0069	0.0008
78	0.0102	0.0091	0.0010
79	0.0076	0.0069	0.0008
80	0.0051	0.0046	0.0005
81	0.0076	0.0069	0.0008
82	0.0076	0.0069	0.0008
83	0.0076	0.0069	0.0008
84	0.0051	0.0046	0.0005
85	0.0076	0.0069	0.0008
86	0.0051	0.0046	0.0005
87	0.0076	0.0069	0.0008
88	0.0051	0.0046	0.0005
89	0.0076	0.0069	0.0008
90	0.0051	0.0046	0.0005
91	0.0051	0.0046	0.0005
92	0.0051	0.0046	0.0005
93	0.0051	0.0046	0.0005
94	0.0051	0.0046	0.0005
95	0.0051	0.0046	0.0005
96	0.0051	0.0046	0.0005

TOTAL STORM RAINFALL(INCHES) = 2.54
TOTAL SOIL-LOSS(INCHES) = 2.29
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.25

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 25.9340
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 2.8801

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2 4 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	2.5	5.0	7.5	10.0
0.083	0.0004	0.06	Q	.	.	.	.
0.167	0.0009	0.06	Q	.	.	.	.
0.250	0.0013	0.06	Q	.	.	.	.
0.333	0.0030	0.25	Q	.	.	.	.
0.417	0.0047	0.25	Q	.	.	.	.
0.500	0.0064	0.25	Q	.	.	.	.
0.583	0.0089	0.37	VQ	.	.	.	.
0.667	0.0115	0.37	VQ	.	.	.	.
0.750	0.0140	0.37	VQ	.	.	.	.
0.833	0.0170	0.43	VQ	.	.	.	.
0.917	0.0200	0.43	VQ	.	.	.	.
1.000	0.0230	0.43	VQ	.	.	.	.
1.083	0.0264	0.49	VQ	.	.	.	.
1.167	0.0297	0.49	VQ	.	.	.	.
1.250	0.0331	0.49	VQ	.	.	.	.
1.333	0.0361	0.44	VQ	.	.	.	.
1.417	0.0391	0.44	VQ	.	.	.	.
1.500	0.0421	0.44	VQ	.	.	.	.
1.583	0.0450	0.42	VQ	.	.	.	.
1.667	0.0479	0.42	VQ	.	.	.	.
1.750	0.0508	0.42	VQ	.	.	.	.
1.833	0.0539	0.45	VQ	.	.	.	.
1.917	0.0570	0.45	VQ	.	.	.	.
2.000	0.0601	0.45	VQ	.	.	.	.
2.083	0.0638	0.53	V Q	.	.	.	.
2.167	0.0674	0.53	V Q	.	.	.	.
2.250	0.0710	0.53	V Q	.	.	.	.
2.333	0.0748	0.55	.VQ	.	.	.	.
2.417	0.0786	0.55	.VQ	.	.	.	.
2.500	0.0824	0.55	.VQ	.	.	.	.
2.583	0.0864	0.59	.VQ	.	.	.	.
2.667	0.0904	0.59	.VQ	.	.	.	.
2.750	0.0945	0.59	.VQ	.	.	.	.
2.833	0.0991	0.66	.VQ	.	.	.	.
2.917	0.1036	0.66	.VQ	.	.	.	.
3.000	0.1082	0.66	.VQ	.	.	.	.
3.083	0.1129	0.69	.VQ	.	.	.	.
3.167	0.1177	0.69	.VQ	.	.	.	.
3.250	0.1224	0.69	.VQ	.	.	.	.
3.333	0.1272	0.69	.VQ	.	.	.	.
3.417	0.1320	0.69	.VQ	.	.	.	.
3.500	0.1367	0.69	.VQ	.	.	.	.
3.583	0.1415	0.70	.VQ	.	.	.	.
3.667	0.1463	0.70	. Q	.	.	.	.
3.750	0.1511	0.70	. Q	.	.	.	.
3.833	0.1561	0.73	. Q	.	.	.	.
3.917	0.1611	0.73	. Q	.	.	.	.
4.000	0.1661	0.73	. Q	.	.	.	.
4.083	0.1717	0.81	. VQ	.	.	.	.
4.167	0.1772	0.81	. VQ	.	.	.	.
4.250	0.1828	0.81	. VQ	.	.	.	.
4.333	0.1887	0.86	. VQ	.	.	.	.
4.417	0.1946	0.86	. VQ	.	.	.	.
4.500	0.2005	0.86	. VQ	.	.	.	.
4.583	0.2070	0.94	. VQ	.	.	.	.
4.667	0.2134	0.94	. VQ	.	.	.	.
4.750	0.2199	0.94	. Q	.	.	.	.
4.833	0.2268	1.00	. Q	.	.	.	.
4.917	0.2336	1.00	. Q	.	.	.	.

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 5.000      0.2405      1.00  .  Q      .         .         .         .
 5.083      0.2475      1.02  .  VQ     .         .         .         .
 5.167      0.2545      1.02  .  VQ     .         .         .         .
 5.250      0.2616      1.02  .  VQ     .         .         .         .
 5.333      0.2679      0.92  .  Q      .         .         .         .
 5.417      0.2742      0.92  .  Q      .         .         .         .
 5.500      0.2805      0.92  .  Q      .         .         .         .
 5.583      0.2873      0.99  .  Q      .         .         .         .
 5.667      0.2942      0.99  .  QV     .         .         .         .
 5.750      0.3010      0.99  .  QV     .         .         .         .
 5.833      0.3084      1.08  .   Q     .         .         .         .
 5.917      0.3158      1.08  .   Q     .         .         .         .
 6.000      0.3233      1.08  .   Q     .         .         .         .
 6.083      0.3311      1.14  .   Q     .         .         .         .
 6.167      0.3389      1.14  .   Q     .         .         .         .
 6.250      0.3467      1.14  .   Q     .         .         .         .
 6.333      0.3551      1.22  .   Q     .         .         .         .
 6.417      0.3636      1.22  .   QV    .         .         .         .
 6.500      0.3720      1.22  .   QV    .         .         .         .
 6.583      0.3807      1.27  .    Q    .         .         .         .
 6.667      0.3895      1.27  .    Q    .         .         .         .
 6.750      0.3983      1.27  .    Q    .         .         .         .
 6.833      0.4076      1.36  .    Q    .         .         .         .
 6.917      0.4170      1.36  .    Q    .         .         .         .
 7.000      0.4264      1.36  .    Q    .         .         .         .
 7.083      0.4359      1.38  .    QV   .         .         .         .
 7.167      0.4454      1.38  .    QV   .         .         .         .
 7.250      0.4549      1.38  .    QV   .         .         .         .
 7.333      0.4647      1.42  .    QV   .         .         .         .
 7.417      0.4745      1.42  .    QV   .         .         .         .
 7.500      0.4843      1.42  .    QV   .         .         .         .
 7.583      0.4948      1.53  .     Q   .         .         .         .
 7.667      0.5054      1.53  .     QV  .         .         .         .
 7.750      0.5159      1.53  .     QV  .         .         .         .
 7.833      0.5274      1.66  .     QV  .         .         .         .
 7.917      0.5388      1.66  .     QV  .         .         .         .
 8.000      0.5503      1.66  .     QV  .         .         .         .
 8.083      0.5629      1.83  .      Q  .         .         .         .
 8.167      0.5755      1.83  .      Q  .         .         .         .
 8.250      0.5881      1.83  .      QV .         .         .         .
 8.333      0.6020      2.02  .       Q .         .         .         .
 8.417      0.6159      2.02  .       Q .         .         .         .
 8.500      0.6297      2.02  .       Q .         .         .         .
 8.583      0.6442      2.10  .       Q .         .         .         .
 8.667      0.6586      2.10  .       QV.         .         .         .
 8.750      0.6731      2.10  .       QV.         .         .         .
 8.833      0.6884      2.22  .       QV.         .         .         .
 8.917      0.7037      2.22  .       QV.         .         .         .
 9.000      0.7190      2.22  .       QV.         .         .         .
 9.083      0.7354      2.39  .        QV         .         .         .
 9.167      0.7518      2.39  .        QV         .         .         .
 9.250      0.7683      2.39  .        QV         .         .         .
 9.333      0.7862      2.60  .         Q         .         .         .
 9.417      0.8041      2.60  .         QV        .         .         .
 9.500      0.8221      2.60  .         QV        .         .         .
 9.583      0.8411      2.76  .         .Q        .         .         .
 9.667      0.8601      2.76  .         .Q        .         .         .
 9.750      0.8792      2.76  .         .QV       .         .         .
 9.833      0.8992      2.91  .         .QV       .         .         .
 9.917      0.9192      2.91  .         .QV       .         .         .
10.000      0.9393      2.91  .         .Q V      .         .         .
10.083      0.9586      2.80  .         .Q V      .         .         .
10.167      0.9779      2.80  .         .Q V      .         .         .
10.250      0.9972      2.80  .         .Q V      .         .         .
10.333      1.0129      2.29  .        Q.   V     .         .         .
10.417      1.0287      2.29  .        Q.   V     .         .         .
10.500      1.0445      2.29  .        Q.   V     .         .         .
10.583      1.0603      2.31  .        Q.   V     .         .         .
10.667      1.0762      2.31  .        Q.   V     .         .         .
10.750      1.0921      2.31  .        Q.    V    .         .         .
10.833      1.1104      2.65  .         Q    V    .         .         .
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TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	2.5	5.0	7.5	10.0
10.917	1.1286	2.65	. Q V	.	.	.	.
11.000	1.1469	2.65	. Q V	.	.	.	.
11.083	1.1656	2.72	. Q V	.	.	.	.
11.167	1.1844	2.72	. Q V	.	.	.	.
11.250	1.2031	2.72	. Q V	.	.	.	.
11.333	1.2215	2.67	. Q V	.	.	.	.
11.417	1.2399	2.67	. Q V	.	.	.	.
11.500	1.2583	2.67	. Q V	.	.	.	.
11.583	1.2761	2.59	. Q V	.	.	.	.
11.667	1.2940	2.59	. Q V	.	.	.	.
11.750	1.3118	2.59	. Q V	.	.	.	.
11.833	1.3287	2.46	. Q. V	.	.	.	.
11.917	1.3457	2.46	. Q. V	.	.	.	.
12.000	1.3626	2.46	. Q. V	.	.	.	.
12.083	1.3813	2.71	. Q V.	.	.	.	.
12.167	1.4000	2.71	. Q V.	.	.	.	.
12.250	1.4187	2.71	. Q V.	.	.	.	.
12.333	1.4414	3.30	. . Q V	.	.	.	.
12.417	1.4641	3.30	. . Q V	.	.	.	.
12.500	1.4868	3.30	. . Q V	.	.	.	.
12.583	1.5116	3.59	. . Q V	.	.	.	.
12.667	1.5363	3.59	. . Q V	.	.	.	.
12.750	1.5610	3.59	. . Q V	.	.	.	.
12.833	1.5875	3.84	. . Q . V	.	.	.	.
12.917	1.6140	3.84	. . Q . V	.	.	.	.
13.000	1.6404	3.84	. . Q . V	.	.	.	.
13.083	1.6689	4.13	. . Q . V	.	.	.	.
13.167	1.6973	4.13	. . Q . V	.	.	.	.
13.250	1.7258	4.13	. . Q . V	.	.	.	.
13.333	1.7572	4.56	. . Q . V	.	.	.	.
13.417	1.7886	4.56	. . Q . V	.	.	.	.
13.500	1.8201	4.56	. . Q . V	.	.	.	.
13.583	1.8500	4.34	. . Q . V	.	.	.	.
13.667	1.8799	4.34	. . Q . V	.	.	.	.
13.750	1.9098	4.34	. . Q . V	.	.	.	.
13.833	1.9340	3.52	. . Q . V	.	.	.	.
13.917	1.9583	3.52	. . Q . V	.	.	.	.
14.000	1.9826	3.52	. . Q . V	.	.	.	.
14.083	2.0061	3.42	. . Q . V	.	.	.	.
14.167	2.0297	3.42	. . Q . V	.	.	.	.
14.250	2.0533	3.42	. . Q . V	.	.	.	.
14.333	2.0783	3.64	. . Q . V	.	.	.	.
14.417	2.1034	3.64	. . Q . V	.	.	.	.
14.500	2.1284	3.64	. . Q . V	.	.	.	.
14.583	2.1535	3.63	. . Q . V	.	.	.	.
14.667	2.1785	3.63	. . Q . V	.	.	.	.
14.750	2.2035	3.63	. . Q . V	.	.	.	.
14.833	2.2283	3.60	. . Q . V	.	.	.	.
14.917	2.2531	3.60	. . Q . V	.	.	.	.
15.000	2.2779	3.60	. . Q . V	.	.	.	.
15.083	2.3019	3.48	. . Q . V	.	.	.	.
15.167	2.3259	3.48	. . Q . V	.	.	.	.
15.250	2.3499	3.48	. . Q . V	.	.	.	.
15.333	2.3730	3.35	. . Q . V	.	.	.	.
15.417	2.3961	3.35	. . Q . V	.	.	.	.
15.500	2.4192	3.35	. . Q . V	.	.	.	.
15.583	2.4407	3.12	. . Q . V	.	.	.	.
15.667	2.4623	3.12	. . Q . V	.	.	.	.
15.750	2.4838	3.12	. . Q . V	.	.	.	.
15.833	2.5030	2.79	. .Q . V	.	.	.	.
15.917	2.5222	2.79	. .Q . V	.	.	.	.
16.000	2.5413	2.79	. .Q . V	.	.	.	.
16.083	2.5567	2.23	. Q . V	.	.	.	.
16.167	2.5720	2.23	. Q . V	.	.	.	.
16.250	2.5874	2.23	. Q . V	.	.	.	.
16.333	2.5945	1.03	. Q . V	.	.	.	.
16.417	2.6016	1.03	. Q . V	.	.	.	.

```
16.500      2.6087      1.03  .   Q     .         .         .     V   .
16.583      2.6134      0.68  . Q       .         .         .     V   .
16.667      2.6180      0.68  . Q       .         .         .     V   .
16.750      2.6227      0.68  . Q       .         .         .     V   .
16.833      2.6261      0.50  .Q        .         .         .     V   .
16.917      2.6295      0.50  .Q        .         .         .     V   .
17.000      2.6330      0.50  .Q        .         .         .     V   .
17.083      2.6365      0.52  . Q       .         .         .     V   .
17.167      2.6401      0.52  . Q       .         .         .     V   .
17.250      2.6437      0.52  . Q       .         .         .     V   .
17.333      2.6482      0.65  . Q       .         .         .     V   .
17.417      2.6527      0.65  . Q       .         .         .     V   .
17.500      2.6572      0.65  . Q       .         .         .     V   .
17.583      2.6619      0.69  . Q       .         .         .     V   .
17.667      2.6666      0.69  . Q       .         .         .      V  .
17.750      2.6713      0.69  . Q       .         .         .      V  .
17.833      2.6759      0.66  . Q       .         .         .      V  .
17.917      2.6804      0.66  . Q       .         .         .      V  .
18.000      2.6850      0.66  . Q       .         .         .      V  .
18.083      2.6890      0.59  . Q       .         .         .      V  .
18.167      2.6931      0.59  . Q       .         .         .      V  .
18.250      2.6971      0.59  . Q       .         .         .      V  .
18.333      2.7010      0.57  . Q       .         .         .      V  .
18.417      2.7049      0.57  . Q       .         .         .      V  .
18.500      2.7088      0.57  . Q       .         .         .      V  .
18.583      2.7124      0.53  . Q       .         .         .      V  .
18.667      2.7161      0.53  . Q       .         .         .      V  .
18.750      2.7197      0.53  . Q       .         .         .      V  .
18.833      2.7226      0.42  .Q        .         .         .      V  .
18.917      2.7255      0.42  .Q        .         .         .      V  .
19.000      2.7284      0.42  .Q        .         .         .      V  .
19.083      2.7308      0.35  .Q        .         .         .      V  .
19.167      2.7332      0.35  .Q        .         .         .      V  .
19.250      2.7356      0.35  .Q        .         .         .      V  .
19.333      2.7386      0.43  .Q        .         .         .       V .
19.417      2.7415      0.43  .Q        .         .         .       V .
19.500      2.7445      0.43  .Q        .         .         .       V .
19.583      2.7479      0.49  .Q        .         .         .       V .
19.667      2.7513      0.49  .Q        .         .         .       V .
19.750      2.7547      0.49  .Q        .         .         .       V .
19.833      2.7575      0.41  .Q        .         .         .       V .
19.917      2.7603      0.41  .Q        .         .         .       V .
20.000      2.7631      0.41  .Q        .         .         .       V .
20.083      2.7655      0.35  .Q        .         .         .       V .
20.167      2.7679      0.35  .Q        .         .         .       V .
20.250      2.7703      0.35  .Q        .         .         .       V .
20.333      2.7730      0.40  .Q        .         .         .       V .
20.417      2.7757      0.40  .Q        .         .         .       V .
20.500      2.7785      0.40  .Q        .         .         .       V .
20.583      2.7813      0.41  .Q        .         .         .       V .
20.667      2.7842      0.41  .Q        .         .         .       V .
20.750      2.7870      0.41  .Q        .         .         .       V .
20.833      2.7897      0.39  .Q        .         .         .       V .
20.917      2.7923      0.39  .Q        .         .         .       V .
21.000      2.7950      0.39  .Q        .         .         .       V .
21.083      2.7973      0.34  .Q        .         .         .       V .
21.167      2.7997      0.34  .Q        .         .         .       V .
21.250      2.8020      0.34  .Q        .         .         .       V .
21.333      2.8045      0.37  .Q        .         .         .       V .
21.417      2.8070      0.37  .Q        .         .         .       V .
21.500      2.8096      0.37  .Q        .         .         .        V.
21.583      2.8119      0.33  .Q        .         .         .        V.
21.667      2.8142      0.33  .Q        .         .         .        V.
21.750      2.8164      0.33  .Q        .         .         .        V.
21.833      2.8190      0.36  .Q        .         .         .        V.
21.917      2.8215      0.36  .Q        .         .         .        V.
22.000      2.8240      0.36  .Q        .         .         .        V.
22.083      2.8263      0.33  .Q        .         .         .        V.
22.167      2.8286      0.33  .Q        .         .         .        V.
22.250      2.8309      0.33  .Q        .         .         .        V.
22.333      2.8334      0.36  .Q        .         .         .        V.
```

```
  22.417      2.8359      0.36  .Q        .         .         .        V.
  22.500      2.8384      0.36  .Q        .         .         .        V.
  22.583      2.8405      0.30  .Q        .         .         .        V.
  22.667      2.8426      0.30  .Q        .         .         .        V.
  22.750      2.8446      0.30  .Q        .         .         .        V.
  22.833      2.8466      0.29  .Q        .         .         .        V.
  22.917      2.8486      0.29  .Q        .         .         .        V.
  23.000      2.8505      0.29  .Q        .         .         .        V.
  23.083      2.8525      0.28  .Q        .         .         .        V.
  23.166      2.8544      0.28  .Q        .         .         .        V.
  23.250      2.8563      0.28  .Q        .         .         .        V.
  23.333      2.8583      0.28  .Q        .         .         .        V.
  23.416      2.8602      0.28  .Q        .         .         .        V.
  23.500      2.8621      0.28  .Q        .         .         .        V.
  23.583      2.8641      0.28  .Q        .         .         .        V.
  23.666      2.8660      0.28  .Q        .         .         .        V.
  23.750      2.8679      0.28  .Q        .         .         .        V.
  23.833      2.8698      0.28  .Q        .         .         .        V.
  23.916      2.8717      0.28  .Q        .         .         .        V.
  24.000      2.8737      0.28  .Q        .         .         .        V.

------------------------------------------------------------------------------
 TIME(HRS) VOLUME(AF)   Q(CFS) 0.        2.5       5.0       7.5      10.0
------------------------------------------------------------------------------
  24.083      2.8752      0.22  Q         .         .         .        V.
  24.166      2.8767      0.22  Q         .         .         .        V.
  24.250      2.8782      0.22  Q         .         .         .        V.
  24.333      2.8786      0.06  Q         .         .         .        V.
  24.416      2.8790      0.06  Q         .         .         .        V.
  24.500      2.8794      0.06  Q         .         .         .        V.
  24.583      2.8795      0.02  Q         .         .         .        V.
  24.666      2.8797      0.02  Q         .         .         .        V.
  24.750      2.8798      0.02  Q         .         .         .        V.
  24.833      2.8799      0.01  Q         .         .         .        V.
  24.916      2.8799      0.01  Q         .         .         .        V.
  25.000      2.8799      0.01  Q         .         .         .        V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated                Duration
       Peak Flow Rate                     (minutes)
   ======================                 =========
              0%                           1500.0
             10%                           1035.0
             20%                            720.0
             30%                            555.0
             40%                            495.0
             50%                            420.0
             60%                            270.0
             70%                            195.0
             80%                             60.0
             90%                             45.0


****************************************************************************
  FLOW PROCESS FROM NODE   500.00 TO NODE   501.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
============================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #4)

         WATERSHED AREA =      20.000 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         *USER ENTERED "LAG" TIME =    0.100 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
```

UNIFORM MEAN SOIL-LOSS(INCH/HOUR) = 0.050
LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.180
MINIMUM SOIL-LOSS RATE(INCH/HOUR) = 0.030
USER-ENTERED RAINFALL = 2.54 INCHES
RCFC&WCD 24-Hour Storm (15-Minute period) SELECTED
RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 1.0000

UNIT HYDROGRAPH TIME UNIT = 15.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 250.000

UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	50.960	41.086
2	95.823	36.171
3	99.089	2.633
4	99.636	0.441
5	99.909	0.220
6	100.000	0.073

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0051	0.0009	0.0042
2	0.0076	0.0014	0.0062
3	0.0076	0.0014	0.0062
4	0.0102	0.0018	0.0083
5	0.0076	0.0014	0.0062
6	0.0076	0.0014	0.0062
7	0.0076	0.0014	0.0062
8	0.0102	0.0018	0.0083
9	0.0102	0.0018	0.0083
10	0.0102	0.0018	0.0083
11	0.0127	0.0023	0.0104
12	0.0127	0.0023	0.0104
13	0.0127	0.0023	0.0104
14	0.0127	0.0023	0.0104
15	0.0127	0.0023	0.0104
16	0.0152	0.0027	0.0125
17	0.0152	0.0027	0.0125
18	0.0178	0.0032	0.0146
19	0.0178	0.0032	0.0146
20	0.0203	0.0037	0.0167
21	0.0152	0.0027	0.0125
22	0.0178	0.0032	0.0146
23	0.0203	0.0037	0.0167
24	0.0203	0.0037	0.0167
25	0.0229	0.0041	0.0187
26	0.0229	0.0041	0.0187
27	0.0254	0.0046	0.0208
28	0.0254	0.0046	0.0208
29	0.0254	0.0046	0.0208
30	0.0279	0.0050	0.0229
31	0.0305	0.0055	0.0250
32	0.0330	0.0059	0.0271
33	0.0381	0.0069	0.0312
34	0.0381	0.0069	0.0312
35	0.0406	0.0073	0.0333
36	0.0432	0.0078	0.0354
37	0.0483	0.0087	0.0396
38	0.0508	0.0091	0.0417

39	0.0533	0.0096	0.0437
40	0.0559	0.0101	0.0458
41	0.0381	0.0069	0.0312
42	0.0381	0.0069	0.0312
43	0.0508	0.0091	0.0417
44	0.0508	0.0091	0.0417
45	0.0483	0.0087	0.0396
46	0.0483	0.0087	0.0396
47	0.0432	0.0078	0.0354
48	0.0457	0.0082	0.0375
49	0.0635	0.0114	0.0521
50	0.0660	0.0116	0.0544
51	0.0711	0.0115	0.0596
52	0.0737	0.0114	0.0623
53	0.0864	0.0112	0.0751
54	0.0864	0.0111	0.0752
55	0.0584	0.0105	0.0479
56	0.0584	0.0105	0.0479
57	0.0686	0.0107	0.0579
58	0.0660	0.0106	0.0554
59	0.0660	0.0105	0.0556
60	0.0635	0.0104	0.0531
61	0.0610	0.0102	0.0507
62	0.0584	0.0101	0.0483
63	0.0483	0.0087	0.0396
64	0.0483	0.0087	0.0396
65	0.0102	0.0018	0.0083
66	0.0102	0.0018	0.0083
67	0.0076	0.0014	0.0062
68	0.0076	0.0014	0.0062
69	0.0127	0.0023	0.0104
70	0.0127	0.0023	0.0104
71	0.0127	0.0023	0.0104
72	0.0102	0.0018	0.0083
73	0.0102	0.0018	0.0083
74	0.0102	0.0018	0.0083
75	0.0076	0.0014	0.0062
76	0.0051	0.0009	0.0042
77	0.0076	0.0014	0.0062
78	0.0102	0.0018	0.0083
79	0.0076	0.0014	0.0062
80	0.0051	0.0009	0.0042
81	0.0076	0.0014	0.0062
82	0.0076	0.0014	0.0062
83	0.0076	0.0014	0.0062
84	0.0051	0.0009	0.0042
85	0.0076	0.0014	0.0062
86	0.0051	0.0009	0.0042
87	0.0076	0.0014	0.0062
88	0.0051	0.0009	0.0042
89	0.0076	0.0014	0.0062
90	0.0051	0.0009	0.0042
91	0.0051	0.0009	0.0042
92	0.0051	0.0009	0.0042
93	0.0051	0.0009	0.0042
94	0.0051	0.0009	0.0042
95	0.0051	0.0009	0.0042
96	0.0051	0.0009	0.0042

TOTAL STORM RAINFALL(INCHES) = 2.54
TOTAL SOIL-LOSS(INCHES) = 0.44
TOTAL EFFECTIVE RAINFALL(INCHES) = 2.10

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 0.7308
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 3.5006

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2 4 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 2.5 5.0 7.5 10.0
0.083	0.0012	0.17	Q . . . .
0.167	0.0024	0.17	Q . . . .
0.250	0.0035	0.17	Q . . . .
0.333	0.0063	0.41	VQ . . . .
0.417	0.0091	0.41	VQ . . . .
0.500	0.0120	0.41	VQ . . . .
0.583	0.0154	0.49	VQ . . . .
0.667	0.0188	0.49	VQ . . . .
0.750	0.0222	0.49	VQ . . . .
0.833	0.0262	0.59	V Q . . . .
0.917	0.0302	0.59	V Q . . . .
1.000	0.0343	0.59	V Q . . . .
1.083	0.0383	0.58	V Q . . . .
1.167	0.0422	0.58	V Q . . . .
1.250	0.0462	0.58	V Q . . . .
1.333	0.0497	0.51	V Q . . . .
1.417	0.0532	0.51	V Q . . . .
1.500	0.0567	0.51	V Q . . . .
1.583	0.0602	0.50	V Q . . . .
1.667	0.0637	0.50	V Q . . . .
1.750	0.0672	0.50	V Q . . . .
1.833	0.0712	0.59	V Q . . . .
1.917	0.0753	0.59	V Q . . . .
2.000	0.0793	0.59	V Q . . . .
2.083	0.0839	0.66	V Q . . . .
2.167	0.0885	0.66	VQ . . . .
2.250	0.0931	0.66	VQ . . . .
2.333	0.0977	0.67	.VQ . . . .
2.417	0.1023	0.67	.VQ . . . .
2.500	0.1069	0.67	.VQ . . . .
2.583	0.1121	0.76	.V Q . . . .
2.667	0.1174	0.76	.V Q . . . .
2.750	0.1226	0.76	.V Q . . . .
2.833	0.1283	0.83	.V Q . . . .
2.917	0.1340	0.83	.V Q . . . .
3.000	0.1398	0.83	.V Q . . . .
3.083	0.1455	0.84	.V Q . . . .
3.167	0.1513	0.84	.V Q . . . .
3.250	0.1571	0.84	.V Q . . . .
3.333	0.1629	0.84	.V Q . . . .
3.417	0.1686	0.84	.V Q . . . .
3.500	0.1744	0.84	.V Q . . . .
3.583	0.1802	0.84	. VQ . . . .
3.667	0.1860	0.84	. VQ . . . .
3.750	0.1918	0.84	. VQ . . . .
3.833	0.1981	0.93	. VQ . . . .
3.917	0.2045	0.93	. VQ . . . .
4.000	0.2109	0.93	. VQ . . . .
4.083	0.2178	1.00	. V Q . . . .
4.167	0.2247	1.00	. V Q . . . .
4.250	0.2315	1.00	. V Q . . . .
4.333	0.2391	1.09	. V Q . . . .
4.417	0.2466	1.09	. V Q . . . .
4.500	0.2541	1.09	. V Q . . . .
4.583	0.2621	1.17	. V Q . . . .
4.667	0.2702	1.17	. VQ . . . .
4.750	0.2782	1.17	. VQ . . . .
4.833	0.2869	1.26	. V Q . . . .
4.917	0.2956	1.26	. V Q . . . .
5.000	0.3042	1.26	. V Q . . . .
5.083	0.3123	1.16	. VQ . . . .

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 5.167      0.3203      1.16  .  VQ     .         .         .         .
 5.250      0.3283      1.16  .  VQ     .         .         .         .
 5.333      0.3359      1.11  .  VQ     .         .         .         .
 5.417      0.3435      1.11  .  VQ     .         .         .         .
 5.500      0.3511      1.11  .   Q     .         .         .         .
 5.583      0.3598      1.26  .   VQ    .         .         .         .
 5.667      0.3685      1.26  .   VQ    .         .         .         .
 5.750      0.3771      1.26  .   VQ    .         .         .         .
 5.833      0.3863      1.34  .   VQ    .         .         .         .
 5.917      0.3955      1.34  .   VQ    .         .         .         .
 6.000      0.4047      1.34  .   VQ    .         .         .         .
 6.083      0.4145      1.43  .   VQ    .         .         .         .
 6.167      0.4244      1.43  .   VQ    .         .         .         .
 6.250      0.4342      1.43  .   VQ    .         .         .         .
 6.333      0.4445      1.50  .    VQ   .         .         .         .
 6.417      0.4549      1.50  .    VQ   .         .         .         .
 6.500      0.4653      1.50  .    VQ   .         .         .         .
 6.583      0.4762      1.60  .    VQ   .         .         .         .
 6.667      0.4872      1.60  .    VQ   .         .         .         .
 6.750      0.4982      1.60  .    VQ   .         .         .         .
 6.833      0.5097      1.67  .    VQ   .         .         .         .
 6.917      0.5212      1.67  .    VQ   .         .         .         .
 7.000      0.5328      1.67  .     Q   .         .         .         .
 7.083      0.5443      1.68  .     Q   .         .         .         .
 7.167      0.5559      1.68  .     Q   .         .         .         .
 7.250      0.5674      1.68  .     Q   .         .         .         .
 7.333      0.5796      1.76  .     VQ  .         .         .         .
 7.417      0.5917      1.76  .     VQ  .         .         .         .
 7.500      0.6039      1.76  .     VQ  .         .         .         .
 7.583      0.6171      1.93  .      Q  .         .         .         .
 7.667      0.6304      1.93  .      Q  .         .         .         .
 7.750      0.6436      1.93  .      Q  .         .         .         .
 7.833      0.6581      2.09  .      VQ .         .         .         .
 7.917      0.6725      2.09  .      VQ .         .         .         .
 8.000      0.6869      2.09  .      VQ .         .         .         .
 8.083      0.7030      2.34  .       VQ.         .         .         .
 8.167      0.7192      2.34  .       VQ.         .         .         .
 8.250      0.7353      2.34  .       VQ.         .         .         .
 8.333      0.7526      2.50  .       V Q         .         .         .
 8.417      0.7698      2.50  .       V Q         .         .         .
 8.500      0.7870      2.50  .       V Q         .         .         .
 8.583      0.8049      2.60  .        VQ         .         .         .
 8.667      0.8228      2.60  .        VQ         .         .         .
 8.750      0.8408      2.60  .        VQ         .         .         .
 8.833      0.8598      2.76  .        V.Q        .         .         .
 8.917      0.8788      2.76  .         VQ        .         .         .
 9.000      0.8979      2.76  .         VQ        .         .         .
 9.083      0.9186      3.02  .         V Q       .         .         .
 9.167      0.9394      3.02  .         V Q       .         .         .
 9.250      0.9602      3.02  .         V Q       .         .         .
 9.333      0.9826      3.26  .         .V Q      .         .         .
 9.417      1.0051      3.26  .         .V Q      .         .         .
 9.500      1.0275      3.26  .         .V Q      .         .         .
 9.583      1.0512      3.43  .         . VQ      .         .         .
 9.667      1.0748      3.43  .         . VQ      .         .         .
 9.750      1.0985      3.43  .         . VQ      .         .         .
 9.833      1.1233      3.60  .         . V Q     .         .         .
 9.917      1.1481      3.60  .         .  VQ     .         .         .
10.000      1.1729      3.60  .         .  VQ     .         .         .
10.083      1.1941      3.09  .         . QV      .         .         .
10.167      1.2154      3.09  .         . QV      .         .         .
10.250      1.2367      3.09  .         . Q V     .         .         .
10.333      1.2543      2.57  .         Q   V     .         .         .
10.417      1.2720      2.57  .         Q   V     .         .         .
10.500      1.2897      2.57  .         Q   V     .         .         .
10.583      1.3100      2.96  .         .Q  V     .         .         .
10.667      1.3304      2.96  .         .Q   V    .         .         .
10.750      1.3507      2.96  .         .Q   V    .         .         .
10.833      1.3737      3.33  .         .  Q V    .         .         .
10.917      1.3966      3.33  .         .  Q V    .         .         .
11.000      1.4195      3.33  .         .  Q  V   .         .         .
```

TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	2.5	5.0	7.5	10.0
11.083	1.4420	3.27	. Q V	.	.	.	.
11.167	1.4645	3.27	. Q V	.	.	.	.
11.250	1.4870	3.27	. Q V	.	.	.	.
11.333	1.5090	3.19	. Q V	.	.	.	.
11.417	1.5310	3.19	. Q V	.	.	.	.
11.500	1.5530	3.19	. Q V	.	.	.	.
11.583	1.5738	3.02	. Q V	.	.	.	.
11.667	1.5946	3.02	. Q V	.	.	.	.
11.750	1.6154	3.02	. Q V	.	.	.	.
11.833	1.6357	2.95	.Q V	.	.	.	.
11.917	1.6561	2.95	.Q V	.	.	.	.
12.000	1.6764	2.95	.Q V.	.	.	.	.
12.083	1.7013	3.62	. Q V.	.	.	.	.
12.167	1.7263	3.62	. Q V.	.	.	.	.
12.250	1.7512	3.62	. Q V	.	.	.	.
12.333	1.7804	4.24	. Q V	.	.	.	.
12.417	1.8096	4.24	. Q V	.	.	.	.
12.500	1.8389	4.24	. Q V	.	.	.	.
12.583	1.8704	4.58	. Q .V	.	.	.	.
12.667	1.9020	4.58	. Q .V	.	.	.	.
12.750	1.9335	4.58	. Q . V	.	.	.	.
12.833	1.9672	4.89	. Q. V	.	.	.	.
12.917	2.0009	4.89	. Q. V	.	.	.	.
13.000	2.0346	4.89	. Q. V	.	.	.	.
13.083	2.0727	5.53	. QV	.	.	.	.
13.167	2.1108	5.53	. Q V	.	.	.	.
13.250	2.1489	5.53	. Q V	.	.	.	.
13.333	2.1903	6.01	. QV	.	.	.	.
13.417	2.2318	6.01	. QV	.	.	.	.
13.500	2.2732	6.01	. QV	.	.	.	.
13.583	2.3072	4.93	. Q. V	.	.	.	.
13.667	2.3411	4.93	. Q. V	.	.	.	.
13.750	2.3751	4.93	. Q. V	.	.	.	.
13.833	2.4023	3.95	. Q . V	.	.	.	.
13.917	2.4295	3.95	. Q . V	.	.	.	.
14.000	2.4567	3.95	. Q . V	.	.	.	.
14.083	2.4863	4.29	. Q . V	.	.	.	.
14.167	2.5158	4.29	. Q . V	.	.	.	.
14.250	2.5454	4.29	. Q . V.	.	.	.	.
14.333	2.5766	4.54	. Q . V.	.	.	.	.
14.417	2.6079	4.54	. Q . V.	.	.	.	.
14.500	2.6392	4.54	. Q . V	.	.	.	.
14.583	2.6700	4.48	. Q . V	.	.	.	.
14.667	2.7008	4.48	. Q . V	.	.	.	.
14.750	2.7317	4.48	. Q . V	.	.	.	.
14.833	2.7618	4.38	. Q .V	.	.	.	.
14.917	2.7920	4.38	. Q .V	.	.	.	.
15.000	2.8221	4.38	. Q . V	.	.	.	.
15.083	2.8510	4.19	. Q . V	.	.	.	.
15.167	2.8799	4.19	. Q . V	.	.	.	.
15.250	2.9088	4.19	. Q . V	.	.	.	.
15.333	2.9363	4.00	. Q . V	.	.	.	.
15.417	2.9639	4.00	. Q . V	.	.	.	.
15.500	2.9914	4.00	. Q . V	.	.	.	.
15.583	3.0159	3.55	. Q . V	.	.	.	.
15.667	3.0403	3.55	. Q . V	.	.	.	.
15.750	3.0647	3.55	. Q . V	.	.	.	.
15.833	3.0869	3.22	. Q . V	.	.	.	.
15.917	3.1091	3.22	. Q . V	.	.	.	.
16.000	3.1313	3.22	. Q . V	.	.	.	.
16.083	3.1445	1.91	. Q . V	.	.	.	.
16.167	3.1577	1.91	. Q . V	.	.	.	.
16.250	3.1708	1.91	. Q . V	.	.	.	.
16.333	3.1762	0.78	. Q . V	.	.	.	.
16.417	3.1816	0.78	. Q . V	.	.	.	.
16.500	3.1870	0.78	. Q . V	.	.	.	.
16.583	3.1912	0.61	. Q . V	.	.	.	.

```
16.667      3.1954      0.61  . Q       .         .         .     V   .
16.750      3.1996      0.61  . Q       .         .         .     V   .
16.833      3.2031      0.52  . Q       .         .         .     V   .
16.917      3.2067      0.52  . Q       .         .         .     V   .
17.000      3.2103      0.52  . Q       .         .         .     V   .
17.083      3.2150      0.68  . Q       .         .         .     V   .
17.167      3.2196      0.68  . Q       .         .         .     V   .
17.250      3.2243      0.68  . Q       .         .         .     V   .
17.333      3.2300      0.83  .  Q      .         .         .     V   .
17.417      3.2357      0.83  .  Q      .         .         .     V   .
17.500      3.2414      0.83  .  Q      .         .         .      V  .
17.583      3.2472      0.84  .  Q      .         .         .      V  .
17.667      3.2529      0.84  .  Q      .         .         .      V  .
17.750      3.2587      0.84  .  Q      .         .         .      V  .
17.833      3.2639      0.75  .  Q      .         .         .      V  .
17.917      3.2690      0.75  .  Q      .         .         .      V  .
18.000      3.2742      0.75  .  Q      .         .         .      V  .
18.083      3.2789      0.68  . Q       .         .         .      V  .
18.167      3.2836      0.68  . Q       .         .         .      V  .
18.250      3.2882      0.68  . Q       .         .         .      V  .
18.333      3.2929      0.67  . Q       .         .         .      V  .
18.417      3.2975      0.67  . Q       .         .         .      V  .
18.500      3.3022      0.67  . Q       .         .         .      V  .
18.583      3.3062      0.59  . Q       .         .         .      V  .
18.667      3.3102      0.59  . Q       .         .         .      V  .
18.750      3.3143      0.59  . Q       .         .         .      V  .
18.833      3.3172      0.43  .Q        .         .         .      V  .
18.917      3.3201      0.43  .Q        .         .         .      V  .
19.000      3.3231      0.43  .Q        .         .         .      V  .
19.083      3.3260      0.43  .Q        .         .         .       V .
19.167      3.3290      0.43  .Q        .         .         .       V .
19.250      3.3319      0.43  .Q        .         .         .       V .
19.333      3.3360      0.58  . Q       .         .         .       V .
19.417      3.3400      0.58  . Q       .         .         .       V .
19.500      3.3440      0.58  . Q       .         .         .       V .
19.583      3.3480      0.58  . Q       .         .         .       V .
19.667      3.3520      0.58  . Q       .         .         .       V .
19.750      3.3560      0.58  . Q       .         .         .       V .
19.833      3.3589      0.42  .Q        .         .         .       V .
19.917      3.3618      0.42  .Q        .         .         .       V .
20.000      3.3647      0.42  .Q        .         .         .       V .
20.083      3.3677      0.43  .Q        .         .         .       V .
20.167      3.3706      0.43  .Q        .         .         .       V .
20.250      3.3736      0.43  .Q        .         .         .       V .
20.333      3.3770      0.50  .Q        .         .         .       V .
20.417      3.3805      0.50  .Q        .         .         .       V .
20.500      3.3839      0.50  .Q        .         .         .       V .
20.583      3.3874      0.50  . Q       .         .         .       V .
20.667      3.3908      0.50  . Q       .         .         .       V .
20.750      3.3943      0.50  . Q       .         .         .       V .
20.833      3.3972      0.42  .Q        .         .         .       V .
20.917      3.4000      0.42  .Q        .         .         .       V .
21.000      3.4029      0.42  .Q        .         .         .       V .
21.083      3.4059      0.43  .Q        .         .         .       V .
21.167      3.4088      0.43  .Q        .         .         .       V .
21.250      3.4118      0.43  .Q        .         .         .       V .
21.333      3.4146      0.41  .Q        .         .         .        V.
21.417      3.4174      0.41  .Q        .         .         .        V.
21.500      3.4203      0.41  .Q        .         .         .        V.
21.583      3.4232      0.43  .Q        .         .         .        V.
21.667      3.4262      0.43  .Q        .         .         .        V.
21.750      3.4291      0.43  .Q        .         .         .        V.
21.833      3.4320      0.41  .Q        .         .         .        V.
21.917      3.4348      0.41  .Q        .         .         .        V.
22.000      3.4376      0.41  .Q        .         .         .        V.
22.083      3.4406      0.43  .Q        .         .         .        V.
22.167      3.4435      0.43  .Q        .         .         .        V.
22.250      3.4465      0.43  .Q        .         .         .        V.
22.333      3.4493      0.41  .Q        .         .         .        V.
22.417      3.4521      0.41  .Q        .         .         .        V.
22.500      3.4550      0.41  .Q        .         .         .        V.
```

22.583	3.4573	0.34	.Q	.	.	.	V.
22.667	3.4597	0.34	.Q	.	.	.	V.
22.750	3.4620	0.34	.Q	.	.	.	V.
22.833	3.4644	0.34	.Q	.	.	.	V.
22.917	3.4667	0.34	.Q	.	.	.	V.
23.000	3.4690	0.34	.Q	.	.	.	V.
23.083	3.4713	0.34	.Q	.	.	.	V.
23.166	3.4736	0.34	.Q	.	.	.	V.
23.250	3.4760	0.34	.Q	.	.	.	V.
23.333	3.4783	0.34	.Q	.	.	.	V.
23.416	3.4806	0.34	.Q	.	.	.	V.
23.500	3.4829	0.34	.Q	.	.	.	V.
23.583	3.4852	0.34	.Q	.	.	.	V.
23.666	3.4875	0.34	.Q	.	.	.	V.
23.750	3.4898	0.34	.Q	.	.	.	V.
23.833	3.4922	0.34	.Q	.	.	.	V.
23.916	3.4945	0.34	.Q	.	.	.	V.
24.000	3.4968	0.34	.Q	.	.	.	V.

TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	2.5	5.0	7.5	10.0
24.083	3.4979	0.16	Q	.	.	.	V.
24.166	3.4990	0.16	Q	.	.	.	V.
24.250	3.5002	0.16	Q	.	.	.	V.
24.333	3.5003	0.01	Q	.	.	.	V.
24.416	3.5004	0.01	Q	.	.	.	V.
24.500	3.5005	0.01	Q	.	.	.	V.
24.583	3.5005	0.00	Q	.	.	.	V.
24.666	3.5005	0.00	Q	.	.	.	V.
24.750	3.5005	0.00	Q	.	.	.	V.

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	1485.0
10%	975.0
20%	660.0
30%	525.0
40%	465.0
50%	375.0
60%	210.0
70%	150.0
80%	60.0
90%	30.0

END OF FLOODSCx ROUTING ANALYSIS

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             F L O O D    R O U T I N G    A N A L Y S I S

ACCORDING TO RIVERSIDE COUNTY FLOOD CONTORL AND WATER CONSERVATION DISTRICT
                    (RCFC&WCD) 1978 HYDROLOGY MANUAL
         (c) Copyright 1989-2011 Advanced Engineering Software (aes)
                 (Synthetic Unit Hydrograph Version 18.0)
                 Release Date: 05/01/2011  License ID 1499

                           Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* District at Jurupa Valley                                             *
* Preliminary Hydrology 2 year 1 Hour Event                             *
* Kimley Horn May 26, 2022                                              *
 ************************************************************************

  FILE NAME: C:\aes2011\hydrosft\floodX\J2Y1H.fld
  TIME/DATE OF STUDY: 15:08 05/26/2022


************************************************************************
  FLOW PROCESS FROM NODE   100.00 TO NODE   101.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
========================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #1)

         WATERCOURSE LENGTH =    4582.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2749.200 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      76.000 FEET
         BASIN FACTOR = 0.015
         WATERSHED AREA =     308.710 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.114 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.470
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.630
         USER-ENTERED RAINFALL =  0.45 INCHES
         RCFC&WCD 1-Hour Storm (5-Minute period) SELECTED
         (SLOPE OF INTENSITY-DURATION CURVE = 0.55)
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9900


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  73.227



========================================================================
                      UNIT HYDROGRAPH DETERMINATION

------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
------------------------------------------------------------------------
        1                7.731               288.648
        2               51.410              1630.718
        3               78.778              1021.768
        4               89.283               392.203
```

5	94.908	209.999
6	97.607	100.770
7	98.341	27.426
8	98.720	14.141
9	99.099	14.140
10	99.478	14.140
11	99.856	14.140
12	100.000	5.366

****

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0174	0.0109	0.0064
2	0.0185	0.0116	0.0068
3	0.0198	0.0125	0.0073
4	0.0222	0.0140	0.0082
5	0.0236	0.0149	0.0087
6	0.0273	0.0172	0.0101
7	0.0329	0.0207	0.0122
8	0.0366	0.0230	0.0135
9	0.0585	0.0369	0.0216
10	0.1413	0.0392	0.1021
11	0.0301	0.0190	0.0111
12	0.0195	0.0123	0.0072

TOTAL STORM RAINFALL(INCHES) = 0.45
TOTAL SOIL-LOSS(INCHES) = 0.23
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.22

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 5.9700
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 5.5389

==========

1 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 75.0 150.0 225.0 300.0
0.083	0.0128	1.85	Q . . . .
0.167	0.0985	12.45	VQ . . . .
0.250	0.2350	19.83	.VQ . . . .
0.333	0.3991	23.83	. VQ . . . .
0.417	0.5879	27.41	. QV . . . .
0.500	0.7978	30.48	. QV . . . .
0.583	1.0356	34.53	. Q V . . . .
0.667	1.3126	40.22	. Q V. . . .
0.750	1.6415	47.75	. Q .V . . .
0.833	2.2399	86.89	. .Q V . . .
0.917	3.6270	201.40	. . . Q . .
1.000	4.5766	137.89	. . Q . V .
1.083	5.0583	69.93	. Q. . . V .
1.167	5.3083	36.31	. Q . . . V .
1.250	5.4235	16.72	. Q . . . V.
1.333	5.4668	6.29	Q . . . V.
1.417	5.4889	3.20	Q . . . V.
1.500	5.5051	2.36	Q . . . V.
1.583	5.5195	2.08	Q . . . V.
1.667	5.5320	1.82	Q . . . V.
1.750	5.5376	0.81	Q . . . V.

```
   1.833      5.5387      0.16  Q         .         .         .        V.
   1.917      5.5389      0.04  Q         .         .         .        V.
-------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated                Duration
       Peak Flow Rate                     (minutes)
   ======================                 =========
             0%                             115.0
            10%                              55.0
            20%                              25.0
            30%                              20.0
            40%                              15.0
            50%                              10.0
            60%                              10.0
            70%                               5.0
            80%                               5.0
            90%                               5.0


*******************************************************************************
  FLOW PROCESS FROM NODE   104.00 TO NODE   105.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
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      (UNIT-HYDROGRAPH ADDED TO STREAM #2)

         WATERCOURSE LENGTH =    3781.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2268.600 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      62.900 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     121.080 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.197 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.605
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
         USER-ENTERED RAINFALL =  0.45 INCHES
         RCFC&WCD 1-Hour Storm (5-Minute period) SELECTED
         (SLOPE OF INTENSITY-DURATION CURVE = 0.55)
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 1.0000


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  42.394



===============================================================================
                      UNIT HYDROGRAPH DETERMINATION

-------------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
-------------------------------------------------------------------------------
        1                3.436                50.316
        2               16.643               193.384
        3               51.336               508.022
        4               70.934               286.979
        5               80.497               140.019
        6               86.833                92.788
        7               91.194                63.863
        8               94.328                45.888
        9               96.378                30.020
       10               97.704                19.410
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11	98.182	6.997
12	98.401	3.211
13	98.620	3.211
14	98.840	3.210
15	99.059	3.212
16	99.278	3.210
17	99.497	3.210
18	99.717	3.210
19	99.936	3.210
20	100.000	0.940

****

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0175	0.0158	0.0018
2	0.0187	0.0168	0.0019
3	0.0200	0.0180	0.0020
4	0.0224	0.0202	0.0022
5	0.0238	0.0214	0.0024
6	0.0276	0.0248	0.0028
7	0.0332	0.0299	0.0033
8	0.0369	0.0332	0.0037
9	0.0591	0.0504	0.0087
10	0.1427	0.0504	0.0923
11	0.0304	0.0273	0.0030
12	0.0197	0.0177	0.0020

TOTAL STORM RAINFALL(INCHES) = 0.45
TOTAL SOIL-LOSS(INCHES) = 0.33
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.13

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 3.2893
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 1.2708

==========

1 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 15.0 30.0 45.0 60.0
0.083	0.0006	0.09	Q . . . .
0.167	0.0036	0.43	Q . . . .
0.250	0.0129	1.35	Q . . . .
0.333	0.0263	1.95	VQ . . . .
0.417	0.0425	2.35	.Q . . . .
0.500	0.0614	2.74	.Q . . . .
0.583	0.0828	3.12	. Q . . . .
0.667	0.1077	3.61	. QV . . . .
0.750	0.1383	4.44	. Q V . . . .
0.833	0.2077	10.09	. Q . . . .
0.917	0.3769	24.56	. .V Q . . .
1.000	0.7302	51.31	. . . V . Q .
1.083	0.9399	30.45	. . Q V. .
1.167	1.0512	16.15	. Q . . V .
1.250	1.1233	10.47	. Q . . . V .
1.333	1.1721	7.08	. Q . . . V .
1.417	1.2066	5.01	. Q . . . V .
1.500	1.2292	3.28	. Q . . . V .
1.583	1.2436	2.10	.Q . . . V.
1.667	1.2495	0.85	Q . . . V.

```
   1.750      1.2525      0.44  Q         .         .         .        V.
   1.833      1.2552      0.40  Q         .         .         .        V.
   1.917      1.2579      0.38  Q         .         .         .        V.
   2.000      1.2604      0.37  Q         .         .         .        V.
   2.083      1.2630      0.37  Q         .         .         .        V.
   2.167      1.2654      0.36  Q         .         .         .        V.
   2.250      1.2678      0.34  Q         .         .         .        V.
   2.333      1.2700      0.32  Q         .         .         .        V.
   2.417      1.2707      0.10  Q         .         .         .        V.
   2.500      1.2707      0.01  Q         .         .         .        V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated               Duration
       Peak Flow Rate                    (minutes)
   ======================                =========
              0%                           150.0
             10%                            35.0
             20%                            25.0
             30%                            20.0
             40%                            15.0
             50%                            10.0
             60%                             5.0
             70%                             5.0
             80%                             5.0
             90%                             5.0


********************************************************************************
  FLOW PROCESS FROM NODE   106.00 TO NODE   103.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
================================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #3)

         WATERCOURSE LENGTH =    2948.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    1768.800 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      14.700 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     136.170 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.205 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.565
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
         USER-ENTERED RAINFALL =  0.45 INCHES
         RCFC&WCD 1-Hour Storm (5-Minute period) SELECTED
         (SLOPE OF INTENSITY-DURATION CURVE = 0.55)
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 1.0000


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  40.741



================================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------------
        1                3.245                53.442
        2               15.378               199.799
```

3	47.928	536.047
4	69.269	351.433
5	79.137	162.503
6	85.681	107.777
7	90.221	74.767
8	93.542	54.686
9	95.815	37.427
10	97.259	23.789
11	98.090	13.676
12	98.303	3.507
13	98.513	3.470
14	98.724	3.471
15	98.935	3.470
16	99.146	3.471
17	99.356	3.470
18	99.567	3.470
19	99.778	3.470
20	99.989	3.470
21	100.000	0.188

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0175	0.0158	0.0018
2	0.0187	0.0168	0.0019
3	0.0200	0.0180	0.0020
4	0.0224	0.0202	0.0022
5	0.0238	0.0214	0.0024
6	0.0276	0.0248	0.0028
7	0.0332	0.0299	0.0033
8	0.0369	0.0332	0.0037
9	0.0591	0.0471	0.0120
10	0.1427	0.0471	0.0956
11	0.0304	0.0273	0.0030
12	0.0197	0.0177	0.0020

TOTAL STORM RAINFALL(INCHES) = 0.45
TOTAL SOIL-LOSS(INCHES) = 0.32
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.13

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 3.6236
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 1.5047

1 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 15.0 30.0 45.0 60.0
0.083	0.0006	0.09	Q . . . .
0.167	0.0037	0.45	Q . . . .
0.250	0.0135	1.42	Q . . . .
0.333	0.0282	2.14	VQ . . . .
0.417	0.0461	2.59	.Q . . . .
0.500	0.0669	3.02	.VQ . . . .
0.583	0.0906	3.45	. Q . . . .
0.667	0.1181	3.99	. QV . . . .
0.750	0.1531	5.08	. QV . . . .
0.833	0.2340	11.75	. VQ . . . .
0.917	0.4288	28.29	. .V Q . . .

```
   1.000      0.8259     57.66  .         .         .V        .       Q .
   1.083      1.0915     38.56  .         .         .    Q   V.         .
   1.167      1.2267     19.63  .         .  Q      .         . V       .
   1.250      1.3152     12.84  .       Q .         .         .   V     .
   1.333      1.3754      8.75  .    Q    .         .         .     V   .
   1.417      1.4187      6.30  .   Q     .         .         .      V  .
   1.500      1.4483      4.29  . Q       .         .         .       V .
   1.583      1.4671      2.73  .Q        .         .         .       V .
   1.667      1.4779      1.57  .Q        .         .         .        V.
   1.750      1.4815      0.53  Q         .         .         .        V.
   1.833      1.4847      0.47  Q         .         .         .        V.
   1.917      1.4878      0.44  Q         .         .         .        V.
   2.000      1.4907      0.43  Q         .         .         .        V.
   2.083      1.4937      0.43  Q         .         .         .        V.
   2.167      1.4965      0.42  Q         .         .         .        V.
   2.250      1.4993      0.40  Q         .         .         .        V.
   2.333      1.5020      0.39  Q         .         .         .        V.
   2.417      1.5044      0.35  Q         .         .         .        V.
   2.500      1.5047      0.04  Q         .         .         .        V.
   2.583      1.5047      0.01  Q         .         .         .        V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated               Duration
       Peak Flow Rate                    (minutes)
   ======================              =========
             0%                          155.0
            10%                           40.0
            20%                           30.0
            30%                           20.0
            40%                           15.0
            50%                           10.0
            60%                           10.0
            70%                            5.0
            80%                            5.0
            90%                            5.0


 ********************************************************************************
   FLOW PROCESS FROM NODE   500.00 TO NODE   501.00 IS CODE =   1
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   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
 ================================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #4)

         WATERSHED AREA =      20.000 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         *USER ENTERED "LAG" TIME =    0.100 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.050
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.180
         USER-ENTERED RAINFALL =  0.45 INCHES
         RCFC&WCD 1-Hour Storm (5-Minute period) SELECTED
         (SLOPE OF INTENSITY-DURATION CURVE = 0.55)
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 1.0000


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  83.333
```

UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	9.713	23.494
2	60.041	121.730
3	83.125	55.836
4	92.383	22.393
5	96.836	10.769
6	98.250	3.421
7	98.681	1.043
8	99.112	1.043
9	99.543	1.043
10	99.974	1.043
11	100.000	0.063

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0175	0.0032	0.0144
2	0.0187	0.0034	0.0153
3	0.0200	0.0036	0.0164
4	0.0224	0.0040	0.0184
5	0.0238	0.0042	0.0196
6	0.0276	0.0042	0.0234
7	0.0332	0.0042	0.0290
8	0.0369	0.0042	0.0328
9	0.0591	0.0042	0.0549
10	0.1427	0.0042	0.1386
11	0.0304	0.0042	0.0262
12	0.0197	0.0035	0.0161

TOTAL STORM RAINFALL(INCHES) = 0.45
TOTAL SOIL-LOSS(INCHES) = 0.05
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.41

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 0.0781
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 0.6749

1 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 7.5 15.0 22.5 30.0
0.083	0.0023	0.34	Q . . . .
0.167	0.0169	2.11	V Q . . . .
0.250	0.0379	3.05	. V Q . . . .
0.333	0.0627	3.61	. VQ . . . .
0.417	0.0910	4.11	. Q . . . .
0.500	0.1223	4.55	. QV . . . .
0.583	0.1587	5.29	. Q V. . . .
0.667	0.2024	6.34	. Q .V . . .
0.750	0.2557	7.75	. Q V . . .
0.833	0.3440	12.81	. . Q V . .
0.917	0.4937	21.75	. . . QV. .
1.000	0.5838	13.07	. . Q . . V .
1.083	0.6342	7.33	. Q. . . V .

```
   1.167      0.6568      3.28  .   Q     .         .         .       V .
   1.250      0.6655      1.26  .Q        .         .         .        V.
   1.333      0.6692      0.53  Q         .         .         .        V.
   1.417      0.6714      0.32  Q         .         .         .        V.
   1.500      0.6731      0.25  Q         .         .         .        V.
   1.583      0.6744      0.19  Q         .         .         .        V.
   1.667      0.6748      0.05  Q         .         .         .        V.
   1.750      0.6749      0.02  Q         .         .         .        V.
   1.833      0.6749      0.00  Q         .         .         .         V
-------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated               Duration
       Peak Flow Rate                    (minutes)
   ======================                =========
              0%                           110.0
             10%                            60.0
             20%                            40.0
             30%                            25.0
             40%                            15.0
             50%                            15.0
             60%                            10.0
             70%                             5.0
             80%                             5.0
             90%                             5.0
 ===============================================================================

  END OF FLOODSCx ROUTING ANALYSIS
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             F L O O D    R O U T I N G    A N A L Y S I S

ACCORDING TO RIVERSIDE COUNTY FLOOD CONTORL AND WATER CONSERVATION DISTRICT
                    (RCFC&WCD) 1978 HYDROLOGY MANUAL
         (c) Copyright 1989-2011 Advanced Engineering Software (aes)
                 (Synthetic Unit Hydrograph Version 18.0)
                 Release Date: 05/01/2011  License ID 1499

                           Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* District at Jurupa Valley                                             *
* Preliminary Hydrology 2 year 3 Hour Event                             *
* Kimley Horn May 26, 2022                                              *
 ************************************************************************

  FILE NAME: C:\aes2011\hydrosft\floodX\J2Y3H.fld
  TIME/DATE OF STUDY: 15:17 05/26/2022


**************************************************************************
  FLOW PROCESS FROM NODE   100.00 TO NODE   101.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
==========================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #1)

         WATERCOURSE LENGTH =    4582.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2749.200 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      76.000 FEET
         BASIN FACTOR = 0.015
         WATERSHED AREA =     308.710 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.114 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.470
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.630
         USER-ENTERED RAINFALL =  0.79 INCHES
         RCFC&WCD 3-Hour Storm (5-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9988


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  73.227



==========================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------
        1                7.731               288.648
        2               51.410              1630.718
        3               78.778              1021.768
        4               89.283               392.203
        5               94.908               209.999
```

6	97.607	100.770
7	98.341	27.426
8	98.720	14.141
9	99.099	14.140
10	99.478	14.140
11	99.856	14.140
12	100.000	5.366

****

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0103	0.0065	0.0038
2	0.0103	0.0065	0.0038
3	0.0087	0.0055	0.0032
4	0.0118	0.0075	0.0044
5	0.0118	0.0075	0.0044
6	0.0142	0.0089	0.0053
7	0.0118	0.0075	0.0044
8	0.0142	0.0089	0.0053
9	0.0142	0.0089	0.0053
10	0.0118	0.0075	0.0044
11	0.0126	0.0080	0.0047
12	0.0142	0.0089	0.0053
13	0.0174	0.0109	0.0064
14	0.0174	0.0109	0.0064
15	0.0174	0.0109	0.0064
16	0.0158	0.0099	0.0058
17	0.0205	0.0129	0.0076
18	0.0213	0.0134	0.0079
19	0.0189	0.0119	0.0070
20	0.0213	0.0134	0.0079
21	0.0260	0.0164	0.0096
22	0.0245	0.0154	0.0091
23	0.0229	0.0144	0.0085
24	0.0237	0.0149	0.0088
25	0.0245	0.0154	0.0091
26	0.0331	0.0209	0.0123
27	0.0395	0.0249	0.0146
28	0.0276	0.0174	0.0102
29	0.0537	0.0338	0.0199
30	0.0576	0.0363	0.0213
31	0.0647	0.0392	0.0255
32	0.0466	0.0293	0.0172
33	0.0158	0.0099	0.0058
34	0.0142	0.0089	0.0053
35	0.0142	0.0089	0.0053
36	0.0047	0.0030	0.0018

TOTAL STORM RAINFALL(INCHES) = 0.79
TOTAL SOIL-LOSS(INCHES) = 0.50
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.29

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 12.7471
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 7.5477

==========

3 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS) VOLUME(AF) Q(CFS) 0. 22.5 45.0 67.5 90.0

```
   0.083      0.0075      1.10  Q         .         .         .         .
   0.167      0.0577      7.28  V  Q      .         .         .         .
   0.250      0.1334     10.99  V   Q     .         .         .         .
   0.333      0.2152     11.87  .V   Q    .         .         .         .
   0.417      0.3114     13.97  .V    Q   .         .         .         .
   0.500      0.4186     15.57  . V   Q   .         .         .         .
   0.583      0.5370     17.19  . V    Q  .         .         .         .
   0.667      0.6551     17.15  .  V   Q  .         .         .         .
   0.750      0.7803     18.18  .   V   Q .         .         .         .
   0.833      0.9093     18.74  .   V   Q .         .         .         .
   0.917      1.0312     17.70  .    V Q  .         .         .         .
   1.000      1.1525     17.60  .     VQ  .         .         .         .
   1.083      1.2829     18.93  .     V Q .         .         .         .
   1.167      1.4302     21.40  .      V Q.         .         .         .
   1.250      1.5874     22.81  .       V Q        .         .         .
   1.333      1.7474     23.24  .        VQ        .         .         .
   1.417      1.9065     23.10  .         Q        .         .         .
   1.500      2.0827     25.58  .         .Q       .         .         .
   1.583      2.2714     27.40  .         . Q      .         .         .
   1.667      2.4581     27.10  .         . QV     .         .         .
   1.750      2.6550     28.59  .         . Q V    .         .         .
   1.833      2.8759     32.08  .         .   QV   .         .         .
   1.917      3.1031     32.99  .         .   Q V  .         .         .
   2.000      3.3259     32.34  .         .   Q  V .         .         .
   2.083      3.5499     32.53  .         .   Q   V.         .         .
   2.167      3.7847     34.09  .         .    Q    V        .         .
   2.250      4.0623     40.31  .         .      Q  .V       .         .
   2.333      4.3809     46.27  .         .         Q  V      .         .
   2.417      4.6953     45.65  .         .         Q   V     .         .
   2.500      5.1013     58.95  .         .         .     QV  .         .
   2.583      5.5939     71.52  .         .         .        V.Q        .
   2.667      6.1495     80.68  .         .         .         . V  Q    .
   2.750      6.6345     70.42  .         .         .         .Q   V    .
   2.833      6.9519     46.09  .         .         Q         .     V   .
   2.917      7.1692     31.56  .         .   Q     .         .      V  .
   3.000      7.3370     24.36  .        Q          .         .       V .
   3.083      7.4400     14.95  .     Q   .         .         .        V.
   3.167      7.4894      7.18  .  Q      .         .         .        V.
   3.250      7.5150      3.72  .Q        .         .         .        V.
   3.333      7.5298      2.14  Q         .         .         .        V.
   3.417      7.5380      1.20  Q         .         .         .        V.
   3.500      7.5425      0.66  Q         .         .         .        V.
   3.583      7.5449      0.35  Q         .         .         .        V.
   3.667      7.5464      0.20  Q         .         .         .        V.
   3.750      7.5472      0.13  Q         .         .         .        V.
   3.833      7.5476      0.05  Q         .         .         .        V.
   3.917      7.5477      0.01  Q         .         .         .         V
--------------------------------------------------------------------------------
    TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
    (Note: 100% of Peak Flow Rate estimate assumed to have
    an instantaneous time duration)

    Percentile of Estimated               Duration
        Peak Flow Rate                    (minutes)
    ======================                =========
               0%                           235.0
              10%                           175.0
              20%                           150.0
              30%                            95.0
              40%                            60.0
              50%                            35.0
              60%                            20.0
              70%                            20.0
              80%                            15.0
              90%                             5.0


 ********************************************************************************
   FLOW PROCESS FROM NODE   104.00 TO NODE   105.00 IS CODE =   1
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   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
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      (UNIT-HYDROGRAPH ADDED TO STREAM #2)

         WATERCOURSE LENGTH =    3781.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2268.600 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      62.900 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     121.080 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.197 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.605
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
         USER-ENTERED RAINFALL =  0.79 INCHES
         RCFC&WCD 3-Hour Storm (5-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9995


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  42.394


================================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------------
        1                 3.436                50.316
        2                16.643               193.384
        3                51.336               508.022
        4                70.934               286.979
        5                80.497               140.019
        6                86.833                92.788
        7                91.194                63.863
        8                94.328                45.888
        9                96.378                30.020
       10                97.704                19.410
       11                98.182                 6.997
       12                98.401                 3.211
       13                98.620                 3.211
       14                98.840                 3.210
       15                99.059                 3.212
       16                99.278                 3.210
       17                99.497                 3.210
       18                99.717                 3.210
       19                99.936                 3.210
       20               100.000                 0.940


********************************************************************************
        UNIT             UNIT             UNIT             EFFECTIVE
       PERIOD          RAINFALL       SOIL-LOSS           RAINFALL
      (NUMBER)         (INCHES)        (INCHES)           (INCHES)
--------------------------------------------------------------------------------
          1             0.0103          0.0092             0.0010
          2             0.0103          0.0092             0.0010
          3             0.0087          0.0078             0.0009
          4             0.0118          0.0107             0.0012
          5             0.0118          0.0107             0.0012
          6             0.0142          0.0128             0.0014
          7             0.0118          0.0107             0.0012
          8             0.0142          0.0128             0.0014
          9             0.0142          0.0128             0.0014
         10             0.0118          0.0107             0.0012
```

11	0.0126	0.0114	0.0013
12	0.0142	0.0128	0.0014
13	0.0174	0.0156	0.0017
14	0.0174	0.0156	0.0017
15	0.0174	0.0156	0.0017
16	0.0158	0.0142	0.0016
17	0.0205	0.0185	0.0021
18	0.0213	0.0192	0.0021
19	0.0190	0.0171	0.0019
20	0.0213	0.0192	0.0021
21	0.0261	0.0235	0.0026
22	0.0245	0.0220	0.0024
23	0.0229	0.0206	0.0023
24	0.0237	0.0213	0.0024
25	0.0245	0.0220	0.0024
26	0.0332	0.0298	0.0033
27	0.0395	0.0355	0.0039
28	0.0276	0.0249	0.0028
29	0.0537	0.0483	0.0054
30	0.0576	0.0504	0.0072
31	0.0647	0.0504	0.0143
32	0.0466	0.0419	0.0047
33	0.0158	0.0142	0.0016
34	0.0142	0.0128	0.0014
35	0.0142	0.0128	0.0014
36	0.0047	0.0043	0.0005

TOTAL STORM RAINFALL(INCHES) = 0.79
TOTAL SOIL-LOSS(INCHES) = 0.70
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.09

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 7.0765
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 0.8903

==========

3 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 5.0 10.0 15.0 20.0
0.083	0.0004	0.05	Q . . . .
0.167	0.0021	0.25	Q . . . .
0.250	0.0073	0.76	VQ . . . .
0.333	0.0145	1.04	V Q . . . .
0.417	0.0226	1.17	.VQ . . . .
0.500	0.0321	1.39	.VQ . . . .
0.583	0.0429	1.56	.V Q . . . .
0.667	0.0547	1.72	. VQ . . . .
0.750	0.0669	1.77	. Q . . . .
0.833	0.0798	1.87	. Q . . . .
0.917	0.0929	1.90	. QV . . . .
1.000	0.1056	1.84	. QV . . . .
1.083	0.1186	1.89	. Q V . . . .
1.167	0.1326	2.03	. QV . . . .
1.250	0.1480	2.24	. Q V . . . .
1.333	0.1642	2.35	. Q V . . . .
1.417	0.1807	2.40	. Q V . . . .
1.500	0.1976	2.46	. Q V . . . .
1.583	0.2161	2.69	. Q V. . . .
1.667	0.2356	2.83	. Q V . . .
1.750	0.2553	2.86	. Q .V . . .
1.833	0.2763	3.05	. Q . V . . .
1.917	0.2992	3.32	. Q . V . . .
2.000	0.3226	3.39	. Q . V . . .

```
   2.083      0.3458      3.37  .     Q   .    V    .         .         .
   2.167      0.3696      3.46  .     Q   .     V   .         .         .
   2.250      0.3953      3.73  .      Q  .      V  .         .         .
   2.333      0.4247      4.27  .       Q .        V.         .         .
   2.417      0.4575      4.76  .        Q.         V         .         .
   2.500      0.4924      5.07  .         Q         . V       .         .
   2.583      0.5403      6.95  .         .  Q      .   V     .         .
   2.667      0.6056      9.48  .         .       Q .      V  .         .
   2.750      0.6878     11.94  .         .         .  Q      V         .
   2.833      0.7494      8.94  .         .      Q  .         .  V      .
   2.917      0.7900      5.89  .         .Q        .         .    V    .
   3.000      0.8203      4.41  .       Q .         .         .     V   .
   3.083      0.8439      3.43  .     Q   .         .         .      V  .
   3.167      0.8602      2.36  .   Q     .         .         .       V .
   3.250      0.8703      1.46  . Q       .         .         .        V.
   3.333      0.8766      0.91  .Q        .         .         .        V.
   3.417      0.8803      0.54  .Q        .         .         .        V.
   3.500      0.8826      0.34  Q         .         .         .        V.
   3.583      0.8843      0.25  Q         .         .         .        V.
   3.667      0.8856      0.19  Q         .         .         .        V.
   3.750      0.8867      0.15  Q         .         .         .        V.
   3.833      0.8876      0.13  Q         .         .         .        V.
   3.917      0.8884      0.12  Q         .         .         .        V.
   4.000      0.8891      0.10  Q         .         .         .        V.
   4.083      0.8897      0.08  Q         .         .         .        V.
   4.167      0.8900      0.04  Q         .         .         .        V.
   4.250      0.8901      0.02  Q         .         .         .        V.
   4.333      0.8902      0.01  Q         .         .         .        V.
   4.417      0.8903      0.01  Q         .         .         .        V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated               Duration
       Peak Flow Rate                    (minutes)
   ======================              =========
              0%                         265.0
             10%                         170.0
             20%                         105.0
             30%                          50.0
             40%                          30.0
             50%                          20.0
             60%                          15.0
             70%                          15.0
             80%                           5.0
             90%                           5.0


 ********************************************************************************
   FLOW PROCESS FROM NODE   106.00 TO NODE   103.00 IS CODE =   1
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   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
 ================================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #3)

         WATERCOURSE LENGTH =    2948.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    1768.800 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      14.700 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     136.170 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.205 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.565
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
         USER-ENTERED RAINFALL =  0.79 INCHES
```

RCFC&WCD 3-Hour Storm (5-Minute period) SELECTED
RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9995

UNIT HYDROGRAPH TIME UNIT = 5.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 40.741

UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	3.245	53.442
2	15.378	199.799
3	47.928	536.047
4	69.269	351.433
5	79.137	162.503
6	85.681	107.777
7	90.221	74.767
8	93.542	54.686
9	95.815	37.427
10	97.259	23.789
11	98.090	13.676
12	98.303	3.507
13	98.513	3.470
14	98.724	3.471
15	98.935	3.470
16	99.146	3.471
17	99.356	3.470
18	99.567	3.470
19	99.778	3.470
20	99.989	3.470
21	100.000	0.188

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0103	0.0092	0.0010
2	0.0103	0.0092	0.0010
3	0.0087	0.0078	0.0009
4	0.0118	0.0107	0.0012
5	0.0118	0.0107	0.0012
6	0.0142	0.0128	0.0014
7	0.0118	0.0107	0.0012
8	0.0142	0.0128	0.0014
9	0.0142	0.0128	0.0014
10	0.0118	0.0107	0.0012
11	0.0126	0.0114	0.0013
12	0.0142	0.0128	0.0014
13	0.0174	0.0156	0.0017
14	0.0174	0.0156	0.0017
15	0.0174	0.0156	0.0017
16	0.0158	0.0142	0.0016
17	0.0205	0.0185	0.0021
18	0.0213	0.0192	0.0021
19	0.0189	0.0171	0.0019
20	0.0213	0.0192	0.0021
21	0.0261	0.0235	0.0026
22	0.0245	0.0220	0.0024
23	0.0229	0.0206	0.0023
24	0.0237	0.0213	0.0024
25	0.0245	0.0220	0.0024
26	0.0332	0.0298	0.0033
27	0.0395	0.0355	0.0039

28	0.0276	0.0249	0.0028
29	0.0537	0.0471	0.0066
30	0.0576	0.0471	0.0106
31	0.0647	0.0471	0.0177
32	0.0466	0.0419	0.0047
33	0.0158	0.0142	0.0016
34	0.0142	0.0128	0.0014
35	0.0142	0.0128	0.0014
36	0.0047	0.0043	0.0005

TOTAL STORM RAINFALL(INCHES) = 0.79
TOTAL SOIL-LOSS(INCHES) = 0.69
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.10

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 7.8684
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 1.0908

==========

3 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 5.0 10.0 15.0 20.0
0.083	0.0004	0.05	Q . . . .
0.167	0.0022	0.26	Q . . . .
0.250	0.0077	0.80	VQ . . . .
0.333	0.0156	1.15	V Q . . . .
0.417	0.0245	1.29	V Q . . . .
0.500	0.0350	1.53	.V Q . . . .
0.583	0.0469	1.73	.V Q . . . .
0.667	0.0601	1.91	. VQ . . . .
0.750	0.0737	1.97	. VQ . . . .
0.833	0.0880	2.08	. VQ . . . .
0.917	0.1027	2.14	. VQ . . . .
1.000	0.1170	2.07	. Q . . . .
1.083	0.1316	2.11	. Q . . . .
1.167	0.1472	2.27	. QV . . . .
1.250	0.1644	2.50	. Q V . . . .
1.333	0.1825	2.63	. QV . . . .
1.417	0.2010	2.69	. Q V . . . .
1.500	0.2199	2.75	. Q V . . . .
1.583	0.2405	2.99	. Q V . . . .
1.667	0.2623	3.16	. Q V. . . .
1.750	0.2844	3.21	. Q V . . .
1.833	0.3079	3.41	. Q .V . . .
1.917	0.3334	3.71	. Q . V . . .
2.000	0.3596	3.80	. Q . V . . .
2.083	0.3856	3.79	. Q . V . . .
2.167	0.4123	3.88	. Q . V . . .
2.250	0.4410	4.16	. Q . V . . .
2.333	0.4736	4.73	. Q. V . . .
2.417	0.5106	5.37	. Q V . . .
2.500	0.5526	6.10	. Q V . . .
2.583	0.6154	9.11	. Q . V . .
2.667	0.7066	13.25	. VQ . . .
2.750	0.8188	16.28	. V Q . .
2.833	0.9030	12.23	. Q . V .
2.917	0.9569	7.82	. Q . V .
3.000	0.9965	5.75	.Q . V .
3.083	1.0272	4.46	. Q . V .
3.167	1.0488	3.14	. Q . V .
3.250	1.0626	2.01	. Q . V .
3.333	1.0713	1.26	. Q . V.

```
   3.417      1.0767      0.77  .Q        .         .         .        V.
   3.500      1.0798      0.45  Q         .         .         .        V.
   3.583      1.0820      0.32  Q         .         .         .        V.
   3.667      1.0838      0.26  Q         .         .         .        V.
   3.750      1.0852      0.21  Q         .         .         .        V.
   3.833      1.0865      0.18  Q         .         .         .        V.
   3.917      1.0876      0.16  Q         .         .         .        V.
   4.000      1.0887      0.15  Q         .         .         .        V.
   4.083      1.0896      0.13  Q         .         .         .        V.
   4.167      1.0903      0.10  Q         .         .         .        V.
   4.250      1.0905      0.04  Q         .         .         .        V.
   4.333      1.0906      0.02  Q         .         .         .        V.
   4.417      1.0907      0.01  Q         .         .         .        V.
   4.500      1.0908      0.01  Q         .         .         .        V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated                Duration
       Peak Flow Rate                     (minutes)
   ======================                 =========
              0%                            270.0
             10%                            165.0
             20%                             80.0
             30%                             40.0
             40%                             25.0
             50%                             20.0
             60%                             15.0
             70%                             15.0
             80%                             10.0
             90%                              5.0


********************************************************************************
  FLOW PROCESS FROM NODE   500.00 TO NODE   501.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
================================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #4)

         WATERSHED AREA =      20.000 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         *USER ENTERED "LAG" TIME =    0.100 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.050
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.180
         USER-ENTERED RAINFALL =  0.79 INCHES
         RCFC&WCD 3-Hour Storm (5-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9999


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  83.333



================================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------------
        1                9.713                23.494
        2               60.041               121.730
        3               83.125                55.836
```

4	92.383	22.393
5	96.836	10.769
6	98.250	3.421
7	98.681	1.043
8	99.112	1.043
9	99.543	1.043
10	99.974	1.043
11	100.000	0.063

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0103	0.0018	0.0084
2	0.0103	0.0018	0.0084
3	0.0087	0.0016	0.0071
4	0.0118	0.0021	0.0097
5	0.0118	0.0021	0.0097
6	0.0142	0.0026	0.0117
7	0.0118	0.0021	0.0097
8	0.0142	0.0026	0.0117
9	0.0142	0.0026	0.0117
10	0.0118	0.0021	0.0097
11	0.0126	0.0023	0.0104
12	0.0142	0.0026	0.0117
13	0.0174	0.0031	0.0143
14	0.0174	0.0031	0.0143
15	0.0174	0.0031	0.0143
16	0.0158	0.0028	0.0130
17	0.0205	0.0037	0.0168
18	0.0213	0.0038	0.0175
19	0.0190	0.0034	0.0155
20	0.0213	0.0038	0.0175
21	0.0261	0.0042	0.0219
22	0.0245	0.0042	0.0203
23	0.0229	0.0041	0.0188
24	0.0237	0.0042	0.0195
25	0.0245	0.0042	0.0203
26	0.0332	0.0042	0.0290
27	0.0395	0.0042	0.0353
28	0.0276	0.0042	0.0235
29	0.0537	0.0042	0.0495
30	0.0577	0.0042	0.0535
31	0.0648	0.0042	0.0606
32	0.0466	0.0042	0.0424
33	0.0158	0.0028	0.0130
34	0.0142	0.0026	0.0117
35	0.0142	0.0026	0.0117
36	0.0047	0.0009	0.0039

TOTAL STORM RAINFALL(INCHES) = 0.79
TOTAL SOIL-LOSS(INCHES) = 0.11
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.68

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 0.1868
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 1.1292

3 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS) VOLUME(AF) Q(CFS) 0. 5.0 10.0 15.0 20.0

```
   0.083      0.0014      0.20  Q         .         .         .         .
   0.167      0.0098      1.22  V Q       .         .         .         .
   0.250      0.0212      1.66  V  Q      .         .         .         .
   0.333      0.0333      1.75  .V Q      .         .         .         .
   0.417      0.0477      2.09  .V  Q     .         .         .         .
   0.500      0.0634      2.28  . V Q     .         .         .         .
   0.583      0.0808      2.52  . V  Q    .         .         .         .
   0.667      0.0978      2.47  .  VQ     .         .         .         .
   0.750      0.1161      2.66  .   VQ    .         .         .         .
   0.833      0.1348      2.71  .   VQ    .         .         .         .
   0.917      0.1521      2.52  .    Q    .         .         .         .
   1.000      0.1696      2.54  .    QV   .         .         .         .
   1.083      0.1886      2.76  .    QV   .         .         .         .
   1.167      0.2102      3.14  .     QV  .         .         .         .
   1.250      0.2331      3.32  .     Q V .         .         .         .
   1.333      0.2562      3.36  .     Q  V.         .         .         .
   1.417      0.2791      3.33  .     Q  V.         .         .         .
   1.500      0.3050      3.75  .      Q  V         .         .         .
   1.583      0.3324      3.98  .      Q  .V        .         .         .
   1.667      0.3592      3.90  .      Q  . V       .         .         .
   1.750      0.3880      4.19  .       Q .  V      .         .         .
   1.833      0.4209      4.77  .        Q.   V     .         .         .
   1.917      0.4541      4.82  .        Q.     V   .         .         .
   2.000      0.4863      4.68  .        Q.      V  .         .         .
   2.083      0.5188      4.72  .        Q.       V .         .         .
   2.167      0.5535      5.03  .         Q        V.         .         .
   2.250      0.5967      6.28  .         . Q       .V        .         .
   2.333      0.6469      7.28  .         .   Q     . V       .         .
   2.417      0.6952      7.01  .         .   Q     .   V     .         .
   2.500      0.7631      9.86  .         .       Q.      V  .         .
   2.583      0.8443     11.79  .         .         .  Q     V.         .
   2.667      0.9334     12.94  .         .         .    Q    .  V      .
   2.750      1.0076     10.78  .         .         .Q        .    V    .
   2.833      1.0519      6.44  .         . Q       .         .      V  .
   2.917      1.0819      4.35  .       Q .         .         .       V .
   3.000      1.1045      3.29  .     Q   .         .         .        V.
   3.083      1.1174      1.87  .  Q      .         .         .        V.
   3.167      1.1233      0.86  .Q        .         .         .        V.
   3.250      1.1263      0.43  Q         .         .         .        V.
   3.333      1.1278      0.22  Q         .         .         .        V.
   3.417      1.1285      0.10  Q         .         .         .        V.
   3.500      1.1288      0.04  Q         .         .         .        V.
   3.583      1.1290      0.03  Q         .         .         .        V.
   3.667      1.1291      0.02  Q         .         .         .        V.
   3.750      1.1292      0.00  Q         .         .         .        V.
```

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	225.0
10%	175.0
20%	130.0
30%	85.0
40%	40.0
50%	30.0
60%	20.0
70%	20.0
80%	15.0
90%	10.0

END OF FLOODSCx ROUTING ANALYSIS

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

             F L O O D    R O U T I N G    A N A L Y S I S

ACCORDING TO RIVERSIDE COUNTY FLOOD CONTORL AND WATER CONSERVATION DISTRICT
                    (RCFC&WCD) 1978 HYDROLOGY MANUAL
         (c) Copyright 1989-2011 Advanced Engineering Software (aes)
                 (Synthetic Unit Hydrograph Version 18.0)
                 Release Date: 05/01/2011  License ID 1499

                           Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* District at Jurupa Valley                                             *
* Preliminary Hydrology 2 year 6 Hour Event                             *
* Kimley Horn May 26, 2022                                              *
 ************************************************************************

  FILE NAME: C:\aes2011\hydrosft\floodX\J2Y6H.fld
  TIME/DATE OF STUDY: 15:29 05/26/2022


**************************************************************************
  FLOW PROCESS FROM NODE   100.00 TO NODE   101.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
==========================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #1)

         WATERCOURSE LENGTH =    4582.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2749.200 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      76.000 FEET
         BASIN FACTOR = 0.015
         WATERSHED AREA =     308.710 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.114 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.470
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.630
         USER-ENTERED RAINFALL =  1.09 INCHES
         RCFC&WCD 6-Hour Storm (5-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9991


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  73.227



==========================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------
        1                7.731               288.648
        2               51.410              1630.718
        3               78.778              1021.768
        4               89.283               392.203
        5               94.908               209.999
```

6	97.607	100.770
7	98.341	27.426
8	98.720	14.141
9	99.099	14.140
10	99.478	14.140
11	99.856	14.140
12	100.000	5.366

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0054	0.0034	0.0020
2	0.0065	0.0041	0.0024
3	0.0065	0.0041	0.0024
4	0.0065	0.0041	0.0024
5	0.0065	0.0041	0.0024
6	0.0076	0.0048	0.0028
7	0.0076	0.0048	0.0028
8	0.0076	0.0048	0.0028
9	0.0076	0.0048	0.0028
10	0.0076	0.0048	0.0028
11	0.0076	0.0048	0.0028
12	0.0087	0.0055	0.0032
13	0.0087	0.0055	0.0032
14	0.0087	0.0055	0.0032
15	0.0087	0.0055	0.0032
16	0.0087	0.0055	0.0032
17	0.0087	0.0055	0.0032
18	0.0087	0.0055	0.0032
19	0.0087	0.0055	0.0032
20	0.0087	0.0055	0.0032
21	0.0087	0.0055	0.0032
22	0.0087	0.0055	0.0032
23	0.0087	0.0055	0.0032
24	0.0098	0.0062	0.0036
25	0.0087	0.0055	0.0032
26	0.0098	0.0062	0.0036
27	0.0098	0.0062	0.0036
28	0.0098	0.0062	0.0036
29	0.0098	0.0062	0.0036
30	0.0098	0.0062	0.0036
31	0.0098	0.0062	0.0036
32	0.0098	0.0062	0.0036
33	0.0109	0.0069	0.0040
34	0.0109	0.0069	0.0040
35	0.0109	0.0069	0.0040
36	0.0109	0.0069	0.0040
37	0.0109	0.0069	0.0040
38	0.0120	0.0075	0.0044
39	0.0120	0.0075	0.0044
40	0.0120	0.0075	0.0044
41	0.0131	0.0082	0.0048
42	0.0142	0.0089	0.0052
43	0.0152	0.0096	0.0056
44	0.0152	0.0096	0.0056
45	0.0163	0.0103	0.0060
46	0.0163	0.0103	0.0060
47	0.0174	0.0110	0.0064
48	0.0174	0.0110	0.0064
49	0.0185	0.0117	0.0069
50	0.0196	0.0123	0.0073
51	0.0207	0.0130	0.0077
52	0.0218	0.0137	0.0081
53	0.0229	0.0144	0.0085
54	0.0229	0.0144	0.0085
55	0.0240	0.0151	0.0089
56	0.0250	0.0158	0.0093
57	0.0261	0.0165	0.0097

58	0.0261	0.0165	0.0097
59	0.0272	0.0172	0.0101
60	0.0283	0.0178	0.0105
61	0.0338	0.0213	0.0125
62	0.0392	0.0247	0.0145
63	0.0425	0.0268	0.0157
64	0.0457	0.0288	0.0169
65	0.0512	0.0322	0.0189
66	0.0610	0.0384	0.0226
67	0.0207	0.0130	0.0077
68	0.0098	0.0062	0.0036
69	0.0065	0.0041	0.0024
70	0.0054	0.0034	0.0020
71	0.0033	0.0021	0.0012
72	0.0022	0.0014	0.0008

TOTAL STORM RAINFALL(INCHES) = 1.09
TOTAL SOIL-LOSS(INCHES) = 0.69
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.40

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 17.6506
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 10.3609

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6 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 20.0 40.0 60.0 80.0
0.083	0.0040	0.58	Q . . . .
0.167	0.0314	3.98	VQ . . . .
0.250	0.0776	6.70	V Q . . . .
0.333	0.1320	7.90	V Q . . . .
0.417	0.1904	8.48	V Q . . . .
0.500	0.2516	8.89	V Q . . . .
0.583	0.3180	9.64	.V Q . . . .
0.667	0.3875	10.09	.V Q . . . .
0.750	0.4583	10.28	.V Q . . . .
0.833	0.5299	10.40	. V Q . . . .
0.917	0.6021	10.48	. V Q . . . .
1.000	0.6752	10.62	. V Q . . . .
1.083	0.7529	11.28	. V Q . . . .
1.167	0.8335	11.70	. V Q . . . .
1.250	0.9153	11.87	. V Q . . . .
1.333	0.9976	11.96	. V Q . . . .
1.417	1.0802	12.00	. VQ . . . .
1.500	1.1630	12.01	. V Q . . . .
1.583	1.2457	12.02	. V Q . . . .
1.667	1.3285	12.02	. VQ . . . .
1.750	1.4113	12.03	. VQ . . . .
1.833	1.4942	12.03	. VQ . . . .
1.917	1.5771	12.04	. Q . . . .
2.000	1.6608	12.15	. Q . . . .
2.083	1.7482	12.69	. Q . . . .
2.167	1.8347	12.56	. QV . . . .
2.250	1.9240	12.97	. QV . . . .
2.333	2.0157	13.30	. QV . . . .
2.417	2.1081	13.42	. Q V . . . .
2.500	2.2009	13.47	. Q V . . . .
2.583	2.2939	13.51	. Q V . . . .
2.667	2.3870	13.52	. Q V. . . .
2.750	2.4810	13.64	. Q V. . . .
2.833	2.5795	14.31	. Q V. . . .

```
    2.917      2.6809     14.72  .      Q  V         .         .         .
    3.000      2.7834     14.88  .      Q  V         .         .         .
    3.083      2.8864     14.97  .      Q  .V        .         .         .
    3.167      2.9906     15.12  .      Q  .V        .         .         .
    3.250      3.0994     15.79  .      Q  .V        .         .         .
    3.333      3.2110     16.21  .       Q . V       .         .         .
    3.417      3.3246     16.49  .       Q . V       .         .         .
    3.500      3.4441     17.35  .       Q .  V      .         .         .
    3.583      3.5721     18.59  .        Q.  V      .         .         .
    3.667      3.7086     19.83  .        Q.   V     .         .         .
    3.750      3.8505     20.60  .         Q   V     .         .         .
    3.833      3.9989     21.55  .         Q    V    .         .         .
    3.917      4.1519     22.22  .         .Q    V   .         .         .
    4.000      4.3110     23.10  .         .Q    V   .         .         .
    4.083      4.4744     23.73  .         .Q     V  .         .         .
    4.167      4.6447     24.72  .         . Q    V  .         .         .
    4.250      4.8239     26.02  .         .  Q    V .         .         .
    4.333      5.0127     27.42  .         .  Q     V.         .         .
    4.417      5.2116     28.88  .         .   Q     V         .         .
    4.500      5.4199     30.24  .         .    Q    V         .         .
    4.583      5.6339     31.07  .         .    Q    .V        .         .
    4.667      5.8554     32.16  .         .     Q   . V       .         .
    4.750      6.0860     33.49  .         .     Q   .  V      .         .
    4.833      6.3257     34.79  .         .      Q  .   V     .         .
    4.917      6.5708     35.60  .         .      Q  .    V    .         .
    5.000      6.8234     36.68  .         .       Q .     V   .         .
    5.083      7.0885     38.48  .         .        Q.      V  .         .
    5.167      7.3846     42.99  .         .         .Q      V .         .
    5.250      7.7217     48.96  .         .         .   Q    V.         .
    5.333      8.0955     54.27  .         .         .      Q  .V        .
    5.417      8.5042     59.34  .         .         .        Q. V       .
    5.500      8.9590     66.04  .         .         .         .  QV     .
    5.583      9.4460     70.71  .         .         .         .    QV   .
    5.667      9.7918     50.21  .         .         .    Q    .      V  .
    5.750      9.9993     30.12  .         .    Q    .         .       V .
    5.833     10.1312     19.15  .       Q.         .         .         V.
    5.917     10.2195     12.83  .     Q   .         .         .         V.
    6.000     10.2771      8.36  .   Q     .         .         .         V.
    6.083     10.3153      5.55  . Q       .         .         .         V.
    6.167     10.3365      3.08  .Q        .         .         .         V.
    6.250     10.3481      1.68  Q         .         .         .         V.
    6.333     10.3547      0.96  Q         .         .         .         V.
    6.417     10.3579      0.46  Q         .         .         .         V.
    6.500     10.3592      0.19  Q         .         .         .         V.
    6.583     10.3600      0.11  Q         .         .         .         V.
    6.667     10.3604      0.07  Q         .         .         .         V.
    6.750     10.3607      0.04  Q         .         .         .         V.
    6.833     10.3608      0.02  Q         .         .         .         V.
    6.917     10.3609      0.00  Q         .         .         .         V.
--------------------------------------------------------------------------------
    TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
    (Note: 100% of Peak Flow Rate estimate assumed to have
    an instantaneous time duration)

    Percentile of Estimated               Duration
        Peak Flow Rate                    (minutes)
    ======================               =========
              0%                           415.0
             10%                           345.0
             20%                           185.0
             30%                           120.0
             40%                            85.0
             50%                            50.0
             60%                            35.0
             70%                            25.0
             80%                            15.0
             90%                            10.0


 ********************************************************************************
   FLOW PROCESS FROM NODE   104.00 TO NODE   105.00 IS CODE =   1
```

```
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
================================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #2)

         WATERCOURSE LENGTH =    3781.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2268.600 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      62.900 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     121.080 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.197 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.605
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
         USER-ENTERED RAINFALL =  1.09 INCHES
         RCFC&WCD 6-Hour Storm (5-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9997


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  42.394


================================================================================
                     UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------------
       1                3.436                50.316
       2               16.643               193.384
       3               51.336               508.022
       4               70.934               286.979
       5               80.497               140.019
       6               86.833                92.788
       7               91.194                63.863
       8               94.328                45.888
       9               96.378                30.020
      10               97.704                19.410
      11               98.182                 6.997
      12               98.401                 3.211
      13               98.620                 3.211
      14               98.840                 3.210
      15               99.059                 3.212
      16               99.278                 3.210
      17               99.497                 3.210
      18               99.717                 3.210
      19               99.936                 3.210
      20              100.000                 0.940


 ********************************************************************************
        UNIT             UNIT             UNIT             EFFECTIVE
       PERIOD           RAINFALL       SOIL-LOSS            RAINFALL
      (NUMBER)          (INCHES)        (INCHES)            (INCHES)
--------------------------------------------------------------------------------
          1             0.0054           0.0049              0.0005
          2             0.0065           0.0059              0.0007
          3             0.0065           0.0059              0.0007
          4             0.0065           0.0059              0.0007
          5             0.0065           0.0059              0.0007
          6             0.0076           0.0069              0.0008
          7             0.0076           0.0069              0.0008
          8             0.0076           0.0069              0.0008
```

9	0.0076	0.0069	0.0008
10	0.0076	0.0069	0.0008
11	0.0076	0.0069	0.0008
12	0.0087	0.0078	0.0009
13	0.0087	0.0078	0.0009
14	0.0087	0.0078	0.0009
15	0.0087	0.0078	0.0009
16	0.0087	0.0078	0.0009
17	0.0087	0.0078	0.0009
18	0.0087	0.0078	0.0009
19	0.0087	0.0078	0.0009
20	0.0087	0.0078	0.0009
21	0.0087	0.0078	0.0009
22	0.0087	0.0078	0.0009
23	0.0087	0.0078	0.0009
24	0.0098	0.0088	0.0010
25	0.0087	0.0078	0.0009
26	0.0098	0.0088	0.0010
27	0.0098	0.0088	0.0010
28	0.0098	0.0088	0.0010
29	0.0098	0.0088	0.0010
30	0.0098	0.0088	0.0010
31	0.0098	0.0088	0.0010
32	0.0098	0.0088	0.0010
33	0.0109	0.0098	0.0011
34	0.0109	0.0098	0.0011
35	0.0109	0.0098	0.0011
36	0.0109	0.0098	0.0011
37	0.0109	0.0098	0.0011
38	0.0120	0.0108	0.0012
39	0.0120	0.0108	0.0012
40	0.0120	0.0108	0.0012
41	0.0131	0.0118	0.0013
42	0.0142	0.0127	0.0014
43	0.0153	0.0137	0.0015
44	0.0153	0.0137	0.0015
45	0.0163	0.0147	0.0016
46	0.0163	0.0147	0.0016
47	0.0174	0.0157	0.0017
48	0.0174	0.0157	0.0017
49	0.0185	0.0167	0.0019
50	0.0196	0.0177	0.0020
51	0.0207	0.0186	0.0021
52	0.0218	0.0196	0.0022
53	0.0229	0.0206	0.0023
54	0.0229	0.0206	0.0023
55	0.0240	0.0216	0.0024
56	0.0251	0.0226	0.0025
57	0.0262	0.0235	0.0026
58	0.0262	0.0235	0.0026
59	0.0272	0.0245	0.0027
60	0.0283	0.0255	0.0028
61	0.0338	0.0304	0.0034
62	0.0392	0.0353	0.0039
63	0.0425	0.0382	0.0042
64	0.0458	0.0412	0.0046
65	0.0512	0.0461	0.0051
66	0.0610	0.0504	0.0106
67	0.0207	0.0186	0.0021
68	0.0098	0.0088	0.0010
69	0.0065	0.0059	0.0007
70	0.0054	0.0049	0.0005
71	0.0033	0.0029	0.0003
72	0.0022	0.0020	0.0002

TOTAL STORM RAINFALL(INCHES) = 1.09
TOTAL SOIL-LOSS(INCHES) = 0.98
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.11

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 9.8495

TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 1.1443

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6 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 2.5 5.0 7.5 10.0
0.083	0.0002	0.03	Q . . . .
0.167	0.0011	0.14	Q . . . .
0.250	0.0041	0.44	VQ . . . .
0.333	0.0086	0.65	V Q . . . .
0.417	0.0138	0.76	V Q . . . .
0.500	0.0195	0.83	V Q . . . .
0.583	0.0256	0.89	V Q . . . .
0.667	0.0324	0.98	.V Q . . . .
0.750	0.0395	1.03	.V Q . . . .
0.833	0.0468	1.06	.V Q . . . .
0.917	0.0542	1.08	.V Q . . . .
1.000	0.0618	1.09	. V Q . . . .
1.083	0.0695	1.12	. V Q . . . .
1.167	0.0776	1.18	. V Q . . . .
1.250	0.0860	1.22	. VQ . . . .
1.333	0.0945	1.24	. VQ . . . .
1.417	0.1031	1.25	. VQ . . . .
1.500	0.1118	1.26	. V Q . . . .
1.583	0.1205	1.26	. VQ . . . .
1.667	0.1292	1.27	. VQ . . . .
1.750	0.1380	1.27	. VQ . . . .
1.833	0.1467	1.27	. Q . . . .
1.917	0.1555	1.27	. Q . . . .
2.000	0.1643	1.28	. Q . . . .
2.083	0.1732	1.30	. QV . . . .
2.167	0.1824	1.34	. QV . . . .
2.250	0.1916	1.33	. QV . . . .
2.333	0.2011	1.37	. Q V . . . .
2.417	0.2107	1.40	. Q V . . . .
2.500	0.2204	1.41	. Q V . . . .
2.583	0.2302	1.42	. Q V . . . .
2.667	0.2400	1.43	. Q V . . . .
2.750	0.2499	1.43	. Q V . . . .
2.833	0.2600	1.46	. Q V. . . . .
2.917	0.2704	1.51	. Q V. . . . .
3.000	0.2810	1.55	. Q V. . . . .
3.083	0.2918	1.56	. Q V . . . .
3.167	0.3027	1.58	. Q V . . . .
3.250	0.3137	1.61	. Q V . . . .
3.333	0.3252	1.67	. Q .V . . . .
3.417	0.3370	1.71	. Q .V . . . .
3.500	0.3490	1.75	. Q . V . . . .
3.583	0.3617	1.84	. Q . V . . . .
3.667	0.3752	1.96	. Q . V . . . .
3.750	0.3895	2.07	. Q . V . . . .
3.833	0.4044	2.15	. Q . V . . . .
3.917	0.4198	2.25	. Q . V . . . .
4.000	0.4359	2.33	. Q. V . . . .
4.083	0.4525	2.42	. Q. V . . . .
4.167	0.4697	2.50	. Q. V . . . .
4.250	0.4877	2.61	. Q V . . . .
4.333	0.5065	2.74	. Q V . . . .
4.417	0.5264	2.88	. .Q V . . . .
4.500	0.5472	3.02	. . Q V. . . .
4.583	0.5689	3.15	. . Q V. . . .
4.667	0.5913	3.25	. . Q V . . .

```
   4.750      0.6145      3.38  .         .  Q      .V        .         .
   4.833      0.6387      3.51  .         .   Q     . V       .         .
   4.917      0.6638      3.64  .         .   Q     .  V      .         .
   5.000      0.6895      3.74  .         .   Q     .   V     .         .
   5.083      0.7162      3.88  .         .    Q    .    V    .         .
   5.167      0.7446      4.13  .         .     Q   .     V   .         .
   5.250      0.7762      4.59  .         .       Q .      V  .         .
   5.333      0.8116      5.14  .         .         Q       V .         .
   5.417      0.8506      5.65  .         .         . Q      V.         .
   5.500      0.8949      6.44  .         .         .    Q    .V        .
   5.583      0.9471      7.58  .         .         .         Q  V      .
   5.667      1.0089      8.96  .         .         .         .    Q    .
   5.750      1.0512      6.15  .         .         .   Q     .     V   .
   5.833      1.0785      3.96  .         .    Q    .         .      V  .
   5.917      1.0980      2.84  .        .Q        .         .       V .
   6.000      1.1125      2.10  .       Q .        .         .       V .
   6.083      1.1229      1.51  .     Q   .        .         .        V.
   6.167      1.1300      1.03  .   Q     .        .         .        V.
   6.250      1.1344      0.64  . Q       .        .         .        V.
   6.333      1.1369      0.37  .Q        .        .         .        V.
   6.417      1.1386      0.24  Q         .        .         .        V.
   6.500      1.1399      0.19  Q         .        .         .        V.
   6.583      1.1409      0.15  Q         .        .         .        V.
   6.667      1.1418      0.12  Q         .        .         .        V.
   6.750      1.1425      0.10  Q         .        .         .        V.
   6.833      1.1431      0.09  Q         .        .         .        V.
   6.917      1.1435      0.07  Q         .        .         .        V.
   7.000      1.1439      0.05  Q         .        .         .        V.
   7.083      1.1441      0.03  Q         .        .         .        V.
   7.167      1.1442      0.01  Q         .        .         .        V.
   7.250      1.1442      0.01  Q         .        .         .        V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated               Duration
       Peak Flow Rate                    (minutes)
   ======================                =========
             0%                            435.0
            10%                            335.0
            20%                            150.0
            30%                            100.0
            40%                             60.0
            50%                             35.0
            60%                             25.0
            70%                             15.0
            80%                             10.0
            90%                              5.0


 ********************************************************************************
   FLOW PROCESS FROM NODE   106.00 TO NODE   103.00 IS CODE =   1
 --------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
 ================================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #3)

         WATERCOURSE LENGTH =    2948.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    1768.800 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      14.700 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     136.170 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.205 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.565
```

LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
USER-ENTERED RAINFALL = 1.09 INCHES
RCFC&WCD 6-Hour Storm (5-Minute period) SELECTED
RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9996

UNIT HYDROGRAPH TIME UNIT = 5.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 40.741

UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	3.245	53.442
2	15.378	199.799
3	47.928	536.047
4	69.269	351.433
5	79.137	162.503
6	85.681	107.777
7	90.221	74.767
8	93.542	54.686
9	95.815	37.427
10	97.259	23.789
11	98.090	13.676
12	98.303	3.507
13	98.513	3.470
14	98.724	3.471
15	98.935	3.470
16	99.146	3.471
17	99.356	3.470
18	99.567	3.470
19	99.778	3.470
20	99.989	3.470
21	100.000	0.188

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0054	0.0049	0.0005
2	0.0065	0.0059	0.0007
3	0.0065	0.0059	0.0007
4	0.0065	0.0059	0.0007
5	0.0065	0.0059	0.0007
6	0.0076	0.0069	0.0008
7	0.0076	0.0069	0.0008
8	0.0076	0.0069	0.0008
9	0.0076	0.0069	0.0008
10	0.0076	0.0069	0.0008
11	0.0076	0.0069	0.0008
12	0.0087	0.0078	0.0009
13	0.0087	0.0078	0.0009
14	0.0087	0.0078	0.0009
15	0.0087	0.0078	0.0009
16	0.0087	0.0078	0.0009
17	0.0087	0.0078	0.0009
18	0.0087	0.0078	0.0009
19	0.0087	0.0078	0.0009
20	0.0087	0.0078	0.0009
21	0.0087	0.0078	0.0009
22	0.0087	0.0078	0.0009
23	0.0087	0.0078	0.0009
24	0.0098	0.0088	0.0010
25	0.0087	0.0078	0.0009

26	0.0098	0.0088	0.0010
27	0.0098	0.0088	0.0010
28	0.0098	0.0088	0.0010
29	0.0098	0.0088	0.0010
30	0.0098	0.0088	0.0010
31	0.0098	0.0088	0.0010
32	0.0098	0.0088	0.0010
33	0.0109	0.0098	0.0011
34	0.0109	0.0098	0.0011
35	0.0109	0.0098	0.0011
36	0.0109	0.0098	0.0011
37	0.0109	0.0098	0.0011
38	0.0120	0.0108	0.0012
39	0.0120	0.0108	0.0012
40	0.0120	0.0108	0.0012
41	0.0131	0.0118	0.0013
42	0.0142	0.0127	0.0014
43	0.0153	0.0137	0.0015
44	0.0153	0.0137	0.0015
45	0.0163	0.0147	0.0016
46	0.0163	0.0147	0.0016
47	0.0174	0.0157	0.0017
48	0.0174	0.0157	0.0017
49	0.0185	0.0167	0.0019
50	0.0196	0.0177	0.0020
51	0.0207	0.0186	0.0021
52	0.0218	0.0196	0.0022
53	0.0229	0.0206	0.0023
54	0.0229	0.0206	0.0023
55	0.0240	0.0216	0.0024
56	0.0251	0.0226	0.0025
57	0.0261	0.0235	0.0026
58	0.0261	0.0235	0.0026
59	0.0272	0.0245	0.0027
60	0.0283	0.0255	0.0028
61	0.0338	0.0304	0.0034
62	0.0392	0.0353	0.0039
63	0.0425	0.0382	0.0042
64	0.0458	0.0412	0.0046
65	0.0512	0.0461	0.0051
66	0.0610	0.0471	0.0139
67	0.0207	0.0186	0.0021
68	0.0098	0.0088	0.0010
69	0.0065	0.0059	0.0007
70	0.0054	0.0049	0.0005
71	0.0033	0.0029	0.0003
72	0.0022	0.0020	0.0002

TOTAL STORM RAINFALL(INCHES) = 1.09
TOTAL SOIL-LOSS(INCHES) = 0.97
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.12

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 11.0388
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 1.3246

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6 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	5.0	10.0	15.0	20.0
0.083	0.0002	0.03	Q	.	.	.	.
0.167	0.0012	0.14	Q	.	.	.	.
0.250	0.0043	0.46	Q	.	.	.	.

```
0.333      0.0092      0.71  VQ        .         .         .         .
0.417      0.0150      0.83  VQ        .         .         .         .
0.500      0.0213      0.92  VQ        .         .         .         .
0.583      0.0281      0.99  VQ        .         .         .         .
0.667      0.0356      1.09  .VQ       .         .         .         .
0.750      0.0435      1.15  .VQ       .         .         .         .
0.833      0.0517      1.19  .VQ       .         .         .         .
0.917      0.0600      1.21  .VQ       .         .         .         .
1.000      0.0684      1.23  . Q       .         .         .         .
1.083      0.0771      1.26  . Q       .         .         .         .
1.167      0.0862      1.32  . Q       .         .         .         .
1.250      0.0956      1.36  . Q       .         .         .         .
1.333      0.1051      1.39  . QV      .         .         .         .
1.417      0.1148      1.40  . QV      .         .         .         .
1.500      0.1245      1.41  . QV      .         .         .         .
1.583      0.1342      1.42  . Q V     .         .         .         .
1.667      0.1441      1.43  . Q V     .         .         .         .
1.750      0.1539      1.43  . Q V     .         .         .         .
1.833      0.1638      1.43  . Q V     .         .         .         .
1.917      0.1736      1.43  . Q  V    .         .         .         .
2.000      0.1835      1.44  . Q  V    .         .         .         .
2.083      0.1935      1.45  . Q  V    .         .         .         .
2.167      0.2039      1.50  . Q   V   .         .         .         .
2.250      0.2142      1.50  . Q   V   .         .         .         .
2.333      0.2248      1.54  .  Q  V   .         .         .         .
2.417      0.2356      1.57  .  Q   V  .         .         .         .
2.500      0.2465      1.59  .  Q   V  .         .         .         .
2.583      0.2575      1.60  .  Q   V  .         .         .         .
2.667      0.2685      1.60  .  Q    V .         .         .         .
2.750      0.2796      1.61  .  Q    V .         .         .         .
2.833      0.2909      1.64  .  Q    V .         .         .         .
2.917      0.3026      1.70  .  Q     V.         .         .         .
3.000      0.3145      1.74  .  Q     V.         .         .         .
3.083      0.3266      1.75  .  Q     V.         .         .         .
3.167      0.3388      1.77  .  Q      V         .         .         .
3.250      0.3512      1.80  .  Q      V         .         .         .
3.333      0.3641      1.87  .  Q      V         .         .         .
3.417      0.3773      1.92  .  Q      .V        .         .         .
3.500      0.3908      1.96  .  Q      .V        .         .         .
3.583      0.4050      2.06  .   Q     . V       .         .         .
3.667      0.4201      2.19  .   Q     . V       .         .         .
3.750      0.4361      2.32  .   Q     .  V      .         .         .
3.833      0.4527      2.41  .   Q     .  V      .         .         .
3.917      0.4700      2.52  .    Q    .   V     .         .         .
4.000      0.4880      2.60  .    Q    .   V     .         .         .
4.083      0.5066      2.71  .    Q    .    V    .         .         .
4.167      0.5258      2.80  .    Q    .    V    .         .         .
4.250      0.5459      2.92  .    Q    .     V   .         .         .
4.333      0.5670      3.06  .     Q   .      V  .         .         .
4.417      0.5892      3.22  .     Q   .      V  .         .         .
4.500      0.6125      3.38  .     Q   .       V .         .         .
4.583      0.6368      3.53  .      Q  .        V.         .         .
4.667      0.6618      3.64  .      Q  .        V.         .         .
4.750      0.6878      3.78  .      Q  .         V         .         .
4.833      0.7149      3.93  .      Q  .         .V        .         .
4.917      0.7430      4.07  .       Q .         . V       .         .
5.000      0.7718      4.19  .       Q .         .  V      .         .
5.083      0.8017      4.34  .       Q .         .   V     .         .
5.167      0.8335      4.61  .        Q.         .    V    .         .
5.250      0.8686      5.11  .         Q         .     V   .         .
5.333      0.9080      5.72  .         .Q        .      V  .         .
5.417      0.9514      6.30  .         . Q       .       V .         .
5.500      1.0019      7.34  .         .   Q     .         V         .
5.583      1.0641      9.04  .         .       Q .         . V       .
5.667      1.1447     11.69  .         .         .  Q      .   V     .
5.750      1.2025      8.40  .         .     Q   .         .     V   .
5.833      1.2379      5.15  .         Q         .         .      V  .
5.917      1.2632      3.67  .      Q  .         .         .       V .
6.000      1.2819      2.71  .    Q    .         .         .       V .
6.083      1.2956      1.99  .  Q      .         .         .        V.
6.167      1.3051      1.38  . Q       .         .         .        V.
```

```
   6.250      1.3111      0.87  .Q        .         .         .        V.
   6.333      1.3147      0.54  .Q        .         .         .        V.
   6.417      1.3169      0.31  Q         .         .         .        V.
   6.500      1.3185      0.23  Q         .         .         .        V.
   6.583      1.3198      0.19  Q         .         .         .        V.
   6.667      1.3208      0.16  Q         .         .         .        V.
   6.750      1.3218      0.14  Q         .         .         .        V.
   6.833      1.3226      0.12  Q         .         .         .        V.
   6.917      1.3233      0.10  Q         .         .         .        V.
   7.000      1.3238      0.08  Q         .         .         .        V.
   7.083      1.3243      0.07  Q         .         .         .        V.
   7.167      1.3244      0.02  Q         .         .         .        V.
   7.250      1.3245      0.01  Q         .         .         .        V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated                Duration
       Peak Flow Rate                     (minutes)
   ======================                 =========
              0%                            435.0
             10%                            325.0
             20%                            135.0
             30%                             85.0
             40%                             40.0
             50%                             25.0
             60%                             20.0
             70%                             15.0
             80%                              5.0
             90%                              5.0


********************************************************************************
  FLOW PROCESS FROM NODE   500.00 TO NODE   501.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
================================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #4)

         WATERSHED AREA =      20.000 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         *USER ENTERED "LAG" TIME =    0.100 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.050
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.180
         USER-ENTERED RAINFALL =  1.09 INCHES
         RCFC&WCD 6-Hour Storm (5-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9999


         UNIT HYDROGRAPH TIME UNIT =   5.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME =  83.33
================================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------------
        1                9.713               23.494
        2               60.041              121.730
        3               83.125               55.836
        4               92.383               22.393
        5               96.836               10.769
        6               98.250                3.421
        7               98.681                1.043
```

8	99.112	1.043
9	99.543	1.043
10	99.974	1.043
11	100.000	0.063

****

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0054	0.0010	0.0045
2	0.0065	0.0012	0.0054
3	0.0065	0.0012	0.0054
4	0.0065	0.0012	0.0054
5	0.0065	0.0012	0.0054
6	0.0076	0.0014	0.0063
7	0.0076	0.0014	0.0063
8	0.0076	0.0014	0.0063
9	0.0076	0.0014	0.0063
10	0.0076	0.0014	0.0063
11	0.0076	0.0014	0.0063
12	0.0087	0.0016	0.0071
13	0.0087	0.0016	0.0071
14	0.0087	0.0016	0.0071
15	0.0087	0.0016	0.0071
16	0.0087	0.0016	0.0071
17	0.0087	0.0016	0.0071
18	0.0087	0.0016	0.0071
19	0.0087	0.0016	0.0071
20	0.0087	0.0016	0.0071
21	0.0087	0.0016	0.0071
22	0.0087	0.0016	0.0071
23	0.0087	0.0016	0.0071
24	0.0098	0.0018	0.0080
25	0.0087	0.0016	0.0071
26	0.0098	0.0018	0.0080
27	0.0098	0.0018	0.0080
28	0.0098	0.0018	0.0080
29	0.0098	0.0018	0.0080
30	0.0098	0.0018	0.0080
31	0.0098	0.0018	0.0080
32	0.0098	0.0018	0.0080
33	0.0109	0.0020	0.0089
34	0.0109	0.0020	0.0089
35	0.0109	0.0020	0.0089
36	0.0109	0.0020	0.0089
37	0.0109	0.0020	0.0089
38	0.0120	0.0022	0.0098
39	0.0120	0.0022	0.0098
40	0.0120	0.0022	0.0098
41	0.0131	0.0024	0.0107
42	0.0142	0.0026	0.0116
43	0.0153	0.0027	0.0125
44	0.0153	0.0027	0.0125
45	0.0163	0.0029	0.0134
46	0.0163	0.0029	0.0134
47	0.0174	0.0031	0.0143
48	0.0174	0.0031	0.0143
49	0.0185	0.0033	0.0152
50	0.0196	0.0035	0.0161
51	0.0207	0.0037	0.0170
52	0.0218	0.0039	0.0179
53	0.0229	0.0041	0.0188
54	0.0229	0.0041	0.0188
55	0.0240	0.0042	0.0198
56	0.0251	0.0042	0.0209
57	0.0262	0.0042	0.0220
58	0.0262	0.0042	0.0220
59	0.0272	0.0042	0.0231
60	0.0283	0.0042	0.0242

61	0.0338	0.0042	0.0296
62	0.0392	0.0042	0.0351
63	0.0425	0.0042	0.0383
64	0.0458	0.0042	0.0416
65	0.0512	0.0042	0.0471
66	0.0610	0.0042	0.0569
67	0.0207	0.0037	0.0170
68	0.0098	0.0018	0.0080
69	0.0065	0.0012	0.0054
70	0.0054	0.0010	0.0045
71	0.0033	0.0006	0.0027
72	0.0022	0.0004	0.0018

TOTAL STORM RAINFALL(INCHES) = 1.09
TOTAL SOIL-LOSS(INCHES) = 0.17
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.92

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 0.2812
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 1.5346

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6 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 5.0 10.0 15.0 20.0
0.083	0.0007	0.10	Q . . . .
0.167	0.0053	0.67	VQ . . . .
0.250	0.0124	1.03	V Q . . . .
0.333	0.0205	1.18	V Q . . . .
0.417	0.0291	1.25	V Q . . . .
0.500	0.0380	1.29	V Q . . . .
0.583	0.0477	1.41	.VQ . . . .
0.667	0.0578	1.46	.VQ . . . .
0.750	0.0681	1.49	.VQ . . . .
0.833	0.0784	1.51	. VQ . . . .
0.917	0.0888	1.51	. VQ . . . .
1.000	0.0994	1.53	. VQ . . . .
1.083	0.1107	1.64	. VQ . . . .
1.167	0.1223	1.69	. Q . . . .
1.250	0.1341	1.71	. Q . . . .
1.333	0.1460	1.72	. Q . . . .
1.417	0.1579	1.73	. QV . . . .
1.500	0.1698	1.73	. QV . . . .
1.583	0.1817	1.73	. QV . . . .
1.667	0.1936	1.73	. Q V . . . .
1.750	0.2055	1.73	. Q V . . . .
1.833	0.2174	1.73	. Q V . . . .
1.917	0.2293	1.73	. Q V . . . .
2.000	0.2414	1.75	. Q V . . . .
2.083	0.2540	1.84	. Q V . . . .
2.167	0.2664	1.80	. Q V . . . .
2.250	0.2794	1.88	. Q V . . . .
2.333	0.2926	1.92	. Q V . . . .
2.417	0.3059	1.93	. Q V . . . .
2.500	0.3192	1.94	. Q V . . . .
2.583	0.3326	1.94	. Q V . . . .
2.667	0.3460	1.94	. Q V. . . . .
2.750	0.3595	1.97	. Q V. . . . .
2.833	0.3738	2.07	. Q V. . . . .
2.917	0.3885	2.13	. Q V . . . .
3.000	0.4032	2.15	. Q V . . . .
3.083	0.4181	2.15	. Q V . . . .

3.167	0.4331	2.18	. Q .V . . .
3.250	0.4488	2.29	. Q .V . . .
3.333	0.4650	2.34	. Q . V . . .
3.417	0.4814	2.38	. Q . V . . .
3.500	0.4987	2.52	. Q . V . . .
3.583	0.5174	2.70	. Q . V . . .
3.667	0.5372	2.88	. Q . V . . .
3.750	0.5578	2.99	. Q . V . . .
3.833	0.5793	3.13	. Q . V . . .
3.917	0.6015	3.21	. Q . V . . .
4.000	0.6245	3.35	. Q . V . . .
4.083	0.6481	3.43	. Q . V . . .
4.167	0.6728	3.59	. Q . V . . .
4.250	0.6989	3.78	. Q . V . . .
4.333	0.7263	3.98	. Q . V . . .
4.417	0.7552	4.19	. Q . V. . .
4.500	0.7854	4.39	. Q . V . .
4.583	0.8164	4.50	. Q . .V . .
4.667	0.8486	4.68	. Q. . V . .
4.750	0.8825	4.92	. Q. . V . .
4.833	0.9179	5.14	. Q . V . .
4.917	0.9542	5.27	. Q . V . .
5.000	0.9918	5.47	. Q . V . .
5.083	1.0318	5.81	. .Q . V . .
5.167	1.0779	6.69	. Q . V . .
5.250	1.1315	7.78	. Q . V. .
5.333	1.1913	8.70	. Q . .V .
5.417	1.2574	9.59	. Q. . V .
5.500	1.3319	10.82	. .Q . V .
5.583	1.4113	11.52	. Q . V .
5.667	1.4607	7.18	. Q . V .
5.750	1.4890	4.11	. Q . V .
5.833	1.5063	2.51	. Q . V.
5.917	1.5176	1.63	. Q . V.
6.000	1.5250	1.08	. Q . V.
6.083	1.5300	0.72	.Q . V.
6.167	1.5325	0.36	Q . V.
6.250	1.5337	0.18	Q . V.
6.333	1.5342	0.07	Q . V.
6.417	1.5344	0.03	Q . V.
6.500	1.5345	0.02	Q . V.
6.583	1.5346	0.01	Q . V.

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	395.0
10%	340.0
20%	155.0
30%	100.0
40%	65.0
50%	40.0
60%	30.0
70%	20.0
80%	15.0
90%	10.0

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END OF FLOODSCx ROUTING ANALYSIS

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             F L O O D    R O U T I N G    A N A L Y S I S

ACCORDING TO RIVERSIDE COUNTY FLOOD CONTORL AND WATER CONSERVATION DISTRICT
                    (RCFC&WCD) 1978 HYDROLOGY MANUAL
         (c) Copyright 1989-2011 Advanced Engineering Software (aes)
                 (Synthetic Unit Hydrograph Version 18.0)
                 Release Date: 05/01/2011  License ID 1499

                           Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* District at Jurupa Valley                                             *
* Preliminary Hydrology 2 year 24 Hour Event                            *
* Kimley Horn May 26, 2022                                              *
 ************************************************************************

  FILE NAME: C:\aes2011\hydrosft\floodX\J2Y24H.fld
  TIME/DATE OF STUDY: 15:38 05/26/2022


**************************************************************************
  FLOW PROCESS FROM NODE   100.00 TO NODE   101.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
==========================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #1)

         WATERCOURSE LENGTH =    4582.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2749.200 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      76.000 FEET
         BASIN FACTOR = 0.015
         WATERSHED AREA =     308.710 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.114 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.470
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.630
         MINIMUM SOIL-LOSS RATE(INCH/HOUR) =   0.240
         USER-ENTERED RAINFALL =  1.95 INCHES
         RCFC&WCD 24-Hour Storm (15-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9994


         UNIT HYDROGRAPH TIME UNIT =  15.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME = 219.682



==========================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------
        1               45.973               572.128
        2               93.932               596.848
        3               98.720                59.582
        4               99.526                10.027
```

5	99.810	3.542
6	99.953	1.771
7	100.000	0.590

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0039	0.0025	0.0014
2	0.0058	0.0037	0.0022
3	0.0058	0.0037	0.0022
4	0.0078	0.0049	0.0029
5	0.0058	0.0037	0.0022
6	0.0058	0.0037	0.0022
7	0.0058	0.0037	0.0022
8	0.0078	0.0049	0.0029
9	0.0078	0.0049	0.0029
10	0.0078	0.0049	0.0029
11	0.0097	0.0061	0.0036
12	0.0097	0.0061	0.0036
13	0.0097	0.0061	0.0036
14	0.0097	0.0061	0.0036
15	0.0097	0.0061	0.0036
16	0.0117	0.0074	0.0043
17	0.0117	0.0074	0.0043
18	0.0136	0.0086	0.0050
19	0.0136	0.0086	0.0050
20	0.0156	0.0098	0.0058
21	0.0117	0.0074	0.0043
22	0.0136	0.0086	0.0050
23	0.0156	0.0098	0.0058
24	0.0156	0.0098	0.0058
25	0.0175	0.0111	0.0065
26	0.0175	0.0111	0.0065
27	0.0195	0.0123	0.0072
28	0.0195	0.0123	0.0072
29	0.0195	0.0123	0.0072
30	0.0214	0.0135	0.0079
31	0.0234	0.0147	0.0087
32	0.0253	0.0160	0.0094
33	0.0292	0.0184	0.0108
34	0.0292	0.0184	0.0108
35	0.0312	0.0196	0.0115
36	0.0331	0.0209	0.0123
37	0.0370	0.0233	0.0137
38	0.0390	0.0246	0.0144
39	0.0409	0.0258	0.0151
40	0.0429	0.0270	0.0159
41	0.0292	0.0184	0.0108
42	0.0292	0.0184	0.0108
43	0.0390	0.0246	0.0144
44	0.0390	0.0246	0.0144
45	0.0370	0.0233	0.0137
46	0.0370	0.0233	0.0137
47	0.0331	0.0209	0.0123
48	0.0351	0.0221	0.0130
49	0.0487	0.0307	0.0180
50	0.0507	0.0319	0.0187
51	0.0546	0.0344	0.0202
52	0.0565	0.0356	0.0209
53	0.0663	0.0417	0.0245
54	0.0663	0.0417	0.0245
55	0.0448	0.0282	0.0166
56	0.0448	0.0282	0.0166
57	0.0526	0.0332	0.0195
58	0.0507	0.0319	0.0187
59	0.0507	0.0319	0.0187
60	0.0487	0.0307	0.0180
61	0.0468	0.0295	0.0173

62	0.0448	0.0282	0.0166
63	0.0370	0.0233	0.0137
64	0.0370	0.0233	0.0137
65	0.0078	0.0049	0.0029
66	0.0078	0.0049	0.0029
67	0.0058	0.0037	0.0022
68	0.0058	0.0037	0.0022
69	0.0097	0.0061	0.0036
70	0.0097	0.0061	0.0036
71	0.0097	0.0061	0.0036
72	0.0078	0.0049	0.0029
73	0.0078	0.0049	0.0029
74	0.0078	0.0049	0.0029
75	0.0058	0.0037	0.0022
76	0.0039	0.0025	0.0014
77	0.0058	0.0037	0.0022
78	0.0078	0.0049	0.0029
79	0.0058	0.0037	0.0022
80	0.0039	0.0025	0.0014
81	0.0058	0.0037	0.0022
82	0.0058	0.0037	0.0022
83	0.0058	0.0037	0.0022
84	0.0039	0.0025	0.0014
85	0.0058	0.0037	0.0022
86	0.0039	0.0025	0.0014
87	0.0058	0.0037	0.0022
88	0.0039	0.0025	0.0014
89	0.0058	0.0037	0.0022
90	0.0039	0.0025	0.0014
91	0.0039	0.0025	0.0014
92	0.0039	0.0025	0.0014
93	0.0039	0.0025	0.0014
94	0.0039	0.0025	0.0014
95	0.0039	0.0025	0.0014
96	0.0039	0.0025	0.0014

TOTAL STORM RAINFALL(INCHES) = 1.95
TOTAL SOIL-LOSS(INCHES) = 1.23
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.72

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 31.5865
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 18.5412

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2 4 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0. 10.0 20.0 30.0 40.0
0.083	0.0057	0.83	Q . . . .
0.167	0.0114	0.83	Q . . . .
0.250	0.0170	0.83	Q . . . .
0.333	0.0315	2.10	V Q . . . .
0.417	0.0460	2.10	V Q . . . .
0.500	0.0604	2.10	V Q . . . .
0.583	0.0784	2.61	V Q . . . .
0.667	0.0964	2.61	V Q . . . .
0.750	0.1144	2.61	V Q . . . .
0.833	0.1357	3.08	V Q . . . .
0.917	0.1569	3.08	V Q . . . .
1.000	0.1782	3.08	V Q . . . .
1.083	0.1996	3.11	V Q . . . .
1.167	0.2211	3.11	V Q . . . .
1.250	0.2425	3.11	V Q . . . .

1.333	0.2613	2.73	V Q	.	.	.	.
1.417	0.2802	2.73	V Q	.	.	.	.
1.500	0.2990	2.73	V Q	.	.	.	.
1.583	0.3176	2.70	V Q	.	.	.	.
1.667	0.3362	2.70	V Q	.	.	.	.
1.750	0.3547	2.70	V Q	.	.	.	.
1.833	0.3761	3.11	V Q	.	.	.	.
1.917	0.3975	3.11	V Q	.	.	.	.
2.000	0.4189	3.11	V Q	.	.	.	.
2.083	0.4433	3.54	V Q	.	.	.	.
2.167	0.4677	3.54	V Q	.	.	.	.
2.250	0.4920	3.54	V Q	.	.	.	.
2.333	0.5167	3.58	.V Q	.	.	.	.
2.417	0.5413	3.58	.V Q	.	.	.	.
2.500	0.5659	3.58	.V Q	.	.	.	.
2.583	0.5935	4.00	.V Q	.	.	.	.
2.667	0.6210	4.00	.V Q	.	.	.	.
2.750	0.6485	4.00	.V Q	.	.	.	.
2.833	0.6791	4.43	.V Q	.	.	.	.
2.917	0.7096	4.43	.V Q	.	.	.	.
3.000	0.7401	4.43	.V Q	.	.	.	.
3.083	0.7709	4.48	.V Q	.	.	.	.
3.167	0.8017	4.48	.V Q	.	.	.	.
3.250	0.8326	4.48	.V Q	.	.	.	.
3.333	0.8634	4.48	.V Q	.	.	.	.
3.417	0.8943	4.48	.V Q	.	.	.	.
3.500	0.9252	4.48	.V Q	.	.	.	.
3.583	0.9561	4.49	. V Q	.	.	.	.
3.667	0.9870	4.49	. V Q	.	.	.	.
3.750	1.0178	4.49	. V Q	.	.	.	.
3.833	1.0516	4.90	. V Q	.	.	.	.
3.917	1.0853	4.90	. V Q	.	.	.	.
4.000	1.1191	4.90	. V Q	.	.	.	.
4.083	1.1558	5.33	. V Q	.	.	.	.
4.167	1.1925	5.33	. V Q	.	.	.	.
4.250	1.2292	5.33	. V Q	.	.	.	.
4.333	1.2690	5.79	. V Q	.	.	.	.
4.417	1.3089	5.79	. V Q	.	.	.	.
4.500	1.3487	5.79	. V Q	.	.	.	.
4.583	1.3916	6.22	. V Q	.	.	.	.
4.667	1.4344	6.22	. V Q	.	.	.	.
4.750	1.4773	6.22	. V Q	.	.	.	.
4.833	1.5233	6.68	. V Q	.	.	.	.
4.917	1.5693	6.68	. V Q	.	.	.	.
5.000	1.6153	6.68	. V Q	.	.	.	.
5.083	1.6587	6.29	. V Q	.	.	.	.
5.167	1.7020	6.29	. V Q	.	.	.	.
5.250	1.7454	6.29	. V Q	.	.	.	.
5.333	1.7860	5.89	. V Q	.	.	.	.
5.417	1.8266	5.89	. V Q	.	.	.	.
5.500	1.8671	5.89	. VQ	.	.	.	.
5.583	1.9130	6.66	. V Q	.	.	.	.
5.667	1.9589	6.66	. V Q	.	.	.	.
5.750	2.0047	6.66	. V Q	.	.	.	.
5.833	2.0537	7.12	. V Q	.	.	.	.
5.917	2.1028	7.12	. V Q	.	.	.	.
6.000	2.1518	7.12	. V Q	.	.	.	.
6.083	2.2040	7.58	. V Q	.	.	.	.
6.167	2.2562	7.58	. V Q	.	.	.	.
6.250	2.3084	7.58	. V Q	.	.	.	.
6.333	2.3636	8.02	. V Q	.	.	.	.
6.417	2.4188	8.02	. V Q	.	.	.	.
6.500	2.4740	8.02	. V Q	.	.	.	.
6.583	2.5324	8.48	. V Q	.	.	.	.
6.667	2.5908	8.48	. V Q	.	.	.	.
6.750	2.6492	8.48	. V Q	.	.	.	.
6.833	2.7106	8.91	. V Q	.	.	.	.
6.917	2.7720	8.91	. V Q	.	.	.	.
7.000	2.8334	8.91	. V Q	.	.	.	.
7.083	2.8951	8.96	. V Q	.	.	.	.
7.167	2.9568	8.96	. V Q	.	.	.	.

```
 7.250      3.0185      8.96  .     V Q .          .          .          .
 7.333      3.0831      9.38  .     V  Q.          .          .          .
 7.417      3.1477      9.38  .     V  Q.          .          .          .
 7.500      3.2123      9.38  .     V  Q.          .          .          .
 7.583      3.2828     10.23  .      V  Q          .          .          .
 7.667      3.3532     10.23  .      V  Q          .          .          .
 7.750      3.4236     10.23  .      V  Q          .          .          .
 7.833      3.5002     11.11  .      V  .Q         .          .          .
 7.917      3.5767     11.11  .      V  .Q         .          .          .
 8.000      3.6533     11.11  .      V  .Q         .          .          .
 8.083      3.7388     12.42  .       V . Q        .          .          .
 8.167      3.8244     12.42  .       V . Q        .          .          .
 8.250      3.9099     12.42  .       V . Q        .          .          .
 8.333      4.0018     13.33  .       V .  Q       .          .          .
 8.417      4.0936     13.33  .       V .  Q       .          .          .
 8.500      4.1854     13.33  .        V.  Q       .          .          .
 8.583      4.2808     13.84  .        V.  Q       .          .          .
 8.667      4.3761     13.84  .        V.  Q       .          .          .
 8.750      4.4715     13.84  .        V.  Q       .          .          .
 8.833      4.5728     14.71  .        V.   Q      .          .          .
 8.917      4.6740     14.71  .         V   Q      .          .          .
 9.000      4.7753     14.71  .         V   Q      .          .          .
 9.083      4.8856     16.01  .         V     Q    .          .          .
 9.167      4.9958     16.01  .         V     Q    .          .          .
 9.250      5.1061     16.01  .          V    Q    .          .          .
 9.333      5.2255     17.34  .         .V     Q   .          .          .
 9.417      5.3449     17.34  .         .V     Q   .          .          .
 9.500      5.4643     17.34  .         .V     Q   .          .          .
 9.583      5.5902     18.28  .         . V     Q  .          .          .
 9.667      5.7161     18.28  .         . V     Q  .          .          .
 9.750      5.8420     18.28  .         . V     Q  .          .          .
 9.833      5.9741     19.18  .         . V      Q.          .          .
 9.917      6.1062     19.18  .         .  V     Q.          .          .
10.000      6.2383     19.18  .         .  V     Q.          .          .
10.083      6.3538     16.78  .         .  V  Q   .          .          .
10.167      6.4694     16.78  .         .  V  Q   .          .          .
10.250      6.5850     16.78  .         .   V Q   .          .          .
10.333      6.6802     13.82  .         .  QV     .          .          .
10.417      6.7754     13.82  .         .  QV     .          .          .
10.500      6.8706     13.82  .         .  QV     .          .          .
10.583      6.9780     15.60  .         .    Q    .          .          .
10.667      7.0854     15.60  .         .    Q    .          .          .
10.750      7.1929     15.60  .         .    Q    .          .          .
10.833      7.3148     17.70  .         .    V Q  .          .          .
10.917      7.4367     17.70  .         .     VQ  .          .          .
11.000      7.5586     17.70  .         .     VQ  .          .          .
11.083      7.6791     17.49  .         .     VQ  .          .          .
11.167      7.7995     17.49  .         .     VQ  .          .          .
11.250      7.9200     17.49  .         .      Q  .          .          .
11.333      8.0377     17.09  .         .      Q  .          .          .
11.417      8.1553     17.09  .         .      Q  .          .          .
11.500      8.2730     17.09  .         .      Q  .          .          .
11.583      8.3848     16.23  .         .     Q V .          .          .
11.667      8.4965     16.23  .         .     Q V .          .          .
11.750      8.6083     16.23  .         .     Q V .          .          .
11.833      8.7170     15.78  .         .    Q  V .          .          .
11.917      8.8257     15.78  .         .    Q   V.          .          .
12.000      8.9343     15.78  .         .    Q   V.          .          .
12.083      9.0653     19.01  .         .        Q.          .          .
12.167      9.1962     19.01  .         .        Q.          .          .
12.250      9.3271     19.01  .         .        QV          .          .
12.333      9.4818     22.46  .         .         V Q        .          .
12.417      9.6365     22.46  .         .         V Q        .          .
12.500      9.7912     22.46  .         .          VQ        .          .
12.583      9.9567     24.02  .         .         .V  Q      .          .
12.667     10.1221     24.02  .         .         .V  Q      .          .
12.750     10.2876     24.02  .         .         . V Q      .          .
12.833     10.4624     25.39  .         .         . V  Q     .          .
12.917     10.6373     25.39  .         .         . V  Q     .          .
13.000     10.8121     25.39  .         .         .  V Q     .          .
13.083     11.0049     27.99  .         .         .  V   Q   .          .
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13.167     11.1977     27.99  .         .         .   V  Q  .         .
13.250     11.3905     27.99  .         .         .   V  Q  .         .
13.333     11.5986     30.21  .         .         .    V    Q         .
13.417     11.8067     30.21  .         .         .    V    Q         .
13.500     12.0148     30.21  .         .         .    V    Q         .
13.583     12.1932     25.91  .         .         .    QV   .         .
13.667     12.3716     25.91  .         .         .    QV   .         .
13.750     12.5500     25.91  .         .         .    Q V  .         .
13.833     12.6962     21.22  .         .        .Q     V  .         .
13.917     12.8423     21.22  .         .        .Q     V  .         .
14.000     12.9884     21.22  .         .        .Q      V .         .
14.083     13.1427     22.41  .         .        . Q     V .         .
14.167     13.2970     22.41  .         .        . Q     V .         .
14.250     13.4513     22.41  .         .        . Q      V.         .
14.333     13.6142     23.64  .         .        .  Q     V.         .
14.417     13.7770     23.64  .         .        .  Q     V.         .
14.500     13.9399     23.64  .         .        .  Q      V         .
14.583     14.1007     23.36  .         .        .  Q      V         .
14.667     14.2616     23.36  .         .        .  Q      V         .
14.750     14.4225     23.36  .         .        .  Q       V        .
14.833     14.5803     22.92  .         .        . Q       .V        .
14.917     14.7382     22.92  .         .        . Q       .V        .
15.000     14.8960     22.92  .         .        . Q       . V       .
15.083     15.0480     22.07  .         .        . Q       . V       .
15.167     15.2001     22.07  .         .        . Q       . V       .
15.250     15.3521     22.07  .         .        . Q       .  V      .
15.333     15.4980     21.19  .         .        .Q        .  V      .
15.417     15.6440     21.19  .         .        .Q        .  V      .
15.500     15.7899     21.19  .         .        .Q        .   V     .
15.583     15.9212     19.06  .         .       Q.         .   V     .
15.667     16.0525     19.06  .         .       Q.         .   V     .
15.750     16.1837     19.06  .         .       Q.         .   V     .
15.833     16.3028     17.29  .         .     Q  .         .    V    .
15.917     16.4218     17.29  .         .     Q  .         .    V    .
16.000     16.5409     17.29  .         .     Q  .         .    V    .
16.083     16.6161     10.91  .        Q        .         .    V    .
16.167     16.6912     10.91  .        Q        .         .     V   .
16.250     16.7664     10.91  .        Q        .         .     V   .
16.333     16.7969      4.43  .   Q    .        .         .     V   .
16.417     16.8273      4.43  .   Q    .        .         .     V   .
16.500     16.8578      4.43  .   Q    .        .         .     V   .
16.583     16.8809      3.36  .  Q     .        .         .     V   .
16.667     16.9041      3.36  .  Q     .        .         .     V   .
16.750     16.9272      3.36  .  Q     .        .         .     V   .
16.833     16.9465      2.81  . Q      .        .         .     V   .
16.917     16.9659      2.81  . Q      .        .         .     V   .
17.000     16.9853      2.81  . Q      .        .         .     V   .
17.083     17.0098      3.55  .  Q     .        .         .     V   .
17.167     17.0342      3.55  .  Q     .        .         .     V   .
17.250     17.0587      3.55  .  Q     .        .         .     V   .
17.333     17.0889      4.39  .   Q    .        .         .     V   .
17.417     17.1192      4.39  .   Q    .        .         .     V   .
17.500     17.1494      4.39  .   Q    .        .         .     V   .
17.583     17.1802      4.47  .   Q    .        .         .      V  .
17.667     17.2109      4.47  .   Q    .        .         .      V  .
17.750     17.2417      4.47  .   Q    .        .         .      V  .
17.833     17.2697      4.07  .   Q    .        .         .      V  .
17.917     17.2977      4.07  .   Q    .        .         .      V  .
18.000     17.3257      4.07  .   Q    .        .         .      V  .
18.083     17.3508      3.64  .  Q     .        .         .      V  .
18.167     17.3758      3.64  .  Q     .        .         .      V  .
18.250     17.4009      3.64  .  Q     .        .         .      V  .
18.333     17.4257      3.60  .  Q     .        .         .      V  .
18.417     17.4505      3.60  .  Q     .        .         .      V  .
18.500     17.4753      3.60  .  Q     .        .         .      V  .
18.583     17.4972      3.18  .  Q     .        .         .      V  .
18.667     17.5191      3.18  .  Q     .        .         .      V  .
18.750     17.5410      3.18  .  Q     .        .         .      V  .
18.833     17.5571      2.34  . Q      .        .         .      V  .
18.917     17.5732      2.34  . Q      .        .         .      V  .
19.000     17.5893      2.34  . Q      .        .         .      V  .
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19.083     17.6049      2.27  . Q       .         .         .      V  .
19.167     17.6206      2.27  . Q       .         .         .       V .
19.250     17.6363      2.27  . Q       .         .         .       V .
19.333     17.6574      3.07  .  Q      .         .         .       V .
19.417     17.6785      3.07  .  Q      .         .         .       V .
19.500     17.6996      3.07  .  Q      .         .         .       V .
19.583     17.7211      3.12  .  Q      .         .         .       V .
19.667     17.7425      3.12  .  Q      .         .         .       V .
19.750     17.7640      3.12  .  Q      .         .         .       V .
19.833     17.7800      2.32  . Q       .         .         .       V .
19.917     17.7960      2.32  . Q       .         .         .       V .
20.000     17.8120      2.32  . Q       .         .         .       V .
20.083     17.8276      2.27  . Q       .         .         .       V .
20.167     17.8432      2.27  . Q       .         .         .       V .
20.250     17.8588      2.27  . Q       .         .         .       V .
20.333     17.8771      2.65  . Q       .         .         .       V .
20.417     17.8953      2.65  . Q       .         .         .       V .
20.500     17.9136      2.65  . Q       .         .         .       V .
20.583     17.9321      2.69  . Q       .         .         .       V .
20.667     17.9506      2.69  . Q       .         .         .       V .
20.750     17.9691      2.69  . Q       .         .         .       V .
20.833     17.9848      2.28  . Q       .         .         .       V .
20.917     18.0005      2.28  . Q       .         .         .       V .
21.000     18.0161      2.28  . Q       .         .         .       V .
21.083     18.0317      2.26  . Q       .         .         .       V .
21.167     18.0473      2.26  . Q       .         .         .       V .
21.250     18.0628      2.26  . Q       .         .         .       V .
21.333     18.0782      2.24  . Q       .         .         .        V.
21.417     18.0936      2.24  . Q       .         .         .        V.
21.500     18.1090      2.24  . Q       .         .         .        V.
21.583     18.1246      2.25  . Q       .         .         .        V.
21.667     18.1401      2.25  . Q       .         .         .        V.
21.750     18.1556      2.25  . Q       .         .         .        V.
21.833     18.1710      2.23  . Q       .         .         .        V.
21.917     18.1864      2.23  . Q       .         .         .        V.
22.000     18.2018      2.23  . Q       .         .         .        V.
22.083     18.2173      2.25  . Q       .         .         .        V.
22.167     18.2328      2.25  . Q       .         .         .        V.
22.250     18.2483      2.25  . Q       .         .         .        V.
22.333     18.2637      2.23  . Q       .         .         .        V.
22.417     18.2791      2.23  . Q       .         .         .        V.
22.500     18.2945      2.23  . Q       .         .         .        V.
22.583     18.3072      1.84  .Q        .         .         .        V.
22.667     18.3198      1.84  .Q        .         .         .        V.
22.750     18.3325      1.84  .Q        .         .         .        V.
22.833     18.3449      1.80  .Q        .         .         .        V.
22.917     18.3574      1.80  .Q        .         .         .        V.
23.000     18.3698      1.80  .Q        .         .         .        V.
23.083     18.3822      1.80  .Q        .         .         .        V.
23.166     18.3945      1.80  .Q        .         .         .        V.
23.250     18.4069      1.80  .Q        .         .         .        V.
23.333     18.4193      1.80  .Q        .         .         .        V.
23.416     18.4317      1.80  .Q        .         .         .        V.
23.500     18.4440      1.80  .Q        .         .         .        V.
23.583     18.4564      1.80  .Q        .         .         .        V.
23.666     18.4688      1.80  .Q        .         .         .        V.
23.750     18.4811      1.80  .Q        .         .         .        V.
23.833     18.4935      1.79  .Q        .         .         .        V.
23.916     18.5058      1.79  .Q        .         .         .        V.
24.000     18.5182      1.79  .Q        .         .         .        V.
24.083     18.5249      0.97  Q         .         .         .        V.
24.166     18.5316      0.97  Q         .         .         .        V.
24.250     18.5382      0.97  Q         .         .         .        V.
24.333     18.5390      0.11  Q         .         .         .        V.
24.416     18.5397      0.11  Q         .         .         .        V.
24.500     18.5405      0.11  Q         .         .         .        V.
24.583     18.5406      0.02  Q         .         .         .        V.
24.666     18.5408      0.02  Q         .         .         .        V.
24.750     18.5410      0.02  Q         .         .         .        V.
24.833     18.5410      0.01  Q         .         .         .        V.
24.916     18.5411      0.01  Q         .         .         .        V.
```

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  25.000     18.5411      0.01  Q         .         .         .        V.
--------------------------------------------------------------------------------
   TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
   (Note: 100% of Peak Flow Rate estimate assumed to have
   an instantaneous time duration)

   Percentile of Estimated               Duration
       Peak Flow Rate                    (minutes)
   ======================              =========
             0%                         1500.0
            10%                         1065.0
            20%                          690.0
            30%                          540.0
            40%                          480.0
            50%                          405.0
            60%                          255.0
            70%                          195.0
            80%                           60.0
            90%                           30.0


********************************************************************************
  FLOW PROCESS FROM NODE   104.00 TO NODE   105.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
================================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #2)

         WATERCOURSE LENGTH =    3781.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    2268.600 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      62.900 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     121.080 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.197 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.605
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
         MINIMUM SOIL-LOSS RATE(INCH/HOUR) =   0.300
         USER-ENTERED RAINFALL =  1.95 INCHES
         RCFC&WCD 24-Hour Storm (15-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9998


         UNIT HYDROGRAPH TIME UNIT =  15.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME = 127.183


================================================================================
                      UNIT HYDROGRAPH DETERMINATION

--------------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
--------------------------------------------------------------------------------
        1               23.805               116.193
        2               79.421               271.466
        3               93.967                70.998
        4               98.096                20.152
        5               98.840                 3.632
        6               99.426                 2.864
        7               99.771                 1.680
        8               99.943                 0.840
        9              100.000                 0.280
```

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0039	0.0035	0.0004
2	0.0058	0.0053	0.0006
3	0.0058	0.0053	0.0006
4	0.0078	0.0070	0.0008
5	0.0058	0.0053	0.0006
6	0.0058	0.0053	0.0006
7	0.0058	0.0053	0.0006
8	0.0078	0.0070	0.0008
9	0.0078	0.0070	0.0008
10	0.0078	0.0070	0.0008
11	0.0097	0.0088	0.0010
12	0.0097	0.0088	0.0010
13	0.0097	0.0088	0.0010
14	0.0097	0.0088	0.0010
15	0.0097	0.0088	0.0010
16	0.0117	0.0105	0.0012
17	0.0117	0.0105	0.0012
18	0.0136	0.0123	0.0014
19	0.0136	0.0123	0.0014
20	0.0156	0.0140	0.0016
21	0.0117	0.0105	0.0012
22	0.0136	0.0123	0.0014
23	0.0156	0.0140	0.0016
24	0.0156	0.0140	0.0016
25	0.0175	0.0158	0.0018
26	0.0175	0.0158	0.0018
27	0.0195	0.0175	0.0019
28	0.0195	0.0175	0.0019
29	0.0195	0.0175	0.0019
30	0.0214	0.0193	0.0021
31	0.0234	0.0211	0.0023
32	0.0253	0.0228	0.0025
33	0.0292	0.0263	0.0029
34	0.0292	0.0263	0.0029
35	0.0312	0.0281	0.0031
36	0.0331	0.0298	0.0033
37	0.0370	0.0333	0.0037
38	0.0390	0.0351	0.0039
39	0.0409	0.0368	0.0041
40	0.0429	0.0386	0.0043
41	0.0292	0.0263	0.0029
42	0.0292	0.0263	0.0029
43	0.0390	0.0351	0.0039
44	0.0390	0.0351	0.0039
45	0.0370	0.0333	0.0037
46	0.0370	0.0333	0.0037
47	0.0331	0.0298	0.0033
48	0.0351	0.0316	0.0035
49	0.0487	0.0439	0.0049
50	0.0507	0.0456	0.0051
51	0.0546	0.0491	0.0055
52	0.0565	0.0509	0.0057
53	0.0663	0.0597	0.0066
54	0.0663	0.0597	0.0066
55	0.0448	0.0404	0.0045
56	0.0448	0.0404	0.0045
57	0.0526	0.0474	0.0053
58	0.0507	0.0456	0.0051
59	0.0507	0.0456	0.0051
60	0.0487	0.0439	0.0049
61	0.0468	0.0421	0.0047
62	0.0448	0.0404	0.0045
63	0.0370	0.0333	0.0037
64	0.0370	0.0333	0.0037
65	0.0078	0.0070	0.0008
66	0.0078	0.0070	0.0008

67	0.0058	0.0053	0.0006
68	0.0058	0.0053	0.0006
69	0.0097	0.0088	0.0010
70	0.0097	0.0088	0.0010
71	0.0097	0.0088	0.0010
72	0.0078	0.0070	0.0008
73	0.0078	0.0070	0.0008
74	0.0078	0.0070	0.0008
75	0.0058	0.0053	0.0006
76	0.0039	0.0035	0.0004
77	0.0058	0.0053	0.0006
78	0.0078	0.0070	0.0008
79	0.0058	0.0053	0.0006
80	0.0039	0.0035	0.0004
81	0.0058	0.0053	0.0006
82	0.0058	0.0053	0.0006
83	0.0058	0.0053	0.0006
84	0.0039	0.0035	0.0004
85	0.0058	0.0053	0.0006
86	0.0039	0.0035	0.0004
87	0.0058	0.0053	0.0006
88	0.0039	0.0035	0.0004
89	0.0058	0.0053	0.0006
90	0.0039	0.0035	0.0004
91	0.0039	0.0035	0.0004
92	0.0039	0.0035	0.0004
93	0.0039	0.0035	0.0004
94	0.0039	0.0035	0.0004
95	0.0039	0.0035	0.0004
96	0.0039	0.0035	0.0004

TOTAL STORM RAINFALL(INCHES) = 1.95
TOTAL SOIL-LOSS(INCHES) = 1.75
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.19

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 17.7041
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 1.9661

==========

2 4 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

==========

HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	2.5	5.0	7.5	10.0
0.083	0.0003	0.05	Q	.	.	.	.
0.167	0.0006	0.05	Q	.	.	.	.
0.250	0.0009	0.05	Q	.	.	.	.
0.333	0.0021	0.17	Q	.	.	.	.
0.417	0.0033	0.17	Q	.	.	.	.
0.500	0.0045	0.17	Q	.	.	.	.
0.583	0.0063	0.25	VQ	.	.	.	.
0.667	0.0080	0.25	VQ	.	.	.	.
0.750	0.0098	0.25	VQ	.	.	.	.
0.833	0.0118	0.30	VQ	.	.	.	.
0.917	0.0139	0.30	VQ	.	.	.	.
1.000	0.0160	0.30	VQ	.	.	.	.
1.083	0.0183	0.33	VQ	.	.	.	.
1.167	0.0206	0.33	VQ	.	.	.	.
1.250	0.0229	0.33	VQ	.	.	.	.
1.333	0.0249	0.30	VQ	.	.	.	.
1.417	0.0270	0.30	VQ	.	.	.	.
1.500	0.0290	0.30	VQ	.	.	.	.
1.583	0.0310	0.29	VQ	.	.	.	.
1.667	0.0330	0.29	VQ	.	.	.	.

```
1.750      0.0350      0.29  VQ        .         .         .         .
1.833      0.0371      0.31  VQ        .         .         .         .
1.917      0.0392      0.31  VQ        .         .         .         .
2.000      0.0413      0.31  VQ        .         .         .         .
2.083      0.0438      0.36  VQ        .         .         .         .
2.167      0.0463      0.36  VQ        .         .         .         .
2.250      0.0488      0.36  VQ        .         .         .         .
2.333      0.0514      0.38  .Q        .         .         .         .
2.417      0.0540      0.38  .Q        .         .         .         .
2.500      0.0566      0.38  .Q        .         .         .         .
2.583      0.0593      0.40  .Q        .         .         .         .
2.667      0.0621      0.40  .Q        .         .         .         .
2.750      0.0649      0.40  .Q        .         .         .         .
2.833      0.0680      0.46  .Q        .         .         .         .
2.917      0.0711      0.46  .Q        .         .         .         .
3.000      0.0743      0.46  .Q        .         .         .         .
3.083      0.0775      0.47  .Q        .         .         .         .
3.167      0.0807      0.47  .Q        .         .         .         .
3.250      0.0840      0.47  .Q        .         .         .         .
3.333      0.0872      0.47  .Q        .         .         .         .
3.417      0.0905      0.47  .Q        .         .         .         .
3.500      0.0938      0.47  .Q        .         .         .         .
3.583      0.0970      0.47  .Q        .         .         .         .
3.667      0.1003      0.47  .QV       .         .         .         .
3.750      0.1036      0.47  .QV       .         .         .         .
3.833      0.1070      0.50  .QV       .         .         .         .
3.917      0.1104      0.50  .QV       .         .         .         .
4.000      0.1138      0.50  .QV       .         .         .         .
4.083      0.1176      0.55  . Q       .         .         .         .
4.167      0.1214      0.55  . Q       .         .         .         .
4.250      0.1252      0.55  . Q       .         .         .         .
4.333      0.1293      0.59  . Q       .         .         .         .
4.417      0.1333      0.59  . Q       .         .         .         .
4.500      0.1374      0.59  . Q       .         .         .         .
4.583      0.1418      0.64  . Q       .         .         .         .
4.667      0.1463      0.64  . Q       .         .         .         .
4.750      0.1507      0.64  . QV      .         .         .         .
4.833      0.1554      0.68  . QV      .         .         .         .
4.917      0.1601      0.68  . QV      .         .         .         .
5.000      0.1648      0.68  . QV      .         .         .         .
5.083      0.1696      0.69  . QV      .         .         .         .
5.167      0.1743      0.69  . QV      .         .         .         .
5.250      0.1791      0.69  . QV      .         .         .         .
5.333      0.1834      0.63  . QV      .         .         .         .
5.417      0.1877      0.63  . QV      .         .         .         .
5.500      0.1921      0.63  . QV      .         .         .         .
5.583      0.1967      0.68  . Q V     .         .         .         .
5.667      0.2014      0.68  . Q V     .         .         .         .
5.750      0.2061      0.68  . Q V     .         .         .         .
5.833      0.2112      0.74  . Q V     .         .         .         .
5.917      0.2162      0.74  . Q V     .         .         .         .
6.000      0.2213      0.74  . Q V     .         .         .         .
6.083      0.2267      0.78  .  QV     .         .         .         .
6.167      0.2320      0.78  .  QV     .         .         .         .
6.250      0.2374      0.78  .  QV     .         .         .         .
6.333      0.2431      0.83  .  QV     .         .         .         .
6.417      0.2489      0.83  .  Q V    .         .         .         .
6.500      0.2546      0.83  .  Q V    .         .         .         .
6.583      0.2607      0.87  .  Q V    .         .         .         .
6.667      0.2667      0.87  .  Q V    .         .         .         .
6.750      0.2727      0.87  .  Q V    .         .         .         .
6.833      0.2791      0.93  .  Q V    .         .         .         .
6.917      0.2855      0.93  .  Q V    .         .         .         .
7.000      0.2919      0.93  .  Q V    .         .         .         .
7.083      0.2984      0.94  .  Q  V   .         .         .         .
7.167      0.3049      0.94  .  Q  V   .         .         .         .
7.250      0.3114      0.94  .  Q  V   .         .         .         .
7.333      0.3181      0.97  .  Q  V   .         .         .         .
7.417      0.3248      0.97  .  Q  V   .         .         .         .
7.500      0.3315      0.97  .  Q  V   .         .         .         .
7.583      0.3387      1.05  .   Q V   .         .         .         .
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 7.667      0.3459      1.05  .   Q  V  .         .         .         .
 7.750      0.3531      1.05  .   Q  V  .         .         .         .
 7.833      0.3610      1.14  .   Q  V  .         .         .         .
 7.917      0.3688      1.14  .   Q  V  .         .         .         .
 8.000      0.3767      1.14  .   Q  V  .         .         .         .
 8.083      0.3853      1.26  .    Q V  .         .         .         .
 8.167      0.3939      1.26  .    Q  V .         .         .         .
 8.250      0.4026      1.26  .    Q  V .         .         .         .
 8.333      0.4121      1.38  .    Q  V .         .         .         .
 8.417      0.4216      1.38  .    Q  V .         .         .         .
 8.500      0.4311      1.38  .    Q  V .         .         .         .
 8.583      0.4410      1.44  .    Q  V .         .         .         .
 8.667      0.4508      1.44  .    Q   V.         .         .         .
 8.750      0.4607      1.44  .    Q   V.         .         .         .
 8.833      0.4712      1.52  .     Q  V.         .         .         .
 8.917      0.4817      1.52  .     Q  V.         .         .         .
 9.000      0.4921      1.52  .     Q   V         .         .         .
 9.083      0.5034      1.63  .     Q   V         .         .         .
 9.167      0.5147      1.63  .     Q   V         .         .         .
 9.250      0.5259      1.63  .     Q   V         .         .         .
 9.333      0.5382      1.78  .      Q  V         .         .         .
 9.417      0.5505      1.78  .      Q   V        .         .         .
 9.500      0.5627      1.78  .      Q   V        .         .         .
 9.583      0.5758      1.89  .      Q  .V        .         .         .
 9.667      0.5888      1.89  .      Q  .V        .         .         .
 9.750      0.6018      1.89  .      Q  . V       .         .         .
 9.833      0.6155      1.99  .      Q  . V       .         .         .
 9.917      0.6292      1.99  .      Q  . V       .         .         .
10.000      0.6429      1.99  .      Q  .  V      .         .         .
10.083      0.6561      1.90  .      Q  .  V      .         .         .
10.167      0.6692      1.90  .      Q  .  V      .         .         .
10.250      0.6823      1.90  .      Q  .  V      .         .         .
10.333      0.6930      1.55  .     Q   .   V     .         .         .
10.417      0.7037      1.55  .     Q   .   V     .         .         .
10.500      0.7144      1.55  .     Q   .   V     .         .         .
10.583      0.7253      1.58  .     Q   .   V     .         .         .
10.667      0.7361      1.58  .     Q   .   V     .         .         .
10.750      0.7470      1.58  .     Q   .    V    .         .         .
10.833      0.7595      1.82  .      Q  .    V    .         .         .
10.917      0.7720      1.82  .      Q  .    V    .         .         .
11.000      0.7845      1.82  .      Q  .    V    .         .         .
11.083      0.7973      1.86  .      Q  .     V   .         .         .
11.167      0.8101      1.86  .      Q  .     V   .         .         .
11.250      0.8229      1.86  .      Q  .     V   .         .         .
11.333      0.8355      1.82  .      Q  .     V   .         .         .
11.417      0.8480      1.82  .      Q  .      V  .         .         .
11.500      0.8606      1.82  .      Q  .      V  .         .         .
11.583      0.8727      1.76  .      Q  .      V  .         .         .
11.667      0.8849      1.76  .      Q  .       V .         .         .
11.750      0.8970      1.76  .      Q  .       V .         .         .
11.833      0.9086      1.68  .     Q   .       V .         .         .
11.917      0.9201      1.68  .     Q   .       V .         .         .
12.000      0.9317      1.68  .     Q   .       V .         .         .
12.083      0.9445      1.86  .      Q  .        V.         .         .
12.167      0.9574      1.86  .      Q  .        V.         .         .
12.250      0.9702      1.86  .      Q  .        V.         .         .
12.333      0.9858      2.26  .        Q.         V         .         .
12.417      1.0014      2.26  .        Q.         V         .         .
12.500      1.0170      2.26  .        Q.         V         .         .
12.583      1.0339      2.46  .        Q.         .V        .         .
12.667      1.0509      2.46  .        Q.         .V        .         .
12.750      1.0678      2.46  .        Q.         .V        .         .
12.833      1.0859      2.63  .         Q         . V       .         .
12.917      1.1040      2.63  .         Q         . V       .         .
13.000      1.1221      2.63  .         Q         . V       .         .
13.083      1.1416      2.83  .         .Q        .  V      .         .
13.167      1.1611      2.83  .         .Q        .  V      .         .
13.250      1.1806      2.83  .         .Q        .   V     .         .
13.333      1.2021      3.12  .         . Q       .   V     .         .
13.417      1.2237      3.12  .         . Q       .   V     .         .
13.500      1.2452      3.12  .         . Q       .    V    .         .
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13.583      1.2655      2.95  .         .Q        .    V    .         .
13.667      1.2858      2.95  .         .Q        .     V   .         .
13.750      1.3061      2.95  .         .Q        .     V   .         .
13.833      1.3226      2.39  .        Q.         .     V   .         .
13.917      1.3391      2.39  .        Q.         .      V  .         .
14.000      1.3556      2.39  .        Q.         .      V  .         .
14.083      1.3717      2.34  .        Q.         .      V  .         .
14.167      1.3877      2.34  .        Q.         .       V .         .
14.250      1.4038      2.34  .        Q.         .       V .         .
14.333      1.4210      2.49  .        Q.         .       V .         .
14.417      1.4381      2.49  .        Q.         .        V.         .
14.500      1.4552      2.49  .        Q.         .        V.         .
14.583      1.4723      2.48  .        Q.         .        V.         .
14.667      1.4894      2.48  .        Q.         .         V         .
14.750      1.5065      2.48  .        Q.         .         V         .
14.833      1.5234      2.46  .        Q.         .         V         .
14.917      1.5403      2.46  .        Q.         .          V        .
15.000      1.5572      2.46  .        Q.         .          V        .
15.083      1.5736      2.38  .        Q.         .         . V       .
15.167      1.5899      2.38  .        Q.         .         . V       .
15.250      1.6063      2.38  .        Q.         .         . V       .
15.333      1.6220      2.29  .        Q.         .         . V       .
15.417      1.6378      2.29  .        Q.         .         .  V      .
15.500      1.6535      2.29  .        Q.         .         .  V      .
15.583      1.6681      2.12  .       Q .         .         .  V      .
15.667      1.6828      2.12  .       Q .         .         .   V     .
15.750      1.6974      2.12  .       Q .         .         .   V     .
15.833      1.7105      1.90  .      Q  .         .         .   V     .
15.917      1.7235      1.90  .      Q  .         .         .    V    .
16.000      1.7366      1.90  .      Q  .         .         .    V    .
16.083      1.7469      1.49  .    Q    .         .         .    V    .
16.167      1.7572      1.49  .    Q    .         .         .    V    .
16.250      1.7674      1.49  .    Q    .         .         .    V    .
16.333      1.7722      0.68  . Q       .         .         .     V   .
16.417      1.7769      0.68  . Q       .         .         .     V   .
16.500      1.7816      0.68  . Q       .         .         .     V   .
16.583      1.7847      0.45  .Q        .         .         .     V   .
16.667      1.7878      0.45  .Q        .         .         .     V   .
16.750      1.7909      0.45  .Q        .         .         .     V   .
16.833      1.7932      0.33  .Q        .         .         .     V   .
16.917      1.7955      0.33  .Q        .         .         .     V   .
17.000      1.7978      0.33  .Q        .         .         .     V   .
17.083      1.8002      0.35  .Q        .         .         .     V   .
17.167      1.8026      0.35  .Q        .         .         .     V   .
17.250      1.8051      0.35  .Q        .         .         .     V   .
17.333      1.8082      0.45  .Q        .         .         .     V   .
17.417      1.8112      0.45  .Q        .         .         .     V   .
17.500      1.8143      0.45  .Q        .         .         .     V   .
17.583      1.8175      0.47  .Q        .         .         .     V   .
17.667      1.8208      0.47  .Q        .         .         .      V  .
17.750      1.8240      0.47  .Q        .         .         .      V  .
17.833      1.8271      0.45  .Q        .         .         .      V  .
17.917      1.8302      0.45  .Q        .         .         .      V  .
18.000      1.8333      0.45  .Q        .         .         .      V  .
18.083      1.8361      0.40  .Q        .         .         .      V  .
18.167      1.8388      0.40  .Q        .         .         .      V  .
18.250      1.8415      0.40  .Q        .         .         .      V  .
18.333      1.8442      0.39  .Q        .         .         .      V  .
18.417      1.8469      0.39  .Q        .         .         .      V  .
18.500      1.8495      0.39  .Q        .         .         .      V  .
18.583      1.8520      0.36  .Q        .         .         .      V  .
18.667      1.8545      0.36  .Q        .         .         .      V  .
18.750      1.8569      0.36  .Q        .         .         .      V  .
18.833      1.8589      0.28  .Q        .         .         .      V  .
18.917      1.8608      0.28  .Q        .         .         .      V  .
19.000      1.8628      0.28  .Q        .         .         .      V  .
19.083      1.8644      0.24  Q         .         .         .      V  .
19.167      1.8661      0.24  Q         .         .         .      V  .
19.250      1.8677      0.24  Q         .         .         .      V  .
19.333      1.8698      0.30  .Q        .         .         .       V .
19.417      1.8718      0.30  .Q        .         .         .       V .
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19.500	1.8738	0.30	.Q	.	.	.	V .
19.583	1.8762	0.34	.Q	.	.	.	V .
19.667	1.8785	0.34	.Q	.	.	.	V .
19.750	1.8808	0.34	.Q	.	.	.	V .
19.833	1.8827	0.28	.Q	.	.	.	V .
19.917	1.8846	0.28	.Q	.	.	.	V .
20.000	1.8865	0.28	.Q	.	.	.	V .
20.083	1.8881	0.24	Q	.	.	.	V .
20.167	1.8897	0.24	Q	.	.	.	V .
20.250	1.8914	0.24	Q	.	.	.	V .
20.333	1.8932	0.27	.Q	.	.	.	V .
20.417	1.8951	0.27	.Q	.	.	.	V .
20.500	1.8970	0.27	.Q	.	.	.	V .
20.583	1.8989	0.28	.Q	.	.	.	V .
20.667	1.9009	0.28	.Q	.	.	.	V .
20.750	1.9028	0.28	.Q	.	.	.	V .
20.833	1.9046	0.26	.Q	.	.	.	V .
20.917	1.9064	0.26	.Q	.	.	.	V .
21.000	1.9082	0.26	.Q	.	.	.	V .
21.083	1.9098	0.23	Q	.	.	.	V .
21.167	1.9114	0.23	Q	.	.	.	V .
21.250	1.9130	0.23	Q	.	.	.	V .
21.333	1.9147	0.25	Q	.	.	.	V .
21.417	1.9165	0.25	Q	.	.	.	V .
21.500	1.9182	0.25	Q	.	.	.	V.
21.583	1.9197	0.23	Q	.	.	.	V.
21.667	1.9213	0.23	Q	.	.	.	V.
21.750	1.9229	0.23	Q	.	.	.	V.
21.833	1.9246	0.25	Q	.	.	.	V.
21.917	1.9263	0.25	Q	.	.	.	V.
22.000	1.9280	0.25	Q	.	.	.	V.
22.083	1.9296	0.23	Q	.	.	.	V.
22.167	1.9312	0.23	Q	.	.	.	V.
22.250	1.9327	0.23	Q	.	.	.	V.
22.333	1.9344	0.25	Q	.	.	.	V.
22.417	1.9361	0.25	Q	.	.	.	V.
22.500	1.9379	0.25	Q	.	.	.	V.
22.583	1.9393	0.21	Q	.	.	.	V.
22.667	1.9407	0.21	Q	.	.	.	V.
22.750	1.9421	0.21	Q	.	.	.	V.
22.833	1.9434	0.19	Q	.	.	.	V.
22.917	1.9448	0.19	Q	.	.	.	V.
23.000	1.9461	0.19	Q	.	.	.	V.
23.083	1.9474	0.19	Q	.	.	.	V.
23.166	1.9488	0.19	Q	.	.	.	V.
23.250	1.9501	0.19	Q	.	.	.	V.
23.333	1.9514	0.19	Q	.	.	.	V.
23.416	1.9527	0.19	Q	.	.	.	V.
23.500	1.9540	0.19	Q	.	.	.	V.
23.583	1.9553	0.19	Q	.	.	.	V.
23.666	1.9567	0.19	Q	.	.	.	V.
23.750	1.9580	0.19	Q	.	.	.	V.
23.833	1.9593	0.19	Q	.	.	.	V.
23.916	1.9606	0.19	Q	.	.	.	V.
24.000	1.9619	0.19	Q	.	.	.	V.
24.083	1.9629	0.15	Q	.	.	.	V.
24.166	1.9639	0.15	Q	.	.	.	V.
24.250	1.9649	0.15	Q	.	.	.	V.
24.333	1.9652	0.04	Q	.	.	.	V.
24.416	1.9654	0.04	Q	.	.	.	V.
24.500	1.9657	0.04	Q	.	.	.	V.
24.583	1.9658	0.01	Q	.	.	.	V.
24.666	1.9659	0.01	Q	.	.	.	V.
24.750	1.9659	0.01	Q	.	.	.	V.
24.833	1.9660	0.00	Q	.	.	.	V.
24.916	1.9660	0.00	Q	.	.	.	V.
25.000	1.9660	0.00	Q	.	.	.	V.

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	1500.0
10%	1035.0
20%	720.0
30%	555.0
40%	495.0
50%	405.0
60%	270.0
70%	195.0
80%	60.0
90%	45.0

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****************************************************************************
  FLOW PROCESS FROM NODE   106.00 TO NODE   103.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
============================================================================

      (UNIT-HYDROGRAPH ADDED TO STREAM #3)

         WATERCOURSE LENGTH =    2948.000 FEET
         LENGTH FROM CONCENTRATION POINT TO CENTROID =    1768.800 FEET
         ELEVATION VARIATION ALONG WATERCOURSE =      14.700 FEET
         BASIN FACTOR = 0.030
         WATERSHED AREA =     136.170 ACRES
         BASEFLOW =   0.000 CFS/SQUARE-MILE
         WATERCOURSE "LAG" TIME =    0.205 HOURS
          CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
          THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
          MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
         FOOTHILL S-GRAPH SELECTED
         UNIFORM MEAN SOIL-LOSS(INCH/HOUR) =  0.565
         LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.900
         MINIMUM SOIL-LOSS RATE(INCH/HOUR) =   0.280
         USER-ENTERED RAINFALL =  1.95 INCHES
         RCFC&WCD 24-Hour Storm (15-Minute period) SELECTED
         RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 0.9998


         UNIT HYDROGRAPH TIME UNIT =  15.000 MINUTES
         UNIT INTERVAL PERCENTAGE OF LAG-TIME = 122.223


============================================================================
                      UNIT HYDROGRAPH DETERMINATION

----------------------------------------------------------------------------
    INTERVAL          "S" GRAPH          UNIT HYDROGRAPH
     NUMBER          MEAN VALUES          ORDINATES(CFS)
----------------------------------------------------------------------------
        1                22.184               121.775
        2                78.029               306.553
        3                93.193                83.240
        4                97.884                25.752
        5                98.724                 4.612
        6                99.336                 3.357
        7                99.734                 2.188
        8                99.934                 1.094
        9               100.000                 0.365
```

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0039	0.0035	0.0004
2	0.0058	0.0053	0.0006
3	0.0058	0.0053	0.0006
4	0.0078	0.0070	0.0008
5	0.0058	0.0053	0.0006
6	0.0058	0.0053	0.0006
7	0.0058	0.0053	0.0006
8	0.0078	0.0070	0.0008
9	0.0078	0.0070	0.0008
10	0.0078	0.0070	0.0008
11	0.0097	0.0088	0.0010
12	0.0097	0.0088	0.0010
13	0.0097	0.0088	0.0010
14	0.0097	0.0088	0.0010
15	0.0097	0.0088	0.0010
16	0.0117	0.0105	0.0012
17	0.0117	0.0105	0.0012
18	0.0136	0.0123	0.0014
19	0.0136	0.0123	0.0014
20	0.0156	0.0140	0.0016
21	0.0117	0.0105	0.0012
22	0.0136	0.0123	0.0014
23	0.0156	0.0140	0.0016
24	0.0156	0.0140	0.0016
25	0.0175	0.0158	0.0018
26	0.0175	0.0158	0.0018
27	0.0195	0.0175	0.0019
28	0.0195	0.0175	0.0019
29	0.0195	0.0175	0.0019
30	0.0214	0.0193	0.0021
31	0.0234	0.0211	0.0023
32	0.0253	0.0228	0.0025
33	0.0292	0.0263	0.0029
34	0.0292	0.0263	0.0029
35	0.0312	0.0281	0.0031
36	0.0331	0.0298	0.0033
37	0.0370	0.0333	0.0037
38	0.0390	0.0351	0.0039
39	0.0409	0.0368	0.0041
40	0.0429	0.0386	0.0043
41	0.0292	0.0263	0.0029
42	0.0292	0.0263	0.0029
43	0.0390	0.0351	0.0039
44	0.0390	0.0351	0.0039
45	0.0370	0.0333	0.0037
46	0.0370	0.0333	0.0037
47	0.0331	0.0298	0.0033
48	0.0351	0.0316	0.0035
49	0.0487	0.0439	0.0049
50	0.0507	0.0456	0.0051
51	0.0546	0.0491	0.0055
52	0.0565	0.0509	0.0057
53	0.0663	0.0597	0.0066
54	0.0663	0.0597	0.0066
55	0.0448	0.0404	0.0045
56	0.0448	0.0404	0.0045
57	0.0526	0.0474	0.0053
58	0.0507	0.0456	0.0051
59	0.0507	0.0456	0.0051
60	0.0487	0.0439	0.0049
61	0.0468	0.0421	0.0047
62	0.0448	0.0404	0.0045
63	0.0370	0.0333	0.0037
64	0.0370	0.0333	0.0037
65	0.0078	0.0070	0.0008
66	0.0078	0.0070	0.0008

67	0.0058	0.0053	0.0006
68	0.0058	0.0053	0.0006
69	0.0097	0.0088	0.0010
70	0.0097	0.0088	0.0010
71	0.0097	0.0088	0.0010
72	0.0078	0.0070	0.0008
73	0.0078	0.0070	0.0008
74	0.0078	0.0070	0.0008
75	0.0058	0.0053	0.0006
76	0.0039	0.0035	0.0004
77	0.0058	0.0053	0.0006
78	0.0078	0.0070	0.0008
79	0.0058	0.0053	0.0006
80	0.0039	0.0035	0.0004
81	0.0058	0.0053	0.0006
82	0.0058	0.0053	0.0006
83	0.0058	0.0053	0.0006
84	0.0039	0.0035	0.0004
85	0.0058	0.0053	0.0006
86	0.0039	0.0035	0.0004
87	0.0058	0.0053	0.0006
88	0.0039	0.0035	0.0004
89	0.0058	0.0053	0.0006
90	0.0039	0.0035	0.0004
91	0.0039	0.0035	0.0004
92	0.0039	0.0035	0.0004
93	0.0039	0.0035	0.0004
94	0.0039	0.0035	0.0004
95	0.0039	0.0035	0.0004
96	0.0039	0.0035	0.0004

TOTAL STORM RAINFALL(INCHES) = 1.95
TOTAL SOIL-LOSS(INCHES) = 1.75
TOTAL EFFECTIVE RAINFALL(INCHES) = 0.19

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 19.9099
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 2.2111

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2 4 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	2.5	5.0	7.5	10.0
0.083	0.0003	0.05	Q	.	.	.	.
0.167	0.0007	0.05	Q	.	.	.	.
0.250	0.0010	0.05	Q	.	.	.	.
0.333	0.0023	0.19	Q	.	.	.	.
0.417	0.0036	0.19	Q	.	.	.	.
0.500	0.0049	0.19	Q	.	.	.	.
0.583	0.0069	0.28	VQ	.	.	.	.
0.667	0.0088	0.28	VQ	.	.	.	.
0.750	0.0108	0.28	VQ	.	.	.	.
0.833	0.0131	0.33	VQ	.	.	.	.
0.917	0.0154	0.33	VQ	.	.	.	.
1.000	0.0176	0.33	VQ	.	.	.	.
1.083	0.0202	0.38	VQ	.	.	.	.
1.167	0.0228	0.38	VQ	.	.	.	.
1.250	0.0254	0.38	VQ	.	.	.	.
1.333	0.0277	0.33	VQ	.	.	.	.
1.417	0.0300	0.33	VQ	.	.	.	.
1.500	0.0323	0.33	VQ	.	.	.	.
1.583	0.0346	0.32	VQ	.	.	.	.
1.667	0.0368	0.32	VQ	.	.	.	.

1.750	0.0390	0.32	VQ	.	.	.	.
1.833	0.0414	0.35	VQ	.	.	.	.
1.917	0.0438	0.35	VQ	.	.	.	.
2.000	0.0462	0.35	VQ	.	.	.	.
2.083	0.0490	0.41	VQ	.	.	.	.
2.167	0.0517	0.41	VQ	.	.	.	.
2.250	0.0545	0.41	VQ	.	.	.	.
2.333	0.0574	0.42	.Q	.	.	.	.
2.417	0.0603	0.42	.Q	.	.	.	.
2.500	0.0632	0.42	.Q	.	.	.	.
2.583	0.0663	0.45	.Q	.	.	.	.
2.667	0.0694	0.45	.Q	.	.	.	.
2.750	0.0725	0.45	.Q	.	.	.	.
2.833	0.0760	0.51	.VQ	.	.	.	.
2.917	0.0796	0.51	.VQ	.	.	.	.
3.000	0.0831	0.51	.VQ	.	.	.	.
3.083	0.0867	0.53	.VQ	.	.	.	.
3.167	0.0903	0.53	.VQ	.	.	.	.
3.250	0.0940	0.53	.VQ	.	.	.	.
3.333	0.0976	0.53	.VQ	.	.	.	.
3.417	0.1013	0.53	.VQ	.	.	.	.
3.500	0.1050	0.53	.VQ	.	.	.	.
3.583	0.1086	0.53	.VQ	.	.	.	.
3.667	0.1123	0.53	. Q	.	.	.	.
3.750	0.1160	0.53	. Q	.	.	.	.
3.833	0.1198	0.56	. Q	.	.	.	.
3.917	0.1237	0.56	. Q	.	.	.	.
4.000	0.1275	0.56	. Q	.	.	.	.
4.083	0.1318	0.62	. Q	.	.	.	.
4.167	0.1360	0.62	. Q	.	.	.	.
4.250	0.1403	0.62	. Q	.	.	.	.
4.333	0.1448	0.66	. Q	.	.	.	.
4.417	0.1494	0.66	. Q	.	.	.	.
4.500	0.1539	0.66	. Q	.	.	.	.
4.583	0.1589	0.72	. Q	.	.	.	.
4.667	0.1639	0.72	. Q	.	.	.	.
4.750	0.1689	0.72	. QV	.	.	.	.
4.833	0.1741	0.76	. Q	.	.	.	.
4.917	0.1794	0.76	. Q	.	.	.	.
5.000	0.1846	0.76	. Q	.	.	.	.
5.083	0.1900	0.78	. Q	.	.	.	.
5.167	0.1954	0.78	. Q	.	.	.	.
5.250	0.2008	0.78	. Q	.	.	.	.
5.333	0.2056	0.70	. QV	.	.	.	.
5.417	0.2105	0.70	. QV	.	.	.	.
5.500	0.2153	0.70	. QV	.	.	.	.
5.583	0.2206	0.76	. Q	.	.	.	.
5.667	0.2258	0.76	. QV	.	.	.	.
5.750	0.2311	0.76	. QV	.	.	.	.
5.833	0.2368	0.83	. QV	.	.	.	.
5.917	0.2425	0.83	. QV	.	.	.	.
6.000	0.2482	0.83	. QV	.	.	.	.
6.083	0.2542	0.87	. QV	.	.	.	.
6.167	0.2602	0.87	. QV	.	.	.	.
6.250	0.2662	0.87	. QV	.	.	.	.
6.333	0.2727	0.94	. QV	.	.	.	.
6.417	0.2791	0.94	. Q V	.	.	.	.
6.500	0.2856	0.94	. Q V	.	.	.	.
6.583	0.2923	0.98	. Q V	.	.	.	.
6.667	0.2990	0.98	. Q V	.	.	.	.
6.750	0.3058	0.98	. Q V	.	.	.	.
6.833	0.3130	1.04	. QV	.	.	.	.
6.917	0.3201	1.04	. QV	.	.	.	.
7.000	0.3273	1.04	. QV	.	.	.	.
7.083	0.3346	1.06	. Q V	.	.	.	.
7.167	0.3419	1.06	. Q V	.	.	.	.
7.250	0.3493	1.06	. Q V	.	.	.	.
7.333	0.3568	1.09	. Q V	.	.	.	.
7.417	0.3643	1.09	. Q V	.	.	.	.
7.500	0.3718	1.09	. Q V	.	.	.	.
7.583	0.3799	1.18	. Q V	.	.	.	.

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 7.667      0.3880      1.18  .   Q  V  .         .         .         .
 7.750      0.3961      1.18  .   Q  V  .         .         .         .
 7.833      0.4049      1.28  .    Q V  .         .         .         .
 7.917      0.4137      1.28  .    Q V  .         .         .         .
 8.000      0.4225      1.28  .    Q V  .         .         .         .
 8.083      0.4321      1.41  .    Q V  .         .         .         .
 8.167      0.4418      1.41  .    Q V  .         .         .         .
 8.250      0.4515      1.41  .    Q  V .         .         .         .
 8.333      0.4621      1.55  .     Q V .         .         .         .
 8.417      0.4728      1.55  .     Q V .         .         .         .
 8.500      0.4835      1.55  .     Q V .         .         .         .
 8.583      0.4945      1.61  .     Q V .         .         .         .
 8.667      0.5056      1.61  .     Q  V.         .         .         .
 8.750      0.5167      1.61  .     Q  V.         .         .         .
 8.833      0.5285      1.71  .     Q  V.         .         .         .
 8.917      0.5402      1.71  .     Q  V.         .         .         .
 9.000      0.5520      1.71  .     Q  V.         .         .         .
 9.083      0.5646      1.83  .      Q  V         .         .         .
 9.167      0.5772      1.83  .      Q  V         .         .         .
 9.250      0.5898      1.83  .      Q  V         .         .         .
 9.333      0.6036      2.00  .      Q  V         .         .         .
 9.417      0.6173      2.00  .      Q   V        .         .         .
 9.500      0.6311      2.00  .      Q   V        .         .         .
 9.583      0.6457      2.12  .       Q .V        .         .         .
 9.667      0.6603      2.12  .       Q .V        .         .         .
 9.750      0.6750      2.12  .       Q . V       .         .         .
 9.833      0.6903      2.23  .       Q . V       .         .         .
 9.917      0.7057      2.23  .       Q . V       .         .         .
10.000      0.7211      2.23  .       Q .  V      .         .         .
10.083      0.7359      2.15  .       Q .  V      .         .         .
10.167      0.7507      2.15  .       Q .  V      .         .         .
10.250      0.7655      2.15  .       Q .  V      .         .         .
10.333      0.7776      1.76  .      Q  .   V     .         .         .
10.417      0.7898      1.76  .      Q  .   V     .         .         .
10.500      0.8019      1.76  .      Q  .   V     .         .         .
10.583      0.8140      1.77  .      Q  .   V     .         .         .
10.667      0.8262      1.77  .      Q  .   V     .         .         .
10.750      0.8384      1.77  .      Q  .    V    .         .         .
10.833      0.8524      2.04  .       Q .    V    .         .         .
10.917      0.8665      2.04  .       Q .    V    .         .         .
11.000      0.8805      2.04  .       Q .    V    .         .         .
11.083      0.8949      2.09  .       Q .     V   .         .         .
11.167      0.9093      2.09  .       Q .     V   .         .         .
11.250      0.9236      2.09  .       Q .     V   .         .         .
11.333      0.9378      2.05  .       Q .     V   .         .         .
11.417      0.9519      2.05  .       Q .      V  .         .         .
11.500      0.9660      2.05  .       Q .      V  .         .         .
11.583      0.9797      1.99  .      Q  .      V  .         .         .
11.667      0.9934      1.99  .      Q  .      V  .         .         .
11.750      1.0071      1.99  .      Q  .       V .         .         .
11.833      1.0201      1.89  .      Q  .       V .         .         .
11.917      1.0331      1.89  .      Q  .       V .         .         .
12.000      1.0461      1.89  .      Q  .       V .         .         .
12.083      1.0605      2.08  .       Q .        V.         .         .
12.167      1.0748      2.08  .       Q .        V.         .         .
12.250      1.0892      2.08  .       Q .        V.         .         .
12.333      1.1066      2.53  .         Q         V         .         .
12.417      1.1240      2.53  .         Q         V         .         .
12.500      1.1415      2.53  .         Q         V         .         .
12.583      1.1605      2.76  .         .Q        V         .         .
12.667      1.1794      2.76  .         .Q         V        .         .
12.750      1.1984      2.76  .         .Q         V        .         .
12.833      1.2187      2.95  .         .Q        . V       .         .
12.917      1.2391      2.95  .         .Q        . V       .         .
13.000      1.2594      2.95  .         .Q        . V       .         .
13.083      1.2812      3.17  .         . Q       .  V      .         .
13.167      1.3031      3.17  .         . Q       .  V      .         .
13.250      1.3249      3.17  .         . Q       .  V      .         .
13.333      1.3490      3.50  .         .   Q     .   V     .         .
13.417      1.3732      3.50  .         .   Q     .   V     .         .
13.500      1.3973      3.50  .         .   Q     .    V    .         .
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13.583	1.4202	3.33	. . Q . V .
13.667	1.4432	3.33	. . Q . V .
13.750	1.4662	3.33	. . Q . V .
13.833	1.4848	2.71	. Q . V .
13.917	1.5034	2.71	. Q . V .
14.000	1.5220	2.71	. Q . V .
14.083	1.5401	2.63	. Q . V .
14.167	1.5582	2.63	. Q . V .
14.250	1.5763	2.63	. Q . V .
14.333	1.5956	2.79	. .Q . V .
14.417	1.6148	2.79	. .Q . V .
14.500	1.6340	2.79	. .Q . V .
14.583	1.6533	2.79	. .Q . V .
14.667	1.6725	2.79	. .Q . V .
14.750	1.6917	2.79	. .Q . V .
14.833	1.7107	2.76	. .Q . V .
14.917	1.7298	2.76	. .Q . V .
15.000	1.7488	2.76	. .Q . V .
15.083	1.7672	2.68	. Q . .V .
15.167	1.7857	2.68	. Q . . V .
15.250	1.8041	2.68	. Q . . V .
15.333	1.8218	2.57	. Q . . V .
15.417	1.8395	2.57	. Q . . V .
15.500	1.8573	2.57	. Q . . V .
15.583	1.8738	2.40	. Q. . . V .
15.667	1.8903	2.40	. Q. . . V .
15.750	1.9068	2.40	. Q. . . V .
15.833	1.9216	2.14	. Q . . . V .
15.917	1.9363	2.14	. Q . . . V .
16.000	1.9510	2.14	. Q . . . V .
16.083	1.9628	1.71	. Q . . . V .
16.167	1.9746	1.71	. Q . . . V .
16.250	1.9864	1.71	. Q . . . V .
16.333	1.9918	0.79	. Q . . . V .
16.417	1.9973	0.79	. Q . . . V .
16.500	2.0027	0.79	. Q . . . V .
16.583	2.0063	0.52	. Q . . . V .
16.667	2.0099	0.52	. Q . . . V .
16.750	2.0135	0.52	. Q . . . V .
16.833	2.0161	0.38	.Q . . . V .
16.917	2.0187	0.38	.Q . . . V .
17.000	2.0214	0.38	.Q . . . V .
17.083	2.0241	0.40	.Q . . . V .
17.167	2.0268	0.40	.Q . . . V .
17.250	2.0296	0.40	.Q . . . V .
17.333	2.0330	0.50	. Q . . . V .
17.417	2.0365	0.50	. Q . . . V .
17.500	2.0399	0.50	. Q . . . V .
17.583	2.0436	0.53	. Q . . . V .
17.667	2.0472	0.53	. Q . . . V .
17.750	2.0508	0.53	. Q . . . V .
17.833	2.0543	0.51	. Q . . . V .
17.917	2.0578	0.51	. Q . . . V .
18.000	2.0613	0.51	. Q . . . V .
18.083	2.0644	0.45	.Q . . . V .
18.167	2.0675	0.45	.Q . . . V .
18.250	2.0706	0.45	.Q . . . V .
18.333	2.0736	0.43	.Q . . . V .
18.417	2.0766	0.43	.Q . . . V .
18.500	2.0796	0.43	.Q . . . V .
18.583	2.0824	0.41	.Q . . . V .
18.667	2.0852	0.41	.Q . . . V .
18.750	2.0880	0.41	.Q . . . V .
18.833	2.0902	0.32	.Q . . . V .
18.917	2.0924	0.32	.Q . . . V .
19.000	2.0946	0.32	.Q . . . V .
19.083	2.0965	0.27	.Q . . . V .
19.167	2.0983	0.27	.Q . . . V .
19.250	2.1002	0.27	.Q . . . V .
19.333	2.1025	0.33	.Q . . . V .
19.417	2.1047	0.33	.Q . . . V .

19.500	2.1070	0.33	.Q	.	.	.	V .
19.583	2.1096	0.38	.Q	.	.	.	V .
19.667	2.1122	0.38	.Q	.	.	.	V .
19.750	2.1148	0.38	.Q	.	.	.	V .
19.833	2.1170	0.31	.Q	.	.	.	V .
19.917	2.1191	0.31	.Q	.	.	.	V .
20.000	2.1213	0.31	.Q	.	.	.	V .
20.083	2.1231	0.27	.Q	.	.	.	V .
20.167	2.1249	0.27	.Q	.	.	.	V .
20.250	2.1268	0.27	.Q	.	.	.	V .
20.333	2.1289	0.31	.Q	.	.	.	V .
20.417	2.1310	0.31	.Q	.	.	.	V .
20.500	2.1331	0.31	.Q	.	.	.	V .
20.583	2.1353	0.32	.Q	.	.	.	V .
20.667	2.1374	0.32	.Q	.	.	.	V .
20.750	2.1396	0.32	.Q	.	.	.	V .
20.833	2.1417	0.30	.Q	.	.	.	V .
20.917	2.1437	0.30	.Q	.	.	.	V .
21.000	2.1458	0.30	.Q	.	.	.	V .
21.083	2.1476	0.26	.Q	.	.	.	V .
21.167	2.1494	0.26	.Q	.	.	.	V .
21.250	2.1511	0.26	.Q	.	.	.	V .
21.333	2.1531	0.28	.Q	.	.	.	V .
21.417	2.1550	0.28	.Q	.	.	.	V .
21.500	2.1569	0.28	.Q	.	.	.	V.
21.583	2.1587	0.26	.Q	.	.	.	V.
21.667	2.1605	0.26	.Q	.	.	.	V.
21.750	2.1622	0.26	.Q	.	.	.	V.
21.833	2.1642	0.28	.Q	.	.	.	V.
21.917	2.1661	0.28	.Q	.	.	.	V.
22.000	2.1680	0.28	.Q	.	.	.	V.
22.083	2.1698	0.26	.Q	.	.	.	V.
22.167	2.1715	0.26	.Q	.	.	.	V.
22.250	2.1733	0.26	.Q	.	.	.	V.
22.333	2.1752	0.28	.Q	.	.	.	V.
22.417	2.1772	0.28	.Q	.	.	.	V.
22.500	2.1791	0.28	.Q	.	.	.	V.
22.583	2.1807	0.23	Q	.	.	.	V.
22.667	2.1823	0.23	Q	.	.	.	V.
22.750	2.1839	0.23	Q	.	.	.	V.
22.833	2.1854	0.22	Q	.	.	.	V.
22.917	2.1869	0.22	Q	.	.	.	V.
23.000	2.1884	0.22	Q	.	.	.	V.
23.083	2.1899	0.22	Q	.	.	.	V.
23.166	2.1914	0.22	Q	.	.	.	V.
23.250	2.1929	0.22	Q	.	.	.	V.
23.333	2.1943	0.21	Q	.	.	.	V.
23.416	2.1958	0.21	Q	.	.	.	V.
23.500	2.1973	0.21	Q	.	.	.	V.
23.583	2.1988	0.21	Q	.	.	.	V.
23.666	2.2003	0.21	Q	.	.	.	V.
23.750	2.2017	0.21	Q	.	.	.	V.
23.833	2.2032	0.21	Q	.	.	.	V.
23.916	2.2047	0.21	Q	.	.	.	V.
24.000	2.2062	0.21	Q	.	.	.	V.
24.083	2.2073	0.17	Q	.	.	.	V.
24.166	2.2085	0.17	Q	.	.	.	V.
24.250	2.2096	0.17	Q	.	.	.	V.
24.333	2.2099	0.05	Q	.	.	.	V.
24.416	2.2103	0.05	Q	.	.	.	V.
24.500	2.2106	0.05	Q	.	.	.	V.
24.583	2.2107	0.01	Q	.	.	.	V.
24.666	2.2108	0.01	Q	.	.	.	V.
24.750	2.2109	0.01	Q	.	.	.	V.
24.833	2.2109	0.00	Q	.	.	.	V.
24.916	2.2109	0.00	Q	.	.	.	V.
25.000	2.2110	0.00	Q	.	.	.	V.

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	1500.0
10%	1035.0
20%	720.0
30%	555.0
40%	495.0
50%	420.0
60%	270.0
70%	195.0
80%	60.0
90%	45.0

****
FLOW PROCESS FROM NODE 500.00 TO NODE 501.00 IS CODE = 1

>>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS)<<<<<
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(UNIT-HYDROGRAPH ADDED TO STREAM #4)

WATERSHED AREA = 20.000 ACRES
BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.100 HOURS
CAUTION: LAG TIME IS LESS THAN 0.50 HOURS.
THE 5-MINUTE PERIOD UH MODEL (USED IN THIS COMPUTER PROGRAM)
MAY BE TOO LARGE FOR PEAK FLOW ESTIMATES.
FOOTHILL S-GRAPH SELECTED
UNIFORM MEAN SOIL-LOSS(INCH/HOUR) = 0.050
LOW SOIL-LOSS RATE PERCENT(DECIMAL) = 0.180
MINIMUM SOIL-LOSS RATE(INCH/HOUR) = 0.030
USER-ENTERED RAINFALL = 1.95 INCHES
RCFC&WCD 24-Hour Storm (15-Minute period) SELECTED
RCFC&WCD DEPTH-AREA ADJUSTMENT FACTOR(PLATE E-5.8) = 1.0000

UNIT HYDROGRAPH TIME UNIT = 15.000 MINUTES
UNIT INTERVAL PERCENTAGE OF LAG-TIME = 250.000

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UNIT HYDROGRAPH DETERMINATION

INTERVAL NUMBER	"S" GRAPH MEAN VALUES	UNIT HYDROGRAPH ORDINATES(CFS)
1	50.960	41.086
2	95.823	36.171
3	99.089	2.633
4	99.636	0.441
5	99.909	0.220
6	100.000	0.073

****

UNIT PERIOD (NUMBER)	UNIT RAINFALL (INCHES)	UNIT SOIL-LOSS (INCHES)	EFFECTIVE RAINFALL (INCHES)
1	0.0039	0.0007	0.0032
2	0.0058	0.0011	0.0048
3	0.0058	0.0011	0.0048
4	0.0078	0.0014	0.0064
5	0.0058	0.0011	0.0048
6	0.0058	0.0011	0.0048
7	0.0058	0.0011	0.0048
8	0.0078	0.0014	0.0064

9	0.0078	0.0014	0.0064
10	0.0078	0.0014	0.0064
11	0.0097	0.0018	0.0080
12	0.0097	0.0018	0.0080
13	0.0097	0.0018	0.0080
14	0.0097	0.0018	0.0080
15	0.0097	0.0018	0.0080
16	0.0117	0.0021	0.0096
17	0.0117	0.0021	0.0096
18	0.0136	0.0025	0.0112
19	0.0136	0.0025	0.0112
20	0.0156	0.0028	0.0128
21	0.0117	0.0021	0.0096
22	0.0136	0.0025	0.0112
23	0.0156	0.0028	0.0128
24	0.0156	0.0028	0.0128
25	0.0175	0.0032	0.0144
26	0.0175	0.0032	0.0144
27	0.0195	0.0035	0.0160
28	0.0195	0.0035	0.0160
29	0.0195	0.0035	0.0160
30	0.0214	0.0039	0.0176
31	0.0234	0.0042	0.0192
32	0.0253	0.0046	0.0208
33	0.0292	0.0053	0.0240
34	0.0292	0.0053	0.0240
35	0.0312	0.0056	0.0256
36	0.0331	0.0060	0.0272
37	0.0370	0.0067	0.0304
38	0.0390	0.0070	0.0320
39	0.0409	0.0074	0.0336
40	0.0429	0.0077	0.0352
41	0.0292	0.0053	0.0240
42	0.0292	0.0053	0.0240
43	0.0390	0.0070	0.0320
44	0.0390	0.0070	0.0320
45	0.0370	0.0067	0.0304
46	0.0370	0.0067	0.0304
47	0.0331	0.0060	0.0272
48	0.0351	0.0063	0.0288
49	0.0487	0.0088	0.0400
50	0.0507	0.0091	0.0416
51	0.0546	0.0098	0.0448
52	0.0565	0.0102	0.0464
53	0.0663	0.0112	0.0551
54	0.0663	0.0111	0.0552
55	0.0448	0.0081	0.0368
56	0.0448	0.0081	0.0368
57	0.0526	0.0095	0.0432
58	0.0507	0.0091	0.0416
59	0.0507	0.0091	0.0416
60	0.0487	0.0088	0.0400
61	0.0468	0.0084	0.0384
62	0.0448	0.0081	0.0368
63	0.0370	0.0067	0.0304
64	0.0370	0.0067	0.0304
65	0.0078	0.0014	0.0064
66	0.0078	0.0014	0.0064
67	0.0058	0.0011	0.0048
68	0.0058	0.0011	0.0048
69	0.0097	0.0018	0.0080
70	0.0097	0.0018	0.0080
71	0.0097	0.0018	0.0080
72	0.0078	0.0014	0.0064
73	0.0078	0.0014	0.0064
74	0.0078	0.0014	0.0064
75	0.0058	0.0011	0.0048
76	0.0039	0.0007	0.0032
77	0.0058	0.0011	0.0048
78	0.0078	0.0014	0.0064
79	0.0058	0.0011	0.0048

80	0.0039	0.0007	0.0032
81	0.0058	0.0011	0.0048
82	0.0058	0.0011	0.0048
83	0.0058	0.0011	0.0048
84	0.0039	0.0007	0.0032
85	0.0058	0.0011	0.0048
86	0.0039	0.0007	0.0032
87	0.0058	0.0011	0.0048
88	0.0039	0.0007	0.0032
89	0.0058	0.0011	0.0048
90	0.0039	0.0007	0.0032
91	0.0039	0.0007	0.0032
92	0.0039	0.0007	0.0032
93	0.0039	0.0007	0.0032
94	0.0039	0.0007	0.0032
95	0.0039	0.0007	0.0032
96	0.0039	0.0007	0.0032

TOTAL STORM RAINFALL(INCHES) = 1.95
TOTAL SOIL-LOSS(INCHES) = 0.35
TOTAL EFFECTIVE RAINFALL(INCHES) = 1.60

TOTAL SOIL-LOSS VOLUME(ACRE-FEET) = 0.5825
TOTAL STORM RUNOFF VOLUME(ACRE-FEET) = 2.6661

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2 4 - H O U R S T O R M
R U N O F F H Y D R O G R A P H

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HYDROGRAPH IN FIVE-MINUTE UNIT INTERVALS(CFS)
(Note: Time indicated is at END of Each Unit Intervals)

TIME(HRS)	VOLUME(AF)	Q(CFS)	0.	2.5	5.0	7.5	10.0
0.083	0.0009	0.13	Q	.	.	.	.
0.167	0.0018	0.13	Q	.	.	.	.
0.250	0.0027	0.13	Q	.	.	.	.
0.333	0.0049	0.31	VQ	.	.	.	.
0.417	0.0070	0.31	VQ	.	.	.	.
0.500	0.0092	0.31	VQ	.	.	.	.
0.583	0.0118	0.38	VQ	.	.	.	.
0.667	0.0144	0.38	VQ	.	.	.	.
0.750	0.0170	0.38	VQ	.	.	.	.
0.833	0.0201	0.45	VQ	.	.	.	.
0.917	0.0232	0.45	VQ	.	.	.	.
1.000	0.0263	0.45	VQ	.	.	.	.
1.083	0.0294	0.44	VQ	.	.	.	.
1.167	0.0324	0.44	VQ	.	.	.	.
1.250	0.0355	0.44	VQ	.	.	.	.
1.333	0.0382	0.39	VQ	.	.	.	.
1.417	0.0409	0.39	VQ	.	.	.	.
1.500	0.0436	0.39	VQ	.	.	.	.
1.583	0.0462	0.39	VQ	.	.	.	.
1.667	0.0489	0.39	VQ	.	.	.	.
1.750	0.0516	0.39	VQ	.	.	.	.
1.833	0.0547	0.45	VQ	.	.	.	.
1.917	0.0578	0.45	VQ	.	.	.	.
2.000	0.0609	0.45	VQ	.	.	.	.
2.083	0.0644	0.51	V Q	.	.	.	.
2.167	0.0679	0.51	VQ	.	.	.	.
2.250	0.0715	0.51	VQ	.	.	.	.
2.333	0.0750	0.51	.VQ	.	.	.	.
2.417	0.0785	0.51	.VQ	.	.	.	.
2.500	0.0821	0.51	.VQ	.	.	.	.
2.583	0.0861	0.58	.VQ	.	.	.	.
2.667	0.0901	0.58	.VQ	.	.	.	.
2.750	0.0941	0.58	.VQ	.	.	.	.

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2.833      0.0985      0.64  .VQ       .         .         .         .
2.917      0.1029      0.64  .VQ       .         .         .         .
3.000      0.1073      0.64  .VQ       .         .         .         .
3.083      0.1117      0.64  .VQ       .         .         .         .
3.167      0.1162      0.64  .VQ       .         .         .         .
3.250      0.1206      0.64  .VQ       .         .         .         .
3.333      0.1250      0.64  .VQ       .         .         .         .
3.417      0.1295      0.64  .VQ       .         .         .         .
3.500      0.1339      0.64  . Q       .         .         .         .
3.583      0.1383      0.64  . Q       .         .         .         .
3.667      0.1428      0.64  . Q       .         .         .         .
3.750      0.1472      0.64  . Q       .         .         .         .
3.833      0.1521      0.71  . Q       .         .         .         .
3.917      0.1570      0.71  . Q       .         .         .         .
4.000      0.1619      0.71  . Q       .         .         .         .
4.083      0.1672      0.77  . VQ      .         .         .         .
4.167      0.1725      0.77  . VQ      .         .         .         .
4.250      0.1778      0.77  . VQ      .         .         .         .
4.333      0.1835      0.84  . VQ      .         .         .         .
4.417      0.1893      0.84  . VQ      .         .         .         .
4.500      0.1951      0.84  . VQ      .         .         .         .
4.583      0.2012      0.90  .  Q      .         .         .         .
4.667      0.2074      0.90  .  Q      .         .         .         .
4.750      0.2136      0.90  .  Q      .         .         .         .
4.833      0.2203      0.97  .  Q      .         .         .         .
4.917      0.2269      0.97  .  Q      .         .         .         .
5.000      0.2336      0.97  .  Q      .         .         .         .
5.083      0.2397      0.89  .  Q      .         .         .         .
5.167      0.2459      0.89  .  Q      .         .         .         .
5.250      0.2520      0.89  .  Q      .         .         .         .
5.333      0.2579      0.85  .  Q      .         .         .         .
5.417      0.2637      0.85  .  Q      .         .         .         .
5.500      0.2696      0.85  .  QV     .         .         .         .
5.583      0.2762      0.96  .  QV     .         .         .         .
5.667      0.2829      0.96  .  QV     .         .         .         .
5.750      0.2895      0.96  .  QV     .         .         .         .
5.833      0.2966      1.03  .   Q     .         .         .         .
5.917      0.3036      1.03  .   Q     .         .         .         .
6.000      0.3107      1.03  .   Q     .         .         .         .
6.083      0.3182      1.10  .   Q     .         .         .         .
6.167      0.3258      1.10  .   Q     .         .         .         .
6.250      0.3333      1.10  .   QV    .         .         .         .
6.333      0.3413      1.15  .   QV    .         .         .         .
6.417      0.3492      1.15  .   QV    .         .         .         .
6.500      0.3572      1.15  .   QV    .         .         .         .
6.583      0.3656      1.22  .   QV    .         .         .         .
6.667      0.3741      1.22  .   QV    .         .         .         .
6.750      0.3825      1.22  .   QV    .         .         .         .
6.833      0.3913      1.28  .    Q    .         .         .         .
6.917      0.4002      1.28  .    QV   .         .         .         .
7.000      0.4090      1.28  .    QV   .         .         .         .
7.083      0.4179      1.29  .    QV   .         .         .         .
7.167      0.4267      1.29  .    QV   .         .         .         .
7.250      0.4356      1.29  .    QV   .         .         .         .
7.333      0.4449      1.35  .    QV   .         .         .         .
7.417      0.4543      1.35  .    QV   .         .         .         .
7.500      0.4636      1.35  .    QV   .         .         .         .
7.583      0.4738      1.48  .    Q V  .         .         .         .
7.667      0.4840      1.48  .    Q V  .         .         .         .
7.750      0.4941      1.48  .    Q V  .         .         .         .
7.833      0.5052      1.61  .     QV  .         .         .         .
7.917      0.5163      1.61  .     QV  .         .         .         .
8.000      0.5273      1.61  .     QV  .         .         .         .
8.083      0.5397      1.80  .      QV .         .         .         .
8.167      0.5521      1.80  .      QV .         .         .         .
8.250      0.5645      1.80  .      QV .         .         .         .
8.333      0.5777      1.92  .      QV .         .         .         .
8.417      0.5910      1.92  .      QV .         .         .         .
8.500      0.6042      1.92  .      Q V.         .         .         .
8.583      0.6180      2.00  .      Q V.         .         .         .
8.667      0.6317      2.00  .      Q V.         .         .         .
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 8.750      0.6455      2.00  .      Q V.          .          .          .
 8.833      0.6601      2.12  .       QV.          .          .          .
 8.917      0.6747      2.12  .       Q V          .          .          .
 9.000      0.6893      2.12  .       Q V          .          .          .
 9.083      0.7053      2.32  .        QV          .          .          .
 9.167      0.7212      2.32  .        QV          .          .          .
 9.250      0.7372      2.32  .        Q V         .          .          .
 9.333      0.7544      2.50  .         QV         .          .          .
 9.417      0.7716      2.50  .         QV         .          .          .
 9.500      0.7889      2.50  .         QV         .          .          .
 9.583      0.8070      2.64  .         Q V        .          .          .
 9.667      0.8252      2.64  .         Q V        .          .          .
 9.750      0.8433      2.64  .         Q V        .          .          .
 9.833      0.8624      2.77  .         .QV        .          .          .
 9.917      0.8814      2.77  .         .Q V       .          .          .
10.000      0.9005      2.77  .         .Q V       .          .          .
10.083      0.9168      2.37  .        Q.  V       .          .          .
10.167      0.9331      2.37  .        Q.  V       .          .          .
10.250      0.9494      2.37  .        Q.   V      .          .          .
10.333      0.9630      1.97  .      Q  .   V      .          .          .
10.417      0.9765      1.97  .      Q  .   V      .          .          .
10.500      0.9901      1.97  .      Q  .   V      .          .          .
10.583      1.0057      2.27  .        Q.    V     .          .          .
10.667      1.0214      2.27  .        Q.    V     .          .          .
10.750      1.0370      2.27  .        Q.    V     .          .          .
10.833      1.0546      2.55  .         Q    V     .          .          .
10.917      1.0722      2.55  .         Q     V    .          .          .
11.000      1.0898      2.55  .         Q     V    .          .          .
11.083      1.1070      2.51  .         Q     V    .          .          .
11.167      1.1243      2.51  .         Q     V    .          .          .
11.250      1.1416      2.51  .         Q      V   .          .          .
11.333      1.1585      2.45  .        Q.      V   .          .          .
11.417      1.1754      2.45  .        Q.      V   .          .          .
11.500      1.1922      2.45  .        Q.      V   .          .          .
11.583      1.2082      2.32  .        Q.       V  .          .          .
11.667      1.2242      2.32  .        Q.       V  .          .          .
11.750      1.2402      2.32  .        Q.       V  .          .          .
11.833      1.2558      2.27  .        Q.       V  .          .          .
11.917      1.2714      2.27  .        Q.        V.          .          .
12.000      1.2870      2.27  .        Q.        V.          .          .
12.083      1.3062      2.78  .         .Q       V.          .          .
12.167      1.3253      2.78  .         .Q       V.          .          .
12.250      1.3444      2.78  .         .Q        V          .          .
12.333      1.3668      3.25  .         .  Q      V          .          .
12.417      1.3892      3.25  .         .  Q      V          .          .
12.500      1.4116      3.25  .         .  Q       V         .          .
12.583      1.4355      3.47  .         .  Q      .V         .          .
12.667      1.4594      3.47  .         .  Q      .V         .          .
12.750      1.4832      3.47  .         .  Q      . V        .          .
12.833      1.5085      3.66  .         .   Q     . V        .          .
12.917      1.5337      3.66  .         .   Q     .  V       .          .
13.000      1.5589      3.66  .         .   Q     .  V       .          .
13.083      1.5870      4.09  .         .     Q   .  V       .          .
13.167      1.6152      4.09  .         .     Q   .   V      .          .
13.250      1.6433      4.09  .         .     Q   .   V      .          .
13.333      1.6737      4.41  .         .      Q  .    V     .          .
13.417      1.7041      4.41  .         .      Q  .    V     .          .
13.500      1.7345      4.41  .         .      Q  .     V    .          .
13.583      1.7599      3.69  .         .   Q     .     V    .          .
13.667      1.7852      3.69  .         .   Q     .     V    .          .
13.750      1.8106      3.69  .         .   Q     .      V   .          .
13.833      1.8314      3.02  .         . Q         .      V  .          .
13.917      1.8523      3.02  .         . Q         .      V  .          .
14.000      1.8731      3.02  .         . Q         .       V .          .
14.083      1.8954      3.24  .         . Q         .       V .          .
14.167      1.9177      3.24  .         . Q         .       V .          .
14.250      1.9401      3.24  .         . Q         .        V.          .
14.333      1.9635      3.40  .         .  Q        .        V.          .
14.417      1.9869      3.40  .         .  Q        .        V.          .
14.500      2.0103      3.40  .         .  Q        .         V          .
14.583      2.0334      3.35  .         .  Q        .         V          .
```

14.667	2.0565	3.35	. . Q . V .
14.750	2.0796	3.35	. . Q . V .
14.833	2.1022	3.29	. . Q . .V .
14.917	2.1248	3.29	. . Q . .V .
15.000	2.1475	3.29	. . Q . . V .
15.083	2.1692	3.16	. . Q . . V .
15.167	2.1910	3.16	. . Q . . V .
15.250	2.2128	3.16	. . Q . . V .
15.333	2.2337	3.03	. . Q . . V .
15.417	2.2546	3.03	. . Q . . V .
15.500	2.2755	3.03	. . Q . . V .
15.583	2.2942	2.71	. Q . . V .
15.667	2.3128	2.71	. Q . . V .
15.750	2.3315	2.71	. Q . . V .
15.833	2.3485	2.47	. Q. . . V .
15.917	2.3655	2.47	. Q. . . V .
16.000	2.3826	2.47	. Q. . . V .
16.083	2.3927	1.47	. Q . . . V .
16.167	2.4028	1.47	. Q . . . V .
16.250	2.4129	1.47	. Q . . . V .
16.333	2.4170	0.60	. Q . . . V .
16.417	2.4212	0.60	. Q . . . V .
16.500	2.4253	0.60	. Q . . . V .
16.583	2.4285	0.47	.Q . . . V .
16.667	2.4317	0.47	.Q . . . V .
16.750	2.4350	0.47	.Q . . . V .
16.833	2.4377	0.40	.Q . . . V .
16.917	2.4405	0.40	.Q . . . V .
17.000	2.4432	0.40	.Q . . . V .
17.083	2.4468	0.52	. Q . . . V .
17.167	2.4504	0.52	. Q . . . V .
17.250	2.4540	0.52	. Q . . . V .
17.333	2.4583	0.63	. Q . . . V .
17.417	2.4627	0.63	. Q . . . V .
17.500	2.4671	0.63	. Q . . . V .
17.583	2.4715	0.64	. Q . . . V .
17.667	2.4759	0.64	. Q . . . V .
17.750	2.4804	0.64	. Q . . . V .
17.833	2.4843	0.58	. Q . . . V .
17.917	2.4883	0.58	. Q . . . V .
18.000	2.4923	0.58	. Q . . . V .
18.083	2.4959	0.52	. Q . . . V .
18.167	2.4995	0.52	. Q . . . V .
18.250	2.5031	0.52	. Q . . . V .
18.333	2.5066	0.52	. Q . . . V .
18.417	2.5102	0.52	. Q . . . V .
18.500	2.5137	0.52	. Q . . . V .
18.583	2.5168	0.45	.Q . . . V .
18.667	2.5199	0.45	.Q . . . V .
18.750	2.5230	0.45	.Q . . . V .
18.833	2.5253	0.33	.Q . . . V .
18.917	2.5275	0.33	.Q . . . V .
19.000	2.5298	0.33	.Q . . . V .
19.083	2.5321	0.33	.Q . . . V .
19.167	2.5343	0.33	.Q . . . V .
19.250	2.5366	0.33	.Q . . . V .
19.333	2.5397	0.45	.Q . . . V .
19.417	2.5428	0.45	.Q . . . V .
19.500	2.5459	0.45	.Q . . . V .
19.583	2.5489	0.44	.Q . . . V .
19.667	2.5520	0.44	.Q . . . V .
19.750	2.5550	0.44	.Q . . . V .
19.833	2.5573	0.32	.Q . . . V .
19.917	2.5595	0.32	.Q . . . V .
20.000	2.5618	0.32	.Q . . . V .
20.083	2.5640	0.33	.Q . . . V .
20.167	2.5663	0.33	.Q . . . V .
20.250	2.5686	0.33	.Q . . . V .
20.333	2.5712	0.38	.Q . . . V .
20.417	2.5738	0.38	.Q . . . V .
20.500	2.5765	0.38	.Q . . . V .

20.583	2.5791	0.39	.Q	.	.	.	V .
20.667	2.5818	0.39	.Q	.	.	.	V .
20.750	2.5845	0.39	.Q	.	.	.	V .
20.833	2.5867	0.32	.Q	.	.	.	V .
20.917	2.5889	0.32	.Q	.	.	.	V .
21.000	2.5911	0.32	.Q	.	.	.	V .
21.083	2.5933	0.33	.Q	.	.	.	V .
21.167	2.5956	0.33	.Q	.	.	.	V .
21.250	2.5979	0.33	.Q	.	.	.	V .
21.333	2.6001	0.32	.Q	.	.	.	V.
21.417	2.6022	0.32	.Q	.	.	.	V.
21.500	2.6044	0.32	.Q	.	.	.	V.
21.583	2.6067	0.33	.Q	.	.	.	V.
21.667	2.6089	0.33	.Q	.	.	.	V.
21.750	2.6112	0.33	.Q	.	.	.	V.
21.833	2.6134	0.32	.Q	.	.	.	V.
21.917	2.6156	0.32	.Q	.	.	.	V.
22.000	2.6177	0.32	.Q	.	.	.	V.
22.083	2.6200	0.33	.Q	.	.	.	V.
22.167	2.6223	0.33	.Q	.	.	.	V.
22.250	2.6245	0.33	.Q	.	.	.	V.
22.333	2.6267	0.32	.Q	.	.	.	V.
22.417	2.6289	0.32	.Q	.	.	.	V.
22.500	2.6311	0.32	.Q	.	.	.	V.
22.583	2.6329	0.26	.Q	.	.	.	V.
22.667	2.6347	0.26	.Q	.	.	.	V.
22.750	2.6365	0.26	.Q	.	.	.	V.
22.833	2.6383	0.26	.Q	.	.	.	V.
22.917	2.6400	0.26	.Q	.	.	.	V.
23.000	2.6418	0.26	.Q	.	.	.	V.
23.083	2.6436	0.26	.Q	.	.	.	V.
23.166	2.6454	0.26	.Q	.	.	.	V.
23.250	2.6472	0.26	.Q	.	.	.	V.
23.333	2.6489	0.26	.Q	.	.	.	V.
23.416	2.6507	0.26	.Q	.	.	.	V.
23.500	2.6525	0.26	.Q	.	.	.	V.
23.583	2.6543	0.26	.Q	.	.	.	V.
23.666	2.6560	0.26	.Q	.	.	.	V.
23.750	2.6578	0.26	.Q	.	.	.	V.
23.833	2.6596	0.26	.Q	.	.	.	V.
23.916	2.6614	0.26	.Q	.	.	.	V.
24.000	2.6631	0.26	.Q	.	.	.	V.
24.083	2.6640	0.13	Q	.	.	.	V.
24.166	2.6649	0.13	Q	.	.	.	V.
24.250	2.6658	0.13	Q	.	.	.	V.
24.333	2.6658	0.01	Q	.	.	.	V.
24.416	2.6659	0.01	Q	.	.	.	V.
24.500	2.6660	0.01	Q	.	.	.	V.
24.583	2.6660	0.00	Q	.	.	.	V.
24.666	2.6660	0.00	Q	.	.	.	V.
24.750	2.6660	0.00	Q	.	.	.	V.

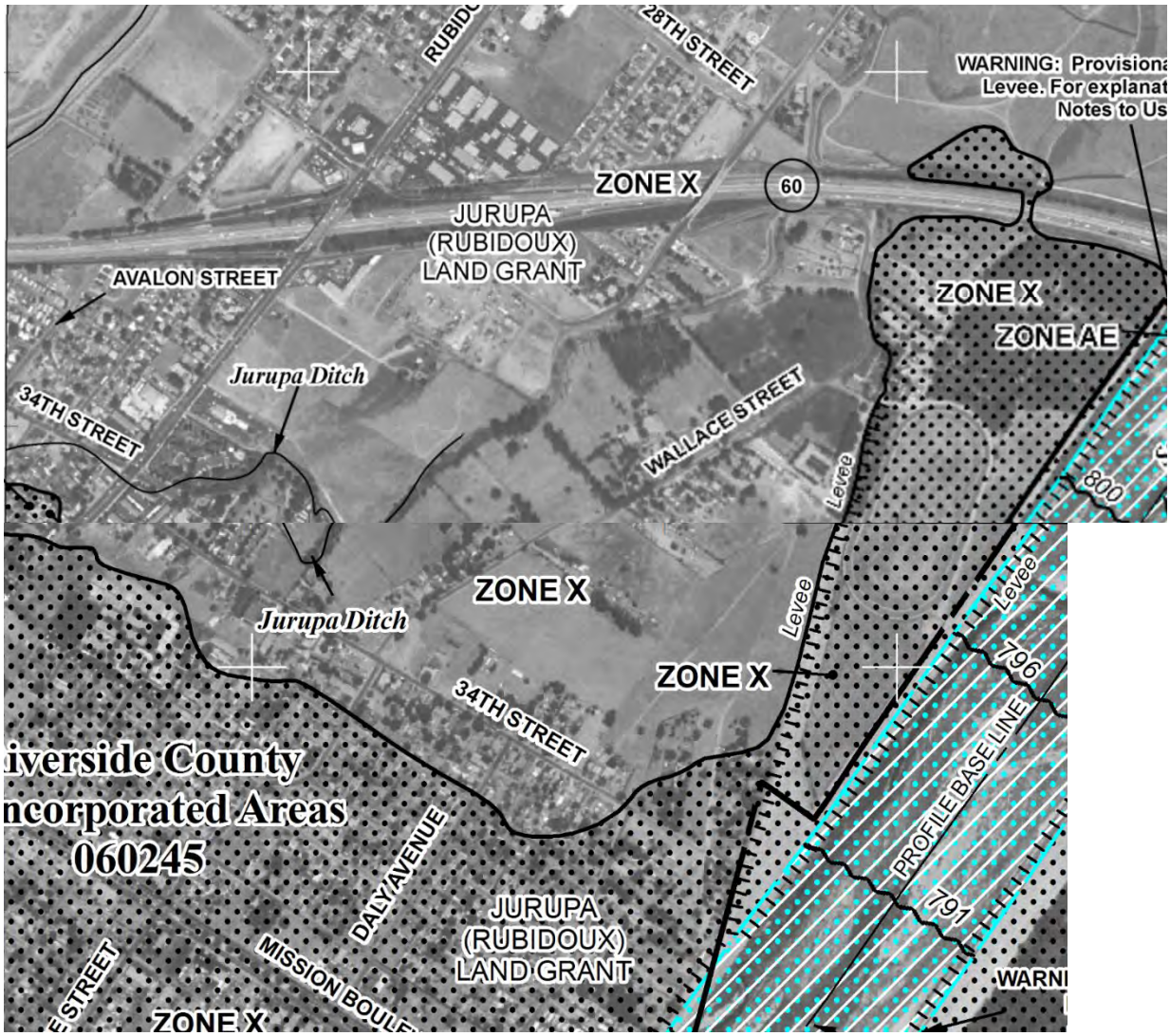
TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	1485.0
10%	1065.0
20%	690.0
30%	540.0
40%	480.0
50%	405.0
60%	240.0
70%	165.0
80%	60.0
90%	30.0

==========

END OF FLOODSCx ROUTING ANALYSIS

APPENDIX D – FEMA FIRM


28TH STREET
WARNING: Provisiona
Levee. For explanat
Notes to Us
ZONE X
60
JURUPA
(RUBIDOUX)
LAND GRANT
AVALON STREET
ZONE X
ZONE AE
Jurupa Ditch
34TH STREET
WALLACE STREET
Levee
800
ZONE X
Jurupa Ditch
Levee
Levee
ZONE X
34TH STREET
96
iverside County
ncorporated Areas
060245
PROFILE BASE LINE
DALY AVENUE
JURUPA
(RUBIDOUX)
LAND GRANT
91
MISSION BOULE
ZONE X

APPENDIX E – SOILS INFORMATION

Hydrologic Soil Group—Western Riverside Area, California
(NRCS AOI)



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Lines

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Points

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Water Features

Streams and Canals

Transportation

Rails
Interstate Highways
US Routes
Major Roads
Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Western Riverside Area, California
Survey Area Data: Version 14, Sep 13, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 17, 2018—Jun 28, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
ChF2	Cieneba sandy loam, 15 to 50 percent slopes, eroded	D	6.4	0.6%
CkF2	Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded	D	138.1	12.6%
DaD2	Delhi fine sand, 2 to 15 percent slopes, wind-eroded	A	152.0	13.9%
DmA	Dello loamy sand, poorly drained, 0 to 2 percent slopes	A/D	69.3	6.4%
GoB	Grangeville loamy fine sand, drained, 0 to 5 percent slopes	A/D	48.3	4.4%
GP	Gravel pits		85.0	7.8%
GyC2	Greenfield sandy loam, 2 to 8 percent slopes, eroded	A	84.1	7.7%
GyD2	Greenfield sandy loam, 8 to 15 percent slopes, eroded	A	32.4	3.0%
HcC	Hanford coarse sandy loam, 2 to 8 percent slopes	A	67.4	6.2%
HcD2	Hanford coarse sandy loam, 8 to 15 percent slopes, eroded	A	27.7	2.5%
MmB	Monserate sandy loam, 0 to 5 percent slopes	C	100.2	9.2%
RaB3	Ramona sandy loam, 0 to 5 percent slopes, severely eroded	C	142.3	13.0%
RaC2	Ramona sandy loam, 5 to 8 percent slopes, eroded	C	16.5	1.5%
RsC	Riverwash		4.0	0.4%
TeG	Terrace escarpments		11.0	1.0%
TuB	Tujunga loamy sand, 0 to 5 percent slopes	A	58.2	5.3%
TwC	Tujunga gravelly loamy sand, 0 to 8 percent slopes	A	48.6	4.5%
Totals for Area of Interest			**1,091.7**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

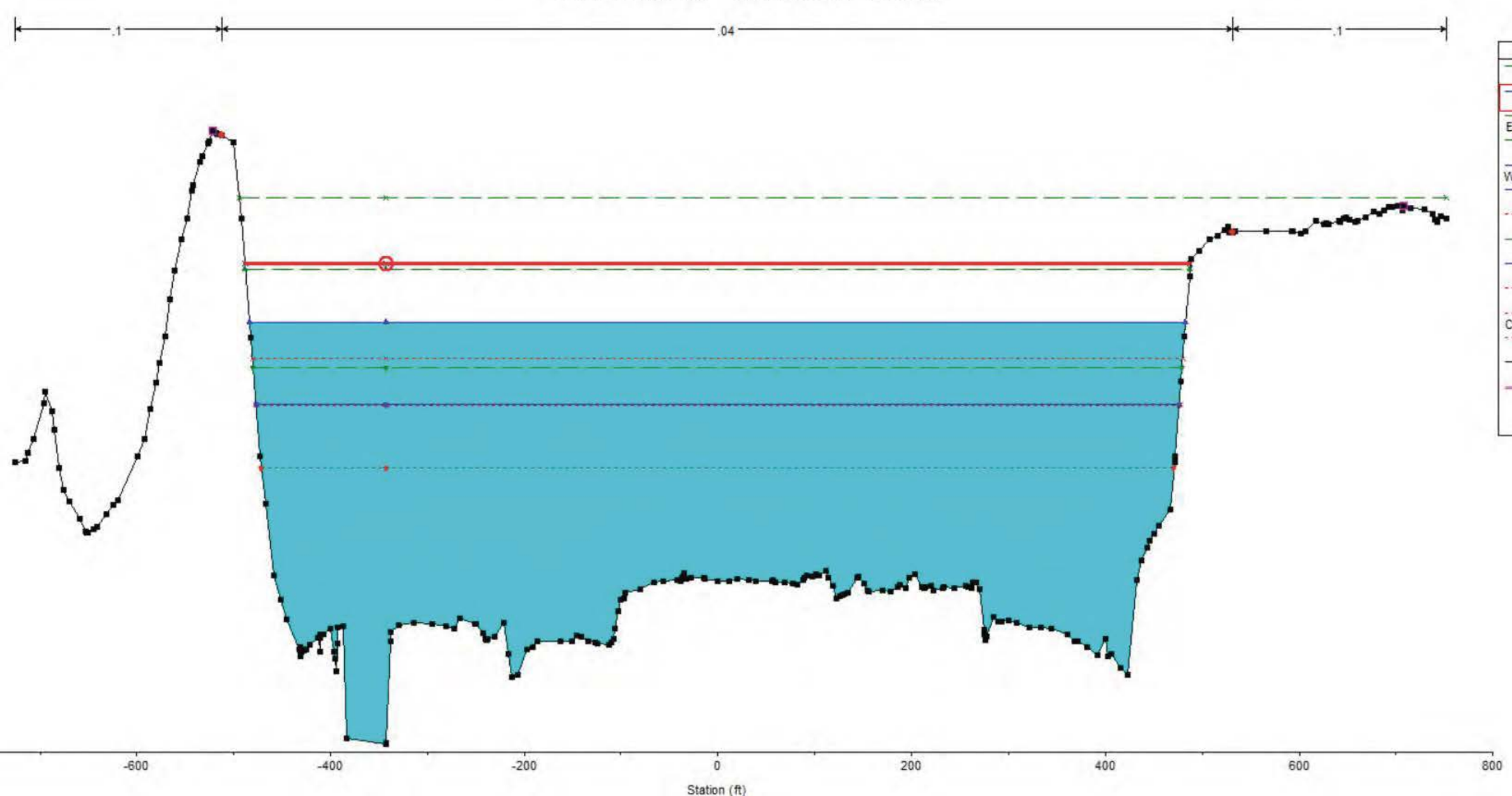
Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

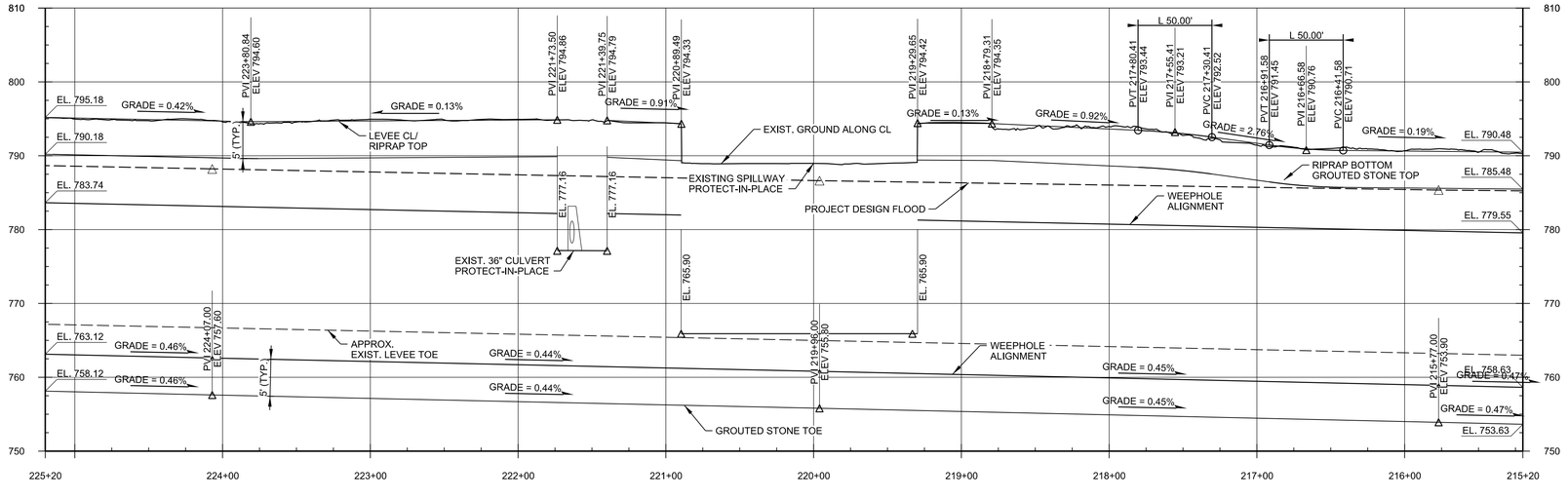
APPENDIX F – REFERENCE INFORMATION

Santa Ana River PMR Plan: 100yr-50yr 10/26/2021



CONSTRUCTION NOTES

1. CONSTRUCT 24" GROUTED STONE OVER 6" BEDDING MATERIAL PER PLAN AND DETAILS ON THIS SHEET AND ON SHEET C-110.
2. CONSTRUCT 24" RIPRAP OVER 6" BEDDING MATERIAL OVER GEOTEXTILE FABRIC PER PLAN AND DETAILS ON THIS SHEET AND ON SHEET C-110.
3. INSTALL WEEPHOLE EVERY 10' O.C. PER PLAN ON THIS SHEET AND DETAIL ON SHEET C-502.
4. CONSTRUCT ABC MAINTANCE ROAD PER PLAN ON THIS SHEET AND DETAILS ON SHEET C-110.
6. INSTALL DUMP STONE PER PLAN ON THIS SHEET AND DETAIL ON SHEET C-110.
7. REMOVE AND SALVAGE OF EXISTING ROCK GROIN.

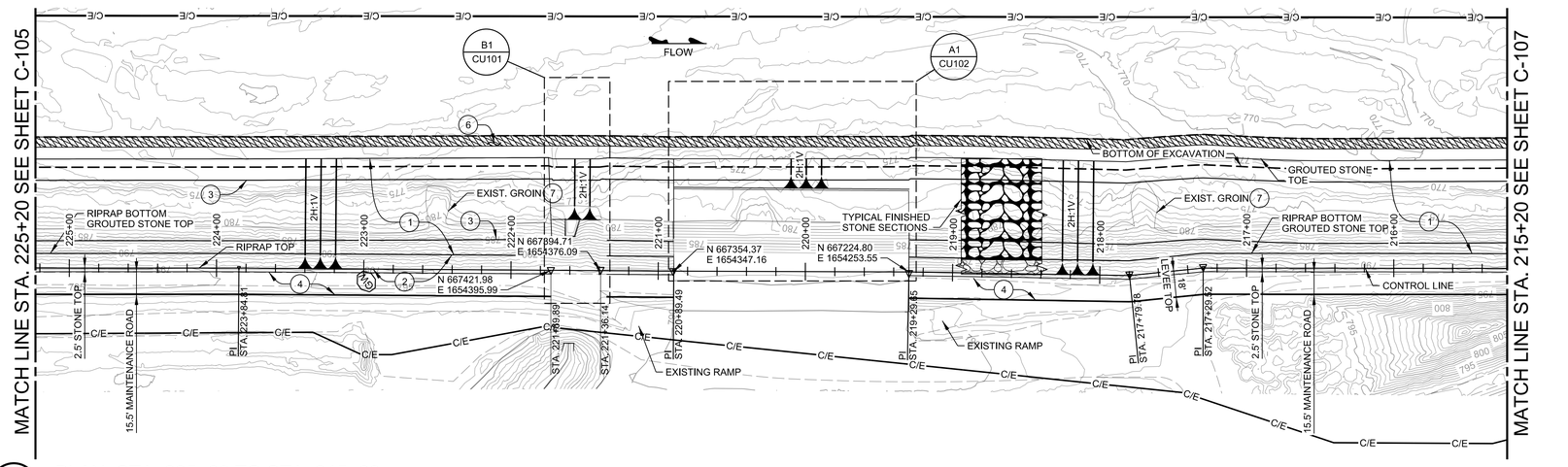


D1 PROFILE: STA. 225+20 TO STA. 215+20

SCALE: H:1" = 50' V:1" = 10'

0 50' 100'

0 10' 20'

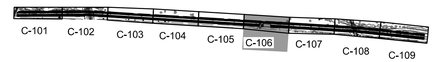


A1 PLAN: STA. 225+20 TO STA. 215+20

SCALE: 1" = 50'

0 50' 100'

PLAN NORTH TRUE N



PLAN NORTH TRUE N

A9 KEY

SCALE: N.T.S.

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE

DESIGNED BY: J. SANDOVAL
DRAWN BY: J. SANDOVAL
CHECKED BY: D. PHAM
SUBMITTED BY:
ISSUE DATE:
SOLICITATION NO.:
CONTRACT NO.:
FILE NAME
SIZE: ANSI D
CAD FILE 475912_C-106.dgn

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT
LOS ANGELES, CALIFORNIA

RIVERSIDE COUNTY, CALIFORNIA
SANTA ANA RIVER BASIN
RIVERSIDE LEVEES REHABILITATION

RIGHT LEVEE
PLAN & PROFILE
STA. 225+20 TO STA. 215+20

SHEET ID
C-106

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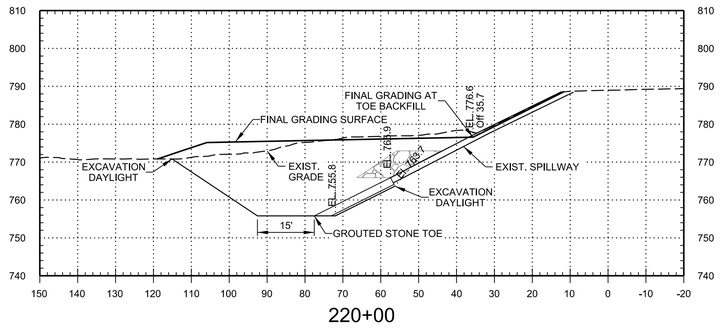

220+00

B2 CROSS SECTIONS - STA. 220+00 TO STA. 230+00

SCALE: 1" = 20'

0 20' 40'

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE

DESIGNED BY:
DRAWN BY:
CHECKED BY:
SUBMITTED BY:
SIZE: ANSI D
ISSUE DATE:
SOLICITATION NO.:
CONTRACT NO.:
FILE NAME
CAD FILE
475912_C-304.dgn

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT
LOS ANGELES, CALIFORNIA

RIVERSIDE COUNTY, CALIFORNIA
SANTA ANA RIVER BASIN
RIVERSIDE LEVEES REHABILITATION

RIGHT LEVEE
CROSS SECTIONS
STA. 220+00 TO STA. 230+00

SHEET ID

C-304

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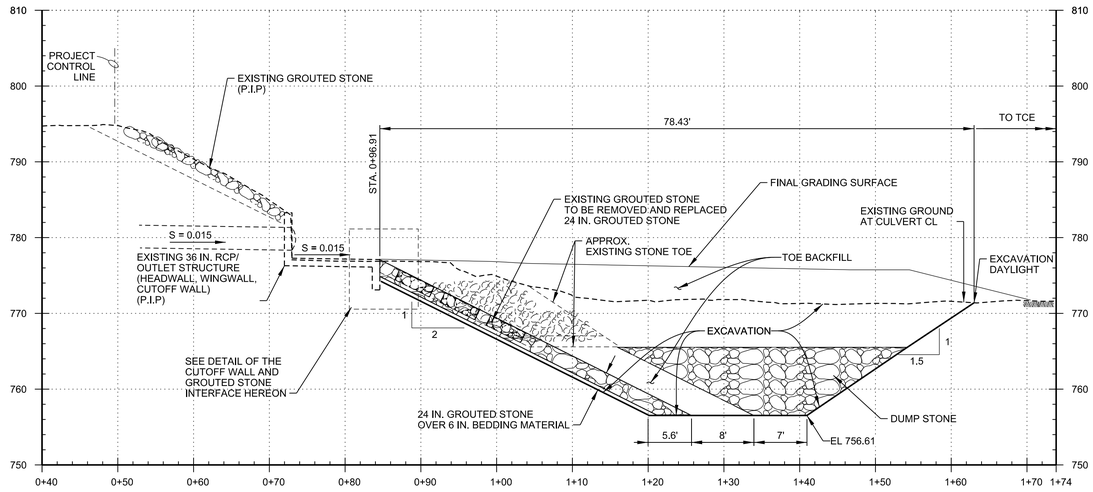
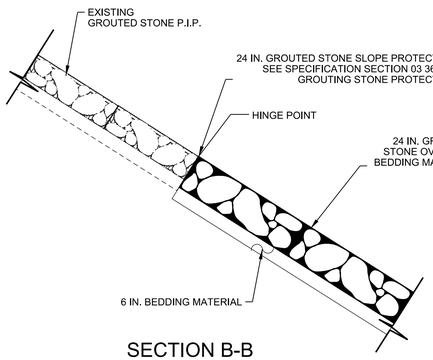


E1 LEVEE SLOPE PROTECTION AT 36 IN. RCP CULVERT PROFILE, STA 221+63.57

SCALE: H: 1"=10' V: 1"=10'

0 10' 20'



SECTION B-B

24-IN GROUTED STONE INTERFACE WITH EXISTING STONE FACING

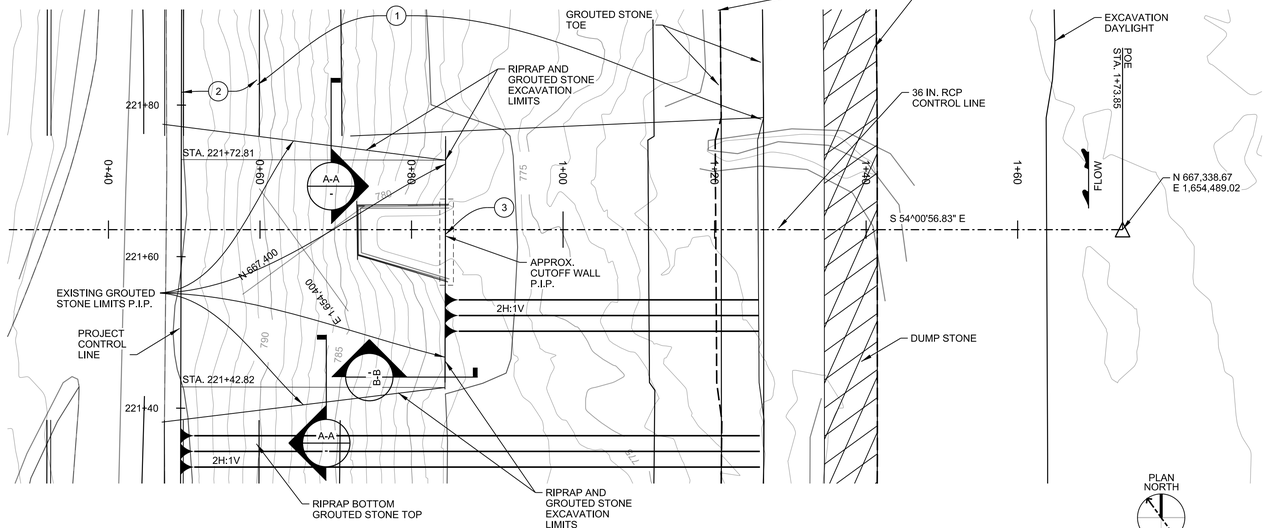
N.T.S.

CONSTRUCTION NOTES

1. CONSTRUCT 24" GROUTED STONE OVER 6" BEDDING MATERIAL PER PLAN AND DETAILS ON THIS SHEET AND IN SHEET C-110.
2. CONSTRUCT 24" RIPRAP OVER 6" BEDDING MATERIAL PER PLAN AND DETAILS ON THIS SHEET AND IN SHEET C-110.
3. REMOVE EXISTING GROUTED STONE AND BEDDING MATERIAL FROM THE CUTOFF WALL FACE TO THE EXISTING STONE TOE AND CONSTRUCT 24-IN. GROUTED STONE AND 6-IN. BEDDING LAYER AS SHOWN ON THE PROFILE PER THIS SHEET. CONTRACTOR MUST NOT EXCAVATE BEYOND THE BOTTOM OF 6-IN. BEDDING LAYER. (SEE SPECIFICATION SECTION 31 00 00-EARTH WORK).

GENERAL NOTES

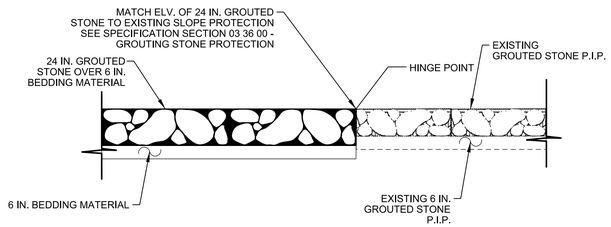
1. 24 IN. GROUTED SLOPE PROTECTION AT 36 IN RCP CULVERT PROFILE WAS DRAWN LOOKING UPSTREAM.



B1 LEVEE SLOPE PROTECTION AT 36 IN. RCP CULVERT PLAN, STA. 221+63.57

SCALE: 1"=10'

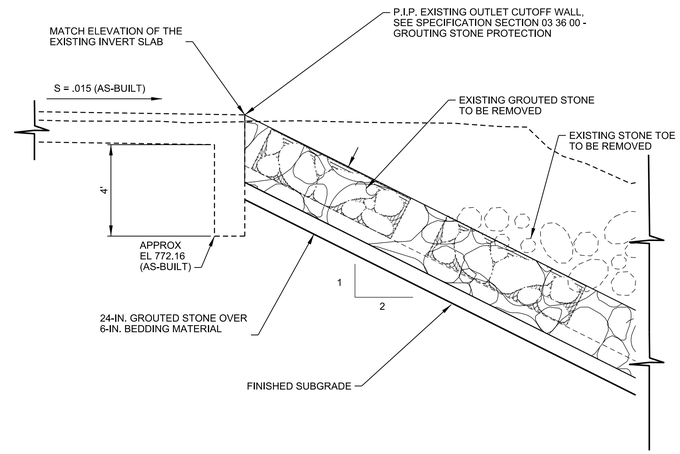
0 10' 20'



SECTION A-A

24-IN GROUTED STONE INTERFACE WITH EXISTING GROUTED STONE FACING STA. 221+42.82 AND STA. 221+72.81

N.T.S.



A8 CUTOFF WALL AND GROUTED STONE INTERFACE DETAIL

SCALE: NTS

MARK	DESCRIPTION	DATE

US Army Corps of Engineers®

DESIGNED BY:
DRAWN BY:
CHECKED BY:
SUBMITTED BY:
SIZE: ANSI D
ISSUE DATE:
SOLICITATION NO.:
CONTRACT NO.:
FILE NAME
CAD FILE 475912_CU101.dgn

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT
LOS ANGELES, CALIFORNIA

RIVERSIDE COUNTY, CALIFORNIA
SANTA ANA RIVER BASIN
RIVERSIDE LEVEES REHABILITATION

RIGHT LEVEE-BANK PROTECTION AT 36-INCH RCP CULVERT, STA. 221+63.57
PLAN, PROFILE AND DETAILS

SHEET ID

CU101

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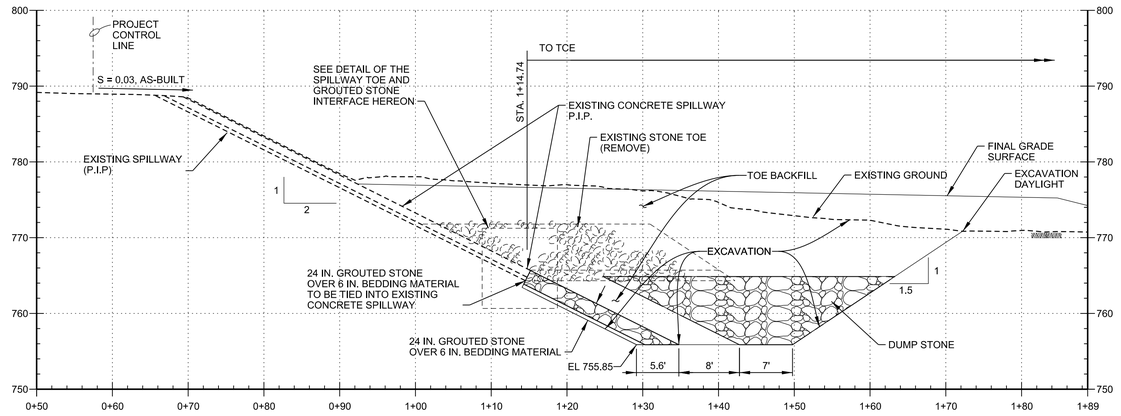
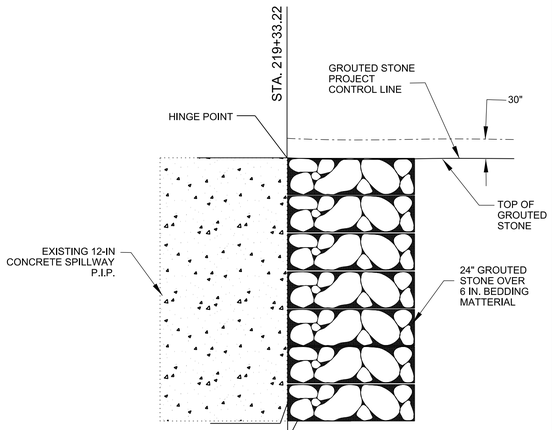




TYPICAL DETAIL PLAN
STA. 219+33.22 AND STA. 220+93.23
N.T.S.

CONSTRUCTION NOTES

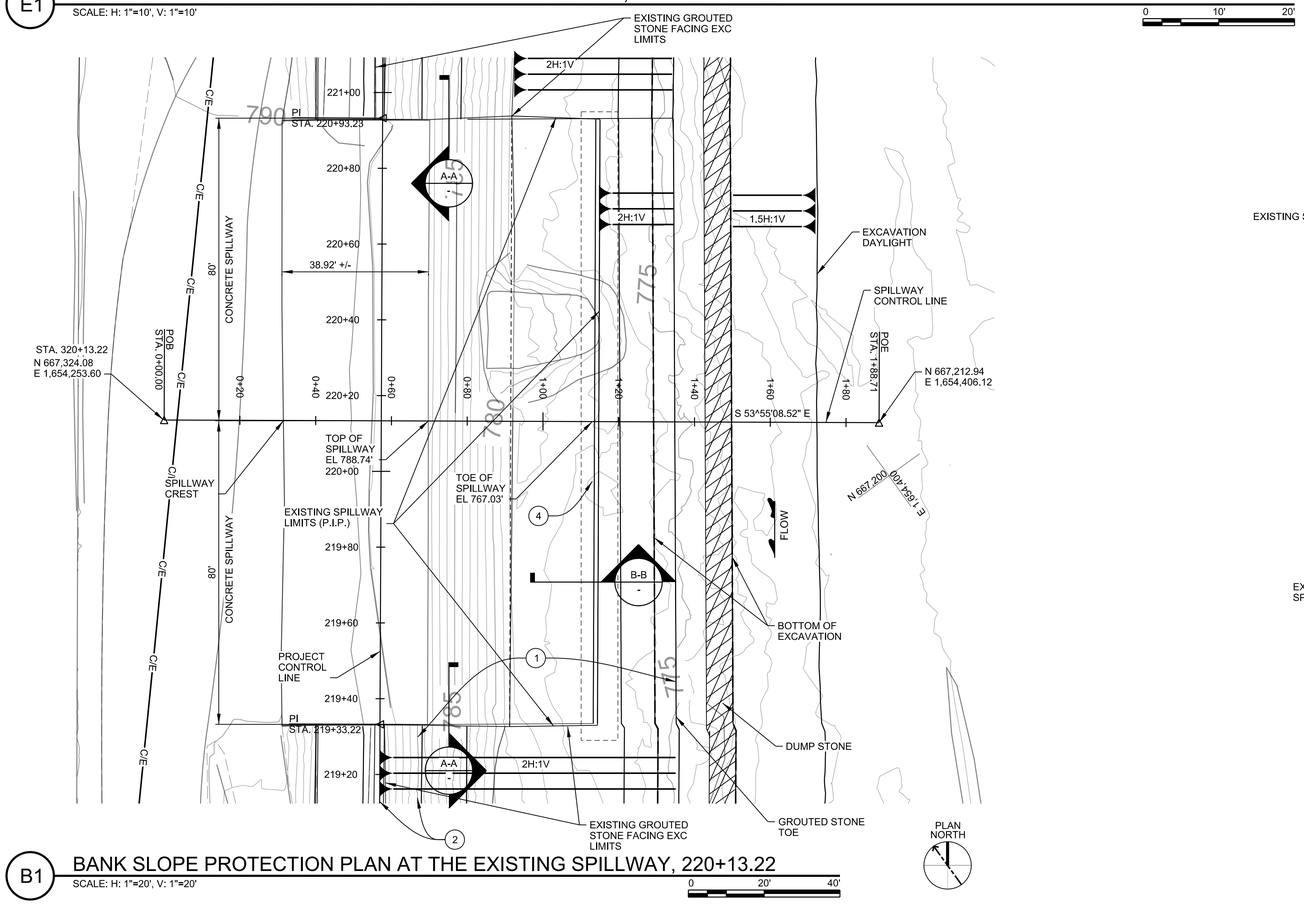
1. CONSTRUCT 24" GROUTED STONE OVER 6" BEDDING MATERIAL PER PLAN AND DETAILS ON THIS SHEET AND IN SHEET C-110.
2. CONSTRUCT 24" RIPRAP OVER 6" BEDDING MATERIAL PER PLAN AND DETAILS ON THIS SHEET AND IN SHEET C-110.
4. CONSTRUCT NEW 24" GROUTED STONE SECTION IN 40FT SECTIONS AND STAGGERED TO AVOID SLIDING OF SPILLWAY DURING EXCAVATION.

GENERAL NOTES

1. 24 IN GROUTED SLOPE PROTECTION PROFILE AT THE SPILLWAY IS DRAWN LOOKING UPSTREAM.

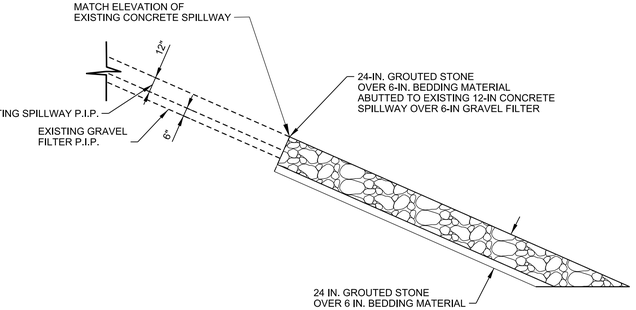
E1 LEVEE SLOPE PROTECTION AT THE EXISTING SPILLWAY, STA. 220+13.22

SCALE: H: 1"=10', V: 1"=10'



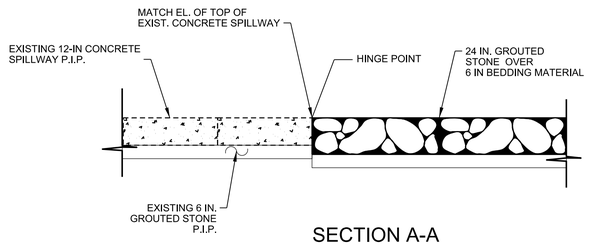
B1 BANK SLOPE PROTECTION PLAN AT THE EXISTING SPILLWAY, 220+13.22

SCALE: H: 1"=20', V: 1"=20'



C7 SECTION B-B, SPILLWAY TOE AND GROUTED STONE INTERFACE DETAIL

SCALE: NTS



SECTION A-A

TYPICAL 24-IN GROUTED STONE INTERFACE
WITH EXISTING 12-IN CONCRETE SPILLWAY
STA. 220+93.23 AND STA. 219+33.22
N.T.S.

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE

DESIGNED BY:
DRAWN BY:
CHECKED BY:
SUBMITTED BY:
ISSUE DATE:
SOLICITATION NO.:
CONTRACT NO.:
FILE NAME
SIZE: ANSI D
CAD FILE 475912_CU102.dgn

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT
LOS ANGELES, CALIFORNIA

RIVERSIDE COUNTY, CALIFORNIA
SANTA ANA RIVER BASIN
RIVERSIDE LEVEES REHABILITATION

RIGHT LEVEE–BANK PROTECTION
AT SPILLWAY, STA. 220+30
PLAN, PROFILE AND DETAILS

SHEET ID
CU102

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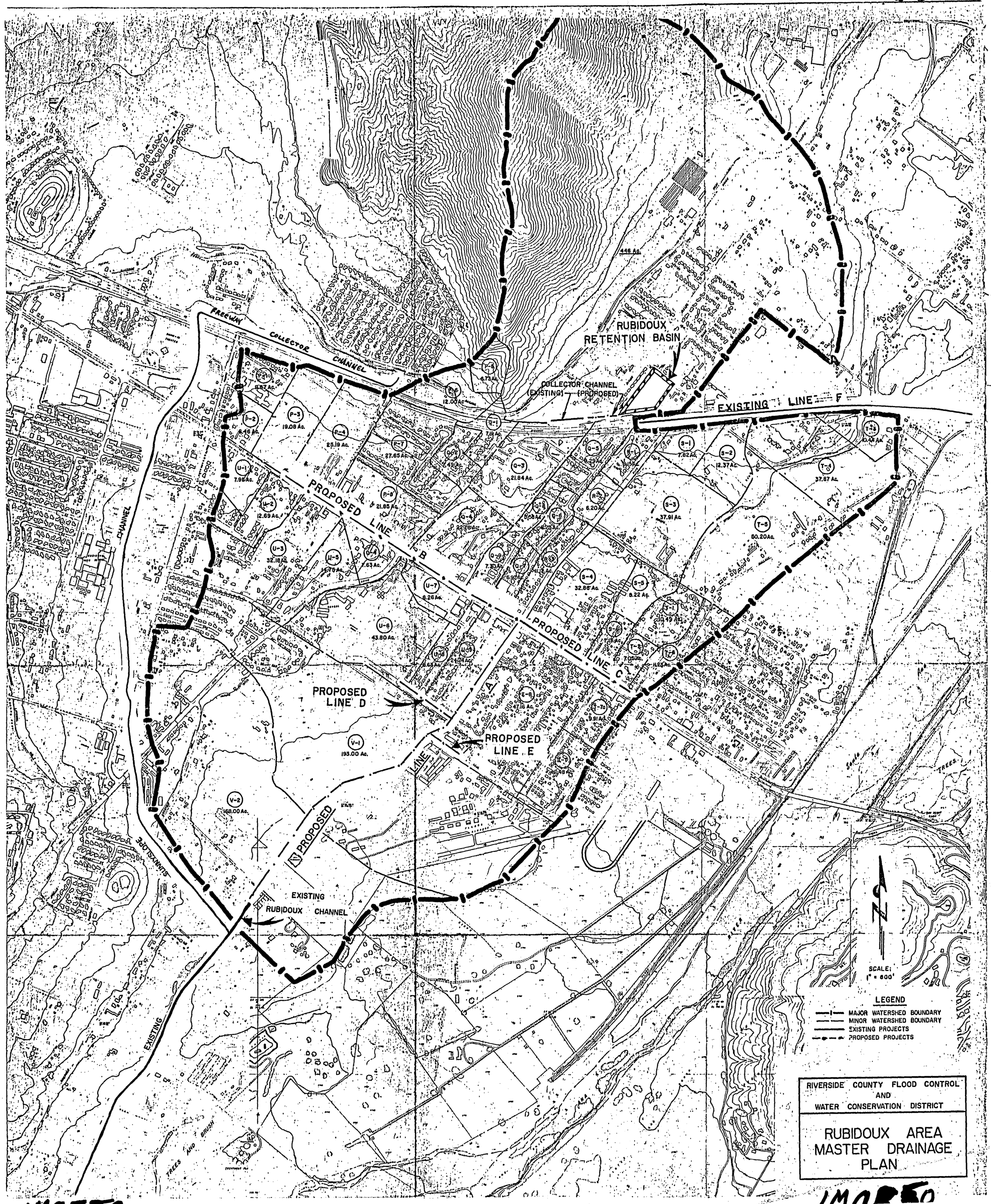

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L.C.F.C. & W.C.D.

HYDROLOGY CALCULATION SHEET

Sheet No. 1 of 8 Sheets

PROJECT WEST MISSION BLVD DRAIN

Calculated by R.A.N. 14 Apr 66 (DATE)

FREQUENCY 1/10

Checked by (DATE)

DRAINAGE AREA	Soil & Development	A Acres	I In/hr.	C	AQ CFS	ΣQ CFS	SLOPE	SECTION	v FPS	L FT.	T MIN.	ΣT	REMARKS
									H=16'	900'	13.3		
P-1	SF-D	9.87	1.63	.74	11.9	11.9	.013	ASSUMED STREET	3	600	3.3	13.3	
P-2	SF-D	6.96	1.40	.72	6.5	18.4	.010	STREET	3	600	3.3	16.6	
P-3	SF-D	9.08	1.25	.70	16.7	35.1	.004	33" RCP	6	650	1.8	19.7	
P-4	SF-D	25.19	1.20	.69	20.8	55.9	.027	30" RCP	12	1200	1.7	21.7	@ LA Rue St. & Mission Blvd.
												23.4	@ Riverview & Mission Blvd.
									H=200'	L=800'	9.0		
P-5	MTN-D	6.73	2.05	.74	10.2	10.2	.072	STREAM	3	550	3.1	9.0	
P-6	SF-D	12.00	1.76	.75	15.8	26.0	AVG .028	STREET	5.5	1900	5.1	12.1	@ Hwy #60
P-7	SF-D	27.65	1.38	.71	27.1	53.1	.023	"	5.5	700	2.1	17.2	@ Riverview & Patty st
P-8	SF-D	21.85	1.27	.70	19.4	72.5						19.3	@ Mission Blvd & Riverview
Combined Q_{10} @ Mission-Riverview Intersection													
$55.9 + 72.5 \left(\frac{1.20}{1.22}\right)$												23.4	
$55.9 + 68.5 = 124.4$ cfs @ t = 23.4						124.4	.018	42" RCP	13	900	1.1	24.5	@ Avalon & Mission
									H=140	L=1000	9.1		
Q-1	SF-D	7.19	2.02	.78	11.3	11.3	.04	STREET	5.5	350	1.1	9.1	
Q-2	SF-D	7.49	1.94	.77	11.2	22.5	.032	"	5	800	2.7	10.2	
Q-3	SF-D	21.84	1.68	.75	27.5	50.0	.014	"	4	1100	4.6	12.9	@ Avalon St & 36th St.
Q-4	SF-B	22.28	1.35	.51	15.3	65.3						17.5	
Combined Q_{10} @ Avalon & Mission													
$124.4 + 65.3 \left(\frac{1.12}{1.35}\right)$													
$124.4 + 54.2 = 178.6$													

.C.F.C. & W.C.D.

HYDROLOGY CALCULATION SHEET

Sheet No. 12 of 13 Sheets

PROJECT WEST MISSION BLVD DRAIN

Calculated by R.A.N. 15 Apr 66 (DATE)

FREQUENCY 1/10

Checked by (DATE)

DRAINAGE AREA	Soil & Development	A Acres	I In/hr.	C	ΔQ CFS	Σ Q CFS	SLOPE	SECTION	v FPS	L FT.	T MIN.	Σ T	REMARKS
									H=34	1400'	12.0		
Q-5	SF-D	9.29	1.75	.75	12.2	12.2	.023	STREET	4.5	1000	3.7	12.0	
Q-6	SF-B	6.23	1.46	.53	4.8	17.0	.006	"	3.0	900	5.0	15.2	
Q-7	SF-B	6.97	1.22	.48	4.7	21.7						20.7	@ Mission & Pontiac
									H=36	1000'	11.9		
Q-8	SF-D	5.58	1.77	.76	7.5	7.5	.007	STREET	3	850'	4.7	11.9	
Q-9	SF-B	7.30	1.40	.52	5.3	12.8						16.6	@ Mission & Pioneer

Based upon the catch basins at Mission & Pioneer it would appear that more than 12.8 cfs is expected. Perhaps the canal overflows onto Pioneer St.

Total in Pipe @ Mission & Avalon →						178.6	Assume .002	72" RCP	6.3	350	0.9	24.5	
												25.4	@ Mission & Pioneer
Pick Up Pioneer	178.6 + $\left(\frac{1.1}{1.2}\right)$(12.8)												
	178.6 + 10.1 = 188.7 cfs @ Pioneer											25.4	
						188.7	.002	72" RCP	6.7	250	0.6	26.0	@ Mission & Pontiac
Pick Up Pontiac	188.7 + $\left(\frac{1.08}{1.02}\right)$(21.7) = 207.9 @ t =					26.0							
Move to Rubidoux St. = 76" Φ RCP - 300' @ 6.7 fps = 0.7 min + 26.0 = 26.7 @ Mission & Rubidoux													

.C.F.C. & W.C.D.

HYDROLOGY CALCULATION SHEET

Sheet No. 3 of 8 Sheets

PROJECT EAST MISSION BLV'D DRAIN

Calculated by R.A.T. 15 Apr 66 (DATE)

FREQUENCY 1/10

Checked by (DATE)

DRAINAGE AREA	Soil & Development	A Acres	I In/hr.	C	ΔQ CFS	Σ Q CFS	SLOPE	SECTION	v FPS	L FT.	T MIN.	Σ T	REMARKS
T-3	SF-B	10.44	1.95	.61	12.4				H=48	800	10.0		
						12.4	.004	STREAM	Assume 2	900	7.5	10.0	
T-4	SF-B	37.87	1.35	.51	26.0							17.5	
						38.4	.003	STREET	Assume 3	2150	11.9	29.4	
T-5	SF-B	50.20	1.02	.43	22.0								
						60.4	.005	STREET	3.5	1700	8.1	37.5	@ Mission & Wallace
T-6	SF-B	11.23	.92	.39	4.0	64.4							
T-1	SF-B	10.49	1.38	.51	9.4				H=6	1000	12.0	17.0	
						7.4	.003	STREET	Assume 2	700	5.8		
T-2	SF-B	7.05	1.15	.46	3.7	11.1						22.8	@ Mission & Aurora
S-1	SF-D	7.82	1.95	.61	9.3				H=30	700	10.0		
						9.3	0	—	—	0	0	10.0	
S-2	SF-D	12.37	1.95	.61	14.7							10.0	
						24.0	.014	Assume STREET	4	1300	5.4		
S-3	SF-B	37.91	1.48	.53	29.7							15.4	
S-4	C/SF-B	32.86	1.18	.55	21.4	53.7	.008	"	4	1550	6.5		
						75.1						21.9	@ Mission & Packard
S-5	SF-B	8.22	1.62	.56	7.5				H=9'	800	13.5		
						7.5	.006	STREET	2.5	800	5.3	13.5	
S-6	C/SF-B	7.19	1.29	.57	5.3	12.8						18.8	@ Mission & Nisture

HYDROLOGY CALCULATION SHEET

. C.F.C. & W.C.D.

PROJECT EAST MISSION BLV'D DRAIN

Calculated by R.A.T. 15 APR 66 (DATE)

FREQUENCY 1/10

Checked by (DATE)

DRAINAGE AREA	Soil & Development	A Acres	I In/hr.	C	ΔQ CFS	Σ Q CFS	SLOPE	SECTION	v FPS	L FT.	T MIN.	Σ T	REMARKS
R-1	SF-D	8.15	1.82	.59	8.8				H=24	800	11.3		
R-2	SF-B	6.20	1.60	.55	5.5	8.8	.02	STREET	4	650	2.7	11.3	
R-3	SF-B	11.12	1.20	.47	6.3	14.3	.011	"	3.5	1600	7.6	14.0	
						20.6						21.6	@ Mission & Rubidoux
COMBINE ALL FLOWS ALONG MISSION													
① Assume 50% of Q_{10} @ Wallace Conc. East													
② ∴ Pick Up 50% of 64.4 = 32.2 cfs @ t = 37.5						32.2	Assume .002	36" RCP	4.5	350'	1.3	37.5	I=.92 @ Wallace & Mission
③ Pick Up Flows @ Aurora = 32.2 + $\left(\frac{.90}{1.15}\right)$(N.1) = 40.0						40.0	"	39" RCP	4.7	400'	1.4	38.8	I=.90 @ Aurora & Mission
④ Pick Up Flows @ Minturn = 40.0 + $\left(\frac{.89}{1.29}\right)$(8.8) = 48.8						48.8	"	42" RCP	5.1	350	1.1	40.2	I=.89 @ Minturn & Mission
⑤ Pick Up Flows @ Packard = 48.8 + $\left(\frac{.82}{1.16}\right)$(75.1) = 105.5						105.5	"	90" RCP	5.3	700	2.2	41.3	I=.82 @ Packard & Mission
⑥ Pick Up Flows @ Rubidoux = 105.5 + $\left(\frac{.88}{1.50}\right)$(20.0) = 120.6						120.6						43.5	I=.88 @ Rubidoux & Mission
⑦ Pick Up Flows From the West = 120.6 + $\left(\frac{.88}{1.06}\right)$ 202.9													
120.6 + 169.4 = 290 cfs								for Main Pipe Down Rubidoux w/ all flows (Q_{10}) above Mission Blvd Picked Up					
								∴ Rubidoux Pipe Size = 69" ϕ					
⑧ Move down to Tilton St. = 1500' @ 11.5 fps = 2.2 min. + 43.5 = 45.7 min.													

C.F.C. & W.C.D.

HYDROLOGY CALCULATION SHEET

PROJECT TILTON ST. DRAIN

Calculated by R.A.N. 15 APR 66 (DATE)

FREQUENCY 1/10

Checked by (DATE)

DRAINAGE AREA	Soil & Development	A Acres	I In/hr.	C	ΔQ CFS	Σ Q CFS	SLOPE	SECTION	v FPS	L FT.	T MIN.	Σ T	REMARKS
U-1	SF-D	2.93	1.51	.73	8.7				H=11	1000	15.0		
						8.7	.01	STREET	3	550	3.0	15.0	
U-2	SF-D	12.69	1.33	.71	12.0								
						20.7	.018	"	4	1300	5.4	18.0	
U-3	SF-D	32.18	1.14	.68	24.9								
						(45.6)	→ Build drop inlet to make the Q$_{10}$ pass under Riverview & continue down 42nd Street					23.4	42nd St. 200' above Riverview
U-4	SF-D	7.63	1.73	.75	9.9				H=32	1000	12.4	12.4	
U-5	SF-D	14.75	1.52	.73	16.4	9.9	.005	STREET	Assume 3	450'	2.5	14.9	→ @ Riverview inlet near school
						(26.3)	→ Assume drainage to always go into gutter off Riverview as at present.						Ditch through catch basin
U-1, U-2, U-3	(on Tilton) More known 42nd to Briggs St.											23.4	42nd St. 200' above Riverview
U-6	SF-B	43.80	1.00	.42	18.4	45.6	.017	STREET	5	2000'	6.7	30.1	@ Tilton St. & Briggs St.
						64.0	.004	42" RCP	6.8	850	2.1	32.2	@ Tilton St. & Rubidoux St. in Tilton St. Underground drain only

C.F.C. & W.C.D.

HYDROLOGY CALCULATION SHEET

Sheet No. 6 of 8 Sheets

PROJECT Rubidoux Drain

Calculated by R.A.N. 19 APR 66 DATE

FREQUENCY 1/10

Checked by ____ DATE

DRAINAGE AREA	Soil & Development	A Acres	I In/hr.	C	ΔQ CFS	Σ Q CFS	SLOPE	SECTION	v FPS	L FT.	T MIN.	Σ T	REMARKS
U-7	Comm-B	8.26	1.94	.72	11.5				H=22'	1000	10.2		
						11.5	.005	STREET	2	1150	9.6	10.2	
U-8	SF-B	8.63	1.26	.49	5.3								
						16.8	.002	"	assume 2	600	2.0	19.6	
U-9	SF-B	14.74	1.20	.48	14.2								
						31.0						21.6	@ Tilton & Rubidoux

Combined Q_{10} in Rubidoux Drain @ Tilton St.

1. Q_{10} in main Rubidoux drain @ Tilton = 290 cfs @ t = 45.7
2. Q_{10} in Tilton St. drain @ Rubidoux = 64 cfs @ t = 30.2
3. Q_{10} in Tilton St. (above ground) @ Rubidoux = 31 cfs @ t = 21.6

$$Q_t = 290 + 64\left(\frac{0.86}{0.97}\right) + 31\left(\frac{0.86}{1.20}\right)$$

$Q_t = 290 + 56.7 + 22.3 = 369$ cfs @ t = 45.7

						369	.002	96" ∅	7.5	350	0.8	45.7	@ Rubidoux & Tilton
												46.5	@ Rubidoux & 42nd

Combined Q_{10} in Rubidoux Drain @ 42nd St.

1. Q_{10} in main drain @ 42nd = 369 cfs @ t = 46.5
2. Q_{10} in FLABOB LATERAL @ Rubidoux = 36.3 cfs @ t = 30.2 (see pg 4)

$$Q_T = 369 + (36.3)\left(\frac{0.85}{1.00}\right)$$

$Q_T = 369 + 31 = 400$ cfs @ t = 46.5

C.F.C. & W.C.D.

HYDROLOGY CALCULATION SHEET

PROJECT FLABOB LATERAL

Calculated by R.A.N. DATE 19 April 66

FREQUENCY 1/10

Checked by DATE

DRAINAGE AREA	Soil & Development	A Acres	I In/hr.	C	ΔQ CFS	Σ Q CFS	SLOPE	SECTION	V FPS	L FT.	T MIN.	Σ T	REMARKS
T-7A	SF-B	9.91	1.34	.51	6.8				H=5'	1000'	12.8	12.8	
T-7	SF-B	16.48	1.14	.47	8.8	6.8	.007	STEEP	Normal 2	1030	5.8	23.6	
T-8	SF-B	12.16	1.02	.43	20.7	15.6	.002	"	3	1000	5.5	29.1	@42nd & New Apts.
						36.3	.007	30"ϕ RCP	9.2	500'	1.1	30.2	@42nd & Evidence

C.F.C. & W.C.D. **HYDROLOGY CALCULATION SHEET** Sheet No. 2 of 8 Sheets

PROJECT Rubidoux CHANNEL Calculated by R.A.N. 19 Apr 66 (DATE)

FREQUENCY 1/10 Checked by (DATE)

DRAINAGE AREA	Soil & Development	A Acres	I In/hr.	C	ΔQ CFS	Σ Q CFS	SLOPE	SECTION	V FPS	L FT.	T MIN.	Σ T	REMARKS
						400	~.005	channel	11	2000	3.0	46.5	
V-1	SF-B	193	.84	.37	60.2	460	~.002	"	7.5	1900	4.2	49.5	
V-2	SF-B	168	.82	.35	48	508						53.7	

time	I_{100}	I_{10}
10	2.48	1.96
20	1.78	1.25
30	1.48	1.01
40	1.35	.90
50	1.27	.83
	8.36	5.95

$\frac{\Sigma I_{100}}{\Sigma I_{10}} = \frac{8.36}{5.95} = 1.4$

But Runoff Factors would be slightly higher with the higher intensities

∴ Use Ratio $\frac{Q_{100}}{Q_{10}} = 1.5$ for open channel

DEC 4

CHECK ON HYDRAULICS

STATION	ELEV	DIA	DEPTH	Q	V	VH	HGL	EGL
35+00.00	745.25	6.50	6.50	400.00	12.05	2.25	751.75	754.00
40+00.00	745.25	6.50	9.51	400.00	12.05	2.25	754.76	757.02
41+00.00	745.25	6.50	10.09	400.00	12.05	2.25	755.34	757.60
	SIDE	INLET AT	STATION	41+10.00				
41+10.00	745.25	6.50	10.62	370.00	11.15	1.93	755.87	757.81
41+30.00	745.25	6.50	11.26	370.00	11.15	1.93	756.51	758.45
44+00.00	745.25	6.50	13.05	370.00	11.15	1.93	758.30	760.23
45+00.00	745.25	6.50	13.64	370.00	11.15	1.93	758.89	760.83
	SIDE	INLET AT	STATION	45+10.00				
45+10.00	745.25	6.50	14.66	290.00	8.73	1.18	759.91	761.10
50+00.00	745.25	6.50	16.22	290.00	8.73	1.18	761.47	762.66
55+00.00	745.25	6.50	17.81	290.00	8.73	1.18	763.06	764.24
60+00.00	745.25	6.50	19.33	290.00	8.73	1.18	764.58	765.77

60+10

Recalculations for RUBIDOUX BLVD.
STORM DRAIN
LBD
12/4/68

RETENTION BASIN OUTLET

DEC 4

STATION	ELEV	DIA	DEPTH	Q	V	VH	HGL	EGL
524+50.00	799.50	5.00	5.00	155.00	7.89	0.96	804.50	805.46
523+10.00	799.50	5.00	5.49	155.00	7.89	0.96	804.99	805.96
	SIDE INLET AT STATION 523+00.00							
523+00.00	799.50	5.00	5.60	150.00	7.63	0.90	805.10	806.01
521+20.00	799.50	5.00	6.20	150.00	7.63	0.90	805.70	806.60
	SIDE INLET AT STATION 521+10.00							
521+10.00	799.50	5.00	6.44	135.00	6.87	0.73	805.94	806.68
518+10.00	799.50	5.00	7.25	135.00	6.87	0.73	806.75	807.48
	SIDE INLET AT STATION 518+00.00							
518+00.00	799.50	5.00	7.34	130.00	6.62	0.68	806.84	807.53
515+60.00	799.50	5.00	7.94	130.00	6.62	0.68	807.44	808.17
	SIDE INLET AT STATION 515+50.00							
515+50.00	799.50	5.00	8.14	115.00	5.85	0.53	807.64	808.17
513+70.00	799.50	5.00	8.49	115.00	5.85	0.53	807.99	808.52
	SIDE INLET AT STATION 513+60.00							
513+60.00	799.50	5.00	8.57	110.00	5.60	0.48	808.07	808.56
510+00.00	799.50	5.00	9.24	110.00	5.60	0.48	808.74	809.22
509+10.00	799.50	5.00	9.40	110.00	5.60	0.48	808.90	809.38
	SIDE INLET AT STATION 509+00.00							
509+00.00	799.50	4.00	9.07	100.00	7.95	0.98	808.57	809.55
507+10.00	799.50	4.00	9.99	100.00	7.95	0.98	809.49	810.47
	SIDE INLET AT STATION 507+00.00							
507+00.00	799.50	4.00	10.16	95.00	7.55	0.88	809.66	810.55
503+10.00	799.50	4.00	11.86	95.00	7.55	0.88	811.36	812.25
	SIDE INLET AT STATION 503+00.00							
503+00.00	799.50	3.00	11.04	85.00	12.02	2.24	810.54	812.79
500+00.00	799.50	3.00	16.02	85.00	12.02	2.24	815.52	817.77
497+80.00	799.50	3.00	19.59	85.00	12.02	2.24	819.09	821.33
497+70.00	799.50	2.25	17.72	85.00	21.37	7.10	817.22	824.32
496+20.00	799.50	2.25	29.00	85.00	21.37	7.10	828.50	835.60

Recalculations for Retention Basin Outlet

LBD 12/5/68

HYDRAULIC CHECK E MISSION

DEC 4

STATION	ELEV	DIA	DEPTH	Q	V	VH	HGL	EGL
0+00.00	761.50	5.00	5.00	105.00	5.34	0.44	766.50	766.94
5+00.00	761.50	5.00	5.83	105.00	5.34	0.44	767.33	767.77
6+95.00	761.50	5.00	6.14	105.00	5.34	0.44	767.64	768.09
	SIDE INLET AT STATION			7+05.00				
7+05.00	761.50	3.50	6.03	49.00	5.09	0.40	767.53	767.93
10+00.00	761.50	3.50	6.75	49.00	5.09	0.40	768.25	768.65
10+65.00	761.50	3.50	6.90	49.00	5.09	0.40	768.40	768.81
	SIDE INLET AT STATION			10+75.00				
10+75.00	761.50	3.25	7.01	40.00	4.82	0.36	768.51	768.88
14+50.00	761.50	3.25	7.89	40.00	4.82	0.36	769.39	769.75
	SIDE INLET AT STATION			14+60.00				
14+60.00	761.50	3.00	8.01	32.00	4.52	0.31	769.51	769.82
15+00.00	761.50	3.00	8.11	32.00	4.52	0.31	769.61	769.93

Recalculations on E. Mission Blvd.
Storm Drain
LBD
12/5/68

DEC 4

HYDRAULIC CHECK ON W MISSION

STATION	ELEV	DIA	DEPTH	Q	V	VH	HGL	EGL
0+00.00	761.25	5.25	5.25	208.00	9.60	1.43	766.50	767.93
3+10.00	761.25	5.25	6.77	208.00	9.60	1.43	768.02	769.45
	SIDE INLET AT STATION 3+20.00							
3+20.00	761.25	5.25	7.11	190.00	8.77	1.19	768.36	769.56
5+00.00	761.25	5.25	7.91	190.00	8.77	1.19	769.16	770.36
5+75.00	761.25	5.25	8.22	190.00	8.77	1.19	769.47	770.66
	SIDE INLET AT STATION 5+85.00							
5+85.00	761.25	5.25	8.42	180.00	8.31	1.07	769.67	770.75
9+20.00	761.25	5.25	9.65	180.00	8.31	1.07	770.90	771.98
	SIDE INLET AT STATION 9+30.00							
9+30.00	761.25	3.50	9.08	125.00	12.99	2.62	770.33	772.95
10+00.00	761.25	3.50	10.29	125.00	12.99	2.62	771.54	774.16
15+00.00	761.25	3.50	18.13	125.00	12.99	2.62	779.38	782.00
18+20.00	761.25	3.50	23.06	125.00	12.99	2.62	784.31	786.93
	SIDE INLET AT STATION 18+30.00							
18+30.00	761.25	2.25	24.37	56.00	14.08	3.08	785.62	788.70
20+00.00	761.25	2.25	30.07	56.00	14.08	3.08	791.32	794.40
25+00.00	761.25	2.25	46.54	56.00	14.08	3.08	807.79	810.88
26+00.00	761.25	2.25	49.81	56.00	14.08	3.08	811.06	814.14
26+10.00	761.25	2.50	51.23	56.00	11.40	2.02	812.48	814.50
30+00.00	761.25	2.50	58.59	56.00	11.40	2.02	819.84	821.86
30+80.00	761.25	2.50	60.07	56.00	11.40	2.02	821.32	823.35
	SIDE INLET AT STATION 30+90.00							
30+90.00	761.25	2.75	62.04	35.00	5.89	0.53	823.29	823.83
35+00.00	761.25	2.75	63.86	35.00	5.89	0.53	825.11	825.65
37+20.00	761.25	2.75	64.82	35.00	5.89	0.53	826.07	826.61

check next sheet

Recalculations for W. Mission Blvd.
Storm Drain

LBD
12/5/68

W. MISSION

DEC 4

STATION	ELEV	DIA	DEPTH	Q	V	VH	HGL	EGL
25+00.00	761.25	2.25	46.54	56.00	14.08	3.08	807.79	810.87
26+00.00	761.25	2.25	49.80	56.00	14.08	3.08	811.05	814.13
26+10.00	761.25	2.75	51.89	56.00	9.42	1.38	813.14	814.52
30+00.00	761.25	2.75	56.32	56.00	9.42	1.38	817.57	818.95
30+80.00	761.25	2.75	57.22	56.00	9.42	1.38	818.47	819.85
	SIDE	INLET AT	STATION	30+90.00				
30+90.00	761.25	2.75	58.27	35.00	5.89	0.53	819.52	820.05
35+00.00	761.25	2.75	60.08	35.00	5.89	0.53	821.33	821.87
37+20.00	761.25	2.75	61.05	35.00	5.89	0.53	822.30	822.84

R.C.F.C. & W.C.D.

HYDRAULIC CALCULATION SHEET

Sheet No. ___ of ___ Sheets

PROJECT Rubidoux Storm Drain

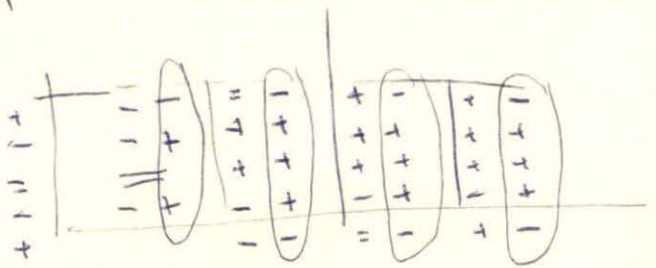
Calculated by R.A.N. 26 APR 66 DATE

n .013

Checked by ____ DATE

Si	STA.	SECTION z	b	d	Y	W.S. ELEV.	Q	A	V	$\frac{V^2}{2g}$ hv	E.G. ELEV.	Sf CALC. K	$\frac{Q}{K}$	$S=(\frac{Q}{K})^2$ Sf	Sa	L	hf	hb	hj	he	E.G. ELEV.
	41+00			72"ϕ		756.2	370	28.3	13.1	2.67	758.9	4234	.0875	.00765							
	45+00			72"ϕ		759.5	370	28.3	13.1	2.67		"	"	"	.00765	400	3.06	0.2	—	—	762.2
OK	45+00			72"ϕ		759.5	290	28.3	10.2	1.63	761.1	4234	.0685	.00469							
OK	61+00			72"ϕ		767.1	290	28.3	10.2	1.63		"	"	.00469	.00469	1600	7.51	—	0.1	—	768.7
	45+00			69"ϕ		759.5	290	36.0	11.2	1.24	760.7	3785	.0765	.00585							
	61+00			69"ϕ		769.0	290	36.0	11.2	1.24		3785	.0765	.00585	.00585	1600	9.37	—	0.1	—	770.2
	35+20			75"ϕ		751.9	100	30.7	13.0	2.64	754.5	4717	.0849	.00720							
	41+00			75"ϕ		756.2	100	30.7	13.0	2.64		"	"	"	.00720	380	4.18		0.1		758.8
	41+00			75"ϕ		756.2	370	30.7	12.1	2.27	758.5	4717	.0785	.00616							
	45+00			75"ϕ		758.8	370	30.7	12.1	2.27		"	"	"	.00616	400	2.47		0.1		761.1
	45+00			72"ϕ		758.8	290	28.3	10.2	1.63	760.4	4234	.0685	.00469							
	61+00			72"ϕ		766.6	290	28.3	10.2	1.63		"	"	"	.00469	1600	7.51		0.3		768.2
	61+00					767.1													0.5		

S13 & 14 4-ft 2003 (11-18-03)



R.C.F.C. & W.C.D.

HYDRAULIC CALCULATION SHEET

Sheet No. 2 of ___ Sheets

PROJECT EAST MISSION BOULEVARD STORM DRAIN

Calculated by R.A.M. 26 APR 66 DATE

n = .013

Checked by ___ DATE

Si	STA.	SECTION z	SECTION b	SECTION d	Y	W.S. ELEV.	Q	A	V	hv	E.G. ELEV.	Sf CALC. K	Sf CALC. Q/K	Sf = (Q/K)²	Sa	L	hf	hb	hj	he	E.G. ELEV.
	~~0+00~~			~~60"ϕ~~		~~769.0~~	~~105~~	~~19.6~~	~~5.36~~	~~.45~~	~~769.5~~	~~2603~~	~~.0403~~	~~.00162~~							
	~~9+00~~			~~60"ϕ~~		~~770.6~~ ← ABOVE GROUND	~~105~~	~~19.6~~	~~5.36~~	~~.45~~		~~2603~~	~~.0403~~	~~.00162~~	.00162	700	1.13	0.5	~~0.5~~		771.1
	~~0+00~~			~~63"ϕ~~		~~769.0~~	~~105~~	~~21.6~~	~~4.86~~	~~.37~~	~~769.4~~	~~2962~~	~~.0354~~	~~.00125~~							
	~~7+00~~			~~63"ϕ~~		~~770.3~~		~~21.6~~	~~4.86~~	~~.37~~		~~"~~	~~"~~	~~.00125~~	.00125	700	0.87	0.5	~~0.5~~		770.7
						← ABOVE GROUND + STARTING WATER SURFACE MUST BE LOWERED @ RUBIDOUX-MISSION INTERSECTION BY USING LARGER PIPE SIZE DOWN RUBIDOUX ST. SELECT 72"ϕ RCP for RUBIDOUX ST. LOWERS W.S. ELEV. from 769.0 to 767.1												
	0+00			60"ϕ		767.1	105	19.6	5.36	.45	767.6	2603	.0403	.00162							
	7+00			60"ϕ		768.7	105	19.6	5.36	.45		"	"	"	.00162	700	1.13	0.5	~~0.5~~		769.2
	7+00			42"ϕ		768.7	49	9.6	5.11	.41	769.1	1006	.0487	.00237							
	10+70			42"ϕ		769.7	49	9.6	5.11	.41		"	"	"	.00237	370	.87		0.1		770.1
	10+70			39"ϕ		769.7	40	8.3	4.82	.36	770.1	825	.0485	.00235							
	14+50			39"ϕ		770.7	40	8.3	4.82	.36		"	"	"	.00235	380	.89		0.1		771.1
	14+50			36"ϕ		770.7	32	7.1	4.51	.32	771.0	666	.0480	.00230							
	18+00			36"ϕ		771.6	32	7.1	4.51	.32		"	"	"	.00230	350	.81		0.1		771.9

R.C.F.C. & W.C.D.

HYDRAULIC CALCULATION SHEET

Sheet No. ___ of ___ Sheets

PROJECT WEST MISSION BLVD STORM DRAIN

n = .013

Calculated by R.A.N. 27 APR 66 DATE

Checked by ___ DATE

Si	STA.	SECTION z	SECTION b	SECTION d	Invert Elev. Y	W.S. ELEV.	Q	A	V	h_v	E.G. ELEV.	Sf CALC. $(\frac{Q}{K})^2$	Sf CALC. $(\frac{Q}{K_b})^2$	Sf	Sa	L	h_f	h_D	h_j	h_e	E.G. ELEV.
	0+00			65"ϕ		767.1	208	21.6	9.63	1.45	768.6	2962	.0702	.00493							
	3+10			63"ϕ		769.1	208	21.6	9.63	1.45		"	"	"	.00493	310	1.53	0.5			770.6
	3+10			65"ϕ		769.1	190	21.6	8.80	1.21	770.3	2962	.0640	.00410							
	5+70			63"ϕ		770.3	190	21.6	8.80	1.21		"	"	"	.00410	260	1.07		0.1		771.5
	5+70			63"ϕ		770.3	180	21.6	8.35	1.09	771.4	2962	.0607	.00369							
	9+20			63"ϕ		771.7	180	21.6	8.35	1.09		"	"	"	.00369	350	1.29		0.1		772.8
	~~9+20~~			~~39"ϕ~~		~~771.7~~	~~125~~	~~8.3~~	~~15.10~~	~~3.56~~	~~775.3~~	~~825~~	~~.152~~	~~.0231~~							
	~~18+20~~			~~39"ϕ~~		~~772.6~~	~~125~~	~~8.3~~	~~15.10~~	~~3.56~~		"	"	"	.0231	900	20.8		0.1		796.2
						℄ ABOVE GROUND															
	9+20			42"ϕ		771.7	125	9.6	13.05	2.66	774.4	1006	.1242	.0154							
	18+20			42"ϕ		785.7	125	9.6	13.05	2.66		"	"	"	.0154	900	13.9		0.1		788.4
	~~18+20~~			~~24"ϕ~~		~~785.7~~	~~56~~	~~3.1~~	~~18.10~~	~~5.12~~	~~790.8~~	~~223~~	~~.251~~	~~.065~~							
	~~25+00~~			~~24"ϕ~~			56	3.1	18.10	5.12		"	"	"	← too high						
	18+20			27"ϕ		785.7	56	4.0	14.00	3.06	788.8	311	.180	.0324							
	26+00			27"ϕ		811.1	56	4.0	14.00	3.06		"	"	"	.0324	780	25.3		0.1		814.2
	26+00			30"ϕ		811.1	56	4.9	11.42	2.04	813.1	410	.1365	.0187							
	30+80			30"ϕ		820.2	56	4.9	11.42	2.04		"	"	"	.0187	480	9.0		0.1		822.2
	~~30+80~~			~~30"ϕ~~		~~820.2~~	~~35~~	~~4.9~~	~~7.15~~	~~0.80~~	~~821.0~~	~~410~~	~~.0853~~	~~.0073~~							
	~~32+20~~			~~30"ϕ~~		~~825.0~~	~~35~~	~~4.9~~	~~7.15~~	~~0.80~~		"	"	"	.0073	640	4.7		0.1		825.8
	30+80			33"ϕ		820.2	35	5.9	5.93	0.55	820.8	833	.0420	.0176							
	37+20			33"ϕ		821.3	35	5.9	5.93	0.55		"	"	"	.0176	690	1.1		0.1		821.9

R.C.F.C. & W.C.D.

HYDRAULIC CALCULATION SHEET

Sheet No. ___ of ___ Sheets

PROJECT 42 ND STREET STORM DRAIN

Calculated by B.A.M. 28 Apr 66 (DATE)

n .013

Checked by ___ (DATE)

Si	STA.	SECTION z	SECTION b	SECTION d	Invert Elev. Y	W.S. ELEV.	Q	A	V	h_v	E.G. ELEV.	Sf CALC $\frac{Q}{K}$	Sf CALC $(\frac{Q}{K})^2$	Sf	Sa	L	hf	hD	hj	he	E.G. ELEV.
	0+00			30"ϕ		756.2	31	4.9	6.33	.63	756.8	410	.0756	.00572							
	5+00			30"ϕ		759.2	31	4.9	6.33	.63		"	"	"	.00572	500	2.86		0.1		759.8
	0+00			33"ϕ		756.2	31	5.9	5.26	.43	756.6	833	.0372	.00139							
	5+00			33"ϕ		757.0	31	5.9	5.26	.43		"	"	"	.00139	500	.69		0.1		757.4
						TILTON STREET STORM DRAIN															
	0+00			42"ϕ		759.5	59	9.6	5.93	.55	760.1	1006	.0566	.0032							
	8+50			42"ϕ		762.5	59	9.6	5.93	.55		"	"	"	.0032	850	2.72		0.1		762.9
	0+00			45"ϕ		756.8	57	11.0	5.18	.42	759.2	1209	.0472	.00223							
	8+50			45"ϕ		760.8	57	11.0	5.18	.42		"	"	"	.00223	850	1.89		0.1		761.4

R.C.F.C. & W.C.D.

HYDRAULIC CALCULATION SHEET

Sheet No. ___ of ___ Sheets

PROJECT RUBIDOUX DRAIN REVISED FOR 32 cfs
ADDITION @ WALLACE ST.

n .013

Calculated by JLA 7/7/71 (DATE)

Checked by (DATE)

STA.	SECTION z	b	d	Invert Elev. Y	W.S. ELEV.	Q	A	V	h_v	E.G. ELEV.	S_f CALC. K	Q/K	S_f	S_a	L	h_f	h_b	h_j	h_e	E.G. ELEV.
35+20			84"ϕ		751.3	432	38.5	11.2	1.95	753.3	6388	.0676	.00456							
41+00			84"ϕ		754.0	432	38.5	11.2	1.95		"	"	"	.00456	580	2.64		.1		756.0
41+00			78"ϕ		754.0	401	33.2	12.1	2.26	756.3	5253	.0764	.00584							
45+00			78"ϕ		756.4	401	33.2	12.1	2.26		"	"	"	.00584	400	2.34		.1		758.7
45+00			78"ϕ		756.4	322.2	33.2	9.71	1.46	757.9	5253	.0614	.00376							
60+50			78"ϕ		762.5	322.2	33.2	9.71	1.46		"	"	"	.00376	1550	5.83		.3		764.0

R.C.F.C. & W.C.D.

HYDRAULIC CALCULATION SHEET

Sheet No. 1 of 2 Sheets

PROJECT EAST MISSION BLVD DRAIN REVISED FOR 32.2 cfs ADDITION @ WALLACE ST.

Calculated by JLA 7/7/71 DATE

n = .013

Checked by ____ DATE

Si	STA.	SECTION z	SECTION b	SECTION d	Y	W.S. ELEV.	Q	A	V	h_v	E.G. ELEV.	Sf CALC. K	Sf CALC. Q/K	$(Q/K)^2$ Sf	Sa	L	hf	h_b	hj	he	E.G. ELEV.
	0+00			60"ϕ		766.0	137.7	19.63	7.0	.76	766.8	2603	.0528	.00279							
	7+00			60"ϕ		768.5	137.7	19.63	7.0	.76		"	"	"	.00279	700	1.95	.5			769.3
	0+00		→	63"ϕ		766.0	137.7	21.65	6.35	.63	766.6	2962	.0464	.00215							
	7+00			63"ϕ		768.0	137.7	21.65	6.35	.63		"	"	"	.00215	700	1.51	.5			768.6
	0+00			66"ϕ		766.0	137.7	23.76	5.79	.52	766.5	3364	.0409	.00167							
	7+00			66"ϕ		767.7	137.7	23.76	5.79	.52		"	"	"	.00167	700	1.17	.5			768.2
	0+00			72"ϕ		768.1	137.7	28.27	4.87	.37	768.4	4233	.0325	.00106							
	7+00			72"ϕ		769.3	137.7	28.27	4.87	.37		"	"	"	.00106	700	.74	.5			769.6
	0+00			75"ϕ		768.1	137.7	30.68	4.48	.31	768.4	4717	.0292	.000850							
	7+00			75"ϕ		769.2	137.7	30.68	4.48	.31		"	"	"	.000850	700	.595	.5			769.5
	0+00			81"ϕ		768.1	137.7	35.8	3.84	.23	768.3	5804	.0237	.000561							
	7+00			81"ϕ		769.	137.7	35.8	3.84	.23		"	"	"	.000561	700	.39	.5			769.7
	0+00			87"ϕ		768.1	137.7	41.3	3.33	.17	768.3	7007	.0196	.000385							
	7+00			87"ϕ		[illegible]	137.7	41.3	3.33	.17		"	"	"	.000385	700	.27	.5			
	7+00			45"ϕ		768.0	81	11.0	7.36	.84	768.8	1209	.0670	.0045							
	10+70			45"ϕ		769.8	81	11.0	7.36	.84		"	"	"	.0045	370	1.67		.1		770.6
	7+00			51"ϕ		768.0	81	14.2	5.70	.51	768.5	1690	.0479	.00230							
	10+70			51"ϕ		769.0	81	14.2	5.70	.51		"	"	"	.00230	370	.85		.1		769.5
	7+00			54"ϕ		768.0	81	15.9	5.10	.40	768.4	1967	.0412	.00170							
	10+70			54"ϕ		768.7	81	15.9	5.10	.40		"	"	"	.00170	370	.63		.1		769.1

R.C.F.C. & W.C.D.

HYDRAULIC CALCULATION SHEET

Sheet No. 2 of 2 Sheets

PROJECT EAST MISSION BLVD DRAIN REVISED FOR 32.2 CFS addition @ WALLACE ST.

Calculated by JLA 7/7/71 DATE

n .013

Checked by DATE

Si	STA.	SECTION z	b	d	Invert Elev. Y	W.S. ELEV.	Q	A	V	h_v	E.G. ELEV.	Sf CALC. K	$(Q/K)^2$	Sf	Sa	L	hf	h_D	h_j	h_e	E.G. ELEV.
	10+70			51"ϕ		768.7	72.2	14.2	5.08	.40	769.1	1690	.0428	.00183							
	14+50			51"ϕ		769.5	72.2	14.2	5.08	.40		"	"	"	.00183	380	.70		.1		769.9
	14+50			48"ϕ		769.5	64.4	12.6	5.10	.40	769.9	1436	.0448	.00201							
	18+00			48"ϕ		770.3	64.4	12.6	5.10	.40		"	"	"	.00201	350	.70		.1		770.7
	14+50			45"ϕ		769.5	64.4	11.0	5.85	.53	770	1209	.0533	.00284							
	18+00			45"ϕ		770.6									.00284	350	.99		.1		771.4
	14+50			42"ϕ		769.5	64.4	9.6	6.7	.70	770.2	1005	.0640	.00410							
	18+00			42"ϕ		771.0									.00410	350	1.4		.1		771.7
	14+50			39"ϕ		769.5	64.4	8.3	7.75	.93	770.4	825	.0780	.00610							
	18+00			39"ϕ		771.6									.00610	350	2.1		.1		772.5

JUL 9 11 20

RUBIDOUX DRAIN (REVISED) ALEGRIA 7/7/71

STATION	ELEV	DIA	DEPTH	Q	V	VH	HGL	EGL
35+20.00	744.30	7.00 *	7.00	432.00	11.22	1.95	751.30	753.25
40+20.00	744.30	7.00 *	9.38	432.00	11.22	1.95	753.68	755.63
41+00.00	744.30	7.00 *	9.74	432.00	11.22	1.95	754.04	756.00
	SIDE INLET AT STATION			41+10.00				
41+10.00	744.30	6.50	9.70	401.00	12.08	2.26	754.00	756.27
41+50.00	744.30	6.50	10.34	401.00	12.08	2.26	754.64	756.91
45+00.00	744.30	6.50	12.38	401.00	12.08	2.26	756.68	758.95
	SIDE INLET AT STATION			45+10.00				
45+10.00	744.30	6.50	13.67	322.00	9.70	1.46	757.97	759.43
45+20.00	744.30	6.50	13.78	322.00	9.70	1.46	758.08	759.54
46+20.00	744.30	6.50	14.42	322.00	9.70	1.46	758.72	760.18
50+20.00	744.30	6.50	16.00	322.00	9.70	1.46	760.30	761.76
55+20.00	744.30	6.50	17.95	322.00	9.70	1.46	762.25	763.72
60+20.00	744.30	6.50	19.91	322.00	9.70	1.46	764.21	765.67
60+50.00	744.30	6.50	20.02	322.00	9.70	1.46	764.32	765.79
	SIDE INLET AT STATION			60+60.00				
60+60.00	744.30	6.50	21.27	208.00	6.26	0.61	765.57	766.18

* Equiv 7'Wx 5'10" H RCB ∤ 78"ϕ

EAST MISSION BLVD DRAIN (REVISED) ALEGRIA 7-7-71

13.08
JUL 9

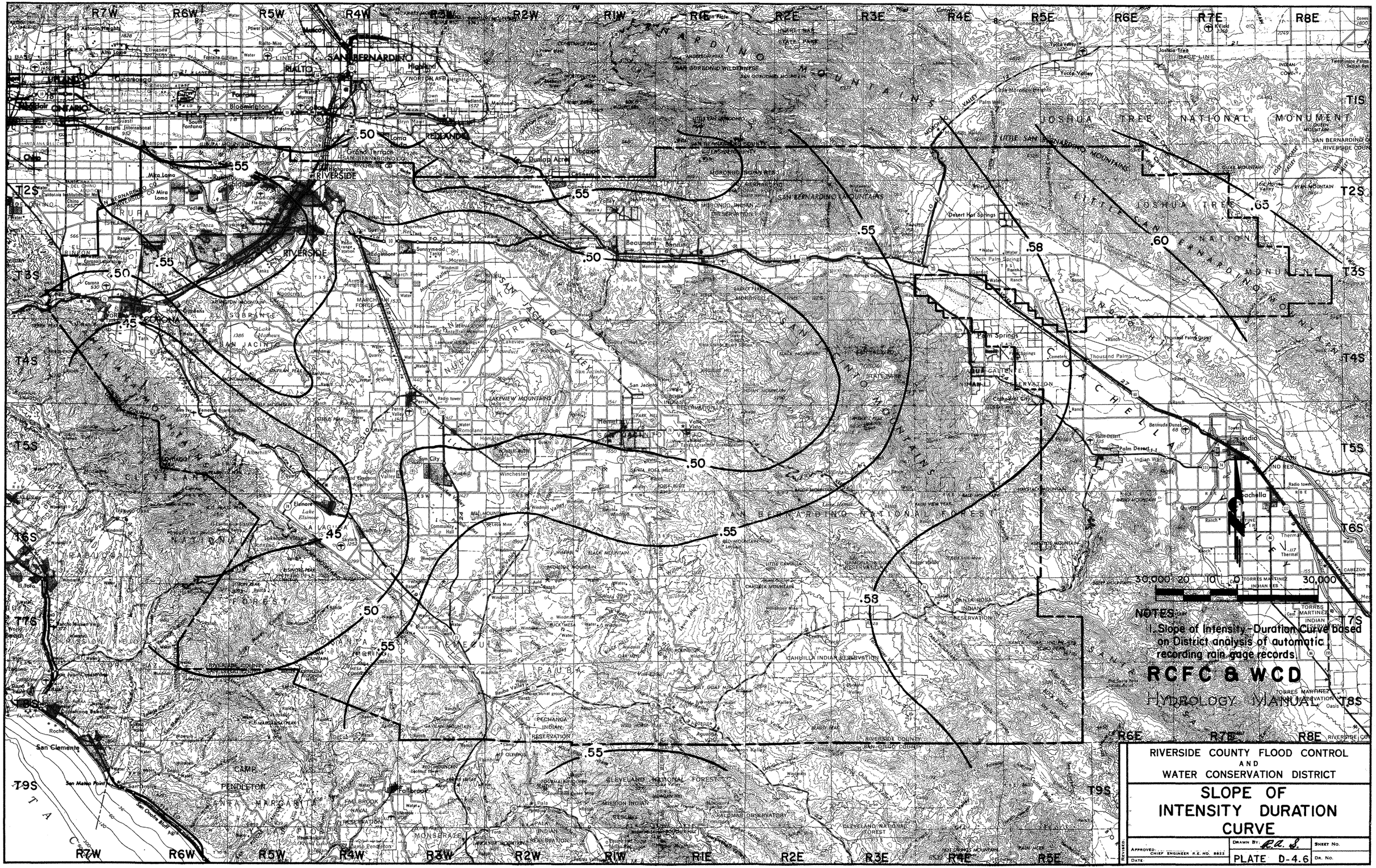
STATION	ELEV	DIA	DEPTH	Q	V	VH	HGL	EGL
0+00.00	758.75	5.25	6.82	138.00	6.37	0.63	765.57	766.20
1+30.00	758.75	5.25	7.25	138.00	6.37	0.63	766.00	766.64
5+50.00	758.75	5.25	8.19	138.00	6.37	0.63	766.94	767.57
7+00.00	758.75	4.50	8.29	138.00	8.67	1.17	767.04	768.21
	SIDE INLET AT STATION			7+10.00				
7+10.00	758.75	4.50	9.10	81.00	5.09	0.40	767.85	768.26
10+00.00	758.75	4.50	9.61	81.00	5.09	0.40	768.36	768.77
10+70.00	758.75	4.25	9.67	81.00	5.70	0.50	768.42	768.93
	SIDE INLET AT STATION			10+80.00				
10+80.00	758.75	4.25	9.83	72.00	5.07	0.40	768.58	768.98
14+50.00	758.75	4.00	10.55	72.00	5.72	0.51	769.30	769.81
	SIDE INLET AT STATION			14+60.00				
14+60.00	758.75	4.00	10.69	64.00	5.09	0.40	769.44	769.84
15+00.00	758.75	4.00	10.79	64.00	5.09	0.40	769.54	769.94
18+00.00	758.75	4.00	11.38	64.00	5.09	0.40	770.13	770.54

W MISSION BLVD DRAIN CHECK ALEGRIA 7/9/71

JUL 13 13.38

STATION	ELEV	DIA	DEPTH	Q	V	VH	HGL	EGL
0+00.00	758.75	5.25	5.57	208.00	9.60	1.43	764.32	765.75
1+30.00	758.75	5.25	6.58	208.00	9.60	1.43	765.33	766.76
3+10.00	758.75	5.25	7.46	208.00	9.60	1.43	766.21	767.64
	SIDE INLET AT STATION 3+20.00							
3+20.00	758.75	5.25	7.84	190.00	8.77	1.19	766.59	767.79
5+00.00	758.75	5.25	8.64	190.00	8.77	1.19	767.39	768.59
5+75.00	758.75	5.25	8.95	190.00	8.77	1.19	767.70	768.89
	SIDE INLET AT STATION 5+85.00							
5+85.00	758.75	5.25	9.17	180.00	8.31	1.07	767.92	769.00
9+20.00	758.75	5.25	10.41	180.00	8.31	1.07	769.16	770.23
	SIDE INLET AT STATION 9+30.00							
9+30.00	758.75	5.25	11.11	125.00	5.77	0.51	769.86	770.38
9+35.00	758.75	3.50	9.47	125.00	12.99	2.62	768.22	770.84
10+00.00	758.75	3.50	10.60	125.00	12.99	2.62	769.35	771.98
15+00.00	758.75	3.50	18.31	125.00	12.99	2.62	777.06	779.68
	SIDE INLET AT STATION 18+25.00							
18+25.00	758.75	3.50	23.97	56.00	5.82	0.52	782.72	783.24
18+30.00	758.75	2.25	22.01	56.00	14.08	3.08	780.76	783.84
20+00.00	758.75	2.25	27.71	56.00	14.08	3.08	786.46	789.55

APPENDIX G – RCFC AND WCD HYDROLOGY MANUAL PLATES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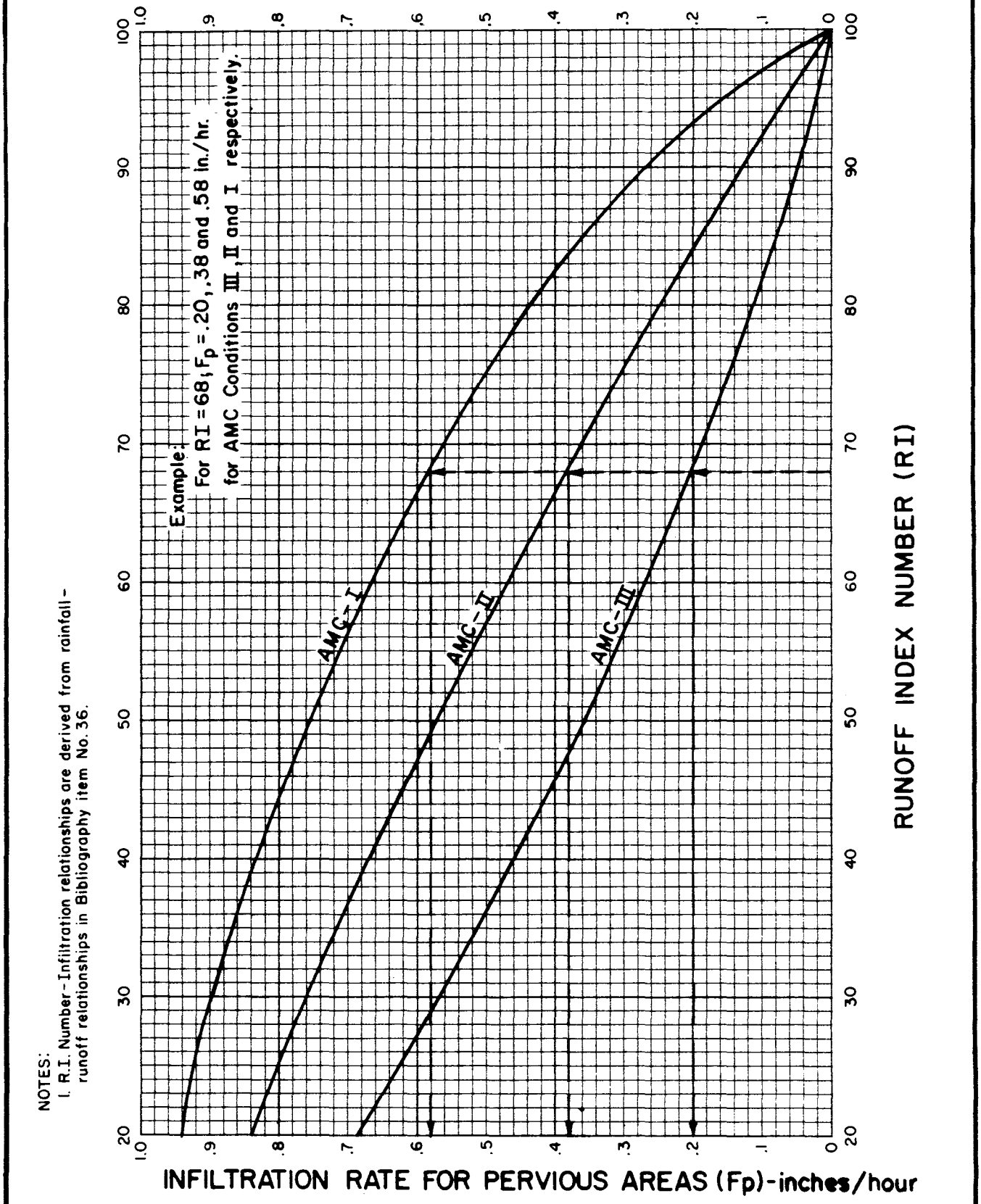
NOTES
1. Slope of Intensity-Duration Curve based on District analysis of automatic recording rain gage records.
RCFC & WCD
HYDROLOGY MANUAL
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
SLOPE OF INTENSITY DURATION CURVE
APPROVED: CHIEF ENGINEER R.E. NO. 8822
DATE
REVISED
DRAWN BY: R.A.S.
CHECKED BY:
SHEET NO.
PLATE D-4.6
DR. NO.



NOTES:
1. R.I. Number-Infiltration relationships are derived from rainfall-runoff relationships in Bibliography item No. 36.

RCFC & WCD

HYDROLOGY MANUAL

INFILTRATION RATE FOR PERVIOUS AREAS VERSUS RUNOFF INDEX NUMBERS

PLATE E-6.2

AVERAGE ADJUSTED LOSS RATE

[1] SOIL GROUP (PLATE C-1)	[2] COVER TYPE	[3] RI NUMBER (PLATE E-6.1)	[4] PERVIOUS AREA INFILTRATION RATE-IN/HR (PLATE E-6.2)	[5] LAND USE	[6] DECIMAL PERCENT OF AREA IMPERVIOUS (PLATE E-6.3)	[7] ADJUSTED INFILTRATION RATE-IN/HR [4](1-.9[6])	[8] ~~AREA SQ INCHES~~ Grid Intersections	[9] [8]/Σ[8]	[10] AVERAGE ADJUSTED INFILTRATION RATE-IN/HR [7]*[9]
A	DRYLAND PASTURE-FAIR	50	.57	SINGLE FAMILY 1/2 ACRE	.40	.36	7	.018	.006
B	"	69	.37	"	.40	.24	87	.221	.053
C	"	79	.26	"	.40	.17	19	.048	.008
A	BROADLEAF CHAPARREL-FAIR	40	.67	NATURAL	0	.67	4	.010	.007
B	"	63	.44	"	0	.44	24	.062	.027
C	"	75	.30	"	0	.30	252	.642	.193
								∴ USE F=.29	
							Σ[8]- 393		Σ[10]- .294

In lieu of planimetering areas, relative area was determined using a "dot counter" or uniform grid over the study area, and finding the number of "dots" or grid points falling in each area.

SAMPLE CALCULATION No 1
3-HOUR STORM WITH CONSTANT LOSS RATE
(Example of Plate E-2.1 (2 of 2))

LOSS RATE DATA

VARIABLE LOSS RATE CURVE (24-HOUR STORM ONLY)

F_m = Minimum Loss Rate ≅ F/2 = Σ[10]/2 = .145 IN./HR. Say .15 IN/HR

$C = (F - F_m)/54 = (\Sigma[10] - F_m)/54 =$ .00259

$F_T = C(24-(T/60))^{1.55} + F_m =$ .00259 $(24-(T/60))^{1.55} +$ .15 IN./HR.

← For application of this equation see Sample Calculation No. 2 on Plate E-7.2

Where:

T = Time in minutes. To get an average value for each unit time period, Use $T = \frac{1}{2}$ the unit time for the first time period, $T = 1\frac{1}{2}$ unit time for the second period, etc.

RCFC & WCD | SYNTHETIC UNIT HYDROGRAPH METHOD | HYDROLOGY MANUAL

Basic Data Calculation Form

Project: ANAHEIM AREA STUDY
By: FTP Date: 4/78
Checked: Date:
Sheet: 8

PLATE E-7.1 (4 of 8)