

THE RANCH PLAN PLANNED COMMUNITY
PLANNING AREAS 3 AND 4 RUNOFF MANAGEMENT PLAN

Michael Baker
INTERNATIONAL

TECHNICAL APPENDIX E.5

UH Expected Value – Calibrated Free Draining

FLOOD ROUTING ANALYSIS
USING COUNTY HYDROLOGY MANUAL OF ORANGE (1986)
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Ver. 20.0 Release Date: 06/01/2013 License ID 1264

Analysis prepared by:

Michael Baker International
5 Hutton Centre Drive Suite 500
Santa Ana, CA 92707

***** DESCRIPTION OF STUDY *****
* RANCHO MISSION VIEHO - FREE DRAINING UH - CALIBRATED *
* PHASE CONDITION NO PA5 - REGIONAL NODE 127 *
* 2-YR EV JUNE 2019 ROKAMOTO *

FILE NAME: EVO2127F.DAT
TIME/DATE OF STUDY: 11:53 06/17/2019

** INPUT SUMMARY **

FLOW PROCESS FROM NODE 10100.00 TO NODE 119.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<

WATERSHED AREA = 49495.699 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 5.382 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.595; LOW LOSS FRACTION = 0.931
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.17; 30-MINUTE = 0.32; 1-HOUR = 0.44
3-HOUR = 0.82; 6-HOUR = 1.22; 24-HOUR = 2.15
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 119.00 TO NODE 12603.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 341.63; DOWNSTREAM ELEVATION (FT) = 312.40

CHANNEL LENGTH (FT) = 3157.79 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 810.00 TO NODE 12603.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 171.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.141 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.348; LOW LOSS FRACTION = 0.638
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.66; 6-HOUR = 0.90; 24-HOUR = 1.53
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 1260.00 TO NODE 126.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 312.40; DOWNSTREAM ELEVATION (FT) = 286.00
CHANNEL LENGTH (FT) = 3046.70 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 920.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

=====
WATERSHED AREA = 553.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.292 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.509; LOW LOSS FRACTION = 0.862
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.66; 6-HOUR = 0.90; 24-HOUR = 1.53
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 600.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 185.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.431 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.587; LOW LOSS FRACTION = 0.979
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.66; 6-HOUR = 0.90; 24-HOUR = 1.53
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 12720.50 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 286.00; DOWNSTREAM ELEVATION(FT) = 258.00
CHANNEL LENGTH(FT) = 4077.05 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 430.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 315.200 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.299 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.292; LOW LOSS FRACTION = 0.536
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.66; 6-HOUR = 0.90; 24-HOUR = 1.53
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 413.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<

WATERSHED AREA = 124.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.203 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.276; LOW LOSS FRACTION = 0.517
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.66; 6-HOUR = 0.90; 24-HOUR = 1.53
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7

>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<

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FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
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>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
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*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
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*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12741.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 258.00; DOWNSTREAM ELEVATION (FT) = 247.00
CHANNEL LENGTH (FT) = 2294.66 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
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FLOW PROCESS FROM NODE 320.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 675.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.379 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.251; LOW LOSS FRACTION = 0.478
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.66; 6-HOUR = 0.90; 24-HOUR = 1.53
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941
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FLOW PROCESS FROM NODE 390.00 TO NODE 12741.00 IS CODE = 1
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>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<
=====
WATERSHED AREA = 195.100 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.558 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.486; LOW LOSS FRACTION = 0.820
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.66; 6-HOUR = 0.90; 24-HOUR = 1.53
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941
*****

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 127.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 247.00; DOWNSTREAM ELEVATION (FT) = 240.00
CHANNEL LENGTH (FT) = 819.00 MANNING'S FACTOR = 0.030
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CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 12710.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 720.900 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.540 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.591; LOW LOSS FRACTION = 0.968
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.66; 6-HOUR = 0.90; 24-HOUR = 1.53
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 50150.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 1063.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.589 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.589; LOW LOSS FRACTION = 0.962
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.66; 6-HOUR = 0.90; 24-HOUR = 1.53
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 11

>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<

* AES FLOODSCx PROGRAM RESULTS SUMMARY *

INPUT FILENAME: [EV02127F.DAT]

Page: 1 of 1

UPSTREAM TIME (2) TO NODE # PEAK (HR)	DOWNSTREAM MAX. STORAGE NODE # MODELED (AF)	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	FOOTNOTES
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10100.00	119.00	Subarea (UH) Added to Stream #1	0.0	569.9	
20.417					
119.00	12603.00	Convex Routing: Stream #1	569.9	566.5	
20.500					
810.00	12603.00	Subarea (UH) Added to Stream #2	0.0	20.7	
16.250					
12603.00	12603.00	Stream #2 Added to: Stream #1	566.5	568.8	
20.500					
12603.00	12603.00	Zero Out: Stream #2	20.7	0.0	
1260.00	126.00	Convex Routing: Stream #1	568.8	566.5	
20.583					
920.00	126.00	Subarea (UH) Added to Stream #2	0.0	19.8	
16.333					
126.00	126.00	Stream #2 Added to: Stream #1	566.5	569.3	
20.583					
126.00	126.00	Zero Out: Stream #2	19.8	0.0	
600.00	126.00	Subarea (UH) Added to Stream #2	0.0	0.9	
16.500					
126.00	126.00	Stream #2 Added to: Stream #1	569.3	569.5	
20.583					
126.00	126.00	Zero Out: Stream #2	0.9	0.0	
126.00	12720.50	Convex Routing: Stream #1	569.5	568.2	
20.750					
430.00	12720.50	Subarea (UH) Added to Stream #2	0.0	37.7	
16.333					
413.00	12720.50	Subarea (UH) Added to Stream #3	0.0	18.6	
16.250					
12720.50	12720.50	Stream #3 Added to: Stream #2	37.7	54.3	
16.333					
12720.50	12720.50	Zero Out: Stream #3	18.6	0.0	
12720.50	12720.50	Stream #2 Added to: Stream #1	568.2	575.6	
20.750					
12720.50	12720.50	Zero Out: Stream #2	54.3	0.0	

12720.50	12741.00	Convex Routing: Stream #1	575.6	574.9	
20.833					
320.00	12741.00	Subarea (UH) Added to Stream #2	0.0	83.9	
16.417					
390.00	12741.00	Subarea (UH) Added to Stream #4	0.0	7.2	
16.583					
12741.00	12741.00	Stream #4 Added to: Stream #2	83.9	90.3	
16.417					
12741.00	12741.00	Zero Out: Stream #4	7.2	0.0	
12741.00	12741.00	Stream #2 Added to: Stream #1	574.9	588.8	
20.833					
12741.00	12741.00	Zero Out: Stream #2	90.3	0.0	
12741.00	127.00	Convex Routing: Stream #1	588.8	588.5	
20.917					
12710.00	127.00	Subarea (UH) Added to Stream #2	0.0	4.8	
16.583					
127.00	127.00	Stream #2 Added to: Stream #1	588.5	589.3	
20.917					
127.00	127.00	Zero Out: Stream #2	4.8	0.0	
50150.00	127.00	Subarea (UH) Added to Stream #2	0.0	8.2	
16.667					
127.00	127.00	Stream #2 Added to: Stream #1	589.3	590.8	
20.917					
127.00	127.00	Zero Out: Stream #2	8.2	0.0	
127.00	127.00	View: Stream #1		590.8	
20.917	683.15	3			

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

END OF FLOODSCx ROUTING ANALYSIS

FLOOD ROUTING ANALYSIS
USING COUNTY HYDROLOGY MANUAL OF ORANGE (1986)
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Ver. 20.0 Release Date: 06/01/2013 License ID 1264

Analysis prepared by:

Michael Baker International
5 Hutton Centre Drive Suite 500
Santa Ana, CA 92707

***** DESCRIPTION OF STUDY *****
* RANCHO MISSION VIEJO - FREE DRAINING UH - CALIBRATED *
* PHASE CONDITION NO PA5 - REGIONAL NODE 133U *
* 2-YR EV JUNE 2019 ROKAMOTO *

FILE NAME: EVO233UF.DAT
TIME/DATE OF STUDY: 11:45 06/17/2019

** INPUT SUMMARY **

FLOW PROCESS FROM NODE 10100.00 TO NODE 119.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<

WATERSHED AREA = 49495.699 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 5.382 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.595; LOW LOSS FRACTION = 0.931
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.17; 30-MINUTE = 0.32; 1-HOUR = 0.44
3-HOUR = 0.82; 6-HOUR = 1.22; 24-HOUR = 2.15
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 119.00 TO NODE 12603.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
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CHANNEL LENGTH (FT) = 3157.79 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 810.00 TO NODE 12603.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 171.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.141 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.348; LOW LOSS FRACTION = 0.638
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.66; 6-HOUR = 0.90; 24-HOUR = 1.53
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 1260.00 TO NODE 126.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 312.40; DOWNSTREAM ELEVATION (FT) = 286.00
CHANNEL LENGTH (FT) = 3046.70 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 920.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

=====
WATERSHED AREA = 553.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.292 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.509; LOW LOSS FRACTION = 0.862
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.66; 6-HOUR = 0.90; 24-HOUR = 1.53
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 600.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 185.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.431 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.587; LOW LOSS FRACTION = 0.979
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.66; 6-HOUR = 0.90; 24-HOUR = 1.53
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 12720.50 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 286.00; DOWNSTREAM ELEVATION(FT) = 258.00
CHANNEL LENGTH(FT) = 4077.05 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 430.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 315.200 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.299 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.292; LOW LOSS FRACTION = 0.536
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.66; 6-HOUR = 0.90; 24-HOUR = 1.53
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 413.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<

WATERSHED AREA = 124.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.203 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.276; LOW LOSS FRACTION = 0.517
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.66; 6-HOUR = 0.90; 24-HOUR = 1.53
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7

>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<

```

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12741.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 258.00; DOWNSTREAM ELEVATION (FT) = 247.00
CHANNEL LENGTH (FT) = 2294.66 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 320.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 675.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.379 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.251; LOW LOSS FRACTION = 0.478
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.66; 6-HOUR = 0.90; 24-HOUR = 1.53
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940
=====
*****

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FLOW PROCESS FROM NODE 390.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<
=====
WATERSHED AREA = 195.100 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.558 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.486; LOW LOSS FRACTION = 0.820
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.66; 6-HOUR = 0.90; 24-HOUR = 1.53
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 127.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 247.00; DOWNSTREAM ELEVATION (FT) = 240.00
CHANNEL LENGTH (FT) = 819.00 MANNING'S FACTOR = 0.030
=====
*****

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CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 12710.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 720.900 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.540 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.591; LOW LOSS FRACTION = 0.968
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.66; 6-HOUR = 0.90; 24-HOUR = 1.53
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 50150.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 1063.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.589 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.589; LOW LOSS FRACTION = 0.962
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.66; 6-HOUR = 0.90; 24-HOUR = 1.53
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 129.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 240.00; DOWNSTREAM ELEVATION (FT) = 213.00
CHANNEL LENGTH (FT) = 4905.42 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 50300.00 TO NODE 129.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 637.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.621 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.569; LOW LOSS FRACTION = 0.947
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.66; 6-HOUR = 0.90; 24-HOUR = 1.53
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

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FLOW PROCESS FROM NODE 210.00 TO NODE 129.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 214.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.274 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.253; LOW LOSS FRACTION = 0.494
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.66; 6-HOUR = 0.90; 24-HOUR = 1.53
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

```

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*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7
-----

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>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
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*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6
-----

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>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

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*****
FLOW PROCESS FROM NODE 129.00 TO NODE 133.00 IS CODE = 5.2
-----

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>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====

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THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

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```

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 213.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 1389.52 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

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*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 11
-----

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>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<
=====

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+-----+
|
| * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
| INPUT FILENAME: [EV0233UF.DAT ]
Page: 1 of 1
+-----+
|UPSTREAM DOWNSTREAM| |UPSTREAM DOWNSTREAM|
TIME (2) TO | MAX. STORAGE| |
| NODE # NODE # | HYDROLOGIC/HYDRAULIC PROCESS | PEAK (CFS) PEAK (CFS) |
| PEAK (HR) | MODELED (AF) | FOOTNOTES |
+-----+
| 10100.00 119.00| Subarea (UH) Added to Stream #1| 0.0 565.5|
20.417 | |
| 119.00 12603.00| Convex Routing: Stream #1| 565.5 562.4|
20.500 | |
| 810.00 12603.00| Subarea (UH) Added to Stream #2| 0.0 20.4|
16.250 | |
| 12603.00 12603.00| Stream #2 Added to: Stream #1| 562.4 564.6|
20.500 | |
| 12603.00 12603.00| Zero Out: Stream #2| 20.4 0.0|
| | |
+-----+
| 1260.00 126.00| Convex Routing: Stream #1| 564.6 562.5|
20.583 | |
| 920.00 126.00| Subarea (UH) Added to Stream #2| 0.0 19.6|
16.333 | |
| 126.00 126.00| Stream #2 Added to: Stream #1| 562.5 565.3|
20.583 | |
| 126.00 126.00| Zero Out: Stream #2| 19.6 0.0|
| | |
| 600.00 126.00| Subarea (UH) Added to Stream #2| 0.0 0.9|
16.500 | |
+-----+
| 126.00 126.00| Stream #2 Added to: Stream #1| 565.3 565.5|
20.583 | |
| 126.00 126.00| Zero Out: Stream #2| 0.9 0.0|
| | |
| 126.00 12720.50| Convex Routing: Stream #1| 565.5 564.3|
20.750 | |
| 430.00 12720.50| Subarea (UH) Added to Stream #2| 0.0 37.3|
16.333 | |
| 413.00 12720.50| Subarea (UH) Added to Stream #3| 0.0 18.4|
16.250 | |
+-----+
| 12720.50 12720.50| Stream #3 Added to: Stream #2| 37.3 53.8|
16.333 | |
| 12720.50 12720.50| Zero Out: Stream #3| 18.4 0.0|
| | |
| 12720.50 12720.50| Stream #2 Added to: Stream #1| 564.3 571.7|
20.750 | |
| 12720.50 12720.50| Zero Out: Stream #2| 53.8 0.0|
| | |

```

12720.50	12741.00	Convex Routing:	Stream #1	571.7	571.0
20.833					
+-----+-----+					
320.00	12741.00	Subarea (UH) Added to	Stream #2	0.0	83.1
16.417					
390.00	12741.00	Subarea (UH) Added to	Stream #4	0.0	7.1
16.583					
12741.00	12741.00	Stream #4 Added to:	Stream #2	83.1	89.6
16.417					
12741.00	12741.00	Zero Out:	Stream #4	7.1	0.0
12741.00	12741.00	Stream #2 Added to:	Stream #1	571.0	585.0
20.833					
+-----+-----+					
12741.00	12741.00	Zero Out:	Stream #2	89.6	0.0
12741.00	127.00	Convex Routing:	Stream #1	585.0	584.6
20.917					
12710.00	127.00	Subarea (UH) Added to	Stream #2	0.0	4.7
16.583					
127.00	127.00	Stream #2 Added to:	Stream #1	584.6	585.4
20.917					
127.00	127.00	Zero Out:	Stream #2	4.7	0.0
+-----+-----+					
50150.00	127.00	Subarea (UH) Added to	Stream #2	0.0	8.2
16.667					
127.00	127.00	Stream #2 Added to:	Stream #1	585.4	586.9
20.917					
127.00	127.00	Zero Out:	Stream #2	8.2	0.0
127.00	129.00	Convex Routing:	Stream #1	586.9	586.5
21.083					
50300.00	129.00	Subarea (UH) Added to	Stream #2	0.0	6.7
16.667					
+-----+-----+					
129.00	129.00	Stream #2 Added to:	Stream #1	586.5	587.7
21.083					
129.00	129.00	Zero Out:	Stream #2	6.7	0.0
210.00	129.00	Subarea (UH) Added to	Stream #2	0.0	29.9
16.333					
129.00	129.00	Stream #2 Added to:	Stream #1	587.7	591.4
21.083					
129.00	129.00	Zero Out:	Stream #2	29.9	0.0
+-----+-----+					
Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT					
INTERVAL					
3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF					
THE DESIGN STORM					
+-----+-----+					

* AES FLOODSCx PROGRAM RESULTS SUMMARY *

| INPUT FILENAME: [EV0233UF.DAT]

Page: 2 of |

UPSTREAM	DOWNSTREAM		UPSTREAM	DOWNSTREAM
TIME (2) TO	MAX. STORAGE		PEAK (CFS)	PEAK (CFS)
NODE #	NODE #	HYDROLOGIC/HYDRAULIC PROCESS	PEAK (CFS)	PEAK (CFS)
PEAK (HR)	MODELED (AF)	FOOTNOTES		

129.00	133.00	Convex Routing:	Stream #1	591.4	590.9
21.167					
133.00	133.00	View:	Stream #1		590.9
21.167	698.10	3			

| Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL

| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

END OF FLOODSCx ROUTING ANALYSIS

FLOOD ROUTING ANALYSIS
USING COUNTY HYDROLOGY MANUAL OF ORANGE (1986)
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Ver. 20.0 Release Date: 06/01/2013 License ID 1264

Analysis prepared by:

Michael Baker International
5 Hutton Centre Drive Suite 500
Santa Ana, CA 92707

***** DESCRIPTION OF STUDY *****
* RANCHO MISSION VIEJO - FREE DRAINING UH - CALIBRATED *
* PHASE CONDITION NO PA5 - REGIONAL NODE 133C *
* 2-YR EV JUNE 2019 ROKAMOTO *

FILE NAME: EVO233CF.DAT
TIME/DATE OF STUDY: 11:05 06/17/2019

** INPUT SUMMARY **

FLOW PROCESS FROM NODE 10100.00 TO NODE 119.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<

WATERSHED AREA = 49495.699 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 5.382 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.595; LOW LOSS FRACTION = 0.931
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.17; 30-MINUTE = 0.33; 1-HOUR = 0.45
3-HOUR = 0.84; 6-HOUR = 1.25; 24-HOUR = 2.21
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 119.00 TO NODE 12603.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 341.63; DOWNSTREAM ELEVATION (FT) = 312.40

CHANNEL LENGTH (FT) = 3157.79 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 810.00 TO NODE 12603.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 171.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.141 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.348; LOW LOSS FRACTION = 0.638
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.31; 1-HOUR = 0.40
3-HOUR = 0.68; 6-HOUR = 0.93; 24-HOUR = 1.57
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 1260.00 TO NODE 126.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 312.40; DOWNSTREAM ELEVATION (FT) = 286.00
CHANNEL LENGTH (FT) = 3046.70 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 920.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

=====
WATERSHED AREA = 553.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.292 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.509; LOW LOSS FRACTION = 0.862
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.31; 1-HOUR = 0.40
3-HOUR = 0.68; 6-HOUR = 0.93; 24-HOUR = 1.57
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 600.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 185.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.431 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.587; LOW LOSS FRACTION = 0.979
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.31; 1-HOUR = 0.40
3-HOUR = 0.68; 6-HOUR = 0.93; 24-HOUR = 1.57
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 12720.50 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 286.00; DOWNSTREAM ELEVATION(FT) = 258.00
CHANNEL LENGTH(FT) = 4077.05 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 430.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 315.200 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.299 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.292; LOW LOSS FRACTION = 0.536
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.31; 1-HOUR = 0.40
3-HOUR = 0.68; 6-HOUR = 0.93; 24-HOUR = 1.57
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 413.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<

WATERSHED AREA = 124.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.203 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.276; LOW LOSS FRACTION = 0.517
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.31; 1-HOUR = 0.40
3-HOUR = 0.68; 6-HOUR = 0.93; 24-HOUR = 1.57
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7

>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<

```

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12741.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 258.00; DOWNSTREAM ELEVATION (FT) = 247.00
CHANNEL LENGTH (FT) = 2294.66 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 320.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 675.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.379 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.251; LOW LOSS FRACTION = 0.478
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.31; 1-HOUR = 0.40
3-HOUR = 0.68; 6-HOUR = 0.93; 24-HOUR = 1.57
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936
=====
*****

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FLOW PROCESS FROM NODE 390.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<
=====
WATERSHED AREA = 195.100 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.558 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.486; LOW LOSS FRACTION = 0.820
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.31; 1-HOUR = 0.40
3-HOUR = 0.68; 6-HOUR = 0.93; 24-HOUR = 1.57
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 127.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 247.00; DOWNSTREAM ELEVATION (FT) = 240.00
CHANNEL LENGTH (FT) = 819.00 MANNING'S FACTOR = 0.030
=====
*****

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CONSTANT LOSS RATE (CFS) = 0.00

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*****
FLOW PROCESS FROM NODE 12710.00 TO NODE 127.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 720.900 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.540 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.591; LOW LOSS FRACTION = 0.968
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.31; 1-HOUR = 0.40
3-HOUR = 0.68; 6-HOUR = 0.93; 24-HOUR = 1.57
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936
*****
FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====
*****
FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====
*****
FLOW PROCESS FROM NODE 50150.00 TO NODE 127.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 1063.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.589 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.589; LOW LOSS FRACTION = 0.962
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.31; 1-HOUR = 0.40
3-HOUR = 0.68; 6-HOUR = 0.93; 24-HOUR = 1.57
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936
*****
FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====
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*****
FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====
*****
FLOW PROCESS FROM NODE 127.00 TO NODE 129.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 240.00; DOWNSTREAM ELEVATION (FT) = 213.00
CHANNEL LENGTH (FT) = 4905.42 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====
*****
FLOW PROCESS FROM NODE 50300.00 TO NODE 129.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 637.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.621 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.569; LOW LOSS FRACTION = 0.947
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.31; 1-HOUR = 0.40
3-HOUR = 0.68; 6-HOUR = 0.93; 24-HOUR = 1.57
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936
*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====
*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====
*****
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FLOW PROCESS FROM NODE 210.00 TO NODE 129.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 214.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.274 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.253; LOW LOSS FRACTION = 0.494
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.31; 1-HOUR = 0.40
3-HOUR = 0.68; 6-HOUR = 0.93; 24-HOUR = 1.57
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 213.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 1389.52 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13010.00 TO NODE 132.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 4924.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 1.262 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.487; LOW LOSS FRACTION = 0.830
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.31; 1-HOUR = 0.40
3-HOUR = 0.68; 6-HOUR = 0.93; 24-HOUR = 1.57
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

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5-MINUTE = 0.14; 30-MINUTE = 0.31; 1-HOUR = 0.40
3-HOUR = 0.68; 6-HOUR = 0.93; 24-HOUR = 1.57
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 13305.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 427.51; DOWNSTREAM ELEVATION (FT) = 315.00
CHANNEL LENGTH (FT) = 9760.05 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13305.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 315.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 6877.24 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 133.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<
=====
WATERSHED AREA = 1716.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.947 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.449; LOW LOSS FRACTION = 0.750
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.31; 1-HOUR = 0.40
3-HOUR = 0.68; 6-HOUR = 0.93; 24-HOUR = 1.57
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

```

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*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 11
-----
>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<
=====

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+-----+
|                                     * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
| INPUT FILENAME: [EV0233CF.DAT ]
Page: 1 of 1
+-----+
|UPSTREAM DOWNSTREAM|                                     | UPSTREAM DOWNSTREAM|
TIME (2) TO | MAX. STORAGE|                                     |
| NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS | PEAK (CFS) PEAK (CFS)|
PEAK (HR)   | MODELED (AF)| FOOTNOTES |
+-----+
| 10100.00   119.00| Subarea (UH) Added to Stream #1|      0.0   558.3|
20.417 | |
| 119.00     12603.00| Convex Routing:      Stream #1|    558.3   556.7|
20.500 | |
| 810.00     12603.00| Subarea (UH) Added to Stream #2|      0.0   19.5|
16.167 | |
| 12603.00   12603.00| Stream #2 Added to:  Stream #1|    556.7   558.9|
20.500 | |
| 12603.00   12603.00| Zero Out:           Stream #2|     19.5    0.0|
| |
+-----+
| 1260.00    126.00| Convex Routing:      Stream #1|    558.9   557.8|
20.583 | |
| 920.00     126.00| Subarea (UH) Added to Stream #2|      0.0   19.2|
16.333 | |
| 126.00     126.00| Stream #2 Added to:  Stream #1|    557.8   560.7|
20.583 | |
| 126.00     126.00| Zero Out:           Stream #2|     19.2    0.0|
| |
| 600.00     126.00| Subarea (UH) Added to Stream #2|      0.0    0.8|
16.500 | |
+-----+
| 126.00     126.00| Stream #2 Added to:  Stream #1|    560.7   560.8|
20.583 | |
| 126.00     126.00| Zero Out:           Stream #2|      0.8    0.0|
| |
| 126.00     12720.50| Convex Routing:      Stream #1|    560.8   559.9|
20.750 | |
| 430.00     12720.50| Subarea (UH) Added to Stream #2|      0.0   36.2|
16.333 | |
| 413.00     12720.50| Subarea (UH) Added to Stream #3|      0.0   17.5|
16.250 | |
+-----+
| 12720.50   12720.50| Stream #3 Added to:  Stream #2|     36.2   51.9|
16.333 | |
| 12720.50   12720.50| Zero Out:           Stream #3|     17.5    0.0|
| |
| 12720.50   12720.50| Stream #2 Added to:  Stream #1|    559.9   567.4|
20.750 | |
| 12720.50   12720.50| Zero Out:           Stream #2|     51.9    0.0|
| |

```

12720.50	12741.00	Convex Routing:	Stream #1	567.4	567.1
20.833					
+-----+-----+					
320.00	12741.00	Subarea (UH) Added to	Stream #2	0.0	80.0
16.417					
390.00	12741.00	Subarea (UH) Added to	Stream #4	0.0	7.0
16.583					
12741.00	12741.00	Stream #4 Added to:	Stream #2	80.0	86.4
16.417					
12741.00	12741.00	Zero Out:	Stream #4	7.0	0.0
12741.00	12741.00	Stream #2 Added to:	Stream #1	567.1	581.3
20.833					
+-----+-----+					
12741.00	12741.00	Zero Out:	Stream #2	86.4	0.0
12741.00	127.00	Convex Routing:	Stream #1	581.3	581.1
20.833					
12710.00	127.00	Subarea (UH) Added to	Stream #2	0.0	4.7
16.583					
127.00	127.00	Stream #2 Added to:	Stream #1	581.1	581.9
20.833					
127.00	127.00	Zero Out:	Stream #2	4.7	0.0
+-----+-----+					
50150.00	127.00	Subarea (UH) Added to	Stream #2	0.0	8.0
16.667					
127.00	127.00	Stream #2 Added to:	Stream #1	581.9	583.5
20.833					
127.00	127.00	Zero Out:	Stream #2	8.0	0.0
127.00	129.00	Convex Routing:	Stream #1	583.5	583.1
21.000					
50300.00	129.00	Subarea (UH) Added to	Stream #2	0.0	6.6
16.667					
+-----+-----+					
129.00	129.00	Stream #2 Added to:	Stream #1	583.1	584.3
21.000					
129.00	129.00	Zero Out:	Stream #2	6.6	0.0
210.00	129.00	Subarea (UH) Added to	Stream #2	0.0	28.3
16.333					
129.00	129.00	Stream #2 Added to:	Stream #1	584.3	588.1
21.000					
129.00	129.00	Zero Out:	Stream #2	28.3	0.0
+-----+-----+					
Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL					
3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM					
+-----+-----+					

* AES FLOODSCx PROGRAM RESULTS SUMMARY *

| INPUT FILENAME: [EV0233CF.DAT]

Page: 2 of |

UPSTREAM TIME (2) TO	DOWNSTREAM MAX. STORAGE		UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)
NODE #	NODE #	HYDROLOGIC/HYDRAULIC PROCESS		
PEAK (HR)	MODELED (AF)	FOOTNOTES		

129.00	133.00	Convex Routing:	Stream #1	588.1	587.9
21.167					
13010.00	132.00	Subarea (UH) Added to Stream #2	0.0	147.0	
17.333					
132.00	13305.00	Convex Routing:	Stream #2	147.0	145.3
17.917					
13305.00	133.00	Convex Routing:	Stream #2	145.3	144.7
18.250					
132.00	133.00	Subarea (UH) Added to Stream #3	0.0	78.8	
17.000					

133.00	133.00	Stream #3 Added to:	Stream #2	144.7	211.7
17.167					
133.00	133.00	Zero Out:	Stream #3	78.8	0.0
133.00	133.00	Stream #2 Added to:	Stream #1	587.9	735.8
17.583					
133.00	133.00	Zero Out:	Stream #2	211.7	0.0
133.00	133.00	View:	Stream #1		735.8
17.583	861.46	3			

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
 | 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

END OF FLOODSCx ROUTING ANALYSIS

FLOOD ROUTING ANALYSIS
USING COUNTY HYDROLOGY MANUAL OF ORANGE (1986)
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Ver. 20.0 Release Date: 06/01/2013 License ID 1264

Analysis prepared by:

Michael Baker International
5 Hutton Centre Drive Suite 500
Santa Ana, CA 92707

***** DESCRIPTION OF STUDY *****
* RANCHO MISSION VIEJO - FREE DRAINING UH - CALIBRATED *
* PHASE CONDITION NO PA5 - REGIONAL NODE 134U *
* 2-YR EV JUNE 2019 ROKAMOTO *

FILE NAME: EVO234UF.DAT
TIME/DATE OF STUDY: 11:00 06/17/2019

** INPUT SUMMARY **

FLOW PROCESS FROM NODE 10100.00 TO NODE 119.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<

WATERSHED AREA = 49495.699 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 5.382 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.595; LOW LOSS FRACTION = 0.931
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.17; 30-MINUTE = 0.32; 1-HOUR = 0.44
3-HOUR = 0.83; 6-HOUR = 1.24; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 119.00 TO NODE 12603.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 341.63; DOWNSTREAM ELEVATION (FT) = 312.40

CHANNEL LENGTH (FT) = 3157.79 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 810.00 TO NODE 12603.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 171.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.141 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.348; LOW LOSS FRACTION = 0.638
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.40
3-HOUR = 0.67; 6-HOUR = 0.91; 24-HOUR = 1.55
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 1260.00 TO NODE 126.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 312.40; DOWNSTREAM ELEVATION (FT) = 286.00
CHANNEL LENGTH (FT) = 3046.70 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 920.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

=====
WATERSHED AREA = 553.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.292 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.509; LOW LOSS FRACTION = 0.862
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.40
3-HOUR = 0.67; 6-HOUR = 0.91; 24-HOUR = 1.55
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 600.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 185.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.431 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.587; LOW LOSS FRACTION = 0.979
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.40
3-HOUR = 0.67; 6-HOUR = 0.91; 24-HOUR = 1.55
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 12720.50 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 286.00; DOWNSTREAM ELEVATION(FT) = 258.00
CHANNEL LENGTH(FT) = 4077.05 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 430.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 315.200 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.299 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.292; LOW LOSS FRACTION = 0.536
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.40
3-HOUR = 0.67; 6-HOUR = 0.91; 24-HOUR = 1.55
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 413.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<

WATERSHED AREA = 124.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.203 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.276; LOW LOSS FRACTION = 0.517
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.40
3-HOUR = 0.67; 6-HOUR = 0.91; 24-HOUR = 1.55
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7

>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<

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*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12741.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 258.00; DOWNSTREAM ELEVATION (FT) = 247.00
CHANNEL LENGTH (FT) = 2294.66 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 320.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 675.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.379 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.251; LOW LOSS FRACTION = 0.478
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.40
3-HOUR = 0.67; 6-HOUR = 0.91; 24-HOUR = 1.55
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936
=====
*****

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FLOW PROCESS FROM NODE 390.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<
=====
WATERSHED AREA = 195.100 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.558 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.486; LOW LOSS FRACTION = 0.820
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.40
3-HOUR = 0.67; 6-HOUR = 0.91; 24-HOUR = 1.55
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 127.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 247.00; DOWNSTREAM ELEVATION (FT) = 240.00
CHANNEL LENGTH (FT) = 819.00 MANNING'S FACTOR = 0.030
=====
*****

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CONSTANT LOSS RATE (CFS) = 0.00

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=====
*****
FLOW PROCESS FROM NODE 12710.00 TO NODE 127.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 720.900 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.540 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.591; LOW LOSS FRACTION = 0.968
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.40
3-HOUR = 0.67; 6-HOUR = 0.91; 24-HOUR = 1.55
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936
*****
FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====
*****
FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====
*****
FLOW PROCESS FROM NODE 50150.00 TO NODE 127.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 1063.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.589 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.589; LOW LOSS FRACTION = 0.962
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.40
3-HOUR = 0.67; 6-HOUR = 0.91; 24-HOUR = 1.55
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936
*****
FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====
```

```
*****
FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====
*****
FLOW PROCESS FROM NODE 127.00 TO NODE 129.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 240.00; DOWNSTREAM ELEVATION (FT) = 213.00
CHANNEL LENGTH (FT) = 4905.42 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====
*****
FLOW PROCESS FROM NODE 50300.00 TO NODE 129.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 637.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.621 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.569; LOW LOSS FRACTION = 0.947
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.40
3-HOUR = 0.67; 6-HOUR = 0.91; 24-HOUR = 1.55
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936
*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====
*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====
*****
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FLOW PROCESS FROM NODE 210.00 TO NODE 129.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 214.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.274 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.253; LOW LOSS FRACTION = 0.494
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.40
3-HOUR = 0.67; 6-HOUR = 0.91; 24-HOUR = 1.55
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 213.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 1389.52 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13010.00 TO NODE 132.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 4924.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 1.262 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.487; LOW LOSS FRACTION = 0.830
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.40
3-HOUR = 0.67; 6-HOUR = 0.91; 24-HOUR = 1.55
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

```

```

5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.40
3-HOUR = 0.67; 6-HOUR = 0.91; 24-HOUR = 1.55
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 13305.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 427.51; DOWNSTREAM ELEVATION (FT) = 315.00
CHANNEL LENGTH (FT) = 9760.05 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13305.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 315.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 6877.24 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 133.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<
=====
WATERSHED AREA = 1716.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.947 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.449; LOW LOSS FRACTION = 0.750
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.40
3-HOUR = 0.67; 6-HOUR = 0.91; 24-HOUR = 1.55
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

```

```

*****
FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-----
>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=====

*****
FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) =    0.01    CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) =    212.00; DOWNSTREAM ELEVATION(FT) =    173.00
CHANNEL LENGTH(FT) =    6461.31    MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) =    0.00
=====

*****
FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA =    1705.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME =    0.448 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) =    0.490; LOW LOSS FRACTION = 0.819
SPECIFIED PEAK RAINFALL DEPTHS (INCH):

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```

5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.40
3-HOUR = 0.67; 6-HOUR = 0.91; 24-HOUR = 1.55
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

```

```

*****
FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =  11
-----
>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
=====

```

* AES FLOODSCx PROGRAM RESULTS SUMMARY *

INPUT FILENAME: [EV0234UF.DAT]

Page: 1 of 1

UPSTREAM TIME (2)	DOWNSTREAM TIME (2)	MAX. STORAGE	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)
NODE #	MODELED (AF)	FOOTNOTES			
10100.00	119.00		Subarea (UH) Added to Stream #1	0.0	545.9
20.417					
119.00	12603.00		Convex Routing: Stream #1	545.9	544.6
20.500					
810.00	12603.00		Subarea (UH) Added to Stream #2	0.0	18.8
16.167					
12603.00	12603.00		Stream #2 Added to: Stream #1	544.6	546.8
20.500					
12603.00	12603.00		Zero Out: Stream #2	18.8	0.0
1260.00	126.00		Convex Routing: Stream #1	546.8	545.9
20.583					
920.00	126.00		Subarea (UH) Added to Stream #2	0.0	18.6
16.333					
126.00	126.00		Stream #2 Added to: Stream #1	545.9	548.8
20.583					
126.00	126.00		Zero Out: Stream #2	18.6	0.0
600.00	126.00		Subarea (UH) Added to Stream #2	0.0	0.8
16.500					
126.00	126.00		Stream #2 Added to: Stream #1	548.8	548.9
20.583					
126.00	126.00		Zero Out: Stream #2	0.8	0.0
126.00	12720.50		Convex Routing: Stream #1	548.9	548.1
20.750					
430.00	12720.50		Subarea (UH) Added to Stream #2	0.0	35.1
16.333					
413.00	12720.50		Subarea (UH) Added to Stream #3	0.0	16.9
16.250					
12720.50	12720.50		Stream #3 Added to: Stream #2	35.1	50.3
16.333					
12720.50	12720.50		Zero Out: Stream #3	16.9	0.0
12720.50	12720.50		Stream #2 Added to: Stream #1	548.1	555.6
20.750					
12720.50	12720.50		Zero Out: Stream #2	50.3	0.0

12720.50	12741.00		Convex Routing: Stream #1	555.6	555.4
20.833					
320.00	12741.00		Subarea (UH) Added to Stream #2	0.0	77.7
16.417					
390.00	12741.00		Subarea (UH) Added to Stream #4	0.0	6.9
16.583					
12741.00	12741.00		Stream #4 Added to: Stream #2	77.7	83.9
16.417					
12741.00	12741.00		Zero Out: Stream #4	6.9	0.0
12741.00	12741.00		Stream #2 Added to: Stream #1	555.4	569.6
20.833					
12741.00	12741.00		Zero Out: Stream #2	83.9	0.0
12741.00	127.00		Convex Routing: Stream #1	569.6	569.4
20.833					
12710.00	127.00		Subarea (UH) Added to Stream #2	0.0	4.6
16.583					
127.00	127.00		Stream #2 Added to: Stream #1	569.4	570.3
20.833					
127.00	127.00		Zero Out: Stream #2	4.6	0.0
50150.00	127.00		Subarea (UH) Added to Stream #2	0.0	7.9
16.667					
127.00	127.00		Stream #2 Added to: Stream #1	570.3	571.8
20.833					
127.00	127.00		Zero Out: Stream #2	7.9	0.0
127.00	129.00		Convex Routing: Stream #1	571.8	571.5
21.000					
50300.00	129.00		Subarea (UH) Added to Stream #2	0.0	6.5
16.667					
129.00	129.00		Stream #2 Added to: Stream #1	571.5	572.7
21.000					
129.00	129.00		Zero Out: Stream #2	6.5	0.0
210.00	129.00		Subarea (UH) Added to Stream #2	0.0	27.3
16.333					
129.00	129.00		Stream #2 Added to: Stream #1	572.7	576.5
21.000					
129.00	129.00		Zero Out: Stream #2	27.3	0.0

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM


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|
|                                     * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
| INPUT FILENAME: [EV0234UF.DAT ]
Page:  2 of  |
-----+-----+-----+-----+
|UPSTREAM  DOWNSTREAM|                                     |UPSTREAM  DOWNSTREAM|
TIME (2) TO | MAX. STORAGE|                                     |
| NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)   | MODELED (AF)| FOOTNOTES |
-----+-----+-----+-----+
|  129.00    133.00| Convex Routing:      Stream #1|    576.5    576.2|
21.083 | |
| 13010.00   132.00| Subarea (UH) Added to Stream #2|    0.0    144.1|
17.333 | |
|  132.00   13305.00| Convex Routing:      Stream #2|    144.1    142.6|
17.917 | |
| 13305.00   133.00| Convex Routing:      Stream #2|    142.6    141.9|
18.250 | |
|  132.00    133.00| Subarea (UH) Added to Stream #3|    0.0    77.2|
17.000 | |
-----+-----+-----+-----+
|  133.00    133.00| Stream #3 Added to:  Stream #2|    141.9    207.8|
17.167 | |
|  133.00    133.00| Zero Out:           Stream #3|    77.2    0.0|
| |
|  133.00    133.00| Stream #2 Added to:  Stream #1|    576.2    722.5|
17.583 | |
|  133.00    133.00| Zero Out:           Stream #2|    207.8    0.0|
| |
|  133.00    134.00| Convex Routing:      Stream #1|    722.5    721.6|
17.833 | |
-----+-----+-----+-----+
|  133.00    134.00| Subarea (UH) Added to Stream #2|    0.0    64.6|
16.500 | |
|  134.00    134.00| Stream #2 Added to:  Stream #1|    721.6    758.8|
17.250 | |
|  134.00    134.00| Zero Out:           Stream #2|    64.6    0.0|
| |
|  134.00    134.00| View:               Stream #1|    758.8|
17.250 | 884.73| 3 |
-----+-----+-----+-----+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL
|
| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM
|
-----+-----

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END OF FLOODSCx ROUTING ANALYSIS

FLOOD ROUTING ANALYSIS
USING COUNTY HYDROLOGY MANUAL OF ORANGE (1986)
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Ver. 20.0 Release Date: 06/01/2013 License ID 1264

Analysis prepared by:

Michael Baker International
5 Hutton Centre Drive Suite 500
Santa Ana, CA 92707

***** DESCRIPTION OF STUDY *****
* RANCHO MISSION VIEJO - FREE DRAINING UH - CALIBRATED *
* PHASE CONDITION NO PA5 - REGIONAL NODE 134C *
* 2-YR EV JUNE 2019 ROKAMOTO *

FILE NAME: EVO234CF.DAT
TIME/DATE OF STUDY: 10:50 06/17/2019

** INPUT SUMMARY **

FLOW PROCESS FROM NODE 10100.00 TO NODE 119.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<

WATERSHED AREA = 49495.699 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 5.382 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.595; LOW LOSS FRACTION = 0.931
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.17; 30-MINUTE = 0.32; 1-HOUR = 0.43
3-HOUR = 0.81; 6-HOUR = 1.21; 24-HOUR = 2.14
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 119.00 TO NODE 12603.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 341.63; DOWNSTREAM ELEVATION (FT) = 312.40

CHANNEL LENGTH (FT) = 3157.79 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 810.00 TO NODE 12603.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 171.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.141 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.348; LOW LOSS FRACTION = 0.638
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 1260.00 TO NODE 126.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 312.40; DOWNSTREAM ELEVATION (FT) = 286.00
CHANNEL LENGTH (FT) = 3046.70 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 920.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

=====
WATERSHED AREA = 553.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.292 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.509; LOW LOSS FRACTION = 0.862
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 600.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 185.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.431 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.587; LOW LOSS FRACTION = 0.979
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 12720.50 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 286.00; DOWNSTREAM ELEVATION(FT) = 258.00
CHANNEL LENGTH(FT) = 4077.05 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 430.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 315.200 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.299 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.292; LOW LOSS FRACTION = 0.536
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 413.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<

WATERSHED AREA = 124.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.203 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.276; LOW LOSS FRACTION = 0.517
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7

>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<

```

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12741.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 258.00; DOWNSTREAM ELEVATION (FT) = 247.00
CHANNEL LENGTH (FT) = 2294.66 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 320.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 675.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.379 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.251; LOW LOSS FRACTION = 0.478
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933
*****

```

```

FLOW PROCESS FROM NODE 390.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<
=====
WATERSHED AREA = 195.100 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.558 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.486; LOW LOSS FRACTION = 0.820
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933
*****

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 127.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 247.00; DOWNSTREAM ELEVATION (FT) = 240.00
CHANNEL LENGTH (FT) = 819.00 MANNING'S FACTOR = 0.030
*****

```

CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 12710.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 720.900 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.540 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.591; LOW LOSS FRACTION = 0.968
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 50150.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 1063.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.589 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.589; LOW LOSS FRACTION = 0.962
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 129.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 240.00; DOWNSTREAM ELEVATION (FT) = 213.00
CHANNEL LENGTH (FT) = 4905.42 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 50300.00 TO NODE 129.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 637.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.621 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.569; LOW LOSS FRACTION = 0.947
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

```

FLOW PROCESS FROM NODE 210.00 TO NODE 129.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 214.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.274 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.253; LOW LOSS FRACTION = 0.494
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 213.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 1389.52 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13010.00 TO NODE 132.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 4924.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 1.262 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.487; LOW LOSS FRACTION = 0.830
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

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5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 13305.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 427.51; DOWNSTREAM ELEVATION (FT) = 315.00
CHANNEL LENGTH (FT) = 9760.05 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13305.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 315.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 6877.24 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 133.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<
=====
WATERSHED AREA = 1716.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.947 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.449; LOW LOSS FRACTION = 0.750
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

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```

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 134.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 212.00; DOWNSTREAM ELEVATION(FT) = 173.00
CHANNEL LENGTH(FT) = 6461.31 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 134.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 1705.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.448 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.490; LOW LOSS FRACTION = 0.819
SPECIFIED PEAK RAINFALL DEPTHS(INCH):

```

```

5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

```

```

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 13500.00 TO NODE 134.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 3859.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 2.991 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.567; LOW LOSS FRACTION = 0.908
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 11
-----
>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
=====

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+-----+
|
|                                     * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
| INPUT FILENAME: [EV0234CF.DAT ]
Page: 1 of |
+-----+
|UPSTREAM DOWNSTREAM|                                     | UPSTREAM DOWNSTREAM|
TIME (2) TO | MAX. STORAGE|                                     |
| NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS | PEAK (CFS) PEAK (CFS)|
PEAK (HR)   | MODELED (AF)| FOOTNOTES |
+-----+
| 10100.00   119.00| Subarea (UH) Added to Stream #1|      0.0   532.8|
20.417 |
| 119.00     12603.00| Convex Routing:      Stream #1|    532.8   531.6|
20.500 |
| 810.00     12603.00| Subarea (UH) Added to Stream #2|      0.0    18.4|
16.167 |
| 12603.00   12603.00| Stream #2 Added to:  Stream #1|    531.6   533.8|
20.500 |
| 12603.00   12603.00| Zero Out:           Stream #2|     18.4    0.0|
|
+-----+
| 1260.00    126.00| Convex Routing:      Stream #1|    533.8   532.9|
20.583 |
| 920.00     126.00| Subarea (UH) Added to Stream #2|      0.0    18.1|
16.333 |
| 126.00     126.00| Stream #2 Added to:  Stream #1|    532.9   535.7|
20.583 |
| 126.00     126.00| Zero Out:           Stream #2|     18.1    0.0|
|
| 600.00     126.00| Subarea (UH) Added to Stream #2|      0.0    0.8|
16.500 |
+-----+
| 126.00     126.00| Stream #2 Added to:  Stream #1|    535.7   535.8|
20.583 |
| 126.00     126.00| Zero Out:           Stream #2|      0.8    0.0|
|
| 126.00    12720.50| Convex Routing:      Stream #1|    535.8   535.1|
20.750 |
| 430.00     12720.50| Subarea (UH) Added to Stream #2|      0.0    34.2|
16.333 |
| 413.00     12720.50| Subarea (UH) Added to Stream #3|      0.0    16.5|
16.250 |
+-----+
| 12720.50   12720.50| Stream #3 Added to:  Stream #2|     34.2    48.9|
16.333 |
| 12720.50   12720.50| Zero Out:           Stream #3|     16.5    0.0|
|
| 12720.50   12720.50| Stream #2 Added to:  Stream #1|    535.1   542.4|
20.750 |
| 12720.50   12720.50| Zero Out:           Stream #2|     48.9    0.0|
|

```


12720.50	12741.00	Convex Routing:	Stream #1	542.4	542.2
20.833					
+-----+-----+					
320.00	12741.00	Subarea (UH) Added to	Stream #2	0.0	75.4
16.417					
390.00	12741.00	Subarea (UH) Added to	Stream #4	0.0	6.6
16.583					
12741.00	12741.00	Stream #4 Added to:	Stream #2	75.4	81.5
16.417					
12741.00	12741.00	Zero Out:	Stream #4	6.6	0.0
12741.00	12741.00	Stream #2 Added to:	Stream #1	542.2	555.9
20.833					
+-----+-----+					
12741.00	12741.00	Zero Out:	Stream #2	81.5	0.0
12741.00	127.00	Convex Routing:	Stream #1	555.9	555.8
20.833					
12710.00	127.00	Subarea (UH) Added to	Stream #2	0.0	4.4
16.583					
127.00	127.00	Stream #2 Added to:	Stream #1	555.8	556.6
20.833					
127.00	127.00	Zero Out:	Stream #2	4.4	0.0
+-----+-----+					
50150.00	127.00	Subarea (UH) Added to	Stream #2	0.0	7.6
16.667					
127.00	127.00	Stream #2 Added to:	Stream #1	556.6	558.1
20.833					
127.00	127.00	Zero Out:	Stream #2	7.6	0.0
127.00	129.00	Convex Routing:	Stream #1	558.1	557.9
21.000					
50300.00	129.00	Subarea (UH) Added to	Stream #2	0.0	6.3
16.667					
+-----+-----+					
129.00	129.00	Stream #2 Added to:	Stream #1	557.9	559.1
21.000					
129.00	129.00	Zero Out:	Stream #2	6.3	0.0
210.00	129.00	Subarea (UH) Added to	Stream #2	0.0	26.5
16.333					
129.00	129.00	Stream #2 Added to:	Stream #1	559.1	562.8
21.000					
129.00	129.00	Zero Out:	Stream #2	26.5	0.0
+-----+-----+					
Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL					
3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM					
+-----+-----+					

* AES FLOODSCx PROGRAM RESULTS SUMMARY *

| INPUT FILENAME: [EV0234CF.DAT]

Page: 2 of |

UPSTREAM TIME (2) TO NODE # PEAK (HR)	DOWNSTREAM MAX. STORAGE NODE # MODELED (AF)	HYDROLOGIC/HYDRAULIC PROCESS FOOTNOTES	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	
129.00	133.00	Convex Routing:	Stream #1	562.8	562.5
21.083					
13010.00	132.00	Subarea (UH) Added to Stream #2	0.0	138.6	
17.333					
132.00	13305.00	Convex Routing:	Stream #2	138.6	137.1
17.917					
13305.00	133.00	Convex Routing:	Stream #2	137.1	136.6
18.250					
132.00	133.00	Subarea (UH) Added to Stream #3	0.0	74.3	
17.000					
133.00	133.00	Stream #3 Added to:	Stream #2	136.6	199.5
17.167					
133.00	133.00	Zero Out:	Stream #3	74.3	0.0
133.00	133.00	Stream #2 Added to:	Stream #1	562.5	702.3
17.583					
133.00	133.00	Zero Out:	Stream #2	199.5	0.0
133.00	134.00	Convex Routing:	Stream #1	702.3	701.8
17.917					
133.00	134.00	Subarea (UH) Added to Stream #2	0.0	62.6	
16.500					
134.00	134.00	Stream #2 Added to:	Stream #1	701.8	736.7
17.833					
134.00	134.00	Zero Out:	Stream #2	62.6	0.0
13500.00	134.00	Subarea (UH) Added to Stream #2	0.0	50.6	
18.750					
134.00	134.00	Stream #2 Added to:	Stream #1	736.7	786.1
17.833					
134.00	134.00	Zero Out:	Stream #2	50.6	0.0
134.00	134.00	View:	Stream #1		786.1
17.833	908.11	3			

| Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL

| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

END OF FLOODSCx ROUTING ANALYSIS

FLOOD ROUTING ANALYSIS
USING COUNTY HYDROLOGY MANUAL OF ORANGE (1986)
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Analysis prepared by:

***** DESCRIPTION OF STUDY *****
* RANCHO MISSION VIEJO - FREE DRAINING UH - CALIBRATED *
* PHASE CONDITION NO PA5 - REGIONAL NODE 137 *
* 2-YR EV JULY 2019 ROKAMOTO *

FILE NAME: EVO2137F.DAT
TIME/DATE OF STUDY: 09:52 07/22/2019

** INPUT SUMMARY **

FLOW PROCESS FROM NODE 10100.00 TO NODE 119.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<

WATERSHED AREA = 49495.699 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 5.382 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.595; LOW LOSS FRACTION = 0.931
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.17; 30-MINUTE = 0.32; 1-HOUR = 0.43
3-HOUR = 0.81; 6-HOUR = 1.21; 24-HOUR = 2.14
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 119.00 TO NODE 12603.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 341.63; DOWNSTREAM ELEVATION (FT) = 312.40

CHANNEL LENGTH (FT) = 3157.79 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 810.00 TO NODE 12603.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

WATERSHED AREA = 171.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.141 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.348; LOW LOSS FRACTION = 0.638
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<

FLOW PROCESS FROM NODE 1260.00 TO NODE 126.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 312.40; DOWNSTREAM ELEVATION (FT) = 286.00
CHANNEL LENGTH (FT) = 3046.70 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 920.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

=====
WATERSHED AREA = 553.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.292 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.509; LOW LOSS FRACTION = 0.862
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 600.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 185.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.431 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.587; LOW LOSS FRACTION = 0.979
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 12720.50 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 286.00; DOWNSTREAM ELEVATION(FT) = 258.00
CHANNEL LENGTH(FT) = 4077.05 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 430.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 315.200 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.299 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.292; LOW LOSS FRACTION = 0.536
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 413.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<

WATERSHED AREA = 124.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.203 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.276; LOW LOSS FRACTION = 0.517
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7

>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<

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FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
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>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
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*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12741.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 258.00; DOWNSTREAM ELEVATION (FT) = 247.00
CHANNEL LENGTH (FT) = 2294.66 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
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FLOW PROCESS FROM NODE 320.00 TO NODE 12741.00 IS CODE = 1
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>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 675.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.379 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.251; LOW LOSS FRACTION = 0.478
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933
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FLOW PROCESS FROM NODE 390.00 TO NODE 12741.00 IS CODE = 1
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>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<
=====
WATERSHED AREA = 195.100 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.558 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.486; LOW LOSS FRACTION = 0.820
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933
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FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<
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*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 127.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 247.00; DOWNSTREAM ELEVATION (FT) = 240.00
CHANNEL LENGTH (FT) = 819.00 MANNING'S FACTOR = 0.030
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CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 12710.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 720.900 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.540 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.591; LOW LOSS FRACTION = 0.968
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 50150.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 1063.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.589 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.589; LOW LOSS FRACTION = 0.962
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 129.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 240.00; DOWNSTREAM ELEVATION (FT) = 213.00
CHANNEL LENGTH (FT) = 4905.42 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 50300.00 TO NODE 129.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 637.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.621 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.569; LOW LOSS FRACTION = 0.947
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

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FLOW PROCESS FROM NODE 210.00 TO NODE 129.00 IS CODE = 1
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>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 214.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.274 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.253; LOW LOSS FRACTION = 0.494
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

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FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
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*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
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*****
FLOW PROCESS FROM NODE 129.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 213.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 1389.52 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
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FLOW PROCESS FROM NODE 13010.00 TO NODE 132.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 4924.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 1.262 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.487; LOW LOSS FRACTION = 0.830
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

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5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 13305.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 427.51; DOWNSTREAM ELEVATION (FT) = 315.00
CHANNEL LENGTH (FT) = 9760.05 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

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FLOW PROCESS FROM NODE 13305.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 315.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 6877.24 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 133.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<
=====
WATERSHED AREA = 1716.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.947 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.449; LOW LOSS FRACTION = 0.750
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

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*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
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*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
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*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 134.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 212.00; DOWNSTREAM ELEVATION(FT) = 173.00
CHANNEL LENGTH(FT) = 6461.31 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 134.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 1705.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.448 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.490; LOW LOSS FRACTION = 0.819
SPECIFIED PEAK RAINFALL DEPTHS(INCH):

```

```

5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

```

```

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 13500.00 TO NODE 134.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 3859.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 2.991 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.567; LOW LOSS FRACTION = 0.908
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 137.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO

```


ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
 UPSTREAM ELEVATION(FT) = 173.00; DOWNSTREAM ELEVATION(FT) = 133.00
 CHANNEL LENGTH(FT) = 6064.09 MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) = 0.00

 FLOW PROCESS FROM NODE 134.00 TO NODE 137.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

WATERSHED AREA = 1240.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME = 0.535 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.474; LOW LOSS FRACTION = 0.780
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE = 0.14; 30-MINUTE = 0.30; 1-HOUR = 0.39
 3-HOUR = 0.65; 6-HOUR = 0.90; 24-HOUR = 1.52
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
 3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

 FLOW PROCESS FROM NODE 137.00 TO NODE 137.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<

 FLOW PROCESS FROM NODE 137.00 TO NODE 137.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<

 FLOW PROCESS FROM NODE 137.00 TO NODE 137.00 IS CODE = 11

>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<

```

+-----+
|                                     * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
| INPUT FILENAME: [EV02137F.DAT ]
| Page: 1 of 1
+-----+
|UPSTREAM  DOWNSTREAM|                                     | UPSTREAM  DOWNSTREAM|
|TIME(2) TO | MAX. STORAGE|                                     |
| NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS | PEAK (CFS)  PEAK (CFS)|
| PEAK (HR)  | MODELED (AF)| FOOTNOTES |
+-----+
| 10100.00   119.00| Subarea (UH) Added to Stream #1|      0.0    531.9|
20.417 |                                     |
| 119.00     12603.00| Convex Routing:      Stream #1|    531.9    530.6|
20.500 |                                     |
| 810.00     12603.00| Subarea (UH) Added to Stream #2|      0.0    18.3|
16.167 |                                     |
| 12603.00   12603.00| Stream #2 Added to:  Stream #1|    530.6    532.8|
20.500 |                                     |
| 12603.00   12603.00| Zero Out:           Stream #2|    18.3     0.0|
|                                     |
+-----+
| 1260.00    126.00| Convex Routing:      Stream #1|    532.8    532.0|
20.583 |                                     |
| 920.00     126.00| Subarea (UH) Added to Stream #2|      0.0    18.0|
16.333 |                                     |
| 126.00     126.00| Stream #2 Added to:  Stream #1|    532.0    534.8|
20.583 |                                     |
| 126.00     126.00| Zero Out:           Stream #2|    18.0     0.0|
|                                     |
| 600.00     126.00| Subarea (UH) Added to Stream #2|      0.0     0.8|
16.500 |                                     |
+-----+
| 126.00     126.00| Stream #2 Added to:  Stream #1|    534.8    534.9|
20.583 |                                     |
| 126.00     126.00| Zero Out:           Stream #2|      0.8     0.0|
|                                     |
| 126.00     12720.50| Convex Routing:      Stream #1|    534.9    534.2|
20.750 |                                     |
| 430.00     12720.50| Subarea (UH) Added to Stream #2|      0.0    33.9|
16.333 |                                     |
| 413.00     12720.50| Subarea (UH) Added to Stream #3|      0.0    16.4|
16.250 |                                     |
+-----+
| 12720.50   12720.50| Stream #3 Added to:  Stream #2|    33.9    48.6|
16.333 |                                     |
| 12720.50   12720.50| Zero Out:           Stream #3|    16.4     0.0|
|                                     |
| 12720.50   12720.50| Stream #2 Added to:  Stream #1|    534.2    541.5|
20.750 |                                     |
| 12720.50   12720.50| Zero Out:           Stream #2|    48.6     0.0|
|                                     |

```

12720.50	12741.00	Convex Routing:	Stream #1	541.5	541.3
20.833					
+-----+-----+					
320.00	12741.00	Subarea (UH) Added to	Stream #2	0.0	75.0
16.417					
390.00	12741.00	Subarea (UH) Added to	Stream #4	0.0	6.6
16.583					
12741.00	12741.00	Stream #4 Added to:	Stream #2	75.0	81.0
16.417					
12741.00	12741.00	Zero Out:	Stream #4	6.6	0.0
12741.00	12741.00	Stream #2 Added to:	Stream #1	541.3	555.0
20.833					
+-----+-----+					
12741.00	12741.00	Zero Out:	Stream #2	81.0	0.0
12741.00	127.00	Convex Routing:	Stream #1	555.0	554.9
20.833					
12710.00	127.00	Subarea (UH) Added to	Stream #2	0.0	4.4
16.583					
127.00	127.00	Stream #2 Added to:	Stream #1	554.9	555.8
20.833					
127.00	127.00	Zero Out:	Stream #2	4.4	0.0
+-----+-----+					
50150.00	127.00	Subarea (UH) Added to	Stream #2	0.0	7.5
16.667					
127.00	127.00	Stream #2 Added to:	Stream #1	555.8	557.2
20.833					
127.00	127.00	Zero Out:	Stream #2	7.5	0.0
127.00	129.00	Convex Routing:	Stream #1	557.2	557.0
21.000					
50300.00	129.00	Subarea (UH) Added to	Stream #2	0.0	6.2
16.667					
+-----+-----+					
129.00	129.00	Stream #2 Added to:	Stream #1	557.0	558.2
21.000					
129.00	129.00	Zero Out:	Stream #2	6.2	0.0
210.00	129.00	Subarea (UH) Added to	Stream #2	0.0	26.3
16.333					
129.00	129.00	Stream #2 Added to:	Stream #1	558.2	561.9
21.000					
129.00	129.00	Zero Out:	Stream #2	26.3	0.0
+-----+-----+					

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL

| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

* AES FLOODSCx PROGRAM RESULTS SUMMARY *

INPUT FILENAME: [EV02137F.DAT]

Page: 2 of 1

UPSTREAM TIME (2) TO	DOWNSTREAM MAX. STORAGE	UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS	PEAK (CFS)	PEAK (CFS)
129.00	133.00			Convex Routing:	561.9	561.7
21.083						
13010.00	132.00			Subarea (UH) Added to Stream #2	0.0	138.0
17.333						
132.00	13305.00			Convex Routing:	138.0	136.5
17.917						
13305.00	133.00			Convex Routing:	136.5	135.9
18.250						
132.00	133.00			Subarea (UH) Added to Stream #3	0.0	73.9
17.000						

133.00	133.00			Stream #3 Added to: Stream #2	135.9	198.7
17.167						
133.00	133.00			Zero Out: Stream #3	73.9	0.0
133.00	133.00			Stream #2 Added to: Stream #1	561.7	701.1
17.667						
133.00	133.00			Zero Out: Stream #2	198.7	0.0
133.00	134.00			Convex Routing: Stream #1	701.1	700.7
18.000						

133.00	134.00			Subarea (UH) Added to Stream #2	0.0	62.2
16.500						
134.00	134.00			Stream #2 Added to: Stream #1	700.7	735.6
17.833						
134.00	134.00			Zero Out: Stream #2	62.2	0.0
13500.00	134.00			Subarea (UH) Added to Stream #2	0.0	50.4
18.750						
134.00	134.00			Stream #2 Added to: Stream #1	735.6	784.8
17.917						

134.00	134.00			Zero Out: Stream #2	50.4	0.0
134.00	137.00			Convex Routing: Stream #1	784.8	784.7
18.167						
134.00	137.00			Subarea (UH) Added to Stream #2	0.0	52.1
16.583						
137.00	137.00			Stream #2 Added to: Stream #1	784.7	819.6
17.417						

137.00	137.00	Zero Out:	Stream #2	52.1	0.0
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137.00	137.00	View:	Stream #1	819.6
17.417	939.59	3		

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

END OF FLOODSCx ROUTING ANALYSIS

FLOOD ROUTING ANALYSIS
USING COUNTY HYDROLOGY MANUAL OF ORANGE (1986)
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Ver. 23.0 Release Date: 07/01/2016 License ID 1264

Analysis prepared by:

***** DESCRIPTION OF STUDY *****
* RANCHO MISSION VIEJO - FREE DRAINING UH - CALIBRATED *
* PHASE CONDITION NO PA5 - REGIONAL NODE 138 *
* 2-YR EV JULY 2019 ROKAMOTO *

FILE NAME: EVO2138F.DAT
TIME/DATE OF STUDY: 10:06 07/22/2019

** INPUT SUMMARY **

FLOW PROCESS FROM NODE 10100.00 TO NODE 119.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<

WATERSHED AREA = 49495.699 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 5.382 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.595; LOW LOSS FRACTION = 0.931
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.17; 30-MINUTE = 0.31; 1-HOUR = 0.42
3-HOUR = 0.79; 6-HOUR = 1.18; 24-HOUR = 2.09
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 119.00 TO NODE 12603.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 341.63; DOWNSTREAM ELEVATION (FT) = 312.40

CHANNEL LENGTH (FT) = 3157.79 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 810.00 TO NODE 12603.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

WATERSHED AREA = 171.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.141 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.348; LOW LOSS FRACTION = 0.638
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.13; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.48
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<

FLOW PROCESS FROM NODE 1260.00 TO NODE 126.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 312.40; DOWNSTREAM ELEVATION (FT) = 286.00
CHANNEL LENGTH (FT) = 3046.70 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 920.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

=====
WATERSHED AREA = 553.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.292 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.509; LOW LOSS FRACTION = 0.862
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.13; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.48
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 600.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 185.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.431 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.587; LOW LOSS FRACTION = 0.979
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.13; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.48
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 12720.50 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 286.00; DOWNSTREAM ELEVATION(FT) = 258.00
CHANNEL LENGTH(FT) = 4077.05 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 430.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 315.200 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.299 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.292; LOW LOSS FRACTION = 0.536
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.13; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.48
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 413.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<

WATERSHED AREA = 124.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.203 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.276; LOW LOSS FRACTION = 0.517
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.13; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.48
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7

>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<

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*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12741.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 258.00; DOWNSTREAM ELEVATION (FT) = 247.00
CHANNEL LENGTH (FT) = 2294.66 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 320.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 675.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.379 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.251; LOW LOSS FRACTION = 0.478
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.13; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.48
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932
=====
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FLOW PROCESS FROM NODE 390.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<
=====
WATERSHED AREA = 195.100 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.558 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.486; LOW LOSS FRACTION = 0.820
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.13; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.48
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 127.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 247.00; DOWNSTREAM ELEVATION (FT) = 240.00
CHANNEL LENGTH (FT) = 819.00 MANNING'S FACTOR = 0.030
=====
*****

```

CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 12710.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 720.900 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.540 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.591; LOW LOSS FRACTION = 0.968
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.13; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.48
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 50150.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 1063.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.589 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.589; LOW LOSS FRACTION = 0.962
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.13; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.48
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 129.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 240.00; DOWNSTREAM ELEVATION (FT) = 213.00
CHANNEL LENGTH (FT) = 4905.42 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 50300.00 TO NODE 129.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 637.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.621 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.569; LOW LOSS FRACTION = 0.947
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.13; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.48
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

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FLOW PROCESS FROM NODE 210.00 TO NODE 129.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 214.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.274 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.253; LOW LOSS FRACTION = 0.494
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.13; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.48
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 213.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 1389.52 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13010.00 TO NODE 132.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 4924.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 1.262 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.487; LOW LOSS FRACTION = 0.830
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.13; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.48
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

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5-MINUTE = 0.13; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.48
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 13305.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 427.51; DOWNSTREAM ELEVATION (FT) = 315.00
CHANNEL LENGTH (FT) = 9760.05 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13305.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 315.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 6877.24 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 133.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<
=====
WATERSHED AREA = 1716.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.947 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.449; LOW LOSS FRACTION = 0.750
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.13; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.48
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

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*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 134.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 212.00; DOWNSTREAM ELEVATION(FT) = 173.00
CHANNEL LENGTH(FT) = 6461.31 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 134.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 1705.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.448 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.490; LOW LOSS FRACTION = 0.819
SPECIFIED PEAK RAINFALL DEPTHS(INCH):

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5-MINUTE = 0.13; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.48
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

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*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 13500.00 TO NODE 134.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 3859.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 2.991 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.567; LOW LOSS FRACTION = 0.908
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.13; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.48
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 137.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO

```

ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:

BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 173.00; DOWNSTREAM ELEVATION(FT) = 133.00
CHANNEL LENGTH(FT) = 6064.09 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 134.00 TO NODE 137.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

WATERSHED AREA = 1240.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.535 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.474; LOW LOSS FRACTION = 0.780
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.13; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.48
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 137.00 TO NODE 137.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<

FLOW PROCESS FROM NODE 137.00 TO NODE 137.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<

FLOW PROCESS FROM NODE 137.00 TO NODE 138.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:

BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 133.00; DOWNSTREAM ELEVATION(FT) = 119.70
CHANNEL LENGTH(FT) = 4643.67 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 137.00 TO NODE 138.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

WATERSHED AREA = 1303.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.923 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.534; LOW LOSS FRACTION = 0.861
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.13; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.48
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 138.00 TO NODE 138.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<

FLOW PROCESS FROM NODE 138.00 TO NODE 138.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<

FLOW PROCESS FROM NODE 138.00 TO NODE 138.00 IS CODE = 11

>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<

* AES FLOODSCx PROGRAM RESULTS SUMMARY *

INPUT FILENAME: [EV02138F.DAT]

Page: 1 of 1

UPSTREAM TIME (2) TO NODE # PEAK (HR)	DOWNSTREAM MAX. STORAGE NODE # MODELED (AF)	HYDROLOGIC/HYDRAULIC PROCESS FOOTNOTES	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)
--	--	---	------------------------	--------------------------

10100.00	119.00	Subarea (UH) Added to Stream #1	0.0	518.5
20.417				
119.00	12603.00	Convex Routing: Stream #1	518.5	517.4
20.500				
810.00	12603.00	Subarea (UH) Added to Stream #2	0.0	17.2
16.167				
12603.00	12603.00	Stream #2 Added to: Stream #1	517.4	519.5
20.500				
12603.00	12603.00	Zero Out: Stream #2	17.2	0.0
1260.00	126.00	Convex Routing: Stream #1	519.5	518.7
20.583				
920.00	126.00	Subarea (UH) Added to Stream #2	0.0	17.1
16.333				
126.00	126.00	Stream #2 Added to: Stream #1	518.7	521.4
20.583				
126.00	126.00	Zero Out: Stream #2	17.1	0.0
600.00	126.00	Subarea (UH) Added to Stream #2	0.0	0.8
16.500				
126.00	126.00	Stream #2 Added to: Stream #1	521.4	521.5
20.583				
126.00	126.00	Zero Out: Stream #2	0.8	0.0
126.00	12720.50	Convex Routing: Stream #1	521.5	520.9
20.750				
430.00	12720.50	Subarea (UH) Added to Stream #2	0.0	32.4
16.333				
413.00	12720.50	Subarea (UH) Added to Stream #3	0.0	15.5
16.250				
12720.50	12720.50	Stream #3 Added to: Stream #2	32.4	46.3
16.333				
12720.50	12720.50	Zero Out: Stream #3	15.5	0.0
12720.50	12720.50	Stream #2 Added to: Stream #1	520.9	527.9
20.750				
12720.50	12720.50	Zero Out: Stream #2	46.3	0.0

12720.50	12741.00	Convex Routing: Stream #1	527.9	527.8
20.833				
320.00	12741.00	Subarea (UH) Added to Stream #2	0.0	71.7
16.417				
390.00	12741.00	Subarea (UH) Added to Stream #4	0.0	6.3
16.583				
12741.00	12741.00	Stream #4 Added to: Stream #2	71.7	77.5
16.417				
12741.00	12741.00	Zero Out: Stream #4	6.3	0.0
12741.00	12741.00	Stream #2 Added to: Stream #1	527.8	541.0
20.833				
12741.00	12741.00	Zero Out: Stream #2	77.5	0.0
12741.00	127.00	Convex Routing: Stream #1	541.0	540.9
20.833				
12710.00	127.00	Subarea (UH) Added to Stream #2	0.0	4.2
16.583				
127.00	127.00	Stream #2 Added to: Stream #1	540.9	541.7
20.833				
127.00	127.00	Zero Out: Stream #2	4.2	0.0
50150.00	127.00	Subarea (UH) Added to Stream #2	0.0	7.3
16.667				
127.00	127.00	Stream #2 Added to: Stream #1	541.7	543.2
20.833				
127.00	127.00	Zero Out: Stream #2	7.3	0.0
127.00	129.00	Convex Routing: Stream #1	543.2	543.0
21.000				
50300.00	129.00	Subarea (UH) Added to Stream #2	0.0	6.0
16.667				
129.00	129.00	Stream #2 Added to: Stream #1	543.0	544.1
21.000				
129.00	129.00	Zero Out: Stream #2	6.0	0.0
210.00	129.00	Subarea (UH) Added to Stream #2	0.0	25.0
16.333				
129.00	129.00	Stream #2 Added to: Stream #1	544.1	547.7
21.000				
129.00	129.00	Zero Out: Stream #2	25.0	0.0

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

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|
|                                     * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
| INPUT FILENAME: [EV02138F.DAT ]
Page: 2 of |
-----+-----+-----+
|UPSTREAM  DOWNSTREAM|                                     | UPSTREAM  DOWNSTREAM|
TIME (2) TO | MAX. STORAGE|                                     |
| NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS | PEAK (CFS)  PEAK (CFS)|
PEAK (HR)   | MODELED (AF)| FOOTNOTES |
-----+-----+-----+
| 129.00    133.00| Convex Routing:      Stream #1| 547.7    547.5|
21.083 |
| 13010.00   132.00| Subarea (UH) Added to Stream #2| 0.0    134.2|
17.333 |
| 132.00    13305.00| Convex Routing:      Stream #2| 134.2    132.8|
17.917 |
| 13305.00   133.00| Convex Routing:      Stream #2| 132.8    132.3|
18.250 |
| 132.00    133.00| Subarea (UH) Added to Stream #3| 0.0    71.6|
17.000 |
-----+-----+-----+
| 133.00    133.00| Stream #3 Added to:  Stream #2| 132.3    194.2|
17.167 |
| 133.00    133.00| Zero Out:           Stream #3| 71.6    0.0|
|
| 133.00    133.00| Stream #2 Added to:  Stream #1| 547.5    685.5|
17.667 |
| 133.00    133.00| Zero Out:           Stream #2| 194.2    0.0|
|
| 133.00    134.00| Convex Routing:      Stream #1| 685.5    685.0|
17.917 |
-----+-----+-----+
| 133.00    134.00| Subarea (UH) Added to Stream #2| 0.0    59.6|
16.500 |
| 134.00    134.00| Stream #2 Added to:  Stream #1| 685.0    719.0|
17.833 |
| 134.00    134.00| Zero Out:           Stream #2| 59.6    0.0|
|
| 13500.00   134.00| Subarea (UH) Added to Stream #2| 0.0    49.3|
18.000 |
| 134.00    134.00| Stream #2 Added to:  Stream #1| 719.0    767.2|
17.833 |
-----+-----+-----+
| 134.00    134.00| Zero Out:           Stream #2| 49.3    0.0|
|
| 134.00    137.00| Convex Routing:      Stream #1| 767.2    766.9|
18.083 |
| 134.00    137.00| Subarea (UH) Added to Stream #2| 0.0    50.1|
16.583 |
| 137.00    137.00| Stream #2 Added to:  Stream #1| 766.9    799.7|
17.500 |

```

	137.00	137.00	Zero Out:	Stream #2	50.1	0.0
+-----+						
	137.00	138.00	Convex Routing:	Stream #1	799.7	798.3
17.750						
	137.00	138.00	Subarea (UH) Added to	Stream #2	0.0	30.3
17.000						
	138.00	138.00	Stream #2 Added to:	Stream #1	798.3	824.9
17.750						
	138.00	138.00	Zero Out:	Stream #2	30.3	0.0
	138.00	138.00	View:	Stream #1		824.9
17.750		936.36	3			

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

END OF FLOODSCx ROUTING ANALYSIS

FLOOD ROUTING ANALYSIS
USING COUNTY HYDROLOGY MANUAL OF ORANGE (1986)
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Analysis prepared by:

***** DESCRIPTION OF STUDY *****
* RANCHO MISSION VIEJO - FREE DRAINING UH - CALIBRATED *
* PHASE CONDITION NO PA5 - REGIONAL NODE 139 *
* 2-YR EV JULY 2019 ROKAMOTO *

FILE NAME: EVO2139F.DAT
TIME/DATE OF STUDY: 09:53 07/22/2019

** INPUT SUMMARY **

FLOW PROCESS FROM NODE 10100.00 TO NODE 119.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<

WATERSHED AREA = 49495.699 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 5.382 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.595; LOW LOSS FRACTION = 0.931
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.17; 30-MINUTE = 0.31; 1-HOUR = 0.43
3-HOUR = 0.80; 6-HOUR = 1.20; 24-HOUR = 2.11
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 119.00 TO NODE 12603.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 341.63; DOWNSTREAM ELEVATION (FT) = 312.40

CHANNEL LENGTH (FT) = 3157.79 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 810.00 TO NODE 12603.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

WATERSHED AREA = 171.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.141 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.348; LOW LOSS FRACTION = 0.638
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.50
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<

FLOW PROCESS FROM NODE 1260.00 TO NODE 126.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 312.40; DOWNSTREAM ELEVATION (FT) = 286.00
CHANNEL LENGTH (FT) = 3046.70 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 920.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

=====
WATERSHED AREA = 553.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.292 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.509; LOW LOSS FRACTION = 0.862
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.50
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 600.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 185.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.431 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.587; LOW LOSS FRACTION = 0.979
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.50
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 12720.50 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 286.00; DOWNSTREAM ELEVATION(FT) = 258.00
CHANNEL LENGTH(FT) = 4077.05 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 430.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 315.200 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.299 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.292; LOW LOSS FRACTION = 0.536
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.50
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 413.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<

WATERSHED AREA = 124.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.203 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.276; LOW LOSS FRACTION = 0.517
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.50
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7

>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<

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*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12741.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 258.00; DOWNSTREAM ELEVATION (FT) = 247.00
CHANNEL LENGTH (FT) = 2294.66 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 320.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 675.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.379 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.251; LOW LOSS FRACTION = 0.478
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.50
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932
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FLOW PROCESS FROM NODE 390.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<
=====
WATERSHED AREA = 195.100 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.558 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.486; LOW LOSS FRACTION = 0.820
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.50
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 127.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 247.00; DOWNSTREAM ELEVATION (FT) = 240.00
CHANNEL LENGTH (FT) = 819.00 MANNING'S FACTOR = 0.030
=====
*****

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CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 12710.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 720.900 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.540 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.591; LOW LOSS FRACTION = 0.968
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.50
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 50150.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 1063.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.589 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.589; LOW LOSS FRACTION = 0.962
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.50
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 129.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 240.00; DOWNSTREAM ELEVATION (FT) = 213.00
CHANNEL LENGTH (FT) = 4905.42 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 50300.00 TO NODE 129.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 637.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.621 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.569; LOW LOSS FRACTION = 0.947
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.50
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

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FLOW PROCESS FROM NODE 210.00 TO NODE 129.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 214.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.274 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.253; LOW LOSS FRACTION = 0.494
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.50
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 213.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 1389.52 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13010.00 TO NODE 132.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 4924.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 1.262 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.487; LOW LOSS FRACTION = 0.830
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.50
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

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5-MINUTE = 0.14; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.50
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 13305.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 427.51; DOWNSTREAM ELEVATION (FT) = 315.00
CHANNEL LENGTH (FT) = 9760.05 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13305.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 315.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 6877.24 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 133.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<
=====
WATERSHED AREA = 1716.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.947 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.449; LOW LOSS FRACTION = 0.750
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.50
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

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*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 134.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 212.00; DOWNSTREAM ELEVATION(FT) = 173.00
CHANNEL LENGTH(FT) = 6461.31 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 134.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 1705.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.448 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.490; LOW LOSS FRACTION = 0.819
SPECIFIED PEAK RAINFALL DEPTHS(INCH):

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```

5-MINUTE = 0.14; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.50
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

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*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 13500.00 TO NODE 134.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 3859.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 2.991 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.567; LOW LOSS FRACTION = 0.908
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.50
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 137.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO

```

ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:

BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 173.00; DOWNSTREAM ELEVATION (FT) = 133.00
CHANNEL LENGTH (FT) = 6064.09 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 134.00 TO NODE 137.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

WATERSHED AREA = 1240.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.535 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.474; LOW LOSS FRACTION = 0.780
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.50
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 137.00 TO NODE 137.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<

FLOW PROCESS FROM NODE 137.00 TO NODE 137.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<

FLOW PROCESS FROM NODE 137.00 TO NODE 138.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:

BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 133.00; DOWNSTREAM ELEVATION (FT) = 119.70
CHANNEL LENGTH (FT) = 4643.67 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 137.00 TO NODE 138.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

WATERSHED AREA = 1303.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.923 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.534; LOW LOSS FRACTION = 0.861
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.14; 30-MINUTE = 0.29; 1-HOUR = 0.38
3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.50
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 138.00 TO NODE 138.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<

FLOW PROCESS FROM NODE 138.00 TO NODE 138.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<

FLOW PROCESS FROM NODE 138.00 TO NODE 139.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:

BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 119.70; DOWNSTREAM ELEVATION (FT) = 100.00
CHANNEL LENGTH (FT) = 3107.78 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 138.00 TO NODE 139.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

WATERSHED AREA = 428.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE

*USER ENTERED "LAG" TIME = 0.289 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.413; LOW LOSS FRACTION = 0.670
 SPECIFIED PEAK RAINFALL DEPTHS (INCH):
 5-MINUTE = 0.14; 30-MINUTE = 0.29; 1-HOUR = 0.38
 3-HOUR = 0.64; 6-HOUR = 0.88; 24-HOUR = 1.50
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
 3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

 FLOW PROCESS FROM NODE 139.00 TO NODE 139.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<<
 =====

 FLOW PROCESS FROM NODE 139.00 TO NODE 139.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<<
 =====

 FLOW PROCESS FROM NODE 139.00 TO NODE 139.00 IS CODE = 11

>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<<
 =====

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+-----+
|                                     * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
| INPUT FILENAME: [EV02139F.DAT ]
| Page: 1 of |
+-----+
|UPSTREAM DOWNSTREAM|                               |UPSTREAM DOWNSTREAM| |
|TIME (2) TO | MAX. STORAGE|                               |                               |
| NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS | PEAK (CFS) PEAK (CFS)|
| PEAK (HR)  | MODELED (AF)| FOOTNOTES |
+-----+
| 10100.00   119.00| Subarea (UH) Added to Stream #1| 0.0   523.2|
20.417 | |                               |                               |
| 119.00     12603.00| Convex Routing:      Stream #1| 523.2  522.0|
20.500 | |                               |                               |
| 810.00     12603.00| Subarea (UH) Added to Stream #2| 0.0   17.7|
16.167 | |                               |                               |
| 12603.00   12603.00| Stream #2 Added to:  Stream #1| 522.0  524.2|
20.500 | |                               |                               |
| 12603.00   12603.00| Zero Out:           Stream #2| 17.7   0.0|
| | |                               |                               |
+-----+
| 1260.00    126.00| Convex Routing:      Stream #1| 524.2  523.4|
20.583 | |                               |                               |
| 920.00     126.00| Subarea (UH) Added to Stream #2| 0.0   17.4|
16.333 | |                               |                               |
| 126.00     126.00| Stream #2 Added to:  Stream #1| 523.4  526.2|
20.583 | |                               |                               |
| 126.00     126.00| Zero Out:           Stream #2| 17.4   0.0| |
| | |                               |                               |
| 600.00     126.00| Subarea (UH) Added to Stream #2| 0.0   0.8|
16.500 | |                               |                               |
+-----+
| 126.00     126.00| Stream #2 Added to:  Stream #1| 526.2  526.3|
20.583 | |                               |                               |
| 126.00     126.00| Zero Out:           Stream #2| 0.8   0.0| |
| | |                               |                               |
| 126.00     12720.50| Convex Routing:      Stream #1| 526.3  525.7|
20.750 | |                               |                               |
| 430.00     12720.50| Subarea (UH) Added to Stream #2| 0.0   32.8|
16.333 | |                               |                               |
| 413.00     12720.50| Subarea (UH) Added to Stream #3| 0.0   15.9|
16.250 | |                               |                               |
+-----+
| 12720.50   12720.50| Stream #3 Added to:  Stream #2| 32.8   47.0|
16.333 | |                               |                               |
| 12720.50   12720.50| Zero Out:           Stream #3| 15.9   0.0| |
| | |                               |                               |
| 12720.50   12720.50| Stream #2 Added to:  Stream #1| 525.7  532.9|
20.750 | |                               |                               |
| 12720.50   12720.50| Zero Out:           Stream #2| 47.0   0.0|
| | |                               |                               |

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12720.50	12741.00	Convex Routing:	Stream #1	532.9	532.8
20.833					
+-----+-----+					
320.00	12741.00	Subarea (UH) Added to	Stream #2	0.0	72.4
16.417					
390.00	12741.00	Subarea (UH) Added to	Stream #4	0.0	6.4
16.583					
12741.00	12741.00	Stream #4 Added to:	Stream #2	72.4	78.2
16.417					
12741.00	12741.00	Zero Out:	Stream #4	6.4	0.0
12741.00	12741.00	Stream #2 Added to:	Stream #1	532.8	546.5
20.833					
+-----+-----+					
12741.00	12741.00	Zero Out:	Stream #2	78.2	0.0
12741.00	127.00	Convex Routing:	Stream #1	546.5	546.4
20.833					
12710.00	127.00	Subarea (UH) Added to	Stream #2	0.0	4.2
16.583					
127.00	127.00	Stream #2 Added to:	Stream #1	546.4	547.2
20.833					
127.00	127.00	Zero Out:	Stream #2	4.2	0.0
+-----+-----+					
50150.00	127.00	Subarea (UH) Added to	Stream #2	0.0	7.3
16.667					
127.00	127.00	Stream #2 Added to:	Stream #1	547.2	548.7
20.833					
127.00	127.00	Zero Out:	Stream #2	7.3	0.0
127.00	129.00	Convex Routing:	Stream #1	548.7	548.5
21.000					
50300.00	129.00	Subarea (UH) Added to	Stream #2	0.0	6.0
16.667					
+-----+-----+					
129.00	129.00	Stream #2 Added to:	Stream #1	548.5	549.7
21.000					
129.00	129.00	Zero Out:	Stream #2	6.0	0.0
210.00	129.00	Subarea (UH) Added to	Stream #2	0.0	25.5
16.333					
129.00	129.00	Stream #2 Added to:	Stream #1	549.7	553.4
21.000					
129.00	129.00	Zero Out:	Stream #2	25.5	0.0
+-----+-----+					
Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL					
3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM					
+-----+-----+					

* AES FLOODSCx PROGRAM RESULTS SUMMARY *

| INPUT FILENAME: [EV02139F.DAT]

Page: 2 of |

UPSTREAM TIME (2) TO	DOWNSTREAM MAX. STORAGE	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)
129.00	133.00	553.4	553.2
13010.00	132.00	0.0	134.3
132.00	13305.00	134.3	132.9
13305.00	133.00	132.9	132.3
18.250	133.00	0.0	71.7

21.083	133.00	132.3	194.1
17.167	133.00	71.7	0.0
17.333	133.00	553.2	688.5
17.917	133.00	194.1	0.0
17.000	133.00	688.5	688.1

17.667	133.00	194.1	0.0
17.833	134.00	688.5	688.1
16.500	134.00	0.0	60.1
17.833	134.00	688.1	722.1
17.833	134.00	60.1	0.0
18.000	134.00	0.0	49.3
17.833	134.00	722.1	770.2

17.917	134.00	49.3	0.0
18.083	137.00	770.2	770.0
16.583	137.00	0.0	50.4
17.500	137.00	770.0	803.2

17.500	137.00	770.0	803.2
--------	--------	-------	-------

17.750	137.00	138.00	Convex Routing:	Stream #1	803.2	801.8
17.000	137.00	138.00	Subarea (UH) Added to	Stream #2	0.0	30.3
17.750	138.00	138.00	Stream #2 Added to:	Stream #1	801.8	828.4
17.833	138.00	138.00	Zero Out:	Stream #2	30.3	0.0
17.833	138.00	139.00	Convex Routing:	Stream #1	828.4	828.0
16.333	138.00	139.00	Subarea (UH) Added to	Stream #2	0.0	32.3
17.833	139.00	139.00	Stream #2 Added to:	Stream #1	828.0	842.8
17.833	139.00	139.00	Zero Out:	Stream #2	32.3	0.0
17.833	139.00	139.00	View:	Stream #1	842.8	

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

END OF FLOODSCx ROUTING ANALYSIS

FLOOD ROUTING ANALYSIS
USING COUNTY HYDROLOGY MANUAL OF ORANGE (1986)
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Ver. 20.0 Release Date: 06/01/2013 License ID 1264

Analysis prepared by:

Michael Baker International
5 Hutton Centre Drive Suite 500
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***** DESCRIPTION OF STUDY *****
* RANCHO MISSION VIEJO - FREE DRAINING UH - CALIBRATED *
* PHASE CONDITION NO PA5 - REGIONAL NODE 127 *
* 5-YR EV JUNE 2019 ROKAMOTO *

FILE NAME: EV05127F.DAT
TIME/DATE OF STUDY: 10:22 06/17/2019

** INPUT SUMMARY **

FLOW PROCESS FROM NODE 10100.00 TO NODE 119.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<

WATERSHED AREA = 49495.699 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 3.308 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.496; LOW LOSS FRACTION = 0.845
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.24; 30-MINUTE = 0.46; 1-HOUR = 0.64
3-HOUR = 1.19; 6-HOUR = 1.77; 24-HOUR = 3.13
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 119.00 TO NODE 12603.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 341.63; DOWNSTREAM ELEVATION (FT) = 312.40

CHANNEL LENGTH (FT) = 3157.79 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 810.00 TO NODE 12603.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 171.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.134 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.290; LOW LOSS FRACTION = 0.598
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 126.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 312.40; DOWNSTREAM ELEVATION (FT) = 286.00
CHANNEL LENGTH (FT) = 3046.70 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 920.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

=====
WATERSHED AREA = 553.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.253 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.424; LOW LOSS FRACTION = 0.818
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 600.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 185.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.314 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.490; LOW LOSS FRACTION = 0.958
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 12720.50 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 286.00; DOWNSTREAM ELEVATION(FT) = 258.00
CHANNEL LENGTH(FT) = 4077.05 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 430.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 315.200 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.271 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.243; LOW LOSS FRACTION = 0.472
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 413.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<

WATERSHED AREA = 124.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.187 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.230; LOW LOSS FRACTION = 0.459
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7

>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<

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*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12741.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 258.00; DOWNSTREAM ELEVATION (FT) = 247.00
CHANNEL LENGTH (FT) = 2294.66 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 320.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 675.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.350 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.209; LOW LOSS FRACTION = 0.415
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941
*****

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FLOW PROCESS FROM NODE 390.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<
=====
WATERSHED AREA = 195.100 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.433 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.405; LOW LOSS FRACTION = 0.770
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941
*****

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 127.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 247.00; DOWNSTREAM ELEVATION (FT) = 240.00
CHANNEL LENGTH (FT) = 819.00 MANNING'S FACTOR = 0.030
*****

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CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 12710.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 720.900 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.429 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.492; LOW LOSS FRACTION = 0.931
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 50150.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 1063.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.447 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.491; LOW LOSS FRACTION = 0.915
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 11

>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<

* AES FLOODSCx PROGRAM RESULTS SUMMARY *

INPUT FILENAME: [EV05127F.DAT]

Page: 1 of 1

UPSTREAM TIME (2) TO NODE # PEAK (HR)	DOWNSTREAM MAX. STORAGE NODE # MODELED (AF)	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	FOOTNOTES
--	--	------------------------------	------------------------	--------------------------	-----------

10100.00	119.00	Subarea (UH) Added to Stream #1	0.0	2448.2	
19.333					
119.00	12603.00	Convex Routing: Stream #1	2448.2	2419.5	
19.417					
810.00	12603.00	Subarea (UH) Added to Stream #2	0.0	42.5	
16.167					
12603.00	12603.00	Stream #2 Added to: Stream #1	2419.5	2423.7	
19.417					
12603.00	12603.00	Zero Out: Stream #2	42.5	0.0	
12603.00	126.00	Convex Routing: Stream #1	2423.7	2401.5	
19.500					
920.00	126.00	Subarea (UH) Added to Stream #2	0.0	67.9	
16.333					
126.00	126.00	Stream #2 Added to: Stream #1	2401.5	2407.9	
19.250					
126.00	126.00	Zero Out: Stream #2	67.9	0.0	
600.00	126.00	Subarea (UH) Added to Stream #2	0.0	12.1	
16.417					
126.00	126.00	Stream #2 Added to: Stream #1	2407.9	2408.4	
19.250					
126.00	126.00	Zero Out: Stream #2	12.1	0.0	
126.00	12720.50	Convex Routing: Stream #1	2408.4	2406.6	
19.583					
430.00	12720.50	Subarea (UH) Added to Stream #2	0.0	71.6	
16.333					
413.00	12720.50	Subarea (UH) Added to Stream #3	0.0	34.4	
16.250					
12720.50	12720.50	Stream #3 Added to: Stream #2	71.6	99.7	
16.333					
12720.50	12720.50	Zero Out: Stream #3	34.4	0.0	
12720.50	12720.50	Stream #2 Added to: Stream #1	2406.6	2420.6	
19.583					
12720.50	12720.50	Zero Out: Stream #2	99.7	0.0	

12720.50	12741.00	Convex Routing: Stream #1	2420.6	2417.7	
19.583					
320.00	12741.00	Subarea (UH) Added to Stream #2	0.0	148.8	
16.417					
390.00	12741.00	Subarea (UH) Added to Stream #4	0.0	19.9	
16.500					
12741.00	12741.00	Stream #4 Added to: Stream #2	148.8	167.2	
16.417					
12741.00	12741.00	Zero Out: Stream #4	19.9	0.0	
12741.00	12741.00	Stream #2 Added to: Stream #1	2417.7	2444.6	
19.583					
12741.00	12741.00	Zero Out: Stream #2	167.2	0.0	
12741.00	127.00	Convex Routing: Stream #1	2444.6	2444.3	
19.583					
12710.00	127.00	Subarea (UH) Added to Stream #2	0.0	41.2	
16.500					
127.00	127.00	Stream #2 Added to: Stream #1	2444.3	2447.4	
19.583					
127.00	127.00	Zero Out: Stream #2	41.2	0.0	
50150.00	127.00	Subarea (UH) Added to Stream #2	0.0	62.2	
16.500					
127.00	127.00	Stream #2 Added to: Stream #1	2447.4	2453.0	
19.583					
127.00	127.00	Zero Out: Stream #2	62.2	0.0	
127.00	127.00	View: Stream #1		2453.0	
19.583	2157.50	3			

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

END OF FLOODSCx ROUTING ANALYSIS

FLOOD ROUTING ANALYSIS
USING COUNTY HYDROLOGY MANUAL OF ORANGE (1986)
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Analysis prepared by:

Michael Baker International
5 Hutton Centre Drive Suite 500
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***** DESCRIPTION OF STUDY *****
* RANCHO MISSION VIEJO - FREE DRAINING UH - CALIBRATED *
* PHASE CONDITION NO PA5 - REGIONAL NODE 133U *
* 5-YR EV JUNE 2019 ROKAMOTO *

FILE NAME: EV0533UF.DAT
TIME/DATE OF STUDY: 09:17 06/17/2019

** INPUT SUMMARY **

FLOW PROCESS FROM NODE 10100.00 TO NODE 119.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<

WATERSHED AREA = 49495.699 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 3.308 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.496; LOW LOSS FRACTION = 0.845
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.24; 30-MINUTE = 0.46; 1-HOUR = 0.64
3-HOUR = 1.20; 6-HOUR = 1.78; 24-HOUR = 3.14
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 119.00 TO NODE 12603.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 341.63; DOWNSTREAM ELEVATION (FT) = 312.40

CHANNEL LENGTH (FT) = 3157.79 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 810.00 TO NODE 12603.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

WATERSHED AREA = 171.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.134 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.290; LOW LOSS FRACTION = 0.598
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.32; 24-HOUR = 2.20
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 126.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 312.40; DOWNSTREAM ELEVATION (FT) = 286.00
CHANNEL LENGTH (FT) = 3046.70 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 920.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

=====
WATERSHED AREA = 553.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.253 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.424; LOW LOSS FRACTION = 0.818
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.32; 24-HOUR = 2.20
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 600.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 185.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.314 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.490; LOW LOSS FRACTION = 0.958
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.32; 24-HOUR = 2.20
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 12720.50 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 286.00; DOWNSTREAM ELEVATION(FT) = 258.00
CHANNEL LENGTH(FT) = 4077.05 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 430.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 315.200 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.271 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.243; LOW LOSS FRACTION = 0.472
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.32; 24-HOUR = 2.20
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 413.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<

WATERSHED AREA = 124.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.187 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.230; LOW LOSS FRACTION = 0.459
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.32; 24-HOUR = 2.20
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7

>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<

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*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12741.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 258.00; DOWNSTREAM ELEVATION (FT) = 247.00
CHANNEL LENGTH (FT) = 2294.66 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 320.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 675.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.350 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.209; LOW LOSS FRACTION = 0.415
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.32; 24-HOUR = 2.20
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940
=====
*****

```

```

FLOW PROCESS FROM NODE 390.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<
=====
WATERSHED AREA = 195.100 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.433 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.405; LOW LOSS FRACTION = 0.770
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.32; 24-HOUR = 2.20
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 127.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 247.00; DOWNSTREAM ELEVATION (FT) = 240.00
CHANNEL LENGTH (FT) = 819.00 MANNING'S FACTOR = 0.030
=====
*****

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CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 12710.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 720.900 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.429 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.492; LOW LOSS FRACTION = 0.931
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.32; 24-HOUR = 2.20
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 50150.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 1063.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.447 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.491; LOW LOSS FRACTION = 0.915
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.32; 24-HOUR = 2.20
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 129.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 240.00; DOWNSTREAM ELEVATION (FT) = 213.00
CHANNEL LENGTH (FT) = 4905.42 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 50300.00 TO NODE 129.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 637.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.444 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.474; LOW LOSS FRACTION = 0.916
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.32; 24-HOUR = 2.20
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<


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FLOW PROCESS FROM NODE 210.00 TO NODE 129.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 214.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.257 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.211; LOW LOSS FRACTION = 0.441
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.32; 24-HOUR = 2.20
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

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*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7
-----

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>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
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*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6
-----

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>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

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*****
FLOW PROCESS FROM NODE 129.00 TO NODE 133.00 IS CODE = 5.2
-----

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>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
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THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

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ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 213.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 1389.52 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

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*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 11
-----

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>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<
=====

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+-----+
|                                     * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
| INPUT FILENAME: [EV0533UF.DAT ]
Page: 1 of 1
+-----+
|UPSTREAM DOWNSTREAM|                                     |UPSTREAM DOWNSTREAM|
TIME (2) TO | MAX. STORAGE|                                     |
| NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS | PEAK (CFS) PEAK (CFS) |
| PEAK (HR) | MODELED (AF) | FOOTNOTES |
+-----+
| 10100.00   119.00| Subarea (UH) Added to Stream #1|      0.0   2449.4|
19.333 |                                     |
| 119.00     12603.00| Convex Routing:      Stream #1|  2449.4   2420.8|
19.417 |                                     |
| 810.00     12603.00| Subarea (UH) Added to Stream #2|      0.0    42.4|
16.167 |                                     |
| 12603.00   12603.00| Stream #2 Added to:  Stream #1|  2420.8   2424.9|
19.417 |                                     |
| 12603.00   12603.00| Zero Out:           Stream #2|    42.4    0.0|
|                                     |
+-----+
| 12603.00   126.00| Convex Routing:      Stream #1|  2424.9   2403.7|
19.250 |                                     |
| 920.00     126.00| Subarea (UH) Added to Stream #2|      0.0    67.3|
16.333 |                                     |
| 126.00     126.00| Stream #2 Added to:  Stream #1|  2403.7   2410.1|
19.250 |                                     |
| 126.00     126.00| Zero Out:           Stream #2|    67.3    0.0|
|                                     |
| 600.00     126.00| Subarea (UH) Added to Stream #2|      0.0    11.9|
16.417 |                                     |
+-----+
| 126.00     126.00| Stream #2 Added to:  Stream #1|  2410.1   2410.6|
19.250 |                                     |
| 126.00     126.00| Zero Out:           Stream #2|    11.9    0.0|
|                                     |
| 126.00     12720.50| Convex Routing:      Stream #1|  2410.6   2408.1|
19.583 |                                     |
| 430.00     12720.50| Subarea (UH) Added to Stream #2|      0.0    71.7|
16.333 |                                     |
| 413.00     12720.50| Subarea (UH) Added to Stream #3|      0.0    34.4|
16.250 |                                     |
+-----+
| 12720.50   12720.50| Stream #3 Added to:  Stream #2|    71.7   100.1|
16.250 |                                     |
| 12720.50   12720.50| Zero Out:           Stream #3|    34.4    0.0|
|                                     |
| 12720.50   12720.50| Stream #2 Added to:  Stream #1|  2408.1   2422.1|
19.583 |                                     |
| 12720.50   12720.50| Zero Out:           Stream #2|   100.1    0.0|
|                                     |

```

12720.50	12741.00	Convex Routing:	Stream #1	2422.1	2419.6
19.583					
+-----+-----+					
320.00	12741.00	Subarea (UH) Added to	Stream #2	0.0	149.2
16.417					
390.00	12741.00	Subarea (UH) Added to	Stream #4	0.0	19.8
16.500					
12741.00	12741.00	Stream #4 Added to:	Stream #2	149.2	167.6
16.417					
12741.00	12741.00	Zero Out:	Stream #4	19.8	0.0
12741.00	12741.00	Stream #2 Added to:	Stream #1	2419.6	2446.6
19.583					
+-----+-----+					
12741.00	12741.00	Zero Out:	Stream #2	167.6	0.0
12741.00	127.00	Convex Routing:	Stream #1	2446.6	2446.3
19.583					
12710.00	127.00	Subarea (UH) Added to	Stream #2	0.0	40.6
16.500					
127.00	127.00	Stream #2 Added to:	Stream #1	2446.3	2449.4
19.583					
127.00	127.00	Zero Out:	Stream #2	40.6	0.0
+-----+-----+					
50150.00	127.00	Subarea (UH) Added to	Stream #2	0.0	61.4
16.500					
127.00	127.00	Stream #2 Added to:	Stream #1	2449.4	2455.1
19.583					
127.00	127.00	Zero Out:	Stream #2	61.4	0.0
127.00	129.00	Convex Routing:	Stream #1	2455.1	2451.8
19.667					
50300.00	129.00	Subarea (UH) Added to	Stream #2	0.0	38.6
16.500					
+-----+-----+					
129.00	129.00	Stream #2 Added to:	Stream #1	2451.8	2455.1
19.667					
129.00	129.00	Zero Out:	Stream #2	38.6	0.0
210.00	129.00	Subarea (UH) Added to	Stream #2	0.0	53.1
16.333					
129.00	129.00	Stream #2 Added to:	Stream #1	2455.1	2462.2
19.667					
129.00	129.00	Zero Out:	Stream #2	53.1	0.0

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL

| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

* AES FLOODSCx PROGRAM RESULTS SUMMARY *

| INPUT FILENAME: [EV0533UF.DAT]

Page: 2 of |

UPSTREAM	DOWNSTREAM		UPSTREAM	DOWNSTREAM
TIME (2) TO	MAX. STORAGE			
NODE #	NODE #	HYDROLOGIC/HYDRAULIC PROCESS	PEAK (CFS)	PEAK (CFS)
PEAK (HR)	MODELED (AF)	FOOTNOTES		

129.00	133.00	Convex Routing:	Stream #1	2462.2	2459.6
19.750					
133.00	133.00	View:	Stream #1		2459.6
19.750	2195.94	3			

| Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL

| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

END OF FLOODSCx ROUTING ANALYSIS

FLOOD ROUTING ANALYSIS
USING COUNTY HYDROLOGY MANUAL OF ORANGE (1986)
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Ver. 20.0 Release Date: 06/01/2013 License ID 1264

Analysis prepared by:

Michael Baker International
5 Hutton Centre Drive Suite 500
Santa Ana, CA 92707

***** DESCRIPTION OF STUDY *****
* RANCHO MISSION VIEJO - FREE DRAINING UH - CALIBRATED *
* PHASE CONDITION NO PA5 - REGIONAL NODE 133C *
* 5-YE EV JUNE 2019 ROKAMOTO *

FILE NAME: EV0533CF.DAT
TIME/DATE OF STUDY: 09:11 06/17/2019

** INPUT SUMMARY **

FLOW PROCESS FROM NODE 10100.00 TO NODE 119.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<

WATERSHED AREA = 49495.699 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 3.308 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.496; LOW LOSS FRACTION = 0.845
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.24; 30-MINUTE = 0.45; 1-HOUR = 0.64
3-HOUR = 1.18; 6-HOUR = 1.76; 24-HOUR = 3.11
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 119.00 TO NODE 12603.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 341.63; DOWNSTREAM ELEVATION (FT) = 312.40

CHANNEL LENGTH (FT) = 3157.79 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 810.00 TO NODE 12603.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 171.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.134 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.290; LOW LOSS FRACTION = 0.598
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 126.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 312.40; DOWNSTREAM ELEVATION (FT) = 286.00
CHANNEL LENGTH (FT) = 3046.70 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 920.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

=====
WATERSHED AREA = 553.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.253 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.424; LOW LOSS FRACTION = 0.818
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 600.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 185.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.314 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.490; LOW LOSS FRACTION = 0.958
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 12720.50 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 286.00; DOWNSTREAM ELEVATION(FT) = 258.00
CHANNEL LENGTH(FT) = 4077.05 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 430.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 315.200 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.271 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.243; LOW LOSS FRACTION = 0.472
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 413.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<

WATERSHED AREA = 124.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.187 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.230; LOW LOSS FRACTION = 0.459
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7

>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<

```

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12741.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 258.00; DOWNSTREAM ELEVATION (FT) = 247.00
CHANNEL LENGTH (FT) = 2294.66 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 320.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 675.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.350 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.209; LOW LOSS FRACTION = 0.415
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936
=====
*****

```

```

FLOW PROCESS FROM NODE 390.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<
=====
WATERSHED AREA = 195.100 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.433 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.405; LOW LOSS FRACTION = 0.770
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 127.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 247.00; DOWNSTREAM ELEVATION (FT) = 240.00
CHANNEL LENGTH (FT) = 819.00 MANNING'S FACTOR = 0.030
=====
*****

```

CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 12710.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 720.900 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.429 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.492; LOW LOSS FRACTION = 0.931
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 50150.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 1063.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.447 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.491; LOW LOSS FRACTION = 0.915
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 129.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 240.00; DOWNSTREAM ELEVATION (FT) = 213.00
CHANNEL LENGTH (FT) = 4905.42 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 50300.00 TO NODE 129.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 637.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.444 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.474; LOW LOSS FRACTION = 0.916
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

```

FLOW PROCESS FROM NODE 210.00 TO NODE 129.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 214.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.257 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.211; LOW LOSS FRACTION = 0.441
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 213.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 1389.52 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13010.00 TO NODE 132.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 4924.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.986 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.406; LOW LOSS FRACTION = 0.789
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

```

```

5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 13305.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 427.51; DOWNSTREAM ELEVATION (FT) = 315.00
CHANNEL LENGTH (FT) = 9760.05 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13305.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 315.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 6877.24 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 133.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<
=====
WATERSHED AREA = 1716.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.699 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.374; LOW LOSS FRACTION = 0.689
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
3-HOUR = 0.754; 6-HOUR = 0.891; 24-HOUR = 0.936

```



```

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 11
-----
>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<
=====

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+-----+
|                                     * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
| INPUT FILENAME: [EV0533CF.DAT ]
Page: 1 of 1
+-----+
|UPSTREAM DOWNSTREAM|                                     | UPSTREAM DOWNSTREAM|
TIME (2) TO | MAX. STORAGE|                                     |
| NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS | PEAK (CFS) PEAK (CFS)|
PEAK (HR)   | MODELED (AF)| FOOTNOTES |
+-----+
| 10100.00   119.00| Subarea (UH) Added to Stream #1|      0.0   2327.2|
19.333 |
| 119.00     12603.00| Convex Routing:      Stream #1|  2327.2   2303.6|
19.417 |
| 810.00     12603.00| Subarea (UH) Added to Stream #2|      0.0    38.6|
16.167 |
| 12603.00   12603.00| Stream #2 Added to:  Stream #1|  2303.6   2307.7|
19.417 |
| 12603.00   12603.00| Zero Out:           Stream #2|    38.6    0.0|
|
+-----+
| 12603.00   126.00| Convex Routing:      Stream #1|  2307.7   2293.5|
19.250 |
| 920.00     126.00| Subarea (UH) Added to Stream #2|      0.0    59.5|
16.333 |
| 126.00     126.00| Stream #2 Added to:  Stream #1|  2293.5   2299.8|
19.250 |
| 126.00     126.00| Zero Out:           Stream #2|    59.5    0.0|
|
| 600.00     126.00| Subarea (UH) Added to Stream #2|      0.0    10.0|
16.417 |
+-----+
| 126.00     126.00| Stream #2 Added to:  Stream #1|  2299.8   2300.3|
19.250 |
| 126.00     126.00| Zero Out:           Stream #2|    10.0    0.0|
|
| 126.00     12720.50| Convex Routing:      Stream #1|  2300.3   2294.9|
19.583 |
| 430.00     12720.50| Subarea (UH) Added to Stream #2|      0.0    66.3|
16.333 |
| 413.00     12720.50| Subarea (UH) Added to Stream #3|      0.0    31.7|
16.250 |
+-----+
| 12720.50   12720.50| Stream #3 Added to:  Stream #2|    66.3    92.4|
16.333 |
| 12720.50   12720.50| Zero Out:           Stream #3|    31.7    0.0|
|
| 12720.50   12720.50| Stream #2 Added to:  Stream #1|  2294.9   2308.8|
19.583 |
| 12720.50   12720.50| Zero Out:           Stream #2|    92.4    0.0|
|

```

12720.50	12741.00	Convex Routing:	Stream #1	2308.8	2307.3
19.583					
+-----+					
320.00	12741.00	Subarea (UH) Added to	Stream #2	0.0	139.1
16.417					
390.00	12741.00	Subarea (UH) Added to	Stream #4	0.0	17.9
16.500					
12741.00	12741.00	Stream #4 Added to:	Stream #2	139.1	155.8
16.417					
12741.00	12741.00	Zero Out:	Stream #4	17.9	0.0
12741.00	12741.00	Stream #2 Added to:	Stream #1	2307.3	2334.4
19.500					
+-----+					
12741.00	12741.00	Zero Out:	Stream #2	155.8	0.0
12741.00	127.00	Convex Routing:	Stream #1	2334.4	2334.1
19.583					
12710.00	127.00	Subarea (UH) Added to	Stream #2	0.0	34.7
16.500					
127.00	127.00	Stream #2 Added to:	Stream #1	2334.1	2337.1
19.583					
127.00	127.00	Zero Out:	Stream #2	34.7	0.0
+-----+					
50150.00	127.00	Subarea (UH) Added to	Stream #2	0.0	52.9
16.500					
127.00	127.00	Stream #2 Added to:	Stream #1	2337.1	2342.7
19.500					
127.00	127.00	Zero Out:	Stream #2	52.9	0.0
127.00	129.00	Convex Routing:	Stream #1	2342.7	2340.9
19.667					
50300.00	129.00	Subarea (UH) Added to	Stream #2	0.0	33.5
16.500					
+-----+					
129.00	129.00	Stream #2 Added to:	Stream #1	2340.9	2344.2
19.667					
129.00	129.00	Zero Out:	Stream #2	33.5	0.0
210.00	129.00	Subarea (UH) Added to	Stream #2	0.0	49.2
16.333					
129.00	129.00	Stream #2 Added to:	Stream #1	2344.2	2351.2
19.667					
129.00	129.00	Zero Out:	Stream #2	49.2	0.0
+-----+					
Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL					
3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM					
+-----+					

* AES FLOODSCx PROGRAM RESULTS SUMMARY *

| INPUT FILENAME: [EV0533CF.DAT]

Page: 2 of |

UPSTREAM TIME (2) TO	DOWNSTREAM MAX. STORAGE	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)
129.00	133.00	Convex Routing:	2351.2	2349.1
13010.00	132.00	Subarea (UH) Added to Stream #2	0.0	321.1
132.00	13305.00	Convex Routing:	321.1	312.2
13305.00	133.00	Convex Routing:	312.2	310.3
132.00	133.00	Subarea (UH) Added to Stream #3	0.0	163.7

133.00	133.00	Stream #3 Added to:	310.3	420.2
133.00	133.00	Zero Out:	163.7	0.0
133.00	133.00	Stream #2 Added to:	2349.1	2655.4
133.00	133.00	Zero Out:	420.2	0.0
133.00	133.00	View:		2655.4

133.00	133.00	View:		2655.4
2422.25	3			

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
 | 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

END OF FLOODSCx ROUTING ANALYSIS

FLOOD ROUTING ANALYSIS
USING COUNTY HYDROLOGY MANUAL OF ORANGE (1986)
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Ver. 20.0 Release Date: 06/01/2013 License ID 1264

Analysis prepared by:

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5 Hutton Centre Drive Suite 500
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***** DESCRIPTION OF STUDY *****
* RANCHO MISSION VIEJO - FREE DRAINING UH - CALIBRATED *
* PHASE CONDITION NO PA5 - REGIONAL NODE 134U *
* 5-YR EV JUNE 2019 ROKAMOTO *

FILE NAME: EV0534UF.DAT
TIME/DATE OF STUDY: 10:10 06/17/2019

** INPUT SUMMARY **

FLOW PROCESS FROM NODE 10100.00 TO NODE 119.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<

WATERSHED AREA = 49495.699 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 3.308 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.496; LOW LOSS FRACTION = 0.845
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.24; 30-MINUTE = 0.46; 1-HOUR = 0.65
3-HOUR = 1.20; 6-HOUR = 1.79; 24-HOUR = 3.16
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 119.00 TO NODE 12603.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 341.63; DOWNSTREAM ELEVATION (FT) = 312.40

CHANNEL LENGTH (FT) = 3157.79 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 810.00 TO NODE 12603.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 171.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.134 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.290; LOW LOSS FRACTION = 0.598
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.33; 24-HOUR = 2.22
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 126.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 312.40; DOWNSTREAM ELEVATION (FT) = 286.00
CHANNEL LENGTH (FT) = 3046.70 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 920.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

=====
WATERSHED AREA = 553.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.253 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.424; LOW LOSS FRACTION = 0.818
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.18; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.33; 24-HOUR = 2.22
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 600.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 185.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.314 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.490; LOW LOSS FRACTION = 0.958
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.33; 24-HOUR = 2.22
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 12720.50 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 286.00; DOWNSTREAM ELEVATION(FT) = 258.00
CHANNEL LENGTH(FT) = 4077.05 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 430.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 315.200 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.271 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.243; LOW LOSS FRACTION = 0.472
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.33; 24-HOUR = 2.22
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 413.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<

WATERSHED AREA = 124.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.187 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.230; LOW LOSS FRACTION = 0.459
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.33; 24-HOUR = 2.22
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7

>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<

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*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12741.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 258.00; DOWNSTREAM ELEVATION (FT) = 247.00
CHANNEL LENGTH (FT) = 2294.66 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 320.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 675.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.350 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.209; LOW LOSS FRACTION = 0.415
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.33; 24-HOUR = 2.22
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936
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FLOW PROCESS FROM NODE 390.00 TO NODE 12741.00 IS CODE = 1
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>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<
=====
WATERSHED AREA = 195.100 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.433 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.405; LOW LOSS FRACTION = 0.770
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.33; 24-HOUR = 2.22
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 127.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 247.00; DOWNSTREAM ELEVATION (FT) = 240.00
CHANNEL LENGTH (FT) = 819.00 MANNING'S FACTOR = 0.030
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CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 12710.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 720.900 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.429 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.492; LOW LOSS FRACTION = 0.931
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.33; 24-HOUR = 2.22
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 50150.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 1063.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.447 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.491; LOW LOSS FRACTION = 0.915
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.33; 24-HOUR = 2.22
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 129.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 240.00; DOWNSTREAM ELEVATION (FT) = 213.00
CHANNEL LENGTH (FT) = 4905.42 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 50300.00 TO NODE 129.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 637.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.444 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.474; LOW LOSS FRACTION = 0.916
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.33; 24-HOUR = 2.22
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

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FLOW PROCESS FROM NODE 210.00 TO NODE 129.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 214.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.257 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.211; LOW LOSS FRACTION = 0.441
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.33; 24-HOUR = 2.22
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 213.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 1389.52 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13010.00 TO NODE 132.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 4924.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.986 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.406; LOW LOSS FRACTION = 0.789
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.33; 24-HOUR = 2.22
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

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5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.33; 24-HOUR = 2.22
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 13305.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 427.51; DOWNSTREAM ELEVATION (FT) = 315.00
CHANNEL LENGTH (FT) = 9760.05 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13305.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 315.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 6877.24 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 133.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<
=====
WATERSHED AREA = 1716.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.699 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.374; LOW LOSS FRACTION = 0.689
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.33; 24-HOUR = 2.22
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

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*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 134.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 212.00; DOWNSTREAM ELEVATION(FT) = 173.00
CHANNEL LENGTH(FT) = 6461.31 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 134.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 1705.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.390 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.409; LOW LOSS FRACTION = 0.762
SPECIFIED PEAK RAINFALL DEPTHS (INCH):

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5-MINUTE = 0.19; 30-MINUTE = 0.43; 1-HOUR = 0.57
3-HOUR = 0.96; 6-HOUR = 1.33; 24-HOUR = 2.22
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
3-HOUR = 0.750; 6-HOUR = 0.890; 24-HOUR = 0.936

```

```

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 11
-----
>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
=====

```

* AES FLOODSCx PROGRAM RESULTS SUMMARY *

INPUT FILENAME: [EV0534UF.DAT]

Page: 1 of 1

UPSTREAM TIME (2) TO NODE # PEAK (HR)	DOWNSTREAM MAX. STORAGE NODE # MODELED (AF)	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)
10100.00	119.00	Subarea (UH) Added to Stream #1	0.0	2345.9
19.333				
119.00	12603.00	Convex Routing: Stream #1	2345.9	2322.3
19.417				
810.00	12603.00	Subarea (UH) Added to Stream #2	0.0	38.2
16.167				
12603.00	12603.00	Stream #2 Added to: Stream #1	2322.3	2326.5
19.417				
12603.00	12603.00	Zero Out: Stream #2	38.2	0.0
12603.00	126.00	Convex Routing: Stream #1	2326.5	2313.2
19.250				
920.00	126.00	Subarea (UH) Added to Stream #2	0.0	53.0
16.333				
126.00	126.00	Stream #2 Added to: Stream #1	2313.2	2319.7
19.250				
126.00	126.00	Zero Out: Stream #2	53.0	0.0
600.00	126.00	Subarea (UH) Added to Stream #2	0.0	9.6
16.417				
126.00	126.00	Stream #2 Added to: Stream #1	2319.7	2320.2
19.250				
126.00	126.00	Zero Out: Stream #2	9.6	0.0
126.00	12720.50	Convex Routing: Stream #1	2320.2	2314.2
19.583				
430.00	12720.50	Subarea (UH) Added to Stream #2	0.0	65.9
16.333				
413.00	12720.50	Subarea (UH) Added to Stream #3	0.0	31.4
16.250				
12720.50	12720.50	Stream #3 Added to: Stream #2	65.9	92.0
16.250				
12720.50	12720.50	Zero Out: Stream #3	31.4	0.0
12720.50	12720.50	Stream #2 Added to: Stream #1	2314.2	2328.3
19.583				
12720.50	12720.50	Zero Out: Stream #2	92.0	0.0

12720.50	12741.00	Convex Routing: Stream #1	2328.3	2327.4
19.500				
320.00	12741.00	Subarea (UH) Added to Stream #2	0.0	138.4
16.417				
390.00	12741.00	Subarea (UH) Added to Stream #4	0.0	17.6
16.500				
12741.00	12741.00	Stream #4 Added to: Stream #2	138.4	154.9
16.417				
12741.00	12741.00	Zero Out: Stream #4	17.6	0.0
12741.00	12741.00	Stream #2 Added to: Stream #1	2327.4	2355.1
19.500				
12741.00	12741.00	Zero Out: Stream #2	154.9	0.0
12741.00	127.00	Convex Routing: Stream #1	2355.1	2354.7
19.500				
12710.00	127.00	Subarea (UH) Added to Stream #2	0.0	33.5
16.500				
127.00	127.00	Stream #2 Added to: Stream #1	2354.7	2357.9
19.500				
127.00	127.00	Zero Out: Stream #2	33.5	0.0
50150.00	127.00	Subarea (UH) Added to Stream #2	0.0	51.2
16.500				
127.00	127.00	Stream #2 Added to: Stream #1	2357.9	2363.7
19.500				
127.00	127.00	Zero Out: Stream #2	51.2	0.0
127.00	129.00	Convex Routing: Stream #1	2363.7	2361.9
19.667				
50300.00	129.00	Subarea (UH) Added to Stream #2	0.0	32.4
16.500				
129.00	129.00	Stream #2 Added to: Stream #1	2361.9	2365.2
19.667				
129.00	129.00	Zero Out: Stream #2	32.4	0.0
210.00	129.00	Subarea (UH) Added to Stream #2	0.0	48.8
16.333				
129.00	129.00	Stream #2 Added to: Stream #1	2365.2	2372.3
19.667				
129.00	129.00	Zero Out: Stream #2	48.8	0.0

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

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|
| * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
| INPUT FILENAME: [EV0534UF.DAT ]
Page: 2 of |
-----+
|UPSTREAM DOWNSTREAM| | UPSTREAM DOWNSTREAM|
TIME (2) TO | MAX. STORAGE| |
| NODE # NODE # | HYDROLOGIC/HYDRAULIC PROCESS | PEAK (CFS) PEAK (CFS)|
PEAK (HR) | MODELED (AF)| FOOTNOTES |
-----+
| 129.00 133.00| Convex Routing: Stream #1| 2372.3 2370.2|
19.750 | | |
| 13010.00 132.00| Subarea (UH) Added to Stream #2| 0.0 317.7|
17.000 | | |
| 132.00 13305.00| Convex Routing: Stream #2| 317.7 309.3|
17.500 | | |
| 13305.00 133.00| Convex Routing: Stream #2| 309.3 307.6|
17.833 | | |
| 132.00 133.00| Subarea (UH) Added to Stream #3| 0.0 162.2|
16.750 | | |
-----+
| 133.00 133.00| Stream #3 Added to: Stream #2| 307.6 418.7|
17.667 | | |
| 133.00 133.00| Zero Out: Stream #3| 162.2 0.0|
| | |
| 133.00 133.00| Stream #2 Added to: Stream #1| 2370.2 2685.0|
18.417 | | |
| 133.00 133.00| Zero Out: Stream #2| 418.7 0.0|
| | |
| 133.00 134.00| Convex Routing: Stream #1| 2685.0 2682.9|
18.583 | | |
-----+
| 133.00 134.00| Subarea (UH) Added to Stream #2| 0.0 159.7|
16.417 | | |
| 134.00 134.00| Stream #2 Added to: Stream #1| 2682.9 2723.5|
18.500 | | |
| 134.00 134.00| Zero Out: Stream #2| 159.7 0.0|
| | |
| 134.00 134.00| View: Stream #1| 2723.5|
18.500 | 2525.77| 3 |
-----+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL |
| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM |
-----+

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END OF FLOODSCx ROUTING ANALYSIS

FLOOD ROUTING ANALYSIS
USING COUNTY HYDROLOGY MANUAL OF ORANGE (1986)
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Ver. 20.0 Release Date: 06/01/2013 License ID 1264

Analysis prepared by:

Michael Baker International
5 Hutton Centre Drive Suite 500
Santa Ana, CA 92707

***** DESCRIPTION OF STUDY *****
* RANCHO MISSION VIEJO - FREE DRAINING UH - CALIBRATED *
* PHASE CONDITION NO PA5 - REGIONAL NODE 134C *
* 5-YR EV JUNE 2019 ROKAMOTO *

FILE NAME: EV0534CF.DAT
TIME/DATE OF STUDY: 10:05 06/17/2019

** INPUT SUMMARY **

FLOW PROCESS FROM NODE 10100.00 TO NODE 119.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<

WATERSHED AREA = 49495.699 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 3.308 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.496; LOW LOSS FRACTION = 0.845
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.24; 30-MINUTE = 0.46; 1-HOUR = 0.64
3-HOUR = 1.19; 6-HOUR = 1.77; 24-HOUR = 3.13
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 119.00 TO NODE 12603.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 341.63; DOWNSTREAM ELEVATION (FT) = 312.40

CHANNEL LENGTH (FT) = 3157.79 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 810.00 TO NODE 12603.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

WATERSHED AREA = 171.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.134 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.290; LOW LOSS FRACTION = 0.598
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 126.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 312.40; DOWNSTREAM ELEVATION (FT) = 286.00
CHANNEL LENGTH (FT) = 3046.70 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 920.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

=====
WATERSHED AREA = 553.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.253 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.424; LOW LOSS FRACTION = 0.818
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 600.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 185.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.314 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.490; LOW LOSS FRACTION = 0.958
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 12720.50 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 286.00; DOWNSTREAM ELEVATION(FT) = 258.00
CHANNEL LENGTH(FT) = 4077.05 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 430.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 315.200 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.271 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.243; LOW LOSS FRACTION = 0.472
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 413.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<

WATERSHED AREA = 124.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.187 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.230; LOW LOSS FRACTION = 0.459
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7

>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<

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*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12741.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 258.00; DOWNSTREAM ELEVATION (FT) = 247.00
CHANNEL LENGTH (FT) = 2294.66 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 320.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 675.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.350 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.209; LOW LOSS FRACTION = 0.415
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933
*****

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FLOW PROCESS FROM NODE 390.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<
=====
WATERSHED AREA = 195.100 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.433 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.405; LOW LOSS FRACTION = 0.770
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933
*****

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 127.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 247.00; DOWNSTREAM ELEVATION (FT) = 240.00
CHANNEL LENGTH (FT) = 819.00 MANNING'S FACTOR = 0.030
*****

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CONSTANT LOSS RATE (CFS) = 0.00

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=====
*****
FLOW PROCESS FROM NODE 12710.00 TO NODE 127.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 720.900 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.429 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.492; LOW LOSS FRACTION = 0.931
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933
*****
FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====
*****
FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====
*****
FLOW PROCESS FROM NODE 50150.00 TO NODE 127.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 1063.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.447 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.491; LOW LOSS FRACTION = 0.915
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933
*****
FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====
```

```
*****
FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====
*****
FLOW PROCESS FROM NODE 127.00 TO NODE 129.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 240.00; DOWNSTREAM ELEVATION (FT) = 213.00
CHANNEL LENGTH (FT) = 4905.42 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====
*****
FLOW PROCESS FROM NODE 50300.00 TO NODE 129.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 637.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.444 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.474; LOW LOSS FRACTION = 0.916
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933
*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====
*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====
*****
```

```

FLOW PROCESS FROM NODE 210.00 TO NODE 129.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 214.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.257 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.211; LOW LOSS FRACTION = 0.441
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 213.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 1389.52 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13010.00 TO NODE 132.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 4924.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.986 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.406; LOW LOSS FRACTION = 0.789
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

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```

5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 13305.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 427.51; DOWNSTREAM ELEVATION (FT) = 315.00
CHANNEL LENGTH (FT) = 9760.05 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13305.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 315.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 6877.24 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 133.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<
=====
WATERSHED AREA = 1716.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.699 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.374; LOW LOSS FRACTION = 0.689
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

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*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 134.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 212.00; DOWNSTREAM ELEVATION(FT) = 173.00
CHANNEL LENGTH(FT) = 6461.31 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 134.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 1705.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.390 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.409; LOW LOSS FRACTION = 0.762
SPECIFIED PEAK RAINFALL DEPTHS(INCH):

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5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

```

```

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 13500.00 TO NODE 134.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 3859.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 2.180 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.473; LOW LOSS FRACTION = 0.843
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.19
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
3-HOUR = 0.741; 6-HOUR = 0.887; 24-HOUR = 0.933

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 11
-----
>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<
=====

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+-----+
|                                     * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
| INPUT FILENAME: [EV0534CF.DAT ]
Page: 1 of 1
+-----+
|UPSTREAM  DOWNSTREAM|                                     | UPSTREAM  DOWNSTREAM|
TIME (2) TO | MAX. STORAGE|                                     |
| NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS | PEAK (CFS)  PEAK (CFS)|
PEAK (HR)   | MODELED (AF)| FOOTNOTES |
+-----+
| 10100.00   119.00| Subarea (UH) Added to Stream #1|      0.0    2268.5|
19.333 |
| 119.00     12603.00| Convex Routing:      Stream #1|  2268.5    2247.8|
19.417 |
| 810.00     12603.00| Subarea (UH) Added to Stream #2|      0.0     36.2|
16.167 |
| 12603.00   12603.00| Stream #2 Added to:  Stream #1|  2247.8    2251.9|
19.417 |
| 12603.00   12603.00| Zero Out:           Stream #2|    36.2     0.0|
|
+-----+
| 12603.00   126.00| Convex Routing:      Stream #1|  2251.9    2243.0|
19.250 |
| 920.00     126.00| Subarea (UH) Added to Stream #2|      0.0     54.0|
16.333 |
| 126.00     126.00| Stream #2 Added to:  Stream #1|  2243.0    2249.5|
19.250 |
| 126.00     126.00| Zero Out:           Stream #2|    54.0     0.0|
|
| 600.00     126.00| Subarea (UH) Added to Stream #2|      0.0     8.6|
16.417 |
+-----+
| 126.00     126.00| Stream #2 Added to:  Stream #1|  2249.5    2250.0|
19.250 |
| 126.00     126.00| Zero Out:           Stream #2|     8.6     0.0|
|
| 126.00     12720.50| Convex Routing:      Stream #1|  2250.0    2243.2|
19.417 |
| 430.00     12720.50| Subarea (UH) Added to Stream #2|      0.0     62.9|
16.333 |
| 413.00     12720.50| Subarea (UH) Added to Stream #3|      0.0     30.0|
16.250 |
+-----+
| 12720.50   12720.50| Stream #3 Added to:  Stream #2|    62.9     87.8|
16.250 |
| 12720.50   12720.50| Zero Out:           Stream #3|    30.0     0.0|
|
| 12720.50   12720.50| Stream #2 Added to:  Stream #1|  2243.2    2257.6|
19.417 |
| 12720.50   12720.50| Zero Out:           Stream #2|    87.8     0.0|
|

```

12720.50	12741.00	Convex Routing:	Stream #1	2257.6	2256.8
19.500					
+-----+					
320.00	12741.00	Subarea (UH) Added to	Stream #2	0.0	132.9
16.417					
390.00	12741.00	Subarea (UH) Added to	Stream #4	0.0	16.6
16.500					
12741.00	12741.00	Stream #4 Added to:	Stream #2	132.9	148.5
16.417					
12741.00	12741.00	Zero Out:	Stream #4	16.6	0.0
12741.00	12741.00	Stream #2 Added to:	Stream #1	2256.8	2284.1
19.500					
+-----+					
12741.00	12741.00	Zero Out:	Stream #2	148.5	0.0
12741.00	127.00	Convex Routing:	Stream #1	2284.1	2283.9
19.500					
12710.00	127.00	Subarea (UH) Added to	Stream #2	0.0	30.4
16.500					
127.00	127.00	Stream #2 Added to:	Stream #1	2283.9	2287.0
19.500					
127.00	127.00	Zero Out:	Stream #2	30.4	0.0
+-----+					
50150.00	127.00	Subarea (UH) Added to	Stream #2	0.0	46.8
16.500					
127.00	127.00	Stream #2 Added to:	Stream #1	2287.0	2292.8
19.500					
127.00	127.00	Zero Out:	Stream #2	46.8	0.0
127.00	129.00	Convex Routing:	Stream #1	2292.8	2290.8
19.667					
50300.00	129.00	Subarea (UH) Added to	Stream #2	0.0	29.8
16.500					
+-----+					
129.00	129.00	Stream #2 Added to:	Stream #1	2290.8	2294.1
19.667					
129.00	129.00	Zero Out:	Stream #2	29.8	0.0
210.00	129.00	Subarea (UH) Added to	Stream #2	0.0	46.8
16.333					
129.00	129.00	Stream #2 Added to:	Stream #1	2294.1	2301.2
19.667					
129.00	129.00	Zero Out:	Stream #2	46.8	0.0
+-----+					
Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL					
3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM					
+-----+					

* AES FLOODSCx PROGRAM RESULTS SUMMARY *

INPUT FILENAME: [EV0534CF.DAT]

Page: 2 of

UPSTREAM TIME (2)	DOWNSTREAM NODE #	MAX. STORAGE	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)
129.00	133.00		Convex Routing: Stream #1	2301.2	2299.3
19.750					
13010.00	132.00		Subarea (UH) Added to Stream #2	0.0	304.2
17.000					
132.00	13305.00		Convex Routing: Stream #2	304.2	296.5
17.500					
13305.00	133.00		Convex Routing: Stream #2	296.5	295.1
17.833					
132.00	133.00		Subarea (UH) Added to Stream #3	0.0	155.4
16.750					
133.00	133.00		Stream #3 Added to: Stream #2	295.1	403.4
17.667					
133.00	133.00		Zero Out: Stream #3	155.4	0.0
133.00	133.00		Stream #2 Added to: Stream #1	2299.3	2620.4
18.417					
133.00	133.00		Zero Out: Stream #2	403.4	0.0
133.00	134.00		Convex Routing: Stream #1	2620.4	2618.6
18.583					
133.00	134.00		Subarea (UH) Added to Stream #2	0.0	150.5
16.500					
134.00	134.00		Stream #2 Added to: Stream #1	2618.6	2659.0
18.500					
134.00	134.00		Zero Out: Stream #2	150.5	0.0
13500.00	134.00		Subarea (UH) Added to Stream #2	0.0	146.7
18.083					
134.00	134.00		Stream #2 Added to: Stream #1	2659.0	2800.5
18.500					
134.00	134.00		Zero Out: Stream #2	146.7	0.0
134.00	134.00		View: Stream #1		2800.5
18.500	2588.48	3			

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL

3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

END OF FLOODSCx ROUTING ANALYSIS

FLOOD ROUTING ANALYSIS
USING COUNTY HYDROLOGY MANUAL OF ORANGE (1986)
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Analysis prepared by:

***** DESCRIPTION OF STUDY *****
* RANCHO MISSION VIEJO - FREE DRAINING UH - CALIBRATED *
* PHASE CONDITION NO PA5 - REGIONAL NODE 137 *
* 5-YR EV JULY 2019 ROKAMOTO *

FILE NAME: EV05137F.DAT
TIME/DATE OF STUDY: 09:39 07/22/2019

** INPUT SUMMARY **

FLOW PROCESS FROM NODE 10100.00 TO NODE 119.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<

WATERSHED AREA = 49495.699 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 3.308 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.496; LOW LOSS FRACTION = 0.845
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.24; 30-MINUTE = 0.45; 1-HOUR = 0.64
3-HOUR = 1.18; 6-HOUR = 1.76; 24-HOUR = 3.11
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 119.00 TO NODE 12603.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 341.63; DOWNSTREAM ELEVATION (FT) = 312.40

CHANNEL LENGTH (FT) = 3157.79 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 810.00 TO NODE 12603.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 171.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.134 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.290; LOW LOSS FRACTION = 0.598
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 126.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 312.40; DOWNSTREAM ELEVATION (FT) = 286.00
CHANNEL LENGTH (FT) = 3046.70 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 920.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

=====
WATERSHED AREA = 553.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.253 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.424; LOW LOSS FRACTION = 0.818
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 600.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 185.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.314 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.490; LOW LOSS FRACTION = 0.958
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 12720.50 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 286.00; DOWNSTREAM ELEVATION(FT) = 258.00
CHANNEL LENGTH(FT) = 4077.05 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 430.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 315.200 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.271 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.243; LOW LOSS FRACTION = 0.472
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 413.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<

WATERSHED AREA = 124.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.187 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.230; LOW LOSS FRACTION = 0.459
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7

>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<

```

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12741.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 258.00; DOWNSTREAM ELEVATION (FT) = 247.00
CHANNEL LENGTH (FT) = 2294.66 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 320.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 675.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.350 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.209; LOW LOSS FRACTION = 0.415
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933
*****

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FLOW PROCESS FROM NODE 390.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<
=====
WATERSHED AREA = 195.100 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.433 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.405; LOW LOSS FRACTION = 0.770
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933
*****

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 127.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 247.00; DOWNSTREAM ELEVATION (FT) = 240.00
CHANNEL LENGTH (FT) = 819.00 MANNING'S FACTOR = 0.030
*****

```

CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 12710.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 720.900 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.429 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.492; LOW LOSS FRACTION = 0.931
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 50150.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 1063.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.447 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.491; LOW LOSS FRACTION = 0.915
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 129.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 240.00; DOWNSTREAM ELEVATION (FT) = 213.00
CHANNEL LENGTH (FT) = 4905.42 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 50300.00 TO NODE 129.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 637.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.444 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.474; LOW LOSS FRACTION = 0.916
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<


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FLOW PROCESS FROM NODE 210.00 TO NODE 129.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 214.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.257 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.211; LOW LOSS FRACTION = 0.441
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 213.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 1389.52 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13010.00 TO NODE 132.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 4924.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.986 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.406; LOW LOSS FRACTION = 0.789
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

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5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 13305.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 427.51; DOWNSTREAM ELEVATION (FT) = 315.00
CHANNEL LENGTH (FT) = 9760.05 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13305.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 315.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 6877.24 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 133.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<
=====
WATERSHED AREA = 1716.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.699 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.374; LOW LOSS FRACTION = 0.689
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

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*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 134.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 212.00; DOWNSTREAM ELEVATION(FT) = 173.00
CHANNEL LENGTH(FT) = 6461.31 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 134.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 1705.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.390 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.409; LOW LOSS FRACTION = 0.762
SPECIFIED PEAK RAINFALL DEPTHS(INCH):

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5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

```

```

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 13500.00 TO NODE 134.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 3859.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 2.180 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.473; LOW LOSS FRACTION = 0.843
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 137.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO

```

ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
 UPSTREAM ELEVATION (FT) = 173.00; DOWNSTREAM ELEVATION (FT) = 133.00
 CHANNEL LENGTH (FT) = 6064.09 MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE (CFS) = 0.00

 FLOW PROCESS FROM NODE 134.00 TO NODE 137.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

WATERSHED AREA = 1240.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME = 0.439 HOURS
 VALLEY (DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.395; LOW LOSS FRACTION = 0.714
 SPECIFIED PEAK RAINFALL DEPTHS (INCH):
 5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
 3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
 3-HOUR = 0.738; 6-HOUR = 0.886; 24-HOUR = 0.933

 FLOW PROCESS FROM NODE 137.00 TO NODE 137.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<

 FLOW PROCESS FROM NODE 137.00 TO NODE 137.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<

 FLOW PROCESS FROM NODE 137.00 TO NODE 137.00 IS CODE = 11

>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<

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+-----+
|                                     * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
| INPUT FILENAME: [EV05137F.DAT ]
| Page: 1 of |
+-----+
|UPSTREAM  DOWNSTREAM|                                     | UPSTREAM  DOWNSTREAM|
|TIME (2) TO | MAX. STORAGE|                                     |
| NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS | PEAK (CFS)  PEAK (CFS)|
| PEAK (HR)  | MODELED (AF)| FOOTNOTES |
+-----+
| 10100.00   119.00| Subarea (UH) Added to Stream #1|      0.0    2239.3|
19.333 |
| 119.00     12603.00| Convex Routing:      Stream #1|    2239.3    2219.5|
19.417 |
| 810.00     12603.00| Subarea (UH) Added to Stream #2|      0.0     35.7|
16.167 |
| 12603.00   12603.00| Stream #2 Added to:  Stream #1|    2219.5    2223.6|
19.417 |
| 12603.00   12603.00| Zero Out:           Stream #2|      35.7     0.0|
|
+-----+
| 12603.00   126.00| Convex Routing:      Stream #1|    2223.6    2216.6|
19.250 |
| 920.00     126.00| Subarea (UH) Added to Stream #2|      0.0     52.9|
16.333 |
| 126.00     126.00| Stream #2 Added to:  Stream #1|    2216.6    2223.0|
19.250 |
| 126.00     126.00| Zero Out:           Stream #2|      52.9     0.0|
|
| 600.00     126.00| Subarea (UH) Added to Stream #2|      0.0      8.3|
16.417 |
+-----+
| 126.00     126.00| Stream #2 Added to:  Stream #1|    2223.0    2223.5|
19.250 |
| 126.00     126.00| Zero Out:           Stream #2|      8.3     0.0|
|
| 126.00     12720.50| Convex Routing:      Stream #1|    2223.5    2216.7|
19.333 |
| 430.00     12720.50| Subarea (UH) Added to Stream #2|      0.0     62.3|
16.333 |
| 413.00     12720.50| Subarea (UH) Added to Stream #3|      0.0     29.6|
16.250 |
+-----+
| 12720.50   12720.50| Stream #3 Added to:  Stream #2|      62.3     87.0|
16.250 |
| 12720.50   12720.50| Zero Out:           Stream #3|      29.6     0.0|
|
| 12720.50   12720.50| Stream #2 Added to:  Stream #1|    2216.7    2231.2|
19.333 |
| 12720.50   12720.50| Zero Out:           Stream #2|      87.0     0.0|
|

```

12720.50	12741.00	Convex Routing:	Stream #1	2231.2	2230.0
19.500					
+-----+-----+					
320.00	12741.00	Subarea (UH) Added to	Stream #2	0.0	131.7
16.417					
390.00	12741.00	Subarea (UH) Added to	Stream #4	0.0	16.4
16.500					
12741.00	12741.00	Stream #4 Added to:	Stream #2	131.7	147.1
16.417					
12741.00	12741.00	Zero Out:	Stream #4	16.4	0.0
12741.00	12741.00	Stream #2 Added to:	Stream #1	2230.0	2257.1
19.500					
+-----+-----+					
12741.00	12741.00	Zero Out:	Stream #2	147.1	0.0
12741.00	127.00	Convex Routing:	Stream #1	2257.1	2256.9
19.500					
12710.00	127.00	Subarea (UH) Added to	Stream #2	0.0	29.5
16.500					
127.00	127.00	Stream #2 Added to:	Stream #1	2256.9	2260.1
19.500					
127.00	127.00	Zero Out:	Stream #2	29.5	0.0
+-----+-----+					
50150.00	127.00	Subarea (UH) Added to	Stream #2	0.0	45.5
16.500					
127.00	127.00	Stream #2 Added to:	Stream #1	2260.1	2265.7
19.500					
127.00	127.00	Zero Out:	Stream #2	45.5	0.0
127.00	129.00	Convex Routing:	Stream #1	2265.7	2263.7
19.667					
50300.00	129.00	Subarea (UH) Added to	Stream #2	0.0	29.0
16.500					
+-----+-----+					
129.00	129.00	Stream #2 Added to:	Stream #1	2263.7	2267.0
19.667					
129.00	129.00	Zero Out:	Stream #2	29.0	0.0
210.00	129.00	Subarea (UH) Added to	Stream #2	0.0	46.3
16.333					
129.00	129.00	Stream #2 Added to:	Stream #1	2267.0	2275.4
18.333					
129.00	129.00	Zero Out:	Stream #2	46.3	0.0

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL

| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

* AES FLOODSCx PROGRAM RESULTS SUMMARY *

INPUT FILENAME: [EV05137F.DAT]

Page: 2 of 1

UPSTREAM TIME (2) TO	DOWNSTREAM MAX. STORAGE	UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS	PEAK (CFS)	PEAK (CFS)
PEAK (HR)	MODELED (AF)	FOOTNOTES				

129.00	133.00	Convex Routing:	Stream #1	2275.4	2272.1	
19.750						
13010.00	132.00	Subarea (UH) Added to	Stream #2	0.0	300.6	
17.000						
132.00	13305.00	Convex Routing:	Stream #2	300.6	293.3	
17.583						
13305.00	133.00	Convex Routing:	Stream #2	293.3	291.9	
17.833						
132.00	133.00	Subarea (UH) Added to	Stream #3	0.0	153.7	
16.750						
133.00	133.00	Stream #3 Added to:	Stream #2	291.9	399.8	
17.667						
133.00	133.00	Zero Out:	Stream #3	153.7	0.0	
133.00	133.00	Stream #2 Added to:	Stream #1	2272.1	2598.5	
18.333						
133.00	133.00	Zero Out:	Stream #2	399.8	0.0	
133.00	134.00	Convex Routing:	Stream #1	2598.5	2596.8	
18.583						
133.00	134.00	Subarea (UH) Added to	Stream #2	0.0	148.2	
16.417						
134.00	134.00	Stream #2 Added to:	Stream #1	2596.8	2637.3	
18.500						
134.00	134.00	Zero Out:	Stream #2	148.2	0.0	
13500.00	134.00	Subarea (UH) Added to	Stream #2	0.0	145.3	
18.083						
134.00	134.00	Stream #2 Added to:	Stream #1	2637.3	2778.5	
18.250						
134.00	134.00	Zero Out:	Stream #2	145.3	0.0	
134.00	137.00	Convex Routing:	Stream #1	2778.5	2776.4	
18.667						
134.00	137.00	Subarea (UH) Added to	Stream #2	0.0	118.0	
16.500						
137.00	137.00	Stream #2 Added to:	Stream #1	2776.4	2818.7	
18.417						

137.00	137.00	Zero Out:	Stream #2	118.0	0.0
137.00	137.00	View:	Stream #1	2818.7	
18.417	2631.08	3			

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

END OF FLOODSCx ROUTING ANALYSIS

FLOOD ROUTING ANALYSIS
USING COUNTY HYDROLOGY MANUAL OF ORANGE (1986)
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Ver. 23.0 Release Date: 07/01/2016 License ID 1264

Analysis prepared by:

***** DESCRIPTION OF STUDY *****
* RANCHO MISSION VIEJO - FREE DRAINING UH - CALIBRATED *
* PHASE CONDITION NO PA5 - REGIONAL NODE 138 *
* 5-YR EV JULY 2019 ROKAMOTO *

FILE NAME: EV05138F.DAT
TIME/DATE OF STUDY: 09:28 07/22/2019

** INPUT SUMMARY **

FLOW PROCESS FROM NODE 10100.00 TO NODE 119.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<

WATERSHED AREA = 49495.699 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 3.308 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.496; LOW LOSS FRACTION = 0.845
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.23; 30-MINUTE = 0.45; 1-HOUR = 0.63
3-HOUR = 1.17; 6-HOUR = 1.74; 24-HOUR = 3.08
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 119.00 TO NODE 12603.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 341.63; DOWNSTREAM ELEVATION (FT) = 312.40

CHANNEL LENGTH (FT) = 3157.79 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 810.00 TO NODE 12603.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

WATERSHED AREA = 171.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.134 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.290; LOW LOSS FRACTION = 0.598
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.18; 30-MINUTE = 0.42; 1-HOUR = 0.56
3-HOUR = 0.94; 6-HOUR = 1.30; 24-HOUR = 2.16
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 126.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 312.40; DOWNSTREAM ELEVATION (FT) = 286.00
CHANNEL LENGTH (FT) = 3046.70 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 920.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

=====
WATERSHED AREA = 553.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.253 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.424; LOW LOSS FRACTION = 0.818
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.18; 30-MINUTE = 0.42; 1-HOUR = 0.56
3-HOUR = 0.94; 6-HOUR = 1.30; 24-HOUR = 2.16
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 600.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 185.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.314 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.490; LOW LOSS FRACTION = 0.958
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.18; 30-MINUTE = 0.42; 1-HOUR = 0.56
3-HOUR = 0.94; 6-HOUR = 1.30; 24-HOUR = 2.16
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 12720.50 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 286.00; DOWNSTREAM ELEVATION(FT) = 258.00
CHANNEL LENGTH(FT) = 4077.05 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 430.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 315.200 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.271 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.243; LOW LOSS FRACTION = 0.472
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.18; 30-MINUTE = 0.42; 1-HOUR = 0.56
3-HOUR = 0.94; 6-HOUR = 1.30; 24-HOUR = 2.16
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 413.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<

WATERSHED AREA = 124.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.187 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.230; LOW LOSS FRACTION = 0.459
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.18; 30-MINUTE = 0.42; 1-HOUR = 0.56
3-HOUR = 0.94; 6-HOUR = 1.30; 24-HOUR = 2.16
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7

>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<

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*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12741.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 258.00; DOWNSTREAM ELEVATION (FT) = 247.00
CHANNEL LENGTH (FT) = 2294.66 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 320.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 675.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.350 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.209; LOW LOSS FRACTION = 0.415
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.18; 30-MINUTE = 0.42; 1-HOUR = 0.56
3-HOUR = 0.94; 6-HOUR = 1.30; 24-HOUR = 2.16
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932
*****

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FLOW PROCESS FROM NODE 390.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<
=====
WATERSHED AREA = 195.100 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.433 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.405; LOW LOSS FRACTION = 0.770
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.18; 30-MINUTE = 0.42; 1-HOUR = 0.56
3-HOUR = 0.94; 6-HOUR = 1.30; 24-HOUR = 2.16
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932
*****

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 127.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 247.00; DOWNSTREAM ELEVATION (FT) = 240.00
CHANNEL LENGTH (FT) = 819.00 MANNING'S FACTOR = 0.030
*****

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CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 12710.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 720.900 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.429 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.492; LOW LOSS FRACTION = 0.931
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.18; 30-MINUTE = 0.42; 1-HOUR = 0.56
3-HOUR = 0.94; 6-HOUR = 1.30; 24-HOUR = 2.16
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 50150.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 1063.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.447 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.491; LOW LOSS FRACTION = 0.915
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.18; 30-MINUTE = 0.42; 1-HOUR = 0.56
3-HOUR = 0.94; 6-HOUR = 1.30; 24-HOUR = 2.16
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 129.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 240.00; DOWNSTREAM ELEVATION (FT) = 213.00
CHANNEL LENGTH (FT) = 4905.42 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 50300.00 TO NODE 129.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 637.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.444 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.474; LOW LOSS FRACTION = 0.916
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.18; 30-MINUTE = 0.42; 1-HOUR = 0.56
3-HOUR = 0.94; 6-HOUR = 1.30; 24-HOUR = 2.16
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

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FLOW PROCESS FROM NODE 210.00 TO NODE 129.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 214.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.257 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.211; LOW LOSS FRACTION = 0.441
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.18; 30-MINUTE = 0.42; 1-HOUR = 0.56
3-HOUR = 0.94; 6-HOUR = 1.30; 24-HOUR = 2.16
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 213.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 1389.52 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13010.00 TO NODE 132.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 4924.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.986 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.406; LOW LOSS FRACTION = 0.789
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.18; 30-MINUTE = 0.42; 1-HOUR = 0.56
3-HOUR = 0.94; 6-HOUR = 1.30; 24-HOUR = 2.16
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

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5-MINUTE = 0.18; 30-MINUTE = 0.42; 1-HOUR = 0.56
3-HOUR = 0.94; 6-HOUR = 1.30; 24-HOUR = 2.16
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 13305.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 427.51; DOWNSTREAM ELEVATION (FT) = 315.00
CHANNEL LENGTH (FT) = 9760.05 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13305.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 315.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 6877.24 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 133.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<
=====
WATERSHED AREA = 1716.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.699 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.374; LOW LOSS FRACTION = 0.689
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.18; 30-MINUTE = 0.42; 1-HOUR = 0.56
3-HOUR = 0.94; 6-HOUR = 1.30; 24-HOUR = 2.16
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

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*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 134.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 212.00; DOWNSTREAM ELEVATION(FT) = 173.00
CHANNEL LENGTH(FT) = 6461.31 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 134.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 1705.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.390 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.409; LOW LOSS FRACTION = 0.762
SPECIFIED PEAK RAINFALL DEPTHS(INCH):

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5-MINUTE = 0.18; 30-MINUTE = 0.42; 1-HOUR = 0.56
3-HOUR = 0.94; 6-HOUR = 1.30; 24-HOUR = 2.16
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

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*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 13500.00 TO NODE 134.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 3859.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 2.180 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.473; LOW LOSS FRACTION = 0.843
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.18; 30-MINUTE = 0.42; 1-HOUR = 0.56
3-HOUR = 0.94; 6-HOUR = 1.30; 24-HOUR = 2.16
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 137.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO

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ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:

BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 173.00; DOWNSTREAM ELEVATION(FT) = 133.00
CHANNEL LENGTH(FT) = 6064.09 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 134.00 TO NODE 137.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

WATERSHED AREA = 1240.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.439 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.395; LOW LOSS FRACTION = 0.714
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.18; 30-MINUTE = 0.42; 1-HOUR = 0.56
3-HOUR = 0.94; 6-HOUR = 1.30; 24-HOUR = 2.16
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 137.00 TO NODE 137.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<

FLOW PROCESS FROM NODE 137.00 TO NODE 137.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<

FLOW PROCESS FROM NODE 137.00 TO NODE 138.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:

BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 133.00; DOWNSTREAM ELEVATION(FT) = 119.70
CHANNEL LENGTH(FT) = 4643.67 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 137.00 TO NODE 138.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

WATERSHED AREA = 1303.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.607 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.445; LOW LOSS FRACTION = 0.797
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.18; 30-MINUTE = 0.42; 1-HOUR = 0.56
3-HOUR = 0.94; 6-HOUR = 1.30; 24-HOUR = 2.16
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
3-HOUR = 0.734; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 138.00 TO NODE 138.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<

FLOW PROCESS FROM NODE 138.00 TO NODE 138.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<

FLOW PROCESS FROM NODE 138.00 TO NODE 138.00 IS CODE = 11

>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<

* AES FLOODSCx PROGRAM RESULTS SUMMARY *

INPUT FILENAME: [EV05138F.DAT]

Page: 1 of 1

UPSTREAM TIME (2) TO NODE # PEAK (HR)	DOWNSTREAM MAX. STORAGE NODE # MODELED (AF)	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	FOOTNOTES
--	--	------------------------------	------------------------	--------------------------	-----------

10100.00	119.00	Subarea (UH) Added to Stream #1	0.0	2195.8	
19.333					
119.00	12603.00	Convex Routing: Stream #1	2195.8	2177.3	
19.417					
810.00	12603.00	Subarea (UH) Added to Stream #2	0.0	33.2	
16.167					
12603.00	12603.00	Stream #2 Added to: Stream #1	2177.3	2181.3	
19.417					
12603.00	12603.00	Zero Out: Stream #2	33.2	0.0	
12603.00	126.00	Convex Routing: Stream #1	2181.3	2176.4	
19.250					
920.00	126.00	Subarea (UH) Added to Stream #2	0.0	46.7	
16.333					
126.00	126.00	Stream #2 Added to: Stream #1	2176.4	2182.7	
19.250					
126.00	126.00	Zero Out: Stream #2	46.7	0.0	
600.00	126.00	Subarea (UH) Added to Stream #2	0.0	6.6	
16.417					
126.00	126.00	Stream #2 Added to: Stream #1	2182.7	2183.2	
19.250					
126.00	126.00	Zero Out: Stream #2	6.6	0.0	
126.00	12720.50	Convex Routing: Stream #1	2183.2	2176.6	
19.333					
430.00	12720.50	Subarea (UH) Added to Stream #2	0.0	59.3	
16.333					
413.00	12720.50	Subarea (UH) Added to Stream #3	0.0	28.0	
16.250					
12720.50	12720.50	Stream #3 Added to: Stream #2	59.3	83.4	
16.250					
12720.50	12720.50	Zero Out: Stream #3	28.0	0.0	
12720.50	12720.50	Stream #2 Added to: Stream #1	2176.6	2191.0	
19.333					
12720.50	12720.50	Zero Out: Stream #2	83.4	0.0	

12720.50	12741.00	Convex Routing: Stream #1	2191.0	2189.5	
19.500					
320.00	12741.00	Subarea (UH) Added to Stream #2	0.0	126.4	
16.417					
390.00	12741.00	Subarea (UH) Added to Stream #4	0.0	15.0	
16.500					
12741.00	12741.00	Stream #4 Added to: Stream #2	126.4	140.7	
16.417					
12741.00	12741.00	Zero Out: Stream #4	15.0	0.0	
12741.00	12741.00	Stream #2 Added to: Stream #1	2189.5	2216.2	
19.500					
12741.00	12741.00	Zero Out: Stream #2	140.7	0.0	
12741.00	127.00	Convex Routing: Stream #1	2216.2	2216.2	
19.500					
12710.00	127.00	Subarea (UH) Added to Stream #2	0.0	24.5	
16.500					
127.00	127.00	Stream #2 Added to: Stream #1	2216.2	2219.2	
19.500					
127.00	127.00	Zero Out: Stream #2	24.5	0.0	
50150.00	127.00	Subarea (UH) Added to Stream #2	0.0	38.4	
16.500					
127.00	127.00	Stream #2 Added to: Stream #1	2219.2	2227.4	
18.250					
127.00	127.00	Zero Out: Stream #2	38.4	0.0	
127.00	129.00	Convex Routing: Stream #1	2227.4	2222.8	
19.667					
50300.00	129.00	Subarea (UH) Added to Stream #2	0.0	24.7	
16.500					
129.00	129.00	Stream #2 Added to: Stream #1	2222.8	2229.1	
18.333					
129.00	129.00	Zero Out: Stream #2	24.7	0.0	
210.00	129.00	Subarea (UH) Added to Stream #2	0.0	44.1	
16.333					
129.00	129.00	Stream #2 Added to: Stream #1	2229.1	2241.6	
18.333					
129.00	129.00	Zero Out: Stream #2	44.1	0.0	

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

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|
|                                     * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
| INPUT FILENAME: [EV05138F.DAT ]
Page: 2 of |
-----+-----+-----+
|UPSTREAM DOWNSTREAM|                                     |UPSTREAM DOWNSTREAM|
TIME (2) TO | MAX. STORAGE|                                     |
| NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS) PEAK (CFS)|
PEAK (HR)   | MODELED (AF)| FOOTNOTES |
-----+-----+-----+
| 129.00    133.00| Convex Routing:      Stream #1| 2241.6    2237.7|
18.417 | |
| 13010.00   132.00| Subarea (UH) Added to Stream #2| 0.0       283.1|
17.000 | |
| 132.00    13305.00| Convex Routing:      Stream #2| 283.1     277.4|
17.583 | |
| 13305.00   133.00| Convex Routing:      Stream #2| 277.4     276.0|
17.833 | |
| 132.00    133.00| Subarea (UH) Added to Stream #3| 0.0       145.5|
16.750 | |
-----+-----+-----+
| 133.00    133.00| Stream #3 Added to:  Stream #2| 276.0     382.8|
17.667 | |
| 133.00    133.00| Zero Out:           Stream #3| 145.5     0.0|
|
| 133.00    133.00| Stream #2 Added to:  Stream #1| 2237.7     2557.1|
18.417 | |
| 133.00    133.00| Zero Out:           Stream #2| 382.8     0.0|
|
| 133.00    134.00| Convex Routing:      Stream #1| 2557.1     2555.3|
18.583 | |
-----+-----+-----+
| 133.00    134.00| Subarea (UH) Added to Stream #2| 0.0       136.5|
16.417 | |
| 134.00    134.00| Stream #2 Added to:  Stream #1| 2555.3     2594.9|
18.500 | |
| 134.00    134.00| Zero Out:           Stream #2| 136.5     0.0|
|
| 13500.00   134.00| Subarea (UH) Added to Stream #2| 0.0       138.5|
18.083 | |
| 134.00    134.00| Stream #2 Added to:  Stream #1| 2594.9     2728.9|
18.500 | |
-----+-----+-----+
| 134.00    134.00| Zero Out:           Stream #2| 138.5     0.0|
|
| 134.00    137.00| Convex Routing:      Stream #1| 2728.9     2727.8|
18.667 | |
| 134.00    137.00| Subarea (UH) Added to Stream #2| 0.0       109.7|
16.500 | |
| 137.00    137.00| Stream #2 Added to:  Stream #1| 2727.8     2767.9|
18.417 | |

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	137.00	137.00	Zero Out:	Stream #2	109.7	0.0
+-----+-----+-----+-----+-----+						
	137.00	138.00	Convex Routing:	Stream #1	2767.9	2765.5
18.583						
	137.00	138.00	Subarea (UH) Added to	Stream #2	0.0	76.8
16.667						
	138.00	138.00	Stream #2 Added to:	Stream #1	2765.5	2797.7
18.500						
	138.00	138.00	Zero Out:	Stream #2	76.8	0.0
	138.00	138.00	View:	Stream #1		2797.7
18.500		2640.18	3			

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

END OF FLOODSCx ROUTING ANALYSIS

FLOOD ROUTING ANALYSIS
USING COUNTY HYDROLOGY MANUAL OF ORANGE (1986)
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Analysis prepared by:

***** DESCRIPTION OF STUDY *****
* RANCHO MISSION VIEJO - FREE DRAINING UH - CALIBRATED *
* PHASE CONDITION NO PA5 - REGIONAL NODE 139 *
* 5-YR EV JULY 2019 ROKAMOTO *

FILE NAME: EV05139F.DAT
TIME/DATE OF STUDY: 09:47 07/22/2019

** INPUT SUMMARY **

FLOW PROCESS FROM NODE 10100.00 TO NODE 119.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<

WATERSHED AREA = 49495.699 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 3.308 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.496; LOW LOSS FRACTION = 0.845
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.24; 30-MINUTE = 0.45; 1-HOUR = 0.64
3-HOUR = 1.18; 6-HOUR = 1.76; 24-HOUR = 3.11
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 119.00 TO NODE 12603.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 341.63; DOWNSTREAM ELEVATION (FT) = 312.40

CHANNEL LENGTH (FT) = 3157.79 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 810.00 TO NODE 12603.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

WATERSHED AREA = 171.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.134 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.290; LOW LOSS FRACTION = 0.598
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 126.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 312.40; DOWNSTREAM ELEVATION (FT) = 286.00
CHANNEL LENGTH (FT) = 3046.70 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 920.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

=====
WATERSHED AREA = 553.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.253 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.424; LOW LOSS FRACTION = 0.818
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 600.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 185.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.314 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.490; LOW LOSS FRACTION = 0.958
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 12720.50 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 286.00; DOWNSTREAM ELEVATION(FT) = 258.00
CHANNEL LENGTH(FT) = 4077.05 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 430.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 315.200 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.271 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.243; LOW LOSS FRACTION = 0.472
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 413.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<

WATERSHED AREA = 124.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.187 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.230; LOW LOSS FRACTION = 0.459
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7

>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<

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*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12741.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 258.00; DOWNSTREAM ELEVATION (FT) = 247.00
CHANNEL LENGTH (FT) = 2294.66 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 320.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 675.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.350 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.209; LOW LOSS FRACTION = 0.415
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932
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FLOW PROCESS FROM NODE 390.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<
=====
WATERSHED AREA = 195.100 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.433 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.405; LOW LOSS FRACTION = 0.770
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 127.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 247.00; DOWNSTREAM ELEVATION (FT) = 240.00
CHANNEL LENGTH (FT) = 819.00 MANNING'S FACTOR = 0.030
=====
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CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 12710.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 720.900 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.429 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.492; LOW LOSS FRACTION = 0.931
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 50150.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 1063.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.447 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.491; LOW LOSS FRACTION = 0.915
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 129.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 240.00; DOWNSTREAM ELEVATION (FT) = 213.00
CHANNEL LENGTH (FT) = 4905.42 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 50300.00 TO NODE 129.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 637.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.444 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.474; LOW LOSS FRACTION = 0.916
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

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FLOW PROCESS FROM NODE 210.00 TO NODE 129.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 214.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.257 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.211; LOW LOSS FRACTION = 0.441
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 129.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 213.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 1389.52 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13010.00 TO NODE 132.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 4924.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.986 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.406; LOW LOSS FRACTION = 0.789
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

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5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 13305.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 427.51; DOWNSTREAM ELEVATION (FT) = 315.00
CHANNEL LENGTH (FT) = 9760.05 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 13305.00 TO NODE 133.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION (FT) = 315.00; DOWNSTREAM ELEVATION (FT) = 212.00
CHANNEL LENGTH (FT) = 6877.24 MANNING'S FACTOR = 0.040
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 132.00 TO NODE 133.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<
=====
WATERSHED AREA = 1716.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.699 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.374; LOW LOSS FRACTION = 0.689
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

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*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 134.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 212.00; DOWNSTREAM ELEVATION(FT) = 173.00
CHANNEL LENGTH(FT) = 6461.31 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 133.00 TO NODE 134.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 1705.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.390 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.409; LOW LOSS FRACTION = 0.762
SPECIFIED PEAK RAINFALL DEPTHS(INCH):

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5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

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*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 13500.00 TO NODE 134.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====
WATERSHED AREA = 3859.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 2.180 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.473; LOW LOSS FRACTION = 0.843
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 134.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

*****
FLOW PROCESS FROM NODE 134.00 TO NODE 137.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO

```

ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:

BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 173.00; DOWNSTREAM ELEVATION(FT) = 133.00
CHANNEL LENGTH(FT) = 6064.09 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 134.00 TO NODE 137.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

WATERSHED AREA = 1240.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.439 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.395; LOW LOSS FRACTION = 0.714
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 137.00 TO NODE 137.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<

FLOW PROCESS FROM NODE 137.00 TO NODE 137.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<

FLOW PROCESS FROM NODE 137.00 TO NODE 138.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:

BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 133.00; DOWNSTREAM ELEVATION(FT) = 119.70
CHANNEL LENGTH(FT) = 4643.67 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 137.00 TO NODE 138.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

WATERSHED AREA = 1303.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.607 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.445; LOW LOSS FRACTION = 0.797
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

FLOW PROCESS FROM NODE 138.00 TO NODE 138.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<

FLOW PROCESS FROM NODE 138.00 TO NODE 138.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<

FLOW PROCESS FROM NODE 138.00 TO NODE 139.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:

BASEWIDTH(FT) = 0.01 CHANNEL Z = 3.00
UPSTREAM ELEVATION(FT) = 119.70; DOWNSTREAM ELEVATION(FT) = 100.00
CHANNEL LENGTH(FT) = 3107.78 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 138.00 TO NODE 139.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<

WATERSHED AREA = 428.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE

*USER ENTERED "LAG" TIME = 0.255 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.345; LOW LOSS FRACTION = 0.606
 SPECIFIED PEAK RAINFALL DEPTHS (INCH):
 5-MINUTE = 0.19; 30-MINUTE = 0.42; 1-HOUR = 0.57
 3-HOUR = 0.95; 6-HOUR = 1.31; 24-HOUR = 2.18
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
 3-HOUR = 0.733; 6-HOUR = 0.885; 24-HOUR = 0.932

 FLOW PROCESS FROM NODE 139.00 TO NODE 139.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

 FLOW PROCESS FROM NODE 139.00 TO NODE 139.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

 FLOW PROCESS FROM NODE 139.00 TO NODE 139.00 IS CODE = 11

>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<

+-----+
 | | * AES FLOODSCx PROGRAM RESULTS SUMMARY *
 | |
 | INPUT FILENAME: [EV05139F.DAT]
 Page: 1 of |

+-----+
 |UPSTREAM DOWNSTREAM| | UPSTREAM DOWNSTREAM|
 TIME (2) TO | MAX. STORAGE| |
 | NODE # NODE # | HYDROLOGIC/HYDRAULIC PROCESS | PEAK (CFS) PEAK (CFS) |
 PEAK (HR) | MODELED (AF) | FOOTNOTES |

UPSTREAM	DOWNSTREAM	HYDROLOGIC/HYDRAULIC PROCESS	PEAK (CFS)	PEAK (CFS)
10100.00	119.00	Subarea (UH) Added to Stream #1	0.0	2218.2
19.333				
119.00	12603.00	Convex Routing: Stream #1	2218.2	2199.4
19.417				
810.00	12603.00	Subarea (UH) Added to Stream #2	0.0	35.0
16.167				
12603.00	12603.00	Stream #2 Added to: Stream #1	2199.4	2203.5
19.417				
12603.00	12603.00	Zero Out: Stream #2	35.0	0.0
12603.00	126.00	Convex Routing: Stream #1	2203.5	2198.2
19.250				
920.00	126.00	Subarea (UH) Added to Stream #2	0.0	51.3
16.333				
126.00	126.00	Stream #2 Added to: Stream #1	2198.2	2204.6
19.250				
126.00	126.00	Zero Out: Stream #2	51.3	0.0
600.00	126.00	Subarea (UH) Added to Stream #2	0.0	7.9
16.417				
126.00	126.00	Stream #2 Added to: Stream #1	2204.6	2205.1
19.250				
126.00	126.00	Zero Out: Stream #2	7.9	0.0
126.00	12720.50	Convex Routing: Stream #1	2205.1	2198.6
19.333				
430.00	12720.50	Subarea (UH) Added to Stream #2	0.0	61.3
16.333				
413.00	12720.50	Subarea (UH) Added to Stream #3	0.0	29.2
16.250				
12720.50	12720.50	Stream #3 Added to: Stream #2	61.3	85.8
16.250				
12720.50	12720.50	Zero Out: Stream #3	29.2	0.0
12720.50	12720.50	Stream #2 Added to: Stream #1	2198.6	2213.0
19.333				
12720.50	12720.50	Zero Out: Stream #2	85.8	0.0

12720.50	12741.00	Convex Routing:	Stream #1	2213.0	2211.5
19.500					
+-----+-----+					
320.00	12741.00	Subarea (UH) Added to	Stream #2	0.0	130.0
16.417					
390.00	12741.00	Subarea (UH) Added to	Stream #4	0.0	16.0
16.500					
12741.00	12741.00	Stream #4 Added to:	Stream #2	130.0	145.1
16.417					
12741.00	12741.00	Zero Out:	Stream #4	16.0	0.0
12741.00	12741.00	Stream #2 Added to:	Stream #1	2211.5	2238.6
19.500					
+-----+-----+					
12741.00	12741.00	Zero Out:	Stream #2	145.1	0.0
12741.00	127.00	Convex Routing:	Stream #1	2238.6	2238.5
19.500					
12710.00	127.00	Subarea (UH) Added to	Stream #2	0.0	28.3
16.500					
127.00	127.00	Stream #2 Added to:	Stream #1	2238.5	2241.6
19.500					
127.00	127.00	Zero Out:	Stream #2	28.3	0.0
+-----+-----+					
50150.00	127.00	Subarea (UH) Added to	Stream #2	0.0	43.7
16.500					
127.00	127.00	Stream #2 Added to:	Stream #1	2241.6	2248.6
18.250					
127.00	127.00	Zero Out:	Stream #2	43.7	0.0
127.00	129.00	Convex Routing:	Stream #1	2248.6	2245.2
19.667					
50300.00	129.00	Subarea (UH) Added to	Stream #2	0.0	28.0
16.500					
+-----+-----+					
129.00	129.00	Stream #2 Added to:	Stream #1	2245.2	2250.4
18.333					
129.00	129.00	Zero Out:	Stream #2	28.0	0.0
210.00	129.00	Subarea (UH) Added to	Stream #2	0.0	45.6
16.333					
129.00	129.00	Stream #2 Added to:	Stream #1	2250.4	2263.0
18.333					
129.00	129.00	Zero Out:	Stream #2	45.6	0.0
+-----+-----+					
Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL					
3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM					
+-----+-----+					

* AES FLOODSCx PROGRAM RESULTS SUMMARY *

INPUT FILENAME: [EV05139F.DAT]

Page: 2 of

UPSTREAM TIME (2) TO	DOWNSTREAM MAX. STORAGE	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)
129.00	133.00	2263.0	2259.1
13010.00	132.00	0.0	295.8
132.00	13305.00	295.8	288.9
13305.00	133.00	288.9	287.5
132.00	133.00	0.0	151.3

129.00	133.00	Convex Routing:	Stream #1	2263.0	2259.1
13010.00	132.00	Subarea (UH) Added to Stream #2		0.0	295.8
132.00	13305.00	Convex Routing:	Stream #2	295.8	288.9
13305.00	133.00	Convex Routing:	Stream #2	288.9	287.5
132.00	133.00	Subarea (UH) Added to Stream #3		0.0	151.3

133.00	133.00	Stream #3 Added to:	Stream #2	287.5	395.1
133.00	133.00	Zero Out:	Stream #3	151.3	0.0
133.00	133.00	Stream #2 Added to:	Stream #1	2259.1	2584.6
133.00	133.00	Zero Out:	Stream #2	395.1	0.0
133.00	134.00	Convex Routing:	Stream #1	2584.6	2582.9

133.00	134.00	Subarea (UH) Added to Stream #2		0.0	144.9
134.00	134.00	Stream #2 Added to:	Stream #1	2582.9	2623.6
134.00	134.00	Zero Out:	Stream #2	144.9	0.0
13500.00	134.00	Subarea (UH) Added to Stream #2		0.0	143.5
134.00	134.00	Stream #2 Added to:	Stream #1	2623.6	2763.7

134.00	134.00	Zero Out:	Stream #2	143.5	0.0
134.00	137.00	Convex Routing:	Stream #1	2763.7	2761.2
134.00	137.00	Subarea (UH) Added to Stream #2		0.0	115.7
137.00	137.00	Stream #2 Added to:	Stream #1	2761.2	2804.2

137.00	137.00	Zero Out:	Stream #2	115.7	0.0
137.00	138.00	Convex Routing:	Stream #1	2804.2	2801.8
137.00	138.00	Subarea (UH) Added to Stream #2		0.0	81.7
138.00	138.00	Stream #2 Added to:	Stream #1	2801.8	2835.1
138.00	138.00	Zero Out:	Stream #2	81.7	0.0
138.00	139.00	Convex Routing:	Stream #1	2835.1	2834.2
138.00	139.00	Subarea (UH) Added to Stream #2		0.0	63.8
139.00	139.00	Stream #2 Added to:	Stream #1	2834.2	2847.1
139.00	139.00	Zero Out:	Stream #2	63.8	0.0
139.00	139.00	View:	Stream #1		2847.1

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

END OF FLOODSCx ROUTING ANALYSIS

FLOOD ROUTING ANALYSIS
USING COUNTY HYDROLOGY MANUAL OF ORANGE (1986)
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Analysis prepared by:

Michael Baker International
5 Hutton Centre Drive Suite 500
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***** DESCRIPTION OF STUDY *****
* RANCHO MISSION VIEJO - FREE DRAINING UH - CALIBRATED *
* PHASE CONDITION NO PA5 - REGIONAL NODE 133U *
* 10-YR EV JUNE 2019 ROKAMOTO *

FILE NAME: EV1033UF.DAT
TIME/DATE OF STUDY: 08:13 06/17/2019

** INPUT SUMMARY **

FLOW PROCESS FROM NODE 10100.00 TO NODE 119.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<

WATERSHED AREA = 49495.699 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 2.320 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.298; LOW LOSS FRACTION = 0.746
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.33; 30-MINUTE = 0.63; 1-HOUR = 0.89
3-HOUR = 1.66; 6-HOUR = 2.47; 24-HOUR = 4.35
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 119.00 TO NODE 12603.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 200.00 CHANNEL Z = 5.00
UPSTREAM ELEVATION (FT) = 341.63; DOWNSTREAM ELEVATION (FT) = 312.40

CHANNEL LENGTH (FT) = 3157.79 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 810.00 TO NODE 12603.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 171.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.128 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.174; LOW LOSS FRACTION = 0.548
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.79
3-HOUR = 1.32; 6-HOUR = 1.82; 24-HOUR = 3.05
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 126.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 200.00 CHANNEL Z = 5.00
UPSTREAM ELEVATION (FT) = 312.40; DOWNSTREAM ELEVATION (FT) = 286.00
CHANNEL LENGTH (FT) = 3046.70 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 920.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

=====
WATERSHED AREA = 553.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.231 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.254; LOW LOSS FRACTION = 0.750
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.79
3-HOUR = 1.32; 6-HOUR = 1.82; 24-HOUR = 3.05
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

FLOW PROCESS FROM NODE 600.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====

WATERSHED AREA = 185.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.318 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.294; LOW LOSS FRACTION = 0.920
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.79
3-HOUR = 1.32; 6-HOUR = 1.82; 24-HOUR = 3.05
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====

FLOW PROCESS FROM NODE 126.00 TO NODE 12720.50 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=====

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 200.00 CHANNEL Z = 5.00
UPSTREAM ELEVATION(FT) = 286.00; DOWNSTREAM ELEVATION(FT) = 258.00
CHANNEL LENGTH(FT) = 4077.05 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00
=====

FLOW PROCESS FROM NODE 430.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====

WATERSHED AREA = 315.200 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.252 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.146; LOW LOSS FRACTION = 0.406
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.79
3-HOUR = 1.32; 6-HOUR = 1.82; 24-HOUR = 3.05
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 413.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=====

WATERSHED AREA = 124.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.175 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.138; LOW LOSS FRACTION = 0.400
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.79
3-HOUR = 1.32; 6-HOUR = 1.82; 24-HOUR = 3.05
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7

>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=====

```

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12741.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 200.00 CHANNEL Z = 5.00
UPSTREAM ELEVATION (FT) = 258.00; DOWNSTREAM ELEVATION (FT) = 247.00
CHANNEL LENGTH (FT) = 2294.66 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 320.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 675.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.326 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.126; LOW LOSS FRACTION = 0.354
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.79
3-HOUR = 1.32; 6-HOUR = 1.82; 24-HOUR = 3.05
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940
=====
*****

```

```

FLOW PROCESS FROM NODE 390.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<
=====
WATERSHED AREA = 195.100 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.381 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.243; LOW LOSS FRACTION = 0.702
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.79
3-HOUR = 1.32; 6-HOUR = 1.82; 24-HOUR = 3.05
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 127.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 200.00 CHANNEL Z = 5.00
UPSTREAM ELEVATION (FT) = 247.00; DOWNSTREAM ELEVATION (FT) = 240.00
CHANNEL LENGTH (FT) = 819.00 MANNING'S FACTOR = 0.030
=====
*****

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CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 12710.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 720.900 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.446 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.295; LOW LOSS FRACTION = 0.875
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.79
3-HOUR = 1.32; 6-HOUR = 1.82; 24-HOUR = 3.05
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 50150.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 1063.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.389 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.295; LOW LOSS FRACTION = 0.841
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.79
3-HOUR = 1.32; 6-HOUR = 1.82; 24-HOUR = 3.05
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 129.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 200.00 CHANNEL Z = 5.00
UPSTREAM ELEVATION (FT) = 240.00; DOWNSTREAM ELEVATION (FT) = 213.00
CHANNEL LENGTH (FT) = 4905.42 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 50300.00 TO NODE 129.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 637.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.408 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.284; LOW LOSS FRACTION = 0.863
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.79
3-HOUR = 1.32; 6-HOUR = 1.82; 24-HOUR = 3.05
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

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FLOW PROCESS FROM NODE 210.00 TO NODE 129.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 214.700 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.243 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.126; LOW LOSS FRACTION = 0.386
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.79
3-HOUR = 1.32; 6-HOUR = 1.82; 24-HOUR = 3.05
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
3-HOUR = 0.771; 6-HOUR = 0.897; 24-HOUR = 0.940

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*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 7
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>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
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*****
FLOW PROCESS FROM NODE 129.00 TO NODE 129.00 IS CODE = 6
-----

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>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

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*****
FLOW PROCESS FROM NODE 129.00 TO NODE 133.00 IS CODE = 5.2
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>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
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THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

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ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 200.00 CHANNEL Z = 5.00
UPSTREAM ELEVATION(FT) = 213.00; DOWNSTREAM ELEVATION(FT) = 212.00
CHANNEL LENGTH(FT) = 1389.52 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
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*****
FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 11
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>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<
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+-----+
|
| * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
| INPUT FILENAME: [EV1033UF.DAT ]
Page: 1 of 1
+-----+
|UPSTREAM DOWNSTREAM| UPSTREAM DOWNSTREAM|
TIME (2) TO | MAX. STORAGE|
| NODE # NODE # | HYDROLOGIC/HYDRAULIC PROCESS | PEAK (CFS) PEAK (CFS) |
| PEAK (HR) | MODELED (AF) | FOOTNOTES |
+-----+
| 10100.00 119.00| Subarea (UH) Added to Stream #1| 0.0 7047.6|
18.333 |
| 119.00 12603.00| Convex Routing: Stream #1| 7047.6 7028.1|
18.417 |
| 810.00 12603.00| Subarea (UH) Added to Stream #2| 0.0 83.7|
16.167 |
| 12603.00 12603.00| Stream #2 Added to: Stream #1| 7028.1 7036.2|
18.417 |
| 12603.00 12603.00| Zero Out: Stream #2| 83.7 0.0|
|
+-----+
| 12603.00 126.00| Convex Routing: Stream #1| 7036.2 7017.4|
18.500 |
| 920.00 126.00| Subarea (UH) Added to Stream #2| 0.0 165.7|
16.333 |
| 126.00 126.00| Stream #2 Added to: Stream #1| 7017.4 7032.7|
18.500 |
| 126.00 126.00| Zero Out: Stream #2| 165.7 0.0|
|
| 600.00 126.00| Subarea (UH) Added to Stream #2| 0.0 38.0|
16.417 |
+-----+
| 126.00 126.00| Stream #2 Added to: Stream #1| 7032.7 7034.5|
18.500 |
| 126.00 126.00| Zero Out: Stream #2| 38.0 0.0|
|
| 126.00 12720.50| Convex Routing: Stream #1| 7034.5 7003.8|
18.583 |
| 430.00 12720.50| Subarea (UH) Added to Stream #2| 0.0 125.4|
16.333 |
| 413.00 12720.50| Subarea (UH) Added to Stream #3| 0.0 60.1|
16.250 |
+-----+
| 12720.50 12720.50| Stream #3 Added to: Stream #2| 125.4 177.9|
16.250 |
| 12720.50 12720.50| Zero Out: Stream #3| 60.1 0.0|
|
| 12720.50 12720.50| Stream #2 Added to: Stream #1| 7003.8 7031.4|
18.583 |
| 12720.50 12720.50| Zero Out: Stream #2| 177.9 0.0|
|

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12720.50	12741.00	Convex Routing:	Stream #1	7031.4	7014.5
18.667					
+-----+-----+					
320.00	12741.00	Subarea (UH) Added to	Stream #2	0.0	246.9
16.417					
390.00	12741.00	Subarea (UH) Added to	Stream #4	0.0	46.2
16.417					
12741.00	12741.00	Stream #4 Added to:	Stream #2	246.9	293.2
16.417					
12741.00	12741.00	Zero Out:	Stream #4	46.2	0.0
12741.00	12741.00	Stream #2 Added to:	Stream #1	7014.5	7068.8
18.667					
+-----+-----+					
12741.00	12741.00	Zero Out:	Stream #2	293.2	0.0
12741.00	127.00	Convex Routing:	Stream #1	7068.8	7060.9
18.667					
12710.00	127.00	Subarea (UH) Added to	Stream #2	0.0	123.0
16.500					
127.00	127.00	Stream #2 Added to:	Stream #1	7060.9	7072.2
18.667					
127.00	127.00	Zero Out:	Stream #2	123.0	0.0
+-----+-----+					
50150.00	127.00	Subarea (UH) Added to	Stream #2	0.0	199.5
16.417					
127.00	127.00	Stream #2 Added to:	Stream #1	7072.2	7091.8
18.667					
127.00	127.00	Zero Out:	Stream #2	199.5	0.0
127.00	129.00	Convex Routing:	Stream #1	7091.8	7071.1
18.833					
50300.00	129.00	Subarea (UH) Added to	Stream #2	0.0	118.1
16.500					
+-----+-----+					
129.00	129.00	Stream #2 Added to:	Stream #1	7071.1	7080.5
18.833					
129.00	129.00	Zero Out:	Stream #2	118.1	0.0
210.00	129.00	Subarea (UH) Added to	Stream #2	0.0	89.0
16.333					
129.00	129.00	Stream #2 Added to:	Stream #1	7080.5	7093.4
18.833					
129.00	129.00	Zero Out:	Stream #2	89.0	0.0
+-----+-----+					
Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL					
3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM					
+-----+-----+					

* AES FLOODSCx PROGRAM RESULTS SUMMARY *

| INPUT FILENAME: [EV1033UF.DAT]

Page: 2 of |

UPSTREAM	DOWNSTREAM		UPSTREAM	DOWNSTREAM
TIME (2) TO	MAX. STORAGE			
NODE #	NODE #	HYDROLOGIC/HYDRAULIC PROCESS	PEAK (CFS)	PEAK (CFS)
PEAK (HR)	MODELED (AF)	FOOTNOTES		

129.00	133.00	Convex Routing:	Stream #1	7093.4	7081.1
18.917					
133.00	133.00	View:	Stream #1		7081.1
18.917	5240.11	3			

| Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL

| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

END OF FLOODSCx ROUTING ANALYSIS

FLOOD ROUTING ANALYSIS
USING COUNTY HYDROLOGY MANUAL OF ORANGE (1986)
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Analysis prepared by:

Michael Baker International
5 Hutton Centre Drive Suite 500
Santa Ana, CA 92707

***** DESCRIPTION OF STUDY *****
* RANCHO MISSION VIEJO - FREE DRAINING UH - CALIBRATED *
* PHASE CONDITION NO PA5 - REGIONAL NODE 127 *
* 10-YR EV JUNE 2019 ROKAMOTO *

FILE NAME: EV10127F.DAT
TIME/DATE OF STUDY: 08:16 06/17/2019

** INPUT SUMMARY **

FLOW PROCESS FROM NODE 10100.00 TO NODE 119.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<

WATERSHED AREA = 49495.699 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 2.320 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.298; LOW LOSS FRACTION = 0.746
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.33; 30-MINUTE = 0.63; 1-HOUR = 0.88
3-HOUR = 1.66; 6-HOUR = 2.46; 24-HOUR = 4.34
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 119.00 TO NODE 12603.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 200.00 CHANNEL Z = 5.00
UPSTREAM ELEVATION (FT) = 341.63; DOWNSTREAM ELEVATION (FT) = 312.40

CHANNEL LENGTH (FT) = 3157.79 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 810.00 TO NODE 12603.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 171.000 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.128 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.174; LOW LOSS FRACTION = 0.548
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.78
3-HOUR = 1.32; 6-HOUR = 1.82; 24-HOUR = 3.05
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 12603.00 TO NODE 126.00 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August, 1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 200.00 CHANNEL Z = 5.00
UPSTREAM ELEVATION (FT) = 312.40; DOWNSTREAM ELEVATION (FT) = 286.00
CHANNEL LENGTH (FT) = 3046.70 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 920.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

=====
WATERSHED AREA = 553.800 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.231 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.254; LOW LOSS FRACTION = 0.750
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.78
3-HOUR = 1.32; 6-HOUR = 1.82; 24-HOUR = 3.05
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 600.00 TO NODE 126.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 185.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.318 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.294; LOW LOSS FRACTION = 0.920
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.78
3-HOUR = 1.32; 6-HOUR = 1.82; 24-HOUR = 3.05
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 126.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 126.00 TO NODE 12720.50 IS CODE = 5.2

>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<

THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 200.00 CHANNEL Z = 5.00
UPSTREAM ELEVATION(FT) = 286.00; DOWNSTREAM ELEVATION(FT) = 258.00
CHANNEL LENGTH(FT) = 4077.05 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) = 0.00

FLOW PROCESS FROM NODE 430.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 315.200 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.252 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.146; LOW LOSS FRACTION = 0.406
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.78
3-HOUR = 1.32; 6-HOUR = 1.82; 24-HOUR = 3.05
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 413.00 TO NODE 12720.50 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<

WATERSHED AREA = 124.300 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.175 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.138; LOW LOSS FRACTION = 0.400
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.78
3-HOUR = 1.32; 6-HOUR = 1.82; 24-HOUR = 3.05
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7

>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<

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*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12720.50 TO NODE 12741.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 200.00 CHANNEL Z = 5.00
UPSTREAM ELEVATION (FT) = 258.00; DOWNSTREAM ELEVATION (FT) = 247.00
CHANNEL LENGTH (FT) = 2294.66 MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE (CFS) = 0.00
=====

*****
FLOW PROCESS FROM NODE 320.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<
=====
WATERSHED AREA = 675.500 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.326 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.126; LOW LOSS FRACTION = 0.354
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.79
3-HOUR = 1.32; 6-HOUR = 1.82; 24-HOUR = 3.05
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941
=====
*****

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FLOW PROCESS FROM NODE 390.00 TO NODE 12741.00 IS CODE = 1
-----
>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<
=====
WATERSHED AREA = 195.100 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.381 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.243; LOW LOSS FRACTION = 0.702
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.78
3-HOUR = 1.32; 6-HOUR = 1.82; 24-HOUR = 3.05
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 7
-----
>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 12741.00 IS CODE = 6
-----
>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<
=====

*****
FLOW PROCESS FROM NODE 12741.00 TO NODE 127.00 IS CODE = 5.2
-----
>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<
=====
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH (FT) = 200.00 CHANNEL Z = 5.00
UPSTREAM ELEVATION (FT) = 247.00; DOWNSTREAM ELEVATION (FT) = 240.00
CHANNEL LENGTH (FT) = 819.00 MANNING'S FACTOR = 0.030
=====
*****

```

CONSTANT LOSS RATE (CFS) = 0.00

FLOW PROCESS FROM NODE 12710.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 720.900 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.446 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.295; LOW LOSS FRACTION = 0.875
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.78
3-HOUR = 1.32; 6-HOUR = 1.82; 24-HOUR = 3.05
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 50150.00 TO NODE 127.00 IS CODE = 1

>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<

WATERSHED AREA = 1063.400 ACRES; BASEFLOW = 0.000 CFS/SQUARE-MILE
*USER ENTERED "LAG" TIME = 0.389 HOURS
VALLEY (DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE (INCH/HOUR) = 0.295; LOW LOSS FRACTION = 0.841
SPECIFIED PEAK RAINFALL DEPTHS (INCH):
5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.78
3-HOUR = 1.32; 6-HOUR = 1.82; 24-HOUR = 3.05
*USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
5-MINUTE = 0.331; 30-MINUTE = 0.383; 1-HOUR = 0.424
3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 7

>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 6

>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<

FLOW PROCESS FROM NODE 127.00 TO NODE 127.00 IS CODE = 11

>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<

* AES FLOODSCx PROGRAM RESULTS SUMMARY *

INPUT FILENAME: [EV10127F.DAT]

Page: 1 of 1

UPSTREAM TIME (2) TO NODE # PEAK (HR)	DOWNSTREAM MAX. STORAGE NODE # MODELED (AF)	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	FOOTNOTES
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10100.00	119.00	Subarea (UH) Added to Stream #1	0.0	7065.5	
18.333					
119.00	12603.00	Convex Routing: Stream #1	7065.5	7045.6	
18.417					
810.00	12603.00	Subarea (UH) Added to Stream #2	0.0	84.5	
16.167					
12603.00	12603.00	Stream #2 Added to: Stream #1	7045.6	7053.8	
18.417					
12603.00	12603.00	Zero Out: Stream #2	84.5	0.0	
12603.00	126.00	Convex Routing: Stream #1	7053.8	7034.6	
18.500					
920.00	126.00	Subarea (UH) Added to Stream #2	0.0	167.2	
16.333					
126.00	126.00	Stream #2 Added to: Stream #1	7034.6	7049.9	
18.500					
126.00	126.00	Zero Out: Stream #2	167.2	0.0	
600.00	126.00	Subarea (UH) Added to Stream #2	0.0	38.4	
16.417					
126.00	126.00	Stream #2 Added to: Stream #1	7049.9	7051.7	
18.500					
126.00	126.00	Zero Out: Stream #2	38.4	0.0	
126.00	12720.50	Convex Routing: Stream #1	7051.7	7021.0	
18.583					
430.00	12720.50	Subarea (UH) Added to Stream #2	0.0	126.2	
16.333					
413.00	12720.50	Subarea (UH) Added to Stream #3	0.0	60.5	
16.250					
12720.50	12720.50	Stream #3 Added to: Stream #2	126.2	179.3	
16.250					
12720.50	12720.50	Zero Out: Stream #3	60.5	0.0	
12720.50	12720.50	Stream #2 Added to: Stream #1	7021.0	7048.6	
18.583					
12720.50	12720.50	Zero Out: Stream #2	179.3	0.0	

12720.50	12741.00	Convex Routing: Stream #1	7048.6	7031.3	
18.667					
320.00	12741.00	Subarea (UH) Added to Stream #2	0.0	248.7	
16.417					
390.00	12741.00	Subarea (UH) Added to Stream #4	0.0	46.6	
16.417					
12741.00	12741.00	Stream #4 Added to: Stream #2	248.7	295.3	
16.417					
12741.00	12741.00	Zero Out: Stream #4	46.6	0.0	
12741.00	12741.00	Stream #2 Added to: Stream #1	7031.3	7085.6	
18.667					
12741.00	12741.00	Zero Out: Stream #2	295.3	0.0	
12741.00	127.00	Convex Routing: Stream #1	7085.6	7077.6	
18.667					
12710.00	127.00	Subarea (UH) Added to Stream #2	0.0	124.3	
16.500					
127.00	127.00	Stream #2 Added to: Stream #1	7077.6	7088.9	
18.667					
127.00	127.00	Zero Out: Stream #2	124.3	0.0	
50150.00	127.00	Subarea (UH) Added to Stream #2	0.0	201.5	
16.417					
127.00	127.00	Stream #2 Added to: Stream #1	7088.9	7108.5	
18.667					
127.00	127.00	Zero Out: Stream #2	201.5	0.0	
127.00	127.00	View: Stream #1		7108.5	
18.667	5180.35	3			

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

END OF FLOODSCx ROUTING ANALYSIS