PRELIMINARY DRAINAGE REPORT

FOR

LEGADO Development
City of Menifee

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ATTACHMENTS

- **A**: Inflow Hydrographs - Drainage Areas A thru D and combine ABCD:
  - Existing Condition: 100-yr 1-hour, 3-hour, 6-hour and 24-hour storm
- **B**: Hydrographs & Basin Routing - Drainage Area Tr. 29835-1 (off-site east):
  - Proposed Condition: 100yr 1-hour, 3-hour, 6-hour and 24-hour storm
- **C**: Inflow Hydrographs - Drainage Areas A, B1 and B2CD:
  - Proposed Condition: 100-yr 1-hour, 3-hour, 6-hour and 24-hour storm
- **D**: Detention Basin Routing - Drainage Areas A, B1 and B2CD:
  - Proposed Condition: 100-yr 1-hour, 3-hour, 6-hour and 24-hour storm

INTRODUCTION

PURPOSE

This drainage study has been prepared in the support the drainage system of the proposed development of Legado Specific Plan in the City of Menifee. This report identifies existing drainage patterns and offsite flow tributary to this subject site and provides evaluation and runoff from the site under full development as Detached Residential Development and Commercial Site. The primary purpose of the calculations are to estimate offsite and onsite storm water peak discharge runoff to design storm drain system within the project and to provide hydraulic calculations for the proposed Legado Development Storm Drain pipe system.

SETTING – EXISTING CONDITION

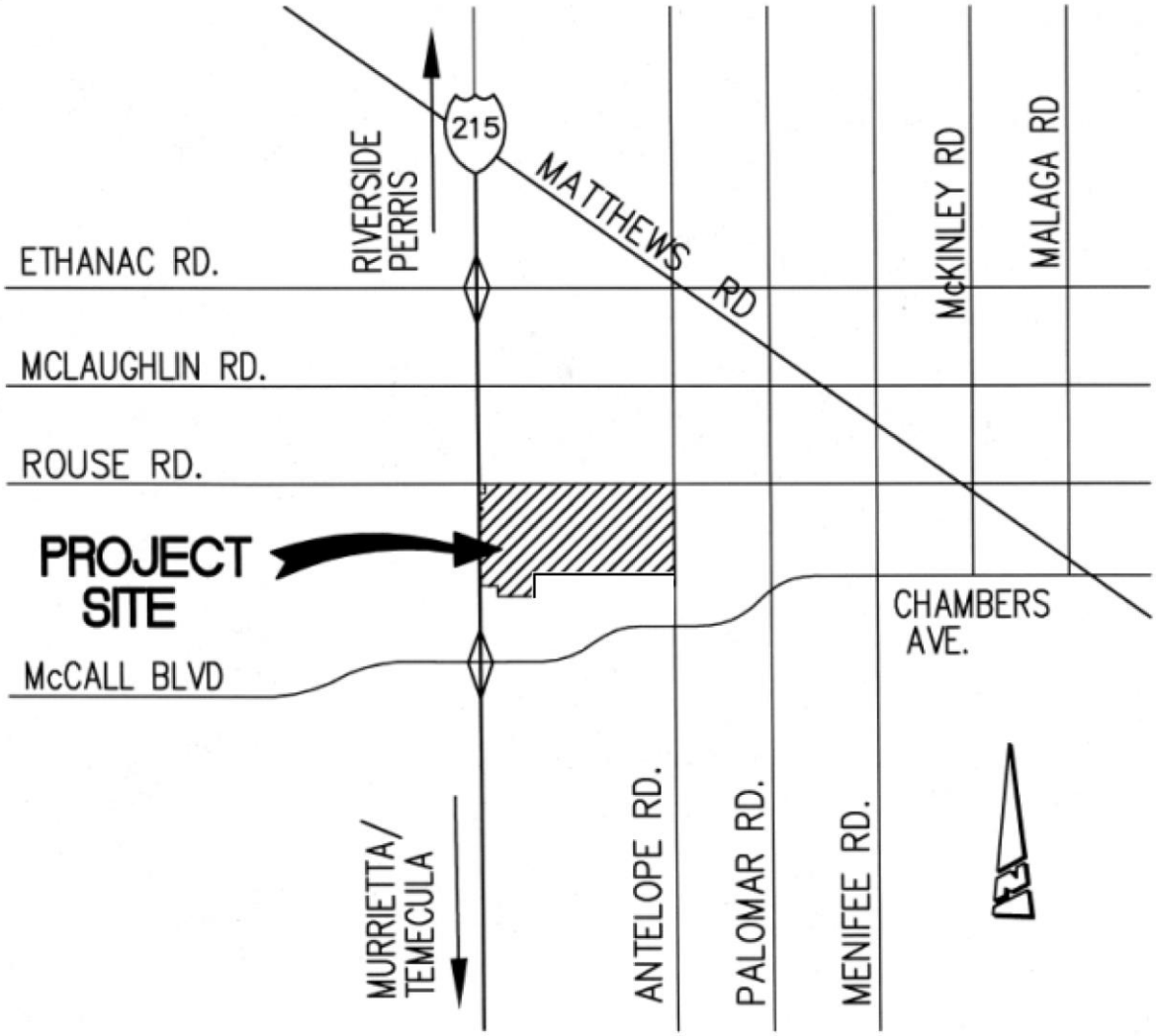
The project study area is south of Rouse Road, east Encanto Drive and the 215 Freeway and north of Chambers Avenue in the City of Menifee, County of Riverside.
The project is located in the Section 22 in Township 5 South, Range 3 West, in Riverside County, in APNs 333-020-009, 333-020-010, 333-030-013, 333-030-021 & 333-030-022.
The area lies within a watershed that is part of Riverside County's Santa Ana Region. The site is a seasonally disked grassland that generally drains from east to west in a sheet-flow manner averaging a 1.6% grade over one mile in length. From north to south approximately 13 feet of elevation difference exists over approximately 3,200 feet resulting in 0.4% slope. Flows originating from within the site area (and adjacent tributary area) ultimately drain to the existing Caltrans 10-foot x 5-foot reinforced concrete box (RCB) culvert at the western edge of the SP boundary which conveys the existing flows under Encanto Road and the I-215 Freeway to an existing Riverside County Flood Control and Water Conservation District (RCFC&WCD) maintained concrete trapezoidal channel (Channel G-G) on the opposite side. This trapezoidal channel continues in a southwestern direction, while also accepting additional flows from other drainage areas and ultimately outlets in the regional Salt Creek Channel which then flows to Canyon Lake.

See Figure 1a - Vicinity Map.

The project site currently consists of vacant, undeveloped land that has been subject to various degrees of human disturbance. There are two drainage facilities in the project area. One is the drainage outlet of an existing 6'x4' RCB at northeast corner of Chambers Avenue and Sherman Road into an on-site open channel that terminates approximately 400 feet to the north. The second drainage facility is an inlet of the existing Caltrans culvert 10'x5' RCB at west side of the site at Encanto Drive approximately 700 feet south of Rouse Road.
The property is bounded north by Rouse Road, to the east by Antelope Road (unpaved), to the south by Chambers Avenue and an existing development and to the west by Encanto Drive. A mortuary and convalescent hospital are located adjacent to the northwest and southwest corner of the site, respectively.

With the City of Menifee, Riverside Counties' MS4 permit, certain post development water quality features need to be designed into the project for water quality treatment of daily nuisance flows and first flush storm flows after the project is constructed and homes are occupied.

The Federal Emergency Management Agency (FEMA) website provides flood data for the project site. According to the Flood Insurance Rate Map No. FM06065C2060H, the project is located within Zone X or areas outside of the 100-year floodplain.



VICINITY MAP

N.T.S.

SECTION 22, TOWNSHIP 5 SOUTH, RANGE 3 WEST, S.B.M.
2006 THOMAS GUIDE PAGE 838/D4

Figure 1a: Vicinity Map

Hydrology - Existing Condition:

Onsite topographic project site relief is on the order of 225 feet. The lowest elevation of approximately 1425 feet above mean sea level (msl) is located along the western boundary of the property. The highest elevation of approximately 1650 feet msl is located on the northeast corner of the site.
The site is currently undeveloped, almost none or light ground cover over characterized by a relatively flat terrain in the west to the central portions of the site. Moderately steep irregular hilly terrain is located in the east portions of the site.

See Figure 1b – Aerial Picture Project Site:

Figure 1b: Aerial Picture Project Site

In the existing condition there are four (4) watersheds drainage areas in this project, drainage Areas A, B, C and D: all originating from the north ridge of hill side to the southwesterly toward Encanto Drive at the existing 5'(H)x10'(W) RCB Caltrans culvert.

See Figure 2 – Hydrology Map Existing Condition.

Drainage Area A is approximately 212.4 acres, tributary to the area southeasterly side of the project site. This area is a project off-site drainage area drains to an existing 6'x4' RCB at the middle of southerly property line (at northeast corner of Chamber Avenue and Sherman Road).

Drainage Area B is approximately 381.6 acres and tributary direct to the existing 10' wide by 5' high Caltrans RCB culvert that drains from east of the 215 Freeway and joins an existing Flood Control concrete channel to the west (Channel G-G). This area is includes the total project site and an off-site area to the east of Antelope Road.

Drainage Area C is approximately 103.2 acres and tributary to the existing Sun City – Rouse Road Storm Drain (RCFC & WCD Project 4-0-0151, Dwg. No. 4-771). This drainage area is considered off-site area to the north being conveyed directly to the existing Caltrans 10'x5' RCB culvert.

Drainage Area D is approximately 118.9 acres at the southwesterly side of the project including Encanto Drive. This drainage area is considered off-site area to the south being conveyed directly to the existing Caltrans 10'x5' RCB culvert via inlets on the west side of Encanto Drive.

Although Drainage Areas C and D are not tributary to the project they were considered as part of this hydrology study because they are tributary to the existing Caltrans 10'x5' RCB. In addition, area wide flooding in this location warrants a review of the entire system tributary to the Caltrans RCB to determine its current effectiveness and ways to maximize its beneficial use to the surrounding community by minimizing flooding impacts. The hydraulic operation of these offsite drainage facilities will be studied further at the time of final engineering design. A separate report shall discuss any impacts and mitigation measures if needed. However, it is anticipated that the impacts to existing facilities will be minimal as the downstream control for these facilities will be lowered when the proposed basins are installed.

The total drainage area on-site and off-site to the project site and tributary to existing Caltrans 10'x5' RCB culvert is approximately 816.1 acres.

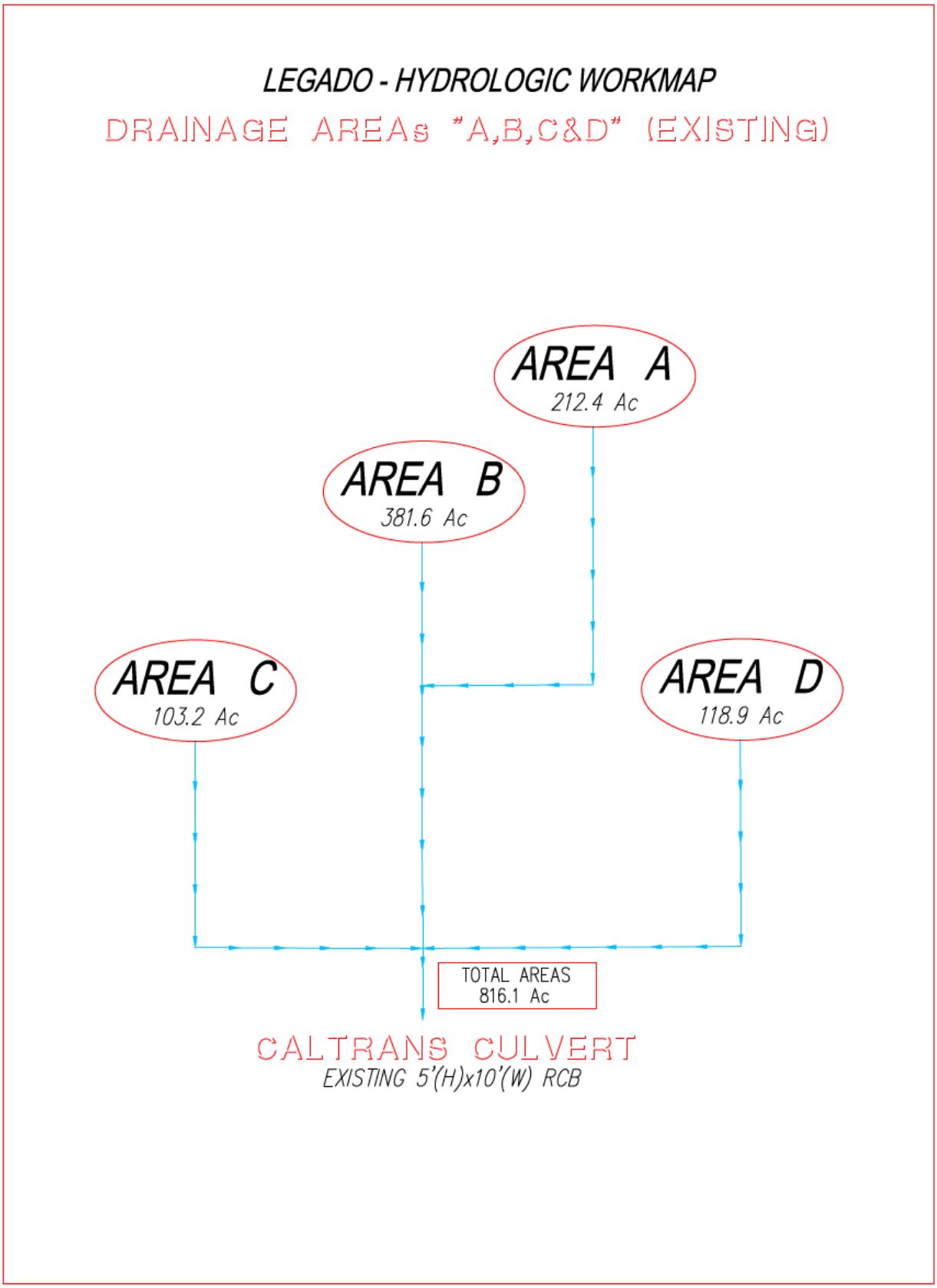


Figure 1c: Drainage Areas A, B, C & D Hydrologic Workmap (Existing Condition)

DEVELOPED CONDITION

The developed condition involves the full development of the property into a detached residential community, commercial site, public community park and open space areas.

Drainage patterns will generally remain as in the existing condition. The offsite flows will be intercepted and conveyed through the site to various detention basins until discharging to the existing 10' x 5' Caltrans RCB culvert across 215 Freeway.

The development of the project will be such that the basins and storm drain infrastructure needed for any phase of development will be in place prior to that phase being developed. Therefore, during any interim phase of the project, the drainage infrastructure will be more than adequate to convey the 100-year storm safely through the project to the discharge point.

Hydrology - Developed Condition:

There are also four (4) drainage areas in the proposed condition, drainage Areas A, B, C, and D: all originating from the same tributary drainage areas; drainage patterns will generally remain as in the existing condition.

See Figure 3 – Hydrology Map Developed Condition.

Drainage Area A is approximately 305.5 acres including 43.4 off-site acres of the proposed Tr. 29835-1 to the east, 64.9 on-site acres from the southeast portion of the project and 197.2 off-site acres tributary to the southeasterly side of the project site.

Sub-Area Tr. 29835-1 drains into the off-site Detention Basin 1 and outlets to a proposed storm drain in Chambers Avenue which conveys those flows into proposed Detention Basin A. See **Attachment B** for calculations (originally by MDS Consulting, Hydrology & Hydraulic Report dated April 14, 2107).

The southeast portion of on-site project, Sub-Area A1, will drain into a Water Quality Basin for treatment prior to being discharged into Detention Basin A. The remaining area, Off-site Sub-Area A, will drain into Detention Basin A through a proposed storm drain in Chambers Avenue and through the extension of the existing 6'x4' RCB at the middle of southerly property line (at the northeast corner of Chambers Avenue and Sherman Road).

Any potential debris that may be carried in storm water flows will be captured within the offsite basins prior to coming on site. Areas such as the orange groves to the east have little potential for debris due to their mature tree roots.

Detention Basin A outlets via a 60" Storm Drain along Chambers Avenue and inlets into the south side of Detention Basin B.

See Figure 4a – Drainage Area A Hydrologic Workmap

Drainage Area B is approximately 246.9 acres and include the west half and northeast portion of the project site. The northeast portion of project site, Sub-Area B1, consists of 93.0 acres. Sub-Area B1 will drain into Water Quality Basin B1 prior to discharging into Detention Basin B1. The outlet of Detention Basin B1 will convey water using a proposed 48" storm drain within Rouse Road and outletting into the north side of Detention Basin B2.

See Figure 4b – Drainage Area B1 Hydrologic Workmap

The remaining area, Sub-Area B2, is approximately 153.9 acres and drains into Water Quality Basin B2 for treatment prior to discharging into Detention Basin B2.

Drainage Area C is approximately 103.2 acres and tributary to the existing Sun City – Rouse Road Storm Drain (RCFC & WCD Project 4-0-0151, Dwg. No. 4-771) which discharges directly into the Caltrans 10'x5' Culvert. This drainage area will be rerouted into Detention Basin B2.

Drainage Area D is approximately 141.6 acres at the southwesterly side of the project including Encanto Drive. This drainage area is considered off-site area to the south currently being conveyed directly to the existing Caltrans 10'x5' RCB culvert via inlets on the west side of Encanto Drive. This drainage area will be rerouted to outlet into Detention Basin B2 in order to maximize the effectiveness of the Caltrans culvert. A proposed storm drain will be put in place adjacent to the project Commercial Areas along Encanto Drive. Future connections to this storm drain will be part of the future development along Encanto Drive to the south of the project site.

Drainage areas B2, C & D all drain directly into Detention Basin B2 and encompass a total area of 410.0 acres.

For Developed Condition, the total drainage area on-site and off-site to the project site and tributary to existing Caltrans 10'x5' RCB culvert is approximately 816.1 acres – (7.6 acres, area diverted part of Tract 29835).

See Figure 4c – Drainage Area B2CD Hydrologic Workmap

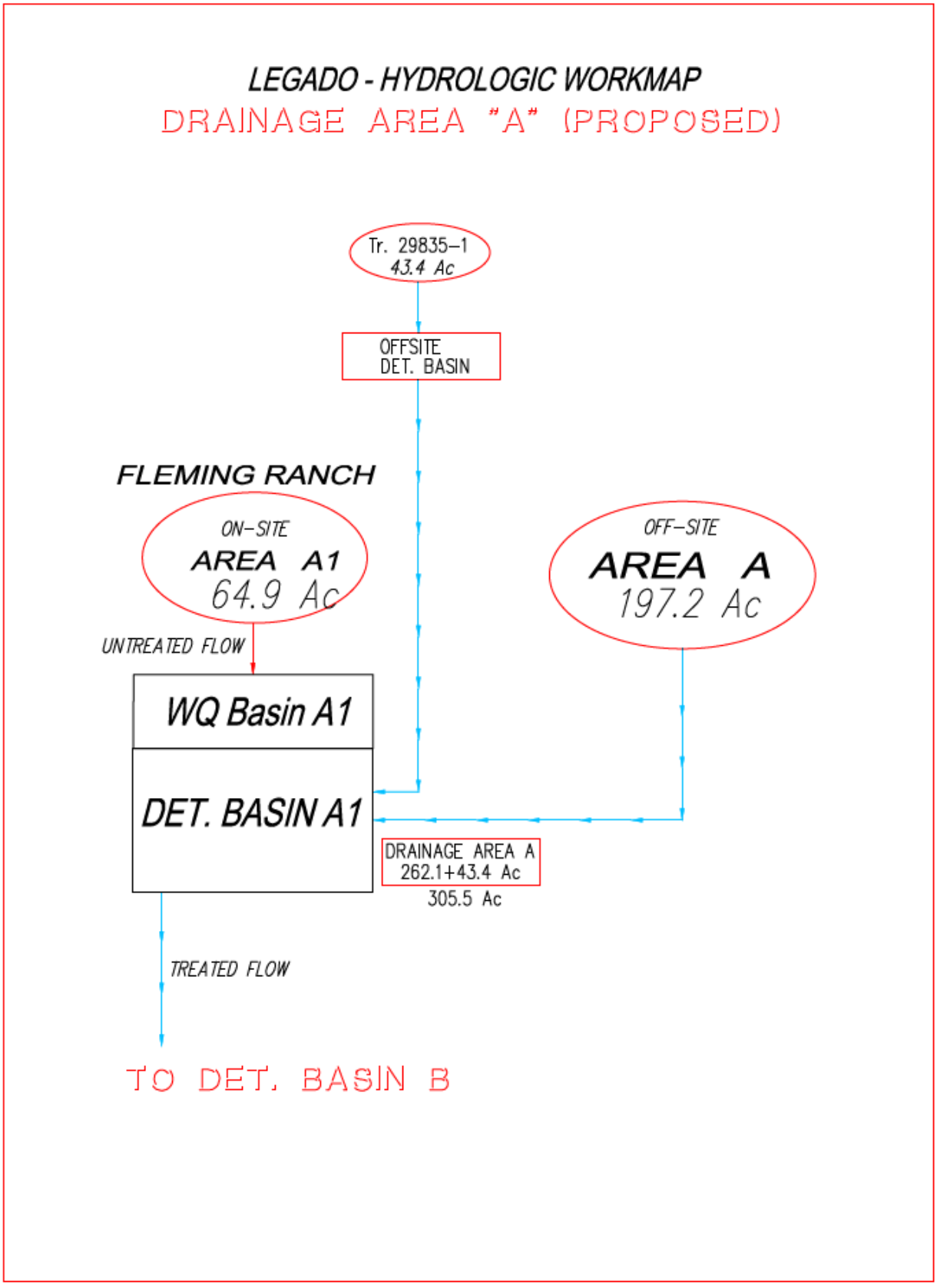


Figure 4a: Drainage Area A Hydrologic Workmap

Figure 4b: Drainage Area B1 Hydrologic Workmap

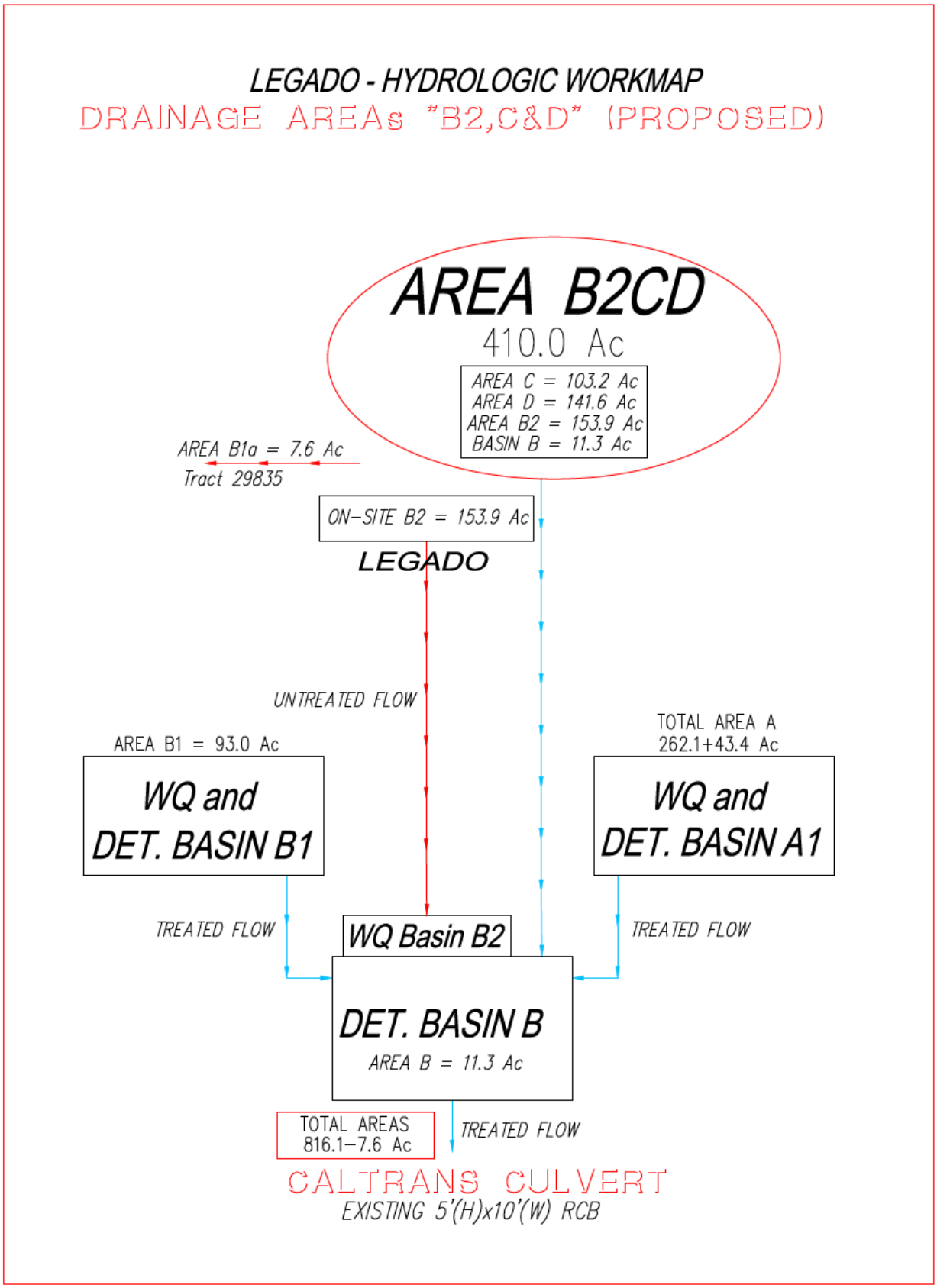


Figure 4c: Drainage Area B2CD Hydrologic Workmap

HYDROLOGY

Unit Hydrograph Analysis

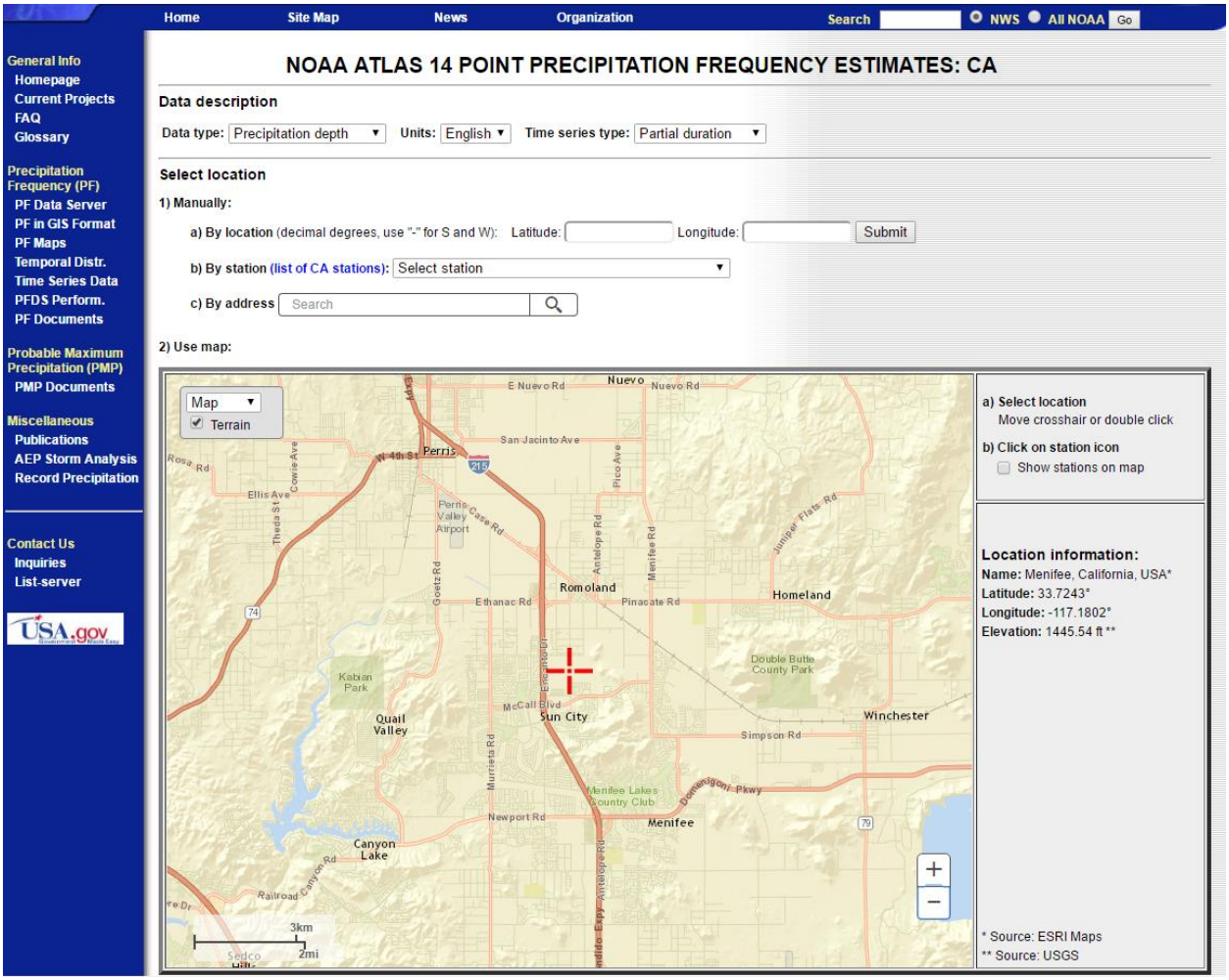
The unit hydrograph analysis was conducted using the CivilDesign Corporation Unit Hydrograph software and the Riverside County Hydrology Manual. In this study analysis, the goal was to estimate the quantity of storm water to be detained onsite to mitigate the increase in storm water peak discharge and volume resulting from this development. The 1-hour, 3-hour, 6-hour and 24-hour 100-year storm hydrographs were computed to evaluate that the project peak runoff discharge originating from the site for ultimate/proposed conditions.
The ultimate condition-project hydrographs will be used as inflow hydrograph in detention basin routing with restricted outlet structure works.

Summary of Precipitation – Intensity Pattern per Hydrology Manual (NOAA Atlas 2):

Storm Event	***1-hour***	***3-hour***	***6-hour***	***24-hour***
2-year	0.5	0.85	1.1	1.8
100-year	1.3	1.9	2.5	4.5

Summary of Precipitation – Intensity Pattern per Hydrology Manual (NOAA Atlas 14):

Storm Event	***1-hour***	***3-hour***	***6-hour***	***24-hour***
2-year	0.52	0.86	1.19	2.03
100-year	1.64	2.27	2.98	5.33


Home
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PF Data Server
PF in GIS Format
PF Maps
Temporal Distr.
Time Series Data
PFDS Perform.
PF Documents
Probable Maximum Precipitation (PMP)
PMP Documents
Miscellaneous
Publications
AEP Storm Analysis
Record Precipitation
Contact Us
Inquiries
List-server
USA.gov
NOAA ATLAS 14 POINT PRECIPITATION FREQUENCY ESTIMATES: CA
Data description
Data type: Precipitation depth
Units: English
Time series type: Partial duration
Select location
1) Manually:
a) By location (decimal degrees, use "-" for S and W): Latitude: Longitude: Submit
b) By station (list of CA stations): Select station
c) By address Search
2) Use map:
Map
Terrain
Nuevo
E Nuevo Rd
Nuevo Rd
San Jacinto Ave
Perris
N 4th St
Rosa Rd
Ellis Ave
Cowrie Ave
Theda St
Perris Valley Airport
Case Rd
Goetz Rd
Antelope Rd
Menifee Rd
Pico Ave
Juniper Flats Rd
Romoland
Ethanac Rd
Pinacate Rd
Homeland
Double Butte County Park
Kabian Park
Quail Valley
McCall Blvd
Sun City
Winchester
Simpson Rd
Murrieta Rd
Menifee Lakes Country Club
Domenigoni Pkwy
Newport Rd
Menifee
Canyon Lake
Railroad Canyon Rd
Antelope Expy
3km
2mi
Sedco Hills
a) Select location
Move crosshair or double click
b) Click on station icon
Show stations on map
Location information:
Name: Menifee, California, USA*
Latitude: 33.7243°
Longitude: -117.1802°
Elevation: 1445.54 ft **
* Source: ESRI Maps
** Source: USGS

POINT PRECIPITATION FREQUENCY (PF) ESTIMATES

WITH 90% CONFIDENCE INTERVALS AND SUPPLEMENTARY INFORMATION
NOAA Atlas 14, Volume 6, Version 2

PF tabular | PF graphical | Supplementary information | Print page

PDS-based precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.086 (0.072-0.104)	0.124 (0.104-0.150)	0.177 (0.148-0.215)	0.223 (0.184-0.272)	0.287 (0.229-0.363)	0.339 (0.264-0.438)	0.393 (0.299-0.522)	0.452 (0.334-0.618)	0.536 (0.379-0.765)	0.604 (0.412-0.894)
10-min	0.123 (0.103-0.149)	0.178 (0.149-0.216)	0.254 (0.212-0.308)	0.319 (0.264-0.390)	0.411 (0.328-0.520)	0.485 (0.379-0.628)	0.564 (0.429-0.749)	0.648 (0.479-0.886)	0.768 (0.543-1.10)	0.866 (0.591-1.28)
15-min	0.149 (0.125-0.180)	0.216 (0.180-0.261)	0.308 (0.256-0.373)	0.386 (0.319-0.471)	0.497 (0.397-0.629)	0.587 (0.458-0.760)	0.682 (0.519-0.906)	0.784 (0.579-1.07)	0.929 (0.657-1.33)	1.05 (0.714-1.55)
30-min	0.244 (0.204-0.294)	0.353 (0.296-0.427)	0.504 (0.420-0.611)	0.632 (0.522-0.772)	0.814 (0.650-1.03)	0.962 (0.751-1.24)	1.12 (0.850-1.48)	1.28 (0.949-1.76)	1.52 (1.08-2.17)	1.72 (1.17-2.54)
60-min	0.359 (0.301-0.433)	0.520 (0.435-0.628)	0.741 (0.618-0.898)	0.930 (0.768-1.14)	1.20 (0.956-1.52)	1.42 (1.10-1.83)	1.64 (1.25-2.18)	1.89 (1.40-2.58)	2.24 (1.58-3.20)	2.52 (1.72-3.74)
2-hr	0.529 (0.443-0.639)	0.721 (0.603-0.871)	0.981 (0.818-1.19)	1.20 (0.990-1.46)	1.50 (1.20-1.90)	1.74 (1.36-2.25)	1.99 (1.52-2.65)	2.26 (1.67-3.09)	2.63 (1.86-3.75)	2.92 (1.99-4.33)
3-hr	0.648 (0.543-0.782)	0.864 (0.723-1.04)	1.15 (0.962-1.40)	1.40 (1.15-1.71)	1.73 (1.38-2.19)	2.00 (1.56-2.58)	2.27 (1.73-3.01)	2.56 (1.89-3.49)	2.95 (2.09-4.22)	3.27 (2.23-4.84)
6-hr	0.913 (0.764-1.10)	1.19 (0.998-1.44)	1.57 (1.31-1.90)	1.88 (1.55-2.29)	2.30 (1.84-2.92)	2.64 (2.06-3.42)	2.98 (2.27-3.96)	3.35 (2.47-4.57)	3.84 (2.72-5.49)	4.23 (2.89-6.27)
12-hr	1.20 (1.00-1.44)	1.56 (1.30-1.89)	2.05 (1.71-2.48)	2.45 (2.03-3.00)	3.02 (2.41-3.82)	3.46 (2.70-4.48)	3.92 (2.98-5.21)	4.40 (3.25-6.02)	5.07 (3.59-7.24)	5.60 (3.82-8.29)
24-hr	1.54 (1.36-1.78)	2.03 (1.80-2.35)	2.70 (2.38-3.13)	3.26 (2.85-3.80)	4.04 (3.42-4.88)	4.67 (3.88-5.75)	5.33 (4.32-6.71)	6.02 (4.75-7.79)	7.00 (5.30-9.42)	7.78 (5.70-10.8)
2-day	1.83 (1.62-2.11)	2.46 (2.17-2.84)	3.32 (2.92-3.85)	4.05 (3.54-4.73)	5.09 (4.31-6.13)	5.92 (4.91-7.29)	6.80 (5.51-8.57)	7.75 (6.11-10.0)	9.08 (6.88-12.2)	10.2 (7.45-14.1)
3-day	1.95 (1.73-2.25)	2.66 (2.35-3.08)	3.64 (3.21-4.22)	4.48 (3.91-5.23)	5.67 (4.80-6.84)	6.64 (5.51-8.16)	7.66 (6.21-9.65)	8.76 (6.91-11.3)	10.3 (7.83-13.9)	11.6 (8.51-16.2)
4-day	2.10 (1.86-2.43)	2.90 (2.56-3.35)	4.01 (3.53-4.64)	4.95 (4.33-5.78)	6.31 (5.34-7.61)	7.42 (6.16-9.13)	8.60 (6.96-10.8)	9.87 (7.78-12.8)	11.7 (8.85-15.7)	13.2 (9.65-18.3)
7-day	2.38 (2.11-2.75)	3.37 (2.97-3.89)	4.74 (4.18-5.49)	5.93 (5.18-6.93)	7.66 (6.48-9.23)	9.07 (7.53-11.2)	10.6 (8.58-13.3)	12.2 (9.65-15.8)	14.6 (11.1-19.7)	16.6 (12.2-23.1)
10-day	2.51 (2.22-2.90)	3.60 (3.18-4.16)	5.13 (4.52-5.94)	6.46 (5.65-7.55)	8.41 (7.12-10.1)	10.0 (8.30-12.3)	11.7 (9.51-14.8)	13.6 (10.8-17.6)	16.4 (12.4-22.1)	18.7 (13.7-26.0)
20-day	2.94 (2.60-3.40)	4.30 (3.80-4.97)	6.23 (5.49-7.22)	7.94 (6.94-9.27)	10.5 (8.85-12.6)	12.6 (10.4-15.5)	14.9 (12.0-18.7)	17.4 (13.7-22.5)	21.2 (16.0-28.5)	24.3 (17.8-33.9)
30-day	3.55 (3.14-4.09)	5.18 (4.58-5.99)	7.54 (6.64-8.74)	9.63 (8.42-11.3)	12.8 (10.8-15.4)	15.4 (12.8-18.9)	18.3 (14.8-23.0)	21.5 (17.0-27.8)	26.3 (19.9-35.4)	30.4 (22.3-42.3)
45-day	4.16 (3.67-4.80)	6.00 (5.30-6.93)	8.69 (7.65-10.1)	11.1 (9.69-13.0)	14.7 (12.5-17.7)	17.8 (14.8-21.9)	21.2 (17.2-26.7)	25.0 (19.7-32.4)	30.8 (23.3-41.4)	35.7 (26.2-49.7)
60-day	4.88 (4.31-5.63)	6.92 (6.11-8.00)	9.92 (8.74-11.5)	12.6 (11.0-14.7)	16.7 (14.1-20.1)	20.2 (16.8-24.9)	24.1 (19.5-30.4)	28.5 (22.5-36.9)	35.2 (26.7-47.4)	40.9 (30.0-57.0)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Estimates from the table in CSV format: Precipitation frequency estimates ▾ Submit

Main Link Categories:

The hydrology calculations for determining the on-site and offsite flows have been conducted using the Rational Method as incorporated into the CivilCADD Rational Method Hydrology software. The rational method relates rainfall intensity, the ratio of runoff to rainfall, and the drainage area size to the peak storm runoff and is expressed by the equation: Q = CIA. Where Q = runoff (in cubic feet per second), C = runoff coefficient relating the ratio of runoff to rainfall, I = rainfall intensity (in inches per hour), A = drainage area (in acres). The soil type used in the analysis is a combination Type B, C, and D, yielding a relatively high soil runoff potential is Type D.

See below soil map:

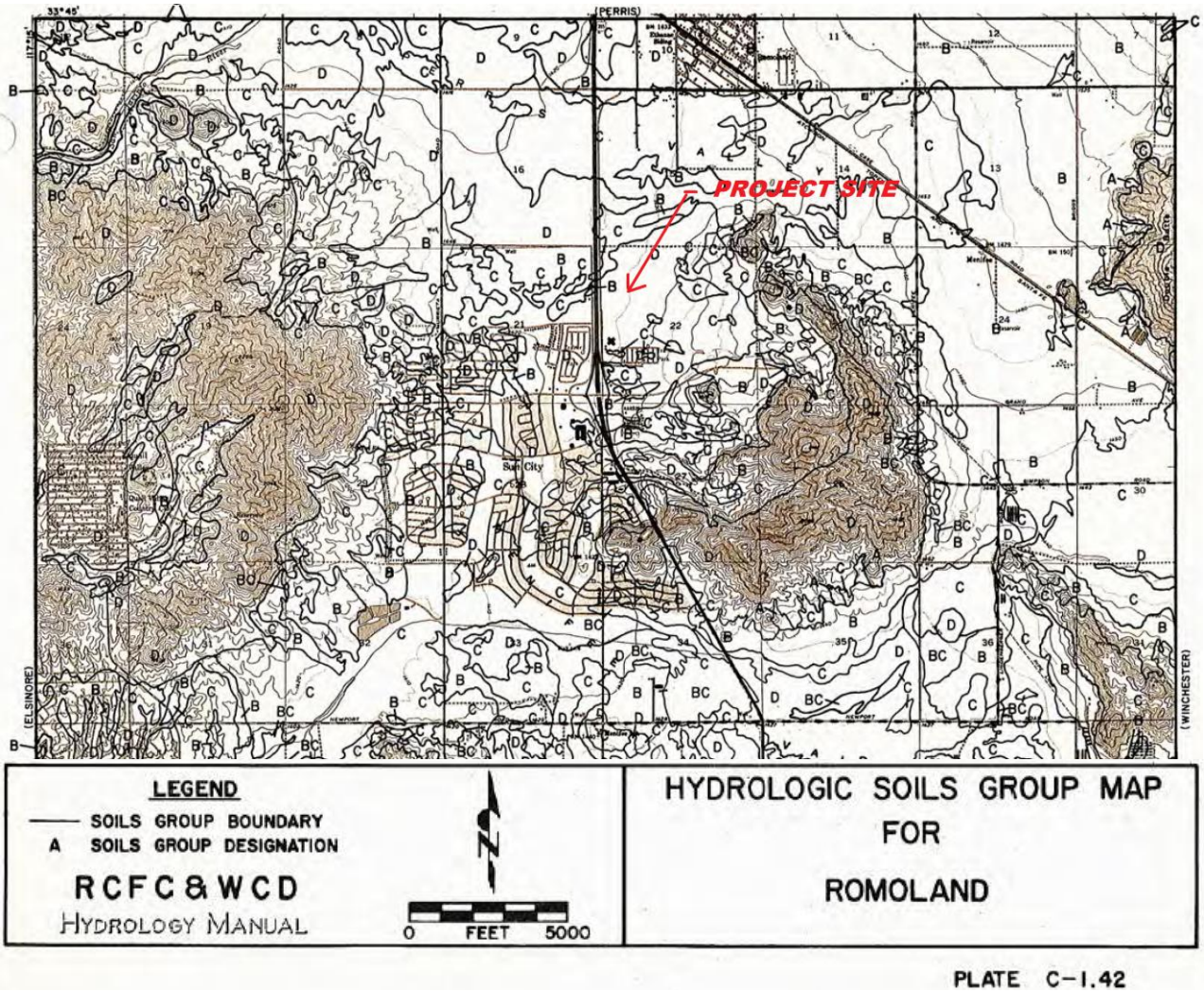


Figure 2 is the offsite and onsite existing (prior any grading) condition hydrology. Figure 3 is the onsite and off-site proposed/ultimate condition hydrology maps, respectively, summarize the results of the hydrologic analysis, including drainage areas, subareas, node numbers, elevations and cumulative Q_{100} values at points of concentration or discharge.

Proposed impervious cover for Legado project is varies per proposed landuse and per table below (see below Plate D-5.6 from RCFC&WCD Hydrology Manual).

ACTUAL IMPERVIOUS COVER

Land Use (1)	Range-Percent	Recommended Value For Average Conditions-Percent(2)
Natural or Agriculture	0 - 10	0
Single Family Residential: (3)		
40,000 S. F. (1 Acre) Lots	10 - 25	20
20,000 S. F. (½ Acre) Lots	30 - 45	40
7,200 - 10,000 S. F. Lots	45 - 55	50
Multiple Family Residential:		
Condominiums	45 - 70	65
Apartments	65 - 90	80
Mobile Home Park	60 - 85	75
Commercial, Downtown Business or Industrial	80 -100	90

Notes:

1. Land use should be based on ultimate development of the watershed. Long range master plans for the County and incorporated cities should be reviewed to insure reasonable land use assumptions.

2. Recommended values are based on average conditions which may not apply to a particular study area. The percentage impervious may vary greatly even on comparable sized lots due to differences in dwelling size, improvements, etc. Landscape practices should also be considered as it is common in some areas to use ornamental gravels underlain by impervious plastic materials in place of lawns and shrubs. A field investigation of a study area should always be made, and a review of aerial photos, where available may assist in estimating the percentage of impervious cover in developed areas.

3. For typical horse ranch subdivisions increase impervious area 5 percent over the values recommended in the table above.

RCFC & WCD
HYDROLOGY MANUAL

IMPERVIOUS COVER FOR DEVELOPED AREAS

PLATE D-5.6

The design discharge in the various sub-drainage areas considered in this study are listed in the table below:

Summary Hydrology Drainage Areas A, B, C, D and Confluence ABCD – Existing Condition – Unit Hydrographs 100-year storm (see Attachment A for calculations):

Drainage Area	Acre (Ac)	Hydrograph 100-yr 1-hr (cfs)	Hydrograph 100-yr 3-hr (cfs)	Hydrograph 100-yr 6-hr (cfs)	Hydrograph 100-yr 24-hr (cfs)
A	212.4	533.69	327.34	286.42	126.34
B	381.6	740.93	516.01	455.46	224.22
C	103.2	319.34	180.72	154.61	65.49
D	118.9	265.59	180.59	155.86	75.30
Confluence =		**1666.67**	**1169.45**	**1019.56**	**488.05**

Summary Hydrology Drainage Areas A, B, C, and D – Proposed Condition – Unit Hydrographs 100-year storm (see Attachment C for calculations):

Drainage Area A = 262.1 Ac (total), exclude Tr. 29835-1:

```
-----------------------------------------------------------------------
       Legado
       Proposed Condition
       100-year 1-hour, 3-hour, 6-hour, 24-hour storm Hydrograph
       Drainage Area A = 262.1 Ac (Exclude Tr. 29835-1)

-----------------------------------------------------------------------
```

100-yr 1-hour storm, Q = 686.44 cfs
100-yr 3-hour storm, Q = 433.35 cfs
100-yr 6-hour storm, Q = 376.82 cfs
100-yr 24-hour storm, Q = 165.13 cfs

Drainage Area Tr. 29835-1 = 43.4 Ac (by MDS Consultant, Report dated April 14, 2017) – See Attachment B.

```
-----------------------------------------------------------------------
       Tract 29835-1
       100-year 1-hour, 3-hour, 6-hour, 24-hour storm Hydrograph
       Post Development
       Basin 1 (Lot N)

-----------------------------------------------------------------------
```

100-yr 1-hour storm, Q = 161.04 cfs
100-yr 3-hour storm, Q = 85.06 cfs
100-yr 6-hour storm, Q = 74.71 cfs
100-yr 24-hour storm, Q = 28.70 cfs

TRACT 29385-1
DETENTION BASIN 1
PROJECT 803-58

2/10/2017

DETENTION BASIN 1 OUTPUT SUMMARY

STORM	DURATION	Unit Hydrograph Results Existing Conditions		Unit Hydrograph Results Developed Conditions		Basin Routing Results			
		Flood Volume Ac.Ft.	Peak Flow CFS	Flood Volume Ac.Ft.	Peak Flow CFS	Basin Volume Ac.Ft.	Routed Peak CFS	Basin Depth Ft.	W.S. ELEV. Ft.
	1-HOUR	0.90	39.01	1.00	39.28	0.93	1.18	1.75	1491.25
	3-HOUR	0.90	20.11	1.30	20.74	1.07	1.27	1.99	1491.49
	6-HOUR	1.00	17.73	1.60	18.14	1.21	1.36	2.22	1491.72
2-YEAR	24-HOUR	0.90	1.51	2.40	4.05	1.20	1.35	2.20	1491.70
	1-HOUR	1.80	64.84	1.80	65.53	1.56	11.01	2.78	1492.28
	3-HOUR	1.70	32.49	2.00	33.50	1.57	11.25	2.78	1492.28
	6-HOUR	1.80	28.36	2.40	29.16	1.66	15.88	2.92	1492.42
5-YEAR	24-HOUR	1.60	6.04	3.40	5.58	1.43	4.24	2.58	1492.08
	1-HOUR	3.00	90.69	2.90	90.94	2.15	39.68	3.65	1493.15
	3-HOUR	3.70	48.17	3.40	48.74	2.03	35.11	3.48	1492.98
	6-HOUR	4.00	42.70	3.90	43.01	1.98	32.89	3.41	1492.91
10-YEAR	24-HOUR	5.10	14.96	5.40	13.66	1.60	12.87	2.83	1492.33
	1-HOUR	5.70	159.26	5.60	161.04	3.46	76.68	5.39	1494.89
	3-HOUR	7.60	82.96	7.30	85.06	2.76	61.02	4.49	1493.99
	6-HOUR	9.60	73.06	9.00	74.71	2.59	55.10	4.26	1493.76
100-YEAR	24-HOUR	14.70	29.71	13.50	28.70	1.88	27.61	3.26	1492.76

Copy result from MDS Consulting, Hydrology & Hydraulic Report.

Drainage Area B1 = 93.0 Ac

```
-------------------------------------------------------------------------
       Legado
       Proposed Condition
       100-year 1-hour, 3-hour, 6-hour, 24-hour storm Hydrograph
       Drainage Area B1 = 93.0 Ac


-------------------------------------------------------------------------
```

100-yr 1-hour storm, Q = 333.07 cfs
100-yr 3-hour storm, Q = 175.48 cfs
100-yr 6-hour storm, Q = 152.34 cfs
100-yr 24-hour storm, Q = 62.06 cfs

Drainage Area B2CD = 410.0 Ac

```
-------------------------------------------------------------------------
       Legado - Tr. 43105
       Proposed Condition
       100-year 1-hour, 3-hour, 6-hour, 24-hour storm Hydrograph
       Drainage Areas B2CD = 410.0 Ac
-------------------------------------------------------------------------
```

100-yr 1-hour storm, Q = 1358.37 cfs
100-yr 3-hour storm, Q = 736.17 cfs
100-yr 6-hour storm, Q = 628.63 cfs
100-yr 24-hour storm, Q = 270.22 cfs

<u>On-site Hydrology and storm drain sizing</u>:

In this preliminary drainage study, the on-site hydrology was prepared with relatively small drainage area and using conservative condominium landuse (I=0.65), calculated using Rational Method Initial Area as shown below:

```
                Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2005 Version 7.1
       Rational Hydrology Study        Date: 08/22/18  File:frratmeth.out
------------------------------------------------------------------------
Flemimg Ranch
Rational Method for Initial Area for Land Use I = 0.65

------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file
------------------------------------------------------------------------
Program License Serial Number 4029
------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =  100.00 Antecedent Moisture Condition = 2

Standard intensity-duration curves data (Plate D-4.1)
For the [ Sun City ] area used.
10 year storm 10 minute intensity =  2.250(In/Hr)
10 year storm 60 minute intensity =  0.870(In/Hr)
100 year storm 10 minute intensity =  3.360(In/Hr)
100 year storm 60 minute intensity =  1.300(In/Hr)

Storm event year = 100.0
Calculated rainfall intensity data:
1 hour intensity =  1.300(In/Hr)
Slope of intensity duration curve = 0.5300
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       10.000 to Point/Station       11.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   618.000(Ft.)
Top (of initial area) elevation =  1438.000(Ft.)
Bottom (of initial area) elevation =  1430.000(Ft.)
Difference in elevation =     8.000(Ft.)
Slope =    0.01294  s(percent)=       1.29
TC = k(0.370)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   11.539 min.
Rainfall intensity =      3.115(In/Hr) for a   100.0 year storm
CONDOMINIUM subarea type
Runoff Coefficient = 0.849
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  69.00
Pervious area fraction =  0.350; Impervious fraction =  0.650
Initial subarea runoff =      9.733(CFS)
Total initial stream area =        3.680(Ac.)
Pervious area fraction = 0.350
End of computations, total study area =            3.68 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.350
Area averaged RI index number =  69.0
```

LEGADO - Menifee						
Tract 37409						
Area	**Acre (Ac)**	**Unit Q *) (cfs/Ac)**	**Subarea Q100 (cfs)**	**Total Q100 (cfs)**	**SD Sizing (in)**	**Minimum Slope (%)**
Line A1-A						
A1-1	7.82	2.7	21.11		**24**	1
A1-2	5.92	2.7	15.98	37.10	**30**	0.9
A1-3	5.83	2.7	15.74	52.84	**36**	0.7
A1-4	1.17	2.7	3.16	56.00	**36**	0.8
A1-5	6.49	2.7	17.52	73.52	**42**	0.6
Line A1-B						
A1-6	5.33	2.7	14.39		**24**	0.5
A1-7	8.77	2.7	23.68	38.07	**30**	0.9
A1-8	8.68	2.7	23.44	61.51	**36**	0.7
A1-9	5.66	2.7	15.28	76.79	**42**	0.6
***) From Rational Method Initial Area for Condominium landuse**						
***) Q100 = 9.733/3.68 = 2.64 ==> 2.7 cfs/Ac (conservative)**						

LEGADO - Menifee						
Tract 37409						
Area	**Acre (Ac)**	**Unit Q *) (cfs/Ac)**	**Subarea Q100 (cfs)**	**Total Q100 (cfs)**	**SD Sizing (in)**	**Minimum Slope (%)**
Line B1-A						
B1-1	8.51	2.7	22.98		**24**	0.8
B1-2	2.07	2.7	5.59	28.57	**30**	1.3
B1-3	7.94	2.7	21.44	50.00	**36**	0.7
B1-4	13.53	2.7	36.53	86.54	**36**	1.3
B1-5	8.28	2.7	22.36	108.89	**42**	1.2
B1-6	8.54	2.7	23.06	131.95	**48**	0.9
Line B1-B						
B1-7	1.36	2.7	3.67		**18**	0.5
B1-8	5.79	2.7	15.63	19.31	**24**	0.8
B1-9	5.89	2.7	15.90	35.21	**30**	0.8
Line B1-C						
B1-10	2.92	2.7	7.88		**24**	0.7
B1-11	6.41	2.7	17.31	25.19	**24**	0.7
B1-12	3.77	2.7	10.18	35.37	**30**	0.5
B1-13	4.37	2.7	11.80	47.17	**36**	1
***) From Rational Method Initial Area for Condominium landuse**						
***) Q100 = 9.733/3.68 = 2.64 ==> 2.7 cfs/Ac (conservative)**						

LEGADO - Menifee						
Tract 37408						
Area	Acre	Unit Q *)	Subarea Q100	Total Q100	SD Sizing	Minimum Slope
	(Ac)	(cfs/Ac)	(cfs)	(cfs)	(in)	(%)
Line B2-A						
B2-1	5.45	2.7	14.72		**24**	0.5
B2-2	3.91	2.7	10.56	25.27	**30**	0.5
B2-3	4.45	2.7	12.02	37.29	**36**	0.5
B2-4	3.4	2.7	9.18	46.47	**36**	0.5
B2-5	4.63	2.7	12.50	58.97	**36**	1
B2-6	6.73	2.7	18.17	77.14	**42**	0.6
B2-7	5.71	2.7	15.42	92.56	**42**	1
Line B2-B						
B2-8	6.59	2.7	17.79		**24**	1
B2-9	3.04	2.7	8.21	26.00	**30**	0.5
B2-10	8.31	2.7	22.44	48.44	**36**	0.6
Line B2-C						
B2-11	6.33	2.7	17.09		**24**	0.6
B2-12	4.22	2.7	11.39	28.49	**30**	0.6
B2-13	2.11	2.7	5.70	34.18	**30**	0.7
B2-14	4.51	2.7	12.18	46.36	**36**	0.5
B2-15	6.6	2.7	17.82	64.18	**36**	1
B2-16	5.31	2.7	14.34	78.52	**42**	0.6
B2-17	5.79	2.7	15.63	94.15	**42**	0.8
Line B2-D						
B2-18	4.96	2.7	13.39		**24**	0.5
B2-19	0.91	2.7	2.46	15.85	**24**	0.5
B2-20	3.68	2.7	9.94	25.79	**30**	0.5
Line B2-E						
B2-21	5.21	2.7	14.07		**24**	0.5
B2-22	4.95	2.7	13.37	27.43	**30**	0.5
***) From Rational Method Initial Area for Condominium landuse**						
***) Q100 = 9.733/3.68 = 2.64 ==> 2.7 cfs/Ac (conservative)**						

Rating Table for Circular Pipe - for RCP

Project Description

Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.0100	ft/ft
Normal Depth	3.00	ft
Diameter	3.00	ft
Discharge	66.69	ft³/s

Diameter (ft)	Channel Slope (ft/ft)	Normal Depth (ft)	Discharge (ft³/s)	Velocity (ft/s)	Flow Area (ft²)	Wetted Perimeter (ft)	Top Width (ft)
1.00	0.0050	1.00	2.52	3.21	0.79	3.14	0.00
1.00	0.0100	1.00	3.56	4.54	0.79	3.14	0.00
1.00	0.0150	1.00	4.36	5.56	0.79	3.14	0.00
1.00	0.0200	1.00	5.04	6.41	0.79	3.14	0.00
1.50	0.0050	1.50	7.43	4.20	1.77	4.71	0.00
1.50	0.0100	1.50	10.50	5.94	1.77	4.71	0.00
1.50	0.0150	1.50	12.86	7.28	1.77	4.71	0.00
1.50	0.0200	1.50	14.85	8.41	1.77	4.71	0.00
2.00	0.0050	2.00	16.00	5.09	3.14	6.28	0.00
2.00	0.0100	2.00	22.62	7.20	3.14	6.28	0.00
2.00	0.0150	2.00	27.71	8.82	3.14	6.28	0.00
2.00	0.0200	2.00	31.99	10.18	3.14	6.28	0.00
2.50	0.0050	2.50	29.00	5.91	4.91	7.85	0.00
2.50	0.0100	2.50	41.01	8.36	4.91	7.85	0.00
2.50	0.0150	2.50	50.23	10.23	4.91	7.85	0.00
2.50	0.0200	2.50	58.00	11.82	4.91	7.85	0.00
3.00	0.0050	3.00	47.16	6.67	7.07	9.42	0.00
3.00	0.0100	3.00	66.69	9.44	7.07	9.42	0.00
3.00	0.0150	3.00	81.68	11.56	7.07	9.42	0.00
3.00	0.0200	3.00	94.32	13.34	7.07	9.42	0.00
3.50	0.0050	3.50	71.14	7.39	9.62	11.00	0.00
3.50	0.0100	3.50	100.60	10.46	9.62	11.00	0.00
3.50	0.0150	3.50	123.21	12.81	9.62	11.00	0.00
3.50	0.0200	3.50	142.28	14.79	9.62	11.00	0.00
4.00	0.0050	4.00	101.57	8.08	12.57	12.57	0.00
4.00	0.0100	4.00	143.64	11.43	12.57	12.57	0.00
4.00	0.0150	4.00	175.92	14.00	12.57	12.57	0.00
4.00	0.0200	4.00	203.13	16.16	12.57	12.57	0.00

HYDRAULICS

Storm Drain System

Open Channel, Pipe and Inlet program Flow Master V8i by Bentley Inc., Reference 7 was used to determine preliminary pipe capacity.

Main line system: the following assumptions and criteria were used to design the main line system:

1. n = 0.013 for reinforced concrete pipe, n = 0.014 for reinforced concrete box, and n = 0.015 for concrete V-ditch.
2. The minor losses considered in this study are as follows: friction loss, junction loss, transition loss, and manhole loss. In order to minimize junction structure losses, all junctions are inleting the main line at an angle of approximately 45 degrees.
3. All storm drains shall be designed to convey the 100-year storm flowrates.

WSPG hydraulic calculations will be used in the design for the principal off site and onsite storm drains to determine the hydraulic gradient elevation for proposed conduit sizes (in final design).

Detention Basin Design and Routing Calculations

The preliminary Detention Basin Routing Calculations were conducted using the CivilCADD/Design software and the Riverside County Hydrology Manual. In this analysis, the goal was to estimate the quantity of storm water to be detained onsite to mitigate the increase in storm water peak discharge and volume resulting from this development for 100-year 1-hour, 3-hour, 6-hour, 24-hour storm by proposing three (3) Detention Basins A, B1, and B2.

Final design of these basins shall adhere to the Basin Design Criteria within the Riverside County LID BMP Handbook. In general, basins shall be designed to mitigate the 100-year storm event and have at least 1 foot of freeboard. All exterior slopes of the basins shall be at 4:1 with a fence on top for screening and security.

Because there are multiple basins within the project, interconnectivity between the basins may be questioned. However, for this project there is no need to analyze the effects of interconnectivity because the bottom of the two upstream basins (Basin A and B1) is higher than the high water level of the downstream basin (Basin B2). Therefore the upstream basins will operate based on inlet control.

The design discharge in the various sub-drainage areas considered in this study are listed in the table below:

Summary Detention Basin Routings Drainage Areas A, B1, and B2CD for 100-year, 1-hour, 3-hour, 6-hour 24-hour storm (see Attachment D for calculations):

Summary of Detention Basin A (total areas of 305.5 Ac) Routing:

100-year 1-hour storm event:

Proposed WQ/Detention Basin A		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
759.58	138.66	**9.56**

100-year 3-hour storm event:

Proposed WQ/Detention Basin A		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
489.03	142.25	**9.99**

100-year 6-hour storm event:

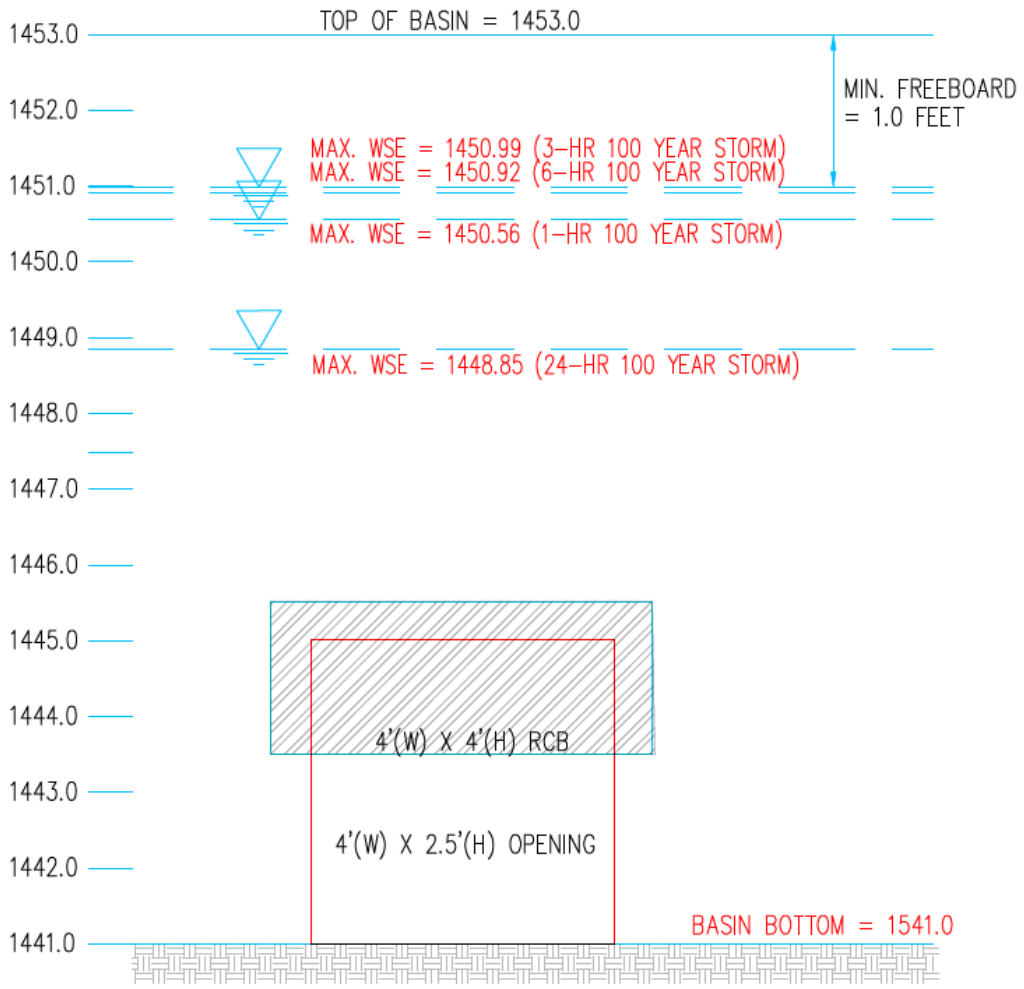
Proposed WQ/Detention Basin A		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
429.82	141.68	**9.92**

100-year 24-hour storm event:

Proposed WQ/Detention Basin A		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
192.35	123.56	**7.85**

LEGADO - HYDROLOGIC WORKMAP

WQ/DETENTION BASIN "A"



Summary of Detention Basin B1 (Area = 93.0 Ac) Routing:

100-year 1-hour storm event:

Proposed WQ/Detention Basin B1		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
333.07	35.50	**5.74**

100-year 3-hour storm event:

Proposed WQ/Detention Basin B1		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
175.48	36.72	**6.04**

100-year 6-hour storm event:

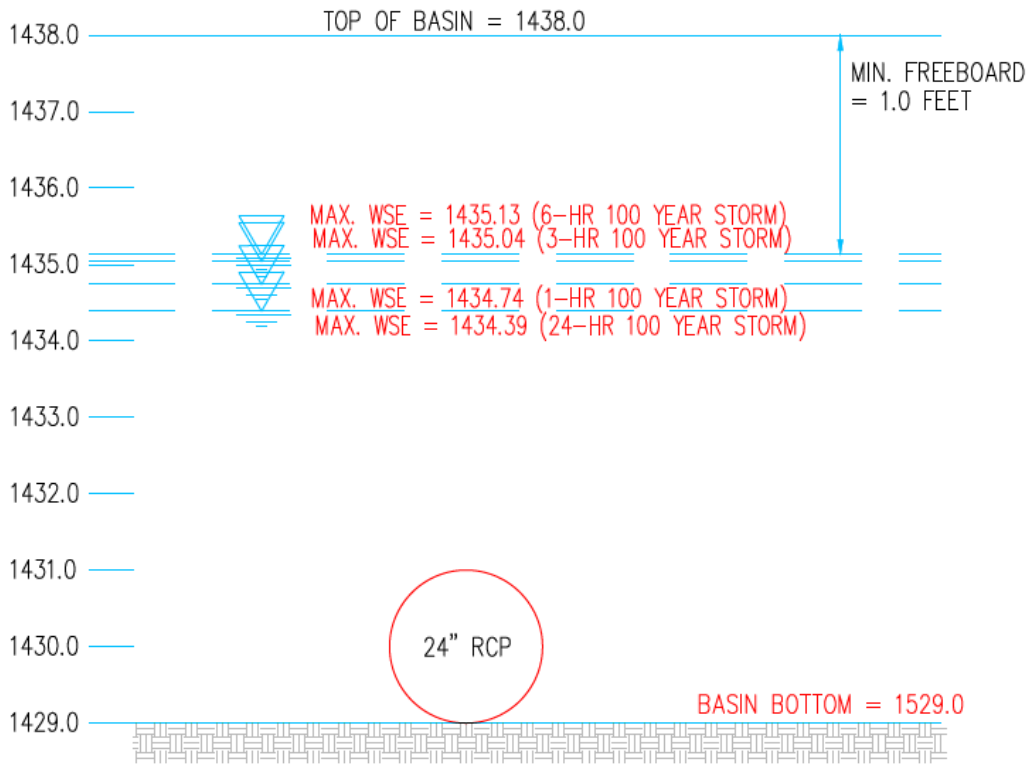
Proposed WQ/Detention Basin B1		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
152.34	37.02	**6.13**

100-year 24-hour storm event:

Proposed WQ/Detention Basin B1		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
62.06	34.25	**5.39**

LEGADO - HYDROLOGIC WORKMAP

WQ/DETENTION BASIN "B1"



Summary of Detention Basin B2 Routing (total areas of 410.0 Ac):

100-year 1-hour storm event:

Proposed WQ/Detention Basin B2		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
1485.28	382.18	**6.00**

100-year 3-hour storm event:

Proposed WQ/Detention Basin B2		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
890.74	410.70	**6.38**

100-year 6-hour storm event:

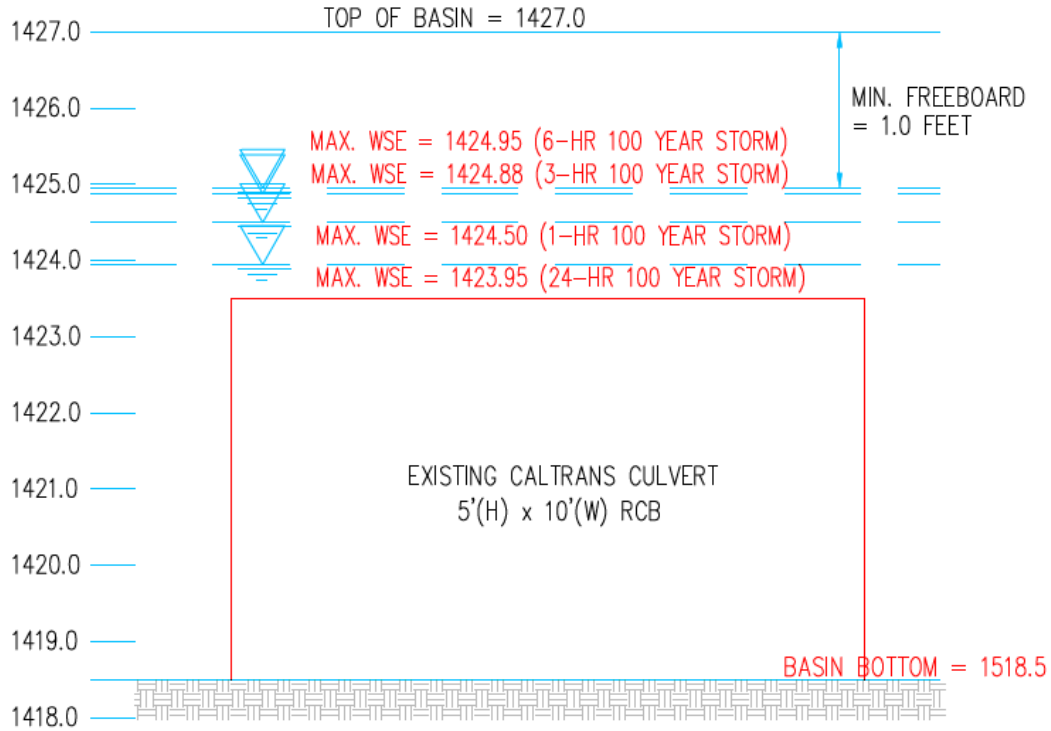
Proposed WQ/Detention Basin B2		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
793.42	416.38	**6.45**

100-year 24-hour storm event:

Proposed WQ/Detention Basin B2		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
407.72	340.57	**5.45**

LEGADO - HYDROLOGIC WORKMAP

DETENTION BASIN "B2"



Summary of Peak Discharge at Existing Outlet 5'(H) x 10' (W) Caltrans Culvert:

Storm Frequency	Existing Peak Discharge	Proposed Peak Discharge (Detention Basin Outflow)	Different	Different
	(cfs)	(cfs)	(cfs)	(%)
100-yr 1-hr	1666.67	382.18	-1284.49	-77%
100-yr 3-hr	1169.45	410.70	-758.75	-65%
100-yr 6-hr	1019.56	416.38	-603.18	-59%
100-yr 24-hr	488.05	340.57	-147.48	-30%

CONCLUSIONS

The proposed LEGADO project grading areas and proposed drainage systems are in conformance with the proposed Land Use. The proposed grading and the proposed storm drain system will connect to existing facilities where it is reasonably feasible, and/or outlet to existing drainage facilities. Potential project impacts related to drainage runoff and water quality will be mitigated according to the City of Menifee and Riverside County requirements.

The proposed backbone storm drain systems are designed for ultimate / proposed condition for 100-year storm event.

REFERENCES

1. County of Riverside Hydrology Manual, 1978, as incorporated in the Civildesign Rational Method Hydrology Software.
2. CivilCADD/Design Engineering Software, version 7.1.
3. Aerial Topography
4. County of Riverside Topographic Maps
5. Legado Improvements Plans
6. WSPG, Los Angeles County Public Works Water Surface Profile software - Storm Drain Analysis Plus by CivilSoft.
7. Hydraulic Calculations software by Bentley, Inc., Flow Master V8i

FIGURES

FIGURE 2a
Existing Storm Drain Systems

DRAINAGE ELEMENTS

Existing Line

DUAL
51" RCP
DWG. 4-771

6X8 RECT.
CHANNEL
DWG. 4-771

Line G-G
DWG. NO. 4-257

CALTRANS
10'X5' RCB
08-RIV-395

I-215 FREEWAY

ENCANTO DRIVE

MYLES

TRUMBLE RD.

BRADY LN

ROUSE ROAD

SUNSHINE LN.

TREVAS LN.

RAINBOW LN.

DAWSON RD.

48" RCP
DWG. 4-816

EX. FLOWLINE

CHAMBERS AVENUE

4X6 RCB

AVENIDA HALAGO

CONCORD LN.

CHATHAM LN.

McCALL BLVD.

60" RCP
865-NN

Line H-H
DWG. NO. 4-191

CALTRANS
10.5'X6.5' RCB
08-RIV-395

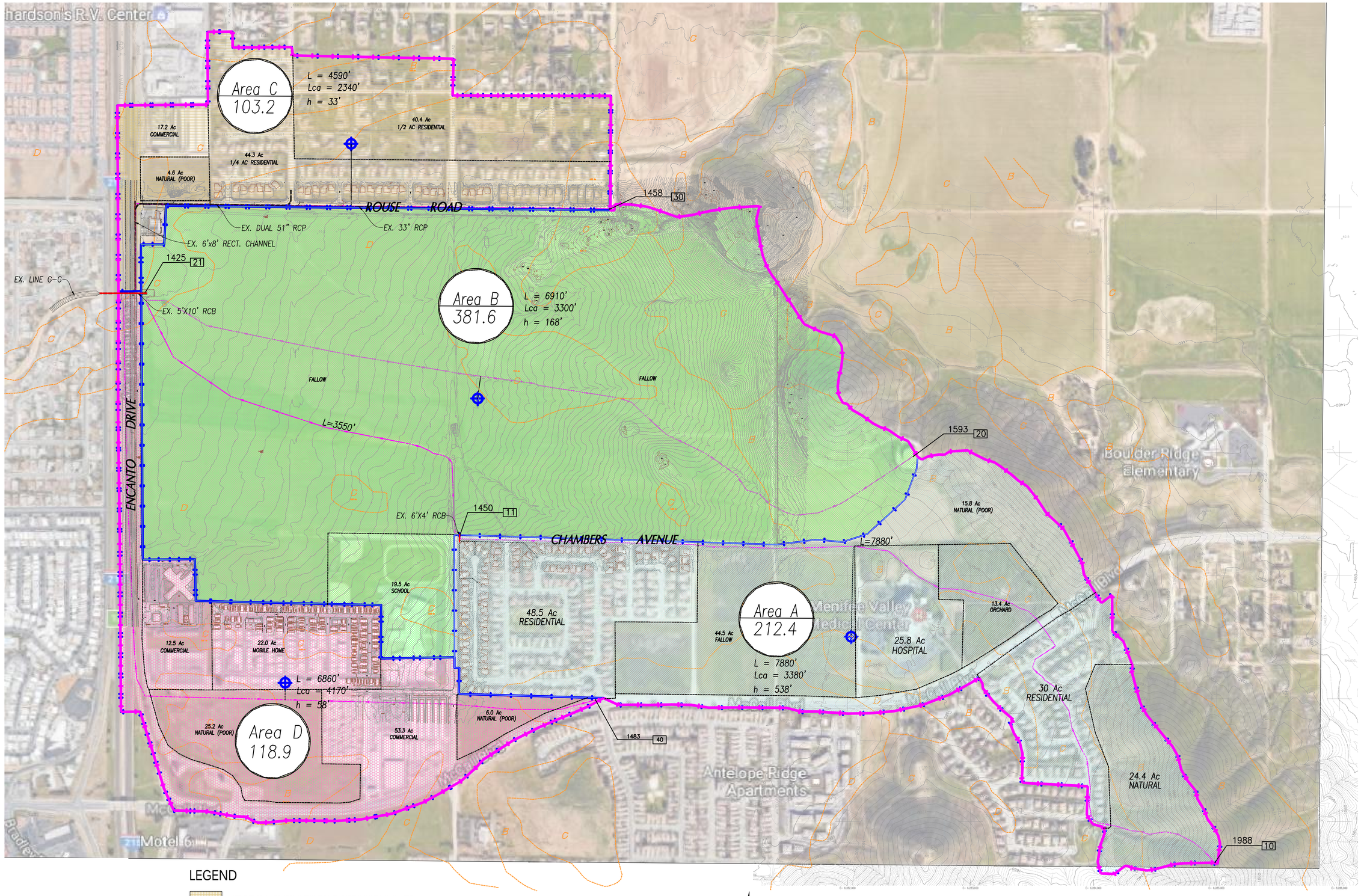
72" RCP
DWG. 4-0196.

EARTHEN
CHANNEL

LEGADO
EXISTING STORM DRAIN SYSTEM
FIGURE 2a

Drawing: R:\338506\Final\Design\Working\JY\Drainage\0419\Existing SD-Fig 2a.dwg Layout: p 11x17 L Saved: 4/29/2019 7:58 AM Plotted: 5/2/2019 9:12 AM Plot Scale: 1:1 By: Johannes Yostanto

FIGURE 2b
Hydrograph Area Map – Existing Condition



Legado
Inflow Hydrographs
Existing Condition

Drainage Area	Acre (Ac)	Hydrograph 100-yr 1-hr (cfs)	Hydrograph 100-yr 3-hr (cfs)	Hydrograph 100-yr 6-hr (cfs)	Hydrograph 100-yr 24-hr (cfs)
A	212.4	533.69	327.34	286.42	126.34
B	381.6	740.93	516.01	455.46	224.22
C	103.2	319.34	180.72	154.61	65.49
D	118.9	265.59	180.59	155.86	75.3
Confluence =		**1666.67**	**1169.45**	**1019.56**	**488.05**

LEGEND

- OFF-SITE DRAINAGE AREA C TRIBUTARY TO EXISTING CALTRANS CULVERT
- OFF-SITE DRAINAGE AREA D TRIBUTARY TO EXISTING CALTRANS CULVERT
- INDICATES DRAINAGE BOUNDARY
- INDICATES AREA BOUNDARY
- INDICATES FLOWLINE LOCATION

DRAINAGE AREAS C&D ARE NOT OFF-SITE TRIBUTARY TO LEGADO DEVELOPMENT

SCALE: 1"=300'
0 300 600 900 1,200

K&A Engineering, Inc.
ENGINEERING
LAND PLANNING
SURVEYING
357 N. SHERIDAN STREET
SUITE 117
CORONA, CALIFORNIA 92880
TEL. (951) 279-1800
FAX (951) 279-4380

AERIAL TOPOGRAPHY BY:

REVISIONS			
REV	DATE	DESCRIPTION	APD

FIGURE: 2b

City of Menifee

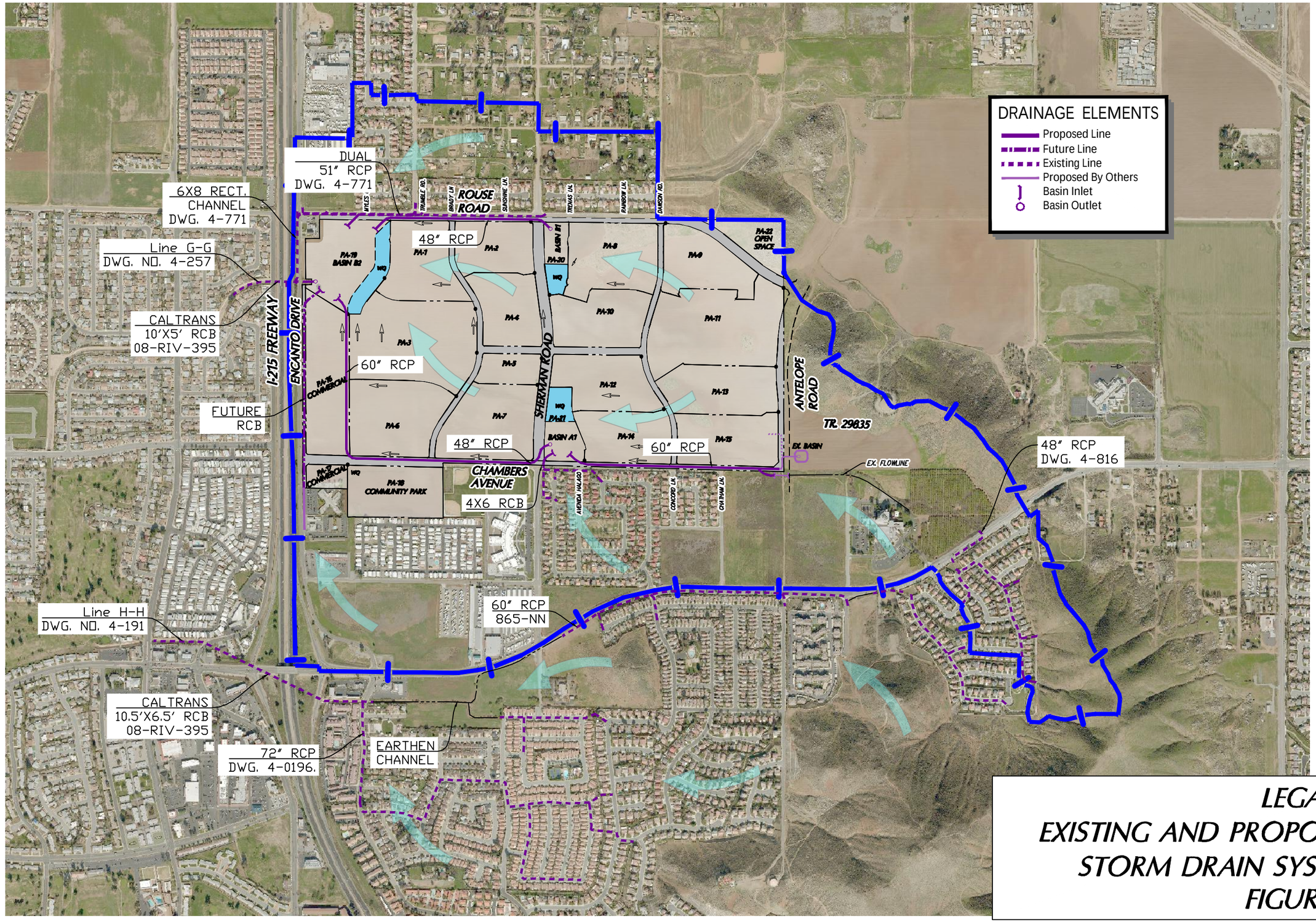
LEGADO
HYDROLOGY MAP
EXISTING CONDITION

Drawn By: _____
Checked By: _____
Scale: AS SHOWN

DWG. NO. _____
SHEET 1
OF 1 SHEETS

Drawing: R:\33850R\Final\Design\Working\JT\Drainage\0419\Hydro exist-0419-Fig 2b.dwg Layout: 30x42 L Saved: 5/7/2019 2:57 PM Plotted: 5/7/2019 3:00 PM By: Xavier Pfister

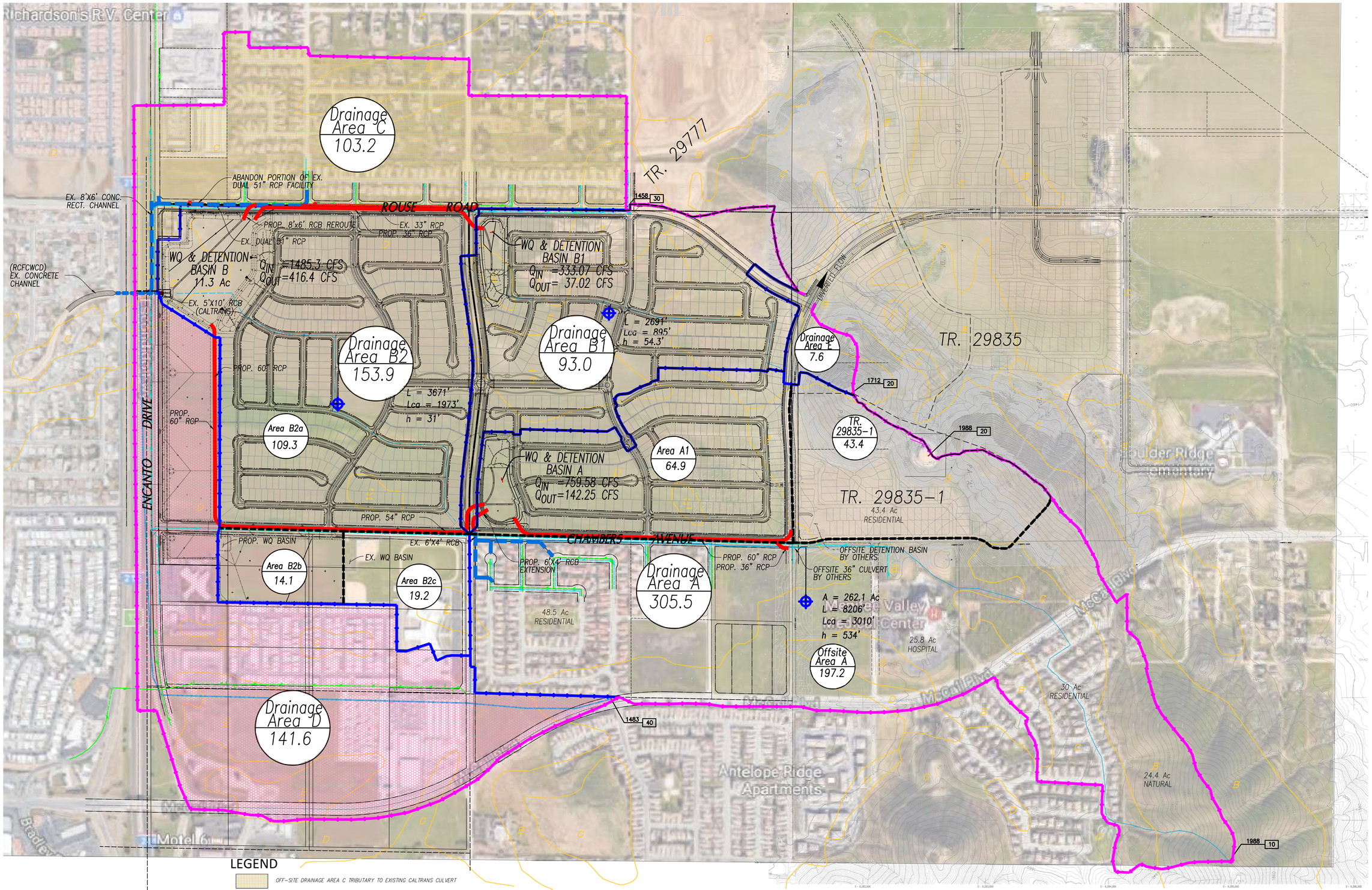
FIGURE 3a
Proposed Storm Drain Systems



LEGADO
EXISTING AND PROPOSED STORM DRAIN SYSTEM
FIGURE 3a

Drawing: R:\338506\Final\Design\Working\JY\Drainage\0419\Existing & Proposed SD-Fig 3a.dwg Layout: p 11x17 L Saved: 4/29/2019 8:28 AM Plotted: 5/3/2019 4:24 PM Plot Scale: 1:1 By: Xavier Pfister

FIGURE 3b
Hydrograph Area Map – Proposed / Ultimate Condition



Summary of Peak Discharge at Existing Outlet 5'(H) x 10' (W) Caltrans Culvert:

Storm Frequency	Existing Peak Discharge	Proposed Peak Discharge (Detention Basin Outflow)	Different	Different
	(cfs)	(cfs)	(cfs)	(%)
100-yr 1-hr	1666.67	382.18	-1284.49	-77%
100-yr 3-hr	1169.45	410.70	-758.75	-65%
100-yr 6-hr	1019.56	416.38	-603.18	-59%
100-yr 24-hr	488.05	340.57	-147.48	-30%

LEGEND

- OFF-SITE DRAINAGE AREA C TRIBUTARY TO EXISTING CALTRANS CULVERT
- OFF-SITE DRAINAGE AREA D TRIBUTARY TO EXISTING CALTRANS CULVERT
- INDICATES DRAINAGE BOUNDARY
- INDICATES AREA BOUNDARY
- INDICATES FLOWLINE LOCATION
- Area D 100.0 INDICATES DRAINAGE AREA
- INDICATES EXSITING STORM DRAIN
- INDICATES PROPOSED STORM DRAIN

DRAIINAGE AREAS C & D ARE NOT OFF-SITE TRIBUTARY TO LEGADO DEVELOPMENT

SCALE: 1"=300'
0 300 600 900 1,200

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FAX (951) 279-4380

AERIAL TOPOGRAPHY BY:

REVISIONS			
REV	DATE	DESCRIPTION	APD
.	.	.	

FIGURE: 3b

City of Menifee

LEGADO
HYDROLOGY MAP
DEVELOPED CONDITION

Drawn By: .
Checked By: .
Scale: AS SHOWN

DWG. NO. _____
SHEET 1
OF 1 SHEETS

FIGURE 4a
Drainage Area A Hydrologic Workmap

LEGADO - HYDROLOGIC WORKMAP

DRAINAGE AREA "A" (PROPOSED)

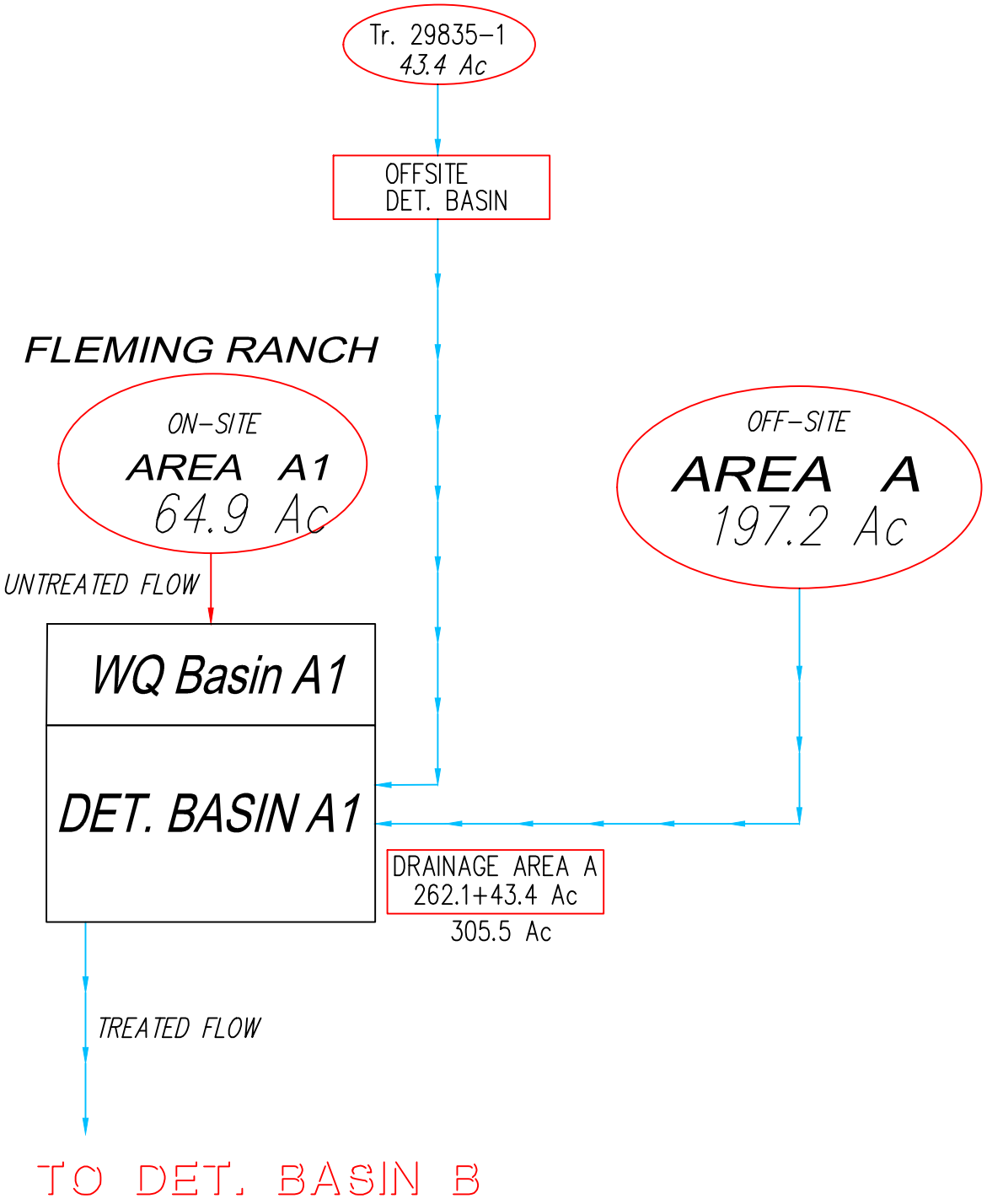


FIGURE 4b
Drainage Area B1 Hydrologic Workmap

LEGADO - HYDROLOGIC WORKMAP

DRAINAGE AREA "B1" (PROPOSED)

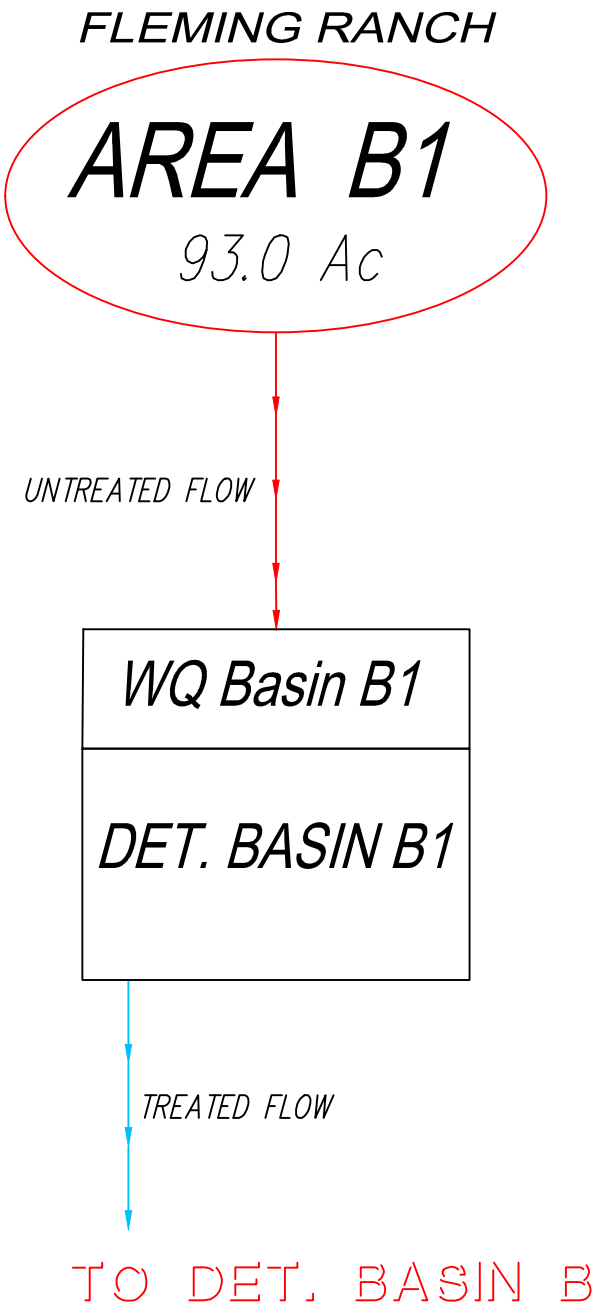


FIGURE 4c
Drainage Area B2CD Hydrologic Workmap

LEGADO - HYDROLOGIC WORKMAP

DRAINAGE AREAs "B2,C&D" (PROPOSED)

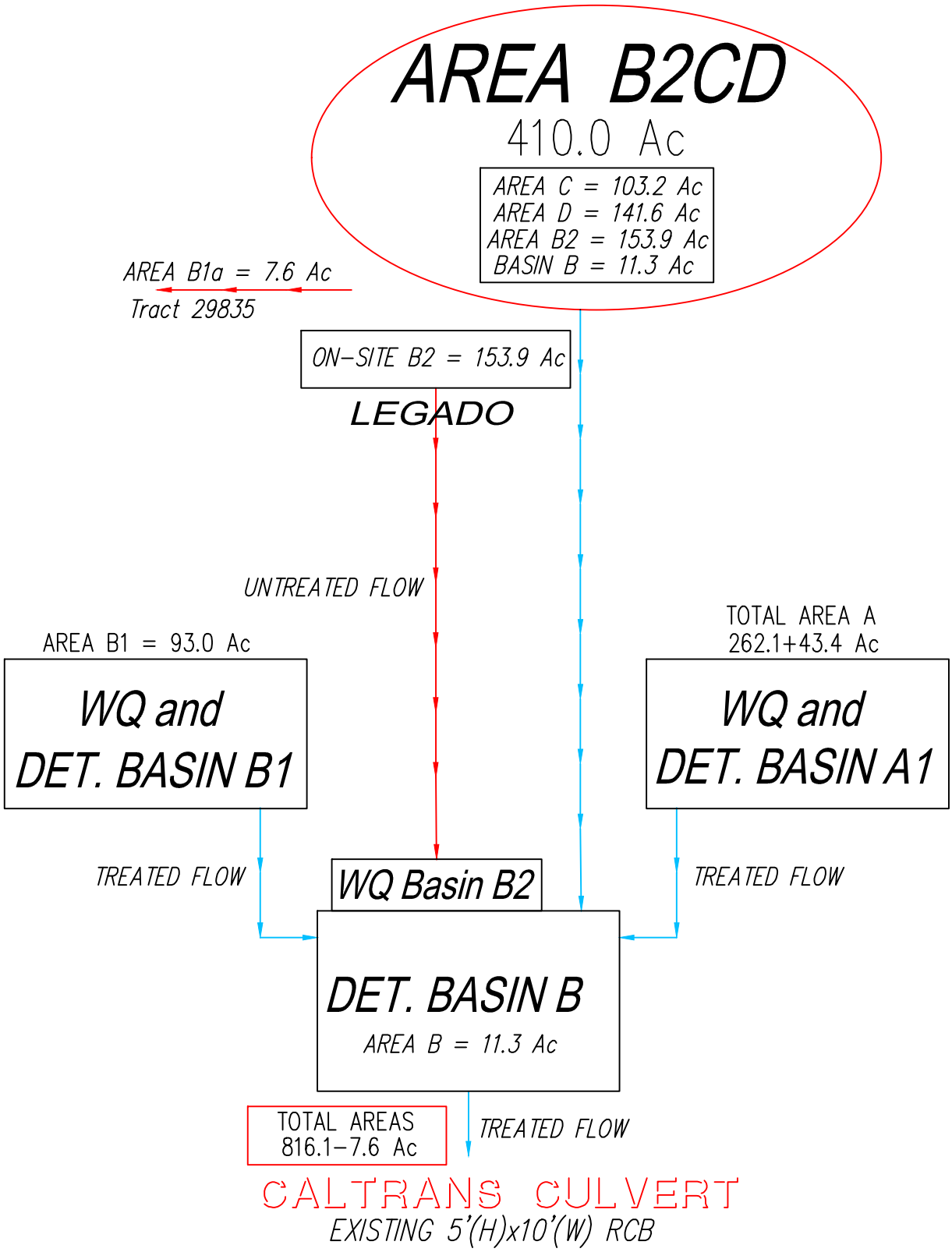
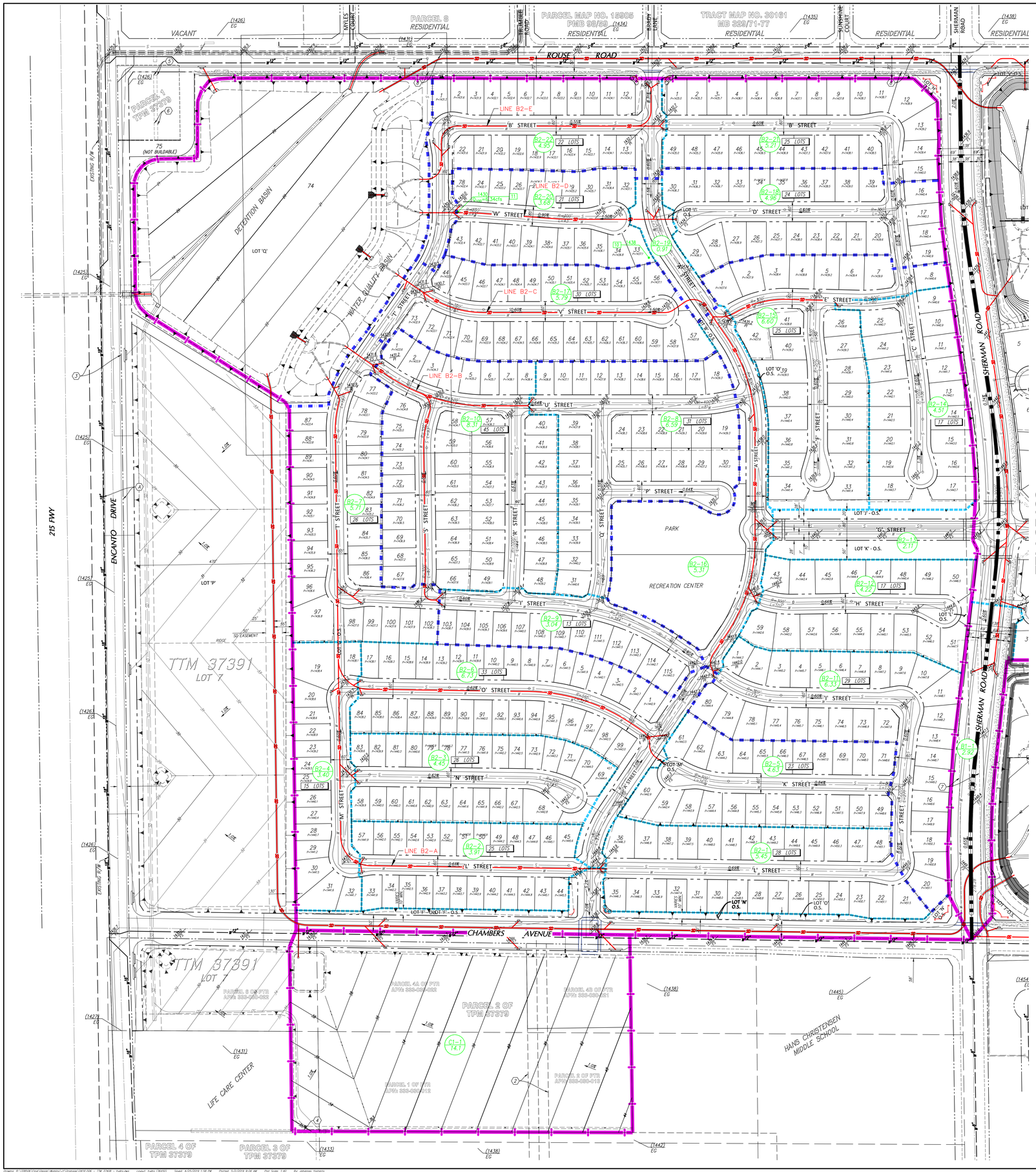


FIGURE 5a
Hydrology Map – On-site Tract 37408

VESTING TENTATIVE TRACT MAP NO. 37408

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Riverside County National Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2005 Version 7.1
                    National Hydrology Study        Date: 08/22/18  File:streamtech.out
------------------------------------------------------------------------
Fleming Ranch
Rational Method for Initial Area for Land Use 1 = 0.65
------------------------------------------------------------------------
*********  Hydrology Study Control Information **********

English (in-lb) Units used in input data file
------------------------------------------------------------------------
Program License Serial Number 4029
------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) = 100.00 Antecedent Moisture Condition = 2

Standard Intensity-duration curves data (Plate D-4.1)
For the [ Sun City ] area used.
10 year storm 10 minute intensity =  2.250(In/Hr)
10 year storm 60 minute intensity =  0.890(In/Hr)
100 year storm 10 minute intensity =  3.960(In/Hr)
100 year storm 60 minute intensity =  1.300(In/Hr)

Storm event year = 100.0
Calculated rainfall intensity data:
2 hour intensity = 1.300(In/Hr)
Slope 1 used for 0 to 10.0 flow curve = 0.5300
------------------------------------------------------------------------
Process from Point/Station      10.000 to Point/Station      11.000
**** INITIAL AREA EVALUATION ****

Initial area flow distance =  438.000(Ft.)
Top (of initial area) elevation =  1438.000(Ft.)
Bottom (of initial area) elevation =  1430.000(Ft.)
Difference in elevation =  8.000(Ft.)
Slope =  0.00734  s(percent)=  1.29
TC = k(0.970)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =  11.339 min.
Rainfall intensity =  3.115(In/Hr) for a  100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.849
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2 ) =  65.00
Pervious area fraction =  0.350; Impervious fraction =  0.650
Initial subarea runoff =  9.732(CFS)
Total initial stream area =  3.680(Ac.)
Pervious area fraction = 0.350
End of computation, total study area =  3.68 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.350
Area averaged RI index number =  69.0
```

Rating Table for Circular Pipe - RCP

Project Description

Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.0100	ft/ft
Normal Depth	3.50	ft
Diameter	3.50	ft
Discharge	100.60	ft^3/s

Diameter (ft)	Channel Slope (ft/ft)	Normal Depth (ft)	Discharge (ft^3/s)	Velocity (ft/s)	Flow Area (ft^2)	Wetted Perimeter (ft)	Top Width (ft)
1.50	0.0050	1.50	7.43	4.20	1.77	4.71	0.00
1.50	0.0100	1.50	10.50	5.94	1.77	4.71	0.00
1.50	0.0150	1.50	12.86	7.28	1.77	4.71	0.00
1.50	0.0200	1.50	14.85	8.41	1.77	4.71	0.00
2.00	0.0050	2.00	16.00	5.09	3.14	6.28	0.00
2.00	0.0100	2.00	22.62	7.20	3.14	6.28	0.00
2.00	0.0150	2.00	27.71	8.82	3.14	6.28	0.00
2.00	0.0200	2.00	31.99	10.18	3.14	6.28	0.00
2.50	0.0050	2.50	29.00	5.91	4.91	7.85	0.00
2.50	0.0100	2.50	41.01	8.36	4.91	7.85	0.00
2.50	0.0150	2.50	50.23	10.23	4.91	7.85	0.00
2.50	0.0200	2.50	58.00	11.82	4.91	7.85	0.00
3.00	0.0050	3.00	47.16	6.67	7.07	9.42	0.00
3.00	0.0100	3.00	66.69	9.44	7.07	9.42	0.00
3.00	0.0150	3.00	81.68	11.56	7.07	9.42	0.00
3.00	0.0200	3.00	94.32	13.34	7.07	9.42	0.00
3.50	0.0050	3.50	71.14	7.39	9.62	11.00	0.00
3.50	0.0100	3.50	100.60	10.46	9.62	11.00	0.00
3.50	0.0150	3.50	123.21	12.81	9.62	11.00	0.00
3.50	0.0200	3.50	142.28	14.79	9.62	11.00	0.00
4.00	0.0050	4.00	101.57	8.08	12.57	12.57	0.00
4.00	0.0100	4.00	143.64	11.43	12.57	12.57	0.00
4.00	0.0150	4.00	175.92	14.00	12.57	12.57	0.00
4.00	0.0200	4.00	203.13	16.16	12.57	12.57	0

LEGADO - Menifee
Tract 37408

Area	Acre (Ac)	Unit Q *) (cfs/Ac)	Subarea Q100 (cfs)	Total Q100 (cfs)	SD Sizing (in)	Minimum Slope (%)
Line B2-A						
B2-1	5.45	2.7	14.72		**24**	0.5
B2-2	3.91	2.7	10.56	25.27	**30**	0.5
B2-3	4.45	2.7	12.02	37.29	**36**	0.5
B2-4	3.4	2.7	9.18	46.47	**36**	0.5
B2-5	4.63	2.7	12.50	58.97	**36**	1
B2-6	6.73	2.7	18.17	77.14	**42**	0.6
B2-7	5.71	2.7	15.42	92.56	**42**	1
Line B2-B						
B2-8	6.59	2.7	17.79		**24**	1
B2-9	3.04	2.7	8.21	26.00	**30**	0.5
B2-10	8.31	2.7	22.44	48.44	**36**	0.6
Line B2-C						
B2-11	6.33	2.7	17.09		**24**	0.6
B2-12	4.22	2.7	11.39	28.49	**30**	0.6
B2-13	2.11	2.7	5.70	34.18	**30**	0.7
B2-14	4.51	2.7	12.18	46.36	**36**	0.5
B2-15	6.6	2.7	17.82	64.18	**36**	1
B2-16	5.31	2.7	14.34	78.52	**42**	0.6
B2-17	5.79	2.7	15.63	94.15	**42**	0.8
Line B2-D						
B2-18	4.96	2.7	13.39		**24**	0.5
B2-19	0.91	2.7	2.46	15.85	**24**	0.5
B2-20	3.68	2.7	9.94	25.79	**30**	0.5
Line B2-E						
B2-21	5.21	2.7	14.07		**24**	0.5
B2-22	4.95	2.7	13.37	27.43	**30**	0.5

***) From Rational Method Initial Area for Condominium landuse**

***) Q100 = 9.733/3.68 = 2.64 ==> 2.7 cfs/Ac (conservative)**

LEGEND

- Drainage Area Boundary
- Drainage Sub Area Boundary
- CB Drainage Sub Area Boundary
- General Surface Flow Direction
- L=1,300' — Flow Length
- A-3 / 0.26 — Drainage Sub Area Designation / Sub Area Acreage (MAINLINE HYDROLOGY)
- Qss=5.55cfs, Qtot=10.45cfs — Sub Area Flow
- 1440 / 25 / Qs=5.55cfs / Qtot=10.45cfs — Node Elevation, Hydrology Node Number, Cummulative Flow
- Soil Type Boundary

SCALE: 1"=100'

0 100 200 300 400

ON-SITE HYDROLOGY MAP
FIGURE 5a

PREPARED FOR:
NEWPORT PACIFIC LAND GROUP OF COMPANIES

REVISIONS		
REV	DATE	DESCRIPTION	APD

AERIAL PHOTOGRAPHY BY:

PREPARED BY:
K&A Engineering, Inc.
ENGINEERING
LAND PLANNING
SURVEYING
357 N. SHERIDAN STREET
SUITE 117
CORONA, CALIFORNIA 92880
TEL (951) 279-1800
FAX (951) 279-4380

CITY OF MENIFEE
TENTATIVE TRACT MAP
NO. 37408
SCHEDULE "A"

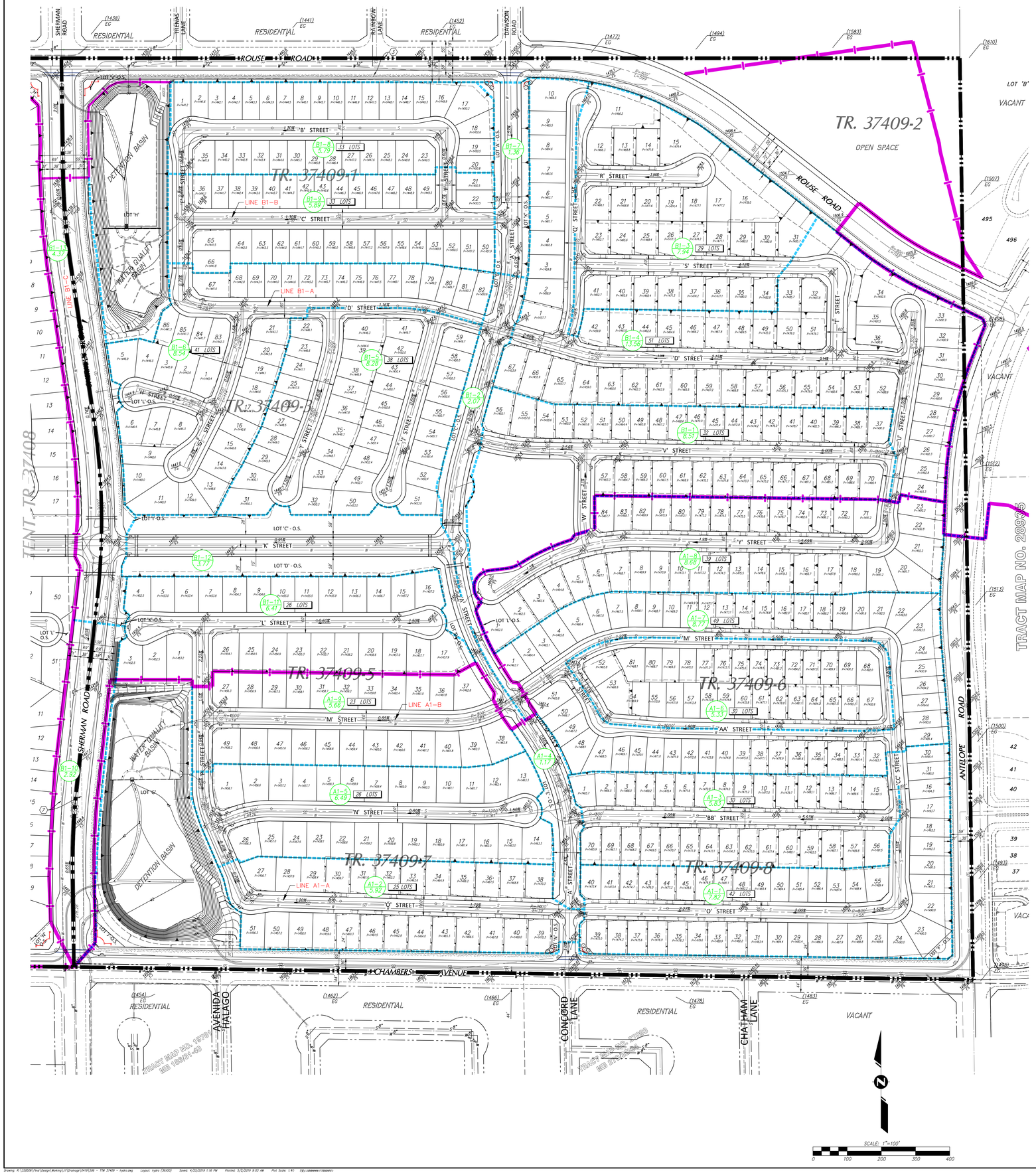
Drawn By:	XP
Checked By:	AF
Scale:	AS SHOWN

DWG. NO.
SHEET
OF 1 SHEET 1

Drawing: R:\338506\Final Design\Working\Grading\Hydrology\338506 - TTM 37408 - Hydro.dwg Layout: Hydro (36X50) Saved: 4/25/2019 1:58 PM Plotted: 5/2/2019 9:04 AM Plot Scale: 1:40 By: Johannes Yostanto

FIGURE 5b
Hydrology Map – On-site Tract 37409

VESTING TENTATIVE TRACT MAP NO. 37409



```
Riverside County Rational Hydrology Program

 CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2005 Version 7.1
              Rational Hydrology Study        Date: 08/22/18  File:frattests.out
 ------------------------------------------------------------------------
 Fleming Ranch
 National Method for Initial Area for Land Use I = 0.40
 ------------------------------------------------------------------------
  *********   Hydrology Study Control Information **********

  English (in-lb) Units used in input data file
 ------------------------------------------------------------------------
 Program License Serial Number 6029
 ------------------------------------------------------------------------
 Rational Method Hydrology Program based on
 Riverside County Flood Control & Water Conservation District
 1978 hydrology manual

 Storm event (year) =  100.00 Antecedent Moisture Condition = 2

 Standard intensity-duration curves data (Plate D-4.1)
 For the [ San City ] area used.
 10 year storm 10 minute intensity =  2.250(in/Hr)
 10 year storm 60 minute intensity =  0.870(in/Hr)
 100 year storm 10 minute intensity =  3.960(in/Hr)
 100 year storm 60 minute intensity =  1.390(in/Hr)

 Storm event year = 100.0
 Calculated rainfall intensity data:
 1 hour intensity =  1.390(in/Hr)
 Slope of intensity duration curve = 0.5300
 ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
 Process from Point/Station      10.000 to Point/Station      11.000
 **** INITIAL AREA EVALUATION ****

 Initial area flow distance =  616.000(Ft.)
 Top (of initial area) elevation =  1430.000(Ft.)
 Bottom (of initial area) elevation =  1430.000(Ft.)
 Difference in elevation =  0.000(Ft.)
 Slope =  0.01294  s(percent)=  1.29
 TC = k(0.370)*[(length^3)/(elevation change)]^0.2
 Initial area time of concentration =  11.539 min.
 Rainfall Intensity =  3.115(In/Hr) for a  100.0 year storm
 CONDOMINIUM subarea type
 Runoff Coefficient = 0.849
 Decimal fraction soil group A = 0.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 1.000
 Decimal fraction soil group D = 0.000
 RI index for soil(AMC 2) =  69.00
 Pervious area fraction =  0.350; Impervious fraction =  0.650
 Initial subarea runoff =  9.733(CFS)
 Total initial stream area =  3.680(Ac.)
 Pervious area fraction = 0.350
 End of computations, total study area =  3.68 (Ac.)
 The following figures may
 be used for a unit hydrograph study of the same area.

 Area averaged pervious area fraction(Ap) = 0.350
 Area averaged RI index number =  69.2
```

Rating Table for Circular Pipe - RCP

Project Description

Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.0100	ft/ft
Normal Depth	3.50	ft
Diameter	3.50	ft
Discharge	100.60	ft³/s

Diameter (ft)	Channel Slope (ft/ft)	Normal Depth (ft)	Discharge (ft³/s)	Velocity (ft/s)	Flow Area (ft²)	Wetted Perimeter (ft)	Top Width (ft)
1.50	0.0050	1.50	7.43	4.20	1.77	4.71	0.00
1.50	0.0100	1.50	10.50	5.94	1.77	4.71	0.00
1.50	0.0150	1.50	12.86	7.28	1.77	4.71	0.00
1.50	0.0200	1.50	14.85	8.41	1.77	4.71	0.00
2.00	0.0050	2.00	16.00	5.09	3.14	6.28	0.00
2.00	0.0100	2.00	22.62	7.20	3.14	6.28	0.00
2.00	0.0150	2.00	27.71	8.82	3.14	6.28	0.00
2.00	0.0200	2.00	31.99	10.18	3.14	6.28	0.00
2.50	0.0050	2.50	29.00	5.91	4.91	7.85	0.00
2.50	0.0100	2.50	41.01	8.36	4.91	7.85	0.00
2.50	0.0150	2.50	50.23	10.23	4.91	7.85	0.00
2.50	0.0200	2.50	58.00	11.82	4.91	7.85	0.00
3.00	0.0050	3.00	47.16	6.67	7.07	9.42	0.00
3.00	0.0100	3.00	66.69	9.44	7.07	9.42	0.00
3.00	0.0150	3.00	81.68	11.56	7.07	9.42	0.00
3.00	0.0200	3.00	94.32	13.34	7.07	9.42	0.00
3.50	0.0050	3.50	71.14	7.39	9.62	11.00	0.00
3.50	0.0100	3.50	100.60	10.46	9.62	11.00	0.00
3.50	0.0150	3.50	123.21	12.81	9.62	11.00	0.00
3.50	0.0200	3.50	142.28	14.79	9.62	11.00	0.00
4.00	0.0050	4.00	101.57	8.08	12.57	12.57	0.00
4.00	0.0100	4.00	143.64	11.43	12.57	12.57	0.00
4.00	0.0150	4.00	175.92	14.00	12.57	12.57	0.00
4.00	0.0200	4.00	203.13	16.16	12.57	12.57	0.

LEGADO - Menifee
Tract 37409

Area	Acre (Ac)	Unit Q *) (cfs/Ac)	Subarea Q100 (cfs)	Total Q100 (cfs)	SD Sizing (in)	Minimum Slope (%)
Line A1-A						
A1-1	7.82	2.7	21.11		**24**	1
A1-2	5.92	2.7	15.98	37.10	**30**	0.9
A1-3	5.83	2.7	15.74	52.84	**36**	0.7
A1-4	1.17	2.7	3.16	56.00	**36**	0.8
A1-5	6.49	2.7	17.52	73.52	**42**	0.6
Line A1-B						
A1-6	5.33	2.7	14.39		**24**	0.5
A1-7	8.77	2.7	23.68	38.07	**30**	0.9
A1-8	8.68	2.7	23.44	61.51	**36**	0.7
A1-9	5.66	2.7	15.28	76.79	**42**	0.6

***) From Rational Method Initial Area for Condominium landuse**
***) Q100 = 9.733/3.68 = 2.64 ==> 2.7 cfs/Ac (conservative)**

LEGADO - Menifee
Tract 37409

Area	Acre (Ac)	Unit Q *) (cfs/Ac)	Subarea Q100 (cfs)	Total Q100 (cfs)	SD Sizing (in)	Minimum Slope (%)
Line B1-A						
B1-1	8.51	2.7	22.98		**24**	0.8
B1-2	2.07	2.7	5.59	28.57	**30**	1.3
B1-3	7.94	2.7	21.44	50.00	**36**	0.7
B1-4	13.53	2.7	36.53	86.54	**36**	1.3
B1-5	8.28	2.7	22.36	108.89	**42**	1.2
B1-6	8.54	2.7	23.06	131.95	**48**	0.9
Line B1-B						
B1-7	1.36	2.7	3.67		**18**	0.5
B1-8	5.79	2.7	15.63	19.31	**24**	0.8
B1-9	5.89	2.7	15.90	35.21	**30**	0.8
Line B1-C						
B1-10	2.92	2.7	7.88		**24**	0.7
B1-11	6.41	2.7	17.31	25.19	**24**	0.7
B1-12	3.77	2.7	10.18	35.37	**30**	0.5
B1-13	4.37	2.7	11.80	47.17	**36**	1

***) From Rational Method Initial Area for Condominium landuse**
***) Q100 = 9.733/3.68 = 2.64 ==> 2.7 cfs/Ac (conservative)**

ON-SITE HYDROLOGY MAP
FIGURE 5b

PREPARED FOR:
NEWPORT PACIFIC LAND GROUP OF COMPANIES

PREPARED BY:
K&A Engineering, Inc.
ENGINEERING
LAND PLANNING
SURVEYING
357 N. SHERIDAN STREET
SUITE 117
CORONA, CALIFORNIA 92880
TEL (951) 279-1800
FAX (951) 279-4380

REVISIONS			
REV	DATE	DESCRIPTION	APD

AERIAL PHOTOGRAPHY BY:

CITY OF MENIFEE
TENTATIVE TRACT MAP NO. 37409
SCHEDULE "A"

Drawn By: XP
Checked By: AF
Scale: AS SHOWN
DWG. NO.
SHEET OF 1 SHEET 1

Drawing: R:\13850\Civil\Final Design\Working\1of1Drainage\24913SB - TTM 37409 - hydro.dwg Layout: Hydro (36X36) Saved: 4/25/2019 1:16 PM Plotted: 5/2/2019 9:03 AM Plot Scale: 1.40 http://autodesk.com/autocad

ATTACHMENTS

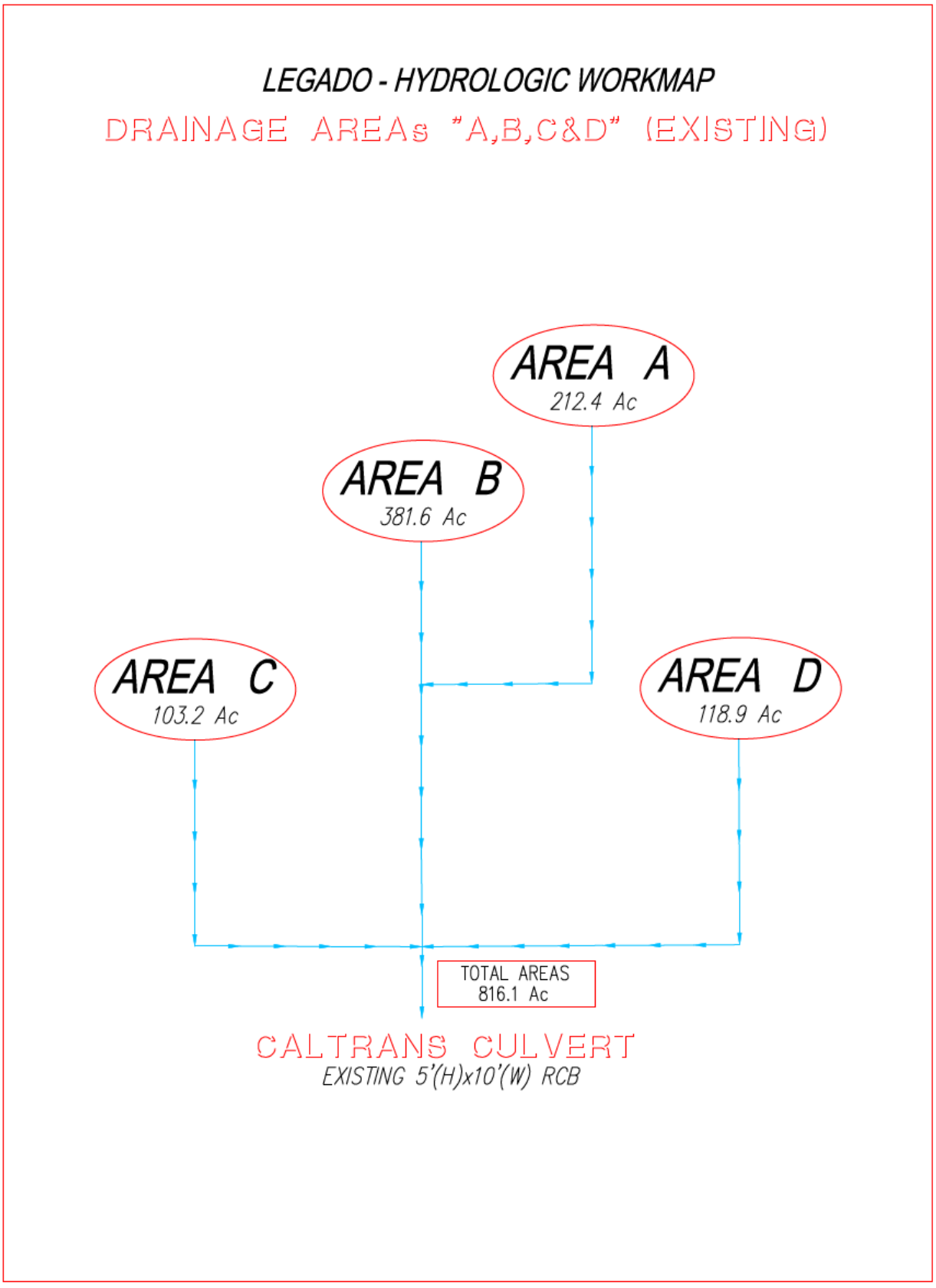
ATTACHMENT A
Unit Hydrographs
Existing Condition – Areas A Thru D and Combine ABCD
(100 Year 1-hr, 3-hr, 6-hr, 24-hr storm)

Inflow Hydrographs

Summary Hydrology Drainage Areas A, B, C, D and Confluence ABCD –

Existing Condition – Unit Hydrographs 100-year 1-hr, 3-hr, -6-hr, -24hr storm:

Drainage Area	Acre (Ac)	Hydrograph 100-yr 1-hr (cfs)	Hydrograph 100-yr 3-hr (cfs)	Hydrograph 100-yr 6-hr (cfs)	Hydrograph 100-yr 24-hr (cfs)
A	212.4	533.69	327.34	286.42	126.34
B	381.6	740.93	516.01	455.46	224.22
C	103.2	319.34	180.72	154.61	65.49
D	118.9	265.59	180.59	155.86	75.30
Confluence =		**1666.67**	**1169.45**	**1019.56**	**488.05**


LEGADO - HYDROLOGIC WORKMAP
DRAINAGE AREAs "A,B,C&D" (EXISTING)
AREA A
212.4 Ac
AREA B
381.6 Ac
AREA C
103.2 Ac
AREA D
118.9 Ac
TOTAL AREAS
816.1 Ac
CALTRANS CULVERT
EXISTING 5'(H)x10'(W) RCB

Drainage Area A (Existing Condition) = 212.4 Ac

Soil Low Loss Rate Worksheet

Drainage Area A – 212.4 Ac (Existing)

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Subarea	**Area in (Ac)**	**Land Use (Plate D-5.6)**	**% Impervious (Plate D-5.6)**	**Soil Low Loss Rate 0.9-(0.8)* [4]**	**Decimal portion of Area [2] / SUM[2]**	**Average Low Loss Rate [5] * [6]**
	98.1	Natural	0	0.90	0.47	0.42
		Res 1 Ac	20	0.74	0.00	0.00
		Res 1/2 Ac	40	0.58	0.00	0.00
	30	Res 1/4 Ac	50	0.50	0.14	0.07
	48.5	Res < 1/4 Ac	65	0.38	0.23	0.09
		Apartment	80	0.26	0.00	0.00
		Mobil Home	75	0.30	0.00	0.00
	25.8	Hospital	75	0.30	0.12	0.04
	10	Commercial	90	0.18	0.05	0.01
Sum =	212.4				1.00	0.62

Manning "n" Value Worksheet

Drainage Area A - 212.4 Ac (Existing)

[1]	[2]	[3]	[4]	[5]	[7]
Subarea	**Area in (Ac)**	**Land Use (Plate D-5.6)**	**"n" Value**	**Decimal portion of Area [2] / SUM[2]**	**Average "n" Value [4] * [5]**
	98.1	Natural	0.04	0.47	0.019
		Res 1 Ac	0.015	0.00	0.000
		Res 1/2 Ac	0.015	0.00	0.000
	30	Res 1/4 Ac	0.015	0.14	0.002
	48.5	Res < 1/4 Ac	0.015	0.23	0.003
		Apartment	0.015	0.00	0.000
		Mobil Home	0.015	0.00	0.000
	25.8	Hospital	0.02	0.12	0.002
	10	Commercial	0.015	0.05	0.001
Sum =	**212.4**			1.00	**0.027**

Runoff Index (RI) Worksheet

Drainage Area A – 212.4 Ac (Existing)

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Subarea	**Area in (Ac)**	**Soil Group**	**Cover Type**	**RI Number (Plate E6-1)**	**Land Use**	**Decimal portion of Area [2] / SUM[2]**	**Average RI Value [5] * [7]**
Natural	67.8	B	grass (fair)	69	Natural	0.69	47.7
	10.1	C	grass (fair)	79	Natural	0.10	8.1
	20.2	D	grass (fair)	84	Natural	0.21	17.3
Sum =	***98.1***					1.00	**73.1**
Res 1/4 Ac	9.9	B	Landscape	56	Res 1/4 Ac	0.33	18.5
	20.1	C	Landscape	69	Res 1/4 Ac	0.67	46.2
	0	D	Landscape	75	Res 1/4 Ac	0.00	0.0
Sum =	***30***					1.00	**64.7**
Res < 1/4 Ac	5.3	B	Landscape	56	Res < 1/4 Ac	0.11	6.1
	0.9	C	Landscape	69	Res < 1/4 Ac	0.02	1.3
	42.3	D	Landscape	75	Res < 1/4 Ac	0.87	65.4
Sum =	***48.5***					1.00	**72.8**
Hospital	19.8	B	Landscape	56	Hospital	0.77	43.0
	4.2	C	Landscape	69	Hospital	0.16	11.2
	1.8	D	Landscape	75	Hospital	0.07	5.2
Sum =	***25.8***					1.00	**59.4**

Commercial	6.2	B	Landscape	56	Commercial	0.62	34.7
	2.1	C	Landscape	69	Commercial	0.21	14.5
	1.7	D	Landscape	75	Commercial	0.17	12.8
Sum =	***10***					1.00	**62.0**

```
       U n i t   H y d r o g r a p h   A n a l y s i s

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              Study date  04/23/19 File: lgexareaa1100.out


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
------------------------------------------------------------------------------

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Legado
Existing Condition
100-year 1-hour storm Hydrograph
Drainage Area A = 212.4 Ac

------------------------------------------------------------------------
Drainage Area =     212.40(Ac.)  =      0.332 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     212.40(Ac.)  =      0.332 Sq. Mi.
Length along longest watercourse =    7880.00(Ft.)
Length along longest watercourse measured to centroid =    3380.00(Ft.)
Length along longest watercourse =      1.492 Mi.
Length along longest watercourse measured to centroid =      0.640 Mi.
Difference in elevation =     538.00(Ft.)
Slope along watercourse =    360.4873 Ft./Mi.
Average Manning's 'N' = 0.027
Lag time =    0.208 Hr.
Lag time =    12.48 Min.
25% of lag time =     3.12 Min.
40% of lag time =     4.99 Min.
Unit time =     5.00 Min.
Duration of storm = 1 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      212.40           0.52                 110.45

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      212.40           1.64                 348.34

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.520(In)
Area Averaged 100-Year Rainfall =    1.640(In)

Point rain (area averaged) =    1.640(In)
Areal adjustment factor =   99.81 %
Adjusted average point rain =    1.637(In)

Sub-Area Data:
```

Area(Ac.)	Runoff Index	Impervious %
98.100	73.10	0.000
30.000	64.70	0.500
48.500	72.80	0.650
25.800	59.40	0.750
10.000	62.00	0.900

Total Area Entered = 212.40(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
73.1	86.9	0.166	0.000	0.166	0.462	0.077
64.7	81.8	0.224	0.500	0.123	0.141	0.017
72.8	86.7	0.168	0.650	0.070	0.228	0.016
59.4	77.5	0.273	0.750	0.089	0.121	0.011
62.0	79.6	0.249	0.900	0.047	0.047	0.002
					Sum (F) =	0.123

Area averaged mean soil loss (F) (In/Hr) = 0.123
Minimum soil loss rate ((In/Hr)) = 0.061
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.620

Slope of intensity-duration curve for a 1 hour storm =0.5000

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	40.049	4.364	9.342
2	0.167	80.097	17.926	38.372
3	0.250	120.146	26.779	57.323
4	0.333	160.194	17.422	37.293
5	0.417	200.243	8.510	18.217
6	0.500	240.291	5.372	11.500
7	0.583	280.340	4.014	8.593
8	0.667	320.388	3.076	6.584
9	0.750	360.437	2.439	5.221
10	0.833	400.485	1.937	4.147
11	0.917	440.534	1.516	3.245
12	1.000	480.582	1.258	2.693
13	1.083	520.631	1.161	2.486
14	1.167	560.679	0.913	1.954
15	1.250	600.728	0.764	1.635
16	1.333	640.776	0.638	1.365
17	1.417	680.825	0.513	1.099
18	1.500	720.873	0.405	0.866
19	1.583	760.922	0.400	0.857
20	1.667	800.970	0.591	1.265
			Sum = 100.000	Sum= 214.059

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	4.20	0.825	0.123	(0.511)	0.702
2	0.17	4.30	0.845	0.123	(0.524)	0.722
3	0.25	5.00	0.982	0.123	(0.609)	0.859
4	0.33	5.00	0.982	0.123	(0.609)	0.859
5	0.42	5.80	1.139	0.123	(0.706)	1.016
6	0.50	6.50	1.277	0.123	(0.792)	1.154
7	0.58	7.40	1.454	0.123	(0.901)	1.331
8	0.67	8.60	1.689	0.123	(1.047)	1.566

```
 9   0.75    12.30      2.416          0.123    (  1.498)        2.293
10   0.83    29.10      5.716          0.123    (  3.544)        5.593
11   0.92     6.80      1.336          0.123    (  0.828)        1.213
12   1.00     5.00      0.982          0.123    (  0.609)        0.859
              (Loss Rate Not Used)
   Sum =     100.0                                  Sum =    18.2
      Flood volume = Effective rainfall      1.51(In)
       times area     212.4(Ac.)/[(In)/(Ft.)] =      26.8(Ac.Ft)
      Total soil loss =      0.12(In)
      Total soil loss =     2.175(Ac.Ft)
      Total rainfall =      1.64(In)
      Flood volume =     1167276.3 Cubic Feet
      Total soil loss =       94749.5 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =    533.689(CFS)
      ---------------------------------------------------------------------
      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          1 - H O U R    S T O R M
                     R u n o f f     H y d r o g r a p h
      ---------------------------------------------------------------------
                   Hydrograph in   5   Minute intervals ((CFS))

      ---------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0      150.0     300.0     450.0     600.0
---------------------------------------------------------------------------
  0+ 5       0.0452      6.56  Q          |         |         |         |
  0+10       0.2773     33.70  V Q        |         |         |         |
  0+15       0.8007     76.01  |V   Q     |         |         |         |
  0+20       1.5487    108.61  | V    Q   |         |         |         |
  0+25       2.4543    131.49  |  V    Q  |         |         |         |
  0+30       3.5037    152.37  |    V    Q|         |         |         |
  0+35       4.7233    177.09  |      V  |Q        |         |         |
  0+40       6.1434    206.20  |        V|  Q      |         |         |
  0+45       7.8318    245.16  |         |V    Q   |         |         |
  0+50      10.1201    332.25  |         |    V    | Q       |         |
  0+55      13.4100    477.71  |         |         V         |Q        |
  1+ 0      17.0856    533.69  |         |         |    V    |    Q    |
  1+ 5      19.8779    405.44  |         |         |      Q V|         |
  1+10      21.6934    263.60  |         |      Q  |         | V       |
  1+15      22.8683    170.60  |         |Q        |         |   V     |
  1+20      23.6875    118.95  |      Q  |         |         |    V    |
  1+25      24.3103     90.44  |     Q   |         |         |     V   |
  1+30      24.8036     71.62  |   Q     |         |         |      V  |
  1+35      25.1992     57.44  |  Q      |         |         |      V  |
  1+40      25.5217     46.83  |  Q      |         |         |       V |
  1+45      25.7876     38.61  | Q       |         |         |       V |
  1+50      26.0135     32.81  | Q       |         |         |       V |
  1+55      26.1966     26.58  |Q        |         |         |        V|
  2+ 0      26.3477     21.94  |Q        |         |         |        V|
  2+ 5      26.4702     17.79  |Q        |         |         |        V|
  2+10      26.5682     14.23  Q         |         |         |        V|
  2+15      26.6460     11.30  Q         |         |         |        V|
  2+20      26.7128      9.70  Q         |         |         |        V|
  2+25      26.7738      8.86  Q         |         |         |        V|
  2+30      26.7895      2.27  Q         |         |         |        V|
  2+35      26.7970      1.09  Q         |         |         |         V
---------------------------------------------------------------------------
```

```
       U n i t   H y d r o g r a p h   A n a l y s i s

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              Study date  04/23/19 File: lgexareaa3100.out


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------------------------------------------------------------------------------

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Legado
Existing Condition
100-year 3-hour storm Hydrograph
Drainage Area A = 212.4 Ac

------------------------------------------------------------------------
Drainage Area =     212.40(Ac.)  =      0.332 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     212.40(Ac.)  =      0.332 Sq. Mi.
Length along longest watercourse =    7880.00(Ft.)
Length along longest watercourse measured to centroid =    3380.00(Ft.)
Length along longest watercourse =      1.492 Mi.
Length along longest watercourse measured to centroid =      0.640 Mi.
Difference in elevation =     538.00(Ft.)
Slope along watercourse =    360.4873 Ft./Mi.
Average Manning's 'N' = 0.027
Lag time =    0.208 Hr.
Lag time =    12.48 Min.
25% of lag time =     3.12 Min.
40% of lag time =     4.99 Min.
Unit time =     5.00 Min.
Duration of storm = 3 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      212.40           0.86                182.66

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      212.40           2.27                482.15

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.860(In)
Area Averaged 100-Year Rainfall =    2.270(In)

Point rain (area averaged) =    2.270(In)
Areal adjustment factor =   99.91 %
Adjusted average point rain =    2.268(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
    98.100           73.10         0.000
```

```
    30.000          64.70         0.500
    48.500          72.80         0.650
    25.800          59.40         0.750
    10.000          62.00         0.900
 Total Area Entered =    212.40(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
73.1  86.9      0.166     0.000        0.166       0.462      0.077
64.7  81.8      0.224     0.500        0.123       0.141      0.017
72.8  86.7      0.168     0.650        0.070       0.228      0.016
59.4  77.5      0.273     0.750        0.089       0.121      0.011
62.0  79.6      0.249     0.900        0.047       0.047      0.002
                                                 Sum (F) =    0.123
Area averaged mean soil loss (F) (In/Hr) =  0.123
Minimum soil loss rate ((In/Hr)) =  0.061
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.620
------------------------------------------------------------------------

               U n i t  H y d r o g r a p h
                      VALLEY S-Curve
------------------------------------------------------------------------
               Unit Hydrograph Data
------------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                          Graph %           (CFS)
------------------------------------------------------------------------
    1   0.083         40.049          4.364             9.342
    2   0.167         80.097         17.926            38.372
    3   0.250        120.146         26.779            57.323
    4   0.333        160.194         17.422            37.293
    5   0.417        200.243          8.510            18.217
    6   0.500        240.291          5.372            11.500
    7   0.583        280.340          4.014             8.593
    8   0.667        320.388          3.076             6.584
    9   0.750        360.437          2.439             5.221
   10   0.833        400.485          1.937             4.147
   11   0.917        440.534          1.516             3.245
   12   1.000        480.582          1.258             2.693
   13   1.083        520.631          1.161             2.486
   14   1.167        560.679          0.913             1.954
   15   1.250        600.728          0.764             1.635
   16   1.333        640.776          0.638             1.365
   17   1.417        680.825          0.513             1.099
   18   1.500        720.873          0.405             0.866
   19   1.583        760.922          0.400             0.857
   20   1.667        800.970          0.591             1.265
                                Sum = 100.000   Sum=     214.059
------------------------------------------------------------------------

 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

  Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
       (Hr.)  Percent   (In/Hr)         Max   |   Low         (In/Hr)
   1   0.08     1.30      0.354          0.123    (  0.219)        0.231
   2   0.17     1.30      0.354          0.123    (  0.219)        0.231
   3   0.25     1.10      0.299          0.123    (  0.186)        0.176
   4   0.33     1.50      0.408          0.123    (  0.253)        0.285
   5   0.42     1.50      0.408          0.123    (  0.253)        0.285
   6   0.50     1.80      0.490          0.123    (  0.304)        0.367
   7   0.58     1.50      0.408          0.123    (  0.253)        0.285
   8   0.67     1.80      0.490          0.123    (  0.304)        0.367
   9   0.75     1.80      0.490          0.123    (  0.304)        0.367
  10   0.83     1.50      0.408          0.123    (  0.253)        0.285
  11   0.92     1.60      0.435          0.123    (  0.270)        0.313
  12   1.00     1.80      0.490          0.123    (  0.304)        0.367
```

```
13   1.08     2.20      0.599          0.123    (  0.371)        0.476
14   1.17     2.20      0.599          0.123    (  0.371)        0.476
15   1.25     2.20      0.599          0.123    (  0.371)        0.476
16   1.33     2.00      0.544          0.123    (  0.337)        0.421
17   1.42     2.60      0.708          0.123    (  0.439)        0.585
18   1.50     2.70      0.735          0.123    (  0.456)        0.612
19   1.58     2.40      0.653          0.123    (  0.405)        0.530
20   1.67     2.70      0.735          0.123    (  0.456)        0.612
21   1.75     3.30      0.898          0.123    (  0.557)        0.775
22   1.83     3.10      0.844          0.123    (  0.523)        0.721
23   1.92     2.90      0.789          0.123    (  0.489)        0.666
24   2.00     3.00      0.816          0.123    (  0.506)        0.694
25   2.08     3.10      0.844          0.123    (  0.523)        0.721
26   2.17     4.20      1.143          0.123    (  0.709)        1.020
27   2.25     5.00      1.361          0.123    (  0.844)        1.238
28   2.33     3.50      0.953          0.123    (  0.591)        0.830
29   2.42     6.80      1.851          0.123    (  1.147)        1.728
30   2.50     7.30      1.987          0.123    (  1.232)        1.864
31   2.58     8.20      2.232          0.123    (  1.384)        2.109
32   2.67     5.90      1.606          0.123    (  0.996)        1.483
33   2.75     2.00      0.544          0.123    (  0.337)        0.421
34   2.83     1.80      0.490          0.123    (  0.304)        0.367
35   2.92     1.80      0.490          0.123    (  0.304)        0.367
36   3.00     0.60      0.163       (  0.123)       0.101        0.062
             (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    22.8
      Flood volume = Effective rainfall      1.90(In)
       times area     212.4(Ac.)/[(In)/(Ft.)] =      33.6(Ac.Ft)
      Total soil loss =      0.37(In)
      Total soil loss =     6.494(Ac.Ft)
      Total rainfall =      2.27(In)
      Flood volume =     1465713.6 Cubic Feet
      Total soil loss =      282857.3 Cubic Feet
      --------------------------------------------------------------------
       Peak flow rate of this hydrograph =    327.342(CFS)
      --------------------------------------------------------------------
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                         3 - H O U R    S T O R M
                     R u n o f f     H y d r o g r a p h
      --------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      --------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0      100.0     200.0     300.0     400.0
-------------------------------------------------------------------------
  0+ 5       0.0149      2.16  Q          |         |         |         |
  0+10       0.0908     11.02  VQ         |         |         |         |
  0+15       0.2544     23.76  V Q        |         |         |         |
  0+20       0.4700     31.30  V  Q       |         |         |         |
  0+25       0.7218     36.57  V  Q       |         |         |         |
  0+30       1.0262     44.20  |V  Q      |         |         |         |
  0+35       1.3817     51.62  |V   Q     |         |         |         |
  0+40       1.7730     56.82  | V  Q     |         |         |         |
  0+45       2.1883     60.30  | V   Q    |         |         |         |
  0+50       2.6305     64.20  |  V  Q    |         |         |         |
  0+55       3.0782     65.00  |  V  Q    |         |         |         |
  1+ 0       3.5195     64.09  |   V Q    |         |         |         |
  1+ 5       3.9833     67.33  |   V Q    |         |         |         |
  1+10       4.5026     75.41  |    V Q   |         |         |         |
  1+15       5.0827     84.23  |     V Q  |         |         |         |
  1+20       5.6971     89.22  |     V Q  |         |         |         |
  1+25       6.3282     91.63  |      V Q |         |         |         |
  1+30       6.9966     97.06  |       VQ |         |         |         |
  1+35       7.7283    106.23  |        VQ         |         |         |
  1+40       8.4991    111.92  |         VQ        |         |         |
  1+45       9.2987    116.11  |         |Q        |         |         |
  1+50      10.1668    126.05  |         | Q       |         |         |
  1+55      11.1060    136.37  |         |  Q      |         |         |
  2+ 0      12.0668    139.51  |         |  QV     |         |         |
  2+ 5      13.0317    140.10  |         |   QV    |         |         |
```

```
    2+10      14.0329    145.38  |          |   Q V   |          |          |
    2+15      15.1499    162.19  |          |     Q V |          |          |
    2+20      16.4312    186.04  |          |       QV|          |          |
    2+25      17.8346    203.79  |          |         QV         |          |
    2+30      19.4242    230.80  |          |          |  Q      |          |
    2+35      21.3723    282.87  |          |          |    V  Q |          |
    2+40      23.6183    326.12  |          |          |       V | Q        |
    2+45      25.8727    327.34  |          |          |         V Q        |
    2+50      27.7461    272.01  |          |          |      Q  | V        |
    2+55      29.1196    199.44  |          |         Q|         |   V      |
    3+ 0      30.1701    152.52  |          |    Q     |         |    V     |
    3+ 5      30.9920    119.34  |          |Q         |         |     V    |
    3+10      31.5912     87.01  |        Q |          |         |      V   |
    3+15      32.0266     63.21  |      Q   |          |         |       V  |
    3+20      32.3610     48.56  |    Q     |          |         |       V  |
    3+25      32.6277     38.72  |  Q       |          |         |       V  |
    3+30      32.8437     31.36  |  Q       |          |         |        V |
    3+35      33.0214     25.80  | Q        |          |         |        V |
    3+40      33.1672     21.17  | Q        |          |         |        V |
    3+45      33.2867     17.35  |Q         |          |         |        V |
    3+50      33.3835     14.06  |Q         |          |         |        V |
    3+55      33.4591     10.98  |Q         |          |         |        V |
    4+ 0      33.5231      9.29  Q          |          |         |        V |
    4+ 5      33.5723      7.14  Q          |          |         |        V |
    4+10      33.6088      5.31  Q          |          |         |        V |
    4+15      33.6298      3.04  Q          |          |         |        V |
    4+20      33.6383      1.23  Q          |          |         |        V |
    4+25      33.6440      0.83  Q          |          |         |        V |
    4+30      33.6476      0.52  Q          |          |         |        V |
    4+35      33.6482      0.08  Q          |          |         |        V |
-------------------------------------------------------------------------
```

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       U n i t   H y d r o g r a p h   A n a l y s i s

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              Study date  04/23/19 File: lgexareaa6100.out


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------------------------------------------------------------------------------

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Legado
Existing Condition
100-year 6-hour storm Hydrograph
Drainage Area A = 212.4 Ac

------------------------------------------------------------------------
Drainage Area =     212.40(Ac.)  =      0.332 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     212.40(Ac.)  =      0.332 Sq. Mi.
Length along longest watercourse =    7880.00(Ft.)
Length along longest watercourse measured to centroid =    3380.00(Ft.)
Length along longest watercourse =      1.492 Mi.
Length along longest watercourse measured to centroid =      0.640 Mi.
Difference in elevation =     538.00(Ft.)
Slope along watercourse =    360.4873 Ft./Mi.
Average Manning's 'N' = 0.027
Lag time =    0.208 Hr.
Lag time =    12.48 Min.
25% of lag time =     3.12 Min.
40% of lag time =     4.99 Min.
Unit time =     5.00 Min.
Duration of storm = 6 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      212.40           1.19                252.76

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      212.40           2.98                632.95

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    1.190(In)
Area Averaged 100-Year Rainfall =    2.980(In)

Point rain (area averaged) =    2.980(In)
Areal adjustment factor =   99.93 %
Adjusted average point rain =    2.978(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
    98.100           73.10         0.000
```

```
    30.000          64.70         0.500
    48.500          72.80         0.650
    25.800          59.40         0.750
    10.000          62.00         0.900
 Total Area Entered =    212.40(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
73.1  86.9      0.166     0.000        0.166       0.462      0.077
64.7  81.8      0.224     0.500        0.123       0.141      0.017
72.8  86.7      0.168     0.650        0.070       0.228      0.016
59.4  77.5      0.273     0.750        0.089       0.121      0.011
62.0  79.6      0.249     0.900        0.047       0.047      0.002
                                                 Sum (F) =    0.123
Area averaged mean soil loss (F) (In/Hr) =  0.123
Minimum soil loss rate ((In/Hr)) =  0.061
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.620
------------------------------------------------------------------------

               U n i t  H y d r o g r a p h
                      VALLEY S-Curve
------------------------------------------------------------------------
               Unit Hydrograph Data
------------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                          Graph %           (CFS)
------------------------------------------------------------------------
    1   0.083         40.049          4.364             9.342
    2   0.167         80.097         17.926            38.372
    3   0.250        120.146         26.779            57.323
    4   0.333        160.194         17.422            37.293
    5   0.417        200.243          8.510            18.217
    6   0.500        240.291          5.372            11.500
    7   0.583        280.340          4.014             8.593
    8   0.667        320.388          3.076             6.584
    9   0.750        360.437          2.439             5.221
   10   0.833        400.485          1.937             4.147
   11   0.917        440.534          1.516             3.245
   12   1.000        480.582          1.258             2.693
   13   1.083        520.631          1.161             2.486
   14   1.167        560.679          0.913             1.954
   15   1.250        600.728          0.764             1.635
   16   1.333        640.776          0.638             1.365
   17   1.417        680.825          0.513             1.099
   18   1.500        720.873          0.405             0.866
   19   1.583        760.922          0.400             0.857
   20   1.667        800.970          0.591             1.265
                                Sum = 100.000   Sum=     214.059
------------------------------------------------------------------------

 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

  Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
       (Hr.)  Percent   (In/Hr)         Max   |   Low         (In/Hr)
    1   0.08     0.50      0.179       (  0.123)      0.111        0.068
    2   0.17     0.60      0.214          0.123    (  0.133)        0.092
    3   0.25     0.60      0.214          0.123    (  0.133)        0.092
    4   0.33     0.60      0.214          0.123    (  0.133)        0.092
    5   0.42     0.60      0.214          0.123    (  0.133)        0.092
    6   0.50     0.70      0.250          0.123    (  0.155)        0.127
    7   0.58     0.70      0.250          0.123    (  0.155)        0.127
    8   0.67     0.70      0.250          0.123    (  0.155)        0.127
    9   0.75     0.70      0.250          0.123    (  0.155)        0.127
   10   0.83     0.70      0.250          0.123    (  0.155)        0.127
   11   0.92     0.70      0.250          0.123    (  0.155)        0.127
   12   1.00     0.80      0.286          0.123    (  0.177)        0.163
```

13	1.08	0.80	0.286	0.123	(0.177)	0.163
14	1.17	0.80	0.286	0.123	(0.177)	0.163
15	1.25	0.80	0.286	0.123	(0.177)	0.163
16	1.33	0.80	0.286	0.123	(0.177)	0.163
17	1.42	0.80	0.286	0.123	(0.177)	0.163
18	1.50	0.80	0.286	0.123	(0.177)	0.163
19	1.58	0.80	0.286	0.123	(0.177)	0.163
20	1.67	0.80	0.286	0.123	(0.177)	0.163
21	1.75	0.80	0.286	0.123	(0.177)	0.163
22	1.83	0.80	0.286	0.123	(0.177)	0.163
23	1.92	0.80	0.286	0.123	(0.177)	0.163
24	2.00	0.90	0.322	0.123	(0.199)	0.199
25	2.08	0.80	0.286	0.123	(0.177)	0.163
26	2.17	0.90	0.322	0.123	(0.199)	0.199
27	2.25	0.90	0.322	0.123	(0.199)	0.199
28	2.33	0.90	0.322	0.123	(0.199)	0.199
29	2.42	0.90	0.322	0.123	(0.199)	0.199
30	2.50	0.90	0.322	0.123	(0.199)	0.199
31	2.58	0.90	0.322	0.123	(0.199)	0.199
32	2.67	0.90	0.322	0.123	(0.199)	0.199
33	2.75	1.00	0.357	0.123	(0.222)	0.234
34	2.83	1.00	0.357	0.123	(0.222)	0.234
35	2.92	1.00	0.357	0.123	(0.222)	0.234
36	3.00	1.00	0.357	0.123	(0.222)	0.234
37	3.08	1.00	0.357	0.123	(0.222)	0.234
38	3.17	1.10	0.393	0.123	(0.244)	0.270
39	3.25	1.10	0.393	0.123	(0.244)	0.270
40	3.33	1.10	0.393	0.123	(0.244)	0.270
41	3.42	1.20	0.429	0.123	(0.266)	0.306
42	3.50	1.30	0.465	0.123	(0.288)	0.342
43	3.58	1.40	0.500	0.123	(0.310)	0.377
44	3.67	1.40	0.500	0.123	(0.310)	0.377
45	3.75	1.50	0.536	0.123	(0.332)	0.413
46	3.83	1.50	0.536	0.123	(0.332)	0.413
47	3.92	1.60	0.572	0.123	(0.354)	0.449
48	4.00	1.60	0.572	0.123	(0.354)	0.449
49	4.08	1.70	0.607	0.123	(0.377)	0.485
50	4.17	1.80	0.643	0.123	(0.399)	0.520
51	4.25	1.90	0.679	0.123	(0.421)	0.556
52	4.33	2.00	0.715	0.123	(0.443)	0.592
53	4.42	2.10	0.750	0.123	(0.465)	0.628
54	4.50	2.10	0.750	0.123	(0.465)	0.628
55	4.58	2.20	0.786	0.123	(0.487)	0.663
56	4.67	2.30	0.822	0.123	(0.510)	0.699
57	4.75	2.40	0.858	0.123	(0.532)	0.735
58	4.83	2.40	0.858	0.123	(0.532)	0.735
59	4.92	2.50	0.893	0.123	(0.554)	0.770
60	5.00	2.60	0.929	0.123	(0.576)	0.806
61	5.08	3.10	1.108	0.123	(0.687)	0.985
62	5.17	3.60	1.286	0.123	(0.798)	1.164
63	5.25	3.90	1.394	0.123	(0.864)	1.271
64	5.33	4.20	1.501	0.123	(0.931)	1.378
65	5.42	4.70	1.679	0.123	(1.041)	1.557
66	5.50	5.60	2.001	0.123	(1.241)	1.878
67	5.58	1.90	0.679	0.123	(0.421)	0.556
68	5.67	0.90	0.322	0.123	(0.199)	0.199
69	5.75	0.60	0.214	0.123	(0.133)	0.092
70	5.83	0.50	0.179	(0.123)	0.111	0.068
71	5.92	0.30	0.107	(0.123)	0.066	0.041
72	6.00	0.20	0.071	(0.123)	0.044	0.027

(Loss Rate Not Used)

Sum = 100.0 Sum = 27.0

Flood volume = Effective rainfall 2.25(In)
times area 212.4(Ac.)/[(In)/(Ft.)] = 39.9(Ac.Ft)
Total soil loss = 0.72(In)
Total soil loss = 12.816(Ac.Ft)
Total rainfall = 2.98(In)
Flood volume = 1737672.4 Cubic Feet
Total soil loss = 558265.8 Cubic Feet

Peak flow rate of this hydrograph = 286.421(CFS)

6 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0 75.0 150.0 225.0 300.0
0+ 5	0.0044	0.63	Q
0+10	0.0282	3.46	Q
0+15	0.0851	8.26	VQ
0+20	0.1688	12.15	VQ
0+25	0.2671	14.27	VQ
0+30	0.3760	15.82	V Q
0+35	0.5003	18.04	V Q
0+40	0.6431	20.74	V Q
0+45	0.7987	22.59	V Q
0+50	0.9615	23.64	V Q
0+55	1.1293	24.37	|V Q
1+ 0	1.3034	25.27	|V Q
1+ 5	1.4901	27.11	|V Q
1+10	1.6936	29.54	|V Q
1+15	1.9083	31.18	|V Q
1+20	2.1292	32.08	| V Q
1+25	2.3544	32.69	| V Q
1+30	2.5828	33.17	| V Q
1+35	2.8139	33.56	| V Q
1+40	3.0474	33.91	| VQ
1+45	3.2825	34.14	| VQ
1+50	3.5187	34.29	| VQ
1+55	3.7557	34.42	| VQ
2+ 0	3.9959	34.87	| Q
2+ 5	4.2440	36.02	| Q
2+10	4.4995	37.09	| Q
2+15	4.7598	37.80	| VQ
2+20	5.0298	39.21	| Q
2+25	5.3076	40.33	| Q
2+30	5.5893	40.91	| Q
2+35	5.8737	41.29	| Q
2+40	6.1598	41.55	| QV
2+45	6.4496	42.08	| QV
2+50	6.7500	43.61	| QV
2+55	7.0653	45.79	| QV
3+ 0	7.3906	47.23	| QV
3+ 5	7.7208	47.96	| QV
3+10	8.0568	48.78	| Q V
3+15	8.4047	50.52	| Q V
3+20	8.7687	52.85	| QV
3+25	9.1458	54.75	| Q V|
3+30	9.5403	57.29	| Q V|
3+35	9.9647	61.62	| QV|
3+40	10.4245	66.76	| Q V
3+45	10.9169	71.50	| QV
3+50	11.4371	75.52	| QV
3+55	11.9845	79.48	| Q V
4+ 0	12.5582	83.31	| |QV
4+ 5	13.1588	87.21	| |Q V
4+10	13.7879	91.35	| | QV
4+15	14.4533	96.61	| | Q V
4+20	15.1614	102.81	| | Q V
4+25	15.9148	109.40	| | QV
4+30	16.7130	115.89	| | QV
4+35	17.5500	121.53	| | QV
4+40	18.4220	126.63	| | Q V
4+45	19.3351	132.57	| | Q V|
4+50	20.2917	138.90	| | Q V
4+55	21.2869	144.51	| | Q|V

```
    5+ 0      22.3173    149.62  |          |         Q| V        |          |
    5+ 5      23.3978    156.89  |          |          Q  V       |          |
    5+10      24.5714    170.40  |          |          | Q V      |          |
    5+15      25.8918    191.72  |          |          |    Q     |          |
    5+20      27.3782    215.82  |          |          |      VQ  |          |
    5+25      29.0254    239.19  |          |          |        V|Q         |
    5+30      30.8554    265.71  |          |          |         V    Q     |
    5+35      32.8280    286.42  |          |          |          | V     Q |
    5+40      34.6470    264.12  |          |          |          |   VQ     |
    5+45      35.9811    193.72  |          |          |    Q     |     V    |
    5+50      36.8852    131.27  |          |       Q  |          |     V    |
    5+55      37.5378     94.76  |          | Q        |          |      V   |
    6+ 0      38.0395     72.84  |         Q|          |          |       V  |
    6+ 5      38.4334     57.20  |       Q  |          |          |       V  |
    6+10      38.7432     44.98  |     Q    |          |          |       V  |
    6+15      38.9860     35.24  |    Q     |          |          |        V |
    6+20      39.1792     28.06  |   Q      |          |          |        V |
    6+25      39.3368     22.89  |   Q      |          |          |        V |
    6+30      39.4669     18.88  | Q        |          |          |        V |
    6+35      39.5720     15.26  | Q        |          |          |        V |
    6+40      39.6575     12.42  |Q         |          |          |        V |
    6+45      39.7263      9.99  |Q         |          |          |        V |
    6+50      39.7803      7.83  |Q         |          |          |        V |
    6+55      39.8219      6.05  Q          |          |          |        V |
    7+ 0      39.8541      4.67  Q          |          |          |        V |
    7+ 5      39.8771      3.34  Q          |          |          |        V |
    7+10      39.8848      1.13  Q          |          |          |        V |
    7+15      39.8881      0.47  Q          |          |          |        V |
    7+20      39.8897      0.24  Q          |          |          |        V |
    7+25      39.8907      0.14  Q          |          |          |        V |
    7+30      39.8912      0.07  Q          |          |          |        V |
    7+35      39.8915      0.03  Q          |          |          |        V |
-------------------------------------------------------------------------
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       U n i t   H y d r o g r a p h   A n a l y s i s

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              Study date  04/23/19 File: lgexareaa24100.out


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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Legado
Existing Condition
100-year 24-hour storm Hydrograph
Drainage Area A = 212.4 Ac

------------------------------------------------------------------------
Drainage Area =     212.40(Ac.)  =      0.332 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     212.40(Ac.)  =      0.332 Sq. Mi.
Length along longest watercourse =    7880.00(Ft.)
Length along longest watercourse measured to centroid =    3380.00(Ft.)
Length along longest watercourse =      1.492 Mi.
Length along longest watercourse measured to centroid =      0.640 Mi.
Difference in elevation =     538.00(Ft.)
Slope along watercourse =    360.4873 Ft./Mi.
Average Manning's 'N' = 0.027
Lag time =    0.208 Hr.
Lag time =    12.48 Min.
25% of lag time =     3.12 Min.
40% of lag time =     4.99 Min.
Unit time =     5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      212.40           2.03                431.17

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      212.40           5.33               1132.09

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    2.030(In)
Area Averaged 100-Year Rainfall =    5.330(In)

Point rain (area averaged) =    5.330(In)
Areal adjustment factor =   99.96 %
Adjusted average point rain =    5.328(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
    98.100           73.10         0.000
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    30.000           64.70         0.500
    48.500           72.80         0.650
    25.800           59.40         0.750
    10.000           62.00         0.900
 Total Area Entered =    212.40(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)      (In/Hr)      (Dec.)    (In/Hr)
73.1  86.9      0.166     0.000        0.166       0.462      0.077
64.7  81.8      0.224     0.500        0.123       0.141      0.017
72.8  86.7      0.168     0.650        0.070       0.228      0.016
59.4  77.5      0.273     0.750        0.089       0.121      0.011
62.0  79.6      0.249     0.900        0.047       0.047      0.002
                                                 Sum (F) =    0.123
Area averaged mean soil loss (F) (In/Hr) =  0.123
Minimum soil loss rate ((In/Hr)) =  0.061
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.620
------------------------------------------------------------------------

               U n i t  H y d r o g r a p h
                      VALLEY S-Curve
------------------------------------------------------------------------
               Unit Hydrograph Data
------------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                          Graph %           (CFS)
------------------------------------------------------------------------
    1   0.083         40.049          4.364             9.342
    2   0.167         80.097         17.926            38.372
    3   0.250        120.146         26.779            57.323
    4   0.333        160.194         17.422            37.293
    5   0.417        200.243          8.510            18.217
    6   0.500        240.291          5.372            11.500
    7   0.583        280.340          4.014             8.593
    8   0.667        320.388          3.076             6.584
    9   0.750        360.437          2.439             5.221
   10   0.833        400.485          1.937             4.147
   11   0.917        440.534          1.516             3.245
   12   1.000        480.582          1.258             2.693
   13   1.083        520.631          1.161             2.486
   14   1.167        560.679          0.913             1.954
   15   1.250        600.728          0.764             1.635
   16   1.333        640.776          0.638             1.365
   17   1.417        680.825          0.513             1.099
   18   1.500        720.873          0.405             0.866
   19   1.583        760.922          0.400             0.857
   20   1.667        800.970          0.591             1.265
                                 Sum = 100.000   Sum=     214.059
------------------------------------------------------------------------

 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

  Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
       (Hr.)  Percent   (In/Hr)         Max   |   Low         (In/Hr)
    1   0.08     0.07      0.043       (  0.218)       0.026        0.016
    2   0.17     0.07      0.043       (  0.217)       0.026        0.016
    3   0.25     0.07      0.043       (  0.216)       0.026        0.016
    4   0.33     0.10      0.064       (  0.215)       0.040        0.024
    5   0.42     0.10      0.064       (  0.214)       0.040        0.024
    6   0.50     0.10      0.064       (  0.214)       0.040        0.024
    7   0.58     0.10      0.064       (  0.213)       0.040        0.024
    8   0.67     0.10      0.064       (  0.212)       0.040        0.024
    9   0.75     0.10      0.064       (  0.211)       0.040        0.024
   10   0.83     0.13      0.085       (  0.210)       0.053        0.032
   11   0.92     0.13      0.085       (  0.209)       0.053        0.032
   12   1.00     0.13      0.085       (  0.209)       0.053        0.032
```

13	1.08	0.10	0.064	(0.208)	0.040	0.024
14	1.17	0.10	0.064	(0.207)	0.040	0.024
15	1.25	0.10	0.064	(0.206)	0.040	0.024
16	1.33	0.10	0.064	(0.205)	0.040	0.024
17	1.42	0.10	0.064	(0.205)	0.040	0.024
18	1.50	0.10	0.064	(0.204)	0.040	0.024
19	1.58	0.10	0.064	(0.203)	0.040	0.024
20	1.67	0.10	0.064	(0.202)	0.040	0.024
21	1.75	0.10	0.064	(0.201)	0.040	0.024
22	1.83	0.13	0.085	(0.201)	0.053	0.032
23	1.92	0.13	0.085	(0.200)	0.053	0.032
24	2.00	0.13	0.085	(0.199)	0.053	0.032
25	2.08	0.13	0.085	(0.198)	0.053	0.032
26	2.17	0.13	0.085	(0.197)	0.053	0.032
27	2.25	0.13	0.085	(0.196)	0.053	0.032
28	2.33	0.13	0.085	(0.196)	0.053	0.032
29	2.42	0.13	0.085	(0.195)	0.053	0.032
30	2.50	0.13	0.085	(0.194)	0.053	0.032
31	2.58	0.17	0.107	(0.193)	0.066	0.040
32	2.67	0.17	0.107	(0.192)	0.066	0.040
33	2.75	0.17	0.107	(0.192)	0.066	0.040
34	2.83	0.17	0.107	(0.191)	0.066	0.040
35	2.92	0.17	0.107	(0.190)	0.066	0.040
36	3.00	0.17	0.107	(0.189)	0.066	0.040
37	3.08	0.17	0.107	(0.189)	0.066	0.040
38	3.17	0.17	0.107	(0.188)	0.066	0.040
39	3.25	0.17	0.107	(0.187)	0.066	0.040
40	3.33	0.17	0.107	(0.186)	0.066	0.040
41	3.42	0.17	0.107	(0.185)	0.066	0.040
42	3.50	0.17	0.107	(0.185)	0.066	0.040
43	3.58	0.17	0.107	(0.184)	0.066	0.040
44	3.67	0.17	0.107	(0.183)	0.066	0.040
45	3.75	0.17	0.107	(0.182)	0.066	0.040
46	3.83	0.20	0.128	(0.182)	0.079	0.049
47	3.92	0.20	0.128	(0.181)	0.079	0.049
48	4.00	0.20	0.128	(0.180)	0.079	0.049
49	4.08	0.20	0.128	(0.179)	0.079	0.049
50	4.17	0.20	0.128	(0.179)	0.079	0.049
51	4.25	0.20	0.128	(0.178)	0.079	0.049
52	4.33	0.23	0.149	(0.177)	0.092	0.057
53	4.42	0.23	0.149	(0.176)	0.092	0.057
54	4.50	0.23	0.149	(0.175)	0.092	0.057
55	4.58	0.23	0.149	(0.175)	0.092	0.057
56	4.67	0.23	0.149	(0.174)	0.092	0.057
57	4.75	0.23	0.149	(0.173)	0.092	0.057
58	4.83	0.27	0.170	(0.172)	0.106	0.065
59	4.92	0.27	0.170	(0.172)	0.106	0.065
60	5.00	0.27	0.170	(0.171)	0.106	0.065
61	5.08	0.20	0.128	(0.170)	0.079	0.049
62	5.17	0.20	0.128	(0.170)	0.079	0.049
63	5.25	0.20	0.128	(0.169)	0.079	0.049
64	5.33	0.23	0.149	(0.168)	0.092	0.057
65	5.42	0.23	0.149	(0.167)	0.092	0.057
66	5.50	0.23	0.149	(0.167)	0.092	0.057
67	5.58	0.27	0.170	(0.166)	0.106	0.065
68	5.67	0.27	0.170	(0.165)	0.106	0.065
69	5.75	0.27	0.170	(0.164)	0.106	0.065
70	5.83	0.27	0.170	(0.164)	0.106	0.065
71	5.92	0.27	0.170	(0.163)	0.106	0.065
72	6.00	0.27	0.170	(0.162)	0.106	0.065
73	6.08	0.30	0.192	(0.161)	0.119	0.073
74	6.17	0.30	0.192	(0.161)	0.119	0.073
75	6.25	0.30	0.192	(0.160)	0.119	0.073
76	6.33	0.30	0.192	(0.159)	0.119	0.073
77	6.42	0.30	0.192	(0.159)	0.119	0.073
78	6.50	0.30	0.192	(0.158)	0.119	0.073
79	6.58	0.33	0.213	(0.157)	0.132	0.081
80	6.67	0.33	0.213	(0.156)	0.132	0.081
81	6.75	0.33	0.213	(0.156)	0.132	0.081
82	6.83	0.33	0.213	(0.155)	0.132	0.081

83	6.92	0.33	0.213	(0.154)	0.132	0.081
84	7.00	0.33	0.213	(0.154)	0.132	0.081
85	7.08	0.33	0.213	(0.153)	0.132	0.081
86	7.17	0.33	0.213	(0.152)	0.132	0.081
87	7.25	0.33	0.213	(0.152)	0.132	0.081
88	7.33	0.37	0.234	(0.151)	0.145	0.089
89	7.42	0.37	0.234	(0.150)	0.145	0.089
90	7.50	0.37	0.234	(0.150)	0.145	0.089
91	7.58	0.40	0.256	0.149	(0.159)	0.107
92	7.67	0.40	0.256	0.148	(0.159)	0.108
93	7.75	0.40	0.256	0.147	(0.159)	0.108
94	7.83	0.43	0.277	0.147	(0.172)	0.130
95	7.92	0.43	0.277	0.146	(0.172)	0.131
96	8.00	0.43	0.277	0.145	(0.172)	0.132
97	8.08	0.50	0.320	0.145	(0.198)	0.175
98	8.17	0.50	0.320	0.144	(0.198)	0.176
99	8.25	0.50	0.320	0.143	(0.198)	0.176
100	8.33	0.50	0.320	0.143	(0.198)	0.177
101	8.42	0.50	0.320	0.142	(0.198)	0.178
102	8.50	0.50	0.320	0.141	(0.198)	0.178
103	8.58	0.53	0.341	0.141	(0.211)	0.200
104	8.67	0.53	0.341	0.140	(0.211)	0.201
105	8.75	0.53	0.341	0.139	(0.211)	0.202
106	8.83	0.57	0.362	0.139	(0.225)	0.224
107	8.92	0.57	0.362	0.138	(0.225)	0.224
108	9.00	0.57	0.362	0.137	(0.225)	0.225
109	9.08	0.63	0.405	0.137	(0.251)	0.268
110	9.17	0.63	0.405	0.136	(0.251)	0.269
111	9.25	0.63	0.405	0.136	(0.251)	0.269
112	9.33	0.67	0.426	0.135	(0.264)	0.291
113	9.42	0.67	0.426	0.134	(0.264)	0.292
114	9.50	0.67	0.426	0.134	(0.264)	0.293
115	9.58	0.70	0.448	0.133	(0.277)	0.315
116	9.67	0.70	0.448	0.132	(0.277)	0.315
117	9.75	0.70	0.448	0.132	(0.277)	0.316
118	9.83	0.73	0.469	0.131	(0.291)	0.338
119	9.92	0.73	0.469	0.130	(0.291)	0.338
120	10.00	0.73	0.469	0.130	(0.291)	0.339
121	10.08	0.50	0.320	0.129	(0.198)	0.191
122	10.17	0.50	0.320	0.129	(0.198)	0.191
123	10.25	0.50	0.320	0.128	(0.198)	0.192
124	10.33	0.50	0.320	0.127	(0.198)	0.192
125	10.42	0.50	0.320	0.127	(0.198)	0.193
126	10.50	0.50	0.320	0.126	(0.198)	0.194
127	10.58	0.67	0.426	0.125	(0.264)	0.301
128	10.67	0.67	0.426	0.125	(0.264)	0.301
129	10.75	0.67	0.426	0.124	(0.264)	0.302
130	10.83	0.67	0.426	0.124	(0.264)	0.303
131	10.92	0.67	0.426	0.123	(0.264)	0.303
132	11.00	0.67	0.426	0.122	(0.264)	0.304
133	11.08	0.63	0.405	0.122	(0.251)	0.283
134	11.17	0.63	0.405	0.121	(0.251)	0.284
135	11.25	0.63	0.405	0.121	(0.251)	0.284
136	11.33	0.63	0.405	0.120	(0.251)	0.285
137	11.42	0.63	0.405	0.119	(0.251)	0.286
138	11.50	0.63	0.405	0.119	(0.251)	0.286
139	11.58	0.57	0.362	0.118	(0.225)	0.244
140	11.67	0.57	0.362	0.118	(0.225)	0.245
141	11.75	0.57	0.362	0.117	(0.225)	0.245
142	11.83	0.60	0.384	0.116	(0.238)	0.267
143	11.92	0.60	0.384	0.116	(0.238)	0.268
144	12.00	0.60	0.384	0.115	(0.238)	0.268
145	12.08	0.83	0.533	0.115	(0.330)	0.418
146	12.17	0.83	0.533	0.114	(0.330)	0.419
147	12.25	0.83	0.533	0.114	(0.330)	0.419
148	12.33	0.87	0.554	0.113	(0.344)	0.441
149	12.42	0.87	0.554	0.112	(0.344)	0.442
150	12.50	0.87	0.554	0.112	(0.344)	0.442
151	12.58	0.93	0.597	0.111	(0.370)	0.485
152	12.67	0.93	0.597	0.111	(0.370)	0.486

153	12.75	0.93	0.597	0.110	(0.370)	0.487
154	12.83	0.97	0.618	0.110	(0.383)	0.508
155	12.92	0.97	0.618	0.109	(0.383)	0.509
156	13.00	0.97	0.618	0.109	(0.383)	0.510
157	13.08	1.13	0.725	0.108	(0.449)	0.617
158	13.17	1.13	0.725	0.107	(0.449)	0.617
159	13.25	1.13	0.725	0.107	(0.449)	0.618
160	13.33	1.13	0.725	0.106	(0.449)	0.618
161	13.42	1.13	0.725	0.106	(0.449)	0.619
162	13.50	1.13	0.725	0.105	(0.449)	0.619
163	13.58	0.77	0.490	0.105	(0.304)	0.385
164	13.67	0.77	0.490	0.104	(0.304)	0.386
165	13.75	0.77	0.490	0.104	(0.304)	0.386
166	13.83	0.77	0.490	0.103	(0.304)	0.387
167	13.92	0.77	0.490	0.103	(0.304)	0.388
168	14.00	0.77	0.490	0.102	(0.304)	0.388
169	14.08	0.90	0.575	0.102	(0.357)	0.474
170	14.17	0.90	0.575	0.101	(0.357)	0.474
171	14.25	0.90	0.575	0.101	(0.357)	0.475
172	14.33	0.87	0.554	0.100	(0.344)	0.454
173	14.42	0.87	0.554	0.099	(0.344)	0.455
174	14.50	0.87	0.554	0.099	(0.344)	0.455
175	14.58	0.87	0.554	0.098	(0.344)	0.456
176	14.67	0.87	0.554	0.098	(0.344)	0.456
177	14.75	0.87	0.554	0.097	(0.344)	0.457
178	14.83	0.83	0.533	0.097	(0.330)	0.436
179	14.92	0.83	0.533	0.096	(0.330)	0.436
180	15.00	0.83	0.533	0.096	(0.330)	0.437
181	15.08	0.80	0.511	0.095	(0.317)	0.416
182	15.17	0.80	0.511	0.095	(0.317)	0.416
183	15.25	0.80	0.511	0.095	(0.317)	0.417
184	15.33	0.77	0.490	0.094	(0.304)	0.396
185	15.42	0.77	0.490	0.094	(0.304)	0.397
186	15.50	0.77	0.490	0.093	(0.304)	0.397
187	15.58	0.63	0.405	0.093	(0.251)	0.312
188	15.67	0.63	0.405	0.092	(0.251)	0.313
189	15.75	0.63	0.405	0.092	(0.251)	0.313
190	15.83	0.63	0.405	0.091	(0.251)	0.314
191	15.92	0.63	0.405	0.091	(0.251)	0.314
192	16.00	0.63	0.405	0.090	(0.251)	0.315
193	16.08	0.13	0.085	(0.090)	0.053	0.032
194	16.17	0.13	0.085	(0.089)	0.053	0.032
195	16.25	0.13	0.085	(0.089)	0.053	0.032
196	16.33	0.13	0.085	(0.088)	0.053	0.032
197	16.42	0.13	0.085	(0.088)	0.053	0.032
198	16.50	0.13	0.085	(0.088)	0.053	0.032
199	16.58	0.10	0.064	(0.087)	0.040	0.024
200	16.67	0.10	0.064	(0.087)	0.040	0.024
201	16.75	0.10	0.064	(0.086)	0.040	0.024
202	16.83	0.10	0.064	(0.086)	0.040	0.024
203	16.92	0.10	0.064	(0.085)	0.040	0.024
204	17.00	0.10	0.064	(0.085)	0.040	0.024
205	17.08	0.17	0.107	(0.084)	0.066	0.040
206	17.17	0.17	0.107	(0.084)	0.066	0.040
207	17.25	0.17	0.107	(0.084)	0.066	0.040
208	17.33	0.17	0.107	(0.083)	0.066	0.040
209	17.42	0.17	0.107	(0.083)	0.066	0.040
210	17.50	0.17	0.107	(0.082)	0.066	0.040
211	17.58	0.17	0.107	(0.082)	0.066	0.040
212	17.67	0.17	0.107	(0.082)	0.066	0.040
213	17.75	0.17	0.107	(0.081)	0.066	0.040
214	17.83	0.13	0.085	(0.081)	0.053	0.032
215	17.92	0.13	0.085	(0.080)	0.053	0.032
216	18.00	0.13	0.085	(0.080)	0.053	0.032
217	18.08	0.13	0.085	(0.080)	0.053	0.032
218	18.17	0.13	0.085	(0.079)	0.053	0.032
219	18.25	0.13	0.085	(0.079)	0.053	0.032
220	18.33	0.13	0.085	(0.078)	0.053	0.032
221	18.42	0.13	0.085	(0.078)	0.053	0.032
222	18.50	0.13	0.085	(0.078)	0.053	0.032

223	18.58	0.10	0.064	(0.077)	0.040	0.024
224	18.67	0.10	0.064	(0.077)	0.040	0.024
225	18.75	0.10	0.064	(0.076)	0.040	0.024
226	18.83	0.07	0.043	(0.076)	0.026	0.016
227	18.92	0.07	0.043	(0.076)	0.026	0.016
228	19.00	0.07	0.043	(0.075)	0.026	0.016
229	19.08	0.10	0.064	(0.075)	0.040	0.024
230	19.17	0.10	0.064	(0.075)	0.040	0.024
231	19.25	0.10	0.064	(0.074)	0.040	0.024
232	19.33	0.13	0.085	(0.074)	0.053	0.032
233	19.42	0.13	0.085	(0.074)	0.053	0.032
234	19.50	0.13	0.085	(0.073)	0.053	0.032
235	19.58	0.10	0.064	(0.073)	0.040	0.024
236	19.67	0.10	0.064	(0.073)	0.040	0.024
237	19.75	0.10	0.064	(0.072)	0.040	0.024
238	19.83	0.07	0.043	(0.072)	0.026	0.016
239	19.92	0.07	0.043	(0.072)	0.026	0.016
240	20.00	0.07	0.043	(0.071)	0.026	0.016
241	20.08	0.10	0.064	(0.071)	0.040	0.024
242	20.17	0.10	0.064	(0.071)	0.040	0.024
243	20.25	0.10	0.064	(0.070)	0.040	0.024
244	20.33	0.10	0.064	(0.070)	0.040	0.024
245	20.42	0.10	0.064	(0.070)	0.040	0.024
246	20.50	0.10	0.064	(0.070)	0.040	0.024
247	20.58	0.10	0.064	(0.069)	0.040	0.024
248	20.67	0.10	0.064	(0.069)	0.040	0.024
249	20.75	0.10	0.064	(0.069)	0.040	0.024
250	20.83	0.07	0.043	(0.068)	0.026	0.016
251	20.92	0.07	0.043	(0.068)	0.026	0.016
252	21.00	0.07	0.043	(0.068)	0.026	0.016
253	21.08	0.10	0.064	(0.068)	0.040	0.024
254	21.17	0.10	0.064	(0.067)	0.040	0.024
255	21.25	0.10	0.064	(0.067)	0.040	0.024
256	21.33	0.07	0.043	(0.067)	0.026	0.016
257	21.42	0.07	0.043	(0.067)	0.026	0.016
258	21.50	0.07	0.043	(0.066)	0.026	0.016
259	21.58	0.10	0.064	(0.066)	0.040	0.024
260	21.67	0.10	0.064	(0.066)	0.040	0.024
261	21.75	0.10	0.064	(0.066)	0.040	0.024
262	21.83	0.07	0.043	(0.065)	0.026	0.016
263	21.92	0.07	0.043	(0.065)	0.026	0.016
264	22.00	0.07	0.043	(0.065)	0.026	0.016
265	22.08	0.10	0.064	(0.065)	0.040	0.024
266	22.17	0.10	0.064	(0.064)	0.040	0.024
267	22.25	0.10	0.064	(0.064)	0.040	0.024
268	22.33	0.07	0.043	(0.064)	0.026	0.016
269	22.42	0.07	0.043	(0.064)	0.026	0.016
270	22.50	0.07	0.043	(0.064)	0.026	0.016
271	22.58	0.07	0.043	(0.063)	0.026	0.016
272	22.67	0.07	0.043	(0.063)	0.026	0.016
273	22.75	0.07	0.043	(0.063)	0.026	0.016
274	22.83	0.07	0.043	(0.063)	0.026	0.016
275	22.92	0.07	0.043	(0.063)	0.026	0.016
276	23.00	0.07	0.043	(0.063)	0.026	0.016
277	23.08	0.07	0.043	(0.063)	0.026	0.016
278	23.17	0.07	0.043	(0.062)	0.026	0.016
279	23.25	0.07	0.043	(0.062)	0.026	0.016
280	23.33	0.07	0.043	(0.062)	0.026	0.016
281	23.42	0.07	0.043	(0.062)	0.026	0.016
282	23.50	0.07	0.043	(0.062)	0.026	0.016
283	23.58	0.07	0.043	(0.062)	0.026	0.016
284	23.67	0.07	0.043	(0.062)	0.026	0.016
285	23.75	0.07	0.043	(0.062)	0.026	0.016
286	23.83	0.07	0.043	(0.062)	0.026	0.016
287	23.92	0.07	0.043	(0.061)	0.026	0.016
288	24.00	0.07	0.043	(0.061)	0.026	0.016

(Loss Rate Not Used)

Sum = 100.0 Sum = 41.0

Flood volume = Effective rainfall 3.42(In)
times area 212.4(Ac.)/[(In)/(Ft.)] = 60.5(Ac.Ft)

```
      Total soil loss =      1.91(In)
      Total soil loss =    33.844(Ac.Ft)
      Total rainfall =      5.33(In)
      Flood volume =     2633561.5 Cubic Feet
      Total soil loss =     1474227.7 Cubic Feet
      ------------------------------------------------------------------------
       Peak flow rate of this hydrograph =    126.337(CFS)
      ------------------------------------------------------------------------
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          24 - H O U R    S T O R M
                     R u n o f f     H y d r o g r a p h
      ------------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      ------------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0       50.0     100.0     150.0     200.0
------------------------------------------------------------------------
  0+ 5       0.0010      0.15  Q         |         |         |         |
  0+10       0.0064      0.77  Q         |         |         |         |
  0+15       0.0181      1.70  Q         |         |         |         |
  0+20       0.0345      2.38  Q         |         |         |         |
  0+25       0.0551      2.99  Q         |         |         |         |
  0+30       0.0801      3.64  Q         |         |         |         |
  0+35       0.1082      4.08  Q         |         |         |         |
  0+40       0.1381      4.33  Q         |         |         |         |
  0+45       0.1692      4.51  Q         |         |         |         |
  0+50       0.2017      4.73  Q         |         |         |         |
  0+55       0.2371      5.14  VQ        |         |         |         |
  1+ 0       0.2763      5.69  VQ        |         |         |         |
  1+ 5       0.3176      5.99  VQ        |         |         |         |
  1+10       0.3581      5.89  VQ        |         |         |         |
  1+15       0.3965      5.56  VQ        |         |         |         |
  1+20       0.4335      5.37  VQ        |         |         |         |
  1+25       0.4701      5.31  VQ        |         |         |         |
  1+30       0.5065      5.29  VQ        |         |         |         |
  1+35       0.5429      5.28  VQ        |         |         |         |
  1+40       0.5792      5.28  VQ        |         |         |         |
  1+45       0.6155      5.27  VQ        |         |         |         |
  1+50       0.6523      5.34  VQ        |         |         |         |
  1+55       0.6912      5.65  VQ        |         |         |         |
  2+ 0       0.7332      6.10  VQ        |         |         |         |
  2+ 5       0.7773      6.40  VQ        |         |         |         |
  2+10       0.8223      6.54  VQ        |         |         |         |
  2+15       0.8679      6.62  VQ        |         |         |         |
  2+20       0.9140      6.69  VQ        |         |         |         |
  2+25       0.9604      6.74  VQ        |         |         |         |
  2+30       1.0071      6.78  VQ        |         |         |         |
  2+35       1.0545      6.88  VQ        |         |         |         |
  2+40       1.1042      7.21  VQ        |         |         |         |
  2+45       1.1572      7.70  VQ        |         |         |         |
  2+50       1.2124      8.02  VQ        |         |         |         |
  2+55       1.2687      8.18  VQ        |         |         |         |
  3+ 0       1.3258      8.29  VQ        |         |         |         |
  3+ 5       1.3834      8.37  VQ        |         |         |         |
  3+10       1.4415      8.43  VQ        |         |         |         |
  3+15       1.4999      8.48  VQ        |         |         |         |
  3+20       1.5586      8.52  |Q        |         |         |         |
  3+25       1.6175      8.56  |Q        |         |         |         |
  3+30       1.6766      8.58  |Q        |         |         |         |
  3+35       1.7358      8.60  |Q        |         |         |         |
  3+40       1.7951      8.61  |Q        |         |         |         |
  3+45       1.8545      8.63  |Q        |         |         |         |
  3+50       1.9146      8.71  |Q        |         |         |         |
  3+55       1.9768      9.03  |Q        |         |         |         |
  4+ 0       2.0422      9.51  |Q        |         |         |         |
  4+ 5       2.1098      9.81  |Q        |         |         |         |
  4+10       2.1785      9.97  |Q        |         |         |         |
  4+15       2.2479     10.07  |VQ       |         |         |         |
  4+20       2.3182     10.21  |VQ       |         |         |         |
  4+25       2.3910     10.58  |VQ       |         |         |         |
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4+30	2.4673	11.08	|VQ	|	|	|	|
4+35	2.5460	11.42	|VQ	|	|	|	|
4+40	2.6258	11.59	|VQ	|	|	|	|
4+45	2.7064	11.71	|VQ	|	|	|	|
4+50	2.7882	11.87	|VQ	|	|	|	|
4+55	2.8726	12.25	|VQ	|	|	|	|
5+ 0	2.9606	12.77	|VQ	|	|	|	|
5+ 5	3.0499	12.97	| Q	|	|	|	|
5+10	3.1362	12.53	| Q	|	|	|	|
5+15	3.2169	11.72	| Q	|	|	|	|
5+20	3.2946	11.29	| Q	|	|	|	|
5+25	3.3730	11.39	| Q	|	|	|	|
5+30	3.4538	11.72	| Q	|	|	|	|
5+35	3.5364	12.00	| Q	|	|	|	|
5+40	3.6217	12.39	| Q	|	|	|	|
5+45	3.7105	12.89	| Q	|	|	|	|
5+50	3.8016	13.22	| Q	|	|	|	|
5+55	3.8939	13.40	| Q	|	|	|	|
6+ 0	3.9868	13.50	| Q	|	|	|	|
6+ 5	4.0809	13.65	| Q	|	|	|	|
6+10	4.1774	14.02	| Q	|	|	|	|
6+15	4.2775	14.53	| Q	|	|	|	|
6+20	4.3799	14.87	| Q	|	|	|	|
6+25	4.4836	15.05	| VQ	|	|	|	|
6+30	4.5880	15.17	| Q	|	|	|	|
6+35	4.6936	15.33	| Q	|	|	|	|
6+40	4.8017	15.70	| Q	|	|	|	|
6+45	4.9134	16.22	| Q	|	|	|	|
6+50	5.0276	16.58	| Q	|	|	|	|
6+55	5.1431	16.77	| Q	|	|	|	|
7+ 0	5.2594	16.89	| Q	|	|	|	|
7+ 5	5.3764	16.99	| Q	|	|	|	|
7+10	5.4940	17.07	| Q	|	|	|	|
7+15	5.6119	17.12	| Q	|	|	|	|
7+20	5.7307	17.25	| Q	|	|	|	|
7+25	5.8519	17.59	| Q	|	|	|	|
7+30	5.9764	18.08	| Q	|	|	|	|
7+35	6.1044	18.58	| QV	|	|	|	|
7+40	6.2383	19.44	| QV	|	|	|	|
7+45	6.3802	20.60	| Q	|	|	|	|
7+50	6.5291	21.62	| Q	|	|	|	|
7+55	6.6870	22.92	| Q	|	|	|	|
8+ 0	6.8558	24.51	| Q	|	|	|	|
8+ 5	7.0349	26.01	| VQ	|	|	|	|
8+10	7.2299	28.32	| VQ	|	|	|	|
8+15	7.4451	31.25	| V Q	|	|	|	|
8+20	7.6741	33.24	| VQ	|	|	|	|
8+25	7.9108	34.37	| VQ	|	|	|	|
8+30	8.1530	35.16	| V Q	|	|	|	|
8+35	8.4010	36.01	| V Q	|	|	|	|
8+40	8.6582	37.36	| V Q	|	|	|	|
8+45	8.9271	39.03	| V Q	|	|	|	|
8+50	9.2055	40.43	| V Q	|	|	|	|
8+55	9.4947	41.98	| V Q	|	|	|	|
9+ 0	9.7960	43.76	| V Q	|	|	|	|
9+ 5	10.1089	45.42	| V Q|	|	|	|	|
9+10	10.4385	47.86	| V Q|	|	|	|	|
9+15	10.7889	50.89	| V Q	|	|	|	|
9+20	11.1551	53.17	| V Q	|	|	|	|
9+25	11.5351	55.18	| V |Q	|	|	|	|
9+30	11.9294	57.24	| V |Q	|	|	|	|
9+35	12.3351	58.92	| V |Q	|	|	|	|
9+40	12.7532	60.71	| V | Q	|	|	|	|
9+45	13.1846	62.63	| V | Q	|	|	|	|
9+50	13.6267	64.20	| V| Q	|	|	|	|
9+55	14.0805	65.89	| V| Q	|	|	|	|
10+ 0	14.5473	67.77	| V| Q	|	|	|	|
10+ 5	15.0138	67.74	| V| Q	|	|	|	|
10+10	15.4468	62.88	| V Q	|	|	|	|
10+15	15.8253	54.96	| Q	|	|	|	|

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10+20     16.1691     49.93  |        QV         |         |         |
10+25     16.4974     47.67  |        QV         |         |         |
10+30     16.8165     46.32  |        Q|V        |         |         |
10+35     17.1359     46.38  |        Q|V        |         |         |
10+40     17.4789     49.81  |        Q|V        |         |         |
10+45     17.8603     55.38  |         |Q        |         |         |
10+50     18.2665     58.97  |         |QV       |         |         |
10+55     18.6842     60.65  |         | Q       |         |         |
11+ 0     19.1089     61.66  |         | Q       |         |         |
11+ 5     19.5372     62.19  |         | Q       |         |         |
11+10     19.9639     61.96  |         | QV      |         |         |
11+15     20.3854     61.20  |         | QV      |         |         |
11+20     20.8040     60.79  |         | QV      |         |         |
11+25     21.2223     60.74  |         | Q V     |         |         |
11+30     21.6409     60.78  |         | Q V     |         |         |
11+35     22.0573     60.46  |         | Q V     |         |         |
11+40     22.4625     58.83  |         |Q  V     |         |         |
11+45     22.8522     56.58  |         |Q   V    |         |         |
11+50     23.2335     55.37  |         |Q   V    |         |         |
11+55     23.6163     55.59  |         |Q   V    |         |         |
12+ 0     24.0053     56.48  |         |Q   V    |         |         |
12+ 5     24.4080     58.47  |         |Q    V   |         |         |
12+10     24.8523     64.52  |         | Q   V   |         |         |
12+15     25.3564     73.19  |         |   Q V   |         |         |
12+20     25.9008     79.05  |         |    Q V  |         |         |
12+25     26.4703     82.69  |         |     QV  |         |         |
12+30     27.0608     85.73  |         |      Q  |         |         |
12+35     27.6688     88.29  |         |      QV |         |         |
12+40     28.2982     91.38  |         |       Q |         |         |
12+45     28.9522     94.96  |         |       QV|         |         |
12+50     29.6248     97.67  |         |        Q|         |         |
12+55     30.3136    100.00  |         |         Q         |         |
13+ 0     31.0184    102.35  |         |         Q         |         |
13+ 5     31.7421    105.08  |         |         |Q        |         |
13+10     32.5016    110.29  |         |         |VQ       |         |
13+15     33.3095    117.30  |         |         | VQ      |         |
13+20     34.1500    122.03  |         |         | V Q     |         |
13+25     35.0081    124.60  |         |         |  VQ     |         |
13+30     35.8782    126.34  |         |         |  V Q    |         |
13+35     36.7427    125.53  |         |         |   VQ    |         |
13+40     37.5534    117.71  |         |         |  QV     |         |
13+45     38.2772    105.09  |         |         |Q   V    |         |
13+50     38.9454     97.03  |         |        Q|    V    |         |
13+55     39.5882     93.33  |         |       Q |     V   |         |
14+ 0     40.2156     91.11  |         |       Q |     V   |         |
14+ 5     40.8377     90.33  |         |       Q |      V  |         |
14+10     41.4745     92.46  |         |       Q |      V  |         |
14+15     42.1386     96.43  |         |        Q|      V  |         |
14+20     42.8184     98.71  |         |        Q|       V |         |
14+25     43.4998     98.94  |         |        Q|       V |         |
14+30     44.1766     98.27  |         |        Q|        V|         |
14+35     44.8504     97.83  |         |        Q|        V|         |
14+40     45.5239     97.79  |         |        Q|         V         |
14+45     46.1968     97.72  |         |        Q|         V         |
14+50     46.8682     97.47  |         |        Q|         |V        |
14+55     47.5337     96.64  |         |        Q|         |V        |
15+ 0     48.1911     95.44  |         |        Q|         |V        |
15+ 5     48.8418     94.48  |         |       Q |         | V       |
15+10     49.4835     93.18  |         |       Q |         | V       |
15+15     50.1165     91.90  |         |       Q |         |  V      |
15+20     50.7424     90.89  |         |       Q |         |  V      |
15+25     51.3602     89.70  |         |      Q  |         |  V      |
15+30     51.9682     88.27  |         |      Q  |         |   V     |
15+35     52.5643     86.55  |         |      Q  |         |   V     |
15+40     53.1350     82.87  |         |     Q   |         |    V    |
15+45     53.6698     77.65  |         |    Q    |         |    V    |
15+50     54.1810     74.23  |         |   Q     |         |    V    |
15+55     54.6804     72.50  |         |   Q     |         |     V   |
16+ 0     55.1722     71.42  |         |   Q     |         |     V   |
16+ 5     55.6404     67.97  |         |  Q      |         |     V   |
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16+10	56.0296	56.52	|	Q	|	|	V |
16+15	56.3039	39.83	|	Q	|	|	V |
16+20	56.5027	28.87	|	Q	|	|	V |
16+25	56.6638	23.38	|	Q	|	|	V |
16+30	56.8006	19.87	|	Q	|	|	V |
16+35	56.9186	17.13	|	Q	|	|	V |
16+40	57.0202	14.75	|	Q	|	|	V |
16+45	57.1074	12.67	|	Q	|	|	V |
16+50	57.1836	11.07	|	Q	|	|	V |
16+55	57.2517	9.89	|	Q	|	|	V |
17+ 0	57.3135	8.97	|	Q	|	|	V |
17+ 5	57.3705	8.28	|	Q	|	|	V |
17+10	57.4269	8.19	|	Q	|	|	V |
17+15	57.4862	8.62	|	Q	|	|	V |
17+20	57.5468	8.80	|	Q	|	|	V |
17+25	57.6072	8.76	|	Q	|	|	V |
17+30	57.6670	8.68	|	Q	|	|	V |
17+35	57.7259	8.56	|	Q	|	|	V |
17+40	57.7831	8.29	|	Q	|	|	V |
17+45	57.8407	8.37	|	Q	|	|	V |
17+50	57.8982	8.35	|	Q	|	|	V |
17+55	57.9538	8.08	|	Q	|	|	V |
18+ 0	58.0065	7.65	|	Q	|	|	V |
18+ 5	58.0574	7.38	|	Q	|	|	V |
18+10	58.1073	7.26	|	Q	|	|	V |
18+15	58.1568	7.19	|	Q	|	|	V |
18+20	58.2060	7.14	|	Q	|	|	V |
18+25	58.2550	7.11	|	Q	|	|	V |
18+30	58.3037	7.08	|	Q	|	|	V |
18+35	58.3518	6.98	|	Q	|	|	V |
18+40	58.3977	6.67	|	Q	|	|	V |
18+45	58.4403	6.18	|	Q	|	|	V |
18+50	58.4801	5.78	|	Q	|	|	V |
18+55	58.5167	5.31	|	Q	|	|	V |
19+ 0	58.5493	4.74	Q	|	|	|	V |
19+ 5	58.5798	4.43	Q	|	|	|	V |
19+10	58.6110	4.53	Q	|	|	|	V |
19+15	58.6444	4.85	Q	|	|	|	V |
19+20	58.6797	5.12	|	Q	|	|	V |
19+25	58.7175	5.49	|	Q	|	|	V |
19+30	58.7587	5.98	|	Q	|	|	V |
19+35	58.8015	6.22	|	Q	|	|	V |
19+40	58.8434	6.07	|	Q	|	|	V |
19+45	58.8827	5.71	|	Q	|	|	V |
19+50	58.9199	5.40	|	Q	|	|	V |
19+55	58.9543	5.00	Q	|	|	|	V|
20+ 0	58.9852	4.49	Q	|	|	|	V|
20+ 5	59.0143	4.23	Q	|	|	|	V|
20+10	59.0443	4.36	Q	|	|	|	V|
20+15	59.0768	4.71	Q	|	|	|	V|
20+20	59.1108	4.94	Q	|	|	|	V|
20+25	59.1454	5.02	|	Q	|	|	V|
20+30	59.1803	5.07	|	Q	|	|	V|
20+35	59.2155	5.10	|	Q	|	|	V|
20+40	59.2508	5.13	|	Q	|	|	V|
20+45	59.2863	5.15	|	Q	|	|	V|
20+50	59.3213	5.08	|	Q	|	|	V|
20+55	59.3542	4.78	Q	|	|	|	V|
21+ 0	59.3840	4.32	Q	|	|	|	V|
21+ 5	59.4122	4.10	Q	|	|	|	V|
21+10	59.4415	4.26	Q	|	|	|	V|
21+15	59.4734	4.63	Q	|	|	|	V|
21+20	59.5064	4.79	Q	|	|	|	V|
21+25	59.5379	4.58	Q	|	|	|	V|
21+30	59.5666	4.17	Q	|	|	|	V|
21+35	59.5941	3.99	Q	|	|	|	V|
21+40	59.6229	4.19	Q	|	|	|	V|
21+45	59.6545	4.58	Q	|	|	|	V|
21+50	59.6872	4.75	Q	|	|	|	V|
21+55	59.7185	4.54	Q	|	|	|	V|

22+ 0	59.7470	4.14	Q	|	|	|	V|
22+ 5	59.7742	3.96	Q	|	|	|	V|
22+10	59.8028	4.15	Q	|	|	|	V|
22+15	59.8342	4.55	Q	|	|	|	V|
22+20	59.8667	4.73	Q	|	|	|	V|
22+25	59.8978	4.52	Q	|	|	|	V|
22+30	59.9262	4.12	Q	|	|	|	V|
22+35	59.9529	3.87	Q	|	|	|	V|
22+40	59.9788	3.77	Q	|	|	|	V|
22+45	60.0043	3.70	Q	|	|	|	V|
22+50	60.0294	3.65	Q	|	|	|	V|
22+55	60.0542	3.60	Q	|	|	|	V|
23+ 0	60.0789	3.58	Q	|	|	|	V|
23+ 5	60.1034	3.56	Q	|	|	|	V|
23+10	60.1278	3.55	Q	|	|	|	V|
23+15	60.1522	3.54	Q	|	|	|	V|
23+20	60.1764	3.52	Q	|	|	|	V|
23+25	60.2005	3.50	Q	|	|	|	V|
23+30	60.2246	3.50	Q	|	|	|	V|
23+35	60.2487	3.49	Q	|	|	|	V|
23+40	60.2727	3.49	Q	|	|	|	V|
23+45	60.2967	3.49	Q	|	|	|	V|
23+50	60.3207	3.48	Q	|	|	|	V|
23+55	60.3446	3.47	Q	|	|	|	V|
24+ 0	60.3685	3.47	Q	|	|	|	V|
24+ 5	60.3913	3.32	Q	|	|	|	V|
24+10	60.4099	2.70	Q	|	|	|	V|
24+15	60.4221	1.77	Q	|	|	|	V|
24+20	60.4301	1.16	Q	|	|	|	V|
24+25	60.4360	0.87	Q	|	|	|	V|
24+30	60.4407	0.68	Q	|	|	|	V|
24+35	60.4444	0.54	Q	|	|	|	V|
24+40	60.4474	0.43	Q	|	|	|	V|
24+45	60.4499	0.35	Q	|	|	|	V|
24+50	60.4518	0.28	Q	|	|	|	V|
24+55	60.4534	0.23	Q	|	|	|	V|
25+ 0	60.4547	0.19	Q	|	|	|	V|
25+ 5	60.4557	0.15	Q	|	|	|	V|
25+10	60.4565	0.11	Q	|	|	|	V|
25+15	60.4571	0.09	Q	|	|	|	V|
25+20	60.4575	0.07	Q	|	|	|	V|
25+25	60.4579	0.05	Q	|	|	|	V|
25+30	60.4581	0.03	Q	|	|	|	V|
25+35	60.4583	0.02	Q	|	|	|	V

Drainage Area B (Existing Condition) = 381.6 Ac

Soil Low Loss Rate Worksheet

Drainage Area B – 381.6 Ac (Existing)

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Subarea	**Area in (Ac)**	**Land Use (Plate D-5.6)**	**% Impervious (Plate D-5.6)**	**Soil Low Loss Rate 0.9-(0.8)* [4]**	**Decimal portion of Area [2] / SUM[2]**	**Average Low Loss Rate [5] * [6]**
	364.8	Natural	0	0.90	0.96	0.86
		Res 1 Ac	20	0.74	0.00	0.00
		Res 1/2 Ac	40	0.58	0.00	0.00
		Res 1/4 Ac	50	0.50	0.00	0.00
		Res < 1/4 Ac	65	0.38	0.00	0.00
	16.8	School	75	0.30	0.04	0.01
		Mobil Home	85	0.30	0.00	0.00
		Hospital	75	0.30	0.00	0.00
		Commercial	90	0.18	0.00	0.00
Sum =	381.6				1.00	**0.87**

Manning "n" Value Worksheet

Drainage Area B – 381.6 Ac (Existing)

[1]	[2]	[3]	[4]	[5]	[7]
Subarea	**Area in (Ac)**	**Land Use (Plate D-5.6)**	**"n" Value**	**Decimal portion of Area [2] / SUM[2]**	**Average "n" Value [4] * [5]**
	364.8	Natural	0.04	0.96	0.038
		Res 1 Ac	0.015	0.00	0.000
		Res 1/2 Ac	0.015	0.00	0.000
		Res 1/4 Ac	0.015	0.00	0.000
		Res < 1/4 Ac	0.015	0.00	0.000
	16.8	School	0.02	0.04	0.001
		Mobil Home	0.015	0.00	0.000
		Hospital	0.02	0.00	0.000
		Commercial	0.015	0.00	0.000
Sum =	**381.6**			1.00	**0.039**

Runoff Index (RI) Worksheet

Drainage Area B – 381.6 Ac (Existing)

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Subarea	**Area in (Ac)**	**Soil Group**	**Cover Type**	**RI Number (Plate E6-1)**	**Land Use**	**Decimal portion of Area [2] / SUM[2]**	**Average RI Value [5] * [7]**
Natural	32.5	B	grass (fair)	69	Natural	0.09	6.1
	71.8	C	grass (fair)	79	Natural	0.20	15.5
	260.5	D	grass (fair)	84	Natural	0.71	60.0
Sum =	***364.8***					1.00	**81.7**
School		B	Landscape	56	School	0.00	0.0
	2.6	C	Landscape	69	School	0.15	10.7
	14.2	D	Landscape	75	School	0.85	63.4
Sum =	***16.8***					1.00	**74.1**

```
       U n i t   H y d r o g r a p h   A n a l y s i s

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              Study date  04/24/19 File: lgexareab1100.out


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------------------------------------------------------------------------------

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Legado
Existing Condition
100-year 1-hour storm Hydrograph
Drainage Area B = 381.6 Ac

------------------------------------------------------------------------
Drainage Area =     381.60(Ac.)  =      0.596 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     381.60(Ac.)  =      0.596 Sq. Mi.
Length along longest watercourse =    6910.00(Ft.)
Length along longest watercourse measured to centroid =    3300.00(Ft.)
Length along longest watercourse =      1.309 Mi.
Length along longest watercourse measured to centroid =      0.625 Mi.
Difference in elevation =     168.00(Ft.)
Slope along watercourse =    128.3705 Ft./Mi.
Average Manning's 'N' = 0.039
Lag time =    0.345 Hr.
Lag time =    20.68 Min.
25% of lag time =     5.17 Min.
40% of lag time =     8.27 Min.
Unit time =     5.00 Min.
Duration of storm = 1 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      381.60           0.52                198.43

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      381.60           1.64                625.82

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.520(In)
Area Averaged 100-Year Rainfall =    1.640(In)

Point rain (area averaged) =    1.640(In)
Areal adjustment factor =   99.65 %
Adjusted average point rain =    1.634(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
   364.800           81.70         0.040
```

```
    16.800           74.10         0.750
 Total Area Entered =    381.60(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
81.7  92.0      0.104     0.040        0.100       0.956      0.096
74.1  87.5      0.159     0.750        0.052       0.044      0.002
                                                 Sum (F) =    0.098
Area averaged mean soil loss (F) (In/Hr) =  0.098
Minimum soil loss rate ((In/Hr)) =  0.049
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.870
------------------------------------------------------------------------
Slope of intensity-duration curve for a 1 hour storm =0.5000
------------------------------------------------------------------------

                U n i t  H y d r o g r a p h
                       VALLEY S-Curve
------------------------------------------------------------------------
                Unit Hydrograph Data
------------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                          Graph %           (CFS)
------------------------------------------------------------------------
    1   0.083         24.172          2.211             8.503
    2   0.167         48.344          7.212            27.736
    3   0.250         72.517         12.771            49.114
    4   0.333         96.689         16.723            64.313
    5   0.417        120.861         15.578            59.911
    6   0.500        145.033          9.990            38.421
    7   0.583        169.205          6.441            24.769
    8   0.667        193.378          4.290            16.500
    9   0.750        217.550          3.414            13.131
   10   0.833        241.722          2.810            10.808
   11   0.917        265.894          2.377             9.143
   12   1.000        290.066          2.069             7.957
   13   1.083        314.239          1.718             6.605
   14   1.167        338.411          1.475             5.672
   15   1.250        362.583          1.398             5.376
   16   1.333        386.755          1.108             4.261
   17   1.417        410.927          1.034             3.976
   18   1.500        435.100          0.817             3.142
   19   1.583        459.272          0.770             2.961
   20   1.667        483.444          0.734             2.824
   21   1.750        507.616          0.716             2.752
   22   1.833        531.788          0.577             2.220
   23   1.917        555.961          0.529             2.034
   24   2.000        580.133          0.463             1.779
   25   2.083        604.305          0.434             1.667
   26   2.167        628.477          0.371             1.427
   27   2.250        652.649          0.338             1.299
   28   2.333        676.821          0.280             1.077
   29   2.417        700.994          0.242             0.930
   30   2.500        725.166          0.242             0.930
   31   2.583        749.338          0.242             0.930
   32   2.667        773.510          0.242             0.930
   33   2.750        797.682          0.242             0.930
   34   2.833        821.855          0.144             0.554
                                Sum = 100.000   Sum=     384.581
------------------------------------------------------------------------


 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

  Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
       (Hr.)  Percent   (In/Hr)         Max   |   Low         (In/Hr)
  1   0.08     4.20      0.824          0.098    (  0.692)        0.726
  2   0.17     4.30      0.843          0.098    (  0.708)        0.745
```

```
 3   0.25     5.00      0.981          0.098    (  0.824)        0.883
 4   0.33     5.00      0.981          0.098    (  0.824)        0.883
 5   0.42     5.80      1.137          0.098    (  0.955)        1.040
 6   0.50     6.50      1.275          0.098    (  1.071)        1.177
 7   0.58     7.40      1.451          0.098    (  1.219)        1.353
 8   0.67     8.60      1.687          0.098    (  1.417)        1.589
 9   0.75    12.30      2.412          0.098    (  2.026)        2.314
10   0.83    29.10      5.707          0.098    (  4.794)        5.609
11   0.92     6.80      1.334          0.098    (  1.120)        1.236
12   1.00     5.00      0.981          0.098    (  0.824)        0.883
             (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    18.4
      Flood volume = Effective rainfall      1.54(In)
       times area     381.6(Ac.)/[(In)/(Ft.)] =      48.9(Ac.Ft)
      Total soil loss =      0.10(In)
      Total soil loss =     3.112(Ac.Ft)
      Total rainfall =      1.63(In)
      Flood volume =     2128304.9 Cubic Feet
      Total soil loss =      135580.0 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =    740.928(CFS)
      ---------------------------------------------------------------------
      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          1 - H O U R    S T O R M
                     R u n o f f     H y d r o g r a p h
      ---------------------------------------------------------------------
                   Hydrograph in   5   Minute intervals ((CFS))

      ---------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0      200.0     400.0     600.0     800.0
---------------------------------------------------------------------------
  0+ 5       0.0425      6.17  Q         |         |         |         |
  0+10       0.2249     26.48  VQ        |         |         |         |
  0+15       0.6647     63.86  V  Q      |         |         |         |
  0+20       1.4591    115.34  |V   Q    |         |         |         |
  0+25       2.6174    168.19  | V     Q |         |         |         |
  0+30       4.0749    211.62  |  V      Q         |         |         |
  0+35       5.8077    251.61  |   V     | Q       |         |         |
  0+40       7.8263    293.10  |     V   |   Q     |         |         |
  0+45      10.2091    345.98  |       V |      Q  |         |         |
  0+50      13.2511    441.70  |         V         | Q       |         |
  0+55      17.2121    575.13  |         |   V     |       Q |         |
  1+ 0      21.9895    693.68  |         |       V |         |   Q     |
  1+ 5      27.0923    740.93  |         |         | V       |      Q  |
  1+10      31.6422    660.65  |         |         |    V    |  Q      |
  1+15      35.0244    491.09  |         |         |   Q   V |         |
  1+20      37.4357    350.13  |         |      Q  |         V         |
  1+25      39.1519    249.18  |         | Q       |         | V       |
  1+30      40.4862    193.74  |        Q|         |         |  V      |
  1+35      41.5762    158.27  |      Q  |         |         |   V     |
  1+40      42.5003    134.19  |     Q   |         |         |   V     |
  1+45      43.2975    115.75  |    Q    |         |         |    V    |
  1+50      43.9804     99.16  |   Q     |         |         |     V   |
  1+55      44.5759     86.47  |   Q     |         |         |     V   |
  2+ 0      45.1068     77.08  |  Q      |         |         |     V   |
  2+ 5      45.5631     66.26  |  Q      |         |         |      V  |
  2+10      45.9718     59.34  | Q       |         |         |      V  |
  2+15      46.3242     51.17  | Q       |         |         |      V  |
  2+20      46.6456     46.66  | Q       |         |         |       V |
  2+25      46.9393     42.66  | Q       |         |         |       V |
  2+30      47.2096     39.25  |Q        |         |         |       V |
  2+35      47.4460     34.32  |Q        |         |         |       V |
  2+40      47.6592     30.95  |Q        |         |         |        V|
  2+45      47.8492     27.59  |Q        |         |         |        V|
  2+50      48.0212     24.98  |Q        |         |         |        V|
  2+55      48.1709     21.74  |Q        |         |         |        V|
  3+ 0      48.3027     19.13  Q         |         |         |        V|
  3+ 5      48.4153     16.35  Q         |         |         |        V|
  3+10      48.5135     14.26  Q         |         |         |        V|
  3+15      48.6020     12.86  Q         |         |         |        V|
```

```
    3+20      48.6817     11.57  Q         |         |         |        V|
    3+25      48.7521     10.22  Q         |         |         |        V|
    3+30      48.8104      8.47  Q         |         |         |        V|
    3+35      48.8454      5.08  Q         |         |         |        V|
    3+40      48.8558      1.51  Q         |         |         |        V|
    3+45      48.8592      0.49  Q         |         |         |         V
--------------------------------------------------------------------------
```

```
       U n i t   H y d r o g r a p h   A n a l y s i s

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              Study date  04/24/19 File: lgexareab3100.out


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------------------------------------------------------------------------------

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Legado
Existing Condition
100-year 3-hour storm Hydrograph
Drainage Area B = 381.6 Ac

------------------------------------------------------------------------
Drainage Area =     381.60(Ac.)  =      0.596 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     381.60(Ac.)  =      0.596 Sq. Mi.
Length along longest watercourse =    6910.00(Ft.)
Length along longest watercourse measured to centroid =    3300.00(Ft.)
Length along longest watercourse =      1.309 Mi.
Length along longest watercourse measured to centroid =      0.625 Mi.
Difference in elevation =     168.00(Ft.)
Slope along watercourse =    128.3705 Ft./Mi.
Average Manning's 'N' = 0.039
Lag time =    0.345 Hr.
Lag time =    20.68 Min.
25% of lag time =     5.17 Min.
40% of lag time =     8.27 Min.
Unit time =     5.00 Min.
Duration of storm = 3 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      381.60           0.86                328.18

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      381.60           2.27                866.23

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.860(In)
Area Averaged 100-Year Rainfall =    2.270(In)

Point rain (area averaged) =    2.270(In)
Areal adjustment factor =   99.83 %
Adjusted average point rain =    2.266(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
   364.800           81.70         0.040
```

```
    16.800           74.10         0.750
 Total Area Entered =    381.60(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
81.7  92.0      0.104     0.040        0.100       0.956      0.096
74.1  87.5      0.159     0.750        0.052       0.044      0.002
                                                 Sum (F) =    0.098
Area averaged mean soil loss (F) (In/Hr) =  0.098
Minimum soil loss rate ((In/Hr)) =  0.049
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.870
------------------------------------------------------------------------

               U n i t  H y d r o g r a p h
                      VALLEY S-Curve
------------------------------------------------------------------------
               Unit Hydrograph Data
------------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                          Graph %           (CFS)
------------------------------------------------------------------------
    1   0.083         24.172          2.211             8.503
    2   0.167         48.344          7.212            27.736
    3   0.250         72.517         12.771            49.114
    4   0.333         96.689         16.723            64.313
    5   0.417        120.861         15.578            59.911
    6   0.500        145.033          9.990            38.421
    7   0.583        169.205          6.441            24.769
    8   0.667        193.378          4.290            16.500
    9   0.750        217.550          3.414            13.131
   10   0.833        241.722          2.810            10.808
   11   0.917        265.894          2.377             9.143
   12   1.000        290.066          2.069             7.957
   13   1.083        314.239          1.718             6.605
   14   1.167        338.411          1.475             5.672
   15   1.250        362.583          1.398             5.376
   16   1.333        386.755          1.108             4.261
   17   1.417        410.927          1.034             3.976
   18   1.500        435.100          0.817             3.142
   19   1.583        459.272          0.770             2.961
   20   1.667        483.444          0.734             2.824
   21   1.750        507.616          0.716             2.752
   22   1.833        531.788          0.577             2.220
   23   1.917        555.961          0.529             2.034
   24   2.000        580.133          0.463             1.779
   25   2.083        604.305          0.434             1.667
   26   2.167        628.477          0.371             1.427
   27   2.250        652.649          0.338             1.299
   28   2.333        676.821          0.280             1.077
   29   2.417        700.994          0.242             0.930
   30   2.500        725.166          0.242             0.930
   31   2.583        749.338          0.242             0.930
   32   2.667        773.510          0.242             0.930
   33   2.750        797.682          0.242             0.930
   34   2.833        821.855          0.144             0.554
                                  Sum = 100.000   Sum=     384.581
------------------------------------------------------------------------


 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

  Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
       (Hr.)  Percent   (In/Hr)         Max    |   Low        (In/Hr)
    1   0.08     1.30      0.354          0.098    (  0.297)        0.256
    2   0.17     1.30      0.354          0.098    (  0.297)        0.256
    3   0.25     1.10      0.299          0.098    (  0.251)        0.201
    4   0.33     1.50      0.408          0.098    (  0.343)        0.310
```

5	0.42	1.50	0.408	0.098	(0.343)	0.310
6	0.50	1.80	0.490	0.098	(0.411)	0.392
7	0.58	1.50	0.408	0.098	(0.343)	0.310
8	0.67	1.80	0.490	0.098	(0.411)	0.392
9	0.75	1.80	0.490	0.098	(0.411)	0.392
10	0.83	1.50	0.408	0.098	(0.343)	0.310
11	0.92	1.60	0.435	0.098	(0.365)	0.337
12	1.00	1.80	0.490	0.098	(0.411)	0.392
13	1.08	2.20	0.598	0.098	(0.503)	0.500
14	1.17	2.20	0.598	0.098	(0.503)	0.500
15	1.25	2.20	0.598	0.098	(0.503)	0.500
16	1.33	2.00	0.544	0.098	(0.457)	0.446
17	1.42	2.60	0.707	0.098	(0.594)	0.609
18	1.50	2.70	0.734	0.098	(0.617)	0.636
19	1.58	2.40	0.653	0.098	(0.548)	0.555
20	1.67	2.70	0.734	0.098	(0.617)	0.636
21	1.75	3.30	0.897	0.098	(0.754)	0.800
22	1.83	3.10	0.843	0.098	(0.708)	0.745
23	1.92	2.90	0.789	0.098	(0.662)	0.691
24	2.00	3.00	0.816	0.098	(0.685)	0.718
25	2.08	3.10	0.843	0.098	(0.708)	0.745
26	2.17	4.20	1.142	0.098	(0.959)	1.044
27	2.25	5.00	1.360	0.098	(1.142)	1.262
28	2.33	3.50	0.952	0.098	(0.800)	0.854
29	2.42	6.80	1.849	0.098	(1.553)	1.751
30	2.50	7.30	1.985	0.098	(1.668)	1.887
31	2.58	8.20	2.230	0.098	(1.873)	2.132
32	2.67	5.90	1.604	0.098	(1.348)	1.507
33	2.75	2.00	0.544	0.098	(0.457)	0.446
34	2.83	1.80	0.490	0.098	(0.411)	0.392
35	2.92	1.80	0.490	0.098	(0.411)	0.392
36	3.00	0.60	0.163	0.098	(0.137)	0.065

(Loss Rate Not Used)
Sum = 100.0 Sum = 23.7

Flood volume = Effective rainfall 1.97(In)
times area 381.6(Ac.)/[(In)/(Ft.)] = 62.7(Ac.Ft)
Total soil loss = 0.29(In)
Total soil loss = 9.337(Ac.Ft)
Total rainfall = 2.27(In)
Flood volume = 2732432.6 Cubic Feet
Total soil loss = 406739.9 Cubic Feet

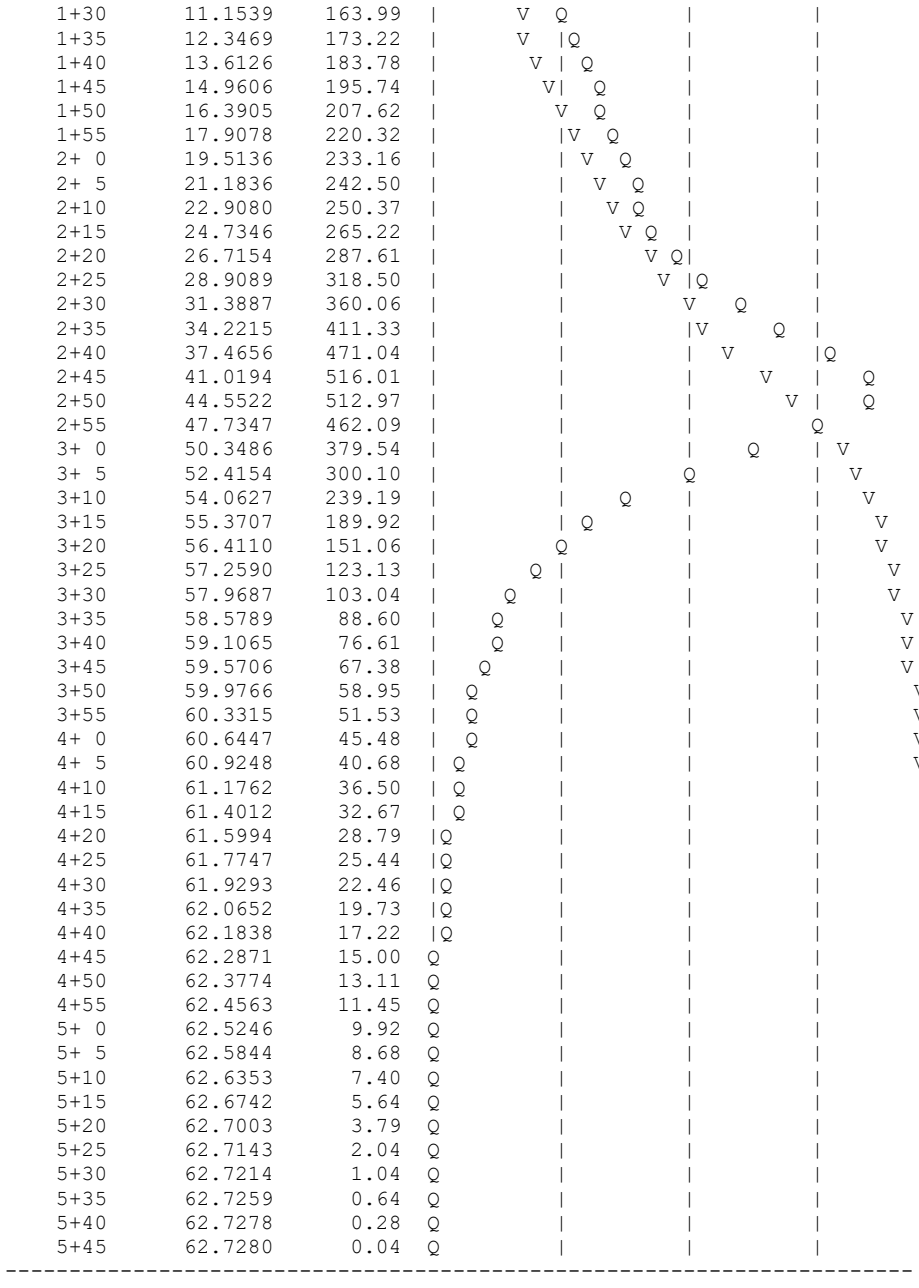
Peak flow rate of this hydrograph = 516.011(CFS)

++

3 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	150.0	300.0	450.0	600.0
0+ 5	0.0150	2.17	Q	|	|	|	|
0+10	0.0788	9.27	Q	|	|	|	|
0+15	0.2260	21.37	VQ	|	|	|	|
0+20	0.4824	37.24	V Q	|	|	|	|
0+25	0.8468	52.91	V Q	|	|	|	|
0+30	1.2963	65.27	V Q	|	|	|	|
0+35	1.8261	76.92	|V Q	|	|	|	|
0+40	2.4322	88.01	|V Q	|	|	|	|
0+45	3.1051	97.70	|V Q	|	|	|	|
0+50	3.8297	105.22	| V Q	|	|	|	|
0+55	4.5880	110.10	| V Q	|	|	|	|
1+ 0	5.3729	113.96	| V Q	|	|	|	|
1+ 5	6.1809	117.32	| V Q	|	|	|	|
1+10	7.0323	123.63	| V Q |	|	|	|	|
1+15	7.9552	134.00	| V Q |	|	|	|	|
1+20	8.9556	145.26	| V Q|	|	|	|	|
1+25	10.0245	155.20	| V Q	|	|	|	|



1+30	11.1539	163.99	
1+35	12.3469	173.22	
1+40	13.6126	183.78	
1+45	14.9606	195.74	
1+50	16.3905	207.62	
1+55	17.9078	220.32	
2+ 0	19.5136	233.16	
2+ 5	21.1836	242.50	
2+10	22.9080	250.37	
2+15	24.7346	265.22	
2+20	26.7154	287.61	
2+25	28.9089	318.50	
2+30	31.3887	360.06	
2+35	34.2215	411.33	
2+40	37.4656	471.04	
2+45	41.0194	516.01	
2+50	44.5522	512.97	
2+55	47.7347	462.09	
3+ 0	50.3486	379.54	
3+ 5	52.4154	300.10	
3+10	54.0627	239.19	
3+15	55.3707	189.92	
3+20	56.4110	151.06	
3+25	57.2590	123.13	
3+30	57.9687	103.04	
3+35	58.5789	88.60	
3+40	59.1065	76.61	
3+45	59.5706	67.38	
3+50	59.9766	58.95	
3+55	60.3315	51.53	
4+ 0	60.6447	45.48	
4+ 5	60.9248	40.68	
4+10	61.1762	36.50	
4+15	61.4012	32.67	
4+20	61.5994	28.79	
4+25	61.7747	25.44	
4+30	61.9293	22.46	
4+35	62.0652	19.73	
4+40	62.1838	17.22	
4+45	62.2871	15.00	
4+50	62.3774	13.11	
4+55	62.4563	11.45	
5+ 0	62.5246	9.92	
5+ 5	62.5844	8.68	
5+10	62.6353	7.40	
5+15	62.6742	5.64	
5+20	62.7003	3.79	
5+25	62.7143	2.04	
5+30	62.7214	1.04	
5+35	62.7259	0.64	
5+40	62.7278	0.28	
5+45	62.7280	0.04	

```
        U n i t   H y d r o g r a p h   A n a l y s i s

        Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
                Study date  04/24/19 File: lgexareab6100.out

++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
------------------------------------------------------------------------------

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Legado
Existing Condition
100-year 6-hour storm Hydrograph
Drainage Area B = 381.6 Ac

------------------------------------------------------------------------
Drainage Area =     381.60(Ac.)  =      0.596 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     381.60(Ac.)  =      0.596 Sq. Mi.
Length along longest watercourse =    6910.00(Ft.)
Length along longest watercourse measured to centroid =    3300.00(Ft.)
Length along longest watercourse =      1.309 Mi.
Length along longest watercourse measured to centroid =      0.625 Mi.
Difference in elevation =     168.00(Ft.)
Slope along watercourse =    128.3705 Ft./Mi.
Average Manning's 'N' = 0.039
Lag time =    0.345 Hr.
Lag time =    20.68 Min.
25% of lag time =     5.17 Min.
40% of lag time =     8.27 Min.
Unit time =     5.00 Min.
Duration of storm = 6 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      381.60           1.19                 454.10

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      381.60           2.98                1137.17

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    1.190(In)
Area Averaged 100-Year Rainfall =    2.980(In)

Point rain (area averaged) =    2.980(In)
Areal adjustment factor =   99.87 %
Adjusted average point rain =    2.976(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
```

```
   364.800           81.70         0.040
    16.800           74.10         0.750
 Total Area Entered =    381.60(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
81.7  92.0      0.104     0.040        0.100       0.956      0.096
74.1  87.5      0.159     0.750        0.052       0.044      0.002
                                                 Sum (F) =    0.098
Area averaged mean soil loss (F) (In/Hr) =  0.098
Minimum soil loss rate ((In/Hr)) =  0.049
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.870
------------------------------------------------------------------------

               U n i t  H y d r o g r a p h
                      VALLEY S-Curve
------------------------------------------------------------------------
               Unit Hydrograph Data
------------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                          Graph %           (CFS)
------------------------------------------------------------------------
    1   0.083         24.172          2.211             8.503
    2   0.167         48.344          7.212            27.736
    3   0.250         72.517         12.771            49.114
    4   0.333         96.689         16.723            64.313
    5   0.417        120.861         15.578            59.911
    6   0.500        145.033          9.990            38.421
    7   0.583        169.205          6.441            24.769
    8   0.667        193.378          4.290            16.500
    9   0.750        217.550          3.414            13.131
   10   0.833        241.722          2.810            10.808
   11   0.917        265.894          2.377             9.143
   12   1.000        290.066          2.069             7.957
   13   1.083        314.239          1.718             6.605
   14   1.167        338.411          1.475             5.672
   15   1.250        362.583          1.398             5.376
   16   1.333        386.755          1.108             4.261
   17   1.417        410.927          1.034             3.976
   18   1.500        435.100          0.817             3.142
   19   1.583        459.272          0.770             2.961
   20   1.667        483.444          0.734             2.824
   21   1.750        507.616          0.716             2.752
   22   1.833        531.788          0.577             2.220
   23   1.917        555.961          0.529             2.034
   24   2.000        580.133          0.463             1.779
   25   2.083        604.305          0.434             1.667
   26   2.167        628.477          0.371             1.427
   27   2.250        652.649          0.338             1.299
   28   2.333        676.821          0.280             1.077
   29   2.417        700.994          0.242             0.930
   30   2.500        725.166          0.242             0.930
   31   2.583        749.338          0.242             0.930
   32   2.667        773.510          0.242             0.930
   33   2.750        797.682          0.242             0.930
   34   2.833        821.855          0.144             0.554
                                Sum = 100.000   Sum=     384.581
------------------------------------------------------------------------


 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

  Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
       (Hr.)  Percent   (In/Hr)         Max    |   Low        (In/Hr)
    1   0.08     0.50      0.179          0.098    (  0.150)        0.081
    2   0.17     0.60      0.214          0.098    (  0.180)        0.116
    3   0.25     0.60      0.214          0.098    (  0.180)        0.116
```

4	0.33	0.60	0.214	0.098	(0.180)	0.116
5	0.42	0.60	0.214	0.098	(0.180)	0.116
6	0.50	0.70	0.250	0.098	(0.210)	0.152
7	0.58	0.70	0.250	0.098	(0.210)	0.152
8	0.67	0.70	0.250	0.098	(0.210)	0.152
9	0.75	0.70	0.250	0.098	(0.210)	0.152
10	0.83	0.70	0.250	0.098	(0.210)	0.152
11	0.92	0.70	0.250	0.098	(0.210)	0.152
12	1.00	0.80	0.286	0.098	(0.240)	0.188
13	1.08	0.80	0.286	0.098	(0.240)	0.188
14	1.17	0.80	0.286	0.098	(0.240)	0.188
15	1.25	0.80	0.286	0.098	(0.240)	0.188
16	1.33	0.80	0.286	0.098	(0.240)	0.188
17	1.42	0.80	0.286	0.098	(0.240)	0.188
18	1.50	0.80	0.286	0.098	(0.240)	0.188
19	1.58	0.80	0.286	0.098	(0.240)	0.188
20	1.67	0.80	0.286	0.098	(0.240)	0.188
21	1.75	0.80	0.286	0.098	(0.240)	0.188
22	1.83	0.80	0.286	0.098	(0.240)	0.188
23	1.92	0.80	0.286	0.098	(0.240)	0.188
24	2.00	0.90	0.321	0.098	(0.270)	0.224
25	2.08	0.80	0.286	0.098	(0.240)	0.188
26	2.17	0.90	0.321	0.098	(0.270)	0.224
27	2.25	0.90	0.321	0.098	(0.270)	0.224
28	2.33	0.90	0.321	0.098	(0.270)	0.224
29	2.42	0.90	0.321	0.098	(0.270)	0.224
30	2.50	0.90	0.321	0.098	(0.270)	0.224
31	2.58	0.90	0.321	0.098	(0.270)	0.224
32	2.67	0.90	0.321	0.098	(0.270)	0.224
33	2.75	1.00	0.357	0.098	(0.300)	0.259
34	2.83	1.00	0.357	0.098	(0.300)	0.259
35	2.92	1.00	0.357	0.098	(0.300)	0.259
36	3.00	1.00	0.357	0.098	(0.300)	0.259
37	3.08	1.00	0.357	0.098	(0.300)	0.259
38	3.17	1.10	0.393	0.098	(0.330)	0.295
39	3.25	1.10	0.393	0.098	(0.330)	0.295
40	3.33	1.10	0.393	0.098	(0.330)	0.295
41	3.42	1.20	0.429	0.098	(0.360)	0.331
42	3.50	1.30	0.464	0.098	(0.390)	0.366
43	3.58	1.40	0.500	0.098	(0.420)	0.402
44	3.67	1.40	0.500	0.098	(0.420)	0.402
45	3.75	1.50	0.536	0.098	(0.450)	0.438
46	3.83	1.50	0.536	0.098	(0.450)	0.438
47	3.92	1.60	0.571	0.098	(0.480)	0.474
48	4.00	1.60	0.571	0.098	(0.480)	0.474
49	4.08	1.70	0.607	0.098	(0.510)	0.509
50	4.17	1.80	0.643	0.098	(0.540)	0.545
51	4.25	1.90	0.679	0.098	(0.570)	0.581
52	4.33	2.00	0.714	0.098	(0.600)	0.616
53	4.42	2.10	0.750	0.098	(0.630)	0.652
54	4.50	2.10	0.750	0.098	(0.630)	0.652
55	4.58	2.20	0.786	0.098	(0.660)	0.688
56	4.67	2.30	0.821	0.098	(0.690)	0.724
57	4.75	2.40	0.857	0.098	(0.720)	0.759
58	4.83	2.40	0.857	0.098	(0.720)	0.759
59	4.92	2.50	0.893	0.098	(0.750)	0.795
60	5.00	2.60	0.929	0.098	(0.780)	0.831
61	5.08	3.10	1.107	0.098	(0.930)	1.009
62	5.17	3.60	1.286	0.098	(1.080)	1.188
63	5.25	3.90	1.393	0.098	(1.170)	1.295
64	5.33	4.20	1.500	0.098	(1.260)	1.402
65	5.42	4.70	1.679	0.098	(1.410)	1.581
66	5.50	5.60	2.000	0.098	(1.680)	1.902
67	5.58	1.90	0.679	0.098	(0.570)	0.581
68	5.67	0.90	0.321	0.098	(0.270)	0.224
69	5.75	0.60	0.214	0.098	(0.180)	0.116
70	5.83	0.50	0.179	0.098	(0.150)	0.081
71	5.92	0.30	0.107	(0.098)	0.090	0.017
72	6.00	0.20	0.071	(0.098)	0.060	0.011

(Loss Rate Not Used)

```
 Sum =     100.0                                    Sum =    28.7
    Flood volume = Effective rainfall      2.39(In)
     times area     381.6(Ac.)/[(In)/(Ft.)] =      76.1(Ac.Ft)
    Total soil loss =      0.58(In)
    Total soil loss =    18.554(Ac.Ft)
    Total rainfall =      2.98(In)
    Flood volume =     3314307.3 Cubic Feet
    Total soil loss =      808197.7 Cubic Feet
    ---------------------------------------------------------------------
     Peak flow rate of this hydrograph =    455.461(CFS)
    ---------------------------------------------------------------------
    +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        6 - H O U R    S T O R M
                   R u n o f f      H y d r o g r a p h
    ---------------------------------------------------------------------
                Hydrograph in   5   Minute intervals ((CFS))

    ---------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0      125.0     250.0     375.0     500.0
-------------------------------------------------------------------------
  0+ 5       0.0047      0.69  Q         |         |         |         |
  0+10       0.0270      3.23  Q         |         |         |         |
  0+15       0.0833      8.19  Q         |         |         |         |
  0+20       0.1876     15.13  VQ        |         |         |         |
  0+25       0.3409     22.27  VQ        |         |         |         |
  0+30       0.5325     27.81  V Q       |         |         |         |
  0+35       0.7541     32.18  V Q       |         |         |         |
  0+40       1.0030     36.15  V Q       |         |         |         |
  0+45       1.2792     40.10  V  Q      |         |         |         |
  0+50       1.5793     43.58  V  Q      |         |         |         |
  0+55       1.8966     46.08  V  Q      |         |         |         |
  1+ 0       2.2288     48.23  |V Q      |         |         |         |
  1+ 5       2.5775     50.63  |V  Q     |         |         |         |
  1+10       2.9463     53.55  |V  Q     |         |         |         |
  1+15       3.3380     56.87  |V  Q     |         |         |         |
  1+20       3.7504     59.87  |V  Q     |         |         |         |
  1+25       4.1774     62.00  | V Q     |         |         |         |
  1+30       4.6149     63.52  | V  Q    |         |         |         |
  1+35       5.0602     64.67  | V  Q    |         |         |         |
  1+40       5.5124     65.66  | V  Q    |         |         |         |
  1+45       5.9706     66.52  |  V Q    |         |         |         |
  1+50       6.4338     67.27  |  V Q    |         |         |         |
  1+55       6.9015     67.91  |  V Q    |         |         |         |
  2+ 0       7.3752     68.77  |  V Q    |         |         |         |
  2+ 5       7.8570     69.96  |   VQ    |         |         |         |
  2+10       8.3493     71.49  |   VQ    |         |         |         |
  2+15       8.8549     73.41  |   VQ    |         |         |         |
  2+20       9.3739     75.36  |   V Q   |         |         |         |
  2+25       9.9055     77.18  |    VQ   |         |         |         |
  2+30      10.4503     79.11  |    VQ   |         |         |         |
  2+35      11.0043     80.44  |    VQ   |         |         |         |
  2+40      11.5653     81.46  |     Q   |         |         |         |
  2+45      12.1335     82.50  |     Q   |         |         |         |
  2+50      12.7126     84.08  |     Q   |         |         |         |
  2+55      13.3069     86.30  |     Q   |         |         |         |
  3+ 0      13.9196     88.97  |      Q  |         |         |         |
  3+ 5      14.5494     91.44  |      Q  |         |         |         |
  3+10      15.1928     93.42  |      Q  |         |         |         |
  3+15      15.8506     95.52  |      QV |         |         |         |
  3+20      16.5261     98.08  |      QV |         |         |         |
  3+25      17.2238    101.31  |       QV|         |         |         |
  3+30      17.9490    105.30  |       QV|         |         |         |
  3+35      18.7079    110.19  |       QV|         |         |         |
  3+40      19.5105    116.54  |        QV         |         |         |
  3+45      20.3642    123.96  |        QV         |         |         |
  3+50      21.2701    131.53  |         QV        |         |         |
  3+55      22.2249    138.63  |         |Q        |         |         |
  4+ 0      23.2257    145.32  |         |QV       |         |         |
  4+ 5      24.2721    151.94  |         | Q       |         |         |
  4+10      25.3655    158.76  |         | QV      |         |         |
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   4+15      26.5113    166.37  |          |  Q       |          |          |
   4+20      27.7165    175.01  |          |   Q      |          |          |
   4+25      28.9906    184.99  |          |   QV     |          |          |
   4+30      30.3370    195.50  |          |    Q     |          |          |
   4+35      31.7550    205.90  |          |     Q    |          |          |
   4+40      33.2419    215.90  |          |      Q   |          |          |
   4+45      34.7958    225.64  |          |       Q  |          |          |
   4+50      36.4173    235.44  |          |       QV |          |          |
   4+55      38.1083    245.53  |          |        QV|          |          |
   5+ 0      39.8677    255.47  |          |         Q|          |          |
   5+ 5      41.7037    266.58  |          |          |Q         |          |
   5+10      43.6460    282.02  |          |          | Q        |          |
   5+15      45.7456    304.87  |          |          |   Q      |          |
   5+20      48.0566    335.55  |          |          |    VQ    |          |
   5+25      50.6209    372.34  |          |          |     V  Q |          |
   5+30      53.4683    413.44  |          |          |       V  |  Q       |
   5+35      56.5500    447.47  |          |          |         V|    Q     |
   5+40      59.6868    455.46  |          |          |          |V    Q    |
   5+45      62.6162    425.35  |          |          |          | V Q      |
   5+50      65.0696    356.23  |          |          |        Q |   V      |
   5+55      66.9461    272.46  |          |          |Q         |    V     |
   6+ 0      68.3771    207.78  |          |     Q    |          |    V     |
   6+ 5      69.4991    162.91  |          |  Q       |          |     V    |
   6+10      70.4125    132.63  |          |Q         |          |      V   |
   6+15      71.1718    110.26  |        Q |          |          |      V   |
   6+20      71.8150     93.38  |      Q   |          |          |      V   |
   6+25      72.3667     80.12  |     Q    |          |          |       V  |
   6+30      72.8433     69.19  |    Q     |          |          |       V  |
   6+35      73.2593     60.41  |   Q      |          |          |       V  |
   6+40      73.6260     53.25  |   Q      |          |          |       V  |
   6+45      73.9465     46.53  |  Q       |          |          |       V  |
   6+50      74.2304     41.23  |  Q       |          |          |        V |
   6+55      74.4808     36.36  | Q        |          |          |        V |
   7+ 0      74.7054     32.62  | Q        |          |          |        V |
   7+ 5      74.9070     29.27  | Q        |          |          |        V |
   7+10      75.0867     26.08  | Q        |          |          |        V |
   7+15      75.2435     22.77  |Q         |          |          |        V |
   7+20      75.3816     20.05  |Q         |          |          |        V |
   7+25      75.5026     17.56  |Q         |          |          |        V |
   7+30      75.6085     15.38  |Q         |          |          |        V |
   7+35      75.7003     13.32  |Q         |          |          |        V |
   7+40      75.7800     11.58  Q          |          |          |        V |
   7+45      75.8489     10.00  Q          |          |          |        V |
   7+50      75.9087      8.68  Q          |          |          |        V |
   7+55      75.9604      7.50  Q          |          |          |        V |
   8+ 0      76.0037      6.28  Q          |          |          |        V |
   8+ 5      76.0381      5.00  Q          |          |          |        V |
   8+10      76.0629      3.61  Q          |          |          |        V |
   8+15      76.0768      2.01  Q          |          |          |        V |
   8+20      76.0819      0.74  Q          |          |          |        V |
   8+25      76.0842      0.33  Q          |          |          |        V |
   8+30      76.0854      0.17  Q          |          |          |        V |
   8+35      76.0858      0.07  Q          |          |          |        V |
   8+40      76.0860      0.02  Q          |          |          |        V |
   8+45      76.0860      0.01  Q          |          |          |         V
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       U n i t   H y d r o g r a p h   A n a l y s i s

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              Study date  04/24/19 File: lgexareab24100.out


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------------------------------------------------------------------------------

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Legado
Existing Condition
100-year 24-hour storm Hydrograph
Drainage Area B = 381.6 Ac

------------------------------------------------------------------------
Drainage Area =     381.60(Ac.)  =      0.596 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     381.60(Ac.)  =      0.596 Sq. Mi.
Length along longest watercourse =    6910.00(Ft.)
Length along longest watercourse measured to centroid =    3300.00(Ft.)
Length along longest watercourse =      1.309 Mi.
Length along longest watercourse measured to centroid =      0.625 Mi.
Difference in elevation =     168.00(Ft.)
Slope along watercourse =    128.3705 Ft./Mi.
Average Manning's 'N' = 0.039
Lag time =    0.345 Hr.
Lag time =    20.68 Min.
25% of lag time =     5.17 Min.
40% of lag time =     8.27 Min.
Unit time =     5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      381.60           2.03                774.65

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      381.60           5.33               2033.93

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    2.030(In)
Area Averaged 100-Year Rainfall =    5.330(In)

Point rain (area averaged) =    5.330(In)
Areal adjustment factor =   99.93 %
Adjusted average point rain =    5.326(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
   364.800           81.70         0.040
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```
    16.800           74.10         0.750
 Total Area Entered =    381.60(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
81.7  92.0      0.104     0.040        0.100       0.956      0.096
74.1  87.5      0.159     0.750        0.052       0.044      0.002
                                                 Sum (F) =    0.098
Area averaged mean soil loss (F) (In/Hr) =  0.098
Minimum soil loss rate ((In/Hr)) =  0.049
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.870
------------------------------------------------------------------------

               U n i t  H y d r o g r a p h
                      VALLEY S-Curve
------------------------------------------------------------------------
               Unit Hydrograph Data
------------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                          Graph %           (CFS)
------------------------------------------------------------------------
    1   0.083         24.172          2.211             8.503
    2   0.167         48.344          7.212            27.736
    3   0.250         72.517         12.771            49.114
    4   0.333         96.689         16.723            64.313
    5   0.417        120.861         15.578            59.911
    6   0.500        145.033          9.990            38.421
    7   0.583        169.205          6.441            24.769
    8   0.667        193.378          4.290            16.500
    9   0.750        217.550          3.414            13.131
   10   0.833        241.722          2.810            10.808
   11   0.917        265.894          2.377             9.143
   12   1.000        290.066          2.069             7.957
   13   1.083        314.239          1.718             6.605
   14   1.167        338.411          1.475             5.672
   15   1.250        362.583          1.398             5.376
   16   1.333        386.755          1.108             4.261
   17   1.417        410.927          1.034             3.976
   18   1.500        435.100          0.817             3.142
   19   1.583        459.272          0.770             2.961
   20   1.667        483.444          0.734             2.824
   21   1.750        507.616          0.716             2.752
   22   1.833        531.788          0.577             2.220
   23   1.917        555.961          0.529             2.034
   24   2.000        580.133          0.463             1.779
   25   2.083        604.305          0.434             1.667
   26   2.167        628.477          0.371             1.427
   27   2.250        652.649          0.338             1.299
   28   2.333        676.821          0.280             1.077
   29   2.417        700.994          0.242             0.930
   30   2.500        725.166          0.242             0.930
   31   2.583        749.338          0.242             0.930
   32   2.667        773.510          0.242             0.930
   33   2.750        797.682          0.242             0.930
   34   2.833        821.855          0.144             0.554
                                 Sum = 100.000   Sum=    384.581
------------------------------------------------------------------------


 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

  Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
       (Hr.)  Percent   (In/Hr)         Max    |   Low        (In/Hr)
    1   0.08     0.07      0.043       (  0.174)       0.036        0.007
    2   0.17     0.07      0.043       (  0.173)       0.036        0.007
    3   0.25     0.07      0.043       (  0.172)       0.036        0.007
    4   0.33     0.10      0.064       (  0.171)       0.054        0.010
```

5	0.42	0.10	0.064	(0.171)	0.054	0.010
6	0.50	0.10	0.064	(0.170)	0.054	0.010
7	0.58	0.10	0.064	(0.170)	0.054	0.010
8	0.67	0.10	0.064	(0.169)	0.054	0.010
9	0.75	0.10	0.064	(0.168)	0.054	0.010
10	0.83	0.13	0.085	(0.168)	0.072	0.014
11	0.92	0.13	0.085	(0.167)	0.072	0.014
12	1.00	0.13	0.085	(0.166)	0.072	0.014
13	1.08	0.10	0.064	(0.166)	0.054	0.010
14	1.17	0.10	0.064	(0.165)	0.054	0.010
15	1.25	0.10	0.064	(0.164)	0.054	0.010
16	1.33	0.10	0.064	(0.164)	0.054	0.010
17	1.42	0.10	0.064	(0.163)	0.054	0.010
18	1.50	0.10	0.064	(0.162)	0.054	0.010
19	1.58	0.10	0.064	(0.162)	0.054	0.010
20	1.67	0.10	0.064	(0.161)	0.054	0.010
21	1.75	0.10	0.064	(0.160)	0.054	0.010
22	1.83	0.13	0.085	(0.160)	0.072	0.014
23	1.92	0.13	0.085	(0.159)	0.072	0.014
24	2.00	0.13	0.085	(0.158)	0.072	0.014
25	2.08	0.13	0.085	(0.158)	0.072	0.014
26	2.17	0.13	0.085	(0.157)	0.072	0.014
27	2.25	0.13	0.085	(0.156)	0.072	0.014
28	2.33	0.13	0.085	(0.156)	0.072	0.014
29	2.42	0.13	0.085	(0.155)	0.072	0.014
30	2.50	0.13	0.085	(0.155)	0.072	0.014
31	2.58	0.17	0.107	(0.154)	0.089	0.017
32	2.67	0.17	0.107	(0.153)	0.089	0.017
33	2.75	0.17	0.107	(0.153)	0.089	0.017
34	2.83	0.17	0.107	(0.152)	0.089	0.017
35	2.92	0.17	0.107	(0.151)	0.089	0.017
36	3.00	0.17	0.107	(0.151)	0.089	0.017
37	3.08	0.17	0.107	(0.150)	0.089	0.017
38	3.17	0.17	0.107	(0.150)	0.089	0.017
39	3.25	0.17	0.107	(0.149)	0.089	0.017
40	3.33	0.17	0.107	(0.148)	0.089	0.017
41	3.42	0.17	0.107	(0.148)	0.089	0.017
42	3.50	0.17	0.107	(0.147)	0.089	0.017
43	3.58	0.17	0.107	(0.146)	0.089	0.017
44	3.67	0.17	0.107	(0.146)	0.089	0.017
45	3.75	0.17	0.107	(0.145)	0.089	0.017
46	3.83	0.20	0.128	(0.145)	0.107	0.020
47	3.92	0.20	0.128	(0.144)	0.107	0.020
48	4.00	0.20	0.128	(0.143)	0.107	0.020
49	4.08	0.20	0.128	(0.143)	0.107	0.020
50	4.17	0.20	0.128	(0.142)	0.107	0.020
51	4.25	0.20	0.128	(0.142)	0.107	0.020
52	4.33	0.23	0.149	(0.141)	0.125	0.024
53	4.42	0.23	0.149	(0.140)	0.125	0.024
54	4.50	0.23	0.149	(0.140)	0.125	0.024
55	4.58	0.23	0.149	(0.139)	0.125	0.024
56	4.67	0.23	0.149	(0.139)	0.125	0.024
57	4.75	0.23	0.149	(0.138)	0.125	0.024
58	4.83	0.27	0.170	0.137	(0.143)	0.033
59	4.92	0.27	0.170	0.137	(0.143)	0.034
60	5.00	0.27	0.170	0.136	(0.143)	0.034
61	5.08	0.20	0.128	(0.136)	0.107	0.020
62	5.17	0.20	0.128	(0.135)	0.107	0.020
63	5.25	0.20	0.128	(0.134)	0.107	0.020
64	5.33	0.23	0.149	(0.134)	0.125	0.024
65	5.42	0.23	0.149	(0.133)	0.125	0.024
66	5.50	0.23	0.149	(0.133)	0.125	0.024
67	5.58	0.27	0.170	0.132	(0.143)	0.038
68	5.67	0.27	0.170	0.132	(0.143)	0.039
69	5.75	0.27	0.170	0.131	(0.143)	0.040
70	5.83	0.27	0.170	0.130	(0.143)	0.040
71	5.92	0.27	0.170	0.130	(0.143)	0.041
72	6.00	0.27	0.170	0.129	(0.143)	0.041
73	6.08	0.30	0.192	0.129	(0.161)	0.063
74	6.17	0.30	0.192	0.128	(0.161)	0.064

75	6.25	0.30	0.192	0.127	(0.161)	0.064
76	6.33	0.30	0.192	0.127	(0.161)	0.065
77	6.42	0.30	0.192	0.126	(0.161)	0.065
78	6.50	0.30	0.192	0.126	(0.161)	0.066
79	6.58	0.33	0.213	0.125	(0.179)	0.088
80	6.67	0.33	0.213	0.125	(0.179)	0.088
81	6.75	0.33	0.213	0.124	(0.179)	0.089
82	6.83	0.33	0.213	0.124	(0.179)	0.090
83	6.92	0.33	0.213	0.123	(0.179)	0.090
84	7.00	0.33	0.213	0.122	(0.179)	0.091
85	7.08	0.33	0.213	0.122	(0.179)	0.091
86	7.17	0.33	0.213	0.121	(0.179)	0.092
87	7.25	0.33	0.213	0.121	(0.179)	0.092
88	7.33	0.37	0.234	0.120	(0.197)	0.114
89	7.42	0.37	0.234	0.120	(0.197)	0.115
90	7.50	0.37	0.234	0.119	(0.197)	0.115
91	7.58	0.40	0.256	0.119	(0.215)	0.137
92	7.67	0.40	0.256	0.118	(0.215)	0.138
93	7.75	0.40	0.256	0.117	(0.215)	0.138
94	7.83	0.43	0.277	0.117	(0.233)	0.160
95	7.92	0.43	0.277	0.116	(0.233)	0.161
96	8.00	0.43	0.277	0.116	(0.233)	0.161
97	8.08	0.50	0.320	0.115	(0.268)	0.204
98	8.17	0.50	0.320	0.115	(0.268)	0.205
99	8.25	0.50	0.320	0.114	(0.268)	0.205
100	8.33	0.50	0.320	0.114	(0.268)	0.206
101	8.42	0.50	0.320	0.113	(0.268)	0.206
102	8.50	0.50	0.320	0.113	(0.268)	0.207
103	8.58	0.53	0.341	0.112	(0.286)	0.229
104	8.67	0.53	0.341	0.112	(0.286)	0.229
105	8.75	0.53	0.341	0.111	(0.286)	0.230
106	8.83	0.57	0.362	0.111	(0.304)	0.252
107	8.92	0.57	0.362	0.110	(0.304)	0.252
108	9.00	0.57	0.362	0.109	(0.304)	0.253
109	9.08	0.63	0.405	0.109	(0.340)	0.296
110	9.17	0.63	0.405	0.108	(0.340)	0.296
111	9.25	0.63	0.405	0.108	(0.340)	0.297
112	9.33	0.67	0.426	0.107	(0.358)	0.319
113	9.42	0.67	0.426	0.107	(0.358)	0.319
114	9.50	0.67	0.426	0.106	(0.358)	0.320
115	9.58	0.70	0.447	0.106	(0.376)	0.342
116	9.67	0.70	0.447	0.105	(0.376)	0.342
117	9.75	0.70	0.447	0.105	(0.376)	0.343
118	9.83	0.73	0.469	0.104	(0.394)	0.364
119	9.92	0.73	0.469	0.104	(0.394)	0.365
120	10.00	0.73	0.469	0.103	(0.394)	0.365
121	10.08	0.50	0.320	0.103	(0.268)	0.217
122	10.17	0.50	0.320	0.102	(0.268)	0.217
123	10.25	0.50	0.320	0.102	(0.268)	0.218
124	10.33	0.50	0.320	0.101	(0.268)	0.218
125	10.42	0.50	0.320	0.101	(0.268)	0.219
126	10.50	0.50	0.320	0.100	(0.268)	0.219
127	10.58	0.67	0.426	0.100	(0.358)	0.326
128	10.67	0.67	0.426	0.099	(0.358)	0.327
129	10.75	0.67	0.426	0.099	(0.358)	0.327
130	10.83	0.67	0.426	0.098	(0.358)	0.328
131	10.92	0.67	0.426	0.098	(0.358)	0.328
132	11.00	0.67	0.426	0.097	(0.358)	0.329
133	11.08	0.63	0.405	0.097	(0.340)	0.308
134	11.17	0.63	0.405	0.097	(0.340)	0.308
135	11.25	0.63	0.405	0.096	(0.340)	0.309
136	11.33	0.63	0.405	0.096	(0.340)	0.309
137	11.42	0.63	0.405	0.095	(0.340)	0.310
138	11.50	0.63	0.405	0.095	(0.340)	0.310
139	11.58	0.57	0.362	0.094	(0.304)	0.268
140	11.67	0.57	0.362	0.094	(0.304)	0.268
141	11.75	0.57	0.362	0.093	(0.304)	0.269
142	11.83	0.60	0.383	0.093	(0.322)	0.291
143	11.92	0.60	0.383	0.092	(0.322)	0.291
144	12.00	0.60	0.383	0.092	(0.322)	0.292

145	12.08	0.83	0.533	0.091	(0.447)	0.441
146	12.17	0.83	0.533	0.091	(0.447)	0.442
147	12.25	0.83	0.533	0.090	(0.447)	0.442
148	12.33	0.87	0.554	0.090	(0.465)	0.464
149	12.42	0.87	0.554	0.090	(0.465)	0.464
150	12.50	0.87	0.554	0.089	(0.465)	0.465
151	12.58	0.93	0.597	0.089	(0.501)	0.508
152	12.67	0.93	0.597	0.088	(0.501)	0.508
153	12.75	0.93	0.597	0.088	(0.501)	0.509
154	12.83	0.97	0.618	0.087	(0.519)	0.531
155	12.92	0.97	0.618	0.087	(0.519)	0.531
156	13.00	0.97	0.618	0.086	(0.519)	0.531
157	13.08	1.13	0.724	0.086	(0.608)	0.638
158	13.17	1.13	0.724	0.086	(0.608)	0.639
159	13.25	1.13	0.724	0.085	(0.608)	0.639
160	13.33	1.13	0.724	0.085	(0.608)	0.640
161	13.42	1.13	0.724	0.084	(0.608)	0.640
162	13.50	1.13	0.724	0.084	(0.608)	0.641
163	13.58	0.77	0.490	0.083	(0.412)	0.407
164	13.67	0.77	0.490	0.083	(0.412)	0.407
165	13.75	0.77	0.490	0.083	(0.412)	0.407
166	13.83	0.77	0.490	0.082	(0.412)	0.408
167	13.92	0.77	0.490	0.082	(0.412)	0.408
168	14.00	0.77	0.490	0.081	(0.412)	0.409
169	14.08	0.90	0.575	0.081	(0.483)	0.494
170	14.17	0.90	0.575	0.080	(0.483)	0.495
171	14.25	0.90	0.575	0.080	(0.483)	0.495
172	14.33	0.87	0.554	0.080	(0.465)	0.474
173	14.42	0.87	0.554	0.079	(0.465)	0.475
174	14.50	0.87	0.554	0.079	(0.465)	0.475
175	14.58	0.87	0.554	0.078	(0.465)	0.475
176	14.67	0.87	0.554	0.078	(0.465)	0.476
177	14.75	0.87	0.554	0.078	(0.465)	0.476
178	14.83	0.83	0.533	0.077	(0.447)	0.455
179	14.92	0.83	0.533	0.077	(0.447)	0.456
180	15.00	0.83	0.533	0.076	(0.447)	0.456
181	15.08	0.80	0.511	0.076	(0.429)	0.435
182	15.17	0.80	0.511	0.076	(0.429)	0.436
183	15.25	0.80	0.511	0.075	(0.429)	0.436
184	15.33	0.77	0.490	0.075	(0.412)	0.415
185	15.42	0.77	0.490	0.075	(0.412)	0.415
186	15.50	0.77	0.490	0.074	(0.412)	0.416
187	15.58	0.63	0.405	0.074	(0.340)	0.331
188	15.67	0.63	0.405	0.073	(0.340)	0.331
189	15.75	0.63	0.405	0.073	(0.340)	0.332
190	15.83	0.63	0.405	0.073	(0.340)	0.332
191	15.92	0.63	0.405	0.072	(0.340)	0.333
192	16.00	0.63	0.405	0.072	(0.340)	0.333
193	16.08	0.13	0.085	0.072	(0.072)	0.014
194	16.17	0.13	0.085	0.071	(0.072)	0.014
195	16.25	0.13	0.085	0.071	(0.072)	0.014
196	16.33	0.13	0.085	0.070	(0.072)	0.015
197	16.42	0.13	0.085	0.070	(0.072)	0.015
198	16.50	0.13	0.085	0.070	(0.072)	0.016
199	16.58	0.10	0.064	(0.069)	0.054	0.010
200	16.67	0.10	0.064	(0.069)	0.054	0.010
201	16.75	0.10	0.064	(0.069)	0.054	0.010
202	16.83	0.10	0.064	(0.068)	0.054	0.010
203	16.92	0.10	0.064	(0.068)	0.054	0.010
204	17.00	0.10	0.064	(0.068)	0.054	0.010
205	17.08	0.17	0.107	0.067	(0.089)	0.039
206	17.17	0.17	0.107	0.067	(0.089)	0.040
207	17.25	0.17	0.107	0.067	(0.089)	0.040
208	17.33	0.17	0.107	0.066	(0.089)	0.040
209	17.42	0.17	0.107	0.066	(0.089)	0.041
210	17.50	0.17	0.107	0.066	(0.089)	0.041
211	17.58	0.17	0.107	0.065	(0.089)	0.041
212	17.67	0.17	0.107	0.065	(0.089)	0.042
213	17.75	0.17	0.107	0.065	(0.089)	0.042
214	17.83	0.13	0.085	0.064	(0.072)	0.021

215	17.92	0.13	0.085	0.064	(0.072)	0.021
216	18.00	0.13	0.085	0.064	(0.072)	0.022
217	18.08	0.13	0.085	0.063	(0.072)	0.022
218	18.17	0.13	0.085	0.063	(0.072)	0.022
219	18.25	0.13	0.085	0.063	(0.072)	0.022
220	18.33	0.13	0.085	0.062	(0.072)	0.023
221	18.42	0.13	0.085	0.062	(0.072)	0.023
222	18.50	0.13	0.085	0.062	(0.072)	0.023
223	18.58	0.10	0.064	(0.062)	0.054	0.010
224	18.67	0.10	0.064	(0.061)	0.054	0.010
225	18.75	0.10	0.064	(0.061)	0.054	0.010
226	18.83	0.07	0.043	(0.061)	0.036	0.007
227	18.92	0.07	0.043	(0.060)	0.036	0.007
228	19.00	0.07	0.043	(0.060)	0.036	0.007
229	19.08	0.10	0.064	(0.060)	0.054	0.010
230	19.17	0.10	0.064	(0.059)	0.054	0.010
231	19.25	0.10	0.064	(0.059)	0.054	0.010
232	19.33	0.13	0.085	0.059	(0.072)	0.026
233	19.42	0.13	0.085	0.059	(0.072)	0.027
234	19.50	0.13	0.085	0.058	(0.072)	0.027
235	19.58	0.10	0.064	(0.058)	0.054	0.010
236	19.67	0.10	0.064	(0.058)	0.054	0.010
237	19.75	0.10	0.064	(0.058)	0.054	0.010
238	19.83	0.07	0.043	(0.057)	0.036	0.007
239	19.92	0.07	0.043	(0.057)	0.036	0.007
240	20.00	0.07	0.043	(0.057)	0.036	0.007
241	20.08	0.10	0.064	(0.057)	0.054	0.010
242	20.17	0.10	0.064	(0.056)	0.054	0.010
243	20.25	0.10	0.064	(0.056)	0.054	0.010
244	20.33	0.10	0.064	(0.056)	0.054	0.010
245	20.42	0.10	0.064	(0.056)	0.054	0.010
246	20.50	0.10	0.064	(0.055)	0.054	0.010
247	20.58	0.10	0.064	(0.055)	0.054	0.010
248	20.67	0.10	0.064	(0.055)	0.054	0.010
249	20.75	0.10	0.064	(0.055)	0.054	0.010
250	20.83	0.07	0.043	(0.054)	0.036	0.007
251	20.92	0.07	0.043	(0.054)	0.036	0.007
252	21.00	0.07	0.043	(0.054)	0.036	0.007
253	21.08	0.10	0.064	(0.054)	0.054	0.010
254	21.17	0.10	0.064	0.054	(0.054)	0.010
255	21.25	0.10	0.064	0.053	(0.054)	0.011
256	21.33	0.07	0.043	(0.053)	0.036	0.007
257	21.42	0.07	0.043	(0.053)	0.036	0.007
258	21.50	0.07	0.043	(0.053)	0.036	0.007
259	21.58	0.10	0.064	0.053	(0.054)	0.011
260	21.67	0.10	0.064	0.052	(0.054)	0.012
261	21.75	0.10	0.064	0.052	(0.054)	0.012
262	21.83	0.07	0.043	(0.052)	0.036	0.007
263	21.92	0.07	0.043	(0.052)	0.036	0.007
264	22.00	0.07	0.043	(0.052)	0.036	0.007
265	22.08	0.10	0.064	0.052	(0.054)	0.012
266	22.17	0.10	0.064	0.051	(0.054)	0.013
267	22.25	0.10	0.064	0.051	(0.054)	0.013
268	22.33	0.07	0.043	(0.051)	0.036	0.007
269	22.42	0.07	0.043	(0.051)	0.036	0.007
270	22.50	0.07	0.043	(0.051)	0.036	0.007
271	22.58	0.07	0.043	(0.051)	0.036	0.007
272	22.67	0.07	0.043	(0.050)	0.036	0.007
273	22.75	0.07	0.043	(0.050)	0.036	0.007
274	22.83	0.07	0.043	(0.050)	0.036	0.007
275	22.92	0.07	0.043	(0.050)	0.036	0.007
276	23.00	0.07	0.043	(0.050)	0.036	0.007
277	23.08	0.07	0.043	(0.050)	0.036	0.007
278	23.17	0.07	0.043	(0.050)	0.036	0.007
279	23.25	0.07	0.043	(0.050)	0.036	0.007
280	23.33	0.07	0.043	(0.049)	0.036	0.007
281	23.42	0.07	0.043	(0.049)	0.036	0.007
282	23.50	0.07	0.043	(0.049)	0.036	0.007
283	23.58	0.07	0.043	(0.049)	0.036	0.007
284	23.67	0.07	0.043	(0.049)	0.036	0.007

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285  23.75     0.07      0.043       (  0.049)       0.036        0.007
286  23.83     0.07      0.043       (  0.049)       0.036        0.007
287  23.92     0.07      0.043       (  0.049)       0.036        0.007
288  24.00     0.07      0.043       (  0.049)       0.036        0.007
               (Loss Rate Not Used)
    Sum =     100.0                                    Sum =    40.9
       Flood volume = Effective rainfall      3.41(In)
        times area     381.6(Ac.)/[(In)/(Ft.)] =     108.4(Ac.Ft)
       Total soil loss =      1.92(In)
       Total soil loss =    60.953(Ac.Ft)
       Total rainfall =      5.33(In)
       Flood volume =     4722554.4 Cubic Feet
       Total soil loss =     2655101.5 Cubic Feet
       ---------------------------------------------------------------------
        Peak flow rate of this hydrograph =    224.220(CFS)
       ---------------------------------------------------------------------
       +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          24 - H O U R    S T O R M
                     R u n o f f      H y d r o g r a p h
       ---------------------------------------------------------------------
                   Hydrograph in   5   Minute intervals ((CFS))

       ---------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0       75.0     150.0     225.0     300.0
 ---------------------------------------------------------------------------
   0+ 5       0.0004      0.06  Q          |         |         |         |
   0+10       0.0021      0.25  Q          |         |         |         |
   0+15       0.0061      0.58  Q          |         |         |         |
   0+20       0.0133      1.05  Q          |         |         |         |
   0+25       0.0240      1.55  Q          |         |         |         |
   0+30       0.0377      1.98  Q          |         |         |         |
   0+35       0.0540      2.37  Q          |         |         |         |
   0+40       0.0725      2.69  Q          |         |         |         |
   0+45       0.0926      2.91  Q          |         |         |         |
   0+50       0.1139      3.10  Q          |         |         |         |
   0+55       0.1367      3.31  Q          |         |         |         |
   1+ 0       0.1613      3.58  Q          |         |         |         |
   1+ 5       0.1878      3.85  Q          |         |         |         |
   1+10       0.2155      4.03  Q          |         |         |         |
   1+15       0.2435      4.05  Q          |         |         |         |
   1+20       0.2708      3.97  Q          |         |         |         |
   1+25       0.2975      3.87  Q          |         |         |         |
   1+30       0.3238      3.82  Q          |         |         |         |
   1+35       0.3500      3.81  Q          |         |         |         |
   1+40       0.3763      3.82  Q          |         |         |         |
   1+45       0.4027      3.83  Q          |         |         |         |
   1+50       0.4293      3.87  Q          |         |         |         |
   1+55       0.4567      3.98  Q          |         |         |         |
   2+ 0       0.4854      4.16  Q          |         |         |         |
   2+ 5       0.5156      4.39  Q          |         |         |         |
   2+10       0.5473      4.60  Q          |         |         |         |
   2+15       0.5799      4.74  Q          |         |         |         |
   2+20       0.6132      4.83  Q          |         |         |         |
   2+25       0.6469      4.90  Q          |         |         |         |
   2+30       0.6810      4.95  Q          |         |         |         |
   2+35       0.7156      5.02  Q          |         |         |         |
   2+40       0.7511      5.16  Q          |         |         |         |
   2+45       0.7880      5.36  Q          |         |         |         |
   2+50       0.8266      5.60  Q          |         |         |         |
   2+55       0.8668      5.83  Q          |         |         |         |
   3+ 0       0.9080      5.98  Q          |         |         |         |
   3+ 5       0.9498      6.08  Q          |         |         |         |
   3+10       0.9922      6.15  Q          |         |         |         |
   3+15       1.0349      6.20  Q          |         |         |         |
   3+20       1.0779      6.25  Q          |         |         |         |
   3+25       1.1212      6.29  Q          |         |         |         |
   3+30       1.1648      6.33  Q          |         |         |         |
   3+35       1.2085      6.35  Q          |         |         |         |
   3+40       1.2525      6.38  Q          |         |         |         |
   3+45       1.2965      6.40  Q          |         |         |         |
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3+50	1.3409	6.45	Q	|	|	|	|
3+55	1.3861	6.56	Q	|	|	|	|
4+ 0	1.4325	6.74	Q	|	|	|	|
4+ 5	1.4806	6.97	Q	|	|	|	|
4+10	1.5301	7.19	Q	|	|	|	|
4+15	1.5806	7.34	Q	|	|	|	|
4+20	1.6320	7.46	Q	|	|	|	|
4+25	1.6845	7.62	VQ	|	|	|	|
4+30	1.7385	7.84	VQ	|	|	|	|
4+35	1.7943	8.11	VQ	|	|	|	|
4+40	1.8518	8.35	VQ	|	|	|	|
4+45	1.9104	8.51	VQ	|	|	|	|
4+50	1.9703	8.70	VQ	|	|	|	|
4+55	2.0325	9.04	VQ	|	|	|	|
5+ 0	2.0985	9.58	VQ	|	|	|	|
5+ 5	2.1684	10.15	VQ	|	|	|	|
5+10	2.2402	10.43	VQ	|	|	|	|
5+15	2.3106	10.22	VQ	|	|	|	|
5+20	2.3774	9.69	VQ	|	|	|	|
5+25	2.4405	9.17	VQ	|	|	|	|
5+30	2.5024	8.98	VQ	|	|	|	|
5+35	2.5652	9.12	VQ	|	|	|	|
5+40	2.6315	9.63	VQ	|	|	|	|
5+45	2.7032	10.41	VQ	|	|	|	|
5+50	2.7819	11.41	|Q	|	|	|	|
5+55	2.8671	12.38	|Q	|	|	|	|
6+ 0	2.9570	13.06	|Q	|	|	|	|
6+ 5	3.0517	13.75	|Q	|	|	|	|
6+10	3.1532	14.74	|Q	|	|	|	|
6+15	3.2643	16.14	|VQ	|	|	|	|
6+20	3.3872	17.84	|VQ	|	|	|	|
6+25	3.5211	19.44	|VQ	|	|	|	|
6+30	3.6627	20.57	|VQ	|	|	|	|
6+35	3.8112	21.56	|VQ	|	|	|	|
6+40	3.9681	22.78	|V Q	|	|	|	|
6+45	4.1360	24.37	|V Q	|	|	|	|
6+50	4.3166	26.23	|V Q	|	|	|	|
6+55	4.5092	27.96	|V Q	|	|	|	|
7+ 0	4.7103	29.20	|V Q	|	|	|	|
7+ 5	4.9177	30.11	|V Q	|	|	|	|
7+10	5.1300	30.83	|V Q	|	|	|	|
7+15	5.3467	31.46	|V Q	|	|	|	|
7+20	5.5685	32.21	| V Q	|	|	|	|
7+25	5.7980	33.31	| V Q	|	|	|	|
7+30	6.0379	34.83	| V Q	|	|	|	|
7+35	6.2914	36.82	| V Q	|	|	|	|
7+40	6.5606	39.09	| V Q	|	|	|	|
7+45	6.8453	41.34	| V Q	|	|	|	|
7+50	7.1469	43.78	| V Q	|	|	|	|
7+55	7.4661	46.35	| V Q	|	|	|	|
8+ 0	7.8024	48.83	| V Q	|	|	|	|
8+ 5	8.1581	51.65	| V Q	|	|	|	|
8+10	8.5366	54.96	| V Q	|	|	|	|
8+15	8.9404	58.63	| V Q	|	|	|	|
8+20	9.3713	62.56	| V Q	|	|	|	|
8+25	9.8262	66.05	| V Q	|	|	|	|
8+30	10.2982	68.52	| V Q|	|	|	|
8+35	10.7836	70.48	| V Q|	|	|	|
8+40	11.2824	72.44	| V Q|	|	|	|
8+45	11.7965	74.65	| V Q|	|	|	|
8+50	12.3282	77.19	| V Q	|	|	|
8+55	12.8788	79.94	| V Q	|	|	|
9+ 0	13.4477	82.61	| V |Q	|	|	|
9+ 5	14.0371	85.58	| V |Q	|	|	|
9+10	14.6503	89.04	| V |Q	|	|	|
9+15	15.2898	92.85	| V | Q	|	|	|
9+20	15.9584	97.07	| V | Q	|	|	|
9+25	16.6558	101.27	| V | Q	|	|	|
9+30	17.3780	104.86	| V | Q	|	|	|
9+35	18.1237	108.27	| V | Q	|	|	|

9+40	18.8921	111.57	V	Q		
9+45	19.6819	114.69	V	Q		
9+50	20.4934	117.83	V	Q		
9+55	21.3268	121.00	V	Q		
10+ 0	22.1808	124.00	V	Q		
10+ 5	23.0460	125.62	V	Q		
10+10	23.8999	123.99	V	Q		
10+15	24.7165	118.58	V	Q		
10+20	25.4771	110.44	V	Q		
10+25	26.1844	102.70	V	Q		
10+30	26.8594	98.01	V	Q		
10+35	27.5215	96.14	V	Q		
10+40	28.1927	97.46	V	Q		
10+45	28.8917	101.50	V	Q		
10+50	29.6314	107.40	V	Q		
10+55	30.4098	113.01	V	Q		
11+ 0	31.2119	116.47	V	Q		
11+ 5	32.0277	118.45	V	Q		
11+10	32.8490	119.25	V	Q		
11+15	33.6702	119.25	V	Q		
11+20	34.4884	118.80	V	Q		
11+25	35.3031	118.28	V	Q		
11+30	36.1172	118.21	V	Q		
11+35	36.9294	117.93	V	Q		
11+40	37.7344	116.89	V	Q		
11+45	38.5264	114.99	V	Q		
11+50	39.3019	112.61	V	Q		
11+55	40.0652	110.82	V	Q		
12+ 0	40.8254	110.38	V	Q		
12+ 5	41.5976	112.13	V	Q		
12+10	42.4035	117.02	V	Q		
12+15	43.2631	124.82	V	Q		
12+20	44.1919	134.86	V	Q		
12+25	45.1873	144.54	V	Q		
12+30	46.2303	151.44	V	Q		
12+35	47.3115	156.98	V	Q		
12+40	48.4271	161.99	V	Q		
12+45	49.5766	166.91	V	Q		
12+50	50.7619	172.10	V	Q		
12+55	51.9818	177.14	V	Q		
13+ 0	53.2319	181.51	V	Q		
13+ 5	54.5146	186.26	V	Q		
13+10	55.8400	192.44	V	Q		
13+15	57.2189	200.22	V	Q		
13+20	58.6583	209.01	V	Q		
13+25	60.1526	216.98	V	Q		
13+30	61.6844	222.40	V	Q		
13+35	63.2286	224.22	V	Q		
13+40	64.7475	220.55	V	Q		
13+45	66.2037	211.44	V	Q		
13+50	67.5699	198.37	V	Q		
13+55	68.8517	186.11	V	Q		
14+ 0	70.0822	178.68	V	Q		
14+ 5	71.2872	174.96	V	Q		
14+10	72.4901	174.66	V	Q		
14+15	73.7084	176.90	V	Q		
14+20	74.9525	180.64	V	Q		
14+25	76.2193	183.93	V	Q		
14+30	77.4941	185.11	V	Q		
14+35	78.7687	185.07	V	Q		
14+40	80.0401	184.60	V	Q		
14+45	81.3096	184.34	V	Q		
14+50	82.5777	184.13	V	Q		
14+55	83.8415	183.50	V	Q		
15+ 0	85.0987	182.55	V	Q		
15+ 5	86.3455	181.04	V	Q		
15+10	87.5794	179.16	V	Q		
15+15	88.8005	177.29	V	Q		
15+20	90.0073	175.23	V	Q		
15+25	91.1989	173.02	V	Q		

15+30	92.3757	170.88	| | | Q | V |
15+35	93.5332	168.06	| | | Q | V |
15+40	94.6623	163.94	| | |Q | V |
15+45	95.7545	158.60	| | |Q | V |
15+50	96.8034	152.30	| | Q | V |
15+55	97.8128	146.56	| | Q| | V |
16+ 0	98.7959	142.75	| | Q| | V |
16+ 5	99.7427	137.48	| | Q | | V |
16+10	100.6160	126.81	| | Q | | V |
16+15	101.3711	109.63	| | Q | | V |
16+20	101.9766	87.93	| |Q | | V |
16+25	102.4444	67.92	| Q| | | V |
16+30	102.8225	54.91	| Q | | | V |
16+35	103.1419	46.37	| Q | | | V |
16+40	103.4206	40.47	| Q | | | V |
16+45	103.6655	35.56	| Q | | | V |
16+50	103.8815	31.36	| Q | | | V |
16+55	104.0722	27.70	| Q | | | V |
17+ 0	104.2416	24.59	| Q | | | V |
17+ 5	104.3949	22.26	| Q | | | V |
17+10	104.5386	20.87	| Q | | | V |
17+15	104.6780	20.23	| Q | | | V |
17+20	104.8189	20.47	| Q | | | V |
17+25	104.9616	20.72	| Q | | | V |
17+30	105.1039	20.66	| Q | | | V |
17+35	105.2437	20.30	| Q | | | V |
17+40	105.3800	19.79	| Q | | | V |
17+45	105.5124	19.22	| Q | | | V |
17+50	105.6406	18.61	| Q | | | V |
17+55	105.7620	17.63	| Q | | | V|
18+ 0	105.8739	16.24	| Q | | | V|
18+ 5	105.9740	14.54	|Q | | | V|
18+10	106.0635	12.99	|Q | | | V|
18+15	106.1457	11.94	|Q | | | V|
18+20	106.2231	11.24	|Q | | | V|
18+25	106.2976	10.82	|Q | | | V|
18+30	106.3695	10.44	|Q | | | V|
18+35	106.4383	9.99	|Q | | | V|
18+40	106.5023	9.31	|Q | | | V|
18+45	106.5599	8.35	|Q | | | V|
18+50	106.6101	7.29	Q | | | V|
18+55	106.6541	6.39	Q | | | V|
19+ 0	106.6933	5.69	Q | | | V|
19+ 5	106.7288	5.16	Q | | | V|
19+10	106.7619	4.81	Q | | | V|
19+15	106.7940	4.66	Q | | | V|
19+20	106.8269	4.78	Q | | | V|
19+25	106.8629	5.24	Q | | | V|
19+30	106.9042	6.00	Q | | | V|
19+35	106.9515	6.87	Q | | | V|
19+40	107.0021	7.34	Q | | | V|
19+45	107.0512	7.13	Q | | | V|
19+50	107.0953	6.40	Q | | | V|
19+55	107.1334	5.53	Q | | | V|
20+ 0	107.1672	4.90	Q | | | V|
20+ 5	107.1977	4.43	Q | | | V|
20+10	107.2263	4.16	Q | | | V|
20+15	107.2543	4.07	Q | | | V|
20+20	107.2825	4.09	Q | | | V|
20+25	107.3110	4.14	Q | | | V|
20+30	107.3396	4.15	Q | | | V|
20+35	107.3680	4.13	Q | | | V|
20+40	107.3964	4.11	Q | | | V|
20+45	107.4245	4.08	Q | | | V|
20+50	107.4523	4.04	Q | | | V|
20+55	107.4793	3.93	Q | | | V|
21+ 0	107.5051	3.75	Q | | | V|
21+ 5	107.5296	3.55	Q | | | V|
21+10	107.5531	3.42	Q | | | V|
21+15	107.5768	3.44	Q | | | V|

21+20	107.6012	3.54	Q	|	|	|	V|
21+25	107.6260	3.60	Q	|	|	|	V|
21+30	107.6502	3.52	Q	|	|	|	V|
21+35	107.6735	3.37	Q	|	|	|	V|
21+40	107.6963	3.31	Q	|	|	|	V|
21+45	107.7198	3.42	Q	|	|	|	V|
21+50	107.7447	3.61	Q	|	|	|	V|
21+55	107.7704	3.72	Q	|	|	|	V|
22+ 0	107.7955	3.65	Q	|	|	|	V|
22+ 5	107.8194	3.48	Q	|	|	|	V|
22+10	107.8428	3.39	Q	|	|	|	V|
22+15	107.8669	3.51	Q	|	|	|	V|
22+20	107.8927	3.74	Q	|	|	|	V|
22+25	107.9194	3.88	Q	|	|	|	V|
22+30	107.9455	3.78	Q	|	|	|	V|
22+35	107.9698	3.53	Q	|	|	|	V|
22+40	107.9922	3.25	Q	|	|	|	V|
22+45	108.0134	3.09	Q	|	|	|	V|
22+50	108.0340	2.99	Q	|	|	|	V|
22+55	108.0542	2.93	Q	|	|	|	V|
23+ 0	108.0740	2.88	Q	|	|	|	V|
23+ 5	108.0936	2.84	Q	|	|	|	V|
23+10	108.1130	2.81	Q	|	|	|	V|
23+15	108.1322	2.79	Q	|	|	|	V|
23+20	108.1513	2.77	Q	|	|	|	V|
23+25	108.1702	2.75	Q	|	|	|	V|
23+30	108.1890	2.73	Q	|	|	|	V|
23+35	108.2078	2.72	Q	|	|	|	V|
23+40	108.2264	2.71	Q	|	|	|	V|
23+45	108.2450	2.70	Q	|	|	|	V|
23+50	108.2636	2.69	Q	|	|	|	V|
23+55	108.2821	2.68	Q	|	|	|	V|
24+ 0	108.3005	2.67	Q	|	|	|	V|
24+ 5	108.3184	2.61	Q	|	|	|	V|
24+10	108.3351	2.42	Q	|	|	|	V|
24+15	108.3494	2.08	Q	|	|	|	V|
24+20	108.3607	1.64	Q	|	|	|	V|
24+25	108.3691	1.22	Q	|	|	|	V|
24+30	108.3756	0.95	Q	|	|	|	V|
24+35	108.3810	0.78	Q	|	|	|	V|
24+40	108.3856	0.67	Q	|	|	|	V|
24+45	108.3896	0.58	Q	|	|	|	V|
24+50	108.3930	0.50	Q	|	|	|	V|
24+55	108.3960	0.43	Q	|	|	|	V|
25+ 0	108.3986	0.37	Q	|	|	|	V|
25+ 5	108.4008	0.33	Q	|	|	|	V|
25+10	108.4028	0.29	Q	|	|	|	V|
25+15	108.4045	0.25	Q	|	|	|	V|
25+20	108.4060	0.22	Q	|	|	|	V|
25+25	108.4073	0.19	Q	|	|	|	V|
25+30	108.4085	0.17	Q	|	|	|	V|
25+35	108.4096	0.15	Q	|	|	|	V|
25+40	108.4105	0.13	Q	|	|	|	V|
25+45	108.4113	0.11	Q	|	|	|	V|
25+50	108.4120	0.10	Q	|	|	|	V|
25+55	108.4125	0.08	Q	|	|	|	V|
26+ 0	108.4130	0.07	Q	|	|	|	V|
26+ 5	108.4135	0.06	Q	|	|	|	V|
26+10	108.4138	0.05	Q	|	|	|	V|
26+15	108.4141	0.04	Q	|	|	|	V|
26+20	108.4144	0.04	Q	|	|	|	V|
26+25	108.4146	0.03	Q	|	|	|	V|
26+30	108.4147	0.02	Q	|	|	|	V|
26+35	108.4148	0.02	Q	|	|	|	V|
26+40	108.4149	0.01	Q	|	|	|	V|
26+45	108.4149	0.00	Q	|	|	|	V

Drainage Area C (Existing Condition) = 103.2 Ac

Soil Low Loss Rate Worksheet
Drainage Area C – 103.2 Ac (Existing)

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Subarea	**Area in (Ac)**	**Land Use (Plate D-5.6)**	**% Impervious (Plate D-5.6)**	**Soil Low Loss Rate 0.9-(0.8)* [4]**	**Decimal portion of Area [2] / SUM[2]**	**Average Low Loss Rate [5] * [6]**
	4.6	Natural	0	0.90	0.04	0.04
		Res 1 Ac	20	0.74	0.00	0.00
	40.1	Res 1/2 Ac	40	0.58	0.40	0.23
	44.8	Res 1/4 Ac	50	0.50	0.42	0.22
		Res < 1/4 Ac	65	0.38	0.00	0.00
		Apartment	80	0.26	0.00	0.00
		Mobil Home	85	0.30	0.00	0.00
		Hospital	75	0.30	0.00	0.00
	13.7	Commercial	90	0.18	0.13	0.02
Sum =	103.2				1.00	**0.51**

Manning "n" Value Worksheet
Drainage Area C – 103.2 Ac (Existing)

[1]	[2]	[3]	[4]	[5]	[7]
Subarea	**Area in (Ac)**	**Land Use (Plate D-5.6)**	**"n" Value**	**Decimal portion of Area [2] / SUM[2]**	**Average "n" Value [4] * [5]**
	4.6	Natural	0.04	0.04	0.002
		Res 1 Ac	0.015	0.00	0.000
	40.1	Res 1/2 Ac	0.015	0.39	0.006
	44.8	Res 1/4 Ac	0.015	0.43	0.007
		Res < 1/4 Ac	0.015	0.00	0.000
		Apartment	0.015	0.00	0.000
		Mobil Home	0.015	0.00	0.000
		Hospital	0.02	0.00	0.000
	13.7	Commercial	0.015	0.13	0.002
Sum =	**106.5**			1.00	**0.016**

Runoff Index (RI) Worksheet

Drainage Area C – 103.2 Ac (Existing)

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Subarea	**Area in (Ac)**	**Soil Group**	**Cover Type**	**RI Number (Plate E6-1)**	**Land Use**	**Decimal portion of Area [2] / SUM[2]**	**Average RI Value [5] * [7]**
Natural		B	grass (fair)	69	Natural	0.00	0.0
	2.7	C	grass (fair)	79	Natural	0.59	46.4
	1.9	D	grass (fair)	84	Natural	0.41	34.7
Sum =	***4.6***					1.00	**81.1**
Res 1/2 Ac	6.5	B	Landscape	56	Res 1/2 Ac	0.16	9.1
	10.6	C	Landscape	69	Res 1/2 Ac	0.26	18.2
	23.0	D	Landscape	75	Res 1/2 Ac	0.57	43.0
Sum =	***40.1***					1.00	**70.3**
Res 1/4 Ac	0.5	B	Landscape	56	Res 1/4 Ac	0.01	0.6
	18	C	Landscape	69	Res 1/4 Ac	0.40	27.5
	26.6	D	Landscape	75	Res 1/4 Ac	0.59	44.2
Sum =	***44.8***					1.00	**72.4**
Commercial		B	Landscape	56	Commercial	0.00	0.0
	13.1	C	Landscape	69	Commercial	0.96	66.0
	0.6	D	Landscape	75	Commercial	0.04	3.3
Sum =	***13.7***					1.00	**69.3**

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       U n i t   H y d r o g r a p h   A n a l y s i s

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Legado
Existing Condition
100-year 1-hour storm Hydrograph
Drainage Area C = 103.2 Ac

------------------------------------------------------------------------
Drainage Area =     103.20(Ac.)  =      0.161 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     103.20(Ac.)  =      0.161 Sq. Mi.
Length along longest watercourse =    4590.00(Ft.)
Length along longest watercourse measured to centroid =    2340.00(Ft.)
Length along longest watercourse =      0.869 Mi.
Length along longest watercourse measured to centroid =      0.443 Mi.
Difference in elevation =      33.00(Ft.)
Slope along watercourse =     37.9608 Ft./Mi.
Average Manning's 'N' = 0.016
Lag time =    0.134 Hr.
Lag time =     8.04 Min.
25% of lag time =     2.01 Min.
40% of lag time =     3.21 Min.
Unit time =     5.00 Min.
Duration of storm = 1 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      103.20           0.52                 53.66

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      103.20           1.64                169.25

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.520(In)
Area Averaged 100-Year Rainfall =    1.640(In)

Point rain (area averaged) =    1.640(In)
Areal adjustment factor =   99.91 %
Adjusted average point rain =    1.638(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     4.600           81.10         0.000
```

```
          40.100           70.30         0.400
          44.800           72.40         0.500
          13.700           69.30         0.900
       Total Area Entered =    103.20(Ac.)


      RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
      AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
      81.1  91.7      0.108     0.000        0.108       0.045      0.005
      70.3  85.2      0.185     0.400        0.118       0.389      0.046
      72.4  86.4      0.171     0.500        0.094       0.434      0.041
      69.3  84.6      0.192     0.900        0.036       0.133      0.005
                                                      Sum (F) =   0.096
      Area averaged mean soil loss (F) (In/Hr) =  0.096
      Minimum soil loss rate ((In/Hr)) =  0.048
      (for 24 hour storm duration)
      Soil low loss rate (decimal) =   0.510
      ------------------------------------------------------------------------
      Slope of intensity-duration curve for a 1 hour storm =0.5000
      ------------------------------------------------------------------------

                    U n i t  H y d r o g r a p h
                           VALLEY S-Curve
      ------------------------------------------------------------------------
                    Unit Hydrograph Data
      ------------------------------------------------------------------------
      Unit time period   Time % of lag   Distribution   Unit Hydrograph
          (hrs)                          Graph %            (CFS)
      ------------------------------------------------------------------------
          1   0.083         62.226          8.728              9.077
          2   0.167        124.452         35.494             36.916
          3   0.250        186.678         25.836             26.871
          4   0.333        248.904          9.945             10.344
          5   0.417        311.130          5.958              6.197
          6   0.500        373.356          4.003              4.163
          7   0.583        435.582          2.810              2.923
          8   0.667        497.808          2.023              2.104
          9   0.750        560.034          1.635              1.701
         10   0.833        622.260          1.192              1.240
         11   0.917        684.486          0.884              0.920
         12   1.000        746.712          0.647              0.673
         13   1.083        808.938          0.844              0.878
                                    Sum = 100.000    Sum=     104.006
------------------------------------------------------------------------


 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

  Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
       (Hr.)  Percent   (In/Hr)         Max   |   Low        (In/Hr)
    1   0.08     4.20      0.826          0.096    (  0.421)        0.729
    2   0.17     4.30      0.845          0.096    (  0.431)        0.749
    3   0.25     5.00      0.983          0.096    (  0.501)        0.887
    4   0.33     5.00      0.983          0.096    (  0.501)        0.887
    5   0.42     5.80      1.140          0.096    (  0.582)        1.044
    6   0.50     6.50      1.278          0.096    (  0.652)        1.182
    7   0.58     7.40      1.455          0.096    (  0.742)        1.359
    8   0.67     8.60      1.691          0.096    (  0.862)        1.595
    9   0.75    12.30      2.418          0.096    (  1.233)        2.322
   10   0.83    29.10      5.722          0.096    (  2.918)        5.625
   11   0.92     6.80      1.337          0.096    (  0.682)        1.241
   12   1.00     5.00      0.983          0.096    (  0.501)        0.887
                (Loss Rate Not Used)
      Sum =     100.0                                 Sum =    18.5
        Flood volume = Effective rainfall      1.54(In)
         times area     103.2(Ac.)/[(In)/(Ft.)] =      13.3(Ac.Ft)
        Total soil loss =      0.10(In)
        Total soil loss =     0.829(Ac.Ft)
        Total rainfall =      1.64(In)
```

```
      Flood volume =      577685.7 Cubic Feet
      Total soil loss =       36110.0 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =    319.335(CFS)
      ---------------------------------------------------------------------
      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          1 - H O U R    S T O R M
                     R u n o f f     H y d r o g r a p h
      ---------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      ---------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0      100.0     200.0     300.0     400.0
 ---------------------------------------------------------------------------
   0+ 5       0.0456      6.62  Q         |         |         |         |
   0+10       0.2780     33.74  V  Q      |         |         |         |
   0+15       0.6591     55.33  |V   Q    |         |         |         |
   0+20       1.1308     68.49  |  V  Q   |         |         |         |
   0+25       1.6703     78.34  |    V Q  |         |         |         |
   0+30       2.2901     89.99  |     V Q |         |         |         |
   0+35       3.0062    103.98  |        VQ         |         |         |
   0+40       3.8336    120.15  |         |VQ       |         |         |
   0+45       4.8275    144.31  |         |   Q     |         |         |
   0+50       6.2882    212.09  |         |       V |Q        |         |
   0+55       8.4875    319.34  |         |         |    V    |Q        |
   1+ 0      10.2377    254.12  |         |         |    Q    V         |
   1+ 5      11.3166    156.65  |         |    Q    |         |   V     |
   1+10      11.9648     94.13  |        Q|         |         |     V   |
   1+15      12.3543     56.56  |    Q    |         |         |      V  |
   1+20      12.6227     38.97  |  Q      |         |         |       V |
   1+25      12.8159     28.05  | Q       |         |         |       V |
   1+30      12.9611     21.08  | Q       |         |         |        V|
   1+35      13.0669     15.36  |Q        |         |         |        V|
   1+40      13.1439     11.19  |Q        |         |         |        V|
   1+45      13.1995      8.07  Q         |         |         |        V|
   1+50      13.2449      6.59  Q         |         |         |        V|
   1+55      13.2565      1.69  Q         |         |         |        V|
   2+ 0      13.2618      0.78  Q         |         |         |         V
---------------------------------------------------------------------------
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       U n i t   H y d r o g r a p h   A n a l y s i s

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

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 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



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Legado
Existing Condition
100-year 3-hour storm Hydrograph
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Length along longest watercourse =    4590.00(Ft.)
Length along longest watercourse measured to centroid =    2340.00(Ft.)
Length along longest watercourse =      0.869 Mi.
Length along longest watercourse measured to centroid =      0.443 Mi.
Difference in elevation =      33.00(Ft.)
Slope along watercourse =     37.9608 Ft./Mi.
Average Manning's 'N' = 0.016
Lag time =    0.134 Hr.
Lag time =     8.04 Min.
25% of lag time =     2.01 Min.
40% of lag time =     3.21 Min.
Unit time =     5.00 Min.
Duration of storm = 3 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      103.20           0.86                 88.75

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      103.20           2.27                234.26

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.860(In)
Area Averaged 100-Year Rainfall =    2.270(In)

Point rain (area averaged) =    2.270(In)
Areal adjustment factor =   99.95 %
Adjusted average point rain =    2.269(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     4.600           81.10         0.000
```

```
    40.100          70.30         0.400
    44.800          72.40         0.500
    13.700          69.30         0.900
 Total Area Entered =    103.20(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
81.1  91.7      0.108     0.000        0.108       0.045      0.005
70.3  85.2      0.185     0.400        0.118       0.389      0.046
72.4  86.4      0.171     0.500        0.094       0.434      0.041
69.3  84.6      0.192     0.900        0.036       0.133      0.005
                                                 Sum (F) =   0.096
Area averaged mean soil loss (F) (In/Hr) =  0.096
Minimum soil loss rate ((In/Hr)) =  0.048
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.510
------------------------------------------------------------------------

               U n i t  H y d r o g r a p h
                      VALLEY S-Curve
------------------------------------------------------------------------
               Unit Hydrograph Data
------------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                          Graph %           (CFS)
------------------------------------------------------------------------
    1   0.083         62.226          8.728             9.077
    2   0.167        124.452         35.494            36.916
    3   0.250        186.678         25.836            26.871
    4   0.333        248.904          9.945            10.344
    5   0.417        311.130          5.958             6.197
    6   0.500        373.356          4.003             4.163
    7   0.583        435.582          2.810             2.923
    8   0.667        497.808          2.023             2.104
    9   0.750        560.034          1.635             1.701
   10   0.833        622.260          1.192             1.240
   11   0.917        684.486          0.884             0.920
   12   1.000        746.712          0.647             0.673
   13   1.083        808.938          0.844             0.878
                              Sum = 100.000   Sum=     104.006
------------------------------------------------------------------------

 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

  Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
       (Hr.)  Percent   (In/Hr)         Max   |   Low         (In/Hr)
    1   0.08     1.30      0.354          0.096    (  0.181)        0.258
    2   0.17     1.30      0.354          0.096    (  0.181)        0.258
    3   0.25     1.10      0.300          0.096    (  0.153)        0.203
    4   0.33     1.50      0.408          0.096    (  0.208)        0.312
    5   0.42     1.50      0.408          0.096    (  0.208)        0.312
    6   0.50     1.80      0.490          0.096    (  0.250)        0.394
    7   0.58     1.50      0.408          0.096    (  0.208)        0.312
    8   0.67     1.80      0.490          0.096    (  0.250)        0.394
    9   0.75     1.80      0.490          0.096    (  0.250)        0.394
   10   0.83     1.50      0.408          0.096    (  0.208)        0.312
   11   0.92     1.60      0.436          0.096    (  0.222)        0.339
   12   1.00     1.80      0.490          0.096    (  0.250)        0.394
   13   1.08     2.20      0.599          0.096    (  0.305)        0.503
   14   1.17     2.20      0.599          0.096    (  0.305)        0.503
   15   1.25     2.20      0.599          0.096    (  0.305)        0.503
   16   1.33     2.00      0.545          0.096    (  0.278)        0.448
   17   1.42     2.60      0.708          0.096    (  0.361)        0.612
   18   1.50     2.70      0.735          0.096    (  0.375)        0.639
   19   1.58     2.40      0.653          0.096    (  0.333)        0.557
   20   1.67     2.70      0.735          0.096    (  0.375)        0.639
   21   1.75     3.30      0.899          0.096    (  0.458)        0.802
```

```
22   1.83     3.10      0.844          0.096    (  0.430)        0.748
23   1.92     2.90      0.790          0.096    (  0.403)        0.693
24   2.00     3.00      0.817          0.096    (  0.417)        0.720
25   2.08     3.10      0.844          0.096    (  0.430)        0.748
26   2.17     4.20      1.144          0.096    (  0.583)        1.047
27   2.25     5.00      1.361          0.096    (  0.694)        1.265
28   2.33     3.50      0.953          0.096    (  0.486)        0.857
29   2.42     6.80      1.851          0.096    (  0.944)        1.755
30   2.50     7.30      1.988          0.096    (  1.014)        1.891
31   2.58     8.20      2.233          0.096    (  1.139)        2.136
32   2.67     5.90      1.606          0.096    (  0.819)        1.510
33   2.75     2.00      0.545          0.096    (  0.278)        0.448
34   2.83     1.80      0.490          0.096    (  0.250)        0.394
35   2.92     1.80      0.490          0.096    (  0.250)        0.394
36   3.00     0.60      0.163       (  0.096)       0.083        0.080
               (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    23.8
      Flood volume = Effective rainfall      1.98(In)
       times area     103.2(Ac.)/[(In)/(Ft.)] =      17.0(Ac.Ft)
      Total soil loss =      0.29(In)
      Total soil loss =     2.478(Ac.Ft)
      Total rainfall =      2.27(In)
      Flood volume =      742072.6 Cubic Feet
      Total soil loss =      107921.7 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =    180.719(CFS)
      ---------------------------------------------------------------------
      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          3 - H O U R    S T O R M
                     R u n o f f     H y d r o g r a p h
      ---------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      ---------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0       50.0     100.0     150.0     200.0
-------------------------------------------------------------------------
  0+ 5       0.0161      2.34  Q         |         |         |         |
  0+10       0.0977     11.85  V Q       |         |         |         |
  0+15       0.2237     18.28  V  Q      |         |         |         |
  0+20       0.3609     19.93  V  Q      |         |         |         |
  0+25       0.5267     24.08  |V  Q     |         |         |         |
  0+30       0.7214     28.26  |V   Q    |         |         |         |
  0+35       0.9423     32.08  | V   Q   |         |         |         |
  0+40       1.1695     32.99  | V   Q   |         |         |         |
  0+45       1.4132     35.39  |  V   Q  |         |         |         |
  0+50       1.6682     37.03  |  V   Q  |         |         |         |
  0+55       1.9114     35.31  |   V  Q  |         |         |         |
  1+ 0       2.1546     35.31  |    V Q  |         |         |         |
  1+ 5       2.4217     38.78  |    V Q  |         |         |         |
  1+10       2.7269     44.31  |     V Q |         |         |         |
  1+15       3.0561     47.79  |      V Q|         |         |         |
  1+20       3.3925     48.85  |      V Q|         |         |         |
  1+25       3.7314     49.21  |       VQ|         |         |         |
  1+30       4.1078     54.65  |        VQ         |         |         |
  1+35       4.5149     59.11  |         VQ        |         |         |
  1+40       4.9231     59.27  |         |Q        |         |         |
  1+45       5.3560     62.86  |         | Q       |         |         |
  1+50       5.8420     70.57  |         |  VQ     |         |         |
  1+55       6.3478     73.44  |         |   Q     |         |         |
  2+ 0       6.8472     72.52  |         |   Q V   |         |         |
  2+ 5       7.3515     73.22  |         |   Q  V  |         |         |
  2+10       7.8868     77.72  |         |    Q  V |         |         |
  2+15       8.5195     91.87  |         |       Q V         |         |
  2+20       9.2413    104.79  |         |         QV        |         |
  2+25       9.9802    107.30  |         |         |Q V      |         |
  2+30      10.9106    135.09  |         |         |    V Q  |         |
  2+35      12.0468    164.98  |         |         |       V | Q       |
  2+40      13.2914    180.72  |         |         |         |V    Q   |
  2+45      14.4017    161.22  |         |         |         | QV      |
  2+50      15.1698    111.53  |         |         | Q       |    V    |
```

```
    2+55      15.7145     79.09  |          |    Q     |          |     V    |
    3+ 0      16.1491     63.10  |          | Q        |          |      V   |
    3+ 5      16.4486     43.49  |        Q |          |          |       V  |
    3+10      16.6373     27.40  |    Q     |          |          |        V |
    3+15      16.7660     18.68  |  Q       |          |          |        V |
    3+20      16.8564     13.12  | Q        |          |          |        V |
    3+25      16.9234      9.73  |Q         |          |          |        V |
    3+30      16.9701      6.78  |Q         |          |          |        V |
    3+35      17.0020      4.63  Q          |          |          |        V |
    3+40      17.0200      2.61  Q          |          |          |        V |
    3+45      17.0277      1.12  Q          |          |          |        V |
    3+50      17.0324      0.68  Q          |          |          |        V |
    3+55      17.0352      0.40  Q          |          |          |        V |
    4+ 0      17.0356      0.07  Q          |          |          |         V
-------------------------------------------------------------------------
```

```
        U n i t   H y d r o g r a p h   A n a l y s i s

        Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
                Study date  04/24/19 File: lgexareac6100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

----------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



----------------------------------------------------------------------
Legado
Existing Condition
100-year 6-hour storm Hydrograph
Drainage Area C = 103.2 Ac

----------------------------------------------------------------------
Drainage Area =     103.20(Ac.)  =      0.161 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     103.20(Ac.)  =      0.161 Sq. Mi.
Length along longest watercourse =    4590.00(Ft.)
Length along longest watercourse measured to centroid =    2340.00(Ft.)
Length along longest watercourse =      0.869 Mi.
Length along longest watercourse measured to centroid =      0.443 Mi.
Difference in elevation =      33.00(Ft.)
Slope along watercourse =     37.9608 Ft./Mi.
Average Manning's 'N' = 0.016
Lag time =    0.134 Hr.
Lag time =     8.04 Min.
25% of lag time =     2.01 Min.
40% of lag time =     3.21 Min.
Unit time =     5.00 Min.
Duration of storm = 6 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      103.20           1.19                122.81

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      103.20           2.98                307.54

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    1.190(In)
Area Averaged 100-Year Rainfall =    2.980(In)

Point rain (area averaged) =    2.980(In)
Areal adjustment factor =   99.96 %
Adjusted average point rain =    2.979(In)

Sub-Area Data:
```

Area(Ac.)	Runoff Index	Impervious %
4.600	81.10	0.000
40.100	70.30	0.400
44.800	72.40	0.500
13.700	69.30	0.900

Total Area Entered = 103.20(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
81.1	91.7	0.108	0.000	0.108	0.045	0.005
70.3	85.2	0.185	0.400	0.118	0.389	0.046
72.4	86.4	0.171	0.500	0.094	0.434	0.041
69.3	84.6	0.192	0.900	0.036	0.133	0.005
					Sum (F) =	0.096

Area averaged mean soil loss (F) (In/Hr) = 0.096
Minimum soil loss rate ((In/Hr)) = 0.048
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.510

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	62.226	8.728	9.077
2	0.167	124.452	35.494	36.916
3	0.250	186.678	25.836	26.871
4	0.333	248.904	9.945	10.344
5	0.417	311.130	5.958	6.197
6	0.500	373.356	4.003	4.163
7	0.583	435.582	2.810	2.923
8	0.667	497.808	2.023	2.104
9	0.750	560.034	1.635	1.701
10	0.833	622.260	1.192	1.240
11	0.917	684.486	0.884	0.920
12	1.000	746.712	0.647	0.673
13	1.083	808.938	0.844	0.878
			Sum = 100.000	Sum= 104.006

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.50	0.179	(0.096)	0.091	0.088
2	0.17	0.60	0.214	0.096	(0.109)	0.118
3	0.25	0.60	0.214	0.096	(0.109)	0.118
4	0.33	0.60	0.214	0.096	(0.109)	0.118
5	0.42	0.60	0.214	0.096	(0.109)	0.118
6	0.50	0.70	0.250	0.096	(0.128)	0.154
7	0.58	0.70	0.250	0.096	(0.128)	0.154
8	0.67	0.70	0.250	0.096	(0.128)	0.154
9	0.75	0.70	0.250	0.096	(0.128)	0.154
10	0.83	0.70	0.250	0.096	(0.128)	0.154
11	0.92	0.70	0.250	0.096	(0.128)	0.154
12	1.00	0.80	0.286	0.096	(0.146)	0.190
13	1.08	0.80	0.286	0.096	(0.146)	0.190
14	1.17	0.80	0.286	0.096	(0.146)	0.190
15	1.25	0.80	0.286	0.096	(0.146)	0.190
16	1.33	0.80	0.286	0.096	(0.146)	0.190
17	1.42	0.80	0.286	0.096	(0.146)	0.190
18	1.50	0.80	0.286	0.096	(0.146)	0.190
19	1.58	0.80	0.286	0.096	(0.146)	0.190

20	1.67	0.80	0.286	0.096	(0.146)	0.190
21	1.75	0.80	0.286	0.096	(0.146)	0.190
22	1.83	0.80	0.286	0.096	(0.146)	0.190
23	1.92	0.80	0.286	0.096	(0.146)	0.190
24	2.00	0.90	0.322	0.096	(0.164)	0.225
25	2.08	0.80	0.286	0.096	(0.146)	0.190
26	2.17	0.90	0.322	0.096	(0.164)	0.225
27	2.25	0.90	0.322	0.096	(0.164)	0.225
28	2.33	0.90	0.322	0.096	(0.164)	0.225
29	2.42	0.90	0.322	0.096	(0.164)	0.225
30	2.50	0.90	0.322	0.096	(0.164)	0.225
31	2.58	0.90	0.322	0.096	(0.164)	0.225
32	2.67	0.90	0.322	0.096	(0.164)	0.225
33	2.75	1.00	0.357	0.096	(0.182)	0.261
34	2.83	1.00	0.357	0.096	(0.182)	0.261
35	2.92	1.00	0.357	0.096	(0.182)	0.261
36	3.00	1.00	0.357	0.096	(0.182)	0.261
37	3.08	1.00	0.357	0.096	(0.182)	0.261
38	3.17	1.10	0.393	0.096	(0.201)	0.297
39	3.25	1.10	0.393	0.096	(0.201)	0.297
40	3.33	1.10	0.393	0.096	(0.201)	0.297
41	3.42	1.20	0.429	0.096	(0.219)	0.333
42	3.50	1.30	0.465	0.096	(0.237)	0.368
43	3.58	1.40	0.500	0.096	(0.255)	0.404
44	3.67	1.40	0.500	0.096	(0.255)	0.404
45	3.75	1.50	0.536	0.096	(0.273)	0.440
46	3.83	1.50	0.536	0.096	(0.273)	0.440
47	3.92	1.60	0.572	0.096	(0.292)	0.476
48	4.00	1.60	0.572	0.096	(0.292)	0.476
49	4.08	1.70	0.608	0.096	(0.310)	0.511
50	4.17	1.80	0.643	0.096	(0.328)	0.547
51	4.25	1.90	0.679	0.096	(0.346)	0.583
52	4.33	2.00	0.715	0.096	(0.365)	0.619
53	4.42	2.10	0.751	0.096	(0.383)	0.654
54	4.50	2.10	0.751	0.096	(0.383)	0.654
55	4.58	2.20	0.786	0.096	(0.401)	0.690
56	4.67	2.30	0.822	0.096	(0.419)	0.726
57	4.75	2.40	0.858	0.096	(0.438)	0.762
58	4.83	2.40	0.858	0.096	(0.438)	0.762
59	4.92	2.50	0.894	0.096	(0.456)	0.797
60	5.00	2.60	0.929	0.096	(0.474)	0.833
61	5.08	3.10	1.108	0.096	(0.565)	1.012
62	5.17	3.60	1.287	0.096	(0.656)	1.191
63	5.25	3.90	1.394	0.096	(0.711)	1.298
64	5.33	4.20	1.501	0.096	(0.766)	1.405
65	5.42	4.70	1.680	0.096	(0.857)	1.584
66	5.50	5.60	2.002	0.096	(1.021)	1.905
67	5.58	1.90	0.679	0.096	(0.346)	0.583
68	5.67	0.90	0.322	0.096	(0.164)	0.225
69	5.75	0.60	0.214	0.096	(0.109)	0.118
70	5.83	0.50	0.179	(0.096)	0.091	0.088
71	5.92	0.30	0.107	(0.096)	0.055	0.053
72	6.00	0.20	0.071	(0.096)	0.036	0.035

(Loss Rate Not Used)

Sum = 100.0 Sum = 28.9

Flood volume = Effective rainfall 2.41(In)
times area 103.2(Ac.)/[(In)/(Ft.)] = 20.7(Ac.Ft)
Total soil loss = 0.57(In)
Total soil loss = 4.893(Ac.Ft)
Total rainfall = 2.98(In)
Flood volume = 902799.4 Cubic Feet
Total soil loss = 213160.3 Cubic Feet

Peak flow rate of this hydrograph = 154.605(CFS)

++

6 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	50.0	100.0	150.0	200.0
0+ 5	0.0055	0.80	Q				
0+10	0.0351	4.31	Q				
0+15	0.0888	7.79	VQ				
0+20	0.1543	9.52	VQ				
0+25	0.2258	10.37	V Q				
0+30	0.3033	11.25	V Q				
0+35	0.3925	12.96	V Q				
0+40	0.4902	14.19	V Q				
0+45	0.5920	14.77	|VQ				
0+50	0.6964	15.16	|V Q				
0+55	0.8026	15.42	|V Q				
1+ 0	0.9124	15.94	|V Q				
1+ 5	1.0324	17.43	|V Q				
1+10	1.1597	18.48	| VQ				
1+15	1.2899	18.90	| VQ				
1+20	1.4218	19.15	| VQ				
1+25	1.5548	19.32	| Q				
1+30	1.6889	19.46	| Q				
1+35	1.8234	19.53	| Q				
1+40	1.9584	19.60	| Q				
1+45	2.0936	19.64	| QV				
1+50	2.2291	19.67	| QV				
1+55	2.3648	19.70	| QV				
2+ 0	2.5029	20.05	| Q				
2+ 5	2.6478	21.05	| QV				
2+10	2.7926	21.01	| QV				
2+15	2.9423	21.74	| QV				
2+20	3.0976	22.56	| QV				
2+25	3.2550	22.85	| Q V				
2+30	3.4136	23.03	| Q V				
2+35	3.5731	23.15	| Q V				
2+40	3.7331	23.24	| Q V				
2+45	3.8958	23.62	| Q V				
2+50	4.0680	24.99	| Q V				
2+55	4.2470	25.99	| Q V				
3+ 0	4.4288	26.40	| Q V				
3+ 5	4.6121	26.61	| Q V				
3+10	4.7989	27.12	| Q V|				
3+15	4.9954	28.54	| Q V|				
3+20	5.1992	29.58	| Q V				
3+25	5.4081	30.34	| Q V				
3+30	5.6302	32.25	| Q V				
3+35	5.8715	35.03	| Q |V				
3+40	6.1319	37.81	| Q |V				
3+45	6.4060	39.80	| Q | V				
3+50	6.6947	41.92	| Q | V				
3+55	6.9958	43.73	| Q | V				
4+ 0	7.3111	45.78	| Q| V				
4+ 5	7.6386	47.55	| Q| V				
4+10	7.9824	49.93	| Q| V				
4+15	8.3474	53.00	| Q V				
4+20	8.7351	56.30	| |Q V				
4+25	9.1466	59.75	| |Q V				
4+30	9.5801	62.95	| | Q V				
4+35	10.0292	65.20	| | Q V|				
4+40	10.4964	67.83	| | Q V				
4+45	10.9861	71.12	| | Q |V				
4+50	11.4973	74.23	| | Q | V				
4+55	12.0239	76.45	| | Q | V				
5+ 0	12.5685	79.08	| | Q | V				
5+ 5	13.1445	83.65	| | Q | V				
5+10	13.7896	93.67	| | Q | V				
5+15	14.5263	106.97	| | |Q V				
5+20	15.3470	119.16	| | | Q V|				
5+25	16.2493	131.01	| | | Q |V				
5+30	17.2594	146.66	| | | Q| V				

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    5+35      18.3241    154.61  |         |         |         Q    V    |
    5+40      19.1174    115.18  |         |         |  Q      |     V   |
    5+45      19.6093     71.43  |         |   Q     |         |      V  |
    5+50      19.9382     47.75  |         Q|        |         |       V |
    5+55      20.1739     34.24  |      Q   |        |         |       V |
    6+ 0      20.3466     25.08  |    Q     |        |         |        V|
    6+ 5      20.4728     18.32  |  Q       |        |         |        V|
    6+10      20.5611     12.83  | Q        |        |         |        V|
    6+15      20.6215      8.77  |Q         |        |         |        V|
    6+20      20.6636      6.10  |Q         |        |         |        V|
    6+25      20.6923      4.17  Q          |        |         |        V|
    6+30      20.7115      2.78  Q          |        |         |        V|
    6+35      20.7187      1.04  Q          |        |         |        V|
    6+40      20.7220      0.48  Q          |        |         |        V|
    6+45      20.7237      0.25  Q          |        |         |        V|
    6+50      20.7247      0.14  Q          |        |         |        V|
    6+55      20.7252      0.07  Q          |        |         |        V|
    7+ 0      20.7254      0.03  Q          |        |         |         V
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        U n i t   H y d r o g r a p h   A n a l y s i s

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                Study date  04/24/19 File: lgexareac24100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Legado
Existing Condition
100-year 24-hour storm Hydrograph
Drainage Area C = 103.2 Ac

------------------------------------------------------------------------
Drainage Area =     103.20(Ac.)  =      0.161 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     103.20(Ac.)  =      0.161 Sq. Mi.
Length along longest watercourse =    4590.00(Ft.)
Length along longest watercourse measured to centroid =    2340.00(Ft.)
Length along longest watercourse =      0.869 Mi.
Length along longest watercourse measured to centroid =      0.443 Mi.
Difference in elevation =      33.00(Ft.)
Slope along watercourse =     37.9608 Ft./Mi.
Average Manning's 'N' = 0.016
Lag time =    0.134 Hr.
Lag time =     8.04 Min.
25% of lag time =     2.01 Min.
40% of lag time =     3.21 Min.
Unit time =     5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      103.20           2.03                209.50

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      103.20           5.33                550.06

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    2.030(In)
Area Averaged 100-Year Rainfall =    5.330(In)

Point rain (area averaged) =    5.330(In)
Areal adjustment factor =   99.98 %
Adjusted average point rain =    5.329(In)

Sub-Area Data:
```

Area(Ac.)	Runoff Index	Impervious %
4.600	81.10	0.000
40.100	70.30	0.400
44.800	72.40	0.500
13.700	69.30	0.900

Total Area Entered = 103.20(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
81.1	91.7	0.108	0.000	0.108	0.045	0.005
70.3	85.2	0.185	0.400	0.118	0.389	0.046
72.4	86.4	0.171	0.500	0.094	0.434	0.041
69.3	84.6	0.192	0.900	0.036	0.133	0.005
					Sum (F) =	0.096

Area averaged mean soil loss (F) (In/Hr) = 0.096
Minimum soil loss rate ((In/Hr)) = 0.048
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.510

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	62.226	8.728	9.077
2	0.167	124.452	35.494	36.916
3	0.250	186.678	25.836	26.871
4	0.333	248.904	9.945	10.344
5	0.417	311.130	5.958	6.197
6	0.500	373.356	4.003	4.163
7	0.583	435.582	2.810	2.923
8	0.667	497.808	2.023	2.104
9	0.750	560.034	1.635	1.701
10	0.833	622.260	1.192	1.240
11	0.917	684.486	0.884	0.920
12	1.000	746.712	0.647	0.673
13	1.083	808.938	0.844	0.878
			Sum = 100.000	Sum= 104.006

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.043	(0.171)	0.022	0.021
2	0.17	0.07	0.043	(0.170)	0.022	0.021
3	0.25	0.07	0.043	(0.170)	0.022	0.021
4	0.33	0.10	0.064	(0.169)	0.033	0.031
5	0.42	0.10	0.064	(0.168)	0.033	0.031
6	0.50	0.10	0.064	(0.168)	0.033	0.031
7	0.58	0.10	0.064	(0.167)	0.033	0.031
8	0.67	0.10	0.064	(0.166)	0.033	0.031
9	0.75	0.10	0.064	(0.166)	0.033	0.031
10	0.83	0.13	0.085	(0.165)	0.043	0.042
11	0.92	0.13	0.085	(0.164)	0.043	0.042
12	1.00	0.13	0.085	(0.164)	0.043	0.042
13	1.08	0.10	0.064	(0.163)	0.033	0.031
14	1.17	0.10	0.064	(0.162)	0.033	0.031
15	1.25	0.10	0.064	(0.162)	0.033	0.031
16	1.33	0.10	0.064	(0.161)	0.033	0.031
17	1.42	0.10	0.064	(0.160)	0.033	0.031
18	1.50	0.10	0.064	(0.160)	0.033	0.031
19	1.58	0.10	0.064	(0.159)	0.033	0.031

20	1.67	0.10	0.064	(0.159)	0.033	0.031
21	1.75	0.10	0.064	(0.158)	0.033	0.031
22	1.83	0.13	0.085	(0.157)	0.043	0.042
23	1.92	0.13	0.085	(0.157)	0.043	0.042
24	2.00	0.13	0.085	(0.156)	0.043	0.042
25	2.08	0.13	0.085	(0.155)	0.043	0.042
26	2.17	0.13	0.085	(0.155)	0.043	0.042
27	2.25	0.13	0.085	(0.154)	0.043	0.042
28	2.33	0.13	0.085	(0.153)	0.043	0.042
29	2.42	0.13	0.085	(0.153)	0.043	0.042
30	2.50	0.13	0.085	(0.152)	0.043	0.042
31	2.58	0.17	0.107	(0.152)	0.054	0.052
32	2.67	0.17	0.107	(0.151)	0.054	0.052
33	2.75	0.17	0.107	(0.150)	0.054	0.052
34	2.83	0.17	0.107	(0.150)	0.054	0.052
35	2.92	0.17	0.107	(0.149)	0.054	0.052
36	3.00	0.17	0.107	(0.149)	0.054	0.052
37	3.08	0.17	0.107	(0.148)	0.054	0.052
38	3.17	0.17	0.107	(0.147)	0.054	0.052
39	3.25	0.17	0.107	(0.147)	0.054	0.052
40	3.33	0.17	0.107	(0.146)	0.054	0.052
41	3.42	0.17	0.107	(0.145)	0.054	0.052
42	3.50	0.17	0.107	(0.145)	0.054	0.052
43	3.58	0.17	0.107	(0.144)	0.054	0.052
44	3.67	0.17	0.107	(0.144)	0.054	0.052
45	3.75	0.17	0.107	(0.143)	0.054	0.052
46	3.83	0.20	0.128	(0.142)	0.065	0.063
47	3.92	0.20	0.128	(0.142)	0.065	0.063
48	4.00	0.20	0.128	(0.141)	0.065	0.063
49	4.08	0.20	0.128	(0.141)	0.065	0.063
50	4.17	0.20	0.128	(0.140)	0.065	0.063
51	4.25	0.20	0.128	(0.139)	0.065	0.063
52	4.33	0.23	0.149	(0.139)	0.076	0.073
53	4.42	0.23	0.149	(0.138)	0.076	0.073
54	4.50	0.23	0.149	(0.138)	0.076	0.073
55	4.58	0.23	0.149	(0.137)	0.076	0.073
56	4.67	0.23	0.149	(0.136)	0.076	0.073
57	4.75	0.23	0.149	(0.136)	0.076	0.073
58	4.83	0.27	0.171	(0.135)	0.087	0.084
59	4.92	0.27	0.171	(0.135)	0.087	0.084
60	5.00	0.27	0.171	(0.134)	0.087	0.084
61	5.08	0.20	0.128	(0.134)	0.065	0.063
62	5.17	0.20	0.128	(0.133)	0.065	0.063
63	5.25	0.20	0.128	(0.132)	0.065	0.063
64	5.33	0.23	0.149	(0.132)	0.076	0.073
65	5.42	0.23	0.149	(0.131)	0.076	0.073
66	5.50	0.23	0.149	(0.131)	0.076	0.073
67	5.58	0.27	0.171	(0.130)	0.087	0.084
68	5.67	0.27	0.171	(0.130)	0.087	0.084
69	5.75	0.27	0.171	(0.129)	0.087	0.084
70	5.83	0.27	0.171	(0.128)	0.087	0.084
71	5.92	0.27	0.171	(0.128)	0.087	0.084
72	6.00	0.27	0.171	(0.127)	0.087	0.084
73	6.08	0.30	0.192	(0.127)	0.098	0.094
74	6.17	0.30	0.192	(0.126)	0.098	0.094
75	6.25	0.30	0.192	(0.126)	0.098	0.094
76	6.33	0.30	0.192	(0.125)	0.098	0.094
77	6.42	0.30	0.192	(0.124)	0.098	0.094
78	6.50	0.30	0.192	(0.124)	0.098	0.094
79	6.58	0.33	0.213	(0.123)	0.109	0.104
80	6.67	0.33	0.213	(0.123)	0.109	0.104
81	6.75	0.33	0.213	(0.122)	0.109	0.104
82	6.83	0.33	0.213	(0.122)	0.109	0.104
83	6.92	0.33	0.213	(0.121)	0.109	0.104
84	7.00	0.33	0.213	(0.121)	0.109	0.104
85	7.08	0.33	0.213	(0.120)	0.109	0.104
86	7.17	0.33	0.213	(0.119)	0.109	0.104
87	7.25	0.33	0.213	(0.119)	0.109	0.104
88	7.33	0.37	0.234	0.118	(0.120)	0.116
89	7.42	0.37	0.234	0.118	(0.120)	0.117

90	7.50	0.37	0.234	0.117	(0.120)	0.117
91	7.58	0.40	0.256	0.117	(0.130)	0.139
92	7.67	0.40	0.256	0.116	(0.130)	0.140
93	7.75	0.40	0.256	0.116	(0.130)	0.140
94	7.83	0.43	0.277	0.115	(0.141)	0.162
95	7.92	0.43	0.277	0.115	(0.141)	0.162
96	8.00	0.43	0.277	0.114	(0.141)	0.163
97	8.08	0.50	0.320	0.114	(0.163)	0.206
98	8.17	0.50	0.320	0.113	(0.163)	0.207
99	8.25	0.50	0.320	0.112	(0.163)	0.207
100	8.33	0.50	0.320	0.112	(0.163)	0.208
101	8.42	0.50	0.320	0.111	(0.163)	0.208
102	8.50	0.50	0.320	0.111	(0.163)	0.209
103	8.58	0.53	0.341	0.110	(0.174)	0.231
104	8.67	0.53	0.341	0.110	(0.174)	0.231
105	8.75	0.53	0.341	0.109	(0.174)	0.232
106	8.83	0.57	0.362	0.109	(0.185)	0.254
107	8.92	0.57	0.362	0.108	(0.185)	0.254
108	9.00	0.57	0.362	0.108	(0.185)	0.255
109	9.08	0.63	0.405	0.107	(0.207)	0.298
110	9.17	0.63	0.405	0.107	(0.207)	0.298
111	9.25	0.63	0.405	0.106	(0.207)	0.299
112	9.33	0.67	0.426	0.106	(0.217)	0.321
113	9.42	0.67	0.426	0.105	(0.217)	0.321
114	9.50	0.67	0.426	0.105	(0.217)	0.322
115	9.58	0.70	0.448	0.104	(0.228)	0.343
116	9.67	0.70	0.448	0.104	(0.228)	0.344
117	9.75	0.70	0.448	0.103	(0.228)	0.344
118	9.83	0.73	0.469	0.103	(0.239)	0.366
119	9.92	0.73	0.469	0.102	(0.239)	0.367
120	10.00	0.73	0.469	0.102	(0.239)	0.367
121	10.08	0.50	0.320	0.101	(0.163)	0.218
122	10.17	0.50	0.320	0.101	(0.163)	0.219
123	10.25	0.50	0.320	0.100	(0.163)	0.219
124	10.33	0.50	0.320	0.100	(0.163)	0.220
125	10.42	0.50	0.320	0.099	(0.163)	0.220
126	10.50	0.50	0.320	0.099	(0.163)	0.221
127	10.58	0.67	0.426	0.098	(0.217)	0.328
128	10.67	0.67	0.426	0.098	(0.217)	0.328
129	10.75	0.67	0.426	0.097	(0.217)	0.329
130	10.83	0.67	0.426	0.097	(0.217)	0.329
131	10.92	0.67	0.426	0.096	(0.217)	0.330
132	11.00	0.67	0.426	0.096	(0.217)	0.330
133	11.08	0.63	0.405	0.096	(0.207)	0.309
134	11.17	0.63	0.405	0.095	(0.207)	0.310
135	11.25	0.63	0.405	0.095	(0.207)	0.310
136	11.33	0.63	0.405	0.094	(0.207)	0.311
137	11.42	0.63	0.405	0.094	(0.207)	0.311
138	11.50	0.63	0.405	0.093	(0.207)	0.312
139	11.58	0.57	0.362	0.093	(0.185)	0.270
140	11.67	0.57	0.362	0.092	(0.185)	0.270
141	11.75	0.57	0.362	0.092	(0.185)	0.271
142	11.83	0.60	0.384	0.091	(0.196)	0.292
143	11.92	0.60	0.384	0.091	(0.196)	0.293
144	12.00	0.60	0.384	0.090	(0.196)	0.293
145	12.08	0.83	0.533	0.090	(0.272)	0.443
146	12.17	0.83	0.533	0.090	(0.272)	0.443
147	12.25	0.83	0.533	0.089	(0.272)	0.444
148	12.33	0.87	0.554	0.089	(0.283)	0.466
149	12.42	0.87	0.554	0.088	(0.283)	0.466
150	12.50	0.87	0.554	0.088	(0.283)	0.466
151	12.58	0.93	0.597	0.087	(0.304)	0.510
152	12.67	0.93	0.597	0.087	(0.304)	0.510
153	12.75	0.93	0.597	0.086	(0.304)	0.510
154	12.83	0.97	0.618	0.086	(0.315)	0.532
155	12.92	0.97	0.618	0.086	(0.315)	0.533
156	13.00	0.97	0.618	0.085	(0.315)	0.533
157	13.08	1.13	0.725	0.085	(0.370)	0.640
158	13.17	1.13	0.725	0.084	(0.370)	0.640
159	13.25	1.13	0.725	0.084	(0.370)	0.641

160	13.33	1.13	0.725	0.083	(0.370)	0.641
161	13.42	1.13	0.725	0.083	(0.370)	0.642
162	13.50	1.13	0.725	0.083	(0.370)	0.642
163	13.58	0.77	0.490	0.082	(0.250)	0.408
164	13.67	0.77	0.490	0.082	(0.250)	0.409
165	13.75	0.77	0.490	0.081	(0.250)	0.409
166	13.83	0.77	0.490	0.081	(0.250)	0.409
167	13.92	0.77	0.490	0.080	(0.250)	0.410
168	14.00	0.77	0.490	0.080	(0.250)	0.410
169	14.08	0.90	0.576	0.080	(0.294)	0.496
170	14.17	0.90	0.576	0.079	(0.294)	0.496
171	14.25	0.90	0.576	0.079	(0.294)	0.497
172	14.33	0.87	0.554	0.078	(0.283)	0.476
173	14.42	0.87	0.554	0.078	(0.283)	0.476
174	14.50	0.87	0.554	0.078	(0.283)	0.477
175	14.58	0.87	0.554	0.077	(0.283)	0.477
176	14.67	0.87	0.554	0.077	(0.283)	0.477
177	14.75	0.87	0.554	0.076	(0.283)	0.478
178	14.83	0.83	0.533	0.076	(0.272)	0.457
179	14.92	0.83	0.533	0.076	(0.272)	0.457
180	15.00	0.83	0.533	0.075	(0.272)	0.458
181	15.08	0.80	0.512	0.075	(0.261)	0.437
182	15.17	0.80	0.512	0.075	(0.261)	0.437
183	15.25	0.80	0.512	0.074	(0.261)	0.437
184	15.33	0.77	0.490	0.074	(0.250)	0.417
185	15.42	0.77	0.490	0.073	(0.250)	0.417
186	15.50	0.77	0.490	0.073	(0.250)	0.417
187	15.58	0.63	0.405	0.073	(0.207)	0.332
188	15.67	0.63	0.405	0.072	(0.207)	0.333
189	15.75	0.63	0.405	0.072	(0.207)	0.333
190	15.83	0.63	0.405	0.072	(0.207)	0.333
191	15.92	0.63	0.405	0.071	(0.207)	0.334
192	16.00	0.63	0.405	0.071	(0.207)	0.334
193	16.08	0.13	0.085	(0.070)	0.043	0.042
194	16.17	0.13	0.085	(0.070)	0.043	0.042
195	16.25	0.13	0.085	(0.070)	0.043	0.042
196	16.33	0.13	0.085	(0.069)	0.043	0.042
197	16.42	0.13	0.085	(0.069)	0.043	0.042
198	16.50	0.13	0.085	(0.069)	0.043	0.042
199	16.58	0.10	0.064	(0.068)	0.033	0.031
200	16.67	0.10	0.064	(0.068)	0.033	0.031
201	16.75	0.10	0.064	(0.068)	0.033	0.031
202	16.83	0.10	0.064	(0.067)	0.033	0.031
203	16.92	0.10	0.064	(0.067)	0.033	0.031
204	17.00	0.10	0.064	(0.067)	0.033	0.031
205	17.08	0.17	0.107	(0.066)	0.054	0.052
206	17.17	0.17	0.107	(0.066)	0.054	0.052
207	17.25	0.17	0.107	(0.066)	0.054	0.052
208	17.33	0.17	0.107	(0.065)	0.054	0.052
209	17.42	0.17	0.107	(0.065)	0.054	0.052
210	17.50	0.17	0.107	(0.065)	0.054	0.052
211	17.58	0.17	0.107	(0.064)	0.054	0.052
212	17.67	0.17	0.107	(0.064)	0.054	0.052
213	17.75	0.17	0.107	(0.064)	0.054	0.052
214	17.83	0.13	0.085	(0.063)	0.043	0.042
215	17.92	0.13	0.085	(0.063)	0.043	0.042
216	18.00	0.13	0.085	(0.063)	0.043	0.042
217	18.08	0.13	0.085	(0.062)	0.043	0.042
218	18.17	0.13	0.085	(0.062)	0.043	0.042
219	18.25	0.13	0.085	(0.062)	0.043	0.042
220	18.33	0.13	0.085	(0.061)	0.043	0.042
221	18.42	0.13	0.085	(0.061)	0.043	0.042
222	18.50	0.13	0.085	(0.061)	0.043	0.042
223	18.58	0.10	0.064	(0.061)	0.033	0.031
224	18.67	0.10	0.064	(0.060)	0.033	0.031
225	18.75	0.10	0.064	(0.060)	0.033	0.031
226	18.83	0.07	0.043	(0.060)	0.022	0.021
227	18.92	0.07	0.043	(0.059)	0.022	0.021
228	19.00	0.07	0.043	(0.059)	0.022	0.021
229	19.08	0.10	0.064	(0.059)	0.033	0.031

230	19.17	0.10	0.064	(0.059)	0.033	0.031
231	19.25	0.10	0.064	(0.058)	0.033	0.031
232	19.33	0.13	0.085	(0.058)	0.043	0.042
233	19.42	0.13	0.085	(0.058)	0.043	0.042
234	19.50	0.13	0.085	(0.058)	0.043	0.042
235	19.58	0.10	0.064	(0.057)	0.033	0.031
236	19.67	0.10	0.064	(0.057)	0.033	0.031
237	19.75	0.10	0.064	(0.057)	0.033	0.031
238	19.83	0.07	0.043	(0.056)	0.022	0.021
239	19.92	0.07	0.043	(0.056)	0.022	0.021
240	20.00	0.07	0.043	(0.056)	0.022	0.021
241	20.08	0.10	0.064	(0.056)	0.033	0.031
242	20.17	0.10	0.064	(0.055)	0.033	0.031
243	20.25	0.10	0.064	(0.055)	0.033	0.031
244	20.33	0.10	0.064	(0.055)	0.033	0.031
245	20.42	0.10	0.064	(0.055)	0.033	0.031
246	20.50	0.10	0.064	(0.055)	0.033	0.031
247	20.58	0.10	0.064	(0.054)	0.033	0.031
248	20.67	0.10	0.064	(0.054)	0.033	0.031
249	20.75	0.10	0.064	(0.054)	0.033	0.031
250	20.83	0.07	0.043	(0.054)	0.022	0.021
251	20.92	0.07	0.043	(0.053)	0.022	0.021
252	21.00	0.07	0.043	(0.053)	0.022	0.021
253	21.08	0.10	0.064	(0.053)	0.033	0.031
254	21.17	0.10	0.064	(0.053)	0.033	0.031
255	21.25	0.10	0.064	(0.053)	0.033	0.031
256	21.33	0.07	0.043	(0.052)	0.022	0.021
257	21.42	0.07	0.043	(0.052)	0.022	0.021
258	21.50	0.07	0.043	(0.052)	0.022	0.021
259	21.58	0.10	0.064	(0.052)	0.033	0.031
260	21.67	0.10	0.064	(0.052)	0.033	0.031
261	21.75	0.10	0.064	(0.051)	0.033	0.031
262	21.83	0.07	0.043	(0.051)	0.022	0.021
263	21.92	0.07	0.043	(0.051)	0.022	0.021
264	22.00	0.07	0.043	(0.051)	0.022	0.021
265	22.08	0.10	0.064	(0.051)	0.033	0.031
266	22.17	0.10	0.064	(0.051)	0.033	0.031
267	22.25	0.10	0.064	(0.050)	0.033	0.031
268	22.33	0.07	0.043	(0.050)	0.022	0.021
269	22.42	0.07	0.043	(0.050)	0.022	0.021
270	22.50	0.07	0.043	(0.050)	0.022	0.021
271	22.58	0.07	0.043	(0.050)	0.022	0.021
272	22.67	0.07	0.043	(0.050)	0.022	0.021
273	22.75	0.07	0.043	(0.050)	0.022	0.021
274	22.83	0.07	0.043	(0.049)	0.022	0.021
275	22.92	0.07	0.043	(0.049)	0.022	0.021
276	23.00	0.07	0.043	(0.049)	0.022	0.021
277	23.08	0.07	0.043	(0.049)	0.022	0.021
278	23.17	0.07	0.043	(0.049)	0.022	0.021
279	23.25	0.07	0.043	(0.049)	0.022	0.021
280	23.33	0.07	0.043	(0.049)	0.022	0.021
281	23.42	0.07	0.043	(0.049)	0.022	0.021
282	23.50	0.07	0.043	(0.049)	0.022	0.021
283	23.58	0.07	0.043	(0.048)	0.022	0.021
284	23.67	0.07	0.043	(0.048)	0.022	0.021
285	23.75	0.07	0.043	(0.048)	0.022	0.021
286	23.83	0.07	0.043	(0.048)	0.022	0.021
287	23.92	0.07	0.043	(0.048)	0.022	0.021
288	24.00	0.07	0.043	(0.048)	0.022	0.021

(Loss Rate Not Used)

Sum = 100.0 Sum = 45.5

Flood volume = Effective rainfall 3.79(In)
times area 103.2(Ac.)/[(In)/(Ft.)] = 32.6(Ac.Ft)
Total soil loss = 1.53(In)
Total soil loss = 13.195(Ac.Ft)
Total rainfall = 5.33(In)
Flood volume = 1421514.5 Cubic Feet
Total soil loss = 574786.3 Cubic Feet

Peak flow rate of this hydrograph = 65.488(CFS)

24 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	17.5	35.0	52.5	70.0
0+ 5	0.0013	0.19	Q				
0+10	0.0079	0.96	Q				
0+15	0.0184	1.52	Q				
0+20	0.0310	1.83	VQ				
0+25	0.0472	2.35	VQ				
0+30	0.0659	2.72	VQ				
0+35	0.0858	2.89	VQ				
0+40	0.1064	2.99	VQ				
0+45	0.1276	3.07	VQ				
0+50	0.1498	3.23	VQ				
0+55	0.1750	3.65	V Q				
1+ 0	0.2023	3.96	V Q				
1+ 5	0.2299	4.01	V Q				
1+10	0.2554	3.70	V Q				
1+15	0.2793	3.47	VQ				
1+20	0.3027	3.40	VQ				
1+25	0.3258	3.36	VQ				
1+30	0.3487	3.33	VQ				
1+35	0.3715	3.31	VQ				
1+40	0.3943	3.30	VQ				
1+45	0.4169	3.29	VQ				
1+50	0.4402	3.38	VQ				
1+55	0.4661	3.76	V Q				
2+ 0	0.4939	4.03	V Q				
2+ 5	0.5223	4.13	V Q				
2+10	0.5512	4.19	V Q				
2+15	0.5804	4.24	V Q				
2+20	0.6098	4.27	V Q				
2+25	0.6393	4.29	V Q				
2+30	0.6690	4.31	V Q				
2+35	0.6994	4.42	V Q				
2+40	0.7326	4.81	V Q				
2+45	0.7677	5.10	V Q				
2+50	0.8036	5.22	V Q				
2+55	0.8400	5.28	|V Q				
3+ 0	0.8767	5.33	|V Q				
3+ 5	0.9136	5.36	|V Q				
3+10	0.9506	5.38	|V Q				
3+15	0.9878	5.40	|V Q				
3+20	1.0250	5.41	|V Q				
3+25	1.0623	5.42	|V Q				
3+30	1.0997	5.43	|V Q				
3+35	1.1371	5.43	|V Q				
3+40	1.1745	5.43	|V Q				
3+45	1.2120	5.43	|V Q				
3+50	1.2500	5.53	|V Q				
3+55	1.2908	5.92	|V Q				
4+ 0	1.3335	6.20	|V Q				
4+ 5	1.3769	6.30	|V Q				
4+10	1.4207	6.37	|V Q				
4+15	1.4649	6.41	|V Q				
4+20	1.5099	6.54	|V Q				
4+25	1.5578	6.95	|V Q				
4+30	1.6076	7.24	|V Q				
4+35	1.6584	7.36	| V Q				
4+40	1.7096	7.44	| V Q				
4+45	1.7612	7.49	| V Q				
4+50	1.8137	7.62	| V Q				
4+55	1.8690	8.03	| V Q				
5+ 0	1.9264	8.33	| V Q				

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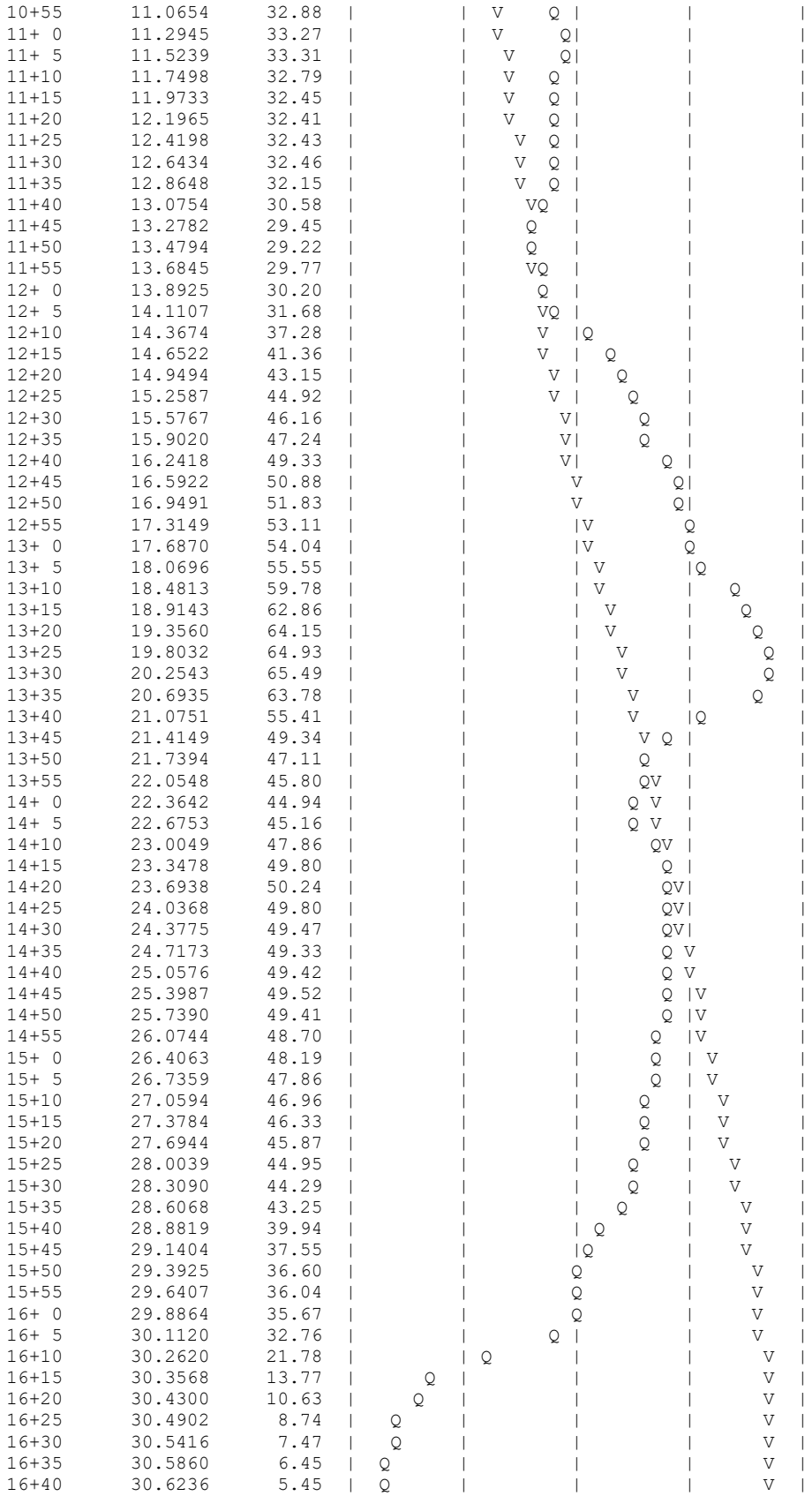
 5+ 5      1.9833      8.26  | V Q     |         |         |         |
 5+10      2.0354      7.56  | V Q     |         |         |         |
 5+15      2.0840      7.05  | V Q     |         |         |         |
 5+20      2.1320      6.97  | VQ      |         |         |         |
 5+25      2.1819      7.25  | V Q     |         |         |         |
 5+30      2.2333      7.46  | V Q     |         |         |         |
 5+35      2.2858      7.62  | V Q     |         |         |         |
 5+40      2.3411      8.03  | V Q     |         |         |         |
 5+45      2.3985      8.33  | V Q     |         |         |         |
 5+50      2.4567      8.45  |  VQ     |         |         |         |
 5+55      2.5153      8.52  |  VQ     |         |         |         |
 6+ 0      2.5743      8.57  |  VQ     |         |         |         |
 6+ 5      2.6341      8.69  |  VQ     |         |         |         |
 6+10      2.6968      9.10  |  V Q    |         |         |         |
 6+15      2.7616      9.41  |  V Q    |         |         |         |
 6+20      2.8273      9.54  |  V Q    |         |         |         |
 6+25      2.8935      9.61  |  V Q    |         |         |         |
 6+30      2.9601      9.66  |  V Q    |         |         |         |
 6+35      3.0276      9.80  |  V Q    |         |         |         |
 6+40      3.0978     10.21  |  V Q    |         |         |         |
 6+45      3.1702     10.50  |  V  Q   |         |         |         |
 6+50      3.2434     10.63  |  V  Q   |         |         |         |
 6+55      3.3171     10.70  |   V Q   |         |         |         |
 7+ 0      3.3911     10.75  |   V Q   |         |         |         |
 7+ 5      3.4654     10.79  |   V Q   |         |         |         |
 7+10      3.5399     10.81  |   V Q   |         |         |         |
 7+15      3.6145     10.83  |   V Q   |         |         |         |
 7+20      3.6899     10.95  |   V Q   |         |         |         |
 7+25      3.7683     11.39  |   V Q   |         |         |         |
 7+30      3.8492     11.74  |   V Q   |         |         |         |
 7+35      3.9325     12.10  |   V Q   |         |         |         |
 7+40      4.0221     13.01  |   V  Q  |         |         |         |
 7+45      4.1163     13.68  |    V Q  |         |         |         |
 7+50      4.2139     14.17  |    V  Q |         |         |         |
 7+55      4.3184     15.17  |    V  Q |         |         |         |
 8+ 0      4.4279     15.91  |    V   Q|         |         |         |
 8+ 5      4.5426     16.64  |    V   Q|         |         |         |
 8+10      4.6697     18.46  |    V    Q         |         |         |
 8+15      4.8060     19.79  |    V    |Q        |         |         |
 8+20      4.9464     20.39  |     V   |Q        |         |         |
 8+25      5.0895     20.77  |     V   |Q        |         |         |
 8+30      5.2345     21.05  |     V   | Q       |         |         |
 8+35      5.3824     21.47  |     V   | Q       |         |         |
 8+40      5.5368     22.42  |     V   | Q       |         |         |
 8+45      5.6961     23.14  |     V   |  Q      |         |         |
 8+50      5.8592     23.68  |      V  |  Q      |         |         |
 8+55      6.0292     24.69  |      V  |   Q     |         |         |
 9+ 0      6.2044     25.43  |      V  |   Q     |         |         |
 9+ 5      6.3848     26.20  |      V  |   Q     |         |         |
 9+10      6.5777     28.00  |       V |     Q   |         |         |
 9+15      6.7796     29.32  |       V |     Q   |         |         |
 9+20      6.9869     30.10  |       V |      Q  |         |         |
 9+25      7.2023     31.27  |       V |      Q  |         |         |
 9+30      7.4235     32.12  |        V|       Q |         |         |
 9+35      7.6492     32.76  |        V|       Q |         |         |
 9+40      7.8822     33.84  |        V|        Q|         |         |
 9+45      8.1208     34.64  |        V|        Q|         |         |
 9+50      8.3636     35.24  |         V         Q         |         |
 9+55      8.6136     36.30  |         V         Q         |         |
10+ 0      8.8689     37.08  |         V         |Q        |         |
10+ 5      9.1177     36.12  |         |V        Q         |         |
10+10      9.3302     30.86  |         |V     Q  |         |         |
10+15      9.5164     27.04  |         |V   Q    |         |         |
10+20      9.6931     25.65  |         |V  Q     |         |         |
10+25      9.8642     24.84  |         | V Q     |         |         |
10+30     10.0317     24.32  |         | VQ      |         |         |
10+35     10.2035     24.95  |         | V Q     |         |         |
10+40     10.4008     28.64  |         | V   Q   |         |         |
10+45     10.6164     31.32  |         |  V   Q  |         |         |
10+50     10.8389     32.30  |         |  V    Q |         |         |
```



10+55	11.0654	32.88	V Q
11+ 0	11.2945	33.27	V Q
11+ 5	11.5239	33.31	V Q
11+10	11.7498	32.79	V Q
11+15	11.9733	32.45	V Q
11+20	12.1965	32.41	V Q
11+25	12.4198	32.43	V Q
11+30	12.6434	32.46	V Q
11+35	12.8648	32.15	V Q
11+40	13.0754	30.58	VQ
11+45	13.2782	29.45	Q
11+50	13.4794	29.22	Q
11+55	13.6845	29.77	VQ
12+ 0	13.8925	30.20	Q
12+ 5	14.1107	31.68	VQ
12+10	14.3674	37.28	V Q
12+15	14.6522	41.36	V Q
12+20	14.9494	43.15	V Q
12+25	15.2587	44.92	V Q
12+30	15.5767	46.16	V Q
12+35	15.9020	47.24	V Q
12+40	16.2418	49.33	V Q
12+45	16.5922	50.88	V Q
12+50	16.9491	51.83	V Q
12+55	17.3149	53.11	V Q
13+ 0	17.6870	54.04	V Q
13+ 5	18.0696	55.55	V Q
13+10	18.4813	59.78	V Q
13+15	18.9143	62.86	V Q
13+20	19.3560	64.15	V Q
13+25	19.8032	64.93	V Q
13+30	20.2543	65.49	V Q
13+35	20.6935	63.78	V Q
13+40	21.0751	55.41	V Q
13+45	21.4149	49.34	V Q
13+50	21.7394	47.11	Q
13+55	22.0548	45.80	QV
14+ 0	22.3642	44.94	Q V
14+ 5	22.6753	45.16	Q V
14+10	23.0049	47.86	QV
14+15	23.3478	49.80	Q
14+20	23.6938	50.24	QV
14+25	24.0368	49.80	QV
14+30	24.3775	49.47	QV
14+35	24.7173	49.33	Q V
14+40	25.0576	49.42	Q V
14+45	25.3987	49.52	Q V
14+50	25.7390	49.41	Q V
14+55	26.0744	48.70	Q V
15+ 0	26.4063	48.19	Q V
15+ 5	26.7359	47.86	Q V
15+10	27.0594	46.96	Q V
15+15	27.3784	46.33	Q V
15+20	27.6944	45.87	Q V
15+25	28.0039	44.95	Q V
15+30	28.3090	44.29	Q V
15+35	28.6068	43.25	Q V
15+40	28.8819	39.94	Q V
15+45	29.1404	37.55	Q V
15+50	29.3925	36.60	Q V
15+55	29.6407	36.04	Q V
16+ 0	29.8864	35.67	Q V
16+ 5	30.1120	32.76	Q V
16+10	30.2620	21.78	Q V
16+15	30.3568	13.77	Q V
16+20	30.4300	10.63	Q V
16+25	30.4902	8.74	Q V
16+30	30.5416	7.47	Q V
16+35	30.5860	6.45	Q V
16+40	30.6236	5.45	Q V

16+45	30.6557	4.67	| Q	|	|	|	V |
16+50	30.6846	4.20	| Q	|	|	|	V |
16+55	30.7113	3.87	| Q	|	|	|	V |
17+ 0	30.7362	3.63	| Q	|	|	|	V |
17+ 5	30.7605	3.53	| Q	|	|	|	V |
17+10	30.7900	4.28	| Q	|	|	|	V |
17+15	30.8232	4.82	| Q	|	|	|	V |
17+20	30.8578	5.03	| Q	|	|	|	V |
17+25	30.8933	5.15	| Q	|	|	|	V |
17+30	30.9293	5.23	| Q	|	|	|	V |
17+35	30.9656	5.28	| Q	|	|	|	V |
17+40	31.0023	5.32	| Q	|	|	|	V |
17+45	31.0391	5.36	| Q	|	|	|	V |
17+50	31.0756	5.29	| Q	|	|	|	V |
17+55	31.1095	4.92	| Q	|	|	|	V |
18+ 0	31.1415	4.65	| Q	|	|	|	V |
18+ 5	31.1730	4.56	| Q	|	|	|	V |
18+10	31.2039	4.50	| Q	|	|	|	V |
18+15	31.2346	4.46	| Q	|	|	|	V |
18+20	31.2651	4.43	| Q	|	|	|	V |
18+25	31.2954	4.40	| Q	|	|	|	V |
18+30	31.3257	4.39	| Q	|	|	|	V |
18+35	31.3551	4.28	| Q	|	|	|	V |
18+40	31.3819	3.88	| Q	|	|	|	V |
18+45	31.4066	3.60	| Q	|	|	|	V |
18+50	31.4299	3.38	|Q	|	|	|	V |
18+55	31.4501	2.93	|Q	|	|	|	V |
19+ 0	31.4681	2.61	|Q	|	|	|	V |
19+ 5	31.4857	2.56	|Q	|	|	|	V |
19+10	31.5055	2.86	|Q	|	|	|	V |
19+15	31.5267	3.08	|Q	|	|	|	V |
19+20	31.5490	3.24	|Q	|	|	|	V |
19+25	31.5742	3.66	| Q	|	|	|	V |
19+30	31.6015	3.96	| Q	|	|	|	V |
19+35	31.6290	3.98	| Q	|	|	|	V |
19+40	31.6543	3.67	| Q	|	|	|	V |
19+45	31.6780	3.45	|Q	|	|	|	V |
19+50	31.7006	3.28	|Q	|	|	|	V |
19+55	31.7203	2.86	|Q	|	|	|	V |
20+ 0	31.7379	2.56	|Q	|	|	|	V |
20+ 5	31.7554	2.54	|Q	|	|	|	V |
20+10	31.7750	2.85	|Q	|	|	|	V |
20+15	31.7962	3.07	|Q	|	|	|	V |
20+20	31.8179	3.15	|Q	|	|	|	V|
20+25	31.8398	3.18	|Q	|	|	|	V|
20+30	31.8618	3.20	|Q	|	|	|	V|
20+35	31.8839	3.21	|Q	|	|	|	V|
20+40	31.9061	3.22	|Q	|	|	|	V|
20+45	31.9283	3.23	|Q	|	|	|	V|
20+50	31.9499	3.14	|Q	|	|	|	V|
20+55	31.9690	2.76	|Q	|	|	|	V|
21+ 0	31.9861	2.49	|Q	|	|	|	V|
21+ 5	32.0032	2.49	|Q	|	|	|	V|
21+10	32.0226	2.81	|Q	|	|	|	V|
21+15	32.0435	3.04	|Q	|	|	|	V|
21+20	32.0644	3.03	|Q	|	|	|	V|
21+25	32.0829	2.68	|Q	|	|	|	V|
21+30	32.0996	2.43	|Q	|	|	|	V|
21+35	32.1164	2.43	|Q	|	|	|	V|
21+40	32.1354	2.77	|Q	|	|	|	V|
21+45	32.1562	3.01	|Q	|	|	|	V|
21+50	32.1768	3.00	|Q	|	|	|	V|
21+55	32.1952	2.67	|Q	|	|	|	V|
22+ 0	32.2119	2.42	|Q	|	|	|	V|
22+ 5	32.2286	2.43	|Q	|	|	|	V|
22+10	32.2477	2.77	|Q	|	|	|	V|
22+15	32.2685	3.01	|Q	|	|	|	V|
22+20	32.2891	3.00	|Q	|	|	|	V|
22+25	32.3075	2.67	|Q	|	|	|	V|
22+30	32.3242	2.42	|Q	|	|	|	V|

22+35	32.3403	2.34	|Q	|	|	|	V|
22+40	32.3560	2.29	|Q	|	|	|	V|
22+45	32.3715	2.25	|Q	|	|	|	V|
22+50	32.3869	2.23	|Q	|	|	|	V|
22+55	32.4021	2.21	|Q	|	|	|	V|
23+ 0	32.4173	2.20	|Q	|	|	|	V|
23+ 5	32.4324	2.20	|Q	|	|	|	V|
23+10	32.4475	2.19	|Q	|	|	|	V|
23+15	32.4626	2.18	|Q	|	|	|	V|
23+20	32.4775	2.17	|Q	|	|	|	V|
23+25	32.4925	2.17	|Q	|	|	|	V|
23+30	32.5075	2.17	|Q	|	|	|	V|
23+35	32.5224	2.17	|Q	|	|	|	V|
23+40	32.5374	2.17	|Q	|	|	|	V|
23+45	32.5524	2.17	|Q	|	|	|	V|
23+50	32.5673	2.17	|Q	|	|	|	V|
23+55	32.5823	2.17	|Q	|	|	|	V|
24+ 0	32.5973	2.17	|Q	|	|	|	V|
24+ 5	32.6110	1.98	|Q	|	|	|	V|
24+10	32.6193	1.21	Q	|	|	|	V|
24+15	32.6238	0.65	Q	|	|	|	V|
24+20	32.6268	0.43	Q	|	|	|	V|
24+25	32.6289	0.31	Q	|	|	|	V|
24+30	32.6304	0.22	Q	|	|	|	V|
24+35	32.6315	0.16	Q	|	|	|	V|
24+40	32.6322	0.11	Q	|	|	|	V|
24+45	32.6328	0.08	Q	|	|	|	V|
24+50	32.6331	0.05	Q	|	|	|	V|
24+55	32.6334	0.03	Q	|	|	|	V|
25+ 0	32.6335	0.02	Q	|	|	|	V|

Drainage Area D (Existing Condition) = 118.9 Ac

Soil Low Loss Rate Worksheet

Drainage Area D – 118.9 Ac (Existing)

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Subarea	**Area in (Ac)**	**Land Use (Plate D-5.6)**	**% Impervious (Plate D-5.6)**	**Soil Low Loss Rate 0.9-(0.8)* [4]**	**Decimal portion of Area [2] / SUM[2]**	**Average Low Loss Rate [5] * [6]**
	37	Natural	0	0.90	0.31	0.28
		Res 1 Ac	20	0.74	0.00	0.00
		Res 1/2 Ac	40	0.58	0.00	0.00
		Res 1/4 Ac	50	0.50	0.00	0.00
		Res < 1/4 Ac	65	0.38	0.00	0.00
		Apartment	80	0.26	0.00	0.00
	23	Mobil Home	85	0.22	0.19	0.04
		School	75	0.30	0.00	0.00
	58.9	Commercial	90	0.18	0.50	0.09
Sum =	118.9				1.00	**0.41**

Manning "n" Value Worksheet

Drainage Area D – 118.9 Ac (Existing)

[1]	[2]	[3]	[4]	[5]	[7]
Subarea	**Area in (Ac)**	**Land Use (Plate D-5.6)**	**"n" Value**	**Decimal portion of Area [2] / SUM[2]**	**Average "n" Value [4] * [5]**
	37	Natural	0.04	0.31	0.012
		Res 1 Ac	0.015	0.00	0.000
		Res 1/2 Ac	0.015	0.00	0.000
		Res 1/4 Ac	0.015	0.00	0.000
		Res < 1/4 Ac	0.015	0.00	0.000
		Apartment	0.015	0.00	0.000
	23	Mobil Home	0.015	0.19	0.003
		School	0.02	0.00	0.000
	58.9	Commercial	0.015	0.49	0.007
Sum =	**118.9**			1.00	**0.023**

Runoff Index (RI) Worksheet

Drainage Area D – 118.9 Ac (Existing)

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Subarea	**Area in (Ac)**	**Soil Group**	**Cover Type**	**RI Number (Plate E6-1)**	**Land Use**	**Decimal portion of Area [2] / SUM[2]**	**Average RI Value [5] * [7]**
Natural	7.4	B	grass (fair)	69	Natural	0.20	13.8
	10.2	C	grass (fair)	79	Natural	0.28	21.8
	19.4	D	grass (fair)	84	Natural	0.52	44.0
Sum =	***37.0***					1.00	**79.6**
Mobil Home		B	Landscape	56	Mobil Home	0.00	0.0
	4.2	C	Landscape	69	Mobil Home	0.18	12.6
	18.8	D	Landscape	75	Mobil Home	0.82	61.3
Sum =	***23***					1.00	**73.9**
Commercial	2.1	B	Landscape	56	Commercial	0.04	2.0
	3.1	C	Landscape	69	Commercial	0.05	3.6
	53.7	D	Landscape	75	Commercial	0.91	68.4
Sum =	***58.9***					1.00	**74.0**

```
        U n i t   H y d r o g r a p h   A n a l y s i s

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                Study date  04/24/19 File: lgexaread1100.out


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------------------------------------------------------------------------------

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Legado
Drainage Area D = 118.9 Ac
100-year 1-hour storm

------------------------------------------------------------------------
Drainage Area =     118.90(Ac.)  =      0.186 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     118.90(Ac.)  =      0.186 Sq. Mi.
Length along longest watercourse =    6860.00(Ft.)
Length along longest watercourse measured to centroid =    4170.00(Ft.)
Length along longest watercourse =      1.299 Mi.
Length along longest watercourse measured to centroid =      0.790 Mi.
Difference in elevation =      58.00(Ft.)
Slope along watercourse =     44.6414 Ft./Mi.
Average Manning's 'N' = 0.023
Lag time =    0.271 Hr.
Lag time =    16.25 Min.
25% of lag time =     4.06 Min.
40% of lag time =     6.50 Min.
Unit time =     5.00 Min.
Duration of storm = 1 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      118.90           0.52                 61.83

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      118.90           1.64                195.00

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.520(In)
Area Averaged 100-Year Rainfall =    1.640(In)

Point rain (area averaged) =    1.640(In)
Areal adjustment factor =   99.89 %
Adjusted average point rain =    1.638(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
```

```
    37.000          79.60         0.000
    23.000          73.90         0.750
    58.900          74.00         0.900
 Total Area Entered =    118.90(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
79.6  90.8      0.120     0.000        0.120       0.311      0.037
73.9  87.3      0.160     0.750        0.052       0.193      0.010
74.0  87.4      0.160     0.900        0.030       0.495      0.015
                                                 Sum (F) =    0.062
Area averaged mean soil loss (F) (In/Hr) =  0.062
Minimum soil loss rate ((In/Hr)) =  0.031
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.410
------------------------------------------------------------------------
Slope of intensity-duration curve for a 1 hour storm =0.5000
------------------------------------------------------------------------

               U n i t  H y d r o g r a p h
                      VALLEY S-Curve
-------------------------------------------------------------------
               Unit Hydrograph Data
-------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                          Graph %           (CFS)
-------------------------------------------------------------------
    1   0.083         30.766          3.001             3.596
    2   0.167         61.533         11.132            13.339
    3   0.250         92.299         19.319            23.150
    4   0.333        123.066         20.285            24.307
    5   0.417        153.832         12.391            14.848
    6   0.500        184.598          7.082             8.486
    7   0.583        215.365          4.681             5.609
    8   0.667        246.131          3.655             4.379
    9   0.750        276.898          2.965             3.553
   10   0.833        307.664          2.423             2.904
   11   0.917        338.430          1.950             2.337
   12   1.000        369.197          1.750             2.097
   13   1.083        399.963          1.389             1.664
   14   1.167        430.730          1.170             1.401
   15   1.250        461.496          0.980             1.175
   16   1.333        492.263          0.935             1.120
   17   1.417        523.029          0.854             1.023
   18   1.500        553.795          0.684             0.819
   19   1.583        584.562          0.601             0.720
   20   1.667        615.328          0.539             0.645
   21   1.750        646.095          0.446             0.535
   22   1.833        676.861          0.384             0.460
   23   1.917        707.627          0.309             0.370
   24   2.000        738.394          0.308             0.369
   25   2.083        769.160          0.308             0.369
   26   2.167        799.927          0.308             0.369
   27   2.250        830.693          0.155             0.185
                                Sum = 100.000   Sum=     119.829
-------------------------------------------------------------------


 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

  Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
       (Hr.)  Percent   (In/Hr)         Max   |   Low         (In/Hr)
    1   0.08     4.20      0.826         0.062    (  0.355)        0.763
    2   0.17     4.30      0.845         0.062    (  0.363)        0.783
    3   0.25     5.00      0.983         0.062    (  0.423)        0.920
    4   0.33     5.00      0.983         0.062    (  0.423)        0.920
    5   0.42     5.80      1.140         0.062    (  0.490)        1.078
    6   0.50     6.50      1.278         0.062    (  0.549)        1.215
```

```
 7   0.58     7.40      1.455          0.062    (  0.626)        1.392
 8   0.67     8.60      1.691          0.062    (  0.727)        1.628
 9   0.75    12.30      2.418          0.062    (  1.040)        2.356
10   0.83    29.10      5.721          0.062    (  2.460)        5.658
11   0.92     6.80      1.337          0.062    (  0.575)        1.274
12   1.00     5.00      0.983          0.062    (  0.423)        0.920
              (Loss Rate Not Used)
   Sum =     100.0                                      Sum =    18.9
      Flood volume = Effective rainfall      1.58(In)
       times area     118.9(Ac.)/[(In)/(Ft.)] =      15.6(Ac.Ft)
      Total soil loss =      0.06(In)
      Total soil loss =     0.619(Ac.Ft)
      Total rainfall =      1.64(In)
      Flood volume =      680104.1 Cubic Feet
      Total soil loss =       26968.7 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =    265.587(CFS)
      ---------------------------------------------------------------------
      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          1 - H O U R    S T O R M
                     R u n o f f      H y d r o g r a p h
      ---------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      ---------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0       75.0     150.0     225.0     300.0
---------------------------------------------------------------------------
  0+ 5       0.0189      2.75  Q         |         |         |         |
  0+10       0.1085     13.00  VQ        |         |         |         |
  0+15       0.3250     31.44  V   Q     |         |         |         |
  0+20       0.6851     52.29  |V    Q   |         |         |         |
  0+25       1.1524     67.86  | V      Q|         |         |         |
  0+30       1.7073     80.57  |   V     Q         |         |         |
  0+35       2.3490     93.18  |     V   | Q       |         |         |
  0+40       3.0930    108.02  |      V  |   Q     |         |         |
  0+45       3.9686    127.14  |         V     Q   |         |         |
  0+50       5.1034    164.77  |         |  V      |Q        |         |
  0+55       6.6369    222.67  |         |      V  |         Q|         |
  1+ 0       8.4660    265.59  |         |         |V        |    Q    |
  1+ 5      10.2080    252.93  |         |         |     V   |  Q      |
  1+10      11.4856    185.51  |         |         |   Q    V|         |
  1+15      12.3545    126.17  |         |     Q   |         |V        |
  1+20      12.9475     86.10  |         |Q        |         |  V      |
  1+25      13.3917     64.49  |       Q |         |         |   V     |
  1+30      13.7464     51.51  |     Q   |         |         |    V    |
  1+35      14.0383     42.38  |    Q    |         |         |    V    |
  1+40      14.2807     35.20  |   Q     |         |         |     V   |
  1+45      14.4884     30.16  |   Q     |         |         |      V  |
  1+50      14.6618     25.18  |  Q      |         |         |      V  |
  1+55      14.8100     21.51  | Q       |         |         |      V  |
  2+ 0      14.9372     18.48  | Q       |         |         |       V |
  2+ 5      15.0514     16.58  | Q       |         |         |       V |
  2+10      15.1526     14.70  |Q        |         |         |       V |
  2+15      15.2390     12.54  |Q        |         |         |        V|
  2+20      15.3131     10.77  |Q        |         |         |        V|
  2+25      15.3765      9.21  |Q        |         |         |        V|
  2+30      15.4298      7.73  |Q        |         |         |        V|
  2+35      15.4746      6.51  Q         |         |         |        V|
  2+40      15.5117      5.38  Q         |         |         |        V|
  2+45      15.5441      4.71  Q         |         |         |        V|
  2+50      15.5721      4.07  Q         |         |         |        V|
  2+55      15.5951      3.33  Q         |         |         |        V|
  3+ 0      15.6079      1.86  Q         |         |         |        V|
  3+ 5      15.6119      0.58  Q         |         |         |        V|
  3+10      15.6130      0.17  Q         |         |         |         V
---------------------------------------------------------------------------
```

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        U n i t   H y d r o g r a p h   A n a l y s i s

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                Study date  04/24/19 File: lgexaread3100.out


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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Legado
Drainage Area D = 118.9 Ac
100-year 3-hour storm

------------------------------------------------------------------------
Drainage Area =     118.90(Ac.)  =      0.186 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     118.90(Ac.)  =      0.186 Sq. Mi.
Length along longest watercourse =    6860.00(Ft.)
Length along longest watercourse measured to centroid =    4170.00(Ft.)
Length along longest watercourse =      1.299 Mi.
Length along longest watercourse measured to centroid =      0.790 Mi.
Difference in elevation =      58.00(Ft.)
Slope along watercourse =     44.6414 Ft./Mi.
Average Manning's 'N' = 0.023
Lag time =    0.271 Hr.
Lag time =    16.25 Min.
25% of lag time =     4.06 Min.
40% of lag time =     6.50 Min.
Unit time =     5.00 Min.
Duration of storm = 3 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      118.90           0.86                102.25

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      118.90           2.27                269.90

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.860(In)
Area Averaged 100-Year Rainfall =    2.270(In)

Point rain (area averaged) =    2.270(In)
Areal adjustment factor =   99.95 %
Adjusted average point rain =    2.269(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
```

```
    37.000          79.60         0.000
    23.000          73.90         0.750
    58.900          74.00         0.900
 Total Area Entered =    118.90(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
79.6  90.8      0.120     0.000        0.120       0.311      0.037
73.9  87.3      0.160     0.750        0.052       0.193      0.010
74.0  87.4      0.160     0.900        0.030       0.495      0.015
                                                 Sum (F) =    0.062
Area averaged mean soil loss (F) (In/Hr) =  0.062
Minimum soil loss rate ((In/Hr)) =  0.031
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.410
------------------------------------------------------------------------

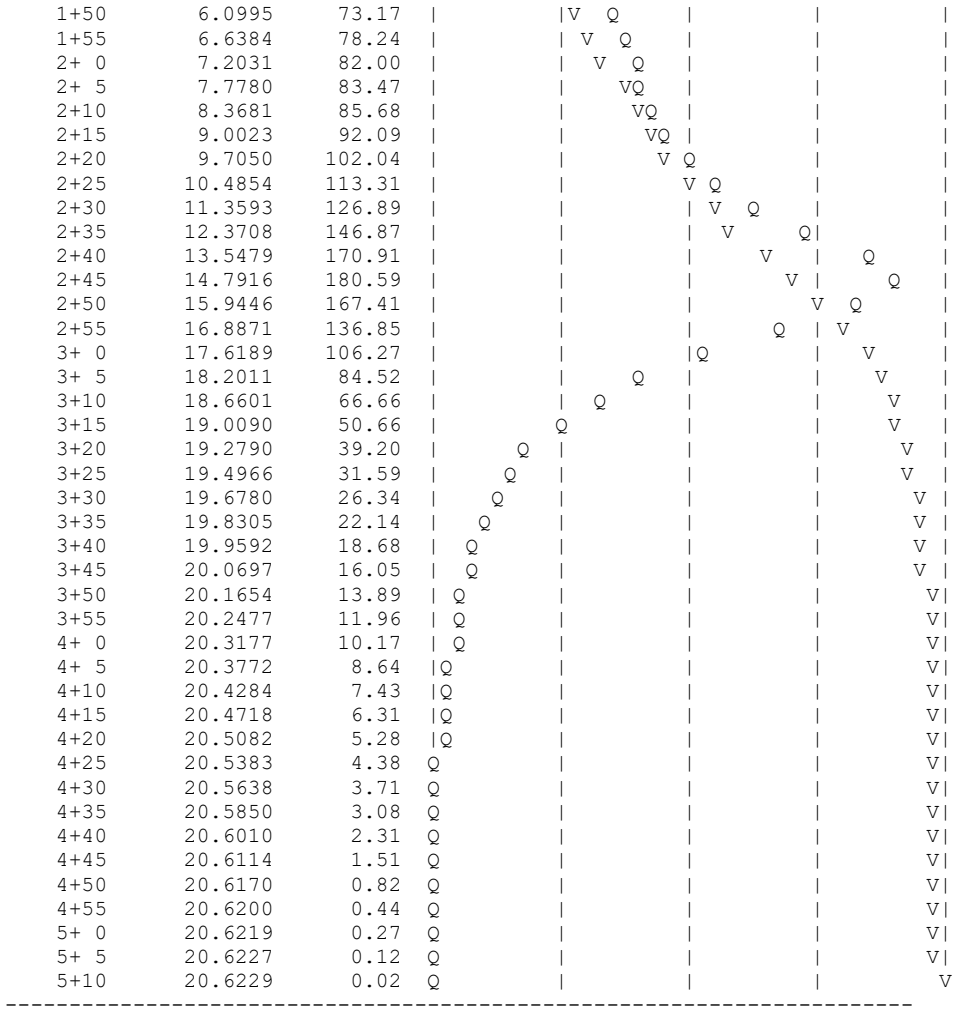
               U n i t  H y d r o g r a p h
                      VALLEY S-Curve
------------------------------------------------------------------------
               Unit Hydrograph Data
------------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                          Graph %            (CFS)
------------------------------------------------------------------------
    1   0.083         30.766          3.001              3.596
    2   0.167         61.533         11.132             13.339
    3   0.250         92.299         19.319             23.150
    4   0.333        123.066         20.285             24.307
    5   0.417        153.832         12.391             14.848
    6   0.500        184.598          7.082              8.486
    7   0.583        215.365          4.681              5.609
    8   0.667        246.131          3.655              4.379
    9   0.750        276.898          2.965              3.553
   10   0.833        307.664          2.423              2.904
   11   0.917        338.430          1.950              2.337
   12   1.000        369.197          1.750              2.097
   13   1.083        399.963          1.389              1.664
   14   1.167        430.730          1.170              1.401
   15   1.250        461.496          0.980              1.175
   16   1.333        492.263          0.935              1.120
   17   1.417        523.029          0.854              1.023
   18   1.500        553.795          0.684              0.819
   19   1.583        584.562          0.601              0.720
   20   1.667        615.328          0.539              0.645
   21   1.750        646.095          0.446              0.535
   22   1.833        676.861          0.384              0.460
   23   1.917        707.627          0.309              0.370
   24   2.000        738.394          0.308              0.369
   25   2.083        769.160          0.308              0.369
   26   2.167        799.927          0.308              0.369
   27   2.250        830.693          0.155              0.185
                                Sum = 100.000   Sum=     119.829
------------------------------------------------------------------------

 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

  Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
       (Hr.)  Percent   (In/Hr)         Max   |   Low         (In/Hr)
  1   0.08     1.30      0.354          0.062    (  0.152)        0.291
  2   0.17     1.30      0.354          0.062    (  0.152)        0.291
  3   0.25     1.10      0.299          0.062    (  0.129)        0.237
  4   0.33     1.50      0.408          0.062    (  0.176)        0.346
  5   0.42     1.50      0.408          0.062    (  0.176)        0.346
  6   0.50     1.80      0.490          0.062    (  0.211)        0.428
  7   0.58     1.50      0.408          0.062    (  0.176)        0.346
  8   0.67     1.80      0.490          0.062    (  0.211)        0.428
```

```
 9   0.75     1.80      0.490          0.062    (  0.211)        0.428
10   0.83     1.50      0.408          0.062    (  0.176)        0.346
11   0.92     1.60      0.436          0.062    (  0.187)        0.373
12   1.00     1.80      0.490          0.062    (  0.211)        0.428
13   1.08     2.20      0.599          0.062    (  0.258)        0.536
14   1.17     2.20      0.599          0.062    (  0.258)        0.536
15   1.25     2.20      0.599          0.062    (  0.258)        0.536
16   1.33     2.00      0.545          0.062    (  0.234)        0.482
17   1.42     2.60      0.708          0.062    (  0.304)        0.645
18   1.50     2.70      0.735          0.062    (  0.316)        0.673
19   1.58     2.40      0.653          0.062    (  0.281)        0.591
20   1.67     2.70      0.735          0.062    (  0.316)        0.673
21   1.75     3.30      0.898          0.062    (  0.386)        0.836
22   1.83     3.10      0.844          0.062    (  0.363)        0.782
23   1.92     2.90      0.790          0.062    (  0.340)        0.727
24   2.00     3.00      0.817          0.062    (  0.351)        0.754
25   2.08     3.10      0.844          0.062    (  0.363)        0.782
26   2.17     4.20      1.143          0.062    (  0.492)        1.081
27   2.25     5.00      1.361          0.062    (  0.585)        1.299
28   2.33     3.50      0.953          0.062    (  0.410)        0.890
29   2.42     6.80      1.851          0.062    (  0.796)        1.789
30   2.50     7.30      1.987          0.062    (  0.855)        1.925
31   2.58     8.20      2.233          0.062    (  0.960)        2.170
32   2.67     5.90      1.606          0.062    (  0.691)        1.544
33   2.75     2.00      0.545          0.062    (  0.234)        0.482
34   2.83     1.80      0.490          0.062    (  0.211)        0.428
35   2.92     1.80      0.490          0.062    (  0.211)        0.428
36   3.00     0.60      0.163          0.062    (  0.070)        0.101
              (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    25.0
      Flood volume = Effective rainfall      2.08(In)
       times area     118.9(Ac.)/[(In)/(Ft.)] =      20.6(Ac.Ft)
      Total soil loss =      0.19(In)
      Total soil loss =     1.857(Ac.Ft)
      Total rainfall =      2.27(In)
      Flood volume =      898332.1 Cubic Feet
      Total soil loss =       80906.1 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =    180.586(CFS)
      ---------------------------------------------------------------------
      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          3 - H O U R    S T O R M
                     R u n o f f      H y d r o g r a p h
      ---------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      ---------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0       50.0     100.0     150.0     200.0
-------------------------------------------------------------------------
  0+ 5       0.0072      1.05  Q         |         |         |         |
  0+10       0.0412      4.94  Q         |         |         |         |
  0+15       0.1204     11.49  V Q       |         |         |         |
  0+20       0.2460     18.25  V  Q      |         |         |         |
  0+25       0.4028     22.77  V   Q     |         |         |         |
  0+30       0.5870     26.73  |V   Q    |         |         |         |
  0+35       0.8005     31.01  |V    Q   |         |         |         |
  0+40       1.0383     34.53  | V   Q   |         |         |         |
  0+45       1.2957     37.37  | V    Q  |         |         |         |
  0+50       1.5672     39.42  |  V   Q  |         |         |         |
  0+55       1.8486     40.86  |  V    Q |         |         |         |
  1+ 0       2.1333     41.34  |   V   Q |         |         |         |
  1+ 5       2.4252     42.37  |   V   Q |         |         |         |
  1+10       2.7384     45.48  |    V   Q|         |         |         |
  1+15       3.0815     49.82  |    V   Q|         |         |         |
  1+20       3.4501     53.53  |     V   Q         |         |         |
  1+25       3.8349     55.87  |      V  |Q        |         |         |
  1+30       4.2372     58.41  |       V |Q        |         |         |
  1+35       4.6647     62.07  |        V| Q       |         |         |
  1+40       5.1192     66.00  |        V|  Q      |         |         |
  1+45       5.5956     69.17  |         V  Q      |         |         |
```


1+50 6.0995 73.17
1+55 6.6384 78.24
2+ 0 7.2031 82.00
2+ 5 7.7780 83.47
2+10 8.3681 85.68
2+15 9.0023 92.09
2+20 9.7050 102.04
2+25 10.4854 113.31
2+30 11.3593 126.89
2+35 12.3708 146.87
2+40 13.5479 170.91
2+45 14.7916 180.59
2+50 15.9446 167.41
2+55 16.8871 136.85
3+ 0 17.6189 106.27
3+ 5 18.2011 84.52
3+10 18.6601 66.66
3+15 19.0090 50.66
3+20 19.2790 39.20
3+25 19.4966 31.59
3+30 19.6780 26.34
3+35 19.8305 22.14
3+40 19.9592 18.68
3+45 20.0697 16.05
3+50 20.1654 13.89
3+55 20.2477 11.96
4+ 0 20.3177 10.17
4+ 5 20.3772 8.64
4+10 20.4284 7.43
4+15 20.4718 6.31
4+20 20.5082 5.28
4+25 20.5383 4.38
4+30 20.5638 3.71
4+35 20.5850 3.08
4+40 20.6010 2.31
4+45 20.6114 1.51
4+50 20.6170 0.82
4+55 20.6200 0.44
5+ 0 20.6219 0.27
5+ 5 20.6227 0.12
5+10 20.6229 0.02

```
       U n i t   H y d r o g r a p h   A n a l y s i s

       Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
              Study date  04/24/19 File: lgexaread6100.out


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
------------------------------------------------------------------------------

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Legado
Drainage Area D = 118.9 Ac
100-year 6-hour storm

------------------------------------------------------------------------
Drainage Area =     118.90(Ac.)  =      0.186 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     118.90(Ac.)  =      0.186 Sq. Mi.
Length along longest watercourse =    6860.00(Ft.)
Length along longest watercourse measured to centroid =    4170.00(Ft.)
Length along longest watercourse =      1.299 Mi.
Length along longest watercourse measured to centroid =      0.790 Mi.
Difference in elevation =      58.00(Ft.)
Slope along watercourse =     44.6414 Ft./Mi.
Average Manning's 'N' = 0.023
Lag time =    0.271 Hr.
Lag time =    16.25 Min.
25% of lag time =     4.06 Min.
40% of lag time =     6.50 Min.
Unit time =     5.00 Min.
Duration of storm = 6 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      118.90           1.19                141.49

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      118.90           2.98                354.32

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    1.190(In)
Area Averaged 100-Year Rainfall =    2.980(In)

Point rain (area averaged) =    2.980(In)
Areal adjustment factor =   99.96 %
Adjusted average point rain =    2.979(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
    37.000           79.60         0.000
    23.000           73.90         0.750
```

```
    58.900           74.00         0.900
 Total Area Entered =    118.90(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
79.6  90.8      0.120     0.000        0.120       0.311      0.037
73.9  87.3      0.160     0.750        0.052       0.193      0.010
74.0  87.4      0.160     0.900        0.030       0.495      0.015
                                                 Sum (F) =   0.062
Area averaged mean soil loss (F) (In/Hr) =  0.062
Minimum soil loss rate ((In/Hr)) =  0.031
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.410
------------------------------------------------------------------------

               U n i t  H y d r o g r a p h
                      VALLEY S-Curve
------------------------------------------------------------------------
               Unit Hydrograph Data
------------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                          Graph %           (CFS)
------------------------------------------------------------------------
    1   0.083         30.766          3.001             3.596
    2   0.167         61.533         11.132            13.339
    3   0.250         92.299         19.319            23.150
    4   0.333        123.066         20.285            24.307
    5   0.417        153.832         12.391            14.848
    6   0.500        184.598          7.082             8.486
    7   0.583        215.365          4.681             5.609
    8   0.667        246.131          3.655             4.379
    9   0.750        276.898          2.965             3.553
   10   0.833        307.664          2.423             2.904
   11   0.917        338.430          1.950             2.337
   12   1.000        369.197          1.750             2.097
   13   1.083        399.963          1.389             1.664
   14   1.167        430.730          1.170             1.401
   15   1.250        461.496          0.980             1.175
   16   1.333        492.263          0.935             1.120
   17   1.417        523.029          0.854             1.023
   18   1.500        553.795          0.684             0.819
   19   1.583        584.562          0.601             0.720
   20   1.667        615.328          0.539             0.645
   21   1.750        646.095          0.446             0.535
   22   1.833        676.861          0.384             0.460
   23   1.917        707.627          0.309             0.370
   24   2.000        738.394          0.308             0.369
   25   2.083        769.160          0.308             0.369
   26   2.167        799.927          0.308             0.369
   27   2.250        830.693          0.155             0.185
                                Sum = 100.000   Sum=     119.829
------------------------------------------------------------------------


 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

  Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)      Effective
       (Hr.)  Percent   (In/Hr)         Max    |   Low         (In/Hr)
    1   0.08     0.50      0.179          0.062    (  0.077)        0.116
    2   0.17     0.60      0.214          0.062    (  0.092)        0.152
    3   0.25     0.60      0.214          0.062    (  0.092)        0.152
    4   0.33     0.60      0.214          0.062    (  0.092)        0.152
    5   0.42     0.60      0.214          0.062    (  0.092)        0.152
    6   0.50     0.70      0.250          0.062    (  0.108)        0.188
    7   0.58     0.70      0.250          0.062    (  0.108)        0.188
    8   0.67     0.70      0.250          0.062    (  0.108)        0.188
    9   0.75     0.70      0.250          0.062    (  0.108)        0.188
   10   0.83     0.70      0.250          0.062    (  0.108)        0.188
```

11	0.92	0.70	0.250	0.062	(0.108)	0.188
12	1.00	0.80	0.286	0.062	(0.123)	0.223
13	1.08	0.80	0.286	0.062	(0.123)	0.223
14	1.17	0.80	0.286	0.062	(0.123)	0.223
15	1.25	0.80	0.286	0.062	(0.123)	0.223
16	1.33	0.80	0.286	0.062	(0.123)	0.223
17	1.42	0.80	0.286	0.062	(0.123)	0.223
18	1.50	0.80	0.286	0.062	(0.123)	0.223
19	1.58	0.80	0.286	0.062	(0.123)	0.223
20	1.67	0.80	0.286	0.062	(0.123)	0.223
21	1.75	0.80	0.286	0.062	(0.123)	0.223
22	1.83	0.80	0.286	0.062	(0.123)	0.223
23	1.92	0.80	0.286	0.062	(0.123)	0.223
24	2.00	0.90	0.322	0.062	(0.138)	0.259
25	2.08	0.80	0.286	0.062	(0.123)	0.223
26	2.17	0.90	0.322	0.062	(0.138)	0.259
27	2.25	0.90	0.322	0.062	(0.138)	0.259
28	2.33	0.90	0.322	0.062	(0.138)	0.259
29	2.42	0.90	0.322	0.062	(0.138)	0.259
30	2.50	0.90	0.322	0.062	(0.138)	0.259
31	2.58	0.90	0.322	0.062	(0.138)	0.259
32	2.67	0.90	0.322	0.062	(0.138)	0.259
33	2.75	1.00	0.357	0.062	(0.154)	0.295
34	2.83	1.00	0.357	0.062	(0.154)	0.295
35	2.92	1.00	0.357	0.062	(0.154)	0.295
36	3.00	1.00	0.357	0.062	(0.154)	0.295
37	3.08	1.00	0.357	0.062	(0.154)	0.295
38	3.17	1.10	0.393	0.062	(0.169)	0.331
39	3.25	1.10	0.393	0.062	(0.169)	0.331
40	3.33	1.10	0.393	0.062	(0.169)	0.331
41	3.42	1.20	0.429	0.062	(0.184)	0.366
42	3.50	1.30	0.465	0.062	(0.200)	0.402
43	3.58	1.40	0.500	0.062	(0.215)	0.438
44	3.67	1.40	0.500	0.062	(0.215)	0.438
45	3.75	1.50	0.536	0.062	(0.231)	0.474
46	3.83	1.50	0.536	0.062	(0.231)	0.474
47	3.92	1.60	0.572	0.062	(0.246)	0.509
48	4.00	1.60	0.572	0.062	(0.246)	0.509
49	4.08	1.70	0.608	0.062	(0.261)	0.545
50	4.17	1.80	0.643	0.062	(0.277)	0.581
51	4.25	1.90	0.679	0.062	(0.292)	0.617
52	4.33	2.00	0.715	0.062	(0.307)	0.652
53	4.42	2.10	0.751	0.062	(0.323)	0.688
54	4.50	2.10	0.751	0.062	(0.323)	0.688
55	4.58	2.20	0.786	0.062	(0.338)	0.724
56	4.67	2.30	0.822	0.062	(0.354)	0.760
57	4.75	2.40	0.858	0.062	(0.369)	0.795
58	4.83	2.40	0.858	0.062	(0.369)	0.795
59	4.92	2.50	0.894	0.062	(0.384)	0.831
60	5.00	2.60	0.929	0.062	(0.400)	0.867
61	5.08	3.10	1.108	0.062	(0.476)	1.046
62	5.17	3.60	1.287	0.062	(0.553)	1.224
63	5.25	3.90	1.394	0.062	(0.599)	1.332
64	5.33	4.20	1.501	0.062	(0.646)	1.439
65	5.42	4.70	1.680	0.062	(0.722)	1.618
66	5.50	5.60	2.002	0.062	(0.861)	1.939
67	5.58	1.90	0.679	0.062	(0.292)	0.617
68	5.67	0.90	0.322	0.062	(0.138)	0.259
69	5.75	0.60	0.214	0.062	(0.092)	0.152
70	5.83	0.50	0.179	0.062	(0.077)	0.116
71	5.92	0.30	0.107	(0.062)	0.046	0.061
72	6.00	0.20	0.071	(0.062)	0.031	0.041

(Loss Rate Not Used)

Sum = 100.0 Sum = 31.3

Flood volume = Effective rainfall 2.61(In)
times area 118.9(Ac.)/[(In)/(Ft.)] = 25.8(Ac.Ft)
Total soil loss = 0.37(In)
Total soil loss = 3.675(Ac.Ft)
Total rainfall = 2.98(In)
Flood volume = 1125581.6 Cubic Feet

```
 Total soil loss =      160081.6 Cubic Feet
 ------------------------------------------------------------------------
  Peak flow rate of this hydrograph =    155.864(CFS)
 ------------------------------------------------------------------------
 ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                     6 - H O U R    S T O R M
                  R u n o f f     H y d r o g r a p h
 ------------------------------------------------------------------------
              Hydrograph in   5   Minute intervals ((CFS))

 ------------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0       50.0     100.0     150.0     200.0
-------------------------------------------------------------------------
  0+ 5       0.0029      0.42  Q         |         |         |         |
  0+10       0.0173      2.10  Q         |         |         |         |
  0+15       0.0536      5.27  VQ        |         |         |         |
  0+20       0.1151      8.92  VQ        |         |         |         |
  0+25       0.1944     11.52  V Q       |         |         |         |
  0+30       0.2851     13.17  V Q       |         |         |         |
  0+35       0.3856     14.60  V Q       |         |         |         |
  0+40       0.4967     16.14  V  Q      |         |         |         |
  0+45       0.6178     17.58  V  Q      |         |         |         |
  0+50       0.7457     18.57  |V Q      |         |         |         |
  0+55       0.8782     19.25  |V Q      |         |         |         |
  1+ 0       1.0153     19.91  |V Q      |         |         |         |
  1+ 5       1.1587     20.81  |V  Q     |         |         |         |
  1+10       1.3101     21.99  | V Q     |         |         |         |
  1+15       1.4695     23.15  | V Q     |         |         |         |
  1+20       1.6343     23.93  | V Q     |         |         |         |
  1+25       1.8028     24.47  | V Q     |         |         |         |
  1+30       1.9741     24.86  |  VQ     |         |         |         |
  1+35       2.1475     25.18  |  V Q    |         |         |         |
  1+40       2.3228     25.45  |  V Q    |         |         |         |
  1+45       2.4997     25.68  |  V Q    |         |         |         |
  1+50       2.6779     25.87  |   VQ    |         |         |         |
  1+55       2.8572     26.04  |   VQ    |         |         |         |
  2+ 0       3.0384     26.31  |   VQ    |         |         |         |
  2+ 5       3.2229     26.79  |   VQ    |         |         |         |
  2+10       3.4114     27.38  |    Q    |         |         |         |
  2+15       3.6042     27.99  |    Q    |         |         |         |
  2+20       3.8008     28.54  |    Q    |         |         |         |
  2+25       4.0020     29.22  |    QV   |         |         |         |
  2+30       4.2065     29.69  |    QV   |         |         |         |
  2+35       4.4130     29.99  |    QV   |         |         |         |
  2+40       4.6209     30.18  |     QV  |         |         |         |
  2+45       4.8307     30.46  |     QV  |         |         |         |
  2+50       5.0446     31.06  |     QV  |         |         |         |
  2+55       5.2649     31.99  |     Q V |         |         |         |
  3+ 0       5.4918     32.94  |     Q V |         |         |         |
  3+ 5       5.7229     33.55  |     Q V |         |         |         |
  3+10       5.9574     34.04  |     Q  V|         |         |         |
  3+15       6.1968     34.77  |     Q  V|         |         |         |
  3+20       6.4433     35.79  |      Q V|         |         |         |
  3+25       6.6978     36.95  |      Q  V         |         |         |
  3+30       6.9611     38.22  |      Q  V         |         |         |
  3+35       7.2371     40.07  |       Q |V        |         |         |
  3+40       7.5301     42.54  |       Q |V        |         |         |
  3+45       7.8409     45.14  |        Q| V       |         |         |
  3+50       8.1681     47.51  |        Q| V       |         |         |
  3+55       8.5102     49.67  |         Q|  V     |         |         |
  4+ 0       8.8670     51.81  |          Q  V     |         |         |
  4+ 5       9.2383     53.91  |          Q   V    |         |         |
  4+10       9.6251     56.17  |          |Q  V    |         |         |
  4+15      10.0296     58.73  |          |Q   V   |         |         |
  4+20      10.4554     61.83  |          | Q   V  |         |         |
  4+25      10.9048     65.27  |          |  Q  V  |         |         |
  4+30      11.3785     68.77  |          |  Q   V |         |         |
  4+35      11.8746     72.04  |          |   Q   V|         |         |
  4+40      12.3915     75.05  |          |    Q   V|        |         |
  4+45      12.9294     78.11  |          |    Q    V        |         |
```

```
    4+50      13.4903     81.43  |          |     Q   V          |          |
    4+55      14.0735     84.68  |          |     Q   |V         |          |
    5+ 0      14.6776     87.72  |          |      Q  | V        |          |
    5+ 5      15.3064     91.31  |          |       Q |  V       |          |
    5+10      15.9759     97.21  |          |        Q|   V      |          |
    5+15      16.7089    106.44  |          |         |Q   V     |          |
    5+20      17.5239    118.33  |          |         |  Q   V   |          |
    5+25      18.4262    131.02  |          |         |     Q V  |          |
    5+30      19.4230    144.73  |          |         |       Q V          |
    5+35      20.4964    155.86  |          |         |          |Q         |
    5+40      21.5545    153.63  |          |         |          Q  V       |
    5+45      22.4619    131.76  |          |         |     Q    |   V     |
    5+50      23.1418     98.71  |          |        Q|          |    V    |
    5+55      23.6452     73.10  |          |   Q     |          |     V   |
    6+ 0      24.0358     56.71  |          |Q        |          |      V  |
    6+ 5      24.3501     45.64  |         Q|         |          |      V  |
    6+10      24.6046     36.95  |       Q  |         |          |       V |
    6+15      24.8108     29.94  |    Q     |         |          |       V |
    6+20      24.9791     24.44  |   Q      |         |          |       V |
    6+25      25.1199     20.45  |   Q      |         |          |       V |
    6+30      25.2382     17.17  |  Q       |         |          |        V|
    6+35      25.3388     14.61  | Q        |         |          |        V|
    6+40      25.4251     12.53  | Q        |         |          |        V|
    6+45      25.5000     10.87  | Q        |         |          |        V|
    6+50      25.5642      9.33  |Q         |         |          |        V|
    6+55      25.6184      7.87  |Q         |         |          |        V|
    7+ 0      25.6643      6.67  |Q         |         |          |        V|
    7+ 5      25.7033      5.66  |Q         |         |          |        V|
    7+10      25.7360      4.75  Q          |         |          |        V|
    7+15      25.7633      3.97  Q          |         |          |        V|
    7+20      25.7857      3.26  Q          |         |          |        V|
    7+25      25.8041      2.67  Q          |         |          |        V|
    7+30      25.8186      2.10  Q          |         |          |        V|
    7+35      25.8290      1.51  Q          |         |          |        V|
    7+40      25.8347      0.83  Q          |         |          |        V|
    7+45      25.8371      0.35  Q          |         |          |        V|
    7+50      25.8384      0.18  Q          |         |          |        V|
    7+55      25.8392      0.11  Q          |         |          |        V|
    8+ 0      25.8396      0.06  Q          |         |          |        V|
    8+ 5      25.8397      0.03  Q          |         |          |        V|
    8+10      25.8398      0.01  Q          |         |          |         V
-------------------------------------------------------------------------
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```
       U n i t   H y d r o g r a p h   A n a l y s i s

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              Study date  04/24/19 File: lgexaread24100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Legado
Drainage Area D = 118.9 Ac
100-year 24-hour storm

------------------------------------------------------------------------
Drainage Area =     118.90(Ac.)  =      0.186 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     118.90(Ac.)  =      0.186 Sq. Mi.
Length along longest watercourse =    6860.00(Ft.)
Length along longest watercourse measured to centroid =    4170.00(Ft.)
Length along longest watercourse =      1.299 Mi.
Length along longest watercourse measured to centroid =      0.790 Mi.
Difference in elevation =      58.00(Ft.)
Slope along watercourse =     44.6414 Ft./Mi.
Average Manning's 'N' = 0.023
Lag time =    0.271 Hr.
Lag time =    16.25 Min.
25% of lag time =     4.06 Min.
40% of lag time =     6.50 Min.
Unit time =     5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      118.90           2.03                241.37

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      118.90           5.33                633.74

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    2.030(In)
Area Averaged 100-Year Rainfall =    5.330(In)

Point rain (area averaged) =    5.330(In)
Areal adjustment factor =   99.98 %
Adjusted average point rain =    5.329(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
    37.000           79.60         0.000
```

```
    23.000           73.90         0.750
    58.900           74.00         0.900
 Total Area Entered =    118.90(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
79.6  90.8      0.120     0.000        0.120       0.311      0.037
73.9  87.3      0.160     0.750        0.052       0.193      0.010
74.0  87.4      0.160     0.900        0.030       0.495      0.015
                                                 Sum (F) =   0.062
Area averaged mean soil loss (F) (In/Hr) =  0.062
Minimum soil loss rate ((In/Hr)) =  0.031
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.410
------------------------------------------------------------------------

               U n i t  H y d r o g r a p h
                      VALLEY S-Curve
------------------------------------------------------------------------
               Unit Hydrograph Data
------------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                          Graph %           (CFS)
------------------------------------------------------------------------
    1   0.083         30.766          3.001             3.596
    2   0.167         61.533         11.132            13.339
    3   0.250         92.299         19.319            23.150
    4   0.333        123.066         20.285            24.307
    5   0.417        153.832         12.391            14.848
    6   0.500        184.598          7.082             8.486
    7   0.583        215.365          4.681             5.609
    8   0.667        246.131          3.655             4.379
    9   0.750        276.898          2.965             3.553
   10   0.833        307.664          2.423             2.904
   11   0.917        338.430          1.950             2.337
   12   1.000        369.197          1.750             2.097
   13   1.083        399.963          1.389             1.664
   14   1.167        430.730          1.170             1.401
   15   1.250        461.496          0.980             1.175
   16   1.333        492.263          0.935             1.120
   17   1.417        523.029          0.854             1.023
   18   1.500        553.795          0.684             0.819
   19   1.583        584.562          0.601             0.720
   20   1.667        615.328          0.539             0.645
   21   1.750        646.095          0.446             0.535
   22   1.833        676.861          0.384             0.460
   23   1.917        707.627          0.309             0.370
   24   2.000        738.394          0.308             0.369
   25   2.083        769.160          0.308             0.369
   26   2.167        799.927          0.308             0.369
   27   2.250        830.693          0.155             0.185
                                Sum = 100.000   Sum=     119.829
------------------------------------------------------------------------

 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

  Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
       (Hr.)  Percent   (In/Hr)         Max    |   Low        (In/Hr)
  1   0.08     0.07      0.043       (  0.111)       0.018        0.024
  2   0.17     0.07      0.043       (  0.110)       0.018        0.024
  3   0.25     0.07      0.043       (  0.110)       0.018        0.024
  4   0.33     0.10      0.064       (  0.109)       0.027        0.036
  5   0.42     0.10      0.064       (  0.109)       0.027        0.036
  6   0.50     0.10      0.064       (  0.109)       0.027        0.036
  7   0.58     0.10      0.064       (  0.108)       0.027        0.036
  8   0.67     0.10      0.064       (  0.108)       0.027        0.036
  9   0.75     0.10      0.064       (  0.107)       0.027        0.036
```

10	0.83	0.13	0.085	(0.107)	0.037	0.049
11	0.92	0.13	0.085	(0.107)	0.037	0.049
12	1.00	0.13	0.085	(0.106)	0.037	0.049
13	1.08	0.10	0.064	(0.106)	0.027	0.036
14	1.17	0.10	0.064	(0.105)	0.027	0.036
15	1.25	0.10	0.064	(0.105)	0.027	0.036
16	1.33	0.10	0.064	(0.104)	0.027	0.036
17	1.42	0.10	0.064	(0.104)	0.027	0.036
18	1.50	0.10	0.064	(0.104)	0.027	0.036
19	1.58	0.10	0.064	(0.103)	0.027	0.036
20	1.67	0.10	0.064	(0.103)	0.027	0.036
21	1.75	0.10	0.064	(0.102)	0.027	0.036
22	1.83	0.13	0.085	(0.102)	0.037	0.049
23	1.92	0.13	0.085	(0.102)	0.037	0.049
24	2.00	0.13	0.085	(0.101)	0.037	0.049
25	2.08	0.13	0.085	(0.101)	0.037	0.049
26	2.17	0.13	0.085	(0.100)	0.037	0.049
27	2.25	0.13	0.085	(0.100)	0.037	0.049
28	2.33	0.13	0.085	(0.099)	0.037	0.049
29	2.42	0.13	0.085	(0.099)	0.037	0.049
30	2.50	0.13	0.085	(0.099)	0.037	0.049
31	2.58	0.17	0.107	(0.098)	0.046	0.061
32	2.67	0.17	0.107	(0.098)	0.046	0.061
33	2.75	0.17	0.107	(0.097)	0.046	0.061
34	2.83	0.17	0.107	(0.097)	0.046	0.061
35	2.92	0.17	0.107	(0.097)	0.046	0.061
36	3.00	0.17	0.107	(0.096)	0.046	0.061
37	3.08	0.17	0.107	(0.096)	0.046	0.061
38	3.17	0.17	0.107	(0.095)	0.046	0.061
39	3.25	0.17	0.107	(0.095)	0.046	0.061
40	3.33	0.17	0.107	(0.095)	0.046	0.061
41	3.42	0.17	0.107	(0.094)	0.046	0.061
42	3.50	0.17	0.107	(0.094)	0.046	0.061
43	3.58	0.17	0.107	(0.094)	0.046	0.061
44	3.67	0.17	0.107	(0.093)	0.046	0.061
45	3.75	0.17	0.107	(0.093)	0.046	0.061
46	3.83	0.20	0.128	(0.092)	0.055	0.073
47	3.92	0.20	0.128	(0.092)	0.055	0.073
48	4.00	0.20	0.128	(0.092)	0.055	0.073
49	4.08	0.20	0.128	(0.091)	0.055	0.073
50	4.17	0.20	0.128	(0.091)	0.055	0.073
51	4.25	0.20	0.128	(0.090)	0.055	0.073
52	4.33	0.23	0.149	(0.090)	0.064	0.085
53	4.42	0.23	0.149	(0.090)	0.064	0.085
54	4.50	0.23	0.149	(0.089)	0.064	0.085
55	4.58	0.23	0.149	(0.089)	0.064	0.085
56	4.67	0.23	0.149	(0.088)	0.064	0.085
57	4.75	0.23	0.149	(0.088)	0.064	0.085
58	4.83	0.27	0.171	(0.088)	0.073	0.097
59	4.92	0.27	0.171	(0.087)	0.073	0.097
60	5.00	0.27	0.171	(0.087)	0.073	0.097
61	5.08	0.20	0.128	(0.087)	0.055	0.073
62	5.17	0.20	0.128	(0.086)	0.055	0.073
63	5.25	0.20	0.128	(0.086)	0.055	0.073
64	5.33	0.23	0.149	(0.085)	0.064	0.085
65	5.42	0.23	0.149	(0.085)	0.064	0.085
66	5.50	0.23	0.149	(0.085)	0.064	0.085
67	5.58	0.27	0.171	(0.084)	0.073	0.097
68	5.67	0.27	0.171	(0.084)	0.073	0.097
69	5.75	0.27	0.171	(0.084)	0.073	0.097
70	5.83	0.27	0.171	(0.083)	0.073	0.097
71	5.92	0.27	0.171	(0.083)	0.073	0.097
72	6.00	0.27	0.171	(0.082)	0.073	0.097
73	6.08	0.30	0.192	0.082	(0.082)	0.110
74	6.17	0.30	0.192	0.082	(0.082)	0.110
75	6.25	0.30	0.192	0.081	(0.082)	0.110
76	6.33	0.30	0.192	0.081	(0.082)	0.111
77	6.42	0.30	0.192	0.081	(0.082)	0.111
78	6.50	0.30	0.192	0.080	(0.082)	0.112
79	6.58	0.33	0.213	0.080	(0.092)	0.133

80	6.67	0.33	0.213	0.080	(0.092)	0.134
81	6.75	0.33	0.213	0.079	(0.092)	0.134
82	6.83	0.33	0.213	0.079	(0.092)	0.134
83	6.92	0.33	0.213	0.079	(0.092)	0.135
84	7.00	0.33	0.213	0.078	(0.092)	0.135
85	7.08	0.33	0.213	0.078	(0.092)	0.135
86	7.17	0.33	0.213	0.077	(0.092)	0.136
87	7.25	0.33	0.213	0.077	(0.092)	0.136
88	7.33	0.37	0.234	0.077	(0.101)	0.158
89	7.42	0.37	0.234	0.076	(0.101)	0.158
90	7.50	0.37	0.234	0.076	(0.101)	0.158
91	7.58	0.40	0.256	0.076	(0.110)	0.180
92	7.67	0.40	0.256	0.075	(0.110)	0.180
93	7.75	0.40	0.256	0.075	(0.110)	0.181
94	7.83	0.43	0.277	0.075	(0.119)	0.202
95	7.92	0.43	0.277	0.074	(0.119)	0.203
96	8.00	0.43	0.277	0.074	(0.119)	0.203
97	8.08	0.50	0.320	0.074	(0.137)	0.246
98	8.17	0.50	0.320	0.073	(0.137)	0.246
99	8.25	0.50	0.320	0.073	(0.137)	0.247
100	8.33	0.50	0.320	0.073	(0.137)	0.247
101	8.42	0.50	0.320	0.072	(0.137)	0.247
102	8.50	0.50	0.320	0.072	(0.137)	0.248
103	8.58	0.53	0.341	0.072	(0.147)	0.269
104	8.67	0.53	0.341	0.071	(0.147)	0.270
105	8.75	0.53	0.341	0.071	(0.147)	0.270
106	8.83	0.57	0.362	0.071	(0.156)	0.292
107	8.92	0.57	0.362	0.070	(0.156)	0.292
108	9.00	0.57	0.362	0.070	(0.156)	0.292
109	9.08	0.63	0.405	0.070	(0.174)	0.335
110	9.17	0.63	0.405	0.069	(0.174)	0.336
111	9.25	0.63	0.405	0.069	(0.174)	0.336
112	9.33	0.67	0.426	0.069	(0.183)	0.358
113	9.42	0.67	0.426	0.068	(0.183)	0.358
114	9.50	0.67	0.426	0.068	(0.183)	0.358
115	9.58	0.70	0.448	0.068	(0.192)	0.380
116	9.67	0.70	0.448	0.067	(0.192)	0.380
117	9.75	0.70	0.448	0.067	(0.192)	0.381
118	9.83	0.73	0.469	0.067	(0.202)	0.402
119	9.92	0.73	0.469	0.066	(0.202)	0.403
120	10.00	0.73	0.469	0.066	(0.202)	0.403
121	10.08	0.50	0.320	0.066	(0.137)	0.254
122	10.17	0.50	0.320	0.065	(0.137)	0.254
123	10.25	0.50	0.320	0.065	(0.137)	0.255
124	10.33	0.50	0.320	0.065	(0.137)	0.255
125	10.42	0.50	0.320	0.064	(0.137)	0.255
126	10.50	0.50	0.320	0.064	(0.137)	0.256
127	10.58	0.67	0.426	0.064	(0.183)	0.363
128	10.67	0.67	0.426	0.063	(0.183)	0.363
129	10.75	0.67	0.426	0.063	(0.183)	0.363
130	10.83	0.67	0.426	0.063	(0.183)	0.363
131	10.92	0.67	0.426	0.063	(0.183)	0.364
132	11.00	0.67	0.426	0.062	(0.183)	0.364
133	11.08	0.63	0.405	0.062	(0.174)	0.343
134	11.17	0.63	0.405	0.062	(0.174)	0.343
135	11.25	0.63	0.405	0.061	(0.174)	0.344
136	11.33	0.63	0.405	0.061	(0.174)	0.344
137	11.42	0.63	0.405	0.061	(0.174)	0.344
138	11.50	0.63	0.405	0.060	(0.174)	0.345
139	11.58	0.57	0.362	0.060	(0.156)	0.302
140	11.67	0.57	0.362	0.060	(0.156)	0.303
141	11.75	0.57	0.362	0.060	(0.156)	0.303
142	11.83	0.60	0.384	0.059	(0.165)	0.324
143	11.92	0.60	0.384	0.059	(0.165)	0.325
144	12.00	0.60	0.384	0.059	(0.165)	0.325
145	12.08	0.83	0.533	0.058	(0.229)	0.475
146	12.17	0.83	0.533	0.058	(0.229)	0.475
147	12.25	0.83	0.533	0.058	(0.229)	0.475
148	12.33	0.87	0.554	0.057	(0.238)	0.497
149	12.42	0.87	0.554	0.057	(0.238)	0.497

150	12.50	0.87	0.554	0.057	(0.238)	0.497
151	12.58	0.93	0.597	0.057	(0.257)	0.540
152	12.67	0.93	0.597	0.056	(0.257)	0.541
153	12.75	0.93	0.597	0.056	(0.257)	0.541
154	12.83	0.97	0.618	0.056	(0.266)	0.562
155	12.92	0.97	0.618	0.055	(0.266)	0.563
156	13.00	0.97	0.618	0.055	(0.266)	0.563
157	13.08	1.13	0.725	0.055	(0.312)	0.670
158	13.17	1.13	0.725	0.055	(0.312)	0.670
159	13.25	1.13	0.725	0.054	(0.312)	0.670
160	13.33	1.13	0.725	0.054	(0.312)	0.671
161	13.42	1.13	0.725	0.054	(0.312)	0.671
162	13.50	1.13	0.725	0.054	(0.312)	0.671
163	13.58	0.77	0.490	0.053	(0.211)	0.437
164	13.67	0.77	0.490	0.053	(0.211)	0.437
165	13.75	0.77	0.490	0.053	(0.211)	0.438
166	13.83	0.77	0.490	0.052	(0.211)	0.438
167	13.92	0.77	0.490	0.052	(0.211)	0.438
168	14.00	0.77	0.490	0.052	(0.211)	0.438
169	14.08	0.90	0.576	0.052	(0.247)	0.524
170	14.17	0.90	0.576	0.051	(0.247)	0.524
171	14.25	0.90	0.576	0.051	(0.247)	0.524
172	14.33	0.87	0.554	0.051	(0.238)	0.503
173	14.42	0.87	0.554	0.051	(0.238)	0.504
174	14.50	0.87	0.554	0.050	(0.238)	0.504
175	14.58	0.87	0.554	0.050	(0.238)	0.504
176	14.67	0.87	0.554	0.050	(0.238)	0.504
177	14.75	0.87	0.554	0.050	(0.238)	0.505
178	14.83	0.83	0.533	0.049	(0.229)	0.484
179	14.92	0.83	0.533	0.049	(0.229)	0.484
180	15.00	0.83	0.533	0.049	(0.229)	0.484
181	15.08	0.80	0.512	0.049	(0.220)	0.463
182	15.17	0.80	0.512	0.048	(0.220)	0.463
183	15.25	0.80	0.512	0.048	(0.220)	0.464
184	15.33	0.77	0.490	0.048	(0.211)	0.442
185	15.42	0.77	0.490	0.048	(0.211)	0.443
186	15.50	0.77	0.490	0.047	(0.211)	0.443
187	15.58	0.63	0.405	0.047	(0.174)	0.358
188	15.67	0.63	0.405	0.047	(0.174)	0.358
189	15.75	0.63	0.405	0.047	(0.174)	0.358
190	15.83	0.63	0.405	0.046	(0.174)	0.359
191	15.92	0.63	0.405	0.046	(0.174)	0.359
192	16.00	0.63	0.405	0.046	(0.174)	0.359
193	16.08	0.13	0.085	(0.046)	0.037	0.049
194	16.17	0.13	0.085	(0.045)	0.037	0.049
195	16.25	0.13	0.085	(0.045)	0.037	0.049
196	16.33	0.13	0.085	(0.045)	0.037	0.049
197	16.42	0.13	0.085	(0.045)	0.037	0.049
198	16.50	0.13	0.085	(0.044)	0.037	0.049
199	16.58	0.10	0.064	(0.044)	0.027	0.036
200	16.67	0.10	0.064	(0.044)	0.027	0.036
201	16.75	0.10	0.064	(0.044)	0.027	0.036
202	16.83	0.10	0.064	(0.044)	0.027	0.036
203	16.92	0.10	0.064	(0.043)	0.027	0.036
204	17.00	0.10	0.064	(0.043)	0.027	0.036
205	17.08	0.17	0.107	0.043	(0.046)	0.064
206	17.17	0.17	0.107	0.043	(0.046)	0.064
207	17.25	0.17	0.107	0.043	(0.046)	0.064
208	17.33	0.17	0.107	0.042	(0.046)	0.064
209	17.42	0.17	0.107	0.042	(0.046)	0.064
210	17.50	0.17	0.107	0.042	(0.046)	0.065
211	17.58	0.17	0.107	0.042	(0.046)	0.065
212	17.67	0.17	0.107	0.041	(0.046)	0.065
213	17.75	0.17	0.107	0.041	(0.046)	0.065
214	17.83	0.13	0.085	(0.041)	0.037	0.049
215	17.92	0.13	0.085	(0.041)	0.037	0.049
216	18.00	0.13	0.085	(0.041)	0.037	0.049
217	18.08	0.13	0.085	(0.040)	0.037	0.049
218	18.17	0.13	0.085	(0.040)	0.037	0.049
219	18.25	0.13	0.085	(0.040)	0.037	0.049

220	18.33	0.13	0.085	(0.040)	0.037	0.049
221	18.42	0.13	0.085	(0.040)	0.037	0.049
222	18.50	0.13	0.085	(0.039)	0.037	0.049
223	18.58	0.10	0.064	(0.039)	0.027	0.036
224	18.67	0.10	0.064	(0.039)	0.027	0.036
225	18.75	0.10	0.064	(0.039)	0.027	0.036
226	18.83	0.07	0.043	(0.039)	0.018	0.024
227	18.92	0.07	0.043	(0.039)	0.018	0.024
228	19.00	0.07	0.043	(0.038)	0.018	0.024
229	19.08	0.10	0.064	(0.038)	0.027	0.036
230	19.17	0.10	0.064	(0.038)	0.027	0.036
231	19.25	0.10	0.064	(0.038)	0.027	0.036
232	19.33	0.13	0.085	(0.038)	0.037	0.049
233	19.42	0.13	0.085	(0.037)	0.037	0.049
234	19.50	0.13	0.085	(0.037)	0.037	0.049
235	19.58	0.10	0.064	(0.037)	0.027	0.036
236	19.67	0.10	0.064	(0.037)	0.027	0.036
237	19.75	0.10	0.064	(0.037)	0.027	0.036
238	19.83	0.07	0.043	(0.037)	0.018	0.024
239	19.92	0.07	0.043	(0.036)	0.018	0.024
240	20.00	0.07	0.043	(0.036)	0.018	0.024
241	20.08	0.10	0.064	(0.036)	0.027	0.036
242	20.17	0.10	0.064	(0.036)	0.027	0.036
243	20.25	0.10	0.064	(0.036)	0.027	0.036
244	20.33	0.10	0.064	(0.036)	0.027	0.036
245	20.42	0.10	0.064	(0.036)	0.027	0.036
246	20.50	0.10	0.064	(0.035)	0.027	0.036
247	20.58	0.10	0.064	(0.035)	0.027	0.036
248	20.67	0.10	0.064	(0.035)	0.027	0.036
249	20.75	0.10	0.064	(0.035)	0.027	0.036
250	20.83	0.07	0.043	(0.035)	0.018	0.024
251	20.92	0.07	0.043	(0.035)	0.018	0.024
252	21.00	0.07	0.043	(0.034)	0.018	0.024
253	21.08	0.10	0.064	(0.034)	0.027	0.036
254	21.17	0.10	0.064	(0.034)	0.027	0.036
255	21.25	0.10	0.064	(0.034)	0.027	0.036
256	21.33	0.07	0.043	(0.034)	0.018	0.024
257	21.42	0.07	0.043	(0.034)	0.018	0.024
258	21.50	0.07	0.043	(0.034)	0.018	0.024
259	21.58	0.10	0.064	(0.034)	0.027	0.036
260	21.67	0.10	0.064	(0.033)	0.027	0.036
261	21.75	0.10	0.064	(0.033)	0.027	0.036
262	21.83	0.07	0.043	(0.033)	0.018	0.024
263	21.92	0.07	0.043	(0.033)	0.018	0.024
264	22.00	0.07	0.043	(0.033)	0.018	0.024
265	22.08	0.10	0.064	(0.033)	0.027	0.036
266	22.17	0.10	0.064	(0.033)	0.027	0.036
267	22.25	0.10	0.064	(0.033)	0.027	0.036
268	22.33	0.07	0.043	(0.033)	0.018	0.024
269	22.42	0.07	0.043	(0.032)	0.018	0.024
270	22.50	0.07	0.043	(0.032)	0.018	0.024
271	22.58	0.07	0.043	(0.032)	0.018	0.024
272	22.67	0.07	0.043	(0.032)	0.018	0.024
273	22.75	0.07	0.043	(0.032)	0.018	0.024
274	22.83	0.07	0.043	(0.032)	0.018	0.024
275	22.92	0.07	0.043	(0.032)	0.018	0.024
276	23.00	0.07	0.043	(0.032)	0.018	0.024
277	23.08	0.07	0.043	(0.032)	0.018	0.024
278	23.17	0.07	0.043	(0.032)	0.018	0.024
279	23.25	0.07	0.043	(0.032)	0.018	0.024
280	23.33	0.07	0.043	(0.032)	0.018	0.024
281	23.42	0.07	0.043	(0.032)	0.018	0.024
282	23.50	0.07	0.043	(0.031)	0.018	0.024
283	23.58	0.07	0.043	(0.031)	0.018	0.024
284	23.67	0.07	0.043	(0.031)	0.018	0.024
285	23.75	0.07	0.043	(0.031)	0.018	0.024
286	23.83	0.07	0.043	(0.031)	0.018	0.024
287	23.92	0.07	0.043	(0.031)	0.018	0.024
288	24.00	0.07	0.043	(0.031)	0.018	0.024

(Loss Rate Not Used)

```
 Sum =     100.0                                    Sum =    50.5
    Flood volume = Effective rainfall      4.21(In)
     times area     118.9(Ac.)/[(In)/(Ft.)] =      41.7(Ac.Ft)
    Total soil loss =      1.12(In)
    Total soil loss =    11.114(Ac.Ft)
    Total rainfall =      5.33(In)
    Flood volume =     1815819.8 Cubic Feet
    Total soil loss =      484111.3 Cubic Feet
    ---------------------------------------------------------------------
     Peak flow rate of this hydrograph =     75.300(CFS)
    ---------------------------------------------------------------------
    +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        24 - H O U R    S T O R M
                   R u n o f f      H y d r o g r a p h
    ---------------------------------------------------------------------
                Hydrograph in   5   Minute intervals ((CFS))

    ---------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0       20.0      40.0      60.0      80.0
-------------------------------------------------------------------------
  0+ 5       0.0006      0.09  Q         |         |         |         |
  0+10       0.0034      0.41  Q         |         |         |         |
  0+15       0.0101      0.97  Q         |         |         |         |
  0+20       0.0212      1.61  Q         |         |         |         |
  0+25       0.0359      2.13  VQ        |         |         |         |
  0+30       0.0540      2.62  VQ        |         |         |         |
  0+35       0.0750      3.05  VQ        |         |         |         |
  0+40       0.0980      3.34  VQ        |         |         |         |
  0+45       0.1223      3.53  VQ        |         |         |         |
  0+50       0.1478      3.71  VQ        |         |         |         |
  0+55       0.1753      3.98  VQ        |         |         |         |
  1+ 0       0.2053      4.36  V Q       |         |         |         |
  1+ 5       0.2376      4.69  V Q       |         |         |         |
  1+10       0.2704      4.77  V Q       |         |         |         |
  1+15       0.3024      4.64  V Q       |         |         |         |
  1+20       0.3331      4.46  V Q       |         |         |         |
  1+25       0.3632      4.38  V Q       |         |         |         |
  1+30       0.3932      4.35  V Q       |         |         |         |
  1+35       0.4232      4.35  V Q       |         |         |         |
  1+40       0.4532      4.35  V Q       |         |         |         |
  1+45       0.4832      4.36  V Q       |         |         |         |
  1+50       0.5135      4.41  V Q       |         |         |         |
  1+55       0.5450      4.57  V Q       |         |         |         |
  2+ 0       0.5785      4.86  V Q       |         |         |         |
  2+ 5       0.6141      5.16  V Q       |         |         |         |
  2+10       0.6509      5.35  V Q       |         |         |         |
  2+15       0.6886      5.46  V Q       |         |         |         |
  2+20       0.7266      5.53  V Q       |         |         |         |
  2+25       0.7651      5.58  V Q       |         |         |         |
  2+30       0.8038      5.62  V Q       |         |         |         |
  2+35       0.8431      5.70  V Q       |         |         |         |
  2+40       0.8836      5.89  V Q       |         |         |         |
  2+45       0.9262      6.19  V  Q      |         |         |         |
  2+50       0.9711      6.51  V  Q      |         |         |         |
  2+55       1.0172      6.70  V  Q      |         |         |         |
  3+ 0       1.0642      6.82  |V Q      |         |         |         |
  3+ 5       1.1117      6.90  |V Q      |         |         |         |
  3+10       1.1596      6.96  |V Q      |         |         |         |
  3+15       1.2079      7.01  |V Q      |         |         |         |
  3+20       1.2564      7.05  |V Q      |         |         |         |
  3+25       1.3053      7.09  |V Q      |         |         |         |
  3+30       1.3543      7.12  |V Q      |         |         |         |
  3+35       1.4035      7.15  |V Q      |         |         |         |
  3+40       1.4529      7.17  |V Q      |         |         |         |
  3+45       1.5024      7.19  |V Q      |         |         |         |
  3+50       1.5523      7.25  |V Q      |         |         |         |
  3+55       1.6035      7.43  |V Q      |         |         |         |
  4+ 0       1.6567      7.72  |V Q      |         |         |         |
  4+ 5       1.7119      8.03  |V  Q     |         |         |         |
  4+10       1.7685      8.21  |V  Q     |         |         |         |
```

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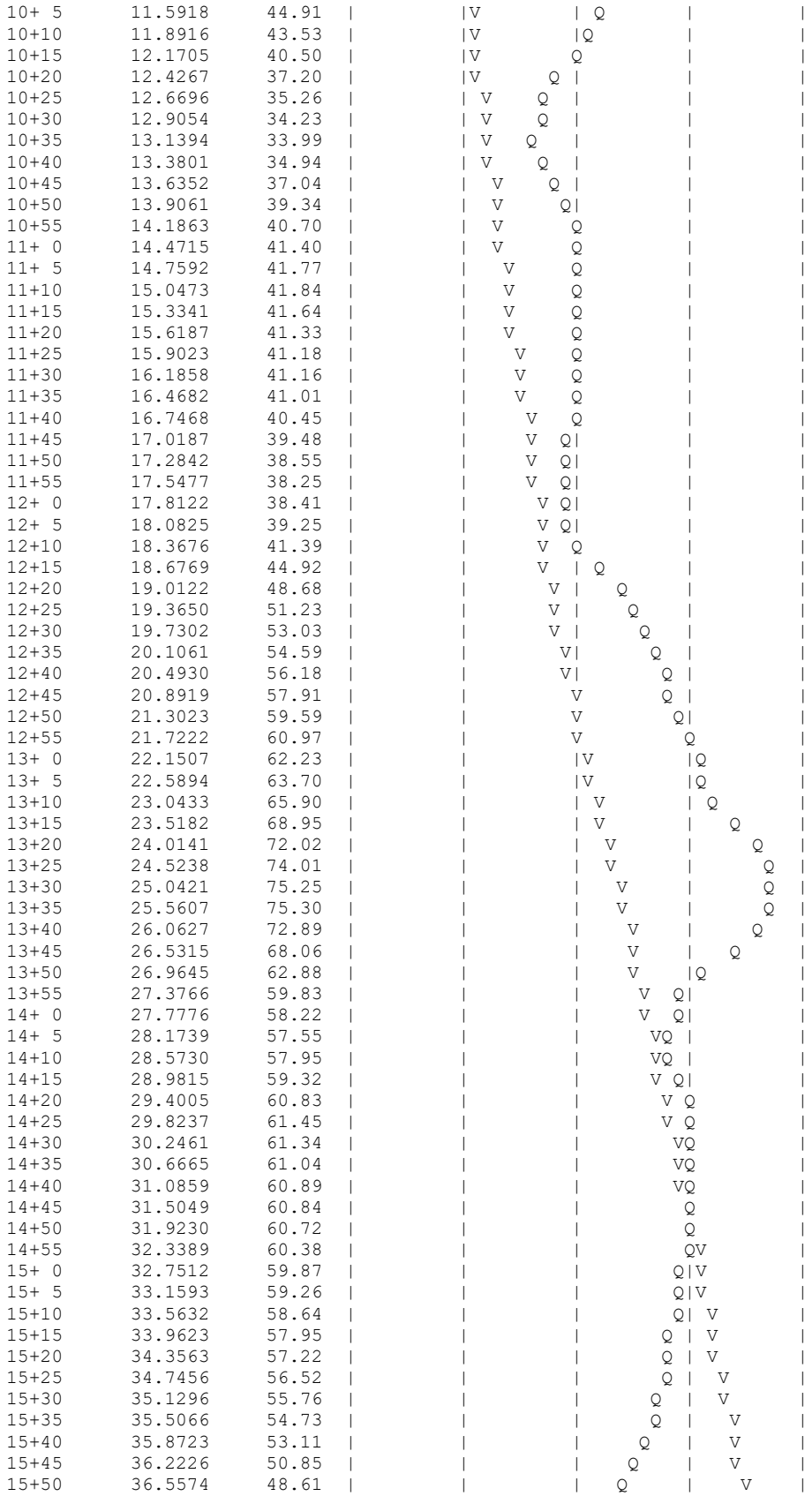
 4+15      1.8258      8.32  |V  Q     |         |         |         |
 4+20      1.8840      8.44  |V  Q     |         |         |         |
 4+25      1.9436      8.66  |V  Q     |         |         |         |
 4+30      2.0055      8.99  |V  Q     |         |         |         |
 4+35      2.0697      9.33  |V  Q     |         |         |         |
 4+40      2.1354      9.54  | V Q     |         |         |         |
 4+45      2.2020      9.67  | V Q     |         |         |         |
 4+50      2.2695      9.80  | V Q     |         |         |         |
 4+55      2.3386     10.03  | V  Q    |         |         |         |
 5+ 0      2.4101     10.37  | V  Q    |         |         |         |
 5+ 5      2.4833     10.63  | V  Q    |         |         |         |
 5+10      2.5558     10.53  | V  Q    |         |         |         |
 5+15      2.6254     10.10  | V  Q    |         |         |         |
 5+20      2.6919      9.65  | V Q     |         |         |         |
 5+25      2.7575      9.53  | V Q     |         |         |         |
 5+30      2.8241      9.67  | V Q     |         |         |         |
 5+35      2.8925      9.93  | V Q     |         |         |         |
 5+40      2.9628     10.21  | V  Q    |         |         |         |
 5+45      3.0355     10.55  | V  Q    |         |         |         |
 5+50      3.1103     10.87  | V  Q    |         |         |         |
 5+55      3.1867     11.08  |  V Q    |         |         |         |
 6+ 0      3.2638     11.20  |  V Q    |         |         |         |
 6+ 5      3.3418     11.33  |  V Q    |         |         |         |
 6+10      3.4214     11.56  |  V Q    |         |         |         |
 6+15      3.5034     11.91  |  V Q    |         |         |         |
 6+20      3.5880     12.27  |  V  Q   |         |         |         |
 6+25      3.6741     12.51  |  V  Q   |         |         |         |
 6+30      3.7614     12.68  |  V  Q   |         |         |         |
 6+35      3.8501     12.88  |  V  Q   |         |         |         |
 6+40      3.9415     13.27  |  V  Q   |         |         |         |
 6+45      4.0370     13.86  |  V  Q   |         |         |         |
 6+50      4.1366     14.47  |  V   Q  |         |         |         |
 6+55      4.2390     14.87  |   V  Q  |         |         |         |
 7+ 0      4.3431     15.12  |   V  Q  |         |         |         |
 7+ 5      4.4485     15.31  |   V  Q  |         |         |         |
 7+10      4.5550     15.46  |   V  Q  |         |         |         |
 7+15      4.6624     15.60  |   V  Q  |         |         |         |
 7+20      4.7712     15.80  |   V  Q  |         |         |         |
 7+25      4.8828     16.20  |   V   Q |         |         |         |
 7+30      4.9984     16.79  |   V   Q |         |         |         |
 7+35      5.1188     17.48  |   V   Q |         |         |         |
 7+40      5.2439     18.16  |    V   Q|         |         |         |
 7+45      5.3741     18.91  |    V   Q|         |         |         |
 7+50      5.5098     19.70  |    V   Q|         |         |         |
 7+55      5.6507     20.46  |    V    Q         |         |         |
 8+ 0      5.7972     21.27  |    V    Q         |         |         |
 8+ 5      5.9500     22.19  |    V    |Q        |         |         |
 8+10      6.1103     23.28  |    V    |Q        |         |         |
 8+15      6.2798     24.62  |     V   | Q       |         |         |
 8+20      6.4584     25.93  |     V   | Q       |         |         |
 8+25      6.6428     26.78  |     V   |  Q      |         |         |
 8+30      6.8311     27.34  |     V   |  Q      |         |         |
 8+35      7.0227     27.82  |     V   |  Q      |         |         |
 8+40      7.2186     28.45  |     V   |   Q     |         |         |
 8+45      7.4199     29.22  |      V  |   Q     |         |         |
 8+50      7.6269     30.06  |      V  |    Q    |         |         |
 8+55      7.8395     30.86  |      V  |    Q    |         |         |
 9+ 0      8.0579     31.72  |      V  |    Q    |         |         |
 9+ 5      8.2830     32.67  |      V  |     Q   |         |         |
 9+10      8.5157     33.80  |       V |     Q   |         |         |
 9+15      8.7579     35.17  |       V |      Q  |         |         |
 9+20      9.0099     36.58  |       V |       Q |         |         |
 9+25      9.2699     37.76  |       V |       Q |         |         |
 9+30      9.5373     38.83  |        V|        Q|         |         |
 9+35      9.8118     39.85  |        V|        Q|         |         |
 9+40     10.0928     40.80  |        V|         Q         |         |
 9+45     10.3805     41.77  |        V|         Q         |         |
 9+50     10.6748     42.74  |         V         |Q        |         |
 9+55     10.9754     43.64  |         V         |Q        |         |
10+ 0     11.2824     44.59  |         V         | Q       |         |
```



10+ 5	11.5918	44.91	|V | Q | |
10+10	11.8916	43.53	|V |Q | |
10+15	12.1705	40.50	|V Q | |
10+20	12.4267	37.20	|V Q | |
10+25	12.6696	35.26	| V Q | |
10+30	12.9054	34.23	| V Q | |
10+35	13.1394	33.99	| V Q | |
10+40	13.3801	34.94	| V Q | |
10+45	13.6352	37.04	| V Q | |
10+50	13.9061	39.34	| V Q| |
10+55	14.1863	40.70	| V Q | |
11+ 0	14.4715	41.40	| V Q | |
11+ 5	14.7592	41.77	| V Q | |
11+10	15.0473	41.84	| V Q | |
11+15	15.3341	41.64	| V Q | |
11+20	15.6187	41.33	| V Q | |
11+25	15.9023	41.18	| V Q | |
11+30	16.1858	41.16	| V Q | |
11+35	16.4682	41.01	| V Q | |
11+40	16.7468	40.45	| V Q | |
11+45	17.0187	39.48	| V Q| | |
11+50	17.2842	38.55	| V Q| | |
11+55	17.5477	38.25	| V Q| | |
12+ 0	17.8122	38.41	| V Q| | |
12+ 5	18.0825	39.25	| V Q| | |
12+10	18.3676	41.39	| V Q | |
12+15	18.6769	44.92	| V | Q | |
12+20	19.0122	48.68	| V | Q | |
12+25	19.3650	51.23	| V | Q | |
12+30	19.7302	53.03	| V | Q | |
12+35	20.1061	54.59	| V| Q | |
12+40	20.4930	56.18	| V| Q | |
12+45	20.8919	57.91	| V Q | |
12+50	21.3023	59.59	| V Q| |
12+55	21.7222	60.97	| V Q |
13+ 0	22.1507	62.23	| |V |Q |
13+ 5	22.5894	63.70	| |V |Q |
13+10	23.0433	65.90	| | V | Q |
13+15	23.5182	68.95	| | V | Q |
13+20	24.0141	72.02	| | V | Q |
13+25	24.5238	74.01	| | V | Q |
13+30	25.0421	75.25	| | V | Q |
13+35	25.5607	75.30	| | V | Q |
13+40	26.0627	72.89	| | V | Q |
13+45	26.5315	68.06	| | V | Q |
13+50	26.9645	62.88	| | V |Q |
13+55	27.3766	59.83	| | V Q| |
14+ 0	27.7776	58.22	| | V Q| |
14+ 5	28.1739	57.55	| | VQ | |
14+10	28.5730	57.95	| | VQ | |
14+15	28.9815	59.32	| | V Q| |
14+20	29.4005	60.83	| | V Q |
14+25	29.8237	61.45	| | V Q |
14+30	30.2461	61.34	| | VQ |
14+35	30.6665	61.04	| | VQ |
14+40	31.0859	60.89	| | VQ |
14+45	31.5049	60.84	| | Q |
14+50	31.9230	60.72	| | Q |
14+55	32.3389	60.38	| | QV |
15+ 0	32.7512	59.87	| | Q|V |
15+ 5	33.1593	59.26	| | Q|V |
15+10	33.5632	58.64	| | Q| V |
15+15	33.9623	57.95	| | Q | V |
15+20	34.3563	57.22	| | Q | V |
15+25	34.7456	56.52	| | Q | V |
15+30	35.1296	55.76	| | Q | V |
15+35	35.5066	54.73	| | Q | V |
15+40	35.8723	53.11	| | Q | V |
15+45	36.2226	50.85	| | Q | V |
15+50	36.5574	48.61	| | Q | V |

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15+55      36.8826     47.22  |          |          |  Q       |    V    |
16+ 0      37.2021     46.40  |          |          |  Q       |    V    |
16+ 5      37.5102     44.73  |          |          | Q        |    V    |
16+10      37.7868     40.16  |          |          Q          |     V   |
16+15      38.0114     32.61  |          |     Q    |          |     V   |
16+20      38.1818     24.74  |          | Q        |          |     V   |
16+25      38.3186     19.86  |        Q |          |          |     V   |
16+30      38.4356     17.00  |       Q  |          |          |     V   |
16+35      38.5391     15.03  |      Q   |          |          |     V   |
16+40      38.6311     13.35  |     Q    |          |          |      V  |
16+45      38.7125     11.83  |    Q     |          |          |      V  |
16+50      38.7849     10.51  |    Q     |          |          |      V  |
16+55      38.8503      9.49  |   Q      |          |          |      V  |
17+ 0      38.9098      8.64  |   Q      |          |          |      V  |
17+ 5      38.9654      8.08  |   Q      |          |          |      V  |
17+10      39.0197      7.88  |  Q       |          |          |      V  |
17+15      39.0752      8.05  |   Q      |          |          |      V  |
17+20      39.1323      8.29  |   Q      |          |          |      V  |
17+25      39.1897      8.33  |   Q      |          |          |      V  |
17+30      39.2466      8.26  |   Q      |          |          |      V  |
17+35      39.3027      8.16  |   Q      |          |          |      V  |
17+40      39.3582      8.05  |   Q      |          |          |      V  |
17+45      39.4131      7.97  |  Q       |          |          |      V  |
17+50      39.4671      7.85  |  Q       |          |          |      V  |
17+55      39.5194      7.58  |  Q       |          |          |      V  |
18+ 0      39.5686      7.14  |  Q       |          |          |      V  |
18+ 5      39.6145      6.67  |  Q       |          |          |       V |
18+10      39.6582      6.34  |  Q       |          |          |       V |
18+15      39.7007      6.17  |  Q       |          |          |       V |
18+20      39.7428      6.11  |  Q       |          |          |       V |
18+25      39.7845      6.06  |  Q       |          |          |       V |
18+30      39.8260      6.02  |  Q       |          |          |       V |
18+35      39.8670      5.95  | Q        |          |          |       V |
18+40      39.9066      5.76  | Q        |          |          |       V |
18+45      39.9442      5.46  | Q        |          |          |       V |
18+50      39.9794      5.11  | Q        |          |          |       V |
18+55      40.0121      4.75  | Q        |          |          |       V |
19+ 0      40.0422      4.36  | Q        |          |          |       V |
19+ 5      40.0699      4.03  | Q        |          |          |       V |
19+10      40.0972      3.95  |Q         |          |          |       V |
19+15      40.1253      4.08  | Q        |          |          |       V |
19+20      40.1549      4.31  | Q        |          |          |       V |
19+25      40.1863      4.56  | Q        |          |          |       V |
19+30      40.2198      4.86  | Q        |          |          |       V |
19+35      40.2551      5.12  | Q        |          |          |       V |
19+40      40.2905      5.14  | Q        |          |          |       V |
19+45      40.3246      4.96  | Q        |          |          |       V |
19+50      40.3569      4.68  | Q        |          |          |       V |
19+55      40.3871      4.39  | Q        |          |          |       V |
20+ 0      40.4150      4.04  | Q        |          |          |       V |
20+ 5      40.4408      3.76  |Q         |          |          |       V |
20+10      40.4664      3.71  |Q         |          |          |       V |
20+15      40.4931      3.87  |Q         |          |          |       V |
20+20      40.5212      4.08  | Q        |          |          |       V |
20+25      40.5501      4.20  | Q        |          |          |       V |
20+30      40.5793      4.24  | Q        |          |          |       V |
20+35      40.6087      4.27  | Q        |          |          |       V |
20+40      40.6382      4.29  | Q        |          |          |       V |
20+45      40.6679      4.30  | Q        |          |          |        V|
20+50      40.6973      4.27  | Q        |          |          |        V|
20+55      40.7256      4.11  | Q        |          |          |        V|
21+ 0      40.7521      3.84  |Q         |          |          |        V|
21+ 5      40.7769      3.60  |Q         |          |          |        V|
21+10      40.8016      3.59  |Q         |          |          |        V|
21+15      40.8275      3.77  |Q         |          |          |        V|
21+20      40.8548      3.96  |Q         |          |          |        V|
21+25      40.8818      3.93  |Q         |          |          |        V|
21+30      40.9073      3.71  |Q         |          |          |        V|
21+35      40.9314      3.49  |Q         |          |          |        V|
21+40      40.9554      3.49  |Q         |          |          |        V|
```

21+45	40.9808	3.69	|Q	|	|	|	V|
21+50	41.0076	3.89	|Q	|	|	|	V|
21+55	41.0342	3.86	|Q	|	|	|	V|
22+ 0	41.0593	3.66	|Q	|	|	|	V|
22+ 5	41.0831	3.45	|Q	|	|	|	V|
22+10	41.1069	3.46	|Q	|	|	|	V|
22+15	41.1322	3.67	|Q	|	|	|	V|
22+20	41.1588	3.87	|Q	|	|	|	V|
22+25	41.1853	3.85	|Q	|	|	|	V|
22+30	41.2104	3.64	|Q	|	|	|	V|
22+35	41.2338	3.39	|Q	|	|	|	V|
22+40	41.2561	3.24	|Q	|	|	|	V|
22+45	41.2779	3.16	|Q	|	|	|	V|
22+50	41.2994	3.12	|Q	|	|	|	V|
22+55	41.3206	3.08	|Q	|	|	|	V|
23+ 0	41.3416	3.05	|Q	|	|	|	V|
23+ 5	41.3625	3.03	|Q	|	|	|	V|
23+10	41.3833	3.02	|Q	|	|	|	V|
23+15	41.4039	3.00	|Q	|	|	|	V|
23+20	41.4245	2.98	|Q	|	|	|	V|
23+25	41.4449	2.97	|Q	|	|	|	V|
23+30	41.4653	2.96	|Q	|	|	|	V|
23+35	41.4857	2.96	|Q	|	|	|	V|
23+40	41.5061	2.95	|Q	|	|	|	V|
23+45	41.5264	2.95	|Q	|	|	|	V|
23+50	41.5466	2.94	|Q	|	|	|	V|
23+55	41.5668	2.93	|Q	|	|	|	V|
24+ 0	41.5870	2.93	|Q	|	|	|	V|
24+ 5	41.6065	2.84	|Q	|	|	|	V|
24+10	41.6238	2.51	|Q	|	|	|	V|
24+15	41.6373	1.95	Q	|	|	|	V|
24+20	41.6466	1.35	Q	|	|	|	V|
24+25	41.6534	0.99	Q	|	|	|	V|
24+30	41.6588	0.78	Q	|	|	|	V|
24+35	41.6632	0.64	Q	|	|	|	V|
24+40	41.6669	0.54	Q	|	|	|	V|
24+45	41.6700	0.45	Q	|	|	|	V|
24+50	41.6727	0.38	Q	|	|	|	V|
24+55	41.6749	0.32	Q	|	|	|	V|
25+ 0	41.6768	0.27	Q	|	|	|	V|
25+ 5	41.6784	0.23	Q	|	|	|	V|
25+10	41.6797	0.20	Q	|	|	|	V|
25+15	41.6809	0.17	Q	|	|	|	V|
25+20	41.6819	0.14	Q	|	|	|	V|
25+25	41.6827	0.12	Q	|	|	|	V|
25+30	41.6834	0.10	Q	|	|	|	V|
25+35	41.6839	0.08	Q	|	|	|	V|
25+40	41.6844	0.06	Q	|	|	|	V|
25+45	41.6847	0.05	Q	|	|	|	V|
25+50	41.6850	0.04	Q	|	|	|	V|
25+55	41.6852	0.03	Q	|	|	|	V|
26+ 0	41.6854	0.02	Q	|	|	|	V|
26+ 5	41.6855	0.01	Q	|	|	|	V|
26+10	41.6855	0.00	Q	|	|	|	V

```
                FLOOD HYDROGRAPH ROUTING PROGRAM
          Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                     Study date: 04/24/19


------------------------------------------------------------------------
Legado
Existing Condition
Drainage Areas A+B+C+D
100-year 1-hour storm


------------------------------------------------------------------------


Program License Serial Number 4029

------------------------------------------------------------------------
********************* HYDROGRAPH INFORMATION **********************

               From study/file name: lgexareaa1100.rte
****************************HYDROGRAPH DATA****************************
               Number of intervals =    31
               Time interval =    5.0 (Min.)
               Maximum/Peak flow rate =      533.689 (CFS)
               Total volume =      26.797 (Ac.Ft)
       Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
************************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       10.000 to Point/Station       11.000
**** STREAM ROUTING SCS CONVEX METHOD ****
________________________________________________________________________
HYDROGRAPH STREAM ROUTING DATA:
Length of stream =   3550.00 (Ft.)
Elevation difference =   25.00 (Ft.)
Slope of channel =  0.007042 (Vert/Horiz)
Channel type - Improved Channel


Channel length =  3550.00(Ft.)     Elevation difference =  25.00(Ft.)
Channel evaluation using mean flow rate of hydrograph
Channel base width  =   30.000(Ft.)
Slope or 'Z' of left channel bank =   3.000
Slope or 'Z' of right channel bank =   3.000
Manning's 'N'    = 0.025
Maximum depth of channel  =    2.000(Ft.)
Flow(q) thru subarea =    222.021(CFS)
Depth of flow =     1.237(Ft.)
Average velocity =     5.324(Ft/s)
Total flow rate =   222.021(CFS)
Channel flow top width =   37.423(Ft.)
Depth of flow in channel =   1.24(Ft.)
Total number of channels (same dimensions) = 1
Flow Velocity =    5.32(Ft/s)
Travel time  =    0.00 min.
Individual channel flow =  222.021(CFS)
Total capacity of improved channels =    222.021(CFS)
Critical Depth in Channel =    1.14(Ft.)


Channel evaluation using maximum flow rate of hydrograph
Flow(q) thru subarea =    533.689(CFS)
```

```
      Depth of flow =     2.049(Ft.)
      Average velocity =     7.206(Ft/s)
      Total flow rate =   533.689(CFS)
      !!Warning: Water is above left or right bank elevations
      Channel flow top width =   42.000(Ft.)
      Depth of flow in channel =   2.05(Ft.)
      Total number of channels (same dimensions) = 1
      Flow Velocity =    7.21(Ft/s)
      Travel time  =    0.00 min.
      Individual channel flow =  533.689(CFS)
      Total capacity of improved channels =    533.689(CFS)
      Critical Depth in Channel =    2.00(Ft.)
      ERROR - Channel depth exceeds maximum allowable depth


      ********************** SCS CONVEX CHANNEL ROUTING ********************
      Convex method of stream routing  data items:
      Using equation: Outflow =
      O(t+dt) = (1-c*)O(t+dt-dt*) + Input(c*)
                where c* = 1 - (1-c)^e and dt = c(length)/velocity
                c(v/v+1.7) =   0.8091   Travel time =   8.21 (min.)
               dt*(unit time interval) =   5.00(min.),  e=   0.8351
               dt(routing time-step) =   6.64 (min.),   c* =   0.7492

      Output hydrograph delayed by 0  unit time increments


      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        P R I N T  O F  S T O R M
                     R u n o f f     H y d r o g r a p h
      ----------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals (CFS)

      ----------------------------------------------------------------------
Time(h+m) Out = O(CFS) In = I  0      133.4     266.8     400.3     533.7
----------------------------------------------------------------------
  0+ 5       1.2161      6.56  O         |         |         |         |
  0+10      10.2502     33.70  O I       |         |         |         |
  0+15      35.6580     76.01  | O  I     |         |         |         |
  0+20      71.9270    108.61  |    O  I  |         |         |         |
  0+25     103.6476    131.49  |      O I |         |         |         |
  0+30     128.3774    152.37  |        O|I        |         |         |
  0+35     150.9352    177.09  |         |O I      |         |         |
  0+40     175.9224    206.20  |         |  O I    |         |         |
  0+45     205.8254    245.16  |         |    O  I |         |         |
  0+50     251.4304    332.25  |         |       O |   I     |         |
  0+55     338.9341    477.71  |         |         |    O    |    I    |
  1+ 0     453.2746    533.69  |         |         |         |  O      I
  1+ 5     489.7541    405.44  |         |         |         I     O   |
  1+10     400.3057    263.60  |         |        I|         O         |
  1+15     280.6562    170.60  |         | I       |O        |         |
  1+20     188.6316    118.95  |       I |   O     |         |         |
  1+25     131.1439     90.44  |     I  O|         |         |         |
  1+30      97.1589     71.62  |    I O  |         |         |         |
  1+35      75.3963     57.44  |   IO    |         |         |         |
  1+40      59.9785     46.83  |  IO     |         |         |         |
  1+45      48.6037     38.61  | IO      |         |         |         |
  1+50      40.0383     32.81  | IO      |         |         |         |
  1+55      33.4662     26.58  |IO       |         |         |         |
  2+ 0      27.4489     21.94  |IO       |         |         |         |
  2+ 5      22.5535     17.79  |O        |         |         |         |
  2+10      18.3217     14.23  |O        |         |         |         |
  2+15      14.7117     11.30  IO        |         |         |         |
  2+20      11.8609      9.70  O         |         |         |         |
  2+25      10.0846      8.86  O         |         |         |         |
  2+30       7.9489      2.27  O         |         |         |         |
  2+35       3.4764      1.09  O         |         |         |         |
  2+40       1.4852      0.00  O         |         |         |         |
  2+45       0.3725      0.00  O         |         |         |         |
  2+50       0.0934      0.00  O         |         |         |         |
```

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   2+55       0.0234      0.00  O         |         |         |         |
   3+ 0       0.0059      0.00  O         |         |         |         |
   3+ 5       0.0015      0.00  O         |         |         |         |
   3+10       0.0000      0.00  O         |         |         |         |
--------------------------------------------------------------------------
      ****************************HYDROGRAPH DATA****************************
                  Number of intervals =    38
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =      489.754 (CFS)
                  Total volume =      26.797 (Ac.Ft)
            Status of hydrographs being held in storage
                        Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
      ***************************************************************************

      ---------------------------------------------------------------------


      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      Process from Point/Station       11.000 to Point/Station       11.000
      **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
      ___________________________________________________________________________
      ********************* HYDROGRAPH INFORMATION **********************

                  From study/file name: lgexareab1100.rte
      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                     P R I N T  O F  S T O R M
                  R u n o f f     H y d r o g r a p h
      ---------------------------------------------------------------------------
               Hydrograph in   5   Minute intervals (CFS)

      ---------------------------------------------------------------------
 Time(h+m) Add q(CFS)  Tot. Q   0      307.7     615.3     923.0    1230.7
 ---------------------------------------------------------------------------
   0+ 5       6.1748      7.39  Q         |         |         |         |
   0+10      26.4837     36.73  qQ        |         |         |         |
   0+15      63.8622     99.52  | qQ      |         |         |         |
   0+20     115.3395    187.27  |  q  Q   |         |         |         |
   0+25     168.1894    271.84  |    q  Q |         |         |         |
   0+30     211.6216    340.00  |     q   |Q        |         |         |
   0+35     251.6130    402.55  |       q |  Q      |         |         |
   0+40     293.1002    469.02  |        q|    Q    |         |         |
   0+45     345.9777    551.80  |         |q     Q  |         |         |
   0+50     441.6997    693.13  |         |   q     | Q       |         |
   0+55     575.1286    914.06  |         |       q |         Q|         |
   1+ 0     693.6812   1146.96  |         |         | q       |      Q  |
   1+ 5     740.9282   1230.68  |         |         |   q     |        Q
   1+10     660.6497   1060.96  |         |         |q        |   Q     |
   1+15     491.0891    771.75  |         |    q    |    Q    |         |
   1+20     350.1270    538.76  |         |q     Q  |         |         |
   1+25     249.1846    380.33  |       q | Q       |         |         |
   1+30     193.7408    290.90  |     q  Q|         |         |         |
   1+35     158.2684    233.66  |    q Q  |         |         |         |
   1+40     134.1878    194.17  |   q Q   |         |         |         |
   1+45     115.7459    164.35  |  q Q    |         |         |         |
   1+50      99.1566    139.19  |  qQ     |         |         |         |
   1+55      86.4694    119.94  | qQ      |         |         |         |
   2+ 0      77.0845    104.53  | qQ      |         |         |         |
   2+ 5      66.2649     88.82  | Q       |         |         |         |
   2+10      59.3358     77.66  |qQ       |         |         |         |
   2+15      51.1672     65.88  |qQ       |         |         |         |
   2+20      46.6636     58.52  |Q        |         |         |         |
   2+25      42.6555     52.74  |Q        |         |         |         |
   2+30      39.2472     47.20  |Q        |         |         |         |
   2+35      34.3207     37.80  |Q        |         |         |         |
   2+40      30.9514     32.44  |Q        |         |         |         |
   2+45      27.5923     27.96  Q         |         |         |         |
   2+50      24.9806     25.07  Q         |         |         |         |
   2+55      21.7374     21.76  Q         |         |         |         |
```

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   3+ 0      19.1307     19.14  Q          |          |          |          |
   3+ 5      16.3509     16.35  Q          |          |          |          |
   3+10      14.2561     14.26  Q          |          |          |          |
   3+15      12.8590     12.86  Q          |          |          |          |
   3+20      11.5679     11.57  Q          |          |          |          |
   3+25      10.2206     10.22  Q          |          |          |          |
   3+30       8.4702      8.47  Q          |          |          |          |
   3+35       5.0791      5.08  Q          |          |          |          |
   3+40       1.5059      1.51  Q          |          |          |          |
   3+45       0.4892      0.49  Q          |          |          |          |
--------------------------------------------------------------------------
      ****************************HYDROGRAPH DATA****************************
                  Number of intervals =    45
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =     1230.682 (CFS)
                  Total volume =      75.656 (Ac.Ft)
            Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      ***************************************************************************

      ---------------------------------------------------------------------


      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      Process from Point/Station       11.000 to Point/Station       11.000
      **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
      _____________________________________________________________________
      ********************* HYDROGRAPH INFORMATION **********************

                  From study/file name: lgexareac1100.rte
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                     P R I N T  O F  S T O R M
                  R u n o f f     H y d r o g r a p h
      ---------------------------------------------------------------------
                Hydrograph in   5   Minute intervals (CFS)

      ---------------------------------------------------------------------
  Time(h+m) Add q(CFS)  Tot. Q   0      350.3     700.5    1050.8    1401.1
  ---------------------------------------------------------------------------
    0+ 5       6.6244     14.02  Q          |          |          |          |
    0+10      33.7433     70.48  q Q        |          |          |          |
    0+15      55.3294    154.85  |q  Q      |          |          |          |
    0+20      68.4899    255.76  |q     Q   |          |          |          |
    0+25      78.3446    350.18  | q      Q|          |          |          |
    0+30      89.9887    429.99  | q        | Q        |          |          |
    0+35     103.9762    506.52  | q        |   Q      |          |          |
    0+40     120.1491    589.17  |  q       |     Q    |          |          |
    0+45     144.3126    696.12  |   q      |        Q |          |          |
    0+50     212.0924    905.22  |     q    |          |    Q     |          |
    0+55     319.3350   1233.40  |       q  |          |          |    Q     |
    1+ 0     254.1243   1401.08  |      q   |          |          |         Q
    1+ 5     156.6535   1387.34  |   q      |          |          |        Q |
    1+10      94.1261   1155.08  | q        |          |          | Q        |
    1+15      56.5593    828.30  |q         |          |  Q       |          |
    1+20      38.9695    577.73  |q         |     Q    |          |          |
    1+25      28.0539    408.38  q          |Q         |          |          |
    1+30      21.0760    311.98  q       Q  |          |          |          |
    1+35      15.3583    249.02  q      Q   |          |          |          |
    1+40      11.1874    205.35  q    Q     |          |          |          |
    1+45       8.0679    172.42  q   Q      |          |          |          |
    1+50       6.5916    145.79  q   Q      |          |          |          |
    1+55       1.6866    121.62  q  Q       |          |          |          |
    2+ 0       0.7788    105.31  q  Q       |          |          |          |
    2+ 5       0.0000     88.82  q Q        |          |          |          |
    2+10       0.0000     77.66  q Q        |          |          |          |
    2+15       0.0000     65.88  qQ         |          |          |          |
    2+20       0.0000     58.52  qQ         |          |          |          |
    2+25       0.0000     52.74  qQ         |          |          |          |
```

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    2+30       0.0000     47.20  qQ        |         |         |         |
    2+35       0.0000     37.80  qQ        |         |         |         |
    2+40       0.0000     32.44  Q         |         |         |         |
    2+45       0.0000     27.96  Q         |         |         |         |
    2+50       0.0000     25.07  Q         |         |         |         |
    2+55       0.0000     21.76  Q         |         |         |         |
    3+ 0       0.0000     19.14  Q         |         |         |         |
    3+ 5       0.0000     16.35  Q         |         |         |         |
    3+10       0.0000     14.26  Q         |         |         |         |
    3+15       0.0000     12.86  Q         |         |         |         |
    3+20       0.0000     11.57  Q         |         |         |         |
    3+25       0.0000     10.22  Q         |         |         |         |
    3+30       0.0000      8.47  Q         |         |         |         |
    3+35       0.0000      5.08  Q         |         |         |         |
    3+40       0.0000      1.51  Q         |         |         |         |
    3+45       0.0000      0.49  Q         |         |         |         |
--------------------------------------------------------------------------
       ****************************HYDROGRAPH DATA****************************
                     Number of intervals =    45
                     Time interval =    5.0 (Min.)
                     Maximum/Peak flow rate =     1401.080 (CFS)
                     Total volume =      88.918 (Ac.Ft)
              Status of hydrographs being held in storage
                        Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
              Peak (CFS)      0.000     0.000     0.000     0.000     0.000
              Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
       ************************************************************************

       ------------------------------------------------------------------------


       ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
       Process from Point/Station       11.000 to Point/Station       11.000
       **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
       ________________________________________________________________________
       ********************* HYDROGRAPH INFORMATION **********************

                     From study/file name: lgexaread1100.rte
       ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        P R I N T  O F  S T O R M
                     R u n o f f     H y d r o g r a p h
       ------------------------------------------------------------------------
                   Hydrograph in   5   Minute intervals (CFS)

       ------------------------------------------------------------------------
  Time(h+m) Add q(CFS)  Tot. Q   0      416.7     833.3    1250.0    1666.7
  ------------------------------------------------------------------------
    0+ 5       2.7455     16.76  Q         |         |         |         |
    0+10      13.0019     83.48  q Q       |         |         |         |
    0+15      31.4359    186.29  q   Q     |         |         |         |
    0+20      52.2883    308.04  |q     Q  |         |         |         |
    0+25      67.8572    418.04  |q        Q         |         |         |
    0+30      80.5697    510.56  |q        | Q       |         |         |
    0+35      93.1793    599.70  | q       |   Q     |         |         |
    0+40     108.0241    697.20  | q       |     Q   |         |         |
    0+45     127.1414    823.26  |  q      |        Q|         |         |
    0+50     164.7669   1069.99  |  q      |         |    Q    |         |
    0+55     222.6688   1456.07  |    q    |         |         |   Q     |
    1+ 0     265.5870   1666.67  |     q   |         |         |        Q
    1+ 5     252.9320   1640.27  |     q   |         |         |        Q|
    1+10     185.5124   1340.59  |   q     |         |         | Q       |
    1+15     126.1669    954.47  |  q      |         | Q       |         |
    1+20      86.0999    663.83  | q       |    Q    |         |         |
    1+25      64.4927    472.88  |q        |Q        |         |         |
    1+30      51.5079    363.48  |q      Q |         |         |         |
    1+35      42.3800    291.40  |q    Q   |         |         |         |
    1+40      35.1984    240.55  q    Q    |         |         |         |
    1+45      30.1642    202.58  q   Q     |         |         |         |
    1+50      25.1778    170.96  q   Q     |         |         |         |
    1+55      21.5080    143.13  q  Q      |         |         |         |
```

```
    2+ 0      18.4766    123.79  q Q       |         |         |         |
    2+ 5      16.5769    105.40  q Q       |         |         |         |
    2+10      14.7035     92.36  q Q       |         |         |         |
    2+15      12.5356     78.41  qQ        |         |         |         |
    2+20      10.7685     69.29  qQ        |         |         |         |
    2+25       9.2065     61.95  qQ        |         |         |         |
    2+30       7.7295     54.93  qQ        |         |         |         |
    2+35       6.5136     44.31  qQ        |         |         |         |
    2+40       5.3809     37.82  Q         |         |         |         |
    2+45       4.7097     32.67  Q         |         |         |         |
    2+50       4.0683     29.14  Q         |         |         |         |
    2+55       3.3332     25.09  Q         |         |         |         |
    3+ 0       1.8581     20.99  Q         |         |         |         |
    3+ 5       0.5757     16.93  Q         |         |         |         |
    3+10       0.1706     14.43  Q         |         |         |         |
    3+15       0.0000     12.86  Q         |         |         |         |
    3+20       0.0000     11.57  Q         |         |         |         |
    3+25       0.0000     10.22  Q         |         |         |         |
    3+30       0.0000      8.47  Q         |         |         |         |
    3+35       0.0000      5.08  Q         |         |         |         |
    3+40       0.0000      1.51  Q         |         |         |         |
    3+45       0.0000      0.49  Q         |         |         |         |
--------------------------------------------------------------------------
       ****************************HYDROGRAPH DATA****************************
                    Number of intervals =    45
                    Time interval =    5.0 (Min.)
                    Maximum/Peak flow rate =     1666.667 (CFS)
                    Total volume =     104.531 (Ac.Ft)
              Status of hydrographs being held in storage
                        Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
              Peak (CFS)      0.000     0.000     0.000     0.000     0.000
              Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       ***********************************************************************

       ---------------------------------------------------------------------
```

```
                    FLOOD HYDROGRAPH ROUTING PROGRAM
              Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                         Study date: 04/24/19


------------------------------------------------------------------------
Legado
Existing Condition
Drainage Areas A+B+C+D
100-year 3-hour storm


------------------------------------------------------------------------


Program License Serial Number 4029

------------------------------------------------------------------------
********************* HYDROGRAPH INFORMATION **********************

               From study/file name: lgexareaa3100.rte
*****************************HYDROGRAPH DATA*****************************
               Number of intervals =    55
               Time interval =    5.0 (Min.)
               Maximum/Peak flow rate =      327.342 (CFS)
               Total volume =      33.648 (Ac.Ft)
       Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
************************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       10.000 to Point/Station       11.000
**** STREAM ROUTING SCS CONVEX METHOD ****
________________________________________________________________________
HYDROGRAPH STREAM ROUTING DATA:
Length of stream =   3550.00 (Ft.)
Elevation difference =   25.00 (Ft.)
Slope of channel =  0.007042 (Vert/Horiz)
Channel type - Improved Channel


Channel length =  3550.00(Ft.)     Elevation difference =  25.00(Ft.)
Channel evaluation using mean flow rate of hydrograph
Channel base width  =   30.000(Ft.)
Slope or 'Z' of left channel bank =   3.000
Slope or 'Z' of right channel bank =   3.000
Manning's 'N'    = 0.025
Maximum depth of channel  =    2.000(Ft.)
Flow(q) thru subarea =    120.805(CFS)
Depth of flow =     0.866(Ft.)
Average velocity =     4.282(Ft/s)
Total flow rate =   120.805(CFS)
Channel flow top width =   35.193(Ft.)
Depth of flow in channel =   0.87(Ft.)
Total number of channels (same dimensions) = 1
Flow Velocity =    4.28(Ft/s)
Travel time  =    0.00 min.
Individual channel flow =  120.805(CFS)
Total capacity of improved channels =    120.805(CFS)
Critical Depth in Channel =    0.77(Ft.)


Channel evaluation using maximum flow rate of hydrograph
Flow(q) thru subarea =    327.342(CFS)
Depth of flow =     1.551(Ft.)
Average velocity =     6.092(Ft/s)
```

```
      Total flow rate =   327.342(CFS)
      Channel flow top width =   39.304(Ft.)
      Depth of flow in channel =   1.55(Ft.)
      Total number of channels (same dimensions) = 1
      Flow Velocity =    6.09(Ft/s)
      Travel time  =    0.00 min.
      Individual channel flow =  327.342(CFS)
      Total capacity of improved channels =    327.342(CFS)
      Critical Depth in Channel =    1.47(Ft.)


      ********************** SCS CONVEX CHANNEL ROUTING ********************
      Convex method of stream routing  data items:
      Using equation: Outflow =
      O(t+dt) = (1-c*)O(t+dt-dt*) + Input(c*)
                where c* = 1 - (1-c)^e and dt = c(length)/velocity
                c(v/v+1.7) =   0.7818   Travel time =   9.71 (min.)
               dt*(unit time interval) =   5.00(min.),  e=   0.7723
               dt(routing time-step) =   7.59 (min.),   c* =   0.6915

      Output hydrograph delayed by 0  unit time increments


      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        P R I N T  O F  S T O R M
                     R u n o f f     H y d r o g r a p h
      ----------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals (CFS)

      ----------------------------------------------------------------------
Time(h+m) Out = O(CFS) In = I  0       81.8     163.7     245.5     327.3
----------------------------------------------------------------------------
  0+ 5       0.5096      2.16  O         |         |         |         |
  0+10       3.7427     11.02  OI        |         |         |         |
  0+15      11.7835     23.76  |OI       |         |         |         |
  0+20      21.8438     31.30  | OI      |         |         |         |
  0+25      29.6261     36.57  |  OI     |         |         |         |
  0+30      36.2273     44.20  |   OI    |         |         |         |
  0+35      43.4927     51.62  |    OI   |         |         |         |
  0+40      50.3413     56.82  |     O   |         |         |         |
  0+45      55.6416     60.30  |     OI  |         |         |         |
  0+50      59.7856     64.20  |      O  |         |         |         |
  0+55      63.0273     65.00  |      O  |         |         |         |
  1+ 0      64.1762     64.09  |      O  |         |         |         |
  1+ 5      64.8813     67.33  |      OI |         |         |         |
  1+10      68.4842     75.41  |       OI|         |         |         |
  1+15      75.3554     84.23  |        OI         |         |         |
  1+20      82.6681     89.22  |         O         |         |         |
  1+25      87.7660     91.63  |         OI        |         |         |
  1+30      91.7197     97.06  |         |O        |         |         |
  1+35      97.5776    106.23  |         |OI       |         |         |
  1+40     104.9052    111.92  |         | OI      |         |         |
  1+45     110.7426    116.11  |         |  OI     |         |         |
  1+50     116.7990    126.05  |         |   OI    |         |         |
  1+55     125.6300    136.37  |         |    OI   |         |         |
  2+ 0     133.7977    139.51  |         |     OI  |         |         |
  2+ 5     137.8880    140.10  |         |     OI  |         |         |
  2+10     140.6619    145.38  |         |      O  |         |         |
  2+15     147.8930    162.19  |         |       OI|         |         |
  2+20     163.4105    186.04  |         |        O| I       |         |
  2+25     183.2478    203.79  |         |         | O I     |         |
  2+30     203.8293    230.80  |         |         |   O   I |         |
  2+35     234.7747    282.87  |         |         |       O |   I     |
  2+40     278.2406    326.12  |         |         |         |   O    I|
  2+45     311.6348    327.34  |         |         |         |       O I
  2+50     309.4304    272.01  |         |         |         |  I   O  |
  2+55     266.4205    199.44  |         |         |   I     | O       |
  3+ 0     209.0269    152.52  |         |       I |    O    |         |
  3+ 5     162.1208    119.34  |         |   I    O|         |         |
  3+10     124.9074     87.01  |         I    O    |         |         |
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   3+15      93.0845     63.21  |      I  |O        |         |         |
   3+20      68.9681     48.56  |     I  O|         |         |         |
   3+25      52.5358     38.72  |    I O  |         |         |         |
   3+30      41.2467     31.36  |  I O    |         |         |         |
   3+35      33.0979     25.80  |  IO     |         |         |         |
   3+40      26.9586     21.17  | IO      |         |         |         |
   3+45      22.0532     17.35  | O       |         |         |         |
   3+50      18.0252     14.06  |IO       |         |         |         |
   3+55      14.5551     10.98  |O        |         |         |         |
   4+ 0      11.6834      9.29  |O        |         |         |         |
   4+ 5       9.5213      7.14  IO        |         |         |         |
   4+10       7.4430      5.31  O         |         |         |         |
   4+15       5.4343      3.04  O         |         |         |         |
   4+20       3.3545      1.23  O         |         |         |         |
   4+25       1.7938      0.83  O         |         |         |         |
   4+30       1.0550      0.52  O         |         |         |         |
   4+35       0.5798      0.08  O         |         |         |         |
   4+40       0.2147      0.00  O         |         |         |         |
   4+45       0.0662      0.00  O         |         |         |         |
   4+50       0.0204      0.00  O         |         |         |         |
   4+55       0.0063      0.00  O         |         |         |         |
   5+ 0       0.0019      0.00  O         |         |         |         |
   5+ 5       0.0000      0.00  O         |         |         |         |
--------------------------------------------------------------------------
       ****************************HYDROGRAPH DATA****************************
                    Number of intervals =    61
                    Time interval =    5.0 (Min.)
                    Maximum/Peak flow rate =      311.635 (CFS)
                    Total volume =      33.648 (Ac.Ft)
             Status of hydrographs being held in storage
                       Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
             Peak (CFS)      0.000     0.000     0.000     0.000     0.000
             Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       ***************************************************************************

       ---------------------------------------------------------------------


       +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
       Process from Point/Station       11.000 to Point/Station       11.000
       **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
       _____________________________________________________________________
       ********************** HYDROGRAPH INFORMATION **********************

                    From study/file name: lgexareab3100.rte
       +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                       P R I N T  O F  S T O R M
                    R u n o f f     H y d r o g r a p h
       ---------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals (CFS)

       ---------------------------------------------------------------------
  Time(h+m) Add q(CFS)  Tot. Q   0      206.9     413.8     620.7     827.6
  ---------------------------------------------------------------------
    0+ 5       2.1749      2.68  Q         |         |         |         |
    0+10       9.2694     13.01  Q         |         |         |         |
    0+15      21.3692     33.15  |Q        |         |         |         |
    0+20      37.2354     59.08  |qQ       |         |         |         |
    0+25      52.9057     82.53  | qQ      |         |         |         |
    0+30      65.2727    101.50  |  qQ     |         |         |         |
    0+35      76.9175    120.41  |  q Q    |         |         |         |
    0+40      88.0064    138.35  |   q Q   |         |         |         |
    0+45      97.7034    153.34  |   q  Q  |         |         |         |
    0+50     105.2214    165.01  |    q Q  |         |         |         |
    0+55     110.1041    173.13  |    q  Q |         |         |         |
    1+ 0     113.9647    178.14  |    q  Q |         |         |         |
    1+ 5     117.3156    182.20  |    q  Q |         |         |         |
    1+10     123.6262    192.11  |    q   Q|         |         |         |
    1+15     134.0040    209.36  |     q   Q         |         |         |
    1+20     145.2606    227.93  |      q  |Q        |         |         |
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    1+25     155.2049    242.97  |      q  |Q        |         |         |
    1+30     163.9910    255.71  |      q  | Q       |         |         |
    1+35     173.2166    270.79  |       q |  Q      |         |         |
    1+40     183.7791    288.68  |       q |  Q      |         |         |
    1+45     195.7351    306.48  |        q|   Q     |         |         |
    1+50     207.6174    324.42  |         q    Q    |         |         |
    1+55     220.3161    345.95  |         q     Q   |         |         |
    2+ 0     233.1562    366.95  |         |q     Q  |         |         |
    2+ 5     242.4978    380.39  |         |q      Q |         |         |
    2+10     250.3718    391.03  |         | q     Q |         |         |
    2+15     265.2225    413.12  |         | q      Q|         |         |
    2+20     287.6146    451.03  |         |  q      |Q        |         |
    2+25     318.5001    501.75  |         |    q    |   Q     |         |
    2+30     360.0601    563.89  |         |      q  |      Q  |         |
    2+35     411.3288    646.10  |         |        q|         |Q        |
    2+40     471.0383    749.28  |         |         | q       |     Q   |
    2+45     516.0110    827.65  |         |         |   q     |         Q
    2+50     512.9682    822.40  |         |         |   q     |        Q|
    2+55     462.0916    728.51  |         |         | q       |    Q    |
    3+ 0     379.5438    588.57  |         |       q |       Q |         |
    3+ 5     300.0980    462.22  |         |   q     | Q       |         |
    3+10     239.1869    364.09  |         |q     Q  |         |         |
    3+15     189.9183    283.00  |        q|  Q      |         |         |
    3+20     151.0649    220.03  |      q  Q         |         |         |
    3+25     123.1270    175.66  |    q  Q |         |         |         |
    3+30     103.0424    144.29  |   q Q   |         |         |         |
    3+35      88.6025    121.70  |   qQ    |         |         |         |
    3+40      76.6141    103.57  |  q Q    |         |         |         |
    3+45      67.3820     89.44  |  qQ     |         |         |         |
    3+50      58.9499     76.98  | qQ      |         |         |         |
    3+55      51.5310     66.09  | qQ      |         |         |         |
    4+ 0      45.4763     57.16  | Q       |         |         |         |
    4+ 5      40.6783     50.20  |qQ       |         |         |         |
    4+10      36.4962     43.94  |qQ       |         |         |         |
    4+15      32.6696     38.10  |Q        |         |         |         |
    4+20      28.7850     32.14  |Q        |         |         |         |
    4+25      25.4428     27.24  |Q        |         |         |         |
    4+30      22.4589     23.51  |Q        |         |         |         |
    4+35      19.7311     20.31  Q         |         |         |         |
    4+40      17.2212     17.44  Q         |         |         |         |
    4+45      14.9984     15.06  Q         |         |         |         |
    4+50      13.1124     13.13  Q         |         |         |         |
    4+55      11.4460     11.45  Q         |         |         |         |
    5+ 0       9.9200      9.92  Q         |         |         |         |
    5+ 5       8.6810      8.68  Q         |         |         |         |
    5+10       7.3963      7.40  Q         |         |         |         |
    5+15       5.6440      5.64  Q         |         |         |         |
    5+20       3.7870      3.79  Q         |         |         |         |
    5+25       2.0391      2.04  Q         |         |         |         |
    5+30       1.0364      1.04  Q         |         |         |         |
    5+35       0.6420      0.64  Q         |         |         |         |
    5+40       0.2778      0.28  Q         |         |         |         |
    5+45       0.0362      0.04  Q         |         |         |         |
--------------------------------------------------------------------------
      ****************************HYDROGRAPH DATA****************************
                  Number of intervals =    69
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =      827.646 (CFS)
                  Total volume =      96.376 (Ac.Ft)
            Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      ****************************************************************************

      ----------------------------------------------------------------------


      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      Process from Point/Station       11.000 to Point/Station       11.000
```

**** ADD/COMBINE/RECOVER HYDROGRAPHS ****

********** HYDROGRAPH INFORMATION **********

From study/file name: lgexareac3100.rte

++

P R I N T O F S T O R M

R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals (CFS)

Time(h+m)	Add q(CFS)	Tot. Q	0 247.2 494.4 741.6 988.9
0+ 5	2.3392	5.02	Q
0+10	11.8526	24.86	qQ
0+15	18.2828	51.44	q Q
0+20	19.9261	79.01	q Q
0+25	24.0817	106.61	q Q
0+30	28.2610	129.76	q Q
0+35	32.0788	152.49	q Q
0+40	32.9904	171.34	q Q
0+45	35.3893	188.73	q Q
0+50	37.0280	202.04	q Q
0+55	35.3110	208.44	q Q
1+ 0	35.3114	213.45	q Q
1+ 5	38.7831	220.98	q Q
1+10	44.3146	236.42	q Q
1+15	47.7946	257.15	q Q
1+20	48.8478	276.78	q Q
1+25	49.2111	292.18	q Q
1+30	54.6514	310.36	q Q
1+35	59.1052	329.90	q Q
1+40	59.2674	347.95	q Q
1+45	62.8628	369.34	q Q
1+50	70.5748	394.99	q Q
1+55	73.4372	419.38	q Q
2+ 0	72.5180	439.47	q Q
2+ 5	73.2210	453.61	q Q
2+10	77.7239	468.76	q Q
2+15	91.8719	504.99	q Q
2+20	104.7935	555.82	q Q
2+25	107.2989	609.05	q Q
2+30	135.0856	698.97	q Q
2+35	164.9779	811.08	q Q
2+40	180.7186	930.00	q Q
2+45	161.2155	988.86	q Q
2+50	111.5346	933.93	q Q
2+55	79.0855	807.60	q Q
3+ 0	63.1040	651.67	q Q
3+ 5	43.4873	505.71	q Q
3+10	27.4018	391.50	q Q
3+15	18.6824	301.69	q Q
3+20	13.1245	233.16	q Q
3+25	9.7296	185.39	q Q
3+30	6.7775	151.07	q Q
3+35	4.6321	126.33	q Q
3+40	2.6148	106.19	q Q
3+45	1.1202	90.56	q Q
3+50	0.6845	77.66	q Q
3+55	0.3997	66.49	q Q
4+ 0	0.0703	57.23	q Q
4+ 5	0.0000	50.20	q Q
4+10	0.0000	43.94	qQ
4+15	0.0000	38.10	qQ
4+20	0.0000	32.14	qQ
4+25	0.0000	27.24	qQ
4+30	0.0000	23.51	Q
4+35	0.0000	20.31	Q
4+40	0.0000	17.44	Q

```
    4+45       0.0000     15.06  Q          |          |          |          |
    4+50       0.0000     13.13  Q          |          |          |          |
    4+55       0.0000     11.45  Q          |          |          |          |
    5+ 0       0.0000      9.92  Q          |          |          |          |
    5+ 5       0.0000      8.68  Q          |          |          |          |
    5+10       0.0000      7.40  Q          |          |          |          |
    5+15       0.0000      5.64  Q          |          |          |          |
    5+20       0.0000      3.79  Q          |          |          |          |
    5+25       0.0000      2.04  Q          |          |          |          |
    5+30       0.0000      1.04  Q          |          |          |          |
    5+35       0.0000      0.64  Q          |          |          |          |
    5+40       0.0000      0.28  Q          |          |          |          |
    5+45       0.0000      0.04  Q          |          |          |          |
-------------------------------------------------------------------------
      ****************************HYDROGRAPH DATA**************************
                    Number of intervals =    69
                    Time interval =    5.0 (Min.)
                    Maximum/Peak flow rate =      988.861 (CFS)
                    Total volume =     113.412 (Ac.Ft)
             Status of hydrographs being held in storage
                       Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
             Peak (CFS)      0.000     0.000     0.000     0.000     0.000
             Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      *************************************************************************

      ------------------------------------------------------------------------


      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      Process from Point/Station       11.000 to Point/Station       11.000
      **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
      ________________________________________________________________________
      ********************** HYDROGRAPH INFORMATION **********************

                    From study/file name: lgexaread3100.rte
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                       P R I N T  O F  S T O R M
                    R u n o f f     H y d r o g r a p h
      ------------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals (CFS)

      ------------------------------------------------------------------------
  Time(h+m) Add q(CFS)  Tot. Q   0      292.4     584.7     877.1    1169.4
  ------------------------------------------------------------------------
    0+ 5       1.0485      6.07  Q          |          |          |          |
    0+10       4.9383     29.80  qQ         |          |          |          |
    0+15      11.4929     62.93  q Q        |          |          |          |
    0+20      18.2459     97.25  q  Q       |          |          |          |
    0+25      22.7680    129.38  q   Q      |          |          |          |
    0+30      26.7344    156.50  q    Q     |          |          |          |
    0+35      31.0058    183.49  |q    Q    |          |          |          |
    0+40      34.5339    205.87  |q     Q   |          |          |          |
    0+45      37.3736    226.11  |q     Q   |          |          |          |
    0+50      39.4179    241.45  |q      Q  |          |          |          |
    0+55      40.8572    249.30  |q      Q  |          |          |          |
    1+ 0      41.3434    254.80  |q      Q  |          |          |          |
    1+ 5      42.3734    263.35  |q       Q|          |          |          |
    1+10      45.4766    281.90  |q       Q|          |          |          |
    1+15      49.8194    306.97  |q        Q          |          |          |
    1+20      53.5295    330.31  |q        |Q         |          |          |
    1+25      55.8703    348.05  |q        |Q         |          |          |
    1+30      58.4078    368.77  |q        | Q        |          |          |
    1+35      62.0721    391.97  | q       |  Q       |          |          |
    1+40      66.0016    413.95  | q       |   Q      |          |          |
    1+45      69.1678    438.51  | q       |   Q      |          |          |
    1+50      73.1737    468.16  | q       |     Q    |          |          |
    1+55      78.2405    497.62  | q       |      Q   |          |          |
    2+ 0      81.9958    521.47  | q       |      Q   |          |          |
    2+ 5      83.4717    537.08  | q       |       Q  |          |          |
    2+10      85.6824    554.44  | q       |       Q  |          |          |
```

```
    2+15      92.0861    597.07  |  q      |         Q         |          |
    2+20     102.0414    657.86  |  q      |         | Q       |          |
    2+25     113.3130    722.36  |  q      |         |   Q     |          |
    2+30     126.8900    825.86  |   q     |         |       Q |          |
    2+35     146.8720    957.95  |    q    |         |         | Q        |
    2+40     170.9066   1100.90  |    q    |         |         |      Q   |
    2+45     180.5860   1169.45  |     q   |         |         |        Q |
    2+50     167.4113   1101.34  |    q    |         |         |      Q   |
    2+55     136.8540    944.45  |   q     |         |         | Q        |
    3+ 0     106.2675    757.94  |  q      |         |    Q    |          |
    3+ 5      84.5244    590.23  | q       |         Q         |          |
    3+10      66.6550    458.15  | q       |    Q    |         |          |
    3+15      50.6633    352.35  |q        | Q       |         |          |
    3+20      39.2019    272.36  |q       Q|         |         |          |
    3+25      31.5914    216.98  |q     Q  |         |         |          |
    3+30      26.3437    177.41  q     Q   |         |         |          |
    3+35      22.1406    148.47  q    Q    |         |         |          |
    3+40      18.6788    124.87  q   Q     |         |         |          |
    3+45      16.0493    106.60  q  Q      |         |         |          |
    3+50      13.8919     91.55  q  Q      |         |         |          |
    3+55      11.9552     78.44  q Q       |         |         |          |
    4+ 0      10.1657     67.40  q Q       |         |         |          |
    4+ 5       8.6364     58.84  q Q       |         |         |          |
    4+10       7.4328     51.37  qQ        |         |         |          |
    4+15       6.3053     44.41  qQ        |         |         |          |
    4+20       5.2777     37.42  qQ        |         |         |          |
    4+25       4.3772     31.61  qQ        |         |         |          |
    4+30       3.7060     27.22  Q         |         |         |          |
    4+35       3.0805     23.39  Q         |         |         |          |
    4+40       2.3134     19.75  Q         |         |         |          |
    4+45       1.5118     16.58  Q         |         |         |          |
    4+50       0.8167     13.95  Q         |         |         |          |
    4+55       0.4420     11.89  Q         |         |         |          |
    5+ 0       0.2742     10.20  Q         |         |         |          |
    5+ 5       0.1164      8.80  Q         |         |         |          |
    5+10       0.0187      7.42  Q         |         |         |          |
    5+15       0.0000      5.64  Q         |         |         |          |
    5+20       0.0000      3.79  Q         |         |         |          |
    5+25       0.0000      2.04  Q         |         |         |          |
    5+30       0.0000      1.04  Q         |         |         |          |
    5+35       0.0000      0.64  Q         |         |         |          |
    5+40       0.0000      0.28  Q         |         |         |          |
    5+45       0.0000      0.04  Q         |         |         |          |
--------------------------------------------------------------------------
       ****************************HYDROGRAPH DATA****************************
                    Number of intervals =    69
                    Time interval =    5.0 (Min.)
                    Maximum/Peak flow rate =     1169.447 (CFS)
                    Total volume =     134.035 (Ac.Ft)
             Status of hydrographs being held in storage
                         Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
             Peak (CFS)      0.000     0.000     0.000     0.000     0.000
             Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
       ****************************************************************************

       ----------------------------------------------------------------------
```

```
                FLOOD HYDROGRAPH ROUTING PROGRAM
          Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                     Study date: 04/24/19


----------------------------------------------------------------------
Legado
Existing Condition
Drainage Areas A+B+C+D
100-year 6-hour storm


----------------------------------------------------------------------


Program License Serial Number 4029

----------------------------------------------------------------------
******************** HYDROGRAPH INFORMATION **********************

               From study/file name: lgexareaa6100.rte
*****************************HYDROGRAPH DATA*****************************
               Number of intervals =    91
               Time interval =    5.0 (Min.)
               Maximum/Peak flow rate =      286.421 (CFS)
               Total volume =      39.891 (Ac.Ft)
       Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
**********************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       10.000 to Point/Station       11.000
**** STREAM ROUTING SCS CONVEX METHOD ****
______________________________________________________________________
HYDROGRAPH STREAM ROUTING DATA:
Length of stream =   3550.00 (Ft.)
Elevation difference =   25.00 (Ft.)
Slope of channel =  0.007042 (Vert/Horiz)
Channel type - Improved Channel


Channel length =  3550.00(Ft.)     Elevation difference =  25.00(Ft.)
Channel evaluation using mean flow rate of hydrograph
Channel base width  =   30.000(Ft.)
Slope or 'Z' of left channel bank =   3.000
Slope or 'Z' of right channel bank =   3.000
Manning's 'N'    = 0.025
Maximum depth of channel  =    2.000(Ft.)
Flow(q) thru subarea =     75.717(CFS)
Depth of flow =     0.657(Ft.)
Average velocity =     3.606(Ft/s)
Total flow rate =    75.717(CFS)
Channel flow top width =   33.940(Ft.)
Depth of flow in channel =   0.66(Ft.)
Total number of channels (same dimensions) = 1
Flow Velocity =    3.61(Ft/s)
Travel time  =    0.00 min.
Individual channel flow =   75.717(CFS)
Total capacity of improved channels =     75.717(CFS)
Critical Depth in Channel =    0.57(Ft.)


Channel evaluation using maximum flow rate of hydrograph
Flow(q) thru subarea =    286.421(CFS)
Depth of flow =     1.435(Ft.)
```

```
Average velocity =     5.818(Ft/s)
Total flow rate =   286.421(CFS)
Channel flow top width =   38.610(Ft.)
Depth of flow in channel =   1.43(Ft.)
Total number of channels (same dimensions) = 1
Flow Velocity =    5.82(Ft/s)
Travel time  =    0.00 min.
Individual channel flow =  286.421(CFS)
Total capacity of improved channels =    286.421(CFS)
Critical Depth in Channel =    1.34(Ft.)


********************** SCS CONVEX CHANNEL ROUTING *********************
Convex method of stream routing  data items:
Using equation: Outflow =
O(t+dt) = (1-c*)O(t+dt-dt*) + Input(c*)
          where c* = 1 - (1-c)^e and dt = c(length)/velocity
          c(v/v+1.7) =   0.7739   Travel time =  10.17 (min.)
         dt*(unit time interval) =   5.00(min.),  e=   0.7569
         dt(routing time-step) =   7.87 (min.),   c* =   0.6754

Output hydrograph delayed by 0  unit time increments


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                    P R I N T  O F  S T O R M
                 R u n o f f     H y d r o g r a p h
------------------------------------------------------------------------
             Hydrograph in   5   Minute intervals (CFS)

------------------------------------------------------------------------
Time(h+m) Out = O(CFS) In = I  0       71.6     143.2     214.8     286.4
------------------------------------------------------------------------
  0+ 5       0.1563      0.63  O         |         |         |         |
  0+10       1.1757      3.46  O         |         |         |         |
  0+15       3.9023      8.26  OI        |         |         |         |
  0+20       7.8051     12.15  |O        |         |         |         |
  0+25      11.2621     14.27  |O        |         |         |         |
  0+30      13.6741     15.82  |OI       |         |         |         |
  0+35      15.6688     18.04  | O       |         |         |         |
  0+40      17.9370     20.74  | O       |         |         |         |
  0+45      20.2858     22.59  | OI      |         |         |         |
  0+50      22.0995     23.64  |  O      |         |         |         |
  0+55      23.3212     24.37  |  O      |         |         |         |
  1+ 0      24.2527     25.27  |  O      |         |         |         |
  1+ 5      25.3947     27.11  |  O      |         |         |         |
  1+10      27.1528     29.54  |  OI     |         |         |         |
  1+15      29.1689     31.18  |   O     |         |         |         |
  1+20      30.7479     32.08  |   O     |         |         |         |
  1+25      31.7973     32.69  |   O     |         |         |         |
  1+30      32.5200     33.17  |   O     |         |         |         |
  1+35      33.0555     33.56  |   O     |         |         |         |
  1+40      33.4806     33.91  |   O     |         |         |         |
  1+45      33.8253     34.14  |   O     |         |         |         |
  1+50      34.0728     34.29  |   O     |         |         |         |
  1+55      34.2511     34.42  |   O     |         |         |         |
  2+ 0      34.4753     34.87  |   O     |         |         |         |
  2+ 5      35.0267     36.02  |   OI    |         |         |         |
  2+10      35.9640     37.09  |    O    |         |         |         |
  2+15      36.9009     37.80  |    O    |         |         |         |
  2+20      37.8539     39.21  |    O    |         |         |         |
  2+25      39.0437     40.33  |    O    |         |         |         |
  2+30      40.0546     40.91  |    O    |         |         |         |
  2+35      40.7255     41.29  |    O    |         |         |         |
  2+40      41.1720     41.55  |    O    |         |         |         |
  2+45      41.5586     42.08  |    O    |         |         |         |
  2+50      42.2878     43.61  |    OI   |         |         |         |
  2+55      43.7160     45.79  |     O   |         |         |         |
  3+ 0      45.4693     47.23  |     O   |         |         |         |
  3+ 5      46.8366     47.96  |     O   |         |         |         |
```

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    3+10      47.7957     48.78  |     O   |         |         |         |
    3+15      48.8883     50.52  |     OI  |         |         |         |
    3+20      50.5642     52.85  |      O  |         |         |         |
    3+25      52.5762     54.75  |      O  |         |         |         |
    3+30      54.6690     57.29  |      OI |         |         |         |
    3+35      57.5061     61.62  |       O |         |         |         |
    3+40      61.5511     66.76  |       OI|         |         |         |
    3+45      66.2382     71.50  |        O|         |         |         |
    3+50      70.7836     75.52  |        OI         |         |         |
    3+55      74.9612     79.48  |         OI        |         |         |
    4+ 0      78.9581     83.31  |         |O        |         |         |
    4+ 5      82.8568     87.21  |         |OI       |         |         |
    4+10      86.8155     91.35  |         | O       |         |         |
    4+15      91.1740     96.61  |         | OI      |         |         |
    4+20      96.3751    102.81  |         |  OI     |         |         |
    4+25     102.3452    109.40  |         |   OI    |         |         |
    4+30     108.7080    115.89  |         |    OI   |         |         |
    4+35     114.9489    121.53  |         |     O   |         |         |
    4+40     120.6489    126.63  |         |     OI  |         |         |
    4+45     126.1500    132.57  |         |      OI |         |         |
    4+50     132.0449    138.90  |         |       OI|         |         |
    4+55     138.0557    144.51  |         |        OI         |         |
    5+ 0     143.6726    149.62  |         |         O         |         |
    5+ 5     149.4792    156.89  |         |         OI        |         |
    5+10     157.8115    170.40  |         |          | OI     |         |
    5+15     171.5653    191.72  |         |          |  O  I  |         |
    5+20     191.1159    215.82  |         |          |     O   I         |
    5+25     213.5589    239.19  |         |          |        O|  I      |
    5+30     237.4011    265.71  |         |          |         |  O   I  |
    5+35     261.6225    286.42  |         |          |         |     O   I
    5+40     272.8798    264.12  |         |          |         |     I O |
    5+45     249.6227    193.72  |         |          |      I  |   O     |
    5+50     196.4815    131.27  |         |       I  |      O  |         |
    5+55     143.4429     94.76  |         |  I       O         |         |
    6+ 0     105.1629     72.84  |         I   O     |         |         |
    6+ 5      79.4792     57.20  |      I  |O        |         |         |
    6+10      61.4203     44.98  |     I O |         |         |         |
    6+15      47.9188     35.24  |    I O  |         |         |         |
    6+20      37.5893     28.06  |  I O    |         |         |         |
    6+25      29.8798     22.89  |  IO     |         |         |         |
    6+30      24.1701     18.88  | IO      |         |         |         |
    6+35      19.7076     15.26  | O       |         |         |         |
    6+40      16.0045     12.42  |IO       |         |         |         |
    6+45      12.9842      9.99  |O        |         |         |         |
    6+50      10.4300      7.83  |O        |         |         |         |
    6+55       8.2367      6.05  IO        |         |         |         |
    7+ 0       6.4173      4.67  O         |         |         |         |
    7+ 5       4.9073      3.34  O         |         |         |         |
    7+10       3.3038      1.13  O         |         |         |         |
    7+15       1.6724      0.47  O         |         |         |         |
    7+20       0.8037      0.24  O         |         |         |         |
    7+25       0.3991      0.14  O         |         |         |         |
    7+30       0.2099      0.07  O         |         |         |         |
    7+35       0.1087      0.03  O         |         |         |         |
    7+40       0.0500      0.00  O         |         |         |         |
    7+45       0.0162      0.00  O         |         |         |         |
    7+50       0.0053      0.00  O         |         |         |         |
    7+55       0.0017      0.00  O         |         |         |         |
    8+ 0       0.0000      0.00  O         |         |         |         |
--------------------------------------------------------------------------
      ****************************HYDROGRAPH DATA****************************
                  Number of intervals =    96
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =      272.880 (CFS)
                  Total volume =      39.891 (Ac.Ft)
            Status of hydrographs being held in storage
                      Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      ***************************************************************************
```

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------------------------------------------------------------------------


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       11.000 to Point/Station       11.000
**** ADD/COMBINE/RECOVER HYDROGRAPHS ****
________________________________________________________________________
********************* HYDROGRAPH INFORMATION **********************

                From study/file name: lgexareab6100.rte
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                   P R I N T  O F  S T O R M
                 R u n o f f     H y d r o g r a p h
------------------------------------------------------------------------
             Hydrograph in   5   Minute intervals (CFS)

      ------------------------------------------------------------------
Time(h+m) Add q(CFS)  Tot. Q   0      182.1     364.2     546.3     728.3
-------------------------------------------------------------------------
  0+ 5       0.6864      0.84  Q         |         |         |         |
  0+10       3.2294      4.41  Q         |         |         |         |
  0+15       8.1854     12.09  Q         |         |         |         |
  0+20      15.1323     22.94  qQ        |         |         |         |
  0+25      22.2669     33.53  |Q        |         |         |         |
  0+30      27.8132     41.49  |qQ       |         |         |         |
  0+35      32.1767     47.85  |qQ       |         |         |         |
  0+40      36.1487     54.09  |qQ       |         |         |         |
  0+45      40.0963     60.38  | qQ      |         |         |         |
  0+50      43.5787     65.68  | qQ      |         |         |         |
  0+55      46.0759     69.40  | qQ      |         |         |         |
  1+ 0      48.2339     72.49  | qQ      |         |         |         |
  1+ 5      50.6320     76.03  | q Q     |         |         |         |
  1+10      53.5500     80.70  | q Q     |         |         |         |
  1+15      56.8709     86.04  |  qQ     |         |         |         |
  1+20      59.8744     90.62  |  qQ     |         |         |         |
  1+25      62.0049     93.80  |  q Q    |         |         |         |
  1+30      63.5217     96.04  |  q Q    |         |         |         |
  1+35      64.6652     97.72  |  q Q    |         |         |         |
  1+40      65.6603     99.14  |  q Q    |         |         |         |
  1+45      66.5219    100.35  |  q Q    |         |         |         |
  1+50      67.2682    101.34  |  q Q    |         |         |         |
  1+55      67.9083    102.16  |  q Q    |         |         |         |
  2+ 0      68.7702    103.25  |  q Q    |         |         |         |
  2+ 5      69.9592    104.99  |  q Q    |         |         |         |
  2+10      71.4921    107.46  |  q Q    |         |         |         |
  2+15      73.4137    110.31  |   q Q   |         |         |         |
  2+20      75.3594    113.21  |   q Q   |         |         |         |
  2+25      77.1789    116.22  |   q Q   |         |         |         |
  2+30      79.1055    119.16  |   q Q   |         |         |         |
  2+35      80.4430    121.17  |   q Q   |         |         |         |
  2+40      81.4607    122.63  |   q Q   |         |         |         |
  2+45      82.4971    124.06  |   q Q   |         |         |         |
  2+50      84.0817    126.37  |   q Q   |         |         |         |
  2+55      86.2970    130.01  |   q  Q  |         |         |         |
  3+ 0      88.9662    134.44  |   q  Q  |         |         |         |
  3+ 5      91.4421    138.28  |    q Q  |         |         |         |
  3+10      93.4238    141.22  |    q Q  |         |         |         |
  3+15      95.5210    144.41  |    q Q  |         |         |         |
  3+20      98.0806    148.64  |    q  Q |         |         |         |
  3+25     101.3073    153.88  |    q  Q |         |         |         |
  3+30     105.2979    159.97  |    q  Q |         |         |         |
  3+35     110.1878    167.69  |     q  Q|         |         |         |
  3+40     116.5376    178.09  |     q  Q|         |         |         |
  3+45     123.9623    190.20  |     q   Q         |         |         |
  3+50     131.5284    202.31  |      q  |Q        |         |         |
  3+55     138.6342    213.60  |      q  |Q        |         |         |
  4+ 0     145.3184    224.28  |       q  | Q      |         |         |
  4+ 5     151.9430    234.80  |       q | Q       |         |         |
  4+10     158.7569    245.57  |       q |  Q      |         |         |
```

```
    4+15     166.3661    257.54  |        q|   Q     |          |          |
    4+20     175.0077    271.38  |        q|   Q     |          |          |
    4+25     184.9865    287.33  |         q    Q    |          |          |
    4+30     195.4974    304.21  |         q     Q   |          |          |
    4+35     205.8975    320.85  |         |q     Q  |          |          |
    4+40     215.8987    336.55  |         |q      Q |          |          |
    4+45     225.6352    351.79  |         | q      Q|          |          |
    4+50     235.4384    367.48  |         | q       Q          |          |
    4+55     245.5263    383.58  |         |  q      |Q         |          |
    5+ 0     255.4738    399.15  |         |   q     |Q         |          |
    5+ 5     266.5759    416.06  |         |   q     | Q        |          |
    5+10     282.0224    439.83  |         |    q    |   Q      |          |
    5+15     304.8704    476.44  |         |     q   |     Q    |          |
    5+20     335.5538    526.67  |         |       q |       Q  |          |
    5+25     372.3410    585.90  |         |         q          | Q        |
    5+30     413.4377    650.84  |         |          | q       |    Q     |
    5+35     447.4675    709.09  |         |          |   q     |       Q  |
    5+40     455.4614    728.34  |         |          |    q    |         Q|
    5+45     425.3473    674.97  |         |          |  q      |       Q  |
    5+50     356.2342    552.72  |         |         q|         Q          |
    5+55     272.4625    415.91  |         |   q      | Q       |          |
    6+ 0     207.7834    312.95  |         |q     Q   |          |          |
    6+ 5     162.9097    242.39  |       q |  Q       |          |          |
    6+10     132.6272    194.05  |      q  Q          |          |          |
    6+15     110.2614    158.18  |     q Q |          |          |          |
    6+20      93.3839    130.97  |    q Q  |          |          |          |
    6+25      80.1157    110.00  |   q Q   |          |          |          |
    6+30      69.1910     93.36  |  q Q    |          |          |          |
    6+35      60.4073     80.11  |  qQ     |          |          |          |
    6+40      53.2477     69.25  | qQ      |          |          |          |
    6+45      46.5340     59.52  | qQ      |          |          |          |
    6+50      41.2268     51.66  | Q       |          |          |          |
    6+55      36.3561     44.59  |qQ       |          |          |          |
    7+ 0      32.6154     39.03  |qQ       |          |          |          |
    7+ 5      29.2712     34.18  |Q        |          |          |          |
    7+10      26.0814     29.39  |Q        |          |          |          |
    7+15      22.7707     24.44  |Q        |          |          |          |
    7+20      20.0539     20.86  |Q        |          |          |          |
    7+25      17.5645     17.96  Q         |          |          |          |
    7+30      15.3816     15.59  Q         |          |          |          |
    7+35      13.3240     13.43  Q         |          |          |          |
    7+40      11.5838     11.63  Q         |          |          |          |
    7+45      10.0041     10.02  Q         |          |          |          |
    7+50       8.6827      8.69  Q         |          |          |          |
    7+55       7.5024      7.50  Q         |          |          |          |
    8+ 0       6.2828      6.28  Q         |          |          |          |
    8+ 5       4.9981      5.00  Q         |          |          |          |
    8+10       3.6098      3.61  Q         |          |          |          |
    8+15       2.0137      2.01  Q         |          |          |          |
    8+20       0.7396      0.74  Q         |          |          |          |
    8+25       0.3338      0.33  Q         |          |          |          |
    8+30       0.1661      0.17  Q         |          |          |          |
    8+35       0.0713      0.07  Q         |          |          |          |
    8+40       0.0201      0.02  Q         |          |          |          |
    8+45       0.0063      0.01  Q         |          |          |          |
--------------------------------------------------------------------------
      ****************************HYDROGRAPH DATA****************************
                Number of intervals =   105
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =      728.341 (CFS)
                Total volume =     115.977 (Ac.Ft)
          Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
          Peak (CFS)      0.000     0.000     0.000     0.000     0.000
          Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
      ****************************************************************************

      ----------------------------------------------------------------
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++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       11.000 to Point/Station       11.000
**** ADD/COMBINE/RECOVER HYDROGRAPHS ****
________________________________________________________________________
******************** HYDROGRAPH INFORMATION **********************

                From study/file name: lgexareac6100.rte
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                   P R I N T  O F  S T O R M
                 R u n o f f     H y d r o g r a p h
------------------------------------------------------------------------
              Hydrograph in   5   Minute intervals (CFS)

------------------------------------------------------------------------
Time(h+m) Add q(CFS)  Tot. Q   0      215.9     431.8     647.8     863.7
------------------------------------------------------------------------
  0+ 5       0.7954      1.64  Q         |         |         |         |
  0+10       4.3073      8.71  Q         |         |         |         |
  0+15       7.7889     19.88  Q         |         |         |         |
  0+20       9.5156     32.45  qQ        |         |         |         |
  0+25      10.3743     43.90  q Q       |         |         |         |
  0+30      11.2530     52.74  q Q       |         |         |         |
  0+35      12.9565     60.80  q Q       |         |         |         |
  0+40      14.1912     68.28  q  Q      |         |         |         |
  0+45      14.7744     75.16  q  Q      |         |         |         |
  0+50      15.1566     80.83  q  Q      |         |         |         |
  0+55      15.4239     84.82  q  Q      |         |         |         |
  1+ 0      15.9401     88.43  q   Q     |         |         |         |
  1+ 5      17.4332     93.46  q   Q     |         |         |         |
  1+10      18.4819     99.18  q   Q     |         |         |         |
  1+15      18.8962    104.94  q   Q     |         |         |         |
  1+20      19.1507    109.77  q    Q    |         |         |         |
  1+25      19.3237    113.13  q    Q    |         |         |         |
  1+30      19.4596    115.50  q    Q    |         |         |         |
  1+35      19.5349    117.26  q    Q    |         |         |         |
  1+40      19.5957    118.74  q    Q    |         |         |         |
  1+45      19.6400    119.99  q    Q    |         |         |         |
  1+50      19.6729    121.01  q    Q    |         |         |         |
  1+55      19.6970    121.86  q    Q    |         |         |         |
  2+ 0      20.0530    123.30  q    Q    |         |         |         |
  2+ 5      21.0487    126.03  q    Q    |         |         |         |
  2+10      21.0141    128.47  q    Q    |         |         |         |
  2+15      21.7433    132.06  |q    Q   |         |         |         |
  2+20      22.5561    135.77  |q    Q   |         |         |         |
  2+25      22.8533    139.08  |q    Q   |         |         |         |
  2+30      23.0306    142.19  |q    Q   |         |         |         |
  2+35      23.1502    144.32  |q    Q   |         |         |         |
  2+40      23.2403    145.87  |q    Q   |         |         |         |
  2+45      23.6237    147.68  |q    Q   |         |         |         |
  2+50      24.9934    151.36  |q     Q  |         |         |         |
  2+55      25.9900    156.00  |q     Q  |         |         |         |
  3+ 0      26.4002    160.84  |q     Q  |         |         |         |
  3+ 5      26.6145    164.89  |q     Q  |         |         |         |
  3+10      27.1195    168.34  |q     Q  |         |         |         |
  3+15      28.5443    172.95  |q      Q |         |         |         |
  3+20      29.5806    178.23  |q      Q |         |         |         |
  3+25      30.3361    184.22  |q      Q |         |         |         |
  3+30      32.2471    192.21  |q      Q |         |         |         |
  3+35      35.0349    202.73  |q       Q|         |         |         |
  3+40      37.8149    215.90  |q       Q|         |         |         |
  3+45      39.7988    230.00  |q        Q         |         |         |
  3+50      41.9205    244.23  |q        |Q        |         |         |
  3+55      43.7256    257.32  | q       |Q        |         |         |
  4+ 0      45.7775    270.05  | q       | Q       |         |         |
  4+ 5      47.5496    282.35  | q       |  Q      |         |         |
  4+10      49.9252    295.50  | q       |  Q      |         |         |
  4+15      52.9955    310.54  | q       |   Q     |         |         |
  4+20      56.2970    327.68  | q       |    Q    |         |         |
  4+25      59.7484    347.08  | q       |     Q   |         |         |
  4+30      62.9453    367.15  | q       |      Q  |         |         |
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    4+35      65.2012    386.05  |  q       |       Q  |          |          |
    4+40      67.8349    404.38  |  q       |        Q |          |          |
    4+45      71.1164    422.90  |  q       |         Q|          |          |
    4+50      74.2256    441.71  |  q       |          Q          |          |
    4+55      76.4522    460.03  |  q       |          |Q         |          |
    5+ 0      79.0751    478.22  |  q       |          | Q       |          |
    5+ 5      83.6484    499.70  |  q       |          |  Q      |          |
    5+10      93.6657    533.50  |   q      |          |   Q     |          |
    5+15     106.9673    583.40  |   q      |          |      Q  |          |
    5+20     119.1638    645.83  |    q     |          |         Q|          |
    5+25     131.0122    716.91  |     q    |          |          |  Q       |
    5+30     146.6626    797.50  |     q    |          |          |     Q    |
    5+35     154.6051    863.70  |      q   |          |          |         Q|
    5+40     115.1766    843.52  |    q     |          |          |         Q|
    5+45      71.4266    746.40  |  q       |          |          |   Q      |
    5+50      47.7513    600.47  | q        |          |       Q  |          |
    5+55      34.2353    450.14  |q         |          |Q         |          |
    6+ 0      25.0751    338.02  |q         |     Q    |          |          |
    6+ 5      18.3212    260.71  q          | Q        |          |          |
    6+10      12.8253    206.87  q        Q|          |          |          |
    6+15       8.7711    166.95  q      Q  |          |          |          |
    6+20       6.1007    137.07  q     Q   |          |          |          |
    6+25       4.1745    114.17  q    Q    |          |          |          |
    6+30       2.7818     96.14  q   Q     |          |          |          |
    6+35       1.0440     81.16  q  Q      |          |          |          |
    6+40       0.4828     69.73  q  Q      |          |          |          |
    6+45       0.2545     59.77  q Q       |          |          |          |
    6+50       0.1445     51.80  q Q       |          |          |          |
    6+55       0.0697     44.66  q Q       |          |          |          |
    7+ 0       0.0308     39.06  qQ        |          |          |          |
    7+ 5       0.0000     34.18  qQ        |          |          |          |
    7+10       0.0000     29.39  qQ        |          |          |          |
    7+15       0.0000     24.44  qQ        |          |          |          |
    7+20       0.0000     20.86  Q         |          |          |          |
    7+25       0.0000     17.96  Q         |          |          |          |
    7+30       0.0000     15.59  Q         |          |          |          |
    7+35       0.0000     13.43  Q         |          |          |          |
    7+40       0.0000     11.63  Q         |          |          |          |
    7+45       0.0000     10.02  Q         |          |          |          |
    7+50       0.0000      8.69  Q         |          |          |          |
    7+55       0.0000      7.50  Q         |          |          |          |
    8+ 0       0.0000      6.28  Q         |          |          |          |
    8+ 5       0.0000      5.00  Q         |          |          |          |
    8+10       0.0000      3.61  Q         |          |          |          |
    8+15       0.0000      2.01  Q         |          |          |          |
    8+20       0.0000      0.74  Q         |          |          |          |
    8+25       0.0000      0.33  Q         |          |          |          |
    8+30       0.0000      0.17  Q         |          |          |          |
    8+35       0.0000      0.07  Q         |          |          |          |
    8+40       0.0000      0.02  Q         |          |          |          |
    8+45       0.0000      0.01  Q         |          |          |          |
--------------------------------------------------------------------------
      ****************************HYDROGRAPH DATA****************************
                  Number of intervals =   105
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =      863.695 (CFS)
                  Total volume =     136.703 (Ac.Ft)
            Status of hydrographs being held in storage
                      Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
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      Process from Point/Station       11.000 to Point/Station       11.000
      **** ADD/COMBINE/RECOVER HYDROGRAPHS ****

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********** HYDROGRAPH INFORMATION **********

From study/file name: lgexaread6100.rte

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P R I N T O F S T O R M

R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals (CFS)

Time(h+m)	Add q(CFS)	Tot. Q	0 254.9 509.8 764.7 1019.6
0+ 5	0.4182	2.06	Q | | | |
0+10	2.0982	10.81	Q | | | |
0+15	5.2676	25.14	Q | | | |
0+20	8.9225	41.38	qQ | | | |
0+25	11.5187	55.42	q Q | | | |
0+30	13.1653	65.91	q Q | | | |
0+35	14.5981	75.40	q Q | | | |
0+40	16.1360	84.41	q Q | | | |
0+45	17.5751	92.73	q Q | | | |
0+50	18.5709	99.41	q Q | | | |
0+55	19.2500	104.07	q Q | | | |
1+ 0	19.9067	108.33	q Q | | | |
1+ 5	20.8089	114.27	q Q | | | |
1+10	21.9864	121.17	q Q | | | |
1+15	23.1463	128.08	q Q | | | |
1+20	23.9332	133.71	q Q | | | |
1+25	24.4708	137.60	q Q | | | |
1+30	24.8628	140.36	q Q | | | |
1+35	25.1826	142.44	q Q | | | |
1+40	25.4525	144.19	q Q | | | |
1+45	25.6817	145.67	|q Q | | | |
1+50	25.8745	146.89	|q Q | | | |
1+55	26.0382	147.89	|q Q | | | |
2+ 0	26.3082	149.61	|q Q | | | |
2+ 5	26.7859	152.82	|q Q | | | |
2+10	27.3826	155.85	|q Q | | | |
2+15	27.9923	160.05	|q Q | | | |
2+20	28.5384	164.31	|q Q | | | |
2+25	29.2226	168.30	|q Q | | | |
2+30	29.6897	171.88	|q Q | | | |
2+35	29.9855	174.30	|q Q | | | |
2+40	30.1823	176.06	|q Q | | | |
2+45	30.4607	178.14	|q Q | | | |
2+50	31.0578	182.42	|q Q | | | |
2+55	31.9942	188.00	|q Q | | | |
3+ 0	32.9448	193.78	|q Q | | | |
3+ 5	33.5546	198.45	|q Q | | | |
3+10	34.0447	202.38	|q Q | | | |
3+15	34.7705	207.72	|q Q | | | |
3+20	35.7936	214.02	|q Q | | | |
3+25	36.9513	221.17	|q Q | | | |
3+30	38.2250	230.44	|q Q| | | |
3+35	40.0722	242.80	|q Q| | | |
3+40	42.5439	258.45	|q Q | | |
3+45	45.1373	275.14	|q Q | | |
3+50	47.5113	291.74	|q |Q | | |
3+55	49.6652	306.99	|q | Q | | |
4+ 0	51.8091	321.86	| q | Q | | |
4+ 5	53.9057	336.26	| q | Q | | |
4+10	56.1672	351.66	| q | Q | | |
4+15	58.7293	369.26	| q | Q | | |
4+20	61.8265	389.51	| q | Q | | |
4+25	65.2653	412.35	| q | Q | | |
4+30	68.7723	435.92	| q | Q | | |
4+35	72.0380	458.09	| q | Q | | |
4+40	75.0547	479.44	| q | Q | | |
4+45	78.1051	501.01	| q | Q| | |
4+50	81.4345	523.14	| q | Q | |

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    4+55      84.6793    544.71  |  q      |          |Q        |          |
    5+ 0      87.7164    565.94  |  q      |          | Q       |          |
    5+ 5      91.3082    591.01  |  q      |          |  Q      |          |
    5+10      97.2077    630.71  |  q      |          |   Q     |          |
    5+15     106.4376    689.84  |   q     |          |      Q  |          |
    5+20     118.3314    764.16  |   q     |          |        Q|          |
    5+25     131.0224    847.93  |    q    |          |         |  Q       |
    5+30     144.7262    942.23  |    q    |          |         |     Q    |
    5+35     155.8638   1019.56  |     q   |          |         |        Q |
    5+40     153.6337    997.15  |     q   |          |         |       Q  |
    5+45     131.7599    878.16  |    q    |          |         |   Q      |
    5+50      98.7099    699.18  |  q      |          |      Q  |          |
    5+55      73.1027    523.24  | q       |          |Q        |          |
    6+ 0      56.7063    394.73  | q       |    Q     |         |          |
    6+ 5      45.6374    306.35  |q        | Q        |         |          |
    6+10      36.9548    243.83  |q       Q|          |         |          |
    6+15      29.9447    196.90  |q     Q  |          |         |          |
    6+20      24.4366    161.51  q     Q   |          |         |          |
    6+25      20.4496    134.62  q    Q    |          |         |          |
    6+30      17.1718    113.31  q   Q     |          |         |          |
    6+35      14.6065     95.77  q  Q      |          |         |          |
    6+40      12.5326     82.27  q  Q      |          |         |          |
    6+45      10.8732     70.65  q Q       |          |         |          |
    6+50       9.3254     61.13  q Q       |          |         |          |
    6+55       7.8650     52.53  q Q       |          |         |          |
    7+ 0       6.6683     45.73  qQ        |          |         |          |
    7+ 5       5.6552     39.83  qQ        |          |         |          |
    7+10       4.7484     34.13  qQ        |          |         |          |
    7+15       3.9686     28.41  qQ        |          |         |          |
    7+20       3.2592     24.12  Q         |          |         |          |
    7+25       2.6708     20.63  Q         |          |         |          |
    7+30       2.1029     17.69  Q         |          |         |          |
    7+35       1.5069     14.94  Q         |          |         |          |
    7+40       0.8315     12.47  Q         |          |         |          |
    7+45       0.3502     10.37  Q         |          |         |          |
    7+50       0.1846      8.87  Q         |          |         |          |
    7+55       0.1086      7.61  Q         |          |         |          |
    8+ 0       0.0591      6.34  Q         |          |         |          |
    8+ 5       0.0264      5.02  Q         |          |         |          |
    8+10       0.0076      3.62  Q         |          |         |          |
    8+15       0.0000      2.01  Q         |          |         |          |
    8+20       0.0000      0.74  Q         |          |         |          |
    8+25       0.0000      0.33  Q         |          |         |          |
    8+30       0.0000      0.17  Q         |          |         |          |
    8+35       0.0000      0.07  Q         |          |         |          |
    8+40       0.0000      0.02  Q         |          |         |          |
    8+45       0.0000      0.01  Q         |          |         |          |
--------------------------------------------------------------------------
      ****************************HYDROGRAPH DATA****************************
                Number of intervals =   105
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =     1019.559 (CFS)
                Total volume =     162.543 (Ac.Ft)
           Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
           Peak (CFS)      0.000     0.000     0.000     0.000     0.000
           Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
      ****************************************************************************

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                FLOOD HYDROGRAPH ROUTING PROGRAM
          Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                     Study date: 04/24/19


------------------------------------------------------------------------
Legado
Existing Condition
Drainage Areas A+B+C+D
100-year 24-hour storm


------------------------------------------------------------------------


Program License Serial Number 4029

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********************* HYDROGRAPH INFORMATION **********************

               From study/file name: lgexareaa24100.rte
****************************HYDROGRAPH DATA*****************************
               Number of intervals =   307
               Time interval =    5.0 (Min.)
               Maximum/Peak flow rate =      126.337 (CFS)
               Total volume =      60.458 (Ac.Ft)
       Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
************************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       10.000 to Point/Station       11.000
**** STREAM ROUTING SCS CONVEX METHOD ****
________________________________________________________________________
HYDROGRAPH STREAM ROUTING DATA:
Length of stream =   3550.00 (Ft.)
Elevation difference =   25.00 (Ft.)
Slope of channel =  0.007042 (Vert/Horiz)
Channel type - Improved Channel


Channel length =  3550.00(Ft.)     Elevation difference =  25.00(Ft.)
Channel evaluation using mean flow rate of hydrograph
Channel base width  =   30.000(Ft.)
Slope or 'Z' of left channel bank =   3.000
Slope or 'Z' of right channel bank =   3.000
Manning's 'N'    = 0.025
Maximum depth of channel  =    2.000(Ft.)
Flow(q) thru subarea =     41.860(CFS)
Depth of flow =     0.462(Ft.)
Average velocity =     2.887(Ft/s)
Total flow rate =    41.860(CFS)
Channel flow top width =   32.772(Ft.)
Depth of flow in channel =   0.46(Ft.)
Total number of channels (same dimensions) = 1
Flow Velocity =    2.89(Ft/s)
Travel time  =    0.00 min.
Individual channel flow =   41.860(CFS)
Total capacity of improved channels =     41.860(CFS)
Critical Depth in Channel =    0.39(Ft.)


Channel evaluation using maximum flow rate of hydrograph
Flow(q) thru subarea =    126.337(CFS)
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Depth of flow =     0.889(Ft.)
Average velocity =     4.352(Ft/s)
Total flow rate =   126.337(CFS)
Channel flow top width =   35.332(Ft.)
Depth of flow in channel =   0.89(Ft.)
Total number of channels (same dimensions) = 1
Flow Velocity =    4.35(Ft/s)
Travel time  =    0.00 min.
Individual channel flow =  126.337(CFS)
Total capacity of improved channels =    126.337(CFS)
Critical Depth in Channel =    0.80(Ft.)


********************** SCS CONVEX CHANNEL ROUTING *********************
Convex method of stream routing  data items:
Using equation: Outflow =
O(t+dt) = (1-c*)O(t+dt-dt*) + Input(c*)
          where c* = 1 - (1-c)^e and dt = c(length)/velocity
          c(v/v+1.7) =   0.7191   Travel time =  13.60 (min.)
        dt*(unit time interval) =   5.00(min.),  e=   0.6743
        dt(routing time-step) =   9.78 (min.),   c* =   0.5752

Output hydrograph delayed by 0  unit time increments


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                  P R I N T  O F  S T O R M
               R u n o f f     H y d r o g r a p h
----------------------------------------------------------------------
            Hydrograph in   5   Minute intervals (CFS)

    ----------------------------------------------------------------------
Time(h+m) Out = O(CFS) In = I  0       31.6      63.2      94.8     126.3
----------------------------------------------------------------------
  0+ 5       0.0425      0.15  O         |         |         |         |
  0+10       0.2799      0.77  O         |         |         |         |
  0+15       0.8247      1.70  O         |         |         |         |
  0+20       1.5205      2.38  O         |         |         |         |
  0+25       2.1865      2.99  O         |         |         |         |
  0+30       2.8306      3.64  OI        |         |         |         |
  0+35       3.4197      4.08  |O        |         |         |         |
  0+40       3.8713      4.33  |O        |         |         |         |
  0+45       4.1878      4.51  |O        |         |         |         |
  0+50       4.4343      4.73  |O        |         |         |         |
  0+55       4.7187      5.14  |O        |         |         |         |
  1+ 0       5.1168      5.69  |O        |         |         |         |
  1+ 5       5.5323      5.99  |O        |         |         |         |
  1+10       5.7675      5.89  |O        |         |         |         |
  1+15       5.7457      5.56  |O        |         |         |         |
  1+20       5.5879      5.37  |O        |         |         |         |
  1+25       5.4479      5.31  |O        |         |         |         |
  1+30       5.3639      5.29  |O        |         |         |         |
  1+35       5.3182      5.28  |O        |         |         |         |
  1+40       5.2962      5.28  |O        |         |         |         |
  1+45       5.2838      5.27  |O        |         |         |         |
  1+50       5.2940      5.34  |O        |         |         |         |
  1+55       5.4060      5.65  |O        |         |         |         |
  2+ 0       5.6731      6.10  |O        |         |         |         |
  2+ 5       6.0030      6.40  |OI       |         |         |         |
  2+10       6.2689      6.54  |OI       |         |         |         |
  2+15       6.4477      6.62  | O       |         |         |         |
  2+20       6.5676      6.69  | O       |         |         |         |
  2+25       6.6532      6.74  | O       |         |         |         |
  2+30       6.7156      6.78  | O       |         |         |         |
  2+35       6.7812      6.88  | O       |         |         |         |
  2+40       6.9311      7.21  | O       |         |         |         |
  2+45       7.2276      7.70  | O       |         |         |         |
  2+50       7.5872      8.02  | O       |         |         |         |
  2+55       7.8807      8.18  | O       |         |         |         |
  3+ 0       8.0833      8.29  | O       |         |         |         |
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3+ 5	8.2234	8.37	O			
3+10	8.3241	8.43	O			
3+15	8.3991	8.48	O			
3+20	8.4568	8.52	O			
3+25	8.5036	8.56	O			
3+30	8.5403	8.58	O			
3+35	8.5680	8.60	O			
3+40	8.5901	8.61	O			
3+45	8.6079	8.63	O			
3+50	8.6437	8.71	O			
3+55	8.7744	9.03	O			
4+ 0	9.0564	9.51	OI			
4+ 5	9.4018	9.81	OI			
4+10	9.6838	9.97	O			
4+15	9.8763	10.07	O			
4+20	10.0262	10.21	O			
4+25	10.2351	10.58	O			
4+30	10.5733	11.08	O			
4+35	10.9605	11.42	O			
4+40	11.2726	11.59	O			
4+45	11.4886	11.71	O			
4+50	11.6607	11.87	O			
4+55	11.8893	12.25	O			
5+ 0	12.2444	12.77	OI			
5+ 5	12.6031	12.97	OI			
5+10	12.6896	12.53	IO			
5+15	12.3705	11.72	O			
5+20	11.8761	11.29	O			
5+25	11.5658	11.39	O			
5+30	11.5557	11.72	O			
5+35	11.7292	12.00	O			
5+40	11.9950	12.39	O			
5+45	12.3628	12.89	OI			
5+50	12.7599	13.22	O			
5+55	13.0752	13.40	O			
6+ 0	13.2900	13.50	O			
6+ 5	13.4542	13.65	O			
6+10	13.6713	14.02	O			
6+15	14.0148	14.53	O			
6+20	14.4063	14.87	O			
6+25	14.7240	15.05	O			
6+30	14.9447	15.17	O			
6+35	15.1177	15.33	O			
6+40	15.3426	15.70	O			
6+45	15.6946	16.22	OI			
6+50	16.0986	16.58	O			
6+55	16.4286	16.77	O			
7+ 0	16.6598	16.89	O			
7+ 5	16.8211	16.99	O			
7+10	16.9404	17.07	O			
7+15	17.0301	17.12	O			
7+20	17.1183	17.25	O			
7+25	17.2885	17.59	O			
7+30	17.6012	18.08	O			
7+35	18.0185	18.58	O			
7+40	18.5844	19.44	OI			
7+45	19.4051	20.60	O			
7+50	20.3809	21.62	O			
7+55	21.4604	22.92	OI			
8+ 0	22.7477	24.51	O			
8+ 5	24.1839	26.01	OI			
8+10	25.8832	28.32	O			
8+15	28.1058	31.25	OI			
8+20	30.4737	33.24	OI			
8+25	32.3829	34.37	O			
8+30	33.7484	35.16	OI			
8+35	34.8004	36.01	O			
8+40	35.8751	37.36	O			
8+45	37.1995	39.03	OI			
8+50	38.6471	40.43	O			

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 8+55      40.1093     41.98  |          | OI       |          |          |
 9+ 0      41.6862     43.76  |          |  O       |          |          |
 9+ 5      43.3458     45.42  |          |  OI      |          |          |
 9+10      45.2253     47.86  |          |   OI     |          |          |
 9+15      47.5912     50.89  |          |    OI    |          |          |
 9+20      50.1276     53.17  |          |    OI    |          |          |
 9+25      52.4421     55.18  |          |     OI   |          |          |
 9+30      54.5971     57.24  |          |      OI  |          |          |
 9+35      56.5892     58.92  |          |      OI  |          |          |
 9+40      58.4320     60.71  |          |       OI |          |          |
 9+45      60.2811     62.63  |          |        O |          |          |
 9+50      62.0738     64.20  |          |        OI          |          |
 9+55      63.7725     65.89  |          |         O          |          |
10+ 0      65.5198     67.77  |          |         OI         |          |
10+ 5      66.8054     67.74  |          |         |O         |          |
10+10      65.9745     62.88  |          |        IO          |          |
10+15      61.9665     54.96  |          |      I O |         |          |
10+20      56.5207     49.93  |          |    I O   |         |          |
10+25      52.0926     47.67  |          |    IO    |         |          |
10+30      49.1697     46.32  |          |   IO     |         |          |
10+35      47.5485     46.38  |          |   IO     |         |          |
10+40      47.8394     49.81  |          |    O     |         |          |
10+45      50.5387     55.38  |          |     OI   |         |          |
10+50      54.3342     58.97  |          |      OI  |         |          |
10+55      57.4750     60.65  |          |       OI |         |          |
11+ 0      59.5872     61.66  |          |       OI |         |          |
11+ 5      60.9284     62.19  |          |        O |         |          |
11+10      61.5884     61.96  |          |        O |         |          |
11+15      61.5879     61.20  |          |        O |         |          |
11+20      61.2487     60.79  |          |        O |         |          |
11+25      60.9700     60.74  |          |        O |         |          |
11+30      60.8483     60.78  |          |        O |         |          |
11+35      60.7197     60.46  |          |        O |         |          |
11+40      60.1140     58.83  |          |       IO |         |          |
11+45      58.7437     56.58  |          |      IO  |         |          |
11+50      57.1591     55.37  |          |      IO  |         |          |
11+55      56.1913     55.59  |          |      O   |         |          |
12+ 0      56.0944     56.48  |          |      O   |         |          |
12+ 5      56.8741     58.47  |          |       O  |         |          |
12+10      59.4908     64.52  |          |       O I          |          |
12+15      64.8189     73.19  |          |         O  I       |          |
12+20      71.2808     79.05  |          |          | O  I    |          |
12+25      76.7743     82.69  |          |          |   O I   |          |
12+30      81.0326     85.73  |          |          |    O I  |          |
12+35      84.4558     88.29  |          |          |     OI  |          |
12+40      87.5317     91.38  |          |          |      OI |          |
12+45      90.7524     94.96  |          |          |       O I          |
12+50      93.9340     97.67  |          |          |        OI          |
12+55      96.7382    100.00  |          |          |         OI         |
13+ 0      99.2751    102.35  |          |          |         |OI        |
13+ 5     101.8092    105.08  |          |          |         | OI       |
13+10     105.1525    110.29  |          |          |         |  OI      |
13+15     110.0774    117.30  |          |          |         |   O  I   |
13+20     115.5630    122.03  |          |          |         |     O I  |
13+25     120.0069    124.60  |          |          |         |      O I|
13+30     123.1382    126.34  |          |          |         |       O I
13+35     124.7514    125.53  |          |          |         |        O|
13+40     123.0025    117.71  |          |          |         |      IO  |
13+45     116.4113    105.09  |          |          |         |  I  O    |
13+50     107.6315     97.03  |          |          |         I   O      |
13+55     100.4920     93.33  |          |          |        I|O         |
14+ 0      95.7467     91.11  |          |          |       I O          |
14+ 5      92.8590     90.33  |          |          |       IO|          |
14+10      92.0024     92.46  |          |          |        O|          |
14+15      93.3800     96.43  |          |          |        OI          |
14+20      95.7752     98.71  |          |          |         OI         |
14+25      97.5294     98.94  |          |          |         OI         |
14+30      98.1540     98.27  |          |          |         |O         |
14+35      98.0977     97.83  |          |          |         IO         |
14+40      97.9320     97.79  |          |          |         IO         |
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14+45      97.8289     97.72  |          |          |          O          |
14+50      97.6959     97.47  |          |          |          O          |
14+55      97.3353     96.64  |          |          |          O          |
15+ 0      96.6006     95.44  |          |          |          O          |
15+ 5      95.6647     94.48  |          |          |         IO          |
15+10      94.6184     93.18  |          |          |         O|          |
15+15      93.4323     91.90  |          |          |         O|          |
15+20      92.2688     90.89  |          |          |        IO|          |
15+25      91.1436     89.70  |          |          |        O |          |
15+30      89.9123     88.27  |          |          |       IO |          |
15+35      88.4851     86.55  |          |          |       IO |          |
15+40      86.3392     82.87  |          |          |      IO  |          |
15+45      82.8778     77.65  |          |          |    I O   |          |
15+50      78.9108     74.23  |          |          |   IO     |          |
15+55      75.7331     72.50  |          |          |  IO      |          |
16+ 0      73.5700     71.42  |          |          |  IO      |          |
16+ 5      71.3644     67.97  |          |          | IO       |          |
16+10      66.1948     56.52  |          |       I  O          |          |
16+15      55.9375     39.83  |          |  I    O  |          |          |
16+20      43.5912     28.87  |          I|  O       |          |          |
16+25      33.5822     23.38  |       I  O          |          |          |
16+30      26.7294     19.87  |      I O |          |          |          |
16+35      22.0138     17.13  |     IO   |          |          |          |
16+40      18.5355     14.75  |    IO    |          |          |          |
16+45      15.7728     12.67  |    O     |          |          |          |
16+50      13.5359     11.07  |   IO     |          |          |          |
16+55      11.7839      9.89  |   O      |          |          |          |
17+ 0      10.4340      8.97  |  IO      |          |          |          |
17+ 5       9.3955      8.28  |  O       |          |          |          |
17+10       8.7270      8.19  |  O       |          |          |          |
17+15       8.5372      8.62  |  O       |          |          |          |
17+20       8.6348      8.80  |  O       |          |          |          |
17+25       8.7201      8.76  |  O       |          |          |          |
17+30       8.7223      8.68  |  O       |          |          |          |
17+35       8.6655      8.56  |  O       |          |          |          |
17+40       8.5305      8.29  |  O       |          |          |          |
17+45       8.4149      8.37  |  O       |          |          |          |
17+50       8.3812      8.35  |  O       |          |          |          |
17+55       8.2861      8.08  |  O       |          |          |          |
18+ 0       8.0468      7.65  |  O       |          |          |          |
18+ 5       7.7438      7.38  |  O       |          |          |          |
18+10       7.5005      7.26  |  O       |          |          |          |
18+15       7.3413      7.19  |  O       |          |          |          |
18+20       7.2407      7.14  |  O       |          |          |          |
18+25       7.1740      7.11  |  O       |          |          |          |
18+30       7.1273      7.08  |  O       |          |          |          |
18+35       7.0723      6.98  |  O       |          |          |          |
18+40       6.9319      6.67  |  O       |          |          |          |
18+45       6.6424      6.18  |IO        |          |          |          |
18+50       6.2645      5.78  |O         |          |          |          |
18+55       5.8536      5.31  |O         |          |          |          |
19+ 0       5.3791      4.74  |O         |          |          |          |
19+ 5       4.9233      4.43  |O         |          |          |          |
19+10       4.6677      4.53  |O         |          |          |          |
19+15       4.6793      4.85  |O         |          |          |          |
19+20       4.8542      5.12  |O         |          |          |          |
19+25       5.1108      5.49  |O         |          |          |          |
19+30       5.4670      5.98  |O         |          |          |          |
19+35       5.8316      6.22  |O         |          |          |          |
19+40       6.0150      6.07  |O         |          |          |          |
19+45       5.9459      5.71  |O         |          |          |          |
19+50       5.7234      5.40  |O         |          |          |          |
19+55       5.4256      5.00  |O         |          |          |          |
20+ 0       5.0359      4.49  |O         |          |          |          |
20+ 5       4.6461      4.23  |O         |          |          |          |
20+10       4.4412      4.36  |O         |          |          |          |
20+15       4.4937      4.71  |O         |          |          |          |
20+20       4.6837      4.94  |O         |          |          |          |
20+25       4.8533      5.02  |O         |          |          |          |
20+30       4.9634      5.07  |O         |          |          |          |
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20+35	5.0342	5.10	|O	|	|	|	|
20+40	5.0828	5.13	|O	|	|	|	|
20+45	5.1164	5.15	|O	|	|	|	|
20+50	5.1162	5.08	|O	|	|	|	|
20+55	5.0125	4.78	|O	|	|	|	|
21+ 0	4.7504	4.32	|O	|	|	|	|
21+ 5	4.4399	4.10	|O	|	|	|	|
21+10	4.2869	4.26	|O	|	|	|	|
21+15	4.3751	4.63	|O	|	|	|	|
21+20	4.5688	4.79	|O	|	|	|	|
21+25	4.6372	4.58	|O	|	|	|	|
21+30	4.4879	4.17	|O	|	|	|	|
21+35	4.2533	3.99	|O	|	|	|	|
21+40	4.1560	4.19	|O	|	|	|	|
21+45	4.2838	4.58	|O	|	|	|	|
21+50	4.5012	4.75	|O	|	|	|	|
21+55	4.5857	4.54	|O	|	|	|	|
22+ 0	4.4471	4.14	|O	|	|	|	|
22+ 5	4.2181	3.96	|O	|	|	|	|
22+10	4.1229	4.15	|O	|	|	|	|
22+15	4.2524	4.55	|O	|	|	|	|
22+20	4.4735	4.73	|O	|	|	|	|
22+25	4.5604	4.52	|O	|	|	|	|
22+30	4.4244	4.12	|O	|	|	|	|
22+35	4.1793	3.87	|O	|	|	|	|
22+40	3.9725	3.77	|O	|	|	|	|
22+45	3.8356	3.70	|O	|	|	|	|
22+50	3.7433	3.65	|O	|	|	|	|
22+55	3.6763	3.60	|O	|	|	|	|
23+ 0	3.6273	3.58	|O	|	|	|	|
23+ 5	3.5937	3.56	|O	|	|	|	|
23+10	3.5717	3.55	|O	|	|	|	|
23+15	3.5553	3.54	|O	|	|	|	|
23+20	3.5393	3.52	|O	|	|	|	|
23+25	3.5229	3.50	|O	|	|	|	|
23+30	3.5091	3.50	|O	|	|	|	|
23+35	3.5003	3.49	|O	|	|	|	|
23+40	3.4957	3.49	|O	|	|	|	|
23+45	3.4922	3.49	|O	|	|	|	|
23+50	3.4867	3.48	|O	|	|	|	|
23+55	3.4794	3.47	|O	|	|	|	|
24+ 0	3.4733	3.47	|O	|	|	|	|
24+ 5	3.4282	3.32	|O	|	|	|	|
24+10	3.1897	2.70	IO	|	|	|	|
24+15	2.6444	1.77	O	|	|	|	|
24+20	1.9697	1.16	O	|	|	|	|
24+25	1.4223	0.87	O	|	|	|	|
24+30	1.0506	0.68	O	|	|	|	|
24+35	0.7988	0.54	O	|	|	|	|
24+40	0.6208	0.43	O	|	|	|	|
24+45	0.4901	0.35	O	|	|	|	|
24+50	0.3908	0.28	O	|	|	|	|
24+55	0.3140	0.23	O	|	|	|	|
25+ 0	0.2537	0.19	O	|	|	|	|
25+ 5	0.2039	0.15	O	|	|	|	|
25+10	0.1620	0.11	O	|	|	|	|
25+15	0.1274	0.09	O	|	|	|	|
25+20	0.0987	0.07	O	|	|	|	|
25+25	0.0750	0.05	O	|	|	|	|
25+30	0.0558	0.03	O	|	|	|	|
25+35	0.0396	0.02	O	|	|	|	|
25+40	0.0228	0.00	O	|	|	|	|
25+45	0.0097	0.00	O	|	|	|	|
25+50	0.0041	0.00	O	|	|	|	|
25+55	0.0018	0.00	O	|	|	|	|
26+ 0	0.0000	0.00	O	|	|	|	|

**********HYDROGRAPH DATA**********

Number of intervals = 312
Time interval = 5.0 (Min.)

```
                Maximum/Peak flow rate =      124.751 (CFS)
                Total volume =      60.458 (Ac.Ft)
          Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
          Peak (CFS)      0.000     0.000     0.000     0.000     0.000
          Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
     ************************************************************************

     ------------------------------------------------------------------------


     ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
     Process from Point/Station       11.000 to Point/Station       11.000
     **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
     ________________________________________________________________________
     ********************* HYDROGRAPH INFORMATION **********************

                  From study/file name: lgexareab24100.rte
     ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                     P R I N T  O F  S T O R M
                  R u n o f f     H y d r o g r a p h
     ------------------------------------------------------------------------
               Hydrograph in   5   Minute intervals (CFS)

     ------------------------------------------------------------------------
Time(h+m) Add q(CFS)  Tot. Q   0       87.2     174.5     261.7     349.0
----------------------------------------------------------------------------
  0+ 5       0.0580      0.10  Q         |         |         |         |
  0+10       0.2472      0.53  Q         |         |         |         |
  0+15       0.5822      1.41  Q         |         |         |         |
  0+20       1.0498      2.57  Q         |         |         |         |
  0+25       1.5531      3.74  Q         |         |         |         |
  0+30       1.9826      4.81  Q         |         |         |         |
  0+35       2.3709      5.79  Q         |         |         |         |
  0+40       2.6878      6.56  Q         |         |         |         |
  0+45       2.9084      7.10  Q         |         |         |         |
  0+50       3.0956      7.53  Q         |         |         |         |
  0+55       3.3088      8.03  Q         |         |         |         |
  1+ 0       3.5754      8.69  Q         |         |         |         |
  1+ 5       3.8476      9.38  qQ        |         |         |         |
  1+10       4.0272      9.79  qQ        |         |         |         |
  1+15       4.0545      9.80  qQ        |         |         |         |
  1+20       3.9713      9.56  qQ        |         |         |         |
  1+25       3.8697      9.32  qQ        |         |         |         |
  1+30       3.8232      9.19  qQ        |         |         |         |
  1+35       3.8103      9.13  qQ        |         |         |         |
  1+40       3.8181      9.11  qQ        |         |         |         |
  1+45       3.8299      9.11  qQ        |         |         |         |
  1+50       3.8698      9.16  qQ        |         |         |         |
  1+55       3.9761      9.38  qQ        |         |         |         |
  2+ 0       4.1563      9.83  qQ        |         |         |         |
  2+ 5       4.3866     10.39  qQ        |         |         |         |
  2+10       4.6018     10.87  qQ        |         |         |         |
  2+15       4.7401     11.19  qQ        |         |         |         |
  2+20       4.8332     11.40  qQ        |         |         |         |
  2+25       4.8967     11.55  qQ        |         |         |         |
  2+30       4.9510     11.67  qQ        |         |         |         |
  2+35       5.0243     11.81  qQ        |         |         |         |
  2+40       5.1569     12.09  qQ        |         |         |         |
  2+45       5.3577     12.59  qQ        |         |         |         |
  2+50       5.6046     13.19  qQ        |         |         |         |
  2+55       5.8294     13.71  qQ        |         |         |         |
  3+ 0       5.9803     14.06  qQ        |         |         |         |
  3+ 5       6.0792     14.30  qQ        |         |         |         |
  3+10       6.1473     14.47  qQ        |         |         |         |
  3+15       6.2016     14.60  qQ        |         |         |         |
  3+20       6.2480     14.70  qQ        |         |         |         |
  3+25       6.2888     14.79  qQ        |         |         |         |
  3+30       6.3254     14.87  qQ        |         |         |         |
  3+35       6.3542     14.92  qQ        |         |         |         |
```

```
3+40       6.3773     14.97  qQ        |         |         |         |
3+45       6.3985     15.01  qQ        |         |         |         |
3+50       6.4458     15.09  qQ        |         |         |         |
3+55       6.5589     15.33  qQ        |         |         |         |
4+ 0       6.7415     15.80  qQ        |         |         |         |
4+ 5       6.9746     16.38  qQ        |         |         |         |
4+10       7.1917     16.88  qQ        |         |         |         |
4+15       7.3353     17.21  qQ        |         |         |         |
4+20       7.4595     17.49  q Q       |         |         |         |
4+25       7.6205     17.86  q Q       |         |         |         |
4+30       7.8420     18.42  q Q       |         |         |         |
4+35       8.1058     19.07  q Q       |         |         |         |
4+40       8.3462     19.62  q Q       |         |         |         |
4+45       8.5088     20.00  q Q       |         |         |         |
4+50       8.6976     20.36  q Q       |         |         |         |
4+55       9.0365     20.93  |qQ       |         |         |         |
5+ 0       9.5759     21.82  |qQ       |         |         |         |
5+ 5      10.1502     22.75  |qQ       |         |         |         |
5+10      10.4338     23.12  |qQ       |         |         |         |
5+15      10.2244     22.59  |qQ       |         |         |         |
5+20       9.6870     21.56  |qQ       |         |         |         |
5+25       9.1734     20.74  |qQ       |         |         |         |
5+30       8.9840     20.54  |qQ       |         |         |         |
5+35       9.1240     20.85  |qQ       |         |         |         |
5+40       9.6264     21.62  |qQ       |         |         |         |
5+45      10.4109     22.77  |qQ       |         |         |         |
5+50      11.4146     24.17  |qQ       |         |         |         |
5+55      12.3752     25.45  |qQ       |         |         |         |
6+ 0      13.0590     26.35  |q Q      |         |         |         |
6+ 5      13.7455     27.20  |q Q      |         |         |         |
6+10      14.7387     28.41  |q Q      |         |         |         |
6+15      16.1385     30.15  |q Q      |         |         |         |
6+20      17.8440     32.25  | qQ      |         |         |         |
6+25      19.4354     34.16  | qQ      |         |         |         |
6+30      20.5657     35.51  | q Q     |         |         |         |
6+35      21.5624     36.68  | q Q     |         |         |         |
6+40      22.7790     38.12  | q Q     |         |         |         |
6+45      24.3734     40.07  | q Q     |         |         |         |
6+50      26.2342     42.33  |  qQ     |         |         |         |
6+55      27.9632     44.39  |  q Q    |         |         |         |
7+ 0      29.2004     45.86  |  q Q    |         |         |         |
7+ 5      30.1127     46.93  |  q Q    |         |         |         |
7+10      30.8272     47.77  |  q Q    |         |         |         |
7+15      31.4644     48.49  |  q Q    |         |         |         |
7+20      32.2054     49.32  |  q Q    |         |         |         |
7+25      33.3142     50.60  |  q Q    |         |         |         |
7+30      34.8320     52.43  |  q  Q   |         |         |         |
7+35      36.8170     54.84  |   q Q   |         |         |         |
7+40      39.0864     57.67  |   q Q   |         |         |         |
7+45      41.3435     60.75  |   q Q   |         |         |         |
7+50      43.7814     64.16  |    q Q  |         |         |         |
7+55      46.3548     67.82  |    q Q  |         |         |         |
8+ 0      48.8307     71.58  |    q  Q |         |         |         |
8+ 5      51.6451     75.83  |    q  Q |         |         |         |
8+10      54.9638     80.85  |     q  Q|         |         |         |
8+15      58.6343     86.74  |     q  Q|         |         |         |
8+20      62.5619     93.04  |      q  Q         |         |         |
8+25      66.0548     98.44  |      q  |Q        |         |         |
8+30      68.5222    102.27  |      q  |Q        |         |         |
8+35      70.4838    105.28  |       q | Q       |         |         |
8+40      72.4356    108.31  |       q | Q       |         |         |
8+45      74.6469    111.85  |       q | Q       |         |         |
8+50      77.1945    115.84  |       q |  Q      |         |         |
8+55      79.9428    120.05  |        q|  Q      |         |         |
9+ 0      82.6120    124.30  |        q|   Q     |         |         |
9+ 5      85.5794    128.93  |        q|   Q     |         |         |
9+10      89.0433    134.27  |         q    Q    |         |         |
9+15      92.8507    140.44  |         q     Q   |         |         |
9+20      97.0731    147.20  |         |q    Q   |         |         |
9+25     101.2694    153.71  |         |q     Q  |         |         |
```

9+30	104.8624	159.46		q	Q		
9+35	108.2734	164.86		q	Q		
9+40	111.5740	170.01		q	Q		
9+45	114.6852	174.97		q	Q		
9+50	117.8286	179.90		q	Q		
9+55	120.9980	184.77		q	Q		
10+ 0	124.0045	189.52		q	Q		
10+ 5	125.6223	192.43		q	Q		
10+10	123.9903	189.96		q	Q		
10+15	118.5754	180.54		q	Q		
10+20	110.4426	166.96		q	Q		
10+25	102.6973	154.79		q	Q		
10+30	98.0118	147.18		q	Q		
10+35	96.1372	143.69		q	Q		
10+40	97.4575	145.30		q	Q		
10+45	101.4975	152.04		q	Q		
10+50	107.4010	161.74		q	Q		
10+55	113.0144	170.49		q	Q		
11+ 0	116.4747	176.06		q	Q		
11+ 5	118.4515	179.38		q	Q		
11+10	119.2492	180.84		q	Q		
11+15	119.2455	180.83		q	Q		
11+20	118.8010	180.05		q	Q		
11+25	118.2846	179.25		q	Q		
11+30	118.2139	179.06		q	Q		
11+35	117.9276	178.65		q	Q		
11+40	116.8939	177.01		q	Q		
11+45	114.9912	173.73		q	Q		
11+50	112.6081	169.77		q	Q		
11+55	110.8228	167.01		q	Q		
12+ 0	110.3805	166.47		q	Q		
12+ 5	112.1254	169.00		q	Q		
12+10	117.0244	176.52		q	Q		
12+15	124.8156	189.63		q	Q		
12+20	134.8553	206.14		q	Q		
12+25	144.5387	221.31		q	Q		
12+30	151.4400	232.47		q	Q		
12+35	156.9824	241.44		q	Q		
12+40	161.9860	249.52		q	Q		
12+45	166.9149	257.67		q	Q		
12+50	172.0971	266.03		q	Q		
12+55	177.1394	273.88		q	Q		
13+ 0	181.5065	280.78		q	Q		
13+ 5	186.2562	288.07		q	Q		
13+10	192.4388	297.59		q	Q		
13+15	200.2160	310.29		q	Q		
13+20	209.0107	324.57		q	Q		
13+25	216.9750	336.98		q	Q		
13+30	222.4045	345.54		q	Q		
13+35	224.2203	348.97		q	Q		
13+40	220.5488	343.55		q	Q		
13+45	211.4390	327.85		q	Q		
13+50	198.3727	306.00		q	Q		
13+55	186.1107	286.60		q	Q		
14+ 0	178.6760	274.42		q	Q		
14+ 5	174.9581	267.82		q	Q		
14+10	174.6640	266.67		q	Q		
14+15	176.9047	270.28		q	Q		
14+20	180.6391	276.41		q	Q		
14+25	183.9332	281.46		q	Q		
14+30	185.1126	283.27		q	Q		
14+35	185.0723	283.17		q	Q		
14+40	184.5951	282.53		q	Q		
14+45	184.3388	282.17		q	Q		
14+50	184.1302	281.83		q	Q		
14+55	183.4981	280.83		q	Q		
15+ 0	182.5460	279.15		q	Q		
15+ 5	181.0401	276.70		q	Q		
15+10	179.1646	273.78		q	Q		
15+15	177.2943	270.73		q	Q		

15+20	175.2278	267.50	| q Q |
15+25	173.0205	264.16	| q Q |
15+30	170.8816	260.79	| q Q |
15+35	168.0600	256.55	| q Q |
15+40	163.9423	250.28	| q Q |
15+45	158.5979	241.48	| q Q |
15+50	152.2967	231.21	| q Q |
15+55	146.5643	222.30	| q Q |
16+ 0	142.7465	216.32	| q Q |
16+ 5	137.4773	208.84	| q Q |
16+10	126.8077	193.00	| q Q |
16+15	109.6336	165.57	| q Q |
16+20	87.9252	131.52	| q Q |
16+25	67.9166	101.50	| q Q |
16+30	54.9077	81.64	| q Q |
16+35	46.3736	68.39	| q Q |
16+40	40.4669	59.00	| q Q |
16+45	35.5559	51.33	| qQ |
16+50	31.3644	44.90	| q Q |
16+55	27.6958	39.48	| qQ |
17+ 0	24.5870	35.02	| q Q |
17+ 5	22.2623	31.66	| qQ |
17+10	20.8709	29.60	| qQ |
17+15	20.2316	28.77	| qQ |
17+20	20.4675	29.10	| qQ |
17+25	20.7178	29.44	| qQ |
17+30	20.6585	29.38	| qQ |
17+35	20.3001	28.97	| qQ |
17+40	19.7914	28.32	| qQ |
17+45	19.2234	27.64	| qQ |
17+50	18.6120	26.99	| qQ |
17+55	17.6291	25.92	| Q |
18+ 0	16.2431	24.29	|qQ |
18+ 5	14.5394	22.28	|qQ |
18+10	12.9922	20.49	|qQ |
18+15	11.9358	19.28	|qQ |
18+20	11.2441	18.48	|qQ |
18+25	10.8156	17.99	|qQ |
18+30	10.4359	17.56	|qQ |
18+35	9.9861	17.06	|Q |
18+40	9.3068	16.24	|Q |
18+45	8.3547	15.00	qQ |
18+50	7.2885	13.55	qQ |
18+55	6.3891	12.24	qQ |
19+ 0	5.6874	11.07	qQ |
19+ 5	5.1559	10.08	qQ |
19+10	4.8081	9.48	qQ |
19+15	4.6609	9.34	qQ |
19+20	4.7756	9.63	qQ |
19+25	5.2355	10.35	qQ |
19+30	5.9994	11.47	qQ |
19+35	6.8659	12.70	qQ |
19+40	7.3447	13.36	qQ |
19+45	7.1270	13.07	qQ |
19+50	6.4036	12.13	qQ |
19+55	5.5346	10.96	qQ |
20+ 0	4.8990	9.93	qQ |
20+ 5	4.4321	9.08	qQ |
20+10	4.1566	8.60	Q |
20+15	4.0651	8.56	Q |
20+20	4.0911	8.77	qQ |
20+25	4.1436	9.00	qQ |
20+30	4.1488	9.11	qQ |
20+35	4.1297	9.16	qQ |
20+40	4.1134	9.20	qQ |
20+45	4.0826	9.20	qQ |
20+50	4.0360	9.15	qQ |
20+55	3.9253	8.94	qQ |
21+ 0	3.7506	8.50	Q |
21+ 5	3.5468	7.99	Q |

21+10	3.4206	7.71	Q				
21+15	3.4422	7.82	Q				
21+20	3.5443	8.11	Q				
21+25	3.5996	8.24	Q				
21+30	3.5159	8.00	Q				
21+35	3.3734	7.63	Q				
21+40	3.3109	7.47	Q				
21+45	3.4212	7.70	Q				
21+50	3.6123	8.11	Q				
21+55	3.7247	8.31	Q				
22+ 0	3.6462	8.09	Q				
22+ 5	3.4764	7.69	Q				
22+10	3.3874	7.51	Q				
22+15	3.5133	7.77	Q				
22+20	3.7416	8.22	Q				
22+25	3.8806	8.44	Q				
22+30	3.7833	8.21	Q				
22+35	3.5264	7.71	Q				
22+40	3.2500	7.22	Q				
22+45	3.0861	6.92	Q				
22+50	2.9874	6.73	Q				
22+55	2.9292	6.61	Q				
23+ 0	2.8808	6.51	Q				
23+ 5	2.8448	6.44	Q				
23+10	2.8139	6.39	Q				
23+15	2.7921	6.35	Q				
23+20	2.7700	6.31	Q				
23+25	2.7516	6.27	Q				
23+30	2.7296	6.24	Q				
23+35	2.7170	6.22	Q				
23+40	2.7074	6.20	Q				
23+45	2.7029	6.20	Q				
23+50	2.6947	6.18	Q				
23+55	2.6846	6.16	Q				
24+ 0	2.6738	6.15	Q				
24+ 5	2.6099	6.04	Q				
24+10	2.4172	5.61	Q				
24+15	2.0794	4.72	Q				
24+20	1.6357	3.61	Q				
24+25	1.2199	2.64	Q				
24+30	0.9513	2.00	Q				
24+35	0.7787	1.58	Q				
24+40	0.6662	1.29	Q				
24+45	0.5766	1.07	Q				
24+50	0.5008	0.89	Q				
24+55	0.4332	0.75	Q				
25+ 0	0.3735	0.63	Q				
25+ 5	0.3252	0.53	Q				
25+10	0.2865	0.45	Q				
25+15	0.2498	0.38	Q				
25+20	0.2207	0.32	Q				
25+25	0.1936	0.27	Q				
25+30	0.1722	0.23	Q				
25+35	0.1520	0.19	Q				
25+40	0.1327	0.16	Q				
25+45	0.1139	0.12	Q				
25+50	0.0988	0.10	Q				
25+55	0.0849	0.09	Q				
26+ 0	0.0728	0.07	Q				
26+ 5	0.0614	0.06	Q				
26+10	0.0517	0.05	Q				
26+15	0.0428	0.04	Q				
26+20	0.0355	0.04	Q				
26+25	0.0291	0.03	Q				
26+30	0.0228	0.02	Q				
26+35	0.0165	0.02	Q				
26+40	0.0101	0.01	Q				
26+45	0.0038	0.00	Q				

**********HYDROGRAPH DATA**********

```
                Number of intervals =   321
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =      348.972 (CFS)
                Total volume =     168.873 (Ac.Ft)
        Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
*******************************************************************************

-------------------------------------------------------------------------


+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       11.000 to Point/Station       11.000
**** ADD/COMBINE/RECOVER HYDROGRAPHS ****
_______________________________________________________________________________
********************* HYDROGRAPH INFORMATION **********************

                From study/file name: lgexareac24100.rte
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                   P R I N T  O F  S T O R M
                R u n o f f     H y d r o g r a p h
-------------------------------------------------------------------------------
             Hydrograph in   5   Minute intervals (CFS)

-------------------------------------------------------------------------------
Time(h+m) Add q(CFS)  Tot. Q   0      103.2     206.4     309.6     412.7
-------------------------------------------------------------------------------
  0+ 5       0.1897      0.29  Q         |         |         |         |
  0+10       0.9613      1.49  Q         |         |         |         |
  0+15       1.5229      2.93  Q         |         |         |         |
  0+20       1.8339      4.40  Q         |         |         |         |
  0+25       2.3492      6.09  Q         |         |         |         |
  0+30       2.7170      7.53  Q         |         |         |         |
  0+35       2.8862      8.68  Q         |         |         |         |
  0+40       2.9950      9.55  Q         |         |         |         |
  0+45       3.0740     10.17  Q         |         |         |         |
  0+50       3.2253     10.76  qQ        |         |         |         |
  0+55       3.6523     11.68  qQ        |         |         |         |
  1+ 0       3.9649     12.66  qQ        |         |         |         |
  1+ 5       4.0095     13.39  qQ        |         |         |         |
  1+10       3.6981     13.49  qQ        |         |         |         |
  1+15       3.4678     13.27  qQ        |         |         |         |
  1+20       3.3994     12.96  qQ        |         |         |         |
  1+25       3.3567     12.67  qQ        |         |         |         |
  1+30       3.3309     12.52  qQ        |         |         |         |
  1+35       3.3133     12.44  qQ        |         |         |         |
  1+40       3.3010     12.42  qQ        |         |         |         |
  1+45       3.2902     12.40  qQ        |         |         |         |
  1+50       3.3813     12.55  qQ        |         |         |         |
  1+55       3.7575     13.14  qQ        |         |         |         |
  2+ 0       4.0312     13.86  qQ        |         |         |         |
  2+ 5       4.1302     14.52  qQ        |         |         |         |
  2+10       4.1949     15.07  qQ        |         |         |         |
  2+15       4.2384     15.43  qQ        |         |         |         |
  2+20       4.2690     15.67  qQ        |         |         |         |
  2+25       4.2910     15.84  qQ        |         |         |         |
  2+30       4.3087     15.98  qQ        |         |         |         |
  2+35       4.4165     16.22  qQ        |         |         |         |
  2+40       4.8119     16.90  qQ        |         |         |         |
  2+45       5.0998     17.69  qQ        |         |         |         |
  2+50       5.2170     18.41  qQ        |         |         |         |
  2+55       5.2818     18.99  qQ        |         |         |         |
  3+ 0       5.3253     19.39  qQ        |         |         |         |
  3+ 5       5.3558     19.66  qQ        |         |         |         |
  3+10       5.3778     19.85  qQ        |         |         |         |
  3+15       5.3956     20.00  qQ        |         |         |         |
  3+20       5.4086     20.11  qQ        |         |         |         |
  3+25       5.4182     20.21  qQ        |         |         |         |
```

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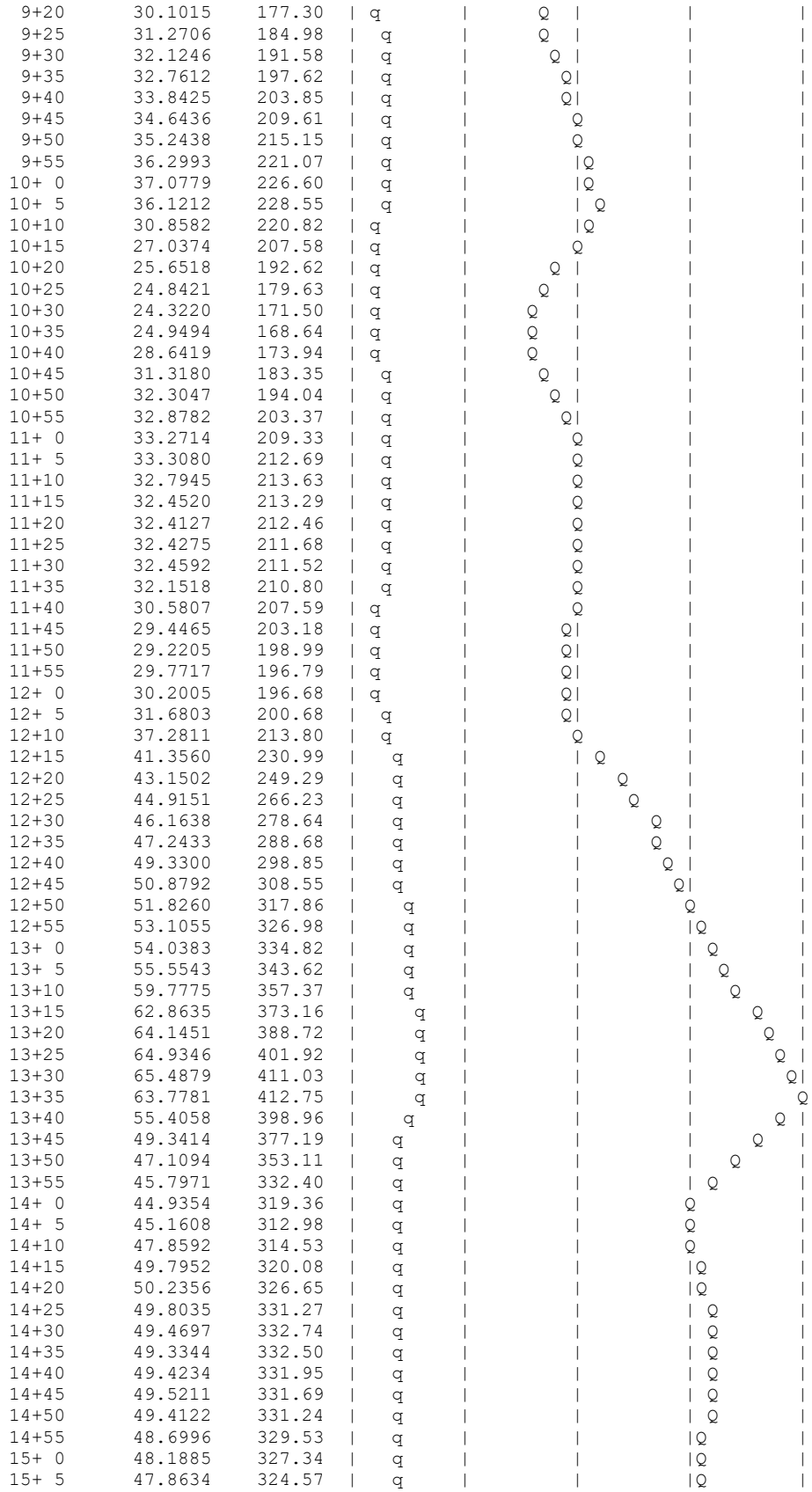
3+30       5.4252     20.29  qQ        |         |         |         |
3+35       5.4344     20.36  qQ        |         |         |         |
3+40       5.4344     20.40  qQ        |         |         |         |
3+45       5.4344     20.44  qQ        |         |         |         |
3+50       5.5292     20.62  qQ        |         |         |         |
3+55       5.9150     21.25  q Q       |         |         |         |
4+ 0       6.1958     21.99  q Q       |         |         |         |
4+ 5       6.3039     22.68  q Q       |         |         |         |
4+10       6.3687     23.24  q Q       |         |         |         |
4+15       6.4122     23.62  q Q       |         |         |         |
4+20       6.5376     24.02  q Q       |         |         |         |
4+25       6.9453     24.80  q Q       |         |         |         |
4+30       7.2439     25.66  q Q       |         |         |         |
4+35       7.3650     26.43  q Q       |         |         |         |
4+40       7.4393     27.06  q Q       |         |         |         |
4+45       7.4899     27.49  q Q       |         |         |         |
4+50       7.6245     27.98  q Q       |         |         |         |
4+55       8.0322     28.96  q Q       |         |         |         |
5+ 0       8.3308     30.15  q Q       |         |         |         |
5+ 5       8.2621     31.02  q  Q      |         |         |         |
5+10       7.5649     30.69  q Q       |         |         |         |
5+15       7.0539     29.65  q Q       |         |         |         |
5+20       6.9723     28.54  q Q       |         |         |         |
5+25       7.2505     27.99  q Q       |         |         |         |
5+30       7.4621     28.00  q Q       |         |         |         |
5+35       7.6169     28.47  q Q       |         |         |         |
5+40       8.0331     29.65  q Q       |         |         |         |
5+45       8.3289     31.10  q  Q      |         |         |         |
5+50       8.4508     32.63  q  Q      |         |         |         |
5+55       8.5183     33.97  q  Q      |         |         |         |
6+ 0       8.5655     34.91  q  Q      |         |         |         |
6+ 5       8.6855     35.89  q  Q      |         |         |         |
6+10       9.1029     37.51  q  Q      |         |         |         |
6+15       9.4085     39.56  q  Q      |         |         |         |
6+20       9.5387     41.79  q   Q     |         |         |         |
6+25       9.6131     43.77  q   Q     |         |         |         |
6+30       9.6636     45.17  q   Q     |         |         |         |
6+35       9.7982     46.48  q   Q     |         |         |         |
6+40      10.2060     48.33  q   Q     |         |         |         |
6+45      10.5045     50.57  |q  Q     |         |         |         |
6+50      10.6256     52.96  |q   Q    |         |         |         |
6+55      10.7000     55.09  |q   Q    |         |         |         |
7+ 0      10.7505     56.61  |q   Q    |         |         |         |
7+ 5      10.7902     57.72  |q   Q    |         |         |         |
7+10      10.8122     58.58  |q   Q    |         |         |         |
7+15      10.8300     59.32  |q   Q    |         |         |         |
7+20      10.9488     60.27  |q   Q    |         |         |         |
7+25      11.3939     62.00  |q    Q   |         |         |         |
7+30      11.7393     64.17  |q    Q   |         |         |         |
7+35      12.1021     66.94  |q    Q   |         |         |         |
7+40      13.0066     70.68  |q    Q   |         |         |         |
7+45      13.6764     74.42  |q     Q  |         |         |         |
7+50      14.1749     78.34  |q     Q  |         |         |         |
7+55      15.1706     82.99  |q      Q |         |         |         |
8+ 0      15.9050     87.48  |q      Q |         |         |         |
8+ 5      16.6431     92.47  |q      Q |         |         |         |
8+10      18.4595     99.31  |q       Q|         |         |         |
8+15      19.7929    106.53  |q        Q         |         |         |
8+20      20.3876    113.42  |q        Q         |         |         |
8+25      20.7713    119.21  | q       |Q        |         |         |
8+30      21.0542    123.32  | q       |Q        |         |         |
8+35      21.4722    126.76  | q       | Q       |         |         |
8+40      22.4232    130.73  | q       | Q       |         |         |
8+45      23.1374    134.98  | q       |  Q      |         |         |
8+50      23.6773    139.52  | q       |  Q      |         |         |
8+55      24.6899    144.74  | q       |   Q     |         |         |
9+ 0      25.4342    149.73  | q       |   Q     |         |         |
9+ 5      26.1953    155.12  | q       |    Q    |         |         |
9+10      28.0004    162.27  | q       |    Q    |         |         |
9+15      29.3249    169.77  | q       |     Q   |         |         |
```



9+20	30.1015	177.30	q Q
9+25	31.2706	184.98	q Q
9+30	32.1246	191.58	q Q
9+35	32.7612	197.62	q Q
9+40	33.8425	203.85	q Q
9+45	34.6436	209.61	q Q
9+50	35.2438	215.15	q Q
9+55	36.2993	221.07	q Q
10+ 0	37.0779	226.60	q Q
10+ 5	36.1212	228.55	q Q
10+10	30.8582	220.82	q Q
10+15	27.0374	207.58	q Q
10+20	25.6518	192.62	q Q
10+25	24.8421	179.63	q Q
10+30	24.3220	171.50	q Q
10+35	24.9494	168.64	q Q
10+40	28.6419	173.94	q Q
10+45	31.3180	183.35	q Q
10+50	32.3047	194.04	q Q
10+55	32.8782	203.37	q Q
11+ 0	33.2714	209.33	q Q
11+ 5	33.3080	212.69	q Q
11+10	32.7945	213.63	q Q
11+15	32.4520	213.29	q Q
11+20	32.4127	212.46	q Q
11+25	32.4275	211.68	q Q
11+30	32.4592	211.52	q Q
11+35	32.1518	210.80	q Q
11+40	30.5807	207.59	q Q
11+45	29.4465	203.18	q Q
11+50	29.2205	198.99	q Q
11+55	29.7717	196.79	q Q
12+ 0	30.2005	196.68	q Q
12+ 5	31.6803	200.68	q Q
12+10	37.2811	213.80	q Q
12+15	41.3560	230.99	q Q
12+20	43.1502	249.29	q Q
12+25	44.9151	266.23	q Q
12+30	46.1638	278.64	q Q
12+35	47.2433	288.68	q Q
12+40	49.3300	298.85	q Q
12+45	50.8792	308.55	q Q
12+50	51.8260	317.86	q Q
12+55	53.1055	326.98	q Q
13+ 0	54.0383	334.82	q Q
13+ 5	55.5543	343.62	q Q
13+10	59.7775	357.37	q Q
13+15	62.8635	373.16	q Q
13+20	64.1451	388.72	q Q
13+25	64.9346	401.92	q Q
13+30	65.4879	411.03	q Q
13+35	63.7781	412.75	q Q
13+40	55.4058	398.96	q Q
13+45	49.3414	377.19	q Q
13+50	47.1094	353.11	q Q
13+55	45.7971	332.40	q Q
14+ 0	44.9354	319.36	q Q
14+ 5	45.1608	312.98	q Q
14+10	47.8592	314.53	q Q
14+15	49.7952	320.08	q Q
14+20	50.2356	326.65	q Q
14+25	49.8035	331.27	q Q
14+30	49.4697	332.74	q Q
14+35	49.3344	332.50	q Q
14+40	49.4234	331.95	q Q
14+45	49.5211	331.69	q Q
14+50	49.4122	331.24	q Q
14+55	48.6996	329.53	q Q
15+ 0	48.1885	327.34	q Q
15+ 5	47.8634	324.57	q Q

```
15+10      46.9648    320.75  |   q     |          |          |Q         |
15+15      46.3288    317.06  |   q     |          |          Q          |
15+20      45.8736    313.37  |   q     |          |          Q          |
15+25      44.9491    309.11  |   q     |          |         Q|          |
15+30      44.2906    305.08  |   q     |          |         Q|          |
15+35      43.2463    299.79  |   q     |          |         Q|          |
15+40      39.9397    290.22  |  q      |          |        Q |          |
15+45      37.5470    279.02  |  q      |          |       Q  |          |
15+50      36.5959    267.80  |  q      |          |     Q    |          |
15+55      36.0414    258.34  |  q      |          |     Q    |          |
16+ 0      35.6740    251.99  |  q      |          |   Q      |          |
16+ 5      32.7585    241.60  |  q      |          |  Q       |          |
16+10      21.7796    214.78  | q       |         Q|          |          |
16+15      13.7695    179.34  |q        |       Q  |          |          |
16+20      10.6263    142.14  |q        |  Q       |          |          |
16+25       8.7400    110.24  q         Q          |          |          |
16+30       7.4684     89.11  q        Q |         |          |          |
16+35       6.4463     74.83  q      Q   |         |          |          |
16+40       5.4469     64.45  q     Q    |         |          |          |
16+45       4.6698     56.00  q    Q     |         |          |          |
16+50       4.1999     49.10  q   Q      |         |          |          |
16+55       3.8666     43.35  q   Q      |         |          |          |
17+ 0       3.6265     38.65  q  Q       |         |          |          |
17+ 5       3.5289     35.19  q  Q       |         |          |          |
17+10       4.2784     33.88  q  Q       |         |          |          |
17+15       4.8223     33.59  q  Q       |         |          |          |
17+20       5.0255     34.13  q  Q       |         |          |          |
17+25       5.1454     34.58  q  Q       |         |          |          |
17+30       5.2254     34.61  q  Q       |         |          |          |
17+35       5.2773     34.24  q  Q       |         |          |          |
17+40       5.3213     33.64  q  Q       |         |          |          |
17+45       5.3568     33.00  q  Q       |         |          |          |
17+50       5.2879     32.28  q  Q       |         |          |          |
17+55       4.9213     30.84  q Q        |         |          |          |
18+ 0       4.6546     28.94  q Q        |         |          |          |
18+ 5       4.5648     26.85  q Q        |         |          |          |
18+10       4.5001     24.99  q Q        |         |          |          |
18+15       4.4566     23.73  q Q        |         |          |          |
18+20       4.4260     22.91  q Q        |         |          |          |
18+25       4.4040     22.39  q Q        |         |          |          |
18+30       4.3863     21.95  q Q        |         |          |          |
18+35       4.2785     21.34  q Q        |         |          |          |
18+40       3.8831     20.12  qQ         |         |          |          |
18+45       3.5952     18.59  qQ         |         |          |          |
18+50       3.3831     16.94  qQ         |         |          |          |
18+55       2.9326     15.18  qQ         |         |          |          |
19+ 0       2.6083     13.67  qQ         |         |          |          |
19+ 5       2.5645     12.64  qQ         |         |          |          |
19+10       2.8635     12.34  qQ         |         |          |          |
19+15       3.0830     12.42  qQ         |         |          |          |
19+20       3.2425     12.87  qQ         |         |          |          |
19+25       3.6614     14.01  qQ         |         |          |          |
19+30       3.9609     15.43  qQ         |         |          |          |
19+35       3.9826     16.68  qQ         |         |          |          |
19+40       3.6739     17.03  qQ         |         |          |          |
19+45       3.4474     16.52  qQ         |         |          |          |
19+50       3.2788     15.41  qQ         |         |          |          |
19+55       2.8598     13.82  qQ         |         |          |          |
20+ 0       2.5603     12.50  qQ         |         |          |          |
20+ 5       2.5387     11.62  qQ         |         |          |          |
20+10       2.8473     11.45  qQ         |         |          |          |
20+15       3.0739     11.63  qQ         |         |          |          |
20+20       3.1476     11.92  qQ         |         |          |          |
20+25       3.1808     12.18  qQ         |         |          |          |
20+30       3.1995     12.31  qQ         |         |          |          |
20+35       3.2079     12.37  qQ         |         |          |          |
20+40       3.2203     12.42  qQ         |         |          |          |
20+45       3.2310     12.43  qQ         |         |          |          |
20+50       3.1399     12.29  qQ         |         |          |          |
20+55       2.7638     11.70  qQ         |         |          |          |
```

21+ 0	2.4900	10.99	qQ	|	|	|	|
21+ 5	2.4859	10.47	qQ	|	|	|	|
21+10	2.8070	10.51	qQ	|	|	|	|
21+15	3.0443	10.86	qQ	|	|	|	|
21+20	3.0270	11.14	qQ	|	|	|	|
21+25	2.6840	10.92	qQ	|	|	|	|
21+30	2.4289	10.43	qQ	|	|	|	|
21+35	2.4332	10.06	Q	|	|	|	|
21+40	2.7666	10.23	Q	|	|	|	|
21+45	3.0147	10.72	qQ	|	|	|	|
21+50	3.0011	11.11	qQ	|	|	|	|
21+55	2.6677	10.98	qQ	|	|	|	|
22+ 0	2.4197	10.51	qQ	|	|	|	|
22+ 5	2.4332	10.13	Q	|	|	|	|
22+10	2.7666	10.28	Q	|	|	|	|
22+15	3.0147	10.78	qQ	|	|	|	|
22+20	3.0011	11.22	qQ	|	|	|	|
22+25	2.6677	11.11	qQ	|	|	|	|
22+30	2.4197	10.63	qQ	|	|	|	|
22+35	2.3384	10.04	Q	|	|	|	|
22+40	2.2860	9.51	Q	|	|	|	|
22+45	2.2532	9.17	Q	|	|	|	|
22+50	2.2265	8.96	Q	|	|	|	|
22+55	2.2141	8.82	Q	|	|	|	|
23+ 0	2.2033	8.71	Q	|	|	|	|
23+ 5	2.1996	8.64	Q	|	|	|	|
23+10	2.1900	8.58	Q	|	|	|	|
23+15	2.1829	8.53	Q	|	|	|	|
23+20	2.1737	8.48	Q	|	|	|	|
23+25	2.1737	8.45	Q	|	|	|	|
23+30	2.1737	8.41	Q	|	|	|	|
23+35	2.1737	8.39	Q	|	|	|	|
23+40	2.1737	8.38	Q	|	|	|	|
23+45	2.1737	8.37	Q	|	|	|	|
23+50	2.1737	8.36	Q	|	|	|	|
23+55	2.1737	8.34	Q	|	|	|	|
24+ 0	2.1737	8.32	Q	|	|	|	|
24+ 5	1.9840	8.02	Q	|	|	|	|
24+10	1.2125	6.82	Q	|	|	|	|
24+15	0.6509	5.37	Q	|	|	|	|
24+20	0.4347	4.04	Q	|	|	|	|
24+25	0.3052	2.95	Q	|	|	|	|
24+30	0.2181	2.22	Q	|	|	|	|
24+35	0.1571	1.73	Q	|	|	|	|
24+40	0.1131	1.40	Q	|	|	|	|
24+45	0.0775	1.14	Q	|	|	|	|
24+50	0.0516	0.94	Q	|	|	|	|
24+55	0.0324	0.78	Q	|	|	|	|
25+ 0	0.0183	0.65	Q	|	|	|	|
25+ 5	0.0000	0.53	Q	|	|	|	|
25+10	0.0000	0.45	Q	|	|	|	|
25+15	0.0000	0.38	Q	|	|	|	|
25+20	0.0000	0.32	Q	|	|	|	|
25+25	0.0000	0.27	Q	|	|	|	|
25+30	0.0000	0.23	Q	|	|	|	|
25+35	0.0000	0.19	Q	|	|	|	|
25+40	0.0000	0.16	Q	|	|	|	|
25+45	0.0000	0.12	Q	|	|	|	|
25+50	0.0000	0.10	Q	|	|	|	|
25+55	0.0000	0.09	Q	|	|	|	|
26+ 0	0.0000	0.07	Q	|	|	|	|
26+ 5	0.0000	0.06	Q	|	|	|	|
26+10	0.0000	0.05	Q	|	|	|	|
26+15	0.0000	0.04	Q	|	|	|	|
26+20	0.0000	0.04	Q	|	|	|	|
26+25	0.0000	0.03	Q	|	|	|	|
26+30	0.0000	0.02	Q	|	|	|	|
26+35	0.0000	0.02	Q	|	|	|	|
26+40	0.0000	0.01	Q	|	|	|	|
26+45	0.0000	0.00	Q	|	|	|	|

```
------------------------------------------------------------------------
       ***************************HYDROGRAPH DATA**************************
                     Number of intervals =   321
                     Time interval =    5.0 (Min.)
                     Maximum/Peak flow rate =      412.750 (CFS)
                     Total volume =     201.507 (Ac.Ft)
              Status of hydrographs being held in storage
                         Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
              Peak (CFS)      0.000     0.000     0.000     0.000     0.000
              Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
       ********************************************************************************

       ------------------------------------------------------------------------


       ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
       Process from Point/Station       11.000 to Point/Station       11.000
       **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
       ________________________________________________________________________
       ********************* HYDROGRAPH INFORMATION **********************

                     From study/file name: lgexaread24100.rte
       ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        P R I N T  O F  S T O R M
                     R u n o f f     H y d r o g r a p h
       ------------------------------------------------------------------------
                   Hydrograph in   5   Minute intervals (CFS)

       ------------------------------------------------------------------------
  Time(h+m) Add q(CFS)  Tot. Q   0      122.0     244.0     366.0     488.0
   ----------------------------------------------------------------------------
     0+ 5       0.0874      0.38  Q          |         |         |         |
     0+10       0.4117      1.90  Q          |         |         |         |
     0+15       0.9745      3.90  Q          |         |         |         |
     0+20       1.6092      6.01  Q          |         |         |         |
     0+25       2.1323      8.22  Q          |         |         |         |
     0+30       2.6200     10.15  Q          |         |         |         |
     0+35       3.0519     11.73  Q          |         |         |         |
     0+40       3.3388     12.89  qQ         |         |         |         |
     0+45       3.5284     13.70  qQ         |         |         |         |
     0+50       3.7108     14.47  qQ         |         |         |         |
     0+55       3.9830     15.66  qQ         |         |         |         |
     1+ 0       4.3586     17.02  qQ         |         |         |         |
     1+ 5       4.6861     18.08  qQ         |         |         |         |
     1+10       4.7669     18.26  qQ         |         |         |         |
     1+15       4.6427     17.91  qQ         |         |         |         |
     1+20       4.4629     17.42  qQ         |         |         |         |
     1+25       4.3776     17.05  qQ         |         |         |         |
     1+30       4.3518     16.87  qQ         |         |         |         |
     1+35       4.3501     16.79  qQ         |         |         |         |
     1+40       4.3534     16.77  qQ         |         |         |         |
     1+45       4.3586     16.76  qQ         |         |         |         |
     1+50       4.4072     16.95  qQ         |         |         |         |
     1+55       4.5748     17.71  qQ         |         |         |         |
     2+ 0       4.8605     18.72  qQ         |         |         |         |
     2+ 5       5.1639     19.68  qQ         |         |         |         |
     2+10       5.3532     20.42  qQ         |         |         |         |
     2+15       5.4611     20.89  qQ         |         |         |         |
     2+20       5.5289     21.20  qQ         |         |         |         |
     2+25       5.5820     21.42  qQ         |         |         |         |
     2+30       5.6240     21.60  qQ         |         |         |         |
     2+35       5.6998     21.92  qQ         |         |         |         |
     2+40       5.8870     22.79  qQ         |         |         |         |
     2+45       6.1919     23.88  qQ         |         |         |         |
     2+50       6.5065     24.92  q Q        |         |         |         |
     2+55       6.7040     25.70  q Q        |         |         |         |
     3+ 0       6.8192     26.21  q Q        |         |         |         |
     3+ 5       6.8965     26.55  q Q        |         |         |         |
     3+10       6.9577     26.81  q Q        |         |         |         |
     3+15       7.0086     27.00  q Q        |         |         |         |
```

```
3+20       7.0526     27.17  q Q       |         |         |         |
3+25       7.0889     27.30  q Q       |         |         |         |
3+30       7.1209     27.41  q Q       |         |         |         |
3+35       7.1467     27.50  q Q       |         |         |         |
3+40       7.1682     27.57  q Q       |         |         |         |
3+45       7.1870     27.63  q Q       |         |         |         |
3+50       7.2488     27.87  q Q       |         |         |         |
3+55       7.4279     28.68  q Q       |         |         |         |
4+ 0       7.7215     29.72  q Q       |         |         |         |
4+ 5       8.0257     30.71  q Q       |         |         |         |
4+10       8.2141     31.46  q Q       |         |         |         |
4+15       8.3237     31.95  q Q       |         |         |         |
4+20       8.4412     32.46  q Q       |         |         |         |
4+25       8.6611     33.46  q Q       |         |         |         |
4+30       8.9901     34.65  q Q       |         |         |         |
4+35       9.3254     35.76  q Q       |         |         |         |
4+40       9.5388     36.60  q Q       |         |         |         |
4+45       9.6697     37.16  q  Q      |         |         |         |
4+50       9.8018     37.78  q  Q      |         |         |         |
4+55      10.0342     38.99  q  Q      |         |         |         |
5+ 0      10.3731     40.52  q  Q      |         |         |         |
5+ 5      10.6301     41.65  q  Q      |         |         |         |
5+10      10.5271     41.22  q  Q      |         |         |         |
5+15      10.1029     39.75  q  Q      |         |         |         |
5+20       9.6528     38.19  q  Q      |         |         |         |
5+25       9.5321     37.52  q  Q      |         |         |         |
5+30       9.6712     37.67  q  Q      |         |         |         |
5+35       9.9285     38.40  q  Q      |         |         |         |
5+40      10.2100     39.86  q  Q      |         |         |         |
5+45      10.5481     41.65  q  Q      |         |         |         |
5+50      10.8746     43.50  q  Q      |         |         |         |
5+55      11.0809     45.05  q  Q      |         |         |         |
6+ 0      11.1993     46.11  q  Q      |         |         |         |
6+ 5      11.3266     47.21  q  Q      |         |         |         |
6+10      11.5596     49.07  q   Q     |         |         |         |
6+15      11.9105     51.47  q   Q     |         |         |         |
6+20      12.2713     54.06  |q  Q     |         |         |         |
6+25      12.5138     56.29  |q  Q     |         |         |         |
6+30      12.6776     57.85  |q  Q     |         |         |         |
6+35      12.8784     59.36  |q  Q     |         |         |         |
6+40      13.2699     61.60  |q   Q    |         |         |         |
6+45      13.8592     64.43  |q   Q    |         |         |         |
6+50      14.4662     67.42  |q   Q    |         |         |         |
6+55      14.8654     69.96  |q   Q    |         |         |         |
7+ 0      15.1207     71.73  |q   Q    |         |         |         |
7+ 5      15.3055     73.03  |q   Q    |         |         |         |
7+10      15.4593     74.04  |q    Q   |         |         |         |
7+15      15.5962     74.92  |q    Q   |         |         |         |
7+20      15.7991     76.07  |q    Q   |         |         |         |
7+25      16.1957     78.19  |q    Q   |         |         |         |
7+30      16.7919     80.96  |q    Q   |         |         |         |
7+35      17.4769     84.41  |q    Q   |         |         |         |
7+40      18.1616     88.84  |q     Q  |         |         |         |
7+45      18.9114     93.34  |q     Q  |         |         |         |
7+50      19.6971     98.03  |q      Q |         |         |         |
7+55      20.4594    103.45  |q      Q |         |         |         |
8+ 0      21.2733    108.76  |q      Q |         |         |         |
8+ 5      22.1880    114.66  |q       Q|         |         |         |
8+10      23.2766    122.58  |q        Q         |         |         |
8+15      24.6206    131.15  | q       Q         |         |         |
8+20      25.9256    139.35  | q       |Q        |         |         |
8+25      26.7812    145.99  | q       |Q        |         |         |
8+30      27.3377    150.66  | q       | Q       |         |         |
8+35      27.8238    154.58  | q       | Q       |         |         |
8+40      28.4454    159.18  | q       |  Q      |         |         |
8+45      29.2226    164.21  | q       |  Q      |         |         |
8+50      30.0569    169.58  | q       |  Q      |         |         |
8+55      30.8637    175.61  | q       |   Q     |         |         |
9+ 0      31.7222    181.45  | q       |   Q     |         |         |
9+ 5      32.6739    187.79  | q       |    Q    |         |         |
```

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 9+10      33.7964    196.07  | q       |     Q   |         |         |
 9+15      35.1674    204.93  | q       |     Q   |         |         |
 9+20      36.5831    213.89  | q       |      Q  |         |         |
 9+25      37.7572    222.74  |  q      |       Q |         |         |
 9+30      38.8312    230.42  |  q      |       Q |         |         |
 9+35      39.8508    237.47  |  q      |        Q|         |         |
 9+40      40.8012    244.65  |  q      |         Q         |         |
 9+45      41.7712    251.38  |  q      |         Q         |         |
 9+50      42.7358    257.88  |  q      |         |Q        |         |
 9+55      43.6444    264.71  |  q      |         |Q        |         |
10+ 0      44.5855    271.19  |  q      |         | Q       |         |
10+ 5      44.9134    273.46  |  q      |         | Q       |         |
10+10      43.5318    264.35  |  q      |         |Q        |         |
10+15      40.5029    248.08  |  q      |         Q         |         |
10+20      37.2027    229.82  |  q      |       Q |         |         |
10+25      35.2629    214.89  | q       |      Q  |         |         |
10+30      34.2341    205.74  | q       |     Q   |         |         |
10+35      33.9881    202.62  | q       |     Q   |         |         |
10+40      34.9395    208.88  | q       |      Q  |         |         |
10+45      37.0373    220.39  |  q      |       Q |         |         |
10+50      39.3356    233.38  |  q      |        Q|         |         |
10+55      40.6968    244.06  |  q      |         Q         |         |
11+ 0      41.3996    250.73  |  q      |         Q         |         |
11+ 5      41.7748    254.46  |  q      |         Q         |         |
11+10      41.8445    255.48  |  q      |         Q         |         |
11+15      41.6360    254.92  |  q      |         Q         |         |
11+20      41.3300    253.79  |  q      |         Q         |         |
11+25      41.1761    252.86  |  q      |         Q         |         |
11+30      41.1563    252.68  |  q      |         Q         |         |
11+35      41.0075    251.81  |  q      |         Q         |         |
11+40      40.4505    248.04  |  q      |         Q         |         |
11+45      39.4809    242.66  |  q      |        Q|         |         |
11+50      38.5537    237.54  |  q      |        Q|         |         |
11+55      38.2529    235.04  |  q      |        Q|         |         |
12+ 0      38.4121    235.09  |  q      |        Q|         |         |
12+ 5      39.2501    239.93  |  q      |        Q|         |         |
12+10      41.3909    255.19  |  q      |         Q         |         |
12+15      44.9160    275.91  |  q      |         | Q       |         |
12+20      48.6776    297.96  |  q      |         |   Q     |         |
12+25      51.2252    317.45  |   q     |         |     Q   |         |
12+30      53.0290    331.67  |   q     |         |      Q  |         |
12+35      54.5879    343.27  |   q     |         |       Q |         |
12+40      56.1778    355.03  |   q     |         |        Q|         |
12+45      57.9142    366.46  |   q     |         |         Q         |
12+50      59.5932    377.45  |   q     |         |         Q         |
12+55      60.9660    387.95  |   q     |         |         |Q        |
13+ 0      62.2270    397.05  |    q    |         |         | Q       |
13+ 5      63.6978    407.32  |    q    |         |         |  Q      |
13+10      65.9032    423.27  |    q    |         |         |   Q     |
13+15      68.9488    442.11  |    q    |         |         |     Q   |
13+20      72.0164    460.74  |    q    |         |         |      Q  |
13+25      74.0070    475.92  |     q   |         |         |        Q|
13+30      75.2536    486.28  |     q   |         |         |        Q|
13+35      75.2999    488.05  |     q   |         |         |         Q
13+40      72.8908    471.85  |    q    |         |         |       Q |
13+45      68.0641    445.26  |    q    |         |         |     Q   |
13+50      62.8797    415.99  |    q    |         |         |   Q     |
13+55      59.8288    392.23  |   q     |         |         | Q       |
14+ 0      58.2248    377.58  |   q     |         |         Q         |
14+ 5      57.5452    370.52  |   q     |         |         Q         |
14+10      57.9498    372.48  |   q     |         |         Q         |
14+15      59.3244    379.40  |   q     |         |         |Q        |
14+20      60.8344    387.48  |   q     |         |         |Q        |
14+25      61.4468    392.71  |    q    |         |         | Q       |
14+30      61.3352    394.07  |    q    |         |         | Q       |
14+35      61.0389    393.54  |    q    |         |         | Q       |
14+40      60.8910    392.84  |   q     |         |         | Q       |
14+45      60.8416    392.53  |   q     |         |         | Q       |
14+50      60.7183    391.96  |   q     |         |         | Q       |
14+55      60.3780    389.91  |   q     |         |         |Q        |
```

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15+ 0      59.8694    387.20  |   q      |          |          |Q         |
15+ 5      59.2554    383.82  |   q      |          |          |Q         |
15+10      58.6425    379.39  |   q      |          |          |Q         |
15+15      57.9481    375.00  |   q      |          |          Q          |
15+20      57.2159    370.59  |   q      |          |          Q          |
15+25      56.5221    365.64  |   q      |          |         Q|          |
15+30      55.7600    360.84  |   q      |          |         Q|          |
15+35      54.7343    354.53  |   q      |          |         Q|          |
15+40      53.1129    343.33  |   q      |          |        Q |          |
15+45      50.8509    329.87  |   q      |          |      Q   |          |
15+50      48.6136    316.42  |  q       |          |    Q     |          |
15+55      47.2209    305.56  |  q       |          |    Q     |          |
16+ 0      46.4005    298.39  |  q       |          |   Q      |          |
16+ 5      44.7335    286.33  |  q       |          |  Q       |          |
16+10      40.1626    254.94  |  q       |         Q|          |          |
16+15      32.6077    211.95  | q        |       Q  |          |          |
16+20      24.7394    166.88  | q        |  Q       |          |          |
16+25      19.8638    130.10  |q         Q          |          |          |
16+30      16.9985    106.10  |q       Q |          |          |          |
16+35      15.0279     89.86  |q      Q  |          |          |          |
16+40      13.3475     77.80  |q    Q    |          |          |          |
16+45      11.8300     67.83  q     Q    |          |          |          |
16+50      10.5076     59.61  q   Q      |          |          |          |
16+55       9.4876     52.83  q   Q      |          |          |          |
17+ 0       8.6425     47.29  q  Q       |          |          |          |
17+ 5       8.0784     43.27  q  Q       |          |          |          |
17+10       7.8845     41.76  q  Q       |          |          |          |
17+15       8.0540     41.65  q  Q       |          |          |          |
17+20       8.2946     42.42  q  Q       |          |          |          |
17+25       8.3277     42.91  q  Q       |          |          |          |
17+30       8.2611     42.87  q  Q       |          |          |          |
17+35       8.1577     42.40  q  Q       |          |          |          |
17+40       8.0483     41.69  q  Q       |          |          |          |
17+45       7.9698     40.96  q  Q       |          |          |          |
17+50       7.8530     40.13  q  Q       |          |          |          |
17+55       7.5846     38.42  q  Q       |          |          |          |
18+ 0       7.1438     36.09  q Q        |          |          |          |
18+ 5       6.6684     33.52  q Q        |          |          |          |
18+10       6.3423     31.34  q Q        |          |          |          |
18+15       6.1732     29.91  q Q        |          |          |          |
18+20       6.1083     29.02  q Q        |          |          |          |
18+25       6.0618     28.46  q Q        |          |          |          |
18+30       6.0230     27.97  q Q        |          |          |          |
18+35       5.9483     27.29  q Q        |          |          |          |
18+40       5.7622     25.88  q Q        |          |          |          |
18+45       5.4598     24.05  qQ         |          |          |          |
18+50       5.1069     22.04  qQ         |          |          |          |
18+55       4.7522     19.93  qQ         |          |          |          |
19+ 0       4.3592     18.03  qQ         |          |          |          |
19+ 5       4.0316     16.68  qQ         |          |          |          |
19+10       3.9538     16.29  qQ         |          |          |          |
19+15       4.0810     16.50  qQ         |          |          |          |
19+20       4.3054     17.18  qQ         |          |          |          |
19+25       4.5561     18.56  qQ         |          |          |          |
19+30       4.8635     20.29  qQ         |          |          |          |
19+35       5.1206     21.80  qQ         |          |          |          |
19+40       5.1408     22.17  qQ         |          |          |          |
19+45       4.9600     21.48  qQ         |          |          |          |
19+50       4.6844     20.09  qQ         |          |          |          |
19+55       4.3878     18.21  qQ         |          |          |          |
20+ 0       4.0445     16.54  qQ         |          |          |          |
20+ 5       3.7578     15.37  qQ         |          |          |          |
20+10       3.7113     15.16  qQ         |          |          |          |
20+15       3.8697     15.50  qQ         |          |          |          |
20+20       4.0812     16.00  qQ         |          |          |          |
20+25       4.1972     16.37  qQ         |          |          |          |
20+30       4.2449     16.56  qQ         |          |          |          |
20+35       4.2699     16.64  qQ         |          |          |          |
20+40       4.2890     16.71  qQ         |          |          |          |
20+45       4.3021     16.73  qQ         |          |          |          |
```

20+50	4.2697	16.56	qQ				
20+55	4.1144	15.82	qQ				
21+ 0	3.8430	14.83	qQ				
21+ 5	3.5991	14.07	qQ				
21+10	3.5865	14.10	qQ				
21+15	3.7693	14.63	qQ				
21+20	3.9566	15.10	qQ				
21+25	3.9263	14.85	qQ				
21+30	3.7061	14.14	qQ				
21+35	3.4859	13.55	qQ				
21+40	3.4913	13.72	qQ				
21+45	3.6870	14.41	qQ				
21+50	3.8868	15.00	qQ				
21+55	3.8632	14.84	qQ				
22+ 0	3.6553	14.17	qQ				
22+ 5	3.4475	13.58	qQ				
22+10	3.4630	13.74	qQ				
22+15	3.6655	14.45	qQ				
22+20	3.8691	15.09	qQ				
22+25	3.8501	14.96	qQ				
22+30	3.6434	14.27	qQ				
22+35	3.3905	13.43	qQ				
22+40	3.2428	12.75	qQ				
22+45	3.1637	12.34	qQ				
22+50	3.1166	12.07	Q				
22+55	3.0793	11.90	Q				
23+ 0	3.0530	11.76	Q				
23+ 5	3.0320	11.67	Q				
23+10	3.0160	11.59	Q				
23+15	2.9991	11.53	Q				
23+20	2.9848	11.47	Q				
23+25	2.9724	11.42	Q				
23+30	2.9638	11.38	Q				
23+35	2.9579	11.35	Q				
23+40	2.9532	11.33	Q				
23+45	2.9476	11.32	Q				
23+50	2.9399	11.29	Q				
23+55	2.9321	11.27	Q				
24+ 0	2.9278	11.25	Q				
24+ 5	2.8393	10.86	Q				
24+10	2.5150	9.33	Q				
24+15	1.9499	7.32	Q				
24+20	1.3545	5.39	Q				
24+25	0.9890	3.94	Q				
24+30	0.7805	3.00	Q				
24+35	0.6441	2.38	Q				
24+40	0.5377	1.94	Q				
24+45	0.4513	1.60	Q				
24+50	0.3807	1.32	Q				
24+55	0.3239	1.10	Q				
25+ 0	0.2729	0.92	Q				
25+ 5	0.2324	0.76	Q				
25+10	0.1984	0.65	Q				
25+15	0.1698	0.55	Q				
25+20	0.1426	0.46	Q				
25+25	0.1177	0.39	Q				
25+30	0.0978	0.33	Q				
25+35	0.0803	0.27	Q				
25+40	0.0646	0.22	Q				
25+45	0.0516	0.18	Q				
25+50	0.0404	0.14	Q				
25+55	0.0314	0.12	Q				
26+ 0	0.0224	0.10	Q				
26+ 5	0.0135	0.07	Q				
26+10	0.0045	0.06	Q				
26+15	0.0000	0.04	Q				
26+20	0.0000	0.04	Q				
26+25	0.0000	0.03	Q				
26+30	0.0000	0.02	Q				
26+35	0.0000	0.02	Q				

```
   26+40       0.0000      0.01  Q          |          |          |          |
   26+45       0.0000      0.00  Q          |          |          |          |
------------------------------------------------------------------------------
       ****************************HYDROGRAPH DATA****************************
                      Number of intervals =   321
                      Time interval =    5.0 (Min.)
                      Maximum/Peak flow rate =      488.050 (CFS)
                      Total volume =     243.192 (Ac.Ft)
              Status of hydrographs being held in storage
                           Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
              Peak (CFS)      0.000     0.000     0.000     0.000     0.000
              Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       ******************************************************************************

       ------------------------------------------------------------------------
```

ATTACHMENT B
Unit Hydrographs & Basin Routings
Proposed Condition – Tr. 29835-1
(100 Year 1-hr, 3-hr, 6-hr, 24-hr storm)

Inflow Hydrographs

Unit Hydrograph Analysis

HYDROLOGY

The following hydrologic calculations within this report have been prepared using 2006 AES Rational Method software for Riverside County. Hydrologic variables include "B", "C", and "D" soil types. Rainfall intensities as follows: 10 yr - 10 min. = 1.88, 10 yr – 60 min. = 0.925, 100 yr – 10 min. = 3.32, 100 yr – 60 min. = 1.63. Calculations have been prepared for both the 10 and 100 year events.

The Manning's "n" values were used for the synthetic unit hydrograph analysis for typical existing condition are approximately 0.030, while typical proposed condition are 0.015.

TRACT 29835-1

"Underwood"
HYDROLOGY & HYDRAULIC REPORT

Prepared date: April 14, 2017

Summary of Precipitation – Intensity Pattern per

Storm Event	*1-hour*	*3-hour*	*6-hour*	*24-hour*
2-year	0.52	0.87	1.2	2.05
100-year	1.63	2.27	3.0	5.36

PREPARED FOR:

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3121 Michelson Drive, Suite 150
Irvine, CA 92612
(949) 258-7555

PREPARED BY:

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17320 Redhill Ave.
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Irvine, CA 92614
Voice: 949-251-8821
FAX: 949-251-0516
PLANNERS ENGINEERS SURVEYORS

```
       U n i t   H y d r o g r a p h   A n a l y s i s

       Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
              Study date  07/15/17 File: frmds1100.out

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------------------------------------------------------------------------------

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Tract 29835-1
100-YR 1-hour Unit Hyd
Post Development
Basin 1 (Lot N)

------------------------------------------------------------------------
Drainage Area =      43.40(Ac.)  =      0.068 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =      43.40(Ac.)  =      0.068 Sq. Mi.
Length along longest watercourse =    2276.00(Ft.)
Length along longest watercourse measured to centroid =    1210.00(Ft.)
Length along longest watercourse =      0.431 Mi.
Length along longest watercourse measured to centroid =      0.229 Mi.
Difference in elevation =     259.00(Ft.)
Slope along watercourse =    600.8436 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time =    0.044 Hr.
Lag time =     2.66 Min.
25% of lag time =     0.66 Min.
40% of lag time =     1.06 Min.
Unit time =     5.00 Min.
Duration of storm = 1 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       43.40           0.52                 22.57

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       43.40           1.63                 70.74

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.520(In)
Area Averaged 100-Year Rainfall =    1.630(In)

Point rain (area averaged) =    1.630(In)
Areal adjustment factor =   99.96 %
Adjusted average point rain =    1.629(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     0.880           56.00         0.900
```

```
          4.150           69.00         0.900
          0.470           75.00         0.900
         17.280           86.00         0.000
          2.930           93.00         0.000
          2.350           56.00         0.500
         14.120           69.00         0.500
          1.220           69.00         0.150
 Total Area Entered =     43.40(Ac.)


 RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
 AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
 56.0  74.8      0.305     0.900        0.058       0.020      0.001
 69.0  84.4      0.194     0.900        0.037       0.096      0.004
 75.0  88.0      0.153     0.900        0.029       0.011      0.000
 86.0  94.4      0.073     0.000        0.073       0.398      0.029
 93.0  97.2      0.036     0.000        0.036       0.068      0.002
 56.0  74.8      0.305     0.500        0.168       0.054      0.009
 69.0  84.4      0.194     0.500        0.107       0.325      0.035
 69.0  84.4      0.194     0.150        0.168       0.028      0.005
                                                  Sum (F) =   0.085
 Area averaged mean soil loss (F) (In/Hr) =  0.085
 Minimum soil loss rate ((In/Hr)) =  0.042
 (for 24 hour storm duration)
 Soil low loss rate (decimal) =   0.668
 ------------------------------------------------------------------------
 Slope of intensity-duration curve for a 1 hour storm =0.5300
 ------------------------------------------------------------------------

                U n i t  H y d r o g r a p h
                      VALLEY S-Curve
 ---------------------------------------------------------------
                Unit Hydrograph Data
 ---------------------------------------------------------------
 Unit time period   Time % of lag   Distribution   Unit Hydrograph
     (hrs)                          Graph %           (CFS)
 ---------------------------------------------------------------
     1   0.083        188.148         41.277            18.054
     2   0.167        376.295         44.203            19.334
     3   0.250        564.443          9.294             4.065
     4   0.333        752.591          3.720             1.627
     5   0.417        940.738          1.506             0.659
                                Sum = 100.000   Sum=     43.739
-------------------------------------------------------------------------


 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

  Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
       (Hr.)  Percent   (In/Hr)         Max   |   Low        (In/Hr)
   1   0.08     3.40      0.665          0.085    (  0.444)        0.580
   2   0.17     4.70      0.919          0.085    (  0.614)        0.834
   3   0.25     4.70      0.919          0.085    (  0.614)        0.834
   4   0.33     5.10      0.997          0.085    (  0.666)        0.912
   5   0.42     5.80      1.134          0.085    (  0.758)        1.049
   6   0.50     5.90      1.154          0.085    (  0.771)        1.069
   7   0.58     7.10      1.388          0.085    (  0.927)        1.303
   8   0.67     8.70      1.701          0.085    (  1.136)        1.616
   9   0.75    13.20      2.581          0.085    (  1.724)        2.496
  10   0.83    29.70      5.807          0.085    (  3.879)        5.722
  11   0.92     7.70      1.506          0.085    (  1.006)        1.421
  12   1.00     4.00      0.782          0.085    (  0.522)        0.697
               (Loss Rate Not Used)
    Sum =     100.0                                 Sum =    18.5
       Flood volume = Effective rainfall      1.54(In)
        times area      43.4(Ac.)/[(In)/(Ft.)] =       5.6(Ac.Ft)
       Total soil loss =      0.08(In)
       Total soil loss =     0.307(Ac.Ft)
       Total rainfall =      1.63(In)
       Flood volume =      243309.5 Cubic Feet
```

```
      Total soil loss =       13383.0 Cubic Feet
      ------------------------------------------------------------------------
       Peak flow rate of this hydrograph =    161.041(CFS)
      ------------------------------------------------------------------------
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          1 - H O U R    S T O R M
                     R u n o f f     H y d r o g r a p h
      ------------------------------------------------------------------------
                   Hydrograph in   5   Minute intervals ((CFS))

      ------------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0       50.0     100.0     150.0     200.0
 ------------------------------------------------------------------------
   0+ 5       0.0721     10.47  V Q       |         |         |         |
   0+10       0.2531     26.28  |V   Q    |         |         |         |
   0+15       0.4842     33.56  |  V  Q   |         |         |         |
   0+20       0.7387     36.95  |    V Q  |         |         |         |
   0+25       1.0261     41.73  |      VQ |         |         |         |
   0+30       1.3375     45.21  |        Q|         |         |         |
   0+35       1.6854     50.51  |         Q V       |         |         |
   0+40       2.1059     61.06  |         | Q  V    |         |         |
   0+45       2.6849     84.08  |         |     Q  V|         |         |
   0+50       3.7940    161.04  |         |         |      V  | Q       |
   0+55       4.8270    149.99  |         |         |        Q|   V     |
   1+ 0       5.2986     68.47  |         |  Q      |         |      V  |
   1+ 5       5.5068     30.22  |     Q   |         |         |        V|
   1+10       5.5682      8.92  |Q        |         |         |        V|
   1+15       5.5825      2.07  Q         |         |         |        V|
   1+20       5.5856      0.46  Q         |         |         |         V
------------------------------------------------------------------------
```

```
       U n i t   H y d r o g r a p h   A n a l y s i s

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              Study date  07/15/17 File: frmds3100.out

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------------------------------------------------------------------------------

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format


------------------------------------------------------------------------
Tract 29835-1
100-YR 3-hour Unit Hyd
Post Development
Basin 1 (Lot N)

------------------------------------------------------------------------
Drainage Area =      43.40(Ac.)  =      0.068 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =      43.40(Ac.)  =      0.068 Sq. Mi.
Length along longest watercourse =    2276.00(Ft.)
Length along longest watercourse measured to centroid =    1210.00(Ft.)
Length along longest watercourse =      0.431 Mi.
Length along longest watercourse measured to centroid =      0.229 Mi.
Difference in elevation =     259.00(Ft.)
Slope along watercourse =    600.8436 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time =    0.044 Hr.
Lag time =     2.66 Min.
25% of lag time =     0.66 Min.
40% of lag time =     1.06 Min.
Unit time =     5.00 Min.
Duration of storm = 3 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       43.40           0.87                 37.76

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       43.40           2.27                 98.52

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.870(In)
Area Averaged 100-Year Rainfall =    2.270(In)

Point rain (area averaged) =    2.270(In)
Areal adjustment factor =   99.98 %
Adjusted average point rain =    2.270(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     0.880           56.00         0.900
     4.150           69.00         0.900
```

```
     0.470          75.00         0.900
    17.280          86.00         0.000
     2.930          93.00         0.000
     2.350          56.00         0.500
    14.120          69.00         0.500
     1.220          69.00         0.150
 Total Area Entered =     43.40(Ac.)


 RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
 AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
 56.0  74.8      0.305     0.900        0.058       0.020      0.001
 69.0  84.4      0.194     0.900        0.037       0.096      0.004
 75.0  88.0      0.153     0.900        0.029       0.011      0.000
 86.0  94.4      0.073     0.000        0.073       0.398      0.029
 93.0  97.2      0.036     0.000        0.036       0.068      0.002
 56.0  74.8      0.305     0.500        0.168       0.054      0.009
 69.0  84.4      0.194     0.500        0.107       0.325      0.035
 69.0  84.4      0.194     0.150        0.168       0.028      0.005
                                                  Sum (F) =   0.085
 Area averaged mean soil loss (F) (In/Hr) =  0.085
 Minimum soil loss rate ((In/Hr)) =  0.042
 (for 24 hour storm duration)
 Soil low loss rate (decimal) =   0.668
 ------------------------------------------------------------------------

                U n i t  H y d r o g r a p h
                       VALLEY S-Curve
 ------------------------------------------------------------------------
                Unit Hydrograph Data
 ------------------------------------------------------------------------
 Unit time period   Time % of lag   Distribution   Unit Hydrograph
     (hrs)                          Graph %           (CFS)
 ------------------------------------------------------------------------
     1   0.083        188.148         41.277            18.054
     2   0.167        376.295         44.203            19.334
     3   0.250        564.443          9.294             4.065
     4   0.333        752.591          3.720             1.627
     5   0.417        940.738          1.506             0.659
                              Sum = 100.000   Sum=      43.739
------------------------------------------------------------------------

 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

  Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
       (Hr.)  Percent   (In/Hr)         Max    |   Low        (In/Hr)
   1   0.08     1.30      0.354          0.085    (  0.237)        0.269
   2   0.17     1.30      0.354          0.085    (  0.237)        0.269
   3   0.25     1.10      0.300          0.085    (  0.200)        0.215
   4   0.33     1.50      0.409          0.085    (  0.273)        0.324
   5   0.42     1.50      0.409          0.085    (  0.273)        0.324
   6   0.50     1.80      0.490          0.085    (  0.327)        0.405
   7   0.58     1.50      0.409          0.085    (  0.273)        0.324
   8   0.67     1.80      0.490          0.085    (  0.327)        0.405
   9   0.75     1.80      0.490          0.085    (  0.327)        0.405
  10   0.83     1.50      0.409          0.085    (  0.273)        0.324
  11   0.92     1.60      0.436          0.085    (  0.291)        0.351
  12   1.00     1.80      0.490          0.085    (  0.327)        0.405
  13   1.08     2.20      0.599          0.085    (  0.400)        0.514
  14   1.17     2.20      0.599          0.085    (  0.400)        0.514
  15   1.25     2.20      0.599          0.085    (  0.400)        0.514
  16   1.33     2.00      0.545          0.085    (  0.364)        0.460
  17   1.42     2.60      0.708          0.085    (  0.473)        0.623
  18   1.50     2.70      0.735          0.085    (  0.491)        0.650
  19   1.58     2.40      0.654          0.085    (  0.437)        0.569
  20   1.67     2.70      0.735          0.085    (  0.491)        0.650
  21   1.75     3.30      0.899          0.085    (  0.600)        0.814
  22   1.83     3.10      0.844          0.085    (  0.564)        0.759
  23   1.92     2.90      0.790          0.085    (  0.528)        0.705
```

```
24   2.00     3.00      0.817          0.085    (  0.546)        0.732
25   2.08     3.10      0.844          0.085    (  0.564)        0.759
26   2.17     4.20      1.144          0.085    (  0.764)        1.059
27   2.25     5.00      1.362          0.085    (  0.910)        1.277
28   2.33     3.50      0.953          0.085    (  0.637)        0.868
29   2.42     6.80      1.852          0.085    (  1.237)        1.767
30   2.50     7.30      1.988          0.085    (  1.328)        1.903
31   2.58     8.20      2.233          0.085    (  1.492)        2.148
32   2.67     5.90      1.607          0.085    (  1.073)        1.522
33   2.75     2.00      0.545          0.085    (  0.364)        0.460
34   2.83     1.80      0.490          0.085    (  0.327)        0.405
35   2.92     1.80      0.490          0.085    (  0.327)        0.405
36   3.00     0.60      0.163          0.085    (  0.109)        0.078
             (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    24.2
      Flood volume = Effective rainfall      2.01(In)
       times area      43.4(Ac.)/[(In)/(Ft.)] =       7.3(Ac.Ft)
      Total soil loss =      0.25(In)
      Total soil loss =     0.922(Ac.Ft)
      Total rainfall =      2.27(In)
      Flood volume =      317403.4 Cubic Feet
      Total soil loss =       40149.0 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =     85.063(CFS)
      ---------------------------------------------------------------------
      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          3 - H O U R    S T O R M
                     R u n o f f     H y d r o g r a p h
      ---------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      ---------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0       22.5      45.0      67.5      90.0
-------------------------------------------------------------------------
  0+ 5       0.0335      4.86  V Q       |         |         |         |
  0+10       0.1028     10.07  V   Q     |         |         |         |
  0+15       0.1729     10.18  V   Q     |         |         |         |
  0+20       0.2523     11.53  |V   Q     |         |         |         |
  0+25       0.3459     13.59  |V    Q    |         |         |         |
  0+30       0.4521     15.42  | V   Q    |         |         |         |
  0+35       0.5600     15.67  |  V  Q    |         |         |         |
  0+40       0.6700     15.97  |  V   Q   |         |         |         |
  0+45       0.7895     17.35  |   V  Q   |         |         |         |
  0+50       0.9006     16.13  |   V  Q   |         |         |         |
  0+55       1.0047     15.12  |    VQ    |         |         |         |
  1+ 0       1.1173     16.35  |     VQ   |         |         |         |
  1+ 5       1.2505     19.35  |     V Q  |         |         |         |
  1+10       1.3998     21.67  |      V Q |         |         |         |
  1+15       1.5528     22.22  |       VQ |         |         |         |
  1+20       1.7005     21.45  |        Q |         |         |         |
  1+25       1.8618     23.42  |         Q         |         |         |
  1+30       2.0467     26.85  |         |Q        |         |         |
  1+35       2.2290     26.48  |         |QV       |         |         |
  1+40       2.4130     26.71  |         |Q V      |         |         |
  1+45       2.6269     31.06  |         |  QV     |         |         |
  1+50       2.8573     33.46  |         |   QV    |         |         |
  1+55       3.0789     32.16  |         |   Q V   |         |         |
  2+ 0       3.2972     31.70  |         |   Q   V |         |         |
  2+ 5       3.5211     32.52  |         |   Q    V|         |         |
  2+10       3.7859     38.44  |         |      Q  V         |         |
  2+15       4.1185     48.29  |         |         |QV       |         |
  2+20       4.4381     46.41  |         |         Q   V     |         |
  2+25       4.8247     56.13  |         |         |   Q V   |         |
  2+30       5.3403     74.87  |         |         |        V|  Q      |
  2+35       5.9261     85.06  |         |         |         | V    Q  |
  2+40       6.4787     80.24  |         |         |         |    Q    |
  2+45       6.8282     50.74  |         |         | Q       |      V  |
  2+50       7.0152     27.16  |         | Q       |         |       V |
  2+55       7.1593     20.92  |        Q|         |         |        V|
  3+ 0       7.2465     12.66  |    Q    |         |         |        V|
  3+ 5       7.2749      4.13  |Q        |         |         |        V|
```

```
    3+10       7.2835      1.25  Q          |          |          |        V|
    3+15       7.2862      0.39  Q          |          |          |        V|
    3+20       7.2866      0.05  Q          |          |          |         V
--------------------------------------------------------------------------
```

```
       U n i t   H y d r o g r a p h   A n a l y s i s

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              Study date  07/15/17 File: frmds6100.out

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------------------------------------------------------------------------------

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Tract 29835-1
100-YR 6-hour Unit Hyd
Post Development
Basin 1 (Lot N)

------------------------------------------------------------------------
Drainage Area =      43.40(Ac.)  =      0.068 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =      43.40(Ac.)  =      0.068 Sq. Mi.
Length along longest watercourse =    2276.00(Ft.)
Length along longest watercourse measured to centroid =    1210.00(Ft.)
Length along longest watercourse =      0.431 Mi.
Length along longest watercourse measured to centroid =      0.229 Mi.
Difference in elevation =     259.00(Ft.)
Slope along watercourse =    600.8436 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time =    0.044 Hr.
Lag time =     2.66 Min.
25% of lag time =     0.66 Min.
40% of lag time =     1.06 Min.
Unit time =     5.00 Min.
Duration of storm = 6 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       43.40           1.20                 52.08

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       43.40           3.00                130.20

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    1.200(In)
Area Averaged 100-Year Rainfall =    3.000(In)

Point rain (area averaged) =    3.000(In)
Areal adjustment factor =   99.99 %
Adjusted average point rain =    3.000(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     0.880           56.00         0.900
```

```
          4.150           69.00         0.900
          0.470           75.00         0.900
         17.280           86.00         0.000
          2.930           93.00         0.000
          2.350           56.00         0.500
         14.120           69.00         0.500
          1.220           69.00         0.150
 Total Area Entered =     43.40(Ac.)


 RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
 AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
 56.0  74.8      0.305     0.900        0.058       0.020      0.001
 69.0  84.4      0.194     0.900        0.037       0.096      0.004
 75.0  88.0      0.153     0.900        0.029       0.011      0.000
 86.0  94.4      0.073     0.000        0.073       0.398      0.029
 93.0  97.2      0.036     0.000        0.036       0.068      0.002
 56.0  74.8      0.305     0.500        0.168       0.054      0.009
 69.0  84.4      0.194     0.500        0.107       0.325      0.035
 69.0  84.4      0.194     0.150        0.168       0.028      0.005
                                                  Sum (F) =   0.085
 Area averaged mean soil loss (F) (In/Hr) =  0.085
 Minimum soil loss rate ((In/Hr)) =  0.042
 (for 24 hour storm duration)
 Soil low loss rate (decimal) =   0.668
 ------------------------------------------------------------------------

                U n i t  H y d r o g r a p h
                       VALLEY S-Curve
 ------------------------------------------------------------------------
                Unit Hydrograph Data
 ------------------------------------------------------------------------
 Unit time period   Time % of lag   Distribution   Unit Hydrograph
     (hrs)                          Graph %           (CFS)
 ------------------------------------------------------------------------
     1   0.083        188.148         41.277            18.054
     2   0.167        376.295         44.203            19.334
     3   0.250        564.443          9.294             4.065
     4   0.333        752.591          3.720             1.627
     5   0.417        940.738          1.506             0.659
                              Sum = 100.000   Sum=      43.739
------------------------------------------------------------------------

 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

  Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
       (Hr.)  Percent   (In/Hr)         Max   |   Low         (In/Hr)
    1   0.08     0.50      0.180          0.085    (  0.120)        0.095
    2   0.17     0.60      0.216          0.085    (  0.144)        0.131
    3   0.25     0.60      0.216          0.085    (  0.144)        0.131
    4   0.33     0.60      0.216          0.085    (  0.144)        0.131
    5   0.42     0.60      0.216          0.085    (  0.144)        0.131
    6   0.50     0.70      0.252          0.085    (  0.168)        0.167
    7   0.58     0.70      0.252          0.085    (  0.168)        0.167
    8   0.67     0.70      0.252          0.085    (  0.168)        0.167
    9   0.75     0.70      0.252          0.085    (  0.168)        0.167
   10   0.83     0.70      0.252          0.085    (  0.168)        0.167
   11   0.92     0.70      0.252          0.085    (  0.168)        0.167
   12   1.00     0.80      0.288          0.085    (  0.192)        0.203
   13   1.08     0.80      0.288          0.085    (  0.192)        0.203
   14   1.17     0.80      0.288          0.085    (  0.192)        0.203
   15   1.25     0.80      0.288          0.085    (  0.192)        0.203
   16   1.33     0.80      0.288          0.085    (  0.192)        0.203
   17   1.42     0.80      0.288          0.085    (  0.192)        0.203
   18   1.50     0.80      0.288          0.085    (  0.192)        0.203
   19   1.58     0.80      0.288          0.085    (  0.192)        0.203
   20   1.67     0.80      0.288          0.085    (  0.192)        0.203
   21   1.75     0.80      0.288          0.085    (  0.192)        0.203
   22   1.83     0.80      0.288          0.085    (  0.192)        0.203
```

```
23   1.92     0.80      0.288          0.085    (  0.192)        0.203
24   2.00     0.90      0.324          0.085    (  0.216)        0.239
25   2.08     0.80      0.288          0.085    (  0.192)        0.203
26   2.17     0.90      0.324          0.085    (  0.216)        0.239
27   2.25     0.90      0.324          0.085    (  0.216)        0.239
28   2.33     0.90      0.324          0.085    (  0.216)        0.239
29   2.42     0.90      0.324          0.085    (  0.216)        0.239
30   2.50     0.90      0.324          0.085    (  0.216)        0.239
31   2.58     0.90      0.324          0.085    (  0.216)        0.239
32   2.67     0.90      0.324          0.085    (  0.216)        0.239
33   2.75     1.00      0.360          0.085    (  0.240)        0.275
34   2.83     1.00      0.360          0.085    (  0.240)        0.275
35   2.92     1.00      0.360          0.085    (  0.240)        0.275
36   3.00     1.00      0.360          0.085    (  0.240)        0.275
37   3.08     1.00      0.360          0.085    (  0.240)        0.275
38   3.17     1.10      0.396          0.085    (  0.264)        0.311
39   3.25     1.10      0.396          0.085    (  0.264)        0.311
40   3.33     1.10      0.396          0.085    (  0.264)        0.311
41   3.42     1.20      0.432          0.085    (  0.289)        0.347
42   3.50     1.30      0.468          0.085    (  0.313)        0.383
43   3.58     1.40      0.504          0.085    (  0.337)        0.419
44   3.67     1.40      0.504          0.085    (  0.337)        0.419
45   3.75     1.50      0.540          0.085    (  0.361)        0.455
46   3.83     1.50      0.540          0.085    (  0.361)        0.455
47   3.92     1.60      0.576          0.085    (  0.385)        0.491
48   4.00     1.60      0.576          0.085    (  0.385)        0.491
49   4.08     1.70      0.612          0.085    (  0.409)        0.527
50   4.17     1.80      0.648          0.085    (  0.433)        0.563
51   4.25     1.90      0.684          0.085    (  0.457)        0.599
52   4.33     2.00      0.720          0.085    (  0.481)        0.635
53   4.42     2.10      0.756          0.085    (  0.505)        0.671
54   4.50     2.10      0.756          0.085    (  0.505)        0.671
55   4.58     2.20      0.792          0.085    (  0.529)        0.707
56   4.67     2.30      0.828          0.085    (  0.553)        0.743
57   4.75     2.40      0.864          0.085    (  0.577)        0.779
58   4.83     2.40      0.864          0.085    (  0.577)        0.779
59   4.92     2.50      0.900          0.085    (  0.601)        0.815
60   5.00     2.60      0.936          0.085    (  0.625)        0.851
61   5.08     3.10      1.116          0.085    (  0.745)        1.031
62   5.17     3.60      1.296          0.085    (  0.866)        1.211
63   5.25     3.90      1.404          0.085    (  0.938)        1.319
64   5.33     4.20      1.512          0.085    (  1.010)        1.427
65   5.42     4.70      1.692          0.085    (  1.130)        1.607
66   5.50     5.60      2.016          0.085    (  1.346)        1.931
67   5.58     1.90      0.684          0.085    (  0.457)        0.599
68   5.67     0.90      0.324          0.085    (  0.216)        0.239
69   5.75     0.60      0.216          0.085    (  0.144)        0.131
70   5.83     0.50      0.180          0.085    (  0.120)        0.095
71   5.92     0.30      0.108       (  0.085)       0.072        0.036
72   6.00     0.20      0.072       (  0.085)       0.048        0.024
               (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    29.9
      Flood volume = Effective rainfall      2.49(In)
       times area      43.4(Ac.)/[(In)/(Ft.)] =       9.0(Ac.Ft)
      Total soil loss =      0.51(In)
      Total soil loss =     1.828(Ac.Ft)
      Total rainfall =      3.00(In)
      Flood volume =      392909.6 Cubic Feet
      Total soil loss =       79645.9 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =     74.706(CFS)
      ---------------------------------------------------------------------
      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          6 - H O U R    S T O R M
                     R u n o f f      H y d r o g r a p h
      ---------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      ---------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0       20.0      40.0      60.0      80.0
----------------------------------------------------------------------
```

```
0+ 5       0.0118      1.72  Q         |         |         |         |
0+10       0.0408      4.20  V Q       |         |         |         |
0+15       0.0772      5.29  V Q       |         |         |         |
0+20       0.1157      5.59  V Q       |         |         |         |
0+25       0.1550      5.71  V Q       |         |         |         |
0+30       0.1990      6.38  V  Q      |         |         |         |
0+35       0.2477      7.08  |V Q      |         |         |         |
0+40       0.2975      7.23  |V Q      |         |         |         |
0+45       0.3477      7.29  |V Q      |         |         |         |
0+50       0.3980      7.31  |V Q      |         |         |         |
0+55       0.4483      7.31  |V Q      |         |         |         |
1+ 0       0.5032      7.96  | VQ      |         |         |         |
1+ 5       0.5628      8.66  | V Q     |         |         |         |
1+10       0.6234      8.80  | V Q     |         |         |         |
1+15       0.6844      8.86  |  VQ     |         |         |         |
1+20       0.7456      8.88  |  VQ     |         |         |         |
1+25       0.8068      8.88  |  VQ     |         |         |         |
1+30       0.8680      8.88  |  VQ     |         |         |         |
1+35       0.9291      8.88  |   Q     |         |         |         |
1+40       0.9903      8.88  |   Q     |         |         |         |
1+45       1.0515      8.88  |   Q     |         |         |         |
1+50       1.1127      8.88  |   Q     |         |         |         |
1+55       1.1739      8.88  |   QV    |         |         |         |
2+ 0       1.2395      9.53  |   QV    |         |         |         |
2+ 5       1.3055      9.58  |   QV    |         |         |         |
2+10       1.3722      9.68  |   Q V   |         |         |         |
2+15       1.4431     10.29  |    QV   |         |         |         |
2+20       1.5147     10.40  |    QV   |         |         |         |
2+25       1.5866     10.44  |    Q V  |         |         |         |
2+30       1.6586     10.46  |    Q V  |         |         |         |
2+35       1.7306     10.46  |    Q V  |         |         |         |
2+40       1.8027     10.46  |    Q V  |         |         |         |
2+45       1.8792     11.11  |    Q  V |         |         |         |
2+50       1.9605     11.81  |    Q  V |         |         |         |
2+55       2.0428     11.95  |    Q   V|         |         |         |
3+ 0       2.1255     12.01  |     Q  V|         |         |         |
3+ 5       2.2084     12.03  |     Q  V|         |         |         |
3+10       2.2957     12.68  |     Q   V         |         |         |
3+15       2.3879     13.38  |     Q   V         |         |         |
3+20       2.4811     13.53  |     Q   |V        |         |         |
3+25       2.5791     14.24  |      Q  |V        |         |         |
3+30       2.6866     15.61  |      Q  |V        |         |         |
3+35       2.8043     17.10  |       Q | V       |         |         |
3+40       2.9283     18.00  |        Q| V       |         |         |
3+45       3.0583     18.88  |        Q|  V      |         |         |
3+50       3.1937     19.66  |        Q|   V     |         |         |
3+55       3.3348     20.48  |         Q   V     |         |         |
4+ 0       3.4810     21.23  |         Q    V    |         |         |
4+ 5       3.6329     22.05  |         |Q    V   |         |         |
4+10       3.7944     23.46  |         |Q    V   |         |         |
4+15       3.9664     24.97  |         | Q    V  |         |         |
4+20       4.1491     26.53  |         |  Q    V |         |         |
4+25       4.3427     28.10  |         |   Q    V|         |         |
4+30       4.5426     29.03  |         |   Q     V         |         |
4+35       4.7485     29.91  |         |   Q     |V        |         |
4+40       4.9643     31.33  |         |    Q    | V       |         |
4+45       5.1906     32.85  |         |     Q   |  V      |         |
4+50       5.4230     33.75  |         |     Q   |   V     |         |
4+55       5.6615     34.63  |         |      Q  |    V    |         |
5+ 0       5.9099     36.06  |         |       Q |     V   |         |
5+ 5       6.1866     40.18  |         |         Q      V  |         |
5+10       6.5111     47.11  |         |         |  Q    V |         |
5+15       6.8786     53.36  |         |         |     Q   V         |
5+20       7.2811     58.45  |         |         |        Q| V       |
5+25       7.7263     64.64  |         |         |         | Q V     |
5+30       8.2408     74.71  |         |         |         |    VQ   |
5+35       8.6395     57.89  |         |         |       Q |       V |
5+40       8.8276     27.31  |         |  Q      |         |        V|
5+45       8.9215     13.63  |     Q   |         |         |        V|
5+50       8.9729      7.47  |  Q      |         |         |        V|
5+55       8.9991      3.80  |Q        |         |         |        V|
```

```
    6+ 0       9.0121      1.88  Q         |         |         |        V|
    6+ 5       9.0179      0.85  Q         |         |         |        V|
    6+10       9.0194      0.22  Q         |         |         |        V|
    6+15       9.0199      0.06  Q         |         |         |        V|
    6+20       9.0200      0.02  Q         |         |         |         V
--------------------------------------------------------------------------
```

```
       U n i t   H y d r o g r a p h   A n a l y s i s

       Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
              Study date  07/15/17 File: frmds24100.out

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------------------------------------------------------------------------------

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Tract 29835-1
100-YR 24-hour Unit Hyd
Post Development
Basin 1 (Lot N)

------------------------------------------------------------------------
Drainage Area =      43.40(Ac.)  =      0.068 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =      43.40(Ac.)  =      0.068 Sq. Mi.
Length along longest watercourse =    2276.00(Ft.)
Length along longest watercourse measured to centroid =    1210.00(Ft.)
Length along longest watercourse =      0.431 Mi.
Length along longest watercourse measured to centroid =      0.229 Mi.
Difference in elevation =     259.00(Ft.)
Slope along watercourse =    600.8436 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time =    0.044 Hr.
Lag time =     2.66 Min.
25% of lag time =     0.66 Min.
40% of lag time =     1.06 Min.
Unit time =     5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       43.40           2.05                 88.97

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       43.40           5.36                232.62

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    2.050(In)
Area Averaged 100-Year Rainfall =    5.360(In)

Point rain (area averaged) =    5.360(In)
Areal adjustment factor =   99.99 %
Adjusted average point rain =    5.360(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     0.880           56.00         0.900
```

```
     4.150          69.00         0.900
     0.470          75.00         0.900
    17.280          86.00         0.000
     2.930          93.00         0.000
     2.350          56.00         0.500
    14.120          69.00         0.500
     1.220          69.00         0.150
 Total Area Entered =     43.40(Ac.)


 RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
 AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
 56.0  74.8      0.305     0.900        0.058       0.020      0.001
 69.0  84.4      0.194     0.900        0.037       0.096      0.004
 75.0  88.0      0.153     0.900        0.029       0.011      0.000
 86.0  94.4      0.073     0.000        0.073       0.398      0.029
 93.0  97.2      0.036     0.000        0.036       0.068      0.002
 56.0  74.8      0.305     0.500        0.168       0.054      0.009
 69.0  84.4      0.194     0.500        0.107       0.325      0.035
 69.0  84.4      0.194     0.150        0.168       0.028      0.005
                                                  Sum (F) =   0.085
 Area averaged mean soil loss (F) (In/Hr) =  0.085
 Minimum soil loss rate ((In/Hr)) =  0.042
 (for 24 hour storm duration)
 Soil low loss rate (decimal) =   0.668
 ------------------------------------------------------------------------

                U n i t  H y d r o g r a p h
                       VALLEY S-Curve
 ------------------------------------------------------------------------
                Unit Hydrograph Data
 ------------------------------------------------------------------------
 Unit time period   Time % of lag   Distribution   Unit Hydrograph
     (hrs)                          Graph %           (CFS)
 ------------------------------------------------------------------------
     1   0.083        188.148         41.277            18.054
     2   0.167        376.295         44.203            19.334
     3   0.250        564.443          9.294             4.065
     4   0.333        752.591          3.720             1.627
     5   0.417        940.738          1.506             0.659
                              Sum = 100.000   Sum=      43.739
------------------------------------------------------------------------

 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

  Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
       (Hr.)  Percent   (In/Hr)         Max    |   Low        (In/Hr)
    1   0.08     0.07      0.043       (  0.151)       0.029        0.014
    2   0.17     0.07      0.043       (  0.150)       0.029        0.014
    3   0.25     0.07      0.043       (  0.149)       0.029        0.014
    4   0.33     0.10      0.064       (  0.149)       0.043        0.021
    5   0.42     0.10      0.064       (  0.148)       0.043        0.021
    6   0.50     0.10      0.064       (  0.148)       0.043        0.021
    7   0.58     0.10      0.064       (  0.147)       0.043        0.021
    8   0.67     0.10      0.064       (  0.147)       0.043        0.021
    9   0.75     0.10      0.064       (  0.146)       0.043        0.021
   10   0.83     0.13      0.086       (  0.145)       0.057        0.028
   11   0.92     0.13      0.086       (  0.145)       0.057        0.028
   12   1.00     0.13      0.086       (  0.144)       0.057        0.028
   13   1.08     0.10      0.064       (  0.144)       0.043        0.021
   14   1.17     0.10      0.064       (  0.143)       0.043        0.021
   15   1.25     0.10      0.064       (  0.143)       0.043        0.021
   16   1.33     0.10      0.064       (  0.142)       0.043        0.021
   17   1.42     0.10      0.064       (  0.141)       0.043        0.021
   18   1.50     0.10      0.064       (  0.141)       0.043        0.021
   19   1.58     0.10      0.064       (  0.140)       0.043        0.021
   20   1.67     0.10      0.064       (  0.140)       0.043        0.021
   21   1.75     0.10      0.064       (  0.139)       0.043        0.021
   22   1.83     0.13      0.086       (  0.139)       0.057        0.028
```

23	1.92	0.13	0.086	(0.138)	0.057	0.028
24	2.00	0.13	0.086	(0.137)	0.057	0.028
25	2.08	0.13	0.086	(0.137)	0.057	0.028
26	2.17	0.13	0.086	(0.136)	0.057	0.028
27	2.25	0.13	0.086	(0.136)	0.057	0.028
28	2.33	0.13	0.086	(0.135)	0.057	0.028
29	2.42	0.13	0.086	(0.135)	0.057	0.028
30	2.50	0.13	0.086	(0.134)	0.057	0.028
31	2.58	0.17	0.107	(0.134)	0.072	0.036
32	2.67	0.17	0.107	(0.133)	0.072	0.036
33	2.75	0.17	0.107	(0.133)	0.072	0.036
34	2.83	0.17	0.107	(0.132)	0.072	0.036
35	2.92	0.17	0.107	(0.131)	0.072	0.036
36	3.00	0.17	0.107	(0.131)	0.072	0.036
37	3.08	0.17	0.107	(0.130)	0.072	0.036
38	3.17	0.17	0.107	(0.130)	0.072	0.036
39	3.25	0.17	0.107	(0.129)	0.072	0.036
40	3.33	0.17	0.107	(0.129)	0.072	0.036
41	3.42	0.17	0.107	(0.128)	0.072	0.036
42	3.50	0.17	0.107	(0.128)	0.072	0.036
43	3.58	0.17	0.107	(0.127)	0.072	0.036
44	3.67	0.17	0.107	(0.127)	0.072	0.036
45	3.75	0.17	0.107	(0.126)	0.072	0.036
46	3.83	0.20	0.129	(0.126)	0.086	0.043
47	3.92	0.20	0.129	(0.125)	0.086	0.043
48	4.00	0.20	0.129	(0.124)	0.086	0.043
49	4.08	0.20	0.129	(0.124)	0.086	0.043
50	4.17	0.20	0.129	(0.123)	0.086	0.043
51	4.25	0.20	0.129	(0.123)	0.086	0.043
52	4.33	0.23	0.150	(0.122)	0.100	0.050
53	4.42	0.23	0.150	(0.122)	0.100	0.050
54	4.50	0.23	0.150	(0.121)	0.100	0.050
55	4.58	0.23	0.150	(0.121)	0.100	0.050
56	4.67	0.23	0.150	(0.120)	0.100	0.050
57	4.75	0.23	0.150	(0.120)	0.100	0.050
58	4.83	0.27	0.172	(0.119)	0.115	0.057
59	4.92	0.27	0.172	(0.119)	0.115	0.057
60	5.00	0.27	0.172	(0.118)	0.115	0.057
61	5.08	0.20	0.129	(0.118)	0.086	0.043
62	5.17	0.20	0.129	(0.117)	0.086	0.043
63	5.25	0.20	0.129	(0.117)	0.086	0.043
64	5.33	0.23	0.150	(0.116)	0.100	0.050
65	5.42	0.23	0.150	(0.116)	0.100	0.050
66	5.50	0.23	0.150	(0.115)	0.100	0.050
67	5.58	0.27	0.172	(0.115)	0.115	0.057
68	5.67	0.27	0.172	0.114	(0.115)	0.057
69	5.75	0.27	0.172	0.114	(0.115)	0.058
70	5.83	0.27	0.172	0.113	(0.115)	0.058
71	5.92	0.27	0.172	0.113	(0.115)	0.059
72	6.00	0.27	0.172	0.112	(0.115)	0.059
73	6.08	0.30	0.193	0.112	(0.129)	0.081
74	6.17	0.30	0.193	0.111	(0.129)	0.082
75	6.25	0.30	0.193	0.111	(0.129)	0.082
76	6.33	0.30	0.193	0.110	(0.129)	0.083
77	6.42	0.30	0.193	0.110	(0.129)	0.083
78	6.50	0.30	0.193	0.109	(0.129)	0.084
79	6.58	0.33	0.214	0.109	(0.143)	0.106
80	6.67	0.33	0.214	0.108	(0.143)	0.106
81	6.75	0.33	0.214	0.108	(0.143)	0.107
82	6.83	0.33	0.214	0.107	(0.143)	0.107
83	6.92	0.33	0.214	0.107	(0.143)	0.108
84	7.00	0.33	0.214	0.106	(0.143)	0.108
85	7.08	0.33	0.214	0.106	(0.143)	0.109
86	7.17	0.33	0.214	0.105	(0.143)	0.109
87	7.25	0.33	0.214	0.105	(0.143)	0.110
88	7.33	0.37	0.236	0.104	(0.158)	0.132
89	7.42	0.37	0.236	0.104	(0.158)	0.132
90	7.50	0.37	0.236	0.103	(0.158)	0.132
91	7.58	0.40	0.257	0.103	(0.172)	0.154
92	7.67	0.40	0.257	0.102	(0.172)	0.155
93	7.75	0.40	0.257	0.102	(0.172)	0.155

94	7.83	0.43	0.279	0.101	(0.186)	0.177
95	7.92	0.43	0.279	0.101	(0.186)	0.178
96	8.00	0.43	0.279	0.101	(0.186)	0.178
97	8.08	0.50	0.322	0.100	(0.215)	0.222
98	8.17	0.50	0.322	0.100	(0.215)	0.222
99	8.25	0.50	0.322	0.099	(0.215)	0.222
100	8.33	0.50	0.322	0.099	(0.215)	0.223
101	8.42	0.50	0.322	0.098	(0.215)	0.223
102	8.50	0.50	0.322	0.098	(0.215)	0.224
103	8.58	0.53	0.343	0.097	(0.229)	0.246
104	8.67	0.53	0.343	0.097	(0.229)	0.246
105	8.75	0.53	0.343	0.096	(0.229)	0.247
106	8.83	0.57	0.364	0.096	(0.243)	0.269
107	8.92	0.57	0.364	0.095	(0.243)	0.269
108	9.00	0.57	0.364	0.095	(0.243)	0.269
109	9.08	0.63	0.407	0.095	(0.272)	0.313
110	9.17	0.63	0.407	0.094	(0.272)	0.313
111	9.25	0.63	0.407	0.094	(0.272)	0.314
112	9.33	0.67	0.429	0.093	(0.286)	0.336
113	9.42	0.67	0.429	0.093	(0.286)	0.336
114	9.50	0.67	0.429	0.092	(0.286)	0.336
115	9.58	0.70	0.450	0.092	(0.301)	0.358
116	9.67	0.70	0.450	0.091	(0.301)	0.359
117	9.75	0.70	0.450	0.091	(0.301)	0.359
118	9.83	0.73	0.472	0.091	(0.315)	0.381
119	9.92	0.73	0.472	0.090	(0.315)	0.381
120	10.00	0.73	0.472	0.090	(0.315)	0.382
121	10.08	0.50	0.322	0.089	(0.215)	0.232
122	10.17	0.50	0.322	0.089	(0.215)	0.233
123	10.25	0.50	0.322	0.088	(0.215)	0.233
124	10.33	0.50	0.322	0.088	(0.215)	0.234
125	10.42	0.50	0.322	0.088	(0.215)	0.234
126	10.50	0.50	0.322	0.087	(0.215)	0.234
127	10.58	0.67	0.429	0.087	(0.286)	0.342
128	10.67	0.67	0.429	0.086	(0.286)	0.342
129	10.75	0.67	0.429	0.086	(0.286)	0.343
130	10.83	0.67	0.429	0.085	(0.286)	0.343
131	10.92	0.67	0.429	0.085	(0.286)	0.344
132	11.00	0.67	0.429	0.085	(0.286)	0.344
133	11.08	0.63	0.407	0.084	(0.272)	0.323
134	11.17	0.63	0.407	0.084	(0.272)	0.324
135	11.25	0.63	0.407	0.083	(0.272)	0.324
136	11.33	0.63	0.407	0.083	(0.272)	0.324
137	11.42	0.63	0.407	0.083	(0.272)	0.325
138	11.50	0.63	0.407	0.082	(0.272)	0.325
139	11.58	0.57	0.364	0.082	(0.243)	0.283
140	11.67	0.57	0.364	0.081	(0.243)	0.283
141	11.75	0.57	0.364	0.081	(0.243)	0.284
142	11.83	0.60	0.386	0.080	(0.258)	0.305
143	11.92	0.60	0.386	0.080	(0.258)	0.306
144	12.00	0.60	0.386	0.080	(0.258)	0.306
145	12.08	0.83	0.536	0.079	(0.358)	0.457
146	12.17	0.83	0.536	0.079	(0.358)	0.457
147	12.25	0.83	0.536	0.079	(0.358)	0.457
148	12.33	0.87	0.557	0.078	(0.372)	0.479
149	12.42	0.87	0.557	0.078	(0.372)	0.480
150	12.50	0.87	0.557	0.077	(0.372)	0.480
151	12.58	0.93	0.600	0.077	(0.401)	0.523
152	12.67	0.93	0.600	0.077	(0.401)	0.524
153	12.75	0.93	0.600	0.076	(0.401)	0.524
154	12.83	0.97	0.622	0.076	(0.415)	0.546
155	12.92	0.97	0.622	0.075	(0.415)	0.546
156	13.00	0.97	0.622	0.075	(0.415)	0.547
157	13.08	1.13	0.729	0.075	(0.487)	0.654
158	13.17	1.13	0.729	0.074	(0.487)	0.655
159	13.25	1.13	0.729	0.074	(0.487)	0.655
160	13.33	1.13	0.729	0.074	(0.487)	0.655
161	13.42	1.13	0.729	0.073	(0.487)	0.656
162	13.50	1.13	0.729	0.073	(0.487)	0.656
163	13.58	0.77	0.493	0.072	(0.329)	0.421
164	13.67	0.77	0.493	0.072	(0.329)	0.421

165	13.75	0.77	0.493	0.072	(0.329)	0.421
166	13.83	0.77	0.493	0.071	(0.329)	0.422
167	13.92	0.77	0.493	0.071	(0.329)	0.422
168	14.00	0.77	0.493	0.071	(0.329)	0.423
169	14.08	0.90	0.579	0.070	(0.387)	0.509
170	14.17	0.90	0.579	0.070	(0.387)	0.509
171	14.25	0.90	0.579	0.069	(0.387)	0.509
172	14.33	0.87	0.557	0.069	(0.372)	0.488
173	14.42	0.87	0.557	0.069	(0.372)	0.489
174	14.50	0.87	0.557	0.068	(0.372)	0.489
175	14.58	0.87	0.557	0.068	(0.372)	0.489
176	14.67	0.87	0.557	0.068	(0.372)	0.490
177	14.75	0.87	0.557	0.067	(0.372)	0.490
178	14.83	0.83	0.536	0.067	(0.358)	0.469
179	14.92	0.83	0.536	0.067	(0.358)	0.469
180	15.00	0.83	0.536	0.066	(0.358)	0.470
181	15.08	0.80	0.515	0.066	(0.344)	0.449
182	15.17	0.80	0.515	0.066	(0.344)	0.449
183	15.25	0.80	0.515	0.065	(0.344)	0.449
184	15.33	0.77	0.493	0.065	(0.329)	0.428
185	15.42	0.77	0.493	0.065	(0.329)	0.428
186	15.50	0.77	0.493	0.064	(0.329)	0.429
187	15.58	0.63	0.407	0.064	(0.272)	0.343
188	15.67	0.63	0.407	0.064	(0.272)	0.344
189	15.75	0.63	0.407	0.063	(0.272)	0.344
190	15.83	0.63	0.407	0.063	(0.272)	0.344
191	15.92	0.63	0.407	0.063	(0.272)	0.345
192	16.00	0.63	0.407	0.062	(0.272)	0.345
193	16.08	0.13	0.086	(0.062)	0.057	0.028
194	16.17	0.13	0.086	(0.062)	0.057	0.028
195	16.25	0.13	0.086	(0.061)	0.057	0.028
196	16.33	0.13	0.086	(0.061)	0.057	0.028
197	16.42	0.13	0.086	(0.061)	0.057	0.028
198	16.50	0.13	0.086	(0.060)	0.057	0.028
199	16.58	0.10	0.064	(0.060)	0.043	0.021
200	16.67	0.10	0.064	(0.060)	0.043	0.021
201	16.75	0.10	0.064	(0.060)	0.043	0.021
202	16.83	0.10	0.064	(0.059)	0.043	0.021
203	16.92	0.10	0.064	(0.059)	0.043	0.021
204	17.00	0.10	0.064	(0.059)	0.043	0.021
205	17.08	0.17	0.107	0.058	(0.072)	0.049
206	17.17	0.17	0.107	0.058	(0.072)	0.049
207	17.25	0.17	0.107	0.058	(0.072)	0.049
208	17.33	0.17	0.107	0.058	(0.072)	0.050
209	17.42	0.17	0.107	0.057	(0.072)	0.050
210	17.50	0.17	0.107	0.057	(0.072)	0.050
211	17.58	0.17	0.107	0.057	(0.072)	0.051
212	17.67	0.17	0.107	0.056	(0.072)	0.051
213	17.75	0.17	0.107	0.056	(0.072)	0.051
214	17.83	0.13	0.086	0.056	(0.057)	0.030
215	17.92	0.13	0.086	0.056	(0.057)	0.030
216	18.00	0.13	0.086	0.055	(0.057)	0.030
217	18.08	0.13	0.086	0.055	(0.057)	0.031
218	18.17	0.13	0.086	0.055	(0.057)	0.031
219	18.25	0.13	0.086	0.054	(0.057)	0.031
220	18.33	0.13	0.086	0.054	(0.057)	0.032
221	18.42	0.13	0.086	0.054	(0.057)	0.032
222	18.50	0.13	0.086	0.054	(0.057)	0.032
223	18.58	0.10	0.064	(0.053)	0.043	0.021
224	18.67	0.10	0.064	(0.053)	0.043	0.021
225	18.75	0.10	0.064	(0.053)	0.043	0.021
226	18.83	0.07	0.043	(0.053)	0.029	0.014
227	18.92	0.07	0.043	(0.052)	0.029	0.014
228	19.00	0.07	0.043	(0.052)	0.029	0.014
229	19.08	0.10	0.064	(0.052)	0.043	0.021
230	19.17	0.10	0.064	(0.052)	0.043	0.021
231	19.25	0.10	0.064	(0.051)	0.043	0.021
232	19.33	0.13	0.086	0.051	(0.057)	0.035
233	19.42	0.13	0.086	0.051	(0.057)	0.035
234	19.50	0.13	0.086	0.051	(0.057)	0.035
235	19.58	0.10	0.064	(0.050)	0.043	0.021

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236  19.67     0.10      0.064       (  0.050)       0.043        0.021
237  19.75     0.10      0.064       (  0.050)       0.043        0.021
238  19.83     0.07      0.043       (  0.050)       0.029        0.014
239  19.92     0.07      0.043       (  0.050)       0.029        0.014
240  20.00     0.07      0.043       (  0.049)       0.029        0.014
241  20.08     0.10      0.064       (  0.049)       0.043        0.021
242  20.17     0.10      0.064       (  0.049)       0.043        0.021
243  20.25     0.10      0.064       (  0.049)       0.043        0.021
244  20.33     0.10      0.064       (  0.048)       0.043        0.021
245  20.42     0.10      0.064       (  0.048)       0.043        0.021
246  20.50     0.10      0.064       (  0.048)       0.043        0.021
247  20.58     0.10      0.064       (  0.048)       0.043        0.021
248  20.67     0.10      0.064       (  0.048)       0.043        0.021
249  20.75     0.10      0.064       (  0.047)       0.043        0.021
250  20.83     0.07      0.043       (  0.047)       0.029        0.014
251  20.92     0.07      0.043       (  0.047)       0.029        0.014
252  21.00     0.07      0.043       (  0.047)       0.029        0.014
253  21.08     0.10      0.064       (  0.047)       0.043        0.021
254  21.17     0.10      0.064       (  0.047)       0.043        0.021
255  21.25     0.10      0.064       (  0.046)       0.043        0.021
256  21.33     0.07      0.043       (  0.046)       0.029        0.014
257  21.42     0.07      0.043       (  0.046)       0.029        0.014
258  21.50     0.07      0.043       (  0.046)       0.029        0.014
259  21.58     0.10      0.064       (  0.046)       0.043        0.021
260  21.67     0.10      0.064       (  0.045)       0.043        0.021
261  21.75     0.10      0.064       (  0.045)       0.043        0.021
262  21.83     0.07      0.043       (  0.045)       0.029        0.014
263  21.92     0.07      0.043       (  0.045)       0.029        0.014
264  22.00     0.07      0.043       (  0.045)       0.029        0.014
265  22.08     0.10      0.064       (  0.045)       0.043        0.021
266  22.17     0.10      0.064       (  0.045)       0.043        0.021
267  22.25     0.10      0.064       (  0.044)       0.043        0.021
268  22.33     0.07      0.043       (  0.044)       0.029        0.014
269  22.42     0.07      0.043       (  0.044)       0.029        0.014
270  22.50     0.07      0.043       (  0.044)       0.029        0.014
271  22.58     0.07      0.043       (  0.044)       0.029        0.014
272  22.67     0.07      0.043       (  0.044)       0.029        0.014
273  22.75     0.07      0.043       (  0.044)       0.029        0.014
274  22.83     0.07      0.043       (  0.044)       0.029        0.014
275  22.92     0.07      0.043       (  0.043)       0.029        0.014
276  23.00     0.07      0.043       (  0.043)       0.029        0.014
277  23.08     0.07      0.043       (  0.043)       0.029        0.014
278  23.17     0.07      0.043       (  0.043)       0.029        0.014
279  23.25     0.07      0.043       (  0.043)       0.029        0.014
280  23.33     0.07      0.043       (  0.043)       0.029        0.014
281  23.42     0.07      0.043       (  0.043)       0.029        0.014
282  23.50     0.07      0.043       (  0.043)       0.029        0.014
283  23.58     0.07      0.043       (  0.043)       0.029        0.014
284  23.67     0.07      0.043       (  0.043)       0.029        0.014
285  23.75     0.07      0.043       (  0.043)       0.029        0.014
286  23.83     0.07      0.043       (  0.043)       0.029        0.014
287  23.92     0.07      0.043       (  0.043)       0.029        0.014
288  24.00     0.07      0.043       (  0.042)       0.029        0.014
              (Loss Rate Not Used)
    Sum =     100.0                                  Sum =    44.9
      Flood volume = Effective rainfall      3.74(In)
       times area      43.4(Ac.)/[(In)/(Ft.)] =      13.5(Ac.Ft)
      Total soil loss =      1.61(In)
      Total soil loss =     5.840(Ac.Ft)
      Total rainfall =      5.36(In)
      Flood volume =      589966.3 Cubic Feet
      Total soil loss =      254387.3 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =     28.701(CFS)
      ---------------------------------------------------------------------
      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        24 - H O U R    S T O R M
                    R u n o f f     H y d r o g r a p h
      ---------------------------------------------------------------------
                Hydrograph in   5   Minute intervals ((CFS))
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Time(h+m)	Volume Ac.Ft	Q(CFS)	0	7.5	15.0	22.5	30.0
0+ 5	0.0018	0.26	Q				
0+10	0.0054	0.53	Q				
0+15	0.0095	0.59	Q				
0+20	0.0146	0.74	Q				
0+25	0.0207	0.89	VQ				
0+30	0.0271	0.92	VQ				
0+35	0.0335	0.93	VQ				
0+40	0.0399	0.93	VQ				
0+45	0.0463	0.93	VQ				
0+50	0.0537	1.06	VQ				
0+55	0.0619	1.20	VQ				
1+ 0	0.0704	1.23	VQ				
1+ 5	0.0781	1.11	VQ				
1+10	0.0848	0.98	VQ				
1+15	0.0914	0.95	VQ				
1+20	0.0978	0.94	VQ				
1+25	0.1043	0.93	VQ				
1+30	0.1107	0.93	VQ				
1+35	0.1171	0.93	VQ				
1+40	0.1236	0.93	VQ				
1+45	0.1300	0.93	VQ				
1+50	0.1373	1.06	VQ				
1+55	0.1456	1.20	VQ				
2+ 0	0.1541	1.23	VQ				
2+ 5	0.1626	1.24	VQ				
2+10	0.1712	1.25	VQ				
2+15	0.1798	1.25	VQ				
2+20	0.1883	1.25	VQ				
2+25	0.1969	1.25	VQ				
2+30	0.2055	1.25	VQ				
2+35	0.2150	1.37	VQ				
2+40	0.2254	1.51	V Q				
2+45	0.2360	1.54	V Q				
2+50	0.2467	1.55	V Q				
2+55	0.2574	1.56	V Q				
3+ 0	0.2681	1.56	V Q				
3+ 5	0.2789	1.56	V Q				
3+10	0.2896	1.56	V Q				
3+15	0.3003	1.56	V Q				
3+20	0.3110	1.56	V Q				
3+25	0.3218	1.56	V Q				
3+30	0.3325	1.56	V Q				
3+35	0.3432	1.56	|VQ				
3+40	0.3539	1.56	|VQ				
3+45	0.3647	1.56	|VQ				
3+50	0.3763	1.69	|VQ				
3+55	0.3888	1.82	|VQ				
4+ 0	0.4016	1.85	|VQ				
4+ 5	0.4144	1.86	|VQ				
4+10	0.4273	1.87	|VQ				
4+15	0.4402	1.87	|VQ				
4+20	0.4539	2.00	|VQ				
4+25	0.4686	2.14	|VQ				
4+30	0.4835	2.16	|VQ				
4+35	0.4985	2.18	|VQ				
4+40	0.5135	2.18	|VQ				
4+45	0.5286	2.18	|VQ				
4+50	0.5445	2.31	|V Q				
4+55	0.5613	2.45	|V Q				
5+ 0	0.5784	2.48	|V Q				
5+ 5	0.5937	2.23	|VQ				
5+10	0.6072	1.96	|VQ				
5+15	0.6203	1.90	|VQ				
5+20	0.6341	2.01	|VQ				
5+25	0.6488	2.14	|VQ				
5+30	0.6637	2.16	|VQ				
5+35	0.6796	2.30	| VQ				
5+40	0.6965	2.45	| VQ				

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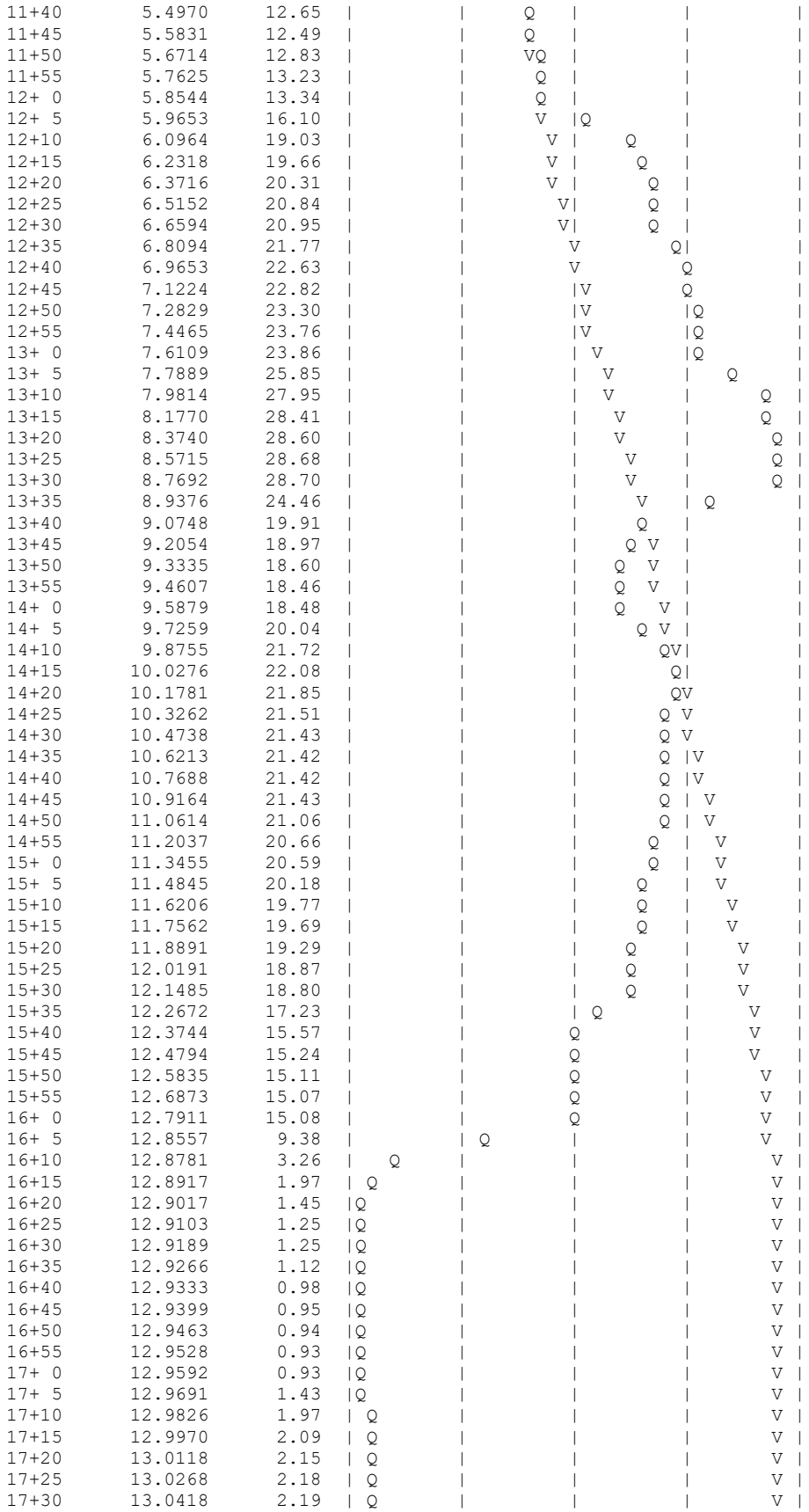
 5+45      0.7137      2.50  | VQ      |         |         |         |
 5+50      0.7312      2.53  | VQ      |         |         |         |
 5+55      0.7488      2.56  | VQ      |         |         |         |
 6+ 0      0.7666      2.58  | VQ      |         |         |         |
 6+ 5      0.7872      2.99  | VQ      |         |         |         |
 6+10      0.8108      3.43  | V Q     |         |         |         |
 6+15      0.8351      3.54  | V Q     |         |         |         |
 6+20      0.8598      3.59  | V Q     |         |         |         |
 6+25      0.8848      3.63  | V Q     |         |         |         |
 6+30      0.9100      3.65  | V Q     |         |         |         |
 6+35      0.9379      4.06  | V  Q    |         |         |         |
 6+40      0.9689      4.49  | V  Q    |         |         |         |
 6+45      1.0006      4.60  | V   Q   |         |         |         |
 6+50      1.0326      4.66  |  V  Q   |         |         |         |
 6+55      1.0650      4.69  |  V  Q   |         |         |         |
 7+ 0      1.0975      4.72  |  V  Q   |         |         |         |
 7+ 5      1.1301      4.74  |  V  Q   |         |         |         |
 7+10      1.1628      4.76  |  V  Q   |         |         |         |
 7+15      1.1958      4.78  |  V  Q   |         |         |         |
 7+20      1.2315      5.19  |  V  Q   |         |         |         |
 7+25      1.2702      5.62  |  V   Q  |         |         |         |
 7+30      1.3097      5.73  |  V   Q  |         |         |         |
 7+35      1.3522      6.17  |  V    Q |         |         |         |
 7+40      1.3978      6.62  |   V   Q |         |         |         |
 7+45      1.4442      6.73  |   V   Q |         |         |         |
 7+50      1.4936      7.17  |   V    Q|         |         |         |
 7+55      1.5461      7.62  |   V     Q         |         |         |
 8+ 0      1.5993      7.73  |   V     Q         |         |         |
 8+ 5      1.6583      8.56  |   V     |Q        |         |         |
 8+10      1.7232      9.43  |    V    | Q       |         |         |
 8+15      1.7895      9.62  |    V    | Q       |         |         |
 8+20      1.8563      9.71  |    V    | Q       |         |         |
 8+25      1.9235      9.76  |    V    |  Q      |         |         |
 8+30      1.9909      9.78  |    V    |  Q      |         |         |
 8+35      2.0610     10.19  |     V   |  Q      |         |         |
 8+40      2.1342     10.62  |     V   |   Q     |         |         |
 8+45      2.2081     10.73  |     V   |   Q     |         |         |
 8+50      2.2850     11.17  |     V   |   Q     |         |         |
 8+55      2.3650     11.62  |     V   |    Q    |         |         |
 9+ 0      2.4458     11.73  |      V  |    Q    |         |         |
 9+ 5      2.5322     12.55  |      V  |     Q   |         |         |
 9+10      2.6246     13.42  |      V  |      Q  |         |         |
 9+15      2.7184     13.61  |       V |       Q |         |         |
 9+20      2.8154     14.09  |       V |       Q |         |         |
 9+25      2.9156     14.55  |       V |        Q|         |         |
 9+30      3.0166     14.66  |       V |        Q|         |         |
 9+35      3.1206     15.10  |        V|         Q         |         |
 9+40      3.2277     15.55  |        V|         Q         |         |
 9+45      3.3355     15.65  |        V|         Q         |         |
 9+50      3.4463     16.10  |         V         |Q        |         |
 9+55      3.5603     16.54  |         V         | Q       |         |
10+ 0      3.6749     16.65  |         V         | Q       |         |
10+ 5      3.7713     13.99  |         |V      Q |         |         |
10+10      3.8479     11.12  |         |V  Q     |         |         |
10+15      3.9204     10.53  |         |V  Q     |         |         |
10+20      3.9914     10.31  |         |V Q      |         |         |
10+25      4.0618     10.23  |         |V Q      |         |         |
10+30      4.1324     10.24  |         | VQ      |         |         |
10+35      4.2164     12.20  |         | V   Q   |         |         |
10+40      4.3148     14.29  |         | V      Q|         |         |
10+45      4.4164     14.75  |         |  V     Q|         |         |
10+50      4.5193     14.94  |         |  V     Q|         |         |
10+55      4.6228     15.03  |         |  V      Q         |         |
11+ 0      4.7264     15.05  |         |  V      Q         |         |
11+ 5      4.8275     14.68  |         |   V    Q|         |         |
11+10      4.9259     14.28  |         |   V    Q|         |         |
11+15      5.0237     14.21  |         |   V   Q |         |         |
11+20      5.1215     14.20  |         |    V  Q |         |         |
11+25      5.2193     14.20  |         |    V  Q |         |         |
11+30      5.3172     14.22  |         |    V  Q |         |         |
11+35      5.4099     13.46  |         |    V Q  |         |         |
```



11+40	5.4970	12.65	
11+45	5.5831	12.49	
11+50	5.6714	12.83	
11+55	5.7625	13.23	
12+ 0	5.8544	13.34	
12+ 5	5.9653	16.10	
12+10	6.0964	19.03	
12+15	6.2318	19.66	
12+20	6.3716	20.31	
12+25	6.5152	20.84	
12+30	6.6594	20.95	
12+35	6.8094	21.77	
12+40	6.9653	22.63	
12+45	7.1224	22.82	
12+50	7.2829	23.30	
12+55	7.4465	23.76	
13+ 0	7.6109	23.86	
13+ 5	7.7889	25.85	
13+10	7.9814	27.95	
13+15	8.1770	28.41	
13+20	8.3740	28.60	
13+25	8.5715	28.68	
13+30	8.7692	28.70	
13+35	8.9376	24.46	
13+40	9.0748	19.91	
13+45	9.2054	18.97	
13+50	9.3335	18.60	
13+55	9.4607	18.46	
14+ 0	9.5879	18.48	
14+ 5	9.7259	20.04	
14+10	9.8755	21.72	
14+15	10.0276	22.08	
14+20	10.1781	21.85	
14+25	10.3262	21.51	
14+30	10.4738	21.43	
14+35	10.6213	21.42	
14+40	10.7688	21.42	
14+45	10.9164	21.43	
14+50	11.0614	21.06	
14+55	11.2037	20.66	
15+ 0	11.3455	20.59	
15+ 5	11.4845	20.18	
15+10	11.6206	19.77	
15+15	11.7562	19.69	
15+20	11.8891	19.29	
15+25	12.0191	18.87	
15+30	12.1485	18.80	
15+35	12.2672	17.23	
15+40	12.3744	15.57	
15+45	12.4794	15.24	
15+50	12.5835	15.11	
15+55	12.6873	15.07	
16+ 0	12.7911	15.08	
16+ 5	12.8557	9.38	
16+10	12.8781	3.26	
16+15	12.8917	1.97	
16+20	12.9017	1.45	
16+25	12.9103	1.25	
16+30	12.9189	1.25	
16+35	12.9266	1.12	
16+40	12.9333	0.98	
16+45	12.9399	0.95	
16+50	12.9463	0.94	
16+55	12.9528	0.93	
17+ 0	12.9592	0.93	
17+ 5	12.9691	1.43	
17+10	12.9826	1.97	
17+15	12.9970	2.09	
17+20	13.0118	2.15	
17+25	13.0268	2.18	
17+30	13.0418	2.19	

17+35	13.0570	2.20	| Q	|	|	|	V |
17+40	13.0723	2.21	| Q	|	|	|	V |
17+45	13.0876	2.23	| Q	|	|	|	V |
17+50	13.1003	1.85	| Q	|	|	|	V |
17+55	13.1103	1.45	|Q	|	|	|	V |
18+ 0	13.1198	1.37	|Q	|	|	|	V |
18+ 5	13.1291	1.35	|Q	|	|	|	V |
18+10	13.1384	1.35	|Q	|	|	|	V |
18+15	13.1478	1.36	|Q	|	|	|	V |
18+20	13.1572	1.37	|Q	|	|	|	V |
18+25	13.1667	1.38	|Q	|	|	|	V |
18+30	13.1764	1.40	|Q	|	|	|	V |
18+35	13.1847	1.21	|Q	|	|	|	V |
18+40	13.1916	1.00	|Q	|	|	|	V |
18+45	13.1982	0.96	|Q	|	|	|	V |
18+50	13.2038	0.81	|Q	|	|	|	V |
18+55	13.2084	0.67	Q	|	|	|	V|
19+ 0	13.2128	0.64	Q	|	|	|	V|
19+ 5	13.2180	0.76	|Q	|	|	|	V|
19+10	13.2241	0.89	|Q	|	|	|	V|
19+15	13.2304	0.92	|Q	|	|	|	V|
19+20	13.2385	1.17	|Q	|	|	|	V|
19+25	13.2484	1.43	|Q	|	|	|	V|
19+30	13.2587	1.50	|Q	|	|	|	V|
19+35	13.2675	1.28	|Q	|	|	|	V|
19+40	13.2745	1.02	|Q	|	|	|	V|
19+45	13.2811	0.97	|Q	|	|	|	V|
19+50	13.2868	0.81	|Q	|	|	|	V|
19+55	13.2914	0.67	Q	|	|	|	V|
20+ 0	13.2958	0.64	Q	|	|	|	V|
20+ 5	13.3010	0.76	|Q	|	|	|	V|
20+10	13.3071	0.89	|Q	|	|	|	V|
20+15	13.3134	0.92	|Q	|	|	|	V|
20+20	13.3198	0.93	|Q	|	|	|	V|
20+25	13.3262	0.93	|Q	|	|	|	V|
20+30	13.3327	0.93	|Q	|	|	|	V|
20+35	13.3391	0.93	|Q	|	|	|	V|
20+40	13.3456	0.93	|Q	|	|	|	V|
20+45	13.3520	0.93	|Q	|	|	|	V|
20+50	13.3575	0.81	|Q	|	|	|	V|
20+55	13.3621	0.67	Q	|	|	|	V|
21+ 0	13.3665	0.64	Q	|	|	|	V|
21+ 5	13.3718	0.76	|Q	|	|	|	V|
21+10	13.3779	0.89	|Q	|	|	|	V|
21+15	13.3842	0.92	|Q	|	|	|	V|
21+20	13.3897	0.80	|Q	|	|	|	V|
21+25	13.3943	0.67	Q	|	|	|	V|
21+30	13.3987	0.64	Q	|	|	|	V|
21+35	13.4039	0.76	|Q	|	|	|	V|
21+40	13.4101	0.89	|Q	|	|	|	V|
21+45	13.4164	0.92	|Q	|	|	|	V|
21+50	13.4219	0.80	|Q	|	|	|	V|
21+55	13.4265	0.67	Q	|	|	|	V|
22+ 0	13.4309	0.64	Q	|	|	|	V|
22+ 5	13.4361	0.76	|Q	|	|	|	V|
22+10	13.4422	0.89	|Q	|	|	|	V|
22+15	13.4486	0.92	|Q	|	|	|	V|
22+20	13.4541	0.80	|Q	|	|	|	V|
22+25	13.4587	0.67	Q	|	|	|	V|
22+30	13.4631	0.64	Q	|	|	|	V|
22+35	13.4674	0.63	Q	|	|	|	V|
22+40	13.4717	0.62	Q	|	|	|	V|
22+45	13.4760	0.62	Q	|	|	|	V|
22+50	13.4803	0.62	Q	|	|	|	V|
22+55	13.4846	0.62	Q	|	|	|	V|
23+ 0	13.4888	0.62	Q	|	|	|	V|
23+ 5	13.4931	0.62	Q	|	|	|	V|
23+10	13.4974	0.62	Q	|	|	|	V|
23+15	13.5017	0.62	Q	|	|	|	V|
23+20	13.5060	0.62	Q	|	|	|	V|
23+25	13.5103	0.62	Q	|	|	|	V|

23+30	13.5146	0.62	Q	|	|	|	V|
23+35	13.5189	0.62	Q	|	|	|	V|
23+40	13.5232	0.62	Q	|	|	|	V|
23+45	13.5275	0.62	Q	|	|	|	V|
23+50	13.5318	0.62	Q	|	|	|	V|
23+55	13.5360	0.62	Q	|	|	|	V|
24+ 0	13.5403	0.62	Q	|	|	|	V|
24+ 5	13.5429	0.37	Q	|	|	|	V|
24+10	13.5435	0.09	Q	|	|	|	V|
24+15	13.5437	0.03	Q	|	|	|	V|
24+20	13.5438	0.01	Q	|	|	|	V

Basin 1 (Lot N) Routings

```
                    FLOOD HYDROGRAPH ROUTING PROGRAM
                Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                            Study date: 07/15/17

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 TRACT 29835-1
 ROUTING BASIN 1 (LOT N)
 100-YR 1-HR UNIT HYD


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 Program License Serial Number 4029

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 ******************** HYDROGRAPH INFORMATION **********************

                From study/file name: frmds1100.rte
 ****************************HYDROGRAPH DATA****************************
                Number of intervals =    16
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =      161.041 (CFS)
                Total volume =       5.586 (Ac.Ft)
        Status of hydrographs being held in storage
                    Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
 ***********************************************************************



 +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
 Process from Point/Station       10.000 to Point/Station       11.000
 **** RETARDING BASIN ROUTING ****
 _____________________________________________________________________

 User entry of depth-outflow-storage data
 ---------------------------------------------------------------------
 Total number of inflow hydrograph intervals = 16
 Hydrograph time unit =  5.000 (Min.)
 Initial depth in storage basin =   0.00(Ft.)
 ---------------------------------------------------------------------
 ---------------------------------------------------------------------
 Initial basin depth =   0.00 (Ft.)
 Initial basin storage =      0.00 (Ac.Ft)
 Initial basin outflow =   0.00 (CFS)
 ---------------------------------------------------------------------
 ---------------------------------------------------------------------
 Depth vs. Storage and Depth vs. Discharge data:
  Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
      (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
 ---------------------------------------------------------------------
    0.000      0.000      0.000      0.000        0.000
    0.500      0.250      1.023      0.246        0.254
    1.500      0.780      1.140      0.776        0.784
    1.700      0.900      1.163      0.896        0.904
    2.500      1.380      1.460      1.375        1.385
    3.500      2.040     35.915      1.916        2.164
    4.500      2.760     61.183      2.549        2.971
    5.000      3.550     78.634      3.279        3.821
 ---------------------------------------------------------------------
                 Hydrograph Detention Basin Routing
 ---------------------------------------------------------------------

 Graph values: 'I'= unit inflow; 'O'=outflow at time shown
 ---------------------------------------------------------------------
 Time   Inflow  Outflow    Storage                                  Depth
```

(Hours)	(CFS)	(CFS)	(Ac.Ft)	.0 40.3 80.52 120.78 161.04	(Ft.)
0.083	10.47	0.15	0.036	O I	0.07
0.167	26.28	0.65	0.159	O I	0.32
0.250	33.56	1.05	0.360	O I	0.71
0.333	36.95	1.10	0.595	O I	1.15
0.417	41.73	1.15	0.858	O I	1.63
0.500	45.21	1.32	1.149	O I	2.12
0.583	50.51	5.40	1.456	O I	2.61
0.667	61.06	20.76	1.750	O I	3.06
0.750	84.08	36.36	2.053	O I	3.52
0.833	161.04	54.95	2.582	O I	4.25
0.917	149.99	71.31	3.219	O I	4.79
1.000	68.47	76.67	3.461	I O	4.94
1.083	30.22	72.81	3.286	I O	4.83
1.167	8.92	65.28	2.946	I O	4.62
1.250	2.07	54.55	2.571	I O	4.24
1.333	0.46	43.06	2.243	I O	3.78
1.417	0.00	32.96	1.983	I O	3.41
1.500	0.00	22.91	1.791	I O	3.12
1.583	0.00	15.93	1.657	I O	2.92
1.667	0.00	11.08	1.564	I O	2.78
1.750	0.00	7.70	1.500	IO	2.68
1.833	0.00	5.35	1.455	IO	2.61
1.917	0.00	3.72	1.423	O	2.57
2.000	0.00	2.59	1.402	O	2.53
2.083	0.00	1.80	1.386	O	2.51
2.167	0.00	1.46	1.375	O	2.49
2.250	0.00	1.45	1.365	O	2.48
2.333	0.00	1.44	1.355	O	2.46
2.417	0.00	1.44	1.345	O	2.44
2.500	0.00	1.43	1.335	O	2.43
2.583	0.00	1.43	1.326	O	2.41
2.667	0.00	1.42	1.316	O	2.39
2.750	0.00	1.41	1.306	O	2.38
2.833	0.00	1.41	1.296	O	2.36
2.917	0.00	1.40	1.287	O	2.34
3.000	0.00	1.40	1.277	O	2.33
3.083	0.00	1.39	1.267	O	2.31
3.167	0.00	1.38	1.258	O	2.30
3.250	0.00	1.38	1.248	O	2.28
3.333	0.00	1.37	1.239	O	2.26
3.417	0.00	1.37	1.229	O	2.25
3.500	0.00	1.36	1.220	O	2.23
3.583	0.00	1.36	1.211	O	2.22
3.667	0.00	1.35	1.201	O	2.20
3.750	0.00	1.34	1.192	O	2.19
3.833	0.00	1.34	1.183	O	2.17
3.917	0.00	1.33	1.174	O	2.16
4.000	0.00	1.33	1.165	O	2.14
4.083	0.00	1.32	1.155	O	2.13
4.167	0.00	1.32	1.146	O	2.11
4.250	0.00	1.31	1.137	O	2.10
4.333	0.00	1.30	1.128	O	2.08
4.417	0.00	1.30	1.119	O	2.07
4.500	0.00	1.29	1.110	O	2.05
4.583	0.00	1.29	1.102	O	2.04
4.667	0.00	1.28	1.093	O	2.02
4.750	0.00	1.28	1.084	O	2.01
4.833	0.00	1.27	1.075	O	1.99
4.917	0.00	1.27	1.066	O	1.98
5.000	0.00	1.26	1.058	O	1.96
5.083	0.00	1.26	1.049	O	1.95
5.167	0.00	1.25	1.040	O	1.93
5.250	0.00	1.24	1.032	O	1.92
5.333	0.00	1.24	1.023	O	1.91
5.417	0.00	1.23	1.015	O	1.89
5.500	0.00	1.23	1.006	O	1.88
5.583	0.00	1.22	0.998	O	1.86
5.667	0.00	1.22	0.989	O	1.85
5.750	0.00	1.21	0.981	O	1.84
5.833	0.00	1.21	0.973	O	1.82

5.917	0.00	1.20	0.964	O	|	|	|	|	1.81
6.000	0.00	1.20	0.956	O	|	|	|	|	1.79
6.083	0.00	1.19	0.948	O	|	|	|	|	1.78
6.167	0.00	1.19	0.940	O	|	|	|	|	1.77
6.250	0.00	1.18	0.932	O	|	|	|	|	1.75
6.333	0.00	1.18	0.923	O	|	|	|	|	1.74
6.417	0.00	1.17	0.915	O	|	|	|	|	1.73
6.500	0.00	1.17	0.907	O	|	|	|	|	1.71
6.583	0.00	1.16	0.899	O	|	|	|	|	1.70
6.667	0.00	1.16	0.891	O	|	|	|	|	1.69
6.750	0.00	1.16	0.883	O	|	|	|	|	1.67
6.833	0.00	1.16	0.875	O	|	|	|	|	1.66
6.917	0.00	1.16	0.867	O	|	|	|	|	1.65
7.000	0.00	1.16	0.859	O	|	|	|	|	1.63
7.083	0.00	1.15	0.851	O	|	|	|	|	1.62
7.167	0.00	1.15	0.843	O	|	|	|	|	1.61
7.250	0.00	1.15	0.835	O	|	|	|	|	1.59
7.333	0.00	1.15	0.828	O	|	|	|	|	1.58
7.417	0.00	1.15	0.820	O	|	|	|	|	1.57
7.500	0.00	1.15	0.812	O	|	|	|	|	1.55
7.583	0.00	1.14	0.804	O	|	|	|	|	1.54
7.667	0.00	1.14	0.796	O	|	|	|	|	1.53
7.750	0.00	1.14	0.788	O	|	|	|	|	1.51
7.833	0.00	1.14	0.780	O	|	|	|	|	1.50
7.917	0.00	1.14	0.772	O	|	|	|	|	1.49
8.000	0.00	1.14	0.765	O	|	|	|	|	1.47
8.083	0.00	1.13	0.757	O	|	|	|	|	1.46
8.167	0.00	1.13	0.749	O	|	|	|	|	1.44
8.250	0.00	1.13	0.741	O	|	|	|	|	1.43
8.333	0.00	1.13	0.733	O	|	|	|	|	1.41
8.417	0.00	1.13	0.726	O	|	|	|	|	1.40
8.500	0.00	1.13	0.718	O	|	|	|	|	1.38
8.583	0.00	1.12	0.710	O	|	|	|	|	1.37
8.667	0.00	1.12	0.702	O	|	|	|	|	1.35
8.750	0.00	1.12	0.695	O	|	|	|	|	1.34
8.833	0.00	1.12	0.687	O	|	|	|	|	1.32
8.917	0.00	1.12	0.679	O	|	|	|	|	1.31
9.000	0.00	1.12	0.672	O	|	|	|	|	1.30
9.083	0.00	1.11	0.664	O	|	|	|	|	1.28
9.167	0.00	1.11	0.656	O	|	|	|	|	1.27
9.250	0.00	1.11	0.648	O	|	|	|	|	1.25
9.333	0.00	1.11	0.641	O	|	|	|	|	1.24
9.417	0.00	1.11	0.633	O	|	|	|	|	1.22
9.500	0.00	1.11	0.626	O	|	|	|	|	1.21
9.583	0.00	1.10	0.618	O	|	|	|	|	1.19
9.667	0.00	1.10	0.610	O	|	|	|	|	1.18
9.750	0.00	1.10	0.603	O	|	|	|	|	1.17
9.833	0.00	1.10	0.595	O	|	|	|	|	1.15
9.917	0.00	1.10	0.588	O	|	|	|	|	1.14
10.000	0.00	1.10	0.580	O	|	|	|	|	1.12
10.083	0.00	1.09	0.573	O	|	|	|	|	1.11
10.167	0.00	1.09	0.565	O	|	|	|	|	1.09
10.250	0.00	1.09	0.558	O	|	|	|	|	1.08
10.333	0.00	1.09	0.550	O	|	|	|	|	1.07
10.417	0.00	1.09	0.543	O	|	|	|	|	1.05
10.500	0.00	1.09	0.535	O	|	|	|	|	1.04
10.583	0.00	1.08	0.528	O	|	|	|	|	1.02
10.667	0.00	1.08	0.520	O	|	|	|	|	1.01
10.750	0.00	1.08	0.513	O	|	|	|	|	1.00
10.833	0.00	1.08	0.505	O	|	|	|	|	0.98
10.917	0.00	1.08	0.498	O	|	|	|	|	0.97
11.000	0.00	1.08	0.490	O	|	|	|	|	0.95
11.083	0.00	1.07	0.483	O	|	|	|	|	0.94
11.167	0.00	1.07	0.476	O	|	|	|	|	0.93
11.250	0.00	1.07	0.468	O	|	|	|	|	0.91
11.333	0.00	1.07	0.461	O	|	|	|	|	0.90
11.417	0.00	1.07	0.453	O	|	|	|	|	0.88
11.500	0.00	1.07	0.446	O	|	|	|	|	0.87
11.583	0.00	1.06	0.439	O	|	|	|	|	0.86
11.667	0.00	1.06	0.431	O	|	|	|	|	0.84
11.750	0.00	1.06	0.424	O	|	|	|	|	0.83

11.833	0.00	1.06	0.417	O	|	|	|	|	0.81
11.917	0.00	1.06	0.410	O	|	|	|	|	0.80
12.000	0.00	1.06	0.402	O	|	|	|	|	0.79
12.083	0.00	1.06	0.395	O	|	|	|	|	0.77
12.167	0.00	1.05	0.388	O	|	|	|	|	0.76
12.250	0.00	1.05	0.380	O	|	|	|	|	0.75
12.333	0.00	1.05	0.373	O	|	|	|	|	0.73
12.417	0.00	1.05	0.366	O	|	|	|	|	0.72
12.500	0.00	1.05	0.359	O	|	|	|	|	0.71
12.583	0.00	1.05	0.352	O	|	|	|	|	0.69
12.667	0.00	1.04	0.344	O	|	|	|	|	0.68
12.750	0.00	1.04	0.337	O	|	|	|	|	0.66
12.833	0.00	1.04	0.330	O	|	|	|	|	0.65
12.917	0.00	1.04	0.323	O	|	|	|	|	0.64
13.000	0.00	1.04	0.316	O	|	|	|	|	0.62
13.083	0.00	1.04	0.309	O	|	|	|	|	0.61
13.167	0.00	1.03	0.301	O	|	|	|	|	0.60
13.250	0.00	1.03	0.294	O	|	|	|	|	0.58
13.333	0.00	1.03	0.287	O	|	|	|	|	0.57
13.417	0.00	1.03	0.280	O	|	|	|	|	0.56
13.500	0.00	1.03	0.273	O	|	|	|	|	0.54
13.583	0.00	1.03	0.266	O	|	|	|	|	0.53
13.667	0.00	1.02	0.259	O	|	|	|	|	0.52
13.750	0.00	1.02	0.252	O	|	|	|	|	0.50
13.833	0.00	1.00	0.245	O	|	|	|	|	0.49
13.917	0.00	0.97	0.238	O	|	|	|	|	0.48
14.000	0.00	0.95	0.231	O	|	|	|	|	0.46
14.083	0.00	0.92	0.225	O	|	|	|	|	0.45
14.167	0.00	0.90	0.219	O	|	|	|	|	0.44
14.250	0.00	0.87	0.213	O	|	|	|	|	0.43
14.333	0.00	0.85	0.207	O	|	|	|	|	0.41
14.417	0.00	0.82	0.201	O	|	|	|	|	0.40
14.500	0.00	0.80	0.195	O	|	|	|	|	0.39
14.583	0.00	0.78	0.190	O	|	|	|	|	0.38
14.667	0.00	0.76	0.185	O	|	|	|	|	0.37
14.750	0.00	0.73	0.180	O	|	|	|	|	0.36
14.833	0.00	0.71	0.175	O	|	|	|	|	0.35
14.917	0.00	0.69	0.170	O	|	|	|	|	0.34
15.000	0.00	0.68	0.165	O	|	|	|	|	0.33
15.083	0.00	0.66	0.160	O	|	|	|	|	0.32
15.167	0.00	0.64	0.156	O	|	|	|	|	0.31
15.250	0.00	0.62	0.152	O	|	|	|	|	0.30
15.333	0.00	0.60	0.147	O	|	|	|	|	0.29
15.417	0.00	0.59	0.143	O	|	|	|	|	0.29
15.500	0.00	0.57	0.139	O	|	|	|	|	0.28
15.583	0.00	0.55	0.135	O	|	|	|	|	0.27
15.667	0.00	0.54	0.132	O	|	|	|	|	0.26
15.750	0.00	0.52	0.128	O	|	|	|	|	0.26
15.833	0.00	0.51	0.124	O	|	|	|	|	0.25
15.917	0.00	0.50	0.121	O	|	|	|	|	0.24
16.000	0.00	0.48	0.118	O	|	|	|	|	0.24
16.083	0.00	0.47	0.114	O	|	|	|	|	0.23
16.167	0.00	0.46	0.111	O	|	|	|	|	0.22
16.250	0.00	0.44	0.108	O	|	|	|	|	0.22
16.333	0.00	0.43	0.105	O	|	|	|	|	0.21
16.417	0.00	0.42	0.102	O	|	|	|	|	0.20
16.500	0.00	0.41	0.099	O	|	|	|	|	0.20
16.583	0.00	0.40	0.097	O	|	|	|	|	0.19
16.667	0.00	0.38	0.094	O	|	|	|	|	0.19
16.750	0.00	0.37	0.091	O	|	|	|	|	0.18
16.833	0.00	0.36	0.089	O	|	|	|	|	0.18
16.917	0.00	0.35	0.086	O	|	|	|	|	0.17
17.000	0.00	0.34	0.084	O	|	|	|	|	0.17
17.083	0.00	0.33	0.082	O	|	|	|	|	0.16
17.167	0.00	0.32	0.079	O	|	|	|	|	0.16
17.250	0.00	0.32	0.077	O	|	|	|	|	0.15
17.333	0.00	0.31	0.075	O	|	|	|	|	0.15
17.417	0.00	0.30	0.073	O	|	|	|	|	0.15
17.500	0.00	0.29	0.071	O	|	|	|	|	0.14
17.583	0.00	0.28	0.069	O	|	|	|	|	0.14
17.667	0.00	0.27	0.067	O	|	|	|	|	0.13

17.750	0.00	0.27	0.065	O				0.13
17.833	0.00	0.26	0.063	O				0.13
17.917	0.00	0.25	0.062	O				0.12
18.000	0.00	0.24	0.060	O				0.12
18.083	0.00	0.24	0.058	O				0.12
18.167	0.00	0.23	0.057	O				0.11
18.250	0.00	0.22	0.055	O				0.11
18.333	0.00	0.22	0.053	O				0.11
18.417	0.00	0.21	0.052	O				0.10
18.500	0.00	0.21	0.051	O				0.10
18.583	0.00	0.20	0.049	O				0.10
18.667	0.00	0.20	0.048	O				0.10
18.750	0.00	0.19	0.046	O				0.09
18.833	0.00	0.18	0.045	O				0.09
18.917	0.00	0.18	0.044	O				0.09
19.000	0.00	0.17	0.043	O				0.09
19.083	0.00	0.17	0.041	O				0.08
19.167	0.00	0.16	0.040	O				0.08
19.250	0.00	0.16	0.039	O				0.08
19.333	0.00	0.16	0.038	O				0.08
19.417	0.00	0.15	0.037	O				0.07
19.500	0.00	0.15	0.036	O				0.07
19.583	0.00	0.14	0.035	O				0.07
19.667	0.00	0.14	0.034	O				0.07
19.750	0.00	0.14	0.033	O				0.07
19.833	0.00	0.13	0.032	O				0.06
19.917	0.00	0.13	0.031	O				0.06
20.000	0.00	0.12	0.030	O				0.06
20.083	0.00	0.12	0.030	O				0.06
20.167	0.00	0.12	0.029	O				0.06
20.250	0.00	0.11	0.028	O				0.06
20.333	0.00	0.11	0.027	O				0.05
20.417	0.00	0.11	0.026	O				0.05
20.500	0.00	0.11	0.026	O				0.05
20.583	0.00	0.10	0.025	O				0.05
20.667	0.00	0.10	0.024	O				0.05
20.750	0.00	0.10	0.024	O				0.05
20.833	0.00	0.09	0.023	O				0.05
20.917	0.00	0.09	0.022	O				0.04
21.000	0.00	0.09	0.022	O				0.04
21.083	0.00	0.09	0.021	O				0.04
21.167	0.00	0.08	0.021	O				0.04
21.250	0.00	0.08	0.020	O				0.04
21.333	0.00	0.08	0.019	O				0.04
21.417	0.00	0.08	0.019	O				0.04
21.500	0.00	0.07	0.018	O				0.04
21.583	0.00	0.07	0.018	O				0.04
21.667	0.00	0.07	0.017	O				0.03
21.750	0.00	0.07	0.017	O				0.03
21.833	0.00	0.07	0.016	O				0.03
21.917	0.00	0.07	0.016	O				0.03
22.000	0.00	0.06	0.015	O				0.03
22.083	0.00	0.06	0.015	O				0.03
22.167	0.00	0.06	0.015	O				0.03
22.250	0.00	0.06	0.014	O				0.03
22.333	0.00	0.06	0.014	O				0.03
22.417	0.00	0.05	0.013	O				0.03
22.500	0.00	0.05	0.013	O				0.03
22.583	0.00	0.05	0.013	O				0.03
22.667	0.00	0.05	0.012	O				0.02
22.750	0.00	0.05	0.012	O				0.02
22.833	0.00	0.05	0.012	O				0.02
22.917	0.00	0.05	0.011	O				0.02
23.000	0.00	0.05	0.011	O				0.02
23.083	0.00	0.04	0.011	O				0.02
23.167	0.00	0.04	0.010	O				0.02
23.250	0.00	0.04	0.010	O				0.02
23.333	0.00	0.04	0.010	O				0.02
23.417	0.00	0.04	0.010	O				0.02
23.500	0.00	0.04	0.009	O				0.02
23.583	0.00	0.04	0.009	O				0.02

23.667	0.00	0.04	0.009	O	|	|	|	|	0.02
23.750	0.00	0.04	0.009	O	|	|	|	|	0.02
23.833	0.00	0.03	0.008	O	|	|	|	|	0.02
23.917	0.00	0.03	0.008	O	|	|	|	|	0.02
24.000	0.00	0.03	0.008	O	|	|	|	|	0.02
24.083	0.00	0.03	0.008	O	|	|	|	|	0.02
24.167	0.00	0.03	0.007	O	|	|	|	|	0.01
24.250	0.00	0.03	0.007	O	|	|	|	|	0.01
24.333	0.00	0.03	0.007	O	|	|	|	|	0.01
24.417	0.00	0.03	0.007	O	|	|	|	|	0.01
24.500	0.00	0.03	0.007	O	|	|	|	|	0.01
24.583	0.00	0.03	0.006	O	|	|	|	|	0.01
24.667	0.00	0.03	0.006	O	|	|	|	|	0.01
24.750	0.00	0.02	0.006	O	|	|	|	|	0.01
24.833	0.00	0.02	0.006	O	|	|	|	|	0.01
24.917	0.00	0.02	0.006	O	|	|	|	|	0.01
25.000	0.00	0.02	0.006	O	|	|	|	|	0.01
25.083	0.00	0.02	0.005	O	|	|	|	|	0.01
25.167	0.00	0.02	0.005	O	|	|	|	|	0.01
25.250	0.00	0.02	0.005	O	|	|	|	|	0.01
25.333	0.00	0.02	0.005	O	|	|	|	|	0.01
25.417	0.00	0.02	0.005	O	|	|	|	|	0.01
25.500	0.00	0.02	0.005	O	|	|	|	|	0.01
25.583	0.00	0.02	0.005	O	|	|	|	|	0.01
25.667	0.00	0.02	0.004	O	|	|	|	|	0.01
25.750	0.00	0.02	0.004	O	|	|	|	|	0.01
25.833	0.00	0.02	0.004	O	|	|	|	|	0.01
25.917	0.00	0.02	0.004	O	|	|	|	|	0.01
26.000	0.00	0.02	0.004	O	|	|	|	|	0.01
26.083	0.00	0.02	0.004	O	|	|	|	|	0.01
26.167	0.00	0.02	0.004	O	|	|	|	|	0.01
26.250	0.00	0.02	0.004	O	|	|	|	|	0.01
26.333	0.00	0.01	0.004	O	|	|	|	|	0.01
26.417	0.00	0.01	0.003	O	|	|	|	|	0.01
26.500	0.00	0.01	0.003	O	|	|	|	|	0.01
26.583	0.00	0.01	0.003	O	|	|	|	|	0.01
26.667	0.00	0.01	0.003	O	|	|	|	|	0.01
26.750	0.00	0.01	0.003	O	|	|	|	|	0.01
26.833	0.00	0.01	0.003	O	|	|	|	|	0.01
26.917	0.00	0.01	0.003	O	|	|	|	|	0.01
27.000	0.00	0.01	0.003	O	|	|	|	|	0.01
27.083	0.00	0.01	0.003	O	|	|	|	|	0.01
27.167	0.00	0.01	0.003	O	|	|	|	|	0.01
27.250	0.00	0.01	0.003	O	|	|	|	|	0.01
27.333	0.00	0.01	0.003	O	|	|	|	|	0.01
27.417	0.00	0.01	0.002	O	|	|	|	|	0.00
27.500	0.00	0.01	0.002	O	|	|	|	|	0.00
27.583	0.00	0.01	0.002	O	|	|	|	|	0.00
27.667	0.00	0.01	0.002	O	|	|	|	|	0.00
27.750	0.00	0.01	0.002	O	|	|	|	|	0.00
27.833	0.00	0.01	0.002	O	|	|	|	|	0.00
27.917	0.00	0.01	0.002	O	|	|	|	|	0.00
28.000	0.00	0.01	0.002	O	|	|	|	|	0.00
28.083	0.00	0.01	0.002	O	|	|	|	|	0.00
28.167	0.00	0.01	0.002	O	|	|	|	|	0.00
28.250	0.00	0.01	0.002	O	|	|	|	|	0.00
28.333	0.00	0.01	0.002	O	|	|	|	|	0.00
28.417	0.00	0.01	0.002	O	|	|	|	|	0.00
28.500	0.00	0.01	0.002	O	|	|	|	|	0.00
28.583	0.00	0.01	0.002	O	|	|	|	|	0.00
28.667	0.00	0.01	0.002	O	|	|	|	|	0.00
28.750	0.00	0.01	0.002	O	|	|	|	|	0.00
28.833	0.00	0.01	0.002	O	|	|	|	|	0.00
28.917	0.00	0.01	0.001	O	|	|	|	|	0.00
29.000	0.00	0.01	0.001	O	|	|	|	|	0.00
29.083	0.00	0.01	0.001	O	|	|	|	|	0.00
29.167	0.00	0.01	0.001	O	|	|	|	|	0.00
29.250	0.00	0.01	0.001	O	|	|	|	|	0.00
29.333	0.00	0.01	0.001	O	|	|	|	|	0.00
29.417	0.00	0.01	0.001	O	|	|	|	|	0.00
29.500	0.00	0.01	0.001	O	|	|	|	|	0.00

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29.583    0.00    0.00      0.001  O       |       |       |       |     0.00
29.667    0.00    0.00      0.001  O       |       |       |       |     0.00
29.750    0.00    0.00      0.001  O       |       |       |       |     0.00
29.833    0.00    0.00      0.001  O       |       |       |       |     0.00
29.917    0.00    0.00      0.001  O       |       |       |       |     0.00
30.000    0.00    0.00      0.001  O       |       |       |       |     0.00
30.083    0.00    0.00      0.001  O       |       |       |       |     0.00
30.167    0.00    0.00      0.001  O       |       |       |       |     0.00
30.250    0.00    0.00      0.001  O       |       |       |       |     0.00
30.333    0.00    0.00      0.001  O       |       |       |       |     0.00
30.417    0.00    0.00      0.001  O       |       |       |       |     0.00
30.500    0.00    0.00      0.001  O       |       |       |       |     0.00
30.583    0.00    0.00      0.001  O       |       |       |       |     0.00
30.667    0.00    0.00      0.001  O       |       |       |       |     0.00
30.750    0.00    0.00      0.001  O       |       |       |       |     0.00
30.833    0.00    0.00      0.001  O       |       |       |       |     0.00
30.917    0.00    0.00      0.001  O       |       |       |       |     0.00
31.000    0.00    0.00      0.001  O       |       |       |       |     0.00
31.083    0.00    0.00      0.001  O       |       |       |       |     0.00
31.167    0.00    0.00      0.001  O       |       |       |       |     0.00
31.250    0.00    0.00      0.001  O       |       |       |       |     0.00
31.333    0.00    0.00      0.001  O       |       |       |       |     0.00
31.417    0.00    0.00      0.001  O       |       |       |       |     0.00
31.500    0.00    0.00      0.001  O       |       |       |       |     0.00
31.583    0.00    0.00      0.001  O       |       |       |       |     0.00
31.667    0.00    0.00      0.001  O       |       |       |       |     0.00
31.750    0.00    0.00      0.001  O       |       |       |       |     0.00
31.833    0.00    0.00      0.001  O       |       |       |       |     0.00
31.917    0.00    0.00      0.001  O       |       |       |       |     0.00
32.000    0.00    0.00      0.001  O       |       |       |       |     0.00
32.083    0.00    0.00      0.001  O       |       |       |       |     0.00
32.167    0.00    0.00      0.000  O       |       |       |       |     0.00

      ****************************HYDROGRAPH DATA****************************
                  Number of intervals =   386
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =       76.675 (CFS)
                  Total volume =       5.585 (Ac.Ft)
            Status of hydrographs being held in storage
                        Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      ************************************************************************

      ------------------------------------------------------------------------


      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      Process from Point/Station       20.000 to Point/Station       21.000
      **** STORE OR DELETE CURRENT HYDROGRAPH ****
      ________________________________________________________________________
      Current stream hydrograph saved in file frmdsout1100.rte
      ****************************HYDROGRAPH DATA****************************
                  Number of intervals =     0
                  Time interval =    0.0 (Min.)
                  Maximum/Peak flow rate =        0.000 (CFS)
                  Total volume =       0.000 (Ac.Ft)
            Status of hydrographs being held in storage
                        Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      ************************************************************************

      ------------------------------------------------------------------------
```

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                    FLOOD HYDROGRAPH ROUTING PROGRAM
              Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                         Study date: 07/15/17

 ----------------------------------------------------------------------
 TRACT 29835-1
 ROUTING BASIN 1 (LOT N)
 100-YR 3-HR UNIT HYD

 ----------------------------------------------------------------------


 Program License Serial Number 4029

 ----------------------------------------------------------------------
 ********************* HYDROGRAPH INFORMATION **********************

                From study/file name: frmds3100.rte
 ****************************HYDROGRAPH DATA****************************
                Number of intervals =    40
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =       85.063 (CFS)
                Total volume =       7.287 (Ac.Ft)
        Status of hydrographs being held in storage
                    Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
 ************************************************************************



 ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
 Process from Point/Station       10.000 to Point/Station       11.000
 **** RETARDING BASIN ROUTING ****
 ________________________________________________________________________

 User entry of depth-outflow-storage data
 ----------------------------------------------------------------------
 Total number of inflow hydrograph intervals = 40
 Hydrograph time unit =  5.000 (Min.)
 Initial depth in storage basin =   0.00(Ft.)
 ----------------------------------------------------------------------
 ----------------------------------------------------------------------
 Initial basin depth =   0.00 (Ft.)
 Initial basin storage =      0.00 (Ac.Ft)
 Initial basin outflow =   0.00 (CFS)
 ----------------------------------------------------------------------
 ----------------------------------------------------------------------
 Depth vs. Storage and Depth vs. Discharge data:
  Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
       (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
 ----------------------------------------------------------------------
    0.000      0.000      0.000      0.000        0.000
    0.500      0.250      1.023      0.246        0.254
    1.500      0.780      1.140      0.776        0.784
    1.700      0.900      1.163      0.896        0.904
    2.500      1.380      1.460      1.375        1.385
    3.500      2.040     35.915      1.916        2.164
    4.500      2.760     61.183      2.549        2.971
    5.000      3.550     78.634      3.279        3.821
 ----------------------------------------------------------------------
                 Hydrograph Detention Basin Routing
 ----------------------------------------------------------------------

 Graph values: 'I'= unit inflow; 'O'=outflow at time shown
 ----------------------------------------------------------------------
  Time   Inflow  Outflow    Storage                                    Depth
 (Hours)  (CFS)   (CFS)     (Ac.Ft) .0      21.3   42.53   63.80   85.06 (Ft.)
  0.083    4.86    0.07      0.017  OI      |       |       |       |     0.03
```

0.167	10.07	0.27	0.067	O I	|	|	|	|	0.13
0.250	10.18	0.55	0.134	O I	|	|	|	|	0.27
0.333	11.53	0.83	0.204	O I	|	|	|	|	0.41
0.417	13.59	1.03	0.284	O I	|	|	|	|	0.56
0.500	15.42	1.05	0.376	O I	|	|	|	|	0.74
0.583	15.67	1.07	0.476	O I	|	|	|	|	0.93
0.667	15.97	1.10	0.578	O I	|	|	|	|	1.12
0.750	17.35	1.12	0.685	O I	|	|	|	|	1.32
0.833	16.13	1.14	0.792	O I	|	|	|	|	1.52
0.917	15.12	1.16	0.892	O I	|	|	|	|	1.69
1.000	16.35	1.22	0.992	O I	|	|	|	|	1.85
1.083	19.35	1.29	1.106	O I	|	|	|	|	2.04
1.167	21.67	1.37	1.238	O I	|	|	|	|	2.26
1.250	22.22	1.46	1.380	O I	|	|	|	|	2.50
1.333	21.45	7.66	1.499	| O I	|	|	|	|	2.68
1.417	23.42	12.16	1.585	| O I	|	|	|	|	2.81
1.500	26.85	16.12	1.661	| O | I	|	|	|	|	2.93
1.583	26.48	19.33	1.722	| O|I	|	|	|	|	3.02
1.667	26.71	21.54	1.765	| O I	|	|	|	|	3.08
1.750	31.06	23.78	1.808	| O I	|	|	|	|	3.15
1.833	33.46	26.37	1.857	| |O I	|	|	|	|	3.22
1.917	32.16	28.33	1.895	| | O I	|	|	|	|	3.28
2.000	31.70	29.43	1.916	| O	|	|	|	|	3.31
2.083	32.52	30.24	1.931	| OI	|	|	|	|	3.34
2.167	38.44	31.84	1.962	| O I	|	|	|	|	3.38
2.250	48.29	35.35	2.029	| O | I	|	|	|	|	3.48
2.333	46.41	38.10	2.102	| O |I	|	|	|	|	3.59
2.417	56.13	40.94	2.183	| O| I	|	|	|	|	3.70
2.500	74.87	46.24	2.334	| |O	|	I	|	|	3.91
2.583	85.06	53.51	2.541	| O	|	|	I	|	4.20
2.667	80.24	59.79	2.720	| O	|	I	|	|	4.45
2.750	50.74	61.02	2.755	| I O	|	|	|	|	4.49
2.833	27.16	56.26	2.620	| I O	|	|	|	|	4.31
2.917	20.92	49.31	2.422	| I| O	|	|	|	|	4.03
3.000	12.66	42.30	2.222	| I | O|	|	|	|	|	3.75
3.083	4.13	34.61	2.015	|I | O	|	|	|	|	3.46
3.167	1.25	24.88	1.829	I |O	|	|	|	|	3.18
3.250	0.39	17.55	1.688	I O	|	|	|	|	2.97
3.333	0.05	12.27	1.587	I O	|	|	|	|	2.81
3.417	0.00	8.54	1.516	I O	|	|	|	|	2.71
3.500	0.00	5.94	1.466	I O	|	|	|	|	2.63
3.583	0.00	4.13	1.431	IO	|	|	|	|	2.58
3.667	0.00	2.87	1.407	IO	|	|	|	|	2.54
3.750	0.00	1.99	1.390	O	|	|	|	|	2.52
3.833	0.00	1.46	1.378	O	|	|	|	|	2.50
3.917	0.00	1.45	1.368	O	|	|	|	|	2.48
4.000	0.00	1.45	1.358	O	|	|	|	|	2.46
4.083	0.00	1.44	1.348	O	|	|	|	|	2.45
4.167	0.00	1.43	1.338	O	|	|	|	|	2.43
4.250	0.00	1.43	1.329	O	|	|	|	|	2.41
4.333	0.00	1.42	1.319	O	|	|	|	|	2.40
4.417	0.00	1.42	1.309	O	|	|	|	|	2.38
4.500	0.00	1.41	1.299	O	|	|	|	|	2.37
4.583	0.00	1.40	1.290	O	|	|	|	|	2.35
4.667	0.00	1.40	1.280	O	|	|	|	|	2.33
4.750	0.00	1.39	1.270	O	|	|	|	|	2.32
4.833	0.00	1.39	1.261	O	|	|	|	|	2.30
4.917	0.00	1.38	1.251	O	|	|	|	|	2.29
5.000	0.00	1.37	1.242	O	|	|	|	|	2.27
5.083	0.00	1.37	1.232	O	|	|	|	|	2.25
5.167	0.00	1.36	1.223	O	|	|	|	|	2.24
5.250	0.00	1.36	1.214	O	|	|	|	|	2.22
5.333	0.00	1.35	1.204	O	|	|	|	|	2.21
5.417	0.00	1.35	1.195	O	|	|	|	|	2.19
5.500	0.00	1.34	1.186	O	|	|	|	|	2.18
5.583	0.00	1.33	1.177	O	|	|	|	|	2.16
5.667	0.00	1.33	1.167	O	|	|	|	|	2.15
5.750	0.00	1.32	1.158	O	|	|	|	|	2.13
5.833	0.00	1.32	1.149	O	|	|	|	|	2.12
5.917	0.00	1.31	1.140	O	|	|	|	|	2.10
6.000	0.00	1.31	1.131	O	|	|	|	|	2.09

6.083	0.00	1.30	1.122	O	|	|	|	|	2.07
6.167	0.00	1.29	1.113	O	|	|	|	|	2.06
6.250	0.00	1.29	1.104	O	|	|	|	|	2.04
6.333	0.00	1.28	1.095	O	|	|	|	|	2.03
6.417	0.00	1.28	1.087	O	|	|	|	|	2.01
6.500	0.00	1.27	1.078	O	|	|	|	|	2.00
6.583	0.00	1.27	1.069	O	|	|	|	|	1.98
6.667	0.00	1.26	1.060	O	|	|	|	|	1.97
6.750	0.00	1.26	1.052	O	|	|	|	|	1.95
6.833	0.00	1.25	1.043	O	|	|	|	|	1.94
6.917	0.00	1.25	1.034	O	|	|	|	|	1.92
7.000	0.00	1.24	1.026	O	|	|	|	|	1.91
7.083	0.00	1.24	1.017	O	|	|	|	|	1.90
7.167	0.00	1.23	1.009	O	|	|	|	|	1.88
7.250	0.00	1.23	1.000	O	|	|	|	|	1.87
7.333	0.00	1.22	0.992	O	|	|	|	|	1.85
7.417	0.00	1.21	0.984	O	|	|	|	|	1.84
7.500	0.00	1.21	0.975	O	|	|	|	|	1.83
7.583	0.00	1.20	0.967	O	|	|	|	|	1.81
7.667	0.00	1.20	0.959	O	|	|	|	|	1.80
7.750	0.00	1.19	0.950	O	|	|	|	|	1.78
7.833	0.00	1.19	0.942	O	|	|	|	|	1.77
7.917	0.00	1.18	0.934	O	|	|	|	|	1.76
8.000	0.00	1.18	0.926	O	|	|	|	|	1.74
8.083	0.00	1.17	0.918	O	|	|	|	|	1.73
8.167	0.00	1.17	0.910	O	|	|	|	|	1.72
8.250	0.00	1.16	0.902	O	|	|	|	|	1.70
8.333	0.00	1.16	0.894	O	|	|	|	|	1.69
8.417	0.00	1.16	0.886	O	|	|	|	|	1.68
8.500	0.00	1.16	0.878	O	|	|	|	|	1.66
8.583	0.00	1.16	0.870	O	|	|	|	|	1.65
8.667	0.00	1.16	0.862	O	|	|	|	|	1.64
8.750	0.00	1.15	0.854	O	|	|	|	|	1.62
8.833	0.00	1.15	0.846	O	|	|	|	|	1.61
8.917	0.00	1.15	0.838	O	|	|	|	|	1.60
9.000	0.00	1.15	0.830	O	|	|	|	|	1.58
9.083	0.00	1.15	0.822	O	|	|	|	|	1.57
9.167	0.00	1.15	0.814	O	|	|	|	|	1.56
9.250	0.00	1.15	0.806	O	|	|	|	|	1.54
9.333	0.00	1.14	0.798	O	|	|	|	|	1.53
9.417	0.00	1.14	0.791	O	|	|	|	|	1.52
9.500	0.00	1.14	0.783	O	|	|	|	|	1.50
9.583	0.00	1.14	0.775	O	|	|	|	|	1.49
9.667	0.00	1.14	0.767	O	|	|	|	|	1.48
9.750	0.00	1.14	0.759	O	|	|	|	|	1.46
9.833	0.00	1.13	0.751	O	|	|	|	|	1.45
9.917	0.00	1.13	0.744	O	|	|	|	|	1.43
10.000	0.00	1.13	0.736	O	|	|	|	|	1.42
10.083	0.00	1.13	0.728	O	|	|	|	|	1.40
10.167	0.00	1.13	0.720	O	|	|	|	|	1.39
10.250	0.00	1.13	0.712	O	|	|	|	|	1.37
10.333	0.00	1.12	0.705	O	|	|	|	|	1.36
10.417	0.00	1.12	0.697	O	|	|	|	|	1.34
10.500	0.00	1.12	0.689	O	|	|	|	|	1.33
10.583	0.00	1.12	0.682	O	|	|	|	|	1.31
10.667	0.00	1.12	0.674	O	|	|	|	|	1.30
10.750	0.00	1.11	0.666	O	|	|	|	|	1.29
10.833	0.00	1.11	0.658	O	|	|	|	|	1.27
10.917	0.00	1.11	0.651	O	|	|	|	|	1.26
11.000	0.00	1.11	0.643	O	|	|	|	|	1.24
11.083	0.00	1.11	0.636	O	|	|	|	|	1.23
11.167	0.00	1.11	0.628	O	|	|	|	|	1.21
11.250	0.00	1.10	0.620	O	|	|	|	|	1.20
11.333	0.00	1.10	0.613	O	|	|	|	|	1.18
11.417	0.00	1.10	0.605	O	|	|	|	|	1.17
11.500	0.00	1.10	0.598	O	|	|	|	|	1.16
11.583	0.00	1.10	0.590	O	|	|	|	|	1.14
11.667	0.00	1.10	0.582	O	|	|	|	|	1.13
11.750	0.00	1.09	0.575	O	|	|	|	|	1.11
11.833	0.00	1.09	0.567	O	|	|	|	|	1.10
11.917	0.00	1.09	0.560	O	|	|	|	|	1.08

12.000	0.00	1.09	0.552	O	|	|	|	|	1.07
12.083	0.00	1.09	0.545	O	|	|	|	|	1.06
12.167	0.00	1.09	0.537	O	|	|	|	|	1.04
12.250	0.00	1.08	0.530	O	|	|	|	|	1.03
12.333	0.00	1.08	0.522	O	|	|	|	|	1.01
12.417	0.00	1.08	0.515	O	|	|	|	|	1.00
12.500	0.00	1.08	0.507	O	|	|	|	|	0.99
12.583	0.00	1.08	0.500	O	|	|	|	|	0.97
12.667	0.00	1.08	0.493	O	|	|	|	|	0.96
12.750	0.00	1.07	0.485	O	|	|	|	|	0.94
12.833	0.00	1.07	0.478	O	|	|	|	|	0.93
12.917	0.00	1.07	0.470	O	|	|	|	|	0.92
13.000	0.00	1.07	0.463	O	|	|	|	|	0.90
13.083	0.00	1.07	0.456	O	|	|	|	|	0.89
13.167	0.00	1.07	0.448	O	|	|	|	|	0.87
13.250	0.00	1.07	0.441	O	|	|	|	|	0.86
13.333	0.00	1.06	0.434	O	|	|	|	|	0.85
13.417	0.00	1.06	0.426	O	|	|	|	|	0.83
13.500	0.00	1.06	0.419	O	|	|	|	|	0.82
13.583	0.00	1.06	0.412	O	|	|	|	|	0.81
13.667	0.00	1.06	0.404	O	|	|	|	|	0.79
13.750	0.00	1.06	0.397	O	|	|	|	|	0.78
13.833	0.00	1.05	0.390	O	|	|	|	|	0.76
13.917	0.00	1.05	0.383	O	|	|	|	|	0.75
14.000	0.00	1.05	0.375	O	|	|	|	|	0.74
14.083	0.00	1.05	0.368	O	|	|	|	|	0.72
14.167	0.00	1.05	0.361	O	|	|	|	|	0.71
14.250	0.00	1.05	0.354	O	|	|	|	|	0.70
14.333	0.00	1.04	0.347	O	|	|	|	|	0.68
14.417	0.00	1.04	0.339	O	|	|	|	|	0.67
14.500	0.00	1.04	0.332	O	|	|	|	|	0.66
14.583	0.00	1.04	0.325	O	|	|	|	|	0.64
14.667	0.00	1.04	0.318	O	|	|	|	|	0.63
14.750	0.00	1.04	0.311	O	|	|	|	|	0.61
14.833	0.00	1.03	0.304	O	|	|	|	|	0.60
14.917	0.00	1.03	0.296	O	|	|	|	|	0.59
15.000	0.00	1.03	0.289	O	|	|	|	|	0.57
15.083	0.00	1.03	0.282	O	|	|	|	|	0.56
15.167	0.00	1.03	0.275	O	|	|	|	|	0.55
15.250	0.00	1.03	0.268	O	|	|	|	|	0.53
15.333	0.00	1.03	0.261	O	|	|	|	|	0.52
15.417	0.00	1.02	0.254	O	|	|	|	|	0.51
15.500	0.00	1.01	0.247	O	|	|	|	|	0.49
15.583	0.00	0.98	0.240	O	|	|	|	|	0.48
15.667	0.00	0.96	0.233	O	|	|	|	|	0.47
15.750	0.00	0.93	0.227	O	|	|	|	|	0.45
15.833	0.00	0.90	0.221	O	|	|	|	|	0.44
15.917	0.00	0.88	0.215	O	|	|	|	|	0.43
16.000	0.00	0.85	0.209	O	|	|	|	|	0.42
16.083	0.00	0.83	0.203	O	|	|	|	|	0.41
16.167	0.00	0.81	0.197	O	|	|	|	|	0.39
16.250	0.00	0.78	0.192	O	|	|	|	|	0.38
16.333	0.00	0.76	0.186	O	|	|	|	|	0.37
16.417	0.00	0.74	0.181	O	|	|	|	|	0.36
16.500	0.00	0.72	0.176	O	|	|	|	|	0.35
16.583	0.00	0.70	0.171	O	|	|	|	|	0.34
16.667	0.00	0.68	0.166	O	|	|	|	|	0.33
16.750	0.00	0.66	0.162	O	|	|	|	|	0.32
16.833	0.00	0.64	0.157	O	|	|	|	|	0.31
16.917	0.00	0.63	0.153	O	|	|	|	|	0.31
17.000	0.00	0.61	0.149	O	|	|	|	|	0.30
17.083	0.00	0.59	0.145	O	|	|	|	|	0.29
17.167	0.00	0.58	0.141	O	|	|	|	|	0.28
17.250	0.00	0.56	0.137	O	|	|	|	|	0.27
17.333	0.00	0.54	0.133	O	|	|	|	|	0.27
17.417	0.00	0.53	0.129	O	|	|	|	|	0.26
17.500	0.00	0.51	0.126	O	|	|	|	|	0.25
17.583	0.00	0.50	0.122	O	|	|	|	|	0.24
17.667	0.00	0.49	0.119	O	|	|	|	|	0.24
17.750	0.00	0.47	0.115	O	|	|	|	|	0.23
17.833	0.00	0.46	0.112	O	|	|	|	|	0.22

17.917	0.00	0.45	0.109	O	|	|	|	|	0.22
18.000	0.00	0.43	0.106	O	|	|	|	|	0.21
18.083	0.00	0.42	0.103	O	|	|	|	|	0.21
18.167	0.00	0.41	0.100	O	|	|	|	|	0.20
18.250	0.00	0.40	0.097	O	|	|	|	|	0.19
18.333	0.00	0.39	0.095	O	|	|	|	|	0.19
18.417	0.00	0.38	0.092	O	|	|	|	|	0.18
18.500	0.00	0.37	0.090	O	|	|	|	|	0.18
18.583	0.00	0.36	0.087	O	|	|	|	|	0.17
18.667	0.00	0.35	0.085	O	|	|	|	|	0.17
18.750	0.00	0.34	0.082	O	|	|	|	|	0.16
18.833	0.00	0.33	0.080	O	|	|	|	|	0.16
18.917	0.00	0.32	0.078	O	|	|	|	|	0.16
19.000	0.00	0.31	0.076	O	|	|	|	|	0.15
19.083	0.00	0.30	0.074	O	|	|	|	|	0.15
19.167	0.00	0.29	0.071	O	|	|	|	|	0.14
19.250	0.00	0.28	0.069	O	|	|	|	|	0.14
19.333	0.00	0.28	0.068	O	|	|	|	|	0.14
19.417	0.00	0.27	0.066	O	|	|	|	|	0.13
19.500	0.00	0.26	0.064	O	|	|	|	|	0.13
19.583	0.00	0.25	0.062	O	|	|	|	|	0.12
19.667	0.00	0.25	0.060	O	|	|	|	|	0.12
19.750	0.00	0.24	0.059	O	|	|	|	|	0.12
19.833	0.00	0.23	0.057	O	|	|	|	|	0.11
19.917	0.00	0.23	0.055	O	|	|	|	|	0.11
20.000	0.00	0.22	0.054	O	|	|	|	|	0.11
20.083	0.00	0.21	0.052	O	|	|	|	|	0.10
20.167	0.00	0.21	0.051	O	|	|	|	|	0.10
20.250	0.00	0.20	0.050	O	|	|	|	|	0.10
20.333	0.00	0.20	0.048	O	|	|	|	|	0.10
20.417	0.00	0.19	0.047	O	|	|	|	|	0.09
20.500	0.00	0.19	0.046	O	|	|	|	|	0.09
20.583	0.00	0.18	0.044	O	|	|	|	|	0.09
20.667	0.00	0.18	0.043	O	|	|	|	|	0.09
20.750	0.00	0.17	0.042	O	|	|	|	|	0.08
20.833	0.00	0.17	0.041	O	|	|	|	|	0.08
20.917	0.00	0.16	0.040	O	|	|	|	|	0.08
21.000	0.00	0.16	0.038	O	|	|	|	|	0.08
21.083	0.00	0.15	0.037	O	|	|	|	|	0.07
21.167	0.00	0.15	0.036	O	|	|	|	|	0.07
21.250	0.00	0.14	0.035	O	|	|	|	|	0.07
21.333	0.00	0.14	0.034	O	|	|	|	|	0.07
21.417	0.00	0.14	0.033	O	|	|	|	|	0.07
21.500	0.00	0.13	0.032	O	|	|	|	|	0.06
21.583	0.00	0.13	0.032	O	|	|	|	|	0.06
21.667	0.00	0.13	0.031	O	|	|	|	|	0.06
21.750	0.00	0.12	0.030	O	|	|	|	|	0.06
21.833	0.00	0.12	0.029	O	|	|	|	|	0.06
21.917	0.00	0.12	0.028	O	|	|	|	|	0.06
22.000	0.00	0.11	0.027	O	|	|	|	|	0.05
22.083	0.00	0.11	0.027	O	|	|	|	|	0.05
22.167	0.00	0.11	0.026	O	|	|	|	|	0.05
22.250	0.00	0.10	0.025	O	|	|	|	|	0.05
22.333	0.00	0.10	0.024	O	|	|	|	|	0.05
22.417	0.00	0.10	0.024	O	|	|	|	|	0.05
22.500	0.00	0.09	0.023	O	|	|	|	|	0.05
22.583	0.00	0.09	0.023	O	|	|	|	|	0.05
22.667	0.00	0.09	0.022	O	|	|	|	|	0.04
22.750	0.00	0.09	0.021	O	|	|	|	|	0.04
22.833	0.00	0.08	0.021	O	|	|	|	|	0.04
22.917	0.00	0.08	0.020	O	|	|	|	|	0.04
23.000	0.00	0.08	0.020	O	|	|	|	|	0.04
23.083	0.00	0.08	0.019	O	|	|	|	|	0.04
23.167	0.00	0.08	0.018	O	|	|	|	|	0.04
23.250	0.00	0.07	0.018	O	|	|	|	|	0.04
23.333	0.00	0.07	0.017	O	|	|	|	|	0.03
23.417	0.00	0.07	0.017	O	|	|	|	|	0.03
23.500	0.00	0.07	0.017	O	|	|	|	|	0.03
23.583	0.00	0.07	0.016	O	|	|	|	|	0.03
23.667	0.00	0.06	0.016	O	|	|	|	|	0.03
23.750	0.00	0.06	0.015	O	|	|	|	|	0.03

23.833	0.00	0.06	0.015	O	|	|	|	|	0.03
23.917	0.00	0.06	0.014	O	|	|	|	|	0.03
24.000	0.00	0.06	0.014	O	|	|	|	|	0.03
24.083	0.00	0.06	0.014	O	|	|	|	|	0.03
24.167	0.00	0.05	0.013	O	|	|	|	|	0.03
24.250	0.00	0.05	0.013	O	|	|	|	|	0.03
24.333	0.00	0.05	0.012	O	|	|	|	|	0.02
24.417	0.00	0.05	0.012	O	|	|	|	|	0.02
24.500	0.00	0.05	0.012	O	|	|	|	|	0.02
24.583	0.00	0.05	0.011	O	|	|	|	|	0.02
24.667	0.00	0.05	0.011	O	|	|	|	|	0.02
24.750	0.00	0.04	0.011	O	|	|	|	|	0.02
24.833	0.00	0.04	0.011	O	|	|	|	|	0.02
24.917	0.00	0.04	0.010	O	|	|	|	|	0.02
25.000	0.00	0.04	0.010	O	|	|	|	|	0.02
25.083	0.00	0.04	0.010	O	|	|	|	|	0.02
25.167	0.00	0.04	0.009	O	|	|	|	|	0.02
25.250	0.00	0.04	0.009	O	|	|	|	|	0.02
25.333	0.00	0.04	0.009	O	|	|	|	|	0.02
25.417	0.00	0.04	0.009	O	|	|	|	|	0.02
25.500	0.00	0.03	0.008	O	|	|	|	|	0.02
25.583	0.00	0.03	0.008	O	|	|	|	|	0.02
25.667	0.00	0.03	0.008	O	|	|	|	|	0.02
25.750	0.00	0.03	0.008	O	|	|	|	|	0.02
25.833	0.00	0.03	0.007	O	|	|	|	|	0.01
25.917	0.00	0.03	0.007	O	|	|	|	|	0.01
26.000	0.00	0.03	0.007	O	|	|	|	|	0.01
26.083	0.00	0.03	0.007	O	|	|	|	|	0.01
26.167	0.00	0.03	0.007	O	|	|	|	|	0.01
26.250	0.00	0.03	0.007	O	|	|	|	|	0.01
26.333	0.00	0.03	0.006	O	|	|	|	|	0.01
26.417	0.00	0.03	0.006	O	|	|	|	|	0.01
26.500	0.00	0.02	0.006	O	|	|	|	|	0.01
26.583	0.00	0.02	0.006	O	|	|	|	|	0.01
26.667	0.00	0.02	0.006	O	|	|	|	|	0.01
26.750	0.00	0.02	0.005	O	|	|	|	|	0.01
26.833	0.00	0.02	0.005	O	|	|	|	|	0.01
26.917	0.00	0.02	0.005	O	|	|	|	|	0.01
27.000	0.00	0.02	0.005	O	|	|	|	|	0.01
27.083	0.00	0.02	0.005	O	|	|	|	|	0.01
27.167	0.00	0.02	0.005	O	|	|	|	|	0.01
27.250	0.00	0.02	0.005	O	|	|	|	|	0.01
27.333	0.00	0.02	0.005	O	|	|	|	|	0.01
27.417	0.00	0.02	0.004	O	|	|	|	|	0.01
27.500	0.00	0.02	0.004	O	|	|	|	|	0.01
27.583	0.00	0.02	0.004	O	|	|	|	|	0.01
27.667	0.00	0.02	0.004	O	|	|	|	|	0.01
27.750	0.00	0.02	0.004	O	|	|	|	|	0.01
27.833	0.00	0.02	0.004	O	|	|	|	|	0.01
27.917	0.00	0.02	0.004	O	|	|	|	|	0.01
28.000	0.00	0.01	0.004	O	|	|	|	|	0.01
28.083	0.00	0.01	0.004	O	|	|	|	|	0.01
28.167	0.00	0.01	0.003	O	|	|	|	|	0.01
28.250	0.00	0.01	0.003	O	|	|	|	|	0.01
28.333	0.00	0.01	0.003	O	|	|	|	|	0.01
28.417	0.00	0.01	0.003	O	|	|	|	|	0.01
28.500	0.00	0.01	0.003	O	|	|	|	|	0.01
28.583	0.00	0.01	0.003	O	|	|	|	|	0.01
28.667	0.00	0.01	0.003	O	|	|	|	|	0.01
28.750	0.00	0.01	0.003	O	|	|	|	|	0.01
28.833	0.00	0.01	0.003	O	|	|	|	|	0.01
28.917	0.00	0.01	0.003	O	|	|	|	|	0.01
29.000	0.00	0.01	0.003	O	|	|	|	|	0.01
29.083	0.00	0.01	0.002	O	|	|	|	|	0.00
29.167	0.00	0.01	0.002	O	|	|	|	|	0.00
29.250	0.00	0.01	0.002	O	|	|	|	|	0.00
29.333	0.00	0.01	0.002	O	|	|	|	|	0.00
29.417	0.00	0.01	0.002	O	|	|	|	|	0.00
29.500	0.00	0.01	0.002	O	|	|	|	|	0.00
29.583	0.00	0.01	0.002	O	|	|	|	|	0.00
29.667	0.00	0.01	0.002	O	|	|	|	|	0.00

```
29.750    0.00    0.01      0.002  O       |       |       |       |     0.00
29.833    0.00    0.01      0.002  O       |       |       |       |     0.00
29.917    0.00    0.01      0.002  O       |       |       |       |     0.00
30.000    0.00    0.01      0.002  O       |       |       |       |     0.00
30.083    0.00    0.01      0.002  O       |       |       |       |     0.00
30.167    0.00    0.01      0.002  O       |       |       |       |     0.00
30.250    0.00    0.01      0.002  O       |       |       |       |     0.00
30.333    0.00    0.01      0.002  O       |       |       |       |     0.00
30.417    0.00    0.01      0.002  O       |       |       |       |     0.00
30.500    0.00    0.01      0.002  O       |       |       |       |     0.00
30.583    0.00    0.01      0.002  O       |       |       |       |     0.00
30.667    0.00    0.01      0.001  O       |       |       |       |     0.00
30.750    0.00    0.01      0.001  O       |       |       |       |     0.00
30.833    0.00    0.01      0.001  O       |       |       |       |     0.00
30.917    0.00    0.01      0.001  O       |       |       |       |     0.00
31.000    0.00    0.01      0.001  O       |       |       |       |     0.00
31.083    0.00    0.01      0.001  O       |       |       |       |     0.00
31.167    0.00    0.01      0.001  O       |       |       |       |     0.00
31.250    0.00    0.00      0.001  O       |       |       |       |     0.00
31.333    0.00    0.00      0.001  O       |       |       |       |     0.00
31.417    0.00    0.00      0.001  O       |       |       |       |     0.00
31.500    0.00    0.00      0.001  O       |       |       |       |     0.00
31.583    0.00    0.00      0.001  O       |       |       |       |     0.00
31.667    0.00    0.00      0.001  O       |       |       |       |     0.00
31.750    0.00    0.00      0.001  O       |       |       |       |     0.00
31.833    0.00    0.00      0.001  O       |       |       |       |     0.00
31.917    0.00    0.00      0.001  O       |       |       |       |     0.00
32.000    0.00    0.00      0.001  O       |       |       |       |     0.00
32.083    0.00    0.00      0.001  O       |       |       |       |     0.00
32.167    0.00    0.00      0.001  O       |       |       |       |     0.00
32.250    0.00    0.00      0.001  O       |       |       |       |     0.00
32.333    0.00    0.00      0.001  O       |       |       |       |     0.00
32.417    0.00    0.00      0.001  O       |       |       |       |     0.00
32.500    0.00    0.00      0.001  O       |       |       |       |     0.00
32.583    0.00    0.00      0.001  O       |       |       |       |     0.00
32.667    0.00    0.00      0.001  O       |       |       |       |     0.00
32.750    0.00    0.00      0.001  O       |       |       |       |     0.00
32.833    0.00    0.00      0.001  O       |       |       |       |     0.00
32.917    0.00    0.00      0.001  O       |       |       |       |     0.00
33.000    0.00    0.00      0.001  O       |       |       |       |     0.00
33.083    0.00    0.00      0.001  O       |       |       |       |     0.00
33.167    0.00    0.00      0.001  O       |       |       |       |     0.00
33.250    0.00    0.00      0.001  O       |       |       |       |     0.00
33.333    0.00    0.00      0.001  O       |       |       |       |     0.00
33.417    0.00    0.00      0.001  O       |       |       |       |     0.00
33.500    0.00    0.00      0.001  O       |       |       |       |     0.00
33.583    0.00    0.00      0.001  O       |       |       |       |     0.00
33.667    0.00    0.00      0.001  O       |       |       |       |     0.00
33.750    0.00    0.00      0.001  O       |       |       |       |     0.00
33.833    0.00    0.00      0.001  O       |       |       |       |     0.00
33.917    0.00    0.00      0.000  O       |       |       |       |     0.00

      ****************************HYDROGRAPH DATA****************************
                  Number of intervals =   407
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =       61.023 (CFS)
                  Total volume =       7.286 (Ac.Ft)
            Status of hydrographs being held in storage
                        Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      ***********************************************************************

      ----------------------------------------------------------------------


      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      Process from Point/Station       20.000 to Point/Station       21.000
      **** STORE OR DELETE CURRENT HYDROGRAPH ****
      ______________________________________________________________________
      Current stream hydrograph saved in file frmdsout3100.rte
```

```
**************************HYDROGRAPH DATA**************************
               Number of intervals =     0
               Time interval =    0.0 (Min.)
               Maximum/Peak flow rate =        0.000 (CFS)
               Total volume =       0.000 (Ac.Ft)
       Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
*******************************************************************

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```

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                    FLOOD HYDROGRAPH ROUTING PROGRAM
                Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                            Study date: 07/15/17


------------------------------------------------------------------------
TRACT 29835-1
ROUTING BASIN 1 (LOT N)
100-YR 6-HR UNIT HYD


------------------------------------------------------------------------


Program License Serial Number 4029

------------------------------------------------------------------------
******************** HYDROGRAPH INFORMATION **********************

                From study/file name: frmds6100.rte
*****************************HYDROGRAPH DATA*****************************
                Number of intervals =    76
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =       74.706 (CFS)
                Total volume =       9.020 (Ac.Ft)
        Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
************************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       10.000 to Point/Station       11.000
**** RETARDING BASIN ROUTING ****
________________________________________________________________________

User entry of depth-outflow-storage data
------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 76
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
------------------------------------------------------------------------
------------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
------------------------------------------------------------------------
------------------------------------------------------------------------
Depth vs. Storage and Depth vs. Discharge data:
 Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
     (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
------------------------------------------------------------------------
   0.000      0.000      0.000      0.000        0.000
   0.500      0.250      1.023      0.246        0.254
   1.500      0.780      1.140      0.776        0.784
   1.700      0.900      1.163      0.896        0.904
   2.500      1.380      1.460      1.375        1.385
   3.500      2.040     35.915      1.916        2.164
   4.500      2.760     61.183      2.549        2.971
   5.000      3.550     78.634      3.279        3.821
------------------------------------------------------------------------
               Hydrograph Detention Basin Routing
------------------------------------------------------------------------

Graph values: 'I'= unit inflow; 'O'=outflow at time shown
------------------------------------------------------------------------
 Time   Inflow  Outflow    Storage                                    Depth
(Hours)  (CFS)   (CFS)     (Ac.Ft) .0      18.7   37.35   56.03   74.71 (Ft.)
```

0.083	1.72	0.02	0.006	O	|	|	|	|	0.01
0.167	4.20	0.11	0.026	OI	|	|	|	|	0.05
0.250	5.29	0.23	0.057	O I	|	|	|	|	0.11
0.333	5.59	0.38	0.093	O I	|	|	|	|	0.19
0.417	5.71	0.53	0.128	O I	|	|	|	|	0.26
0.500	6.38	0.68	0.166	O I	|	|	|	|	0.33
0.583	7.08	0.85	0.207	O I	|	|	|	|	0.41
0.667	7.23	1.02	0.250	O I	|	|	|	|	0.50
0.750	7.29	1.03	0.293	O I	|	|	|	|	0.58
0.833	7.31	1.04	0.336	O I	|	|	|	|	0.66
0.917	7.31	1.05	0.379	O I	|	|	|	|	0.74
1.000	7.96	1.06	0.424	O I	|	|	|	|	0.83
1.083	8.66	1.07	0.474	O I	|	|	|	|	0.92
1.167	8.80	1.08	0.527	O I	|	|	|	|	1.02
1.250	8.86	1.10	0.580	O I	|	|	|	|	1.12
1.333	8.88	1.11	0.634	O I	|	|	|	|	1.22
1.417	8.88	1.12	0.687	O I	|	|	|	|	1.32
1.500	8.88	1.13	0.741	O I	|	|	|	|	1.43
1.583	8.88	1.14	0.794	O I	|	|	|	|	1.52
1.667	8.88	1.15	0.847	O I	|	|	|	|	1.61
1.750	8.88	1.16	0.900	O I	|	|	|	|	1.70
1.833	8.88	1.20	0.954	O I	|	|	|	|	1.79
1.917	8.88	1.23	1.006	O I	|	|	|	|	1.88
2.000	9.53	1.26	1.061	O I	|	|	|	|	1.97
2.083	9.58	1.30	1.118	O I	|	|	|	|	2.06
2.167	9.68	1.33	1.175	O I	|	|	|	|	2.16
2.250	10.29	1.37	1.235	O I	|	|	|	|	2.26
2.333	10.40	1.41	1.297	O I	|	|	|	|	2.36
2.417	10.44	1.45	1.359	O I	|	|	|	|	2.46
2.500	10.46	3.25	1.414	|O I	|	|	|	|	2.55
2.583	10.46	5.45	1.456	| O I	|	|	|	|	2.62
2.667	10.46	6.97	1.486	| O I	|	|	|	|	2.66
2.750	11.11	8.14	1.508	| OI	|	|	|	|	2.69
2.833	11.81	9.15	1.527	| O I	|	|	|	|	2.72
2.917	11.95	9.98	1.543	| OI	|	|	|	|	2.75
3.000	12.01	10.59	1.555	| OI	|	|	|	|	2.76
3.083	12.03	11.03	1.563	| OI	|	|	|	|	2.78
3.167	12.68	11.43	1.571	| OI	|	|	|	|	2.79
3.250	13.38	11.92	1.580	| O	|	|	|	|	2.80
3.333	13.53	12.39	1.589	| O	|	|	|	|	2.82
3.417	14.24	12.84	1.598	| OI	|	|	|	|	2.83
3.500	15.61	13.48	1.610	| OI	|	|	|	|	2.85
3.583	17.10	14.35	1.627	| OI|	|	|	|	|	2.87
3.667	18.00	15.33	1.646	| OI|	|	|	|	|	2.90
3.750	18.88	16.28	1.664	| O I	|	|	|	|	2.93
3.833	19.66	17.19	1.681	| OI	|	|	|	|	2.96
3.917	20.48	18.07	1.698	| OI	|	|	|	|	2.98
4.000	21.23	18.92	1.714	| OI	|	|	|	|	3.01
4.083	22.05	19.75	1.730	| OI	|	|	|	|	3.03
4.167	23.46	20.66	1.748	| O I	|	|	|	|	3.06
4.250	24.97	21.75	1.769	| |OI	|	|	|	|	3.09
4.333	26.53	22.97	1.792	| |O I	|	|	|	|	3.12
4.417	28.10	24.29	1.817	| | O I	|	|	|	|	3.16
4.500	29.03	25.59	1.842	| | O I	|	|	|	|	3.20
4.583	29.91	26.77	1.865	| | OI	|	|	|	|	3.23
4.667	31.33	27.95	1.887	| | O I	|	|	|	|	3.27
4.750	32.85	29.21	1.912	| | O I	|	|	|	|	3.31
4.833	33.75	30.46	1.935	| | OI	|	|	|	|	3.34
4.917	34.63	31.59	1.957	| | OI	|	|	|	|	3.37
5.000	36.06	32.74	1.979	| | OI|	|	|	|	|	3.41
5.083	40.18	34.38	2.011	| | O |I	|	|	|	|	3.46
5.167	47.11	36.83	2.066	| | O| I	|	|	|	|	3.54
5.250	53.36	39.72	2.148	| | |O I	|	|	|	|	3.65
5.333	58.45	43.21	2.248	| | | O |I	|	|	|	|	3.79
5.417	64.64	47.16	2.360	| | | O | I	|	|	|	|	3.95
5.500	74.71	52.02	2.499	| | | O | I	|	|	|	|	4.14
5.583	57.89	55.10	2.587	| | | OI	|	|	|	|	4.26
5.667	27.31	52.40	2.510	| | I | O |	|	|	|	|	4.15
5.750	13.63	45.52	2.314	| I | O |	|	|	|	|	3.88
5.833	7.47	37.98	2.099	| I | O	|	|	|	|	3.58
5.917	3.80	28.97	1.907	|I | O	|	|	|	|	3.30

6.000	1.88	21.01	1.754	I O	|	|	|	3.07
6.083	0.85	15.02	1.640	I O	|	|	|	2.89
6.167	0.22	10.61	1.555	I O	|	|	|	2.77
6.250	0.06	7.42	1.494	I O	|	|	|	2.67
6.333	0.02	5.17	1.451	I O	|	|	|	2.61
6.417	0.00	3.60	1.421	IO	|	|	|	2.56
6.500	0.00	2.50	1.400	IO	|	|	|	2.53
6.583	0.00	1.74	1.385	O	|	|	|	2.51
6.667	0.00	1.46	1.374	O	|	|	|	2.49
6.750	0.00	1.45	1.364	O	|	|	|	2.47
6.833	0.00	1.44	1.354	O	|	|	|	2.46
6.917	0.00	1.44	1.344	O	|	|	|	2.44
7.000	0.00	1.43	1.335	O	|	|	|	2.42
7.083	0.00	1.43	1.325	O	|	|	|	2.41
7.167	0.00	1.42	1.315	O	|	|	|	2.39
7.250	0.00	1.41	1.305	O	|	|	|	2.38
7.333	0.00	1.41	1.295	O	|	|	|	2.36
7.417	0.00	1.40	1.286	O	|	|	|	2.34
7.500	0.00	1.40	1.276	O	|	|	|	2.33
7.583	0.00	1.39	1.267	O	|	|	|	2.31
7.667	0.00	1.38	1.257	O	|	|	|	2.29
7.750	0.00	1.38	1.247	O	|	|	|	2.28
7.833	0.00	1.37	1.238	O	|	|	|	2.26
7.917	0.00	1.37	1.229	O	|	|	|	2.25
8.000	0.00	1.36	1.219	O	|	|	|	2.23
8.083	0.00	1.35	1.210	O	|	|	|	2.22
8.167	0.00	1.35	1.201	O	|	|	|	2.20
8.250	0.00	1.34	1.191	O	|	|	|	2.19
8.333	0.00	1.34	1.182	O	|	|	|	2.17
8.417	0.00	1.33	1.173	O	|	|	|	2.15
8.500	0.00	1.33	1.164	O	|	|	|	2.14
8.583	0.00	1.32	1.155	O	|	|	|	2.12
8.667	0.00	1.31	1.145	O	|	|	|	2.11
8.750	0.00	1.31	1.136	O	|	|	|	2.09
8.833	0.00	1.30	1.127	O	|	|	|	2.08
8.917	0.00	1.30	1.118	O	|	|	|	2.06
9.000	0.00	1.29	1.110	O	|	|	|	2.05
9.083	0.00	1.29	1.101	O	|	|	|	2.03
9.167	0.00	1.28	1.092	O	|	|	|	2.02
9.250	0.00	1.28	1.083	O	|	|	|	2.01
9.333	0.00	1.27	1.074	O	|	|	|	1.99
9.417	0.00	1.27	1.066	O	|	|	|	1.98
9.500	0.00	1.26	1.057	O	|	|	|	1.96
9.583	0.00	1.25	1.048	O	|	|	|	1.95
9.667	0.00	1.25	1.040	O	|	|	|	1.93
9.750	0.00	1.24	1.031	O	|	|	|	1.92
9.833	0.00	1.24	1.022	O	|	|	|	1.90
9.917	0.00	1.23	1.014	O	|	|	|	1.89
10.000	0.00	1.23	1.005	O	|	|	|	1.88
10.083	0.00	1.22	0.997	O	|	|	|	1.86
10.167	0.00	1.22	0.989	O	|	|	|	1.85
10.250	0.00	1.21	0.980	O	|	|	|	1.83
10.333	0.00	1.21	0.972	O	|	|	|	1.82
10.417	0.00	1.20	0.964	O	|	|	|	1.81
10.500	0.00	1.20	0.955	O	|	|	|	1.79
10.583	0.00	1.19	0.947	O	|	|	|	1.78
10.667	0.00	1.19	0.939	O	|	|	|	1.76
10.750	0.00	1.18	0.931	O	|	|	|	1.75
10.833	0.00	1.18	0.923	O	|	|	|	1.74
10.917	0.00	1.17	0.915	O	|	|	|	1.72
11.000	0.00	1.17	0.906	O	|	|	|	1.71
11.083	0.00	1.16	0.898	O	|	|	|	1.70
11.167	0.00	1.16	0.890	O	|	|	|	1.68
11.250	0.00	1.16	0.882	O	|	|	|	1.67
11.333	0.00	1.16	0.874	O	|	|	|	1.66
11.417	0.00	1.16	0.867	O	|	|	|	1.64
11.500	0.00	1.16	0.859	O	|	|	|	1.63
11.583	0.00	1.15	0.851	O	|	|	|	1.62
11.667	0.00	1.15	0.843	O	|	|	|	1.60
11.750	0.00	1.15	0.835	O	|	|	|	1.59
11.833	0.00	1.15	0.827	O	|	|	|	1.58

11.917	0.00	1.15	0.819	O	|	|	|	|	1.56
12.000	0.00	1.15	0.811	O	|	|	|	|	1.55
12.083	0.00	1.14	0.803	O	|	|	|	|	1.54
12.167	0.00	1.14	0.795	O	|	|	|	|	1.53
12.250	0.00	1.14	0.787	O	|	|	|	|	1.51
12.333	0.00	1.14	0.780	O	|	|	|	|	1.50
12.417	0.00	1.14	0.772	O	|	|	|	|	1.48
12.500	0.00	1.14	0.764	O	|	|	|	|	1.47
12.583	0.00	1.13	0.756	O	|	|	|	|	1.45
12.667	0.00	1.13	0.748	O	|	|	|	|	1.44
12.750	0.00	1.13	0.740	O	|	|	|	|	1.43
12.833	0.00	1.13	0.733	O	|	|	|	|	1.41
12.917	0.00	1.13	0.725	O	|	|	|	|	1.40
13.000	0.00	1.13	0.717	O	|	|	|	|	1.38
13.083	0.00	1.12	0.709	O	|	|	|	|	1.37
13.167	0.00	1.12	0.702	O	|	|	|	|	1.35
13.250	0.00	1.12	0.694	O	|	|	|	|	1.34
13.333	0.00	1.12	0.686	O	|	|	|	|	1.32
13.417	0.00	1.12	0.678	O	|	|	|	|	1.31
13.500	0.00	1.12	0.671	O	|	|	|	|	1.29
13.583	0.00	1.11	0.663	O	|	|	|	|	1.28
13.667	0.00	1.11	0.655	O	|	|	|	|	1.26
13.750	0.00	1.11	0.648	O	|	|	|	|	1.25
13.833	0.00	1.11	0.640	O	|	|	|	|	1.24
13.917	0.00	1.11	0.632	O	|	|	|	|	1.22
14.000	0.00	1.11	0.625	O	|	|	|	|	1.21
14.083	0.00	1.10	0.617	O	|	|	|	|	1.19
14.167	0.00	1.10	0.610	O	|	|	|	|	1.18
14.250	0.00	1.10	0.602	O	|	|	|	|	1.16
14.333	0.00	1.10	0.594	O	|	|	|	|	1.15
14.417	0.00	1.10	0.587	O	|	|	|	|	1.14
14.500	0.00	1.10	0.579	O	|	|	|	|	1.12
14.583	0.00	1.09	0.572	O	|	|	|	|	1.11
14.667	0.00	1.09	0.564	O	|	|	|	|	1.09
14.750	0.00	1.09	0.557	O	|	|	|	|	1.08
14.833	0.00	1.09	0.549	O	|	|	|	|	1.06
14.917	0.00	1.09	0.542	O	|	|	|	|	1.05
15.000	0.00	1.09	0.534	O	|	|	|	|	1.04
15.083	0.00	1.08	0.527	O	|	|	|	|	1.02
15.167	0.00	1.08	0.519	O	|	|	|	|	1.01
15.250	0.00	1.08	0.512	O	|	|	|	|	0.99
15.333	0.00	1.08	0.504	O	|	|	|	|	0.98
15.417	0.00	1.08	0.497	O	|	|	|	|	0.97
15.500	0.00	1.08	0.490	O	|	|	|	|	0.95
15.583	0.00	1.07	0.482	O	|	|	|	|	0.94
15.667	0.00	1.07	0.475	O	|	|	|	|	0.92
15.750	0.00	1.07	0.467	O	|	|	|	|	0.91
15.833	0.00	1.07	0.460	O	|	|	|	|	0.90
15.917	0.00	1.07	0.453	O	|	|	|	|	0.88
16.000	0.00	1.07	0.445	O	|	|	|	|	0.87
16.083	0.00	1.06	0.438	O	|	|	|	|	0.85
16.167	0.00	1.06	0.431	O	|	|	|	|	0.84
16.250	0.00	1.06	0.423	O	|	|	|	|	0.83
16.333	0.00	1.06	0.416	O	|	|	|	|	0.81
16.417	0.00	1.06	0.409	O	|	|	|	|	0.80
16.500	0.00	1.06	0.402	O	|	|	|	|	0.79
16.583	0.00	1.05	0.394	O	|	|	|	|	0.77
16.667	0.00	1.05	0.387	O	|	|	|	|	0.76
16.750	0.00	1.05	0.380	O	|	|	|	|	0.74
16.833	0.00	1.05	0.373	O	|	|	|	|	0.73
16.917	0.00	1.05	0.365	O	|	|	|	|	0.72
17.000	0.00	1.05	0.358	O	|	|	|	|	0.70
17.083	0.00	1.05	0.351	O	|	|	|	|	0.69
17.167	0.00	1.04	0.344	O	|	|	|	|	0.68
17.250	0.00	1.04	0.337	O	|	|	|	|	0.66
17.333	0.00	1.04	0.329	O	|	|	|	|	0.65
17.417	0.00	1.04	0.322	O	|	|	|	|	0.64
17.500	0.00	1.04	0.315	O	|	|	|	|	0.62
17.583	0.00	1.04	0.308	O	|	|	|	|	0.61
17.667	0.00	1.03	0.301	O	|	|	|	|	0.60
17.750	0.00	1.03	0.294	O	|	|	|	|	0.58

17.833	0.00	1.03	0.287	O	|	|	|	|	0.57
17.917	0.00	1.03	0.279	O	|	|	|	|	0.56
18.000	0.00	1.03	0.272	O	|	|	|	|	0.54
18.083	0.00	1.03	0.265	O	|	|	|	|	0.53
18.167	0.00	1.02	0.258	O	|	|	|	|	0.52
18.250	0.00	1.02	0.251	O	|	|	|	|	0.50
18.333	0.00	1.00	0.244	O	|	|	|	|	0.49
18.417	0.00	0.97	0.237	O	|	|	|	|	0.47
18.500	0.00	0.94	0.231	O	|	|	|	|	0.46
18.583	0.00	0.92	0.224	O	|	|	|	|	0.45
18.667	0.00	0.89	0.218	O	|	|	|	|	0.44
18.750	0.00	0.87	0.212	O	|	|	|	|	0.42
18.833	0.00	0.84	0.206	O	|	|	|	|	0.41
18.917	0.00	0.82	0.200	O	|	|	|	|	0.40
19.000	0.00	0.80	0.195	O	|	|	|	|	0.39
19.083	0.00	0.78	0.189	O	|	|	|	|	0.38
19.167	0.00	0.75	0.184	O	|	|	|	|	0.37
19.250	0.00	0.73	0.179	O	|	|	|	|	0.36
19.333	0.00	0.71	0.174	O	|	|	|	|	0.35
19.417	0.00	0.69	0.169	O	|	|	|	|	0.34
19.500	0.00	0.67	0.165	O	|	|	|	|	0.33
19.583	0.00	0.65	0.160	O	|	|	|	|	0.32
19.667	0.00	0.64	0.156	O	|	|	|	|	0.31
19.750	0.00	0.62	0.151	O	|	|	|	|	0.30
19.833	0.00	0.60	0.147	O	|	|	|	|	0.29
19.917	0.00	0.58	0.143	O	|	|	|	|	0.29
20.000	0.00	0.57	0.139	O	|	|	|	|	0.28
20.083	0.00	0.55	0.135	O	|	|	|	|	0.27
20.167	0.00	0.54	0.131	O	|	|	|	|	0.26
20.250	0.00	0.52	0.128	O	|	|	|	|	0.26
20.333	0.00	0.51	0.124	O	|	|	|	|	0.25
20.417	0.00	0.49	0.121	O	|	|	|	|	0.24
20.500	0.00	0.48	0.117	O	|	|	|	|	0.23
20.583	0.00	0.47	0.114	O	|	|	|	|	0.23
20.667	0.00	0.45	0.111	O	|	|	|	|	0.22
20.750	0.00	0.44	0.108	O	|	|	|	|	0.22
20.833	0.00	0.43	0.105	O	|	|	|	|	0.21
20.917	0.00	0.42	0.102	O	|	|	|	|	0.20
21.000	0.00	0.41	0.099	O	|	|	|	|	0.20
21.083	0.00	0.39	0.096	O	|	|	|	|	0.19
21.167	0.00	0.38	0.094	O	|	|	|	|	0.19
21.250	0.00	0.37	0.091	O	|	|	|	|	0.18
21.333	0.00	0.36	0.089	O	|	|	|	|	0.18
21.417	0.00	0.35	0.086	O	|	|	|	|	0.17
21.500	0.00	0.34	0.084	O	|	|	|	|	0.17
21.583	0.00	0.33	0.081	O	|	|	|	|	0.16
21.667	0.00	0.32	0.079	O	|	|	|	|	0.16
21.750	0.00	0.31	0.077	O	|	|	|	|	0.15
21.833	0.00	0.31	0.075	O	|	|	|	|	0.15
21.917	0.00	0.30	0.073	O	|	|	|	|	0.15
22.000	0.00	0.29	0.071	O	|	|	|	|	0.14
22.083	0.00	0.28	0.069	O	|	|	|	|	0.14
22.167	0.00	0.27	0.067	O	|	|	|	|	0.13
22.250	0.00	0.27	0.065	O	|	|	|	|	0.13
22.333	0.00	0.26	0.063	O	|	|	|	|	0.13
22.417	0.00	0.25	0.061	O	|	|	|	|	0.12
22.500	0.00	0.24	0.060	O	|	|	|	|	0.12
22.583	0.00	0.24	0.058	O	|	|	|	|	0.12
22.667	0.00	0.23	0.056	O	|	|	|	|	0.11
22.750	0.00	0.22	0.055	O	|	|	|	|	0.11
22.833	0.00	0.22	0.053	O	|	|	|	|	0.11
22.917	0.00	0.21	0.052	O	|	|	|	|	0.10
23.000	0.00	0.21	0.050	O	|	|	|	|	0.10
23.083	0.00	0.20	0.049	O	|	|	|	|	0.10
23.167	0.00	0.19	0.048	O	|	|	|	|	0.10
23.250	0.00	0.19	0.046	O	|	|	|	|	0.09
23.333	0.00	0.18	0.045	O	|	|	|	|	0.09
23.417	0.00	0.18	0.044	O	|	|	|	|	0.09
23.500	0.00	0.17	0.043	O	|	|	|	|	0.09
23.583	0.00	0.17	0.041	O	|	|	|	|	0.08
23.667	0.00	0.16	0.040	O	|	|	|	|	0.08

23.750	0.00	0.16	0.039	O	|	|	|	|	0.08
23.833	0.00	0.16	0.038	O	|	|	|	|	0.08
23.917	0.00	0.15	0.037	O	|	|	|	|	0.07
24.000	0.00	0.15	0.036	O	|	|	|	|	0.07
24.083	0.00	0.14	0.035	O	|	|	|	|	0.07
24.167	0.00	0.14	0.034	O	|	|	|	|	0.07
24.250	0.00	0.14	0.033	O	|	|	|	|	0.07
24.333	0.00	0.13	0.032	O	|	|	|	|	0.06
24.417	0.00	0.13	0.031	O	|	|	|	|	0.06
24.500	0.00	0.12	0.030	O	|	|	|	|	0.06
24.583	0.00	0.12	0.029	O	|	|	|	|	0.06
24.667	0.00	0.12	0.029	O	|	|	|	|	0.06
24.750	0.00	0.11	0.028	O	|	|	|	|	0.06
24.833	0.00	0.11	0.027	O	|	|	|	|	0.05
24.917	0.00	0.11	0.026	O	|	|	|	|	0.05
25.000	0.00	0.10	0.026	O	|	|	|	|	0.05
25.083	0.00	0.10	0.025	O	|	|	|	|	0.05
25.167	0.00	0.10	0.024	O	|	|	|	|	0.05
25.250	0.00	0.10	0.024	O	|	|	|	|	0.05
25.333	0.00	0.09	0.023	O	|	|	|	|	0.05
25.417	0.00	0.09	0.022	O	|	|	|	|	0.04
25.500	0.00	0.09	0.022	O	|	|	|	|	0.04
25.583	0.00	0.09	0.021	O	|	|	|	|	0.04
25.667	0.00	0.08	0.020	O	|	|	|	|	0.04
25.750	0.00	0.08	0.020	O	|	|	|	|	0.04
25.833	0.00	0.08	0.019	O	|	|	|	|	0.04
25.917	0.00	0.08	0.019	O	|	|	|	|	0.04
26.000	0.00	0.07	0.018	O	|	|	|	|	0.04
26.083	0.00	0.07	0.018	O	|	|	|	|	0.04
26.167	0.00	0.07	0.017	O	|	|	|	|	0.03
26.250	0.00	0.07	0.017	O	|	|	|	|	0.03
26.333	0.00	0.07	0.016	O	|	|	|	|	0.03
26.417	0.00	0.06	0.016	O	|	|	|	|	0.03
26.500	0.00	0.06	0.015	O	|	|	|	|	0.03
26.583	0.00	0.06	0.015	O	|	|	|	|	0.03
26.667	0.00	0.06	0.015	O	|	|	|	|	0.03
26.750	0.00	0.06	0.014	O	|	|	|	|	0.03
26.833	0.00	0.06	0.014	O	|	|	|	|	0.03
26.917	0.00	0.05	0.013	O	|	|	|	|	0.03
27.000	0.00	0.05	0.013	O	|	|	|	|	0.03
27.083	0.00	0.05	0.013	O	|	|	|	|	0.03
27.167	0.00	0.05	0.012	O	|	|	|	|	0.02
27.250	0.00	0.05	0.012	O	|	|	|	|	0.02
27.333	0.00	0.05	0.012	O	|	|	|	|	0.02
27.417	0.00	0.05	0.011	O	|	|	|	|	0.02
27.500	0.00	0.05	0.011	O	|	|	|	|	0.02
27.583	0.00	0.04	0.011	O	|	|	|	|	0.02
27.667	0.00	0.04	0.010	O	|	|	|	|	0.02
27.750	0.00	0.04	0.010	O	|	|	|	|	0.02
27.833	0.00	0.04	0.010	O	|	|	|	|	0.02
27.917	0.00	0.04	0.010	O	|	|	|	|	0.02
28.000	0.00	0.04	0.009	O	|	|	|	|	0.02
28.083	0.00	0.04	0.009	O	|	|	|	|	0.02
28.167	0.00	0.04	0.009	O	|	|	|	|	0.02
28.250	0.00	0.03	0.009	O	|	|	|	|	0.02
28.333	0.00	0.03	0.008	O	|	|	|	|	0.02
28.417	0.00	0.03	0.008	O	|	|	|	|	0.02
28.500	0.00	0.03	0.008	O	|	|	|	|	0.02
28.583	0.00	0.03	0.008	O	|	|	|	|	0.02
28.667	0.00	0.03	0.007	O	|	|	|	|	0.01
28.750	0.00	0.03	0.007	O	|	|	|	|	0.01
28.833	0.00	0.03	0.007	O	|	|	|	|	0.01
28.917	0.00	0.03	0.007	O	|	|	|	|	0.01
29.000	0.00	0.03	0.007	O	|	|	|	|	0.01
29.083	0.00	0.03	0.006	O	|	|	|	|	0.01
29.167	0.00	0.03	0.006	O	|	|	|	|	0.01
29.250	0.00	0.02	0.006	O	|	|	|	|	0.01
29.333	0.00	0.02	0.006	O	|	|	|	|	0.01
29.417	0.00	0.02	0.006	O	|	|	|	|	0.01
29.500	0.00	0.02	0.006	O	|	|	|	|	0.01
29.583	0.00	0.02	0.005	O	|	|	|	|	0.01

29.667	0.00	0.02	0.005	O	|	|	|	|	0.01
29.750	0.00	0.02	0.005	O	|	|	|	|	0.01
29.833	0.00	0.02	0.005	O	|	|	|	|	0.01
29.917	0.00	0.02	0.005	O	|	|	|	|	0.01
30.000	0.00	0.02	0.005	O	|	|	|	|	0.01
30.083	0.00	0.02	0.005	O	|	|	|	|	0.01
30.167	0.00	0.02	0.004	O	|	|	|	|	0.01
30.250	0.00	0.02	0.004	O	|	|	|	|	0.01
30.333	0.00	0.02	0.004	O	|	|	|	|	0.01
30.417	0.00	0.02	0.004	O	|	|	|	|	0.01
30.500	0.00	0.02	0.004	O	|	|	|	|	0.01
30.583	0.00	0.02	0.004	O	|	|	|	|	0.01
30.667	0.00	0.02	0.004	O	|	|	|	|	0.01
30.750	0.00	0.01	0.004	O	|	|	|	|	0.01
30.833	0.00	0.01	0.004	O	|	|	|	|	0.01
30.917	0.00	0.01	0.003	O	|	|	|	|	0.01
31.000	0.00	0.01	0.003	O	|	|	|	|	0.01
31.083	0.00	0.01	0.003	O	|	|	|	|	0.01
31.167	0.00	0.01	0.003	O	|	|	|	|	0.01
31.250	0.00	0.01	0.003	O	|	|	|	|	0.01
31.333	0.00	0.01	0.003	O	|	|	|	|	0.01
31.417	0.00	0.01	0.003	O	|	|	|	|	0.01
31.500	0.00	0.01	0.003	O	|	|	|	|	0.01
31.583	0.00	0.01	0.003	O	|	|	|	|	0.01
31.667	0.00	0.01	0.003	O	|	|	|	|	0.01
31.750	0.00	0.01	0.003	O	|	|	|	|	0.01
31.833	0.00	0.01	0.003	O	|	|	|	|	0.01
31.917	0.00	0.01	0.002	O	|	|	|	|	0.00
32.000	0.00	0.01	0.002	O	|	|	|	|	0.00
32.083	0.00	0.01	0.002	O	|	|	|	|	0.00
32.167	0.00	0.01	0.002	O	|	|	|	|	0.00
32.250	0.00	0.01	0.002	O	|	|	|	|	0.00
32.333	0.00	0.01	0.002	O	|	|	|	|	0.00
32.417	0.00	0.01	0.002	O	|	|	|	|	0.00
32.500	0.00	0.01	0.002	O	|	|	|	|	0.00
32.583	0.00	0.01	0.002	O	|	|	|	|	0.00
32.667	0.00	0.01	0.002	O	|	|	|	|	0.00
32.750	0.00	0.01	0.002	O	|	|	|	|	0.00
32.833	0.00	0.01	0.002	O	|	|	|	|	0.00
32.917	0.00	0.01	0.002	O	|	|	|	|	0.00
33.000	0.00	0.01	0.002	O	|	|	|	|	0.00
33.083	0.00	0.01	0.002	O	|	|	|	|	0.00
33.167	0.00	0.01	0.002	O	|	|	|	|	0.00
33.250	0.00	0.01	0.002	O	|	|	|	|	0.00
33.333	0.00	0.01	0.002	O	|	|	|	|	0.00
33.417	0.00	0.01	0.001	O	|	|	|	|	0.00
33.500	0.00	0.01	0.001	O	|	|	|	|	0.00
33.583	0.00	0.01	0.001	O	|	|	|	|	0.00
33.667	0.00	0.01	0.001	O	|	|	|	|	0.00
33.750	0.00	0.01	0.001	O	|	|	|	|	0.00
33.833	0.00	0.01	0.001	O	|	|	|	|	0.00
33.917	0.00	0.01	0.001	O	|	|	|	|	0.00
34.000	0.00	0.00	0.001	O	|	|	|	|	0.00
34.083	0.00	0.00	0.001	O	|	|	|	|	0.00
34.167	0.00	0.00	0.001	O	|	|	|	|	0.00
34.250	0.00	0.00	0.001	O	|	|	|	|	0.00
34.333	0.00	0.00	0.001	O	|	|	|	|	0.00
34.417	0.00	0.00	0.001	O	|	|	|	|	0.00
34.500	0.00	0.00	0.001	O	|	|	|	|	0.00
34.583	0.00	0.00	0.001	O	|	|	|	|	0.00
34.667	0.00	0.00	0.001	O	|	|	|	|	0.00
34.750	0.00	0.00	0.001	O	|	|	|	|	0.00
34.833	0.00	0.00	0.001	O	|	|	|	|	0.00
34.917	0.00	0.00	0.001	O	|	|	|	|	0.00
35.000	0.00	0.00	0.001	O	|	|	|	|	0.00
35.083	0.00	0.00	0.001	O	|	|	|	|	0.00
35.167	0.00	0.00	0.001	O	|	|	|	|	0.00
35.250	0.00	0.00	0.001	O	|	|	|	|	0.00
35.333	0.00	0.00	0.001	O	|	|	|	|	0.00
35.417	0.00	0.00	0.001	O	|	|	|	|	0.00
35.500	0.00	0.00	0.001	O	|	|	|	|	0.00

```
35.583    0.00    0.00      0.001  O       |       |       |       |     0.00
35.667    0.00    0.00      0.001  O       |       |       |       |     0.00
35.750    0.00    0.00      0.001  O       |       |       |       |     0.00
35.833    0.00    0.00      0.001  O       |       |       |       |     0.00
35.917    0.00    0.00      0.001  O       |       |       |       |     0.00
36.000    0.00    0.00      0.001  O       |       |       |       |     0.00
36.083    0.00    0.00      0.001  O       |       |       |       |     0.00
36.167    0.00    0.00      0.001  O       |       |       |       |     0.00
36.250    0.00    0.00      0.001  O       |       |       |       |     0.00
36.333    0.00    0.00      0.001  O       |       |       |       |     0.00
36.417    0.00    0.00      0.001  O       |       |       |       |     0.00
36.500    0.00    0.00      0.001  O       |       |       |       |     0.00
36.583    0.00    0.00      0.001  O       |       |       |       |     0.00
36.667    0.00    0.00      0.000  O       |       |       |       |     0.00

      ****************************HYDROGRAPH DATA****************************
                  Number of intervals =   440
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =       55.097 (CFS)
                  Total volume =       9.019 (Ac.Ft)
            Status of hydrographs being held in storage
                        Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      ************************************************************************

      ------------------------------------------------------------------------


      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      Process from Point/Station       20.000 to Point/Station       21.000
      **** STORE OR DELETE CURRENT HYDROGRAPH ****
      ________________________________________________________________________
      Current stream hydrograph saved in file frmdsout6100.rte
      ****************************HYDROGRAPH DATA****************************
                  Number of intervals =     0
                  Time interval =    0.0 (Min.)
                  Maximum/Peak flow rate =        0.000 (CFS)
                  Total volume =       0.000 (Ac.Ft)
            Status of hydrographs being held in storage
                        Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      ************************************************************************

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                    FLOOD HYDROGRAPH ROUTING PROGRAM
                Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                            Study date: 07/15/17

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 TRACT 29835-1
 ROUTING BASIN 1 (LOT N)
 100-YR 24-HR UNIT HYD


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 Program License Serial Number 4029

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 ******************** HYDROGRAPH INFORMATION **********************

                From study/file name: frmds24100.rte
 ****************************HYDROGRAPH DATA****************************
                Number of intervals =   292
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =       28.701 (CFS)
                Total volume =      13.544 (Ac.Ft)
        Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
 ***********************************************************************



 +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
 Process from Point/Station       10.000 to Point/Station       11.000
 **** RETARDING BASIN ROUTING ****
 _____________________________________________________________________

 User entry of depth-outflow-storage data
 ---------------------------------------------------------------------
 Total number of inflow hydrograph intervals = 292
 Hydrograph time unit =  5.000 (Min.)
 Initial depth in storage basin =   0.00(Ft.)
 ---------------------------------------------------------------------
 ---------------------------------------------------------------------
 Initial basin depth =   0.00 (Ft.)
 Initial basin storage =      0.00 (Ac.Ft)
 Initial basin outflow =   0.00 (CFS)
 ---------------------------------------------------------------------
 ---------------------------------------------------------------------
 Depth vs. Storage and Depth vs. Discharge data:
  Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
      (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)     (Ac.Ft)
 ---------------------------------------------------------------------
    0.000      0.000      0.000      0.000        0.000
    0.500      0.250      1.023      0.246        0.254
    1.500      0.780      1.140      0.776        0.784
    1.700      0.900      1.163      0.896        0.904
    2.500      1.380      1.460      1.375        1.385
    3.500      2.040     35.915      1.916        2.164
    4.500      2.760     61.183      2.549        2.971
    5.000      3.550     78.634      3.279        3.821
 ---------------------------------------------------------------------
                 Hydrograph Detention Basin Routing
 ---------------------------------------------------------------------

 Graph values: 'I'= unit inflow; 'O'=outflow at time shown
 ---------------------------------------------------------------------
 Time   Inflow  Outflow    Storage                                  Depth
```

(Hours)	(CFS)	(CFS)	(Ac.Ft)	.0	7.2	14.35	21.53	28.70	(Ft.)
0.083	0.26	0.00	0.001	O	|	|	|	|	0.00
0.167	0.53	0.01	0.004	O	|	|	|	|	0.01
0.250	0.59	0.03	0.007	O	|	|	|	|	0.01
0.333	0.74	0.05	0.012	O	|	|	|	|	0.02
0.417	0.89	0.07	0.017	O	|	|	|	|	0.03
0.500	0.92	0.09	0.022	OI	|	|	|	|	0.04
0.583	0.93	0.12	0.028	OI	|	|	|	|	0.06
0.667	0.93	0.14	0.034	OI	|	|	|	|	0.07
0.750	0.93	0.16	0.039	OI	|	|	|	|	0.08
0.833	1.06	0.18	0.045	OI	|	|	|	|	0.09
0.917	1.20	0.21	0.051	OI	|	|	|	|	0.10
1.000	1.23	0.24	0.058	OI	|	|	|	|	0.12
1.083	1.11	0.26	0.064	OI	|	|	|	|	0.13
1.167	0.98	0.29	0.070	OI	|	|	|	|	0.14
1.250	0.95	0.30	0.074	OI	|	|	|	|	0.15
1.333	0.94	0.32	0.079	OI	|	|	|	|	0.16
1.417	0.93	0.34	0.083	OI	|	|	|	|	0.17
1.500	0.93	0.36	0.087	OI	|	|	|	|	0.17
1.583	0.93	0.37	0.091	OI	|	|	|	|	0.18
1.667	0.93	0.39	0.095	OI	|	|	|	|	0.19
1.750	0.93	0.40	0.098	OI	|	|	|	|	0.20
1.833	1.06	0.42	0.102	OI	|	|	|	|	0.20
1.917	1.20	0.44	0.107	OI	|	|	|	|	0.21
2.000	1.23	0.46	0.113	OI	|	|	|	|	0.23
2.083	1.24	0.48	0.118	OI	|	|	|	|	0.24
2.167	1.25	0.50	0.123	OI	|	|	|	|	0.25
2.250	1.25	0.52	0.128	OI	|	|	|	|	0.26
2.333	1.25	0.54	0.133	OI	|	|	|	|	0.27
2.417	1.25	0.56	0.138	OI	|	|	|	|	0.28
2.500	1.25	0.58	0.142	OI	|	|	|	|	0.28
2.583	1.37	0.60	0.147	OI	|	|	|	|	0.29
2.667	1.51	0.63	0.153	OI	|	|	|	|	0.31
2.750	1.54	0.65	0.159	OI	|	|	|	|	0.32
2.833	1.55	0.68	0.165	OI	|	|	|	|	0.33
2.917	1.56	0.70	0.171	OI	|	|	|	|	0.34
3.000	1.56	0.72	0.177	OI	|	|	|	|	0.35
3.083	1.56	0.75	0.183	OI	|	|	|	|	0.37
3.167	1.56	0.77	0.188	OI	|	|	|	|	0.38
3.250	1.56	0.79	0.193	OI	|	|	|	|	0.39
3.333	1.56	0.81	0.199	OI	|	|	|	|	0.40
3.417	1.56	0.83	0.204	OI	|	|	|	|	0.41
3.500	1.56	0.85	0.209	OI	|	|	|	|	0.42
3.583	1.56	0.87	0.213	OI	|	|	|	|	0.43
3.667	1.56	0.89	0.218	OI	|	|	|	|	0.44
3.750	1.56	0.91	0.223	|O	|	|	|	|	0.45
3.833	1.69	0.93	0.227	|O	|	|	|	|	0.45
3.917	1.82	0.95	0.233	|OI	|	|	|	|	0.47
4.000	1.85	0.98	0.239	|OI	|	|	|	|	0.48
4.083	1.86	1.00	0.245	|OI	|	|	|	|	0.49
4.167	1.87	1.02	0.251	|OI	|	|	|	|	0.50
4.250	1.87	1.02	0.257	|OI	|	|	|	|	0.51
4.333	2.00	1.03	0.263	|OI	|	|	|	|	0.52
4.417	2.14	1.03	0.270	|OI	|	|	|	|	0.54
4.500	2.16	1.03	0.278	|OI	|	|	|	|	0.55
4.583	2.18	1.03	0.286	|OI	|	|	|	|	0.57
4.667	2.18	1.03	0.294	|OI	|	|	|	|	0.58
4.750	2.18	1.03	0.301	|OI	|	|	|	|	0.60
4.833	2.31	1.04	0.310	|OI	|	|	|	|	0.61
4.917	2.45	1.04	0.319	|OI	|	|	|	|	0.63
5.000	2.48	1.04	0.329	|OI	|	|	|	|	0.65
5.083	2.23	1.04	0.338	|OI	|	|	|	|	0.67
5.167	1.96	1.04	0.345	|OI	|	|	|	|	0.68
5.250	1.90	1.05	0.351	|OI	|	|	|	|	0.69
5.333	2.01	1.05	0.357	|OI	|	|	|	|	0.70
5.417	2.14	1.05	0.364	|OI	|	|	|	|	0.72
5.500	2.16	1.05	0.372	|OI	|	|	|	|	0.73
5.583	2.30	1.05	0.380	|OI	|	|	|	|	0.75
5.667	2.45	1.05	0.389	|OI	|	|	|	|	0.76
5.750	2.50	1.06	0.399	|OI	|	|	|	|	0.78
5.833	2.53	1.06	0.409	|OI	|	|	|	|	0.80

5.917	2.56	1.06	0.419	|OI	|	|	|	0.82
6.000	2.58	1.06	0.430	|OI	|	|	|	0.84
6.083	2.99	1.07	0.442	|O I	|	|	|	0.86
6.167	3.43	1.07	0.456	|O I	|	|	|	0.89
6.250	3.54	1.07	0.473	|O I	|	|	|	0.92
6.333	3.59	1.08	0.490	|O I	|	|	|	0.95
6.417	3.63	1.08	0.508	|O I	|	|	|	0.99
6.500	3.65	1.08	0.525	|O I	|	|	|	1.02
6.583	4.06	1.09	0.544	|O I	|	|	|	1.06
6.667	4.49	1.09	0.566	|O I	|	|	|	1.10
6.750	4.60	1.10	0.590	|O I	|	|	|	1.14
6.833	4.66	1.10	0.614	|O I	|	|	|	1.19
6.917	4.69	1.11	0.639	|O I	|	|	|	1.23
7.000	4.72	1.11	0.664	|O I	|	|	|	1.28
7.083	4.74	1.12	0.689	|O I	|	|	|	1.33
7.167	4.76	1.13	0.713	|O I	|	|	|	1.37
7.250	4.78	1.13	0.739	|O I	|	|	|	1.42
7.333	5.19	1.14	0.765	|O I	|	|	|	1.47
7.417	5.62	1.14	0.794	|O I	|	|	|	1.52
7.500	5.73	1.15	0.826	|O I	|	|	|	1.58
7.583	6.17	1.16	0.859	|O I	|	|	|	1.63
7.667	6.62	1.16	0.895	|O I|	|	|	|	1.69
7.750	6.73	1.18	0.933	|O I|	|	|	|	1.75
7.833	7.17	1.21	0.972	|O I|	|	|	|	1.82
7.917	7.62	1.23	1.015	|O I	|	|	|	1.89
8.000	7.73	1.26	1.059	|O I	|	|	|	1.97
8.083	8.56	1.29	1.106	|O|I	|	|	|	2.04
8.167	9.43	1.32	1.159	|O | I	|	|	|	2.13
8.250	9.62	1.36	1.216	|O | I	|	|	|	2.23
8.333	9.71	1.39	1.273	|O | I	|	|	|	2.32
8.417	9.76	1.43	1.330	|O | I	|	|	|	2.42
8.500	9.78	1.79	1.386	|O | I	|	|	|	2.51
8.583	10.19	4.29	1.434	| O | I	|	|	|	2.58
8.667	10.62	6.15	1.470	| O | I	|	|	|	2.64
8.750	10.73	7.53	1.496	| O I	|	|	|	2.68
8.833	11.17	8.57	1.516	|O I	|	|	|	2.71
8.917	11.62	9.43	1.533	| O I	|	|	|	2.73
9.000	11.73	10.11	1.546	| O I	|	|	|	2.75
9.083	12.55	10.73	1.558	| O I	|	|	|	2.77
9.167	13.42	11.42	1.571	| O I |	|	|	|	2.79
9.250	13.61	12.06	1.583	| O I|	|	|	|	2.81
9.333	14.09	12.60	1.593	| OI|	|	|	|	2.82
9.417	14.55	13.13	1.603	| O I	|	|	|	2.84
9.500	14.66	13.58	1.612	| OI	|	|	|	2.85
9.583	15.10	13.97	1.620	| OI	|	|	|	2.86
9.667	15.55	14.39	1.628	| OI	|	|	|	2.88
9.750	15.65	14.76	1.635	| OI	|	|	|	2.89
9.833	16.10	15.10	1.641	| OI	|	|	|	2.90
9.917	16.54	15.47	1.648	| |OI	|	|	|	2.91
10.000	16.65	15.81	1.655	| |OI	|	|	|	2.92
10.083	13.99	15.66	1.652	| I|O	|	|	|	2.91
10.167	11.12	14.72	1.634	| I O	|	|	|	2.88
10.250	10.53	13.53	1.611	| I O|	|	|	|	2.85
10.333	10.31	12.58	1.593	| I O |	|	|	|	2.82
10.417	10.23	11.88	1.580	| I O |	|	|	|	2.80
10.500	10.24	11.38	1.570	| IO |	|	|	|	2.79
10.583	12.20	11.33	1.569	| OI |	|	|	|	2.79
10.667	14.29	11.91	1.580	| O I|	|	|	|	2.80
10.750	14.75	12.71	1.595	| O I	|	|	|	2.83
10.833	14.94	13.36	1.608	| O I	|	|	|	2.85
10.917	15.03	13.85	1.617	| OI	|	|	|	2.86
11.000	15.05	14.21	1.624	| OI	|	|	|	2.87
11.083	14.68	14.41	1.628	| O	|	|	|	2.88
11.167	14.28	14.43	1.628	| IO	|	|	|	2.88
11.250	14.21	14.38	1.627	| IO	|	|	|	2.87
11.333	14.20	14.32	1.626	| O|	|	|	|	2.87
11.417	14.20	14.29	1.626	| O|	|	|	|	2.87
11.500	14.22	14.26	1.625	| O|	|	|	|	2.87
11.583	13.46	14.13	1.623	| O|	|	|	|	2.87
11.667	12.65	13.80	1.616	| IO|	|	|	|	2.86
11.750	12.49	13.43	1.609	| IO |	|	|	|	2.85

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11.833   12.83   13.19      1.605  |       |     O |       |       |     2.84
11.917   13.23   13.14      1.604  |       |     O |       |       |     2.84
12.000   13.34   13.19      1.605  |       |     O |       |       |     2.84
12.083   16.10   13.65      1.614  |       |      O|I      |       |     2.85
12.167   19.03   14.85      1.636  |       |       O    I  |       |     2.89
12.250   19.66   16.22      1.663  |       |       | O  I  |       |     2.93
12.333   20.31   17.37      1.685  |       |       |  O  I |       |     2.96
12.417   20.84   18.34      1.703  |       |       |   O  I|       |     2.99
12.500   20.95   19.12      1.718  |       |       |    O I|       |     3.01
12.583   21.77   19.80      1.731  |       |       |     O I       |     3.03
12.667   22.63   20.53      1.745  |       |       |     O |I      |     3.05
12.750   22.82   21.20      1.758  |       |       |      O|I      |     3.07
12.833   23.30   21.77      1.769  |       |       |       OI      |     3.09
12.917   23.76   22.31      1.779  |       |       |       O I     |     3.10
13.000   23.86   22.76      1.788  |       |       |       |OI     |     3.12
13.083   25.85   23.40      1.800  |       |       |       | O I   |     3.14
13.167   27.95   24.47      1.821  |       |       |       |  O   I|     3.17
13.250   28.41   25.60      1.842  |       |       |       |   O  I|     3.20
13.333   28.60   26.48      1.859  |       |       |       |    O I|     3.23
13.417   28.68   27.14      1.872  |       |       |       |     OI|     3.25
13.500   28.70   27.61      1.881  |       |       |       |     O I     3.26
13.583   24.46   27.30      1.875  |       |       |       |  I  O |     3.25
13.667   19.91   25.74      1.845  |       |       |     I |   O   |     3.20
13.750   18.97   23.82      1.808  |       |       |    I  | O     |     3.15
13.833   18.60   22.29      1.779  |       |       |   I   O       |     3.10
13.917   18.46   21.14      1.757  |       |       |   I  O|       |     3.07
14.000   18.48   20.33      1.741  |       |       |   I O |       |     3.05
14.083   20.04   20.00      1.735  |       |       |     O |       |     3.04
14.167   21.72   20.27      1.740  |       |       |     O I       |     3.05
14.250   22.08   20.77      1.750  |       |       |      OI       |     3.06
14.333   21.85   21.13      1.757  |       |       |      OI       |     3.07
14.417   21.51   21.30      1.760  |       |       |      O|       |     3.08
14.500   21.43   21.35      1.761  |       |       |      O|       |     3.08
14.583   21.42   21.37      1.761  |       |       |      O|       |     3.08
14.667   21.42   21.39      1.762  |       |       |      O|       |     3.08
14.750   21.43   21.40      1.762  |       |       |      O|       |     3.08
14.833   21.06   21.35      1.761  |       |       |      O|       |     3.08
14.917   20.66   21.20      1.758  |       |       |      O|       |     3.07
15.000   20.59   21.03      1.755  |       |       |     IO|       |     3.07
15.083   20.18   20.83      1.751  |       |       |     IO|       |     3.06
15.167   19.77   20.57      1.746  |       |       |     O |       |     3.05
15.250   19.69   20.31      1.741  |       |       |    IO |       |     3.05
15.333   19.29   20.06      1.736  |       |       |    IO |       |     3.04
15.417   18.87   19.76      1.731  |       |       |    IO |       |     3.03
15.500   18.80   19.48      1.725  |       |       |   IO  |       |     3.02
15.583   17.23   19.03      1.717  |       |       |  I O  |       |     3.01
15.667   15.57   18.23      1.701  |       |       |I  O   |       |     2.99
15.750   15.24   17.37      1.685  |       |       I  O    |       |     2.96
15.833   15.11   16.70      1.672  |       |       I O     |       |     2.94
15.917   15.07   16.21      1.663  |       |       I O     |       |     2.93
16.000   15.08   15.87      1.656  |       |       IO      |       |     2.92
16.083    9.38   14.76      1.635  |       | I     O       |       |     2.89
16.167    3.26   12.18      1.585  |  I    |    O  |       |       |     2.81
16.250    1.97    9.27      1.530  | I     | O     |       |       |     2.73
16.333    1.45    6.97      1.485  |I     O|       |       |       |     2.66
16.417    1.25    5.25      1.453  |I   O  |       |       |       |     2.61
16.500    1.25    4.03      1.429  |I  O   |       |       |       |     2.57
16.583    1.12    3.16      1.413  |I O    |       |       |       |     2.55
16.667    0.98    2.52      1.400  |IO     |       |       |       |     2.53
16.750    0.95    2.05      1.391  |IO     |       |       |       |     2.52
16.833    0.94    1.71      1.385  |O      |       |       |       |     2.51
16.917    0.93    1.47      1.380  |O      |       |       |       |     2.50
17.000    0.93    1.46      1.377  |O      |       |       |       |     2.49
17.083    1.43    1.46      1.375  |O      |       |       |       |     2.49
17.167    1.97    1.46      1.376  |OI     |       |       |       |     2.49
17.250    2.09    1.47      1.380  |OI     |       |       |       |     2.50
17.333    2.15    1.67      1.384  |OI     |       |       |       |     2.51
17.417    2.18    1.82      1.387  | O     |       |       |       |     2.51
17.500    2.19    1.93      1.389  | O     |       |       |       |     2.51
17.583    2.20    2.01      1.391  | O     |       |       |       |     2.52
17.667    2.21    2.07      1.392  | O     |       |       |       |     2.52
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17.750	2.23	2.12	1.393	| O	|	|	|	2.52
17.833	1.85	2.09	1.392	| O	|	|	|	2.52
17.917	1.45	1.96	1.390	|IO	|	|	|	2.51
18.000	1.37	1.79	1.386	|O	|	|	|	2.51
18.083	1.35	1.66	1.384	|O	|	|	|	2.51
18.167	1.35	1.57	1.382	|O	|	|	|	2.50
18.250	1.36	1.50	1.381	|O	|	|	|	2.50
18.333	1.37	1.46	1.380	|O	|	|	|	2.50
18.417	1.38	1.46	1.379	|O	|	|	|	2.50
18.500	1.40	1.46	1.379	|O	|	|	|	2.50
18.583	1.21	1.46	1.378	|O	|	|	|	2.50
18.667	1.00	1.46	1.375	|O	|	|	|	2.49
18.750	0.96	1.46	1.372	|O	|	|	|	2.49
18.833	0.81	1.45	1.368	IO	|	|	|	2.48
18.917	0.67	1.45	1.363	IO	|	|	|	2.47
19.000	0.64	1.45	1.358	IO	|	|	|	2.46
19.083	0.76	1.44	1.353	IO	|	|	|	2.45
19.167	0.89	1.44	1.348	IO	|	|	|	2.45
19.250	0.92	1.44	1.345	|O	|	|	|	2.44
19.333	1.17	1.44	1.342	|O	|	|	|	2.44
19.417	1.43	1.44	1.341	|O	|	|	|	2.44
19.500	1.50	1.44	1.341	|O	|	|	|	2.44
19.583	1.28	1.44	1.341	|O	|	|	|	2.44
19.667	1.02	1.43	1.339	|O	|	|	|	2.43
19.750	0.97	1.43	1.336	|O	|	|	|	2.43
19.833	0.81	1.43	1.332	IO	|	|	|	2.42
19.917	0.67	1.43	1.328	IO	|	|	|	2.41
20.000	0.64	1.42	1.322	IO	|	|	|	2.40
20.083	0.76	1.42	1.317	IO	|	|	|	2.40
20.167	0.89	1.42	1.313	IO	|	|	|	2.39
20.250	0.92	1.42	1.310	|O	|	|	|	2.38
20.333	0.93	1.41	1.306	|O	|	|	|	2.38
20.417	0.93	1.41	1.303	|O	|	|	|	2.37
20.500	0.93	1.41	1.300	|O	|	|	|	2.37
20.583	0.93	1.41	1.296	|O	|	|	|	2.36
20.667	0.93	1.41	1.293	|O	|	|	|	2.36
20.750	0.93	1.40	1.290	|O	|	|	|	2.35
20.833	0.81	1.40	1.286	IO	|	|	|	2.34
20.917	0.67	1.40	1.282	IO	|	|	|	2.34
21.000	0.64	1.40	1.276	IO	|	|	|	2.33
21.083	0.76	1.39	1.272	IO	|	|	|	2.32
21.167	0.89	1.39	1.268	IO	|	|	|	2.31
21.250	0.92	1.39	1.264	|O	|	|	|	2.31
21.333	0.80	1.39	1.261	IO	|	|	|	2.30
21.417	0.67	1.38	1.256	IO	|	|	|	2.29
21.500	0.64	1.38	1.251	IO	|	|	|	2.29
21.583	0.76	1.38	1.247	IO	|	|	|	2.28
21.667	0.89	1.38	1.243	IO	|	|	|	2.27
21.750	0.92	1.37	1.240	|O	|	|	|	2.27
21.833	0.80	1.37	1.236	IO	|	|	|	2.26
21.917	0.67	1.37	1.232	IO	|	|	|	2.25
22.000	0.64	1.37	1.227	IO	|	|	|	2.24
22.083	0.76	1.36	1.222	IO	|	|	|	2.24
22.167	0.89	1.36	1.218	IO	|	|	|	2.23
22.250	0.92	1.36	1.215	|O	|	|	|	2.23
22.333	0.80	1.36	1.212	IO	|	|	|	2.22
22.417	0.67	1.35	1.208	IO	|	|	|	2.21
22.500	0.64	1.35	1.203	IO	|	|	|	2.20
22.583	0.63	1.35	1.198	IO	|	|	|	2.20
22.667	0.62	1.34	1.193	IO	|	|	|	2.19
22.750	0.62	1.34	1.188	IO	|	|	|	2.18
22.833	0.62	1.34	1.183	IO	|	|	|	2.17
22.917	0.62	1.34	1.178	IO	|	|	|	2.16
23.000	0.62	1.33	1.173	IO	|	|	|	2.16
23.083	0.62	1.33	1.168	IO	|	|	|	2.15
23.167	0.62	1.33	1.163	IO	|	|	|	2.14
23.250	0.62	1.32	1.159	IO	|	|	|	2.13
23.333	0.62	1.32	1.154	IO	|	|	|	2.12
23.417	0.62	1.32	1.149	IO	|	|	|	2.12
23.500	0.62	1.31	1.144	IO	|	|	|	2.11
23.583	0.62	1.31	1.140	IO	|	|	|	2.10

23.667	0.62	1.31	1.135	IO					2.09
23.750	0.62	1.31	1.130	IO					2.08
23.833	0.62	1.30	1.125	IO					2.08
23.917	0.62	1.30	1.121	IO					2.07
24.000	0.62	1.30	1.116	IO					2.06
24.083	0.37	1.29	1.111	IO					2.05
24.167	0.09	1.29	1.103	IO					2.04
24.250	0.03	1.28	1.095	IO					2.02
24.333	0.01	1.28	1.086	IO					2.01
24.417	0.00	1.27	1.077	IO					2.00
24.500	0.00	1.27	1.069	IO					1.98
24.583	0.00	1.26	1.060	IO					1.97
24.667	0.00	1.26	1.051	IO					1.95
24.750	0.00	1.25	1.043	IO					1.94
24.833	0.00	1.25	1.034	IO					1.92
24.917	0.00	1.24	1.025	IO					1.91
25.000	0.00	1.24	1.017	IO					1.89
25.083	0.00	1.23	1.008	IO					1.88
25.167	0.00	1.22	1.000	IO					1.87
25.250	0.00	1.22	0.992	IO					1.85
25.333	0.00	1.21	0.983	IO					1.84
25.417	0.00	1.21	0.975	IO					1.82
25.500	0.00	1.20	0.967	IO					1.81
25.583	0.00	1.20	0.958	IO					1.80
25.667	0.00	1.19	0.950	IO					1.78
25.750	0.00	1.19	0.942	IO					1.77
25.833	0.00	1.18	0.934	IO					1.76
25.917	0.00	1.18	0.925	IO					1.74
26.000	0.00	1.17	0.917	IO					1.73
26.083	0.00	1.17	0.909	IO					1.72
26.167	0.00	1.16	0.901	IO					1.70
26.250	0.00	1.16	0.893	IO					1.69
26.333	0.00	1.16	0.885	IO					1.68
26.417	0.00	1.16	0.877	IO					1.66
26.500	0.00	1.16	0.869	IO					1.65
26.583	0.00	1.16	0.861	IO					1.64
26.667	0.00	1.15	0.853	IO					1.62
26.750	0.00	1.15	0.845	IO					1.61
26.833	0.00	1.15	0.838	IO					1.60
26.917	0.00	1.15	0.830	IO					1.58
27.000	0.00	1.15	0.822	IO					1.57
27.083	0.00	1.15	0.814	IO					1.56
27.167	0.00	1.14	0.806	IO					1.54
27.250	0.00	1.14	0.798	IO					1.53
27.333	0.00	1.14	0.790	IO					1.52
27.417	0.00	1.14	0.782	IO					1.50
27.500	0.00	1.14	0.774	IO					1.49
27.583	0.00	1.14	0.767	IO					1.47
27.667	0.00	1.14	0.759	IO					1.46
27.750	0.00	1.13	0.751	IO					1.45
27.833	0.00	1.13	0.743	IO					1.43
27.917	0.00	1.13	0.735	IO					1.42
28.000	0.00	1.13	0.728	IO					1.40
28.083	0.00	1.13	0.720	IO					1.39
28.167	0.00	1.13	0.712	IO					1.37
28.250	0.00	1.12	0.704	IO					1.36
28.333	0.00	1.12	0.697	IO					1.34
28.417	0.00	1.12	0.689	IO					1.33
28.500	0.00	1.12	0.681	IO					1.31
28.583	0.00	1.12	0.673	IO					1.30
28.667	0.00	1.11	0.666	IO					1.28
28.750	0.00	1.11	0.658	IO					1.27
28.833	0.00	1.11	0.650	IO					1.26
28.917	0.00	1.11	0.643	IO					1.24
29.000	0.00	1.11	0.635	IO					1.23
29.083	0.00	1.11	0.628	IO					1.21
29.167	0.00	1.10	0.620	IO					1.20
29.250	0.00	1.10	0.612	IO					1.18
29.333	0.00	1.10	0.605	IO					1.17
29.417	0.00	1.10	0.597	IO					1.16
29.500	0.00	1.10	0.590	IO					1.14

29.583	0.00	1.10	0.582	IO	|	|	|	|	1.13
29.667	0.00	1.09	0.575	IO	|	|	|	|	1.11
29.750	0.00	1.09	0.567	IO	|	|	|	|	1.10
29.833	0.00	1.09	0.559	IO	|	|	|	|	1.08
29.917	0.00	1.09	0.552	IO	|	|	|	|	1.07
30.000	0.00	1.09	0.544	IO	|	|	|	|	1.06
30.083	0.00	1.09	0.537	IO	|	|	|	|	1.04
30.167	0.00	1.08	0.529	IO	|	|	|	|	1.03
30.250	0.00	1.08	0.522	IO	|	|	|	|	1.01
30.333	0.00	1.08	0.515	IO	|	|	|	|	1.00
30.417	0.00	1.08	0.507	IO	|	|	|	|	0.99
30.500	0.00	1.08	0.500	IO	|	|	|	|	0.97
30.583	0.00	1.08	0.492	IO	|	|	|	|	0.96
30.667	0.00	1.07	0.485	IO	|	|	|	|	0.94
30.750	0.00	1.07	0.477	IO	|	|	|	|	0.93
30.833	0.00	1.07	0.470	IO	|	|	|	|	0.92
30.917	0.00	1.07	0.463	IO	|	|	|	|	0.90
31.000	0.00	1.07	0.455	IO	|	|	|	|	0.89
31.083	0.00	1.07	0.448	IO	|	|	|	|	0.87
31.167	0.00	1.07	0.441	IO	|	|	|	|	0.86
31.250	0.00	1.06	0.433	IO	|	|	|	|	0.85
31.333	0.00	1.06	0.426	IO	|	|	|	|	0.83
31.417	0.00	1.06	0.419	IO	|	|	|	|	0.82
31.500	0.00	1.06	0.411	IO	|	|	|	|	0.80
31.583	0.00	1.06	0.404	IO	|	|	|	|	0.79
31.667	0.00	1.06	0.397	IO	|	|	|	|	0.78
31.750	0.00	1.05	0.390	IO	|	|	|	|	0.76
31.833	0.00	1.05	0.382	IO	|	|	|	|	0.75
31.917	0.00	1.05	0.375	IO	|	|	|	|	0.74
32.000	0.00	1.05	0.368	IO	|	|	|	|	0.72
32.083	0.00	1.05	0.361	IO	|	|	|	|	0.71
32.167	0.00	1.05	0.353	IO	|	|	|	|	0.70
32.250	0.00	1.04	0.346	IO	|	|	|	|	0.68
32.333	0.00	1.04	0.339	IO	|	|	|	|	0.67
32.417	0.00	1.04	0.332	IO	|	|	|	|	0.65
32.500	0.00	1.04	0.325	IO	|	|	|	|	0.64
32.583	0.00	1.04	0.318	IO	|	|	|	|	0.63
32.667	0.00	1.04	0.310	IO	|	|	|	|	0.61
32.750	0.00	1.03	0.303	IO	|	|	|	|	0.60
32.833	0.00	1.03	0.296	IO	|	|	|	|	0.59
32.917	0.00	1.03	0.289	IO	|	|	|	|	0.57
33.000	0.00	1.03	0.282	IO	|	|	|	|	0.56
33.083	0.00	1.03	0.275	IO	|	|	|	|	0.55
33.167	0.00	1.03	0.268	IO	|	|	|	|	0.53
33.250	0.00	1.03	0.261	IO	|	|	|	|	0.52
33.333	0.00	1.02	0.254	IO	|	|	|	|	0.51
33.417	0.00	1.01	0.247	IO	|	|	|	|	0.49
33.500	0.00	0.98	0.240	IO	|	|	|	|	0.48
33.583	0.00	0.95	0.233	IO	|	|	|	|	0.47
33.667	0.00	0.93	0.227	IO	|	|	|	|	0.45
33.750	0.00	0.90	0.220	IO	|	|	|	|	0.44
33.833	0.00	0.88	0.214	O	|	|	|	|	0.43
33.917	0.00	0.85	0.208	O	|	|	|	|	0.42
34.000	0.00	0.83	0.202	O	|	|	|	|	0.40
34.083	0.00	0.81	0.197	O	|	|	|	|	0.39
34.167	0.00	0.78	0.191	O	|	|	|	|	0.38
34.250	0.00	0.76	0.186	O	|	|	|	|	0.37
34.333	0.00	0.74	0.181	O	|	|	|	|	0.36
34.417	0.00	0.72	0.176	O	|	|	|	|	0.35
34.500	0.00	0.70	0.171	O	|	|	|	|	0.34
34.583	0.00	0.68	0.166	O	|	|	|	|	0.33
34.667	0.00	0.66	0.162	O	|	|	|	|	0.32
34.750	0.00	0.64	0.157	O	|	|	|	|	0.31
34.833	0.00	0.63	0.153	O	|	|	|	|	0.31
34.917	0.00	0.61	0.149	O	|	|	|	|	0.30
35.000	0.00	0.59	0.144	O	|	|	|	|	0.29
35.083	0.00	0.57	0.140	O	|	|	|	|	0.28
35.167	0.00	0.56	0.136	O	|	|	|	|	0.27
35.250	0.00	0.54	0.133	O	|	|	|	|	0.27
35.333	0.00	0.53	0.129	O	|	|	|	|	0.26
35.417	0.00	0.51	0.125	O	|	|	|	|	0.25

35.500	0.00	0.50	0.122	O	|	|	|	|	0.24
35.583	0.00	0.49	0.119	O	|	|	|	|	0.24
35.667	0.00	0.47	0.115	O	|	|	|	|	0.23
35.750	0.00	0.46	0.112	O	|	|	|	|	0.22
35.833	0.00	0.45	0.109	O	|	|	|	|	0.22
35.917	0.00	0.43	0.106	O	|	|	|	|	0.21
36.000	0.00	0.42	0.103	O	|	|	|	|	0.21
36.083	0.00	0.41	0.100	O	|	|	|	|	0.20
36.167	0.00	0.40	0.097	O	|	|	|	|	0.19
36.250	0.00	0.39	0.095	O	|	|	|	|	0.19
36.333	0.00	0.38	0.092	O	|	|	|	|	0.18
36.417	0.00	0.37	0.089	O	|	|	|	|	0.18
36.500	0.00	0.36	0.087	O	|	|	|	|	0.17
36.583	0.00	0.35	0.085	O	|	|	|	|	0.17
36.667	0.00	0.34	0.082	O	|	|	|	|	0.16
36.750	0.00	0.33	0.080	O	|	|	|	|	0.16
36.833	0.00	0.32	0.078	O	|	|	|	|	0.16
36.917	0.00	0.31	0.076	O	|	|	|	|	0.15
37.000	0.00	0.30	0.073	O	|	|	|	|	0.15
37.083	0.00	0.29	0.071	O	|	|	|	|	0.14
37.167	0.00	0.28	0.069	O	|	|	|	|	0.14
37.250	0.00	0.28	0.067	O	|	|	|	|	0.13
37.333	0.00	0.27	0.066	O	|	|	|	|	0.13
37.417	0.00	0.26	0.064	O	|	|	|	|	0.13
37.500	0.00	0.25	0.062	O	|	|	|	|	0.12
37.583	0.00	0.25	0.060	O	|	|	|	|	0.12
37.667	0.00	0.24	0.059	O	|	|	|	|	0.12
37.750	0.00	0.23	0.057	O	|	|	|	|	0.11
37.833	0.00	0.23	0.055	O	|	|	|	|	0.11
37.917	0.00	0.22	0.054	O	|	|	|	|	0.11
38.000	0.00	0.21	0.052	O	|	|	|	|	0.10
38.083	0.00	0.21	0.051	O	|	|	|	|	0.10
38.167	0.00	0.20	0.049	O	|	|	|	|	0.10
38.250	0.00	0.20	0.048	O	|	|	|	|	0.10
38.333	0.00	0.19	0.047	O	|	|	|	|	0.09
38.417	0.00	0.19	0.045	O	|	|	|	|	0.09
38.500	0.00	0.18	0.044	O	|	|	|	|	0.09
38.583	0.00	0.18	0.043	O	|	|	|	|	0.09
38.667	0.00	0.17	0.042	O	|	|	|	|	0.08
38.750	0.00	0.17	0.041	O	|	|	|	|	0.08
38.833	0.00	0.16	0.039	O	|	|	|	|	0.08
38.917	0.00	0.16	0.038	O	|	|	|	|	0.08
39.000	0.00	0.15	0.037	O	|	|	|	|	0.07
39.083	0.00	0.15	0.036	O	|	|	|	|	0.07
39.167	0.00	0.14	0.035	O	|	|	|	|	0.07
39.250	0.00	0.14	0.034	O	|	|	|	|	0.07
39.333	0.00	0.14	0.033	O	|	|	|	|	0.07
39.417	0.00	0.13	0.032	O	|	|	|	|	0.06
39.500	0.00	0.13	0.032	O	|	|	|	|	0.06
39.583	0.00	0.13	0.031	O	|	|	|	|	0.06
39.667	0.00	0.12	0.030	O	|	|	|	|	0.06
39.750	0.00	0.12	0.029	O	|	|	|	|	0.06
39.833	0.00	0.12	0.028	O	|	|	|	|	0.06
39.917	0.00	0.11	0.027	O	|	|	|	|	0.05
40.000	0.00	0.11	0.027	O	|	|	|	|	0.05
40.083	0.00	0.11	0.026	O	|	|	|	|	0.05
40.167	0.00	0.10	0.025	O	|	|	|	|	0.05
40.250	0.00	0.10	0.024	O	|	|	|	|	0.05
40.333	0.00	0.10	0.024	O	|	|	|	|	0.05
40.417	0.00	0.09	0.023	O	|	|	|	|	0.05
40.500	0.00	0.09	0.022	O	|	|	|	|	0.04
40.583	0.00	0.09	0.022	O	|	|	|	|	0.04
40.667	0.00	0.09	0.021	O	|	|	|	|	0.04
40.750	0.00	0.08	0.021	O	|	|	|	|	0.04
40.833	0.00	0.08	0.020	O	|	|	|	|	0.04
40.917	0.00	0.08	0.020	O	|	|	|	|	0.04
41.000	0.00	0.08	0.019	O	|	|	|	|	0.04
41.083	0.00	0.08	0.018	O	|	|	|	|	0.04
41.167	0.00	0.07	0.018	O	|	|	|	|	0.04
41.250	0.00	0.07	0.017	O	|	|	|	|	0.03
41.333	0.00	0.07	0.017	O	|	|	|	|	0.03

41.417	0.00	0.07	0.016	O	|	|	|	|	0.03
41.500	0.00	0.07	0.016	O	|	|	|	|	0.03
41.583	0.00	0.06	0.016	O	|	|	|	|	0.03
41.667	0.00	0.06	0.015	O	|	|	|	|	0.03
41.750	0.00	0.06	0.015	O	|	|	|	|	0.03
41.833	0.00	0.06	0.014	O	|	|	|	|	0.03
41.917	0.00	0.06	0.014	O	|	|	|	|	0.03
42.000	0.00	0.06	0.014	O	|	|	|	|	0.03
42.083	0.00	0.05	0.013	O	|	|	|	|	0.03
42.167	0.00	0.05	0.013	O	|	|	|	|	0.03
42.250	0.00	0.05	0.012	O	|	|	|	|	0.02
42.333	0.00	0.05	0.012	O	|	|	|	|	0.02
42.417	0.00	0.05	0.012	O	|	|	|	|	0.02
42.500	0.00	0.05	0.011	O	|	|	|	|	0.02
42.583	0.00	0.05	0.011	O	|	|	|	|	0.02
42.667	0.00	0.04	0.011	O	|	|	|	|	0.02
42.750	0.00	0.04	0.011	O	|	|	|	|	0.02
42.833	0.00	0.04	0.010	O	|	|	|	|	0.02
42.917	0.00	0.04	0.010	O	|	|	|	|	0.02
43.000	0.00	0.04	0.010	O	|	|	|	|	0.02
43.083	0.00	0.04	0.009	O	|	|	|	|	0.02
43.167	0.00	0.04	0.009	O	|	|	|	|	0.02
43.250	0.00	0.04	0.009	O	|	|	|	|	0.02
43.333	0.00	0.04	0.009	O	|	|	|	|	0.02
43.417	0.00	0.03	0.008	O	|	|	|	|	0.02
43.500	0.00	0.03	0.008	O	|	|	|	|	0.02
43.583	0.00	0.03	0.008	O	|	|	|	|	0.02
43.667	0.00	0.03	0.008	O	|	|	|	|	0.02
43.750	0.00	0.03	0.007	O	|	|	|	|	0.01
43.833	0.00	0.03	0.007	O	|	|	|	|	0.01
43.917	0.00	0.03	0.007	O	|	|	|	|	0.01
44.000	0.00	0.03	0.007	O	|	|	|	|	0.01
44.083	0.00	0.03	0.007	O	|	|	|	|	0.01
44.167	0.00	0.03	0.007	O	|	|	|	|	0.01
44.250	0.00	0.03	0.006	O	|	|	|	|	0.01
44.333	0.00	0.03	0.006	O	|	|	|	|	0.01
44.417	0.00	0.02	0.006	O	|	|	|	|	0.01
44.500	0.00	0.02	0.006	O	|	|	|	|	0.01
44.583	0.00	0.02	0.006	O	|	|	|	|	0.01
44.667	0.00	0.02	0.005	O	|	|	|	|	0.01
44.750	0.00	0.02	0.005	O	|	|	|	|	0.01
44.833	0.00	0.02	0.005	O	|	|	|	|	0.01
44.917	0.00	0.02	0.005	O	|	|	|	|	0.01
45.000	0.00	0.02	0.005	O	|	|	|	|	0.01
45.083	0.00	0.02	0.005	O	|	|	|	|	0.01
45.167	0.00	0.02	0.005	O	|	|	|	|	0.01
45.250	0.00	0.02	0.005	O	|	|	|	|	0.01
45.333	0.00	0.02	0.004	O	|	|	|	|	0.01
45.417	0.00	0.02	0.004	O	|	|	|	|	0.01
45.500	0.00	0.02	0.004	O	|	|	|	|	0.01
45.583	0.00	0.02	0.004	O	|	|	|	|	0.01
45.667	0.00	0.02	0.004	O	|	|	|	|	0.01
45.750	0.00	0.02	0.004	O	|	|	|	|	0.01
45.833	0.00	0.02	0.004	O	|	|	|	|	0.01
45.917	0.00	0.01	0.004	O	|	|	|	|	0.01
46.000	0.00	0.01	0.003	O	|	|	|	|	0.01
46.083	0.00	0.01	0.003	O	|	|	|	|	0.01
46.167	0.00	0.01	0.003	O	|	|	|	|	0.01
46.250	0.00	0.01	0.003	O	|	|	|	|	0.01
46.333	0.00	0.01	0.003	O	|	|	|	|	0.01
46.417	0.00	0.01	0.003	O	|	|	|	|	0.01
46.500	0.00	0.01	0.003	O	|	|	|	|	0.01
46.583	0.00	0.01	0.003	O	|	|	|	|	0.01
46.667	0.00	0.01	0.003	O	|	|	|	|	0.01
46.750	0.00	0.01	0.003	O	|	|	|	|	0.01
46.833	0.00	0.01	0.003	O	|	|	|	|	0.01
46.917	0.00	0.01	0.003	O	|	|	|	|	0.01
47.000	0.00	0.01	0.002	O	|	|	|	|	0.00
47.083	0.00	0.01	0.002	O	|	|	|	|	0.00
47.167	0.00	0.01	0.002	O	|	|	|	|	0.00
47.250	0.00	0.01	0.002	O	|	|	|	|	0.00

47.333	0.00	0.01	0.002	O	|	|	|	| 0.00
47.417	0.00	0.01	0.002	O	|	|	|	| 0.00
47.500	0.00	0.01	0.002	O	|	|	|	| 0.00
47.583	0.00	0.01	0.002	O	|	|	|	| 0.00
47.667	0.00	0.01	0.002	O	|	|	|	| 0.00
47.750	0.00	0.01	0.002	O	|	|	|	| 0.00
47.833	0.00	0.01	0.002	O	|	|	|	| 0.00
47.917	0.00	0.01	0.002	O	|	|	|	| 0.00
48.000	0.00	0.01	0.002	O	|	|	|	| 0.00
48.083	0.00	0.01	0.002	O	|	|	|	| 0.00
48.167	0.00	0.01	0.002	O	|	|	|	| 0.00
48.250	0.00	0.01	0.002	O	|	|	|	| 0.00
48.333	0.00	0.01	0.002	O	|	|	|	| 0.00
48.417	0.00	0.01	0.002	O	|	|	|	| 0.00
48.500	0.00	0.01	0.002	O	|	|	|	| 0.00
48.583	0.00	0.01	0.001	O	|	|	|	| 0.00
48.667	0.00	0.01	0.001	O	|	|	|	| 0.00
48.750	0.00	0.01	0.001	O	|	|	|	| 0.00
48.833	0.00	0.01	0.001	O	|	|	|	| 0.00
48.917	0.00	0.01	0.001	O	|	|	|	| 0.00
49.000	0.00	0.01	0.001	O	|	|	|	| 0.00
49.083	0.00	0.01	0.001	O	|	|	|	| 0.00
49.167	0.00	0.00	0.001	O	|	|	|	| 0.00
49.250	0.00	0.00	0.001	O	|	|	|	| 0.00
49.333	0.00	0.00	0.001	O	|	|	|	| 0.00
49.417	0.00	0.00	0.001	O	|	|	|	| 0.00
49.500	0.00	0.00	0.001	O	|	|	|	| 0.00
49.583	0.00	0.00	0.001	O	|	|	|	| 0.00
49.667	0.00	0.00	0.001	O	|	|	|	| 0.00
49.750	0.00	0.00	0.001	O	|	|	|	| 0.00
49.833	0.00	0.00	0.001	O	|	|	|	| 0.00
49.917	0.00	0.00	0.001	O	|	|	|	| 0.00
50.000	0.00	0.00	0.001	O	|	|	|	| 0.00
50.083	0.00	0.00	0.001	O	|	|	|	| 0.00
50.167	0.00	0.00	0.001	O	|	|	|	| 0.00
50.250	0.00	0.00	0.001	O	|	|	|	| 0.00
50.333	0.00	0.00	0.001	O	|	|	|	| 0.00
50.417	0.00	0.00	0.001	O	|	|	|	| 0.00
50.500	0.00	0.00	0.001	O	|	|	|	| 0.00
50.583	0.00	0.00	0.001	O	|	|	|	| 0.00
50.667	0.00	0.00	0.001	O	|	|	|	| 0.00
50.750	0.00	0.00	0.001	O	|	|	|	| 0.00
50.833	0.00	0.00	0.001	O	|	|	|	| 0.00
50.917	0.00	0.00	0.001	O	|	|	|	| 0.00
51.000	0.00	0.00	0.001	O	|	|	|	| 0.00
51.083	0.00	0.00	0.001	O	|	|	|	| 0.00
51.167	0.00	0.00	0.001	O	|	|	|	| 0.00
51.250	0.00	0.00	0.001	O	|	|	|	| 0.00
51.333	0.00	0.00	0.001	O	|	|	|	| 0.00
51.417	0.00	0.00	0.001	O	|	|	|	| 0.00
51.500	0.00	0.00	0.001	O	|	|	|	| 0.00
51.583	0.00	0.00	0.001	O	|	|	|	| 0.00
51.667	0.00	0.00	0.001	O	|	|	|	| 0.00
51.750	0.00	0.00	0.001	O	|	|	|	| 0.00
51.833	0.00	0.00	0.000	O	|	|	|	| 0.00

```
*****************************HYDROGRAPH DATA*****************************
               Number of intervals =   622
               Time interval =    5.0 (Min.)
               Maximum/Peak flow rate =       27.614 (CFS)
               Total volume =      13.543 (Ac.Ft)
       Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
*************************************************************************

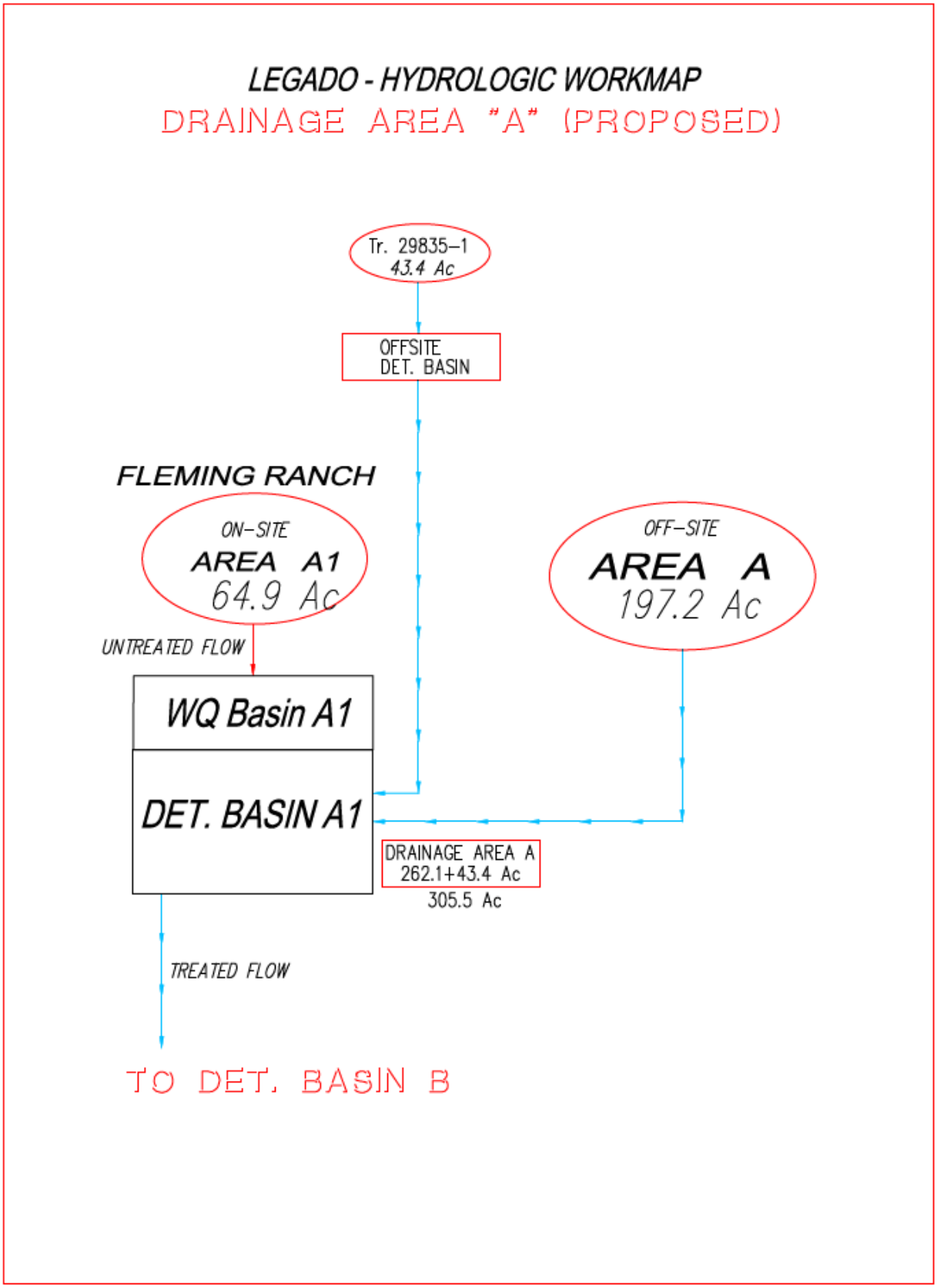
----------------------------------------------------------------------
```

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       20.000 to Point/Station       21.000
**** STORE OR DELETE CURRENT HYDROGRAPH ****
________________________________________________________________________
Current stream hydrograph saved in file frmdsout24100.rte
****************************HYDROGRAPH DATA****************************
               Number of intervals =     0
               Time interval =    0.0 (Min.)
               Maximum/Peak flow rate =        0.000 (CFS)
               Total volume =       0.000 (Ac.Ft)
       Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
************************************************************************

------------------------------------------------------------------------
```

ATTACHMENT C
Unit Hydrographs
Proposed Condition – Areas A, B1 and B2CD
(100 Year 1-hr, 3-hr, 6-hr, 24-hr storm)

Inflow Hydrographs


LEGADO - HYDROLOGIC WORKMAP
DRAINAGE AREA "A" (PROPOSED)
Tr. 29835–1
43.4 Ac
OFFSITE
DET. BASIN
FLEMING RANCH
ON–SITE
AREA A1
64.9 Ac
OFF–SITE
AREA A
197.2 Ac
UNTREATED FLOW
WQ Basin A1
DET. BASIN A1
DRAINAGE AREA A
262.1+43.4 Ac
305.5 Ac
TREATED FLOW
TO DET. BASIN B

LEGADO - Drainage Area A (Proposed Condition, exclude Tr. 29835-1) = 262.1 Ac

Soil Low Loss Rate Worksheet						
Drainage Area A - 262.1 Ac (Exclude Tr. 29835-1)						
[1]	[2]	[3]	[4]	[5]	[6]	[7]
Subarea	**Area in (Ac)**	**Land Use (Plate D-5.6)**	**% Impervious (Plate D-5.6)**	**Soil Low Loss Rate 0.9-(0.8)* [4]**	**Decimal portion of Area [2] / SUM[2]**	**Average Low Loss Rate [5] * [6]**
	71.5	Natural	4	0.90	0.27	0.25
	5.4	Basins	5	0.86	0.02	0.02
		Res 1/2 Ac	40	0.58	0.00	0.00
	30	Res 1/4 Ac	60	0.42	0.11	0.05
	129.4	Res < 1/4 Ac	70	0.34	0.49	0.17
		Apartment	80	0.26	0.00	0.00
		Mobil Home	75	0.30	0.00	0.00
	25.8	Hospital	75	0.30	0.10	0.03
		Commercial	90	0.18	0.00	0.00
Sum =	262.1				1.00	**0.51**

Manning "n" Value Worksheet					
Drainage Area A - 262.1 Ac (Exclude Tr. 29835-1)					
[1]	[2]	[3]	[4]	[5]	[7]
Subarea	**Area in (Ac)**	**Land Use (Plate D-5.6)**	**"n" Value**	**Decimal portion of Area [2] / SUM[2]**	**Average "n" Value [4] * [5]**
	71.5	Natural	0.04	0.27	0.011
	5.4	Basin	0.025	0.02	0.001
		Res 1/2 Ac	0.015	0.00	0.000
	30	Res 1/4 Ac	0.015	0.11	0.002
	129.4	Res < 1/4 Ac	0.015	0.49	0.007
		School	0.015	0.00	0.000
		Mobil Home	0.015	0.00	0.000
	25.8	Hospital	0.02	0.10	0.002
		Commercial	0.015	0.00	0.000
Sum =	**262.1**			1.00	**0.023**

Runoff Index (RI) Worksheet

Drainage Area A - 262.1 Ac (Exclude Tr. 29835-1)

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Subarea	**Area in (Ac)**	**Soil Group**	**Cover Type**	**RI Number (Plate E6-1)**	**Land Use**	**Decimal portion of Area [2] / SUM[2]**	**Average RI Value [5] * [7]**
Natural	24.4	B	grass (fair)	69	Natural	0.34	23.5
	47.1	C	grass (fair)	79	Natural	0.66	52.0
		D	grass (fair)	84	Natural	0.00	0.0
Sum =	*71.5*					1.00	**75.6**
Res 1/4 Ac	15	B	Landscape	56	Res 1/4 Ac	0.50	28.0
	15	C	Landscape	69	Res 1/4 Ac	0.50	34.5
		D	Landscape	75	Res 1/4 Ac	0.00	0.0
Sum =	*30*					1.00	**62.5**
Res < 1/4 Ac		B	Landscape	56	Res < 1/4 Ac	0.00	0.0
	67.4	C	Landscape	69	Res < 1/4 Ac	0.52	35.9
	62	D	Landscape	75	Res < 1/4 Ac	0.48	35.9
Sum =	*129.4*					1.00	**71.9**
Basin		B	Landscape	60	Basin	0.00	0.0
		C	Landscape	70	Basin	0.00	0.0
	5.4	D	Landscape	80	Basin	1.00	80.0
Sum =	*5.4*					1.00	**80.0**

Hospital		B	Landscape	56	Commercial	0.00	0.0
	25.8	C	Landscape	69	Commercial	1.00	69.0
		D	Landscape	75	Commercial	0.00	0.0
Sum =	*25.8*					1.00	**69.0**
Sum =	*262.1*						

```
       U n i t   H y d r o g r a p h   A n a l y s i s

       Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
              Study date  04/22/19 File: lgareaa1100.out

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------------------------------------------------------------------------------

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Legado
Proposed Condition
100-year 1-hour storm Hydrograph
Drainage Area A = 262.1 Ac (Exclude Tr. 29835-1)

------------------------------------------------------------------------
Drainage Area =     262.10(Ac.)  =      0.410 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     262.10(Ac.)  =      0.410 Sq. Mi.
Length along longest watercourse =    8206.00(Ft.)
Length along longest watercourse measured to centroid =    3010.00(Ft.)
Length along longest watercourse =      1.554 Mi.
Length along longest watercourse measured to centroid =      0.570 Mi.
Difference in elevation =     534.00(Ft.)
Slope along watercourse =    343.5925 Ft./Mi.
Average Manning's 'N' = 0.023
Lag time =    0.174 Hr.
Lag time =    10.43 Min.
25% of lag time =     2.61 Min.
40% of lag time =     4.17 Min.
Unit time =     5.00 Min.
Duration of storm = 1 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      262.10           0.52                136.29

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      262.10           1.64                429.84

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.520(In)
Area Averaged 100-Year Rainfall =    1.640(In)

Point rain (area averaged) =    1.640(In)
Areal adjustment factor =   99.76 %
Adjusted average point rain =    1.636(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
```

```
    71.500          75.60         0.040
     5.400          80.00         0.050
    30.000          62.50         0.600
   129.400          71.90         0.700
    25.800          69.00         0.750
 Total Area Entered =    262.10(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
75.6  88.4      0.149     0.040        0.143       0.273      0.039
80.0  91.0      0.117     0.050        0.112       0.021      0.002
62.5  80.0      0.244     0.600        0.112       0.114      0.013
71.9  86.1      0.174     0.700        0.064       0.494      0.032
69.0  84.4      0.194     0.750        0.063       0.098      0.006
                                                 Sum (F) =    0.092
Area averaged mean soil loss (F) (In/Hr) =  0.092
Minimum soil loss rate ((In/Hr)) =  0.046
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.510
------------------------------------------------------------------------
Slope of intensity-duration curve for a 1 hour storm =0.5000
------------------------------------------------------------------------

                U n i t  H y d r o g r a p h
                       VALLEY S-Curve
------------------------------------------------------------------------
                Unit Hydrograph Data
------------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                          Graph %            (CFS)
------------------------------------------------------------------------
    1   0.083         47.941          5.743             15.169
    2   0.167         95.881         24.396             64.442
    3   0.250        143.822         28.931             76.422
    4   0.333        191.763         13.743             36.303
    5   0.417        239.704          7.010             18.516
    6   0.500        287.644          4.840             12.785
    7   0.583        335.585          3.514              9.283
    8   0.667        383.526          2.708              7.153
    9   0.750        431.466          2.020              5.336
   10   0.833        479.407          1.550              4.094
   11   0.917        527.348          1.383              3.653
   12   1.000        575.289          1.063              2.809
   13   1.083        623.229          0.862              2.276
   14   1.167        671.170          0.678              1.791
   15   1.250        719.111          0.509              1.345
   16   1.333        767.051          0.479              1.266
   17   1.417        814.992          0.569              1.503
                                Sum = 100.000   Sum=     264.148
------------------------------------------------------------------------

 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

 Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
      (Hr.)  Percent   (In/Hr)         Max   |   Low         (In/Hr)
  1   0.08     4.20      0.825          0.092    (  0.421)        0.732
  2   0.17     4.30      0.844          0.092    (  0.431)        0.752
  3   0.25     5.00      0.982          0.092    (  0.501)        0.889
  4   0.33     5.00      0.982          0.092    (  0.501)        0.889
  5   0.42     5.80      1.139          0.092    (  0.581)        1.046
  6   0.50     6.50      1.276          0.092    (  0.651)        1.184
  7   0.58     7.40      1.453          0.092    (  0.741)        1.361
  8   0.67     8.60      1.688          0.092    (  0.861)        1.596
  9   0.75    12.30      2.415          0.092    (  1.232)        2.323
 10   0.83    29.10      5.713          0.092    (  2.914)        5.621
 11   0.92     6.80      1.335          0.092    (  0.681)        1.243
 12   1.00     5.00      0.982          0.092    (  0.501)        0.889
```

```
             (Loss Rate Not Used)
    Sum =     100.0                                    Sum =    18.5
       Flood volume = Effective rainfall      1.54(In)
        times area     262.1(Ac.)/[(In)/(Ft.)] =      33.7(Ac.Ft)
       Total soil loss =      0.09(In)
       Total soil loss =     2.015(Ac.Ft)
       Total rainfall =      1.64(In)
       Flood volume =     1468869.0 Cubic Feet
       Total soil loss =       87758.5 Cubic Feet
       ---------------------------------------------------------------------
        Peak flow rate of this hydrograph =    686.443(CFS)
       ---------------------------------------------------------------------
       +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          1 - H O U R    S T O R M
                     R u n o f f      H y d r o g r a p h
       ---------------------------------------------------------------------
                   Hydrograph in   5   Minute intervals ((CFS))

       ---------------------------------------------------------------------
  Time(h+m) Volume Ac.Ft   Q(CFS)  0      175.0     350.0     525.0     700.0
  ----------------------------------------------------------------------
    0+ 5       0.0765     11.11  Q         |         |         |         |
    0+10       0.4803     58.63  V  Q      |         |         |         |
    0+15       1.2929    117.98  |V    Q   |         |         |         |
    0+20       2.3600    154.94  | V     Q |         |         |         |
    0+25       3.6142    182.11  |   V     Q         |         |         |
    0+30       5.0540    209.05  |    V    |Q        |         |         |
    0+35       6.7220    242.20  |      V  |  Q      |         |         |
    0+40       8.6543    280.57  |         V     Q   |         |         |
    0+45      10.9513    333.52  |         | V      Q|         |         |
    0+50      14.1434    463.49  |         |     V   |     Q   |         |
    0+55      18.8527    683.79  |         |         | V       |        Q|
    1+ 0      23.5802    686.44  |         |         |      V  |        Q|
    1+ 5      26.7301    457.36  |         |         |     Q   |V        |
    1+10      28.7338    290.94  |         |     Q   |         |   V     |
    1+15      29.9943    183.03  |         Q         |         |    V    |
    1+20      30.8767    128.13  |       Q |         |         |     V   |
    1+25      31.5490     97.62  |    Q    |         |         |      V  |
    1+30      32.0612     74.37  |   Q     |         |         |       V |
    1+35      32.4613     58.10  |  Q      |         |         |       V |
    1+40      32.7867     47.24  | Q       |         |         |       V |
    1+45      33.0418     37.04  | Q       |         |         |        V|
    1+50      33.2440     29.36  |Q        |         |         |        V|
    1+55      33.3996     22.60  |Q        |         |         |        V|
    2+ 0      33.5178     17.16  Q         |         |         |        V|
    2+ 5      33.6134     13.88  Q         |         |         |        V|
    2+10      33.6907     11.23  Q         |         |         |        V|
    2+15      33.7114      3.00  Q         |         |         |        V|
    2+20      33.7206      1.34  Q         |         |         |         V
  ----------------------------------------------------------------------
```

```
       U n i t   H y d r o g r a p h   A n a l y s i s

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              Study date  04/22/19 File: lgareaa3100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Legado
Proposed Condition
100-year 3-hour storm Hydrograph
Drainage Area A = 262.1 Ac (Exclude Tr. 29835-1)

------------------------------------------------------------------------
Drainage Area =     262.10(Ac.)  =      0.410 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     262.10(Ac.)  =      0.410 Sq. Mi.
Length along longest watercourse =    8206.00(Ft.)
Length along longest watercourse measured to centroid =    3010.00(Ft.)
Length along longest watercourse =      1.554 Mi.
Length along longest watercourse measured to centroid =      0.570 Mi.
Difference in elevation =     534.00(Ft.)
Slope along watercourse =    343.5925 Ft./Mi.
Average Manning's 'N' = 0.023
Lag time =    0.174 Hr.
Lag time =    10.43 Min.
25% of lag time =     2.61 Min.
40% of lag time =     4.17 Min.
Unit time =     5.00 Min.
Duration of storm = 3 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      262.10           0.86                225.41

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      262.10           2.27                594.97

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.860(In)
Area Averaged 100-Year Rainfall =    2.270(In)

Point rain (area averaged) =    2.270(In)
Areal adjustment factor =   99.89 %
Adjusted average point rain =    2.267(In)

Sub-Area Data:
```

Area(Ac.)	Runoff Index	Impervious %
71.500	75.60	0.040
5.400	80.00	0.050
30.000	62.50	0.600
129.400	71.90	0.700
25.800	69.00	0.750

Total Area Entered = 262.10(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
75.6	88.4	0.149	0.040	0.143	0.273	0.039
80.0	91.0	0.117	0.050	0.112	0.021	0.002
62.5	80.0	0.244	0.600	0.112	0.114	0.013
71.9	86.1	0.174	0.700	0.064	0.494	0.032
69.0	84.4	0.194	0.750	0.063	0.098	0.006
					Sum (F) =	0.092

Area averaged mean soil loss (F) (In/Hr) = 0.092
Minimum soil loss rate ((In/Hr)) = 0.046
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.510

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	47.941	5.743	15.169
2	0.167	95.881	24.396	64.442
3	0.250	143.822	28.931	76.422
4	0.333	191.763	13.743	36.303
5	0.417	239.704	7.010	18.516
6	0.500	287.644	4.840	12.785
7	0.583	335.585	3.514	9.283
8	0.667	383.526	2.708	7.153
9	0.750	431.466	2.020	5.336
10	0.833	479.407	1.550	4.094
11	0.917	527.348	1.383	3.653
12	1.000	575.289	1.063	2.809
13	1.083	623.229	0.862	2.276
14	1.167	671.170	0.678	1.791
15	1.250	719.111	0.509	1.345
16	1.333	767.051	0.479	1.266
17	1.417	814.992	0.569	1.503
			Sum = 100.000	Sum= 264.148

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	1.30	0.354	0.092	(0.180)	0.261
2	0.17	1.30	0.354	0.092	(0.180)	0.261
3	0.25	1.10	0.299	0.092	(0.153)	0.207
4	0.33	1.50	0.408	0.092	(0.208)	0.316
5	0.42	1.50	0.408	0.092	(0.208)	0.316
6	0.50	1.80	0.490	0.092	(0.250)	0.398
7	0.58	1.50	0.408	0.092	(0.208)	0.316
8	0.67	1.80	0.490	0.092	(0.250)	0.398
9	0.75	1.80	0.490	0.092	(0.250)	0.398
10	0.83	1.50	0.408	0.092	(0.208)	0.316
11	0.92	1.60	0.435	0.092	(0.222)	0.343
12	1.00	1.80	0.490	0.092	(0.250)	0.398
13	1.08	2.20	0.599	0.092	(0.305)	0.506

```
14   1.17     2.20      0.599          0.092    (  0.305)        0.506
15   1.25     2.20      0.599          0.092    (  0.305)        0.506
16   1.33     2.00      0.544          0.092    (  0.278)        0.452
17   1.42     2.60      0.707          0.092    (  0.361)        0.615
18   1.50     2.70      0.735          0.092    (  0.375)        0.642
19   1.58     2.40      0.653          0.092    (  0.333)        0.561
20   1.67     2.70      0.735          0.092    (  0.375)        0.642
21   1.75     3.30      0.898          0.092    (  0.458)        0.806
22   1.83     3.10      0.843          0.092    (  0.430)        0.751
23   1.92     2.90      0.789          0.092    (  0.402)        0.697
24   2.00     3.00      0.816          0.092    (  0.416)        0.724
25   2.08     3.10      0.843          0.092    (  0.430)        0.751
26   2.17     4.20      1.143          0.092    (  0.583)        1.051
27   2.25     5.00      1.360          0.092    (  0.694)        1.268
28   2.33     3.50      0.952          0.092    (  0.486)        0.860
29   2.42     6.80      1.850          0.092    (  0.944)        1.758
30   2.50     7.30      1.986          0.092    (  1.013)        1.894
31   2.58     8.20      2.231          0.092    (  1.138)        2.139
32   2.67     5.90      1.605          0.092    (  0.819)        1.513
33   2.75     2.00      0.544          0.092    (  0.278)        0.452
34   2.83     1.80      0.490          0.092    (  0.250)        0.398
35   2.92     1.80      0.490          0.092    (  0.250)        0.398
36   3.00     0.60      0.163       (  0.092)       0.083        0.080
              (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    23.9
      Flood volume = Effective rainfall      1.99(In)
       times area     262.1(Ac.)/[(In)/(Ft.)] =      43.5(Ac.Ft)
      Total soil loss =      0.28(In)
      Total soil loss =     6.028(Ac.Ft)
      Total rainfall =      2.27(In)
      Flood volume =     1894690.1 Cubic Feet
      Total soil loss =      262563.6 Cubic Feet
      --------------------------------------------------------------------
       Peak flow rate of this hydrograph =    433.349(CFS)
      --------------------------------------------------------------------
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          3 - H O U R    S T O R M
                     R u n o f f      H y d r o g r a p h
      --------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      --------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0      125.0     250.0     375.0     500.0
-------------------------------------------------------------------------
  0+ 5       0.0273      3.97  Q         |         |         |         |
  0+10       0.1708     20.83  VQ        |         |         |         |
  0+15       0.4462     39.99  V  Q      |         |         |         |
  0+20       0.7743     47.63  V  Q      |         |         |         |
  0+25       1.1554     55.33  |V  Q     |         |         |         |
  0+30       1.6117     66.26  |V   Q    |         |         |         |
  0+35       2.1328     75.66  |V    Q   |         |         |         |
  0+40       2.6911     81.07  | V   Q   |         |         |         |
  0+45       3.2788     85.34  |  V  Q   |         |         |         |
  0+50       3.9027     90.58  |  V   Q  |         |         |         |
  0+55       4.5203     89.67  |   V  Q  |         |         |         |
  1+ 0       5.1286     88.33  |   V  Q  |         |         |         |
  1+ 5       5.7782     94.32  |    V Q  |         |         |         |
  1+10       6.5102    106.30  |    V  Q |         |         |         |
  1+15       7.3165    117.07  |     V  Q|         |         |         |
  1+20       8.1545    121.68  |      V Q|         |         |         |
  1+25       9.0072    123.81  |       VQ|         |         |         |
  1+30       9.9202    132.57  |        VQ         |         |         |
  1+35      10.9192    145.05  |         VQ        |         |         |
  1+40      11.9469    149.23  |         VQ        |         |         |
  1+45      13.0134    154.86  |         |VQ       |         |         |
  1+50      14.1882    170.58  |         |  Q      |         |         |
  1+55      15.4424    182.11  |         |   Q     |         |         |
  2+ 0      16.7018    182.87  |         |   QV    |         |         |
  2+ 5      17.9645    183.33  |         |   Q V   |         |         |
  2+10      19.2853    191.78  |         |    Q V  |         |         |
```

```
   2+15      20.7882    218.22  |          |       Q V|          |          |
   2+20      22.5179    251.16  |          |          Q          |          |
   2+25      24.3593    267.37  |          |          |QV        |          |
   2+30      26.4978    310.51  |          |          |   Q      |          |
   2+35      29.1525    385.46  |          |          |     V   Q          |
   2+40      32.1370    433.35  |          |          |         V|   Q      |
   2+45      35.0070    416.73  |          |          |          | VQ       |
   2+50      37.2259    322.18  |          |          |    Q     |   V      |
   2+55      38.8033    229.04  |          |        Q |          |    V     |
   3+ 0      40.0488    180.85  |          |   Q      |          |     V    |
   3+ 5      40.9975    137.75  |          |Q         |          |      V   |
   3+10      41.6436     93.81  |       Q  |          |          |       V  |
   3+15      42.0991     66.15  |     Q    |          |          |       V  |
   3+20      42.4427     49.88  |  Q       |          |          |        V|
   3+25      42.7114     39.03  |  Q       |          |          |        V|
   3+30      42.9243     30.91  | Q        |          |          |        V|
   3+35      43.0886     23.86  |Q         |          |          |        V|
   3+40      43.2135     18.13  |Q         |          |          |        V|
   3+45      43.3138     14.56  |Q         |          |          |        V|
   3+50      43.3876     10.72  Q          |          |          |        V|
   3+55      43.4398      7.59  Q          |          |          |        V|
   4+ 0      43.4693      4.28  Q          |          |          |        V|
   4+ 5      43.4821      1.86  Q          |          |          |        V|
   4+10      43.4905      1.21  Q          |          |          |        V|
   4+15      43.4953      0.70  Q          |          |          |        V|
   4+20      43.4961      0.12  Q          |          |          |        V|
-------------------------------------------------------------------------
```

```
       U n i t   H y d r o g r a p h   A n a l y s i s

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              Study date  04/22/19 File: lgareaa6100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

----------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



----------------------------------------------------------------------
Legado
Proposed Condition
100-year 6-hour storm Hydrograph
Drainage Area A = 262.1 Ac (Exclude Tr. 29835-1)

----------------------------------------------------------------------
Drainage Area =     262.10(Ac.)  =      0.410 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     262.10(Ac.)  =      0.410 Sq. Mi.
Length along longest watercourse =    8206.00(Ft.)
Length along longest watercourse measured to centroid =    3010.00(Ft.)
Length along longest watercourse =      1.554 Mi.
Length along longest watercourse measured to centroid =      0.570 Mi.
Difference in elevation =     534.00(Ft.)
Slope along watercourse =    343.5925 Ft./Mi.
Average Manning's 'N' = 0.023
Lag time =    0.174 Hr.
Lag time =    10.43 Min.
25% of lag time =     2.61 Min.
40% of lag time =     4.17 Min.
Unit time =     5.00 Min.
Duration of storm = 6 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      262.10           1.19                311.90

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      262.10           2.98                781.06

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    1.190(In)
Area Averaged 100-Year Rainfall =    2.980(In)

Point rain (area averaged) =    2.980(In)
Areal adjustment factor =   99.91 %
Adjusted average point rain =    2.977(In)

Sub-Area Data:
```

Area(Ac.)	Runoff Index	Impervious %
71.500	75.60	0.040
5.400	80.00	0.050
30.000	62.50	0.600
129.400	71.90	0.700
25.800	69.00	0.750

Total Area Entered = 262.10(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
75.6	88.4	0.149	0.040	0.143	0.273	0.039
80.0	91.0	0.117	0.050	0.112	0.021	0.002
62.5	80.0	0.244	0.600	0.112	0.114	0.013
71.9	86.1	0.174	0.700	0.064	0.494	0.032
69.0	84.4	0.194	0.750	0.063	0.098	0.006
					Sum (F) =	0.092

Area averaged mean soil loss (F) (In/Hr) = 0.092
Minimum soil loss rate ((In/Hr)) = 0.046
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.510

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	47.941	5.743	15.169
2	0.167	95.881	24.396	64.442
3	0.250	143.822	28.931	76.422
4	0.333	191.763	13.743	36.303
5	0.417	239.704	7.010	18.516
6	0.500	287.644	4.840	12.785
7	0.583	335.585	3.514	9.283
8	0.667	383.526	2.708	7.153
9	0.750	431.466	2.020	5.336
10	0.833	479.407	1.550	4.094
11	0.917	527.348	1.383	3.653
12	1.000	575.289	1.063	2.809
13	1.083	623.229	0.862	2.276
14	1.167	671.170	0.678	1.791
15	1.250	719.111	0.509	1.345
16	1.333	767.051	0.479	1.266
17	1.417	814.992	0.569	1.503
			Sum = 100.000	Sum= 264.148

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.50	0.179	(0.092)	0.091	0.088
2	0.17	0.60	0.214	0.092	(0.109)	0.122
3	0.25	0.60	0.214	0.092	(0.109)	0.122
4	0.33	0.60	0.214	0.092	(0.109)	0.122
5	0.42	0.60	0.214	0.092	(0.109)	0.122
6	0.50	0.70	0.250	0.092	(0.128)	0.158
7	0.58	0.70	0.250	0.092	(0.128)	0.158
8	0.67	0.70	0.250	0.092	(0.128)	0.158
9	0.75	0.70	0.250	0.092	(0.128)	0.158
10	0.83	0.70	0.250	0.092	(0.128)	0.158
11	0.92	0.70	0.250	0.092	(0.128)	0.158
12	1.00	0.80	0.286	0.092	(0.146)	0.194
13	1.08	0.80	0.286	0.092	(0.146)	0.194

14	1.17	0.80	0.286	0.092	(0.146)	0.194
15	1.25	0.80	0.286	0.092	(0.146)	0.194
16	1.33	0.80	0.286	0.092	(0.146)	0.194
17	1.42	0.80	0.286	0.092	(0.146)	0.194
18	1.50	0.80	0.286	0.092	(0.146)	0.194
19	1.58	0.80	0.286	0.092	(0.146)	0.194
20	1.67	0.80	0.286	0.092	(0.146)	0.194
21	1.75	0.80	0.286	0.092	(0.146)	0.194
22	1.83	0.80	0.286	0.092	(0.146)	0.194
23	1.92	0.80	0.286	0.092	(0.146)	0.194
24	2.00	0.90	0.322	0.092	(0.164)	0.229
25	2.08	0.80	0.286	0.092	(0.146)	0.194
26	2.17	0.90	0.322	0.092	(0.164)	0.229
27	2.25	0.90	0.322	0.092	(0.164)	0.229
28	2.33	0.90	0.322	0.092	(0.164)	0.229
29	2.42	0.90	0.322	0.092	(0.164)	0.229
30	2.50	0.90	0.322	0.092	(0.164)	0.229
31	2.58	0.90	0.322	0.092	(0.164)	0.229
32	2.67	0.90	0.322	0.092	(0.164)	0.229
33	2.75	1.00	0.357	0.092	(0.182)	0.265
34	2.83	1.00	0.357	0.092	(0.182)	0.265
35	2.92	1.00	0.357	0.092	(0.182)	0.265
36	3.00	1.00	0.357	0.092	(0.182)	0.265
37	3.08	1.00	0.357	0.092	(0.182)	0.265
38	3.17	1.10	0.393	0.092	(0.200)	0.301
39	3.25	1.10	0.393	0.092	(0.200)	0.301
40	3.33	1.10	0.393	0.092	(0.200)	0.301
41	3.42	1.20	0.429	0.092	(0.219)	0.336
42	3.50	1.30	0.464	0.092	(0.237)	0.372
43	3.58	1.40	0.500	0.092	(0.255)	0.408
44	3.67	1.40	0.500	0.092	(0.255)	0.408
45	3.75	1.50	0.536	0.092	(0.273)	0.444
46	3.83	1.50	0.536	0.092	(0.273)	0.444
47	3.92	1.60	0.572	0.092	(0.292)	0.479
48	4.00	1.60	0.572	0.092	(0.292)	0.479
49	4.08	1.70	0.607	0.092	(0.310)	0.515
50	4.17	1.80	0.643	0.092	(0.328)	0.551
51	4.25	1.90	0.679	0.092	(0.346)	0.587
52	4.33	2.00	0.715	0.092	(0.364)	0.622
53	4.42	2.10	0.750	0.092	(0.383)	0.658
54	4.50	2.10	0.750	0.092	(0.383)	0.658
55	4.58	2.20	0.786	0.092	(0.401)	0.694
56	4.67	2.30	0.822	0.092	(0.419)	0.729
57	4.75	2.40	0.857	0.092	(0.437)	0.765
58	4.83	2.40	0.857	0.092	(0.437)	0.765
59	4.92	2.50	0.893	0.092	(0.456)	0.801
60	5.00	2.60	0.929	0.092	(0.474)	0.837
61	5.08	3.10	1.108	0.092	(0.565)	1.015
62	5.17	3.60	1.286	0.092	(0.656)	1.194
63	5.25	3.90	1.393	0.092	(0.711)	1.301
64	5.33	4.20	1.501	0.092	(0.765)	1.408
65	5.42	4.70	1.679	0.092	(0.856)	1.587
66	5.50	5.60	2.001	0.092	(1.020)	1.909
67	5.58	1.90	0.679	0.092	(0.346)	0.587
68	5.67	0.90	0.322	0.092	(0.164)	0.229
69	5.75	0.60	0.214	0.092	(0.109)	0.122
70	5.83	0.50	0.179	(0.092)	0.091	0.088
71	5.92	0.30	0.107	(0.092)	0.055	0.053
72	6.00	0.20	0.071	(0.092)	0.036	0.035

(Loss Rate Not Used)

Sum = 100.0 Sum = 29.2

Flood volume = Effective rainfall 2.43(In)
times area 262.1(Ac.)/[(In)/(Ft.)] = 53.1(Ac.Ft)
Total soil loss = 0.55(In)
Total soil loss = 11.914(Ac.Ft)
Total rainfall = 2.98(In)
Flood volume = 2313717.7 Cubic Feet
Total soil loss = 518968.3 Cubic Feet

Peak flow rate of this hydrograph = 376.817(CFS)

6 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0 100.0 200.0 300.0 400.0
0+ 5	0.0091	1.33	Q
0+10	0.0608	7.50	Q
0+15	0.1739	16.42	VQ
0+20	0.3271	22.25	V Q
0+25	0.5001	25.12	V Q
0+30	0.6890	27.43	V Q
0+35	0.9024	30.99	V Q
0+40	1.1411	34.66	V Q
0+45	1.3937	36.68	|V Q
0+50	1.6546	37.88	|V Q
0+55	1.9218	38.80	|V Q
1+ 0	2.1976	40.05	|V Q
1+ 5	2.4931	42.90	|V Q
1+10	2.8104	46.06	| V Q
1+15	3.1388	47.69	| V Q
1+20	3.4737	48.64	| V Q
1+25	3.8137	49.37	| V Q
1+30	4.1569	49.83	| VQ
1+35	4.5023	50.15	| V Q
1+40	4.8494	50.39	| V Q
1+45	5.1978	50.58	| V Q
1+50	5.5474	50.77	| VQ
1+55	5.8977	50.87	| VQ
2+ 0	6.2524	51.49	| VQ
2+ 5	6.6196	53.32	| VQ
2+10	6.9938	54.34	| Q
2+15	7.3743	55.25	| Q
2+20	7.7696	57.40	| Q
2+25	8.1725	58.49	| QV
2+30	8.5790	59.03	| QV
2+35	8.9882	59.41	| QV
2+40	9.3992	59.68	| Q V
2+45	9.8154	60.43	| QV
2+50	10.2486	62.91	| QV
2+55	10.7015	65.76	| Q V
3+ 0	11.1641	67.17	| Q V
3+ 5	11.6318	67.91	| Q V
3+10	12.1068	68.98	| Q V|
3+15	12.6005	71.67	| Q V|
3+20	13.1150	74.72	| Q V|
3+25	13.6435	76.74	| Q V
3+30	14.1976	80.45	| Q V
3+35	14.7941	86.61	| Q |V
3+40	15.4372	93.38	| Q|V
3+45	16.1187	98.95	| Q| V
3+50	16.8344	103.92	| Q V
3+55	17.5840	108.84	| Q V
4+ 0	18.3668	113.66	| |Q V
4+ 5	19.1831	118.53	| |Q V
4+10	20.0358	123.81	| | Q V
4+15	20.9374	130.91	| | Q V
4+20	21.8942	138.92	| | Q V
4+25	22.9089	147.34	| | Q V
4+30	23.9798	155.49	| | Q V
4+35	25.0957	162.03	| | Q V
4+40	26.2547	168.29	| | Q V|
4+45	27.4676	176.12	| | Q V
4+50	28.7355	184.10	| | Q |V
4+55	30.0480	190.57	| | Q| V
5+ 0	31.4031	196.77	| | Q| V

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    5+ 5      32.8268    206.71  |          |          Q   V     |          |
    5+10      34.3873    226.58  |          |          | Q  V    |          |
    5+15      36.1545    256.60  |          |          |    Q V  |          |
    5+20      38.1334    287.34  |          |          |       Q |          |
    5+25      40.3132    316.50  |          |          |         VQ         |
    5+30      42.7358    351.76  |          |          |          | V  Q    |
    5+35      45.3310    376.82  |          |          |          |   V  Q  |
    5+40      47.5639    324.21  |          |          |          | Q  V    |
    5+45      49.0693    218.59  |          |          |Q         |     V   |
    5+50      50.0879    147.90  |          |   Q      |          |      V  |
    5+55      50.8337    108.30  |          Q          |          |       V |
    6+ 0      51.4011     82.39  |        Q |          |          |       V |
    6+ 5      51.8358     63.12  |      Q   |          |          |        V|
    6+10      52.1624     47.42  |    Q     |          |          |        V|
    6+15      52.4075     35.58  |  Q       |          |          |        V|
    6+20      52.5987     27.76  | Q        |          |          |        V|
    6+25      52.7474     21.59  | Q        |          |          |        V|
    6+30      52.8623     16.69  |Q         |          |          |        V|
    6+35      52.9492     12.61  |Q         |          |          |        V|
    6+40      53.0135      9.34  Q          |          |          |        V|
    6+45      53.0608      6.87  Q          |          |          |        V|
    6+50      53.0926      4.62  Q          |          |          |        V|
    6+55      53.1044      1.71  Q          |          |          |        V|
    7+ 0      53.1098      0.79  Q          |          |          |        V|
    7+ 5      53.1127      0.43  Q          |          |          |        V|
    7+10      53.1144      0.25  Q          |          |          |        V|
    7+15      53.1153      0.12  Q          |          |          |        V|
    7+20      53.1157      0.05  Q          |          |          |        V|
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       U n i t   H y d r o g r a p h   A n a l y s i s

       Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
              Study date  04/22/19 File: lgareaa24100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

----------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



----------------------------------------------------------------------
Legado
Proposed Condition
100-year 24-hour storm Hydrograph
Drainage Area A = 262.1 Ac (Exclude Tr. 29835-1)

----------------------------------------------------------------------
Drainage Area =     262.10(Ac.)  =      0.410 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     262.10(Ac.)  =      0.410 Sq. Mi.
Length along longest watercourse =    8206.00(Ft.)
Length along longest watercourse measured to centroid =    3010.00(Ft.)
Length along longest watercourse =      1.554 Mi.
Length along longest watercourse measured to centroid =      0.570 Mi.
Difference in elevation =     534.00(Ft.)
Slope along watercourse =    343.5925 Ft./Mi.
Average Manning's 'N' = 0.023
Lag time =    0.174 Hr.
Lag time =    10.43 Min.
25% of lag time =     2.61 Min.
40% of lag time =     4.17 Min.
Unit time =     5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      262.10           2.03                532.06

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      262.10           5.33               1396.99

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    2.030(In)
Area Averaged 100-Year Rainfall =    5.330(In)

Point rain (area averaged) =    5.330(In)
Areal adjustment factor =   99.95 %
Adjusted average point rain =    5.327(In)

Sub-Area Data:
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Area(Ac.)	Runoff Index	Impervious %
71.500	75.60	0.040
5.400	80.00	0.050
30.000	62.50	0.600
129.400	71.90	0.700
25.800	69.00	0.750

Total Area Entered = 262.10(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
75.6	88.4	0.149	0.040	0.143	0.273	0.039
80.0	91.0	0.117	0.050	0.112	0.021	0.002
62.5	80.0	0.244	0.600	0.112	0.114	0.013
71.9	86.1	0.174	0.700	0.064	0.494	0.032
69.0	84.4	0.194	0.750	0.063	0.098	0.006
					Sum (F) =	0.092

Area averaged mean soil loss (F) (In/Hr) = 0.092
Minimum soil loss rate ((In/Hr)) = 0.046
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.510

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	47.941	5.743	15.169
2	0.167	95.881	24.396	64.442
3	0.250	143.822	28.931	76.422
4	0.333	191.763	13.743	36.303
5	0.417	239.704	7.010	18.516
6	0.500	287.644	4.840	12.785
7	0.583	335.585	3.514	9.283
8	0.667	383.526	2.708	7.153
9	0.750	431.466	2.020	5.336
10	0.833	479.407	1.550	4.094
11	0.917	527.348	1.383	3.653
12	1.000	575.289	1.063	2.809
13	1.083	623.229	0.862	2.276
14	1.167	671.170	0.678	1.791
15	1.250	719.111	0.509	1.345
16	1.333	767.051	0.479	1.266
17	1.417	814.992	0.569	1.503
			Sum = 100.000	Sum= 264.148

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.043	(0.164)	0.022	0.021
2	0.17	0.07	0.043	(0.163)	0.022	0.021
3	0.25	0.07	0.043	(0.162)	0.022	0.021
4	0.33	0.10	0.064	(0.162)	0.033	0.031
5	0.42	0.10	0.064	(0.161)	0.033	0.031
6	0.50	0.10	0.064	(0.160)	0.033	0.031
7	0.58	0.10	0.064	(0.160)	0.033	0.031
8	0.67	0.10	0.064	(0.159)	0.033	0.031
9	0.75	0.10	0.064	(0.158)	0.033	0.031
10	0.83	0.13	0.085	(0.158)	0.043	0.042
11	0.92	0.13	0.085	(0.157)	0.043	0.042
12	1.00	0.13	0.085	(0.157)	0.043	0.042
13	1.08	0.10	0.064	(0.156)	0.033	0.031

14	1.17	0.10	0.064	(0.155)	0.033	0.031
15	1.25	0.10	0.064	(0.155)	0.033	0.031
16	1.33	0.10	0.064	(0.154)	0.033	0.031
17	1.42	0.10	0.064	(0.154)	0.033	0.031
18	1.50	0.10	0.064	(0.153)	0.033	0.031
19	1.58	0.10	0.064	(0.152)	0.033	0.031
20	1.67	0.10	0.064	(0.152)	0.033	0.031
21	1.75	0.10	0.064	(0.151)	0.033	0.031
22	1.83	0.13	0.085	(0.150)	0.043	0.042
23	1.92	0.13	0.085	(0.150)	0.043	0.042
24	2.00	0.13	0.085	(0.149)	0.043	0.042
25	2.08	0.13	0.085	(0.149)	0.043	0.042
26	2.17	0.13	0.085	(0.148)	0.043	0.042
27	2.25	0.13	0.085	(0.147)	0.043	0.042
28	2.33	0.13	0.085	(0.147)	0.043	0.042
29	2.42	0.13	0.085	(0.146)	0.043	0.042
30	2.50	0.13	0.085	(0.146)	0.043	0.042
31	2.58	0.17	0.107	(0.145)	0.054	0.052
32	2.67	0.17	0.107	(0.144)	0.054	0.052
33	2.75	0.17	0.107	(0.144)	0.054	0.052
34	2.83	0.17	0.107	(0.143)	0.054	0.052
35	2.92	0.17	0.107	(0.143)	0.054	0.052
36	3.00	0.17	0.107	(0.142)	0.054	0.052
37	3.08	0.17	0.107	(0.142)	0.054	0.052
38	3.17	0.17	0.107	(0.141)	0.054	0.052
39	3.25	0.17	0.107	(0.140)	0.054	0.052
40	3.33	0.17	0.107	(0.140)	0.054	0.052
41	3.42	0.17	0.107	(0.139)	0.054	0.052
42	3.50	0.17	0.107	(0.139)	0.054	0.052
43	3.58	0.17	0.107	(0.138)	0.054	0.052
44	3.67	0.17	0.107	(0.137)	0.054	0.052
45	3.75	0.17	0.107	(0.137)	0.054	0.052
46	3.83	0.20	0.128	(0.136)	0.065	0.063
47	3.92	0.20	0.128	(0.136)	0.065	0.063
48	4.00	0.20	0.128	(0.135)	0.065	0.063
49	4.08	0.20	0.128	(0.135)	0.065	0.063
50	4.17	0.20	0.128	(0.134)	0.065	0.063
51	4.25	0.20	0.128	(0.133)	0.065	0.063
52	4.33	0.23	0.149	(0.133)	0.076	0.073
53	4.42	0.23	0.149	(0.132)	0.076	0.073
54	4.50	0.23	0.149	(0.132)	0.076	0.073
55	4.58	0.23	0.149	(0.131)	0.076	0.073
56	4.67	0.23	0.149	(0.131)	0.076	0.073
57	4.75	0.23	0.149	(0.130)	0.076	0.073
58	4.83	0.27	0.170	(0.129)	0.087	0.084
59	4.92	0.27	0.170	(0.129)	0.087	0.084
60	5.00	0.27	0.170	(0.128)	0.087	0.084
61	5.08	0.20	0.128	(0.128)	0.065	0.063
62	5.17	0.20	0.128	(0.127)	0.065	0.063
63	5.25	0.20	0.128	(0.127)	0.065	0.063
64	5.33	0.23	0.149	(0.126)	0.076	0.073
65	5.42	0.23	0.149	(0.126)	0.076	0.073
66	5.50	0.23	0.149	(0.125)	0.076	0.073
67	5.58	0.27	0.170	(0.124)	0.087	0.084
68	5.67	0.27	0.170	(0.124)	0.087	0.084
69	5.75	0.27	0.170	(0.123)	0.087	0.084
70	5.83	0.27	0.170	(0.123)	0.087	0.084
71	5.92	0.27	0.170	(0.122)	0.087	0.084
72	6.00	0.27	0.170	(0.122)	0.087	0.084
73	6.08	0.30	0.192	(0.121)	0.098	0.094
74	6.17	0.30	0.192	(0.121)	0.098	0.094
75	6.25	0.30	0.192	(0.120)	0.098	0.094
76	6.33	0.30	0.192	(0.120)	0.098	0.094
77	6.42	0.30	0.192	(0.119)	0.098	0.094
78	6.50	0.30	0.192	(0.119)	0.098	0.094
79	6.58	0.33	0.213	(0.118)	0.109	0.104
80	6.67	0.33	0.213	(0.117)	0.109	0.104
81	6.75	0.33	0.213	(0.117)	0.109	0.104
82	6.83	0.33	0.213	(0.116)	0.109	0.104
83	6.92	0.33	0.213	(0.116)	0.109	0.104

84	7.00	0.33	0.213	(0.115)	0.109	0.104
85	7.08	0.33	0.213	(0.115)	0.109	0.104
86	7.17	0.33	0.213	(0.114)	0.109	0.104
87	7.25	0.33	0.213	(0.114)	0.109	0.104
88	7.33	0.37	0.234	0.113	(0.120)	0.121
89	7.42	0.37	0.234	0.113	(0.120)	0.122
90	7.50	0.37	0.234	0.112	(0.120)	0.122
91	7.58	0.40	0.256	0.112	(0.130)	0.144
92	7.67	0.40	0.256	0.111	(0.130)	0.145
93	7.75	0.40	0.256	0.111	(0.130)	0.145
94	7.83	0.43	0.277	0.110	(0.141)	0.167
95	7.92	0.43	0.277	0.110	(0.141)	0.167
96	8.00	0.43	0.277	0.109	(0.141)	0.168
97	8.08	0.50	0.320	0.109	(0.163)	0.211
98	8.17	0.50	0.320	0.108	(0.163)	0.211
99	8.25	0.50	0.320	0.108	(0.163)	0.212
100	8.33	0.50	0.320	0.107	(0.163)	0.212
101	8.42	0.50	0.320	0.107	(0.163)	0.213
102	8.50	0.50	0.320	0.106	(0.163)	0.213
103	8.58	0.53	0.341	0.106	(0.174)	0.235
104	8.67	0.53	0.341	0.105	(0.174)	0.236
105	8.75	0.53	0.341	0.105	(0.174)	0.236
106	8.83	0.57	0.362	0.104	(0.185)	0.258
107	8.92	0.57	0.362	0.104	(0.185)	0.259
108	9.00	0.57	0.362	0.103	(0.185)	0.259
109	9.08	0.63	0.405	0.103	(0.206)	0.302
110	9.17	0.63	0.405	0.102	(0.206)	0.303
111	9.25	0.63	0.405	0.102	(0.206)	0.303
112	9.33	0.67	0.426	0.101	(0.217)	0.325
113	9.42	0.67	0.426	0.101	(0.217)	0.325
114	9.50	0.67	0.426	0.100	(0.217)	0.326
115	9.58	0.70	0.447	0.100	(0.228)	0.348
116	9.67	0.70	0.447	0.099	(0.228)	0.348
117	9.75	0.70	0.447	0.099	(0.228)	0.349
118	9.83	0.73	0.469	0.098	(0.239)	0.370
119	9.92	0.73	0.469	0.098	(0.239)	0.371
120	10.00	0.73	0.469	0.097	(0.239)	0.371
121	10.08	0.50	0.320	0.097	(0.163)	0.223
122	10.17	0.50	0.320	0.096	(0.163)	0.223
123	10.25	0.50	0.320	0.096	(0.163)	0.224
124	10.33	0.50	0.320	0.096	(0.163)	0.224
125	10.42	0.50	0.320	0.095	(0.163)	0.225
126	10.50	0.50	0.320	0.095	(0.163)	0.225
127	10.58	0.67	0.426	0.094	(0.217)	0.332
128	10.67	0.67	0.426	0.094	(0.217)	0.333
129	10.75	0.67	0.426	0.093	(0.217)	0.333
130	10.83	0.67	0.426	0.093	(0.217)	0.333
131	10.92	0.67	0.426	0.092	(0.217)	0.334
132	11.00	0.67	0.426	0.092	(0.217)	0.334
133	11.08	0.63	0.405	0.091	(0.206)	0.313
134	11.17	0.63	0.405	0.091	(0.206)	0.314
135	11.25	0.63	0.405	0.091	(0.206)	0.314
136	11.33	0.63	0.405	0.090	(0.206)	0.315
137	11.42	0.63	0.405	0.090	(0.206)	0.315
138	11.50	0.63	0.405	0.089	(0.206)	0.316
139	11.58	0.57	0.362	0.089	(0.185)	0.274
140	11.67	0.57	0.362	0.088	(0.185)	0.274
141	11.75	0.57	0.362	0.088	(0.185)	0.274
142	11.83	0.60	0.384	0.087	(0.196)	0.296
143	11.92	0.60	0.384	0.087	(0.196)	0.297
144	12.00	0.60	0.384	0.087	(0.196)	0.297
145	12.08	0.83	0.533	0.086	(0.272)	0.447
146	12.17	0.83	0.533	0.086	(0.272)	0.447
147	12.25	0.83	0.533	0.085	(0.272)	0.447
148	12.33	0.87	0.554	0.085	(0.283)	0.469
149	12.42	0.87	0.554	0.084	(0.283)	0.470
150	12.50	0.87	0.554	0.084	(0.283)	0.470
151	12.58	0.93	0.597	0.084	(0.304)	0.513
152	12.67	0.93	0.597	0.083	(0.304)	0.514
153	12.75	0.93	0.597	0.083	(0.304)	0.514

154	12.83	0.97	0.618	0.082	(0.315)	0.536
155	12.92	0.97	0.618	0.082	(0.315)	0.536
156	13.00	0.97	0.618	0.081	(0.315)	0.537
157	13.08	1.13	0.725	0.081	(0.369)	0.643
158	13.17	1.13	0.725	0.081	(0.369)	0.644
159	13.25	1.13	0.725	0.080	(0.369)	0.644
160	13.33	1.13	0.725	0.080	(0.369)	0.645
161	13.42	1.13	0.725	0.079	(0.369)	0.645
162	13.50	1.13	0.725	0.079	(0.369)	0.646
163	13.58	0.77	0.490	0.079	(0.250)	0.412
164	13.67	0.77	0.490	0.078	(0.250)	0.412
165	13.75	0.77	0.490	0.078	(0.250)	0.412
166	13.83	0.77	0.490	0.077	(0.250)	0.413
167	13.92	0.77	0.490	0.077	(0.250)	0.413
168	14.00	0.77	0.490	0.077	(0.250)	0.413
169	14.08	0.90	0.575	0.076	(0.293)	0.499
170	14.17	0.90	0.575	0.076	(0.293)	0.500
171	14.25	0.90	0.575	0.075	(0.293)	0.500
172	14.33	0.87	0.554	0.075	(0.283)	0.479
173	14.42	0.87	0.554	0.075	(0.283)	0.479
174	14.50	0.87	0.554	0.074	(0.283)	0.480
175	14.58	0.87	0.554	0.074	(0.283)	0.480
176	14.67	0.87	0.554	0.074	(0.283)	0.480
177	14.75	0.87	0.554	0.073	(0.283)	0.481
178	14.83	0.83	0.533	0.073	(0.272)	0.460
179	14.92	0.83	0.533	0.072	(0.272)	0.460
180	15.00	0.83	0.533	0.072	(0.272)	0.461
181	15.08	0.80	0.511	0.072	(0.261)	0.440
182	15.17	0.80	0.511	0.071	(0.261)	0.440
183	15.25	0.80	0.511	0.071	(0.261)	0.440
184	15.33	0.77	0.490	0.071	(0.250)	0.420
185	15.42	0.77	0.490	0.070	(0.250)	0.420
186	15.50	0.77	0.490	0.070	(0.250)	0.420
187	15.58	0.63	0.405	0.069	(0.206)	0.335
188	15.67	0.63	0.405	0.069	(0.206)	0.336
189	15.75	0.63	0.405	0.069	(0.206)	0.336
190	15.83	0.63	0.405	0.068	(0.206)	0.336
191	15.92	0.63	0.405	0.068	(0.206)	0.337
192	16.00	0.63	0.405	0.068	(0.206)	0.337
193	16.08	0.13	0.085	(0.067)	0.043	0.042
194	16.17	0.13	0.085	(0.067)	0.043	0.042
195	16.25	0.13	0.085	(0.067)	0.043	0.042
196	16.33	0.13	0.085	(0.066)	0.043	0.042
197	16.42	0.13	0.085	(0.066)	0.043	0.042
198	16.50	0.13	0.085	(0.066)	0.043	0.042
199	16.58	0.10	0.064	(0.065)	0.033	0.031
200	16.67	0.10	0.064	(0.065)	0.033	0.031
201	16.75	0.10	0.064	(0.065)	0.033	0.031
202	16.83	0.10	0.064	(0.064)	0.033	0.031
203	16.92	0.10	0.064	(0.064)	0.033	0.031
204	17.00	0.10	0.064	(0.064)	0.033	0.031
205	17.08	0.17	0.107	(0.063)	0.054	0.052
206	17.17	0.17	0.107	(0.063)	0.054	0.052
207	17.25	0.17	0.107	(0.063)	0.054	0.052
208	17.33	0.17	0.107	(0.062)	0.054	0.052
209	17.42	0.17	0.107	(0.062)	0.054	0.052
210	17.50	0.17	0.107	(0.062)	0.054	0.052
211	17.58	0.17	0.107	(0.062)	0.054	0.052
212	17.67	0.17	0.107	(0.061)	0.054	0.052
213	17.75	0.17	0.107	(0.061)	0.054	0.052
214	17.83	0.13	0.085	(0.061)	0.043	0.042
215	17.92	0.13	0.085	(0.060)	0.043	0.042
216	18.00	0.13	0.085	(0.060)	0.043	0.042
217	18.08	0.13	0.085	(0.060)	0.043	0.042
218	18.17	0.13	0.085	(0.059)	0.043	0.042
219	18.25	0.13	0.085	(0.059)	0.043	0.042
220	18.33	0.13	0.085	(0.059)	0.043	0.042
221	18.42	0.13	0.085	(0.059)	0.043	0.042
222	18.50	0.13	0.085	(0.058)	0.043	0.042
223	18.58	0.10	0.064	(0.058)	0.033	0.031

224	18.67	0.10	0.064	(0.058)	0.033	0.031
225	18.75	0.10	0.064	(0.057)	0.033	0.031
226	18.83	0.07	0.043	(0.057)	0.022	0.021
227	18.92	0.07	0.043	(0.057)	0.022	0.021
228	19.00	0.07	0.043	(0.057)	0.022	0.021
229	19.08	0.10	0.064	(0.056)	0.033	0.031
230	19.17	0.10	0.064	(0.056)	0.033	0.031
231	19.25	0.10	0.064	(0.056)	0.033	0.031
232	19.33	0.13	0.085	(0.056)	0.043	0.042
233	19.42	0.13	0.085	(0.055)	0.043	0.042
234	19.50	0.13	0.085	(0.055)	0.043	0.042
235	19.58	0.10	0.064	(0.055)	0.033	0.031
236	19.67	0.10	0.064	(0.055)	0.033	0.031
237	19.75	0.10	0.064	(0.054)	0.033	0.031
238	19.83	0.07	0.043	(0.054)	0.022	0.021
239	19.92	0.07	0.043	(0.054)	0.022	0.021
240	20.00	0.07	0.043	(0.054)	0.022	0.021
241	20.08	0.10	0.064	(0.053)	0.033	0.031
242	20.17	0.10	0.064	(0.053)	0.033	0.031
243	20.25	0.10	0.064	(0.053)	0.033	0.031
244	20.33	0.10	0.064	(0.053)	0.033	0.031
245	20.42	0.10	0.064	(0.052)	0.033	0.031
246	20.50	0.10	0.064	(0.052)	0.033	0.031
247	20.58	0.10	0.064	(0.052)	0.033	0.031
248	20.67	0.10	0.064	(0.052)	0.033	0.031
249	20.75	0.10	0.064	(0.052)	0.033	0.031
250	20.83	0.07	0.043	(0.051)	0.022	0.021
251	20.92	0.07	0.043	(0.051)	0.022	0.021
252	21.00	0.07	0.043	(0.051)	0.022	0.021
253	21.08	0.10	0.064	(0.051)	0.033	0.031
254	21.17	0.10	0.064	(0.051)	0.033	0.031
255	21.25	0.10	0.064	(0.050)	0.033	0.031
256	21.33	0.07	0.043	(0.050)	0.022	0.021
257	21.42	0.07	0.043	(0.050)	0.022	0.021
258	21.50	0.07	0.043	(0.050)	0.022	0.021
259	21.58	0.10	0.064	(0.050)	0.033	0.031
260	21.67	0.10	0.064	(0.049)	0.033	0.031
261	21.75	0.10	0.064	(0.049)	0.033	0.031
262	21.83	0.07	0.043	(0.049)	0.022	0.021
263	21.92	0.07	0.043	(0.049)	0.022	0.021
264	22.00	0.07	0.043	(0.049)	0.022	0.021
265	22.08	0.10	0.064	(0.049)	0.033	0.031
266	22.17	0.10	0.064	(0.048)	0.033	0.031
267	22.25	0.10	0.064	(0.048)	0.033	0.031
268	22.33	0.07	0.043	(0.048)	0.022	0.021
269	22.42	0.07	0.043	(0.048)	0.022	0.021
270	22.50	0.07	0.043	(0.048)	0.022	0.021
271	22.58	0.07	0.043	(0.048)	0.022	0.021
272	22.67	0.07	0.043	(0.048)	0.022	0.021
273	22.75	0.07	0.043	(0.047)	0.022	0.021
274	22.83	0.07	0.043	(0.047)	0.022	0.021
275	22.92	0.07	0.043	(0.047)	0.022	0.021
276	23.00	0.07	0.043	(0.047)	0.022	0.021
277	23.08	0.07	0.043	(0.047)	0.022	0.021
278	23.17	0.07	0.043	(0.047)	0.022	0.021
279	23.25	0.07	0.043	(0.047)	0.022	0.021
280	23.33	0.07	0.043	(0.047)	0.022	0.021
281	23.42	0.07	0.043	(0.047)	0.022	0.021
282	23.50	0.07	0.043	(0.046)	0.022	0.021
283	23.58	0.07	0.043	(0.046)	0.022	0.021
284	23.67	0.07	0.043	(0.046)	0.022	0.021
285	23.75	0.07	0.043	(0.046)	0.022	0.021
286	23.83	0.07	0.043	(0.046)	0.022	0.021
287	23.92	0.07	0.043	(0.046)	0.022	0.021
288	24.00	0.07	0.043	(0.046)	0.022	0.021

(Loss Rate Not Used)

Sum = 100.0 Sum = 45.9

Flood volume = Effective rainfall 3.83(In)
times area 262.1(Ac.)/[(In)/(Ft.)] = 83.6(Ac.Ft)
Total soil loss = 1.50(In)

```
      Total soil loss =    32.741(Ac.Ft)
      Total rainfall =      5.33(In)
      Flood volume =     3642270.6 Cubic Feet
      Total soil loss =     1426218.1 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =    165.132(CFS)
      ---------------------------------------------------------------------
      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        24 - H O U R    S T O R M
                    R u n o f f     H y d r o g r a p h
      ---------------------------------------------------------------------
                 Hydrograph in   5   Minute intervals ((CFS))

      ---------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0       50.0     100.0     150.0     200.0
---------------------------------------------------------------------------
  0+ 5       0.0022      0.32  Q         |         |         |         |
  0+10       0.0136      1.66  Q         |         |         |         |
  0+15       0.0361      3.26  Q         |         |         |         |
  0+20       0.0649      4.18  Q         |         |         |         |
  0+25       0.1009      5.24  VQ        |         |         |         |
  0+30       0.1443      6.30  VQ        |         |         |         |
  0+35       0.1917      6.88  VQ        |         |         |         |
  0+40       0.2414      7.22  VQ        |         |         |         |
  0+45       0.2928      7.46  VQ        |         |         |         |
  0+50       0.3466      7.80  VQ        |         |         |         |
  0+55       0.4060      8.63  VQ        |         |         |         |
  1+ 0       0.4717      9.54  VQ        |         |         |         |
  1+ 5       0.5396      9.85  VQ        |         |         |         |
  1+10       0.6046      9.45  VQ        |         |         |         |
  1+15       0.6655      8.84  VQ        |         |         |         |
  1+20       0.7248      8.61  VQ        |         |         |         |
  1+25       0.7836      8.54  VQ        |         |         |         |
  1+30       0.8420      8.48  VQ        |         |         |         |
  1+35       0.9001      8.44  VQ        |         |         |         |
  1+40       0.9581      8.42  VQ        |         |         |         |
  1+45       1.0159      8.39  VQ        |         |         |         |
  1+50       1.0746      8.53  VQ        |         |         |         |
  1+55       1.1378      9.18  VQ        |         |         |         |
  2+ 0       1.2065      9.97  VQ        |         |         |         |
  2+ 5       1.2776     10.33  V Q       |         |         |         |
  2+10       1.3501     10.52  V Q       |         |         |         |
  2+15       1.4234     10.64  V Q       |         |         |         |
  2+20       1.4973     10.73  V Q       |         |         |         |
  2+25       1.5716     10.79  V Q       |         |         |         |
  2+30       1.6462     10.84  V Q       |         |         |         |
  2+35       1.7223     11.04  V Q       |         |         |         |
  2+40       1.8033     11.75  V Q       |         |         |         |
  2+45       1.8899     12.58  V Q       |         |         |         |
  2+50       1.9794     12.99  V Q       |         |         |         |
  2+55       2.0702     13.20  V Q       |         |         |         |
  3+ 0       2.1622     13.35  |VQ       |         |         |         |
  3+ 5       2.2548     13.46  |VQ       |         |         |         |
  3+10       2.3481     13.55  |VQ       |         |         |         |
  3+15       2.4418     13.60  |VQ       |         |         |         |
  3+20       2.5358     13.64  |VQ       |         |         |         |
  3+25       2.6300     13.68  |VQ       |         |         |         |
  3+30       2.7244     13.71  |VQ       |         |         |         |
  3+35       2.8190     13.74  |VQ       |         |         |         |
  3+40       2.9138     13.75  |VQ       |         |         |         |
  3+45       3.0086     13.77  |VQ       |         |         |         |
  3+50       3.1046     13.94  |VQ       |         |         |         |
  3+55       3.2053     14.63  |VQ       |         |         |         |
  4+ 0       3.3116     15.43  |V Q      |         |         |         |
  4+ 5       3.4205     15.81  |V Q      |         |         |         |
  4+10       3.5307     16.00  |V Q      |         |         |         |
  4+15       3.6418     16.13  |V Q      |         |         |         |
  4+20       3.7546     16.39  |V Q      |         |         |         |
  4+25       3.8727     17.14  |V Q      |         |         |         |
  4+30       3.9966     17.99  |V Q      |         |         |         |
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4+35	4.1234	18.41	|V Q |	|	|	|
4+40	4.2518	18.64	| VQ |	|	|	|
4+45	4.3813	18.81	| VQ |	|	|	|
4+50	4.5128	19.09	| VQ |	|	|	|
4+55	4.6495	19.85	| VQ |	|	|	|
5+ 0	4.7922	20.72	| V Q |	|	|	|
5+ 5	4.9358	20.84	| V Q |	|	|	|
5+10	5.0717	19.74	| VQ |	|	|	|
5+15	5.1978	18.31	| VQ |	|	|	|
5+20	5.3206	17.83	| VQ |	|	|	|
5+25	5.4460	18.21	| VQ |	|	|	|
5+30	5.5755	18.81	| VQ |	|	|	|
5+35	5.7078	19.21	| VQ |	|	|	|
5+40	5.8454	19.98	| VQ |	|	|	|
5+45	5.9889	20.83	| V Q |	|	|	|
5+50	6.1352	21.24	| V Q |	|	|	|
5+55	6.2829	21.45	| VQ |	|	|	|
6+ 0	6.4317	21.60	| VQ |	|	|	|
6+ 5	6.5823	21.86	| VQ |	|	|	|
6+10	6.7381	22.63	| VQ |	|	|	|
6+15	6.8998	23.48	| VQ |	|	|	|
6+20	7.0644	23.90	| VQ |	|	|	|
6+25	7.2306	24.12	| VQ |	|	|	|
6+30	7.3979	24.30	| VQ |	|	|	|
6+35	7.5673	24.59	| VQ |	|	|	|
6+40	7.7420	25.37	| V Q |	|	|	|
6+45	7.9227	26.24	| V Q |	|	|	|
6+50	8.1064	26.68	| V Q |	|	|	|
6+55	8.2919	26.92	| V Q |	|	|	|
7+ 0	8.4784	27.09	| VQ |	|	|	|
7+ 5	8.6658	27.21	| VQ |	|	|	|
7+10	8.8538	27.30	| VQ |	|	|	|
7+15	9.0423	27.37	| VQ |	|	|	|
7+20	9.2329	27.68	| VQ |	|	|	|
7+25	9.4314	28.82	| VQ |	|	|	|
7+30	9.6392	30.17	| V Q |	|	|	|
7+35	9.8541	31.20	| V Q |	|	|	|
7+40	10.0814	33.01	| V Q |	|	|	|
7+45	10.3223	34.97	| V Q |	|	|	|
7+50	10.5726	36.35	| V Q |	|	|	|
7+55	10.8369	38.38	| V Q |	|	|	|
8+ 0	11.1158	40.49	| V Q |	|	|	|
8+ 5	11.4071	42.30	| V Q |	|	|	|
8+10	11.7224	45.79	| V Q|	|	|	|
8+15	12.0641	49.61	| V Q|	|	|	|
8+20	12.4195	51.61	| V Q |	|	|	|
8+25	12.7831	52.79	| V Q |	|	|	|
8+30	13.1526	53.66	| V Q |	|	|	|
8+35	13.5291	54.67	| V Q |	|	|	|
8+40	13.9191	56.62	| V |Q |	|	|	|
8+45	14.3233	58.70	| V |Q |	|	|	|
8+50	14.7377	60.18	| V | Q |	|	|	|
8+55	15.1668	62.30	| V | Q |	|	|	|
9+ 0	15.6109	64.48	| V | Q |	|	|	|
9+ 5	16.0679	66.36	| V | Q |	|	|	|
9+10	16.5493	69.89	| V | Q |	|	|	|
9+15	17.0570	73.72	| V | Q |	|	|	|
9+20	17.5808	76.06	| V | Q |	|	|	|
9+25	18.1225	78.65	| V | Q |	|	|	|
9+30	18.6812	81.13	| V | Q |	|	|	|
9+35	19.2520	82.88	| V| Q |	|	|	|
9+40	19.8388	85.20	| V| Q |	|	|	|
9+45	20.4418	87.55	| V| Q |	|	|	|
9+50	21.0562	89.22	| V Q |	|	|	|
9+55	21.6863	91.49	| V Q |	|	|	|
10+ 0	22.3322	93.78	| V Q |	|	|	|
10+ 5	22.9715	92.83	| V Q |	|	|	|
10+10	23.5505	84.07	| V| Q |	|	|	|
10+15	24.0553	73.29	| V| Q |	|	|	|
10+20	24.5263	68.39	| V| Q |	|	|	|

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10+25      24.9814     66.08  |          |V Q       |          |          |
10+30      25.4256     64.50  |          | Q        |          |          |
10+35      25.8733     65.02  |          | VQ       |          |          |
10+40      26.3629     71.09  |          | V Q      |          |          |
10+45      26.9046     78.65  |          | V  Q     |          |          |
10+50      27.4701     82.11  |          |  V  Q    |          |          |
10+55      28.0467     83.73  |          |  V  Q    |          |          |
11+ 0      28.6309     84.82  |          |  V  Q    |          |          |
11+ 5      29.2183     85.30  |          |  V   Q   |          |          |
11+10      29.8007     84.57  |          |   V Q    |          |          |
11+15      30.3753     83.43  |          |   V Q    |          |          |
11+20      30.9471     83.02  |          |   V Q    |          |          |
11+25      31.5181     82.91  |          |    VQ    |          |          |
11+30      32.0901     83.06  |          |    VQ    |          |          |
11+35      32.6588     82.57  |          |    VQ    |          |          |
11+40      33.2096     79.98  |          |    Q     |          |          |
11+45      33.7390     76.87  |          |    QV    |          |          |
11+50      34.2611     75.81  |          |    QV    |          |          |
11+55      34.7886     76.59  |          |    QV    |          |          |
12+ 0      35.3239     77.73  |          |    QV    |          |          |
12+ 5      35.8779     80.44  |          |     QV   |          |          |
12+10      36.4993     90.23  |          |      VQ  |          |          |
12+15      37.2002    101.76  |          |      V  Q|          |          |
12+20      37.9413    107.61  |          |       V |Q         |          |
12+25      38.7115    111.83  |          |       V | Q      |          |
12+30      39.5068    115.48  |          |       V |  Q     |          |
12+35      40.3221    118.38  |          |        V|  Q     |          |
12+40      41.1672    122.71  |          |        V|   Q    |          |
12+45      42.0429    127.15  |          |         V    Q   |          |
12+50      42.9378    129.94  |          |         V    Q   |          |
12+55      43.8530    132.88  |          |         V     Q  |          |
13+ 0      44.7878    135.73  |          |         |V     Q |          |
13+ 5      45.7457    139.08  |          |         |V     Q |          |
13+10      46.7590    147.14  |          |         | V      Q|          |
13+15      47.8345    156.16  |          |         | V       |Q         |
13+20      48.9415    160.75  |          |         |  V      | Q        |
13+25      50.0669    163.40  |          |         |  V      | Q        |
13+30      51.2041    165.13  |          |         |   V     |  Q       |
13+35      52.3259    162.88  |          |         |    V    | Q        |
13+40      53.3509    148.83  |          |         |    V   Q|          |
13+45      54.2579    131.70  |          |         |    VQ   |          |
13+50      55.1107    123.83  |          |         |   Q V   |          |
13+55      55.9377    120.08  |          |         |   Q V   |          |
14+ 0      56.7471    117.52  |          |         |  Q   V  |          |
14+ 5      57.5529    117.01  |          |         |  Q   V  |          |
14+10      58.3873    121.15  |          |         |   Q  V  |          |
14+15      59.2597    126.67  |          |         |    Q  V |          |
14+20      60.1462    128.72  |          |         |    Q  V |          |
14+25      61.0300    128.33  |          |         |    Q   V|          |
14+30      61.9063    127.24  |          |         |    Q   V|          |
14+35      62.7797    126.82  |          |         |    Q    V          |
14+40      63.6524    126.72  |          |         |    Q    V          |
14+45      64.5249    126.69  |          |         |    Q    V          |
14+50      65.3949    126.32  |          |         |    Q    |V         |
14+55      66.2547    124.85  |          |         |   Q     |V         |
15+ 0      67.1049    123.45  |          |         |   Q     | V        |
15+ 5      67.9490    122.56  |          |         |   Q     | V        |
15+10      68.7820    120.96  |          |         |   Q     | V        |
15+15      69.6030    119.21  |          |         |  Q      |  V       |
15+20      70.4162    118.07  |          |         |  Q      |  V       |
15+25      71.2174    116.34  |          |         |  Q      |   V      |
15+30      72.0053    114.39  |          |         | Q       |   V      |
15+35      72.7774    112.11  |          |         | Q       |   V      |
15+40      73.5077    106.05  |          |         |Q        |    V     |
15+45      74.1908     99.18  |          |        Q|         |    V     |
15+50      74.8509     95.85  |          |        Q|         |    V     |
15+55      75.4989     94.09  |          |       Q |         |     V    |
16+ 0      76.1387     92.89  |          |       Q |         |     V    |
16+ 5      76.7416     87.55  |          |      Q  |         |     V    |
16+10      77.2086     67.81  |          |  Q      |         |     V    |
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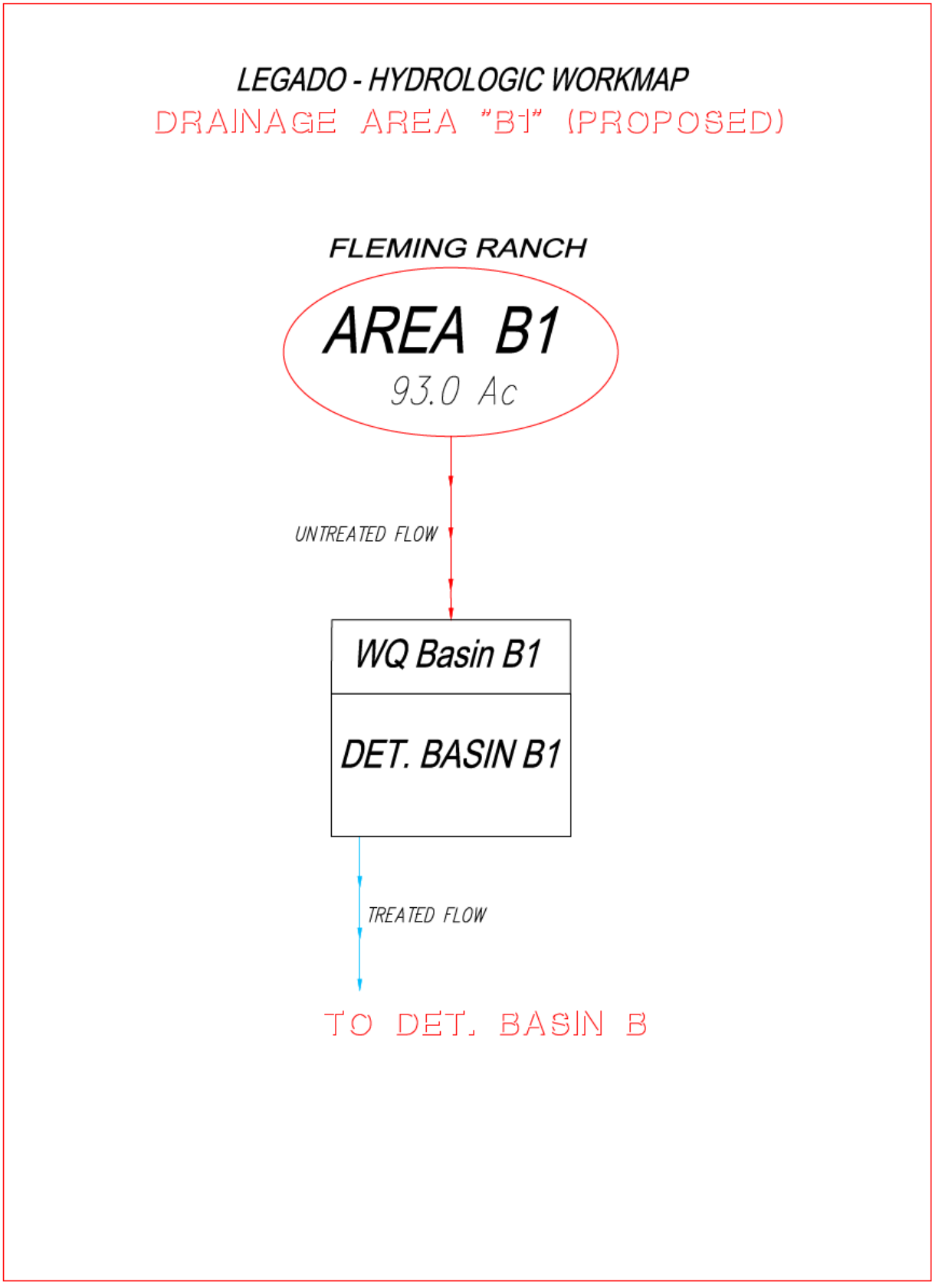
16+15      77.5166     44.72  |        Q |          |          |       V  |
16+20      77.7480     33.59  |      Q   |          |          |       V  |
16+25      77.9391     27.76  |    Q     |          |          |       V  |
16+30      78.1025     23.72  |   Q      |          |          |       V  |
16+35      78.2445     20.61  |   Q      |          |          |       V  |
16+40      78.3660     17.65  |  Q       |          |          |       V  |
16+45      78.4704     15.17  |  Q       |          |          |       V  |
16+50      78.5632     13.47  | Q        |          |          |       V  |
16+55      78.6464     12.08  | Q        |          |          |       V  |
17+ 0      78.7230     11.11  | Q        |          |          |       V  |
17+ 5      78.7964     10.66  | Q        |          |          |       V  |
17+10      78.8750     11.41  | Q        |          |          |       V  |
17+15      78.9614     12.55  | Q        |          |          |       V  |
17+20      79.0502     12.89  | Q        |          |          |       V  |
17+25      79.1384     12.80  | Q        |          |          |       V  |
17+30      79.2281     13.04  | Q        |          |          |       V  |
17+35      79.3191     13.21  | Q        |          |          |       V  |
17+40      79.4110     13.34  | Q        |          |          |       V  |
17+45      79.5035     13.43  | Q        |          |          |        V |
17+50      79.5954     13.35  | Q        |          |          |        V |
17+55      79.6831     12.74  | Q        |          |          |        V |
18+ 0      79.7658     12.00  | Q        |          |          |        V |
18+ 5      79.8461     11.66  | Q        |          |          |        V |
18+10      79.9254     11.51  | Q        |          |          |        V |
18+15      80.0039     11.40  | Q        |          |          |        V |
18+20      80.0819     11.33  | Q        |          |          |        V |
18+25      80.1597     11.29  | Q        |          |          |        V |
18+30      80.2371     11.23  | Q        |          |          |        V |
18+35      80.3130     11.03  | Q        |          |          |        V |
18+40      80.3841     10.32  | Q        |          |          |        V |
18+45      80.4495      9.49  |Q         |          |          |        V |
18+50      80.5110      8.93  |Q         |          |          |        V |
18+55      80.5664      8.05  |Q         |          |          |        V |
19+ 0      80.6153      7.10  |Q         |          |          |        V |
19+ 5      80.6620      6.77  |Q         |          |          |        V |
19+10      80.7113      7.16  |Q         |          |          |        V |
19+15      80.7648      7.77  |Q         |          |          |        V |
19+20      80.8210      8.17  |Q         |          |          |        V |
19+25      80.8824      8.92  |Q         |          |          |        V |
19+30      80.9497      9.77  |Q         |          |          |        V |
19+35      81.0187     10.02  | Q        |          |          |        V |
19+40      81.0845      9.56  |Q         |          |          |        V |
19+45      81.1458      8.90  |Q         |          |          |        V |
19+50      81.2041      8.47  |Q         |          |          |        V |
19+55      81.2570      7.68  |Q         |          |          |        V |
20+ 0      81.3040      6.82  |Q         |          |          |        V |
20+ 5      81.3492      6.55  |Q         |          |          |        V |
20+10      81.3974      7.00  |Q         |          |          |        V |
20+15      81.4501      7.65  |Q         |          |          |        V |
20+20      81.5047      7.93  |Q         |          |          |        V |
20+25      81.5601      8.05  |Q         |          |          |         V|
20+30      81.6159      8.11  |Q         |          |          |         V|
20+35      81.6721      8.15  |Q         |          |          |         V|
20+40      81.7284      8.18  |Q         |          |          |         V|
20+45      81.7849      8.20  |Q         |          |          |         V|
20+50      81.8403      8.04  |Q         |          |          |         V|
20+55      81.8911      7.38  |Q         |          |          |         V|
21+ 0      81.9365      6.59  |Q         |          |          |         V|
21+ 5      81.9804      6.38  |Q         |          |          |         V|
21+10      82.0277      6.86  |Q         |          |          |         V|
21+15      82.0797      7.54  |Q         |          |          |         V|
21+20      82.1326      7.68  |Q         |          |          |         V|
21+25      82.1818      7.14  |Q         |          |          |         V|
21+30      82.2260      6.42  |Q         |          |          |         V|
21+35      82.2691      6.25  |Q         |          |          |         V|
21+40      82.3157      6.77  |Q         |          |          |         V|
21+45      82.3671      7.46  |Q         |          |          |         V|
21+50      82.4194      7.60  |Q         |          |          |         V|
21+55      82.4681      7.07  |Q         |          |          |         V|
22+ 0      82.5120      6.36  |Q         |          |          |         V|
```

22+ 5	82.5547	6.21	|Q	|	|	|	V|
22+10	82.6011	6.73	|Q	|	|	|	V|
22+15	82.6523	7.43	|Q	|	|	|	V|
22+20	82.7045	7.59	|Q	|	|	|	V|
22+25	82.7532	7.07	|Q	|	|	|	V|
22+30	82.7970	6.36	|Q	|	|	|	V|
22+35	82.8387	6.05	|Q	|	|	|	V|
22+40	82.8793	5.90	|Q	|	|	|	V|
22+45	82.9193	5.80	|Q	|	|	|	V|
22+50	82.9588	5.74	|Q	|	|	|	V|
22+55	82.9981	5.70	|Q	|	|	|	V|
23+ 0	83.0370	5.66	|Q	|	|	|	V|
23+ 5	83.0758	5.63	|Q	|	|	|	V|
23+10	83.1143	5.59	|Q	|	|	|	V|
23+15	83.1527	5.58	|Q	|	|	|	V|
23+20	83.1910	5.57	|Q	|	|	|	V|
23+25	83.2293	5.56	|Q	|	|	|	V|
23+30	83.2675	5.55	|Q	|	|	|	V|
23+35	83.3056	5.53	|Q	|	|	|	V|
23+40	83.3436	5.52	|Q	|	|	|	V|
23+45	83.3816	5.52	|Q	|	|	|	V|
23+50	83.4197	5.52	|Q	|	|	|	V|
23+55	83.4577	5.52	|Q	|	|	|	V|
24+ 0	83.4957	5.52	|Q	|	|	|	V|
24+ 5	83.5315	5.20	|Q	|	|	|	V|
24+10	83.5581	3.86	Q	|	|	|	V|
24+15	83.5736	2.26	Q	|	|	|	V|
24+20	83.5840	1.50	Q	|	|	|	V|
24+25	83.5916	1.11	Q	|	|	|	V|
24+30	83.5974	0.85	Q	|	|	|	V|
24+35	83.6019	0.65	Q	|	|	|	V|
24+40	83.6054	0.50	Q	|	|	|	V|
24+45	83.6081	0.39	Q	|	|	|	V|
24+50	83.6102	0.31	Q	|	|	|	V|
24+55	83.6118	0.23	Q	|	|	|	V|
25+ 0	83.6130	0.17	Q	|	|	|	V|
25+ 5	83.6138	0.12	Q	|	|	|	V|
25+10	83.6144	0.09	Q	|	|	|	V|
25+15	83.6148	0.06	Q	|	|	|	V|
25+20	83.6150	0.03	Q	|	|	|	V


LEGADO - HYDROLOGIC WORKMAP
DRAINAGE AREA "B1" (PROPOSED)
FLEMING RANCH
AREA B1
93.0 Ac
UNTREATED FLOW
WQ Basin B1
DET. BASIN B1
TREATED FLOW
TO DET. BASIN B

LEGADO - Drainage Area B1 (Proposed Condition) = 93.0 Ac

Soil Low Loss Rate Worksheet						
Drainage Area B1- 93.0 Ac (Proposed)						
[1]	[2]	[3]	[4]	[5]	[6]	[7]
Subarea	**Area in (Ac)**	**Land Use (Plate D-5.6)**	**% Impervious (Plate D-5.6)**	**Soil Low Loss Rate 0.9-(0.8)* [4]**	**Decimal portion of Area [2] / SUM[2]**	**Average Low Loss Rate [5] * [6]**
	5.1	Natural	4	0.87	0.05	0.05
	2.5	Basins	5	0.86	0.03	0.02
		Res 1/2 Ac	40	0.58	0.00	0.00
		Res 1/4 Ac	50	0.50	0.00	0.00
	85.4	Res < 1/4 Ac	70	0.34	0.92	0.31
		Apartment	80	0.26	0.00	0.00
		Mobil Home	75	0.30	0.00	0.00
		Hospital	75	0.30	0.00	0.00
		Commercial	90	0.18	0.00	0.00
Sum =	93.0				1.00	**0.38**

Manning "n" Value Worksheet					
Drainage Area B1 - 93.0 Ac (Proposed)					
[1]	[2]	[3]	[4]	[5]	[7]
Subarea	**Area in (Ac)**	**Land Use (Plate D-5.6)**	**"n" Value**	**Decimal portion of Area [2] / SUM[2]**	**Average "n" Value [4] * [5]**
	5.1	Natural	0.04	0.05	0.002
	2.5	Basin	0.025	0.03	0.001
		Res 1/2 Ac	0.015	0.00	0.000
		Res 1/4 Ac	0.015	0.00	0.000
	85.4	Res < 1/4 Ac	0.015	0.92	0.014
		Apartment	0.015	0.00	0.000
		Mobil Home	0.015	0.00	0.000
		Hospital	0.02	0.00	0.000
		Commercial	0.015	0.00	0.000
Sum =	93			1.00	**0.017**

Runoff Index (RI) Worksheet

Drainage Area B1 - 93.0 Ac (Proposed)

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Subarea	**Area in (Ac)**	**Soil Group**	**Cover Type**	**RI Number (Plate E6-1)**	**Land Use**	**Decimal portion of Area [2] / SUM[2]**	**Average RI Value [5] * [7]**
Natural	5.1	B	grass (fair)	69	Natural	1.00	69.0
		C	grass (fair)	79	Natural	0.00	0.0
		D	grass (fair)	84	Natural	0.00	0.0
Sum =	*5.1*					1.00	**69.0**
Res 1/4 Ac		B	Landscape	56	Res 1/4 Ac		
		C	Landscape	69	Res 1/4 Ac		
		D	Landscape	75	Res 1/4 Ac		
Sum =							
Res < 1/4 Ac		B	Landscape	56	Res < 1/4 Ac	0.00	0.0
	40	C	Landscape	69	Res < 1/4 Ac	0.47	32.3
	45.4	D	Landscape	75	Res < 1/4 Ac	0.53	39.9
Sum =	*85.4*					1.00	**72.2**
Basin		B	Landscape	60	Basin	0.00	0.0
		C	Landscape	70	Basin	0.00	0.0

	2.5	D	Landscape	80	Basin	1.00	80.0
Sum =	*2.5*					1.00	**80.0**
Commercial		B	Landscape	56	Commercial		
		C	Landscape	69	Commercial		
		D	Landscape	75	Commercial		
Sum =	*93*						

```
        U n i t   H y d r o g r a p h   A n a l y s i s

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                Study date  04/22/19 File: lgareab11100.out


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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

----------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



----------------------------------------------------------------------
Legado
Proposed Condition
100-year 1-hour storm Hydrograph
Drainage Area B1 = 93 Ac

----------------------------------------------------------------------
Drainage Area =      93.00(Ac.)  =      0.145 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =      93.00(Ac.)  =      0.145 Sq. Mi.
Length along longest watercourse =    2691.00(Ft.)
Length along longest watercourse measured to centroid =     895.00(Ft.)
Length along longest watercourse =      0.510 Mi.
Length along longest watercourse measured to centroid =      0.170 Mi.
Difference in elevation =      54.30(Ft.)
Slope along watercourse =    106.5418 Ft./Mi.
Average Manning's 'N' = 0.017
Lag time =    0.066 Hr.
Lag time =     3.98 Min.
25% of lag time =     0.99 Min.
40% of lag time =     1.59 Min.
Unit time =     5.00 Min.
Duration of storm = 1 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       93.00           0.52                 48.36

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       93.00           1.64                152.52

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.520(In)
Area Averaged 100-Year Rainfall =    1.640(In)

Point rain (area averaged) =    1.640(In)
Areal adjustment factor =   99.92 %
Adjusted average point rain =    1.639(In)

Sub-Area Data:
```

```
Area(Ac.)         Runoff Index   Impervious %
     5.100           69.00         0.040
     2.500           80.00         0.050
    85.400           72.20         0.700
 Total Area Entered =     93.00(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)      (In/Hr)       (Dec.)    (In/Hr)
69.0  84.4      0.194     0.040         0.187        0.055      0.010
80.0  91.0      0.117     0.050         0.112        0.027      0.003
72.2  86.3      0.172     0.700         0.064        0.918      0.058
                                                  Sum (F) =    0.072
Area averaged mean soil loss (F) (In/Hr) =  0.072
Minimum soil loss rate ((In/Hr)) =  0.036
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.380
------------------------------------------------------------------------
Slope of intensity-duration curve for a 1 hour storm =0.5000
------------------------------------------------------------------------

                U n i t  H y d r o g r a p h
                       VALLEY S-Curve
-------------------------------------------------------------------
                Unit Hydrograph Data
-------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                          Graph %           (CFS)
-------------------------------------------------------------------
    1   0.083        125.756         26.843            25.159
    2   0.167        251.512         48.498            45.456
    3   0.250        377.268         12.827            12.023
    4   0.333        503.025          5.769             5.407
    5   0.417        628.781          3.201             3.000
    6   0.500        754.537          1.771             1.660
    7   0.583        880.293          1.091             1.022
                              Sum = 100.000   Sum=      93.727
-------------------------------------------------------------------

 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

  Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
       (Hr.)  Percent   (In/Hr)         Max    |   Low        (In/Hr)
   1   0.08     4.20      0.826          0.072    (  0.314)        0.754
   2   0.17     4.30      0.846          0.072    (  0.321)        0.774
   3   0.25     5.00      0.983          0.072    (  0.374)        0.911
   4   0.33     5.00      0.983          0.072    (  0.374)        0.911
   5   0.42     5.80      1.140          0.072    (  0.433)        1.069
   6   0.50     6.50      1.278          0.072    (  0.486)        1.206
   7   0.58     7.40      1.455          0.072    (  0.553)        1.383
   8   0.67     8.60      1.691          0.072    (  0.643)        1.619
   9   0.75    12.30      2.419          0.072    (  0.919)        2.347
  10   0.83    29.10      5.722          0.072    (  2.174)        5.650
  11   0.92     6.80      1.337          0.072    (  0.508)        1.265
  12   1.00     5.00      0.983          0.072    (  0.374)        0.911
              (Loss Rate Not Used)
     Sum =     100.0                                  Sum =    18.8
       Flood volume = Effective rainfall      1.57(In)
        times area      93.0(Ac.)/[(In)/(Ft.)] =      12.1(Ac.Ft)
       Total soil loss =      0.07(In)
       Total soil loss =     0.555(Ac.Ft)
       Total rainfall =      1.64(In)
       Flood volume =      528984.6 Cubic Feet
       Total soil loss =       24196.4 Cubic Feet
       ---------------------------------------------------------------
        Peak flow rate of this hydrograph =    333.068(CFS)
       ---------------------------------------------------------------
       +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
```

1 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	100.0	200.0	300.0	400.0
0+ 5	0.1307	18.98	VQ				
0+10	0.5011	53.78	V Q				
0+15	0.9640	67.21	V Q				
0+20	1.4997	77.79	V Q				
0+25	2.0905	85.77	V Q				
0+30	2.7685	98.45	Q				
0+35	3.5417	112.27	Q				
0+40	4.4302	129.02	Q V				
0+45	5.5428	161.55	Q V				
0+50	7.4868	282.26	V Q				
0+55	9.7806	333.07	VQ				
1+ 0	10.9483	169.55	Q			V	
1+ 5	11.6259	98.39	Q			V	
1+10	11.9036	40.32	Q			V	
1+15	12.0449	20.52	Q			V	
1+20	12.1181	10.62	Q			V	
1+25	12.1374	2.81	Q			V	
1+30	12.1438	0.93	Q			V	

```
        U n i t   H y d r o g r a p h   A n a l y s i s

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                Study date  03/29/18 File: frareab13100.out


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------------------------------------------------------------------------------

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Fleming Ranch
Proposed Condition
100-year 3-hour storm Hydrograph
Drainage Area B1 = 86.1 Ac

------------------------------------------------------------------------
Drainage Area =      86.10(Ac.)  =      0.135 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =      86.10(Ac.)  =      0.135 Sq. Mi.
Length along longest watercourse =    3424.00(Ft.)
Length along longest watercourse measured to centroid =    1062.00(Ft.)
Length along longest watercourse =      0.648 Mi.
Length along longest watercourse measured to centroid =      0.201 Mi.
Difference in elevation =     273.00(Ft.)
Slope along watercourse =    420.9813 Ft./Mi.
Average Manning's 'N' = 0.021
Lag time =    0.074 Hr.
Lag time =     4.42 Min.
25% of lag time =     1.11 Min.
40% of lag time =     1.77 Min.
Unit time =     5.00 Min.
Duration of storm = 3 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       86.10           0.86                 74.05

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       86.10           2.27                195.45

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.860(In)
Area Averaged 100-Year Rainfall =    2.270(In)

Point rain (area averaged) =    2.270(In)
Areal adjustment factor =   99.96 %
Adjusted average point rain =    2.269(In)

Sub-Area Data:
```

```
Area(Ac.)         Runoff Index   Impervious %
    16.900           69.00         0.000
    66.700           72.10         0.600
     2.500           75.00         0.050
 Total Area Entered =     86.10(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)      (In/Hr)       (Dec.)    (In/Hr)
69.0  84.4      0.194     0.000         0.194        0.196      0.038
72.1  86.3      0.173     0.600         0.079        0.775      0.062
75.0  88.0      0.153     0.050         0.146        0.029      0.004
                                                   Sum (F) =    0.104
Area averaged mean soil loss (F) (In/Hr) =  0.104
Minimum soil loss rate ((In/Hr)) =  0.052
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.490
--------------------------------------------------------------------------

               U n i t  H y d r o g r a p h
                      VALLEY S-Curve
--------------------------------------------------------------------------
               Unit Hydrograph Data
--------------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                          Graph %           (CFS)
--------------------------------------------------------------------------
    1   0.083        113.019         23.143             20.082
    2   0.167        226.037         48.848             42.386
    3   0.250        339.056         13.972             12.124
    4   0.333        452.074          6.390              5.545
    5   0.417        565.093          3.551              3.081
    6   0.500        678.111          2.163              1.877
    7   0.583        791.130          1.279              1.110
    8   0.667        904.149          0.654              0.567
                                 Sum = 100.000   Sum=     86.773
--------------------------------------------------------------------------

 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

 Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
      (Hr.)  Percent   (In/Hr)         Max   |   Low         (In/Hr)
  1   0.08     1.30      0.354          0.104    (  0.173)        0.250
  2   0.17     1.30      0.354          0.104    (  0.173)        0.250
  3   0.25     1.10      0.300          0.104    (  0.147)        0.196
  4   0.33     1.50      0.408          0.104    (  0.200)        0.305
  5   0.42     1.50      0.408          0.104    (  0.200)        0.305
  6   0.50     1.80      0.490          0.104    (  0.240)        0.386
  7   0.58     1.50      0.408          0.104    (  0.200)        0.305
  8   0.67     1.80      0.490          0.104    (  0.240)        0.386
  9   0.75     1.80      0.490          0.104    (  0.240)        0.386
 10   0.83     1.50      0.408          0.104    (  0.200)        0.305
 11   0.92     1.60      0.436          0.104    (  0.213)        0.332
 12   1.00     1.80      0.490          0.104    (  0.240)        0.386
 13   1.08     2.20      0.599          0.104    (  0.294)        0.495
 14   1.17     2.20      0.599          0.104    (  0.294)        0.495
 15   1.25     2.20      0.599          0.104    (  0.294)        0.495
 16   1.33     2.00      0.545          0.104    (  0.267)        0.441
 17   1.42     2.60      0.708          0.104    (  0.347)        0.604
 18   1.50     2.70      0.735          0.104    (  0.360)        0.631
 19   1.58     2.40      0.654          0.104    (  0.320)        0.550
 20   1.67     2.70      0.735          0.104    (  0.360)        0.631
 21   1.75     3.30      0.899          0.104    (  0.440)        0.795
 22   1.83     3.10      0.844          0.104    (  0.414)        0.740
 23   1.92     2.90      0.790          0.104    (  0.387)        0.686
 24   2.00     3.00      0.817          0.104    (  0.400)        0.713
 25   2.08     3.10      0.844          0.104    (  0.414)        0.740
 26   2.17     4.20      1.144          0.104    (  0.560)        1.040
```

```
27   2.25     5.00      1.361          0.104    (  0.667)        1.258
28   2.33     3.50      0.953          0.104    (  0.467)        0.849
29   2.42     6.80      1.852          0.104    (  0.907)        1.748
30   2.50     7.30      1.988          0.104    (  0.974)        1.884
31   2.58     8.20      2.233          0.104    (  1.094)        2.129
32   2.67     5.90      1.607          0.104    (  0.787)        1.503
33   2.75     2.00      0.545          0.104    (  0.267)        0.441
34   2.83     1.80      0.490          0.104    (  0.240)        0.386
35   2.92     1.80      0.490          0.104    (  0.240)        0.386
36   3.00     0.60      0.163       (  0.104)       0.080        0.083
             (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    23.5
      Flood volume = Effective rainfall      1.96(In)
       times area      86.1(Ac.)/[(In)/(Ft.)] =      14.1(Ac.Ft)
      Total soil loss =      0.31(In)
      Total soil loss =     2.220(Ac.Ft)
      Total rainfall =      2.27(In)
      Flood volume =      612494.3 Cubic Feet
      Total soil loss =       96711.1 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =    159.586(CFS)
      ---------------------------------------------------------------------
      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        3 - H O U R    S T O R M
                    R u n o f f     H y d r o g r a p h
      ---------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      ---------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0       50.0     100.0     150.0     200.0
---------------------------------------------------------------------------
  0+ 5       0.0346      5.03  VQ        |         |         |         |
  0+10       0.1423     15.64  V  Q      |         |         |         |
  0+15       0.2634     17.58  V  Q      |         |         |         |
  0+20       0.3931     18.84  |V Q      |         |         |         |
  0+25       0.5555     23.57  |V  Q     |         |         |         |
  0+30       0.7394     26.70  | V  Q    |         |         |         |
  0+35       0.9408     29.24  | V  Q    |         |         |         |
  0+40       1.1390     28.78  |  V Q    |         |         |         |
  0+45       1.3584     31.86  |  V  Q   |         |         |         |
  0+50       1.5726     31.09  |   V Q   |         |         |         |
  0+55       1.7695     28.59  |    Q    |         |         |         |
  1+ 0       1.9764     30.04  |    VQ   |         |         |         |
  1+ 5       2.2141     34.52  |     Q   |         |         |         |
  1+10       2.4879     39.75  |      Q  |         |         |         |
  1+15       2.7726     41.35  |      VQ |         |         |         |
  1+20       3.0549     40.99  |       Q |         |         |         |
  1+25       3.3468     42.38  |       QV|         |         |         |
  1+30       3.6875     49.48  |        QV         |         |         |
  1+35       4.0376     50.82  |         QV        |         |         |
  1+40       4.3828     50.13  |         Q V       |         |         |
  1+45       4.7715     56.44  |         |Q V      |         |         |
  1+50       5.2063     63.14  |         | Q V     |         |         |
  1+55       5.6342     62.12  |         | Q   V   |         |         |
  2+ 0       6.0531     60.83  |         | Q    V  |         |         |
  2+ 5       6.4811     62.15  |         | Q     V |         |         |
  2+10       6.9600     69.53  |         |  Q     V|         |         |
  2+15       7.5595     87.05  |         |      Q  |V        |         |
  2+20       8.1923     91.88  |         |       Q |  V      |         |
  2+25       8.8600     96.96  |         |        Q|    V    |         |
  2+30       9.7900    135.03  |         |         |      Q  |         |
  2+35      10.8619    155.64  |         |         |         VQ        |
  2+40      11.9610    159.59  |         |         |         |Q  V     |
  2+45      12.7725    117.83  |         |         |  Q      |     V   |
  2+50      13.2356     67.24  |         |  Q      |         |      V  |
  2+55      13.5824     50.36  |         Q         |         |       V |
  3+ 0      13.8366     36.91  |      Q  |         |         |        V|
  3+ 5      13.9604     17.98  |  Q      |         |         |        V|
  3+10      14.0158      8.05  |Q        |         |         |        V|
  3+15      14.0415      3.72  Q         |         |         |        V|
```

```
    3+20      14.0529      1.66  Q         |         |         |        V|
    3+25      14.0585      0.80  Q         |         |         |        V|
    3+30      14.0606      0.31  Q         |         |         |        V|
    3+35      14.0609      0.05  Q         |         |         |         V
-------------------------------------------------------------------------
```

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                U n i t   H y d r o g r a p h   A n a l y s i s

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                Study date  03/29/18 File: frareab16100.out


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------------------------------------------------------------------------------

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Fleming Ranch
Proposed Condition
100-year 6-hour storm Hydrograph
Drainage Area B1 = 86.1 Ac

------------------------------------------------------------------------
Drainage Area =      86.10(Ac.)  =      0.135 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =      86.10(Ac.)  =      0.135 Sq. Mi.
Length along longest watercourse =    3424.00(Ft.)
Length along longest watercourse measured to centroid =    1062.00(Ft.)
Length along longest watercourse =      0.648 Mi.
Length along longest watercourse measured to centroid =      0.201 Mi.
Difference in elevation =     273.00(Ft.)
Slope along watercourse =    420.9813 Ft./Mi.
Average Manning's 'N' = 0.021
Lag time =    0.074 Hr.
Lag time =     4.42 Min.
25% of lag time =     1.11 Min.
40% of lag time =     1.77 Min.
Unit time =     5.00 Min.
Duration of storm = 6 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       86.10           1.19                102.46

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       86.10           2.98                256.58

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    1.190(In)
Area Averaged 100-Year Rainfall =    2.980(In)

Point rain (area averaged) =    2.980(In)
Areal adjustment factor =   99.97 %
Adjusted average point rain =    2.979(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
    16.900           69.00         0.000
```

```
           66.700          72.10         0.600
            2.500          75.00         0.050
        Total Area Entered =     86.10(Ac.)


       RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
       AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
       69.0  84.4      0.194     0.000        0.194       0.196      0.038
       72.1  86.3      0.173     0.600        0.079       0.775      0.062
       75.0  88.0      0.153     0.050        0.146       0.029      0.004
                                                        Sum (F) =    0.104
       Area averaged mean soil loss (F) (In/Hr) =  0.104
       Minimum soil loss rate ((In/Hr)) =  0.052
       (for 24 hour storm duration)
       Soil low loss rate (decimal) =   0.490
       ------------------------------------------------------------------------

                    U n i t  H y d r o g r a p h
                           VALLEY S-Curve
       ------------------------------------------------------------------------
                    Unit Hydrograph Data
       ------------------------------------------------------------------------
       Unit time period   Time % of lag   Distribution   Unit Hydrograph
           (hrs)                          Graph %            (CFS)
       ------------------------------------------------------------------------
           1   0.083        113.019         23.143             20.082
           2   0.167        226.037         48.848             42.386
           3   0.250        339.056         13.972             12.124
           4   0.333        452.074          6.390              5.545
           5   0.417        565.093          3.551              3.081
           6   0.500        678.111          2.163              1.877
           7   0.583        791.130          1.279              1.110
           8   0.667        904.149          0.654              0.567
                                    Sum = 100.000   Sum=       86.773
------------------------------------------------------------------------

 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

  Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
       (Hr.)  Percent   (In/Hr)         Max   |   Low         (In/Hr)
    1   0.08     0.50      0.179       (  0.104)       0.088        0.091
    2   0.17     0.60      0.214          0.104    (  0.105)        0.111
    3   0.25     0.60      0.214          0.104    (  0.105)        0.111
    4   0.33     0.60      0.214          0.104    (  0.105)        0.111
    5   0.42     0.60      0.214          0.104    (  0.105)        0.111
    6   0.50     0.70      0.250          0.104    (  0.123)        0.146
    7   0.58     0.70      0.250          0.104    (  0.123)        0.146
    8   0.67     0.70      0.250          0.104    (  0.123)        0.146
    9   0.75     0.70      0.250          0.104    (  0.123)        0.146
   10   0.83     0.70      0.250          0.104    (  0.123)        0.146
   11   0.92     0.70      0.250          0.104    (  0.123)        0.146
   12   1.00     0.80      0.286          0.104    (  0.140)        0.182
   13   1.08     0.80      0.286          0.104    (  0.140)        0.182
   14   1.17     0.80      0.286          0.104    (  0.140)        0.182
   15   1.25     0.80      0.286          0.104    (  0.140)        0.182
   16   1.33     0.80      0.286          0.104    (  0.140)        0.182
   17   1.42     0.80      0.286          0.104    (  0.140)        0.182
   18   1.50     0.80      0.286          0.104    (  0.140)        0.182
   19   1.58     0.80      0.286          0.104    (  0.140)        0.182
   20   1.67     0.80      0.286          0.104    (  0.140)        0.182
   21   1.75     0.80      0.286          0.104    (  0.140)        0.182
   22   1.83     0.80      0.286          0.104    (  0.140)        0.182
   23   1.92     0.80      0.286          0.104    (  0.140)        0.182
   24   2.00     0.90      0.322          0.104    (  0.158)        0.218
   25   2.08     0.80      0.286          0.104    (  0.140)        0.182
   26   2.17     0.90      0.322          0.104    (  0.158)        0.218
   27   2.25     0.90      0.322          0.104    (  0.158)        0.218
   28   2.33     0.90      0.322          0.104    (  0.158)        0.218
```

```
29   2.42     0.90      0.322          0.104    (  0.158)        0.218
30   2.50     0.90      0.322          0.104    (  0.158)        0.218
31   2.58     0.90      0.322          0.104    (  0.158)        0.218
32   2.67     0.90      0.322          0.104    (  0.158)        0.218
33   2.75     1.00      0.357          0.104    (  0.175)        0.254
34   2.83     1.00      0.357          0.104    (  0.175)        0.254
35   2.92     1.00      0.357          0.104    (  0.175)        0.254
36   3.00     1.00      0.357          0.104    (  0.175)        0.254
37   3.08     1.00      0.357          0.104    (  0.175)        0.254
38   3.17     1.10      0.393          0.104    (  0.193)        0.289
39   3.25     1.10      0.393          0.104    (  0.193)        0.289
40   3.33     1.10      0.393          0.104    (  0.193)        0.289
41   3.42     1.20      0.429          0.104    (  0.210)        0.325
42   3.50     1.30      0.465          0.104    (  0.228)        0.361
43   3.58     1.40      0.500          0.104    (  0.245)        0.397
44   3.67     1.40      0.500          0.104    (  0.245)        0.397
45   3.75     1.50      0.536          0.104    (  0.263)        0.432
46   3.83     1.50      0.536          0.104    (  0.263)        0.432
47   3.92     1.60      0.572          0.104    (  0.280)        0.468
48   4.00     1.60      0.572          0.104    (  0.280)        0.468
49   4.08     1.70      0.608          0.104    (  0.298)        0.504
50   4.17     1.80      0.643          0.104    (  0.315)        0.540
51   4.25     1.90      0.679          0.104    (  0.333)        0.575
52   4.33     2.00      0.715          0.104    (  0.350)        0.611
53   4.42     2.10      0.751          0.104    (  0.368)        0.647
54   4.50     2.10      0.751          0.104    (  0.368)        0.647
55   4.58     2.20      0.786          0.104    (  0.385)        0.683
56   4.67     2.30      0.822          0.104    (  0.403)        0.718
57   4.75     2.40      0.858          0.104    (  0.420)        0.754
58   4.83     2.40      0.858          0.104    (  0.420)        0.754
59   4.92     2.50      0.894          0.104    (  0.438)        0.790
60   5.00     2.60      0.929          0.104    (  0.455)        0.826
61   5.08     3.10      1.108          0.104    (  0.543)        1.004
62   5.17     3.60      1.287          0.104    (  0.631)        1.183
63   5.25     3.90      1.394          0.104    (  0.683)        1.290
64   5.33     4.20      1.501          0.104    (  0.736)        1.398
65   5.42     4.70      1.680          0.104    (  0.823)        1.576
66   5.50     5.60      2.002          0.104    (  0.981)        1.898
67   5.58     1.90      0.679          0.104    (  0.333)        0.575
68   5.67     0.90      0.322          0.104    (  0.158)        0.218
69   5.75     0.60      0.214          0.104    (  0.105)        0.111
70   5.83     0.50      0.179       (  0.104)       0.088        0.091
71   5.92     0.30      0.107       (  0.104)       0.053        0.055
72   6.00     0.20      0.071       (  0.104)       0.035        0.036
              (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    28.4
      Flood volume = Effective rainfall      2.37(In)
       times area      86.1(Ac.)/[(In)/(Ft.)] =      17.0(Ac.Ft)
      Total soil loss =      0.61(In)
      Total soil loss =     4.378(Ac.Ft)
      Total rainfall =      2.98(In)
      Flood volume =      740414.0 Cubic Feet
      Total soil loss =      190688.5 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =    136.003(CFS)
      ---------------------------------------------------------------------
      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          6 - H O U R    S T O R M
                     R u n o f f     H y d r o g r a p h
      ---------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      ---------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0       50.0     100.0     150.0     200.0
-------------------------------------------------------------------------
  0+ 5       0.0126      1.83  Q         |         |         |         |
  0+10       0.0546      6.09  VQ        |         |         |         |
  0+15       0.1098      8.02  VQ        |         |         |         |
  0+20       0.1702      8.77  VQ        |         |         |         |
  0+25       0.2333      9.16  VQ        |         |         |         |
```

```
0+30      0.3029     10.11  V Q       |         |         |         |
0+35      0.3838     11.76  V Q       |         |         |         |
0+40      0.4683     12.27  |VQ       |         |         |         |
0+45      0.5543     12.48  |VQ       |         |         |         |
0+50      0.6409     12.59  |VQ       |         |         |         |
0+55      0.7281     12.65  |VQ       |         |         |         |
1+ 0      0.8205     13.41  |VQ       |         |         |         |
1+ 5      0.9234     14.95  | Q       |         |         |         |
1+10      1.0293     15.38  | VQ      |         |         |         |
1+15      1.1366     15.58  | VQ      |         |         |         |
1+20      1.2447     15.69  | VQ      |         |         |         |
1+25      1.3532     15.76  |  Q      |         |         |         |
1+30      1.4620     15.80  |  Q      |         |         |         |
1+35      1.5709     15.82  |  Q      |         |         |         |
1+40      1.6799     15.82  |  Q      |         |         |         |
1+45      1.7888     15.82  |  QV     |         |         |         |
1+50      1.8978     15.82  |  QV     |         |         |         |
1+55      2.0067     15.82  |  QV     |         |         |         |
2+ 0      2.1206     16.54  |  QV     |         |         |         |
2+ 5      2.2399     17.33  |  Q V    |         |         |         |
2+10      2.3568     16.97  |  Q V    |         |         |         |
2+15      2.4825     18.25  |  Q V    |         |         |         |
2+20      2.6106     18.60  |  Q  V   |         |         |         |
2+25      2.7397     18.75  |  Q  V   |         |         |         |
2+30      2.8694     18.83  |  Q  V   |         |         |         |
2+35      2.9995     18.88  |  Q   V  |         |         |         |
2+40      3.1296     18.90  |  Q   V  |         |         |         |
2+45      3.2649     19.64  |  Q   V  |         |         |         |
2+50      3.4106     21.16  |   Q   V |         |         |         |
2+55      3.5593     21.59  |   Q   V |         |         |         |
3+ 0      3.7093     21.79  |   Q   V |         |         |         |
3+ 5      3.8601     21.90  |   Q    V|         |         |         |
3+10      4.0163     22.68  |   Q    V|         |         |         |
3+15      4.1833     24.24  |   Q    V|         |         |         |
3+20      4.3533     24.69  |   Q     V         |         |         |
3+25      4.5297     25.61  |    Q    V         |         |         |
3+30      4.7222     27.95  |    Q    |V        |         |         |
3+35      4.9336     30.69  |     Q   |V        |         |         |
3+40      5.1600     32.88  |     Q   | V       |         |         |
3+45      5.3966     34.36  |     Q   | V       |         |         |
3+50      5.6463     36.25  |      Q  |  V      |         |         |
3+55      5.9054     37.62  |      Q  |  V      |         |         |
4+ 0      6.1771     39.46  |      Q  |   V     |         |         |
4+ 5      6.4580     40.78  |       Q |    V    |         |         |
4+10      6.7562     43.30  |       Q |    V    |         |         |
4+15      7.0739     46.12  |        Q|     V   |         |         |
4+20      7.4118     49.07  |        Q|      V  |         |         |
4+25      7.7706     52.09  |         Q       V |         |         |
4+30      8.1455     54.44  |         Q        V|         |         |
4+35      8.5312     56.00  |         |Q        V         |         |
4+40      8.9353     58.67  |         |Q        |V        |         |
4+45      9.3593     61.58  |         | Q       | V       |         |
4+50      9.7991     63.85  |         | Q       |  V      |         |
4+55     10.2493     65.37  |         |  Q      |   V     |         |
5+ 0     10.7177     68.00  |         |  Q      |    V    |         |
5+ 5     11.2257     73.76  |         |   Q     |     V   |         |
5+10     11.8159     85.69  |         |      Q  |      V  |         |
5+15     12.4906     97.97  |         |        Q|         V|        |
5+20     13.2345    108.03  |         |         |Q        |V        |
5+25     14.0549    119.12  |         |         |  Q      |  V      |
5+30     14.9916    136.00  |         |         |      Q  |    V    |
5+35     15.8643    126.72  |         |         |    Q    |      V  |
5+40     16.3407     69.17  |         |  Q      |         |       V |
5+45     16.6063     38.57  |      Q  |         |         |        V|
5+50     16.7678     23.46  |   Q     |         |         |        V|
5+55     16.8739     15.40  |  Q      |         |         |        V|
6+ 0     16.9395      9.53  |Q        |         |         |        V|
6+ 5     16.9752      5.18  |Q        |         |         |        V|
6+10     16.9876      1.80  Q         |         |         |        V|
6+15     16.9931      0.79  Q         |         |         |        V|
```

```
    6+20      16.9957      0.38  Q          |          |          |         V|
    6+25      16.9969      0.18  Q          |          |          |         V|
    6+30      16.9974      0.07  Q          |          |          |         V|
    6+35      16.9976      0.02  Q          |          |          |          V
------------------------------------------------------------------------------
```

```
        U n i t   H y d r o g r a p h   A n a l y s i s

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                Study date  03/29/18 File: frareab124100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Fleming Ranch
Proposed Condition
100-year 24-hour storm Hydrograph
Drainage Area B1 = 86.1 Ac


------------------------------------------------------------------------
Drainage Area =      86.10(Ac.)  =      0.135 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =      86.10(Ac.)  =      0.135 Sq. Mi.
Length along longest watercourse =    3424.00(Ft.)
Length along longest watercourse measured to centroid =    1062.00(Ft.)
Length along longest watercourse =      0.648 Mi.
Length along longest watercourse measured to centroid =      0.201 Mi.
Difference in elevation =     273.00(Ft.)
Slope along watercourse =    420.9813 Ft./Mi.
Average Manning's 'N' = 0.021
Lag time =    0.074 Hr.
Lag time =     4.42 Min.
25% of lag time =     1.11 Min.
40% of lag time =     1.77 Min.
Unit time =     5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       86.10           2.03                174.78

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       86.10           5.33                458.91

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    2.030(In)
Area Averaged 100-Year Rainfall =    5.330(In)

Point rain (area averaged) =    5.330(In)
Areal adjustment factor =   99.98 %
Adjusted average point rain =    5.329(In)
```

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
16.900	69.00	0.000
66.700	72.10	0.600
2.500	75.00	0.050

Total Area Entered = 86.10(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
69.0	84.4	0.194	0.000	0.194	0.196	0.038
72.1	86.3	0.173	0.600	0.079	0.775	0.062
75.0	88.0	0.153	0.050	0.146	0.029	0.004
					Sum (F) =	0.104

Area averaged mean soil loss (F) (In/Hr) = 0.104
Minimum soil loss rate ((In/Hr)) = 0.052
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.490

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	113.019	23.143	20.082
2	0.167	226.037	48.848	42.386
3	0.250	339.056	13.972	12.124
4	0.333	452.074	6.390	5.545
5	0.417	565.093	3.551	3.081
6	0.500	678.111	2.163	1.877
7	0.583	791.130	1.279	1.110
8	0.667	904.149	0.654	0.567
			Sum = 100.000 Sum=	86.773

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.043	(0.184)	0.021	0.022
2	0.17	0.07	0.043	(0.183)	0.021	0.022
3	0.25	0.07	0.043	(0.183)	0.021	0.022
4	0.33	0.10	0.064	(0.182)	0.031	0.033
5	0.42	0.10	0.064	(0.181)	0.031	0.033
6	0.50	0.10	0.064	(0.180)	0.031	0.033
7	0.58	0.10	0.064	(0.180)	0.031	0.033
8	0.67	0.10	0.064	(0.179)	0.031	0.033
9	0.75	0.10	0.064	(0.178)	0.031	0.033
10	0.83	0.13	0.085	(0.178)	0.042	0.043
11	0.92	0.13	0.085	(0.177)	0.042	0.043
12	1.00	0.13	0.085	(0.176)	0.042	0.043
13	1.08	0.10	0.064	(0.176)	0.031	0.033
14	1.17	0.10	0.064	(0.175)	0.031	0.033
15	1.25	0.10	0.064	(0.174)	0.031	0.033
16	1.33	0.10	0.064	(0.173)	0.031	0.033
17	1.42	0.10	0.064	(0.173)	0.031	0.033
18	1.50	0.10	0.064	(0.172)	0.031	0.033
19	1.58	0.10	0.064	(0.171)	0.031	0.033
20	1.67	0.10	0.064	(0.171)	0.031	0.033
21	1.75	0.10	0.064	(0.170)	0.031	0.033
22	1.83	0.13	0.085	(0.169)	0.042	0.043
23	1.92	0.13	0.085	(0.169)	0.042	0.043
24	2.00	0.13	0.085	(0.168)	0.042	0.043
25	2.08	0.13	0.085	(0.167)	0.042	0.043

26	2.17	0.13	0.085	(0.167)	0.042	0.043
27	2.25	0.13	0.085	(0.166)	0.042	0.043
28	2.33	0.13	0.085	(0.165)	0.042	0.043
29	2.42	0.13	0.085	(0.165)	0.042	0.043
30	2.50	0.13	0.085	(0.164)	0.042	0.043
31	2.58	0.17	0.107	(0.163)	0.052	0.054
32	2.67	0.17	0.107	(0.163)	0.052	0.054
33	2.75	0.17	0.107	(0.162)	0.052	0.054
34	2.83	0.17	0.107	(0.161)	0.052	0.054
35	2.92	0.17	0.107	(0.161)	0.052	0.054
36	3.00	0.17	0.107	(0.160)	0.052	0.054
37	3.08	0.17	0.107	(0.159)	0.052	0.054
38	3.17	0.17	0.107	(0.159)	0.052	0.054
39	3.25	0.17	0.107	(0.158)	0.052	0.054
40	3.33	0.17	0.107	(0.157)	0.052	0.054
41	3.42	0.17	0.107	(0.157)	0.052	0.054
42	3.50	0.17	0.107	(0.156)	0.052	0.054
43	3.58	0.17	0.107	(0.155)	0.052	0.054
44	3.67	0.17	0.107	(0.155)	0.052	0.054
45	3.75	0.17	0.107	(0.154)	0.052	0.054
46	3.83	0.20	0.128	(0.153)	0.063	0.065
47	3.92	0.20	0.128	(0.153)	0.063	0.065
48	4.00	0.20	0.128	(0.152)	0.063	0.065
49	4.08	0.20	0.128	(0.151)	0.063	0.065
50	4.17	0.20	0.128	(0.151)	0.063	0.065
51	4.25	0.20	0.128	(0.150)	0.063	0.065
52	4.33	0.23	0.149	(0.150)	0.073	0.076
53	4.42	0.23	0.149	(0.149)	0.073	0.076
54	4.50	0.23	0.149	(0.148)	0.073	0.076
55	4.58	0.23	0.149	(0.148)	0.073	0.076
56	4.67	0.23	0.149	(0.147)	0.073	0.076
57	4.75	0.23	0.149	(0.146)	0.073	0.076
58	4.83	0.27	0.171	(0.146)	0.084	0.087
59	4.92	0.27	0.171	(0.145)	0.084	0.087
60	5.00	0.27	0.171	(0.144)	0.084	0.087
61	5.08	0.20	0.128	(0.144)	0.063	0.065
62	5.17	0.20	0.128	(0.143)	0.063	0.065
63	5.25	0.20	0.128	(0.143)	0.063	0.065
64	5.33	0.23	0.149	(0.142)	0.073	0.076
65	5.42	0.23	0.149	(0.141)	0.073	0.076
66	5.50	0.23	0.149	(0.141)	0.073	0.076
67	5.58	0.27	0.171	(0.140)	0.084	0.087
68	5.67	0.27	0.171	(0.139)	0.084	0.087
69	5.75	0.27	0.171	(0.139)	0.084	0.087
70	5.83	0.27	0.171	(0.138)	0.084	0.087
71	5.92	0.27	0.171	(0.138)	0.084	0.087
72	6.00	0.27	0.171	(0.137)	0.084	0.087
73	6.08	0.30	0.192	(0.136)	0.094	0.098
74	6.17	0.30	0.192	(0.136)	0.094	0.098
75	6.25	0.30	0.192	(0.135)	0.094	0.098
76	6.33	0.30	0.192	(0.135)	0.094	0.098
77	6.42	0.30	0.192	(0.134)	0.094	0.098
78	6.50	0.30	0.192	(0.133)	0.094	0.098
79	6.58	0.33	0.213	(0.133)	0.104	0.109
80	6.67	0.33	0.213	(0.132)	0.104	0.109
81	6.75	0.33	0.213	(0.132)	0.104	0.109
82	6.83	0.33	0.213	(0.131)	0.104	0.109
83	6.92	0.33	0.213	(0.130)	0.104	0.109
84	7.00	0.33	0.213	(0.130)	0.104	0.109
85	7.08	0.33	0.213	(0.129)	0.104	0.109
86	7.17	0.33	0.213	(0.129)	0.104	0.109
87	7.25	0.33	0.213	(0.128)	0.104	0.109
88	7.33	0.37	0.234	(0.127)	0.115	0.120
89	7.42	0.37	0.234	(0.127)	0.115	0.120
90	7.50	0.37	0.234	(0.126)	0.115	0.120
91	7.58	0.40	0.256	(0.126)	0.125	0.130
92	7.67	0.40	0.256	0.125	(0.125)	0.131
93	7.75	0.40	0.256	0.125	(0.125)	0.131
94	7.83	0.43	0.277	0.124	(0.136)	0.153
95	7.92	0.43	0.277	0.123	(0.136)	0.154

96	8.00	0.43	0.277	0.123	(0.136)	0.154
97	8.08	0.50	0.320	0.122	(0.157)	0.197
98	8.17	0.50	0.320	0.122	(0.157)	0.198
99	8.25	0.50	0.320	0.121	(0.157)	0.199
100	8.33	0.50	0.320	0.121	(0.157)	0.199
101	8.42	0.50	0.320	0.120	(0.157)	0.200
102	8.50	0.50	0.320	0.119	(0.157)	0.200
103	8.58	0.53	0.341	0.119	(0.167)	0.222
104	8.67	0.53	0.341	0.118	(0.167)	0.223
105	8.75	0.53	0.341	0.118	(0.167)	0.223
106	8.83	0.57	0.362	0.117	(0.178)	0.245
107	8.92	0.57	0.362	0.117	(0.178)	0.246
108	9.00	0.57	0.362	0.116	(0.178)	0.246
109	9.08	0.63	0.405	0.116	(0.198)	0.289
110	9.17	0.63	0.405	0.115	(0.198)	0.290
111	9.25	0.63	0.405	0.114	(0.198)	0.291
112	9.33	0.67	0.426	0.114	(0.209)	0.312
113	9.42	0.67	0.426	0.113	(0.209)	0.313
114	9.50	0.67	0.426	0.113	(0.209)	0.313
115	9.58	0.70	0.448	0.112	(0.219)	0.335
116	9.67	0.70	0.448	0.112	(0.219)	0.336
117	9.75	0.70	0.448	0.111	(0.219)	0.336
118	9.83	0.73	0.469	0.111	(0.230)	0.358
119	9.92	0.73	0.469	0.110	(0.230)	0.359
120	10.00	0.73	0.469	0.110	(0.230)	0.359
121	10.08	0.50	0.320	0.109	(0.157)	0.211
122	10.17	0.50	0.320	0.109	(0.157)	0.211
123	10.25	0.50	0.320	0.108	(0.157)	0.212
124	10.33	0.50	0.320	0.108	(0.157)	0.212
125	10.42	0.50	0.320	0.107	(0.157)	0.213
126	10.50	0.50	0.320	0.106	(0.157)	0.213
127	10.58	0.67	0.426	0.106	(0.209)	0.320
128	10.67	0.67	0.426	0.105	(0.209)	0.321
129	10.75	0.67	0.426	0.105	(0.209)	0.321
130	10.83	0.67	0.426	0.104	(0.209)	0.322
131	10.92	0.67	0.426	0.104	(0.209)	0.322
132	11.00	0.67	0.426	0.103	(0.209)	0.323
133	11.08	0.63	0.405	0.103	(0.198)	0.302
134	11.17	0.63	0.405	0.102	(0.198)	0.303
135	11.25	0.63	0.405	0.102	(0.198)	0.303
136	11.33	0.63	0.405	0.101	(0.198)	0.304
137	11.42	0.63	0.405	0.101	(0.198)	0.304
138	11.50	0.63	0.405	0.100	(0.198)	0.305
139	11.58	0.57	0.362	0.100	(0.178)	0.263
140	11.67	0.57	0.362	0.099	(0.178)	0.263
141	11.75	0.57	0.362	0.099	(0.178)	0.264
142	11.83	0.60	0.384	0.098	(0.188)	0.285
143	11.92	0.60	0.384	0.098	(0.188)	0.286
144	12.00	0.60	0.384	0.097	(0.188)	0.286
145	12.08	0.83	0.533	0.097	(0.261)	0.436
146	12.17	0.83	0.533	0.096	(0.261)	0.436
147	12.25	0.83	0.533	0.096	(0.261)	0.437
148	12.33	0.87	0.554	0.095	(0.272)	0.459
149	12.42	0.87	0.554	0.095	(0.272)	0.459
150	12.50	0.87	0.554	0.094	(0.272)	0.460
151	12.58	0.93	0.597	0.094	(0.292)	0.503
152	12.67	0.93	0.597	0.094	(0.292)	0.503
153	12.75	0.93	0.597	0.093	(0.292)	0.504
154	12.83	0.97	0.618	0.093	(0.303)	0.526
155	12.92	0.97	0.618	0.092	(0.303)	0.526
156	13.00	0.97	0.618	0.092	(0.303)	0.527
157	13.08	1.13	0.725	0.091	(0.355)	0.634
158	13.17	1.13	0.725	0.091	(0.355)	0.634
159	13.25	1.13	0.725	0.090	(0.355)	0.634
160	13.33	1.13	0.725	0.090	(0.355)	0.635
161	13.42	1.13	0.725	0.089	(0.355)	0.635
162	13.50	1.13	0.725	0.089	(0.355)	0.636
163	13.58	0.77	0.490	0.088	(0.240)	0.402
164	13.67	0.77	0.490	0.088	(0.240)	0.402
165	13.75	0.77	0.490	0.088	(0.240)	0.403

166	13.83	0.77	0.490	0.087	(0.240)	0.403
167	13.92	0.77	0.490	0.087	(0.240)	0.404
168	14.00	0.77	0.490	0.086	(0.240)	0.404
169	14.08	0.90	0.576	0.086	(0.282)	0.490
170	14.17	0.90	0.576	0.085	(0.282)	0.490
171	14.25	0.90	0.576	0.085	(0.282)	0.491
172	14.33	0.87	0.554	0.084	(0.272)	0.470
173	14.42	0.87	0.554	0.084	(0.272)	0.470
174	14.50	0.87	0.554	0.084	(0.272)	0.471
175	14.58	0.87	0.554	0.083	(0.272)	0.471
176	14.67	0.87	0.554	0.083	(0.272)	0.471
177	14.75	0.87	0.554	0.082	(0.272)	0.472
178	14.83	0.83	0.533	0.082	(0.261)	0.451
179	14.92	0.83	0.533	0.081	(0.261)	0.451
180	15.00	0.83	0.533	0.081	(0.261)	0.452
181	15.08	0.80	0.512	0.081	(0.251)	0.431
182	15.17	0.80	0.512	0.080	(0.251)	0.431
183	15.25	0.80	0.512	0.080	(0.251)	0.432
184	15.33	0.77	0.490	0.079	(0.240)	0.411
185	15.42	0.77	0.490	0.079	(0.240)	0.411
186	15.50	0.77	0.490	0.079	(0.240)	0.412
187	15.58	0.63	0.405	0.078	(0.198)	0.327
188	15.67	0.63	0.405	0.078	(0.198)	0.327
189	15.75	0.63	0.405	0.077	(0.198)	0.328
190	15.83	0.63	0.405	0.077	(0.198)	0.328
191	15.92	0.63	0.405	0.077	(0.198)	0.328
192	16.00	0.63	0.405	0.076	(0.198)	0.329
193	16.08	0.13	0.085	(0.076)	0.042	0.043
194	16.17	0.13	0.085	(0.075)	0.042	0.043
195	16.25	0.13	0.085	(0.075)	0.042	0.043
196	16.33	0.13	0.085	(0.075)	0.042	0.043
197	16.42	0.13	0.085	(0.074)	0.042	0.043
198	16.50	0.13	0.085	(0.074)	0.042	0.043
199	16.58	0.10	0.064	(0.074)	0.031	0.033
200	16.67	0.10	0.064	(0.073)	0.031	0.033
201	16.75	0.10	0.064	(0.073)	0.031	0.033
202	16.83	0.10	0.064	(0.072)	0.031	0.033
203	16.92	0.10	0.064	(0.072)	0.031	0.033
204	17.00	0.10	0.064	(0.072)	0.031	0.033
205	17.08	0.17	0.107	(0.071)	0.052	0.054
206	17.17	0.17	0.107	(0.071)	0.052	0.054
207	17.25	0.17	0.107	(0.071)	0.052	0.054
208	17.33	0.17	0.107	(0.070)	0.052	0.054
209	17.42	0.17	0.107	(0.070)	0.052	0.054
210	17.50	0.17	0.107	(0.070)	0.052	0.054
211	17.58	0.17	0.107	(0.069)	0.052	0.054
212	17.67	0.17	0.107	(0.069)	0.052	0.054
213	17.75	0.17	0.107	(0.069)	0.052	0.054
214	17.83	0.13	0.085	(0.068)	0.042	0.043
215	17.92	0.13	0.085	(0.068)	0.042	0.043
216	18.00	0.13	0.085	(0.068)	0.042	0.043
217	18.08	0.13	0.085	(0.067)	0.042	0.043
218	18.17	0.13	0.085	(0.067)	0.042	0.043
219	18.25	0.13	0.085	(0.067)	0.042	0.043
220	18.33	0.13	0.085	(0.066)	0.042	0.043
221	18.42	0.13	0.085	(0.066)	0.042	0.043
222	18.50	0.13	0.085	(0.066)	0.042	0.043
223	18.58	0.10	0.064	(0.065)	0.031	0.033
224	18.67	0.10	0.064	(0.065)	0.031	0.033
225	18.75	0.10	0.064	(0.065)	0.031	0.033
226	18.83	0.07	0.043	(0.064)	0.021	0.022
227	18.92	0.07	0.043	(0.064)	0.021	0.022
228	19.00	0.07	0.043	(0.064)	0.021	0.022
229	19.08	0.10	0.064	(0.063)	0.031	0.033
230	19.17	0.10	0.064	(0.063)	0.031	0.033
231	19.25	0.10	0.064	(0.063)	0.031	0.033
232	19.33	0.13	0.085	(0.063)	0.042	0.043
233	19.42	0.13	0.085	(0.062)	0.042	0.043
234	19.50	0.13	0.085	(0.062)	0.042	0.043
235	19.58	0.10	0.064	(0.062)	0.031	0.033

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236  19.67     0.10      0.064       (  0.061)       0.031        0.033
237  19.75     0.10      0.064       (  0.061)       0.031        0.033
238  19.83     0.07      0.043       (  0.061)       0.021        0.022
239  19.92     0.07      0.043       (  0.061)       0.021        0.022
240  20.00     0.07      0.043       (  0.060)       0.021        0.022
241  20.08     0.10      0.064       (  0.060)       0.031        0.033
242  20.17     0.10      0.064       (  0.060)       0.031        0.033
243  20.25     0.10      0.064       (  0.059)       0.031        0.033
244  20.33     0.10      0.064       (  0.059)       0.031        0.033
245  20.42     0.10      0.064       (  0.059)       0.031        0.033
246  20.50     0.10      0.064       (  0.059)       0.031        0.033
247  20.58     0.10      0.064       (  0.058)       0.031        0.033
248  20.67     0.10      0.064       (  0.058)       0.031        0.033
249  20.75     0.10      0.064       (  0.058)       0.031        0.033
250  20.83     0.07      0.043       (  0.058)       0.021        0.022
251  20.92     0.07      0.043       (  0.058)       0.021        0.022
252  21.00     0.07      0.043       (  0.057)       0.021        0.022
253  21.08     0.10      0.064       (  0.057)       0.031        0.033
254  21.17     0.10      0.064       (  0.057)       0.031        0.033
255  21.25     0.10      0.064       (  0.057)       0.031        0.033
256  21.33     0.07      0.043       (  0.056)       0.021        0.022
257  21.42     0.07      0.043       (  0.056)       0.021        0.022
258  21.50     0.07      0.043       (  0.056)       0.021        0.022
259  21.58     0.10      0.064       (  0.056)       0.031        0.033
260  21.67     0.10      0.064       (  0.056)       0.031        0.033
261  21.75     0.10      0.064       (  0.055)       0.031        0.033
262  21.83     0.07      0.043       (  0.055)       0.021        0.022
263  21.92     0.07      0.043       (  0.055)       0.021        0.022
264  22.00     0.07      0.043       (  0.055)       0.021        0.022
265  22.08     0.10      0.064       (  0.055)       0.031        0.033
266  22.17     0.10      0.064       (  0.054)       0.031        0.033
267  22.25     0.10      0.064       (  0.054)       0.031        0.033
268  22.33     0.07      0.043       (  0.054)       0.021        0.022
269  22.42     0.07      0.043       (  0.054)       0.021        0.022
270  22.50     0.07      0.043       (  0.054)       0.021        0.022
271  22.58     0.07      0.043       (  0.054)       0.021        0.022
272  22.67     0.07      0.043       (  0.053)       0.021        0.022
273  22.75     0.07      0.043       (  0.053)       0.021        0.022
274  22.83     0.07      0.043       (  0.053)       0.021        0.022
275  22.92     0.07      0.043       (  0.053)       0.021        0.022
276  23.00     0.07      0.043       (  0.053)       0.021        0.022
277  23.08     0.07      0.043       (  0.053)       0.021        0.022
278  23.17     0.07      0.043       (  0.053)       0.021        0.022
279  23.25     0.07      0.043       (  0.053)       0.021        0.022
280  23.33     0.07      0.043       (  0.052)       0.021        0.022
281  23.42     0.07      0.043       (  0.052)       0.021        0.022
282  23.50     0.07      0.043       (  0.052)       0.021        0.022
283  23.58     0.07      0.043       (  0.052)       0.021        0.022
284  23.67     0.07      0.043       (  0.052)       0.021        0.022
285  23.75     0.07      0.043       (  0.052)       0.021        0.022
286  23.83     0.07      0.043       (  0.052)       0.021        0.022
287  23.92     0.07      0.043       (  0.052)       0.021        0.022
288  24.00     0.07      0.043       (  0.052)       0.021        0.022
              (Loss Rate Not Used)
    Sum =     100.0                                  Sum =    45.2
      Flood volume = Effective rainfall      3.76(In)
       times area      86.1(Ac.)/[(In)/(Ft.)] =      27.0(Ac.Ft)
      Total soil loss =      1.57(In)
      Total soil loss =    11.234(Ac.Ft)
      Total rainfall =      5.33(In)
      Flood volume =     1176229.6 Cubic Feet
      Total soil loss =      489344.4 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =     54.971(CFS)
      ---------------------------------------------------------------------
      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          24 - H O U R    S T O R M
                     R u n o f f     H y d r o g r a p h
      ---------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))
```

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	15.0	30.0	45.0	60.0
0+ 5	0.0030	0.44	Q				
0+10	0.0124	1.36	Q				
0+15	0.0235	1.62	VQ				
0+20	0.0371	1.96	VQ				
0+25	0.0542	2.49	VQ				
0+30	0.0725	2.66	VQ				
0+35	0.0915	2.75	VQ				
0+40	0.1107	2.79	VQ				
0+45	0.1301	2.81	VQ				
0+50	0.1510	3.04	V Q				
0+55	0.1752	3.51	V Q				
1+ 0	0.2003	3.64	V Q				
1+ 5	0.2243	3.48	V Q				
1+10	0.2453	3.06	V Q				
1+15	0.2656	2.95	VQ				
1+20	0.2856	2.90	VQ				
1+25	0.3054	2.87	VQ				
1+30	0.3250	2.85	VQ				
1+35	0.3445	2.84	VQ				
1+40	0.3640	2.83	VQ				
1+45	0.3835	2.83	VQ				
1+50	0.4045	3.05	V Q				
1+55	0.4287	3.51	V Q				
2+ 0	0.4538	3.64	V Q				
2+ 5	0.4793	3.70	V Q				
2+10	0.5050	3.74	V Q				
2+15	0.5309	3.76	V Q				
2+20	0.5569	3.77	V Q				
2+25	0.5829	3.78	V Q				
2+30	0.6089	3.78	V Q				
2+35	0.6364	3.99	V Q				
2+40	0.6671	4.45	V Q				
2+45	0.6986	4.59	|V Q				
2+50	0.7307	4.65	|V Q				
2+55	0.7629	4.68	|V Q				
3+ 0	0.7953	4.70	|V Q				
3+ 5	0.8277	4.71	|V Q				
3+10	0.8602	4.72	|V Q				
3+15	0.8927	4.72	|V Q				
3+20	0.9252	4.72	|V Q				
3+25	0.9577	4.72	|V Q				
3+30	0.9902	4.72	|V Q				
3+35	1.0227	4.72	|V Q				
3+40	1.0552	4.72	|V Q				
3+45	1.0877	4.72	|V Q				
3+50	1.1217	4.94	|V Q				
3+55	1.1589	5.40	|V Q				
4+ 0	1.1970	5.53	|V Q				
4+ 5	1.2355	5.59	|V Q				
4+10	1.2742	5.62	|V Q				
4+15	1.3131	5.64	|V Q				
4+20	1.3536	5.88	| VQ				
4+25	1.3973	6.34	| V Q				
4+30	1.4418	6.47	| V Q				
4+35	1.4869	6.53	| V Q				
4+40	1.5321	6.57	| V Q				
4+45	1.5775	6.59	| V Q				
4+50	1.6244	6.82	| V Q				
4+55	1.6746	7.29	| V Q				
5+ 0	1.7257	7.42	| V Q				
5+ 5	1.7742	7.04	| V Q				
5+10	1.8166	6.15	| V Q				
5+15	1.8573	5.91	| VQ				
5+20	1.8987	6.02	| V Q				
5+25	1.9429	6.42	| V Q				
5+30	1.9878	6.51	| V Q				

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 5+35      2.0344      6.77  |  VQ     |         |         |         |
 5+40      2.0843      7.25  |  VQ     |         |         |         |
 5+45      2.1352      7.40  |  VQ     |         |         |         |
 5+50      2.1867      7.47  |  VQ     |         |         |         |
 5+55      2.2384      7.51  |  V Q    |         |         |         |
 6+ 0      2.2903      7.53  |  V Q    |         |         |         |
 6+ 5      2.3438      7.76  |  V Q    |         |         |         |
 6+10      2.4005      8.23  |  V Q    |         |         |         |
 6+15      2.4581      8.36  |  V Q    |         |         |         |
 6+20      2.5161      8.42  |  V Q    |         |         |         |
 6+25      2.5743      8.46  |  V Q    |         |         |         |
 6+30      2.6327      8.48  |  V Q    |         |         |         |
 6+35      2.6926      8.71  |  V Q    |         |         |         |
 6+40      2.7558      9.17  |   V Q   |         |         |         |
 6+45      2.8199      9.31  |   V Q   |         |         |         |
 6+50      2.8844      9.37  |   V Q   |         |         |         |
 6+55      2.9491      9.40  |   V Q   |         |         |         |
 7+ 0      3.0140      9.42  |   V Q   |         |         |         |
 7+ 5      3.0790      9.43  |   V Q   |         |         |         |
 7+10      3.1440      9.44  |   V Q   |         |         |         |
 7+15      3.2090      9.44  |   V Q   |         |         |         |
 7+20      3.2755      9.66  |   V Q   |         |         |         |
 7+25      3.3452     10.12  |   V Q   |         |         |         |
 7+30      3.4158     10.25  |    VQ   |         |         |         |
 7+35      3.4883     10.53  |    V Q  |         |         |         |
 7+40      3.5642     11.03  |    V Q  |         |         |         |
 7+45      3.6413     11.20  |    V Q  |         |         |         |
 7+50      3.7222     11.74  |    V Q  |         |         |         |
 7+55      3.8098     12.73  |    V  Q |         |         |         |
 8+ 0      3.8997     13.05  |    V  Q |         |         |         |
 8+ 5      3.9967     14.09  |    V   Q|         |         |         |
 8+10      4.1070     16.01  |     V   Q         |         |         |
 8+15      4.2215     16.62  |     V   |Q        |         |         |
 8+20      4.3381     16.93  |     V   |Q        |         |         |
 8+25      4.4560     17.12  |     V   |Q        |         |         |
 8+30      4.5748     17.25  |     V   |Q        |         |         |
 8+35      4.6973     17.78  |     V   |Q        |         |         |
 8+40      4.8264     18.75  |      V  | Q       |         |         |
 8+45      4.9577     19.06  |      V  | Q       |         |         |
 8+50      5.0931     19.66  |      V  |  Q      |         |         |
 8+55      5.2355     20.67  |      V  |  Q      |         |         |
 9+ 0      5.3802     21.02  |      V  |   Q     |         |         |
 9+ 5      5.5322     22.07  |       V |   Q     |         |         |
 9+10      5.6975     24.00  |       V |     Q   |         |         |
 9+15      5.8670     24.61  |       V |     Q   |         |         |
 9+20      6.0415     25.34  |       V |     Q   |         |         |
 9+25      6.2236     26.44  |        V|      Q  |         |         |
 9+30      6.4083     26.82  |        V|      Q  |         |         |
 9+35      6.5974     27.46  |        V|       Q |         |         |
 9+40      6.7937     28.50  |         V        Q|         |         |
 9+45      6.9924     28.85  |         V        Q|         |         |
 9+50      7.1954     29.47  |         V        Q|         |         |
 9+55      7.4054     30.50  |         V         Q         |         |
10+ 0      7.6178     30.84  |         |V        Q         |         |
10+ 5      7.8108     28.03  |         |V      Q |         |         |
10+10      7.9612     21.83  |         |V  Q     |         |         |
10+15      8.0996     20.10  |         |V Q      |         |         |
10+20      8.2328     19.34  |         | Q       |         |         |
10+25      8.3633     18.94  |         | Q       |         |         |
10+30      8.4921     18.71  |         | Q       |         |         |
10+35      8.6349     20.73  |         | VQ      |         |         |
10+40      8.8085     25.21  |         |  V  Q   |         |         |
10+45      8.9913     26.55  |         |  V   Q  |         |         |
10+50      9.1785     27.18  |         |  V    Q |         |         |
10+55      9.3683     27.56  |         |  V    Q |         |         |
11+ 0      9.5597     27.80  |         |   V   Q |         |         |
11+ 5      9.7494     27.53  |         |   V   Q |         |         |
11+10      9.9335     26.74  |         |   V  Q  |         |         |
11+15     10.1161     26.52  |         |   V  Q  |         |         |
11+20     10.2983     26.45  |         |    V Q  |         |         |
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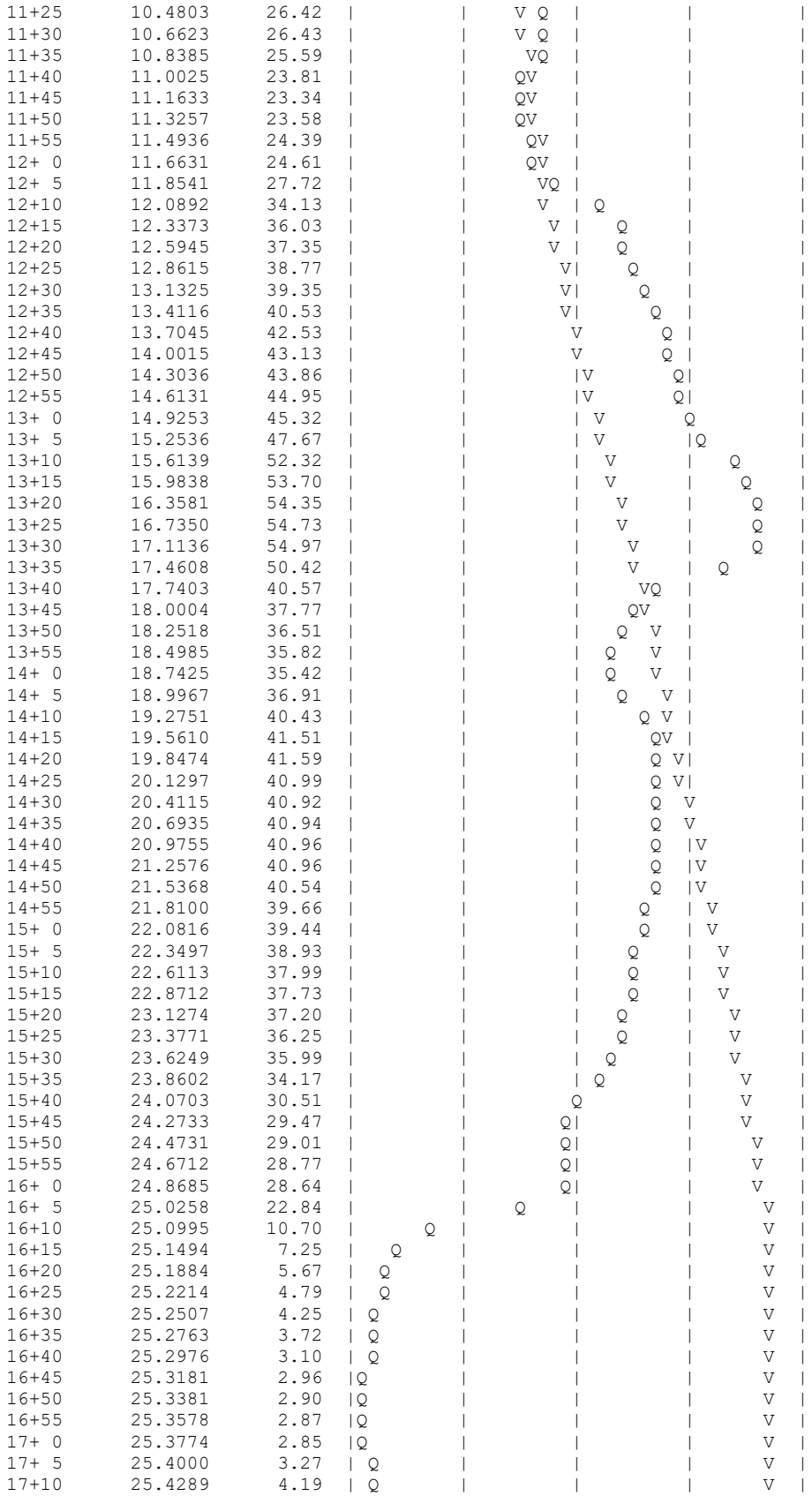

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11+45	11.1633	23.34	
11+50	11.3257	23.58	
11+55	11.4936	24.39	
12+ 0	11.6631	24.61	
12+ 5	11.8541	27.72	
12+10	12.0892	34.13	
12+15	12.3373	36.03	
12+20	12.5945	37.35	
12+25	12.8615	38.77	
12+30	13.1325	39.35	
12+35	13.4116	40.53	
12+40	13.7045	42.53	
12+45	14.0015	43.13	
12+50	14.3036	43.86	
12+55	14.6131	44.95	
13+ 0	14.9253	45.32	
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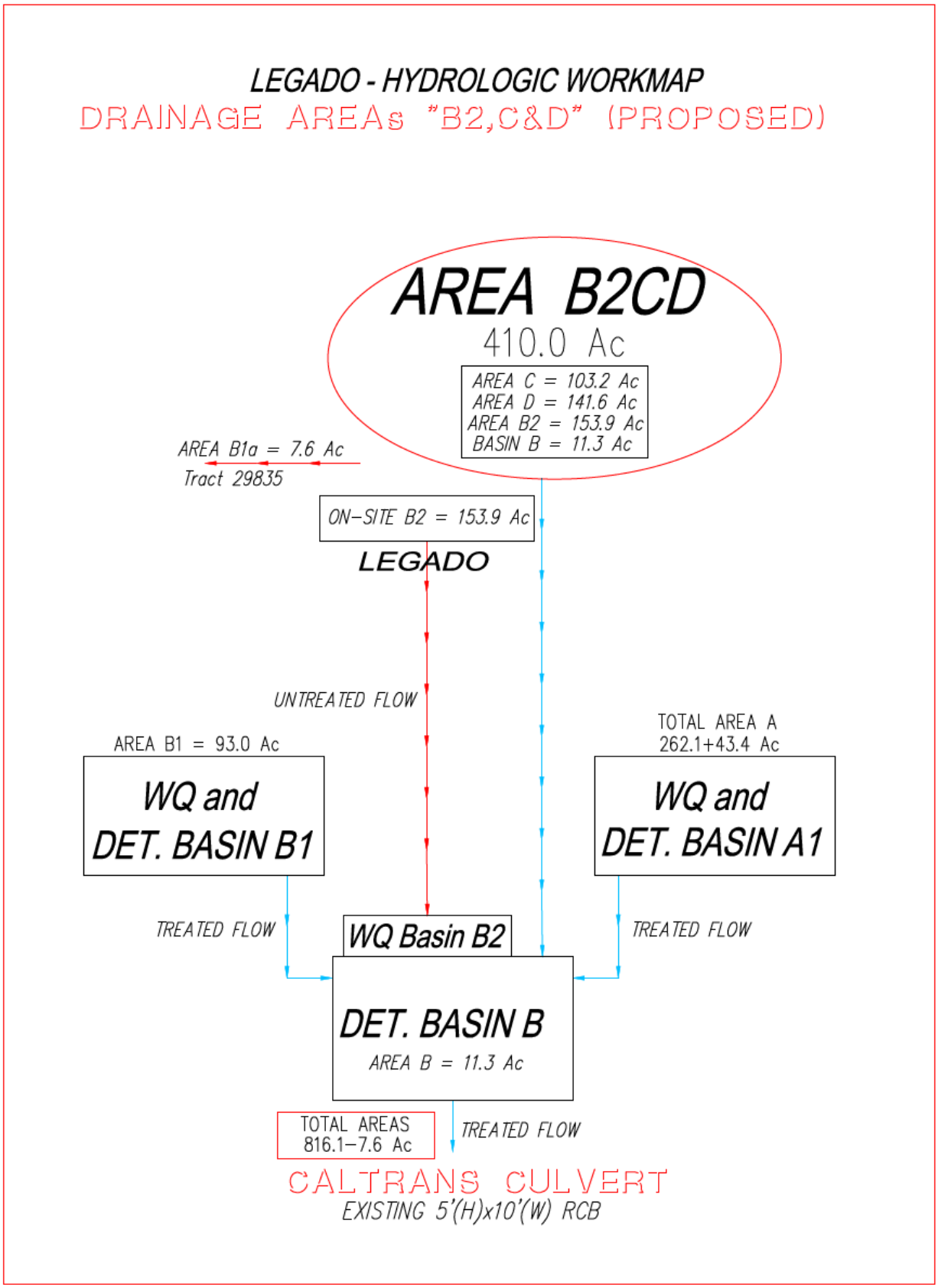
13+10	15.6139	52.32	
13+15	15.9838	53.70	
13+20	16.3581	54.35	
13+25	16.7350	54.73	
13+30	17.1136	54.97	
13+35	17.4608	50.42	
13+40	17.7403	40.57	
13+45	18.0004	37.77	
13+50	18.2518	36.51	
13+55	18.4985	35.82	
14+ 0	18.7425	35.42	
14+ 5	18.9967	36.91	
14+10	19.2751	40.43	
14+15	19.5610	41.51	
14+20	19.8474	41.59	
14+25	20.1297	40.99	
14+30	20.4115	40.92	
14+35	20.6935	40.94	
14+40	20.9755	40.96	
14+45	21.2576	40.96	
14+50	21.5368	40.54	
14+55	21.8100	39.66	
15+ 0	22.0816	39.44	
15+ 5	22.3497	38.93	
15+10	22.6113	37.99	
15+15	22.8712	37.73	
15+20	23.1274	37.20	
15+25	23.3771	36.25	
15+30	23.6249	35.99	
15+35	23.8602	34.17	
15+40	24.0703	30.51	
15+45	24.2733	29.47	
15+50	24.4731	29.01	
15+55	24.6712	28.77	
16+ 0	24.8685	28.64	
16+ 5	25.0258	22.84	
16+10	25.0995	10.70	
16+15	25.1494	7.25	
16+20	25.1884	5.67	
16+25	25.2214	4.79	
16+30	25.2507	4.25	
16+35	25.2763	3.72	
16+40	25.2976	3.10	
16+45	25.3181	2.96	
16+50	25.3381	2.90	
16+55	25.3578	2.87	
17+ 0	25.3774	2.85	
17+ 5	25.4000	3.27	
17+10	25.4289	4.19	

17+15	25.4595	4.45	| Q	|	|	|	V |
17+20	25.4910	4.57	| Q	|	|	|	V |
17+25	25.5230	4.64	| Q	|	|	|	V |
17+30	25.5553	4.68	| Q	|	|	|	V |
17+35	25.5877	4.71	| Q	|	|	|	V |
17+40	25.6202	4.72	| Q	|	|	|	V |
17+45	25.6527	4.72	| Q	|	|	|	V |
17+50	25.6837	4.50	| Q	|	|	|	V |
17+55	25.7115	4.04	| Q	|	|	|	V |
18+ 0	25.7384	3.91	| Q	|	|	|	V |
18+ 5	25.7649	3.85	| Q	|	|	|	V |
18+10	25.7912	3.81	| Q	|	|	|	V |
18+15	25.8173	3.79	| Q	|	|	|	V |
18+20	25.8433	3.78	| Q	|	|	|	V |
18+25	25.8693	3.78	| Q	|	|	|	V |
18+30	25.8953	3.78	| Q	|	|	|	V |
18+35	25.9198	3.56	| Q	|	|	|	V |
18+40	25.9412	3.10	| Q	|	|	|	V |
18+45	25.9616	2.96	|Q	|	|	|	V |
18+50	25.9801	2.69	|Q	|	|	|	V |
18+55	25.9952	2.19	|Q	|	|	|	V |
19+ 0	26.0092	2.04	|Q	|	|	|	V |
19+ 5	26.0242	2.18	|Q	|	|	|	V |
19+10	26.0422	2.61	|Q	|	|	|	V |
19+15	26.0609	2.72	|Q	|	|	|	V |
19+20	26.0814	2.98	|Q	|	|	|	V |
19+25	26.1054	3.47	| Q	|	|	|	V |
19+30	26.1303	3.62	| Q	|	|	|	V |
19+35	26.1543	3.48	| Q	|	|	|	V |
19+40	26.1753	3.06	| Q	|	|	|	V |
19+45	26.1956	2.95	|Q	|	|	|	V |
19+50	26.2141	2.68	|Q	|	|	|	V |
19+55	26.2292	2.19	|Q	|	|	|	V |
20+ 0	26.2432	2.04	|Q	|	|	|	V |
20+ 5	26.2582	2.18	|Q	|	|	|	V |
20+10	26.2762	2.61	|Q	|	|	|	V |
20+15	26.2949	2.72	|Q	|	|	|	V |
20+20	26.3140	2.77	|Q	|	|	|	V |
20+25	26.3332	2.79	|Q	|	|	|	V|
20+30	26.3526	2.81	|Q	|	|	|	V|
20+35	26.3720	2.83	|Q	|	|	|	V|
20+40	26.3915	2.83	|Q	|	|	|	V|
20+45	26.4110	2.83	|Q	|	|	|	V|
20+50	26.4290	2.61	|Q	|	|	|	V|
20+55	26.4438	2.15	|Q	|	|	|	V|
21+ 0	26.4577	2.02	|Q	|	|	|	V|
21+ 5	26.4728	2.18	|Q	|	|	|	V|
21+10	26.4907	2.61	|Q	|	|	|	V|
21+15	26.5094	2.72	|Q	|	|	|	V|
21+20	26.5270	2.55	|Q	|	|	|	V|
21+25	26.5415	2.11	|Q	|	|	|	V|
21+30	26.5553	2.00	|Q	|	|	|	V|
21+35	26.5703	2.17	|Q	|	|	|	V|
21+40	26.5882	2.61	|Q	|	|	|	V|
21+45	26.6069	2.72	|Q	|	|	|	V|
21+50	26.6245	2.55	|Q	|	|	|	V|
21+55	26.6390	2.11	|Q	|	|	|	V|
22+ 0	26.6528	2.00	|Q	|	|	|	V|
22+ 5	26.6678	2.17	|Q	|	|	|	V|
22+10	26.6857	2.61	|Q	|	|	|	V|
22+15	26.7044	2.72	|Q	|	|	|	V|
22+20	26.7220	2.55	|Q	|	|	|	V|
22+25	26.7365	2.11	|Q	|	|	|	V|
22+30	26.7503	2.00	|Q	|	|	|	V|
22+35	26.7638	1.95	|Q	|	|	|	V|
22+40	26.7770	1.93	|Q	|	|	|	V|
22+45	26.7901	1.91	|Q	|	|	|	V|
22+50	26.8032	1.89	|Q	|	|	|	V|
22+55	26.8162	1.89	|Q	|	|	|	V|
23+ 0	26.8292	1.89	|Q	|	|	|	V|

23+ 5	26.8422	1.89	|Q	|	|	|	V|
23+10	26.8552	1.89	|Q	|	|	|	V|
23+15	26.8682	1.89	|Q	|	|	|	V|
23+20	26.8812	1.89	|Q	|	|	|	V|
23+25	26.8942	1.89	|Q	|	|	|	V|
23+30	26.9072	1.89	|Q	|	|	|	V|
23+35	26.9202	1.89	|Q	|	|	|	V|
23+40	26.9332	1.89	|Q	|	|	|	V|
23+45	26.9462	1.89	|Q	|	|	|	V|
23+50	26.9592	1.89	|Q	|	|	|	V|
23+55	26.9722	1.89	|Q	|	|	|	V|
24+ 0	26.9852	1.89	|Q	|	|	|	V|
24+ 5	26.9952	1.45	Q	|	|	|	V|
24+10	26.9988	0.53	Q	|	|	|	V|
24+15	27.0007	0.26	Q	|	|	|	V|
24+20	27.0016	0.14	Q	|	|	|	V|
24+25	27.0022	0.08	Q	|	|	|	V|
24+30	27.0024	0.04	Q	|	|	|	V|
24+35	27.0025	0.01	Q	|	|	|	V|


LEGADO - HYDROLOGIC WORKMAP
DRAINAGE AREAs "B2,C&D" (PROPOSED)
AREA B2CD
410.0 Ac
AREA C = 103.2 Ac
AREA D = 141.6 Ac
AREA B2 = 153.9 Ac
BASIN B = 11.3 Ac
AREA B1a = 7.6 Ac
Tract 29835
ON-SITE B2 = 153.9 Ac
LEGADO
UNTREATED FLOW
AREA B1 = 93.0 Ac
WQ and DET. BASIN B1
TOTAL AREA A
262.1+43.4 Ac
WQ and DET. BASIN A1
TREATED FLOW
WQ Basin B2
TREATED FLOW
DET. BASIN B
AREA B = 11.3 Ac
TOTAL AREAS
816.1-7.6 Ac
TREATED FLOW
CALTRANS CULVERT
EXISTING 5'(H)x10'(W) RCB

LEGADO - Drainage Areas B2CD (Proposed Condition) = 410.0 Ac

Soil Low Loss Rate Worksheet						
Drainage Area B2CD - 410.0 Ac (Proposed)						
[1]	[2]	[3]	[4]	[5]	[6]	[7]
Subarea	**Area in (Ac)**	**Land Use (Plate D-5.6)**	**% Impervious (Plate D-5.6)**	**Soil Low Loss Rate 0.9-(0.8)* [4]**	**Decimal portion of Area [2] / SUM[2]**	**Average Low Loss Rate [5] * [6]**
	41.7	Natural	4	0.87	0.10	0.09
	11.3	Basins	5	0.86	0.03	0.02
	33.1	Res 1/2 Ac	40	0.58	0.08	0.05
	74.6	Res 1/4 Ac	55	0.46	0.18	0.08
	120.9	Res < 1/4 Ac	70	0.34	0.29	0.10
		Apartment	80	0.26	0.00	0.00
	23	Mobil Home	80	0.26	0.06	0.01
	19.2	School	75	0.30	0.05	0.01
	86.2	Commercial	90	0.18	0.21	0.04
Sum =	410.0				1.00	**0.41**

Manning "n" Value Worksheet					
Drainage Area B2CD - 410.0 Ac (Proposed)					
[1]	[2]	[3]	[4]	[5]	[7]
Subarea	**Area in (Ac)**	**Land Use (Plate D-5.6)**	**"n" Value**	**Decimal portion of Area [2] / SUM[2]**	**Average "n" Value [4] * [5]**
	41.7	Natural	0.04	0.10	0.004
	11.3	Basins	0.025	0.03	0.001
	33.1	Res 1/2 Ac	0.015	0.08	0.001
	74.6	Res 1/4 Ac	0.015	0.18	0.003
	120.9	Res < 1/4 Ac	0.015	0.29	0.004
	19.2	School	0.02	0.05	0.001
	23	Mobil Home	0.015	0.06	0.001
	86.2	Commercial	0.015	0.21	0.003
Sum =	**410.0**			1.00	**0.018**

Runoff Index (RI) Worksheet							
Drainage Area B2CD - 410.0 Ac (Proposed)							
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Subarea	**Area in (Ac)**	**Soil Group**	**Cover Type**	**RI Number (Plate E6-1)**	**Land Use**	**Decimal portion of Area [2] / SUM[2]**	**Average RI Value [5] * [7]**
Natural		B	grass (fair)	69	Natural	0.00	0.0
	10.2	C	grass (fair)	79	Natural	0.24	19.3
	31.5	D	grass (fair)	84	Natural	0.76	63.5
Sum =	*41.7*					1.00	**82.8**
Basin		B	Landscape	56	Landscape	0.00	0.0
	8	C	Landscape	69	Landscape	0.71	48.8
	3.3	D	Landscape	75	Landscape	0.29	21.9
Sum =	*11.3*					1.00	**70.8**
Mobil Home		B	Landscape	56	Mobil Home	0.00	0.0
	4.2	C	Landscape	69	Mobil Home	0.18	12.6
	18.8	D	Landscape	75	Mobil Home	0.82	61.3
Sum =	*23*					1.00	**73.9**
Commercial	2.1	B	Landscape	56	Commercial	0.02	1.4
	18.1	C	Landscape	69	Commercial	0.21	14.5
	66	D	Landscape	75	Commercial	0.77	57.4
Sum =	*86.2*					1.00	**73.3**
School	3.3	B	Landscape	56	Commercial	0.17	9.6
	15.9	C	Landscape	69	Commercial	0.83	57.1
		D	Landscape	75	Commercial	0.00	0.0
Sum =	*19.2*					1.00	**66.8**
Res 1/2 Ac	7.5	B	Landscape	56	Res 1/2 Ac	0.23	12.7
	10.2	C	Landscape	69	Res 1/2 Ac	0.31	21.3
	15.4	D	Landscape	75	Res 1/2 Ac	0.47	34.9
Sum =	*33.1*					1.00	**68.8**
Res 1/4 Ac	2.6	B	Landscape	56	Res 1/4 Ac	0.03	2.0
	40	C	Landscape	69	Res 1/4 Ac	0.54	37.0
	32	D	Landscape	75	Res 1/4 Ac	0.43	32.2
Sum =	*74.6*					1.00	**71.1**
Res < 1/4 Ac		B	Landscape	56	Res < 1/4 Ac	0.00	0.0
	2.3	C	Landscape	69	Res < 1/4 Ac	0.02	1.3
	118.6	D	Landscape	75	Res < 1/4 Ac	0.98	73.6
Sum =	*120.9*					1.00	**74.9**
Sum =	410						

```
                U n i t   H y d r o g r a p h   A n a l y s i s

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                Study date  03/29/18 File: frareab2cd1100.out


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
------------------------------------------------------------------------------

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Fleming Ranch
Proposed Condition
100-year 1-hour storm Hydrograph
Drainage Areas B2CD = 420.2 Ac

------------------------------------------------------------------------
Drainage Area =     420.20(Ac.)  =      0.657 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     420.20(Ac.)  =      0.657 Sq. Mi.
Length along longest watercourse =    6965.00(Ft.)
Length along longest watercourse measured to centroid =    1138.00(Ft.)
Length along longest watercourse =      1.319 Mi.
Length along longest watercourse measured to centroid =      0.216 Mi.
Difference in elevation =      58.00(Ft.)
Slope along watercourse =     43.9684 Ft./Mi.
Average Manning's 'N' = 0.018
Lag time =    0.131 Hr.
Lag time =     7.83 Min.
25% of lag time =     1.96 Min.
40% of lag time =     3.13 Min.
Unit time =     5.00 Min.
Duration of storm = 1 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      420.20           0.52                 218.50

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      420.20           1.64                 689.13

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.520(In)
Area Averaged 100-Year Rainfall =    1.640(In)

Point rain (area averaged) =    1.640(In)
Areal adjustment factor =   99.62 %
Adjusted average point rain =    1.634(In)
```

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
41.700	82.80	0.000
11.300	70.90	0.050
23.000	73.90	0.750
43.100	70.30	0.500
100.400	70.90	0.650
100.700	74.80	0.750
86.200	73.30	0.900
13.800	65.50	0.800

Total Area Entered = 420.20(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
82.8	92.7	0.095	0.000	0.095	0.099	0.009
70.9	85.5	0.181	0.050	0.173	0.027	0.005
73.9	87.3	0.160	0.750	0.052	0.055	0.003
70.3	85.2	0.185	0.500	0.102	0.103	0.010
70.9	85.5	0.181	0.650	0.075	0.239	0.018
74.8	87.9	0.154	0.750	0.050	0.240	0.012
73.3	87.0	0.164	0.900	0.031	0.205	0.006
65.5	82.3	0.218	0.800	0.061	0.033	0.002
					Sum (F) =	0.066

Area averaged mean soil loss (F) (In/Hr) = 0.066
Minimum soil loss rate ((In/Hr)) = 0.033
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.440

Slope of intensity-duration curve for a 1 hour storm =0.5300

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	63.839	9.107	38.568
2	0.167	127.679	36.547	154.772
3	0.250	191.518	25.273	107.028
4	0.333	255.358	9.722	41.169
5	0.417	319.197	5.851	24.779
6	0.500	383.037	3.929	16.640
7	0.583	446.876	2.721	11.524
8	0.667	510.716	2.005	8.491
9	0.750	574.555	1.563	6.617
10	0.833	638.395	1.151	4.875
11	0.917	702.234	0.829	3.509
12	1.000	766.074	0.643	2.721
13	1.083	829.913	0.658	2.788
			Sum = 100.000	Sum= 423.483

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	3.40	0.667	0.066	(0.293)	0.601
2	0.17	4.70	0.921	0.066	(0.405)	0.856
3	0.25	4.70	0.921	0.066	(0.405)	0.856
4	0.33	5.10	1.000	0.066	(0.440)	0.934
5	0.42	5.80	1.137	0.066	(0.500)	1.071
6	0.50	5.90	1.157	0.066	(0.509)	1.091
7	0.58	7.10	1.392	0.066	(0.612)	1.326
8	0.67	8.70	1.706	0.066	(0.750)	1.640

```
  9   0.75    13.20      2.588          0.066    (  1.139)        2.522
 10   0.83    29.70      5.823          0.066    (  2.562)        5.757
 11   0.92     7.70      1.510          0.066    (  0.664)        1.444
 12   1.00     4.00      0.784          0.066    (  0.345)        0.718
               (Loss Rate Not Used)
    Sum =     100.0                                  Sum =    18.8
       Flood volume = Effective rainfall      1.57(In)
        times area     420.2(Ac.)/[(In)/(Ft.)] =      54.9(Ac.Ft)
       Total soil loss =      0.07(In)
       Total soil loss =     2.301(Ac.Ft)
       Total rainfall =      1.63(In)
       Flood volume =     2391757.3 Cubic Feet
       Total soil loss =      100251.3 Cubic Feet
       ---------------------------------------------------------------------
        Peak flow rate of this hydrograph =   1368.105(CFS)
       ---------------------------------------------------------------------
       +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                           1 - H O U R    S T O R M
                      R u n o f f     H y d r o g r a p h
       ---------------------------------------------------------------------
                   Hydrograph in   5   Minute intervals ((CFS))

       ---------------------------------------------------------------------
  Time(h+m) Volume Ac.Ft   Q(CFS)  0      350.0     700.0    1050.0    1400.0
  ---------------------------------------------------------------------------
    0+ 5       0.1597     23.19  Q          |         |         |         |
    0+10       1.0279    126.06  V  Q       |         |         |         |
    0+15       2.6110    229.87  |V    Q    |         |         |         |
    0+20       4.5734    284.94  |  V    Q  |         |         |         |
    0+25       6.8308    327.77  |   V    Q|         |         |         |
    0+30       9.4100    374.50  |     V   Q         |         |         |
    0+35      12.2730    415.71  |       V |Q        |         |         |
    0+40      15.5924    481.98  |         |V Q      |         |         |
    0+45      19.7346    601.45  |         |   V  Q  |         |         |
    0+50      26.0326    914.47  |         |       V |     Q   |         |
    0+55      35.4548   1368.10  |         |         |    V    |        Q|
    1+ 0      42.8315   1071.09  |         |         |         QV        |
    1+ 5      47.2120    636.05  |         |       Q |         |   V     |
    1+10      49.7723    371.75  |         Q         |         |     V   |
    1+15      51.3359    227.04  |     Q   |         |         |      V  |
    1+20      52.4126    156.34  |   Q     |         |         |       V |
    1+25      53.1897    112.83  |  Q      |         |         |       V |
    1+30      53.7639     83.38  | Q       |         |         |        V|
    1+35      54.1824     60.76  |Q        |         |         |        V|
    1+40      54.4816     43.45  |Q        |         |         |        V|
    1+45      54.6971     31.28  Q         |         |         |        V|
    1+50      54.8522     22.51  Q         |         |         |        V|
    1+55      54.8934      5.98  Q         |         |         |        V|
    2+ 0      54.9072      2.00  Q         |         |         |        V|
---------------------------------------------------------------------------
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        U n i t   H y d r o g r a p h   A n a l y s i s

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                Study date  03/29/18 File: frareab2cd3100.out


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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Fleming Ranch
Proposed Condition
100-year 3-hour storm Hydrograph
Drainage Areas B2CD = 420.2 Ac

------------------------------------------------------------------------
Drainage Area =     420.20(Ac.)  =      0.657 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     420.20(Ac.)  =      0.657 Sq. Mi.
Length along longest watercourse =    6965.00(Ft.)
Length along longest watercourse measured to centroid =    1138.00(Ft.)
Length along longest watercourse =      1.319 Mi.
Length along longest watercourse measured to centroid =      0.216 Mi.
Difference in elevation =      58.00(Ft.)
Slope along watercourse =     43.9684 Ft./Mi.
Average Manning's 'N' = 0.018
Lag time =    0.131 Hr.
Lag time =     7.83 Min.
25% of lag time =     1.96 Min.
40% of lag time =     3.13 Min.
Unit time =     5.00 Min.
Duration of storm = 3 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      420.20           0.86                361.37

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      420.20           2.27                953.85

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.860(In)
Area Averaged 100-Year Rainfall =    2.270(In)

Point rain (area averaged) =    2.270(In)
Areal adjustment factor =   99.82 %
Adjusted average point rain =    2.266(In)

Sub-Area Data:
```

Area(Ac.)	Runoff Index	Impervious %
41.700	82.80	0.000
11.300	70.90	0.050
23.000	73.90	0.750
43.100	70.30	0.500
100.400	70.90	0.650
100.700	74.80	0.750
86.200	73.30	0.900
13.800	65.50	0.800

Total Area Entered = 420.20(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
82.8	92.7	0.095	0.000	0.095	0.099	0.009
70.9	85.5	0.181	0.050	0.173	0.027	0.005
73.9	87.3	0.160	0.750	0.052	0.055	0.003
70.3	85.2	0.185	0.500	0.102	0.103	0.010
70.9	85.5	0.181	0.650	0.075	0.239	0.018
74.8	87.9	0.154	0.750	0.050	0.240	0.012
73.3	87.0	0.164	0.900	0.031	0.205	0.006
65.5	82.3	0.218	0.800	0.061	0.033	0.002
					Sum (F) =	0.066

Area averaged mean soil loss (F) (In/Hr) = 0.066
Minimum soil loss rate ((In/Hr)) = 0.033
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.440

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	63.839	9.107	38.568
2	0.167	127.679	36.547	154.772
3	0.250	191.518	25.273	107.028
4	0.333	255.358	9.722	41.169
5	0.417	319.197	5.851	24.779
6	0.500	383.037	3.929	16.640
7	0.583	446.876	2.721	11.524
8	0.667	510.716	2.005	8.491
9	0.750	574.555	1.563	6.617
10	0.833	638.395	1.151	4.875
11	0.917	702.234	0.829	3.509
12	1.000	766.074	0.643	2.721
13	1.083	829.913	0.658	2.788
			Sum = 100.000 Sum=	423.483

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	1.30	0.353	0.066	(0.156)	0.288
2	0.17	1.30	0.353	0.066	(0.156)	0.288
3	0.25	1.10	0.299	0.066	(0.132)	0.233
4	0.33	1.50	0.408	0.066	(0.179)	0.342
5	0.42	1.50	0.408	0.066	(0.179)	0.342
6	0.50	1.80	0.489	0.066	(0.215)	0.424
7	0.58	1.50	0.408	0.066	(0.179)	0.342
8	0.67	1.80	0.489	0.066	(0.215)	0.424
9	0.75	1.80	0.489	0.066	(0.215)	0.424
10	0.83	1.50	0.408	0.066	(0.179)	0.342
11	0.92	1.60	0.435	0.066	(0.191)	0.369

```
12   1.00     1.80      0.489          0.066    (  0.215)        0.424
13   1.08     2.20      0.598          0.066    (  0.263)        0.532
14   1.17     2.20      0.598          0.066    (  0.263)        0.532
15   1.25     2.20      0.598          0.066    (  0.263)        0.532
16   1.33     2.00      0.544          0.066    (  0.239)        0.478
17   1.42     2.60      0.707          0.066    (  0.311)        0.641
18   1.50     2.70      0.734          0.066    (  0.323)        0.668
19   1.58     2.40      0.653          0.066    (  0.287)        0.587
20   1.67     2.70      0.734          0.066    (  0.323)        0.668
21   1.75     3.30      0.897          0.066    (  0.395)        0.832
22   1.83     3.10      0.843          0.066    (  0.371)        0.777
23   1.92     2.90      0.789          0.066    (  0.347)        0.723
24   2.00     3.00      0.816          0.066    (  0.359)        0.750
25   2.08     3.10      0.843          0.066    (  0.371)        0.777
26   2.17     4.20      1.142          0.066    (  0.502)        1.076
27   2.25     5.00      1.359          0.066    (  0.598)        1.294
28   2.33     3.50      0.952          0.066    (  0.419)        0.886
29   2.42     6.80      1.849          0.066    (  0.814)        1.783
30   2.50     7.30      1.985          0.066    (  0.873)        1.919
31   2.58     8.20      2.230          0.066    (  0.981)        2.164
32   2.67     5.90      1.604          0.066    (  0.706)        1.538
33   2.75     2.00      0.544          0.066    (  0.239)        0.478
34   2.83     1.80      0.489          0.066    (  0.215)        0.424
35   2.92     1.80      0.489          0.066    (  0.215)        0.424
36   3.00     0.60      0.163          0.066    (  0.072)        0.097
              (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    24.8
      Flood volume = Effective rainfall      2.07(In)
       times area     420.2(Ac.)/[(In)/(Ft.)] =      72.4(Ac.Ft)
      Total soil loss =      0.20(In)
      Total soil loss =     6.904(Ac.Ft)
      Total rainfall =      2.27(In)
      Flood volume =     3155370.7 Cubic Feet
      Total soil loss =      300754.0 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =    751.265(CFS)
      ---------------------------------------------------------------------
      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        3 - H O U R    S T O R M
                    R u n o f f     H y d r o g r a p h
      ---------------------------------------------------------------------
                 Hydrograph in   5   Minute intervals ((CFS))

      ---------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0      200.0     400.0     600.0     800.0
-------------------------------------------------------------------------
  0+ 5       0.0765     11.10  Q          |         |         |         |
  0+10       0.4598     55.66  V Q        |         |         |         |
  0+15       1.0409     84.38  V   Q      |         |         |         |
  0+20       1.6745     92.00  V   Q      |         |         |         |
  0+25       2.4332    110.16  |V   Q     |         |         |         |
  0+30       3.3113    127.50  |V    Q    |         |         |         |
  0+35       4.2991    143.43  | V    Q   |         |         |         |
  0+40       5.3110    146.92  | V    Q   |         |         |         |
  0+45       6.3941    157.27  |  V   Q   |         |         |         |
  0+50       7.5216    163.71  |   V   Q  |         |         |         |
  0+55       8.5987    156.40  |   V  Q   |         |         |         |
  1+ 0       9.6787    156.82  |    V Q   |         |         |         |
  1+ 5      10.8580    171.24  |    V  Q  |         |         |         |
  1+10      12.1942    194.02  |     V  Q |         |         |         |
  1+15      13.6262    207.92  |      V  Q|         |         |         |
  1+20      15.0855    211.89  |       V Q|         |         |         |
  1+25      16.5547    213.32  |        VQ|         |         |         |
  1+30      18.1816    236.23  |         VQ         |         |         |
  1+35      19.9311    254.02  |         |VQ        |         |         |
  1+40      21.6816    254.17  |         |VQ        |         |         |
  1+45      23.5375    269.48  |         | VQ       |         |         |
  1+50      25.6130    301.35  |         |   VQ     |         |         |
  1+55      27.7625    312.12  |         |    Q     |         |         |
  2+ 0      29.8844    308.10  |         |    QV    |         |         |
```

```
   2+ 5      32.0270    311.10  |          |    Q V  |          |          |
   2+10      34.2992    329.93  |          |     Q V |          |          |
   2+15      36.9783    389.00  |          |        QV          |          |
   2+20      40.0166    441.16  |          |          | Q       |          |
   2+25      43.1157    449.99  |          |          | QV      |          |
   2+30      47.0259    567.76  |          |          |    V  Q |          |
   2+35      51.7670    688.40  |          |          |       V |   Q      |
   2+40      56.9410    751.26  |          |          |         |V     Q   |
   2+45      61.5294    666.24  |          |          |         |  Q       |
   2+50      64.7003    460.41  |          |          |  Q      |    V     |
   2+55      66.9786    330.81  |          |     Q    |         |     V    |
   3+ 0      68.8109    266.04  |          |  Q       |         |      V   |
   3+ 5      70.0670    182.39  |         Q|          |         |       V  |
   3+10      70.8487    113.51  |    Q     |          |         |        V |
   3+15      71.3730     76.12  |  Q       |          |         |        V |
   3+20      71.7395     53.22  | Q        |          |         |        V |
   3+25      72.0052     38.57  |Q         |          |         |        V |
   3+30      72.1877     26.51  |Q         |          |         |        V |
   3+35      72.3090     17.60  Q          |          |         |        V |
   3+40      72.3764      9.79  Q          |          |         |        V |
   3+45      72.4071      4.45  Q          |          |         |        V |
   3+50      72.4255      2.68  Q          |          |         |        V |
   3+55      72.4355      1.45  Q          |          |         |        V |
   4+ 0      72.4373      0.27  Q          |          |         |        V |
-------------------------------------------------------------------------
```

```
        U n i t   H y d r o g r a p h   A n a l y s i s

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                Study date  03/29/18 File: frareab2cd6100.out


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------------------------------------------------------------------------------

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Fleming Ranch
Proposed Condition
100-year 6-hour storm Hydrograph
Drainage Areas B2CD = 420.2 Ac

------------------------------------------------------------------------
Drainage Area =     420.20(Ac.)  =      0.657 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     420.20(Ac.)  =      0.657 Sq. Mi.
Length along longest watercourse =    6965.00(Ft.)
Length along longest watercourse measured to centroid =    1138.00(Ft.)
Length along longest watercourse =      1.319 Mi.
Length along longest watercourse measured to centroid =      0.216 Mi.
Difference in elevation =      58.00(Ft.)
Slope along watercourse =     43.9684 Ft./Mi.
Average Manning's 'N' = 0.018
Lag time =    0.131 Hr.
Lag time =     7.83 Min.
25% of lag time =     1.96 Min.
40% of lag time =     3.13 Min.
Unit time =     5.00 Min.
Duration of storm = 6 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      420.20           1.19                500.04

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      420.20           2.98               1252.20

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    1.190(In)
Area Averaged 100-Year Rainfall =    2.980(In)

Point rain (area averaged) =    2.980(In)
Areal adjustment factor =   99.86 %
Adjusted average point rain =    2.976(In)

Sub-Area Data:
```

Area(Ac.)	Runoff Index	Impervious %
41.700	82.80	0.000
11.300	70.90	0.050
23.000	73.90	0.750
43.100	70.30	0.500
100.400	70.90	0.650
100.700	74.80	0.750
86.200	73.30	0.900
13.800	65.50	0.800

Total Area Entered = 420.20(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
82.8	92.7	0.095	0.000	0.095	0.099	0.009
70.9	85.5	0.181	0.050	0.173	0.027	0.005
73.9	87.3	0.160	0.750	0.052	0.055	0.003
70.3	85.2	0.185	0.500	0.102	0.103	0.010
70.9	85.5	0.181	0.650	0.075	0.239	0.018
74.8	87.9	0.154	0.750	0.050	0.240	0.012
73.3	87.0	0.164	0.900	0.031	0.205	0.006
65.5	82.3	0.218	0.800	0.061	0.033	0.002
					Sum (F) =	0.066

Area averaged mean soil loss (F) (In/Hr) = 0.066
Minimum soil loss rate ((In/Hr)) = 0.033
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.440

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	63.839	9.107	38.568
2	0.167	127.679	36.547	154.772
3	0.250	191.518	25.273	107.028
4	0.333	255.358	9.722	41.169
5	0.417	319.197	5.851	24.779
6	0.500	383.037	3.929	16.640
7	0.583	446.876	2.721	11.524
8	0.667	510.716	2.005	8.491
9	0.750	574.555	1.563	6.617
10	0.833	638.395	1.151	4.875
11	0.917	702.234	0.829	3.509
12	1.000	766.074	0.643	2.721
13	1.083	829.913	0.658	2.788
			Sum = 100.000 Sum=	423.483

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.50	0.179	0.066	(0.079)	0.113
2	0.17	0.60	0.214	0.066	(0.094)	0.149
3	0.25	0.60	0.214	0.066	(0.094)	0.149
4	0.33	0.60	0.214	0.066	(0.094)	0.149
5	0.42	0.60	0.214	0.066	(0.094)	0.149
6	0.50	0.70	0.250	0.066	(0.110)	0.184
7	0.58	0.70	0.250	0.066	(0.110)	0.184
8	0.67	0.70	0.250	0.066	(0.110)	0.184
9	0.75	0.70	0.250	0.066	(0.110)	0.184
10	0.83	0.70	0.250	0.066	(0.110)	0.184
11	0.92	0.70	0.250	0.066	(0.110)	0.184

12	1.00	0.80	0.286	0.066	(0.126)	0.220
13	1.08	0.80	0.286	0.066	(0.126)	0.220
14	1.17	0.80	0.286	0.066	(0.126)	0.220
15	1.25	0.80	0.286	0.066	(0.126)	0.220
16	1.33	0.80	0.286	0.066	(0.126)	0.220
17	1.42	0.80	0.286	0.066	(0.126)	0.220
18	1.50	0.80	0.286	0.066	(0.126)	0.220
19	1.58	0.80	0.286	0.066	(0.126)	0.220
20	1.67	0.80	0.286	0.066	(0.126)	0.220
21	1.75	0.80	0.286	0.066	(0.126)	0.220
22	1.83	0.80	0.286	0.066	(0.126)	0.220
23	1.92	0.80	0.286	0.066	(0.126)	0.220
24	2.00	0.90	0.321	0.066	(0.141)	0.256
25	2.08	0.80	0.286	0.066	(0.126)	0.220
26	2.17	0.90	0.321	0.066	(0.141)	0.256
27	2.25	0.90	0.321	0.066	(0.141)	0.256
28	2.33	0.90	0.321	0.066	(0.141)	0.256
29	2.42	0.90	0.321	0.066	(0.141)	0.256
30	2.50	0.90	0.321	0.066	(0.141)	0.256
31	2.58	0.90	0.321	0.066	(0.141)	0.256
32	2.67	0.90	0.321	0.066	(0.141)	0.256
33	2.75	1.00	0.357	0.066	(0.157)	0.291
34	2.83	1.00	0.357	0.066	(0.157)	0.291
35	2.92	1.00	0.357	0.066	(0.157)	0.291
36	3.00	1.00	0.357	0.066	(0.157)	0.291
37	3.08	1.00	0.357	0.066	(0.157)	0.291
38	3.17	1.10	0.393	0.066	(0.173)	0.327
39	3.25	1.10	0.393	0.066	(0.173)	0.327
40	3.33	1.10	0.393	0.066	(0.173)	0.327
41	3.42	1.20	0.429	0.066	(0.189)	0.363
42	3.50	1.30	0.464	0.066	(0.204)	0.398
43	3.58	1.40	0.500	0.066	(0.220)	0.434
44	3.67	1.40	0.500	0.066	(0.220)	0.434
45	3.75	1.50	0.536	0.066	(0.236)	0.470
46	3.83	1.50	0.536	0.066	(0.236)	0.470
47	3.92	1.60	0.571	0.066	(0.251)	0.506
48	4.00	1.60	0.571	0.066	(0.251)	0.506
49	4.08	1.70	0.607	0.066	(0.267)	0.541
50	4.17	1.80	0.643	0.066	(0.283)	0.577
51	4.25	1.90	0.678	0.066	(0.299)	0.613
52	4.33	2.00	0.714	0.066	(0.314)	0.648
53	4.42	2.10	0.750	0.066	(0.330)	0.684
54	4.50	2.10	0.750	0.066	(0.330)	0.684
55	4.58	2.20	0.786	0.066	(0.346)	0.720
56	4.67	2.30	0.821	0.066	(0.361)	0.756
57	4.75	2.40	0.857	0.066	(0.377)	0.791
58	4.83	2.40	0.857	0.066	(0.377)	0.791
59	4.92	2.50	0.893	0.066	(0.393)	0.827
60	5.00	2.60	0.928	0.066	(0.409)	0.863
61	5.08	3.10	1.107	0.066	(0.487)	1.041
62	5.17	3.60	1.286	0.066	(0.566)	1.220
63	5.25	3.90	1.393	0.066	(0.613)	1.327
64	5.33	4.20	1.500	0.066	(0.660)	1.434
65	5.42	4.70	1.678	0.066	(0.738)	1.613
66	5.50	5.60	2.000	0.066	(0.880)	1.934
67	5.58	1.90	0.678	0.066	(0.299)	0.613
68	5.67	0.90	0.321	0.066	(0.141)	0.256
69	5.75	0.60	0.214	0.066	(0.094)	0.149
70	5.83	0.50	0.179	0.066	(0.079)	0.113
71	5.92	0.30	0.107	(0.066)	0.047	0.060
72	6.00	0.20	0.071	(0.066)	0.031	0.040

(Loss Rate Not Used)

Sum = 100.0 Sum = 31.0

Flood volume = Effective rainfall 2.59(In)
times area 420.2(Ac.)/[(In)/(Ft.)] = 90.5(Ac.Ft)
Total soil loss = 0.39(In)
Total soil loss = 13.654(Ac.Ft)
Total rainfall = 2.98(In)
Flood volume = 3944120.8 Cubic Feet
Total soil loss = 594785.0 Cubic Feet

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 Peak flow rate of this hydrograph =    643.583(CFS)
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                    6 - H O U R    S T O R M
                 R u n o f f     H y d r o g r a p h
                Hydrograph in   5   Minute intervals ((CFS))
```

Time(h+m)	Volume Ac.Ft	Q(CFS)	0 175.0 350.0 525.0 700.0
0+ 5	0.0300	4.35	Q
0+10	0.1898	23.20	VQ
0+15	0.4708	40.81	V Q
0+20	0.8103	49.28	V Q
0+25	1.1791	53.55	V Q
0+30	1.5764	57.69	V Q
0+35	2.0248	65.12	V Q
0+40	2.5091	70.31	|V Q
0+45	3.0107	72.83	|V Q
0+50	3.5238	74.50	|V Q
0+55	4.0449	75.67	|V Q
1+ 0	4.5813	77.89	| V Q
1+ 5	5.1608	84.14	| V Q
1+10	5.7689	88.30	| V Q
1+15	6.3883	89.94	| V Q
1+20	7.0147	90.95	| V Q
1+25	7.6458	91.64	| V Q
1+30	8.2805	92.15	| V Q
1+35	8.9173	92.46	| V Q
1+40	9.5556	92.69	| VQ
1+45	10.1952	92.87	| VQ
1+50	10.8357	92.99	| VQ
1+55	11.4768	93.09	| Q
2+ 0	12.1281	94.57	| Q
2+ 5	12.8080	98.72	| Q
2+10	13.4856	98.39	| Q
2+15	14.1851	101.57	| QV
2+20	14.9069	104.81	| QV
2+25	15.6368	105.99	| Q
2+30	16.3716	106.69	| QV
2+35	17.1097	107.18	| QV
2+40	17.8502	107.52	| QV
2+45	18.6019	109.14	| Q V
2+50	19.3929	114.86	| Q V
2+55	20.2113	118.83	| Q V
3+ 0	21.0406	120.42	| Q V|
3+ 5	21.8761	121.31	| Q V|
3+10	22.7258	123.38	| Q V
3+15	23.6164	129.32	| Q V
3+20	24.5355	133.45	| Q V
3+25	25.4758	136.53	| Q |V
3+30	26.4710	144.50	| Q |V
3+35	27.5450	155.95	| Q | V
3+40	28.6971	167.28	| Q| V
3+45	29.9040	175.24	| Q V
3+50	31.1710	183.96	| Q V
3+55	32.4880	191.23	| Q V
4+ 0	33.8631	199.66	| |Q V
4+ 5	35.2873	206.80	| |Q V
4+10	36.7790	216.59	| | Q V
4+15	38.3571	229.15	| | Q V
4+20	40.0282	242.65	| | Q V
4+25	41.7962	256.70	| | Q V |
4+30	43.6535	269.68	| | Q V|
4+35	45.5730	278.71	| | Q V
4+40	47.5671	289.55	| | Q |V
4+45	49.6535	302.94	| | Q |V
4+50	51.8269	315.58	| | Q | V

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   4+55      54.0617    324.49  |          |       Q |  V       |          |
   5+ 0      56.3708    335.28  |          |         Q|   V      |          |
   5+ 5      58.8099    354.15  |          |          Q    V     |          |
   5+10      61.5357    395.79  |          |           | Q    V  |          |
   5+15      64.6371    450.32  |          |           |    Q  V |          |
   5+20      68.0800    499.91  |          |           |       Q V          |
   5+25      71.8560    548.28  |          |           |          |Q        |
   5+30      76.0758    612.72  |          |           |          |  V Q    |
   5+35      80.5082    643.58  |          |           |          |    VQ   |
   5+40      83.7837    475.60  |          |           |      Q   |      V  |
   5+45      85.8393    298.47  |          |      Q    |          |      V  |
   5+50      87.2388    203.21  |          |Q          |          |       V |
   5+55      88.2542    147.43  |        Q |           |          |       V |
   6+ 0      88.9915    107.06  |      Q   |           |          |        V|
   6+ 5      89.5235     77.25  |    Q     |           |          |        V|
   6+10      89.8878     52.90  |   Q      |           |          |        V|
   6+15      90.1334     35.66  |  Q       |           |          |        V|
   6+20      90.3015     24.41  |Q         |           |          |        V|
   6+25      90.4149     16.46  Q          |           |          |        V|
   6+30      90.4866     10.40  Q          |           |          |        V|
   6+35      90.5156      4.21  Q          |           |          |        V|
   6+40      90.5299      2.07  Q          |           |          |        V|
   6+45      90.5376      1.13  Q          |           |          |        V|
   6+50      90.5419      0.62  Q          |           |          |        V|
   6+55      90.5438      0.28  Q          |           |          |        V|
   7+ 0      90.5446      0.11  Q          |           |          |        V|
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        U n i t   H y d r o g r a p h   A n a l y s i s

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                Study date  03/29/18 File: frareab2cd24100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 4029

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



------------------------------------------------------------------------
Fleming Ranch
Proposed Condition
100-year 24-hour storm Hydrograph
Drainage Areas B2CD = 420.2 Ac

------------------------------------------------------------------------
Drainage Area =     420.20(Ac.)  =      0.657 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =     420.20(Ac.)  =      0.657 Sq. Mi.
Length along longest watercourse =    6965.00(Ft.)
Length along longest watercourse measured to centroid =    1138.00(Ft.)
Length along longest watercourse =      1.319 Mi.
Length along longest watercourse measured to centroid =      0.216 Mi.
Difference in elevation =      58.00(Ft.)
Slope along watercourse =     43.9684 Ft./Mi.
Average Manning's 'N' = 0.018
Lag time =    0.131 Hr.
Lag time =     7.83 Min.
25% of lag time =     1.96 Min.
40% of lag time =     3.13 Min.
Unit time =     5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      420.20           2.03                853.01

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
      420.20           5.33               2239.67

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    2.030(In)
Area Averaged 100-Year Rainfall =    5.330(In)

Point rain (area averaged) =    5.330(In)
Areal adjustment factor =   99.92 %
Adjusted average point rain =    5.326(In)

Sub-Area Data:
```

Area(Ac.)	Runoff Index	Impervious %
41.700	82.80	0.000
11.300	70.90	0.050
23.000	73.90	0.750
43.100	70.30	0.500
100.400	70.90	0.650
100.700	74.80	0.750
86.200	73.30	0.900
13.800	65.50	0.800

Total Area Entered = 420.20(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
82.8	92.7	0.095	0.000	0.095	0.099	0.009
70.9	85.5	0.181	0.050	0.173	0.027	0.005
73.9	87.3	0.160	0.750	0.052	0.055	0.003
70.3	85.2	0.185	0.500	0.102	0.103	0.010
70.9	85.5	0.181	0.650	0.075	0.239	0.018
74.8	87.9	0.154	0.750	0.050	0.240	0.012
73.3	87.0	0.164	0.900	0.031	0.205	0.006
65.5	82.3	0.218	0.800	0.061	0.033	0.002
					Sum (F) =	0.066

Area averaged mean soil loss (F) (In/Hr) = 0.066
Minimum soil loss rate ((In/Hr)) = 0.033
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.440

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	63.839	9.107	38.568
2	0.167	127.679	36.547	154.772
3	0.250	191.518	25.273	107.028
4	0.333	255.358	9.722	41.169
5	0.417	319.197	5.851	24.779
6	0.500	383.037	3.929	16.640
7	0.583	446.876	2.721	11.524
8	0.667	510.716	2.005	8.491
9	0.750	574.555	1.563	6.617
10	0.833	638.395	1.151	4.875
11	0.917	702.234	0.829	3.509
12	1.000	766.074	0.643	2.721
13	1.083	829.913	0.658	2.788
			Sum = 100.000	Sum= 423.483

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.043	(0.117)	0.019	0.024
2	0.17	0.07	0.043	(0.116)	0.019	0.024
3	0.25	0.07	0.043	(0.116)	0.019	0.024
4	0.33	0.10	0.064	(0.115)	0.028	0.036
5	0.42	0.10	0.064	(0.115)	0.028	0.036
6	0.50	0.10	0.064	(0.114)	0.028	0.036
7	0.58	0.10	0.064	(0.114)	0.028	0.036
8	0.67	0.10	0.064	(0.113)	0.028	0.036
9	0.75	0.10	0.064	(0.113)	0.028	0.036
10	0.83	0.13	0.085	(0.112)	0.037	0.048
11	0.92	0.13	0.085	(0.112)	0.037	0.048

12	1.00	0.13	0.085	(0.112)	0.037	0.048
13	1.08	0.10	0.064	(0.111)	0.028	0.036
14	1.17	0.10	0.064	(0.111)	0.028	0.036
15	1.25	0.10	0.064	(0.110)	0.028	0.036
16	1.33	0.10	0.064	(0.110)	0.028	0.036
17	1.42	0.10	0.064	(0.109)	0.028	0.036
18	1.50	0.10	0.064	(0.109)	0.028	0.036
19	1.58	0.10	0.064	(0.109)	0.028	0.036
20	1.67	0.10	0.064	(0.108)	0.028	0.036
21	1.75	0.10	0.064	(0.108)	0.028	0.036
22	1.83	0.13	0.085	(0.107)	0.037	0.048
23	1.92	0.13	0.085	(0.107)	0.037	0.048
24	2.00	0.13	0.085	(0.106)	0.037	0.048
25	2.08	0.13	0.085	(0.106)	0.037	0.048
26	2.17	0.13	0.085	(0.106)	0.037	0.048
27	2.25	0.13	0.085	(0.105)	0.037	0.048
28	2.33	0.13	0.085	(0.105)	0.037	0.048
29	2.42	0.13	0.085	(0.104)	0.037	0.048
30	2.50	0.13	0.085	(0.104)	0.037	0.048
31	2.58	0.17	0.107	(0.103)	0.047	0.060
32	2.67	0.17	0.107	(0.103)	0.047	0.060
33	2.75	0.17	0.107	(0.103)	0.047	0.060
34	2.83	0.17	0.107	(0.102)	0.047	0.060
35	2.92	0.17	0.107	(0.102)	0.047	0.060
36	3.00	0.17	0.107	(0.101)	0.047	0.060
37	3.08	0.17	0.107	(0.101)	0.047	0.060
38	3.17	0.17	0.107	(0.100)	0.047	0.060
39	3.25	0.17	0.107	(0.100)	0.047	0.060
40	3.33	0.17	0.107	(0.100)	0.047	0.060
41	3.42	0.17	0.107	(0.099)	0.047	0.060
42	3.50	0.17	0.107	(0.099)	0.047	0.060
43	3.58	0.17	0.107	(0.098)	0.047	0.060
44	3.67	0.17	0.107	(0.098)	0.047	0.060
45	3.75	0.17	0.107	(0.098)	0.047	0.060
46	3.83	0.20	0.128	(0.097)	0.056	0.072
47	3.92	0.20	0.128	(0.097)	0.056	0.072
48	4.00	0.20	0.128	(0.096)	0.056	0.072
49	4.08	0.20	0.128	(0.096)	0.056	0.072
50	4.17	0.20	0.128	(0.095)	0.056	0.072
51	4.25	0.20	0.128	(0.095)	0.056	0.072
52	4.33	0.23	0.149	(0.095)	0.066	0.084
53	4.42	0.23	0.149	(0.094)	0.066	0.084
54	4.50	0.23	0.149	(0.094)	0.066	0.084
55	4.58	0.23	0.149	(0.093)	0.066	0.084
56	4.67	0.23	0.149	(0.093)	0.066	0.084
57	4.75	0.23	0.149	(0.093)	0.066	0.084
58	4.83	0.27	0.170	(0.092)	0.075	0.095
59	4.92	0.27	0.170	(0.092)	0.075	0.095
60	5.00	0.27	0.170	(0.091)	0.075	0.095
61	5.08	0.20	0.128	(0.091)	0.056	0.072
62	5.17	0.20	0.128	(0.091)	0.056	0.072
63	5.25	0.20	0.128	(0.090)	0.056	0.072
64	5.33	0.23	0.149	(0.090)	0.066	0.084
65	5.42	0.23	0.149	(0.089)	0.066	0.084
66	5.50	0.23	0.149	(0.089)	0.066	0.084
67	5.58	0.27	0.170	(0.089)	0.075	0.095
68	5.67	0.27	0.170	(0.088)	0.075	0.095
69	5.75	0.27	0.170	(0.088)	0.075	0.095
70	5.83	0.27	0.170	(0.088)	0.075	0.095
71	5.92	0.27	0.170	(0.087)	0.075	0.095
72	6.00	0.27	0.170	(0.087)	0.075	0.095
73	6.08	0.30	0.192	(0.086)	0.084	0.107
74	6.17	0.30	0.192	(0.086)	0.084	0.107
75	6.25	0.30	0.192	(0.086)	0.084	0.107
76	6.33	0.30	0.192	(0.085)	0.084	0.107
77	6.42	0.30	0.192	(0.085)	0.084	0.107
78	6.50	0.30	0.192	(0.084)	0.084	0.107
79	6.58	0.33	0.213	0.084	(0.094)	0.129
80	6.67	0.33	0.213	0.084	(0.094)	0.129
81	6.75	0.33	0.213	0.083	(0.094)	0.130

82	6.83	0.33	0.213	0.083	(0.094)	0.130
83	6.92	0.33	0.213	0.083	(0.094)	0.130
84	7.00	0.33	0.213	0.082	(0.094)	0.131
85	7.08	0.33	0.213	0.082	(0.094)	0.131
86	7.17	0.33	0.213	0.081	(0.094)	0.132
87	7.25	0.33	0.213	0.081	(0.094)	0.132
88	7.33	0.37	0.234	0.081	(0.103)	0.154
89	7.42	0.37	0.234	0.080	(0.103)	0.154
90	7.50	0.37	0.234	0.080	(0.103)	0.154
91	7.58	0.40	0.256	0.080	(0.112)	0.176
92	7.67	0.40	0.256	0.079	(0.112)	0.176
93	7.75	0.40	0.256	0.079	(0.112)	0.177
94	7.83	0.43	0.277	0.079	(0.122)	0.198
95	7.92	0.43	0.277	0.078	(0.122)	0.199
96	8.00	0.43	0.277	0.078	(0.122)	0.199
97	8.08	0.50	0.320	0.077	(0.141)	0.242
98	8.17	0.50	0.320	0.077	(0.141)	0.242
99	8.25	0.50	0.320	0.077	(0.141)	0.243
100	8.33	0.50	0.320	0.076	(0.141)	0.243
101	8.42	0.50	0.320	0.076	(0.141)	0.244
102	8.50	0.50	0.320	0.076	(0.141)	0.244
103	8.58	0.53	0.341	0.075	(0.150)	0.266
104	8.67	0.53	0.341	0.075	(0.150)	0.266
105	8.75	0.53	0.341	0.075	(0.150)	0.266
106	8.83	0.57	0.362	0.074	(0.159)	0.288
107	8.92	0.57	0.362	0.074	(0.159)	0.288
108	9.00	0.57	0.362	0.074	(0.159)	0.289
109	9.08	0.63	0.405	0.073	(0.178)	0.332
110	9.17	0.63	0.405	0.073	(0.178)	0.332
111	9.25	0.63	0.405	0.072	(0.178)	0.332
112	9.33	0.67	0.426	0.072	(0.187)	0.354
113	9.42	0.67	0.426	0.072	(0.187)	0.354
114	9.50	0.67	0.426	0.071	(0.187)	0.355
115	9.58	0.70	0.447	0.071	(0.197)	0.376
116	9.67	0.70	0.447	0.071	(0.197)	0.377
117	9.75	0.70	0.447	0.070	(0.197)	0.377
118	9.83	0.73	0.469	0.070	(0.206)	0.399
119	9.92	0.73	0.469	0.070	(0.206)	0.399
120	10.00	0.73	0.469	0.069	(0.206)	0.399
121	10.08	0.50	0.320	0.069	(0.141)	0.250
122	10.17	0.50	0.320	0.069	(0.141)	0.251
123	10.25	0.50	0.320	0.068	(0.141)	0.251
124	10.33	0.50	0.320	0.068	(0.141)	0.251
125	10.42	0.50	0.320	0.068	(0.141)	0.252
126	10.50	0.50	0.320	0.067	(0.141)	0.252
127	10.58	0.67	0.426	0.067	(0.187)	0.359
128	10.67	0.67	0.426	0.067	(0.187)	0.359
129	10.75	0.67	0.426	0.066	(0.187)	0.360
130	10.83	0.67	0.426	0.066	(0.187)	0.360
131	10.92	0.67	0.426	0.066	(0.187)	0.360
132	11.00	0.67	0.426	0.065	(0.187)	0.361
133	11.08	0.63	0.405	0.065	(0.178)	0.340
134	11.17	0.63	0.405	0.065	(0.178)	0.340
135	11.25	0.63	0.405	0.064	(0.178)	0.340
136	11.33	0.63	0.405	0.064	(0.178)	0.341
137	11.42	0.63	0.405	0.064	(0.178)	0.341
138	11.50	0.63	0.405	0.064	(0.178)	0.341
139	11.58	0.57	0.362	0.063	(0.159)	0.299
140	11.67	0.57	0.362	0.063	(0.159)	0.299
141	11.75	0.57	0.362	0.063	(0.159)	0.300
142	11.83	0.60	0.383	0.062	(0.169)	0.321
143	11.92	0.60	0.383	0.062	(0.169)	0.321
144	12.00	0.60	0.383	0.062	(0.169)	0.322
145	12.08	0.83	0.533	0.061	(0.234)	0.471
146	12.17	0.83	0.533	0.061	(0.234)	0.472
147	12.25	0.83	0.533	0.061	(0.234)	0.472
148	12.33	0.87	0.554	0.060	(0.244)	0.493
149	12.42	0.87	0.554	0.060	(0.244)	0.494
150	12.50	0.87	0.554	0.060	(0.244)	0.494
151	12.58	0.93	0.596	0.060	(0.262)	0.537

152	12.67	0.93	0.596	0.059	(0.262)	0.537
153	12.75	0.93	0.596	0.059	(0.262)	0.538
154	12.83	0.97	0.618	0.059	(0.272)	0.559
155	12.92	0.97	0.618	0.058	(0.272)	0.559
156	13.00	0.97	0.618	0.058	(0.272)	0.560
157	13.08	1.13	0.724	0.058	(0.319)	0.667
158	13.17	1.13	0.724	0.057	(0.319)	0.667
159	13.25	1.13	0.724	0.057	(0.319)	0.667
160	13.33	1.13	0.724	0.057	(0.319)	0.667
161	13.42	1.13	0.724	0.057	(0.319)	0.668
162	13.50	1.13	0.724	0.056	(0.319)	0.668
163	13.58	0.77	0.490	0.056	(0.216)	0.434
164	13.67	0.77	0.490	0.056	(0.216)	0.434
165	13.75	0.77	0.490	0.055	(0.216)	0.435
166	13.83	0.77	0.490	0.055	(0.216)	0.435
167	13.92	0.77	0.490	0.055	(0.216)	0.435
168	14.00	0.77	0.490	0.055	(0.216)	0.435
169	14.08	0.90	0.575	0.054	(0.253)	0.521
170	14.17	0.90	0.575	0.054	(0.253)	0.521
171	14.25	0.90	0.575	0.054	(0.253)	0.521
172	14.33	0.87	0.554	0.053	(0.244)	0.500
173	14.42	0.87	0.554	0.053	(0.244)	0.501
174	14.50	0.87	0.554	0.053	(0.244)	0.501
175	14.58	0.87	0.554	0.053	(0.244)	0.501
176	14.67	0.87	0.554	0.052	(0.244)	0.501
177	14.75	0.87	0.554	0.052	(0.244)	0.502
178	14.83	0.83	0.533	0.052	(0.234)	0.481
179	14.92	0.83	0.533	0.052	(0.234)	0.481
180	15.00	0.83	0.533	0.051	(0.234)	0.481
181	15.08	0.80	0.511	0.051	(0.225)	0.460
182	15.17	0.80	0.511	0.051	(0.225)	0.460
183	15.25	0.80	0.511	0.051	(0.225)	0.461
184	15.33	0.77	0.490	0.050	(0.216)	0.440
185	15.42	0.77	0.490	0.050	(0.216)	0.440
186	15.50	0.77	0.490	0.050	(0.216)	0.440
187	15.58	0.63	0.405	0.050	(0.178)	0.355
188	15.67	0.63	0.405	0.049	(0.178)	0.355
189	15.75	0.63	0.405	0.049	(0.178)	0.356
190	15.83	0.63	0.405	0.049	(0.178)	0.356
191	15.92	0.63	0.405	0.049	(0.178)	0.356
192	16.00	0.63	0.405	0.048	(0.178)	0.356
193	16.08	0.13	0.085	(0.048)	0.037	0.048
194	16.17	0.13	0.085	(0.048)	0.037	0.048
195	16.25	0.13	0.085	(0.048)	0.037	0.048
196	16.33	0.13	0.085	(0.047)	0.037	0.048
197	16.42	0.13	0.085	(0.047)	0.037	0.048
198	16.50	0.13	0.085	(0.047)	0.037	0.048
199	16.58	0.10	0.064	(0.047)	0.028	0.036
200	16.67	0.10	0.064	(0.046)	0.028	0.036
201	16.75	0.10	0.064	(0.046)	0.028	0.036
202	16.83	0.10	0.064	(0.046)	0.028	0.036
203	16.92	0.10	0.064	(0.046)	0.028	0.036
204	17.00	0.10	0.064	(0.045)	0.028	0.036
205	17.08	0.17	0.107	0.045	(0.047)	0.061
206	17.17	0.17	0.107	0.045	(0.047)	0.062
207	17.25	0.17	0.107	0.045	(0.047)	0.062
208	17.33	0.17	0.107	0.044	(0.047)	0.062
209	17.42	0.17	0.107	0.044	(0.047)	0.062
210	17.50	0.17	0.107	0.044	(0.047)	0.062
211	17.58	0.17	0.107	0.044	(0.047)	0.063
212	17.67	0.17	0.107	0.044	(0.047)	0.063
213	17.75	0.17	0.107	0.043	(0.047)	0.063
214	17.83	0.13	0.085	(0.043)	0.037	0.048
215	17.92	0.13	0.085	(0.043)	0.037	0.048
216	18.00	0.13	0.085	(0.043)	0.037	0.048
217	18.08	0.13	0.085	(0.043)	0.037	0.048
218	18.17	0.13	0.085	(0.042)	0.037	0.048
219	18.25	0.13	0.085	(0.042)	0.037	0.048
220	18.33	0.13	0.085	(0.042)	0.037	0.048
221	18.42	0.13	0.085	(0.042)	0.037	0.048

222	18.50	0.13	0.085	(0.042)	0.037	0.048
223	18.58	0.10	0.064	(0.041)	0.028	0.036
224	18.67	0.10	0.064	(0.041)	0.028	0.036
225	18.75	0.10	0.064	(0.041)	0.028	0.036
226	18.83	0.07	0.043	(0.041)	0.019	0.024
227	18.92	0.07	0.043	(0.041)	0.019	0.024
228	19.00	0.07	0.043	(0.040)	0.019	0.024
229	19.08	0.10	0.064	(0.040)	0.028	0.036
230	19.17	0.10	0.064	(0.040)	0.028	0.036
231	19.25	0.10	0.064	(0.040)	0.028	0.036
232	19.33	0.13	0.085	(0.040)	0.037	0.048
233	19.42	0.13	0.085	(0.039)	0.037	0.048
234	19.50	0.13	0.085	(0.039)	0.037	0.048
235	19.58	0.10	0.064	(0.039)	0.028	0.036
236	19.67	0.10	0.064	(0.039)	0.028	0.036
237	19.75	0.10	0.064	(0.039)	0.028	0.036
238	19.83	0.07	0.043	(0.039)	0.019	0.024
239	19.92	0.07	0.043	(0.038)	0.019	0.024
240	20.00	0.07	0.043	(0.038)	0.019	0.024
241	20.08	0.10	0.064	(0.038)	0.028	0.036
242	20.17	0.10	0.064	(0.038)	0.028	0.036
243	20.25	0.10	0.064	(0.038)	0.028	0.036
244	20.33	0.10	0.064	(0.038)	0.028	0.036
245	20.42	0.10	0.064	(0.037)	0.028	0.036
246	20.50	0.10	0.064	(0.037)	0.028	0.036
247	20.58	0.10	0.064	(0.037)	0.028	0.036
248	20.67	0.10	0.064	(0.037)	0.028	0.036
249	20.75	0.10	0.064	(0.037)	0.028	0.036
250	20.83	0.07	0.043	(0.037)	0.019	0.024
251	20.92	0.07	0.043	(0.036)	0.019	0.024
252	21.00	0.07	0.043	(0.036)	0.019	0.024
253	21.08	0.10	0.064	(0.036)	0.028	0.036
254	21.17	0.10	0.064	(0.036)	0.028	0.036
255	21.25	0.10	0.064	(0.036)	0.028	0.036
256	21.33	0.07	0.043	(0.036)	0.019	0.024
257	21.42	0.07	0.043	(0.036)	0.019	0.024
258	21.50	0.07	0.043	(0.035)	0.019	0.024
259	21.58	0.10	0.064	(0.035)	0.028	0.036
260	21.67	0.10	0.064	(0.035)	0.028	0.036
261	21.75	0.10	0.064	(0.035)	0.028	0.036
262	21.83	0.07	0.043	(0.035)	0.019	0.024
263	21.92	0.07	0.043	(0.035)	0.019	0.024
264	22.00	0.07	0.043	(0.035)	0.019	0.024
265	22.08	0.10	0.064	(0.035)	0.028	0.036
266	22.17	0.10	0.064	(0.034)	0.028	0.036
267	22.25	0.10	0.064	(0.034)	0.028	0.036
268	22.33	0.07	0.043	(0.034)	0.019	0.024
269	22.42	0.07	0.043	(0.034)	0.019	0.024
270	22.50	0.07	0.043	(0.034)	0.019	0.024
271	22.58	0.07	0.043	(0.034)	0.019	0.024
272	22.67	0.07	0.043	(0.034)	0.019	0.024
273	22.75	0.07	0.043	(0.034)	0.019	0.024
274	22.83	0.07	0.043	(0.034)	0.019	0.024
275	22.92	0.07	0.043	(0.034)	0.019	0.024
276	23.00	0.07	0.043	(0.034)	0.019	0.024
277	23.08	0.07	0.043	(0.033)	0.019	0.024
278	23.17	0.07	0.043	(0.033)	0.019	0.024
279	23.25	0.07	0.043	(0.033)	0.019	0.024
280	23.33	0.07	0.043	(0.033)	0.019	0.024
281	23.42	0.07	0.043	(0.033)	0.019	0.024
282	23.50	0.07	0.043	(0.033)	0.019	0.024
283	23.58	0.07	0.043	(0.033)	0.019	0.024
284	23.67	0.07	0.043	(0.033)	0.019	0.024
285	23.75	0.07	0.043	(0.033)	0.019	0.024
286	23.83	0.07	0.043	(0.033)	0.019	0.024
287	23.92	0.07	0.043	(0.033)	0.019	0.024
288	24.00	0.07	0.043	(0.033)	0.019	0.024

(Loss Rate Not Used)

Sum = 100.0 Sum = 49.9

Flood volume = Effective rainfall 4.16(In)

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 times area     420.2(Ac.)/[(In)/(Ft.)] =     145.7(Ac.Ft)
Total soil loss =      1.17(In)
Total soil loss =    40.821(Ac.Ft)
Total rainfall =      5.33(In)
Flood volume =     6345138.6 Cubic Feet
Total soil loss =     1778176.7 Cubic Feet
--------------------------------------------------------------------------
 Peak flow rate of this hydrograph =    278.005(CFS)
--------------------------------------------------------------------------
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                    24 - H O U R    S T O R M
                R u n o f f     H y d r o g r a p h
--------------------------------------------------------------------------
             Hydrograph in   5   Minute intervals ((CFS))

--------------------------------------------------------------------------
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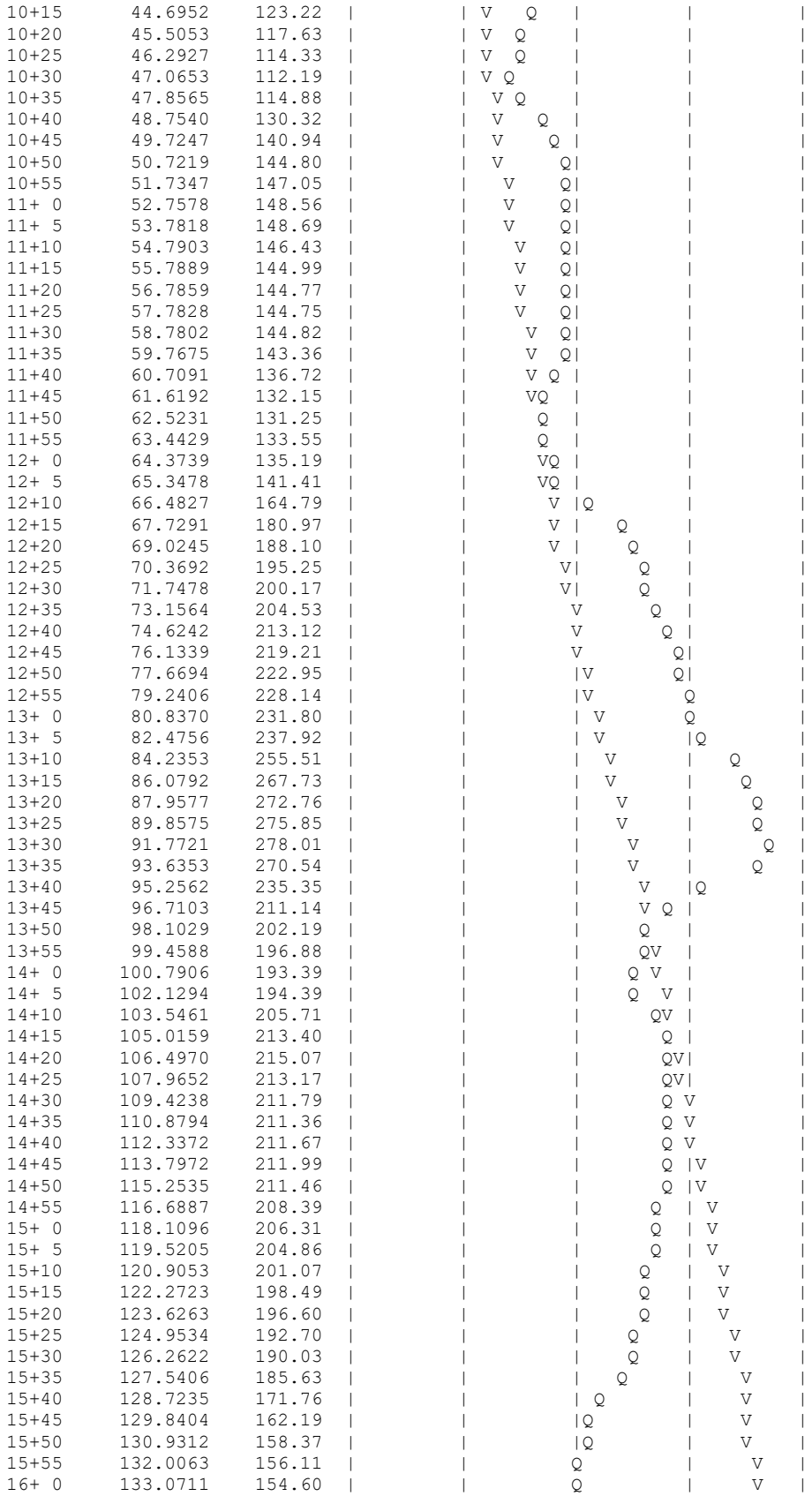
Time(h+m)	Volume Ac.Ft	Q(CFS)	0	75.0	150.0	225.0	300.0
0+ 5	0.0063	0.92	Q	|	|	|	|
0+10	0.0381	4.62	Q	|	|	|	|
0+15	0.0875	7.17	Q	|	|	|	|
0+20	0.1468	8.61	VQ	|	|	|	|
0+25	0.2229	11.05	VQ	|	|	|	|
0+30	0.3106	12.73	VQ	|	|	|	|
0+35	0.4035	13.49	VQ	|	|	|	|
0+40	0.4999	13.99	VQ	|	|	|	|
0+45	0.5987	14.35	VQ	|	|	|	|
0+50	0.7024	15.06	V Q	|	|	|	|
0+55	0.8202	17.09	V Q	|	|	|	|
1+ 0	0.9477	18.52	V Q	|	|	|	|
1+ 5	1.0763	18.67	V Q	|	|	|	|
1+10	1.1945	17.16	V Q	|	|	|	|
1+15	1.3055	16.12	V Q	|	|	|	|
1+20	1.4143	15.80	V Q	|	|	|	|
1+25	1.5217	15.60	V Q	|	|	|	|
1+30	1.6283	15.48	V Q	|	|	|	|
1+35	1.7344	15.40	V Q	|	|	|	|
1+40	1.8401	15.34	V Q	|	|	|	|
1+45	1.9454	15.30	V Q	|	|	|	|
1+50	2.0538	15.73	V Q	|	|	|	|
1+55	2.1745	17.54	V Q	|	|	|	|
2+ 0	2.3039	18.78	V Q	|	|	|	|
2+ 5	2.4364	19.24	V Q	|	|	|	|
2+10	2.5709	19.54	V Q	|	|	|	|
2+15	2.7068	19.73	V Q	|	|	|	|
2+20	2.8437	19.87	V Q	|	|	|	|
2+25	2.9813	19.97	V Q	|	|	|	|
2+30	3.1194	20.05	V Q	|	|	|	|
2+35	3.2610	20.57	V Q	|	|	|	|
2+40	3.4157	22.46	V Q	|	|	|	|
2+45	3.5794	23.77	V Q	|	|	|	|
2+50	3.7467	24.29	|V Q	|	|	|	|
2+55	3.9161	24.59	|V Q	|	|	|	|
3+ 0	4.0868	24.79	|V Q	|	|	|	|
3+ 5	4.2585	24.93	|V Q	|	|	|	|
3+10	4.4308	25.03	|V Q	|	|	|	|
3+15	4.6038	25.11	|V Q	|	|	|	|
3+20	4.7771	25.16	|V Q	|	|	|	|
3+25	4.9507	25.21	|V Q	|	|	|	|
3+30	5.1245	25.24	|V Q	|	|	|	|
3+35	5.2985	25.27	|V Q	|	|	|	|
3+40	5.4726	25.27	|V Q	|	|	|	|
3+45	5.6467	25.27	|V Q	|	|	|	|
3+50	5.8239	25.73	|V Q	|	|	|	|
3+55	6.0138	27.58	|V Q	|	|	|	|
4+ 0	6.2126	28.86	|V Q	|	|	|	|
4+ 5	6.4147	29.35	|V Q	|	|	|	|
4+10	6.6189	29.64	|V Q	|	|	|	|
4+15	6.8244	29.84	|V Q	|	|	|	|
4+20	7.0340	30.44	|V Q	|	|	|	|

```
 4+25      7.2571     32.39 |V  Q     |         |         |         |
 4+30      7.4895     33.75 | V Q     |         |         |         |
 4+35      7.7257     34.30 | V Q     |         |         |         |
 4+40      7.9642     34.63 | V Q     |         |         |         |
 4+45      8.2044     34.86 | V Q     |         |         |         |
 4+50      8.4488     35.50 | V Q     |         |         |         |
 4+55      8.7067     37.44 | V Q     |         |         |         |
 5+ 0      8.9739     38.80 | V  Q    |         |         |         |
 5+ 5      9.2386     38.43 | V  Q    |         |         |         |
 5+10      9.4801     35.07 | V Q     |         |         |         |
 5+15      9.7057     32.75 | V Q     |         |         |         |
 5+20      9.9288     32.40 | V Q     |         |         |         |
 5+25     10.1613     33.75 | V Q     |         |         |         |
 5+30     10.4003     34.71 | V Q     |         |         |         |
 5+35     10.6445     35.45 | V Q     |         |         |         |
 5+40     10.9023     37.43 | V Q     |         |         |         |
 5+45     11.1694     38.78 |  V Q    |         |         |         |
 5+50     11.4402     39.33 |  V Q    |         |         |         |
 5+55     11.7132     39.64 |  V Q    |         |         |         |
 6+ 0     11.9877     39.85 |  V Q    |         |         |         |
 6+ 5     12.2662     40.44 |  V Q    |         |         |         |
 6+10     12.5585     42.43 |  V Q    |         |         |         |
 6+15     12.8603     43.82 |  V Q    |         |         |         |
 6+20     13.1661     44.40 |  V Q    |         |         |         |
 6+25     13.4742     44.74 |  V Q    |         |         |         |
 6+30     13.7840     44.97 |  V Q    |         |         |         |
 6+35     14.1006     45.98 |  V  Q   |         |         |         |
 6+40     14.4411     49.44 |  V  Q   |         |         |         |
 6+45     14.7985     51.90 |   V Q   |         |         |         |
 6+50     15.1632     52.96 |   V  Q  |         |         |         |
 6+55     15.5328     53.66 |   V  Q  |         |         |         |
 7+ 0     15.9061     54.19 |   V  Q  |         |         |         |
 7+ 5     16.2822     54.62 |   V  Q  |         |         |         |
 7+10     16.6607     54.95 |   V  Q  |         |         |         |
 7+15     17.0412     55.24 |   V  Q  |         |         |         |
 7+20     17.4291     56.32 |   V  Q  |         |         |         |
 7+25     17.8413     59.85 |   V  Q  |         |         |         |
 7+30     18.2707     62.35 |    V  Q |         |         |         |
 7+35     18.7133     64.26 |    V  Q |         |         |         |
 7+40     19.1833     68.25 |    V   Q|         |         |         |
 7+45     19.6725     71.04 |    V   Q|         |         |         |
 7+50     20.1762     73.14 |    V   Q|         |         |         |
 7+55     20.7086     77.30 |    V    Q         |         |         |
 8+ 0     21.2612     80.23 |    V    Q         |         |         |
 8+ 5     21.8346     83.26 |    V    |Q        |         |         |
 8+10     22.4599     90.79 |     V   | Q       |         |         |
 8+15     23.1215     96.06 |     V   | Q       |         |         |
 8+20     23.7990     98.38 |     V   |  Q      |         |         |
 8+25     24.4866     99.84 |     V   |  Q      |         |         |
 8+30     25.1815    100.90 |     V   |  Q      |         |         |
 8+35     25.8877    102.53 |      V  |  Q      |         |         |
 8+40     26.6206    106.42 |      V  |   Q     |         |         |
 8+45     27.3726    109.19 |      V  |   Q     |         |         |
 8+50     28.1391    111.31 |      V  |   Q     |         |         |
 8+55     28.9341    115.43 |      V  |    Q    |         |         |
 9+ 0     29.7491    118.33 |       V |    Q    |         |         |
 9+ 5     30.5850    121.37 |       V |     Q   |         |         |
 9+10     31.4722    128.82 |       V |      Q  |         |         |
 9+15     32.3952    134.03 |       V |      Q  |         |         |
 9+20     33.3395    137.10 |        V|       Q |         |         |
 9+25     34.3165    141.86 |        V|       Q |         |         |
 9+30     35.3165    145.20 |        V|        Q|         |         |
 9+35     36.3336    147.70 |        V|        Q|         |         |
 9+40     37.3812    152.11 |         V         Q         |         |
 9+45     38.4503    155.23 |         V         Q         |         |
 9+50     39.5355    157.58 |         V         |Q        |         |
 9+55     40.6505    161.89 |         |V        |Q        |         |
10+ 0     41.7863    164.92 |         |V        |Q        |         |
10+ 5     42.8927    160.66 |         |V        |Q        |         |
10+10     43.8465    138.49 |         | V     Q |         |         |
```



10+15	44.6952	123.22	|	| V Q |	|	|
10+20	45.5053	117.63	|	| V Q |	|	|
10+25	46.2927	114.33	|	| V Q |	|	|
10+30	47.0653	112.19	|	| V Q |	|	|
10+35	47.8565	114.88	|	| V Q |	|	|
10+40	48.7540	130.32	|	| V Q |	|	|
10+45	49.7247	140.94	|	| V Q |	|	|
10+50	50.7219	144.80	|	| V Q|	|	|
10+55	51.7347	147.05	|	| V Q|	|	|
11+ 0	52.7578	148.56	|	| V Q|	|	|
11+ 5	53.7818	148.69	|	| V Q|	|	|
11+10	54.7903	146.43	|	| V Q|	|	|
11+15	55.7889	144.99	|	| V Q|	|	|
11+20	56.7859	144.77	|	| V Q|	|	|
11+25	57.7828	144.75	|	| V Q|	|	|
11+30	58.7802	144.82	|	| V Q|	|	|
11+35	59.7675	143.36	|	| V Q|	|	|
11+40	60.7091	136.72	|	| V Q |	|	|
11+45	61.6192	132.15	|	| VQ |	|	|
11+50	62.5231	131.25	|	| Q |	|	|
11+55	63.4429	133.55	|	| Q |	|	|
12+ 0	64.3739	135.19	|	| VQ |	|	|
12+ 5	65.3478	141.41	|	| VQ |	|	|
12+10	66.4827	164.79	|	| V |Q |	|	|
12+15	67.7291	180.97	|	| V | Q |	|	|
12+20	69.0245	188.10	|	| V | Q |	|	|
12+25	70.3692	195.25	|	| V| Q |	|	|
12+30	71.7478	200.17	|	| V| Q |	|	|
12+35	73.1564	204.53	|	| V Q |	|	|
12+40	74.6242	213.12	|	| V Q |	|	|
12+45	76.1339	219.21	|	| V Q|	|	|
12+50	77.6694	222.95	|	| |V Q|	|	|
12+55	79.2406	228.14	|	| |V Q |	|	|
13+ 0	80.8370	231.80	|	| V Q |	|	|
13+ 5	82.4756	237.92	|	| V |Q |	|	|
13+10	84.2353	255.51	|	| V | Q |	|	|
13+15	86.0792	267.73	|	| V | Q |	|	|
13+20	87.9577	272.76	|	| V | Q |	|	|
13+25	89.8575	275.85	|	| V | Q |	|	|
13+30	91.7721	278.01	|	| V | Q |	|	|
13+35	93.6353	270.54	|	| V | Q |	|	|
13+40	95.2562	235.35	|	| V |Q |	|	|
13+45	96.7103	211.14	|	| V Q |	|	|
13+50	98.1029	202.19	|	| Q |	|	|
13+55	99.4588	196.88	|	| QV |	|	|
14+ 0	100.7906	193.39	|	| Q V |	|	|
14+ 5	102.1294	194.39	|	| Q V |	|	|
14+10	103.5461	205.71	|	| QV |	|	|
14+15	105.0159	213.40	|	| Q |	|	|
14+20	106.4970	215.07	|	| QV|	|	|
14+25	107.9652	213.17	|	| QV|	|	|
14+30	109.4238	211.79	|	| Q V	|	|
14+35	110.8794	211.36	|	| Q V	|	|
14+40	112.3372	211.67	|	| Q V	|	|
14+45	113.7972	211.99	|	| Q |V	|	|
14+50	115.2535	211.46	|	| Q |V	|	|
14+55	116.6887	208.39	|	| Q | V	|	|
15+ 0	118.1096	206.31	|	| Q | V	|	|
15+ 5	119.5205	204.86	|	| Q | V	|	|
15+10	120.9053	201.07	|	| Q | V	|	|
15+15	122.2723	198.49	|	| Q | V	|	|
15+20	123.6263	196.60	|	| Q | V	|	|
15+25	124.9534	192.70	|	| Q | V	|	|
15+30	126.2622	190.03	|	| Q | V	|	|
15+35	127.5406	185.63	|	| Q | V	|	|
15+40	128.7235	171.76	|	| Q | V	|	|
15+45	129.8404	162.19	|	|Q | V	|	|
15+50	130.9312	158.37	|	|Q | V	|	|
15+55	132.0063	156.11	|	| Q | V	|	|
16+ 0	133.0711	154.60	|	| Q | V	|	|

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16+ 5     134.0466    141.64  |          |       Q |          |     V    |
16+10     134.6877     93.08  |          | Q       |          |     V    |
16+15     135.0969     59.43  |       Q  |         |          |      V   |
16+20     135.4155     46.26  |     Q    |         |          |      V   |
16+25     135.6794     38.32  |    Q     |         |          |      V   |
16+30     135.9064     32.96  |   Q      |         |          |      V   |
16+35     136.1041     28.70  |  Q       |         |          |      V   |
16+40     136.2710     24.24  |  Q       |         |          |      V   |
16+45     136.4151     20.92  | Q        |         |          |      V   |
16+50     136.5454     18.93  | Q        |         |          |      V   |
16+55     136.6663     17.55  | Q        |         |          |      V   |
17+ 0     136.7800     16.51  | Q        |         |          |      V   |
17+ 5     136.8936     16.50  | Q        |         |          |      V   |
17+10     137.0338     20.36  | Q        |         |          |      V   |
17+15     137.1926     23.06  |  Q       |         |          |      V   |
17+20     137.3588     24.12  |  Q       |         |          |      V   |
17+25     137.5295     24.79  |  Q       |         |          |      V   |
17+30     137.7035     25.27  |  Q       |         |          |      V   |
17+35     137.8800     25.61  |  Q       |         |          |      V   |
17+40     138.0585     25.92  |  Q       |         |          |      V   |
17+45     138.2387     26.18  |  Q       |         |          |      V   |
17+50     138.4164     25.79  |  Q       |         |          |       V  |
17+55     138.5785     23.54  |  Q       |         |          |       V  |
18+ 0     138.7299     21.99  | Q        |         |          |       V  |
18+ 5     138.8776     21.44  | Q        |         |          |       V  |
18+10     139.0227     21.07  | Q        |         |          |       V  |
18+15     139.1661     20.82  | Q        |         |          |       V  |
18+20     139.3084     20.65  | Q        |         |          |       V  |
18+25     139.4497     20.53  | Q        |         |          |       V  |
18+30     139.5904     20.43  | Q        |         |          |       V  |
18+35     139.7275     19.89  | Q        |         |          |       V  |
18+40     139.8514     17.99  | Q        |         |          |       V  |
18+45     139.9662     16.68  | Q        |         |          |       V  |
18+50     140.0742     15.68  | Q        |         |          |       V  |
18+55     140.1675     13.54  |Q         |         |          |       V  |
19+ 0     140.2505     12.06  |Q         |         |          |       V  |
19+ 5     140.3325     11.89  |Q         |         |          |       V  |
19+10     140.4244     13.34  |Q         |         |          |       V  |
19+15     140.5231     14.34  |Q         |         |          |       V  |
19+20     140.6271     15.10  | Q        |         |          |       V  |
19+25     140.7449     17.10  | Q        |         |          |       V  |
19+30     140.8721     18.46  | Q        |         |          |       V  |
19+35     140.9998     18.54  | Q        |         |          |       V  |
19+40     141.1172     17.05  | Q        |         |          |       V  |
19+45     141.2275     16.02  | Q        |         |          |       V  |
19+50     141.3323     15.23  | Q        |         |          |       V  |
19+55     141.4234     13.23  |Q         |         |          |       V  |
20+ 0     141.5051     11.86  |Q         |         |          |       V  |
20+ 5     141.5863     11.79  |Q         |         |          |       V  |
20+10     141.6778     13.28  |Q         |         |          |       V  |
20+15     141.7763     14.31  |Q         |         |          |       V  |
20+20     141.8771     14.64  |Q         |         |          |       V  |
20+25     141.9790     14.79  |Q         |         |          |       V  |
20+30     142.0815     14.88  |Q         |         |          |        V |
20+35     142.1843     14.93  |Q         |         |          |        V |
20+40     142.2875     14.98  |Q         |         |          |        V |
20+45     142.3910     15.03  | Q        |         |          |        V |
20+50     142.4915     14.60  |Q         |         |          |        V |
20+55     142.5796     12.79  |Q         |         |          |        V |
21+ 0     142.6591     11.55  |Q         |         |          |        V |
21+ 5     142.7386     11.55  |Q         |         |          |        V |
21+10     142.8289     13.10  |Q         |         |          |        V |
21+15     142.9265     14.18  |Q         |         |          |        V |
21+20     143.0234     14.07  |Q         |         |          |        V |
21+25     143.1089     12.42  |Q         |         |          |        V |
21+30     143.1865     11.26  |Q         |         |          |        V |
21+35     143.2644     11.31  |Q         |         |          |        V |
21+40     143.3534     12.92  |Q         |         |          |        V |
21+45     143.4501     14.05  |Q         |         |          |        V |
21+50     143.5462     13.96  |Q         |         |          |        V |
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21+55	143.6313	12.35	|Q	|	|	|	V|
22+ 0	143.7086	11.23	|Q	|	|	|	V|
22+ 5	143.7865	11.31	|Q	|	|	|	V|
22+10	143.8755	12.92	|Q	|	|	|	V|
22+15	143.9722	14.05	|Q	|	|	|	V|
22+20	144.0684	13.96	|Q	|	|	|	V|
22+25	144.1535	12.35	|Q	|	|	|	V|
22+30	144.2308	11.23	|Q	|	|	|	V|
22+35	144.3055	10.85	|Q	|	|	|	V|
22+40	144.3786	10.61	|Q	|	|	|	V|
22+45	144.4506	10.46	|Q	|	|	|	V|
22+50	144.5219	10.35	|Q	|	|	|	V|
22+55	144.5928	10.29	|Q	|	|	|	V|
23+ 0	144.6633	10.24	|Q	|	|	|	V|
23+ 5	144.7337	10.22	|Q	|	|	|	V|
23+10	144.8037	10.17	|Q	|	|	|	V|
23+15	144.8736	10.14	|Q	|	|	|	V|
23+20	144.9432	10.11	|Q	|	|	|	V|
23+25	145.0128	10.11	|Q	|	|	|	V|
23+30	145.0825	10.11	|Q	|	|	|	V|
23+35	145.1521	10.11	|Q	|	|	|	V|
23+40	145.2217	10.11	|Q	|	|	|	V|
23+45	145.2913	10.11	|Q	|	|	|	V|
23+50	145.3609	10.11	|Q	|	|	|	V|
23+55	145.4306	10.11	|Q	|	|	|	V|
24+ 0	145.5002	10.11	|Q	|	|	|	V|
24+ 5	145.5635	9.19	|Q	|	|	|	V|
24+10	145.6013	5.49	Q	|	|	|	V|
24+15	145.6215	2.94	Q	|	|	|	V|
24+20	145.6350	1.96	Q	|	|	|	V|
24+25	145.6444	1.36	Q	|	|	|	V|
24+30	145.6511	0.97	Q	|	|	|	V|
24+35	145.6558	0.69	Q	|	|	|	V|
24+40	145.6592	0.49	Q	|	|	|	V|
24+45	145.6615	0.33	Q	|	|	|	V|
24+50	145.6630	0.22	Q	|	|	|	V|
24+55	145.6639	0.13	Q	|	|	|	V|
25+ 0	145.6643	0.07	Q	|	|	|	V|

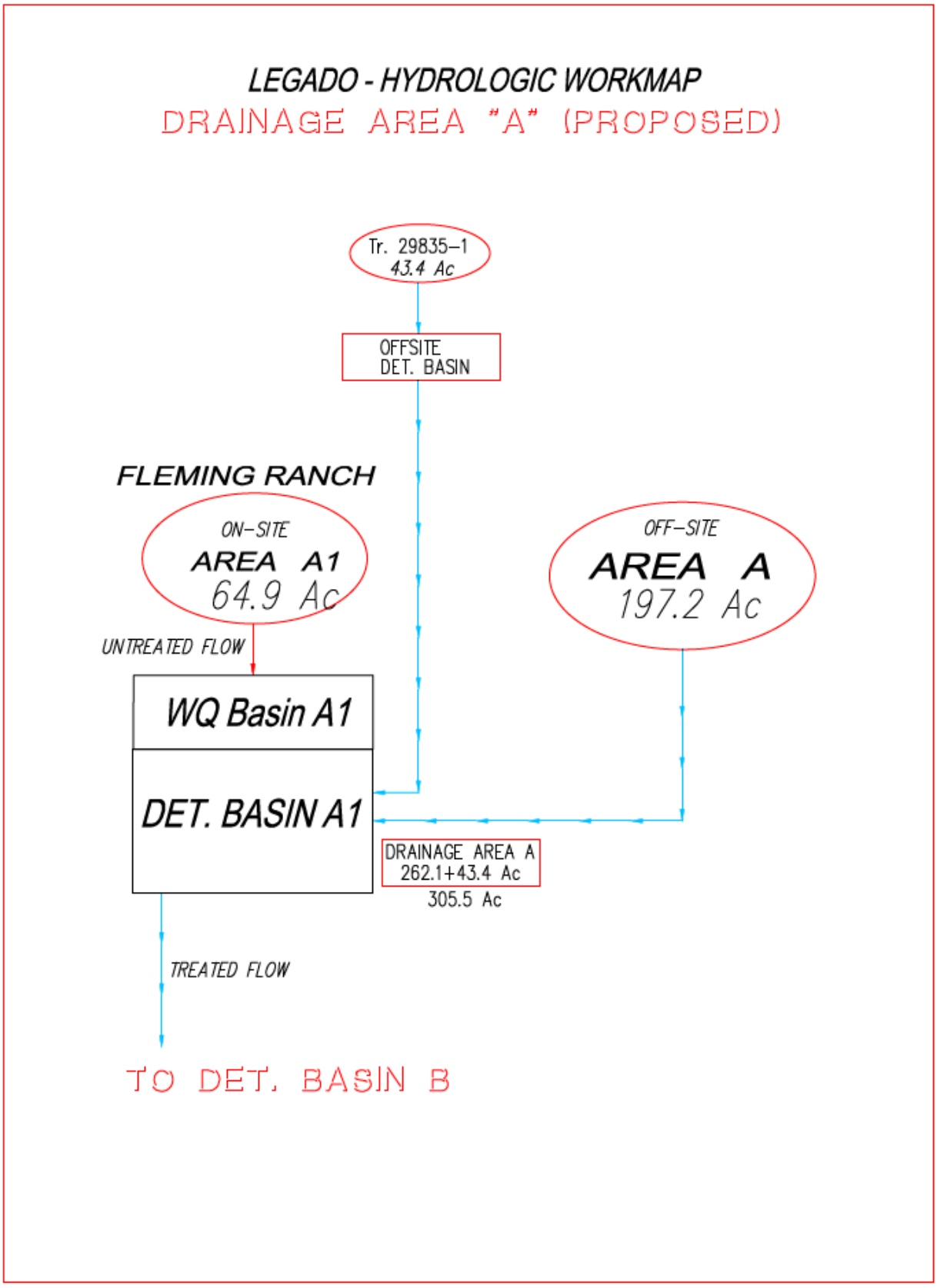
ATTACHMENT D
Detention Basin Routings
Proposed Condition – Areas A, B1 and B2
(100 Year 1-hr, 3-hr, 6-hr, 24-hr storm)

Detention Basin Routings

Detention Basin Routing Calculations

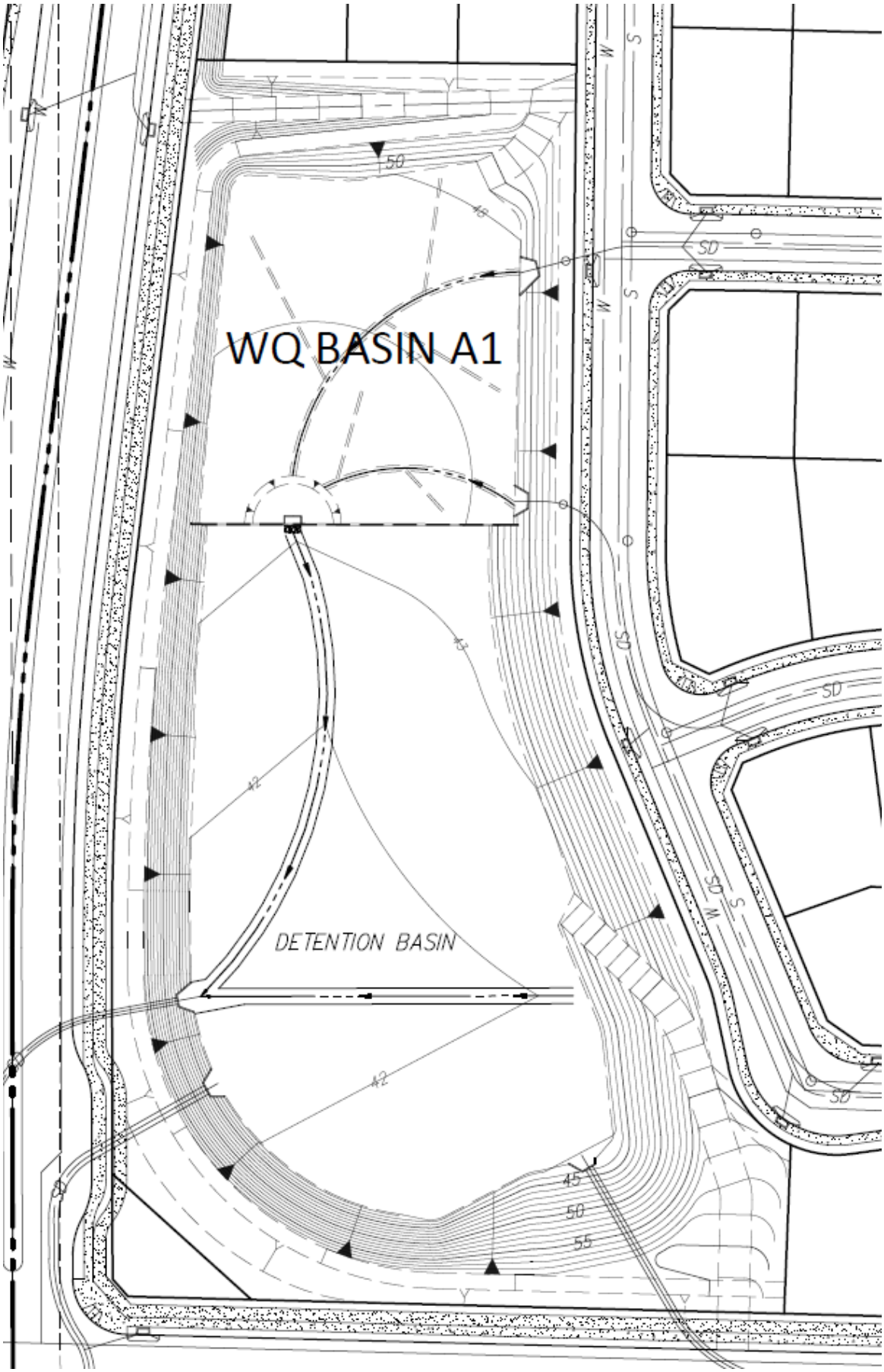
The Detention Basin Routing Calculations was conducted using the CivilCADD/Design software and the Riverside County Hydrology Manual. In this analysis, the goal was to estimate the quantity of storm water to be detained onsite to mitigate the increase in storm water peak discharge and volume resulting from this development for 100-year storm.

There are three (3) proposed Water Quality and Detention Basin for this project.


LEGADO - HYDROLOGIC WORKMAP
DRAINAGE AREA "A" (PROPOSED)
Tr. 29835–1
43.4 Ac
OFFSITE
DET. BASIN
FLEMING RANCH
ON–SITE
AREA A1
64.9 Ac
OFF–SITE
AREA A
197.2 Ac
UNTREATED FLOW
WQ Basin A1
DET. BASIN A1
DRAINAGE AREA A
262.1+43.4 Ac
305.5 Ac
TREATED FLOW
TO DET. BASIN B

LEGADO- Menifee

ATTACHMENT D – Proposed Detention Basins



Apr. 2019

Legado						
Detention Basin A - Volume						
Elev. (ft)	**Depth**	**Area (sf)**	**Vol. inc. (cf)**	**Vol. Accum. (cf)**		**Vol. Accum. (Acft)**
1441	0	0				0
1442	1	46724.19	23362.0938	23362.0938		0.54
1443	2	92990.55	69857.36725	93219.4611		2.14
1444	3	96427.90	94709.22285	187928.684		4.31
1445	4	99906.54	98167.2202	286095.904		6.57
1446	5	141135.60	120521.071	406616.975		9.33
1447	6	146692.69	143914.1441	550531.119		12.64
1448	7	152298.91	149495.8014	700026.921		16.07
1449	8	157954.36	155126.6362	855153.557		19.63
1450	9	163658.16	160806.2576	1015959.81		23.32
1451	10	169509.48	166583.8167	1182543.63		27.15
1452	11	175522.36	172515.9177	1355059.55		31.11
1453	12	181532.96	178527.6582	1533587.21		35.21

Rating Table for Rectangular Orifice - 2.5'Hx4'(W) Opening

Project Description

Solve For	Discharge

Input Data

Headwater Elevation	7.00	ft
Centroid Elevation	1.25	ft
Tailwater Elevation	0.00	ft
Discharge Coefficient	0.60	
Opening Width	4.00	ft
Opening Height	2.50	ft

Headwater Elevation (ft)	Discharge (ft^3/s)	Velocity (ft/s)
0.00		
1.00		
2.00	41.68	4.17
3.00	63.67	6.37
4.00	79.82	7.98
5.00	93.20	9.32
6.00	104.90	10.49
7.00	115.41	11.54
8.00	125.05	12.50
9.00	133.99	13.40
10.00	142.37	14.24
11.00	150.29	15.03
12.00	157.81	15.78
13.00	164.98	16.50
14.00	171.86	17.19

Rating Table for Rectangular Weir - 10 LF Spillway

Project Description

Solve For	Discharge

Input Data

Headwater Elevation		2.00	ft
Crest Elevation		0.00	ft
Tailwater Elevation		0.00	ft
Weir Coefficient		3.00	US
Crest Length		10.00	ft
Number Of Contractions	0		

Headwater Elevation (ft)	Discharge (ft^3/s)	Velocity (ft/s)
0.00	0.00	
0.50	10.61	2.12
1.00	30.00	3.00
1.50	55.11	3.67
2.00	84.85	4.24
2.50	118.59	4.74
3.00	155.88	5.20

Legado					
Detention Basin A, Outflow and Storage Rating Curve					
Elev. (ft)	**Depth**	**Vol. (ft)**	**Orifice 2.5'x4' opening @ 1441**	**E. Outlet L=10' @1451**	**Basin Outlet (cfs)**
1441	0	0	0		0
1442	1	0.54	30.24		30.24
1443	2	2.14	41.68		41.68
1444	3	4.31	63.67		63.67
1445	4	6.57	79.82		79.82
1446	5	9.33	93.2		93.20
1447	6	12.64	104.9		104.90
1448	7	16.07	115.41		115.41
1449	8	19.63	125.05		125.05
1450	9	23.32	133.99		133.99
1451	10	27.15	142.37		142.37
1452	11	31.11	150.29	30.00	180.29
1453	12	33.38	157.81	84.85	242.66

Summary of Detention Basin A (total of 305.5 Ac) Routing:

100-year 1-hour storm event:

Proposed WQ/Detention Basin A		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
759.58	138.66	**9.56**

100-year 3-hour storm event:

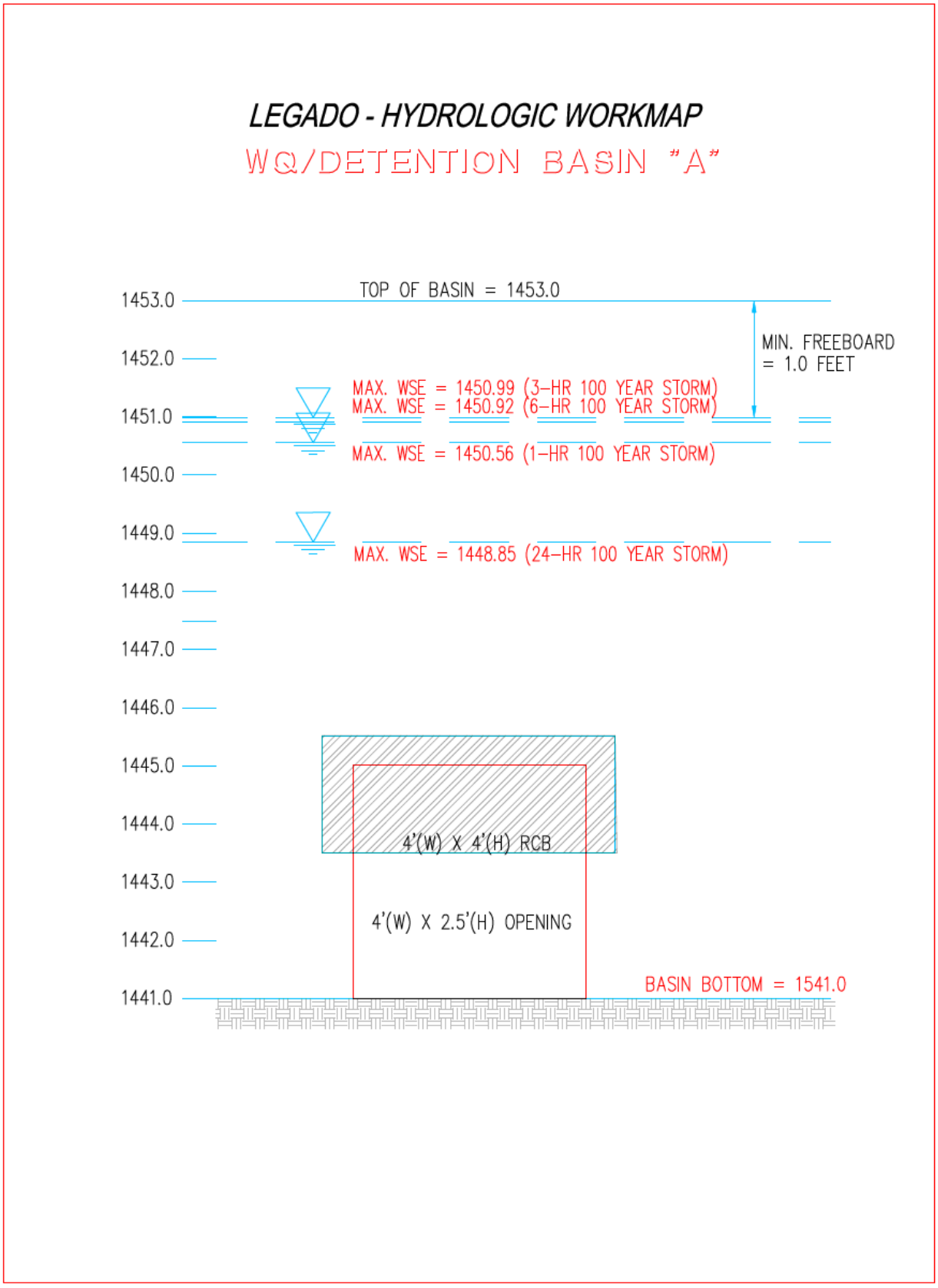
Proposed WQ/Detention Basin A		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
489.03	142.25	**9.99**

100-year 6-hour storm event:

Proposed WQ/Detention Basin A		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
429.82	141.68	**9.92**

100-year 24-hour storm event:

Proposed WQ/Detention Basin A		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
192.35	123.56	**7.85**


LEGADO - HYDROLOGIC WORKMAP
WQ/DETENTION BASIN "A"
TOP OF BASIN = 1453.0
MIN. FREEBOARD
= 1.0 FEET
MAX. WSE = 1450.99 (3-HR 100 YEAR STORM)
MAX. WSE = 1450.92 (6-HR 100 YEAR STORM)
MAX. WSE = 1450.56 (1-HR 100 YEAR STORM)
MAX. WSE = 1448.85 (24-HR 100 YEAR STORM)
1453.0
1452.0
1451.0
1450.0
1449.0
1448.0
1447.0
1446.0
1445.0
1444.0
1443.0
1442.0
1441.0
4'(W) X 4'(H) RCB
4'(W) X 2.5'(H) OPENING
BASIN BOTTOM = 1541.0

```
                FLOOD HYDROGRAPH ROUTING PROGRAM
          Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                     Study date: 04/23/19


------------------------------------------------------------------------
Legado
Detention Basin A (Total Area = 305.5 Ac)
100-year 1-hour Inflow Hydrograph

------------------------------------------------------------------------


Program License Serial Number 4029

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******************** HYDROGRAPH INFORMATION **********************

               From study/file name: lgmdsout1100.rte
****************************HYDROGRAPH DATA****************************
               Number of intervals =   386
               Time interval =    5.0 (Min.)
               Maximum/Peak flow rate =       76.675 (CFS)
               Total volume =       5.585 (Ac.Ft)
       Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
************************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       10.000 to Point/Station       11.000
**** STREAM ROUTING SCS CONVEX METHOD ****
________________________________________________________________________
HYDROGRAPH STREAM ROUTING DATA:
Length of stream =   2580.00 (Ft.)
Elevation difference =   40.00 (Ft.)
Slope of channel =  0.015504 (Vert/Horiz)
Channel type - Pipe


Pipe length  =  2580.00(Ft.)   Elevation difference =  40.00(Ft.)
Manning's N = 0.013   No. of pipes = 1
Pipe evaluation using mean flow rate of hydrograph
Required pipe flow  =    31.661(CFS)
Nearest computed pipe diameter  =     27.00(In.)
Calculated individual pipe flow  =    31.661(CFS)
Normal flow depth in pipe =   18.61(In.)
Flow top width inside pipe =   24.99(In.)
Critical Depth =    1.94(Ft.)
Pipe flow velocity =     10.82(Ft/s)
Travel time through pipe =    3.97 min.


Pipe length  =  2580.00(Ft.)   Elevation difference =  40.00(Ft.)
Manning's N = 0.013   No. of pipes = 1
Pipe evaluation using maximum flow rate of hydrograph
Required pipe flow  =    76.675(CFS)
Nearest computed pipe diameter  =     36.00(In.)
Calculated individual pipe flow  =    76.675(CFS)
Normal flow depth in pipe =   27.28(In.)
Flow top width inside pipe =   30.85(In.)
Critical Depth =    2.74(Ft.)
Pipe flow velocity =     13.33(Ft/s)
Travel time through pipe =    3.22 min.
```

```
********************** SCS CONVEX CHANNEL ROUTING *********************
Convex method of stream routing  data items:
Using equation: Outflow =
O(t+dt) = (1-c*)O(t+dt-dt*) + Input(c*)
          where c* = 1 - (1-c)^e and dt = c(length)/velocity
          c(v/v+1.7) =   0.8869   Travel time =   3.22 (min.)
        dt*(unit time interval) =   5.00(min.),  e=   1.4988
        dt(routing time-step) =   2.86 (min.),   c* =   0.9619

Output hydrograph delayed by 0  unit time increments


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                P R I N T  O F  S T O R M
             R u n o f f     H y d r o g r a p h
----------------------------------------------------------------------
            Hydrograph in   5   Minute intervals (CFS)

----------------------------------------------------------------------
Time(h+m) Out = O(CFS) In = I  0       19.2      38.3      57.5      76.7
----------------------------------------------------------------------
  0+ 5       0.0599      0.15  O         |         |         |         |
  0+10       0.3509      0.65  O         |         |         |         |
  0+15       0.8033      1.05  O         |         |         |         |
  0+20       1.0593      1.10  O         |         |         |         |
  0+25       1.1206      1.15  O         |         |         |         |
  0+30       1.2204      1.32  O         |         |         |         |
  0+35       2.9951      5.40  |OI       |         |         |         |
  0+40      11.6316     20.76  |     O   I         |         |         |
  0+45      26.8332     36.36  |         |  O    I |         |         |
  0+50      43.6507     54.95  |         |         | O     I |         |
  0+55      61.2557     71.31  |         |         |         |O     I  |
  1+ 0      73.1376     76.67  |         |         |         |       O I
  1+ 5      74.9496     72.81  |         |         |         |      I O|
  1+10      69.7943     65.28  |         |         |         |   I O   |
  1+15      61.0356     54.55  |         |         |       I |O        |
  1+20      50.0635     43.06  |         |         | I   O   |         |
  1+25      39.1657     32.96  |         |      I  O         |         |
  1+30      29.0585     22.91  |         |I   O    |         |         |
  1+35      20.2726     15.93  |       I O         |         |         |
  1+40      14.0971     11.08  |    I O  |         |         |         |
  1+45       9.8011      7.70  |   IO    |         |         |         |
  1+50       6.8142      5.35  | IO      |         |         |         |
  1+55       4.7376      3.72  |IO       |         |         |         |
  2+ 0       3.2938      2.59  |O        |         |         |         |
  2+ 5       2.2900      1.80  IO        |         |         |         |
  2+10       1.6770      1.46  O         |         |         |         |
  2+15       1.4629      1.45  O         |         |         |         |
  2+20       1.4488      1.44  O         |         |         |         |
  2+25       1.4423      1.44  O         |         |         |         |
  2+30       1.4362      1.43  O         |         |         |         |
  2+35       1.4301      1.43  O         |         |         |         |
  2+40       1.4240      1.42  O         |         |         |         |
  2+45       1.4180      1.41  O         |         |         |         |
  2+50       1.4119      1.41  O         |         |         |         |
  2+55       1.4059      1.40  O         |         |         |         |
  3+ 0       1.3999      1.40  O         |         |         |         |
  3+ 5       1.3940      1.39  O         |         |         |         |
  3+10       1.3881      1.38  O         |         |         |         |
  3+15       1.3822      1.38  O         |         |         |         |
  3+20       1.3763      1.37  O         |         |         |         |
  3+25       1.3704      1.37  O         |         |         |         |
  3+30       1.3646      1.36  O         |         |         |         |
  3+35       1.3588      1.36  O         |         |         |         |
  3+40       1.3530      1.35  O         |         |         |         |
  3+45       1.3473      1.34  O         |         |         |         |
  3+50       1.3415      1.34  O         |         |         |         |
  3+55       1.3358      1.33  O         |         |         |         |
```

4+ 0	1.3302	1.33	O				
4+ 5	1.3245	1.32	O				
4+10	1.3189	1.32	O				
4+15	1.3133	1.31	O				
4+20	1.3077	1.30	O				
4+25	1.3021	1.30	O				
4+30	1.2966	1.29	O				
4+35	1.2911	1.29	O				
4+40	1.2856	1.28	O				
4+45	1.2801	1.28	O				
4+50	1.2747	1.27	O				
4+55	1.2692	1.27	O				
5+ 0	1.2638	1.26	O				
5+ 5	1.2585	1.26	O				
5+10	1.2531	1.25	O				
5+15	1.2478	1.24	O				
5+20	1.2425	1.24	O				
5+25	1.2372	1.23	O				
5+30	1.2319	1.23	O				
5+35	1.2267	1.22	O				
5+40	1.2215	1.22	O				
5+45	1.2163	1.21	O				
5+50	1.2111	1.21	O				
5+55	1.2060	1.20	O				
6+ 0	1.2008	1.20	O				
6+ 5	1.1957	1.19	O				
6+10	1.1906	1.19	O				
6+15	1.1856	1.18	O				
6+20	1.1805	1.18	O				
6+25	1.1755	1.17	O				
6+30	1.1705	1.17	O				
6+35	1.1657	1.16	O				
6+40	1.1623	1.16	O				
6+45	1.1607	1.16	O				
6+50	1.1592	1.16	O				
6+55	1.1577	1.16	O				
7+ 0	1.1561	1.16	O				
7+ 5	1.1546	1.15	O				
7+10	1.1531	1.15	O				
7+15	1.1516	1.15	O				
7+20	1.1500	1.15	O				
7+25	1.1485	1.15	O				
7+30	1.1470	1.15	O				
7+35	1.1455	1.14	O				
7+40	1.1440	1.14	O				
7+45	1.1425	1.14	O				
7+50	1.1410	1.14	O				
7+55	1.1394	1.14	O				
8+ 0	1.1377	1.14	O				
8+ 5	1.1359	1.13	O				
8+10	1.1342	1.13	O				
8+15	1.1325	1.13	O				
8+20	1.1308	1.13	O				
8+25	1.1290	1.13	O				
8+30	1.1273	1.13	O				
8+35	1.1256	1.12	O				
8+40	1.1239	1.12	O				
8+45	1.1222	1.12	O				
8+50	1.1205	1.12	O				
8+55	1.1188	1.12	O				
9+ 0	1.1171	1.12	O				
9+ 5	1.1154	1.11	O				
9+10	1.1137	1.11	O				
9+15	1.1120	1.11	O				
9+20	1.1103	1.11	O				
9+25	1.1086	1.11	O				
9+30	1.1069	1.11	O				
9+35	1.1053	1.10	O				
9+40	1.1036	1.10	O				
9+45	1.1019	1.10	O				

9+50	1.1002	1.10	O	|	|	|	|
9+55	1.0986	1.10	O	|	|	|	|
10+ 0	1.0969	1.10	O	|	|	|	|
10+ 5	1.0952	1.09	O	|	|	|	|
10+10	1.0936	1.09	O	|	|	|	|
10+15	1.0919	1.09	O	|	|	|	|
10+20	1.0902	1.09	O	|	|	|	|
10+25	1.0886	1.09	O	|	|	|	|
10+30	1.0869	1.09	O	|	|	|	|
10+35	1.0853	1.08	O	|	|	|	|
10+40	1.0836	1.08	O	|	|	|	|
10+45	1.0820	1.08	O	|	|	|	|
10+50	1.0803	1.08	O	|	|	|	|
10+55	1.0787	1.08	O	|	|	|	|
11+ 0	1.0771	1.08	O	|	|	|	|
11+ 5	1.0754	1.07	O	|	|	|	|
11+10	1.0738	1.07	O	|	|	|	|
11+15	1.0722	1.07	O	|	|	|	|
11+20	1.0705	1.07	O	|	|	|	|
11+25	1.0689	1.07	O	|	|	|	|
11+30	1.0673	1.07	O	|	|	|	|
11+35	1.0657	1.06	O	|	|	|	|
11+40	1.0640	1.06	O	|	|	|	|
11+45	1.0624	1.06	O	|	|	|	|
11+50	1.0608	1.06	O	|	|	|	|
11+55	1.0592	1.06	O	|	|	|	|
12+ 0	1.0576	1.06	O	|	|	|	|
12+ 5	1.0560	1.06	O	|	|	|	|
12+10	1.0544	1.05	O	|	|	|	|
12+15	1.0528	1.05	O	|	|	|	|
12+20	1.0512	1.05	O	|	|	|	|
12+25	1.0496	1.05	O	|	|	|	|
12+30	1.0480	1.05	O	|	|	|	|
12+35	1.0464	1.05	O	|	|	|	|
12+40	1.0448	1.04	O	|	|	|	|
12+45	1.0432	1.04	O	|	|	|	|
12+50	1.0416	1.04	O	|	|	|	|
12+55	1.0400	1.04	O	|	|	|	|
13+ 0	1.0385	1.04	O	|	|	|	|
13+ 5	1.0369	1.04	O	|	|	|	|
13+10	1.0353	1.03	O	|	|	|	|
13+15	1.0337	1.03	O	|	|	|	|
13+20	1.0322	1.03	O	|	|	|	|
13+25	1.0306	1.03	O	|	|	|	|
13+30	1.0290	1.03	O	|	|	|	|
13+35	1.0275	1.03	O	|	|	|	|
13+40	1.0259	1.02	O	|	|	|	|
13+45	1.0244	1.02	O	|	|	|	|
13+50	1.0146	1.00	O	|	|	|	|
13+55	0.9910	0.97	O	|	|	|	|
14+ 0	0.9636	0.95	O	|	|	|	|
14+ 5	0.9368	0.92	O	|	|	|	|
14+10	0.9108	0.90	O	|	|	|	|
14+15	0.8855	0.87	O	|	|	|	|
14+20	0.8609	0.85	O	|	|	|	|
14+25	0.8370	0.82	O	|	|	|	|
14+30	0.8137	0.80	O	|	|	|	|
14+35	0.7911	0.78	O	|	|	|	|
14+40	0.7691	0.76	O	|	|	|	|
14+45	0.7477	0.73	O	|	|	|	|
14+50	0.7269	0.71	O	|	|	|	|
14+55	0.7067	0.69	O	|	|	|	|
15+ 0	0.6871	0.68	O	|	|	|	|
15+ 5	0.6680	0.66	O	|	|	|	|
15+10	0.6494	0.64	O	|	|	|	|
15+15	0.6314	0.62	O	|	|	|	|
15+20	0.6138	0.60	O	|	|	|	|
15+25	0.5968	0.59	O	|	|	|	|
15+30	0.5802	0.57	O	|	|	|	|
15+35	0.5641	0.55	O	|	|	|	|

15+40	0.5484	0.54	O				
15+45	0.5332	0.52	O				
15+50	0.5183	0.51	O				
15+55	0.5039	0.50	O				
16+ 0	0.4899	0.48	O				
16+ 5	0.4763	0.47	O				
16+10	0.4631	0.46	O				
16+15	0.4502	0.44	O				
16+20	0.4377	0.43	O				
16+25	0.4255	0.42	O				
16+30	0.4137	0.41	O				
16+35	0.4022	0.40	O				
16+40	0.3910	0.38	O				
16+45	0.3802	0.37	O				
16+50	0.3696	0.36	O				
16+55	0.3593	0.35	O				
17+ 0	0.3493	0.34	O				
17+ 5	0.3396	0.33	O				
17+10	0.3302	0.32	O				
17+15	0.3210	0.32	O				
17+20	0.3121	0.31	O				
17+25	0.3034	0.30	O				
17+30	0.2950	0.29	O				
17+35	0.2868	0.28	O				
17+40	0.2788	0.27	O				
17+45	0.2711	0.27	O				
17+50	0.2635	0.26	O				
17+55	0.2562	0.25	O				
18+ 0	0.2491	0.24	O				
18+ 5	0.2422	0.24	O				
18+10	0.2355	0.23	O				
18+15	0.2289	0.22	O				
18+20	0.2225	0.22	O				
18+25	0.2164	0.21	O				
18+30	0.2103	0.21	O				
18+35	0.2045	0.20	O				
18+40	0.1988	0.20	O				
18+45	0.1933	0.19	O				
18+50	0.1879	0.18	O				
18+55	0.1827	0.18	O				
19+ 0	0.1776	0.17	O				
19+ 5	0.1727	0.17	O				
19+10	0.1679	0.16	O				
19+15	0.1632	0.16	O				
19+20	0.1587	0.16	O				
19+25	0.1543	0.15	O				
19+30	0.1500	0.15	O				
19+35	0.1458	0.14	O				
19+40	0.1418	0.14	O				
19+45	0.1378	0.14	O				
19+50	0.1340	0.13	O				
19+55	0.1303	0.13	O				
20+ 0	0.1267	0.12	O				
20+ 5	0.1231	0.12	O				
20+10	0.1197	0.12	O				
20+15	0.1164	0.11	O				
20+20	0.1132	0.11	O				
20+25	0.1100	0.11	O				
20+30	0.1069	0.11	O				
20+35	0.1040	0.10	O				
20+40	0.1011	0.10	O				
20+45	0.0983	0.10	O				
20+50	0.0955	0.09	O				
20+55	0.0929	0.09	O				
21+ 0	0.0903	0.09	O				
21+ 5	0.0878	0.09	O				
21+10	0.0854	0.08	O				
21+15	0.0830	0.08	O				
21+20	0.0807	0.08	O				
21+25	0.0784	0.08	O				

21+30	0.0763	0.07	O				
21+35	0.0741	0.07	O				
21+40	0.0721	0.07	O				
21+45	0.0701	0.07	O				
21+50	0.0681	0.07	O				
21+55	0.0662	0.07	O				
22+ 0	0.0644	0.06	O				
22+ 5	0.0626	0.06	O				
22+10	0.0609	0.06	O				
22+15	0.0592	0.06	O				
22+20	0.0575	0.06	O				
22+25	0.0559	0.05	O				
22+30	0.0544	0.05	O				
22+35	0.0529	0.05	O				
22+40	0.0514	0.05	O				
22+45	0.0500	0.05	O				
22+50	0.0486	0.05	O				
22+55	0.0472	0.05	O				
23+ 0	0.0459	0.05	O				
23+ 5	0.0446	0.04	O				
23+10	0.0434	0.04	O				
23+15	0.0422	0.04	O				
23+20	0.0410	0.04	O				
23+25	0.0399	0.04	O				
23+30	0.0388	0.04	O				
23+35	0.0377	0.04	O				
23+40	0.0366	0.04	O				
23+45	0.0356	0.04	O				
23+50	0.0346	0.03	O				
23+55	0.0337	0.03	O				
24+ 0	0.0327	0.03	O				
24+ 5	0.0318	0.03	O				
24+10	0.0309	0.03	O				
24+15	0.0301	0.03	O				
24+20	0.0293	0.03	O				
24+25	0.0284	0.03	O				
24+30	0.0276	0.03	O				
24+35	0.0269	0.03	O				
24+40	0.0261	0.03	O				
24+45	0.0254	0.02	O				
24+50	0.0247	0.02	O				
24+55	0.0240	0.02	O				
25+ 0	0.0233	0.02	O				
25+ 5	0.0227	0.02	O				
25+10	0.0221	0.02	O				
25+15	0.0215	0.02	O				
25+20	0.0209	0.02	O				
25+25	0.0203	0.02	O				
25+30	0.0197	0.02	O				
25+35	0.0192	0.02	O				
25+40	0.0186	0.02	O				
25+45	0.0181	0.02	O				
25+50	0.0176	0.02	O				
25+55	0.0171	0.02	O				
26+ 0	0.0166	0.02	O				
26+ 5	0.0162	0.02	O				
26+10	0.0157	0.02	O				
26+15	0.0153	0.02	O				
26+20	0.0149	0.01	O				
26+25	0.0145	0.01	O				
26+30	0.0141	0.01	O				
26+35	0.0137	0.01	O				
26+40	0.0133	0.01	O				
26+45	0.0129	0.01	O				
26+50	0.0126	0.01	O				
26+55	0.0122	0.01	O				
27+ 0	0.0119	0.01	O				
27+ 5	0.0115	0.01	O				
27+10	0.0112	0.01	O				
27+15	0.0109	0.01	O				

```
   27+20       0.0106      0.01  O         |         |         |         |
   27+25       0.0103      0.01  O         |         |         |         |
   27+30       0.0100      0.01  O         |         |         |         |
   27+35       0.0097      0.01  O         |         |         |         |
   27+40       0.0095      0.01  O         |         |         |         |
   27+45       0.0092      0.01  O         |         |         |         |
   27+50       0.0090      0.01  O         |         |         |         |
   27+55       0.0087      0.01  O         |         |         |         |
   28+ 0       0.0085      0.01  O         |         |         |         |
   28+ 5       0.0082      0.01  O         |         |         |         |
   28+10       0.0080      0.01  O         |         |         |         |
   28+15       0.0078      0.01  O         |         |         |         |
   28+20       0.0076      0.01  O         |         |         |         |
   28+25       0.0074      0.01  O         |         |         |         |
   28+30       0.0071      0.01  O         |         |         |         |
   28+35       0.0069      0.01  O         |         |         |         |
   28+40       0.0068      0.01  O         |         |         |         |
   28+45       0.0066      0.01  O         |         |         |         |
   28+50       0.0064      0.01  O         |         |         |         |
   28+55       0.0062      0.01  O         |         |         |         |
   29+ 0       0.0060      0.01  O         |         |         |         |
   29+ 5       0.0059      0.01  O         |         |         |         |
   29+10       0.0057      0.01  O         |         |         |         |
   29+15       0.0055      0.01  O         |         |         |         |
   29+20       0.0054      0.01  O         |         |         |         |
   29+25       0.0052      0.01  O         |         |         |         |
   29+30       0.0051      0.01  O         |         |         |         |
   29+35       0.0050      0.00  O         |         |         |         |
   29+40       0.0048      0.00  O         |         |         |         |
   29+45       0.0047      0.00  O         |         |         |         |
   29+50       0.0046      0.00  O         |         |         |         |
   29+55       0.0044      0.00  O         |         |         |         |
   30+ 0       0.0043      0.00  O         |         |         |         |
   30+ 5       0.0042      0.00  O         |         |         |         |
   30+10       0.0041      0.00  O         |         |         |         |
   30+15       0.0040      0.00  O         |         |         |         |
   30+20       0.0038      0.00  O         |         |         |         |
   30+25       0.0037      0.00  O         |         |         |         |
   30+30       0.0036      0.00  O         |         |         |         |
   30+35       0.0035      0.00  O         |         |         |         |
   30+40       0.0034      0.00  O         |         |         |         |
   30+45       0.0033      0.00  O         |         |         |         |
   30+50       0.0032      0.00  O         |         |         |         |
   30+55       0.0032      0.00  O         |         |         |         |
   31+ 0       0.0031      0.00  O         |         |         |         |
   31+ 5       0.0030      0.00  O         |         |         |         |
   31+10       0.0029      0.00  O         |         |         |         |
   31+15       0.0028      0.00  O         |         |         |         |
   31+20       0.0027      0.00  O         |         |         |         |
   31+25       0.0027      0.00  O         |         |         |         |
   31+30       0.0026      0.00  O         |         |         |         |
   31+35       0.0025      0.00  O         |         |         |         |
   31+40       0.0024      0.00  O         |         |         |         |
   31+45       0.0024      0.00  O         |         |         |         |
   31+50       0.0023      0.00  O         |         |         |         |
   31+55       0.0023      0.00  O         |         |         |         |
   32+ 0       0.0022      0.00  O         |         |         |         |
   32+ 5       0.0021      0.00  O         |         |         |         |
   32+10       0.0021      0.00  O         |         |         |         |
   32+15       0.0012      0.00  O         |         |         |         |
   32+20       0.0000      0.00  O         |         |         |         |
--------------------------------------------------------------------------
       ****************************HYDROGRAPH DATA**************************
                  Number of intervals =   388
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =       74.950 (CFS)
                  Total volume =       5.585 (Ac.Ft)
            Status of hydrographs being held in storage
                      Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
```

```
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
*******************************************************************************

-------------------------------------------------------------------------------


+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       10.000 to Point/Station       11.000
**** ADD/COMBINE/RECOVER HYDROGRAPHS ****
_______________________________________________________________________________
********************* HYDROGRAPH INFORMATION **********************

                From study/file name: lgareaa1100.rte
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                   P R I N T  O F  S T O R M
                  R u n o f f     H y d r o g r a p h
-------------------------------------------------------------------------------
              Hydrograph in   5   Minute intervals (CFS)

-------------------------------------------------------------------------------
Time(h+m) Add q(CFS)  Tot. Q   0      189.9     379.8     569.7     759.6
-------------------------------------------------------------------------------
  0+ 5      11.1149     11.17  Q          |         |         |         |
  0+10      58.6316     58.98  |  Q       |         |         |         |
  0+15     117.9801    118.78  |     Q    |         |         |         |
  0+20     154.9427    156.00  |       Q  |         |         |         |
  0+25     182.1149    183.24  |        Q |         |         |         |
  0+30     209.0514    210.27  |          |Q        |         |         |
  0+35     242.2028    245.20  |          | Q       |         |         |
  0+40     280.5661    292.20  |          |   qQ    |         |         |
  0+45     333.5203    360.35  |          |      qQ |         |         |
  0+50     463.4920    507.14  |          |         |   q Q   |         |
  0+55     683.7899    745.05  |          |         |         |     q  Q|
  1+ 0     686.4429    759.58  |          |         |         |     q   Q
  1+ 5     457.3585    532.31  |          |         |   q   Q |         |
  1+10     290.9364    360.73  |          |    q  Q |         |         |
  1+15     183.0280    244.06  |        q| Q       |         |         |
  1+20     128.1298    178.19  |     q  Q|         |         |         |
  1+25      97.6180    136.78  |    q Q   |         |         |         |
  1+30      74.3656    103.42  |  q Q     |         |         |         |
  1+35      58.0963     78.37  |  qQ      |         |         |         |
  1+40      47.2432     61.34  | qQ       |         |         |         |
  1+45      37.0392     46.84  |qQ        |         |         |         |
  1+50      29.3615     36.18  |Q         |         |         |         |
  1+55      22.5971     27.33  |Q         |         |         |         |
  2+ 0      17.1625     20.46  qQ         |         |         |         |
  2+ 5      13.8822     16.17  Q          |         |         |         |
  2+10      11.2274     12.90  Q          |         |         |         |
  2+15       2.9964      4.46  Q          |         |         |         |
  2+20       1.3379      2.79  Q          |         |         |         |
  2+25       0.0000      1.44  Q          |         |         |         |
  2+30       0.0000      1.44  Q          |         |         |         |
  2+35       0.0000      1.43  Q          |         |         |         |
  2+40       0.0000      1.42  Q          |         |         |         |
  2+45       0.0000      1.42  Q          |         |         |         |
  2+50       0.0000      1.41  Q          |         |         |         |
  2+55       0.0000      1.41  Q          |         |         |         |
  3+ 0       0.0000      1.40  Q          |         |         |         |
  3+ 5       0.0000      1.39  Q          |         |         |         |
  3+10       0.0000      1.39  Q          |         |         |         |
  3+15       0.0000      1.38  Q          |         |         |         |
  3+20       0.0000      1.38  Q          |         |         |         |
  3+25       0.0000      1.37  Q          |         |         |         |
  3+30       0.0000      1.36  Q          |         |         |         |
  3+35       0.0000      1.36  Q          |         |         |         |
  3+40       0.0000      1.35  Q          |         |         |         |
  3+45       0.0000      1.35  Q          |         |         |         |
  3+50       0.0000      1.34  Q          |         |         |         |
  3+55       0.0000      1.34  Q          |         |         |         |
  4+ 0       0.0000      1.33  Q          |         |         |         |
```

4+ 5	0.0000	1.32	Q				
4+10	0.0000	1.32	Q				
4+15	0.0000	1.31	Q				
4+20	0.0000	1.31	Q				
4+25	0.0000	1.30	Q				
4+30	0.0000	1.30	Q				
4+35	0.0000	1.29	Q				
4+40	0.0000	1.29	Q				
4+45	0.0000	1.28	Q				
4+50	0.0000	1.27	Q				
4+55	0.0000	1.27	Q				
5+ 0	0.0000	1.26	Q				
5+ 5	0.0000	1.26	Q				
5+10	0.0000	1.25	Q				
5+15	0.0000	1.25	Q				
5+20	0.0000	1.24	Q				
5+25	0.0000	1.24	Q				
5+30	0.0000	1.23	Q				
5+35	0.0000	1.23	Q				
5+40	0.0000	1.22	Q				
5+45	0.0000	1.22	Q				
5+50	0.0000	1.21	Q				
5+55	0.0000	1.21	Q				
6+ 0	0.0000	1.20	Q				
6+ 5	0.0000	1.20	Q				
6+10	0.0000	1.19	Q				
6+15	0.0000	1.19	Q				
6+20	0.0000	1.18	Q				
6+25	0.0000	1.18	Q				
6+30	0.0000	1.17	Q				
6+35	0.0000	1.17	Q				
6+40	0.0000	1.16	Q				
6+45	0.0000	1.16	Q				
6+50	0.0000	1.16	Q				
6+55	0.0000	1.16	Q				
7+ 0	0.0000	1.16	Q				
7+ 5	0.0000	1.15	Q				
7+10	0.0000	1.15	Q				
7+15	0.0000	1.15	Q				
7+20	0.0000	1.15	Q				
7+25	0.0000	1.15	Q				
7+30	0.0000	1.15	Q				
7+35	0.0000	1.15	Q				
7+40	0.0000	1.14	Q				
7+45	0.0000	1.14	Q				
7+50	0.0000	1.14	Q				
7+55	0.0000	1.14	Q				
8+ 0	0.0000	1.14	Q				
8+ 5	0.0000	1.14	Q				
8+10	0.0000	1.13	Q				
8+15	0.0000	1.13	Q				
8+20	0.0000	1.13	Q				
8+25	0.0000	1.13	Q				
8+30	0.0000	1.13	Q				
8+35	0.0000	1.13	Q				
8+40	0.0000	1.12	Q				
8+45	0.0000	1.12	Q				
8+50	0.0000	1.12	Q				
8+55	0.0000	1.12	Q				
9+ 0	0.0000	1.12	Q				
9+ 5	0.0000	1.12	Q				
9+10	0.0000	1.11	Q				
9+15	0.0000	1.11	Q				
9+20	0.0000	1.11	Q				
9+25	0.0000	1.11	Q				
9+30	0.0000	1.11	Q				
9+35	0.0000	1.11	Q				
9+40	0.0000	1.10	Q				
9+45	0.0000	1.10	Q				
9+50	0.0000	1.10	Q				

9+55	0.0000	1.10	Q	|	|	|	|
10+ 0	0.0000	1.10	Q	|	|	|	|
10+ 5	0.0000	1.10	Q	|	|	|	|
10+10	0.0000	1.09	Q	|	|	|	|
10+15	0.0000	1.09	Q	|	|	|	|
10+20	0.0000	1.09	Q	|	|	|	|
10+25	0.0000	1.09	Q	|	|	|	|
10+30	0.0000	1.09	Q	|	|	|	|
10+35	0.0000	1.09	Q	|	|	|	|
10+40	0.0000	1.08	Q	|	|	|	|
10+45	0.0000	1.08	Q	|	|	|	|
10+50	0.0000	1.08	Q	|	|	|	|
10+55	0.0000	1.08	Q	|	|	|	|
11+ 0	0.0000	1.08	Q	|	|	|	|
11+ 5	0.0000	1.08	Q	|	|	|	|
11+10	0.0000	1.07	Q	|	|	|	|
11+15	0.0000	1.07	Q	|	|	|	|
11+20	0.0000	1.07	Q	|	|	|	|
11+25	0.0000	1.07	Q	|	|	|	|
11+30	0.0000	1.07	Q	|	|	|	|
11+35	0.0000	1.07	Q	|	|	|	|
11+40	0.0000	1.06	Q	|	|	|	|
11+45	0.0000	1.06	Q	|	|	|	|
11+50	0.0000	1.06	Q	|	|	|	|
11+55	0.0000	1.06	Q	|	|	|	|
12+ 0	0.0000	1.06	Q	|	|	|	|
12+ 5	0.0000	1.06	Q	|	|	|	|
12+10	0.0000	1.05	Q	|	|	|	|
12+15	0.0000	1.05	Q	|	|	|	|
12+20	0.0000	1.05	Q	|	|	|	|
12+25	0.0000	1.05	Q	|	|	|	|
12+30	0.0000	1.05	Q	|	|	|	|
12+35	0.0000	1.05	Q	|	|	|	|
12+40	0.0000	1.04	Q	|	|	|	|
12+45	0.0000	1.04	Q	|	|	|	|
12+50	0.0000	1.04	Q	|	|	|	|
12+55	0.0000	1.04	Q	|	|	|	|
13+ 0	0.0000	1.04	Q	|	|	|	|
13+ 5	0.0000	1.04	Q	|	|	|	|
13+10	0.0000	1.04	Q	|	|	|	|
13+15	0.0000	1.03	Q	|	|	|	|
13+20	0.0000	1.03	Q	|	|	|	|
13+25	0.0000	1.03	Q	|	|	|	|
13+30	0.0000	1.03	Q	|	|	|	|
13+35	0.0000	1.03	Q	|	|	|	|
13+40	0.0000	1.03	Q	|	|	|	|
13+45	0.0000	1.02	Q	|	|	|	|
13+50	0.0000	1.01	Q	|	|	|	|
13+55	0.0000	0.99	Q	|	|	|	|
14+ 0	0.0000	0.96	Q	|	|	|	|
14+ 5	0.0000	0.94	Q	|	|	|	|
14+10	0.0000	0.91	Q	|	|	|	|
14+15	0.0000	0.89	Q	|	|	|	|
14+20	0.0000	0.86	Q	|	|	|	|
14+25	0.0000	0.84	Q	|	|	|	|
14+30	0.0000	0.81	Q	|	|	|	|
14+35	0.0000	0.79	Q	|	|	|	|
14+40	0.0000	0.77	Q	|	|	|	|
14+45	0.0000	0.75	Q	|	|	|	|
14+50	0.0000	0.73	Q	|	|	|	|
14+55	0.0000	0.71	Q	|	|	|	|
15+ 0	0.0000	0.69	Q	|	|	|	|
15+ 5	0.0000	0.67	Q	|	|	|	|
15+10	0.0000	0.65	Q	|	|	|	|
15+15	0.0000	0.63	Q	|	|	|	|
15+20	0.0000	0.61	Q	|	|	|	|
15+25	0.0000	0.60	Q	|	|	|	|
15+30	0.0000	0.58	Q	|	|	|	|
15+35	0.0000	0.56	Q	|	|	|	|
15+40	0.0000	0.55	Q	|	|	|	|

15+45	0.0000	0.53	Q				
15+50	0.0000	0.52	Q				
15+55	0.0000	0.50	Q				
16+ 0	0.0000	0.49	Q				
16+ 5	0.0000	0.48	Q				
16+10	0.0000	0.46	Q				
16+15	0.0000	0.45	Q				
16+20	0.0000	0.44	Q				
16+25	0.0000	0.43	Q				
16+30	0.0000	0.41	Q				
16+35	0.0000	0.40	Q				
16+40	0.0000	0.39	Q				
16+45	0.0000	0.38	Q				
16+50	0.0000	0.37	Q				
16+55	0.0000	0.36	Q				
17+ 0	0.0000	0.35	Q				
17+ 5	0.0000	0.34	Q				
17+10	0.0000	0.33	Q				
17+15	0.0000	0.32	Q				
17+20	0.0000	0.31	Q				
17+25	0.0000	0.30	Q				
17+30	0.0000	0.29	Q				
17+35	0.0000	0.29	Q				
17+40	0.0000	0.28	Q				
17+45	0.0000	0.27	Q				
17+50	0.0000	0.26	Q				
17+55	0.0000	0.26	Q				
18+ 0	0.0000	0.25	Q				
18+ 5	0.0000	0.24	Q				
18+10	0.0000	0.24	Q				
18+15	0.0000	0.23	Q				
18+20	0.0000	0.22	Q				
18+25	0.0000	0.22	Q				
18+30	0.0000	0.21	Q				
18+35	0.0000	0.20	Q				
18+40	0.0000	0.20	Q				
18+45	0.0000	0.19	Q				
18+50	0.0000	0.19	Q				
18+55	0.0000	0.18	Q				
19+ 0	0.0000	0.18	Q				
19+ 5	0.0000	0.17	Q				
19+10	0.0000	0.17	Q				
19+15	0.0000	0.16	Q				
19+20	0.0000	0.16	Q				
19+25	0.0000	0.15	Q				
19+30	0.0000	0.15	Q				
19+35	0.0000	0.15	Q				
19+40	0.0000	0.14	Q				
19+45	0.0000	0.14	Q				
19+50	0.0000	0.13	Q				
19+55	0.0000	0.13	Q				
20+ 0	0.0000	0.13	Q				
20+ 5	0.0000	0.12	Q				
20+10	0.0000	0.12	Q				
20+15	0.0000	0.12	Q				
20+20	0.0000	0.11	Q				
20+25	0.0000	0.11	Q				
20+30	0.0000	0.11	Q				
20+35	0.0000	0.10	Q				
20+40	0.0000	0.10	Q				
20+45	0.0000	0.10	Q				
20+50	0.0000	0.10	Q				
20+55	0.0000	0.09	Q				
21+ 0	0.0000	0.09	Q				
21+ 5	0.0000	0.09	Q				
21+10	0.0000	0.09	Q				
21+15	0.0000	0.08	Q				
21+20	0.0000	0.08	Q				
21+25	0.0000	0.08	Q				
21+30	0.0000	0.08	Q				

21+35	0.0000	0.07	Q				
21+40	0.0000	0.07	Q				
21+45	0.0000	0.07	Q				
21+50	0.0000	0.07	Q				
21+55	0.0000	0.07	Q				
22+ 0	0.0000	0.06	Q				
22+ 5	0.0000	0.06	Q				
22+10	0.0000	0.06	Q				
22+15	0.0000	0.06	Q				
22+20	0.0000	0.06	Q				
22+25	0.0000	0.06	Q				
22+30	0.0000	0.05	Q				
22+35	0.0000	0.05	Q				
22+40	0.0000	0.05	Q				
22+45	0.0000	0.05	Q				
22+50	0.0000	0.05	Q				
22+55	0.0000	0.05	Q				
23+ 0	0.0000	0.05	Q				
23+ 5	0.0000	0.04	Q				
23+10	0.0000	0.04	Q				
23+15	0.0000	0.04	Q				
23+20	0.0000	0.04	Q				
23+25	0.0000	0.04	Q				
23+30	0.0000	0.04	Q				
23+35	0.0000	0.04	Q				
23+40	0.0000	0.04	Q				
23+45	0.0000	0.04	Q				
23+50	0.0000	0.03	Q				
23+55	0.0000	0.03	Q				
24+ 0	0.0000	0.03	Q				
24+ 5	0.0000	0.03	Q				
24+10	0.0000	0.03	Q				
24+15	0.0000	0.03	Q				
24+20	0.0000	0.03	Q				
24+25	0.0000	0.03	Q				
24+30	0.0000	0.03	Q				
24+35	0.0000	0.03	Q				
24+40	0.0000	0.03	Q				
24+45	0.0000	0.03	Q				
24+50	0.0000	0.02	Q				
24+55	0.0000	0.02	Q				
25+ 0	0.0000	0.02	Q				
25+ 5	0.0000	0.02	Q				
25+10	0.0000	0.02	Q				
25+15	0.0000	0.02	Q				
25+20	0.0000	0.02	Q				
25+25	0.0000	0.02	Q				
25+30	0.0000	0.02	Q				
25+35	0.0000	0.02	Q				
25+40	0.0000	0.02	Q				
25+45	0.0000	0.02	Q				
25+50	0.0000	0.02	Q				
25+55	0.0000	0.02	Q				
26+ 0	0.0000	0.02	Q				
26+ 5	0.0000	0.02	Q				
26+10	0.0000	0.02	Q				
26+15	0.0000	0.02	Q				
26+20	0.0000	0.01	Q				
26+25	0.0000	0.01	Q				
26+30	0.0000	0.01	Q				
26+35	0.0000	0.01	Q				
26+40	0.0000	0.01	Q				
26+45	0.0000	0.01	Q				
26+50	0.0000	0.01	Q				
26+55	0.0000	0.01	Q				
27+ 0	0.0000	0.01	Q				
27+ 5	0.0000	0.01	Q				
27+10	0.0000	0.01	Q				
27+15	0.0000	0.01	Q				
27+20	0.0000	0.01	Q				

27+25	0.0000	0.01	Q	|	|	|	|
27+30	0.0000	0.01	Q	|	|	|	|
27+35	0.0000	0.01	Q	|	|	|	|
27+40	0.0000	0.01	Q	|	|	|	|
27+45	0.0000	0.01	Q	|	|	|	|
27+50	0.0000	0.01	Q	|	|	|	|
27+55	0.0000	0.01	Q	|	|	|	|
28+ 0	0.0000	0.01	Q	|	|	|	|
28+ 5	0.0000	0.01	Q	|	|	|	|
28+10	0.0000	0.01	Q	|	|	|	|
28+15	0.0000	0.01	Q	|	|	|	|
28+20	0.0000	0.01	Q	|	|	|	|
28+25	0.0000	0.01	Q	|	|	|	|
28+30	0.0000	0.01	Q	|	|	|	|
28+35	0.0000	0.01	Q	|	|	|	|
28+40	0.0000	0.01	Q	|	|	|	|
28+45	0.0000	0.01	Q	|	|	|	|
28+50	0.0000	0.01	Q	|	|	|	|
28+55	0.0000	0.01	Q	|	|	|	|
29+ 0	0.0000	0.01	Q	|	|	|	|
29+ 5	0.0000	0.01	Q	|	|	|	|
29+10	0.0000	0.01	Q	|	|	|	|
29+15	0.0000	0.01	Q	|	|	|	|
29+20	0.0000	0.01	Q	|	|	|	|
29+25	0.0000	0.01	Q	|	|	|	|
29+30	0.0000	0.01	Q	|	|	|	|
29+35	0.0000	0.00	Q	|	|	|	|
29+40	0.0000	0.00	Q	|	|	|	|
29+45	0.0000	0.00	Q	|	|	|	|
29+50	0.0000	0.00	Q	|	|	|	|
29+55	0.0000	0.00	Q	|	|	|	|
30+ 0	0.0000	0.00	Q	|	|	|	|
30+ 5	0.0000	0.00	Q	|	|	|	|
30+10	0.0000	0.00	Q	|	|	|	|
30+15	0.0000	0.00	Q	|	|	|	|
30+20	0.0000	0.00	Q	|	|	|	|
30+25	0.0000	0.00	Q	|	|	|	|
30+30	0.0000	0.00	Q	|	|	|	|
30+35	0.0000	0.00	Q	|	|	|	|
30+40	0.0000	0.00	Q	|	|	|	|
30+45	0.0000	0.00	Q	|	|	|	|
30+50	0.0000	0.00	Q	|	|	|	|
30+55	0.0000	0.00	Q	|	|	|	|
31+ 0	0.0000	0.00	Q	|	|	|	|
31+ 5	0.0000	0.00	Q	|	|	|	|
31+10	0.0000	0.00	Q	|	|	|	|
31+15	0.0000	0.00	Q	|	|	|	|
31+20	0.0000	0.00	Q	|	|	|	|
31+25	0.0000	0.00	Q	|	|	|	|
31+30	0.0000	0.00	Q	|	|	|	|
31+35	0.0000	0.00	Q	|	|	|	|
31+40	0.0000	0.00	Q	|	|	|	|
31+45	0.0000	0.00	Q	|	|	|	|
31+50	0.0000	0.00	Q	|	|	|	|
31+55	0.0000	0.00	Q	|	|	|	|
32+ 0	0.0000	0.00	Q	|	|	|	|
32+ 5	0.0000	0.00	Q	|	|	|	|
32+10	0.0000	0.00	Q	|	|	|	|
32+15	0.0000	0.00	Q	|	|	|	|
32+20	0.0000	0.00	Q	|	|	|	|

**********HYDROGRAPH DATA**********

Number of intervals = 388
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 759.580 (CFS)
Total volume = 39.306 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

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

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++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       11.000 to Point/Station       12.000
**** RETARDING BASIN ROUTING ****
__________________________________________________________________________

User entry of depth-outflow-storage data
---------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 388
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
---------------------------------------------------------------------------
---------------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
---------------------------------------------------------------------------
---------------------------------------------------------------------------
Depth vs. Storage and Depth vs. Discharge data:
 Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
     (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
---------------------------------------------------------------------------
   0.000      0.000      0.000      0.000        0.000
   1.000      0.540     30.240      0.436        0.644
   2.000      2.140     41.680      1.996        2.284
   3.000      4.310     63.670      4.091        4.529
   4.000      6.570     79.820      6.295        6.845
   5.000      9.330     93.200      9.009        9.651
   6.000     12.640    104.900     12.279       13.001
   7.000     16.070    115.410     15.673       16.467
   8.000     19.630    125.050     19.199       20.061
   9.000     23.320    133.990     22.859       23.781
  10.000     27.150    142.370     26.660       27.640
  11.000     31.110    180.290     30.489       31.731
  12.000     33.380    242.660     32.544       34.216
---------------------------------------------------------------------------
               Hydrograph Detention Basin Routing
---------------------------------------------------------------------------

Graph values: 'I'= unit inflow; 'O'=outflow at time shown
---------------------------------------------------------------------------
 Time   Inflow  Outflow    Storage                                    Depth
(Hours)  (CFS)   (CFS)     (Ac.Ft) .0     189.9  379.79  569.69  759.58 (Ft.)
 0.083   11.17    1.81      0.032  O       |       |       |       |     0.06
 0.167   58.98   12.56      0.224  O I     |       |       |       |     0.42
 0.250  118.78   31.28      0.686  |O   I  |       |       |       |     1.09
 0.333  156.00   36.38      1.399  |O    I |       |       |       |     1.54
 0.417  183.24   43.23      2.293  |O     I|       |       |       |     2.07
 0.500  210.27   53.58      3.314  | O     I       |       |       |     2.54
 0.583  245.20   64.85      4.475  | O     | I     |       |       |     3.07
 0.667  292.20   74.64      5.845  |  O    |   I   |       |       |     3.68
 0.750  360.35   84.54      7.544  |  O    |      I|       |       |     4.35
 0.833  507.14   95.26      9.912  |   O   |       |    I  |       |     5.18
 0.917  745.05  107.61     13.526  |   O   |       |       |      I|     6.26
 1.000  759.58  120.42     17.922  |    O  |       |       |       I     7.52
 1.083  532.31  129.60     21.509  |    O  |       |     I |       |     8.51
 1.167  360.73  134.76     23.674  |    O  |      I|       |       |     9.09
 1.250  244.06  137.27     24.820  |    O  | I     |       |       |     9.39
 1.333  178.19  138.38     25.325  |    O I|       |       |       |     9.52
 1.417  136.78  138.66     25.455  |    O  |       |       |       |     9.56
 1.500  103.42  138.38     25.329  |   IO  |       |       |       |     9.52
 1.583   78.37  137.67     25.004  |  I O  |       |       |       |     9.44
 1.667   61.34  136.66     24.540  | I  O  |       |       |       |     9.32
 1.750   46.84  135.43     23.976  |I   O  |       |       |       |     9.17
 1.833   36.18  134.02     23.334  |I   O  |       |       |       |     9.00
 1.917   27.33  132.33     22.636  |I   O  |       |       |       |     8.81
```

2.000	20.46	130.54	21.895	I O	|	|	|	8.61
2.083	16.17	128.68	21.128	I O	|	|	|	8.41
2.167	12.90	126.79	20.349	I O	|	|	|	8.19
2.250	4.46	124.81	19.542	I O	|	|	|	7.98
2.333	2.79	122.57	18.715	I O	|	|	|	7.74
2.417	1.44	120.35	17.893	I O	|	|	|	7.51
2.500	1.44	118.15	17.082	I O	|	|	|	7.28
2.583	1.43	115.99	16.286	I O	|	|	|	7.06
2.667	1.42	113.68	15.505	I O	|	|	|	6.84
2.750	1.42	111.33	14.739	I O	|	|	|	6.61
2.833	1.41	109.04	13.990	I O	|	|	|	6.39
2.917	1.41	106.79	13.257	I O	|	|	|	6.18
3.000	1.40	104.54	12.539	I O	|	|	|	5.97
3.083	1.39	102.06	11.837	I O	|	|	|	5.76
3.167	1.39	99.64	11.152	I O	|	|	|	5.55
3.250	1.38	97.28	10.483	I O	|	|	|	5.35
3.333	1.38	94.97	9.831	I O	|	|	|	5.15
3.417	1.37	92.54	9.195	I O	|	|	|	4.95
3.500	1.36	89.55	8.577	I O	|	|	|	4.73
3.583	1.36	86.65	7.980	I O	|	|	|	4.51
3.667	1.35	83.85	7.402	I O	|	|	|	4.30
3.750	1.35	81.14	6.843	I O	|	|	|	4.10
3.833	1.34	77.92	6.305	I O	|	|	|	3.88
3.917	1.34	74.24	5.790	I O	|	|	|	3.65
4.000	1.33	70.74	5.300	I O	|	|	|	3.44
4.083	1.32	67.41	4.833	I O	|	|	|	3.23
4.167	1.32	64.23	4.389	I O	|	|	|	3.03
4.250	1.31	60.22	3.969	I O	|	|	|	2.84
4.333	1.31	56.25	3.577	I O	|	|	|	2.66
4.417	1.30	52.54	3.212	I O	|	|	|	2.49
4.500	1.30	49.08	2.871	I O	|	|	|	2.34
4.583	1.29	45.86	2.553	IO	|	|	|	2.19
4.667	1.29	42.86	2.256	IO	|	|	|	2.05
4.750	1.28	40.52	1.978	IO	|	|	|	1.90
4.833	1.27	38.63	1.714	IO	|	|	|	1.73
4.917	1.27	36.84	1.463	IO	|	|	|	1.58
5.000	1.26	35.13	1.224	IO	|	|	|	1.43
5.083	1.26	33.50	0.996	IO	|	|	|	1.29
5.167	1.25	31.95	0.779	IO	|	|	|	1.15
5.250	1.25	30.48	0.573	IO	|	|	|	1.02
5.333	1.24	22.38	0.400	O	|	|	|	0.74
5.417	1.24	15.54	0.278	O	|	|	|	0.51
5.500	1.23	10.92	0.195	O	|	|	|	0.36
5.583	1.23	7.78	0.139	O	|	|	|	0.26
5.667	1.22	5.66	0.101	O	|	|	|	0.19
5.750	1.22	4.23	0.075	O	|	|	|	0.14
5.833	1.21	3.25	0.058	O	|	|	|	0.11
5.917	1.21	2.59	0.046	O	|	|	|	0.09
6.000	1.20	2.14	0.038	O	|	|	|	0.07
6.083	1.20	1.84	0.033	O	|	|	|	0.06
6.167	1.19	1.63	0.029	O	|	|	|	0.05
6.250	1.19	1.49	0.027	O	|	|	|	0.05
6.333	1.18	1.39	0.025	O	|	|	|	0.05
6.417	1.18	1.32	0.024	O	|	|	|	0.04
6.500	1.17	1.27	0.023	O	|	|	|	0.04
6.583	1.17	1.24	0.022	O	|	|	|	0.04
6.667	1.16	1.21	0.022	O	|	|	|	0.04
6.750	1.16	1.20	0.021	O	|	|	|	0.04
6.833	1.16	1.19	0.021	O	|	|	|	0.04
6.917	1.16	1.18	0.021	O	|	|	|	0.04
7.000	1.16	1.17	0.021	O	|	|	|	0.04
7.083	1.15	1.17	0.021	O	|	|	|	0.04
7.167	1.15	1.16	0.021	O	|	|	|	0.04
7.250	1.15	1.16	0.021	O	|	|	|	0.04
7.333	1.15	1.16	0.021	O	|	|	|	0.04
7.417	1.15	1.15	0.021	O	|	|	|	0.04
7.500	1.15	1.15	0.021	O	|	|	|	0.04
7.583	1.15	1.15	0.021	O	|	|	|	0.04
7.667	1.14	1.15	0.021	O	|	|	|	0.04
7.750	1.14	1.15	0.020	O	|	|	|	0.04

7.833	1.14	1.15	0.020	O					0.04
7.917	1.14	1.14	0.020	O					0.04
8.000	1.14	1.14	0.020	O					0.04
8.083	1.14	1.14	0.020	O					0.04
8.167	1.13	1.14	0.020	O					0.04
8.250	1.13	1.14	0.020	O					0.04
8.333	1.13	1.14	0.020	O					0.04
8.417	1.13	1.13	0.020	O					0.04
8.500	1.13	1.13	0.020	O					0.04
8.583	1.13	1.13	0.020	O					0.04
8.667	1.12	1.13	0.020	O					0.04
8.750	1.12	1.13	0.020	O					0.04
8.833	1.12	1.12	0.020	O					0.04
8.917	1.12	1.12	0.020	O					0.04
9.000	1.12	1.12	0.020	O					0.04
9.083	1.12	1.12	0.020	O					0.04
9.167	1.11	1.12	0.020	O					0.04
9.250	1.11	1.12	0.020	O					0.04
9.333	1.11	1.11	0.020	O					0.04
9.417	1.11	1.11	0.020	O					0.04
9.500	1.11	1.11	0.020	O					0.04
9.583	1.11	1.11	0.020	O					0.04
9.667	1.10	1.11	0.020	O					0.04
9.750	1.10	1.11	0.020	O					0.04
9.833	1.10	1.10	0.020	O					0.04
9.917	1.10	1.10	0.020	O					0.04
10.000	1.10	1.10	0.020	O					0.04
10.083	1.10	1.10	0.020	O					0.04
10.167	1.09	1.10	0.020	O					0.04
10.250	1.09	1.10	0.020	O					0.04
10.333	1.09	1.09	0.020	O					0.04
10.417	1.09	1.09	0.020	O					0.04
10.500	1.09	1.09	0.019	O					0.04
10.583	1.09	1.09	0.019	O					0.04
10.667	1.08	1.09	0.019	O					0.04
10.750	1.08	1.09	0.019	O					0.04
10.833	1.08	1.08	0.019	O					0.04
10.917	1.08	1.08	0.019	O					0.04
11.000	1.08	1.08	0.019	O					0.04
11.083	1.08	1.08	0.019	O					0.04
11.167	1.07	1.08	0.019	O					0.04
11.250	1.07	1.08	0.019	O					0.04
11.333	1.07	1.07	0.019	O					0.04
11.417	1.07	1.07	0.019	O					0.04
11.500	1.07	1.07	0.019	O					0.04
11.583	1.07	1.07	0.019	O					0.04
11.667	1.06	1.07	0.019	O					0.04
11.750	1.06	1.07	0.019	O					0.04
11.833	1.06	1.07	0.019	O					0.04
11.917	1.06	1.06	0.019	O					0.04
12.000	1.06	1.06	0.019	O					0.04
12.083	1.06	1.06	0.019	O					0.04
12.167	1.05	1.06	0.019	O					0.04
12.250	1.05	1.06	0.019	O					0.03
12.333	1.05	1.06	0.019	O					0.03
12.417	1.05	1.05	0.019	O					0.03
12.500	1.05	1.05	0.019	O					0.03
12.583	1.05	1.05	0.019	O					0.03
12.667	1.04	1.05	0.019	O					0.03
12.750	1.04	1.05	0.019	O					0.03
12.833	1.04	1.05	0.019	O					0.03
12.917	1.04	1.04	0.019	O					0.03
13.000	1.04	1.04	0.019	O					0.03
13.083	1.04	1.04	0.019	O					0.03
13.167	1.04	1.04	0.019	O					0.03
13.250	1.03	1.04	0.019	O					0.03
13.333	1.03	1.04	0.019	O					0.03
13.417	1.03	1.03	0.018	O					0.03
13.500	1.03	1.03	0.018	O					0.03
13.583	1.03	1.03	0.018	O					0.03

13.667	1.03	1.03	0.018	O					0.03
13.750	1.02	1.03	0.018	O					0.03
13.833	1.01	1.03	0.018	O					0.03
13.917	0.99	1.02	0.018	O					0.03
14.000	0.96	1.00	0.018	O					0.03
14.083	0.94	0.99	0.018	O					0.03
14.167	0.91	0.97	0.017	O					0.03
14.250	0.89	0.94	0.017	O					0.03
14.333	0.86	0.92	0.016	O					0.03
14.417	0.84	0.90	0.016	O					0.03
14.500	0.81	0.87	0.016	O					0.03
14.583	0.79	0.85	0.015	O					0.03
14.667	0.77	0.83	0.015	O					0.03
14.750	0.75	0.81	0.014	O					0.03
14.833	0.73	0.78	0.014	O					0.03
14.917	0.71	0.76	0.014	O					0.03
15.000	0.69	0.74	0.013	O					0.02
15.083	0.67	0.72	0.013	O					0.02
15.167	0.65	0.70	0.013	O					0.02
15.250	0.63	0.68	0.012	O					0.02
15.333	0.61	0.66	0.012	O					0.02
15.417	0.60	0.64	0.011	O					0.02
15.500	0.58	0.63	0.011	O					0.02
15.583	0.56	0.61	0.011	O					0.02
15.667	0.55	0.59	0.011	O					0.02
15.750	0.53	0.58	0.010	O					0.02
15.833	0.52	0.56	0.010	O					0.02
15.917	0.50	0.54	0.010	O					0.02
16.000	0.49	0.53	0.009	O					0.02
16.083	0.48	0.51	0.009	O					0.02
16.167	0.46	0.50	0.009	O					0.02
16.250	0.45	0.49	0.009	O					0.02
16.333	0.44	0.47	0.008	O					0.02
16.417	0.43	0.46	0.008	O					0.02
16.500	0.41	0.45	0.008	O					0.01
16.583	0.40	0.43	0.008	O					0.01
16.667	0.39	0.42	0.008	O					0.01
16.750	0.38	0.41	0.007	O					0.01
16.833	0.37	0.40	0.007	O					0.01
16.917	0.36	0.39	0.007	O					0.01
17.000	0.35	0.38	0.007	O					0.01
17.083	0.34	0.37	0.007	O					0.01
17.167	0.33	0.36	0.006	O					0.01
17.250	0.32	0.35	0.006	O					0.01
17.333	0.31	0.34	0.006	O					0.01
17.417	0.30	0.33	0.006	O					0.01
17.500	0.29	0.32	0.006	O					0.01
17.583	0.29	0.31	0.006	O					0.01
17.667	0.28	0.30	0.005	O					0.01
17.750	0.27	0.29	0.005	O					0.01
17.833	0.26	0.28	0.005	O					0.01
17.917	0.26	0.28	0.005	O					0.01
18.000	0.25	0.27	0.005	O					0.01
18.083	0.24	0.26	0.005	O					0.01
18.167	0.24	0.25	0.005	O					0.01
18.250	0.23	0.25	0.004	O					0.01
18.333	0.22	0.24	0.004	O					0.01
18.417	0.22	0.23	0.004	O					0.01
18.500	0.21	0.23	0.004	O					0.01
18.583	0.20	0.22	0.004	O					0.01
18.667	0.20	0.21	0.004	O					0.01
18.750	0.19	0.21	0.004	O					0.01
18.833	0.19	0.20	0.004	O					0.01
18.917	0.18	0.20	0.004	O					0.01
19.000	0.18	0.19	0.003	O					0.01
19.083	0.17	0.19	0.003	O					0.01
19.167	0.17	0.18	0.003	O					0.01
19.250	0.16	0.18	0.003	O					0.01
19.333	0.16	0.17	0.003	O					0.01
19.417	0.15	0.17	0.003	O					0.01

19.500	0.15	0.16	0.003	O					0.01
19.583	0.15	0.16	0.003	O					0.01
19.667	0.14	0.15	0.003	O					0.01
19.750	0.14	0.15	0.003	O					0.00
19.833	0.13	0.14	0.003	O					0.00
19.917	0.13	0.14	0.003	O					0.00
20.000	0.13	0.14	0.002	O					0.00
20.083	0.12	0.13	0.002	O					0.00
20.167	0.12	0.13	0.002	O					0.00
20.250	0.12	0.13	0.002	O					0.00
20.333	0.11	0.12	0.002	O					0.00
20.417	0.11	0.12	0.002	O					0.00
20.500	0.11	0.12	0.002	O					0.00
20.583	0.10	0.11	0.002	O					0.00
20.667	0.10	0.11	0.002	O					0.00
20.750	0.10	0.11	0.002	O					0.00
20.833	0.10	0.10	0.002	O					0.00
20.917	0.09	0.10	0.002	O					0.00
21.000	0.09	0.10	0.002	O					0.00
21.083	0.09	0.09	0.002	O					0.00
21.167	0.09	0.09	0.002	O					0.00
21.250	0.08	0.09	0.002	O					0.00
21.333	0.08	0.09	0.002	O					0.00
21.417	0.08	0.08	0.002	O					0.00
21.500	0.08	0.08	0.001	O					0.00
21.583	0.07	0.08	0.001	O					0.00
21.667	0.07	0.08	0.001	O					0.00
21.750	0.07	0.08	0.001	O					0.00
21.833	0.07	0.07	0.001	O					0.00
21.917	0.07	0.07	0.001	O					0.00
22.000	0.06	0.07	0.001	O					0.00
22.083	0.06	0.07	0.001	O					0.00
22.167	0.06	0.07	0.001	O					0.00
22.250	0.06	0.06	0.001	O					0.00
22.333	0.06	0.06	0.001	O					0.00
22.417	0.06	0.06	0.001	O					0.00
22.500	0.05	0.06	0.001	O					0.00
22.583	0.05	0.06	0.001	O					0.00
22.667	0.05	0.06	0.001	O					0.00
22.750	0.05	0.05	0.001	O					0.00
22.833	0.05	0.05	0.001	O					0.00
22.917	0.05	0.05	0.001	O					0.00
23.000	0.05	0.05	0.001	O					0.00
23.083	0.04	0.05	0.001	O					0.00
23.167	0.04	0.05	0.001	O					0.00
23.250	0.04	0.05	0.001	O					0.00
23.333	0.04	0.04	0.001	O					0.00
23.417	0.04	0.04	0.001	O					0.00
23.500	0.04	0.04	0.001	O					0.00
23.583	0.04	0.04	0.001	O					0.00
23.667	0.04	0.04	0.001	O					0.00
23.750	0.04	0.04	0.001	O					0.00
23.833	0.03	0.04	0.001	O					0.00
23.917	0.03	0.04	0.001	O					0.00
24.000	0.03	0.04	0.001	O					0.00
24.083	0.03	0.03	0.001	O					0.00
24.167	0.03	0.03	0.001	O					0.00
24.250	0.03	0.03	0.001	O					0.00
24.333	0.03	0.03	0.001	O					0.00
24.417	0.03	0.03	0.001	O					0.00
24.500	0.03	0.03	0.001	O					0.00
24.583	0.03	0.03	0.001	O					0.00
24.667	0.03	0.03	0.001	O					0.00
24.750	0.03	0.03	0.000	O					0.00
24.833	0.02	0.03	0.000	O					0.00
24.917	0.02	0.03	0.000	O					0.00
25.000	0.02	0.03	0.000	O					0.00
25.083	0.02	0.02	0.000	O					0.00
25.167	0.02	0.02	0.000	O					0.00
25.250	0.02	0.02	0.000	O					0.00

25.333	0.02	0.02	0.000	O					0.00
25.417	0.02	0.02	0.000	O					0.00
25.500	0.02	0.02	0.000	O					0.00
25.583	0.02	0.02	0.000	O					0.00
25.667	0.02	0.02	0.000	O					0.00
25.750	0.02	0.02	0.000	O					0.00
25.833	0.02	0.02	0.000	O					0.00
25.917	0.02	0.02	0.000	O					0.00
26.000	0.02	0.02	0.000	O					0.00
26.083	0.02	0.02	0.000	O					0.00
26.167	0.02	0.02	0.000	O					0.00
26.250	0.02	0.02	0.000	O					0.00
26.333	0.01	0.02	0.000	O					0.00
26.417	0.01	0.02	0.000	O					0.00
26.500	0.01	0.02	0.000	O					0.00
26.583	0.01	0.01	0.000	O					0.00
26.667	0.01	0.01	0.000	O					0.00
26.750	0.01	0.01	0.000	O					0.00
26.833	0.01	0.01	0.000	O					0.00
26.917	0.01	0.01	0.000	O					0.00
27.000	0.01	0.01	0.000	O					0.00
27.083	0.01	0.01	0.000	O					0.00
27.167	0.01	0.01	0.000	O					0.00
27.250	0.01	0.01	0.000	O					0.00
27.333	0.01	0.01	0.000	O					0.00
27.417	0.01	0.01	0.000	O					0.00
27.500	0.01	0.01	0.000	O					0.00
27.583	0.01	0.01	0.000	O					0.00
27.667	0.01	0.01	0.000	O					0.00
27.750	0.01	0.01	0.000	O					0.00
27.833	0.01	0.01	0.000	O					0.00
27.917	0.01	0.01	0.000	O					0.00
28.000	0.01	0.01	0.000	O					0.00
28.083	0.01	0.01	0.000	O					0.00
28.167	0.01	0.01	0.000	O					0.00
28.250	0.01	0.01	0.000	O					0.00
28.333	0.01	0.01	0.000	O					0.00
28.417	0.01	0.01	0.000	O					0.00
28.500	0.01	0.01	0.000	O					0.00
28.583	0.01	0.01	0.000	O					0.00
28.667	0.01	0.01	0.000	O					0.00
28.750	0.01	0.01	0.000	O					0.00
28.833	0.01	0.01	0.000	O					0.00
28.917	0.01	0.01	0.000	O					0.00
29.000	0.01	0.01	0.000	O					0.00
29.083	0.01	0.01	0.000	O					0.00
29.167	0.01	0.01	0.000	O					0.00
29.250	0.01	0.01	0.000	O					0.00
29.333	0.01	0.01	0.000	O					0.00
29.417	0.01	0.01	0.000	O					0.00
29.500	0.01	0.01	0.000	O					0.00
29.583	0.00	0.01	0.000	O					0.00
29.667	0.00	0.01	0.000	O					0.00
29.750	0.00	0.01	0.000	O					0.00
29.833	0.00	0.00	0.000	O					0.00
29.917	0.00	0.00	0.000	O					0.00
30.000	0.00	0.00	0.000	O					0.00
30.083	0.00	0.00	0.000	O					0.00
30.167	0.00	0.00	0.000	O					0.00
30.250	0.00	0.00	0.000	O					0.00
30.333	0.00	0.00	0.000	O					0.00
30.417	0.00	0.00	0.000	O					0.00
30.500	0.00	0.00	0.000	O					0.00
30.583	0.00	0.00	0.000	O					0.00
30.667	0.00	0.00	0.000	O					0.00
30.750	0.00	0.00	0.000	O					0.00
30.833	0.00	0.00	0.000	O					0.00
30.917	0.00	0.00	0.000	O					0.00
31.000	0.00	0.00	0.000	O					0.00
31.083	0.00	0.00	0.000	O					0.00

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31.167    0.00    0.00      0.000  O       |       |       |       |     0.00
31.250    0.00    0.00      0.000  O       |       |       |       |     0.00
31.333    0.00    0.00      0.000  O       |       |       |       |     0.00
31.417    0.00    0.00      0.000  O       |       |       |       |     0.00
31.500    0.00    0.00      0.000  O       |       |       |       |     0.00
31.583    0.00    0.00      0.000  O       |       |       |       |     0.00
31.667    0.00    0.00      0.000  O       |       |       |       |     0.00
31.750    0.00    0.00      0.000  O       |       |       |       |     0.00
31.833    0.00    0.00      0.000  O       |       |       |       |     0.00
31.917    0.00    0.00      0.000  O       |       |       |       |     0.00
32.000    0.00    0.00      0.000  O       |       |       |       |     0.00
32.083    0.00    0.00      0.000  O       |       |       |       |     0.00
32.167    0.00    0.00      0.000  O       |       |       |       |     0.00
32.250    0.00    0.00      0.000  O       |       |       |       |     0.00
32.333    0.00    0.00      0.000  O       |       |       |       |     0.00
32.417    0.00    0.00      0.000  O       |       |       |       |     0.00

      ****************************HYDROGRAPH DATA****************************
                  Number of intervals =   389
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =      138.662 (CFS)
                  Total volume =      39.306 (Ac.Ft)
            Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      ************************************************************************

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      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      Process from Point/Station       12.000 to Point/Station       13.000
      **** STREAM ROUTING SCS CONVEX METHOD ****
      ________________________________________________________________________
      HYDROGRAPH STREAM ROUTING DATA:
      Length of stream =   1500.00 (Ft.)
      Elevation difference =   10.95 (Ft.)
      Slope of channel =  0.007300 (Vert/Horiz)
      Channel type - Pipe


      Pipe length  =  1500.00(Ft.)   Elevation difference =  10.95(Ft.)
      Manning's N = 0.013   No. of pipes = 1
      Pipe evaluation using mean flow rate of hydrograph
      Required pipe flow  =   100.067(CFS)
      Nearest computed pipe diameter  =     45.00(In.)
      Calculated individual pipe flow  =   100.067(CFS)
      Normal flow depth in pipe =   35.67(In.)
      Flow top width inside pipe =   36.48(In.)
      Critical Depth =    3.06(Ft.)
      Pipe flow velocity =     10.66(Ft/s)
      Travel time through pipe =    2.35 min.


      Pipe length  =  1500.00(Ft.)   Elevation difference =  10.95(Ft.)
      Manning's N = 0.013   No. of pipes = 1
      Pipe evaluation using maximum flow rate of hydrograph
      Required pipe flow  =   138.662(CFS)
      Nearest computed pipe diameter  =     51.00(In.)
      Calculated individual pipe flow  =   138.662(CFS)
      Normal flow depth in pipe =   40.13(In.)
      Flow top width inside pipe =   41.78(In.)
      Critical Depth =    3.49(Ft.)
      Pipe flow velocity =     11.58(Ft/s)
      Travel time through pipe =    2.16 min.


      ********************** SCS CONVEX CHANNEL ROUTING ********************
      Convex method of stream routing  data items:
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      Using equation: Outflow =
      O(t+dt) = (1-c*)O(t+dt-dt*) + Input(c*)
                where c* = 1 - (1-c)^e and dt = c(length)/velocity
                c(v/v+1.7) =   0.8720   Travel time =   2.16 (min.)
              dt*(unit time interval) =   5.00(min.),  e=   2.1042
              dt(routing time-step) =   1.88 (min.),   c* =   0.9868

      Output hydrograph delayed by 0  unit time increments


      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                         P R I N T  O F  S T O R M
                      R u n o f f     H y d r o g r a p h
      ----------------------------------------------------------------------
                   Hydrograph in   5   Minute intervals (CFS)

      ----------------------------------------------------------------------
Time(h+m) Out = O(CFS) In = I  0       34.7      69.3     104.0     138.7
----------------------------------------------------------------------------
  0+ 5       1.1115      1.81  O         |         |         |         |
  0+10       8.4164     12.56  | OI      |         |         |         |
  0+15      24.0252     31.28  |     O  I|         |         |         |
  0+20      34.3223     36.38  |        OI         |         |         |
  0+25      40.5666     43.23  |         |OI       |         |         |
  0+30      49.5635     53.58  |         |   OI    |         |         |
  0+35      60.4616     64.85  |         |      OI |         |         |
  0+40      70.8162     74.64  |         |         OI        |         |
  0+45      80.6829     84.54  |         |         |  OI     |         |
  0+50      91.0848     95.26  |         |         |     OI  |         |
  0+55     102.8052    107.61  |         |         |        O|I        |
  1+ 0     115.4321    120.42  |         |         |         |  OI     |
  1+ 5     126.0057    129.60  |         |         |         |     OI  |
  1+10     132.7315    134.76  |         |         |         |       O |
  1+15     136.2806    137.27  |         |         |         |        O|
  1+20     137.9385    138.38  |         |         |         |        O|
  1+25     138.5467    138.66  |         |         |         |        OI
  1+30     138.4901    138.38  |         |         |         |        O|
  1+35     137.9492    137.67  |         |         |         |        O|
  1+40     137.0541    136.66  |         |         |         |        O|
  1+45     135.9057    135.43  |         |         |         |        O|
  1+50     134.5675    134.02  |         |         |         |       O |
  1+55     132.9888    132.33  |         |         |         |       O |
  2+ 0     131.2364    130.54  |         |         |         |      O  |
  2+ 5     129.4040    128.68  |         |         |         |      O  |
  2+10     127.5278    126.79  |         |         |         |     O   |
  2+15     125.5835    124.81  |         |         |         |     O   |
  2+20     123.4448    122.57  |         |         |         |    O    |
  2+25     121.2152    120.35  |         |         |         |   O     |
  2+30     119.0071    118.15  |         |         |         |   O     |
  2+35     116.8348    115.99  |         |         |         |  O      |
  2+40     114.5796    113.68  |         |         |         | IO      |
  2+45     112.2469    111.33  |         |         |         | O       |
  2+50     109.9329    109.04  |         |         |         |O        |
  2+55     107.6667    106.79  |         |         |         IO        |
  3+ 0     105.4187    104.54  |         |         |         O         |
  3+ 5     103.0275    102.06  |         |         |        O|         |
  3+10     100.5846     99.64  |         |         |       IO|         |
  3+15      98.1988     97.28  |         |         |       O |         |
  3+20      95.8702     94.97  |         |         |      O  |         |
  3+25      93.4895     92.54  |         |         |     O   |         |
  3+30      90.7143     89.55  |         |         |    IO   |         |
  3+35      87.7834     86.65  |         |         |   IO    |         |
  3+40      84.9453     83.85  |         |         |   O     |         |
  3+45      82.2002     81.14  |         |         |  O      |         |
  3+50      79.1758     77.92  |         |         | O       |         |
  3+55      75.6760     74.24  |         |         |O        |         |
  4+ 0      72.1083     70.74  |         |         O         |         |
  4+ 5      68.7087     67.41  |         |        O|         |         |
  4+10      65.4720     64.23  |         |       O |         |         |
  4+15      61.7794     60.22  |         |      O  |         |         |
```

4+20	57.7946	56.25	| O | | |
4+25	53.9864	52.54	| O | | |
4+30	50.4335	49.08	| O | | |
4+35	47.1198	45.86	| O | | |
4+40	44.0292	42.86	| O | | |
4+45	41.4343	40.52	|O | | |
4+50	39.3718	38.63	|O | | |
4+55	37.5391	36.84	O | | |
5+ 0	35.7960	35.13	O | | |
5+ 5	34.1364	33.50	O| | | |
5+10	32.5563	31.95	O| | | |
5+15	31.0518	30.48	O | | | |
5+20	25.5010	22.38	IO | | | |
5+25	18.2140	15.54	IO | | | |
5+30	12.7322	10.92	O | | | |
5+35	9.0138	7.78	O | | | |
5+40	6.4958	5.66	|O | | | |
5+45	4.7903	4.23	|O | | | |
5+50	3.6346	3.25	IO | | | |
5+55	2.8508	2.59	O | | | |
6+ 0	2.3188	2.14	O | | | |
6+ 5	1.9572	1.84	O | | | |
6+10	1.7108	1.63	O | | | |
6+15	1.5424	1.49	O | | | |
6+20	1.4269	1.39	O | | | |
6+25	1.3471	1.32	O | | | |
6+30	1.2914	1.27	O | | | |
6+35	1.2522	1.24	O | | | |
6+40	1.2242	1.21	O | | | |
6+45	1.2042	1.20	O | | | |
6+50	1.1901	1.19	O | | | |
6+55	1.1801	1.18	O | | | |
7+ 0	1.1728	1.17	O | | | |
7+ 5	1.1673	1.17	O | | | |
7+10	1.1632	1.16	O | | | |
7+15	1.1599	1.16	O | | | |
7+20	1.1571	1.16	O | | | |
7+25	1.1548	1.15	O | | | |
7+30	1.1527	1.15	O | | | |
7+35	1.1508	1.15	O | | | |
7+40	1.1490	1.15	O | | | |
7+45	1.1474	1.15	O | | | |
7+50	1.1457	1.15	O | | | |
7+55	1.1441	1.14	O | | | |
8+ 0	1.1425	1.14	O | | | |
8+ 5	1.1409	1.14	O | | | |
8+10	1.1392	1.14	O | | | |
8+15	1.1375	1.14	O | | | |
8+20	1.1358	1.14	O | | | |
8+25	1.1341	1.13	O | | | |
8+30	1.1324	1.13	O | | | |
8+35	1.1307	1.13	O | | | |
8+40	1.1290	1.13	O | | | |
8+45	1.1273	1.13	O | | | |
8+50	1.1256	1.12	O | | | |
8+55	1.1239	1.12	O | | | |
9+ 0	1.1222	1.12	O | | | |
9+ 5	1.1205	1.12	O | | | |
9+10	1.1188	1.12	O | | | |
9+15	1.1171	1.12	O | | | |
9+20	1.1154	1.11	O | | | |
9+25	1.1137	1.11	O | | | |
9+30	1.1120	1.11	O | | | |
9+35	1.1103	1.11	O | | | |
9+40	1.1086	1.11	O | | | |
9+45	1.1069	1.11	O | | | |
9+50	1.1052	1.10	O | | | |
9+55	1.1036	1.10	O | | | |
10+ 0	1.1019	1.10	O | | | |
10+ 5	1.1002	1.10	O | | | |

10+10	1.0985	1.10	O				
10+15	1.0969	1.10	O				
10+20	1.0952	1.09	O				
10+25	1.0935	1.09	O				
10+30	1.0919	1.09	O				
10+35	1.0902	1.09	O				
10+40	1.0886	1.09	O				
10+45	1.0869	1.09	O				
10+50	1.0853	1.08	O				
10+55	1.0836	1.08	O				
11+ 0	1.0820	1.08	O				
11+ 5	1.0803	1.08	O				
11+10	1.0787	1.08	O				
11+15	1.0770	1.08	O				
11+20	1.0754	1.07	O				
11+25	1.0738	1.07	O				
11+30	1.0721	1.07	O				
11+35	1.0705	1.07	O				
11+40	1.0689	1.07	O				
11+45	1.0673	1.07	O				
11+50	1.0656	1.07	O				
11+55	1.0640	1.06	O				
12+ 0	1.0624	1.06	O				
12+ 5	1.0608	1.06	O				
12+10	1.0592	1.06	O				
12+15	1.0576	1.06	O				
12+20	1.0560	1.06	O				
12+25	1.0544	1.05	O				
12+30	1.0528	1.05	O				
12+35	1.0512	1.05	O				
12+40	1.0496	1.05	O				
12+45	1.0480	1.05	O				
12+50	1.0464	1.05	O				
12+55	1.0448	1.04	O				
13+ 0	1.0432	1.04	O				
13+ 5	1.0416	1.04	O				
13+10	1.0400	1.04	O				
13+15	1.0385	1.04	O				
13+20	1.0369	1.04	O				
13+25	1.0353	1.03	O				
13+30	1.0337	1.03	O				
13+35	1.0322	1.03	O				
13+40	1.0306	1.03	O				
13+45	1.0290	1.03	O				
13+50	1.0266	1.03	O				
13+55	1.0210	1.02	O				
14+ 0	1.0101	1.00	O				
14+ 5	0.9941	0.99	O				
14+10	0.9747	0.97	O				
14+15	0.9532	0.94	O				
14+20	0.9305	0.92	O				
14+25	0.9072	0.90	O				
14+30	0.8837	0.87	O				
14+35	0.8603	0.85	O				
14+40	0.8372	0.83	O				
14+45	0.8144	0.81	O				
14+50	0.7922	0.78	O				
14+55	0.7704	0.76	O				
15+ 0	0.7492	0.74	O				
15+ 5	0.7284	0.72	O				
15+10	0.7083	0.70	O				
15+15	0.6886	0.68	O				
15+20	0.6695	0.66	O				
15+25	0.6510	0.64	O				
15+30	0.6329	0.63	O				
15+35	0.6153	0.61	O				
15+40	0.5982	0.59	O				
15+45	0.5816	0.58	O				
15+50	0.5654	0.56	O				
15+55	0.5497	0.54	O				

16+ 0	0.5344	0.53	O	|	|	|	|
16+ 5	0.5196	0.51	O	|	|	|	|
16+10	0.5052	0.50	O	|	|	|	|
16+15	0.4911	0.49	O	|	|	|	|
16+20	0.4775	0.47	O	|	|	|	|
16+25	0.4642	0.46	O	|	|	|	|
16+30	0.4513	0.45	O	|	|	|	|
16+35	0.4388	0.43	O	|	|	|	|
16+40	0.4266	0.42	O	|	|	|	|
16+45	0.4147	0.41	O	|	|	|	|
16+50	0.4032	0.40	O	|	|	|	|
16+55	0.3920	0.39	O	|	|	|	|
17+ 0	0.3811	0.38	O	|	|	|	|
17+ 5	0.3705	0.37	O	|	|	|	|
17+10	0.3602	0.36	O	|	|	|	|
17+15	0.3502	0.35	O	|	|	|	|
17+20	0.3405	0.34	O	|	|	|	|
17+25	0.3310	0.33	O	|	|	|	|
17+30	0.3218	0.32	O	|	|	|	|
17+35	0.3129	0.31	O	|	|	|	|
17+40	0.3042	0.30	O	|	|	|	|
17+45	0.2957	0.29	O	|	|	|	|
17+50	0.2875	0.28	O	|	|	|	|
17+55	0.2795	0.28	O	|	|	|	|
18+ 0	0.2717	0.27	O	|	|	|	|
18+ 5	0.2642	0.26	O	|	|	|	|
18+10	0.2568	0.25	O	|	|	|	|
18+15	0.2497	0.25	O	|	|	|	|
18+20	0.2428	0.24	O	|	|	|	|
18+25	0.2360	0.23	O	|	|	|	|
18+30	0.2295	0.23	O	|	|	|	|
18+35	0.2231	0.22	O	|	|	|	|
18+40	0.2169	0.21	O	|	|	|	|
18+45	0.2109	0.21	O	|	|	|	|
18+50	0.2050	0.20	O	|	|	|	|
18+55	0.1993	0.20	O	|	|	|	|
19+ 0	0.1938	0.19	O	|	|	|	|
19+ 5	0.1884	0.19	O	|	|	|	|
19+10	0.1831	0.18	O	|	|	|	|
19+15	0.1781	0.18	O	|	|	|	|
19+20	0.1731	0.17	O	|	|	|	|
19+25	0.1683	0.17	O	|	|	|	|
19+30	0.1636	0.16	O	|	|	|	|
19+35	0.1591	0.16	O	|	|	|	|
19+40	0.1546	0.15	O	|	|	|	|
19+45	0.1504	0.15	O	|	|	|	|
19+50	0.1462	0.14	O	|	|	|	|
19+55	0.1421	0.14	O	|	|	|	|
20+ 0	0.1382	0.14	O	|	|	|	|
20+ 5	0.1343	0.13	O	|	|	|	|
20+10	0.1306	0.13	O	|	|	|	|
20+15	0.1270	0.13	O	|	|	|	|
20+20	0.1234	0.12	O	|	|	|	|
20+25	0.1200	0.12	O	|	|	|	|
20+30	0.1167	0.12	O	|	|	|	|
20+35	0.1134	0.11	O	|	|	|	|
20+40	0.1103	0.11	O	|	|	|	|
20+45	0.1072	0.11	O	|	|	|	|
20+50	0.1042	0.10	O	|	|	|	|
20+55	0.1013	0.10	O	|	|	|	|
21+ 0	0.0985	0.10	O	|	|	|	|
21+ 5	0.0958	0.09	O	|	|	|	|
21+10	0.0931	0.09	O	|	|	|	|
21+15	0.0905	0.09	O	|	|	|	|
21+20	0.0880	0.09	O	|	|	|	|
21+25	0.0856	0.08	O	|	|	|	|
21+30	0.0832	0.08	O	|	|	|	|
21+35	0.0809	0.08	O	|	|	|	|
21+40	0.0786	0.08	O	|	|	|	|
21+45	0.0764	0.08	O	|	|	|	|

21+50	0.0743	0.07	O				
21+55	0.0723	0.07	O				
22+ 0	0.0702	0.07	O				
22+ 5	0.0683	0.07	O				
22+10	0.0664	0.07	O				
22+15	0.0646	0.06	O				
22+20	0.0628	0.06	O				
22+25	0.0610	0.06	O				
22+30	0.0593	0.06	O				
22+35	0.0577	0.06	O				
22+40	0.0561	0.06	O				
22+45	0.0545	0.05	O				
22+50	0.0530	0.05	O				
22+55	0.0515	0.05	O				
23+ 0	0.0501	0.05	O				
23+ 5	0.0487	0.05	O				
23+10	0.0473	0.05	O				
23+15	0.0460	0.05	O				
23+20	0.0447	0.04	O				
23+25	0.0435	0.04	O				
23+30	0.0423	0.04	O				
23+35	0.0411	0.04	O				
23+40	0.0400	0.04	O				
23+45	0.0389	0.04	O				
23+50	0.0378	0.04	O				
23+55	0.0367	0.04	O				
24+ 0	0.0357	0.04	O				
24+ 5	0.0347	0.03	O				
24+10	0.0338	0.03	O				
24+15	0.0328	0.03	O				
24+20	0.0319	0.03	O				
24+25	0.0310	0.03	O				
24+30	0.0302	0.03	O				
24+35	0.0293	0.03	O				
24+40	0.0285	0.03	O				
24+45	0.0277	0.03	O				
24+50	0.0269	0.03	O				
24+55	0.0262	0.03	O				
25+ 0	0.0255	0.03	O				
25+ 5	0.0248	0.02	O				
25+10	0.0241	0.02	O				
25+15	0.0234	0.02	O				
25+20	0.0228	0.02	O				
25+25	0.0221	0.02	O				
25+30	0.0215	0.02	O				
25+35	0.0209	0.02	O				
25+40	0.0203	0.02	O				
25+45	0.0198	0.02	O				
25+50	0.0192	0.02	O				
25+55	0.0187	0.02	O				
26+ 0	0.0182	0.02	O				
26+ 5	0.0177	0.02	O				
26+10	0.0172	0.02	O				
26+15	0.0167	0.02	O				
26+20	0.0162	0.02	O				
26+25	0.0158	0.02	O				
26+30	0.0153	0.02	O				
26+35	0.0149	0.01	O				
26+40	0.0145	0.01	O				
26+45	0.0141	0.01	O				
26+50	0.0137	0.01	O				
26+55	0.0133	0.01	O				
27+ 0	0.0129	0.01	O				
27+ 5	0.0126	0.01	O				
27+10	0.0122	0.01	O				
27+15	0.0119	0.01	O				
27+20	0.0116	0.01	O				
27+25	0.0112	0.01	O				
27+30	0.0109	0.01	O				
27+35	0.0106	0.01	O				

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   27+40       0.0103      0.01  O         |         |         |         |
   27+45       0.0100      0.01  O         |         |         |         |
   27+50       0.0098      0.01  O         |         |         |         |
   27+55       0.0095      0.01  O         |         |         |         |
   28+ 0       0.0092      0.01  O         |         |         |         |
   28+ 5       0.0090      0.01  O         |         |         |         |
   28+10       0.0087      0.01  O         |         |         |         |
   28+15       0.0085      0.01  O         |         |         |         |
   28+20       0.0082      0.01  O         |         |         |         |
   28+25       0.0080      0.01  O         |         |         |         |
   28+30       0.0078      0.01  O         |         |         |         |
   28+35       0.0076      0.01  O         |         |         |         |
   28+40       0.0074      0.01  O         |         |         |         |
   28+45       0.0072      0.01  O         |         |         |         |
   28+50       0.0070      0.01  O         |         |         |         |
   28+55       0.0068      0.01  O         |         |         |         |
   29+ 0       0.0066      0.01  O         |         |         |         |
   29+ 5       0.0064      0.01  O         |         |         |         |
   29+10       0.0062      0.01  O         |         |         |         |
   29+15       0.0060      0.01  O         |         |         |         |
   29+20       0.0059      0.01  O         |         |         |         |
   29+25       0.0057      0.01  O         |         |         |         |
   29+30       0.0056      0.01  O         |         |         |         |
   29+35       0.0054      0.01  O         |         |         |         |
   29+40       0.0053      0.01  O         |         |         |         |
   29+45       0.0051      0.01  O         |         |         |         |
   29+50       0.0050      0.00  O         |         |         |         |
   29+55       0.0048      0.00  O         |         |         |         |
   30+ 0       0.0047      0.00  O         |         |         |         |
   30+ 5       0.0046      0.00  O         |         |         |         |
   30+10       0.0044      0.00  O         |         |         |         |
   30+15       0.0043      0.00  O         |         |         |         |
   30+20       0.0042      0.00  O         |         |         |         |
   30+25       0.0041      0.00  O         |         |         |         |
   30+30       0.0040      0.00  O         |         |         |         |
   30+35       0.0039      0.00  O         |         |         |         |
   30+40       0.0037      0.00  O         |         |         |         |
   30+45       0.0036      0.00  O         |         |         |         |
   30+50       0.0035      0.00  O         |         |         |         |
   30+55       0.0034      0.00  O         |         |         |         |
   31+ 0       0.0033      0.00  O         |         |         |         |
   31+ 5       0.0033      0.00  O         |         |         |         |
   31+10       0.0032      0.00  O         |         |         |         |
   31+15       0.0031      0.00  O         |         |         |         |
   31+20       0.0030      0.00  O         |         |         |         |
   31+25       0.0029      0.00  O         |         |         |         |
   31+30       0.0028      0.00  O         |         |         |         |
   31+35       0.0027      0.00  O         |         |         |         |
   31+40       0.0027      0.00  O         |         |         |         |
   31+45       0.0026      0.00  O         |         |         |         |
   31+50       0.0025      0.00  O         |         |         |         |
   31+55       0.0025      0.00  O         |         |         |         |
   32+ 0       0.0024      0.00  O         |         |         |         |
   32+ 5       0.0023      0.00  O         |         |         |         |
   32+10       0.0023      0.00  O         |         |         |         |
   32+15       0.0021      0.00  O         |         |         |         |
   32+20       0.0018      0.00  O         |         |         |         |
   32+25       0.0013      0.00  O         |         |         |         |
   32+30       0.0000      0.00  O         |         |         |         |
--------------------------------------------------------------------------
       ****************************HYDROGRAPH DATA****************************
                    Number of intervals =   390
                    Time interval =    5.0 (Min.)
                    Maximum/Peak flow rate =      138.547 (CFS)
                    Total volume =      39.306 (Ac.Ft)
              Status of hydrographs being held in storage
                         Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
              Peak (CFS)      0.000     0.000     0.000     0.000     0.000
              Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       ***************************************************************************
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++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       13.000 to Point/Station       14.000
**** STORE OR DELETE CURRENT HYDROGRAPH ****
________________________________________________________________________
Current stream hydrograph saved in file lgouta1100.rte
****************************HYDROGRAPH DATA****************************
               Number of intervals =     0
               Time interval =    0.0 (Min.)
               Maximum/Peak flow rate =        0.000 (CFS)
               Total volume =       0.000 (Ac.Ft)
       Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
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                FLOOD HYDROGRAPH ROUTING PROGRAM
          Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                     Study date: 04/23/19


------------------------------------------------------------------------
Legado
Detention Basin A (Total Area = 305.5 Ac)
100-year 3-hour Inflow Hydrograph

------------------------------------------------------------------------


Program License Serial Number 4029

------------------------------------------------------------------------
******************** HYDROGRAPH INFORMATION **********************

               From study/file name: lgmdsout3100.rte
*****************************HYDROGRAPH DATA*****************************
               Number of intervals =   407
               Time interval =    5.0 (Min.)
               Maximum/Peak flow rate =       61.023 (CFS)
               Total volume =       7.286 (Ac.Ft)
       Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
************************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       10.000 to Point/Station       11.000
**** STREAM ROUTING SCS CONVEX METHOD ****
________________________________________________________________________
HYDROGRAPH STREAM ROUTING DATA:
Length of stream =   2580.00 (Ft.)
Elevation difference =   40.00 (Ft.)
Slope of channel =  0.015504 (Vert/Horiz)
Channel type - Pipe


Pipe length  =  2580.00(Ft.)   Elevation difference =  40.00(Ft.)
Manning's N = 0.013   No. of pipes = 1
Pipe evaluation using mean flow rate of hydrograph
Required pipe flow  =    21.054(CFS)
Nearest computed pipe diameter  =     24.00(In.)
Calculated individual pipe flow  =    21.054(CFS)
Normal flow depth in pipe =   15.47(In.)
Flow top width inside pipe =   22.98(In.)
Critical Depth =    1.64(Ft.)
Pipe flow velocity =      9.83(Ft/s)
Travel time through pipe =    4.37 min.


Pipe length  =  2580.00(Ft.)   Elevation difference =  40.00(Ft.)
Manning's N = 0.013   No. of pipes = 1
Pipe evaluation using maximum flow rate of hydrograph
Required pipe flow  =    61.023(CFS)
Nearest computed pipe diameter  =     33.00(In.)
Calculated individual pipe flow  =    61.023(CFS)
Normal flow depth in pipe =   25.10(In.)
Flow top width inside pipe =   28.16(In.)
Critical Depth =    2.50(Ft.)
Pipe flow velocity =     12.59(Ft/s)
Travel time through pipe =    3.42 min.
```

```
********************** SCS CONVEX CHANNEL ROUTING *********************
Convex method of stream routing  data items:
Using equation: Outflow =
O(t+dt) = (1-c*)O(t+dt-dt*) + Input(c*)
          where c* = 1 - (1-c)^e and dt = c(length)/velocity
          c(v/v+1.7) =   0.8810   Travel time =   3.42 (min.)
        dt*(unit time interval) =   5.00(min.),  e=   1.4410
        dt(routing time-step) =   3.01 (min.),   c* =   0.9535

Output hydrograph delayed by 0  unit time increments


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                  P R I N T  O F  S T O R M
                R u n o f f     H y d r o g r a p h
------------------------------------------------------------------------
             Hydrograph in   5   Minute intervals (CFS)

------------------------------------------------------------------------
Time(h+m) Out = O(CFS) In = I  0       15.3      30.5      45.8      61.0
------------------------------------------------------------------------
  0+ 5       0.0256      0.07  O         |         |         |         |
  0+10       0.1436      0.27  O         |         |         |         |
  0+15       0.3710      0.55  O         |         |         |         |
  0+20       0.6473      0.83  O         |         |         |         |
  0+25       0.8994      1.03  O         |         |         |         |
  0+30       1.0321      1.05  O         |         |         |         |
  0+35       1.0584      1.07  O         |         |         |         |
  0+40       1.0808      1.10  O         |         |         |         |
  0+45       1.1036      1.12  O         |         |         |         |
  0+50       1.1271      1.14  O         |         |         |         |
  0+55       1.1489      1.16  O         |         |         |         |
  1+ 0       1.1831      1.22  O         |         |         |         |
  1+ 5       1.2451      1.29  O         |         |         |         |
  1+10       1.3196      1.37  O         |         |         |         |
  1+15       1.4032      1.46  O         |         |         |         |
  1+20       3.8110      7.66  | O  I     |         |         |         |
  1+25       9.1903     12.16  |     OI   |         |         |         |
  1+30      13.5244     16.12  |       O I         |         |         |
  1+35      17.2146     19.33  |         |OI       |         |         |
  1+40      20.0712     21.54  |         |  OI     |         |         |
  1+45      22.3242     23.78  |         |   OI    |         |         |
  1+50      24.6945     26.37  |         |     OI  |         |         |
  1+55      27.0334     28.33  |         |      OI |         |         |
  2+ 0       28.6862     29.43  |         |       OI|         |         |
  2+ 5       29.7034     30.24  |         |        O|         |         |
  2+10       30.8252     31.84  |         |         O         |         |
  2+15       33.1263     35.35  |         |         |O I      |         |
  2+20       36.2936     38.10  |         |         |  OI     |         |
  2+25       39.0976     40.94  |         |         |    OI   |         |
  2+30       42.8674     46.24  |         |         |       O I         |
  2+35       48.8423     53.51  |         |         |         | O  I    |
  2+40       55.6791     59.79  |         |         |         |    O  I|
  2+45       60.0694     61.02  |         |         |         |       OI
  2+50       59.1718     56.26  |         |         |         |    I O |
  2+55       53.7609     49.31  |         |         |         | I  O    |
  3+ 0       46.8592     42.30  |         |         |      I  O         |
  3+ 5       39.5925     34.61  |         |         | I  O    |         |
  3+10       31.1462     24.88  |         |     I   O         |         |
  3+15       22.3877     17.55  |         |I  O     |         |         |
  3+20       15.7684     12.27  |       I O         |         |         |
  3+25       11.0145      8.54  |    I O  |         |         |         |
  3+30        7.6647      5.94  |  I O    |         |         |         |
  3+35        5.3292      4.13  | IO      |         |         |         |
  3+40        3.7052      2.87  |IO       |         |         |         |
  3+45        2.5760      1.99  |O        |         |         |         |
  3+50        1.8184      1.46  IO        |         |         |         |
  3+55        1.4733      1.45  O         |         |         |         |
  4+ 0        1.4514      1.45  O         |         |         |         |
```

4+ 5	1.4445	1.44	O				
4+10	1.4383	1.43	O				
4+15	1.4322	1.43	O				
4+20	1.4261	1.42	O				
4+25	1.4200	1.42	O				
4+30	1.4140	1.41	O				
4+35	1.4080	1.40	O				
4+40	1.4020	1.40	O				
4+45	1.3960	1.39	O				
4+50	1.3901	1.39	O				
4+55	1.3842	1.38	O				
5+ 0	1.3783	1.37	O				
5+ 5	1.3724	1.37	O				
5+10	1.3666	1.36	O				
5+15	1.3608	1.36	O				
5+20	1.3550	1.35	O				
5+25	1.3492	1.35	O				
5+30	1.3435	1.34	O				
5+35	1.3378	1.33	O				
5+40	1.3321	1.33	O				
5+45	1.3264	1.32	O				
5+50	1.3208	1.32	O				
5+55	1.3152	1.31	O				
6+ 0	1.3096	1.31	O				
6+ 5	1.3040	1.30	O				
6+10	1.2985	1.29	O				
6+15	1.2930	1.29	O				
6+20	1.2875	1.28	O				
6+25	1.2820	1.28	O				
6+30	1.2765	1.27	O				
6+35	1.2711	1.27	O				
6+40	1.2657	1.26	O				
6+45	1.2603	1.26	O				
6+50	1.2550	1.25	O				
6+55	1.2496	1.25	O				
7+ 0	1.2443	1.24	O				
7+ 5	1.2390	1.24	O				
7+10	1.2337	1.23	O				
7+15	1.2285	1.23	O				
7+20	1.2233	1.22	O				
7+25	1.2181	1.21	O				
7+30	1.2129	1.21	O				
7+35	1.2077	1.20	O				
7+40	1.2026	1.20	O				
7+45	1.1975	1.19	O				
7+50	1.1924	1.19	O				
7+55	1.1873	1.18	O				
8+ 0	1.1823	1.18	O				
8+ 5	1.1773	1.17	O				
8+10	1.1722	1.17	O				
8+15	1.1673	1.16	O				
8+20	1.1633	1.16	O				
8+25	1.1613	1.16	O				
8+30	1.1597	1.16	O				
8+35	1.1582	1.16	O				
8+40	1.1567	1.16	O				
8+45	1.1551	1.15	O				
8+50	1.1536	1.15	O				
8+55	1.1521	1.15	O				
9+ 0	1.1506	1.15	O				
9+ 5	1.1490	1.15	O				
9+10	1.1475	1.15	O				
9+15	1.1460	1.15	O				
9+20	1.1445	1.14	O				
9+25	1.1430	1.14	O				
9+30	1.1415	1.14	O				
9+35	1.1399	1.14	O				
9+40	1.1382	1.14	O				
9+45	1.1365	1.14	O				
9+50	1.1348	1.13	O				

9+55	1.1331	1.13	O	|	|	|	|
10+ 0	1.1313	1.13	O	|	|	|	|
10+ 5	1.1296	1.13	O	|	|	|	|
10+10	1.1279	1.13	O	|	|	|	|
10+15	1.1262	1.13	O	|	|	|	|
10+20	1.1245	1.12	O	|	|	|	|
10+25	1.1228	1.12	O	|	|	|	|
10+30	1.1211	1.12	O	|	|	|	|
10+35	1.1194	1.12	O	|	|	|	|
10+40	1.1177	1.12	O	|	|	|	|
10+45	1.1160	1.11	O	|	|	|	|
10+50	1.1143	1.11	O	|	|	|	|
10+55	1.1126	1.11	O	|	|	|	|
11+ 0	1.1109	1.11	O	|	|	|	|
11+ 5	1.1092	1.11	O	|	|	|	|
11+10	1.1075	1.11	O	|	|	|	|
11+15	1.1058	1.10	O	|	|	|	|
11+20	1.1042	1.10	O	|	|	|	|
11+25	1.1025	1.10	O	|	|	|	|
11+30	1.1008	1.10	O	|	|	|	|
11+35	1.0991	1.10	O	|	|	|	|
11+40	1.0975	1.10	O	|	|	|	|
11+45	1.0958	1.09	O	|	|	|	|
11+50	1.0941	1.09	O	|	|	|	|
11+55	1.0925	1.09	O	|	|	|	|
12+ 0	1.0908	1.09	O	|	|	|	|
12+ 5	1.0892	1.09	O	|	|	|	|
12+10	1.0875	1.09	O	|	|	|	|
12+15	1.0858	1.08	O	|	|	|	|
12+20	1.0842	1.08	O	|	|	|	|
12+25	1.0826	1.08	O	|	|	|	|
12+30	1.0809	1.08	O	|	|	|	|
12+35	1.0793	1.08	O	|	|	|	|
12+40	1.0776	1.08	O	|	|	|	|
12+45	1.0760	1.07	O	|	|	|	|
12+50	1.0744	1.07	O	|	|	|	|
12+55	1.0727	1.07	O	|	|	|	|
13+ 0	1.0711	1.07	O	|	|	|	|
13+ 5	1.0695	1.07	O	|	|	|	|
13+10	1.0678	1.07	O	|	|	|	|
13+15	1.0662	1.07	O	|	|	|	|
13+20	1.0646	1.06	O	|	|	|	|
13+25	1.0630	1.06	O	|	|	|	|
13+30	1.0614	1.06	O	|	|	|	|
13+35	1.0598	1.06	O	|	|	|	|
13+40	1.0581	1.06	O	|	|	|	|
13+45	1.0565	1.06	O	|	|	|	|
13+50	1.0549	1.05	O	|	|	|	|
13+55	1.0533	1.05	O	|	|	|	|
14+ 0	1.0517	1.05	O	|	|	|	|
14+ 5	1.0501	1.05	O	|	|	|	|
14+10	1.0485	1.05	O	|	|	|	|
14+15	1.0469	1.05	O	|	|	|	|
14+20	1.0454	1.04	O	|	|	|	|
14+25	1.0438	1.04	O	|	|	|	|
14+30	1.0422	1.04	O	|	|	|	|
14+35	1.0406	1.04	O	|	|	|	|
14+40	1.0390	1.04	O	|	|	|	|
14+45	1.0374	1.04	O	|	|	|	|
14+50	1.0359	1.03	O	|	|	|	|
14+55	1.0343	1.03	O	|	|	|	|
15+ 0	1.0327	1.03	O	|	|	|	|
15+ 5	1.0311	1.03	O	|	|	|	|
15+10	1.0296	1.03	O	|	|	|	|
15+15	1.0280	1.03	O	|	|	|	|
15+20	1.0265	1.03	O	|	|	|	|
15+25	1.0249	1.02	O	|	|	|	|
15+30	1.0189	1.01	O	|	|	|	|
15+35	1.0003	0.98	O	|	|	|	|
15+40	0.9730	0.96	O	|	|	|	|

15+45	0.9460	0.93	O				
15+50	0.9197	0.90	O				
15+55	0.8941	0.88	O				
16+ 0	0.8693	0.85	O				
16+ 5	0.8451	0.83	O				
16+10	0.8216	0.81	O				
16+15	0.7988	0.78	O				
16+20	0.7766	0.76	O				
16+25	0.7550	0.74	O				
16+30	0.7340	0.72	O				
16+35	0.7136	0.70	O				
16+40	0.6938	0.68	O				
16+45	0.6745	0.66	O				
16+50	0.6558	0.64	O				
16+55	0.6376	0.63	O				
17+ 0	0.6198	0.61	O				
17+ 5	0.6026	0.59	O				
17+10	0.5859	0.58	O				
17+15	0.5696	0.56	O				
17+20	0.5538	0.54	O				
17+25	0.5384	0.53	O				
17+30	0.5234	0.51	O				
17+35	0.5089	0.50	O				
17+40	0.4947	0.49	O				
17+45	0.4810	0.47	O				
17+50	0.4676	0.46	O				
17+55	0.4546	0.45	O				
18+ 0	0.4420	0.43	O				
18+ 5	0.4297	0.42	O				
18+10	0.4178	0.41	O				
18+15	0.4061	0.40	O				
18+20	0.3949	0.39	O				
18+25	0.3839	0.38	O				
18+30	0.3732	0.37	O				
18+35	0.3628	0.36	O				
18+40	0.3528	0.35	O				
18+45	0.3430	0.34	O				
18+50	0.3334	0.33	O				
18+55	0.3242	0.32	O				
19+ 0	0.3152	0.31	O				
19+ 5	0.3064	0.30	O				
19+10	0.2979	0.29	O				
19+15	0.2896	0.28	O				
19+20	0.2816	0.28	O				
19+25	0.2737	0.27	O				
19+30	0.2661	0.26	O				
19+35	0.2587	0.25	O				
19+40	0.2515	0.25	O				
19+45	0.2445	0.24	O				
19+50	0.2378	0.23	O				
19+55	0.2311	0.23	O				
20+ 0	0.2247	0.22	O				
20+ 5	0.2185	0.21	O				
20+10	0.2124	0.21	O				
20+15	0.2065	0.20	O				
20+20	0.2008	0.20	O				
20+25	0.1952	0.19	O				
20+30	0.1898	0.19	O				
20+35	0.1845	0.18	O				
20+40	0.1794	0.18	O				
20+45	0.1744	0.17	O				
20+50	0.1695	0.17	O				
20+55	0.1648	0.16	O				
21+ 0	0.1602	0.16	O				
21+ 5	0.1558	0.15	O				
21+10	0.1515	0.15	O				
21+15	0.1472	0.14	O				
21+20	0.1432	0.14	O				
21+25	0.1392	0.14	O				
21+30	0.1353	0.13	O				

21+35	0.1315	0.13	O				
21+40	0.1279	0.13	O				
21+45	0.1243	0.12	O				
21+50	0.1209	0.12	O				
21+55	0.1175	0.12	O				
22+ 0	0.1143	0.11	O				
22+ 5	0.1111	0.11	O				
22+10	0.1080	0.11	O				
22+15	0.1050	0.10	O				
22+20	0.1021	0.10	O				
22+25	0.0992	0.10	O				
22+30	0.0965	0.09	O				
22+35	0.0938	0.09	O				
22+40	0.0912	0.09	O				
22+45	0.0887	0.09	O				
22+50	0.0862	0.08	O				
22+55	0.0838	0.08	O				
23+ 0	0.0815	0.08	O				
23+ 5	0.0792	0.08	O				
23+10	0.0770	0.08	O				
23+15	0.0749	0.07	O				
23+20	0.0728	0.07	O				
23+25	0.0708	0.07	O				
23+30	0.0688	0.07	O				
23+35	0.0669	0.07	O				
23+40	0.0650	0.06	O				
23+45	0.0632	0.06	O				
23+50	0.0615	0.06	O				
23+55	0.0598	0.06	O				
24+ 0	0.0581	0.06	O				
24+ 5	0.0565	0.06	O				
24+10	0.0549	0.05	O				
24+15	0.0534	0.05	O				
24+20	0.0519	0.05	O				
24+25	0.0505	0.05	O				
24+30	0.0491	0.05	O				
24+35	0.0477	0.05	O				
24+40	0.0464	0.05	O				
24+45	0.0451	0.04	O				
24+50	0.0438	0.04	O				
24+55	0.0426	0.04	O				
25+ 0	0.0414	0.04	O				
25+ 5	0.0403	0.04	O				
25+10	0.0392	0.04	O				
25+15	0.0381	0.04	O				
25+20	0.0370	0.04	O				
25+25	0.0360	0.04	O				
25+30	0.0350	0.03	O				
25+35	0.0340	0.03	O				
25+40	0.0331	0.03	O				
25+45	0.0321	0.03	O				
25+50	0.0312	0.03	O				
25+55	0.0304	0.03	O				
26+ 0	0.0295	0.03	O				
26+ 5	0.0287	0.03	O				
26+10	0.0279	0.03	O				
26+15	0.0271	0.03	O				
26+20	0.0264	0.03	O				
26+25	0.0257	0.03	O				
26+30	0.0249	0.02	O				
26+35	0.0242	0.02	O				
26+40	0.0236	0.02	O				
26+45	0.0229	0.02	O				
26+50	0.0223	0.02	O				
26+55	0.0217	0.02	O				
27+ 0	0.0211	0.02	O				
27+ 5	0.0205	0.02	O				
27+10	0.0199	0.02	O				
27+15	0.0194	0.02	O				
27+20	0.0188	0.02	O				

27+25	0.0183	0.02	O				
27+30	0.0178	0.02	O				
27+35	0.0173	0.02	O				
27+40	0.0168	0.02	O				
27+45	0.0163	0.02	O				
27+50	0.0159	0.02	O				
27+55	0.0154	0.02	O				
28+ 0	0.0150	0.01	O				
28+ 5	0.0146	0.01	O				
28+10	0.0142	0.01	O				
28+15	0.0138	0.01	O				
28+20	0.0134	0.01	O				
28+25	0.0130	0.01	O				
28+30	0.0127	0.01	O				
28+35	0.0123	0.01	O				
28+40	0.0120	0.01	O				
28+45	0.0117	0.01	O				
28+50	0.0113	0.01	O				
28+55	0.0110	0.01	O				
29+ 0	0.0107	0.01	O				
29+ 5	0.0104	0.01	O				
29+10	0.0101	0.01	O				
29+15	0.0098	0.01	O				
29+20	0.0096	0.01	O				
29+25	0.0093	0.01	O				
29+30	0.0090	0.01	O				
29+35	0.0088	0.01	O				
29+40	0.0085	0.01	O				
29+45	0.0083	0.01	O				
29+50	0.0081	0.01	O				
29+55	0.0079	0.01	O				
30+ 0	0.0076	0.01	O				
30+ 5	0.0074	0.01	O				
30+10	0.0072	0.01	O				
30+15	0.0070	0.01	O				
30+20	0.0068	0.01	O				
30+25	0.0066	0.01	O				
30+30	0.0064	0.01	O				
30+35	0.0063	0.01	O				
30+40	0.0061	0.01	O				
30+45	0.0059	0.01	O				
30+50	0.0058	0.01	O				
30+55	0.0056	0.01	O				
31+ 0	0.0054	0.01	O				
31+ 5	0.0053	0.01	O				
31+10	0.0051	0.01	O				
31+15	0.0050	0.00	O				
31+20	0.0049	0.00	O				
31+25	0.0047	0.00	O				
31+30	0.0046	0.00	O				
31+35	0.0045	0.00	O				
31+40	0.0043	0.00	O				
31+45	0.0042	0.00	O				
31+50	0.0041	0.00	O				
31+55	0.0040	0.00	O				
32+ 0	0.0039	0.00	O				
32+ 5	0.0038	0.00	O				
32+10	0.0037	0.00	O				
32+15	0.0036	0.00	O				
32+20	0.0035	0.00	O				
32+25	0.0034	0.00	O				
32+30	0.0033	0.00	O				
32+35	0.0032	0.00	O				
32+40	0.0031	0.00	O				
32+45	0.0030	0.00	O				
32+50	0.0029	0.00	O				
32+55	0.0028	0.00	O				
33+ 0	0.0028	0.00	O				
33+ 5	0.0027	0.00	O				
33+10	0.0026	0.00	O				

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  33+15       0.0025      0.00  O         |         |         |         |
  33+20       0.0025      0.00  O         |         |         |         |
  33+25       0.0024      0.00  O         |         |         |         |
  33+30       0.0023      0.00  O         |         |         |         |
  33+35       0.0023      0.00  O         |         |         |         |
  33+40       0.0022      0.00  O         |         |         |         |
  33+45       0.0021      0.00  O         |         |         |         |
  33+50       0.0021      0.00  O         |         |         |         |
  33+55       0.0020      0.00  O         |         |         |         |
  34+ 0       0.0012      0.00  O         |         |         |         |
  34+ 5       0.0000      0.00  O         |         |         |         |
-------------------------------------------------------------------------
      ****************************HYDROGRAPH DATA****************************
                  Number of intervals =   409
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =       60.069 (CFS)
                  Total volume =       7.286 (Ac.Ft)
            Status of hydrographs being held in storage
                       Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
      *************************************************************************

      ---------------------------------------------------------------------


      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      Process from Point/Station       10.000 to Point/Station       11.000
      **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
      _____________________________________________________________________
      ********************* HYDROGRAPH INFORMATION **********************

                  From study/file name: lgareaa3100.rte
      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                     P R I N T  O F  S T O R M
                  R u n o f f     H y d r o g r a p h
      ---------------------------------------------------------------------
                Hydrograph in   5   Minute intervals (CFS)

      ---------------------------------------------------------------------
 Time(h+m) Add q(CFS)  Tot. Q   0      122.3     244.5     366.8     489.0
 ------------------------------------------------------------------------
   0+ 5       3.9684      3.99  Q         |         |         |         |
   0+10      20.8269     20.97  |Q        |         |         |         |
   0+15      39.9937     40.36  |  Q      |         |         |         |
   0+20      47.6341     48.28  |  Q      |         |         |         |
   0+25      55.3343     56.23  |   Q     |         |         |         |
   0+30      66.2630     67.30  |    Q    |         |         |         |
   0+35      75.6606     76.72  |     Q   |         |         |         |
   0+40      81.0692     82.15  |     Q   |         |         |         |
   0+45      85.3384     86.44  |     qQ  |         |         |         |
   0+50      90.5807     91.71  |      Q  |         |         |         |
   0+55      89.6717     90.82  |      Q  |         |         |         |
   1+ 0      88.3297     89.51  |      Q  |         |         |         |
   1+ 5      94.3184     95.56  |      Q  |         |         |         |
   1+10     106.2956    107.62  |       Q |         |         |         |
   1+15     117.0703    118.47  |        Q|         |         |         |
   1+20     121.6769    125.49  |        qQ         |         |         |
   1+25     123.8074    133.00  |         Q         |         |         |
   1+30     132.5742    146.10  |         qQ        |         |         |
   1+35     145.0526    162.27  |         |q Q      |         |         |
   1+40     149.2263    169.30  |         | qQ      |         |         |
   1+45     154.8558    177.18  |         | q Q     |         |         |
   1+50     170.5835    195.28  |         |  q Q    |         |         |
   1+55     182.1062    209.14  |         |   q  Q  |         |         |
   2+ 0     182.8694    211.56  |         |   q  Q  |         |         |
   2+ 5     183.3315    213.03  |         |   q  Q  |         |         |
   2+10     191.7814    222.61  |         |    q  Q |         |         |
   2+15     218.2228    251.35  |         |      q  Q         |         |
   2+20     251.1620    287.46  |         |         q  Q      |         |
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2+25     267.3685    306.47  |          |          |q   Q     |          |
2+30     310.5088    353.38  |          |          |    q  Q  |          |
2+35     385.4610    434.30  |          |          |          |q   Q     |
2+40     433.3487    489.03  |          |          |          |    q     Q
2+45     416.7299    476.80  |          |          |          |   q   Q  |
2+50     322.1769    381.35  |          |          |     q    |Q         |
2+55     229.0405    282.80  |          |       q  |  Q       |          |
3+ 0     180.8512    227.71  |          |    q  Q  |          |          |
3+ 5     137.7459    177.34  |          |q  Q      |          |          |
3+10      93.8086    124.95  |       q  Q          |          |          |
3+15      66.1491     88.54  |     q Q  |          |          |          |
3+20      49.8830     65.65  |   qQ     |          |          |          |
3+25      39.0252     50.04  |  qQ      |          |          |          |
3+30      30.9114     38.58  | qQ       |          |          |          |
3+35      23.8563     29.19  |qQ        |          |          |          |
3+40      18.1276     21.83  |Q         |          |          |          |
3+45      14.5613     17.14  |Q         |          |          |          |
3+50      10.7204     12.54  qQ         |          |          |          |
3+55       7.5853      9.06  Q          |          |          |          |
4+ 0       4.2782      5.73  Q          |          |          |          |
4+ 5       1.8619      3.31  Q          |          |          |          |
4+10       1.2093      2.65  Q          |          |          |          |
4+15       0.6993      2.13  Q          |          |          |          |
4+20       0.1203      1.55  Q          |          |          |          |
4+25       0.0000      1.42  Q          |          |          |          |
4+30       0.0000      1.41  Q          |          |          |          |
4+35       0.0000      1.41  Q          |          |          |          |
4+40       0.0000      1.40  Q          |          |          |          |
4+45       0.0000      1.40  Q          |          |          |          |
4+50       0.0000      1.39  Q          |          |          |          |
4+55       0.0000      1.38  Q          |          |          |          |
5+ 0       0.0000      1.38  Q          |          |          |          |
5+ 5       0.0000      1.37  Q          |          |          |          |
5+10       0.0000      1.37  Q          |          |          |          |
5+15       0.0000      1.36  Q          |          |          |          |
5+20       0.0000      1.36  Q          |          |          |          |
5+25       0.0000      1.35  Q          |          |          |          |
5+30       0.0000      1.34  Q          |          |          |          |
5+35       0.0000      1.34  Q          |          |          |          |
5+40       0.0000      1.33  Q          |          |          |          |
5+45       0.0000      1.33  Q          |          |          |          |
5+50       0.0000      1.32  Q          |          |          |          |
5+55       0.0000      1.32  Q          |          |          |          |
6+ 0       0.0000      1.31  Q          |          |          |          |
6+ 5       0.0000      1.30  Q          |          |          |          |
6+10       0.0000      1.30  Q          |          |          |          |
6+15       0.0000      1.29  Q          |          |          |          |
6+20       0.0000      1.29  Q          |          |          |          |
6+25       0.0000      1.28  Q          |          |          |          |
6+30       0.0000      1.28  Q          |          |          |          |
6+35       0.0000      1.27  Q          |          |          |          |
6+40       0.0000      1.27  Q          |          |          |          |
6+45       0.0000      1.26  Q          |          |          |          |
6+50       0.0000      1.25  Q          |          |          |          |
6+55       0.0000      1.25  Q          |          |          |          |
7+ 0       0.0000      1.24  Q          |          |          |          |
7+ 5       0.0000      1.24  Q          |          |          |          |
7+10       0.0000      1.23  Q          |          |          |          |
7+15       0.0000      1.23  Q          |          |          |          |
7+20       0.0000      1.22  Q          |          |          |          |
7+25       0.0000      1.22  Q          |          |          |          |
7+30       0.0000      1.21  Q          |          |          |          |
7+35       0.0000      1.21  Q          |          |          |          |
7+40       0.0000      1.20  Q          |          |          |          |
7+45       0.0000      1.20  Q          |          |          |          |
7+50       0.0000      1.19  Q          |          |          |          |
7+55       0.0000      1.19  Q          |          |          |          |
8+ 0       0.0000      1.18  Q          |          |          |          |
8+ 5       0.0000      1.18  Q          |          |          |          |
8+10       0.0000      1.17  Q          |          |          |          |
```

8+15	0.0000	1.17	Q	|	|	|	|
8+20	0.0000	1.16	Q	|	|	|	|
8+25	0.0000	1.16	Q	|	|	|	|
8+30	0.0000	1.16	Q	|	|	|	|
8+35	0.0000	1.16	Q	|	|	|	|
8+40	0.0000	1.16	Q	|	|	|	|
8+45	0.0000	1.16	Q	|	|	|	|
8+50	0.0000	1.15	Q	|	|	|	|
8+55	0.0000	1.15	Q	|	|	|	|
9+ 0	0.0000	1.15	Q	|	|	|	|
9+ 5	0.0000	1.15	Q	|	|	|	|
9+10	0.0000	1.15	Q	|	|	|	|
9+15	0.0000	1.15	Q	|	|	|	|
9+20	0.0000	1.14	Q	|	|	|	|
9+25	0.0000	1.14	Q	|	|	|	|
9+30	0.0000	1.14	Q	|	|	|	|
9+35	0.0000	1.14	Q	|	|	|	|
9+40	0.0000	1.14	Q	|	|	|	|
9+45	0.0000	1.14	Q	|	|	|	|
9+50	0.0000	1.13	Q	|	|	|	|
9+55	0.0000	1.13	Q	|	|	|	|
10+ 0	0.0000	1.13	Q	|	|	|	|
10+ 5	0.0000	1.13	Q	|	|	|	|
10+10	0.0000	1.13	Q	|	|	|	|
10+15	0.0000	1.13	Q	|	|	|	|
10+20	0.0000	1.12	Q	|	|	|	|
10+25	0.0000	1.12	Q	|	|	|	|
10+30	0.0000	1.12	Q	|	|	|	|
10+35	0.0000	1.12	Q	|	|	|	|
10+40	0.0000	1.12	Q	|	|	|	|
10+45	0.0000	1.12	Q	|	|	|	|
10+50	0.0000	1.11	Q	|	|	|	|
10+55	0.0000	1.11	Q	|	|	|	|
11+ 0	0.0000	1.11	Q	|	|	|	|
11+ 5	0.0000	1.11	Q	|	|	|	|
11+10	0.0000	1.11	Q	|	|	|	|
11+15	0.0000	1.11	Q	|	|	|	|
11+20	0.0000	1.10	Q	|	|	|	|
11+25	0.0000	1.10	Q	|	|	|	|
11+30	0.0000	1.10	Q	|	|	|	|
11+35	0.0000	1.10	Q	|	|	|	|
11+40	0.0000	1.10	Q	|	|	|	|
11+45	0.0000	1.10	Q	|	|	|	|
11+50	0.0000	1.09	Q	|	|	|	|
11+55	0.0000	1.09	Q	|	|	|	|
12+ 0	0.0000	1.09	Q	|	|	|	|
12+ 5	0.0000	1.09	Q	|	|	|	|
12+10	0.0000	1.09	Q	|	|	|	|
12+15	0.0000	1.09	Q	|	|	|	|
12+20	0.0000	1.08	Q	|	|	|	|
12+25	0.0000	1.08	Q	|	|	|	|
12+30	0.0000	1.08	Q	|	|	|	|
12+35	0.0000	1.08	Q	|	|	|	|
12+40	0.0000	1.08	Q	|	|	|	|
12+45	0.0000	1.08	Q	|	|	|	|
12+50	0.0000	1.07	Q	|	|	|	|
12+55	0.0000	1.07	Q	|	|	|	|
13+ 0	0.0000	1.07	Q	|	|	|	|
13+ 5	0.0000	1.07	Q	|	|	|	|
13+10	0.0000	1.07	Q	|	|	|	|
13+15	0.0000	1.07	Q	|	|	|	|
13+20	0.0000	1.06	Q	|	|	|	|
13+25	0.0000	1.06	Q	|	|	|	|
13+30	0.0000	1.06	Q	|	|	|	|
13+35	0.0000	1.06	Q	|	|	|	|
13+40	0.0000	1.06	Q	|	|	|	|
13+45	0.0000	1.06	Q	|	|	|	|
13+50	0.0000	1.05	Q	|	|	|	|
13+55	0.0000	1.05	Q	|	|	|	|
14+ 0	0.0000	1.05	Q	|	|	|	|

14+ 5	0.0000	1.05	Q				
14+10	0.0000	1.05	Q				
14+15	0.0000	1.05	Q				
14+20	0.0000	1.05	Q				
14+25	0.0000	1.04	Q				
14+30	0.0000	1.04	Q				
14+35	0.0000	1.04	Q				
14+40	0.0000	1.04	Q				
14+45	0.0000	1.04	Q				
14+50	0.0000	1.04	Q				
14+55	0.0000	1.03	Q				
15+ 0	0.0000	1.03	Q				
15+ 5	0.0000	1.03	Q				
15+10	0.0000	1.03	Q				
15+15	0.0000	1.03	Q				
15+20	0.0000	1.03	Q				
15+25	0.0000	1.02	Q				
15+30	0.0000	1.02	Q				
15+35	0.0000	1.00	Q				
15+40	0.0000	0.97	Q				
15+45	0.0000	0.95	Q				
15+50	0.0000	0.92	Q				
15+55	0.0000	0.89	Q				
16+ 0	0.0000	0.87	Q				
16+ 5	0.0000	0.85	Q				
16+10	0.0000	0.82	Q				
16+15	0.0000	0.80	Q				
16+20	0.0000	0.78	Q				
16+25	0.0000	0.76	Q				
16+30	0.0000	0.73	Q				
16+35	0.0000	0.71	Q				
16+40	0.0000	0.69	Q				
16+45	0.0000	0.67	Q				
16+50	0.0000	0.66	Q				
16+55	0.0000	0.64	Q				
17+ 0	0.0000	0.62	Q				
17+ 5	0.0000	0.60	Q				
17+10	0.0000	0.59	Q				
17+15	0.0000	0.57	Q				
17+20	0.0000	0.55	Q				
17+25	0.0000	0.54	Q				
17+30	0.0000	0.52	Q				
17+35	0.0000	0.51	Q				
17+40	0.0000	0.49	Q				
17+45	0.0000	0.48	Q				
17+50	0.0000	0.47	Q				
17+55	0.0000	0.45	Q				
18+ 0	0.0000	0.44	Q				
18+ 5	0.0000	0.43	Q				
18+10	0.0000	0.42	Q				
18+15	0.0000	0.41	Q				
18+20	0.0000	0.39	Q				
18+25	0.0000	0.38	Q				
18+30	0.0000	0.37	Q				
18+35	0.0000	0.36	Q				
18+40	0.0000	0.35	Q				
18+45	0.0000	0.34	Q				
18+50	0.0000	0.33	Q				
18+55	0.0000	0.32	Q				
19+ 0	0.0000	0.32	Q				
19+ 5	0.0000	0.31	Q				
19+10	0.0000	0.30	Q				
19+15	0.0000	0.29	Q				
19+20	0.0000	0.28	Q				
19+25	0.0000	0.27	Q				
19+30	0.0000	0.27	Q				
19+35	0.0000	0.26	Q				
19+40	0.0000	0.25	Q				
19+45	0.0000	0.24	Q				
19+50	0.0000	0.24	Q				

19+55	0.0000	0.23	Q				
20+ 0	0.0000	0.22	Q				
20+ 5	0.0000	0.22	Q				
20+10	0.0000	0.21	Q				
20+15	0.0000	0.21	Q				
20+20	0.0000	0.20	Q				
20+25	0.0000	0.20	Q				
20+30	0.0000	0.19	Q				
20+35	0.0000	0.18	Q				
20+40	0.0000	0.18	Q				
20+45	0.0000	0.17	Q				
20+50	0.0000	0.17	Q				
20+55	0.0000	0.16	Q				
21+ 0	0.0000	0.16	Q				
21+ 5	0.0000	0.16	Q				
21+10	0.0000	0.15	Q				
21+15	0.0000	0.15	Q				
21+20	0.0000	0.14	Q				
21+25	0.0000	0.14	Q				
21+30	0.0000	0.14	Q				
21+35	0.0000	0.13	Q				
21+40	0.0000	0.13	Q				
21+45	0.0000	0.12	Q				
21+50	0.0000	0.12	Q				
21+55	0.0000	0.12	Q				
22+ 0	0.0000	0.11	Q				
22+ 5	0.0000	0.11	Q				
22+10	0.0000	0.11	Q				
22+15	0.0000	0.10	Q				
22+20	0.0000	0.10	Q				
22+25	0.0000	0.10	Q				
22+30	0.0000	0.10	Q				
22+35	0.0000	0.09	Q				
22+40	0.0000	0.09	Q				
22+45	0.0000	0.09	Q				
22+50	0.0000	0.09	Q				
22+55	0.0000	0.08	Q				
23+ 0	0.0000	0.08	Q				
23+ 5	0.0000	0.08	Q				
23+10	0.0000	0.08	Q				
23+15	0.0000	0.07	Q				
23+20	0.0000	0.07	Q				
23+25	0.0000	0.07	Q				
23+30	0.0000	0.07	Q				
23+35	0.0000	0.07	Q				
23+40	0.0000	0.07	Q				
23+45	0.0000	0.06	Q				
23+50	0.0000	0.06	Q				
23+55	0.0000	0.06	Q				
24+ 0	0.0000	0.06	Q				
24+ 5	0.0000	0.06	Q				
24+10	0.0000	0.05	Q				
24+15	0.0000	0.05	Q				
24+20	0.0000	0.05	Q				
24+25	0.0000	0.05	Q				
24+30	0.0000	0.05	Q				
24+35	0.0000	0.05	Q				
24+40	0.0000	0.05	Q				
24+45	0.0000	0.05	Q				
24+50	0.0000	0.04	Q				
24+55	0.0000	0.04	Q				
25+ 0	0.0000	0.04	Q				
25+ 5	0.0000	0.04	Q				
25+10	0.0000	0.04	Q				
25+15	0.0000	0.04	Q				
25+20	0.0000	0.04	Q				
25+25	0.0000	0.04	Q				
25+30	0.0000	0.03	Q				
25+35	0.0000	0.03	Q				
25+40	0.0000	0.03	Q				

25+45	0.0000	0.03	Q				
25+50	0.0000	0.03	Q				
25+55	0.0000	0.03	Q				
26+ 0	0.0000	0.03	Q				
26+ 5	0.0000	0.03	Q				
26+10	0.0000	0.03	Q				
26+15	0.0000	0.03	Q				
26+20	0.0000	0.03	Q				
26+25	0.0000	0.03	Q				
26+30	0.0000	0.02	Q				
26+35	0.0000	0.02	Q				
26+40	0.0000	0.02	Q				
26+45	0.0000	0.02	Q				
26+50	0.0000	0.02	Q				
26+55	0.0000	0.02	Q				
27+ 0	0.0000	0.02	Q				
27+ 5	0.0000	0.02	Q				
27+10	0.0000	0.02	Q				
27+15	0.0000	0.02	Q				
27+20	0.0000	0.02	Q				
27+25	0.0000	0.02	Q				
27+30	0.0000	0.02	Q				
27+35	0.0000	0.02	Q				
27+40	0.0000	0.02	Q				
27+45	0.0000	0.02	Q				
27+50	0.0000	0.02	Q				
27+55	0.0000	0.02	Q				
28+ 0	0.0000	0.02	Q				
28+ 5	0.0000	0.01	Q				
28+10	0.0000	0.01	Q				
28+15	0.0000	0.01	Q				
28+20	0.0000	0.01	Q				
28+25	0.0000	0.01	Q				
28+30	0.0000	0.01	Q				
28+35	0.0000	0.01	Q				
28+40	0.0000	0.01	Q				
28+45	0.0000	0.01	Q				
28+50	0.0000	0.01	Q				
28+55	0.0000	0.01	Q				
29+ 0	0.0000	0.01	Q				
29+ 5	0.0000	0.01	Q				
29+10	0.0000	0.01	Q				
29+15	0.0000	0.01	Q				
29+20	0.0000	0.01	Q				
29+25	0.0000	0.01	Q				
29+30	0.0000	0.01	Q				
29+35	0.0000	0.01	Q				
29+40	0.0000	0.01	Q				
29+45	0.0000	0.01	Q				
29+50	0.0000	0.01	Q				
29+55	0.0000	0.01	Q				
30+ 0	0.0000	0.01	Q				
30+ 5	0.0000	0.01	Q				
30+10	0.0000	0.01	Q				
30+15	0.0000	0.01	Q				
30+20	0.0000	0.01	Q				
30+25	0.0000	0.01	Q				
30+30	0.0000	0.01	Q				
30+35	0.0000	0.01	Q				
30+40	0.0000	0.01	Q				
30+45	0.0000	0.01	Q				
30+50	0.0000	0.01	Q				
30+55	0.0000	0.01	Q				
31+ 0	0.0000	0.01	Q				
31+ 5	0.0000	0.01	Q				
31+10	0.0000	0.01	Q				
31+15	0.0000	0.01	Q				
31+20	0.0000	0.00	Q				
31+25	0.0000	0.00	Q				
31+30	0.0000	0.00	Q				

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   31+35       0.0000      0.00  Q         |         |         |         |
   31+40       0.0000      0.00  Q         |         |         |         |
   31+45       0.0000      0.00  Q         |         |         |         |
   31+50       0.0000      0.00  Q         |         |         |         |
   31+55       0.0000      0.00  Q         |         |         |         |
   32+ 0       0.0000      0.00  Q         |         |         |         |
   32+ 5       0.0000      0.00  Q         |         |         |         |
   32+10       0.0000      0.00  Q         |         |         |         |
   32+15       0.0000      0.00  Q         |         |         |         |
   32+20       0.0000      0.00  Q         |         |         |         |
   32+25       0.0000      0.00  Q         |         |         |         |
   32+30       0.0000      0.00  Q         |         |         |         |
   32+35       0.0000      0.00  Q         |         |         |         |
   32+40       0.0000      0.00  Q         |         |         |         |
   32+45       0.0000      0.00  Q         |         |         |         |
   32+50       0.0000      0.00  Q         |         |         |         |
   32+55       0.0000      0.00  Q         |         |         |         |
   33+ 0       0.0000      0.00  Q         |         |         |         |
   33+ 5       0.0000      0.00  Q         |         |         |         |
   33+10       0.0000      0.00  Q         |         |         |         |
   33+15       0.0000      0.00  Q         |         |         |         |
   33+20       0.0000      0.00  Q         |         |         |         |
   33+25       0.0000      0.00  Q         |         |         |         |
   33+30       0.0000      0.00  Q         |         |         |         |
   33+35       0.0000      0.00  Q         |         |         |         |
   33+40       0.0000      0.00  Q         |         |         |         |
   33+45       0.0000      0.00  Q         |         |         |         |
   33+50       0.0000      0.00  Q         |         |         |         |
   33+55       0.0000      0.00  Q         |         |         |         |
   34+ 0       0.0000      0.00  Q         |         |         |         |
   34+ 5       0.0000      0.00  Q         |         |         |         |
---------------------------------------------------------------------------
       ****************************HYDROGRAPH DATA****************************
                  Number of intervals =   409
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =      489.028 (CFS)
                  Total volume =      50.782 (Ac.Ft)
            Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       ***************************************************************************

       ---------------------------------------------------------------------------


       +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
       Process from Point/Station       11.000 to Point/Station       12.000
       **** RETARDING BASIN ROUTING ****

       ___________________________________________________________________________

       User entry of depth-outflow-storage data
       ---------------------------------------------------------------------
       Total number of inflow hydrograph intervals = 409
       Hydrograph time unit =  5.000 (Min.)
       Initial depth in storage basin =   0.00(Ft.)
       ---------------------------------------------------------------------
       ---------------------------------------------------------------------
       Initial basin depth =   0.00 (Ft.)
       Initial basin storage =      0.00 (Ac.Ft)
       Initial basin outflow =   0.00 (CFS)
       ---------------------------------------------------------------------------
       ---------------------------------------------------------------------
       Depth vs. Storage and Depth vs. Discharge data:
        Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
            (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
       ---------------------------------------------------------------------
          0.000      0.000      0.000      0.000        0.000
          1.000      0.540     30.240      0.436        0.644
          2.000      2.140     41.680      1.996        2.284
```

3.000	4.310	63.670	4.091	4.529
4.000	6.570	79.820	6.295	6.845
5.000	9.330	93.200	9.009	9.651
6.000	12.640	104.900	12.279	13.001
7.000	16.070	115.410	15.673	16.467
8.000	19.630	125.050	19.199	20.061
9.000	23.320	133.990	22.859	23.781
10.000	27.150	142.370	26.660	27.640
11.000	31.110	180.290	30.489	31.731
12.000	33.380	242.660	32.544	34.216

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 122.3 244.51 366.77 489.03	Depth (Ft.)
0.083	3.99	0.65	0.012	O | | | |	0.02
0.167	20.97	4.47	0.080	OI | | | |	0.15
0.250	40.36	12.94	0.231	O I | | | |	0.43
0.333	48.28	23.09	0.412	|O I | | | |	0.76
0.417	56.23	30.58	0.587	| OI | | | |	1.03
0.500	67.30	32.08	0.797	| O I | | | |	1.16
0.583	76.72	34.00	1.065	| O I | | | |	1.33
0.667	82.15	36.18	1.371	| O I | | | |	1.52
0.750	86.44	38.49	1.694	| O I | | | |	1.72
0.833	91.71	40.92	2.034	| O I | | | |	1.93
0.917	90.82	44.01	2.370	| O I | | | |	2.11
1.000	89.51	47.13	2.677	| O I | | | |	2.25
1.083	95.56	50.19	2.980	| O I | | | |	2.39
1.167	107.62	53.65	3.322	| O I| | | |	2.54
1.250	118.47	57.66	3.717	| O I| | | |	2.73
1.333	125.49	62.00	4.145	| O I | | |	2.92
1.417	133.00	65.71	4.595	| O I | | |	3.13
1.500	146.10	69.26	5.092	| O |I | |	3.35
1.583	162.27	73.33	5.662	| O | I | |	3.60
1.667	169.30	77.78	6.284	| O | I | |	3.87
1.750	177.18	81.56	6.928	| O | I | |	4.13
1.833	195.28	84.99	7.637	| O | I | |	4.39
1.917	209.14	88.84	8.431	| O | I | |	4.67
2.000	211.56	92.83	9.254	| O | I | |	4.97
2.083	213.03	95.80	10.067	| O | I | |	5.22
2.167	222.61	98.74	10.897	| O | I | |	5.47
2.250	251.35	102.06	11.838	| O | I | |	5.76
2.333	287.46	105.93	12.977	| O | | I | |	6.10
2.417	306.47	109.92	14.279	| O| | I | |	6.48
2.500	353.38	114.52	15.778	| O| | I| |	6.91
2.583	434.30	119.78	17.684	| O| | | I |	7.45
2.667	489.03	125.99	20.017	| O | | I|	8.10
2.750	476.80	131.89	22.455	| O | | I|	8.77
2.833	381.35	136.54	24.485	| O | I |	9.30
2.917	282.80	139.46	25.822	| |O | I | |	9.65
3.000	227.71	141.20	26.614	| |O I | | |	9.86
3.083	177.34	142.11	27.033	| |O I | | |	9.97
3.167	124.95	142.25	27.095	| |IO | | |	9.99
3.250	88.54	141.72	26.852	| I |O | | |	9.92
3.333	65.65	140.75	26.410	| I |O | | |	9.81
3.417	50.04	139.51	25.843	| I |O | | |	9.66
3.500	38.58	138.09	25.193	| I |O | | |	9.49
3.583	29.19	136.53	24.480	|I | O | | |	9.30
3.667	21.83	134.87	23.721	|I | O | | |	9.10
3.750	17.14	133.05	22.933	|I | O | | |	8.90
3.833	12.54	131.10	22.126	I | O | | |	8.68
3.917	9.06	129.11	21.304	I | O | | |	8.45
4.000	5.73	127.09	20.473	I | O | | |	8.23
4.083	3.31	125.06	19.635	I | O | | |	8.00
4.167	2.65	122.81	18.802	I | O | | |	7.77
4.250	2.13	120.58	17.981	I | O| | |	7.54
4.333	1.55	118.39	17.171	I | O| | |	7.31

4.417	1.42	116.23	16.373	I	O|	|	|	7.09
4.500	1.41	113.94	15.590	I	O|	|	|	6.86
4.583	1.41	111.59	14.823	I	O|	|	|	6.64
4.667	1.40	109.29	14.072	I	O|	|	|	6.42
4.750	1.40	107.04	13.337	I	O|	|	|	6.20
4.833	1.39	104.82	12.617	I	O |	|	|	5.99
4.917	1.38	102.33	11.913	I	O |	|	|	5.78
5.000	1.38	99.90	11.226	I	O |	|	|	5.57
5.083	1.37	97.53	10.556	I	O |	|	|	5.37
5.167	1.37	95.22	9.902	I	O |	|	|	5.17
5.250	1.36	92.88	9.263	I	O |	|	|	4.98
5.333	1.36	89.87	8.643	I	O |	|	|	4.75
5.417	1.35	86.96	8.044	I	O |	|	|	4.53
5.500	1.34	84.15	7.464	I	O |	|	|	4.32
5.583	1.34	81.43	6.903	I	O |	|	|	4.12
5.667	1.33	78.33	6.362	I	O |	|	|	3.91
5.750	1.33	74.63	5.844	I	O |	|	|	3.68
5.833	1.32	71.11	5.351	I	O |	|	|	3.46
5.917	1.32	67.76	4.882	I	O |	|	|	3.25
6.000	1.31	64.57	4.436	I	O |	|	|	3.06
6.083	1.30	60.66	4.013	I	O |	|	|	2.86
6.167	1.30	56.66	3.618	I	O |	|	|	2.68
6.250	1.29	52.93	3.250	I	O |	|	|	2.51
6.333	1.29	49.45	2.906	I	O |	|	|	2.35
6.417	1.28	46.20	2.586	I	O |	|	|	2.21
6.500	1.28	43.17	2.287	I	O |	|	|	2.07
6.583	1.27	40.73	2.007	I	O |	|	|	1.92
6.667	1.27	38.83	1.742	I	O |	|	|	1.75
6.750	1.26	37.03	1.489	I	O |	|	|	1.59
6.833	1.25	35.31	1.249	I	O |	|	|	1.44
6.917	1.25	33.67	1.020	I	O |	|	|	1.30
7.000	1.24	32.11	0.802	I	O |	|	|	1.16
7.083	1.24	30.63	0.594	I	O |	|	|	1.03
7.167	1.23	23.35	0.417	I	O |	|	|	0.77
7.250	1.23	16.20	0.289	I	O |	|	|	0.54
7.333	1.22	11.36	0.203	O	|	|	|	0.38
7.417	1.22	8.08	0.144	O	|	|	|	0.27
7.500	1.21	5.86	0.105	O	|	|	|	0.19
7.583	1.21	4.36	0.078	O	|	|	|	0.14
7.667	1.20	3.34	0.060	O	|	|	|	0.11
7.750	1.20	2.65	0.047	O	|	|	|	0.09
7.833	1.19	2.18	0.039	O	|	|	|	0.07
7.917	1.19	1.86	0.033	O	|	|	|	0.06
8.000	1.18	1.64	0.029	O	|	|	|	0.05
8.083	1.18	1.49	0.027	O	|	|	|	0.05
8.167	1.17	1.39	0.025	O	|	|	|	0.05
8.250	1.17	1.32	0.024	O	|	|	|	0.04
8.333	1.16	1.27	0.023	O	|	|	|	0.04
8.417	1.16	1.23	0.022	O	|	|	|	0.04
8.500	1.16	1.21	0.022	O	|	|	|	0.04
8.583	1.16	1.19	0.021	O	|	|	|	0.04
8.667	1.16	1.18	0.021	O	|	|	|	0.04
8.750	1.16	1.17	0.021	O	|	|	|	0.04
8.833	1.15	1.17	0.021	O	|	|	|	0.04
8.917	1.15	1.16	0.021	O	|	|	|	0.04
9.000	1.15	1.16	0.021	O	|	|	|	0.04
9.083	1.15	1.16	0.021	O	|	|	|	0.04
9.167	1.15	1.15	0.021	O	|	|	|	0.04
9.250	1.15	1.15	0.021	O	|	|	|	0.04
9.333	1.14	1.15	0.021	O	|	|	|	0.04
9.417	1.14	1.15	0.020	O	|	|	|	0.04
9.500	1.14	1.15	0.020	O	|	|	|	0.04
9.583	1.14	1.14	0.020	O	|	|	|	0.04
9.667	1.14	1.14	0.020	O	|	|	|	0.04
9.750	1.14	1.14	0.020	O	|	|	|	0.04
9.833	1.13	1.14	0.020	O	|	|	|	0.04
9.917	1.13	1.14	0.020	O	|	|	|	0.04
10.000	1.13	1.14	0.020	O	|	|	|	0.04
10.083	1.13	1.13	0.020	O	|	|	|	0.04
10.167	1.13	1.13	0.020	O	|	|	|	0.04

10.250	1.13	1.13	0.020	O					0.04
10.333	1.12	1.13	0.020	O					0.04
10.417	1.12	1.13	0.020	O					0.04
10.500	1.12	1.13	0.020	O					0.04
10.583	1.12	1.12	0.020	O					0.04
10.667	1.12	1.12	0.020	O					0.04
10.750	1.12	1.12	0.020	O					0.04
10.833	1.11	1.12	0.020	O					0.04
10.917	1.11	1.12	0.020	O					0.04
11.000	1.11	1.12	0.020	O					0.04
11.083	1.11	1.11	0.020	O					0.04
11.167	1.11	1.11	0.020	O					0.04
11.250	1.11	1.11	0.020	O					0.04
11.333	1.10	1.11	0.020	O					0.04
11.417	1.10	1.11	0.020	O					0.04
11.500	1.10	1.11	0.020	O					0.04
11.583	1.10	1.10	0.020	O					0.04
11.667	1.10	1.10	0.020	O					0.04
11.750	1.10	1.10	0.020	O					0.04
11.833	1.09	1.10	0.020	O					0.04
11.917	1.09	1.10	0.020	O					0.04
12.000	1.09	1.10	0.020	O					0.04
12.083	1.09	1.09	0.020	O					0.04
12.167	1.09	1.09	0.019	O					0.04
12.250	1.09	1.09	0.019	O					0.04
12.333	1.08	1.09	0.019	O					0.04
12.417	1.08	1.09	0.019	O					0.04
12.500	1.08	1.09	0.019	O					0.04
12.583	1.08	1.08	0.019	O					0.04
12.667	1.08	1.08	0.019	O					0.04
12.750	1.08	1.08	0.019	O					0.04
12.833	1.07	1.08	0.019	O					0.04
12.917	1.07	1.08	0.019	O					0.04
13.000	1.07	1.08	0.019	O					0.04
13.083	1.07	1.07	0.019	O					0.04
13.167	1.07	1.07	0.019	O					0.04
13.250	1.07	1.07	0.019	O					0.04
13.333	1.06	1.07	0.019	O					0.04
13.417	1.06	1.07	0.019	O					0.04
13.500	1.06	1.07	0.019	O					0.04
13.583	1.06	1.06	0.019	O					0.04
13.667	1.06	1.06	0.019	O					0.04
13.750	1.06	1.06	0.019	O					0.04
13.833	1.05	1.06	0.019	O					0.04
13.917	1.05	1.06	0.019	O					0.03
14.000	1.05	1.06	0.019	O					0.03
14.083	1.05	1.05	0.019	O					0.03
14.167	1.05	1.05	0.019	O					0.03
14.250	1.05	1.05	0.019	O					0.03
14.333	1.05	1.05	0.019	O					0.03
14.417	1.04	1.05	0.019	O					0.03
14.500	1.04	1.05	0.019	O					0.03
14.583	1.04	1.04	0.019	O					0.03
14.667	1.04	1.04	0.019	O					0.03
14.750	1.04	1.04	0.019	O					0.03
14.833	1.04	1.04	0.019	O					0.03
14.917	1.03	1.04	0.019	O					0.03
15.000	1.03	1.04	0.019	O					0.03
15.083	1.03	1.04	0.018	O					0.03
15.167	1.03	1.03	0.018	O					0.03
15.250	1.03	1.03	0.018	O					0.03
15.333	1.03	1.03	0.018	O					0.03
15.417	1.02	1.03	0.018	O					0.03
15.500	1.02	1.03	0.018	O					0.03
15.583	1.00	1.02	0.018	O					0.03
15.667	0.97	1.01	0.018	O					0.03
15.750	0.95	0.99	0.018	O					0.03
15.833	0.92	0.97	0.017	O					0.03
15.917	0.89	0.95	0.017	O					0.03
16.000	0.87	0.93	0.017	O					0.03

16.083	0.85	0.91	0.016	O					0.03
16.167	0.82	0.88	0.016	O					0.03
16.250	0.80	0.86	0.015	O					0.03
16.333	0.78	0.84	0.015	O					0.03
16.417	0.76	0.81	0.015	O					0.03
16.500	0.73	0.79	0.014	O					0.03
16.583	0.71	0.77	0.014	O					0.03
16.667	0.69	0.75	0.013	O					0.02
16.750	0.67	0.73	0.013	O					0.02
16.833	0.66	0.71	0.013	O					0.02
16.917	0.64	0.69	0.012	O					0.02
17.000	0.62	0.67	0.012	O					0.02
17.083	0.60	0.65	0.012	O					0.02
17.167	0.59	0.63	0.011	O					0.02
17.250	0.57	0.61	0.011	O					0.02
17.333	0.55	0.60	0.011	O					0.02
17.417	0.54	0.58	0.010	O					0.02
17.500	0.52	0.56	0.010	O					0.02
17.583	0.51	0.55	0.010	O					0.02
17.667	0.49	0.53	0.010	O					0.02
17.750	0.48	0.52	0.009	O					0.02
17.833	0.47	0.50	0.009	O					0.02
17.917	0.45	0.49	0.009	O					0.02
18.000	0.44	0.48	0.009	O					0.02
18.083	0.43	0.46	0.008	O					0.02
18.167	0.42	0.45	0.008	O					0.01
18.250	0.41	0.44	0.008	O					0.01
18.333	0.39	0.43	0.008	O					0.01
18.417	0.38	0.41	0.007	O					0.01
18.500	0.37	0.40	0.007	O					0.01
18.583	0.36	0.39	0.007	O					0.01
18.667	0.35	0.38	0.007	O					0.01
18.750	0.34	0.37	0.007	O					0.01
18.833	0.33	0.36	0.006	O					0.01
18.917	0.32	0.35	0.006	O					0.01
19.000	0.32	0.34	0.006	O					0.01
19.083	0.31	0.33	0.006	O					0.01
19.167	0.30	0.32	0.006	O					0.01
19.250	0.29	0.31	0.006	O					0.01
19.333	0.28	0.30	0.005	O					0.01
19.417	0.27	0.30	0.005	O					0.01
19.500	0.27	0.29	0.005	O					0.01
19.583	0.26	0.28	0.005	O					0.01
19.667	0.25	0.27	0.005	O					0.01
19.750	0.24	0.26	0.005	O					0.01
19.833	0.24	0.26	0.005	O					0.01
19.917	0.23	0.25	0.004	O					0.01
20.000	0.22	0.24	0.004	O					0.01
20.083	0.22	0.24	0.004	O					0.01
20.167	0.21	0.23	0.004	O					0.01
20.250	0.21	0.22	0.004	O					0.01
20.333	0.20	0.22	0.004	O					0.01
20.417	0.20	0.21	0.004	O					0.01
20.500	0.19	0.20	0.004	O					0.01
20.583	0.18	0.20	0.004	O					0.01
20.667	0.18	0.19	0.003	O					0.01
20.750	0.17	0.19	0.003	O					0.01
20.833	0.17	0.18	0.003	O					0.01
20.917	0.16	0.18	0.003	O					0.01
21.000	0.16	0.17	0.003	O					0.01
21.083	0.16	0.17	0.003	O					0.01
21.167	0.15	0.16	0.003	O					0.01
21.250	0.15	0.16	0.003	O					0.01
21.333	0.14	0.15	0.003	O					0.01
21.417	0.14	0.15	0.003	O					0.00
21.500	0.14	0.15	0.003	O					0.00
21.583	0.13	0.14	0.003	O					0.00
21.667	0.13	0.14	0.002	O					0.00
21.750	0.12	0.13	0.002	O					0.00
21.833	0.12	0.13	0.002	O					0.00

21.917	0.12	0.13	0.002	O					0.00
22.000	0.11	0.12	0.002	O					0.00
22.083	0.11	0.12	0.002	O					0.00
22.167	0.11	0.12	0.002	O					0.00
22.250	0.10	0.11	0.002	O					0.00
22.333	0.10	0.11	0.002	O					0.00
22.417	0.10	0.11	0.002	O					0.00
22.500	0.10	0.10	0.002	O					0.00
22.583	0.09	0.10	0.002	O					0.00
22.667	0.09	0.10	0.002	O					0.00
22.750	0.09	0.10	0.002	O					0.00
22.833	0.09	0.09	0.002	O					0.00
22.917	0.08	0.09	0.002	O					0.00
23.000	0.08	0.09	0.002	O					0.00
23.083	0.08	0.09	0.002	O					0.00
23.167	0.08	0.08	0.001	O					0.00
23.250	0.07	0.08	0.001	O					0.00
23.333	0.07	0.08	0.001	O					0.00
23.417	0.07	0.08	0.001	O					0.00
23.500	0.07	0.07	0.001	O					0.00
23.583	0.07	0.07	0.001	O					0.00
23.667	0.07	0.07	0.001	O					0.00
23.750	0.06	0.07	0.001	O					0.00
23.833	0.06	0.07	0.001	O					0.00
23.917	0.06	0.06	0.001	O					0.00
24.000	0.06	0.06	0.001	O					0.00
24.083	0.06	0.06	0.001	O					0.00
24.167	0.05	0.06	0.001	O					0.00
24.250	0.05	0.06	0.001	O					0.00
24.333	0.05	0.06	0.001	O					0.00
24.417	0.05	0.05	0.001	O					0.00
24.500	0.05	0.05	0.001	O					0.00
24.583	0.05	0.05	0.001	O					0.00
24.667	0.05	0.05	0.001	O					0.00
24.750	0.05	0.05	0.001	O					0.00
24.833	0.04	0.05	0.001	O					0.00
24.917	0.04	0.05	0.001	O					0.00
25.000	0.04	0.04	0.001	O					0.00
25.083	0.04	0.04	0.001	O					0.00
25.167	0.04	0.04	0.001	O					0.00
25.250	0.04	0.04	0.001	O					0.00
25.333	0.04	0.04	0.001	O					0.00
25.417	0.04	0.04	0.001	O					0.00
25.500	0.03	0.04	0.001	O					0.00
25.583	0.03	0.04	0.001	O					0.00
25.667	0.03	0.04	0.001	O					0.00
25.750	0.03	0.03	0.001	O					0.00
25.833	0.03	0.03	0.001	O					0.00
25.917	0.03	0.03	0.001	O					0.00
26.000	0.03	0.03	0.001	O					0.00
26.083	0.03	0.03	0.001	O					0.00
26.167	0.03	0.03	0.001	O					0.00
26.250	0.03	0.03	0.001	O					0.00
26.333	0.03	0.03	0.001	O					0.00
26.417	0.03	0.03	0.000	O					0.00
26.500	0.02	0.03	0.000	O					0.00
26.583	0.02	0.03	0.000	O					0.00
26.667	0.02	0.03	0.000	O					0.00
26.750	0.02	0.02	0.000	O					0.00
26.833	0.02	0.02	0.000	O					0.00
26.917	0.02	0.02	0.000	O					0.00
27.000	0.02	0.02	0.000	O					0.00
27.083	0.02	0.02	0.000	O					0.00
27.167	0.02	0.02	0.000	O					0.00
27.250	0.02	0.02	0.000	O					0.00
27.333	0.02	0.02	0.000	O					0.00
27.417	0.02	0.02	0.000	O					0.00
27.500	0.02	0.02	0.000	O					0.00
27.583	0.02	0.02	0.000	O					0.00
27.667	0.02	0.02	0.000	O					0.00

27.750	0.02	0.02	0.000	O					0.00
27.833	0.02	0.02	0.000	O					0.00
27.917	0.02	0.02	0.000	O					0.00
28.000	0.02	0.02	0.000	O					0.00
28.083	0.01	0.02	0.000	O					0.00
28.167	0.01	0.02	0.000	O					0.00
28.250	0.01	0.01	0.000	O					0.00
28.333	0.01	0.01	0.000	O					0.00
28.417	0.01	0.01	0.000	O					0.00
28.500	0.01	0.01	0.000	O					0.00
28.583	0.01	0.01	0.000	O					0.00
28.667	0.01	0.01	0.000	O					0.00
28.750	0.01	0.01	0.000	O					0.00
28.833	0.01	0.01	0.000	O					0.00
28.917	0.01	0.01	0.000	O					0.00
29.000	0.01	0.01	0.000	O					0.00
29.083	0.01	0.01	0.000	O					0.00
29.167	0.01	0.01	0.000	O					0.00
29.250	0.01	0.01	0.000	O					0.00
29.333	0.01	0.01	0.000	O					0.00
29.417	0.01	0.01	0.000	O					0.00
29.500	0.01	0.01	0.000	O					0.00
29.583	0.01	0.01	0.000	O					0.00
29.667	0.01	0.01	0.000	O					0.00
29.750	0.01	0.01	0.000	O					0.00
29.833	0.01	0.01	0.000	O					0.00
29.917	0.01	0.01	0.000	O					0.00
30.000	0.01	0.01	0.000	O					0.00
30.083	0.01	0.01	0.000	O					0.00
30.167	0.01	0.01	0.000	O					0.00
30.250	0.01	0.01	0.000	O					0.00
30.333	0.01	0.01	0.000	O					0.00
30.417	0.01	0.01	0.000	O					0.00
30.500	0.01	0.01	0.000	O					0.00
30.583	0.01	0.01	0.000	O					0.00
30.667	0.01	0.01	0.000	O					0.00
30.750	0.01	0.01	0.000	O					0.00
30.833	0.01	0.01	0.000	O					0.00
30.917	0.01	0.01	0.000	O					0.00
31.000	0.01	0.01	0.000	O					0.00
31.083	0.01	0.01	0.000	O					0.00
31.167	0.01	0.01	0.000	O					0.00
31.250	0.01	0.01	0.000	O					0.00
31.333	0.00	0.01	0.000	O					0.00
31.417	0.00	0.01	0.000	O					0.00
31.500	0.00	0.00	0.000	O					0.00
31.583	0.00	0.00	0.000	O					0.00
31.667	0.00	0.00	0.000	O					0.00
31.750	0.00	0.00	0.000	O					0.00
31.833	0.00	0.00	0.000	O					0.00
31.917	0.00	0.00	0.000	O					0.00
32.000	0.00	0.00	0.000	O					0.00
32.083	0.00	0.00	0.000	O					0.00
32.167	0.00	0.00	0.000	O					0.00
32.250	0.00	0.00	0.000	O					0.00
32.333	0.00	0.00	0.000	O					0.00
32.417	0.00	0.00	0.000	O					0.00
32.500	0.00	0.00	0.000	O					0.00
32.583	0.00	0.00	0.000	O					0.00
32.667	0.00	0.00	0.000	O					0.00
32.750	0.00	0.00	0.000	O					0.00
32.833	0.00	0.00	0.000	O					0.00
32.917	0.00	0.00	0.000	O					0.00
33.000	0.00	0.00	0.000	O					0.00
33.083	0.00	0.00	0.000	O					0.00
33.167	0.00	0.00	0.000	O					0.00
33.250	0.00	0.00	0.000	O					0.00
33.333	0.00	0.00	0.000	O					0.00
33.417	0.00	0.00	0.000	O					0.00
33.500	0.00	0.00	0.000	O					0.00

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33.583    0.00    0.00      0.000  O       |       |       |       |     0.00
33.667    0.00    0.00      0.000  O       |       |       |       |     0.00
33.750    0.00    0.00      0.000  O       |       |       |       |     0.00
33.833    0.00    0.00      0.000  O       |       |       |       |     0.00
33.917    0.00    0.00      0.000  O       |       |       |       |     0.00
34.000    0.00    0.00      0.000  O       |       |       |       |     0.00
34.083    0.00    0.00      0.000  O       |       |       |       |     0.00
34.167    0.00    0.00      0.000  O       |       |       |       |     0.00

      ****************************HYDROGRAPH DATA****************************
                  Number of intervals =   410
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =      142.249 (CFS)
                  Total volume =      50.782 (Ac.Ft)
            Status of hydrographs being held in storage
                        Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      ************************************************************************

      ------------------------------------------------------------------


      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      Process from Point/Station       12.000 to Point/Station       13.000
      **** STREAM ROUTING SCS CONVEX METHOD ****
      ________________________________________________________________________
      HYDROGRAPH STREAM ROUTING DATA:
      Length of stream =   1500.00 (Ft.)
      Elevation difference =   10.95 (Ft.)
      Slope of channel =  0.007300 (Vert/Horiz)
      Channel type - Pipe


      Pipe length  =  1500.00(Ft.)   Elevation difference =  10.95(Ft.)
      Manning's N = 0.013   No. of pipes = 1
      Pipe evaluation using mean flow rate of hydrograph
      Required pipe flow  =    92.657(CFS)
      Nearest computed pipe diameter  =     45.00(In.)
      Calculated individual pipe flow  =    92.657(CFS)
      Normal flow depth in pipe =   33.28(In.)
      Flow top width inside pipe =   39.50(In.)
      Critical Depth =    2.96(Ft.)
      Pipe flow velocity =     10.58(Ft/s)
      Travel time through pipe =    2.36 min.


      Pipe length  =  1500.00(Ft.)   Elevation difference =  10.95(Ft.)
      Manning's N = 0.013   No. of pipes = 1
      Pipe evaluation using maximum flow rate of hydrograph
      Required pipe flow  =   142.249(CFS)
      Nearest computed pipe diameter  =     51.00(In.)
      Calculated individual pipe flow  =   142.249(CFS)
      Normal flow depth in pipe =   41.16(In.)
      Flow top width inside pipe =   40.26(In.)
      Critical Depth =    3.53(Ft.)
      Pipe flow velocity =     11.59(Ft/s)
      Travel time through pipe =    2.16 min.


      ********************** SCS CONVEX CHANNEL ROUTING ********************
      Convex method of stream routing  data items:
      Using equation: Outflow =
      O(t+dt) = (1-c*)O(t+dt-dt*) + Input(c*)
                where c* = 1 - (1-c)^e and dt = c(length)/velocity
                c(v/v+1.7) =   0.8721   Travel time =   2.16 (min.)
              dt*(unit time interval) =   5.00(min.),  e=   2.1057
              dt(routing time-step) =   1.88 (min.),   c* =   0.9868

      Output hydrograph delayed by 0  unit time increments
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P R I N T O F S T O R M

R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals (CFS)

Time(h+m)	Out = O(CFS)	In = I	0	35.6	71.1	106.7	142.2
0+ 5	0.3975	0.65	O	|	|	|	|
0+10	2.9985	4.47	OI	|	|	|	|
0+15	9.6675	12.94	| OI	|	|	|	|
0+20	19.1456	23.09	| OI	|	|	|	|
0+25	27.6480	30.58	| OI	|	|	|	|
0+30	31.4630	32.08	| OI|	|	|	|	|
0+35	33.2509	34.00	| O|	|	|	|	|
0+40	35.3311	36.18	| OI	|	|	|	|
0+45	37.5927	38.49	| O	|	|	|	|
0+50	39.9774	40.92	| |O	|	|	|	|
0+55	42.8134	44.01	| | O	|	|	|	|
1+ 0	45.9138	47.13	| | OI	|	|	|	|
1+ 5	48.9954	50.19	| | OI	|	|	|	|
1+10	52.3068	53.65	| | OI	|	|	|	|
1+15	56.1028	57.66	| | OI	|	|	|	|
1+20	60.3098	62.00	| | OI	|	|	|	|
1+25	64.2601	65.71	| | O |	|	|	|	|
1+30	67.8732	69.26	| | O|	|	|	|	|
1+35	71.7487	73.33	| | O	|	|	|	|
1+40	76.0477	77.78	| | |O	|	|	|	|
1+45	80.0808	81.56	| | | O	|	|	|	|
1+50	83.6538	84.99	| | | O	|	|	|	|
1+55	87.3465	88.84	| | | O	|	|	|	|
2+ 0	91.2803	92.83	| | | OI	|	|	|	|
2+ 5	94.6424	95.80	| | | O	|	|	|	|
2+10	97.5963	98.74	| | | O |	|	|	|	|
2+15	100.7714	102.06	| | | O |	|	|	|	|
2+20	104.4286	105.93	| | | O|	|	|	|	|
2+25	108.3685	109.92	| | | O	|	|	|	|
2+30	112.7294	114.52	| | | |OI	|	|	|	|
2+35	117.7329	119.78	| | | | O	|	|	|	|
2+40	123.5745	125.99	| | | | OI	|	|	|	|
2+45	129.5918	131.89	| | | | OI	|	|	|	|
2+50	134.7239	136.54	| | | | OI	|	|	|	|
2+55	138.3165	139.46	| | | | OI|	|	|	|	|
3+ 0	140.5155	141.20	| | | | O|	|	|	|	|
3+ 5	141.7520	142.11	| | | | O|	|	|	|	|
3+10	142.1919	142.25	| | | | OI	|	|	|	|
3+15	141.9209	141.72	| | | | O|	|	|	|	|
3+20	141.1252	140.75	| | | | O|	|	|	|	|
3+25	139.9926	139.51	| | | | O|	|	|	|	|
3+30	138.6409	138.09	| | | | O |	|	|	|	|
3+35	137.1351	136.53	| | | | O |	|	|	|	|
3+40	135.5145	134.87	| | | | IO |	|	|	|	|
3+45	133.7589	133.05	| | | | O |	|	|	|	|
3+50	131.8575	131.10	| | | | IO |	|	|	|	|
3+55	129.8808	129.11	| | | | O |	|	|	|	|
4+ 0	127.8759	127.09	| | | | O |	|	|	|	|
4+ 5	125.8532	125.06	| | | | O |	|	|	|	|
4+10	123.6859	122.81	| | | | O |	|	|	|	|
4+15	121.4508	120.58	| | | | IO |	|	|	|	|
4+20	119.2448	118.39	| | | | O |	|	|	|	|
4+25	117.0715	116.23	| | | | O |	|	|	|	|
4+30	114.8307	113.94	| | | | O |	|	|	|	|
4+35	112.5042	111.59	| | | | |O |	|	|	|	|
4+40	110.1848	109.29	| | | | O |	|	|	|	|
4+45	107.9131	107.04	| | | | O |	|	|	|	|
4+50	105.6821	104.82	| | | | O| |	|	|	|	|
4+55	103.2984	102.33	| | | | IO| |	|	|	|	|

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 5+ 0     100.8488     99.90  |         |         |       O |         |
 5+ 5      98.4565     97.53  |         |         |      O  |         |
 5+10      96.1215     95.22  |         |         |     IO  |         |
 5+15      93.7892     92.88  |         |         |     O   |         |
 5+20      91.0382     89.87  |         |         |    O    |         |
 5+25      88.0968     86.96  |         |         |   O     |         |
 5+30      85.2481     84.15  |         |         |  O      |         |
 5+35      82.4927     81.43  |         |         | IO      |         |
 5+40      79.5379     78.33  |         |         | O       |         |
 5+45      76.0708     74.63  |         |         IO        |         |
 5+50      72.4844     71.11  |         |        IO         |         |
 5+55      69.0662     67.76  |         |        O|         |         |
 6+ 0      65.8119     64.57  |         |       O |         |         |
 6+ 5      62.1813     60.66  |         |      O  |         |         |
 6+10      58.2199     56.66  |         |    IO   |         |         |
 6+15      54.3831     52.93  |         |   IO    |         |         |
 6+20      50.8028     49.45  |         |  IO     |         |         |
 6+25      47.4636     46.20  |         | IO      |         |         |
 6+30      44.3492     43.17  |         | O       |         |         |
 6+35      41.6810     40.73  |         |O        |         |         |
 6+40      39.5722     38.83  |         IO        |         |         |
 6+45      37.7290     37.03  |         O         |         |         |
 6+50      35.9763     35.31  |        IO         |         |         |
 6+55      34.3076     33.67  |        O|         |         |         |
 7+ 0      32.7189     32.11  |        O|         |         |         |
 7+ 5      31.2062     30.63  |       O |         |         |         |
 7+10      26.1532     23.35  |     IO  |         |         |         |
 7+15      18.9818     16.20  |   IO    |         |         |         |
 7+20      13.2532     11.36  |  O      |         |         |         |
 7+25       9.3636      8.08  | O       |         |         |         |
 7+30       6.7297      5.86  |O        |         |         |         |
 7+35       4.9458      4.36  |O        |         |         |         |
 7+40       3.7370      3.34  IO        |         |         |         |
 7+45       2.9174      2.65  O         |         |         |         |
 7+50       2.3611      2.18  O         |         |         |         |
 7+55       1.9831      1.86  O         |         |         |         |
 8+ 0       1.7256      1.64  O         |         |         |         |
 8+ 5       1.5498      1.49  O         |         |         |         |
 8+10       1.4291      1.39  O         |         |         |         |
 8+15       1.3459      1.32  O         |         |         |         |
 8+20       1.2881      1.27  O         |         |         |         |
 8+25       1.2478      1.23  O         |         |         |         |
 8+30       1.2198      1.21  O         |         |         |         |
 8+35       1.2003      1.19  O         |         |         |         |
 8+40       1.1866      1.18  O         |         |         |         |
 8+45       1.1769      1.17  O         |         |         |         |
 8+50       1.1698      1.17  O         |         |         |         |
 8+55       1.1645      1.16  O         |         |         |         |
 9+ 0       1.1604      1.16  O         |         |         |         |
 9+ 5       1.1572      1.16  O         |         |         |         |
 9+10       1.1545      1.15  O         |         |         |         |
 9+15       1.1522      1.15  O         |         |         |         |
 9+20       1.1501      1.15  O         |         |         |         |
 9+25       1.1483      1.15  O         |         |         |         |
 9+30       1.1465      1.15  O         |         |         |         |
 9+35       1.1448      1.14  O         |         |         |         |
 9+40       1.1432      1.14  O         |         |         |         |
 9+45       1.1415      1.14  O         |         |         |         |
 9+50       1.1398      1.14  O         |         |         |         |
 9+55       1.1381      1.14  O         |         |         |         |
10+ 0       1.1364      1.14  O         |         |         |         |
10+ 5       1.1347      1.13  O         |         |         |         |
10+10       1.1330      1.13  O         |         |         |         |
10+15       1.1313      1.13  O         |         |         |         |
10+20       1.1296      1.13  O         |         |         |         |
10+25       1.1279      1.13  O         |         |         |         |
10+30       1.1262      1.13  O         |         |         |         |
10+35       1.1245      1.12  O         |         |         |         |
10+40       1.1228      1.12  O         |         |         |         |
10+45       1.1211      1.12  O         |         |         |         |
```

10+50	1.1194	1.12	O				
10+55	1.1177	1.12	O				
11+ 0	1.1160	1.12	O				
11+ 5	1.1143	1.11	O				
11+10	1.1126	1.11	O				
11+15	1.1109	1.11	O				
11+20	1.1092	1.11	O				
11+25	1.1075	1.11	O				
11+30	1.1058	1.11	O				
11+35	1.1041	1.10	O				
11+40	1.1025	1.10	O				
11+45	1.1008	1.10	O				
11+50	1.0991	1.10	O				
11+55	1.0974	1.10	O				
12+ 0	1.0958	1.10	O				
12+ 5	1.0941	1.09	O				
12+10	1.0925	1.09	O				
12+15	1.0908	1.09	O				
12+20	1.0891	1.09	O				
12+25	1.0875	1.09	O				
12+30	1.0858	1.09	O				
12+35	1.0842	1.08	O				
12+40	1.0825	1.08	O				
12+45	1.0809	1.08	O				
12+50	1.0792	1.08	O				
12+55	1.0776	1.08	O				
13+ 0	1.0760	1.08	O				
13+ 5	1.0743	1.07	O				
13+10	1.0727	1.07	O				
13+15	1.0711	1.07	O				
13+20	1.0694	1.07	O				
13+25	1.0678	1.07	O				
13+30	1.0662	1.07	O				
13+35	1.0646	1.06	O				
13+40	1.0630	1.06	O				
13+45	1.0613	1.06	O				
13+50	1.0597	1.06	O				
13+55	1.0581	1.06	O				
14+ 0	1.0565	1.06	O				
14+ 5	1.0549	1.05	O				
14+10	1.0533	1.05	O				
14+15	1.0517	1.05	O				
14+20	1.0501	1.05	O				
14+25	1.0485	1.05	O				
14+30	1.0469	1.05	O				
14+35	1.0453	1.04	O				
14+40	1.0437	1.04	O				
14+45	1.0422	1.04	O				
14+50	1.0406	1.04	O				
14+55	1.0390	1.04	O				
15+ 0	1.0374	1.04	O				
15+ 5	1.0358	1.04	O				
15+10	1.0343	1.03	O				
15+15	1.0327	1.03	O				
15+20	1.0311	1.03	O				
15+25	1.0296	1.03	O				
15+30	1.0276	1.03	O				
15+35	1.0233	1.02	O				
15+40	1.0143	1.01	O				
15+45	1.0000	0.99	O				
15+50	0.9816	0.97	O				
15+55	0.9608	0.95	O				
16+ 0	0.9384	0.93	O				
16+ 5	0.9152	0.91	O				
16+10	0.8918	0.88	O				
16+15	0.8683	0.86	O				
16+20	0.8451	0.84	O				
16+25	0.8222	0.81	O				
16+30	0.7998	0.79	O				
16+35	0.7778	0.77	O				

16+40	0.7564	0.75	O				
16+45	0.7355	0.73	O				
16+50	0.7152	0.71	O				
16+55	0.6953	0.69	O				
17+ 0	0.6761	0.67	O				
17+ 5	0.6573	0.65	O				
17+10	0.6391	0.63	O				
17+15	0.6213	0.61	O				
17+20	0.6041	0.60	O				
17+25	0.5873	0.58	O				
17+30	0.5710	0.56	O				
17+35	0.5551	0.55	O				
17+40	0.5397	0.53	O				
17+45	0.5247	0.52	O				
17+50	0.5101	0.50	O				
17+55	0.4959	0.49	O				
18+ 0	0.4821	0.48	O				
18+ 5	0.4687	0.46	O				
18+10	0.4557	0.45	O				
18+15	0.4430	0.44	O				
18+20	0.4307	0.43	O				
18+25	0.4188	0.41	O				
18+30	0.4071	0.40	O				
18+35	0.3958	0.39	O				
18+40	0.3848	0.38	O				
18+45	0.3741	0.37	O				
18+50	0.3637	0.36	O				
18+55	0.3536	0.35	O				
19+ 0	0.3438	0.34	O				
19+ 5	0.3342	0.33	O				
19+10	0.3249	0.32	O				
19+15	0.3159	0.31	O				
19+20	0.3071	0.30	O				
19+25	0.2986	0.30	O				
19+30	0.2903	0.29	O				
19+35	0.2822	0.28	O				
19+40	0.2744	0.27	O				
19+45	0.2668	0.26	O				
19+50	0.2594	0.26	O				
19+55	0.2521	0.25	O				
20+ 0	0.2451	0.24	O				
20+ 5	0.2383	0.24	O				
20+10	0.2317	0.23	O				
20+15	0.2253	0.22	O				
20+20	0.2190	0.22	O				
20+25	0.2129	0.21	O				
20+30	0.2070	0.20	O				
20+35	0.2012	0.20	O				
20+40	0.1957	0.19	O				
20+45	0.1902	0.19	O				
20+50	0.1849	0.18	O				
20+55	0.1798	0.18	O				
21+ 0	0.1748	0.17	O				
21+ 5	0.1699	0.17	O				
21+10	0.1652	0.16	O				
21+15	0.1606	0.16	O				
21+20	0.1562	0.15	O				
21+25	0.1518	0.15	O				
21+30	0.1476	0.15	O				
21+35	0.1435	0.14	O				
21+40	0.1395	0.14	O				
21+45	0.1356	0.13	O				
21+50	0.1319	0.13	O				
21+55	0.1282	0.13	O				
22+ 0	0.1246	0.12	O				
22+ 5	0.1212	0.12	O				
22+10	0.1178	0.12	O				
22+15	0.1145	0.11	O				
22+20	0.1113	0.11	O				
22+25	0.1083	0.11	O				

22+30	0.1052	0.10	O				
22+35	0.1023	0.10	O				
22+40	0.0995	0.10	O				
22+45	0.0967	0.10	O				
22+50	0.0940	0.09	O				
22+55	0.0914	0.09	O				
23+ 0	0.0889	0.09	O				
23+ 5	0.0864	0.09	O				
23+10	0.0840	0.08	O				
23+15	0.0817	0.08	O				
23+20	0.0794	0.08	O				
23+25	0.0772	0.08	O				
23+30	0.0750	0.07	O				
23+35	0.0730	0.07	O				
23+40	0.0709	0.07	O				
23+45	0.0690	0.07	O				
23+50	0.0670	0.07	O				
23+55	0.0652	0.06	O				
24+ 0	0.0634	0.06	O				
24+ 5	0.0616	0.06	O				
24+10	0.0599	0.06	O				
24+15	0.0582	0.06	O				
24+20	0.0566	0.06	O				
24+25	0.0550	0.05	O				
24+30	0.0535	0.05	O				
24+35	0.0520	0.05	O				
24+40	0.0506	0.05	O				
24+45	0.0492	0.05	O				
24+50	0.0478	0.05	O				
24+55	0.0465	0.05	O				
25+ 0	0.0452	0.04	O				
25+ 5	0.0439	0.04	O				
25+10	0.0427	0.04	O				
25+15	0.0415	0.04	O				
25+20	0.0404	0.04	O				
25+25	0.0392	0.04	O				
25+30	0.0382	0.04	O				
25+35	0.0371	0.04	O				
25+40	0.0361	0.04	O				
25+45	0.0351	0.03	O				
25+50	0.0341	0.03	O				
25+55	0.0331	0.03	O				
26+ 0	0.0322	0.03	O				
26+ 5	0.0313	0.03	O				
26+10	0.0305	0.03	O				
26+15	0.0296	0.03	O				
26+20	0.0288	0.03	O				
26+25	0.0280	0.03	O				
26+30	0.0272	0.03	O				
26+35	0.0265	0.03	O				
26+40	0.0257	0.03	O				
26+45	0.0250	0.02	O				
26+50	0.0243	0.02	O				
26+55	0.0236	0.02	O				
27+ 0	0.0230	0.02	O				
27+ 5	0.0223	0.02	O				
27+10	0.0217	0.02	O				
27+15	0.0211	0.02	O				
27+20	0.0205	0.02	O				
27+25	0.0200	0.02	O				
27+30	0.0194	0.02	O				
27+35	0.0189	0.02	O				
27+40	0.0183	0.02	O				
27+45	0.0178	0.02	O				
27+50	0.0173	0.02	O				
27+55	0.0169	0.02	O				
28+ 0	0.0164	0.02	O				
28+ 5	0.0159	0.02	O				
28+10	0.0155	0.02	O				
28+15	0.0151	0.01	O				

28+20	0.0146	0.01	O				
28+25	0.0142	0.01	O				
28+30	0.0138	0.01	O				
28+35	0.0134	0.01	O				
28+40	0.0131	0.01	O				
28+45	0.0127	0.01	O				
28+50	0.0124	0.01	O				
28+55	0.0120	0.01	O				
29+ 0	0.0117	0.01	O				
29+ 5	0.0114	0.01	O				
29+10	0.0110	0.01	O				
29+15	0.0107	0.01	O				
29+20	0.0104	0.01	O				
29+25	0.0101	0.01	O				
29+30	0.0099	0.01	O				
29+35	0.0096	0.01	O				
29+40	0.0093	0.01	O				
29+45	0.0091	0.01	O				
29+50	0.0088	0.01	O				
29+55	0.0086	0.01	O				
30+ 0	0.0083	0.01	O				
30+ 5	0.0081	0.01	O				
30+10	0.0079	0.01	O				
30+15	0.0077	0.01	O				
30+20	0.0074	0.01	O				
30+25	0.0072	0.01	O				
30+30	0.0070	0.01	O				
30+35	0.0068	0.01	O				
30+40	0.0066	0.01	O				
30+45	0.0065	0.01	O				
30+50	0.0063	0.01	O				
30+55	0.0061	0.01	O				
31+ 0	0.0059	0.01	O				
31+ 5	0.0058	0.01	O				
31+10	0.0056	0.01	O				
31+15	0.0055	0.01	O				
31+20	0.0053	0.01	O				
31+25	0.0052	0.01	O				
31+30	0.0050	0.00	O				
31+35	0.0049	0.00	O				
31+40	0.0047	0.00	O				
31+45	0.0046	0.00	O				
31+50	0.0045	0.00	O				
31+55	0.0044	0.00	O				
32+ 0	0.0042	0.00	O				
32+ 5	0.0041	0.00	O				
32+10	0.0040	0.00	O				
32+15	0.0039	0.00	O				
32+20	0.0038	0.00	O				
32+25	0.0037	0.00	O				
32+30	0.0036	0.00	O				
32+35	0.0035	0.00	O				
32+40	0.0034	0.00	O				
32+45	0.0033	0.00	O				
32+50	0.0032	0.00	O				
32+55	0.0031	0.00	O				
33+ 0	0.0030	0.00	O				
33+ 5	0.0029	0.00	O				
33+10	0.0029	0.00	O				
33+15	0.0028	0.00	O				
33+20	0.0027	0.00	O				
33+25	0.0026	0.00	O				
33+30	0.0025	0.00	O				
33+35	0.0025	0.00	O				
33+40	0.0024	0.00	O				
33+45	0.0023	0.00	O				
33+50	0.0023	0.00	O				
33+55	0.0022	0.00	O				
34+ 0	0.0021	0.00	O				
34+ 5	0.0017	0.00	O				

```
   34+10       0.0013      0.00  O         |         |         |         |
   34+15       0.0000      0.00  O         |         |         |         |
--------------------------------------------------------------------------
       ****************************HYDROGRAPH DATA****************************
                     Number of intervals =   411
                     Time interval =    5.0 (Min.)
                     Maximum/Peak flow rate =      142.192 (CFS)
                     Total volume =      50.782 (Ac.Ft)
              Status of hydrographs being held in storage
                        Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
              Peak (CFS)      0.000     0.000     0.000     0.000     0.000
              Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       **************************************************************************

       --------------------------------------------------------------------------


       ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
       Process from Point/Station       13.000 to Point/Station       14.000
       **** STORE OR DELETE CURRENT HYDROGRAPH ****
       ____________________________________________________________________________
       Current stream hydrograph saved in file lgouta3100.rte
       ****************************HYDROGRAPH DATA****************************
                     Number of intervals =     0
                     Time interval =    0.0 (Min.)
                     Maximum/Peak flow rate =        0.000 (CFS)
                     Total volume =       0.000 (Ac.Ft)
              Status of hydrographs being held in storage
                        Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
              Peak (CFS)      0.000     0.000     0.000     0.000     0.000
              Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       **************************************************************************

       --------------------------------------------------------------------------
```

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                FLOOD HYDROGRAPH ROUTING PROGRAM
          Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                     Study date: 04/23/19


------------------------------------------------------------------------
Legado
Detention Basin A (Total Area = 305.5 Ac)
100-year 6-hour Inflow Hydrograph


------------------------------------------------------------------------


Program License Serial Number 4029

------------------------------------------------------------------------
******************** HYDROGRAPH INFORMATION **********************

               From study/file name: lgmdsout6100.rte
*****************************HYDROGRAPH DATA*****************************
               Number of intervals =   440
               Time interval =    5.0 (Min.)
               Maximum/Peak flow rate =       55.097 (CFS)
               Total volume =       9.019 (Ac.Ft)
       Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
*************************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       10.000 to Point/Station       11.000
**** STREAM ROUTING SCS CONVEX METHOD ****
____________________________________________________________________________
HYDROGRAPH STREAM ROUTING DATA:
Length of stream =   2580.00 (Ft.)
Elevation difference =   40.00 (Ft.)
Slope of channel =  0.015504 (Vert/Horiz)
Channel type - Pipe


Pipe length  =  2580.00(Ft.)   Elevation difference =  40.00(Ft.)
Manning's N = 0.013   No. of pipes = 1
Pipe evaluation using mean flow rate of hydrograph
Required pipe flow  =    14.681(CFS)
Nearest computed pipe diameter  =     21.00(In.)
Calculated individual pipe flow  =    14.681(CFS)
Normal flow depth in pipe =   13.50(In.)
Flow top width inside pipe =   20.12(In.)
Critical Depth =    1.42(Ft.)
Pipe flow velocity =      8.99(Ft/s)
Travel time through pipe =    4.78 min.


Pipe length  =  2580.00(Ft.)   Elevation difference =  40.00(Ft.)
Manning's N = 0.013   No. of pipes = 1
Pipe evaluation using maximum flow rate of hydrograph
Required pipe flow  =    55.097(CFS)
Nearest computed pipe diameter  =     33.00(In.)
Calculated individual pipe flow  =    55.097(CFS)
Normal flow depth in pipe =   23.09(In.)
Flow top width inside pipe =   30.26(In.)
Critical Depth =    2.42(Ft.)
Pipe flow velocity =     12.41(Ft/s)
Travel time through pipe =    3.46 min.
```

```
********************** SCS CONVEX CHANNEL ROUTING *********************
Convex method of stream routing  data items:
Using equation: Outflow =
O(t+dt) = (1-c*)O(t+dt-dt*) + Input(c*)
          where c* = 1 - (1-c)^e and dt = c(length)/velocity
          c(v/v+1.7) =   0.8795   Travel time =   3.46 (min.)
        dt*(unit time interval) =   5.00(min.),  e=   1.4274
        dt(routing time-step) =   3.05 (min.),   c* =   0.9512

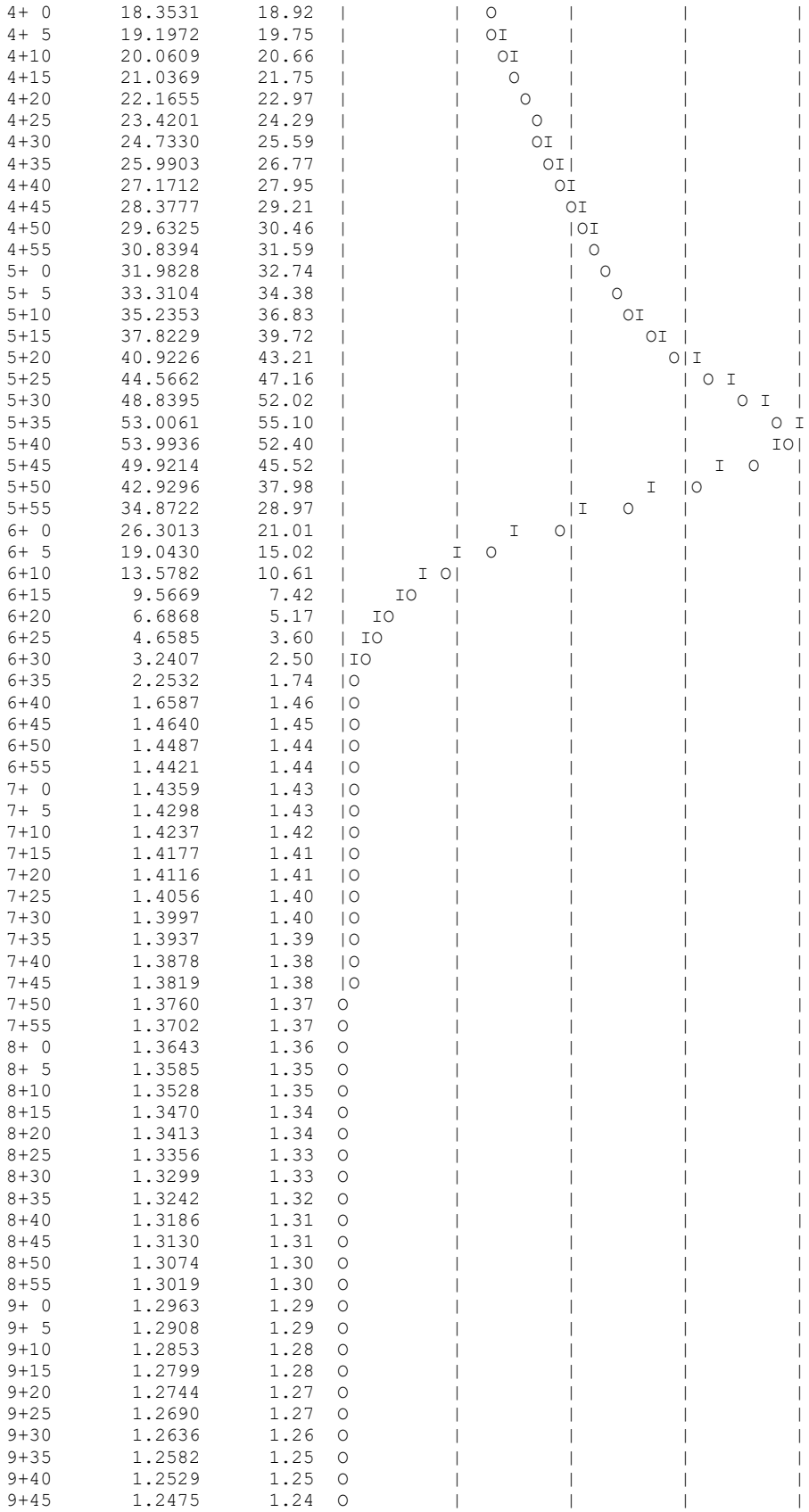
Output hydrograph delayed by 0  unit time increments


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                    P R I N T  O F  S T O R M
                  R u n o f f     H y d r o g r a p h
----------------------------------------------------------------------

             Hydrograph in   5   Minute intervals (CFS)

----------------------------------------------------------------------
```

Time(h+m)	Out = O(CFS)	In = I	0	13.8	27.5	41.3	55.1
0+ 5	0.0089	0.02	O	|	|	|	|
0+10	0.0534	0.11	O	|	|	|	|
0+15	0.1509	0.23	O	|	|	|	|
0+20	0.2841	0.38	O	|	|	|	|
0+25	0.4288	0.53	O	|	|	|	|
0+30	0.5778	0.68	O	|	|	|	|
0+35	0.7365	0.85	O	|	|	|	|
0+40	0.9069	1.02	O	|	|	|	|
0+45	1.0205	1.03	O	|	|	|	|
0+50	1.0354	1.04	O	|	|	|	|
0+55	1.0452	1.05	O	|	|	|	|
1+ 0	1.0549	1.06	O	|	|	|	|
1+ 5	1.0652	1.07	O	|	|	|	|
1+10	1.0765	1.08	O	|	|	|	|
1+15	1.0881	1.10	O	|	|	|	|
1+20	1.0999	1.11	O	|	|	|	|
1+25	1.1117	1.12	O	|	|	|	|
1+30	1.1235	1.13	O	|	|	|	|
1+35	1.1352	1.14	O	|	|	|	|
1+40	1.1461	1.15	O	|	|	|	|
1+45	1.1564	1.16	O	|	|	|	|
1+50	1.1751	1.20	O	|	|	|	|
1+55	1.2072	1.23	O	|	|	|	|
2+ 0	1.2404	1.26	O	|	|	|	|
2+ 5	1.2748	1.30	O	|	|	|	|
2+10	1.3100	1.33	O	|	|	|	|
2+15	1.3460	1.37	O	|	|	|	|
2+20	1.3832	1.41	|O	|	|	|	|
2+25	1.4214	1.45	|O	|	|	|	|
2+30	2.1156	3.25	|OI	|	|	|	|
2+35	4.0111	5.45	| OI	|	|	|	|
2+40	5.9446	6.97	| OI	|	|	|	|
2+45	7.3557	8.14	| O	|	|	|	|
2+50	8.4737	9.15	| O	|	|	|	|
2+55	9.4243	9.98	| OI	|	|	|	|
3+ 0	10.1797	10.59	| O	|	|	|	|
3+ 5	10.7322	11.03	| OI	|	|	|	|
3+10	11.1631	11.43	| O	|	|	|	|
3+15	11.6008	11.92	| O	|	|	|	|
3+20	12.0784	12.39	| O	|	|	|	|
3+25	12.5418	12.84	| O|	|	|	|	|
3+30	13.0636	13.48	| O|	|	|	|	|
3+35	13.7819	14.35	| O	|	|	|	|
3+40	14.6870	15.33	| OI	|	|	|	|
3+45	15.6484	16.28	| |O	|	|	|	|
3+50	16.5840	17.19	| | O	|	|	|	|
3+55	17.4845	18.07	| | OI	|	|	|	|



4+ 0	18.3531	18.92	O
4+ 5	19.1972	19.75	OI
4+10	20.0609	20.66	OI
4+15	21.0369	21.75	O
4+20	22.1655	22.97	O
4+25	23.4201	24.29	O
4+30	24.7330	25.59	OI
4+35	25.9903	26.77	OI
4+40	27.1712	27.95	OI
4+45	28.3777	29.21	OI
4+50	29.6325	30.46	OI
4+55	30.8394	31.59	O
5+ 0	31.9828	32.74	O
5+ 5	33.3104	34.38	O
5+10	35.2353	36.83	OI
5+15	37.8229	39.72	OI
5+20	40.9226	43.21	O I
5+25	44.5662	47.16	O I
5+30	48.8395	52.02	O I
5+35	53.0061	55.10	O I
5+40	53.9936	52.40	IO
5+45	49.9214	45.52	I O
5+50	42.9296	37.98	I O
5+55	34.8722	28.97	I O
6+ 0	26.3013	21.01	I O
6+ 5	19.0430	15.02	I O
6+10	13.5782	10.61	I O
6+15	9.5669	7.42	IO
6+20	6.6868	5.17	IO
6+25	4.6585	3.60	IO
6+30	3.2407	2.50	IO
6+35	2.2532	1.74	O
6+40	1.6587	1.46	O
6+45	1.4640	1.45	O
6+50	1.4487	1.44	O
6+55	1.4421	1.44	O
7+ 0	1.4359	1.43	O
7+ 5	1.4298	1.43	O
7+10	1.4237	1.42	O
7+15	1.4177	1.41	O
7+20	1.4116	1.41	O
7+25	1.4056	1.40	O
7+30	1.3997	1.40	O
7+35	1.3937	1.39	O
7+40	1.3878	1.38	O
7+45	1.3819	1.38	O
7+50	1.3760	1.37	O
7+55	1.3702	1.37	O
8+ 0	1.3643	1.36	O
8+ 5	1.3585	1.35	O
8+10	1.3528	1.35	O
8+15	1.3470	1.34	O
8+20	1.3413	1.34	O
8+25	1.3356	1.33	O
8+30	1.3299	1.33	O
8+35	1.3242	1.32	O
8+40	1.3186	1.31	O
8+45	1.3130	1.31	O
8+50	1.3074	1.30	O
8+55	1.3019	1.30	O
9+ 0	1.2963	1.29	O
9+ 5	1.2908	1.29	O
9+10	1.2853	1.28	O
9+15	1.2799	1.28	O
9+20	1.2744	1.27	O
9+25	1.2690	1.27	O
9+30	1.2636	1.26	O
9+35	1.2582	1.25	O
9+40	1.2529	1.25	O
9+45	1.2475	1.24	O

9+50	1.2422	1.24	O				
9+55	1.2370	1.23	O				
10+ 0	1.2317	1.23	O				
10+ 5	1.2265	1.22	O				
10+10	1.2212	1.22	O				
10+15	1.2161	1.21	O				
10+20	1.2109	1.21	O				
10+25	1.2057	1.20	O				
10+30	1.2006	1.20	O				
10+35	1.1955	1.19	O				
10+40	1.1904	1.19	O				
10+45	1.1854	1.18	O				
10+50	1.1803	1.18	O				
10+55	1.1753	1.17	O				
11+ 0	1.1703	1.17	O				
11+ 5	1.1656	1.16	O				
11+10	1.1623	1.16	O				
11+15	1.1607	1.16	O				
11+20	1.1591	1.16	O				
11+25	1.1576	1.16	O				
11+30	1.1561	1.16	O				
11+35	1.1545	1.15	O				
11+40	1.1530	1.15	O				
11+45	1.1515	1.15	O				
11+50	1.1500	1.15	O				
11+55	1.1485	1.15	O				
12+ 0	1.1469	1.15	O				
12+ 5	1.1454	1.14	O				
12+10	1.1439	1.14	O				
12+15	1.1424	1.14	O				
12+20	1.1409	1.14	O				
12+25	1.1393	1.14	O				
12+30	1.1376	1.14	O				
12+35	1.1358	1.13	O				
12+40	1.1341	1.13	O				
12+45	1.1324	1.13	O				
12+50	1.1307	1.13	O				
12+55	1.1290	1.13	O				
13+ 0	1.1272	1.13	O				
13+ 5	1.1255	1.12	O				
13+10	1.1238	1.12	O				
13+15	1.1221	1.12	O				
13+20	1.1204	1.12	O				
13+25	1.1187	1.12	O				
13+30	1.1170	1.12	O				
13+35	1.1153	1.11	O				
13+40	1.1136	1.11	O				
13+45	1.1119	1.11	O				
13+50	1.1102	1.11	O				
13+55	1.1085	1.11	O				
14+ 0	1.1069	1.11	O				
14+ 5	1.1052	1.10	O				
14+10	1.1035	1.10	O				
14+15	1.1018	1.10	O				
14+20	1.1002	1.10	O				
14+25	1.0985	1.10	O				
14+30	1.0968	1.10	O				
14+35	1.0951	1.09	O				
14+40	1.0935	1.09	O				
14+45	1.0918	1.09	O				
14+50	1.0902	1.09	O				
14+55	1.0885	1.09	O				
15+ 0	1.0869	1.09	O				
15+ 5	1.0852	1.08	O				
15+10	1.0836	1.08	O				
15+15	1.0819	1.08	O				
15+20	1.0803	1.08	O				
15+25	1.0786	1.08	O				
15+30	1.0770	1.08	O				
15+35	1.0753	1.07	O				

15+40	1.0737	1.07	O				
15+45	1.0721	1.07	O				
15+50	1.0705	1.07	O				
15+55	1.0688	1.07	O				
16+ 0	1.0672	1.07	O				
16+ 5	1.0656	1.06	O				
16+10	1.0640	1.06	O				
16+15	1.0623	1.06	O				
16+20	1.0607	1.06	O				
16+25	1.0591	1.06	O				
16+30	1.0575	1.06	O				
16+35	1.0559	1.05	O				
16+40	1.0543	1.05	O				
16+45	1.0527	1.05	O				
16+50	1.0511	1.05	O				
16+55	1.0495	1.05	O				
17+ 0	1.0479	1.05	O				
17+ 5	1.0463	1.05	O				
17+10	1.0447	1.04	O				
17+15	1.0431	1.04	O				
17+20	1.0416	1.04	O				
17+25	1.0400	1.04	O				
17+30	1.0384	1.04	O				
17+35	1.0368	1.04	O				
17+40	1.0352	1.03	O				
17+45	1.0337	1.03	O				
17+50	1.0321	1.03	O				
17+55	1.0305	1.03	O				
18+ 0	1.0290	1.03	O				
18+ 5	1.0274	1.03	O				
18+10	1.0258	1.02	O				
18+15	1.0243	1.02	O				
18+20	1.0144	1.00	O				
18+25	0.9897	0.97	O				
18+30	0.9623	0.94	O				
18+35	0.9356	0.92	O				
18+40	0.9096	0.89	O				
18+45	0.8843	0.87	O				
18+50	0.8597	0.84	O				
18+55	0.8358	0.82	O				
19+ 0	0.8126	0.80	O				
19+ 5	0.7900	0.78	O				
19+10	0.7681	0.75	O				
19+15	0.7467	0.73	O				
19+20	0.7260	0.71	O				
19+25	0.7058	0.69	O				
19+30	0.6862	0.67	O				
19+35	0.6671	0.65	O				
19+40	0.6486	0.64	O				
19+45	0.6306	0.62	O				
19+50	0.6130	0.60	O				
19+55	0.5960	0.58	O				
20+ 0	0.5794	0.57	O				
20+ 5	0.5633	0.55	O				
20+10	0.5477	0.54	O				
20+15	0.5325	0.52	O				
20+20	0.5177	0.51	O				
20+25	0.5033	0.49	O				
20+30	0.4893	0.48	O				
20+35	0.4757	0.47	O				
20+40	0.4625	0.45	O				
20+45	0.4496	0.44	O				
20+50	0.4371	0.43	O				
20+55	0.4250	0.42	O				
21+ 0	0.4132	0.41	O				
21+ 5	0.4017	0.39	O				
21+10	0.3905	0.38	O				
21+15	0.3797	0.37	O				
21+20	0.3691	0.36	O				
21+25	0.3589	0.35	O				

21+30	0.3489	0.34	O				
21+35	0.3392	0.33	O				
21+40	0.3298	0.32	O				
21+45	0.3206	0.31	O				
21+50	0.3117	0.31	O				
21+55	0.3030	0.30	O				
22+ 0	0.2946	0.29	O				
22+ 5	0.2864	0.28	O				
22+10	0.2785	0.27	O				
22+15	0.2707	0.27	O				
22+20	0.2632	0.26	O				
22+25	0.2559	0.25	O				
22+30	0.2488	0.24	O				
22+35	0.2419	0.24	O				
22+40	0.2351	0.23	O				
22+45	0.2286	0.22	O				
22+50	0.2223	0.22	O				
22+55	0.2161	0.21	O				
23+ 0	0.2101	0.21	O				
23+ 5	0.2042	0.20	O				
23+10	0.1986	0.19	O				
23+15	0.1930	0.19	O				
23+20	0.1877	0.18	O				
23+25	0.1825	0.18	O				
23+30	0.1774	0.17	O				
23+35	0.1725	0.17	O				
23+40	0.1677	0.16	O				
23+45	0.1630	0.16	O				
23+50	0.1585	0.16	O				
23+55	0.1541	0.15	O				
24+ 0	0.1498	0.15	O				
24+ 5	0.1456	0.14	O				
24+10	0.1416	0.14	O				
24+15	0.1376	0.14	O				
24+20	0.1338	0.13	O				
24+25	0.1301	0.13	O				
24+30	0.1265	0.12	O				
24+35	0.1230	0.12	O				
24+40	0.1196	0.12	O				
24+45	0.1162	0.11	O				
24+50	0.1130	0.11	O				
24+55	0.1099	0.11	O				
25+ 0	0.1068	0.10	O				
25+ 5	0.1038	0.10	O				
25+10	0.1010	0.10	O				
25+15	0.0981	0.10	O				
25+20	0.0954	0.09	O				
25+25	0.0928	0.09	O				
25+30	0.0902	0.09	O				
25+35	0.0877	0.09	O				
25+40	0.0852	0.08	O				
25+45	0.0829	0.08	O				
25+50	0.0806	0.08	O				
25+55	0.0783	0.08	O				
26+ 0	0.0762	0.07	O				
26+ 5	0.0740	0.07	O				
26+10	0.0720	0.07	O				
26+15	0.0700	0.07	O				
26+20	0.0680	0.07	O				
26+25	0.0661	0.06	O				
26+30	0.0643	0.06	O				
26+35	0.0625	0.06	O				
26+40	0.0608	0.06	O				
26+45	0.0591	0.06	O				
26+50	0.0575	0.06	O				
26+55	0.0559	0.05	O				
27+ 0	0.0543	0.05	O				
27+ 5	0.0528	0.05	O				
27+10	0.0513	0.05	O				
27+15	0.0499	0.05	O				

27+20	0.0485	0.05	O				
27+25	0.0472	0.05	O				
27+30	0.0459	0.05	O				
27+35	0.0446	0.04	O				
27+40	0.0433	0.04	O				
27+45	0.0421	0.04	O				
27+50	0.0410	0.04	O				
27+55	0.0398	0.04	O				
28+ 0	0.0387	0.04	O				
28+ 5	0.0376	0.04	O				
28+10	0.0366	0.04	O				
28+15	0.0356	0.03	O				
28+20	0.0346	0.03	O				
28+25	0.0336	0.03	O				
28+30	0.0327	0.03	O				
28+35	0.0318	0.03	O				
28+40	0.0309	0.03	O				
28+45	0.0300	0.03	O				
28+50	0.0292	0.03	O				
28+55	0.0284	0.03	O				
29+ 0	0.0276	0.03	O				
29+ 5	0.0268	0.03	O				
29+10	0.0261	0.03	O				
29+15	0.0254	0.02	O				
29+20	0.0247	0.02	O				
29+25	0.0240	0.02	O				
29+30	0.0233	0.02	O				
29+35	0.0227	0.02	O				
29+40	0.0220	0.02	O				
29+45	0.0214	0.02	O				
29+50	0.0208	0.02	O				
29+55	0.0203	0.02	O				
30+ 0	0.0197	0.02	O				
30+ 5	0.0191	0.02	O				
30+10	0.0186	0.02	O				
30+15	0.0181	0.02	O				
30+20	0.0176	0.02	O				
30+25	0.0171	0.02	O				
30+30	0.0166	0.02	O				
30+35	0.0162	0.02	O				
30+40	0.0157	0.02	O				
30+45	0.0153	0.01	O				
30+50	0.0149	0.01	O				
30+55	0.0144	0.01	O				
31+ 0	0.0140	0.01	O				
31+ 5	0.0136	0.01	O				
31+10	0.0133	0.01	O				
31+15	0.0129	0.01	O				
31+20	0.0125	0.01	O				
31+25	0.0122	0.01	O				
31+30	0.0119	0.01	O				
31+35	0.0115	0.01	O				
31+40	0.0112	0.01	O				
31+45	0.0109	0.01	O				
31+50	0.0106	0.01	O				
31+55	0.0103	0.01	O				
32+ 0	0.0100	0.01	O				
32+ 5	0.0097	0.01	O				
32+10	0.0095	0.01	O				
32+15	0.0092	0.01	O				
32+20	0.0089	0.01	O				
32+25	0.0087	0.01	O				
32+30	0.0085	0.01	O				
32+35	0.0082	0.01	O				
32+40	0.0080	0.01	O				
32+45	0.0078	0.01	O				
32+50	0.0076	0.01	O				
32+55	0.0073	0.01	O				
33+ 0	0.0071	0.01	O				
33+ 5	0.0069	0.01	O				

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   33+10       0.0067      0.01  O         |         |         |         |
   33+15       0.0066      0.01  O         |         |         |         |
   33+20       0.0064      0.01  O         |         |         |         |
   33+25       0.0062      0.01  O         |         |         |         |
   33+30       0.0060      0.01  O         |         |         |         |
   33+35       0.0059      0.01  O         |         |         |         |
   33+40       0.0057      0.01  O         |         |         |         |
   33+45       0.0055      0.01  O         |         |         |         |
   33+50       0.0054      0.01  O         |         |         |         |
   33+55       0.0052      0.01  O         |         |         |         |
   34+ 0       0.0051      0.00  O         |         |         |         |
   34+ 5       0.0049      0.00  O         |         |         |         |
   34+10       0.0048      0.00  O         |         |         |         |
   34+15       0.0047      0.00  O         |         |         |         |
   34+20       0.0045      0.00  O         |         |         |         |
   34+25       0.0044      0.00  O         |         |         |         |
   34+30       0.0043      0.00  O         |         |         |         |
   34+35       0.0042      0.00  O         |         |         |         |
   34+40       0.0041      0.00  O         |         |         |         |
   34+45       0.0039      0.00  O         |         |         |         |
   34+50       0.0038      0.00  O         |         |         |         |
   34+55       0.0037      0.00  O         |         |         |         |
   35+ 0       0.0036      0.00  O         |         |         |         |
   35+ 5       0.0035      0.00  O         |         |         |         |
   35+10       0.0034      0.00  O         |         |         |         |
   35+15       0.0033      0.00  O         |         |         |         |
   35+20       0.0032      0.00  O         |         |         |         |
   35+25       0.0032      0.00  O         |         |         |         |
   35+30       0.0031      0.00  O         |         |         |         |
   35+35       0.0030      0.00  O         |         |         |         |
   35+40       0.0029      0.00  O         |         |         |         |
   35+45       0.0028      0.00  O         |         |         |         |
   35+50       0.0027      0.00  O         |         |         |         |
   35+55       0.0027      0.00  O         |         |         |         |
   36+ 0       0.0026      0.00  O         |         |         |         |
   36+ 5       0.0025      0.00  O         |         |         |         |
   36+10       0.0024      0.00  O         |         |         |         |
   36+15       0.0024      0.00  O         |         |         |         |
   36+20       0.0023      0.00  O         |         |         |         |
   36+25       0.0022      0.00  O         |         |         |         |
   36+30       0.0022      0.00  O         |         |         |         |
   36+35       0.0021      0.00  O         |         |         |         |
   36+40       0.0021      0.00  O         |         |         |         |
   36+45       0.0013      0.00  O         |         |         |         |
   36+50       0.0000      0.00  O         |         |         |         |
-------------------------------------------------------------------------
       ****************************HYDROGRAPH DATA****************************
                   Number of intervals =   442
                   Time interval =    5.0 (Min.)
                   Maximum/Peak flow rate =       53.994 (CFS)
                   Total volume =       9.019 (Ac.Ft)
              Status of hydrographs being held in storage
                        Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
              Peak (CFS)      0.000     0.000     0.000     0.000     0.000
              Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       *************************************************************************

       ------------------------------------------------------------------


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       Process from Point/Station       10.000 to Point/Station       11.000
       **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
       _________________________________________________________________________
       ********************** HYDROGRAPH INFORMATION **********************

                   From study/file name: lgareaa6100.rte
       ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                      P R I N T  O F  S T O R M
                   R u n o f f     H y d r o g r a p h
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Hydrograph in 5 Minute intervals (CFS)

Time(h+m)	Add q(CFS)	Tot. Q	0	107.5	214.9	322.4	429.8
0+ 5	1.3285	1.34	Q				
0+10	7.4972	7.55	Q				
0+15	16.4206	16.57	Q				
0+20	22.2450	22.53	Q				
0+25	25.1231	25.55	Q				
0+30	27.4259	28.00	Q				
0+35	30.9850	31.72	Q				
0+40	34.6646	35.57	Q				
0+45	36.6772	37.70	Q				
0+50	37.8823	38.92	Q				
0+55	38.8010	39.85	Q				
1+ 0	40.0475	41.10	Q				
1+ 5	42.9034	43.97	qQ				
1+10	46.0615	47.14	Q				
1+15	47.6854	48.77	Q				
1+20	48.6353	49.74	Q				
1+25	49.3683	50.48	Q				
1+30	49.8335	50.96	Q				
1+35	50.1532	51.29	Q				
1+40	50.3921	51.54	Q				
1+45	50.5837	51.74	Q				
1+50	50.7680	51.94	Q				
1+55	50.8684	52.08	Q				
2+ 0	51.4920	52.73	Q				
2+ 5	53.3174	54.59	qQ				
2+10	54.3359	55.65	Q				
2+15	55.2507	56.60	Q				
2+20	57.4004	58.78	Q				
2+25	58.4932	59.91	Q				
2+30	59.0299	61.15	Q				
2+35	59.4108	63.42	Q				
2+40	59.6777	65.62	qQ				
2+45	60.4312	67.79	qQ				
2+50	62.9097	71.38	qQ				
2+55	65.7577	75.18	Q				
3+ 0	67.1670	77.35	qQ				
3+ 5	67.9119	78.64	qQ				
3+10	68.9766	80.14	qQ				
3+15	71.6732	83.27	qQ				
3+20	74.7172	86.80	q Q				
3+25	76.7394	89.28	qQ				
3+30	80.4472	93.51	qQ				
3+35	86.6123	100.39	qQ				
3+40	93.3776	108.06	q Q				
3+45	98.9483	114.60	qQ				
3+50	103.9232	120.51	q Q				
3+55	108.8424	126.33	qQ				
4+ 0	113.6640	132.02	q Q				
4+ 5	118.5324	137.73	qQ				
4+10	123.8071	143.87	q Q				
4+15	130.9100	151.95	q Q				
4+20	138.9235	161.09	q Q				
4+25	147.3408	170.76	q Q				
4+30	155.4943	180.23	q Q				
4+35	162.0316	188.02	q Q				
4+40	168.2856	195.46	q Q				
4+45	176.1195	204.50	q Q				
4+50	184.0976	213.73	q Q				
4+55	190.5696	221.41	q Q				
5+ 0	196.7651	228.75	q Q				
5+ 5	206.7136	240.02	q Q				
5+10	226.5846	261.82	q Q				
5+15	256.6040	294.43	q Q				
5+20	287.3396	328.26	q Q				

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 5+25     316.5036    361.07  |          |          |         q|  Q       |
 5+30     351.7604    400.60  |          |          |          | q     Q  |
 5+35     376.8175    429.82  |          |          |          |    q     Q
 5+40     324.2147    378.21  |          |          |         q|   Q      |
 5+45     218.5880    268.51  |          |          |      q   Q       |
 5+50     147.8983    190.83  |          |     q    Q       |          |
 5+55     108.3007    143.17  |          |   q  Q           |          |
 6+ 0      82.3862    108.69  |          q  Q               |          |
 6+ 5      63.1190     82.16  |        q Q  |              |          |
 6+10      47.4218     61.00  |      qQ     |              |          |
 6+15      35.5825     45.15  |    qQ       |              |          |
 6+20      27.7615     34.45  |  qQ         |              |          |
 6+25      21.5906     26.25  |  Q          |              |          |
 6+30      16.6860     19.93  |Q            |              |          |
 6+35      12.6137     14.87  |Q            |              |          |
 6+40       9.3366     11.00  qQ            |              |          |
 6+45       6.8653      8.33  Q             |              |          |
 6+50       4.6166      6.07  Q             |              |          |
 6+55       1.7122      3.15  Q             |              |          |
 7+ 0        0.7914      2.23  Q             |              |          |
 7+ 5        0.4280      1.86  Q             |              |          |
 7+10        0.2453      1.67  Q             |              |          |
 7+15        0.1234      1.54  Q             |              |          |
 7+20        0.0527      1.46  Q             |              |          |
 7+25        0.0000      1.41  Q             |              |          |
 7+30        0.0000      1.40  Q             |              |          |
 7+35        0.0000      1.39  Q             |              |          |
 7+40        0.0000      1.39  Q             |              |          |
 7+45        0.0000      1.38  Q             |              |          |
 7+50        0.0000      1.38  Q             |              |          |
 7+55        0.0000      1.37  Q             |              |          |
 8+ 0        0.0000      1.36  Q             |              |          |
 8+ 5        0.0000      1.36  Q             |              |          |
 8+10        0.0000      1.35  Q             |              |          |
 8+15        0.0000      1.35  Q             |              |          |
 8+20        0.0000      1.34  Q             |              |          |
 8+25        0.0000      1.34  Q             |              |          |
 8+30        0.0000      1.33  Q             |              |          |
 8+35        0.0000      1.32  Q             |              |          |
 8+40        0.0000      1.32  Q             |              |          |
 8+45        0.0000      1.31  Q             |              |          |
 8+50        0.0000      1.31  Q             |              |          |
 8+55        0.0000      1.30  Q             |              |          |
 9+ 0        0.0000      1.30  Q             |              |          |
 9+ 5        0.0000      1.29  Q             |              |          |
 9+10        0.0000      1.29  Q             |              |          |
 9+15        0.0000      1.28  Q             |              |          |
 9+20        0.0000      1.27  Q             |              |          |
 9+25        0.0000      1.27  Q             |              |          |
 9+30        0.0000      1.26  Q             |              |          |
 9+35        0.0000      1.26  Q             |              |          |
 9+40        0.0000      1.25  Q             |              |          |
 9+45        0.0000      1.25  Q             |              |          |
 9+50        0.0000      1.24  Q             |              |          |
 9+55        0.0000      1.24  Q             |              |          |
10+ 0        0.0000      1.23  Q             |              |          |
10+ 5        0.0000      1.23  Q             |              |          |
10+10        0.0000      1.22  Q             |              |          |
10+15        0.0000      1.22  Q             |              |          |
10+20        0.0000      1.21  Q             |              |          |
10+25        0.0000      1.21  Q             |              |          |
10+30        0.0000      1.20  Q             |              |          |
10+35        0.0000      1.20  Q             |              |          |
10+40        0.0000      1.19  Q             |              |          |
10+45        0.0000      1.19  Q             |              |          |
10+50        0.0000      1.18  Q             |              |          |
10+55        0.0000      1.18  Q             |              |          |
11+ 0        0.0000      1.17  Q             |              |          |
11+ 5        0.0000      1.17  Q             |              |          |
11+10        0.0000      1.16  Q             |              |          |
```

11+15	0.0000	1.16	Q				
11+20	0.0000	1.16	Q				
11+25	0.0000	1.16	Q				
11+30	0.0000	1.16	Q				
11+35	0.0000	1.15	Q				
11+40	0.0000	1.15	Q				
11+45	0.0000	1.15	Q				
11+50	0.0000	1.15	Q				
11+55	0.0000	1.15	Q				
12+ 0	0.0000	1.15	Q				
12+ 5	0.0000	1.15	Q				
12+10	0.0000	1.14	Q				
12+15	0.0000	1.14	Q				
12+20	0.0000	1.14	Q				
12+25	0.0000	1.14	Q				
12+30	0.0000	1.14	Q				
12+35	0.0000	1.14	Q				
12+40	0.0000	1.13	Q				
12+45	0.0000	1.13	Q				
12+50	0.0000	1.13	Q				
12+55	0.0000	1.13	Q				
13+ 0	0.0000	1.13	Q				
13+ 5	0.0000	1.13	Q				
13+10	0.0000	1.12	Q				
13+15	0.0000	1.12	Q				
13+20	0.0000	1.12	Q				
13+25	0.0000	1.12	Q				
13+30	0.0000	1.12	Q				
13+35	0.0000	1.12	Q				
13+40	0.0000	1.11	Q				
13+45	0.0000	1.11	Q				
13+50	0.0000	1.11	Q				
13+55	0.0000	1.11	Q				
14+ 0	0.0000	1.11	Q				
14+ 5	0.0000	1.11	Q				
14+10	0.0000	1.10	Q				
14+15	0.0000	1.10	Q				
14+20	0.0000	1.10	Q				
14+25	0.0000	1.10	Q				
14+30	0.0000	1.10	Q				
14+35	0.0000	1.10	Q				
14+40	0.0000	1.09	Q				
14+45	0.0000	1.09	Q				
14+50	0.0000	1.09	Q				
14+55	0.0000	1.09	Q				
15+ 0	0.0000	1.09	Q				
15+ 5	0.0000	1.09	Q				
15+10	0.0000	1.08	Q				
15+15	0.0000	1.08	Q				
15+20	0.0000	1.08	Q				
15+25	0.0000	1.08	Q				
15+30	0.0000	1.08	Q				
15+35	0.0000	1.08	Q				
15+40	0.0000	1.07	Q				
15+45	0.0000	1.07	Q				
15+50	0.0000	1.07	Q				
15+55	0.0000	1.07	Q				
16+ 0	0.0000	1.07	Q				
16+ 5	0.0000	1.07	Q				
16+10	0.0000	1.06	Q				
16+15	0.0000	1.06	Q				
16+20	0.0000	1.06	Q				
16+25	0.0000	1.06	Q				
16+30	0.0000	1.06	Q				
16+35	0.0000	1.06	Q				
16+40	0.0000	1.05	Q				
16+45	0.0000	1.05	Q				
16+50	0.0000	1.05	Q				
16+55	0.0000	1.05	Q				
17+ 0	0.0000	1.05	Q				

17+ 5	0.0000	1.05	Q				
17+10	0.0000	1.04	Q				
17+15	0.0000	1.04	Q				
17+20	0.0000	1.04	Q				
17+25	0.0000	1.04	Q				
17+30	0.0000	1.04	Q				
17+35	0.0000	1.04	Q				
17+40	0.0000	1.04	Q				
17+45	0.0000	1.03	Q				
17+50	0.0000	1.03	Q				
17+55	0.0000	1.03	Q				
18+ 0	0.0000	1.03	Q				
18+ 5	0.0000	1.03	Q				
18+10	0.0000	1.03	Q				
18+15	0.0000	1.02	Q				
18+20	0.0000	1.01	Q				
18+25	0.0000	0.99	Q				
18+30	0.0000	0.96	Q				
18+35	0.0000	0.94	Q				
18+40	0.0000	0.91	Q				
18+45	0.0000	0.88	Q				
18+50	0.0000	0.86	Q				
18+55	0.0000	0.84	Q				
19+ 0	0.0000	0.81	Q				
19+ 5	0.0000	0.79	Q				
19+10	0.0000	0.77	Q				
19+15	0.0000	0.75	Q				
19+20	0.0000	0.73	Q				
19+25	0.0000	0.71	Q				
19+30	0.0000	0.69	Q				
19+35	0.0000	0.67	Q				
19+40	0.0000	0.65	Q				
19+45	0.0000	0.63	Q				
19+50	0.0000	0.61	Q				
19+55	0.0000	0.60	Q				
20+ 0	0.0000	0.58	Q				
20+ 5	0.0000	0.56	Q				
20+10	0.0000	0.55	Q				
20+15	0.0000	0.53	Q				
20+20	0.0000	0.52	Q				
20+25	0.0000	0.50	Q				
20+30	0.0000	0.49	Q				
20+35	0.0000	0.48	Q				
20+40	0.0000	0.46	Q				
20+45	0.0000	0.45	Q				
20+50	0.0000	0.44	Q				
20+55	0.0000	0.42	Q				
21+ 0	0.0000	0.41	Q				
21+ 5	0.0000	0.40	Q				
21+10	0.0000	0.39	Q				
21+15	0.0000	0.38	Q				
21+20	0.0000	0.37	Q				
21+25	0.0000	0.36	Q				
21+30	0.0000	0.35	Q				
21+35	0.0000	0.34	Q				
21+40	0.0000	0.33	Q				
21+45	0.0000	0.32	Q				
21+50	0.0000	0.31	Q				
21+55	0.0000	0.30	Q				
22+ 0	0.0000	0.29	Q				
22+ 5	0.0000	0.29	Q				
22+10	0.0000	0.28	Q				
22+15	0.0000	0.27	Q				
22+20	0.0000	0.26	Q				
22+25	0.0000	0.26	Q				
22+30	0.0000	0.25	Q				
22+35	0.0000	0.24	Q				
22+40	0.0000	0.24	Q				
22+45	0.0000	0.23	Q				
22+50	0.0000	0.22	Q				

22+55	0.0000	0.22	Q				
23+ 0	0.0000	0.21	Q				
23+ 5	0.0000	0.20	Q				
23+10	0.0000	0.20	Q				
23+15	0.0000	0.19	Q				
23+20	0.0000	0.19	Q				
23+25	0.0000	0.18	Q				
23+30	0.0000	0.18	Q				
23+35	0.0000	0.17	Q				
23+40	0.0000	0.17	Q				
23+45	0.0000	0.16	Q				
23+50	0.0000	0.16	Q				
23+55	0.0000	0.15	Q				
24+ 0	0.0000	0.15	Q				
24+ 5	0.0000	0.15	Q				
24+10	0.0000	0.14	Q				
24+15	0.0000	0.14	Q				
24+20	0.0000	0.13	Q				
24+25	0.0000	0.13	Q				
24+30	0.0000	0.13	Q				
24+35	0.0000	0.12	Q				
24+40	0.0000	0.12	Q				
24+45	0.0000	0.12	Q				
24+50	0.0000	0.11	Q				
24+55	0.0000	0.11	Q				
25+ 0	0.0000	0.11	Q				
25+ 5	0.0000	0.10	Q				
25+10	0.0000	0.10	Q				
25+15	0.0000	0.10	Q				
25+20	0.0000	0.10	Q				
25+25	0.0000	0.09	Q				
25+30	0.0000	0.09	Q				
25+35	0.0000	0.09	Q				
25+40	0.0000	0.09	Q				
25+45	0.0000	0.08	Q				
25+50	0.0000	0.08	Q				
25+55	0.0000	0.08	Q				
26+ 0	0.0000	0.08	Q				
26+ 5	0.0000	0.07	Q				
26+10	0.0000	0.07	Q				
26+15	0.0000	0.07	Q				
26+20	0.0000	0.07	Q				
26+25	0.0000	0.07	Q				
26+30	0.0000	0.06	Q				
26+35	0.0000	0.06	Q				
26+40	0.0000	0.06	Q				
26+45	0.0000	0.06	Q				
26+50	0.0000	0.06	Q				
26+55	0.0000	0.06	Q				
27+ 0	0.0000	0.05	Q				
27+ 5	0.0000	0.05	Q				
27+10	0.0000	0.05	Q				
27+15	0.0000	0.05	Q				
27+20	0.0000	0.05	Q				
27+25	0.0000	0.05	Q				
27+30	0.0000	0.05	Q				
27+35	0.0000	0.04	Q				
27+40	0.0000	0.04	Q				
27+45	0.0000	0.04	Q				
27+50	0.0000	0.04	Q				
27+55	0.0000	0.04	Q				
28+ 0	0.0000	0.04	Q				
28+ 5	0.0000	0.04	Q				
28+10	0.0000	0.04	Q				
28+15	0.0000	0.04	Q				
28+20	0.0000	0.03	Q				
28+25	0.0000	0.03	Q				
28+30	0.0000	0.03	Q				
28+35	0.0000	0.03	Q				
28+40	0.0000	0.03	Q				

28+45	0.0000	0.03	Q				
28+50	0.0000	0.03	Q				
28+55	0.0000	0.03	Q				
29+ 0	0.0000	0.03	Q				
29+ 5	0.0000	0.03	Q				
29+10	0.0000	0.03	Q				
29+15	0.0000	0.03	Q				
29+20	0.0000	0.02	Q				
29+25	0.0000	0.02	Q				
29+30	0.0000	0.02	Q				
29+35	0.0000	0.02	Q				
29+40	0.0000	0.02	Q				
29+45	0.0000	0.02	Q				
29+50	0.0000	0.02	Q				
29+55	0.0000	0.02	Q				
30+ 0	0.0000	0.02	Q				
30+ 5	0.0000	0.02	Q				
30+10	0.0000	0.02	Q				
30+15	0.0000	0.02	Q				
30+20	0.0000	0.02	Q				
30+25	0.0000	0.02	Q				
30+30	0.0000	0.02	Q				
30+35	0.0000	0.02	Q				
30+40	0.0000	0.02	Q				
30+45	0.0000	0.02	Q				
30+50	0.0000	0.01	Q				
30+55	0.0000	0.01	Q				
31+ 0	0.0000	0.01	Q				
31+ 5	0.0000	0.01	Q				
31+10	0.0000	0.01	Q				
31+15	0.0000	0.01	Q				
31+20	0.0000	0.01	Q				
31+25	0.0000	0.01	Q				
31+30	0.0000	0.01	Q				
31+35	0.0000	0.01	Q				
31+40	0.0000	0.01	Q				
31+45	0.0000	0.01	Q				
31+50	0.0000	0.01	Q				
31+55	0.0000	0.01	Q				
32+ 0	0.0000	0.01	Q				
32+ 5	0.0000	0.01	Q				
32+10	0.0000	0.01	Q				
32+15	0.0000	0.01	Q				
32+20	0.0000	0.01	Q				
32+25	0.0000	0.01	Q				
32+30	0.0000	0.01	Q				
32+35	0.0000	0.01	Q				
32+40	0.0000	0.01	Q				
32+45	0.0000	0.01	Q				
32+50	0.0000	0.01	Q				
32+55	0.0000	0.01	Q				
33+ 0	0.0000	0.01	Q				
33+ 5	0.0000	0.01	Q				
33+10	0.0000	0.01	Q				
33+15	0.0000	0.01	Q				
33+20	0.0000	0.01	Q				
33+25	0.0000	0.01	Q				
33+30	0.0000	0.01	Q				
33+35	0.0000	0.01	Q				
33+40	0.0000	0.01	Q				
33+45	0.0000	0.01	Q				
33+50	0.0000	0.01	Q				
33+55	0.0000	0.01	Q				
34+ 0	0.0000	0.01	Q				
34+ 5	0.0000	0.00	Q				
34+10	0.0000	0.00	Q				
34+15	0.0000	0.00	Q				
34+20	0.0000	0.00	Q				
34+25	0.0000	0.00	Q				
34+30	0.0000	0.00	Q				

```
   34+35       0.0000      0.00  Q         |         |         |         |
   34+40       0.0000      0.00  Q         |         |         |         |
   34+45       0.0000      0.00  Q         |         |         |         |
   34+50       0.0000      0.00  Q         |         |         |         |
   34+55       0.0000      0.00  Q         |         |         |         |
   35+ 0       0.0000      0.00  Q         |         |         |         |
   35+ 5       0.0000      0.00  Q         |         |         |         |
   35+10       0.0000      0.00  Q         |         |         |         |
   35+15       0.0000      0.00  Q         |         |         |         |
   35+20       0.0000      0.00  Q         |         |         |         |
   35+25       0.0000      0.00  Q         |         |         |         |
   35+30       0.0000      0.00  Q         |         |         |         |
   35+35       0.0000      0.00  Q         |         |         |         |
   35+40       0.0000      0.00  Q         |         |         |         |
   35+45       0.0000      0.00  Q         |         |         |         |
   35+50       0.0000      0.00  Q         |         |         |         |
   35+55       0.0000      0.00  Q         |         |         |         |
   36+ 0       0.0000      0.00  Q         |         |         |         |
   36+ 5       0.0000      0.00  Q         |         |         |         |
   36+10       0.0000      0.00  Q         |         |         |         |
   36+15       0.0000      0.00  Q         |         |         |         |
   36+20       0.0000      0.00  Q         |         |         |         |
   36+25       0.0000      0.00  Q         |         |         |         |
   36+30       0.0000      0.00  Q         |         |         |         |
   36+35       0.0000      0.00  Q         |         |         |         |
   36+40       0.0000      0.00  Q         |         |         |         |
   36+45       0.0000      0.00  Q         |         |         |         |
   36+50       0.0000      0.00  Q         |         |         |         |
-------------------------------------------------------------------------
       ****************************HYDROGRAPH DATA****************************
                    Number of intervals =   442
                    Time interval =    5.0 (Min.)
                    Maximum/Peak flow rate =      429.824 (CFS)
                    Total volume =      62.135 (Ac.Ft)
             Status of hydrographs being held in storage
                       Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
             Peak (CFS)      0.000     0.000     0.000     0.000     0.000
             Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       ************************************************************************

       ------------------------------------------------------------------------


       ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
       Process from Point/Station       11.000 to Point/Station       12.000
       **** RETARDING BASIN ROUTING ****
       ________________________________________________________________________

       User entry of depth-outflow-storage data
       ---------------------------------------------------------------------
       Total number of inflow hydrograph intervals = 442
       Hydrograph time unit =  5.000 (Min.)
       Initial depth in storage basin =   0.00(Ft.)
       ---------------------------------------------------------------------
       ---------------------------------------------------------------------
       Initial basin depth =   0.00 (Ft.)
       Initial basin storage =      0.00 (Ac.Ft)
       Initial basin outflow =   0.00 (CFS)
       ---------------------------------------------------------------------
       ---------------------------------------------------------------------
       Depth vs. Storage and Depth vs. Discharge data:
        Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
            (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
       ---------------------------------------------------------------------
          0.000      0.000      0.000      0.000        0.000
          1.000      0.540     30.240      0.436        0.644
          2.000      2.140     41.680      1.996        2.284
          3.000      4.310     63.670      4.091        4.529
          4.000      6.570     79.820      6.295        6.845
          5.000      9.330     93.200      9.009        9.651
```

6.000	12.640	104.900	12.279	13.001
7.000	16.070	115.410	15.673	16.467
8.000	19.630	125.050	19.199	20.061
9.000	23.320	133.990	22.859	23.781
10.000	27.150	142.370	26.660	27.640
11.000	31.110	180.290	30.489	31.731
12.000	33.380	242.660	32.544	34.216

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	107.5	214.91	322.37	429.82	Depth (Ft.)
0.083	1.34	0.22	0.004	O	|	|	|	|	0.01
0.167	7.55	1.58	0.028	O	|	|	|	|	0.05
0.250	16.57	4.97	0.089	OI	|	|	|	|	0.16
0.333	22.53	9.68	0.173	OI	|	|	|	|	0.32
0.417	25.55	14.33	0.256	|O	|	|	|	|	0.47
0.500	28.00	18.35	0.328	|OI	|	|	|	|	0.61
0.583	31.72	22.07	0.394	|OI	|	|	|	|	0.73
0.667	35.57	25.82	0.461	|OI	|	|	|	|	0.85
0.750	37.70	29.31	0.523	| O	|	|	|	|	0.97
0.833	38.92	30.53	0.581	| O	|	|	|	|	1.03
0.917	39.85	30.96	0.641	| O	|	|	|	|	1.06
1.000	41.10	31.42	0.705	| OI	|	|	|	|	1.10
1.083	43.97	31.95	0.779	| OI	|	|	|	|	1.15
1.167	47.14	32.61	0.871	| OI	|	|	|	|	1.21
1.250	48.77	33.34	0.974	| OI	|	|	|	|	1.27
1.333	49.74	34.11	1.081	| OI	|	|	|	|	1.34
1.417	50.48	34.88	1.188	| OI	|	|	|	|	1.41
1.500	50.96	35.64	1.295	| OI	|	|	|	|	1.47
1.583	51.29	36.38	1.399	| OI	|	|	|	|	1.54
1.667	51.54	37.10	1.500	| OI	|	|	|	|	1.60
1.750	51.74	37.80	1.598	| OI	|	|	|	|	1.66
1.833	51.94	38.48	1.692	| OI	|	|	|	|	1.72
1.917	52.08	39.13	1.783	| OI	|	|	|	|	1.78
2.000	52.73	39.77	1.872	| OI	|	|	|	|	1.83
2.083	54.59	40.43	1.966	| OI	|	|	|	|	1.89
2.167	55.65	41.14	2.064	| OI	|	|	|	|	1.95
2.250	56.60	41.93	2.165	| OI	|	|	|	|	2.01
2.333	58.78	42.99	2.270	| OI	|	|	|	|	2.06
2.417	59.91	44.10	2.379	| OI	|	|	|	|	2.11
2.500	61.15	45.21	2.488	| OI	|	|	|	|	2.16
2.583	63.42	46.36	2.602	| OI	|	|	|	|	2.21
2.667	65.62	47.58	2.722	| OI	|	|	|	|	2.27
2.750	67.79	48.87	2.850	| O I	|	|	|	|	2.33
2.833	71.38	50.27	2.988	| O I	|	|	|	|	2.39
2.917	75.18	51.82	3.141	| O I	|	|	|	|	2.46
3.000	77.35	53.47	3.303	| O I	|	|	|	|	2.54
3.083	78.64	55.12	3.467	| OI	|	|	|	|	2.61
3.167	80.14	56.76	3.628	| OI	|	|	|	|	2.69
3.250	83.27	58.44	3.794	| O I	|	|	|	|	2.76
3.333	86.80	60.24	3.971	| O I	|	|	|	|	2.84
3.417	89.28	62.11	4.156	| O I	|	|	|	|	2.93
3.500	93.51	63.97	4.351	| O I	|	|	|	|	3.02
3.583	100.39	65.55	4.573	| O I|	|	|	|	|	3.12
3.667	108.06	67.41	4.833	| O I	|	|	|	|	3.23
3.750	114.60	69.52	5.128	| O I	|	|	|	|	3.36
3.833	120.51	71.83	5.451	| O I	|	|	|	|	3.50
3.917	126.33	74.30	5.798	| O |I	|	|	|	|	3.66
4.000	132.02	76.94	6.167	| O |I	|	|	|	|	3.82
4.083	137.73	79.72	6.556	| O | I	|	|	|	|	3.99
4.167	143.87	81.76	6.970	| O | I	|	|	|	|	4.14
4.250	151.95	83.93	7.418	| O | I	|	|	|	|	4.31
4.333	161.09	86.31	7.910	| O | I	|	|	|	|	4.49
4.417	170.76	88.93	8.449	| O | I	|	|	|	|	4.68
4.500	180.23	91.77	9.035	| O | I	|	|	|	|	4.89
4.583	188.02	94.37	9.662	| O| I	|	|	|	|	5.10

4.667	195.46	96.72	10.325	| O| I |	|	|	5.30
4.750	204.50	99.20	11.027	| O| I|	|	|	5.51
4.833	213.73	101.84	11.775	| O| I|	|	|	5.74
4.917	221.41	104.63	12.563	| O| I	|	|	5.98
5.000	228.75	107.18	13.384	| O| |I	|	|	6.22
5.083	240.02	109.83	14.251	| O |I	|	|	6.47
5.167	261.82	112.78	15.212	| O | I	|	|	6.75
5.250	294.43	116.14	16.339	| O | I	|	|	7.08
5.333	328.26	119.75	17.671	| O | I	|	|	7.45
5.417	361.07	123.90	19.206	| |O |	| I	|	7.88
5.500	400.60	128.27	20.960	| |O |	| I	|	8.36
5.583	429.82	133.02	22.920	| |O |	| I	|	8.89
5.667	378.21	137.17	24.772	| | O |	| I	|	9.38
5.750	268.51	139.95	26.045	| | O |	| I	|	9.71
5.833	190.83	141.29	26.658	| | O | I	|	|	9.87
5.917	143.17	141.68	26.834	| | O |	|	|	9.92
6.000	108.69	141.44	26.726	| | I O |	|	|	9.89
6.083	82.16	140.75	26.412	| I | O |	|	|	9.81
6.167	61.00	139.72	25.939	| I | O |	|	|	9.68
6.250	45.15	138.42	25.347	| I | O |	|	|	9.53
6.333	34.45	136.95	24.672	| I | O |	|	|	9.35
6.417	26.25	135.35	23.944	|I | O |	|	|	9.16
6.500	19.93	133.64	23.176	|I |O |	|	|	8.96
6.583	14.87	131.72	22.383	|I |O |	|	|	8.75
6.667	11.00	129.75	21.571	I |O |	|	|	8.53
6.750	8.33	127.77	20.751	I |O |	|	|	8.30
6.833	6.07	125.77	19.927	I |O |	|	|	8.08
6.917	3.15	123.62	19.100	I |O |	|	|	7.85
7.000	2.23	121.38	18.275	I |O |	|	|	7.62
7.083	1.86	119.18	17.461	I O |	|	|	7.39
7.167	1.67	117.01	16.660	I O |	|	|	7.17
7.250	1.54	114.81	15.873	I O |	|	|	6.94
7.333	1.46	112.44	15.100	I O |	|	|	6.72
7.417	1.41	110.12	14.344	I O |	|	|	6.50
7.500	1.40	107.85	13.603	I O |	|	|	6.28
7.583	1.39	105.63	12.878	I |O |	|	|	6.07
7.667	1.39	103.23	12.168	I |O |	|	|	5.86
7.750	1.38	100.78	11.475	I |O |	|	|	5.65
7.833	1.38	98.39	10.799	I |O |	|	|	5.44
7.917	1.37	96.06	10.138	I |O |	|	|	5.24
8.000	1.36	93.78	9.494	I O |	|	|	5.05
8.083	1.36	90.96	8.867	I O |	|	|	4.83
8.167	1.35	88.01	8.260	I O |	|	|	4.61
8.250	1.35	85.17	7.673	I O |	|	|	4.40
8.333	1.34	82.42	7.106	I O |	|	|	4.19
8.417	1.34	79.72	6.556	I O |	|	|	3.99
8.500	1.33	75.96	6.029	I O |	|	|	3.76
8.583	1.32	72.37	5.528	I O |	|	|	3.54
8.667	1.32	68.96	5.050	I O |	|	|	3.33
8.750	1.31	65.71	4.596	I O |	|	|	3.13
8.833	1.31	62.19	4.164	I O |	|	|	2.93
8.917	1.30	58.09	3.759	I O |	|	|	2.75
9.000	1.30	54.26	3.381	I O |	|	|	2.57
9.083	1.29	50.68	3.029	I O |	|	|	2.41
9.167	1.29	47.35	2.700	I O |	|	|	2.26
9.250	1.28	44.25	2.393	I O |	|	|	2.12
9.333	1.27	41.44	2.107	I O |	|	|	1.98
9.417	1.27	39.51	1.837	I O |	|	|	1.81
9.500	1.26	37.68	1.580	I O |	|	|	1.65
9.583	1.26	35.93	1.335	I O |	|	|	1.50
9.667	1.25	34.26	1.102	I O |	|	|	1.35
9.750	1.25	32.67	0.880	I O |	|	|	1.21
9.833	1.24	31.16	0.669	I O |	|	|	1.08
9.917	1.24	26.77	0.478	IO |	|	|	0.89
10.000	1.23	18.51	0.331	IO |	|	|	0.61
10.083	1.23	12.93	0.231	O |	|	|	0.43
10.167	1.22	9.14	0.163	O |	|	|	0.30
10.250	1.22	6.58	0.118	O |	|	|	0.22
10.333	1.21	4.84	0.087	O |	|	|	0.16
10.417	1.21	3.67	0.066	O |	|	|	0.12

10.500	1.20	2.87	0.051	O	|	|	|	|	0.09
10.583	1.20	2.33	0.042	O	|	|	|	|	0.08
10.667	1.19	1.96	0.035	O	|	|	|	|	0.06
10.750	1.19	1.71	0.031	O	|	|	|	|	0.06
10.833	1.18	1.54	0.028	O	|	|	|	|	0.05
10.917	1.18	1.42	0.025	O	|	|	|	|	0.05
11.000	1.17	1.34	0.024	O	|	|	|	|	0.04
11.083	1.17	1.29	0.023	O	|	|	|	|	0.04
11.167	1.16	1.25	0.022	O	|	|	|	|	0.04
11.250	1.16	1.22	0.022	O	|	|	|	|	0.04
11.333	1.16	1.20	0.021	O	|	|	|	|	0.04
11.417	1.16	1.19	0.021	O	|	|	|	|	0.04
11.500	1.16	1.18	0.021	O	|	|	|	|	0.04
11.583	1.15	1.17	0.021	O	|	|	|	|	0.04
11.667	1.15	1.16	0.021	O	|	|	|	|	0.04
11.750	1.15	1.16	0.021	O	|	|	|	|	0.04
11.833	1.15	1.16	0.021	O	|	|	|	|	0.04
11.917	1.15	1.15	0.021	O	|	|	|	|	0.04
12.000	1.15	1.15	0.021	O	|	|	|	|	0.04
12.083	1.15	1.15	0.021	O	|	|	|	|	0.04
12.167	1.14	1.15	0.021	O	|	|	|	|	0.04
12.250	1.14	1.15	0.020	O	|	|	|	|	0.04
12.333	1.14	1.15	0.020	O	|	|	|	|	0.04
12.417	1.14	1.14	0.020	O	|	|	|	|	0.04
12.500	1.14	1.14	0.020	O	|	|	|	|	0.04
12.583	1.14	1.14	0.020	O	|	|	|	|	0.04
12.667	1.13	1.14	0.020	O	|	|	|	|	0.04
12.750	1.13	1.14	0.020	O	|	|	|	|	0.04
12.833	1.13	1.14	0.020	O	|	|	|	|	0.04
12.917	1.13	1.13	0.020	O	|	|	|	|	0.04
13.000	1.13	1.13	0.020	O	|	|	|	|	0.04
13.083	1.13	1.13	0.020	O	|	|	|	|	0.04
13.167	1.12	1.13	0.020	O	|	|	|	|	0.04
13.250	1.12	1.13	0.020	O	|	|	|	|	0.04
13.333	1.12	1.12	0.020	O	|	|	|	|	0.04
13.417	1.12	1.12	0.020	O	|	|	|	|	0.04
13.500	1.12	1.12	0.020	O	|	|	|	|	0.04
13.583	1.12	1.12	0.020	O	|	|	|	|	0.04
13.667	1.11	1.12	0.020	O	|	|	|	|	0.04
13.750	1.11	1.12	0.020	O	|	|	|	|	0.04
13.833	1.11	1.11	0.020	O	|	|	|	|	0.04
13.917	1.11	1.11	0.020	O	|	|	|	|	0.04
14.000	1.11	1.11	0.020	O	|	|	|	|	0.04
14.083	1.11	1.11	0.020	O	|	|	|	|	0.04
14.167	1.10	1.11	0.020	O	|	|	|	|	0.04
14.250	1.10	1.11	0.020	O	|	|	|	|	0.04
14.333	1.10	1.10	0.020	O	|	|	|	|	0.04
14.417	1.10	1.10	0.020	O	|	|	|	|	0.04
14.500	1.10	1.10	0.020	O	|	|	|	|	0.04
14.583	1.10	1.10	0.020	O	|	|	|	|	0.04
14.667	1.09	1.10	0.020	O	|	|	|	|	0.04
14.750	1.09	1.10	0.020	O	|	|	|	|	0.04
14.833	1.09	1.09	0.020	O	|	|	|	|	0.04
14.917	1.09	1.09	0.020	O	|	|	|	|	0.04
15.000	1.09	1.09	0.019	O	|	|	|	|	0.04
15.083	1.09	1.09	0.019	O	|	|	|	|	0.04
15.167	1.08	1.09	0.019	O	|	|	|	|	0.04
15.250	1.08	1.09	0.019	O	|	|	|	|	0.04
15.333	1.08	1.08	0.019	O	|	|	|	|	0.04
15.417	1.08	1.08	0.019	O	|	|	|	|	0.04
15.500	1.08	1.08	0.019	O	|	|	|	|	0.04
15.583	1.08	1.08	0.019	O	|	|	|	|	0.04
15.667	1.07	1.08	0.019	O	|	|	|	|	0.04
15.750	1.07	1.08	0.019	O	|	|	|	|	0.04
15.833	1.07	1.07	0.019	O	|	|	|	|	0.04
15.917	1.07	1.07	0.019	O	|	|	|	|	0.04
16.000	1.07	1.07	0.019	O	|	|	|	|	0.04
16.083	1.07	1.07	0.019	O	|	|	|	|	0.04
16.167	1.06	1.07	0.019	O	|	|	|	|	0.04
16.250	1.06	1.07	0.019	O	|	|	|	|	0.04

16.333	1.06	1.06	0.019	O					0.04
16.417	1.06	1.06	0.019	O					0.04
16.500	1.06	1.06	0.019	O					0.04
16.583	1.06	1.06	0.019	O					0.04
16.667	1.05	1.06	0.019	O					0.04
16.750	1.05	1.06	0.019	O					0.03
16.833	1.05	1.06	0.019	O					0.03
16.917	1.05	1.05	0.019	O					0.03
17.000	1.05	1.05	0.019	O					0.03
17.083	1.05	1.05	0.019	O					0.03
17.167	1.04	1.05	0.019	O					0.03
17.250	1.04	1.05	0.019	O					0.03
17.333	1.04	1.05	0.019	O					0.03
17.417	1.04	1.04	0.019	O					0.03
17.500	1.04	1.04	0.019	O					0.03
17.583	1.04	1.04	0.019	O					0.03
17.667	1.04	1.04	0.019	O					0.03
17.750	1.03	1.04	0.019	O					0.03
17.833	1.03	1.04	0.019	O					0.03
17.917	1.03	1.03	0.018	O					0.03
18.000	1.03	1.03	0.018	O					0.03
18.083	1.03	1.03	0.018	O					0.03
18.167	1.03	1.03	0.018	O					0.03
18.250	1.02	1.03	0.018	O					0.03
18.333	1.01	1.03	0.018	O					0.03
18.417	0.99	1.02	0.018	O					0.03
18.500	0.96	1.00	0.018	O					0.03
18.583	0.94	0.99	0.018	O					0.03
18.667	0.91	0.97	0.017	O					0.03
18.750	0.88	0.94	0.017	O					0.03
18.833	0.86	0.92	0.016	O					0.03
18.917	0.84	0.90	0.016	O					0.03
19.000	0.81	0.87	0.016	O					0.03
19.083	0.79	0.85	0.015	O					0.03
19.167	0.77	0.83	0.015	O					0.03
19.250	0.75	0.80	0.014	O					0.03
19.333	0.73	0.78	0.014	O					0.03
19.417	0.71	0.76	0.014	O					0.03
19.500	0.69	0.74	0.013	O					0.02
19.583	0.67	0.72	0.013	O					0.02
19.667	0.65	0.70	0.012	O					0.02
19.750	0.63	0.68	0.012	O					0.02
19.833	0.61	0.66	0.012	O					0.02
19.917	0.60	0.64	0.011	O					0.02
20.000	0.58	0.63	0.011	O					0.02
20.083	0.56	0.61	0.011	O					0.02
20.167	0.55	0.59	0.011	O					0.02
20.250	0.53	0.57	0.010	O					0.02
20.333	0.52	0.56	0.010	O					0.02
20.417	0.50	0.54	0.010	O					0.02
20.500	0.49	0.53	0.009	O					0.02
20.583	0.48	0.51	0.009	O					0.02
20.667	0.46	0.50	0.009	O					0.02
20.750	0.45	0.49	0.009	O					0.02
20.833	0.44	0.47	0.008	O					0.02
20.917	0.42	0.46	0.008	O					0.02
21.000	0.41	0.45	0.008	O					0.01
21.083	0.40	0.43	0.008	O					0.01
21.167	0.39	0.42	0.008	O					0.01
21.250	0.38	0.41	0.007	O					0.01
21.333	0.37	0.40	0.007	O					0.01
21.417	0.36	0.39	0.007	O					0.01
21.500	0.35	0.38	0.007	O					0.01
21.583	0.34	0.37	0.007	O					0.01
21.667	0.33	0.36	0.006	O					0.01
21.750	0.32	0.35	0.006	O					0.01
21.833	0.31	0.34	0.006	O					0.01
21.917	0.30	0.33	0.006	O					0.01
22.000	0.29	0.32	0.006	O					0.01
22.083	0.29	0.31	0.006	O					0.01

22.167	0.28	0.30	0.005	O					0.01
22.250	0.27	0.29	0.005	O					0.01
22.333	0.26	0.28	0.005	O					0.01
22.417	0.26	0.28	0.005	O					0.01
22.500	0.25	0.27	0.005	O					0.01
22.583	0.24	0.26	0.005	O					0.01
22.667	0.24	0.25	0.005	O					0.01
22.750	0.23	0.25	0.004	O					0.01
22.833	0.22	0.24	0.004	O					0.01
22.917	0.22	0.23	0.004	O					0.01
23.000	0.21	0.23	0.004	O					0.01
23.083	0.20	0.22	0.004	O					0.01
23.167	0.20	0.21	0.004	O					0.01
23.250	0.19	0.21	0.004	O					0.01
23.333	0.19	0.20	0.004	O					0.01
23.417	0.18	0.20	0.004	O					0.01
23.500	0.18	0.19	0.003	O					0.01
23.583	0.17	0.19	0.003	O					0.01
23.667	0.17	0.18	0.003	O					0.01
23.750	0.16	0.18	0.003	O					0.01
23.833	0.16	0.17	0.003	O					0.01
23.917	0.15	0.17	0.003	O					0.01
24.000	0.15	0.16	0.003	O					0.01
24.083	0.15	0.16	0.003	O					0.01
24.167	0.14	0.15	0.003	O					0.01
24.250	0.14	0.15	0.003	O					0.00
24.333	0.13	0.14	0.003	O					0.00
24.417	0.13	0.14	0.003	O					0.00
24.500	0.13	0.14	0.002	O					0.00
24.583	0.12	0.13	0.002	O					0.00
24.667	0.12	0.13	0.002	O					0.00
24.750	0.12	0.13	0.002	O					0.00
24.833	0.11	0.12	0.002	O					0.00
24.917	0.11	0.12	0.002	O					0.00
25.000	0.11	0.12	0.002	O					0.00
25.083	0.10	0.11	0.002	O					0.00
25.167	0.10	0.11	0.002	O					0.00
25.250	0.10	0.11	0.002	O					0.00
25.333	0.10	0.10	0.002	O					0.00
25.417	0.09	0.10	0.002	O					0.00
25.500	0.09	0.10	0.002	O					0.00
25.583	0.09	0.09	0.002	O					0.00
25.667	0.09	0.09	0.002	O					0.00
25.750	0.08	0.09	0.002	O					0.00
25.833	0.08	0.09	0.002	O					0.00
25.917	0.08	0.08	0.002	O					0.00
26.000	0.08	0.08	0.001	O					0.00
26.083	0.07	0.08	0.001	O					0.00
26.167	0.07	0.08	0.001	O					0.00
26.250	0.07	0.08	0.001	O					0.00
26.333	0.07	0.07	0.001	O					0.00
26.417	0.07	0.07	0.001	O					0.00
26.500	0.06	0.07	0.001	O					0.00
26.583	0.06	0.07	0.001	O					0.00
26.667	0.06	0.07	0.001	O					0.00
26.750	0.06	0.06	0.001	O					0.00
26.833	0.06	0.06	0.001	O					0.00
26.917	0.06	0.06	0.001	O					0.00
27.000	0.05	0.06	0.001	O					0.00
27.083	0.05	0.06	0.001	O					0.00
27.167	0.05	0.06	0.001	O					0.00
27.250	0.05	0.05	0.001	O					0.00
27.333	0.05	0.05	0.001	O					0.00
27.417	0.05	0.05	0.001	O					0.00
27.500	0.05	0.05	0.001	O					0.00
27.583	0.04	0.05	0.001	O					0.00
27.667	0.04	0.05	0.001	O					0.00
27.750	0.04	0.05	0.001	O					0.00
27.833	0.04	0.04	0.001	O					0.00
27.917	0.04	0.04	0.001	O					0.00

28.000	0.04	0.04	0.001	O	|	|	|	|	0.00
28.083	0.04	0.04	0.001	O	|	|	|	|	0.00
28.167	0.04	0.04	0.001	O	|	|	|	|	0.00
28.250	0.04	0.04	0.001	O	|	|	|	|	0.00
28.333	0.03	0.04	0.001	O	|	|	|	|	0.00
28.417	0.03	0.04	0.001	O	|	|	|	|	0.00
28.500	0.03	0.04	0.001	O	|	|	|	|	0.00
28.583	0.03	0.03	0.001	O	|	|	|	|	0.00
28.667	0.03	0.03	0.001	O	|	|	|	|	0.00
28.750	0.03	0.03	0.001	O	|	|	|	|	0.00
28.833	0.03	0.03	0.001	O	|	|	|	|	0.00
28.917	0.03	0.03	0.001	O	|	|	|	|	0.00
29.000	0.03	0.03	0.001	O	|	|	|	|	0.00
29.083	0.03	0.03	0.001	O	|	|	|	|	0.00
29.167	0.03	0.03	0.001	O	|	|	|	|	0.00
29.250	0.03	0.03	0.000	O	|	|	|	|	0.00
29.333	0.02	0.03	0.000	O	|	|	|	|	0.00
29.417	0.02	0.03	0.000	O	|	|	|	|	0.00
29.500	0.02	0.03	0.000	O	|	|	|	|	0.00
29.583	0.02	0.02	0.000	O	|	|	|	|	0.00
29.667	0.02	0.02	0.000	O	|	|	|	|	0.00
29.750	0.02	0.02	0.000	O	|	|	|	|	0.00
29.833	0.02	0.02	0.000	O	|	|	|	|	0.00
29.917	0.02	0.02	0.000	O	|	|	|	|	0.00
30.000	0.02	0.02	0.000	O	|	|	|	|	0.00
30.083	0.02	0.02	0.000	O	|	|	|	|	0.00
30.167	0.02	0.02	0.000	O	|	|	|	|	0.00
30.250	0.02	0.02	0.000	O	|	|	|	|	0.00
30.333	0.02	0.02	0.000	O	|	|	|	|	0.00
30.417	0.02	0.02	0.000	O	|	|	|	|	0.00
30.500	0.02	0.02	0.000	O	|	|	|	|	0.00
30.583	0.02	0.02	0.000	O	|	|	|	|	0.00
30.667	0.02	0.02	0.000	O	|	|	|	|	0.00
30.750	0.02	0.02	0.000	O	|	|	|	|	0.00
30.833	0.01	0.02	0.000	O	|	|	|	|	0.00
30.917	0.01	0.02	0.000	O	|	|	|	|	0.00
31.000	0.01	0.02	0.000	O	|	|	|	|	0.00
31.083	0.01	0.01	0.000	O	|	|	|	|	0.00
31.167	0.01	0.01	0.000	O	|	|	|	|	0.00
31.250	0.01	0.01	0.000	O	|	|	|	|	0.00
31.333	0.01	0.01	0.000	O	|	|	|	|	0.00
31.417	0.01	0.01	0.000	O	|	|	|	|	0.00
31.500	0.01	0.01	0.000	O	|	|	|	|	0.00
31.583	0.01	0.01	0.000	O	|	|	|	|	0.00
31.667	0.01	0.01	0.000	O	|	|	|	|	0.00
31.750	0.01	0.01	0.000	O	|	|	|	|	0.00
31.833	0.01	0.01	0.000	O	|	|	|	|	0.00
31.917	0.01	0.01	0.000	O	|	|	|	|	0.00
32.000	0.01	0.01	0.000	O	|	|	|	|	0.00
32.083	0.01	0.01	0.000	O	|	|	|	|	0.00
32.167	0.01	0.01	0.000	O	|	|	|	|	0.00
32.250	0.01	0.01	0.000	O	|	|	|	|	0.00
32.333	0.01	0.01	0.000	O	|	|	|	|	0.00
32.417	0.01	0.01	0.000	O	|	|	|	|	0.00
32.500	0.01	0.01	0.000	O	|	|	|	|	0.00
32.583	0.01	0.01	0.000	O	|	|	|	|	0.00
32.667	0.01	0.01	0.000	O	|	|	|	|	0.00
32.750	0.01	0.01	0.000	O	|	|	|	|	0.00
32.833	0.01	0.01	0.000	O	|	|	|	|	0.00
32.917	0.01	0.01	0.000	O	|	|	|	|	0.00
33.000	0.01	0.01	0.000	O	|	|	|	|	0.00
33.083	0.01	0.01	0.000	O	|	|	|	|	0.00
33.167	0.01	0.01	0.000	O	|	|	|	|	0.00
33.250	0.01	0.01	0.000	O	|	|	|	|	0.00
33.333	0.01	0.01	0.000	O	|	|	|	|	0.00
33.417	0.01	0.01	0.000	O	|	|	|	|	0.00
33.500	0.01	0.01	0.000	O	|	|	|	|	0.00
33.583	0.01	0.01	0.000	O	|	|	|	|	0.00
33.667	0.01	0.01	0.000	O	|	|	|	|	0.00
33.750	0.01	0.01	0.000	O	|	|	|	|	0.00

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33.833    0.01    0.01      0.000  O       |       |       |       |     0.00
33.917    0.01    0.01      0.000  O       |       |       |       |     0.00
34.000    0.01    0.01      0.000  O       |       |       |       |     0.00
34.083    0.00    0.01      0.000  O       |       |       |       |     0.00
34.167    0.00    0.01      0.000  O       |       |       |       |     0.00
34.250    0.00    0.01      0.000  O       |       |       |       |     0.00
34.333    0.00    0.00      0.000  O       |       |       |       |     0.00
34.417    0.00    0.00      0.000  O       |       |       |       |     0.00
34.500    0.00    0.00      0.000  O       |       |       |       |     0.00
34.583    0.00    0.00      0.000  O       |       |       |       |     0.00
34.667    0.00    0.00      0.000  O       |       |       |       |     0.00
34.750    0.00    0.00      0.000  O       |       |       |       |     0.00
34.833    0.00    0.00      0.000  O       |       |       |       |     0.00
34.917    0.00    0.00      0.000  O       |       |       |       |     0.00
35.000    0.00    0.00      0.000  O       |       |       |       |     0.00
35.083    0.00    0.00      0.000  O       |       |       |       |     0.00
35.167    0.00    0.00      0.000  O       |       |       |       |     0.00
35.250    0.00    0.00      0.000  O       |       |       |       |     0.00
35.333    0.00    0.00      0.000  O       |       |       |       |     0.00
35.417    0.00    0.00      0.000  O       |       |       |       |     0.00
35.500    0.00    0.00      0.000  O       |       |       |       |     0.00
35.583    0.00    0.00      0.000  O       |       |       |       |     0.00
35.667    0.00    0.00      0.000  O       |       |       |       |     0.00
35.750    0.00    0.00      0.000  O       |       |       |       |     0.00
35.833    0.00    0.00      0.000  O       |       |       |       |     0.00
35.917    0.00    0.00      0.000  O       |       |       |       |     0.00
36.000    0.00    0.00      0.000  O       |       |       |       |     0.00
36.083    0.00    0.00      0.000  O       |       |       |       |     0.00
36.167    0.00    0.00      0.000  O       |       |       |       |     0.00
36.250    0.00    0.00      0.000  O       |       |       |       |     0.00
36.333    0.00    0.00      0.000  O       |       |       |       |     0.00
36.417    0.00    0.00      0.000  O       |       |       |       |     0.00
36.500    0.00    0.00      0.000  O       |       |       |       |     0.00
36.583    0.00    0.00      0.000  O       |       |       |       |     0.00
36.667    0.00    0.00      0.000  O       |       |       |       |     0.00
36.750    0.00    0.00      0.000  O       |       |       |       |     0.00
36.833    0.00    0.00      0.000  O       |       |       |       |     0.00
36.917    0.00    0.00      0.000  O       |       |       |       |     0.00

      ****************************HYDROGRAPH DATA****************************
                  Number of intervals =   443
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =      141.678 (CFS)
                  Total volume =      62.135 (Ac.Ft)
            Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      ************************************************************************

      ------------------------------------------------------------------------


      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      Process from Point/Station       12.000 to Point/Station       13.000
      **** STREAM ROUTING SCS CONVEX METHOD ****
      ________________________________________________________________________
      HYDROGRAPH STREAM ROUTING DATA:
      Length of stream =   1500.00 (Ft.)
      Elevation difference =   10.95 (Ft.)
      Slope of channel =  0.007300 (Vert/Horiz)
      Channel type - Pipe


      Pipe length  =  1500.00(Ft.)   Elevation difference =  10.95(Ft.)
      Manning's N = 0.013   No. of pipes = 1
      Pipe evaluation using mean flow rate of hydrograph
      Required pipe flow  =    78.516(CFS)
      Nearest computed pipe diameter  =     42.00(In.)
      Calculated individual pipe flow  =    78.516(CFS)
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      Normal flow depth in pipe =   31.55(In.)
      Flow top width inside pipe =   36.32(In.)
      Critical Depth =    2.77(Ft.)
      Pipe flow velocity =     10.13(Ft/s)
      Travel time through pipe =    2.47 min.


      Pipe length  =  1500.00(Ft.)   Elevation difference =  10.95(Ft.)
      Manning's N = 0.013   No. of pipes = 1
      Pipe evaluation using maximum flow rate of hydrograph
      Required pipe flow  =   141.678(CFS)
      Nearest computed pipe diameter  =     51.00(In.)
      Calculated individual pipe flow  =   141.678(CFS)
      Normal flow depth in pipe =   40.97(In.)
      Flow top width inside pipe =   40.54(In.)
      Critical Depth =    3.53(Ft.)
      Pipe flow velocity =     11.59(Ft/s)
      Travel time through pipe =    2.16 min.


      ********************** SCS CONVEX CHANNEL ROUTING *********************
      Convex method of stream routing  data items:
      Using equation: Outflow =
      O(t+dt) = (1-c*)O(t+dt-dt*) + Input(c*)
                where c* = 1 - (1-c)^e and dt = c(length)/velocity
                c(v/v+1.7) =   0.8721   Travel time =   2.16 (min.)
               dt*(unit time interval) =   5.00(min.),  e=   2.1056
               dt(routing time-step) =   1.88 (min.),   c* =   0.9868

      Output hydrograph delayed by 0  unit time increments


      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        P R I N T  O F  S T O R M
                     R u n o f f     H y d r o g r a p h
      ----------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals (CFS)

      ----------------------------------------------------------------------
Time(h+m) Out = O(CFS) In = I  0       35.4      70.8     106.3     141.7
----------------------------------------------------------------------------
  0+ 5       0.1331      0.22  O         |         |         |         |
  0+10       1.0566      1.58  O         |         |         |         |
  0+15       3.6618      4.97  |O        |         |         |         |
  0+20       7.8556      9.68  | O       |         |         |         |
  0+25      12.5181     14.33  |  OI     |         |         |         |
  0+30      16.7809     18.35  |   OI    |         |         |         |
  0+35      20.6226     22.07  |    OI   |         |         |         |
  0+40      24.3582     25.82  |     OI  |         |         |         |
  0+45      27.9499     29.31  |      OI |         |         |         |
  0+50      30.0473     30.53  |       O |         |         |         |
  0+55      30.7899     30.96  |       O |         |         |         |
  1+ 0      31.2390     31.42  |       O |         |         |         |
  1+ 5      31.7436     31.95  |       OI|         |         |         |
  1+10      32.3511     32.61  |        O|         |         |         |
  1+15      33.0559     33.34  |        O|         |         |         |
  1+20      33.8098     34.11  |        O|         |         |         |
  1+25      34.5770     34.88  |        O|         |         |         |
  1+30      35.3412     35.64  |        OI         |         |         |
  1+35      36.0920     36.38  |         O         |         |         |
  1+40      36.8229     37.10  |         O         |         |         |
  1+45      37.5307     37.80  |         O         |         |         |
  1+50      38.2147     38.48  |         O         |         |         |
  1+55      38.8745     39.13  |         OI        |         |         |
  2+ 0      39.5174     39.77  |         |O        |         |         |
  2+ 5      40.1738     40.43  |         |O        |         |         |
  2+10      40.8649     41.14  |         |O        |         |         |
  2+15      41.6238     41.93  |         |O        |         |         |
  2+20      42.5821     42.99  |         | O       |         |         |
  2+25      43.6682     44.10  |         | O       |         |         |
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2+30      44.7741     45.21  |          | O        |          |          |
2+35      45.9091     46.36  |          | OI       |          |          |
2+40      47.1057     47.58  |          |  O       |          |          |
2+45      48.3700     48.87  |          |  O       |          |          |
2+50      49.7253     50.27  |          |   O      |          |          |
2+55      51.2171     51.82  |          |   O      |          |          |
3+ 0      52.8277     53.47  |          |   OI     |          |          |
3+ 5      54.4790     55.12  |          |    O     |          |          |
3+10      56.1223     56.76  |          |    OI    |          |          |
3+15      57.7871     58.44  |          |     O    |          |          |
3+20      59.5376     60.24  |          |     OI   |          |          |
3+25      61.3806     62.11  |          |      O   |          |          |
3+30      63.2431     63.97  |          |      OI  |          |          |
3+35      64.9318     65.55  |          |       O  |          |          |
3+40      66.6859     67.41  |          |       OI |          |          |
3+45      68.6975     69.52  |          |        O |          |          |
3+50      70.9275     71.83  |          |         O          |          |
3+55      73.3389     74.30  |          |         O          |          |
4+ 0      75.9130     76.94  |          |          |O        |          |
4+ 5      78.6384     79.72  |          |          | O       |          |
4+10      80.9612     81.76  |          |          | OI      |          |
4+15      83.0852     83.93  |          |          |  O      |          |
4+20      85.3870     86.31  |          |          |   O     |          |
4+25      87.9116     88.93  |          |          |   OI    |          |
4+30      90.6653     91.77  |          |          |    O    |          |
4+35      93.3596     94.37  |          |          |     O   |          |
4+40      95.8032     96.72  |          |          |      O  |          |
4+45      98.2335     99.20  |          |          |      OI |          |
4+50     100.8149    101.84  |          |          |       O |          |
4+55     103.5437    104.63  |          |          |        O|          |
5+ 0     106.1834    107.18  |          |          |        OI          |
5+ 5     108.8006    109.83  |          |          |         OI         |
5+10     111.6349    112.78  |          |          |         |O         |
5+15     114.8331    116.14  |          |          |         | O        |
5+20     118.3421    119.75  |          |          |         |  O       |
5+25     122.2856    123.90  |          |          |         |   O      |
5+30     126.5715    128.27  |          |          |         |    OI    |
5+35     131.1737    133.02  |          |          |         |      O   |
5+40     135.5494    137.17  |          |          |         |       O  |
5+45     138.8605    139.95  |          |          |         |        O|
5+50     140.7638    141.29  |          |          |         |        O|
5+55     141.5237    141.68  |          |          |         |        OI
6+ 0     141.5314    141.44  |          |          |         |        O|
6+ 5     141.0204    140.75  |          |          |         |        O|
6+10     140.1213    139.72  |          |          |         |        O|
6+15     138.9276    138.42  |          |          |         |        O|
6+20     137.5228    136.95  |          |          |         |       O |
6+25     135.9752    135.35  |          |          |         |       O |
6+30     134.3088    133.64  |          |          |         |      O  |
6+35     132.4669    131.72  |          |          |         |      O  |
6+40     130.5185    129.75  |          |          |         |     O   |
6+45     128.5398    127.77  |          |          |         |     O   |
6+50     126.5478    125.77  |          |          |         |    O    |
6+55     124.4545    123.62  |          |          |         |   IO    |
7+ 0     122.2516    121.38  |          |          |         |   O     |
7+ 5     120.0358    119.18  |          |          |         |  O      |
7+10     117.8525    117.01  |          |          |         |  O      |
7+15     115.6629    114.81  |          |          |         | O       |
7+20     113.3601    112.44  |          |          |         |IO       |
7+25     111.0244    110.12  |          |          |         |O        |
7+30     108.7355    107.85  |          |          |        O         |
7+35     106.4941    105.63  |          |          |       IO         |
7+40     104.1639    103.23  |          |          |       O|         |
7+45     101.7356    100.78  |          |          |      O |         |
7+50      99.3226     98.39  |          |          |     IO |         |
7+55      96.9668     96.06  |          |          |     O  |         |
8+ 0      94.6676     93.78  |          |          |    O   |         |
8+ 5      92.0541     90.96  |          |          |   O    |         |
8+10      89.1603     88.01  |          |          |  IO    |         |
8+15      86.2779     85.17  |          |          |  O     |         |
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8+20	83.4888	82.42	| O | | |
8+25	80.7723	79.72	| O | | |
8+30	77.4187	75.96	| O | | |
8+35	73.7700	72.37	| O | | |
8+40	70.2903	68.96	| O | | |
8+45	66.9773	65.71	| O | | |
8+50	63.5615	62.19	| O | | |
8+55	59.6826	58.09	| O | | |
9+ 0	55.7497	54.26	| O | | |
9+ 5	52.0775	50.68	| O | | |
9+10	48.6525	47.35	| O | | |
9+15	45.4581	44.25	| O | | |
9+20	42.5374	41.44	|IO | | |
9+25	40.2700	39.51	|O | | |
9+30	38.3919	37.68	| O | | |
9+35	36.6074	35.93	| O | | |
9+40	34.9085	34.26	| O| | |
9+45	33.2911	32.67	| O| | |
9+50	31.7510	31.16	| O | | |
9+55	28.4663	26.77	| IO | | |
10+ 0	21.7099	18.51	| IO | | |
10+ 5	15.1155	12.93	| IO | | |
10+10	10.6250	9.14	| O | | |
10+15	7.5843	6.58	|IO | | |
10+20	5.5251	4.84	|O | | |
10+25	4.1300	3.67	|O | | |
10+30	3.1844	2.87	O | | |
10+35	2.5428	2.33	O | | |
10+40	2.1070	1.96	O | | |
10+45	1.8105	1.71	O | | |
10+50	1.6082	1.54	O | | |
10+55	1.4697	1.42	O | | |
11+ 0	1.3743	1.34	O | | |
11+ 5	1.3082	1.29	O | | |
11+10	1.2620	1.25	O | | |
11+15	1.2298	1.22	O | | |
11+20	1.2074	1.20	O | | |
11+25	1.1917	1.19	O | | |
11+30	1.1807	1.18	O | | |
11+35	1.1726	1.17	O | | |
11+40	1.1667	1.16	O | | |
11+45	1.1622	1.16	O | | |
11+50	1.1587	1.16	O | | |
11+55	1.1558	1.15	O | | |
12+ 0	1.1534	1.15	O | | |
12+ 5	1.1513	1.15	O | | |
12+10	1.1493	1.15	O | | |
12+15	1.1475	1.15	O | | |
12+20	1.1458	1.15	O | | |
12+25	1.1442	1.14	O | | |
12+30	1.1425	1.14	O | | |
12+35	1.1409	1.14	O | | |
12+40	1.1392	1.14	O | | |
12+45	1.1375	1.14	O | | |
12+50	1.1358	1.14	O | | |
12+55	1.1341	1.13	O | | |
13+ 0	1.1324	1.13	O | | |
13+ 5	1.1306	1.13	O | | |
13+10	1.1289	1.13	O | | |
13+15	1.1272	1.13	O | | |
13+20	1.1255	1.12	O | | |
13+25	1.1238	1.12	O | | |
13+30	1.1221	1.12	O | | |
13+35	1.1204	1.12	O | | |
13+40	1.1187	1.12	O | | |
13+45	1.1170	1.12	O | | |
13+50	1.1153	1.11	O | | |
13+55	1.1136	1.11	O | | |
14+ 0	1.1119	1.11	O | | |
14+ 5	1.1102	1.11	O | | |

14+10	1.1085	1.11	O				
14+15	1.1068	1.11	O				
14+20	1.1052	1.10	O				
14+25	1.1035	1.10	O				
14+30	1.1018	1.10	O				
14+35	1.1001	1.10	O				
14+40	1.0985	1.10	O				
14+45	1.0968	1.10	O				
14+50	1.0951	1.09	O				
14+55	1.0935	1.09	O				
15+ 0	1.0918	1.09	O				
15+ 5	1.0901	1.09	O				
15+10	1.0885	1.09	O				
15+15	1.0868	1.09	O				
15+20	1.0852	1.08	O				
15+25	1.0835	1.08	O				
15+30	1.0819	1.08	O				
15+35	1.0802	1.08	O				
15+40	1.0786	1.08	O				
15+45	1.0770	1.08	O				
15+50	1.0753	1.07	O				
15+55	1.0737	1.07	O				
16+ 0	1.0721	1.07	O				
16+ 5	1.0704	1.07	O				
16+10	1.0688	1.07	O				
16+15	1.0672	1.07	O				
16+20	1.0656	1.06	O				
16+25	1.0639	1.06	O				
16+30	1.0623	1.06	O				
16+35	1.0607	1.06	O				
16+40	1.0591	1.06	O				
16+45	1.0575	1.06	O				
16+50	1.0559	1.06	O				
16+55	1.0543	1.05	O				
17+ 0	1.0527	1.05	O				
17+ 5	1.0511	1.05	O				
17+10	1.0495	1.05	O				
17+15	1.0479	1.05	O				
17+20	1.0463	1.05	O				
17+25	1.0447	1.04	O				
17+30	1.0431	1.04	O				
17+35	1.0415	1.04	O				
17+40	1.0400	1.04	O				
17+45	1.0384	1.04	O				
17+50	1.0368	1.04	O				
17+55	1.0352	1.03	O				
18+ 0	1.0337	1.03	O				
18+ 5	1.0321	1.03	O				
18+10	1.0305	1.03	O				
18+15	1.0289	1.03	O				
18+20	1.0266	1.03	O				
18+25	1.0208	1.02	O				
18+30	1.0096	1.00	O				
18+35	0.9934	0.99	O				
18+40	0.9738	0.97	O				
18+45	0.9522	0.94	O				
18+50	0.9294	0.92	O				
18+55	0.9061	0.90	O				
19+ 0	0.8826	0.87	O				
19+ 5	0.8592	0.85	O				
19+10	0.8361	0.83	O				
19+15	0.8134	0.80	O				
19+20	0.7911	0.78	O				
19+25	0.7694	0.76	O				
19+30	0.7482	0.74	O				
19+35	0.7275	0.72	O				
19+40	0.7073	0.70	O				
19+45	0.6877	0.68	O				
19+50	0.6687	0.66	O				
19+55	0.6501	0.64	O				

20+ 0	0.6320	0.63	O	|	|	|	|
20+ 5	0.6145	0.61	O	|	|	|	|
20+10	0.5974	0.59	O	|	|	|	|
20+15	0.5808	0.57	O	|	|	|	|
20+20	0.5647	0.56	O	|	|	|	|
20+25	0.5490	0.54	O	|	|	|	|
20+30	0.5337	0.53	O	|	|	|	|
20+35	0.5189	0.51	O	|	|	|	|
20+40	0.5045	0.50	O	|	|	|	|
20+45	0.4905	0.49	O	|	|	|	|
20+50	0.4768	0.47	O	|	|	|	|
20+55	0.4636	0.46	O	|	|	|	|
21+ 0	0.4507	0.45	O	|	|	|	|
21+ 5	0.4382	0.43	O	|	|	|	|
21+10	0.4260	0.42	O	|	|	|	|
21+15	0.4142	0.41	O	|	|	|	|
21+20	0.4027	0.40	O	|	|	|	|
21+25	0.3915	0.39	O	|	|	|	|
21+30	0.3806	0.38	O	|	|	|	|
21+35	0.3700	0.37	O	|	|	|	|
21+40	0.3597	0.36	O	|	|	|	|
21+45	0.3497	0.35	O	|	|	|	|
21+50	0.3400	0.34	O	|	|	|	|
21+55	0.3306	0.33	O	|	|	|	|
22+ 0	0.3214	0.32	O	|	|	|	|
22+ 5	0.3124	0.31	O	|	|	|	|
22+10	0.3038	0.30	O	|	|	|	|
22+15	0.2953	0.29	O	|	|	|	|
22+20	0.2871	0.28	O	|	|	|	|
22+25	0.2791	0.28	O	|	|	|	|
22+30	0.2714	0.27	O	|	|	|	|
22+35	0.2638	0.26	O	|	|	|	|
22+40	0.2565	0.25	O	|	|	|	|
22+45	0.2494	0.25	O	|	|	|	|
22+50	0.2424	0.24	O	|	|	|	|
22+55	0.2357	0.23	O	|	|	|	|
23+ 0	0.2292	0.23	O	|	|	|	|
23+ 5	0.2228	0.22	O	|	|	|	|
23+10	0.2166	0.21	O	|	|	|	|
23+15	0.2106	0.21	O	|	|	|	|
23+20	0.2047	0.20	O	|	|	|	|
23+25	0.1990	0.20	O	|	|	|	|
23+30	0.1935	0.19	O	|	|	|	|
23+35	0.1881	0.19	O	|	|	|	|
23+40	0.1829	0.18	O	|	|	|	|
23+45	0.1778	0.18	O	|	|	|	|
23+50	0.1729	0.17	O	|	|	|	|
23+55	0.1681	0.17	O	|	|	|	|
24+ 0	0.1634	0.16	O	|	|	|	|
24+ 5	0.1589	0.16	O	|	|	|	|
24+10	0.1544	0.15	O	|	|	|	|
24+15	0.1502	0.15	O	|	|	|	|
24+20	0.1460	0.14	O	|	|	|	|
24+25	0.1419	0.14	O	|	|	|	|
24+30	0.1380	0.14	O	|	|	|	|
24+35	0.1341	0.13	O	|	|	|	|
24+40	0.1304	0.13	O	|	|	|	|
24+45	0.1268	0.13	O	|	|	|	|
24+50	0.1233	0.12	O	|	|	|	|
24+55	0.1198	0.12	O	|	|	|	|
25+ 0	0.1165	0.12	O	|	|	|	|
25+ 5	0.1133	0.11	O	|	|	|	|
25+10	0.1101	0.11	O	|	|	|	|
25+15	0.1071	0.11	O	|	|	|	|
25+20	0.1041	0.10	O	|	|	|	|
25+25	0.1012	0.10	O	|	|	|	|
25+30	0.0984	0.10	O	|	|	|	|
25+35	0.0957	0.09	O	|	|	|	|
25+40	0.0930	0.09	O	|	|	|	|
25+45	0.0904	0.09	O	|	|	|	|

25+50	0.0879	0.09	O				
25+55	0.0855	0.08	O				
26+ 0	0.0831	0.08	O				
26+ 5	0.0808	0.08	O				
26+10	0.0785	0.08	O				
26+15	0.0763	0.08	O				
26+20	0.0742	0.07	O				
26+25	0.0722	0.07	O				
26+30	0.0702	0.07	O				
26+35	0.0682	0.07	O				
26+40	0.0663	0.07	O				
26+45	0.0645	0.06	O				
26+50	0.0627	0.06	O				
26+55	0.0609	0.06	O				
27+ 0	0.0592	0.06	O				
27+ 5	0.0576	0.06	O				
27+10	0.0560	0.06	O				
27+15	0.0544	0.05	O				
27+20	0.0529	0.05	O				
27+25	0.0515	0.05	O				
27+30	0.0500	0.05	O				
27+35	0.0486	0.05	O				
27+40	0.0473	0.05	O				
27+45	0.0460	0.05	O				
27+50	0.0447	0.04	O				
27+55	0.0434	0.04	O				
28+ 0	0.0422	0.04	O				
28+ 5	0.0411	0.04	O				
28+10	0.0399	0.04	O				
28+15	0.0388	0.04	O				
28+20	0.0377	0.04	O				
28+25	0.0367	0.04	O				
28+30	0.0357	0.04	O				
28+35	0.0347	0.03	O				
28+40	0.0337	0.03	O				
28+45	0.0328	0.03	O				
28+50	0.0319	0.03	O				
28+55	0.0310	0.03	O				
29+ 0	0.0301	0.03	O				
29+ 5	0.0293	0.03	O				
29+10	0.0285	0.03	O				
29+15	0.0277	0.03	O				
29+20	0.0269	0.03	O				
29+25	0.0262	0.03	O				
29+30	0.0254	0.03	O				
29+35	0.0247	0.02	O				
29+40	0.0240	0.02	O				
29+45	0.0234	0.02	O				
29+50	0.0227	0.02	O				
29+55	0.0221	0.02	O				
30+ 0	0.0215	0.02	O				
30+ 5	0.0209	0.02	O				
30+10	0.0203	0.02	O				
30+15	0.0197	0.02	O				
30+20	0.0192	0.02	O				
30+25	0.0187	0.02	O				
30+30	0.0181	0.02	O				
30+35	0.0176	0.02	O				
30+40	0.0171	0.02	O				
30+45	0.0167	0.02	O				
30+50	0.0162	0.02	O				
30+55	0.0158	0.02	O				
31+ 0	0.0153	0.02	O				
31+ 5	0.0149	0.01	O				
31+10	0.0145	0.01	O				
31+15	0.0141	0.01	O				
31+20	0.0137	0.01	O				
31+25	0.0133	0.01	O				
31+30	0.0129	0.01	O				
31+35	0.0126	0.01	O				

31+40	0.0122	0.01	O				
31+45	0.0119	0.01	O				
31+50	0.0116	0.01	O				
31+55	0.0112	0.01	O				
32+ 0	0.0109	0.01	O				
32+ 5	0.0106	0.01	O				
32+10	0.0103	0.01	O				
32+15	0.0100	0.01	O				
32+20	0.0098	0.01	O				
32+25	0.0095	0.01	O				
32+30	0.0092	0.01	O				
32+35	0.0090	0.01	O				
32+40	0.0087	0.01	O				
32+45	0.0085	0.01	O				
32+50	0.0082	0.01	O				
32+55	0.0080	0.01	O				
33+ 0	0.0078	0.01	O				
33+ 5	0.0076	0.01	O				
33+10	0.0074	0.01	O				
33+15	0.0072	0.01	O				
33+20	0.0070	0.01	O				
33+25	0.0068	0.01	O				
33+30	0.0066	0.01	O				
33+35	0.0064	0.01	O				
33+40	0.0062	0.01	O				
33+45	0.0060	0.01	O				
33+50	0.0059	0.01	O				
33+55	0.0057	0.01	O				
34+ 0	0.0056	0.01	O				
34+ 5	0.0054	0.01	O				
34+10	0.0052	0.01	O				
34+15	0.0051	0.01	O				
34+20	0.0050	0.00	O				
34+25	0.0048	0.00	O				
34+30	0.0047	0.00	O				
34+35	0.0046	0.00	O				
34+40	0.0044	0.00	O				
34+45	0.0043	0.00	O				
34+50	0.0042	0.00	O				
34+55	0.0041	0.00	O				
35+ 0	0.0040	0.00	O				
35+ 5	0.0038	0.00	O				
35+10	0.0037	0.00	O				
35+15	0.0036	0.00	O				
35+20	0.0035	0.00	O				
35+25	0.0034	0.00	O				
35+30	0.0033	0.00	O				
35+35	0.0033	0.00	O				
35+40	0.0032	0.00	O				
35+45	0.0031	0.00	O				
35+50	0.0030	0.00	O				
35+55	0.0029	0.00	O				
36+ 0	0.0028	0.00	O				
36+ 5	0.0027	0.00	O				
36+10	0.0027	0.00	O				
36+15	0.0026	0.00	O				
36+20	0.0025	0.00	O				
36+25	0.0025	0.00	O				
36+30	0.0024	0.00	O				
36+35	0.0023	0.00	O				
36+40	0.0023	0.00	O				
36+45	0.0021	0.00	O				
36+50	0.0018	0.00	O				
36+55	0.0013	0.00	O				
37+ 0	0.0000	0.00	O				

**********HYDROGRAPH DATA**********

Number of intervals = 444
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 141.531 (CFS)

```
               Total volume =      62.135 (Ac.Ft)
       Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
****************************************************************************

----------------------------------------------------------------------


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       13.000 to Point/Station       14.000
**** STORE OR DELETE CURRENT HYDROGRAPH ****
______________________________________________________________________________
Current stream hydrograph saved in file lgouta6100.rte
****************************HYDROGRAPH DATA*****************************
               Number of intervals =     0
               Time interval =    0.0 (Min.)
               Maximum/Peak flow rate =        0.000 (CFS)
               Total volume =       0.000 (Ac.Ft)
       Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
****************************************************************************

----------------------------------------------------------------------
```

```
                FLOOD HYDROGRAPH ROUTING PROGRAM
          Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                     Study date: 04/23/19


------------------------------------------------------------------------
Legado
Detention Basin A (Total Area = 305.5 Ac)
100-year 24-hour Inflow Hydrograph


------------------------------------------------------------------------


Program License Serial Number 4029

------------------------------------------------------------------------
******************** HYDROGRAPH INFORMATION **********************

               From study/file name: lgmdsout24100.rte
****************************HYDROGRAPH DATA****************************
               Number of intervals =   622
               Time interval =    5.0 (Min.)
               Maximum/Peak flow rate =       27.614 (CFS)
               Total volume =      13.543 (Ac.Ft)
       Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
************************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       10.000 to Point/Station       11.000
**** STREAM ROUTING SCS CONVEX METHOD ****
________________________________________________________________________
HYDROGRAPH STREAM ROUTING DATA:
Length of stream =   2580.00 (Ft.)
Elevation difference =   40.00 (Ft.)
Slope of channel =  0.015504 (Vert/Horiz)
Channel type - Pipe


Pipe length  =  2580.00(Ft.)   Elevation difference =  40.00(Ft.)
Manning's N = 0.013   No. of pipes = 1
Pipe evaluation using mean flow rate of hydrograph
Required pipe flow  =     8.456(CFS)
Nearest computed pipe diameter  =     18.00(In.)
Calculated individual pipe flow  =     8.456(CFS)
Normal flow depth in pipe =   10.54(In.)
Flow top width inside pipe =   17.74(In.)
Critical Depth =    1.13(Ft.)
Pipe flow velocity =      7.87(Ft/s)
Travel time through pipe =    5.46 min.


Pipe length  =  2580.00(Ft.)   Elevation difference =  40.00(Ft.)
Manning's N = 0.013   No. of pipes = 1
Pipe evaluation using maximum flow rate of hydrograph
Required pipe flow  =    27.614(CFS)
Nearest computed pipe diameter  =     24.00(In.)
Calculated individual pipe flow  =    27.614(CFS)
Normal flow depth in pipe =   19.27(In.)
Flow top width inside pipe =   19.10(In.)
Critical Depth =    1.82(Ft.)
Pipe flow velocity =     10.22(Ft/s)
```

```
      Travel time through pipe =    4.21 min.


      ********************** SCS CONVEX CHANNEL ROUTING ********************
      Convex method of stream routing  data items:
      Using equation: Outflow =
      O(t+dt) = (1-c*)O(t+dt-dt*) + Input(c*)
                where c* = 1 - (1-c)^e and dt = c(length)/velocity
                c(v/v+1.7) =   0.8574   Travel time =   4.21 (min.)
              dt*(unit time interval) =   5.00(min.),  e=   1.2574
              dt(routing time-step) =   3.61 (min.),   c* =   0.9136

      Output hydrograph delayed by 0  unit time increments


      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        P R I N T  O F  S T O R M
                     R u n o f f     H y d r o g r a p h
      ----------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals (CFS)

      ----------------------------------------------------------------------
Time(h+m) Out = O(CFS) In = I  0        6.9      13.8      20.7      27.6
----------------------------------------------------------------------------
  0+ 5       0.0009      0.00  O         |         |         |         |
  0+10       0.0061      0.01  O         |         |         |         |
  0+15       0.0176      0.03  O         |         |         |         |
  0+20       0.0331      0.05  O         |         |         |         |
  0+25       0.0515      0.07  O         |         |         |         |
  0+30       0.0731      0.09  O         |         |         |         |
  0+35       0.0962      0.12  O         |         |         |         |
  0+40       0.1192      0.14  O         |         |         |         |
  0+45       0.1418      0.16  O         |         |         |         |
  0+50       0.1642      0.18  O         |         |         |         |
  0+55       0.1882      0.21  O         |         |         |         |
  1+ 0       0.2148      0.24  O         |         |         |         |
  1+ 5       0.2421      0.26  O         |         |         |         |
  1+10       0.2671      0.29  O         |         |         |         |
  1+15       0.2884      0.30  O         |         |         |         |
  1+20       0.3073      0.32  O         |         |         |         |
  1+25       0.3250      0.34  O         |         |         |         |
  1+30       0.3420      0.36  O         |         |         |         |
  1+35       0.3584      0.37  O         |         |         |         |
  1+40       0.3745      0.39  O         |         |         |         |
  1+45       0.3900      0.40  O         |         |         |         |
  1+50       0.4056      0.42  O         |         |         |         |
  1+55       0.4229      0.44  O         |         |         |         |
  2+ 0       0.4429      0.46  O         |         |         |         |
  2+ 5       0.4644      0.48  O         |         |         |         |
  2+10       0.4858      0.50  O         |         |         |         |
  2+15       0.5069      0.52  O         |         |         |         |
  2+20       0.5274      0.54  O         |         |         |         |
  2+25       0.5474      0.56  O         |         |         |         |
  2+30       0.5668      0.58  O         |         |         |         |
  2+35       0.5861      0.60  O         |         |         |         |
  2+40       0.6071      0.63  O         |         |         |         |
  2+45       0.6306      0.65  O         |         |         |         |
  2+50       0.6555      0.68  O         |         |         |         |
  2+55       0.6803      0.70  OI        |         |         |         |
  3+ 0       0.7046      0.72  |O        |         |         |         |
  3+ 5       0.7283      0.75  |O        |         |         |         |
  3+10       0.7513      0.77  |O        |         |         |         |
  3+15       0.7737      0.79  |O        |         |         |         |
  3+20       0.7955      0.81  |O        |         |         |         |
  3+25       0.8167      0.83  |O        |         |         |         |
  3+30       0.8373      0.85  |O        |         |         |         |
  3+35       0.8573      0.87  |O        |         |         |         |
  3+40       0.8767      0.89  |O        |         |         |         |
  3+45       0.8956      0.91  |O        |         |         |         |
  3+50       0.9145      0.93  |O        |         |         |         |
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3+55	0.9350	0.95	O				
4+ 0	0.9581	0.98	O				
4+ 5	0.9825	1.00	O				
4+10	1.0060	1.02	O				
4+15	1.0220	1.02	O				
4+20	1.0246	1.03	O				
4+25	1.0262	1.03	O				
4+30	1.0278	1.03	O				
4+35	1.0295	1.03	O				
4+40	1.0312	1.03	O				
4+45	1.0329	1.03	O				
4+50	1.0347	1.04	O				
4+55	1.0366	1.04	O				
5+ 0	1.0386	1.04	O				
5+ 5	1.0408	1.04	O				
5+10	1.0427	1.04	O				
5+15	1.0442	1.05	O				
5+20	1.0456	1.05	O				
5+25	1.0470	1.05	O				
5+30	1.0486	1.05	O				
5+35	1.0503	1.05	O				
5+40	1.0521	1.05	O				
5+45	1.0542	1.06	O				
5+50	1.0563	1.06	O				
5+55	1.0586	1.06	O				
6+ 0	1.0608	1.06	O				
6+ 5	1.0632	1.07	O				
6+10	1.0660	1.07	O				
6+15	1.0693	1.07	O				
6+20	1.0729	1.08	O				
6+25	1.0767	1.08	O				
6+30	1.0806	1.08	O				
6+35	1.0846	1.09	O				
6+40	1.0889	1.09	O				
6+45	1.0938	1.10	O				
6+50	1.0991	1.10	O				
6+55	1.1044	1.11	O				
7+ 0	1.1099	1.11	O				
7+ 5	1.1153	1.12	O				
7+10	1.1208	1.13	O				
7+15	1.1263	1.13	O				
7+20	1.1319	1.14	O				
7+25	1.1378	1.14	O				
7+30	1.1439	1.15	O				
7+35	1.1499	1.16	O				
7+40	1.1564	1.16	O				
7+45	1.1669	1.18	O				
7+50	1.1881	1.21	O				
7+55	1.2128	1.23	O				
8+ 0	1.2392	1.26	O				
8+ 5	1.2670	1.29	O				
8+10	1.2970	1.32	O				
8+15	1.3301	1.36	O				
8+20	1.3649	1.39	OI				
8+25	1.4002	1.43	O				
8+30	1.5190	1.79	O				
8+35	2.4035	4.29	O I				
8+40	4.5994	6.15	O I				
8+45	6.3683	7.53	OI				
8+50	7.6947	8.57	OI				
8+55	8.7150	9.43	OI				
9+ 0	9.5438	10.11	OI				
9+ 5	10.2225	10.73	OI				
9+10	10.8629	11.42	OI				
9+15	11.5336	12.06	OI				
9+20	12.1516	12.60	OI				
9+25	12.6982	13.13	OI				
9+30	13.2046	13.58	O				
9+35	13.6461	13.97	OI				
9+40	14.0503	14.39	O				

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 9+45      14.4506     14.76  |         |         OI        |         |
 9+50      14.8162     15.10  |         |         |O        |         |
 9+55      15.1674     15.47  |         |         |OI       |         |
10+ 0      15.5307     15.81  |         |         | O       |         |
10+ 5      15.7504     15.66  |         |         | O       |         |
10+10      15.4299     14.72  |         |         |IO       |         |
10+15      14.4769     13.53  |         |        IO         |         |
10+20      13.3719     12.58  |         |       IO|         |         |
10+25      12.4715     11.88  |         |      IO |         |         |
10+30      11.8010     11.38  |         |     IO  |         |         |
10+35      11.4014     11.33  |         |     O   |         |         |
10+40      11.4845     11.91  |         |     OI  |         |         |
10+45      12.0786     12.71  |         |      OI |         |         |
10+50      12.8189     13.36  |         |       OI|         |         |
10+55      13.4378     13.85  |         |        OI         |         |
11+ 0      13.9096     14.21  |         |         O         |         |
11+ 5      14.2384     14.41  |         |         O         |         |
11+10      14.4022     14.43  |         |         O         |         |
11+15      14.4155     14.38  |         |         O         |         |
11+20      14.3660     14.32  |         |         O         |         |
11+25      14.3173     14.29  |         |         O         |         |
11+30      14.2819     14.26  |         |         O         |         |
11+35      14.2306     14.13  |         |         O         |         |
11+40      14.0577     13.80  |         |        IO         |         |
11+45      13.7305     13.43  |         |        O|         |         |
11+50      13.3949     13.19  |         |        O|         |         |
11+55      13.1988     13.14  |         |        O|         |         |
12+ 0      13.1596     13.19  |         |        O|         |         |
12+ 5      13.3031     13.65  |         |        O|         |         |
12+10      13.9266     14.85  |         |         OI        |         |
12+15      15.1156     16.22  |         |         |O I      |         |
12+20      16.4149     17.37  |         |         |  O I    |         |
12+25      17.5330     18.34  |         |         |    OI   |         |
12+30      18.4720     19.12  |         |         |     OI  |         |
12+35      19.2387     19.80  |         |         |      OI |         |
12+40      19.9405     20.53  |         |         |       OI|         |
12+45      20.6532     21.20  |         |         |        OI         |
12+50      21.2996     21.77  |         |         |         OI        |
12+55      21.8651     22.31  |         |         |         |OI       |
13+ 0      22.3838     22.76  |         |         |         | O       |
13+ 5      22.8931     23.40  |         |         |         |  O      |
13+10      23.6288     24.47  |         |         |         |   OI    |
13+15      24.6834     25.60  |         |         |         |    O I  |
13+20      25.7452     26.48  |         |         |         |      OI |
13+25      26.5873     27.14  |         |         |         |       OI|
13+30      27.2136     27.61  |         |         |         |        OI
13+35      27.4991     27.30  |         |         |         |        O|
13+40      26.9192     25.74  |         |         |         |      IO |
13+45      25.3533     23.82  |         |         |         |   I O   |
13+50      23.5621     22.29  |         |         |         | I O     |
13+55      22.1047     21.14  |         |         |        I O        |
14+ 0      21.0174     20.33  |         |         |       IO          |
14+ 5      20.3039     20.00  |         |         |      IO|          |
14+10      20.0959     20.27  |         |         |       O|          |
14+15      20.3806     20.77  |         |         |       OI          |
14+20      20.8256     21.13  |         |         |        O          |
14+25      21.1473     21.30  |         |         |        O          |
14+30      21.2982     21.35  |         |         |        O          |
14+35      21.3518     21.37  |         |         |        O          |
14+40      21.3746     21.39  |         |         |        O          |
14+45      21.3881     21.40  |         |         |        O          |
14+50      21.3851     21.35  |         |         |        O          |
14+55      21.3162     21.20  |         |         |        O          |
15+ 0      21.1667     21.03  |         |         |        O          |
15+ 5      20.9880     20.83  |         |         |        O          |
15+10      20.7773     20.57  |         |         |       IO          |
15+15      20.5220     20.31  |         |         |       O|          |
15+20      20.2677     20.06  |         |         |       O|          |
15+25      20.0042     19.76  |         |         |      O |          |
15+30      19.7121     19.48  |         |         |      O |          |
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15+35     19.3870     19.03  |         |         |      IO |         |
15+40     18.8604     18.23  |         |         |     IO  |         |
15+45     18.0669     17.37  |         |         |    IO   |         |
15+50     17.2602     16.70  |         |         |   IO    |         |
15+55     16.6247     16.21  |         |         |  IO     |         |
16+ 0     16.1584     15.87  |         |         | IO      |         |
16+ 5     15.6085     14.76  |         |         |IO       |         |
16+10     14.1762     12.18  |         |      I  O         |         |
16+15     11.6145      9.27  |         |  I  O   |         |         |
16+20      8.8845      6.97  |         | I O     |         |         |
16+25      6.6954      5.25  |      I O|         |         |         |
16+30      5.0676      4.03  |    I O  |         |         |         |
16+35      3.9008      3.16  |   IO    |         |         |         |
16+40      3.0633      2.52  |  IO     |         |         |         |
16+45      2.4456      2.05  | IO      |         |         |         |
16+50      1.9947      1.71  | O       |         |         |         |
16+55      1.6747      1.47  | O       |         |         |         |
17+ 0      1.4875      1.46  | O       |         |         |         |
17+ 5      1.4602      1.46  | O       |         |         |         |
17+10      1.4573      1.46  | O       |         |         |         |
17+15      1.4617      1.47  | O       |         |         |         |
17+20      1.5224      1.67  | O       |         |         |         |
17+25      1.6952      1.82  | O       |         |         |         |
17+30      1.8371      1.93  | O       |         |         |         |
17+35      1.9429      2.01  | O       |         |         |         |
17+40      2.0206      2.07  | OI      |         |         |         |
17+45      2.0785      2.12  |  O      |         |         |         |
17+50      2.1074      2.09  |  O      |         |         |         |
17+55      2.0600      1.96  | O       |         |         |         |
18+ 0      1.9246      1.79  | O       |         |         |         |
18+ 5      1.7699      1.66  | O       |         |         |         |
18+10      1.6462      1.57  | O       |         |         |         |
18+15      1.5567      1.50  | O       |         |         |         |
18+20      1.4960      1.46  | O       |         |         |         |
18+25      1.4634      1.46  | O       |         |         |         |
18+30      1.4599      1.46  | O       |         |         |         |
18+35      1.4592      1.46  | O       |         |         |         |
18+40      1.4584      1.46  | O       |         |         |         |
18+45      1.4568      1.46  | O       |         |         |         |
18+50      1.4547      1.45  | O       |         |         |         |
18+55      1.4521      1.45  | O       |         |         |         |
19+ 0      1.4491      1.45  | O       |         |         |         |
19+ 5      1.4458      1.44  | O       |         |         |         |
19+10      1.4427      1.44  | O       |         |         |         |
19+15      1.4401      1.44  | O       |         |         |         |
19+20      1.4380      1.44  | O       |         |         |         |
19+25      1.4365      1.44  | O       |         |         |         |
19+30      1.4360      1.44  | O       |         |         |         |
19+35      1.4360      1.44  | O       |         |         |         |
19+40      1.4356      1.43  | O       |         |         |         |
19+45      1.4343      1.43  | O       |         |         |         |
19+50      1.4323      1.43  | O       |         |         |         |
19+55      1.4299      1.43  | O       |         |         |         |
20+ 0      1.4269      1.42  | O       |         |         |         |
20+ 5      1.4237      1.42  | O       |         |         |         |
20+10      1.4207      1.42  | O       |         |         |         |
20+15      1.4182      1.42  | O       |         |         |         |
20+20      1.4161      1.41  | O       |         |         |         |
20+25      1.4140      1.41  | O       |         |         |         |
20+30      1.4119      1.41  | O       |         |         |         |
20+35      1.4099      1.41  | O       |         |         |         |
20+40      1.4079      1.41  | O       |         |         |         |
20+45      1.4058      1.40  | O       |         |         |         |
20+50      1.4038      1.40  | O       |         |         |         |
20+55      1.4014      1.40  | O       |         |         |         |
21+ 0      1.3985      1.40  | O       |         |         |         |
21+ 5      1.3954      1.39  | O       |         |         |         |
21+10      1.3926      1.39  | O       |         |         |         |
21+15      1.3902      1.39  | O       |         |         |         |
21+20      1.3881      1.39  | O       |         |         |         |
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21+25	1.3857	1.38	| O	|	|	|	|
21+30	1.3829	1.38	|IO	|	|	|	|
21+35	1.3798	1.38	|O	|	|	|	|
21+40	1.3771	1.38	|O	|	|	|	|
21+45	1.3748	1.37	|O	|	|	|	|
21+50	1.3727	1.37	|O	|	|	|	|
21+55	1.3704	1.37	|O	|	|	|	|
22+ 0	1.3676	1.37	|O	|	|	|	|
22+ 5	1.3647	1.36	|O	|	|	|	|
22+10	1.3619	1.36	|O	|	|	|	|
22+15	1.3597	1.36	|O	|	|	|	|
22+20	1.3577	1.36	|O	|	|	|	|
22+25	1.3554	1.35	|O	|	|	|	|
22+30	1.3528	1.35	|O	|	|	|	|
22+35	1.3498	1.35	|O	|	|	|	|
22+40	1.3467	1.34	|O	|	|	|	|
22+45	1.3437	1.34	|O	|	|	|	|
22+50	1.3406	1.34	|O	|	|	|	|
22+55	1.3376	1.34	|O	|	|	|	|
23+ 0	1.3345	1.33	|O	|	|	|	|
23+ 5	1.3315	1.33	|O	|	|	|	|
23+10	1.3285	1.33	|O	|	|	|	|
23+15	1.3255	1.32	|O	|	|	|	|
23+20	1.3225	1.32	|O	|	|	|	|
23+25	1.3195	1.32	|O	|	|	|	|
23+30	1.3166	1.31	|O	|	|	|	|
23+35	1.3136	1.31	|O	|	|	|	|
23+40	1.3107	1.31	|O	|	|	|	|
23+45	1.3077	1.31	|O	|	|	|	|
23+50	1.3048	1.30	|O	|	|	|	|
23+55	1.3019	1.30	|O	|	|	|	|
24+ 0	1.2990	1.30	|O	|	|	|	|
24+ 5	1.2960	1.29	|O	|	|	|	|
24+10	1.2924	1.29	|O	|	|	|	|
24+15	1.2877	1.28	|O	|	|	|	|
24+20	1.2825	1.28	|O	|	|	|	|
24+25	1.2772	1.27	|O	|	|	|	|
24+30	1.2718	1.27	|O	|	|	|	|
24+35	1.2663	1.26	|O	|	|	|	|
24+40	1.2610	1.26	|O	|	|	|	|
24+45	1.2556	1.25	|O	|	|	|	|
24+50	1.2503	1.25	|O	|	|	|	|
24+55	1.2449	1.24	|O	|	|	|	|
25+ 0	1.2397	1.24	|O	|	|	|	|
25+ 5	1.2344	1.23	|O	|	|	|	|
25+10	1.2291	1.22	|O	|	|	|	|
25+15	1.2239	1.22	|O	|	|	|	|
25+20	1.2187	1.21	|O	|	|	|	|
25+25	1.2135	1.21	|O	|	|	|	|
25+30	1.2084	1.20	|O	|	|	|	|
25+35	1.2032	1.20	|O	|	|	|	|
25+40	1.1981	1.19	|O	|	|	|	|
25+45	1.1930	1.19	|O	|	|	|	|
25+50	1.1879	1.18	|O	|	|	|	|
25+55	1.1829	1.18	|O	|	|	|	|
26+ 0	1.1779	1.17	|O	|	|	|	|
26+ 5	1.1728	1.17	|O	|	|	|	|
26+10	1.1679	1.16	|O	|	|	|	|
26+15	1.1636	1.16	|O	|	|	|	|
26+20	1.1615	1.16	|O	|	|	|	|
26+25	1.1599	1.16	|O	|	|	|	|
26+30	1.1584	1.16	|O	|	|	|	|
26+35	1.1568	1.16	|O	|	|	|	|
26+40	1.1553	1.15	|O	|	|	|	|
26+45	1.1538	1.15	|O	|	|	|	|
26+50	1.1523	1.15	|O	|	|	|	|
26+55	1.1507	1.15	|O	|	|	|	|
27+ 0	1.1492	1.15	|O	|	|	|	|
27+ 5	1.1477	1.15	|O	|	|	|	|
27+10	1.1462	1.14	|O	|	|	|	|

27+15	1.1447	1.14	O				
27+20	1.1432	1.14	O				
27+25	1.1417	1.14	O				
27+30	1.1401	1.14	O				
27+35	1.1385	1.14	O				
27+40	1.1367	1.14	O				
27+45	1.1350	1.13	O				
27+50	1.1333	1.13	O				
27+55	1.1316	1.13	O				
28+ 0	1.1298	1.13	O				
28+ 5	1.1281	1.13	O				
28+10	1.1264	1.13	O				
28+15	1.1247	1.12	O				
28+20	1.1230	1.12	O				
28+25	1.1213	1.12	O				
28+30	1.1196	1.12	O				
28+35	1.1179	1.12	O				
28+40	1.1162	1.11	O				
28+45	1.1145	1.11	O				
28+50	1.1128	1.11	O				
28+55	1.1111	1.11	O				
29+ 0	1.1094	1.11	O				
29+ 5	1.1077	1.11	O				
29+10	1.1060	1.10	O				
29+15	1.1044	1.10	O				
29+20	1.1027	1.10	O				
29+25	1.1010	1.10	O				
29+30	1.0993	1.10	O				
29+35	1.0977	1.10	O				
29+40	1.0960	1.09	O				
29+45	1.0943	1.09	O				
29+50	1.0927	1.09	O				
29+55	1.0910	1.09	O				
30+ 0	1.0894	1.09	O				
30+ 5	1.0877	1.09	O				
30+10	1.0860	1.08	O				
30+15	1.0844	1.08	O				
30+20	1.0827	1.08	O				
30+25	1.0811	1.08	O				
30+30	1.0795	1.08	O				
30+35	1.0778	1.08	O				
30+40	1.0762	1.07	O				
30+45	1.0745	1.07	O				
30+50	1.0729	1.07	O				
30+55	1.0713	1.07	O				
31+ 0	1.0697	1.07	O				
31+ 5	1.0680	1.07	O				
31+10	1.0664	1.07	O				
31+15	1.0648	1.06	O				
31+20	1.0632	1.06	O				
31+25	1.0616	1.06	O				
31+30	1.0599	1.06	O				
31+35	1.0583	1.06	O				
31+40	1.0567	1.06	O				
31+45	1.0551	1.05	O				
31+50	1.0535	1.05	O				
31+55	1.0519	1.05	O				
32+ 0	1.0503	1.05	O				
32+ 5	1.0487	1.05	O				
32+10	1.0471	1.05	O				
32+15	1.0455	1.04	O				
32+20	1.0440	1.04	O				
32+25	1.0424	1.04	O				
32+30	1.0408	1.04	O				
32+35	1.0392	1.04	O				
32+40	1.0376	1.04	O				
32+45	1.0360	1.03	O				
32+50	1.0345	1.03	O				
32+55	1.0329	1.03	O				
33+ 0	1.0313	1.03	O				

33+ 5	1.0298	1.03	|O	|	|	|	|
33+10	1.0282	1.03	|O	|	|	|	|
33+15	1.0266	1.03	|O	|	|	|	|
33+20	1.0251	1.02	|O	|	|	|	|
33+25	1.0202	1.01	|O	|	|	|	|
33+30	1.0031	0.98	|O	|	|	|	|
33+35	0.9762	0.95	|O	|	|	|	|
33+40	0.9492	0.93	|O	|	|	|	|
33+45	0.9228	0.90	|O	|	|	|	|
33+50	0.8972	0.88	|O	|	|	|	|
33+55	0.8722	0.85	|O	|	|	|	|
34+ 0	0.8480	0.83	|O	|	|	|	|
34+ 5	0.8244	0.81	|O	|	|	|	|
34+10	0.8015	0.78	|O	|	|	|	|
34+15	0.7793	0.76	|O	|	|	|	|
34+20	0.7576	0.74	|O	|	|	|	|
34+25	0.7365	0.72	|O	|	|	|	|
34+30	0.7161	0.70	|O	|	|	|	|
34+35	0.6962	0.68	IO	|	|	|	|
34+40	0.6768	0.66	O	|	|	|	|
34+45	0.6580	0.64	O	|	|	|	|
34+50	0.6397	0.63	O	|	|	|	|
34+55	0.6220	0.61	O	|	|	|	|
35+ 0	0.6047	0.59	O	|	|	|	|
35+ 5	0.5879	0.57	O	|	|	|	|
35+10	0.5715	0.56	O	|	|	|	|
35+15	0.5556	0.54	O	|	|	|	|
35+20	0.5402	0.53	O	|	|	|	|
35+25	0.5252	0.51	O	|	|	|	|
35+30	0.5106	0.50	O	|	|	|	|
35+35	0.4964	0.49	O	|	|	|	|
35+40	0.4826	0.47	O	|	|	|	|
35+45	0.4692	0.46	O	|	|	|	|
35+50	0.4562	0.45	O	|	|	|	|
35+55	0.4435	0.43	O	|	|	|	|
36+ 0	0.4312	0.42	O	|	|	|	|
36+ 5	0.4192	0.41	O	|	|	|	|
36+10	0.4075	0.40	O	|	|	|	|
36+15	0.3962	0.39	O	|	|	|	|
36+20	0.3852	0.38	O	|	|	|	|
36+25	0.3745	0.37	O	|	|	|	|
36+30	0.3641	0.36	O	|	|	|	|
36+35	0.3540	0.35	O	|	|	|	|
36+40	0.3441	0.34	O	|	|	|	|
36+45	0.3346	0.33	O	|	|	|	|
36+50	0.3253	0.32	O	|	|	|	|
36+55	0.3162	0.31	O	|	|	|	|
37+ 0	0.3074	0.30	O	|	|	|	|
37+ 5	0.2989	0.29	O	|	|	|	|
37+10	0.2906	0.28	O	|	|	|	|
37+15	0.2825	0.28	O	|	|	|	|
37+20	0.2747	0.27	O	|	|	|	|
37+25	0.2670	0.26	O	|	|	|	|
37+30	0.2596	0.25	O	|	|	|	|
37+35	0.2524	0.25	O	|	|	|	|
37+40	0.2454	0.24	O	|	|	|	|
37+45	0.2386	0.23	O	|	|	|	|
37+50	0.2319	0.23	O	|	|	|	|
37+55	0.2255	0.22	O	|	|	|	|
38+ 0	0.2192	0.21	O	|	|	|	|
38+ 5	0.2131	0.21	O	|	|	|	|
38+10	0.2072	0.20	O	|	|	|	|
38+15	0.2014	0.20	O	|	|	|	|
38+20	0.1958	0.19	O	|	|	|	|
38+25	0.1904	0.19	O	|	|	|	|
38+30	0.1851	0.18	O	|	|	|	|
38+35	0.1800	0.18	O	|	|	|	|
38+40	0.1750	0.17	O	|	|	|	|
38+45	0.1701	0.17	O	|	|	|	|
38+50	0.1654	0.16	O	|	|	|	|

38+55	0.1608	0.16	O				
39+ 0	0.1563	0.15	O				
39+ 5	0.1520	0.15	O				
39+10	0.1477	0.14	O				
39+15	0.1436	0.14	O				
39+20	0.1396	0.14	O				
39+25	0.1358	0.13	O				
39+30	0.1320	0.13	O				
39+35	0.1283	0.13	O				
39+40	0.1248	0.12	O				
39+45	0.1213	0.12	O				
39+50	0.1179	0.12	O				
39+55	0.1146	0.11	O				
40+ 0	0.1115	0.11	O				
40+ 5	0.1084	0.11	O				
40+10	0.1054	0.10	O				
40+15	0.1024	0.10	O				
40+20	0.0996	0.10	O				
40+25	0.0968	0.09	O				
40+30	0.0941	0.09	O				
40+35	0.0915	0.09	O				
40+40	0.0890	0.09	O				
40+45	0.0865	0.08	O				
40+50	0.0841	0.08	O				
40+55	0.0817	0.08	O				
41+ 0	0.0795	0.08	O				
41+ 5	0.0773	0.08	O				
41+10	0.0751	0.07	O				
41+15	0.0730	0.07	O				
41+20	0.0710	0.07	O				
41+25	0.0690	0.07	O				
41+30	0.0671	0.07	O				
41+35	0.0652	0.06	O				
41+40	0.0634	0.06	O				
41+45	0.0617	0.06	O				
41+50	0.0600	0.06	O				
41+55	0.0583	0.06	O				
42+ 0	0.0567	0.06	O				
42+ 5	0.0551	0.05	O				
42+10	0.0536	0.05	O				
42+15	0.0521	0.05	O				
42+20	0.0506	0.05	O				
42+25	0.0492	0.05	O				
42+30	0.0479	0.05	O				
42+35	0.0465	0.05	O				
42+40	0.0452	0.04	O				
42+45	0.0440	0.04	O				
42+50	0.0428	0.04	O				
42+55	0.0416	0.04	O				
43+ 0	0.0404	0.04	O				
43+ 5	0.0393	0.04	O				
43+10	0.0382	0.04	O				
43+15	0.0371	0.04	O				
43+20	0.0361	0.04	O				
43+25	0.0351	0.03	O				
43+30	0.0341	0.03	O				
43+35	0.0332	0.03	O				
43+40	0.0323	0.03	O				
43+45	0.0314	0.03	O				
43+50	0.0305	0.03	O				
43+55	0.0296	0.03	O				
44+ 0	0.0288	0.03	O				
44+ 5	0.0280	0.03	O				
44+10	0.0272	0.03	O				
44+15	0.0265	0.03	O				
44+20	0.0257	0.03	O				
44+25	0.0250	0.02	O				
44+30	0.0243	0.02	O				
44+35	0.0237	0.02	O				
44+40	0.0230	0.02	O				

44+45	0.0224	0.02	O				
44+50	0.0217	0.02	O				
44+55	0.0211	0.02	O				
45+ 0	0.0205	0.02	O				
45+ 5	0.0200	0.02	O				
45+10	0.0194	0.02	O				
45+15	0.0189	0.02	O				
45+20	0.0184	0.02	O				
45+25	0.0178	0.02	O				
45+30	0.0173	0.02	O				
45+35	0.0169	0.02	O				
45+40	0.0164	0.02	O				
45+45	0.0159	0.02	O				
45+50	0.0155	0.02	O				
45+55	0.0151	0.01	O				
46+ 0	0.0146	0.01	O				
46+ 5	0.0142	0.01	O				
46+10	0.0138	0.01	O				
46+15	0.0135	0.01	O				
46+20	0.0131	0.01	O				
46+25	0.0127	0.01	O				
46+30	0.0124	0.01	O				
46+35	0.0120	0.01	O				
46+40	0.0117	0.01	O				
46+45	0.0114	0.01	O				
46+50	0.0111	0.01	O				
46+55	0.0107	0.01	O				
47+ 0	0.0104	0.01	O				
47+ 5	0.0102	0.01	O				
47+10	0.0099	0.01	O				
47+15	0.0096	0.01	O				
47+20	0.0093	0.01	O				
47+25	0.0091	0.01	O				
47+30	0.0088	0.01	O				
47+35	0.0086	0.01	O				
47+40	0.0083	0.01	O				
47+45	0.0081	0.01	O				
47+50	0.0079	0.01	O				
47+55	0.0077	0.01	O				
48+ 0	0.0074	0.01	O				
48+ 5	0.0072	0.01	O				
48+10	0.0070	0.01	O				
48+15	0.0068	0.01	O				
48+20	0.0067	0.01	O				
48+25	0.0065	0.01	O				
48+30	0.0063	0.01	O				
48+35	0.0061	0.01	O				
48+40	0.0059	0.01	O				
48+45	0.0058	0.01	O				
48+50	0.0056	0.01	O				
48+55	0.0055	0.01	O				
49+ 0	0.0053	0.01	O				
49+ 5	0.0052	0.01	O				
49+10	0.0050	0.00	O				
49+15	0.0049	0.00	O				
49+20	0.0047	0.00	O				
49+25	0.0046	0.00	O				
49+30	0.0045	0.00	O				
49+35	0.0044	0.00	O				
49+40	0.0042	0.00	O				
49+45	0.0041	0.00	O				
49+50	0.0040	0.00	O				
49+55	0.0039	0.00	O				
50+ 0	0.0038	0.00	O				
50+ 5	0.0037	0.00	O				
50+10	0.0036	0.00	O				
50+15	0.0035	0.00	O				
50+20	0.0034	0.00	O				
50+25	0.0033	0.00	O				
50+30	0.0032	0.00	O				

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  50+35       0.0031      0.00  O         |         |         |         |
  50+40       0.0030      0.00  O         |         |         |         |
  50+45       0.0029      0.00  O         |         |         |         |
  50+50       0.0029      0.00  O         |         |         |         |
  50+55       0.0028      0.00  O         |         |         |         |
  51+ 0       0.0027      0.00  O         |         |         |         |
  51+ 5       0.0026      0.00  O         |         |         |         |
  51+10       0.0026      0.00  O         |         |         |         |
  51+15       0.0025      0.00  O         |         |         |         |
  51+20       0.0024      0.00  O         |         |         |         |
  51+25       0.0023      0.00  O         |         |         |         |
  51+30       0.0023      0.00  O         |         |         |         |
  51+35       0.0022      0.00  O         |         |         |         |
  51+40       0.0022      0.00  O         |         |         |         |
  51+45       0.0021      0.00  O         |         |         |         |
  51+50       0.0020      0.00  O         |         |         |         |
  51+55       0.0015      0.00  O         |         |         |         |
  52+ 0       0.0000      0.00  O         |         |         |         |
--------------------------------------------------------------------------
      ****************************HYDROGRAPH DATA****************************
                  Number of intervals =   624
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =       27.499 (CFS)
                  Total volume =      13.543 (Ac.Ft)
            Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      ************************************************************************

      ------------------------------------------------------------------------


      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      Process from Point/Station       10.000 to Point/Station       11.000
      **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
      ____________________________________________________________________
      ********************* HYDROGRAPH INFORMATION **********************

                  From study/file name: lgareaa24100.rte
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                     P R I N T  O F  S T O R M
                  R u n o f f     H y d r o g r a p h
      ------------------------------------------------------------------------
                Hydrograph in   5   Minute intervals (CFS)

      ------------------------------------------------------------------------
 Time(h+m) Add q(CFS)  Tot. Q   0       48.1      96.2     144.3     192.3
 ------------------------------------------------------------------------
   0+ 5       0.3169      0.32  Q         |         |         |         |
   0+10       1.6634      1.67  Q         |         |         |         |
   0+15       3.2601      3.28  Q         |         |         |         |
   0+20       4.1771      4.21  Q         |         |         |         |
   0+25       5.2371      5.29  |Q        |         |         |         |
   0+30       6.3026      6.38  |Q        |         |         |         |
   0+35       6.8758      6.97  |Q        |         |         |         |
   0+40       7.2187      7.34  |Q        |         |         |         |
   0+45       7.4638      7.61  |Q        |         |         |         |
   0+50       7.8048      7.97  |Q        |         |         |         |
   0+55       8.6291      8.82  |Q        |         |         |         |
   1+ 0       9.5419      9.76  |qQ       |         |         |         |
   1+ 5       9.8530     10.10  | Q       |         |         |         |
   1+10       9.4488      9.72  |qQ       |         |         |         |
   1+15       8.8414      9.13  |Q        |         |         |         |
   1+20       8.6094      8.92  |Q        |         |         |         |
   1+25       8.5408      8.87  |Q        |         |         |         |
   1+30       8.4770      8.82  |Q        |         |         |         |
   1+35       8.4361      8.79  |Q        |         |         |         |
   1+40       8.4152      8.79  |Q        |         |         |         |
   1+45       8.3888      8.78  |Q        |         |         |         |
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1+50       8.5283      8.93  |Q        |         |         |         |
1+55       9.1820      9.60  |Q        |         |         |         |
2+ 0       9.9651     10.41  | Q       |         |         |         |
2+ 5      10.3338     10.80  | Q       |         |         |         |
2+10      10.5242     11.01  | Q       |         |         |         |
2+15      10.6438     11.15  | Q       |         |         |         |
2+20      10.7275     11.25  | Q       |         |         |         |
2+25      10.7865     11.33  | Q       |         |         |         |
2+30      10.8423     11.41  | Q       |         |         |         |
2+35      11.0435     11.63  | Q       |         |         |         |
2+40      11.7549     12.36  | Q       |         |         |         |
2+45      12.5826     13.21  | Q       |         |         |         |
2+50      12.9856     13.64  | Q       |         |         |         |
2+55      13.1978     13.88  | Q       |         |         |         |
3+ 0      13.3454     14.05  | Q       |         |         |         |
3+ 5      13.4556     14.18  | Q       |         |         |         |
3+10      13.5460     14.30  | Q       |         |         |         |
3+15      13.6018     14.38  | Q       |         |         |         |
3+20      13.6446     14.44  | qQ      |         |         |         |
3+25      13.6827     14.50  | qQ      |         |         |         |
3+30      13.7121     14.55  | qQ      |         |         |         |
3+35      13.7359     14.59  | qQ      |         |         |         |
3+40      13.7546     14.63  | qQ      |         |         |         |
3+45      13.7686     14.66  | qQ      |         |         |         |
3+50      13.9403     14.85  | qQ      |         |         |         |
3+55      14.6292     15.56  |  Q      |         |         |         |
4+ 0      15.4276     16.39  |  Q      |         |         |         |
4+ 5      15.8068     16.79  |  Q      |         |         |         |
4+10      16.0003     17.01  |  Q      |         |         |         |
4+15      16.1338     17.16  |  Q      |         |         |         |
4+20      16.3893     17.41  |  Q      |         |         |         |
4+25      17.1372     18.16  |  Q      |         |         |         |
4+30      17.9913     19.02  |  Q      |         |         |         |
4+35      18.4134     19.44  |  qQ     |         |         |         |
4+40      18.6450     19.68  |  qQ     |         |         |         |
4+45      18.8079     19.84  |  qQ     |         |         |         |
4+50      19.0871     20.12  |  qQ     |         |         |         |
4+55      19.8538     20.89  |   Q     |         |         |         |
5+ 0      20.7219     21.76  |   Q     |         |         |         |
5+ 5      20.8402     21.88  |   Q     |         |         |         |
5+10      19.7411     20.78  |   Q     |         |         |         |
5+15      18.3073     19.35  |  qQ     |         |         |         |
5+20      17.8280     18.87  |  Q      |         |         |         |
5+25      18.2078     19.25  |  qQ     |         |         |         |
5+30      18.8088     19.86  |  qQ     |         |         |         |
5+35      19.2086     20.26  |  qQ     |         |         |         |
5+40      19.9797     21.03  |   Q     |         |         |         |
5+45      20.8294     21.88  |   Q     |         |         |         |
5+50      21.2439     22.30  |   Q     |         |         |         |
5+55      21.4545     22.51  |   Q     |         |         |         |
6+ 0      21.5991     22.66  |   Q     |         |         |         |
6+ 5      21.8630     22.93  |   Q     |         |         |         |
6+10      22.6274     23.69  |   Q     |         |         |         |
6+15      23.4828     24.55  |   qQ    |         |         |         |
6+20      23.9021     24.98  |   qQ    |         |         |         |
6+25      24.1210     25.20  |    Q    |         |         |         |
6+30      24.2980     25.38  |    Q    |         |         |         |
6+35      24.5904     25.67  |    Q    |         |         |         |
6+40      25.3728     26.46  |    Q    |         |         |         |
6+45      26.2409     27.33  |    Q    |         |         |         |
6+50      26.6762     27.78  |    Q    |         |         |         |
6+55      26.9235     28.03  |    Q    |         |         |         |
7+ 0      27.0864     28.20  |    Q    |         |         |         |
7+ 5      27.2072     28.32  |    Q    |         |         |         |
7+10      27.3006     28.42  |    Q    |         |         |         |
7+15      27.3704     28.50  |    Q    |         |         |         |
7+20      27.6801     28.81  |    Q    |         |         |         |
7+25      28.8197     29.96  |    qQ   |         |         |         |
7+30      30.1685     31.31  |     Q   |         |         |         |
7+35      31.2037     32.35  |     Q   |         |         |         |
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 7+40      33.0054     34.16  |     qQ  |         |         |         |
 7+45      34.9713     36.14  |      Q  |         |         |         |
 7+50      36.3522     37.54  |      Q  |         |         |         |
 7+55      38.3758     39.59  |      qQ |         |         |         |
 8+ 0      40.4899     41.73  |       Q |         |         |         |
 8+ 5      42.3024     43.57  |       qQ|         |         |         |
 8+10      45.7857     47.08  |        Q|         |         |         |
 8+15      49.6063     50.94  |         Q         |         |         |
 8+20      51.6073     52.97  |         qQ        |         |         |
 8+25      52.7877     54.19  |         qQ        |         |         |
 8+30      53.6601     55.18  |         |Q        |         |         |
 8+35      54.6678     57.07  |         |Q        |         |         |
 8+40      56.6196     61.22  |         |qQ       |         |         |
 8+45      58.6971     65.07  |         | qQ      |         |         |
 8+50      60.1763     67.87  |         | q Q     |         |         |
 8+55      62.3023     71.02  |         | q Q     |         |         |
 9+ 0      64.4835     74.03  |         |  q Q    |         |         |
 9+ 5      66.3568     76.58  |         |  q Q    |         |         |
 9+10      69.8904     80.75  |         |   q Q   |         |         |
 9+15      73.7225     85.26  |         |    q Q  |         |         |
 9+20      76.0624     88.21  |         |    q  Q |         |         |
 9+25      78.6493     91.35  |         |     q Q |         |         |
 9+30      81.1260     94.33  |         |     q  Q|         |         |
 9+35      82.8832     96.53  |         |      q  Q         |         |
 9+40      85.2007     99.25  |         |      q  Q         |         |
 9+45      87.5460    102.00  |         |       q |Q        |         |
 9+50      89.2184    104.03  |         |       q |Q        |         |
 9+55      91.4921    106.66  |         |        q| Q       |         |
10+ 0      93.7824    109.31  |         |        q| Q       |         |
10+ 5      92.8276    108.58  |         |        q| Q       |         |
10+10      84.0692     99.50  |         |      q  Q         |         |
10+15      73.2925     87.77  |         |    q  Q |         |         |
10+20      68.3869     81.76  |         |   q  Q  |         |         |
10+25      66.0804     78.55  |         |  q  Q   |         |         |
10+30      64.4983     76.30  |         |  q Q    |         |         |
10+35      65.0161     76.42  |         |  q Q    |         |         |
10+40      71.0891     82.57  |         |   q  Q  |         |         |
10+45      78.6503     90.73  |         |     q Q |         |         |
10+50      82.1068     94.93  |         |      q Q|         |         |
10+55      83.7272     97.17  |         |      q  Q         |         |
11+ 0      84.8209     98.73  |         |      q  Q         |         |
11+ 5      85.2951     99.53  |         |      q  Q         |         |
11+10      84.5689     98.97  |         |      q  Q         |         |
11+15      83.4277     97.84  |         |      q  Q         |         |
11+20      83.0207     97.39  |         |      q  Q         |         |
11+25      82.9101     97.23  |         |      q  Q         |         |
11+30      83.0557     97.34  |         |      q  Q         |         |
11+35      82.5719     96.80  |         |      q  Q         |         |
11+40      79.9804     94.04  |         |     q  Q|         |         |
11+45      76.8688     90.60  |         |    q  Q |         |         |
11+50      75.8090     89.20  |         |    q  Q |         |         |
11+55      76.5923     89.79  |         |    q  Q |         |         |
12+ 0      77.7327     90.89  |         |     q Q |         |         |
12+ 5      80.4419     93.75  |         |     q  Q|         |         |
12+10      90.2261    104.15  |         |       q |Q        |         |
12+15     101.7625    116.88  |         |         |q  Q     |         |
12+20     107.6145    124.03  |         |         | q  Q    |         |
12+25     111.8304    129.36  |         |         |  q  Q   |         |
12+30     115.4753    133.95  |         |         |   q  Q  |         |
12+35     118.3849    137.62  |         |         |   q   Q |         |
12+40     122.7091    142.65  |         |         |    q   Q|         |
12+45     127.1515    147.80  |         |         |     q   Q         |
12+50     129.9381    151.24  |         |         |      q  |Q        |
12+55     132.8846    154.75  |         |         |      q  | Q       |
13+ 0     135.7316    158.12  |         |         |       q | Q       |
13+ 5     139.0829    161.98  |         |         |       q |  Q      |
13+10     147.1394    170.77  |         |         |         q    Q    |
13+15     156.1563    180.84  |         |         |         | q    Q  |
13+20     160.7453    186.49  |         |         |         |  q    Q |
13+25     163.3985    189.99  |         |         |         |  q     Q|
```

13+30	165.1318	192.35	
13+35	162.8830	190.38	
13+40	148.8262	175.75	
13+45	131.6966	157.05	
13+50	123.8281	147.39	
13+55	120.0834	142.19	
14+ 0	117.5184	138.54	
14+ 5	117.0095	137.31	
14+10	121.1550	141.25	
14+15	126.6682	147.05	
14+20	128.7190	149.54	
14+25	128.3306	149.48	
14+30	127.2355	148.53	
14+35	126.8214	148.17	
14+40	126.7182	148.09	
14+45	126.6863	148.07	
14+50	126.3178	147.70	
14+55	124.8505	146.17	
15+ 0	123.4466	144.61	
15+ 5	122.5552	143.54	
15+10	120.9601	141.74	
15+15	119.2112	139.73	
15+20	118.0730	138.34	
15+25	116.3391	136.34	
15+30	114.3914	134.10	
15+35	112.1078	131.49	
15+40	106.0507	124.91	
15+45	99.1823	117.25	
15+50	95.8473	113.11	
15+55	94.0939	110.72	
16+ 0	92.8948	109.05	
16+ 5	87.5454	103.15	
16+10	67.8083	81.98	
16+15	44.7185	56.33	
16+20	33.5908	42.48	
16+25	27.7561	34.45	
16+30	23.7238	28.79	
16+35	20.6119	24.51	
16+40	17.6485	20.71	
16+45	15.1651	17.61	
16+50	13.4730	15.47	
16+55	12.0756	13.75	
17+ 0	11.1148	12.60	
17+ 5	10.6641	12.12	
17+10	11.4080	12.87	
17+15	12.5524	14.01	
17+20	12.8944	14.42	
17+25	12.7988	14.49	
17+30	13.0366	14.87	
17+35	13.2068	15.15	
17+40	13.3375	15.36	
17+45	13.4350	15.51	
17+50	13.3488	15.46	
17+55	12.7362	14.80	
18+ 0	11.9965	13.92	
18+ 5	11.6649	13.43	
18+10	11.5088	13.16	
18+15	11.4034	12.96	
18+20	11.3329	12.83	
18+25	11.2896	12.75	
18+30	11.2338	12.69	
18+35	11.0326	12.49	
18+40	10.3212	11.78	
18+45	9.4935	10.95	
18+50	8.9320	10.39	
18+55	8.0466	9.50	
19+ 0	7.1006	8.55	
19+ 5	6.7696	8.22	
19+10	7.1590	8.60	
19+15	7.7680	9.21	

19+20	8.1660	9.60	Q				
19+25	8.9198	10.36	qQ				
19+30	9.7666	11.20	Q				
19+35	10.0178	11.45	Q				
19+40	9.5559	10.99	qQ				
19+45	8.9034	10.34	qQ				
19+50	8.4685	9.90	qQ				
19+55	7.6803	9.11	Q				
20+ 0	6.8194	8.25	Q				
20+ 5	6.5550	7.98	Q				
20+10	7.0012	8.42	Q				
20+15	7.6536	9.07	Q				
20+20	7.9301	9.35	Q				
20+25	8.0451	9.46	Q				
20+30	8.1076	9.52	Q				
20+35	8.1513	9.56	Q				
20+40	8.1848	9.59	Q				
20+45	8.1972	9.60	Q				
20+50	8.0445	9.45	Q				
20+55	7.3750	8.78	Q				
21+ 0	6.5919	7.99	Q				
21+ 5	6.3817	7.78	Q				
21+10	6.8645	8.26	Q				
21+15	7.5433	8.93	Q				
21+20	7.6804	9.07	Q				
21+25	7.1416	8.53	Q				
21+30	6.4210	7.80	Q				
21+35	6.2545	7.63	Q				
21+40	6.7708	8.15	Q				
21+45	7.4620	8.84	Q				
21+50	7.6048	8.98	Q				
21+55	7.0697	8.44	Q				
22+ 0	6.3645	7.73	Q				
22+ 5	6.2085	7.57	Q				
22+10	6.7278	8.09	Q				
22+15	7.4331	8.79	Q				
22+20	7.5891	8.95	Q				
22+25	7.0697	8.43	Q				
22+30	6.3645	7.72	Q				
22+35	6.0500	7.40	Q				
22+40	5.8961	7.24	Q				
22+45	5.8030	7.15	Q				
22+50	5.7383	7.08	Q				
22+55	5.6987	7.04	Q				
23+ 0	5.6582	6.99	Q				
23+ 5	5.6260	6.96	Q				
23+10	5.5909	6.92	Q				
23+15	5.5756	6.90	Q				
23+20	5.5650	6.89	Q				
23+25	5.5620	6.88	Q				
23+30	5.5480	6.86	Q				
23+35	5.5347	6.85	Q				
23+40	5.5190	6.83	Q				
23+45	5.5190	6.83	Q				
23+50	5.5190	6.82	Q				
23+55	5.5190	6.82	Q				
24+ 0	5.5190	6.82	Q				
24+ 5	5.2021	6.50	Q				
24+10	3.8557	5.15	qQ				
24+15	2.2589	3.55	Q				
24+20	1.5004	2.78	Q				
24+25	1.1136	2.39	Q				
24+30	0.8464	2.12	Q				
24+35	0.6525	1.92	Q				
24+40	0.5030	1.76	Q				
24+45	0.3915	1.65	Q				
24+50	0.3060	1.56	Q				
24+55	0.2297	1.47	Q				
25+ 0	0.1710	1.41	Q				
25+ 5	0.1234	1.36	Q				

25+10	0.0860	1.32	Q				
25+15	0.0579	1.28	Q				
25+20	0.0314	1.25	Q				
25+25	0.0000	1.21	Q				
25+30	0.0000	1.21	Q				
25+35	0.0000	1.20	Q				
25+40	0.0000	1.20	Q				
25+45	0.0000	1.19	Q				
25+50	0.0000	1.19	Q				
25+55	0.0000	1.18	Q				
26+ 0	0.0000	1.18	Q				
26+ 5	0.0000	1.17	Q				
26+10	0.0000	1.17	Q				
26+15	0.0000	1.16	Q				
26+20	0.0000	1.16	Q				
26+25	0.0000	1.16	Q				
26+30	0.0000	1.16	Q				
26+35	0.0000	1.16	Q				
26+40	0.0000	1.16	Q				
26+45	0.0000	1.15	Q				
26+50	0.0000	1.15	Q				
26+55	0.0000	1.15	Q				
27+ 0	0.0000	1.15	Q				
27+ 5	0.0000	1.15	Q				
27+10	0.0000	1.15	Q				
27+15	0.0000	1.14	Q				
27+20	0.0000	1.14	Q				
27+25	0.0000	1.14	Q				
27+30	0.0000	1.14	Q				
27+35	0.0000	1.14	Q				
27+40	0.0000	1.14	Q				
27+45	0.0000	1.14	Q				
27+50	0.0000	1.13	Q				
27+55	0.0000	1.13	Q				
28+ 0	0.0000	1.13	Q				
28+ 5	0.0000	1.13	Q				
28+10	0.0000	1.13	Q				
28+15	0.0000	1.12	Q				
28+20	0.0000	1.12	Q				
28+25	0.0000	1.12	Q				
28+30	0.0000	1.12	Q				
28+35	0.0000	1.12	Q				
28+40	0.0000	1.12	Q				
28+45	0.0000	1.11	Q				
28+50	0.0000	1.11	Q				
28+55	0.0000	1.11	Q				
29+ 0	0.0000	1.11	Q				
29+ 5	0.0000	1.11	Q				
29+10	0.0000	1.11	Q				
29+15	0.0000	1.10	Q				
29+20	0.0000	1.10	Q				
29+25	0.0000	1.10	Q				
29+30	0.0000	1.10	Q				
29+35	0.0000	1.10	Q				
29+40	0.0000	1.10	Q				
29+45	0.0000	1.09	Q				
29+50	0.0000	1.09	Q				
29+55	0.0000	1.09	Q				
30+ 0	0.0000	1.09	Q				
30+ 5	0.0000	1.09	Q				
30+10	0.0000	1.09	Q				
30+15	0.0000	1.08	Q				
30+20	0.0000	1.08	Q				
30+25	0.0000	1.08	Q				
30+30	0.0000	1.08	Q				
30+35	0.0000	1.08	Q				
30+40	0.0000	1.08	Q				
30+45	0.0000	1.07	Q				
30+50	0.0000	1.07	Q				
30+55	0.0000	1.07	Q				

31+ 0	0.0000	1.07	Q				
31+ 5	0.0000	1.07	Q				
31+10	0.0000	1.07	Q				
31+15	0.0000	1.06	Q				
31+20	0.0000	1.06	Q				
31+25	0.0000	1.06	Q				
31+30	0.0000	1.06	Q				
31+35	0.0000	1.06	Q				
31+40	0.0000	1.06	Q				
31+45	0.0000	1.06	Q				
31+50	0.0000	1.05	Q				
31+55	0.0000	1.05	Q				
32+ 0	0.0000	1.05	Q				
32+ 5	0.0000	1.05	Q				
32+10	0.0000	1.05	Q				
32+15	0.0000	1.05	Q				
32+20	0.0000	1.04	Q				
32+25	0.0000	1.04	Q				
32+30	0.0000	1.04	Q				
32+35	0.0000	1.04	Q				
32+40	0.0000	1.04	Q				
32+45	0.0000	1.04	Q				
32+50	0.0000	1.03	Q				
32+55	0.0000	1.03	Q				
33+ 0	0.0000	1.03	Q				
33+ 5	0.0000	1.03	Q				
33+10	0.0000	1.03	Q				
33+15	0.0000	1.03	Q				
33+20	0.0000	1.03	Q				
33+25	0.0000	1.02	Q				
33+30	0.0000	1.00	Q				
33+35	0.0000	0.98	Q				
33+40	0.0000	0.95	Q				
33+45	0.0000	0.92	Q				
33+50	0.0000	0.90	Q				
33+55	0.0000	0.87	Q				
34+ 0	0.0000	0.85	Q				
34+ 5	0.0000	0.82	Q				
34+10	0.0000	0.80	Q				
34+15	0.0000	0.78	Q				
34+20	0.0000	0.76	Q				
34+25	0.0000	0.74	Q				
34+30	0.0000	0.72	Q				
34+35	0.0000	0.70	Q				
34+40	0.0000	0.68	Q				
34+45	0.0000	0.66	Q				
34+50	0.0000	0.64	Q				
34+55	0.0000	0.62	Q				
35+ 0	0.0000	0.60	Q				
35+ 5	0.0000	0.59	Q				
35+10	0.0000	0.57	Q				
35+15	0.0000	0.56	Q				
35+20	0.0000	0.54	Q				
35+25	0.0000	0.53	Q				
35+30	0.0000	0.51	Q				
35+35	0.0000	0.50	Q				
35+40	0.0000	0.48	Q				
35+45	0.0000	0.47	Q				
35+50	0.0000	0.46	Q				
35+55	0.0000	0.44	Q				
36+ 0	0.0000	0.43	Q				
36+ 5	0.0000	0.42	Q				
36+10	0.0000	0.41	Q				
36+15	0.0000	0.40	Q				
36+20	0.0000	0.39	Q				
36+25	0.0000	0.37	Q				
36+30	0.0000	0.36	Q				
36+35	0.0000	0.35	Q				
36+40	0.0000	0.34	Q				
36+45	0.0000	0.33	Q				

36+50	0.0000	0.33	Q				
36+55	0.0000	0.32	Q				
37+ 0	0.0000	0.31	Q				
37+ 5	0.0000	0.30	Q				
37+10	0.0000	0.29	Q				
37+15	0.0000	0.28	Q				
37+20	0.0000	0.27	Q				
37+25	0.0000	0.27	Q				
37+30	0.0000	0.26	Q				
37+35	0.0000	0.25	Q				
37+40	0.0000	0.25	Q				
37+45	0.0000	0.24	Q				
37+50	0.0000	0.23	Q				
37+55	0.0000	0.23	Q				
38+ 0	0.0000	0.22	Q				
38+ 5	0.0000	0.21	Q				
38+10	0.0000	0.21	Q				
38+15	0.0000	0.20	Q				
38+20	0.0000	0.20	Q				
38+25	0.0000	0.19	Q				
38+30	0.0000	0.19	Q				
38+35	0.0000	0.18	Q				
38+40	0.0000	0.17	Q				
38+45	0.0000	0.17	Q				
38+50	0.0000	0.17	Q				
38+55	0.0000	0.16	Q				
39+ 0	0.0000	0.16	Q				
39+ 5	0.0000	0.15	Q				
39+10	0.0000	0.15	Q				
39+15	0.0000	0.14	Q				
39+20	0.0000	0.14	Q				
39+25	0.0000	0.14	Q				
39+30	0.0000	0.13	Q				
39+35	0.0000	0.13	Q				
39+40	0.0000	0.12	Q				
39+45	0.0000	0.12	Q				
39+50	0.0000	0.12	Q				
39+55	0.0000	0.11	Q				
40+ 0	0.0000	0.11	Q				
40+ 5	0.0000	0.11	Q				
40+10	0.0000	0.11	Q				
40+15	0.0000	0.10	Q				
40+20	0.0000	0.10	Q				
40+25	0.0000	0.10	Q				
40+30	0.0000	0.09	Q				
40+35	0.0000	0.09	Q				
40+40	0.0000	0.09	Q				
40+45	0.0000	0.09	Q				
40+50	0.0000	0.08	Q				
40+55	0.0000	0.08	Q				
41+ 0	0.0000	0.08	Q				
41+ 5	0.0000	0.08	Q				
41+10	0.0000	0.08	Q				
41+15	0.0000	0.07	Q				
41+20	0.0000	0.07	Q				
41+25	0.0000	0.07	Q				
41+30	0.0000	0.07	Q				
41+35	0.0000	0.07	Q				
41+40	0.0000	0.06	Q				
41+45	0.0000	0.06	Q				
41+50	0.0000	0.06	Q				
41+55	0.0000	0.06	Q				
42+ 0	0.0000	0.06	Q				
42+ 5	0.0000	0.06	Q				
42+10	0.0000	0.05	Q				
42+15	0.0000	0.05	Q				
42+20	0.0000	0.05	Q				
42+25	0.0000	0.05	Q				
42+30	0.0000	0.05	Q				
42+35	0.0000	0.05	Q				

42+40	0.0000	0.05	Q				
42+45	0.0000	0.04	Q				
42+50	0.0000	0.04	Q				
42+55	0.0000	0.04	Q				
43+ 0	0.0000	0.04	Q				
43+ 5	0.0000	0.04	Q				
43+10	0.0000	0.04	Q				
43+15	0.0000	0.04	Q				
43+20	0.0000	0.04	Q				
43+25	0.0000	0.04	Q				
43+30	0.0000	0.03	Q				
43+35	0.0000	0.03	Q				
43+40	0.0000	0.03	Q				
43+45	0.0000	0.03	Q				
43+50	0.0000	0.03	Q				
43+55	0.0000	0.03	Q				
44+ 0	0.0000	0.03	Q				
44+ 5	0.0000	0.03	Q				
44+10	0.0000	0.03	Q				
44+15	0.0000	0.03	Q				
44+20	0.0000	0.03	Q				
44+25	0.0000	0.03	Q				
44+30	0.0000	0.02	Q				
44+35	0.0000	0.02	Q				
44+40	0.0000	0.02	Q				
44+45	0.0000	0.02	Q				
44+50	0.0000	0.02	Q				
44+55	0.0000	0.02	Q				
45+ 0	0.0000	0.02	Q				
45+ 5	0.0000	0.02	Q				
45+10	0.0000	0.02	Q				
45+15	0.0000	0.02	Q				
45+20	0.0000	0.02	Q				
45+25	0.0000	0.02	Q				
45+30	0.0000	0.02	Q				
45+35	0.0000	0.02	Q				
45+40	0.0000	0.02	Q				
45+45	0.0000	0.02	Q				
45+50	0.0000	0.02	Q				
45+55	0.0000	0.02	Q				
46+ 0	0.0000	0.01	Q				
46+ 5	0.0000	0.01	Q				
46+10	0.0000	0.01	Q				
46+15	0.0000	0.01	Q				
46+20	0.0000	0.01	Q				
46+25	0.0000	0.01	Q				
46+30	0.0000	0.01	Q				
46+35	0.0000	0.01	Q				
46+40	0.0000	0.01	Q				
46+45	0.0000	0.01	Q				
46+50	0.0000	0.01	Q				
46+55	0.0000	0.01	Q				
47+ 0	0.0000	0.01	Q				
47+ 5	0.0000	0.01	Q				
47+10	0.0000	0.01	Q				
47+15	0.0000	0.01	Q				
47+20	0.0000	0.01	Q				
47+25	0.0000	0.01	Q				
47+30	0.0000	0.01	Q				
47+35	0.0000	0.01	Q				
47+40	0.0000	0.01	Q				
47+45	0.0000	0.01	Q				
47+50	0.0000	0.01	Q				
47+55	0.0000	0.01	Q				
48+ 0	0.0000	0.01	Q				
48+ 5	0.0000	0.01	Q				
48+10	0.0000	0.01	Q				
48+15	0.0000	0.01	Q				
48+20	0.0000	0.01	Q				
48+25	0.0000	0.01	Q				

```
   48+30       0.0000      0.01  Q         |         |         |         |
   48+35       0.0000      0.01  Q         |         |         |         |
   48+40       0.0000      0.01  Q         |         |         |         |
   48+45       0.0000      0.01  Q         |         |         |         |
   48+50       0.0000      0.01  Q         |         |         |         |
   48+55       0.0000      0.01  Q         |         |         |         |
   49+ 0       0.0000      0.01  Q         |         |         |         |
   49+ 5       0.0000      0.01  Q         |         |         |         |
   49+10       0.0000      0.01  Q         |         |         |         |
   49+15       0.0000      0.00  Q         |         |         |         |
   49+20       0.0000      0.00  Q         |         |         |         |
   49+25       0.0000      0.00  Q         |         |         |         |
   49+30       0.0000      0.00  Q         |         |         |         |
   49+35       0.0000      0.00  Q         |         |         |         |
   49+40       0.0000      0.00  Q         |         |         |         |
   49+45       0.0000      0.00  Q         |         |         |         |
   49+50       0.0000      0.00  Q         |         |         |         |
   49+55       0.0000      0.00  Q         |         |         |         |
   50+ 0       0.0000      0.00  Q         |         |         |         |
   50+ 5       0.0000      0.00  Q         |         |         |         |
   50+10       0.0000      0.00  Q         |         |         |         |
   50+15       0.0000      0.00  Q         |         |         |         |
   50+20       0.0000      0.00  Q         |         |         |         |
   50+25       0.0000      0.00  Q         |         |         |         |
   50+30       0.0000      0.00  Q         |         |         |         |
   50+35       0.0000      0.00  Q         |         |         |         |
   50+40       0.0000      0.00  Q         |         |         |         |
   50+45       0.0000      0.00  Q         |         |         |         |
   50+50       0.0000      0.00  Q         |         |         |         |
   50+55       0.0000      0.00  Q         |         |         |         |
   51+ 0       0.0000      0.00  Q         |         |         |         |
   51+ 5       0.0000      0.00  Q         |         |         |         |
   51+10       0.0000      0.00  Q         |         |         |         |
   51+15       0.0000      0.00  Q         |         |         |         |
   51+20       0.0000      0.00  Q         |         |         |         |
   51+25       0.0000      0.00  Q         |         |         |         |
   51+30       0.0000      0.00  Q         |         |         |         |
   51+35       0.0000      0.00  Q         |         |         |         |
   51+40       0.0000      0.00  Q         |         |         |         |
   51+45       0.0000      0.00  Q         |         |         |         |
   51+50       0.0000      0.00  Q         |         |         |         |
   51+55       0.0000      0.00  Q         |         |         |         |
   52+ 0       0.0000      0.00  Q         |         |         |         |
-------------------------------------------------------------------------
       ***************************HYDROGRAPH DATA**************************
                    Number of intervals =   624
                    Time interval =    5.0 (Min.)
                    Maximum/Peak flow rate =      192.345 (CFS)
                    Total volume =      97.158 (Ac.Ft)
             Status of hydrographs being held in storage
                        Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
             Peak (CFS)      0.000     0.000     0.000     0.000     0.000
             Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
       *************************************************************************

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       ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
       Process from Point/Station       11.000 to Point/Station       12.000
       **** RETARDING BASIN ROUTING ****

       ________________________________________________________________________

       User entry of depth-outflow-storage data
       ------------------------------------------------------------------------
       Total number of inflow hydrograph intervals = 624
       Hydrograph time unit =  5.000 (Min.)
       Initial depth in storage basin =   0.00(Ft.)
       ------------------------------------------------------------------------
       ------------------------------------------------------------------------
```

Initial basin depth = 0.00 (Ft.)
Initial basin storage = 0.00 (Ac.Ft)
Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
1.000	0.540	30.240	0.436	0.644
2.000	2.140	41.680	1.996	2.284
3.000	4.310	63.670	4.091	4.529
4.000	6.570	79.820	6.295	6.845
5.000	9.330	93.200	9.009	9.651
6.000	12.640	104.900	12.279	13.001
7.000	16.070	115.410	15.673	16.467
8.000	19.630	125.050	19.199	20.061
9.000	23.320	133.990	22.859	23.781
10.000	27.150	142.370	26.660	27.640
11.000	31.110	180.290	30.489	31.731
12.000	33.380	242.660	32.544	34.216

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	48.1	96.17	144.26	192.35	Depth (Ft.)
0.083	0.32	0.05	0.001	O	|	|	|	|	0.00
0.167	1.67	0.36	0.006	O	|	|	|	|	0.01
0.250	3.28	1.04	0.019	O	|	|	|	|	0.03
0.333	4.21	1.91	0.034	O	|	|	|	|	0.06
0.417	5.29	2.83	0.051	O	|	|	|	|	0.09
0.500	6.38	3.80	0.068	OI	|	|	|	|	0.13
0.583	6.97	4.73	0.084	OI	|	|	|	|	0.16
0.667	7.34	5.51	0.098	OI	|	|	|	|	0.18
0.750	7.61	6.15	0.110	|O	|	|	|	|	0.20
0.833	7.97	6.68	0.119	|O	|	|	|	|	0.22
0.917	8.82	7.23	0.129	|O	|	|	|	|	0.24
1.000	9.76	7.90	0.141	|O	|	|	|	|	0.26
1.083	10.10	8.55	0.153	|O	|	|	|	|	0.28
1.167	9.72	8.99	0.161	|O	|	|	|	|	0.30
1.250	9.13	9.13	0.163	|O	|	|	|	|	0.30
1.333	8.92	9.10	0.162	|O	|	|	|	|	0.30
1.417	8.87	9.03	0.161	|O	|	|	|	|	0.30
1.500	8.82	8.97	0.160	|O	|	|	|	|	0.30
1.583	8.79	8.92	0.159	|O	|	|	|	|	0.29
1.667	8.79	8.88	0.159	|O	|	|	|	|	0.29
1.750	8.78	8.85	0.158	|O	|	|	|	|	0.29
1.833	8.93	8.85	0.158	|O	|	|	|	|	0.29
1.917	9.60	8.99	0.160	|O	|	|	|	|	0.30
2.000	10.41	9.32	0.166	|O	|	|	|	|	0.31
2.083	10.80	9.73	0.174	|O	|	|	|	|	0.32
2.167	11.01	10.11	0.181	|O	|	|	|	|	0.33
2.250	11.15	10.42	0.186	|O	|	|	|	|	0.34
2.333	11.25	10.68	0.191	|O	|	|	|	|	0.35
2.417	11.33	10.88	0.194	|O	|	|	|	|	0.36
2.500	11.41	11.04	0.197	|O	|	|	|	|	0.36
2.583	11.63	11.19	0.200	|O	|	|	|	|	0.37
2.667	12.36	11.45	0.205	|OI	|	|	|	|	0.38
2.750	13.21	11.88	0.212	|OI	|	|	|	|	0.39
2.833	13.64	12.38	0.221	| O	|	|	|	|	0.41
2.917	13.88	12.83	0.229	| O	|	|	|	|	0.42
3.000	14.05	13.20	0.236	| O	|	|	|	|	0.44
3.083	14.18	13.49	0.241	| O	|	|	|	|	0.45
3.167	14.30	13.73	0.245	| O	|	|	|	|	0.45
3.250	14.38	13.93	0.249	| O	|	|	|	|	0.46
3.333	14.44	14.08	0.252	| O	|	|	|	|	0.47

3.417	14.50	14.21	0.254	O				0.47
3.500	14.55	14.31	0.256	O				0.47
3.583	14.59	14.40	0.257	O				0.48
3.667	14.63	14.47	0.258	O				0.48
3.750	14.66	14.52	0.259	O				0.48
3.833	14.85	14.60	0.261	O				0.48
3.917	15.56	14.80	0.264	O				0.49
4.000	16.39	15.18	0.271	O				0.50
4.083	16.79	15.63	0.279	O				0.52
4.167	17.01	16.04	0.286	O				0.53
4.250	17.16	16.38	0.292	O				0.54
4.333	17.41	16.67	0.298	O				0.55
4.417	18.16	17.03	0.304	OI				0.56
4.500	19.02	17.54	0.313	OI				0.58
4.583	19.44	18.08	0.323	O				0.60
4.667	19.68	18.56	0.331	O				0.61
4.750	19.84	18.95	0.338	O				0.63
4.833	20.12	19.28	0.344	O				0.64
4.917	20.89	19.68	0.351	O				0.65
5.000	21.76	20.21	0.361	O				0.67
5.083	21.88	20.73	0.370	O				0.69
5.167	20.78	20.93	0.374	O				0.69
5.250	19.35	20.65	0.369	O				0.68
5.333	18.87	20.15	0.360	O				0.67
5.417	19.25	19.80	0.354	O				0.65
5.500	19.86	19.72	0.352	O				0.65
5.583	20.26	19.83	0.354	O				0.66
5.667	21.03	20.09	0.359	O				0.66
5.750	21.88	20.53	0.367	O				0.68
5.833	22.30	21.04	0.376	O				0.70
5.917	22.51	21.48	0.384	O				0.71
6.000	22.66	21.84	0.390	O				0.72
6.083	22.93	22.15	0.395	O				0.73
6.167	23.69	22.52	0.402	O				0.74
6.250	24.55	23.04	0.411	OI				0.76
6.333	24.98	23.60	0.421	OI				0.78
6.417	25.20	24.08	0.430	O				0.80
6.500	25.38	24.47	0.437	O				0.81
6.583	25.67	24.81	0.443	O				0.82
6.667	26.46	25.22	0.450	O				0.83
6.750	27.33	25.76	0.460	O				0.85
6.833	27.78	26.34	0.470	O				0.87
6.917	28.03	26.85	0.479	O				0.89
7.000	28.20	27.26	0.487	O				0.90
7.083	28.32	27.58	0.492	O				0.91
7.167	28.42	27.84	0.497	O				0.92
7.250	28.50	28.04	0.501	O				0.93
7.333	28.81	28.24	0.504	O				0.93
7.417	29.96	28.61	0.511	O				0.95
7.500	31.31	29.26	0.523	OI				0.97
7.583	32.35	30.09	0.537	O				1.00
7.667	34.16	30.37	0.558	O				1.01
7.750	36.14	30.60	0.590	OI				1.03
7.833	37.54	30.90	0.632	OI				1.06
7.917	39.59	31.27	0.684	OI				1.09
8.000	41.73	31.72	0.747	OI				1.13
8.083	43.57	32.24	0.820	O I				1.18
8.167	47.08	32.87	0.908	O I				1.23
8.250	50.94	33.65	1.017	O I				1.30
8.333	52.97	34.53	1.140	O I				1.37
8.417	54.19	35.44	1.268	O I				1.45
8.500	55.18	36.37	1.397	O I				1.54
8.583	57.07	37.32	1.530	O I				1.62
8.667	61.22	38.37	1.677	O I				1.71
8.750	65.07	39.56	1.843	O I				1.81
8.833	67.87	40.85	2.024	O I				1.93
8.917	71.02	42.45	2.216	O I				2.03
9.000	74.03	44.47	2.416	O I				2.13
9.083	76.58	46.55	2.621	O I				2.22
9.167	80.75	48.72	2.835	O I				2.32

9.250	85.26	51.03	3.063	|	O I |	|	|	2.43
9.333	88.21	53.44	3.300	|	O I |	|	|	2.53
9.417	91.35	55.89	3.542	|	|O I|	|	|	2.65
9.500	94.33	58.38	3.788	|	|O I|	|	|	2.76
9.583	96.53	60.88	4.035	|	| O I	|	|	2.87
9.667	99.25	63.38	4.281	|	| O I	|	|	2.99
9.750	102.00	65.25	4.531	|	| O I	|	|	3.10
9.833	104.03	67.06	4.785	|	| O |I	|	|	3.21
9.917	106.66	68.90	5.042	|	| O |I	|	|	3.32
10.000	109.31	70.78	5.305	|	| O | I	|	|	3.44
10.083	108.58	72.61	5.561	|	| O | I	|	|	3.55
10.167	99.50	74.12	5.773	|	| O I	|	|	3.65
10.250	87.77	75.06	5.904	|	| O I |	|	|	3.71
10.333	81.76	75.53	5.969	|	| OI |	|	|	3.73
10.417	78.55	75.75	6.000	|	| OI |	|	|	3.75
10.500	76.30	75.83	6.011	|	| O |	|	|	3.75
10.583	76.42	75.85	6.015	|	| O |	|	|	3.75
10.667	82.57	76.03	6.039	|	| OI |	|	|	3.77
10.750	90.73	76.54	6.111	|	| O I|	|	|	3.80
10.833	94.93	77.32	6.220	|	| O I|	|	|	3.85
10.917	97.17	78.22	6.346	|	| O I	|	|	3.90
11.000	98.73	79.17	6.479	|	| O I	|	|	3.96
11.083	99.53	80.03	6.613	|	| O I	|	|	4.02
11.167	98.97	80.66	6.744	|	| O I	|	|	4.06
11.250	97.84	81.24	6.864	|	| O I	|	|	4.11
11.333	97.39	81.78	6.975	|	| O I	|	|	4.15
11.417	97.23	82.29	7.080	|	| O I	|	|	4.18
11.500	97.34	82.78	7.181	|	| O I	|	|	4.22
11.583	96.80	83.25	7.278	|	| O I	|	|	4.26
11.667	94.04	83.65	7.361	|	| O I|	|	|	4.29
11.750	90.60	83.94	7.419	|	| O I|	|	|	4.31
11.833	89.20	84.13	7.460	|	| OI |	|	|	4.32
11.917	89.79	84.31	7.496	|	| O |	|	|	4.34
12.000	90.89	84.51	7.537	|	| OI|	|	|	4.35
12.083	93.75	84.76	7.590	|	| OI|	|	|	4.37
12.167	104.15	85.23	7.686	|	| O |I	|	|	4.40
12.250	116.88	86.06	7.857	|	| O | I	|	|	4.47
12.333	124.03	87.19	8.090	|	| O | I	|	|	4.55
12.417	129.36	88.49	8.358	|	| O | I	|	|	4.65
12.500	133.95	89.90	8.650	|	| O | I	|	|	4.75
12.583	137.62	91.41	8.961	|	| O| I	|	|	4.87
12.667	142.65	93.01	9.291	|	| O| I|	|	|	4.99
12.750	147.80	94.32	9.646	|	| O| I	|	|	5.10
12.833	151.24	95.65	10.022	|	| O| |I	|	|	5.21
12.917	154.75	97.02	10.412	|	| O |I	|	|	5.33
13.000	158.12	98.45	10.816	|	| O | I	|	|	5.45
13.083	161.98	99.93	11.235	|	| O | I	|	|	5.58
13.167	170.77	101.53	11.687	|	| O | I	|	|	5.71
13.250	180.84	103.32	12.193	|	| |O | I	|	|	5.86
13.333	186.49	105.21	12.740	|	| |O | I|	|	|	6.03
13.417	189.99	106.94	13.305	|	| |O | I|	|	|	6.19
13.500	192.35	108.70	13.879	|	| | O | I|	|	|	6.36
13.583	190.38	110.42	14.443	|	| | O | I|	|	|	6.53
13.667	175.75	111.94	14.938	|	| | O | I |	|	|	6.67
13.750	157.05	113.08	15.309	|	| | O | I |	|	|	6.78
13.833	147.39	113.90	15.576	|	| | O | I	|	|	6.86
13.917	142.19	114.54	15.786	|	| | O | I|	|	|	6.92
14.000	138.54	115.08	15.962	|	| | O | I|	|	|	6.97
14.083	137.31	115.54	16.118	|	| | O | I |	|	|	7.01
14.167	141.25	115.98	16.280	|	| | O | I|	|	|	7.06
14.250	147.05	116.50	16.472	|	| | O | I	|	|	7.11
14.333	149.54	117.09	16.689	|	| | O | I	|	|	7.17
14.417	149.48	117.69	16.910	|	| | O | I	|	|	7.24
14.500	148.53	118.26	17.124	|	| | O | I	|	|	7.30
14.583	148.17	118.82	17.330	|	| | O | I	|	|	7.35
14.667	148.09	119.36	17.530	|	| | O | I	|	|	7.41
14.750	148.07	119.89	17.726	|	| | O | I	|	|	7.47
14.833	147.70	120.41	17.917	|	| | O I	|	|	7.52
14.917	146.17	120.90	18.098	|	| | O I	|	|	7.57
15.000	144.61	121.35	18.265	|	| | O I	|	|	7.62

15.083	143.54	121.77	18.420	|	|	| O I|	|	7.66
15.167	141.74	122.16	18.562	|	|	| O I|	|	7.70
15.250	139.73	122.50	18.689	|	|	| O I|	|	7.74
15.333	138.34	122.81	18.802	|	|	| O I|	|	7.77
15.417	136.34	123.08	18.901	|	|	| O I |	|	7.80
15.500	134.10	123.30	18.984	|	|	| O I |	|	7.82
15.583	131.49	123.48	19.049	|	|	| OI |	|	7.84
15.667	124.91	123.56	19.081	|	|	| O |	|	7.85
15.750	117.25	123.52	19.064	|	|	| IO |	|	7.84
15.833	113.11	123.36	19.007	|	|	| I O |	|	7.82
15.917	110.72	123.15	18.929	|	|	| I O |	|	7.80
16.000	109.05	122.91	18.838	|	|	| I O |	|	7.78
16.083	103.15	122.60	18.724	|	|	|I O |	|	7.75
16.167	81.98	122.04	18.519	|	| I |	| O |	|	7.69
16.250	56.33	121.06	18.158	|	|I |	| O |	|	7.59
16.333	42.48	119.74	17.669	|	I|	| O |	|	7.45
16.417	34.45	118.24	17.114	| I |	|	| O |	|	7.29
16.500	28.79	116.64	16.523	| I |	|	| O |	|	7.13
16.583	24.51	114.92	15.910	| I |	|	| O |	|	6.95
16.667	20.71	112.99	15.280	| I |	|	| O |	|	6.77
16.750	17.61	111.03	14.641	| I |	|	| O |	|	6.58
16.833	15.47	109.06	13.997	| I |	|	| O |	|	6.40
16.917	13.75	107.09	13.353	| I |	|	|O |	|	6.21
17.000	12.60	105.12	12.713	| I |	|	|O |	|	6.02
17.083	12.12	102.93	12.082	| I |	|	|O |	|	5.83
17.167	12.87	100.75	11.467	| I |	|	O |	|	5.65
17.250	14.01	98.65	10.873	| I |	|	O |	|	5.47
17.333	14.42	96.62	10.298	| I |	|	O |	|	5.29
17.417	14.49	94.65	9.739	| I |	|	O|	|	5.12
17.500	14.87	92.55	9.196	| I |	|	O|	|	4.95
17.583	15.15	90.00	8.670	| I |	|	O |	|	4.76
17.667	15.36	87.55	8.164	| I |	|	O |	|	4.58
17.750	15.51	85.18	7.675	| I |	|	O |	|	4.40
17.833	15.46	82.89	7.203	| I |	|	O |	|	4.23
17.917	14.80	80.67	6.744	| I |	|	O |	|	4.06
18.000	13.92	77.87	6.297	| I |	|	O |	|	3.88
18.083	13.43	74.79	5.866	| I |	|	O |	|	3.69
18.167	13.16	71.83	5.452	| I |	| O |	|	3.51
18.250	12.96	69.01	5.057	| I |	| O |	|	3.33
18.333	12.83	66.32	4.680	| I |	| O |	|	3.16
18.417	12.75	63.74	4.320	| I |	| O |	|	3.00
18.500	12.69	60.33	3.981	| I |	| O |	|	2.85
18.583	12.49	57.11	3.663	| I |	|O |	|	2.70
18.667	11.78	54.08	3.364	|I |	O |	|	2.56
18.750	10.95	51.20	3.080	|I |	O |	|	2.43
18.833	10.39	48.47	2.810	|I |	O |	|	2.31
18.917	9.50	45.87	2.553	|I |	O|	|	2.19
19.000	8.55	43.38	2.308	|I |	O|	|	2.08
19.083	8.22	41.21	2.075	|I | O |	|	|	1.96
19.167	8.60	39.64	1.854	|I | O |	|	|	1.82
19.250	9.21	38.16	1.648	|I | O |	|	|	1.69
19.333	9.60	36.78	1.454	|I | O |	|	|	1.57
19.417	10.36	35.49	1.274	|I | O |	|	|	1.46
19.500	11.20	34.30	1.108	|I | O |	|	|	1.36
19.583	11.45	33.20	0.954	|I | O |	|	|	1.26
19.667	10.99	32.14	0.806	|I | O |	|	|	1.17
19.750	10.34	31.11	0.662	|I | O |	|	|	1.08
19.833	9.90	29.30	0.523	|I | O |	|	|	0.97
19.917	9.11	22.90	0.409	|I O |	|	|	0.76
20.000	8.25	18.30	0.327	|I O |	|	|	0.61
20.083	7.98	15.01	0.268	|IO |	|	|	0.50
20.167	8.42	12.81	0.229	|IO |	|	|	0.42
20.250	9.07	11.49	0.205	|O |	|	|	0.38
20.333	9.35	10.76	0.192	|O |	|	|	0.36
20.417	9.46	10.32	0.184	|O |	|	|	0.34
20.500	9.52	10.05	0.179	|O |	|	|	0.33
20.583	9.56	9.89	0.177	|O |	|	|	0.33
20.667	9.59	9.79	0.175	|O |	|	|	0.32
20.750	9.60	9.72	0.174	|O |	|	|	0.32
20.833	9.45	9.66	0.173	|O |	|	|	0.32

20.917	8.78	9.48	0.169	|O	|	|	|	0.31
21.000	7.99	9.13	0.163	|O	|	|	|	0.30
21.083	7.78	8.73	0.156	|O	|	|	|	0.29
21.167	8.26	8.50	0.152	|O	|	|	|	0.28
21.250	8.93	8.53	0.152	|O	|	|	|	0.28
21.333	9.07	8.68	0.155	|O	|	|	|	0.29
21.417	8.53	8.72	0.156	|O	|	|	|	0.29
21.500	7.80	8.54	0.153	|O	|	|	|	0.28
21.583	7.63	8.27	0.148	|O	|	|	|	0.27
21.667	8.15	8.15	0.146	|O	|	|	|	0.27
21.750	8.84	8.26	0.148	|O	|	|	|	0.27
21.833	8.98	8.47	0.151	|O	|	|	|	0.28
21.917	8.44	8.55	0.153	|O	|	|	|	0.28
22.000	7.73	8.40	0.150	|O	|	|	|	0.28
22.083	7.57	8.16	0.146	|O	|	|	|	0.27
22.167	8.09	8.05	0.144	|O	|	|	|	0.27
22.250	8.79	8.18	0.146	|O	|	|	|	0.27
22.333	8.95	8.40	0.150	|O	|	|	|	0.28
22.417	8.43	8.49	0.152	|O	|	|	|	0.28
22.500	7.72	8.36	0.149	|O	|	|	|	0.28
22.583	7.40	8.10	0.145	|O	|	|	|	0.27
22.667	7.24	7.85	0.140	|O	|	|	|	0.26
22.750	7.15	7.64	0.136	|O	|	|	|	0.25
22.833	7.08	7.47	0.133	|O	|	|	|	0.25
22.917	7.04	7.33	0.131	|O	|	|	|	0.24
23.000	6.99	7.23	0.129	|O	|	|	|	0.24
23.083	6.96	7.15	0.128	|O	|	|	|	0.24
23.167	6.92	7.08	0.126	|O	|	|	|	0.23
23.250	6.90	7.03	0.125	|O	|	|	|	0.23
23.333	6.89	6.98	0.125	|O	|	|	|	0.23
23.417	6.88	6.95	0.124	|O	|	|	|	0.23
23.500	6.86	6.93	0.124	|O	|	|	|	0.23
23.583	6.85	6.90	0.123	|O	|	|	|	0.23
23.667	6.83	6.88	0.123	|O	|	|	|	0.23
23.750	6.83	6.87	0.123	|O	|	|	|	0.23
23.833	6.82	6.85	0.122	|O	|	|	|	0.23
23.917	6.82	6.84	0.122	|O	|	|	|	0.23
24.000	6.82	6.84	0.122	|O	|	|	|	0.23
24.083	6.50	6.78	0.121	|O	|	|	|	0.22
24.167	5.15	6.47	0.116	IO	|	|	|	0.21
24.250	3.55	5.78	0.103	O	|	|	|	0.19
24.333	2.78	4.94	0.088	O	|	|	|	0.16
24.417	2.39	4.18	0.075	O	|	|	|	0.14
24.500	2.12	3.56	0.063	O	|	|	|	0.12
24.583	1.92	3.06	0.055	O	|	|	|	0.10
24.667	1.76	2.66	0.048	O	|	|	|	0.09
24.750	1.65	2.35	0.042	O	|	|	|	0.08
24.833	1.56	2.11	0.038	O	|	|	|	0.07
24.917	1.47	1.92	0.034	O	|	|	|	0.06
25.000	1.41	1.76	0.032	O	|	|	|	0.06
25.083	1.36	1.64	0.029	O	|	|	|	0.05
25.167	1.32	1.54	0.028	O	|	|	|	0.05
25.250	1.28	1.46	0.026	O	|	|	|	0.05
25.333	1.25	1.40	0.025	O	|	|	|	0.05
25.417	1.21	1.35	0.024	O	|	|	|	0.04
25.500	1.21	1.30	0.023	O	|	|	|	0.04
25.583	1.20	1.27	0.023	O	|	|	|	0.04
25.667	1.20	1.25	0.022	O	|	|	|	0.04
25.750	1.19	1.23	0.022	O	|	|	|	0.04
25.833	1.19	1.22	0.022	O	|	|	|	0.04
25.917	1.18	1.21	0.022	O	|	|	|	0.04
26.000	1.18	1.20	0.021	O	|	|	|	0.04
26.083	1.17	1.19	0.021	O	|	|	|	0.04
26.167	1.17	1.18	0.021	O	|	|	|	0.04
26.250	1.16	1.18	0.021	O	|	|	|	0.04
26.333	1.16	1.17	0.021	O	|	|	|	0.04
26.417	1.16	1.17	0.021	O	|	|	|	0.04
26.500	1.16	1.17	0.021	O	|	|	|	0.04
26.583	1.16	1.16	0.021	O	|	|	|	0.04
26.667	1.16	1.16	0.021	O	|	|	|	0.04

26.750	1.15	1.16	0.021	O					0.04
26.833	1.15	1.16	0.021	O					0.04
26.917	1.15	1.16	0.021	O					0.04
27.000	1.15	1.15	0.021	O					0.04
27.083	1.15	1.15	0.021	O					0.04
27.167	1.15	1.15	0.021	O					0.04
27.250	1.14	1.15	0.021	O					0.04
27.333	1.14	1.15	0.020	O					0.04
27.417	1.14	1.15	0.020	O					0.04
27.500	1.14	1.14	0.020	O					0.04
27.583	1.14	1.14	0.020	O					0.04
27.667	1.14	1.14	0.020	O					0.04
27.750	1.14	1.14	0.020	O					0.04
27.833	1.13	1.14	0.020	O					0.04
27.917	1.13	1.14	0.020	O					0.04
28.000	1.13	1.13	0.020	O					0.04
28.083	1.13	1.13	0.020	O					0.04
28.167	1.13	1.13	0.020	O					0.04
28.250	1.12	1.13	0.020	O					0.04
28.333	1.12	1.13	0.020	O					0.04
28.417	1.12	1.13	0.020	O					0.04
28.500	1.12	1.12	0.020	O					0.04
28.583	1.12	1.12	0.020	O					0.04
28.667	1.12	1.12	0.020	O					0.04
28.750	1.11	1.12	0.020	O					0.04
28.833	1.11	1.12	0.020	O					0.04
28.917	1.11	1.12	0.020	O					0.04
29.000	1.11	1.11	0.020	O					0.04
29.083	1.11	1.11	0.020	O					0.04
29.167	1.11	1.11	0.020	O					0.04
29.250	1.10	1.11	0.020	O					0.04
29.333	1.10	1.11	0.020	O					0.04
29.417	1.10	1.11	0.020	O					0.04
29.500	1.10	1.10	0.020	O					0.04
29.583	1.10	1.10	0.020	O					0.04
29.667	1.10	1.10	0.020	O					0.04
29.750	1.09	1.10	0.020	O					0.04
29.833	1.09	1.10	0.020	O					0.04
29.917	1.09	1.10	0.020	O					0.04
30.000	1.09	1.09	0.020	O					0.04
30.083	1.09	1.09	0.020	O					0.04
30.167	1.09	1.09	0.019	O					0.04
30.250	1.08	1.09	0.019	O					0.04
30.333	1.08	1.09	0.019	O					0.04
30.417	1.08	1.09	0.019	O					0.04
30.500	1.08	1.08	0.019	O					0.04
30.583	1.08	1.08	0.019	O					0.04
30.667	1.08	1.08	0.019	O					0.04
30.750	1.07	1.08	0.019	O					0.04
30.833	1.07	1.08	0.019	O					0.04
30.917	1.07	1.08	0.019	O					0.04
31.000	1.07	1.07	0.019	O					0.04
31.083	1.07	1.07	0.019	O					0.04
31.167	1.07	1.07	0.019	O					0.04
31.250	1.06	1.07	0.019	O					0.04
31.333	1.06	1.07	0.019	O					0.04
31.417	1.06	1.07	0.019	O					0.04
31.500	1.06	1.06	0.019	O					0.04
31.583	1.06	1.06	0.019	O					0.04
31.667	1.06	1.06	0.019	O					0.04
31.750	1.06	1.06	0.019	O					0.04
31.833	1.05	1.06	0.019	O					0.03
31.917	1.05	1.06	0.019	O					0.03
32.000	1.05	1.05	0.019	O					0.03
32.083	1.05	1.05	0.019	O					0.03
32.167	1.05	1.05	0.019	O					0.03
32.250	1.05	1.05	0.019	O					0.03
32.333	1.04	1.05	0.019	O					0.03
32.417	1.04	1.05	0.019	O					0.03
32.500	1.04	1.04	0.019	O					0.03

32.583	1.04	1.04	0.019	O	|	|	|	|	0.03
32.667	1.04	1.04	0.019	O	|	|	|	|	0.03
32.750	1.04	1.04	0.019	O	|	|	|	|	0.03
32.833	1.03	1.04	0.019	O	|	|	|	|	0.03
32.917	1.03	1.04	0.019	O	|	|	|	|	0.03
33.000	1.03	1.04	0.018	O	|	|	|	|	0.03
33.083	1.03	1.03	0.018	O	|	|	|	|	0.03
33.167	1.03	1.03	0.018	O	|	|	|	|	0.03
33.250	1.03	1.03	0.018	O	|	|	|	|	0.03
33.333	1.03	1.03	0.018	O	|	|	|	|	0.03
33.417	1.02	1.03	0.018	O	|	|	|	|	0.03
33.500	1.00	1.02	0.018	O	|	|	|	|	0.03
33.583	0.98	1.01	0.018	O	|	|	|	|	0.03
33.667	0.95	1.00	0.018	O	|	|	|	|	0.03
33.750	0.92	0.98	0.017	O	|	|	|	|	0.03
33.833	0.90	0.95	0.017	O	|	|	|	|	0.03
33.917	0.87	0.93	0.017	O	|	|	|	|	0.03
34.000	0.85	0.91	0.016	O	|	|	|	|	0.03
34.083	0.82	0.89	0.016	O	|	|	|	|	0.03
34.167	0.80	0.86	0.015	O	|	|	|	|	0.03
34.250	0.78	0.84	0.015	O	|	|	|	|	0.03
34.333	0.76	0.82	0.015	O	|	|	|	|	0.03
34.417	0.74	0.79	0.014	O	|	|	|	|	0.03
34.500	0.72	0.77	0.014	O	|	|	|	|	0.03
34.583	0.70	0.75	0.013	O	|	|	|	|	0.02
34.667	0.68	0.73	0.013	O	|	|	|	|	0.02
34.750	0.66	0.71	0.013	O	|	|	|	|	0.02
34.833	0.64	0.69	0.012	O	|	|	|	|	0.02
34.917	0.62	0.67	0.012	O	|	|	|	|	0.02
35.000	0.60	0.65	0.012	O	|	|	|	|	0.02
35.083	0.59	0.63	0.011	O	|	|	|	|	0.02
35.167	0.57	0.62	0.011	O	|	|	|	|	0.02
35.250	0.56	0.60	0.011	O	|	|	|	|	0.02
35.333	0.54	0.58	0.010	O	|	|	|	|	0.02
35.417	0.53	0.57	0.010	O	|	|	|	|	0.02
35.500	0.51	0.55	0.010	O	|	|	|	|	0.02
35.583	0.50	0.54	0.010	O	|	|	|	|	0.02
35.667	0.48	0.52	0.009	O	|	|	|	|	0.02
35.750	0.47	0.51	0.009	O	|	|	|	|	0.02
35.833	0.46	0.49	0.009	O	|	|	|	|	0.02
35.917	0.44	0.48	0.009	O	|	|	|	|	0.02
36.000	0.43	0.47	0.008	O	|	|	|	|	0.02
36.083	0.42	0.45	0.008	O	|	|	|	|	0.01
36.167	0.41	0.44	0.008	O	|	|	|	|	0.01
36.250	0.40	0.43	0.008	O	|	|	|	|	0.01
36.333	0.39	0.42	0.007	O	|	|	|	|	0.01
36.417	0.37	0.40	0.007	O	|	|	|	|	0.01
36.500	0.36	0.39	0.007	O	|	|	|	|	0.01
36.583	0.35	0.38	0.007	O	|	|	|	|	0.01
36.667	0.34	0.37	0.007	O	|	|	|	|	0.01
36.750	0.33	0.36	0.006	O	|	|	|	|	0.01
36.833	0.33	0.35	0.006	O	|	|	|	|	0.01
36.917	0.32	0.34	0.006	O	|	|	|	|	0.01
37.000	0.31	0.33	0.006	O	|	|	|	|	0.01
37.083	0.30	0.32	0.006	O	|	|	|	|	0.01
37.167	0.29	0.31	0.006	O	|	|	|	|	0.01
37.250	0.28	0.30	0.005	O	|	|	|	|	0.01
37.333	0.27	0.30	0.005	O	|	|	|	|	0.01
37.417	0.27	0.29	0.005	O	|	|	|	|	0.01
37.500	0.26	0.28	0.005	O	|	|	|	|	0.01
37.583	0.25	0.27	0.005	O	|	|	|	|	0.01
37.667	0.25	0.26	0.005	O	|	|	|	|	0.01
37.750	0.24	0.26	0.005	O	|	|	|	|	0.01
37.833	0.23	0.25	0.004	O	|	|	|	|	0.01
37.917	0.23	0.24	0.004	O	|	|	|	|	0.01
38.000	0.22	0.24	0.004	O	|	|	|	|	0.01
38.083	0.21	0.23	0.004	O	|	|	|	|	0.01
38.167	0.21	0.22	0.004	O	|	|	|	|	0.01
38.250	0.20	0.22	0.004	O	|	|	|	|	0.01
38.333	0.20	0.21	0.004	O	|	|	|	|	0.01

38.417	0.19	0.21	0.004	O					0.01
38.500	0.19	0.20	0.004	O					0.01
38.583	0.18	0.19	0.003	O					0.01
38.667	0.17	0.19	0.003	O					0.01
38.750	0.17	0.18	0.003	O					0.01
38.833	0.17	0.18	0.003	O					0.01
38.917	0.16	0.17	0.003	O					0.01
39.000	0.16	0.17	0.003	O					0.01
39.083	0.15	0.16	0.003	O					0.01
39.167	0.15	0.16	0.003	O					0.01
39.250	0.14	0.15	0.003	O					0.01
39.333	0.14	0.15	0.003	O					0.00
39.417	0.14	0.15	0.003	O					0.00
39.500	0.13	0.14	0.003	O					0.00
39.583	0.13	0.14	0.002	O					0.00
39.667	0.12	0.13	0.002	O					0.00
39.750	0.12	0.13	0.002	O					0.00
39.833	0.12	0.13	0.002	O					0.00
39.917	0.11	0.12	0.002	O					0.00
40.000	0.11	0.12	0.002	O					0.00
40.083	0.11	0.12	0.002	O					0.00
40.167	0.11	0.11	0.002	O					0.00
40.250	0.10	0.11	0.002	O					0.00
40.333	0.10	0.11	0.002	O					0.00
40.417	0.10	0.10	0.002	O					0.00
40.500	0.09	0.10	0.002	O					0.00
40.583	0.09	0.10	0.002	O					0.00
40.667	0.09	0.10	0.002	O					0.00
40.750	0.09	0.09	0.002	O					0.00
40.833	0.08	0.09	0.002	O					0.00
40.917	0.08	0.09	0.002	O					0.00
41.000	0.08	0.09	0.002	O					0.00
41.083	0.08	0.08	0.001	O					0.00
41.167	0.08	0.08	0.001	O					0.00
41.250	0.07	0.08	0.001	O					0.00
41.333	0.07	0.08	0.001	O					0.00
41.417	0.07	0.07	0.001	O					0.00
41.500	0.07	0.07	0.001	O					0.00
41.583	0.07	0.07	0.001	O					0.00
41.667	0.06	0.07	0.001	O					0.00
41.750	0.06	0.07	0.001	O					0.00
41.833	0.06	0.06	0.001	O					0.00
41.917	0.06	0.06	0.001	O					0.00
42.000	0.06	0.06	0.001	O					0.00
42.083	0.06	0.06	0.001	O					0.00
42.167	0.05	0.06	0.001	O					0.00
42.250	0.05	0.06	0.001	O					0.00
42.333	0.05	0.05	0.001	O					0.00
42.417	0.05	0.05	0.001	O					0.00
42.500	0.05	0.05	0.001	O					0.00
42.583	0.05	0.05	0.001	O					0.00
42.667	0.05	0.05	0.001	O					0.00
42.750	0.04	0.05	0.001	O					0.00
42.833	0.04	0.05	0.001	O					0.00
42.917	0.04	0.04	0.001	O					0.00
43.000	0.04	0.04	0.001	O					0.00
43.083	0.04	0.04	0.001	O					0.00
43.167	0.04	0.04	0.001	O					0.00
43.250	0.04	0.04	0.001	O					0.00
43.333	0.04	0.04	0.001	O					0.00
43.417	0.04	0.04	0.001	O					0.00
43.500	0.03	0.04	0.001	O					0.00
43.583	0.03	0.04	0.001	O					0.00
43.667	0.03	0.03	0.001	O					0.00
43.750	0.03	0.03	0.001	O					0.00
43.833	0.03	0.03	0.001	O					0.00
43.917	0.03	0.03	0.001	O					0.00
44.000	0.03	0.03	0.001	O					0.00
44.083	0.03	0.03	0.001	O					0.00
44.167	0.03	0.03	0.001	O					0.00

44.250	0.03	0.03	0.001	O	|	|	|	|	0.00
44.333	0.03	0.03	0.000	O	|	|	|	|	0.00
44.417	0.03	0.03	0.000	O	|	|	|	|	0.00
44.500	0.02	0.03	0.000	O	|	|	|	|	0.00
44.583	0.02	0.03	0.000	O	|	|	|	|	0.00
44.667	0.02	0.02	0.000	O	|	|	|	|	0.00
44.750	0.02	0.02	0.000	O	|	|	|	|	0.00
44.833	0.02	0.02	0.000	O	|	|	|	|	0.00
44.917	0.02	0.02	0.000	O	|	|	|	|	0.00
45.000	0.02	0.02	0.000	O	|	|	|	|	0.00
45.083	0.02	0.02	0.000	O	|	|	|	|	0.00
45.167	0.02	0.02	0.000	O	|	|	|	|	0.00
45.250	0.02	0.02	0.000	O	|	|	|	|	0.00
45.333	0.02	0.02	0.000	O	|	|	|	|	0.00
45.417	0.02	0.02	0.000	O	|	|	|	|	0.00
45.500	0.02	0.02	0.000	O	|	|	|	|	0.00
45.583	0.02	0.02	0.000	O	|	|	|	|	0.00
45.667	0.02	0.02	0.000	O	|	|	|	|	0.00
45.750	0.02	0.02	0.000	O	|	|	|	|	0.00
45.833	0.02	0.02	0.000	O	|	|	|	|	0.00
45.917	0.02	0.02	0.000	O	|	|	|	|	0.00
46.000	0.01	0.02	0.000	O	|	|	|	|	0.00
46.083	0.01	0.02	0.000	O	|	|	|	|	0.00
46.167	0.01	0.01	0.000	O	|	|	|	|	0.00
46.250	0.01	0.01	0.000	O	|	|	|	|	0.00
46.333	0.01	0.01	0.000	O	|	|	|	|	0.00
46.417	0.01	0.01	0.000	O	|	|	|	|	0.00
46.500	0.01	0.01	0.000	O	|	|	|	|	0.00
46.583	0.01	0.01	0.000	O	|	|	|	|	0.00
46.667	0.01	0.01	0.000	O	|	|	|	|	0.00
46.750	0.01	0.01	0.000	O	|	|	|	|	0.00
46.833	0.01	0.01	0.000	O	|	|	|	|	0.00
46.917	0.01	0.01	0.000	O	|	|	|	|	0.00
47.000	0.01	0.01	0.000	O	|	|	|	|	0.00
47.083	0.01	0.01	0.000	O	|	|	|	|	0.00
47.167	0.01	0.01	0.000	O	|	|	|	|	0.00
47.250	0.01	0.01	0.000	O	|	|	|	|	0.00
47.333	0.01	0.01	0.000	O	|	|	|	|	0.00
47.417	0.01	0.01	0.000	O	|	|	|	|	0.00
47.500	0.01	0.01	0.000	O	|	|	|	|	0.00
47.583	0.01	0.01	0.000	O	|	|	|	|	0.00
47.667	0.01	0.01	0.000	O	|	|	|	|	0.00
47.750	0.01	0.01	0.000	O	|	|	|	|	0.00
47.833	0.01	0.01	0.000	O	|	|	|	|	0.00
47.917	0.01	0.01	0.000	O	|	|	|	|	0.00
48.000	0.01	0.01	0.000	O	|	|	|	|	0.00
48.083	0.01	0.01	0.000	O	|	|	|	|	0.00
48.167	0.01	0.01	0.000	O	|	|	|	|	0.00
48.250	0.01	0.01	0.000	O	|	|	|	|	0.00
48.333	0.01	0.01	0.000	O	|	|	|	|	0.00
48.417	0.01	0.01	0.000	O	|	|	|	|	0.00
48.500	0.01	0.01	0.000	O	|	|	|	|	0.00
48.583	0.01	0.01	0.000	O	|	|	|	|	0.00
48.667	0.01	0.01	0.000	O	|	|	|	|	0.00
48.750	0.01	0.01	0.000	O	|	|	|	|	0.00
48.833	0.01	0.01	0.000	O	|	|	|	|	0.00
48.917	0.01	0.01	0.000	O	|	|	|	|	0.00
49.000	0.01	0.01	0.000	O	|	|	|	|	0.00
49.083	0.01	0.01	0.000	O	|	|	|	|	0.00
49.167	0.01	0.01	0.000	O	|	|	|	|	0.00
49.250	0.00	0.01	0.000	O	|	|	|	|	0.00
49.333	0.00	0.01	0.000	O	|	|	|	|	0.00
49.417	0.00	0.00	0.000	O	|	|	|	|	0.00
49.500	0.00	0.00	0.000	O	|	|	|	|	0.00
49.583	0.00	0.00	0.000	O	|	|	|	|	0.00
49.667	0.00	0.00	0.000	O	|	|	|	|	0.00
49.750	0.00	0.00	0.000	O	|	|	|	|	0.00
49.833	0.00	0.00	0.000	O	|	|	|	|	0.00
49.917	0.00	0.00	0.000	O	|	|	|	|	0.00
50.000	0.00	0.00	0.000	O	|	|	|	|	0.00

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50.083    0.00    0.00      0.000  O       |       |       |       |     0.00
50.167    0.00    0.00      0.000  O       |       |       |       |     0.00
50.250    0.00    0.00      0.000  O       |       |       |       |     0.00
50.333    0.00    0.00      0.000  O       |       |       |       |     0.00
50.417    0.00    0.00      0.000  O       |       |       |       |     0.00
50.500    0.00    0.00      0.000  O       |       |       |       |     0.00
50.583    0.00    0.00      0.000  O       |       |       |       |     0.00
50.667    0.00    0.00      0.000  O       |       |       |       |     0.00
50.750    0.00    0.00      0.000  O       |       |       |       |     0.00
50.833    0.00    0.00      0.000  O       |       |       |       |     0.00
50.917    0.00    0.00      0.000  O       |       |       |       |     0.00
51.000    0.00    0.00      0.000  O       |       |       |       |     0.00
51.083    0.00    0.00      0.000  O       |       |       |       |     0.00
51.167    0.00    0.00      0.000  O       |       |       |       |     0.00
51.250    0.00    0.00      0.000  O       |       |       |       |     0.00
51.333    0.00    0.00      0.000  O       |       |       |       |     0.00
51.417    0.00    0.00      0.000  O       |       |       |       |     0.00
51.500    0.00    0.00      0.000  O       |       |       |       |     0.00
51.583    0.00    0.00      0.000  O       |       |       |       |     0.00
51.667    0.00    0.00      0.000  O       |       |       |       |     0.00
51.750    0.00    0.00      0.000  O       |       |       |       |     0.00
51.833    0.00    0.00      0.000  O       |       |       |       |     0.00
51.917    0.00    0.00      0.000  O       |       |       |       |     0.00
52.000    0.00    0.00      0.000  O       |       |       |       |     0.00
52.083    0.00    0.00      0.000  O       |       |       |       |     0.00

      ****************************HYDROGRAPH DATA****************************
                  Number of intervals =   625
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =      123.563 (CFS)
                  Total volume =      97.158 (Ac.Ft)
            Status of hydrographs being held in storage
                       Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      ************************************************************************

      ------------------------------------------------------------------------


      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      Process from Point/Station       12.000 to Point/Station       13.000
      **** STREAM ROUTING SCS CONVEX METHOD ****
      ________________________________________________________________________
      HYDROGRAPH STREAM ROUTING DATA:
      Length of stream =   1500.00 (Ft.)
      Elevation difference =   10.95 (Ft.)
      Slope of channel =  0.007300 (Vert/Horiz)
      Channel type - Pipe


      Pipe length  =  1500.00(Ft.)   Elevation difference =  10.95(Ft.)
      Manning's N = 0.013   No. of pipes = 1
      Pipe evaluation using mean flow rate of hydrograph
      Required pipe flow  =    57.682(CFS)
      Nearest computed pipe diameter  =     36.00(In.)
      Calculated individual pipe flow  =    57.682(CFS)
      Normal flow depth in pipe =   29.91(In.)
      Flow top width inside pipe =   27.00(In.)
      Critical Depth =    2.46(Ft.)
      Pipe flow velocity =      9.19(Ft/s)
      Travel time through pipe =    2.72 min.


      Pipe length  =  1500.00(Ft.)   Elevation difference =  10.95(Ft.)
      Manning's N = 0.013   No. of pipes = 1
      Pipe evaluation using maximum flow rate of hydrograph
      Required pipe flow  =   123.563(CFS)
      Nearest computed pipe diameter  =     48.00(In.)
      Calculated individual pipe flow  =   123.563(CFS)
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      Normal flow depth in pipe =   39.66(In.)
      Flow top width inside pipe =   36.38(In.)
      Critical Depth =    3.34(Ft.)
      Pipe flow velocity =     11.13(Ft/s)
      Travel time through pipe =    2.25 min.


      ********************** SCS CONVEX CHANNEL ROUTING ********************
      Convex method of stream routing  data items:
      Using equation: Outflow =
      O(t+dt) = (1-c*)O(t+dt-dt*) + Input(c*)
                where c* = 1 - (1-c)^e and dt = c(length)/velocity
                c(v/v+1.7) =   0.8675   Travel time =   2.25 (min.)
               dt*(unit time interval) =   5.00(min.),  e=   2.0441
               dt(routing time-step) =   1.95 (min.),   c* =   0.9839

      Output hydrograph delayed by 0  unit time increments


      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        P R I N T  O F  S T O R M
                     R u n o f f     H y d r o g r a p h
      ----------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals (CFS)

      ----------------------------------------------------------------------
Time(h+m) Out = O(CFS) In = I  0       30.9      61.8      92.7     123.6
----------------------------------------------------------------------------
  0+ 5       0.0309      0.05  O         |         |         |         |
  0+10       0.2340      0.36  O         |         |         |         |
  0+15       0.7652      1.04  O         |         |         |         |
  0+20       1.5611      1.91  O         |         |         |         |
  0+25       2.4594      2.83  O         |         |         |         |
  0+30       3.4080      3.80  |O        |         |         |         |
  0+35       4.3529      4.73  |O        |         |         |         |
  0+40       5.1950      5.51  |O        |         |         |         |
  0+45       5.8892      6.15  |O        |         |         |         |
  0+50       6.4614      6.68  | O       |         |         |         |
  0+55       7.0071      7.23  | O       |         |         |         |
  1+ 0       7.6275      7.90  | O       |         |         |         |
  1+ 5       8.2862      8.55  | O       |         |         |         |
  1+10       8.8111      8.99  | O       |         |         |         |
  1+15       9.0712      9.13  | O       |         |         |         |
  1+20       9.1083      9.10  | O       |         |         |         |
  1+25       9.0560      9.03  | O       |         |         |         |
  1+30       8.9936      8.97  | O       |         |         |         |
  1+35       8.9379      8.92  | O       |         |         |         |
  1+40       8.8927      8.88  | O       |         |         |         |
  1+45       8.8587      8.85  | O       |         |         |         |
  1+50       8.8486      8.85  | O       |         |         |         |
  1+55       8.9312      8.99  | O       |         |         |         |
  2+ 0       9.1828      9.32  | OI      |         |         |         |
  2+ 5       9.5634      9.73  |  O      |         |         |         |
  2+10       9.9568     10.11  |  O      |         |         |         |
  2+15      10.2966     10.42  |  O      |         |         |         |
  2+20      10.5734     10.68  |  O      |         |         |         |
  2+25      10.7944     10.88  |  O      |         |         |         |
  2+30      10.9709     11.04  |  O      |         |         |         |
  2+35      11.1289     11.19  |  O      |         |         |         |
  2+40      11.3474     11.45  |  O      |         |         |         |
  2+45      11.7098     11.88  |  O      |         |         |         |
  2+50      12.1808     12.38  |  OI     |         |         |         |
  2+55      12.6470     12.83  |   O     |         |         |         |
  3+ 0      13.0457     13.20  |   O     |         |         |         |
  3+ 5      13.3719     13.49  |   O     |         |         |         |
  3+10      13.6365     13.73  |   O     |         |         |         |
  3+15      13.8501     13.93  |   O     |         |         |         |
  3+20      14.0210     14.08  |   O     |         |         |         |
  3+25      14.1580     14.21  |   O     |         |         |         |
  3+30      14.2692     14.31  |   O     |         |         |         |
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3+35      14.3607     14.40  |   O     |         |         |         |
3+40      14.4366     14.47  |   O     |         |         |         |
3+45      14.5002     14.52  |   O     |         |         |         |
3+50      14.5696     14.60  |   O     |         |         |         |
3+55      14.7181     14.80  |   O     |         |         |         |
4+ 0      15.0247     15.18  |   O     |         |         |         |
4+ 5      15.4493     15.63  |    O    |         |         |         |
4+10      15.8762     16.04  |    O    |         |         |         |
4+15      16.2415     16.38  |    O    |         |         |         |
4+20      16.5521     16.67  |    O    |         |         |         |
4+25      16.8864     17.03  |    O    |         |         |         |
4+30      17.3329     17.54  |    O    |         |         |         |
4+35      17.8623     18.08  |    O    |         |         |         |
4+40      18.3673     18.56  |    OI   |         |         |         |
4+45      18.7907     18.95  |     O   |         |         |         |
4+50      19.1464     19.28  |     O   |         |         |         |
4+55      19.5178     19.68  |     O   |         |         |         |
5+ 0      19.9953     20.21  |     O   |         |         |         |
5+ 5      20.5198     20.73  |     O   |         |         |         |
5+10      20.8446     20.93  |     O   |         |         |         |
5+15      20.7577     20.65  |     O   |         |         |         |
5+20      20.3518     20.15  |     O   |         |         |         |
5+25      19.9438     19.80  |     O   |         |         |         |
5+30      19.7550     19.72  |     O   |         |         |         |
5+35      19.7872     19.83  |     O   |         |         |         |
5+40      19.9877     20.09  |     O   |         |         |         |
5+45      20.3569     20.53  |     O   |         |         |         |
5+50      20.8342     21.04  |     O   |         |         |         |
5+55      21.3006     21.48  |     O   |         |         |         |
6+ 0      21.6925     21.84  |      O  |         |         |         |
6+ 5      22.0213     22.15  |      O  |         |         |         |
6+10      22.3707     22.52  |      O  |         |         |         |
6+15      22.8311     23.04  |      O  |         |         |         |
6+20      23.3714     23.60  |      O  |         |         |         |
6+25      23.8829     24.08  |      O  |         |         |         |
6+30      24.3105     24.47  |      O  |         |         |         |
6+35      24.6725     24.81  |      OI |         |         |         |
6+40      25.0533     25.22  |       O |         |         |         |
6+45      25.5415     25.76  |       O |         |         |         |
6+50      26.1060     26.34  |       O |         |         |         |
6+55      26.6404     26.85  |       O |         |         |         |
7+ 0      27.0883     27.26  |       O |         |         |         |
7+ 5      27.4475     27.58  |       O |         |         |         |
7+10      27.7315     27.84  |       OI|         |         |         |
7+15      27.9553     28.04  |        O|         |         |         |
7+20      28.1559     28.24  |        O|         |         |         |
7+25      28.4585     28.61  |        O|         |         |         |
7+30      28.9992     29.26  |        O|         |         |         |
7+35      29.7581     30.09  |        O|         |         |         |
7+40      30.2546     30.37  |        O|         |         |         |
7+45      30.5064     30.60  |        O|         |         |         |
7+50      30.7786     30.90  |        OI         |         |         |
7+55      31.1192     31.27  |         O         |         |         |
8+ 0      31.5369     31.72  |         O         |         |         |
8+ 5      32.0321     32.24  |         O         |         |         |
8+10      32.6190     32.87  |         O         |         |         |
8+15      33.3351     33.65  |         O         |         |         |
8+20      34.1723     34.53  |         |O        |         |         |
8+25      35.0728     35.44  |         |O        |         |         |
8+30      35.9936     36.37  |         |O        |         |         |
8+35      36.9331     37.32  |         |OI       |         |         |
8+40      37.9422     38.37  |         | O       |         |         |
8+45      39.0756     39.56  |         | O       |         |         |
8+50      40.3269     40.85  |         |  O      |         |         |
8+55      41.8002     42.45  |         |  O      |         |         |
9+ 0      43.6531     44.47  |         |   O     |         |         |
9+ 5      45.7091     46.55  |         |   OI    |         |         |
9+10      47.8398     48.72  |         |    O    |         |         |
9+15      50.0929     51.03  |         |     O   |         |         |
9+20      52.4615     53.44  |         |     OI  |         |         |
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9+25	54.8946	55.89	|	|	OI |	|	|
9+30	57.3697	58.38	|	|	O |	|	|
9+35	59.8653	60.88	|	|	O|	|	|
9+40	62.3621	63.38	|	|	O	|	|
9+45	64.4845	65.25	|	|	OI	|	|
9+50	66.3265	67.06	|	|	|O	|	|
9+55	68.1559	68.90	|	|	| O	|	|
10+ 0	70.0177	70.78	|	|	| O	|	|
10+ 5	71.8683	72.61	|	|	| O	|	|
10+10	73.5074	74.12	|	|	| O	|	|
10+15	74.6753	75.06	|	|	| O	|	|
10+20	75.3333	75.53	|	|	| O	|	|
10+25	75.6561	75.75	|	|	| O	|	|
10+30	75.7950	75.83	|	|	| O	|	|
10+35	75.8434	75.85	|	|	| O	|	|
10+40	75.9589	76.03	|	|	| O	|	|
10+45	76.3343	76.54	|	|	| O	|	|
10+50	77.0057	77.32	|	|	| OI	|	|
10+55	77.8566	78.22	|	|	| O	|	|
11+ 0	78.7841	79.17	|	|	| O	|	|
11+ 5	79.6797	80.03	|	|	| O	|	|
11+10	80.4036	80.66	|	|	| O	|	|
11+15	81.0072	81.24	|	|	| O	|	|
11+20	81.5632	81.78	|	|	| O	|	|
11+25	82.0844	82.29	|	|	| O	|	|
11+30	82.5839	82.78	|	|	| O	|	|
11+35	83.0624	83.25	|	|	| O	|	|
11+40	83.4899	83.65	|	|	| O	|	|
11+45	83.8209	83.94	|	|	| O	|	|
11+50	84.0529	84.13	|	|	| O	|	|
11+55	84.2375	84.31	|	|	| O	|	|
12+ 0	84.4270	84.51	|	|	| O	|	|
12+ 5	84.6600	84.76	|	|	| O	|	|
12+10	85.0419	85.23	|	|	| O	|	|
12+15	85.7253	86.06	|	|	| O	|	|
12+20	86.7329	87.19	|	|	| O	|	|
12+25	87.9612	88.49	|	|	| O	|	|
12+30	89.3297	89.90	|	|	| OI|	|	|
12+35	90.8000	91.41	|	|	| O|	|	|
12+40	92.3622	93.01	|	|	| OI	|	|
12+45	93.7853	94.32	|	|	| O	|	|
12+50	95.1064	95.65	|	|	| O	|	|
12+55	96.4649	97.02	|	|	| |O	|	|
13+ 0	97.8737	98.45	|	|	| |O	|	|
13+ 5	99.3337	99.93	|	|	| | O	|	|
13+10	100.8847	101.53	|	|	| | O	|	|
13+15	102.5950	103.32	|	|	| | O	|	|
13+20	104.4400	105.21	|	|	| | OI	|	|
13+25	106.2341	106.94	|	|	| | O	|	|
13+30	107.9840	108.70	|	|	| | OI	|	|
13+35	109.7231	110.42	|	|	| | O	|	|
13+40	111.3239	111.94	|	|	| | O	|	|
13+45	112.6141	113.08	|	|	| | O	|	|
13+50	113.5617	113.90	|	|	| | O	|	|
13+55	114.2777	114.54	|	|	| | OI	|	|
14+ 0	114.8604	115.08	|	|	| | O	|	|
14+ 5	115.3528	115.54	|	|	| | O	|	|
14+10	115.8006	115.98	|	|	| | O	|	|
14+15	116.2885	116.50	|	|	| | O	|	|
14+20	116.8488	117.09	|	|	| | O	|	|
14+25	117.4428	117.69	|	|	| | O	|	|
14+30	118.0296	118.26	|	|	| | O	|	|
14+35	118.5947	118.82	|	|	| | O	|	|
14+40	119.1422	119.36	|	|	| | O	|	|
14+45	119.6773	119.89	|	|	| | O	|	|
14+50	120.2001	120.41	|	|	| | O	|	|
14+55	120.7011	120.90	|	|	| | O|	|	|
15+ 0	121.1688	121.35	|	|	| | O|	|	|
15+ 5	121.6019	121.77	|	|	| | O|	|	|
15+10	122.0014	122.16	|	|	| | O|	|	|

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15+15     122.3618    122.50  |          |          |          |         O|
15+20     122.6827    122.81  |          |          |          |         O|
15+25     122.9663    123.08  |          |          |          |         O|
15+30     123.2086    123.30  |          |          |          |         O|
15+35     123.4039    123.48  |          |          |          |         O|
15+40     123.5268    123.56  |          |          |          |         OI
15+45     123.5347    123.52  |          |          |          |         O|
15+50     123.4248    123.36  |          |          |          |         O|
15+55     123.2369    123.15  |          |          |          |         O|
16+ 0     123.0055    122.91  |          |          |          |         O|
16+ 5     122.7214    122.60  |          |          |          |         O|
16+10     122.2646    122.04  |          |          |          |         O|
16+15     121.4578    121.06  |          |          |          |         O|
16+20     120.2751    119.74  |          |          |          |        O |
16+25     118.8466    118.24  |          |          |          |        O |
16+30     117.2868    116.64  |          |          |          |       O  |
16+35     115.6157    114.92  |          |          |          |       O  |
16+40     113.7721    112.99  |          |          |          |      O   |
16+45     111.8267    111.03  |          |          |          |     IO   |
16+50     109.8592    109.06  |          |          |          |     O    |
16+55     107.8866    107.09  |          |          |          |    O     |
17+ 0     105.9210    105.12  |          |          |          |    O     |
17+ 5     103.8183    102.93  |          |          |          |   O      |
17+10     101.6360    100.75  |          |          |          |  O       |
17+15      99.5059     98.65  |          |          |          |IO        |
17+20      97.4470     96.62  |          |          |          |O         |
17+25      95.4485     94.65  |          |          |         O          |
17+30      93.3991     92.55  |          |          |        IO          |
17+35      91.0328     90.00  |          |          |        O|          |
17+40      88.5445     87.55  |          |          |       O |          |
17+45      86.1413     85.18  |          |          |      O  |          |
17+50      83.8203     82.89  |          |          |     IO  |          |
17+55      81.5692     80.67  |          |          |     O   |          |
18+ 0      79.0020     77.87  |          |          |    O    |          |
18+ 5      76.0380     74.79  |          |          |   O     |          |
18+10      73.0344     71.83  |          |          |  O      |          |
18+15      70.1582     69.01  |          |          | O       |          |
18+20      67.4109     66.32  |          |         |O        |          |
18+25      64.7893     63.74  |          |         O         |          |
18+30      61.7134     60.33  |          |        O|         |          |
18+35      58.4229     57.11  |          |       O |         |          |
18+40      55.3140     54.08  |          |      O  |         |          |
18+45      52.3712     51.20  |          |     O   |         |          |
18+50      49.5779     48.47  |          |    IO   |         |          |
18+55      46.9249     45.87  |          |   IO    |         |          |
19+ 0      44.3940     43.38  |          |   O     |         |          |
19+ 5      42.0964     41.21  |          |  O      |         |          |
19+10      40.2800     39.64  |          | IO      |         |          |
19+15      38.7594     38.16  |          | O       |         |          |
19+20      37.3389     36.78  |          |IO       |         |          |
19+25      36.0129     35.49  |          |O        |         |          |
19+30      34.7846     34.30  |          |O        |         |          |
19+35      33.6466     33.20  |         O         |         |          |
19+40      32.5707     32.14  |         O         |         |          |
19+45      31.5287     31.11  |         O         |         |          |
19+50      30.0313     29.30  |        O|         |         |          |
19+55      25.4707     22.90  |      IO |         |         |          |
20+ 0      20.1814     18.30  |    IO   |         |         |          |
20+ 5      16.3546     15.01  |   IO    |         |         |          |
20+10      13.7079     12.81  |   O     |         |         |          |
20+15      12.0331     11.49  |  O      |         |         |          |
20+20      11.0592     10.76  |  O      |         |         |          |
20+25      10.4976     10.32  |  O      |         |         |          |
20+30      10.1600     10.05  |  O      |         |         |          |
20+35       9.9529      9.89  |  O      |         |         |          |
20+40       9.8265      9.79  |  O      |         |         |          |
20+45       9.7498      9.72  |  O      |         |         |          |
20+50       9.6866      9.66  |  O      |         |         |          |
20+55       9.5545      9.48  |  O      |         |         |          |
21+ 0       9.2708      9.13  | IO      |         |         |          |
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21+ 5	8.8884	8.73	| O	|	|	|	|
21+10	8.5905	8.50	| O	|	|	|	|
21+15	8.5171	8.53	| O	|	|	|	|
21+20	8.6200	8.68	| O	|	|	|	|
21+25	8.7029	8.72	| O	|	|	|	|
21+30	8.6112	8.54	| O	|	|	|	|
21+35	8.3818	8.27	| O	|	|	|	|
21+40	8.2018	8.15	| O	|	|	|	|
21+45	8.2178	8.26	| O	|	|	|	|
21+50	8.3858	8.47	| O	|	|	|	|
21+55	8.5150	8.55	| O	|	|	|	|
22+ 0	8.4571	8.40	| O	|	|	|	|
22+ 5	8.2543	8.16	| O	|	|	|	|
22+10	8.0954	8.05	| O	|	|	|	|
22+15	8.1281	8.18	| O	|	|	|	|
22+20	8.3113	8.40	| O	|	|	|	|
22+25	8.4553	8.49	| O	|	|	|	|
22+30	8.4109	8.36	| O	|	|	|	|
22+35	8.2028	8.10	| O	|	|	|	|
22+40	7.9495	7.85	| O	|	|	|	|
22+45	7.7223	7.64	| O	|	|	|	|
22+50	7.5361	7.47	| O	|	|	|	|
22+55	7.3887	7.33	| O	|	|	|	|
23+ 0	7.2734	7.23	| O	|	|	|	|
23+ 5	7.1821	7.15	| O	|	|	|	|
23+10	7.1082	7.08	| O	|	|	|	|
23+15	7.0479	7.03	| O	|	|	|	|
23+20	7.0003	6.98	| O	|	|	|	|
23+25	6.9642	6.95	| O	|	|	|	|
23+30	6.9362	6.93	| O	|	|	|	|
23+35	6.9126	6.90	| O	|	|	|	|
23+40	6.8911	6.88	| O	|	|	|	|
23+45	6.8722	6.87	| O	|	|	|	|
23+50	6.8574	6.85	| O	|	|	|	|
23+55	6.8465	6.84	| O	|	|	|	|
24+ 0	6.8381	6.84	| O	|	|	|	|
24+ 5	6.8008	6.78	| O	|	|	|	|
24+10	6.5929	6.47	| O	|	|	|	|
24+15	6.0592	5.78	|O	|	|	|	|
24+20	5.2792	4.94	|O	|	|	|	|
24+25	4.4858	4.18	|O	|	|	|	|
24+30	3.8085	3.56	|O	|	|	|	|
24+35	3.2610	3.06	IO	|	|	|	|
24+40	2.8254	2.66	O	|	|	|	|
24+45	2.4812	2.35	O	|	|	|	|
24+50	2.2105	2.11	O	|	|	|	|
24+55	1.9972	1.92	O	|	|	|	|
25+ 0	1.8274	1.76	O	|	|	|	|
25+ 5	1.6918	1.64	O	|	|	|	|
25+10	1.5832	1.54	O	|	|	|	|
25+15	1.4962	1.46	O	|	|	|	|
25+20	1.4260	1.40	O	|	|	|	|
25+25	1.3677	1.35	O	|	|	|	|
25+30	1.3198	1.30	O	|	|	|	|
25+35	1.2836	1.27	O	|	|	|	|
25+40	1.2575	1.25	O	|	|	|	|
25+45	1.2381	1.23	O	|	|	|	|
25+50	1.2234	1.22	O	|	|	|	|
25+55	1.2118	1.21	O	|	|	|	|
26+ 0	1.2023	1.20	O	|	|	|	|
26+ 5	1.1942	1.19	O	|	|	|	|
26+10	1.1872	1.18	O	|	|	|	|
26+15	1.1808	1.18	O	|	|	|	|
26+20	1.1754	1.17	O	|	|	|	|
26+25	1.1709	1.17	O	|	|	|	|
26+30	1.1673	1.17	O	|	|	|	|
26+35	1.1643	1.16	O	|	|	|	|
26+40	1.1619	1.16	O	|	|	|	|
26+45	1.1597	1.16	O	|	|	|	|
26+50	1.1577	1.16	O	|	|	|	|

26+55	1.1559	1.16	O				
27+ 0	1.1542	1.15	O				
27+ 5	1.1526	1.15	O				
27+10	1.1509	1.15	O				
27+15	1.1494	1.15	O				
27+20	1.1478	1.15	O				
27+25	1.1463	1.15	O				
27+30	1.1447	1.14	O				
27+35	1.1432	1.14	O				
27+40	1.1416	1.14	O				
27+45	1.1400	1.14	O				
27+50	1.1383	1.14	O				
27+55	1.1366	1.14	O				
28+ 0	1.1349	1.13	O				
28+ 5	1.1332	1.13	O				
28+10	1.1315	1.13	O				
28+15	1.1298	1.13	O				
28+20	1.1281	1.13	O				
28+25	1.1264	1.13	O				
28+30	1.1247	1.12	O				
28+35	1.1230	1.12	O				
28+40	1.1213	1.12	O				
28+45	1.1196	1.12	O				
28+50	1.1179	1.12	O				
28+55	1.1162	1.12	O				
29+ 0	1.1145	1.11	O				
29+ 5	1.1128	1.11	O				
29+10	1.1111	1.11	O				
29+15	1.1094	1.11	O				
29+20	1.1077	1.11	O				
29+25	1.1060	1.11	O				
29+30	1.1044	1.10	O				
29+35	1.1027	1.10	O				
29+40	1.1010	1.10	O				
29+45	1.0993	1.10	O				
29+50	1.0977	1.10	O				
29+55	1.0960	1.10	O				
30+ 0	1.0943	1.09	O				
30+ 5	1.0927	1.09	O				
30+10	1.0910	1.09	O				
30+15	1.0894	1.09	O				
30+20	1.0877	1.09	O				
30+25	1.0861	1.09	O				
30+30	1.0844	1.08	O				
30+35	1.0828	1.08	O				
30+40	1.0811	1.08	O				
30+45	1.0795	1.08	O				
30+50	1.0778	1.08	O				
30+55	1.0762	1.08	O				
31+ 0	1.0746	1.07	O				
31+ 5	1.0729	1.07	O				
31+10	1.0713	1.07	O				
31+15	1.0697	1.07	O				
31+20	1.0680	1.07	O				
31+25	1.0664	1.07	O				
31+30	1.0648	1.06	O				
31+35	1.0632	1.06	O				
31+40	1.0616	1.06	O				
31+45	1.0600	1.06	O				
31+50	1.0583	1.06	O				
31+55	1.0567	1.06	O				
32+ 0	1.0551	1.05	O				
32+ 5	1.0535	1.05	O				
32+10	1.0519	1.05	O				
32+15	1.0503	1.05	O				
32+20	1.0487	1.05	O				
32+25	1.0471	1.05	O				
32+30	1.0455	1.04	O				
32+35	1.0440	1.04	O				
32+40	1.0424	1.04	O				

32+45	1.0408	1.04	O				
32+50	1.0392	1.04	O				
32+55	1.0376	1.04	O				
33+ 0	1.0361	1.04	O				
33+ 5	1.0345	1.03	O				
33+10	1.0329	1.03	O				
33+15	1.0313	1.03	O				
33+20	1.0298	1.03	O				
33+25	1.0279	1.03	O				
33+30	1.0241	1.02	O				
33+35	1.0158	1.01	O				
33+40	1.0022	1.00	O				
33+45	0.9843	0.98	O				
33+50	0.9637	0.95	O				
33+55	0.9415	0.93	O				
34+ 0	0.9184	0.91	O				
34+ 5	0.8950	0.89	O				
34+10	0.8715	0.86	O				
34+15	0.8482	0.84	O				
34+20	0.8253	0.82	O				
34+25	0.8028	0.79	O				
34+30	0.7808	0.77	O				
34+35	0.7593	0.75	O				
34+40	0.7383	0.73	O				
34+45	0.7179	0.71	O				
34+50	0.6980	0.69	O				
34+55	0.6787	0.67	O				
35+ 0	0.6598	0.65	O				
35+ 5	0.6415	0.63	O				
35+10	0.6237	0.62	O				
35+15	0.6064	0.60	O				
35+20	0.5895	0.58	O				
35+25	0.5732	0.57	O				
35+30	0.5572	0.55	O				
35+35	0.5418	0.54	O				
35+40	0.5267	0.52	O				
35+45	0.5121	0.51	O				
35+50	0.4978	0.49	O				
35+55	0.4840	0.48	O				
36+ 0	0.4705	0.47	O				
36+ 5	0.4575	0.45	O				
36+10	0.4448	0.44	O				
36+15	0.4324	0.43	O				
36+20	0.4204	0.42	O				
36+25	0.4087	0.40	O				
36+30	0.3973	0.39	O				
36+35	0.3863	0.38	O				
36+40	0.3756	0.37	O				
36+45	0.3651	0.36	O				
36+50	0.3550	0.35	O				
36+55	0.3451	0.34	O				
37+ 0	0.3355	0.33	O				
37+ 5	0.3262	0.32	O				
37+10	0.3171	0.31	O				
37+15	0.3083	0.30	O				
37+20	0.2998	0.30	O				
37+25	0.2914	0.29	O				
37+30	0.2833	0.28	O				
37+35	0.2755	0.27	O				
37+40	0.2678	0.26	O				
37+45	0.2604	0.26	O				
37+50	0.2531	0.25	O				
37+55	0.2461	0.24	O				
38+ 0	0.2392	0.24	O				
38+ 5	0.2326	0.23	O				
38+10	0.2261	0.22	O				
38+15	0.2198	0.22	O				
38+20	0.2137	0.21	O				
38+25	0.2078	0.21	O				
38+30	0.2020	0.20	O				

38+35	0.1964	0.19	O				
38+40	0.1910	0.19	O				
38+45	0.1856	0.18	O				
38+50	0.1805	0.18	O				
38+55	0.1755	0.17	O				
39+ 0	0.1706	0.17	O				
39+ 5	0.1659	0.16	O				
39+10	0.1612	0.16	O				
39+15	0.1568	0.15	O				
39+20	0.1524	0.15	O				
39+25	0.1482	0.15	O				
39+30	0.1441	0.14	O				
39+35	0.1400	0.14	O				
39+40	0.1362	0.13	O				
39+45	0.1324	0.13	O				
39+50	0.1287	0.13	O				
39+55	0.1251	0.12	O				
40+ 0	0.1216	0.12	O				
40+ 5	0.1183	0.12	O				
40+10	0.1150	0.11	O				
40+15	0.1118	0.11	O				
40+20	0.1087	0.11	O				
40+25	0.1057	0.10	O				
40+30	0.1027	0.10	O				
40+35	0.0999	0.10	O				
40+40	0.0971	0.10	O				
40+45	0.0944	0.09	O				
40+50	0.0918	0.09	O				
40+55	0.0892	0.09	O				
41+ 0	0.0867	0.09	O				
41+ 5	0.0843	0.08	O				
41+10	0.0820	0.08	O				
41+15	0.0797	0.08	O				
41+20	0.0775	0.08	O				
41+25	0.0753	0.07	O				
41+30	0.0732	0.07	O				
41+35	0.0712	0.07	O				
41+40	0.0692	0.07	O				
41+45	0.0673	0.07	O				
41+50	0.0654	0.06	O				
41+55	0.0636	0.06	O				
42+ 0	0.0618	0.06	O				
42+ 5	0.0601	0.06	O				
42+10	0.0585	0.06	O				
42+15	0.0568	0.06	O				
42+20	0.0553	0.05	O				
42+25	0.0537	0.05	O				
42+30	0.0522	0.05	O				
42+35	0.0508	0.05	O				
42+40	0.0494	0.05	O				
42+45	0.0480	0.05	O				
42+50	0.0467	0.05	O				
42+55	0.0454	0.04	O				
43+ 0	0.0441	0.04	O				
43+ 5	0.0429	0.04	O				
43+10	0.0417	0.04	O				
43+15	0.0405	0.04	O				
43+20	0.0394	0.04	O				
43+25	0.0383	0.04	O				
43+30	0.0372	0.04	O				
43+35	0.0362	0.04	O				
43+40	0.0352	0.03	O				
43+45	0.0342	0.03	O				
43+50	0.0333	0.03	O				
43+55	0.0323	0.03	O				
44+ 0	0.0314	0.03	O				
44+ 5	0.0306	0.03	O				
44+10	0.0297	0.03	O				
44+15	0.0289	0.03	O				
44+20	0.0281	0.03	O				

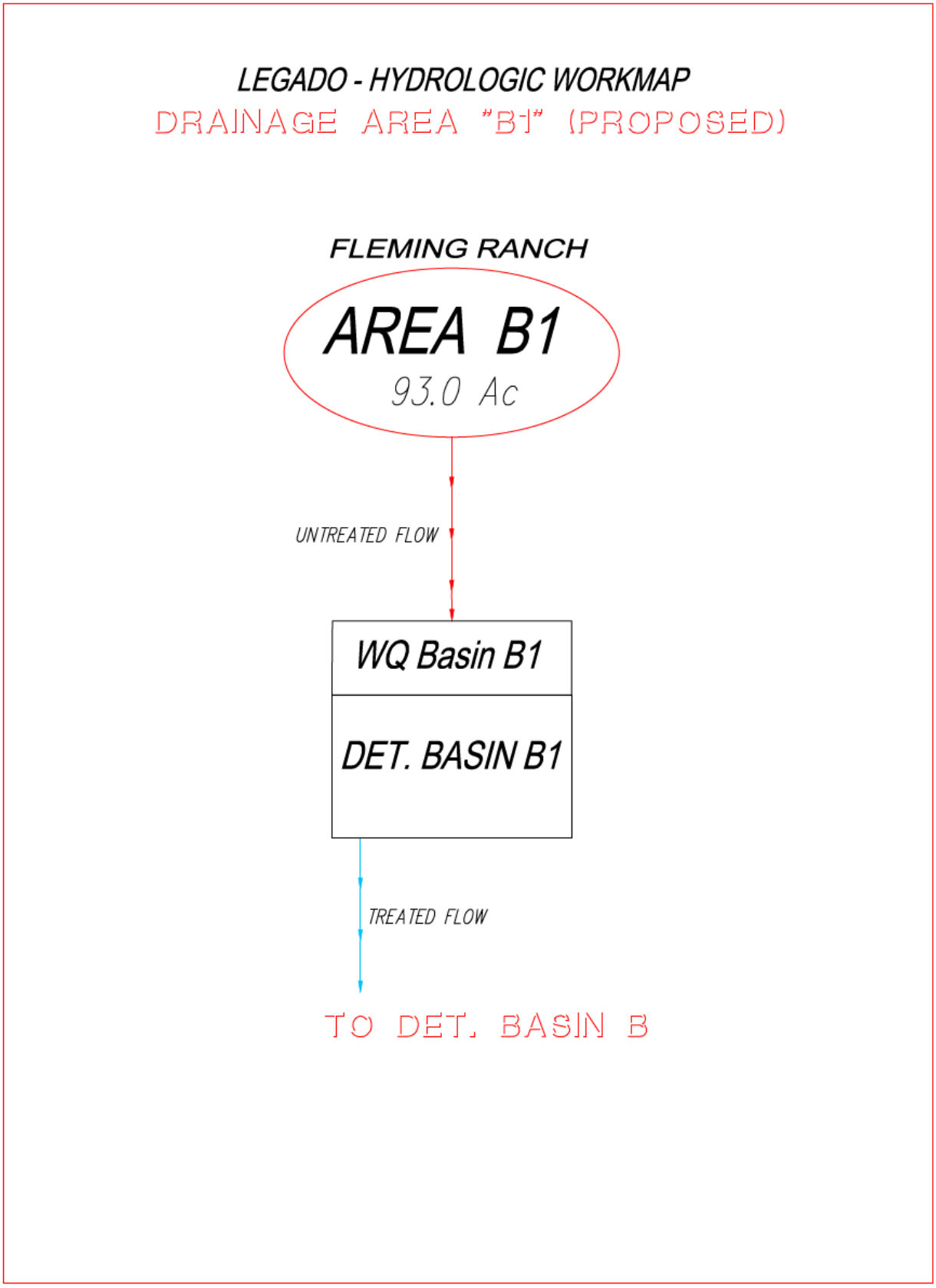
44+25	0.0273	0.03	O				
44+30	0.0266	0.03	O				
44+35	0.0258	0.03	O				
44+40	0.0251	0.02	O				
44+45	0.0244	0.02	O				
44+50	0.0237	0.02	O				
44+55	0.0231	0.02	O				
45+ 0	0.0224	0.02	O				
45+ 5	0.0218	0.02	O				
45+10	0.0212	0.02	O				
45+15	0.0206	0.02	O				
45+20	0.0200	0.02	O				
45+25	0.0195	0.02	O				
45+30	0.0189	0.02	O				
45+35	0.0184	0.02	O				
45+40	0.0179	0.02	O				
45+45	0.0174	0.02	O				
45+50	0.0169	0.02	O				
45+55	0.0164	0.02	O				
46+ 0	0.0160	0.02	O				
46+ 5	0.0155	0.02	O				
46+10	0.0151	0.01	O				
46+15	0.0147	0.01	O				
46+20	0.0143	0.01	O				
46+25	0.0139	0.01	O				
46+30	0.0135	0.01	O				
46+35	0.0131	0.01	O				
46+40	0.0128	0.01	O				
46+45	0.0124	0.01	O				
46+50	0.0121	0.01	O				
46+55	0.0117	0.01	O				
47+ 0	0.0114	0.01	O				
47+ 5	0.0111	0.01	O				
47+10	0.0108	0.01	O				
47+15	0.0105	0.01	O				
47+20	0.0102	0.01	O				
47+25	0.0099	0.01	O				
47+30	0.0096	0.01	O				
47+35	0.0094	0.01	O				
47+40	0.0091	0.01	O				
47+45	0.0088	0.01	O				
47+50	0.0086	0.01	O				
47+55	0.0084	0.01	O				
48+ 0	0.0081	0.01	O				
48+ 5	0.0079	0.01	O				
48+10	0.0077	0.01	O				
48+15	0.0075	0.01	O				
48+20	0.0073	0.01	O				
48+25	0.0071	0.01	O				
48+30	0.0069	0.01	O				
48+35	0.0067	0.01	O				
48+40	0.0065	0.01	O				
48+45	0.0063	0.01	O				
48+50	0.0061	0.01	O				
48+55	0.0060	0.01	O				
49+ 0	0.0058	0.01	O				
49+ 5	0.0056	0.01	O				
49+10	0.0055	0.01	O				
49+15	0.0053	0.01	O				
49+20	0.0052	0.01	O				
49+25	0.0050	0.00	O				
49+30	0.0049	0.00	O				
49+35	0.0048	0.00	O				
49+40	0.0046	0.00	O				
49+45	0.0045	0.00	O				
49+50	0.0044	0.00	O				
49+55	0.0043	0.00	O				
50+ 0	0.0041	0.00	O				
50+ 5	0.0040	0.00	O				
50+10	0.0039	0.00	O				

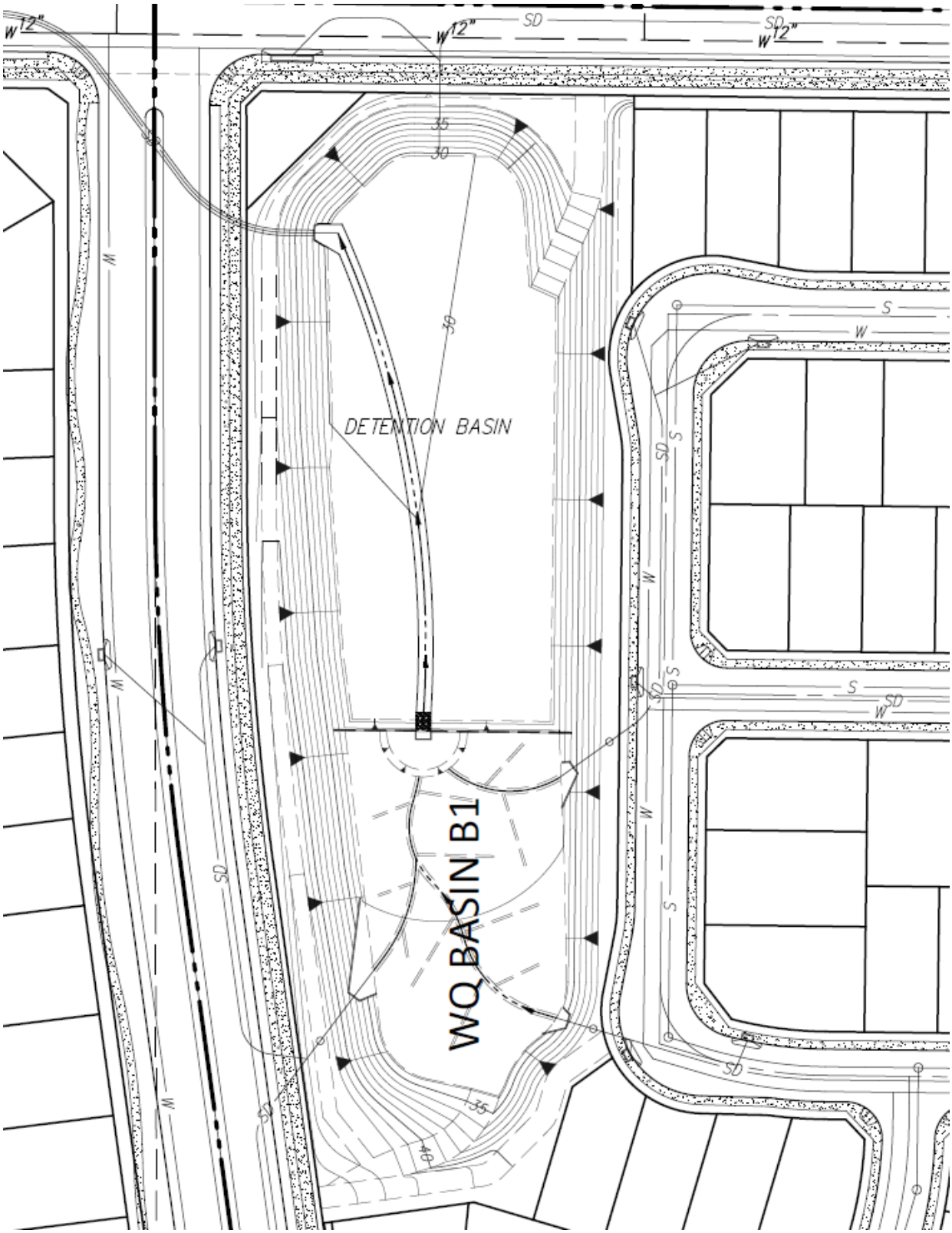
```
   50+15       0.0038      0.00  O         |         |         |         |
   50+20       0.0037      0.00  O         |         |         |         |
   50+25       0.0036      0.00  O         |         |         |         |
   50+30       0.0035      0.00  O         |         |         |         |
   50+35       0.0034      0.00  O         |         |         |         |
   50+40       0.0033      0.00  O         |         |         |         |
   50+45       0.0032      0.00  O         |         |         |         |
   50+50       0.0031      0.00  O         |         |         |         |
   50+55       0.0030      0.00  O         |         |         |         |
   51+ 0       0.0029      0.00  O         |         |         |         |
   51+ 5       0.0029      0.00  O         |         |         |         |
   51+10       0.0028      0.00  O         |         |         |         |
   51+15       0.0027      0.00  O         |         |         |         |
   51+20       0.0026      0.00  O         |         |         |         |
   51+25       0.0026      0.00  O         |         |         |         |
   51+30       0.0025      0.00  O         |         |         |         |
   51+35       0.0024      0.00  O         |         |         |         |
   51+40       0.0024      0.00  O         |         |         |         |
   51+45       0.0023      0.00  O         |         |         |         |
   51+50       0.0022      0.00  O         |         |         |         |
   51+55       0.0021      0.00  O         |         |         |         |
   52+ 0       0.0018      0.00  O         |         |         |         |
   52+ 5       0.0013      0.00  O         |         |         |         |
   52+10       0.0000      0.00  O         |         |         |         |
--------------------------------------------------------------------------
      ****************************HYDROGRAPH DATA****************************
                Number of intervals =   626
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =      123.535 (CFS)
                Total volume =      97.158 (Ac.Ft)
          Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
          Peak (CFS)      0.000     0.000     0.000     0.000     0.000
          Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      ************************************************************************

      ------------------------------------------------------------------------


      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      Process from Point/Station       13.000 to Point/Station       14.000
      **** STORE OR DELETE CURRENT HYDROGRAPH ****
      ________________________________________________________________________
      Current stream hydrograph saved in file lgouta24100.rte
      ****************************HYDROGRAPH DATA****************************
                Number of intervals =     0
                Time interval =    0.0 (Min.)
                Maximum/Peak flow rate =        0.000 (CFS)
                Total volume =       0.000 (Ac.Ft)
          Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
          Peak (CFS)      0.000     0.000     0.000     0.000     0.000
          Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      ************************************************************************

      ------------------------------------------------------------------------
```


LEGADO - HYDROLOGIC WORKMAP
DRAINAGE AREA "B1" (PROPOSED)
FLEMING RANCH
AREA B1
93.0 Ac
UNTREATED FLOW
WQ Basin B1
DET. BASIN B1
TREATED FLOW
TO DET. BASIN B


W 12"
W 12"
SD
SD
W 12"
35
30
30
DETENTION BASIN
W
S
W
SD
S
W
S
S
SD
W
SD
W
S
SD
SD
35
40
WQ BASIN B1

Legado						
Detention Basin B1 - Volume						
Elev. (ft)	**Depth**	**Area (sf)**	**Vol. inc. (cf)**	**Vol. Accum. (cf)**		**Vol. Accum. (Acft)**
1429	0	0				0
1430	1	53748	26874	26874		0.62
1431	2	57962	55855	82729		1.90
1432	3	90978	74470	157199		3.61
1433	4	97193	94085.5	251284.5		5.77
1434	5	103542	100367.5	351652		8.07
1435	6	110035	106788.5	458440.5		10.52
1436	7	116668	113351.5	571792		13.13
1437	8	123389	120028.5	691820.5		15.88
1438	9	130336	126862.5	818683		18.79

Rating Table for Circular Orifice - 24" RCP

Project Description

Solve For	Discharge

Input Data

Headwater Elevation	7.00	ft
Centroid Elevation	1.00	ft
Tailwater Elevation	0.00	ft
Discharge Coefficient	0.65	
Diameter	2.00	ft

Headwater Elevation (ft)	Discharge (ft³/s)	Velocity (ft/s)
0.00		
1.00		
2.00	16.38	5.21
3.00	23.17	7.37
4.00	28.37	9.03
5.00	32.76	10.43
6.00	36.63	11.66
7.00	40.12	12.77
8.00	43.34	13.80
9.00	46.33	14.75
10.00	49.14	15.64
11.00	51.80	16.49
12.00	54.33	17.29

Rating Table for Rectangular Weir - 10 LF Spillway

Project Description

Solve For	Discharge

Input Data

Headwater Elevation	2.00	ft
Crest Elevation	0.00	ft
Tailwater Elevation	0.00	ft
Weir Coefficient	3.00	US
Crest Length	10.00	ft
Number Of Contractions	0	

Headwater Elevation (ft)	Discharge (ft^3/s)	Velocity (ft/s)
0.00	0.00	
0.50	10.61	2.12
1.00	30.00	3.00
1.50	55.11	3.67
2.00	84.85	4.24
2.50	118.59	4.74
3.00	155.88	5.20

Legado					
Detention Basin B1					
Elev. (ft)	**Depth**	**Vol. (ft)**	**Orifice 24" opening @ 1429**	**E. Outlet L=10' @1436**	**Basin Outlet (cfs)**
1429	0	0	0		0.00
1430	1	0.62	10.00		10.00
1431	2	1.90	16.38		16.38
1432	3	3.61	23.17		23.17
1433	4	5.77	28.37		28.37
1434	5	8.07	32.76		32.76
1435	6	10.52	36.63		36.63
1436	7	13.13	40.12		40.12
1437	8	15.88	43.34	30.00	73.34
1438	9	18.79	46.33	84.85	131.18

Summary of Detention Basin B1 (Area = 93.0 Ac) Routing:

100-year 1-hour storm event:

Proposed WQ/Detention Basin B1		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
333.07	35.50	**5.74**

100-year 3-hour storm event:

Proposed WQ/Detention Basin B1		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
175.48	36.72	**6.04**

100-year 6-hour storm event:

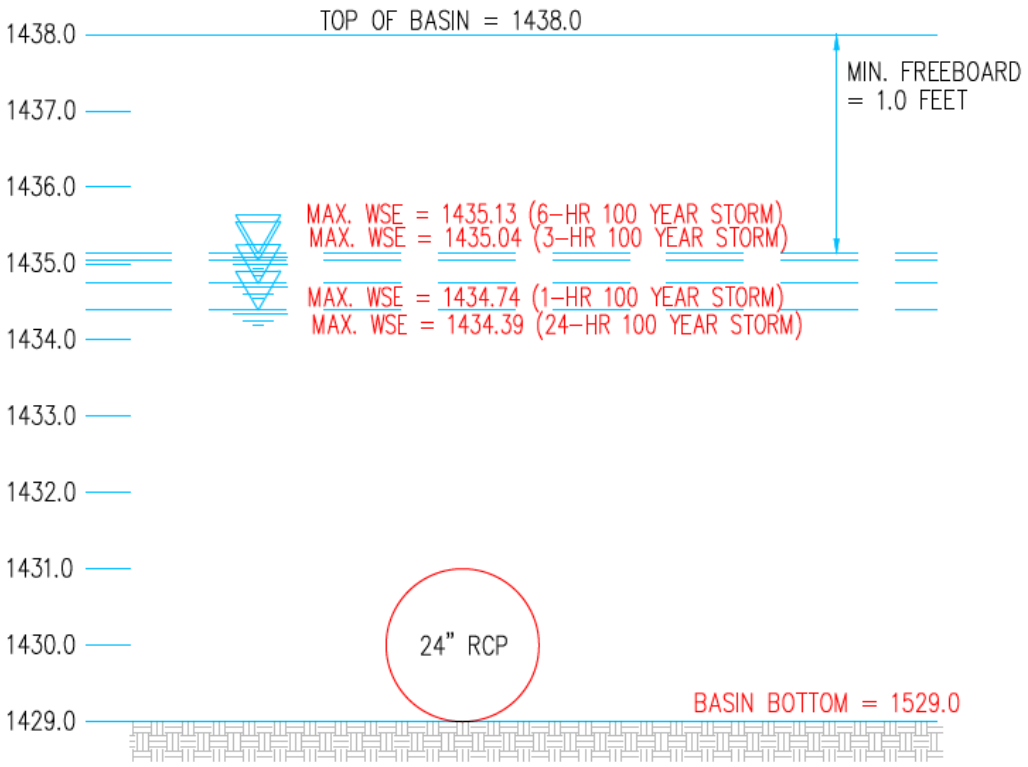
Proposed WQ/Detention Basin B1		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
152.34	37.02	**6.13**

100-year 24-hour storm event:

Proposed WQ/Detention Basin B1		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
62.06	34.25	**5.39**

LEGADO - HYDROLOGIC WORKMAP

WQ/DETENTION BASIN "B1"



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                FLOOD HYDROGRAPH ROUTING PROGRAM
          Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                     Study date: 04/23/19

------------------------------------------------------------------------
Legado
Detention Basin B1
100-year 1-hour Inflow Hydrograph

------------------------------------------------------------------------

Program License Serial Number 4029

------------------------------------------------------------------------
******************** HYDROGRAPH INFORMATION **********************

               From study/file name: lgareab11100.rte
*****************************HYDROGRAPH DATA*****************************
               Number of intervals =    18
               Time interval =    5.0 (Min.)
               Maximum/Peak flow rate =      333.068 (CFS)
               Total volume =      12.144 (Ac.Ft)
       Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
************************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       10.000 to Point/Station       11.000
**** RETARDING BASIN ROUTING ****
________________________________________________________________________

User entry of depth-outflow-storage data
------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 18
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
------------------------------------------------------------------------
------------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
------------------------------------------------------------------------
------------------------------------------------------------------------
Depth vs. Storage and Depth vs. Discharge data:
 Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
     (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
------------------------------------------------------------------------
   0.000      0.000      0.000      0.000        0.000
   1.000      0.620     10.000      0.586        0.654
   2.000      1.900     16.380      1.844        1.956
   3.000      3.610     23.170      3.530        3.690
   4.000      5.770     28.370      5.672        5.868
   5.000      8.070     32.760      7.957        8.183
   6.000     10.520     36.630     10.394       10.646
   7.000     13.130     40.120     12.992       13.268
   8.000     15.880     73.340     15.627       16.133
   9.000     18.790    131.180     18.338       19.242
------------------------------------------------------------------------
               Hydrograph Detention Basin Routing
------------------------------------------------------------------------
```

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	83.3	166.53	249.80	333.07	Depth (Ft.)
0.083	18.98	1.00	0.062	OI	|	|	|	|	0.10
0.167	53.78	4.72	0.293	O I	|	|	|	|	0.47
0.250	67.21	10.19	0.658	O I	|	|	|	|	1.03
0.333	77.79	12.29	1.080	|O I	|	|	|	|	1.36
0.417	85.77	14.64	1.550	|O I	|	|	|	|	1.73
0.500	98.45	17.08	2.076	|O |I	|	|	|	|	2.10
0.583	112.27	19.46	2.675	|O | I	|	|	|	|	2.45
0.667	129.02	22.19	3.363	| O | I	|	|	|	|	2.86
0.750	161.55	24.60	4.202	| O | I	|	|	|	|	3.27
0.833	282.26	27.84	5.550	| O |	|	| I	|	|	3.90
0.917	333.07	31.60	7.464	| O |	|	|	| I	|	4.74
1.000	169.55	34.18	8.968	| O |	|	I |	|	|	5.37
1.083	98.39	35.26	9.652	| O |I	|	|	|	|	5.65
1.167	40.32	35.63	9.886	| O |	|	|	|	|	5.74
1.250	20.52	35.57	9.850	|I O |	|	|	|	|	5.73
1.333	10.62	35.36	9.713	|I O |	|	|	|	|	5.67
1.417	2.81	35.05	9.517	I O |	|	|	|	|	5.59
1.500	0.93	34.69	9.289	I O |	|	|	|	|	5.50
1.583	0.00	34.32	9.055	I O |	|	|	|	|	5.40
1.667	0.00	33.94	8.820	I O |	|	|	|	|	5.31
1.750	0.00	33.58	8.587	I O |	|	|	|	|	5.21
1.833	0.00	33.21	8.357	I O |	|	|	|	|	5.12
1.917	0.00	32.85	8.130	I O |	|	|	|	|	5.02
2.000	0.00	32.45	7.905	I O |	|	|	|	|	4.93
2.083	0.00	32.02	7.683	I O |	|	|	|	|	4.83
2.167	0.00	31.60	7.464	I O |	|	|	|	|	4.74
2.250	0.00	31.19	7.248	I O |	|	|	|	|	4.64
2.333	0.00	30.78	7.034	I O |	|	|	|	|	4.55
2.417	0.00	30.38	6.824	I O |	|	|	|	|	4.46
2.500	0.00	29.98	6.616	I O |	|	|	|	|	4.37
2.583	0.00	29.59	6.411	I O |	|	|	|	|	4.28
2.667	0.00	29.21	6.208	I O |	|	|	|	|	4.19
2.750	0.00	28.83	6.008	I O |	|	|	|	|	4.10
2.833	0.00	28.45	5.811	I O |	|	|	|	|	4.02
2.917	0.00	28.00	5.617	I O |	|	|	|	|	3.93
3.000	0.00	27.54	5.426	I O |	|	|	|	|	3.84
3.083	0.00	27.09	5.237	I O |	|	|	|	|	3.75
3.167	0.00	26.64	5.052	I O |	|	|	|	|	3.67
3.250	0.00	26.20	4.870	I O |	|	|	|	|	3.58
3.333	0.00	25.77	4.691	I O |	|	|	|	|	3.50
3.417	0.00	25.35	4.515	I O |	|	|	|	|	3.42
3.500	0.00	24.93	4.342	I O |	|	|	|	|	3.34
3.583	0.00	24.52	4.172	I O |	|	|	|	|	3.26
3.667	0.00	24.12	4.004	I O |	|	|	|	|	3.18
3.750	0.00	23.72	3.840	I O |	|	|	|	|	3.11
3.833	0.00	23.33	3.678	I O |	|	|	|	|	3.03
3.917	0.00	22.81	3.519	I O |	|	|	|	|	2.95
4.000	0.00	22.19	3.364	I O |	|	|	|	|	2.86
4.083	0.00	21.59	3.213	I O |	|	|	|	|	2.77
4.167	0.00	21.01	3.066	I O |	|	|	|	|	2.68
4.250	0.00	20.44	2.924	IO |	|	|	|	|	2.60
4.333	0.00	19.89	2.785	IO |	|	|	|	|	2.52
4.417	0.00	19.36	2.650	IO |	|	|	|	|	2.44
4.500	0.00	18.83	2.518	IO |	|	|	|	|	2.36
4.583	0.00	18.33	2.390	IO |	|	|	|	|	2.29
4.667	0.00	17.83	2.266	IO |	|	|	|	|	2.21
4.750	0.00	17.35	2.144	IO |	|	|	|	|	2.14
4.833	0.00	16.88	2.027	IO |	|	|	|	|	2.07
4.917	0.00	16.43	1.912	IO |	|	|	|	|	2.01
5.000	0.00	15.88	1.801	IO |	|	|	|	|	1.92
5.083	0.00	15.35	1.693	IO |	|	|	|	|	1.84
5.167	0.00	14.83	1.589	IO |	|	|	|	|	1.76
5.250	0.00	14.33	1.489	IO |	|	|	|	|	1.68
5.333	0.00	13.85	1.392	IO |	|	|	|	|	1.60
5.417	0.00	13.38	1.298	IO |	|	|	|	|	1.53
5.500	0.00	12.93	1.207	IO |	|	|	|	|	1.46

5.583	0.00	12.49	1.120	IO				1.39
5.667	0.00	12.07	1.035	IO				1.32
5.750	0.00	11.66	0.953	IO				1.26
5.833	0.00	11.27	0.875	IO				1.20
5.917	0.00	10.89	0.798	IO				1.14
6.000	0.00	10.52	0.724	IO				1.08
6.083	0.00	10.17	0.653	O				1.03
6.167	0.00	9.45	0.586	O				0.94
6.250	0.00	8.45	0.524	O				0.85
6.333	0.00	7.56	0.469	O				0.76
6.417	0.00	6.77	0.420	O				0.68
6.500	0.00	6.06	0.375	O				0.61
6.583	0.00	5.42	0.336	O				0.54
6.667	0.00	4.85	0.301	O				0.48
6.750	0.00	4.34	0.269	O				0.43
6.833	0.00	3.88	0.241	O				0.39
6.917	0.00	3.47	0.215	O				0.35
7.000	0.00	3.11	0.193	O				0.31
7.083	0.00	2.78	0.172	O				0.28
7.167	0.00	2.49	0.154	O				0.25
7.250	0.00	2.23	0.138	O				0.22
7.333	0.00	1.99	0.123	O				0.20
7.417	0.00	1.78	0.110	O				0.18
7.500	0.00	1.59	0.099	O				0.16
7.583	0.00	1.43	0.088	O				0.14
7.667	0.00	1.28	0.079	O				0.13
7.750	0.00	1.14	0.071	O				0.11
7.833	0.00	1.02	0.063	O				0.10
7.917	0.00	0.91	0.057	O				0.09
8.000	0.00	0.82	0.051	O				0.08
8.083	0.00	0.73	0.045	O				0.07
8.167	0.00	0.66	0.041	O				0.07
8.250	0.00	0.59	0.036	O				0.06
8.333	0.00	0.52	0.033	O				0.05
8.417	0.00	0.47	0.029	O				0.05
8.500	0.00	0.42	0.026	O				0.04
8.583	0.00	0.38	0.023	O				0.04
8.667	0.00	0.34	0.021	O				0.03
8.750	0.00	0.30	0.019	O				0.03
8.833	0.00	0.27	0.017	O				0.03
8.917	0.00	0.24	0.015	O				0.02
9.000	0.00	0.22	0.013	O				0.02
9.083	0.00	0.19	0.012	O				0.02
9.167	0.00	0.17	0.011	O				0.02
9.250	0.00	0.15	0.010	O				0.02
9.333	0.00	0.14	0.009	O				0.01
9.417	0.00	0.12	0.008	O				0.01
9.500	0.00	0.11	0.007	O				0.01
9.583	0.00	0.10	0.006	O				0.01
9.667	0.00	0.09	0.005	O				0.01
9.750	0.00	0.08	0.005	O				0.01
9.833	0.00	0.07	0.004	O				0.01
9.917	0.00	0.06	0.004	O				0.01
10.000	0.00	0.06	0.004	O				0.01
10.083	0.00	0.05	0.003	O				0.01
10.167	0.00	0.05	0.003	O				0.00
10.250	0.00	0.04	0.003	O				0.00
10.333	0.00	0.04	0.002	O				0.00
10.417	0.00	0.03	0.002	O				0.00
10.500	0.00	0.03	0.002	O				0.00
10.583	0.00	0.03	0.002	O				0.00
10.667	0.00	0.02	0.001	O				0.00
10.750	0.00	0.02	0.001	O				0.00
10.833	0.00	0.02	0.001	O				0.00
10.917	0.00	0.02	0.001	O				0.00
11.000	0.00	0.01	0.001	O				0.00
11.083	0.00	0.01	0.001	O				0.00
11.167	0.00	0.01	0.001	O				0.00
11.250	0.00	0.01	0.001	O				0.00
11.333	0.00	0.01	0.001	O				0.00

```
**************************HYDROGRAPH DATA**************************
               Number of intervals =   136
               Time interval =    5.0 (Min.)
               Maximum/Peak flow rate =       35.628 (CFS)
               Total volume =      12.143 (Ac.Ft)
       Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
*******************************************************************************

-------------------------------------------------------------------

+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       11.000 to Point/Station       12.000
**** STREAM ROUTING SCS CONVEX METHOD ****
_______________________________________________________________________________
HYDROGRAPH STREAM ROUTING DATA:
Length of stream =   2500.00 (Ft.)
Elevation difference =    6.00 (Ft.)
Slope of channel =  0.002400 (Vert/Horiz)
Channel type - Pipe

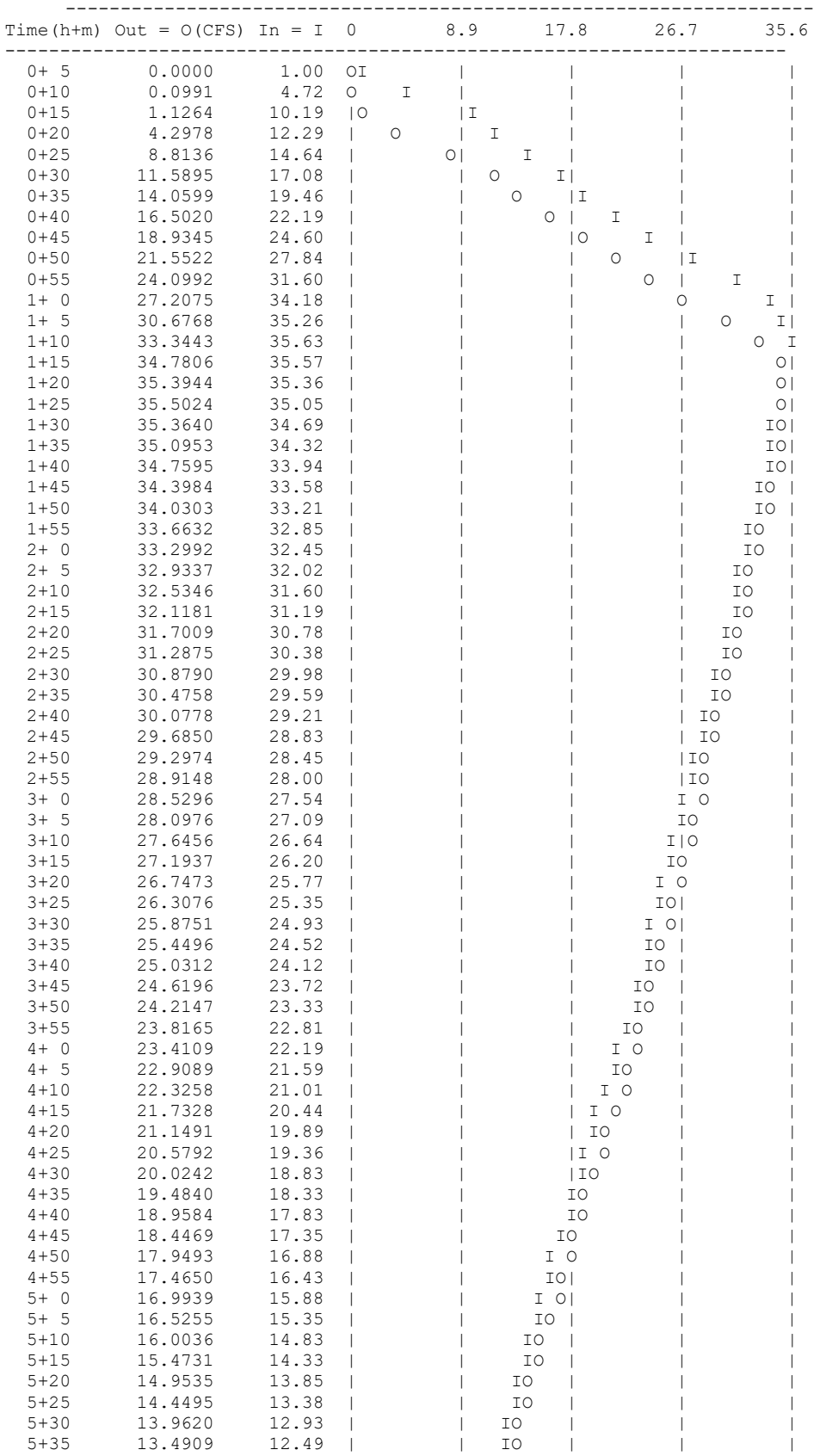

Pipe length  =  2500.00(Ft.)   Elevation difference =   6.00(Ft.)
Manning's N = 0.013   No. of pipes = 1
Pipe evaluation using mean flow rate of hydrograph
Required pipe flow  =    25.772(CFS)
Nearest computed pipe diameter  =     33.00(In.)
Calculated individual pipe flow  =    25.772(CFS)
Normal flow depth in pipe =   26.91(In.)
Flow top width inside pipe =   25.61(In.)
Critical Depth =    1.68(Ft.)
Pipe flow velocity =      4.97(Ft/s)
Travel time through pipe =    8.38 min.


Pipe length  =  2500.00(Ft.)   Elevation difference =   6.00(Ft.)
Manning's N = 0.013   No. of pipes = 1
Pipe evaluation using maximum flow rate of hydrograph
Required pipe flow  =    35.628(CFS)
Nearest computed pipe diameter  =     39.00(In.)
Calculated individual pipe flow  =    35.628(CFS)
Normal flow depth in pipe =   28.41(In.)
Flow top width inside pipe =   34.69(In.)
Critical Depth =    1.89(Ft.)
Pipe flow velocity =      5.50(Ft/s)
Travel time through pipe =    7.57 min.


********************** SCS CONVEX CHANNEL ROUTING *********************
Convex method of stream routing  data items:
Using equation: Outflow =
O(t+dt) = (1-c*)O(t+dt-dt*) + Input(c*)
         where c* = 1 - (1-c)^e and dt = c(length)/velocity
         c(v/v+1.7) =   0.7640   Travel time =   7.57 (min.)
       dt*(unit time interval) =   5.00(min.),  e=   0.9095
       dt(routing time-step) =   5.79 (min.),   c* =   0.7310

Output hydrograph delayed by 1  unit time increments


+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                P R I N T  O F  S T O R M
             R u n o f f     H y d r o g r a p h
-------------------------------------------------------------------
           Hydrograph in   5   Minute intervals (CFS)
```


Time(h+m) Out = O(CFS) In = I 0 8.9 17.8 26.7 35.6
0+ 5 0.0000 1.00
0+10 0.0991 4.72
0+15 1.1264 10.19
0+20 4.2978 12.29
0+25 8.8136 14.64
0+30 11.5895 17.08
0+35 14.0599 19.46
0+40 16.5020 22.19
0+45 18.9345 24.60
0+50 21.5522 27.84
0+55 24.0992 31.60
1+ 0 27.2075 34.18
1+ 5 30.6768 35.26
1+10 33.3443 35.63
1+15 34.7806 35.57
1+20 35.3944 35.36
1+25 35.5024 35.05
1+30 35.3640 34.69
1+35 35.0953 34.32
1+40 34.7595 33.94
1+45 34.3984 33.58
1+50 34.0303 33.21
1+55 33.6632 32.85
2+ 0 33.2992 32.45
2+ 5 32.9337 32.02
2+10 32.5346 31.60
2+15 32.1181 31.19
2+20 31.7009 30.78
2+25 31.2875 30.38
2+30 30.8790 29.98
2+35 30.4758 29.59
2+40 30.0778 29.21
2+45 29.6850 28.83
2+50 29.2974 28.45
2+55 28.9148 28.00
3+ 0 28.5296 27.54
3+ 5 28.0976 27.09
3+10 27.6456 26.64
3+15 27.1937 26.20
3+20 26.7473 25.77
3+25 26.3076 25.35
3+30 25.8751 24.93
3+35 25.4496 24.52
3+40 25.0312 24.12
3+45 24.6196 23.72
3+50 24.2147 23.33
3+55 23.8165 22.81
4+ 0 23.4109 22.19
4+ 5 22.9089 21.59
4+10 22.3258 21.01
4+15 21.7328 20.44
4+20 21.1491 19.89
4+25 20.5792 19.36
4+30 20.0242 18.83
4+35 19.4840 18.33
4+40 18.9584 17.83
4+45 18.4469 17.35
4+50 17.9493 16.88
4+55 17.4650 16.43
5+ 0 16.9939 15.88
5+ 5 16.5255 15.35
5+10 16.0036 14.83
5+15 15.4731 14.33
5+20 14.9535 13.85
5+25 14.4495 13.38
5+30 13.9620 12.93
5+35 13.4909 12.49

```
 5+40      13.0356     12.07  |         |  IO     |         |         |
 5+45      12.5957     11.66  |         |  IO     |         |         |
 5+50      12.1706     11.27  |         | IO      |         |         |
 5+55      11.7599     10.89  |         | IO      |         |         |
 6+ 0      11.3630     10.52  |         |IO       |         |         |
 6+ 5      10.9795     10.17  |         |IO       |         |         |
 6+10      10.6090      9.45  |         IO        |         |         |
 6+15      10.2137      8.45  |        I|O        |         |         |
 6+20       9.5546      7.56  |       I O         |         |         |
 6+25       8.6610      6.77  |      I O|         |         |         |
 6+30       7.7796      6.06  |     I O |         |         |         |
 6+35       6.9690      5.42  |     IO  |         |         |         |
 6+40       6.2378      4.85  |    I O  |         |         |         |
 6+45       5.5819      4.34  |   I O   |         |         |         |
 6+50       4.9947      3.88  |   IO    |         |         |         |
 6+55       4.4691      3.47  |  I O    |         |         |         |
 7+ 0       3.9988      3.11  |  IO     |         |         |         |
 7+ 5       3.5780      2.78  |  IO     |         |         |         |
 7+10       3.2014      2.49  | IO      |         |         |         |
 7+15       2.8645      2.23  | IO      |         |         |         |
 7+20       2.5631      1.99  | O       |         |         |         |
 7+25       2.2933      1.78  | O       |         |         |         |
 7+30       2.0520      1.59  |IO       |         |         |         |
 7+35       1.8361      1.43  |IO       |         |         |         |
 7+40       1.6428      1.28  |O        |         |         |         |
 7+45       1.4699      1.14  |O        |         |         |         |
 7+50       1.3153      1.02  |O        |         |         |         |
 7+55       1.1768      0.91  |O        |         |         |         |
 8+ 0       1.0530      0.82  IO        |         |         |         |
 8+ 5       0.9422      0.73  IO        |         |         |         |
 8+10       0.8430      0.66  O         |         |         |         |
 8+15       0.7543      0.59  O         |         |         |         |
 8+20       0.6749      0.52  O         |         |         |         |
 8+25       0.6039      0.47  O         |         |         |         |
 8+30       0.5404      0.42  O         |         |         |         |
 8+35       0.4835      0.38  O         |         |         |         |
 8+40       0.4326      0.34  O         |         |         |         |
 8+45       0.3871      0.30  O         |         |         |         |
 8+50       0.3463      0.27  O         |         |         |         |
 8+55       0.3099      0.24  O         |         |         |         |
 9+ 0       0.2773      0.22  O         |         |         |         |
 9+ 5       0.2481      0.19  O         |         |         |         |
 9+10       0.2220      0.17  O         |         |         |         |
 9+15       0.1986      0.15  O         |         |         |         |
 9+20       0.1777      0.14  O         |         |         |         |
 9+25       0.1590      0.12  O         |         |         |         |
 9+30       0.1423      0.11  O         |         |         |         |
 9+35       0.1273      0.10  O         |         |         |         |
 9+40       0.1139      0.09  O         |         |         |         |
 9+45       0.1019      0.08  O         |         |         |         |
 9+50       0.0912      0.07  O         |         |         |         |
 9+55       0.0816      0.06  O         |         |         |         |
10+ 0       0.0730      0.06  O         |         |         |         |
10+ 5       0.0653      0.05  O         |         |         |         |
10+10       0.0585      0.05  O         |         |         |         |
10+15       0.0523      0.04  O         |         |         |         |
10+20       0.0468      0.04  O         |         |         |         |
10+25       0.0419      0.03  O         |         |         |         |
10+30       0.0375      0.03  O         |         |         |         |
10+35       0.0335      0.03  O         |         |         |         |
10+40       0.0300      0.02  O         |         |         |         |
10+45       0.0268      0.02  O         |         |         |         |
10+50       0.0240      0.02  O         |         |         |         |
10+55       0.0215      0.02  O         |         |         |         |
11+ 0       0.0192      0.01  O         |         |         |         |
11+ 5       0.0172      0.01  O         |         |         |         |
11+10       0.0154      0.01  O         |         |         |         |
11+15       0.0138      0.01  O         |         |         |         |
11+20       0.0123      0.01  O         |         |         |         |
11+25       0.0110      0.00  O         |         |         |         |
```

```
   11+30       0.0090      0.00  O         |         |         |         |
   11+35       0.0024      0.00  O         |         |         |         |
-------------------------------------------------------------------------
       ****************************HYDROGRAPH DATA****************************
                    Number of intervals =   139
                    Time interval =    5.0 (Min.)
                    Maximum/Peak flow rate =       35.502 (CFS)
                    Total volume =      12.143 (Ac.Ft)
              Status of hydrographs being held in storage
                         Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
              Peak (CFS)      0.000     0.000     0.000     0.000     0.000
              Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       *************************************************************************

       -------------------------------------------------------------------------


       +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
       Process from Point/Station       12.000 to Point/Station       13.000
       **** STORE OR DELETE CURRENT HYDROGRAPH ****
       _________________________________________________________________________
       Current stream hydrograph saved in file lgb1out1100.rte
       ****************************HYDROGRAPH DATA****************************
                    Number of intervals =     0
                    Time interval =    0.0 (Min.)
                    Maximum/Peak flow rate =        0.000 (CFS)
                    Total volume =       0.000 (Ac.Ft)
              Status of hydrographs being held in storage
                         Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
              Peak (CFS)      0.000     0.000     0.000     0.000     0.000
              Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       *************************************************************************

       -------------------------------------------------------------------------
```

```
                FLOOD HYDROGRAPH ROUTING PROGRAM
          Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                     Study date: 04/23/19

------------------------------------------------------------------------
Legado
Detention Basin B1
100-year 3-hour Inflow Hydrograph

------------------------------------------------------------------------

Program License Serial Number 4029

------------------------------------------------------------------------
******************** HYDROGRAPH INFORMATION **********************

               From study/file name: lgareab13100.rte
*****************************HYDROGRAPH DATA*****************************
               Number of intervals =    42
               Time interval =    5.0 (Min.)
               Maximum/Peak flow rate =      175.480 (CFS)
               Total volume =      15.925 (Ac.Ft)
       Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
************************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       10.000 to Point/Station       11.000
**** RETARDING BASIN ROUTING ****
________________________________________________________________________

User entry of depth-outflow-storage data
------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 42
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
------------------------------------------------------------------------
------------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
------------------------------------------------------------------------
------------------------------------------------------------------------
Depth vs. Storage and Depth vs. Discharge data:
 Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
     (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
------------------------------------------------------------------------
   0.000      0.000      0.000      0.000        0.000
   1.000      0.620     10.000      0.586        0.654
   2.000      1.900     16.380      1.844        1.956
   3.000      3.610     23.170      3.530        3.690
   4.000      5.770     28.370      5.672        5.868
   5.000      8.070     32.760      7.957        8.183
   6.000     10.520     36.630     10.394       10.646
   7.000     13.130     40.120     12.992       13.268
   8.000     15.880     73.340     15.627       16.133
   9.000     18.790    131.180     18.338       19.242
------------------------------------------------------------------------
               Hydrograph Detention Basin Routing
------------------------------------------------------------------------
```

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 43.9 87.74 131.61 175.48	Depth (Ft.)
0.083	7.11	0.37	0.023	OI	0.04
0.167	19.95	1.76	0.109	O I	0.18
0.250	21.97	3.78	0.234	O I	0.38
0.333	23.76	5.79	0.359	O I	0.58
0.417	28.91	7.95	0.493	O I	0.79
0.500	32.45	10.11	0.642	O I	1.02
0.583	34.82	10.90	0.801	O I	1.14
0.667	34.38	11.70	0.962	O I	1.27
0.750	37.68	12.52	1.126	O I	1.40
0.833	36.52	13.35	1.293	O I	1.53
0.917	33.83	14.09	1.441	O I	1.64
1.000	35.64	14.79	1.580	O I	1.75
1.083	40.80	15.58	1.739	O I	1.87
1.167	46.40	16.49	1.929	O I	2.02
1.250	47.95	17.32	2.137	O I	2.14
1.333	47.29	18.14	2.343	O I	2.26
1.417	49.37	18.95	2.548	O I	2.38
1.500	57.07	19.88	2.781	O I	2.52
1.583	58.03	20.89	3.037	O I	2.66
1.667	57.42	21.89	3.287	O I	2.81
1.750	64.81	22.95	3.554	O I	2.97
1.833	71.71	23.78	3.863	O I	3.12
1.917	70.24	24.56	4.185	O I	3.27
2.000	68.81	25.29	4.492	O I	3.41
2.083	70.33	26.02	4.795	O I	3.55
2.167	79.33	26.83	5.128	O I	3.70
2.250	98.82	27.85	5.553	O I	3.90
2.333	102.13	28.90	6.050	O I	4.12
2.417	110.49	29.92	6.580	O I	4.35
2.500	152.02	31.24	7.273	O I	4.65
2.583	174.16	32.93	8.175	O I	5.04
2.667	175.48	34.46	9.147	O I	5.44
2.750	126.19	35.72	9.944	O I	5.77
2.833	71.80	36.41	10.378	O I	5.94
2.917	55.04	36.69	10.563	O I	6.02
3.000	39.33	36.78	10.635	O I	6.04
3.083	18.08	36.71	10.580	I O	6.02
3.167	7.09	36.46	10.414	I O	5.96
3.250	2.98	36.12	10.199	I O	5.87
3.333	1.43	35.76	9.967	I O	5.77
3.417	0.60	35.38	9.729	I O	5.68
3.500	0.10	35.00	9.489	I O	5.58
3.583	0.00	34.62	9.249	I O	5.48
3.667	0.00	34.25	9.012	I O	5.38
3.750	0.00	33.88	8.778	I O	5.29
3.833	0.00	33.51	8.546	I O	5.19
3.917	0.00	33.15	8.316	I O	5.10
4.000	0.00	32.79	8.089	I O	5.01
4.083	0.00	32.37	7.865	I O	4.91
4.167	0.00	31.95	7.643	I O	4.81
4.250	0.00	31.53	7.424	I O	4.72
4.333	0.00	31.12	7.209	I O	4.63
4.417	0.00	30.71	6.996	I O	4.53
4.500	0.00	30.31	6.786	I O	4.44
4.583	0.00	29.91	6.578	I O	4.35
4.667	0.00	29.52	6.374	I O	4.26
4.750	0.00	29.14	6.172	I O	4.17
4.833	0.00	28.76	5.972	I O	4.09
4.917	0.00	28.38	5.776	I O	4.00
5.000	0.00	27.92	5.582	I O	3.91
5.083	0.00	27.46	5.391	I O	3.82
5.167	0.00	27.01	5.204	I O	3.74
5.250	0.00	26.56	5.019	I O	3.65
5.333	0.00	26.13	4.838	I O	3.57
5.417	0.00	25.70	4.659	I O	3.49
5.500	0.00	25.27	4.484	I O	3.40

5.583	0.00	24.86	4.311	I O	|	|	|	| 3.32
5.667	0.00	24.45	4.141	I O	|	|	|	| 3.25
5.750	0.00	24.05	3.974	I O	|	|	|	| 3.17
5.833	0.00	23.65	3.810	I O	|	|	|	| 3.09
5.917	0.00	23.26	3.648	I O	|	|	|	| 3.02
6.000	0.00	22.69	3.490	I O	|	|	|	| 2.93
6.083	0.00	22.08	3.336	I O	|	|	|	| 2.84
6.167	0.00	21.49	3.186	I O	|	|	|	| 2.75
6.250	0.00	20.91	3.040	I O	|	|	|	| 2.67
6.333	0.00	20.34	2.898	I O	|	|	|	| 2.58
6.417	0.00	19.79	2.760	I O	|	|	|	| 2.50
6.500	0.00	19.26	2.625	I O	|	|	|	| 2.42
6.583	0.00	18.74	2.494	I O	|	|	|	| 2.35
6.667	0.00	18.23	2.367	I O	|	|	|	| 2.27
6.750	0.00	17.74	2.243	I O	|	|	|	| 2.20
6.833	0.00	17.26	2.123	I O	|	|	|	| 2.13
6.917	0.00	16.80	2.005	I O	|	|	|	| 2.06
7.000	0.00	16.34	1.891	I O	|	|	|	| 1.99
7.083	0.00	15.79	1.781	I O	|	|	|	| 1.91
7.167	0.00	15.25	1.674	I O	|	|	|	| 1.82
7.250	0.00	14.74	1.570	I O	|	|	|	| 1.74
7.333	0.00	14.24	1.471	I O	|	|	|	| 1.66
7.417	0.00	13.76	1.374	I O	|	|	|	| 1.59
7.500	0.00	13.30	1.281	I O	|	|	|	| 1.52
7.583	0.00	12.85	1.191	I O	|	|	|	| 1.45
7.667	0.00	12.41	1.104	I O	|	|	|	| 1.38
7.750	0.00	11.99	1.020	I O	|	|	|	| 1.31
7.833	0.00	11.59	0.939	I O	|	|	|	| 1.25
7.917	0.00	11.20	0.860	I O	|	|	|	| 1.19
8.000	0.00	10.82	0.785	IO	|	|	|	| 1.13
8.083	0.00	10.46	0.711	IO	|	|	|	| 1.07
8.167	0.00	10.10	0.641	IO	|	|	|	| 1.02
8.250	0.00	9.26	0.574	IO	|	|	|	| 0.93
8.333	0.00	8.28	0.513	IO	|	|	|	| 0.83
8.417	0.00	7.41	0.459	IO	|	|	|	| 0.74
8.500	0.00	6.63	0.411	IO	|	|	|	| 0.66
8.583	0.00	5.93	0.368	IO	|	|	|	| 0.59
8.667	0.00	5.31	0.329	O	|	|	|	| 0.53
8.750	0.00	4.75	0.294	O	|	|	|	| 0.47
8.833	0.00	4.25	0.263	O	|	|	|	| 0.42
8.917	0.00	3.80	0.236	O	|	|	|	| 0.38
9.000	0.00	3.40	0.211	O	|	|	|	| 0.34
9.083	0.00	3.04	0.189	O	|	|	|	| 0.30
9.167	0.00	2.72	0.169	O	|	|	|	| 0.27
9.250	0.00	2.44	0.151	O	|	|	|	| 0.24
9.333	0.00	2.18	0.135	O	|	|	|	| 0.22
9.417	0.00	1.95	0.121	O	|	|	|	| 0.20
9.500	0.00	1.75	0.108	O	|	|	|	| 0.17
9.583	0.00	1.56	0.097	O	|	|	|	| 0.16
9.667	0.00	1.40	0.087	O	|	|	|	| 0.14
9.750	0.00	1.25	0.078	O	|	|	|	| 0.13
9.833	0.00	1.12	0.069	O	|	|	|	| 0.11
9.917	0.00	1.00	0.062	O	|	|	|	| 0.10
10.000	0.00	0.90	0.056	O	|	|	|	| 0.09
10.083	0.00	0.80	0.050	O	|	|	|	| 0.08
10.167	0.00	0.72	0.044	O	|	|	|	| 0.07
10.250	0.00	0.64	0.040	O	|	|	|	| 0.06
10.333	0.00	0.57	0.036	O	|	|	|	| 0.06
10.417	0.00	0.51	0.032	O	|	|	|	| 0.05
10.500	0.00	0.46	0.029	O	|	|	|	| 0.05
10.583	0.00	0.41	0.026	O	|	|	|	| 0.04
10.667	0.00	0.37	0.023	O	|	|	|	| 0.04
10.750	0.00	0.33	0.020	O	|	|	|	| 0.03
10.833	0.00	0.29	0.018	O	|	|	|	| 0.03
10.917	0.00	0.26	0.016	O	|	|	|	| 0.03
11.000	0.00	0.24	0.015	O	|	|	|	| 0.02
11.083	0.00	0.21	0.013	O	|	|	|	| 0.02
11.167	0.00	0.19	0.012	O	|	|	|	| 0.02
11.250	0.00	0.17	0.010	O	|	|	|	| 0.02
11.333	0.00	0.15	0.009	O	|	|	|	| 0.02

```
11.417    0.00    0.14      0.008  O       |       |       |       |     0.01
11.500    0.00    0.12      0.008  O       |       |       |       |     0.01
11.583    0.00    0.11      0.007  O       |       |       |       |     0.01
11.667    0.00    0.10      0.006  O       |       |       |       |     0.01
11.750    0.00    0.09      0.005  O       |       |       |       |     0.01
11.833    0.00    0.08      0.005  O       |       |       |       |     0.01
11.917    0.00    0.07      0.004  O       |       |       |       |     0.01
12.000    0.00    0.06      0.004  O       |       |       |       |     0.01
12.083    0.00    0.06      0.003  O       |       |       |       |     0.01
12.167    0.00    0.05      0.003  O       |       |       |       |     0.00
12.250    0.00    0.04      0.003  O       |       |       |       |     0.00
12.333    0.00    0.04      0.002  O       |       |       |       |     0.00
12.417    0.00    0.04      0.002  O       |       |       |       |     0.00
12.500    0.00    0.03      0.002  O       |       |       |       |     0.00
12.583    0.00    0.03      0.002  O       |       |       |       |     0.00
12.667    0.00    0.03      0.002  O       |       |       |       |     0.00
12.750    0.00    0.02      0.001  O       |       |       |       |     0.00
12.833    0.00    0.02      0.001  O       |       |       |       |     0.00
12.917    0.00    0.02      0.001  O       |       |       |       |     0.00
13.000    0.00    0.02      0.001  O       |       |       |       |     0.00
13.083    0.00    0.01      0.001  O       |       |       |       |     0.00
13.167    0.00    0.01      0.001  O       |       |       |       |     0.00
13.250    0.00    0.01      0.001  O       |       |       |       |     0.00
13.333    0.00    0.01      0.001  O       |       |       |       |     0.00
13.417    0.00    0.01      0.001  O       |       |       |       |     0.00

      ****************************HYDROGRAPH DATA****************************
                  Number of intervals =   161
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =       36.784 (CFS)
                  Total volume =      15.925 (Ac.Ft)
            Status of hydrographs being held in storage
                       Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      ************************************************************************

      ------------------------------------------------------------------------


      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      Process from Point/Station       11.000 to Point/Station       12.000
      **** STREAM ROUTING SCS CONVEX METHOD ****
      ________________________________________________________________________
      HYDROGRAPH STREAM ROUTING DATA:
      Length of stream =   2500.00 (Ft.)
      Elevation difference =    6.00 (Ft.)
      Slope of channel =  0.002400 (Vert/Horiz)
      Channel type - Pipe


      Pipe length  =  2500.00(Ft.)   Elevation difference =   6.00(Ft.)
      Manning's N = 0.013   No. of pipes = 1
      Pipe evaluation using mean flow rate of hydrograph
      Required pipe flow  =    24.804(CFS)
      Nearest computed pipe diameter  =     33.00(In.)
      Calculated individual pipe flow  =    24.804(CFS)
      Normal flow depth in pipe =   25.88(In.)
      Flow top width inside pipe =   27.16(In.)
      Critical Depth =    1.65(Ft.)
      Pipe flow velocity =      4.97(Ft/s)
      Travel time through pipe =    8.39 min.


      Pipe length  =  2500.00(Ft.)   Elevation difference =   6.00(Ft.)
      Manning's N = 0.013   No. of pipes = 1
      Pipe evaluation using maximum flow rate of hydrograph
      Required pipe flow  =    36.784(CFS)
      Nearest computed pipe diameter  =     39.00(In.)
      Calculated individual pipe flow  =    36.784(CFS)
```

```
      Normal flow depth in pipe =   29.16(In.)
      Flow top width inside pipe =   33.88(In.)
      Critical Depth =    1.93(Ft.)
      Pipe flow velocity =      5.52(Ft/s)
      Travel time through pipe =    7.54 min.


      ********************** SCS CONVEX CHANNEL ROUTING ********************
      Convex method of stream routing  data items:
      Using equation: Outflow =
      O(t+dt) = (1-c*)O(t+dt-dt*) + Input(c*)
                where c* = 1 - (1-c)^e and dt = c(length)/velocity
                c(v/v+1.7) =   0.7647   Travel time =   7.54 (min.)
               dt*(unit time interval) =   5.00(min.),  e=   0.9113
               dt(routing time-step) =   5.77 (min.),   c* =   0.7325

      Output hydrograph delayed by 1  unit time increments


      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        P R I N T  O F  S T O R M
                     R u n o f f     H y d r o g r a p h
      ----------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals (CFS)

      ----------------------------------------------------------------------
Time(h+m) Out = O(CFS) In = I  0        9.2      18.4      27.6      36.8
----------------------------------------------------------------------------
  0+ 5       0.0000      0.37  O         |         |         |         |
  0+10       0.0364      1.76  OI        |         |         |         |
  0+15       0.4185      3.78  O   I     |         |         |         |
  0+20       1.5965      5.79  |O    I   |         |         |         |
  0+25       3.3905      7.95  |  O    I |         |         |         |
  0+30       5.3567     10.11  |    O    I         |         |         |
  0+35       7.4664     10.90  |       O |I        |         |         |
  0+40       9.4797     11.70  |         O I       |         |         |
  0+45      10.6005     12.52  |         |O I      |         |         |
  0+50      11.4882     13.35  |         | O I     |         |         |
  0+55      12.3279     14.09  |         |  O I    |         |         |
  1+ 0      13.1511     14.79  |         |   O I   |         |         |
  1+ 5      13.9068     15.58  |         |    OI   |         |         |
  1+10      14.6285     16.49  |         |    O I  |         |         |
  1+15      15.4132     17.32  |         |     O I |         |         |
  1+20      16.2860     18.14  |         |      O I|         |         |
  1+25      17.1246     18.95  |         |       O I         |         |
  1+30      17.9474     19.88  |         |        O|I        |         |
  1+35      18.7748     20.89  |         |         O I       |         |
  1+40      19.6822     21.89  |         |         |O I      |         |
  1+45      20.6671     22.95  |         |         | O I     |         |
  1+50      21.6648     23.78  |         |         |  O I    |         |
  1+55      22.6848     24.56  |         |         |   O I   |         |
  2+ 0      23.5619     25.29  |         |         |    O I  |         |
  2+ 5      24.3614     26.02  |         |         |     O I |         |
  2+10      25.1158     26.83  |         |         |      O I|         |
  2+15      25.8582     27.85  |         |         |       O I         |
  2+20      26.6662     28.90  |         |         |       O |I        |
  2+25      27.6353     29.92  |         |         |         O I       |
  2+30      28.6635     31.24  |         |         |         |O I      |
  2+35      29.7095     32.93  |         |         |         | O  I    |
  2+40      30.9942     34.46  |         |         |         |  O   I  |
  2+45      32.5591     35.72  |         |         |         |    O  I |
  2+50      34.0753     36.41  |         |         |         |      O I|
  2+55      35.3473     36.69  |         |         |         |       OI|
  3+ 0      36.1498     36.78  |         |         |         |        OI
  3+ 5      36.5529     36.71  |         |         |         |        O|
  3+10      36.7147     36.46  |         |         |         |        O|
  3+15      36.6869     36.12  |         |         |         |        O|
  3+20      36.4897     35.76  |         |         |         |       IO|
  3+25      36.1853     35.38  |         |         |         |       IO|
  3+30      35.8342     35.00  |         |         |         |       O |
```

```
3+35      35.4646     34.62  |         |         |         |      IO |
3+40      35.0882     34.25  |         |         |         |      IO |
3+45      34.7108     33.88  |         |         |         |     IO  |
3+50      34.3359     33.51  |         |         |         |     IO  |
3+55      33.9645     33.15  |         |         |         |     O   |
4+ 0      33.5971     32.79  |         |         |         |    IO   |
4+ 5      33.2336     32.37  |         |         |         |    IO   |
4+10      32.8674     31.95  |         |         |         |   IO    |
4+15      32.4603     31.53  |         |         |         |   IO    |
4+20      32.0423     31.12  |         |         |         |  IO     |
4+25      31.6254     30.71  |         |         |         |  IO     |
4+30      31.2128     30.31  |         |         |         | IO      |
4+35      30.8053     29.91  |         |         |         | IO      |
4+40      30.4030     29.52  |         |         |         | IO      |
4+45      30.0060     29.14  |         |         |         |IO       |
4+50      29.6141     28.76  |         |         |         |IO       |
4+55      29.2274     28.38  |         |         |         IO        |
5+ 0      28.8457     27.92  |         |         |         IO        |
5+ 5      28.4599     27.46  |         |         |        IO         |
5+10      28.0174     27.01  |         |         |        IO         |
5+15      27.5635     26.56  |         |         |       IO|         |
5+20      27.1120     26.13  |         |         |       IO|         |
5+25      26.6667     25.70  |         |         |      IO |         |
5+30      26.2283     25.27  |         |         |      IO |         |
5+35      25.7971     24.86  |         |         |      IO |         |
5+40      25.3729     24.45  |         |         |     IO  |         |
5+45      24.9557     24.05  |         |         |     IO  |         |
5+50      24.5453     23.65  |         |         |    IO   |         |
5+55      24.1417     23.26  |         |         |    IO   |         |
6+ 0      23.7447     22.69  |         |         |   IO    |         |
6+ 5      23.3362     22.08  |         |         |   IO    |         |
6+10      22.8063     21.49  |         |         |  IO     |         |
6+15      22.2178     20.91  |         |         | I O     |         |
6+20      21.6255     20.34  |         |         | IO      |         |
6+25      21.0440     19.79  |         |         |IO       |         |
6+30      20.4768     19.26  |         |         I O       |         |
6+35      19.9245     18.74  |         |         IO        |         |
6+40      19.3870     18.23  |         |        I|O        |         |
6+45      18.8640     17.74  |         |        IO         |         |
6+50      18.3551     17.26  |         |       IO|         |         |
6+55      17.8599     16.80  |         |       IO|         |         |
7+ 0      17.3781     16.34  |         |      IO |         |         |
7+ 5      16.9084     15.79  |         |      IO |         |         |
7+10      16.4357     15.25  |         |     IO  |         |         |
7+15      15.9072     14.74  |         |     IO  |         |         |
7+20      15.3774     14.24  |         |    IO   |         |         |
7+25      14.8603     13.76  |         |   I O   |         |         |
7+30      14.3593     13.30  |         |   IO    |         |         |
7+35      13.8748     12.85  |         |  I O    |         |         |
7+40      13.4066     12.41  |         |  IO     |         |         |
7+45      12.9542     11.99  |         |  IO     |         |         |
7+50      12.5170     11.59  |         | IO      |         |         |
7+55      12.0946     11.20  |         | IO      |         |         |
8+ 0      11.6864     10.82  |         |IO       |         |         |
8+ 5      11.2920     10.46  |         |IO       |         |         |
8+10      10.9109     10.10  |         IO        |         |         |
8+15      10.5427      9.26  |         IO        |         |         |
8+20      10.1376      8.28  |        I|O        |         |         |
8+25       9.3968      7.41  |       I O         |         |         |
8+30       8.4951      6.63  |      I O|         |         |         |
8+35       7.6245      5.93  |     I O |         |         |         |
8+40       6.8283      5.31  |    I O  |         |         |         |
8+45       6.1114      4.75  |    IO   |         |         |         |
8+50       5.4687      4.25  |   IO    |         |         |         |
8+55       4.8933      3.80  |   IO    |         |         |         |
9+ 0       4.3784      3.40  |  IO     |         |         |         |
9+ 5       3.9176      3.04  |  IO     |         |         |         |
9+10       3.5054      2.72  | IO      |         |         |         |
9+15       3.1365      2.44  | IO      |         |         |         |
9+20       2.8064      2.18  | IO      |         |         |         |
```

```
    9+25       2.5111      1.95  | O       |         |         |         |
    9+30       2.2468      1.75  |IO       |         |         |         |
    9+35       2.0104      1.56  |IO       |         |         |         |
    9+40       1.7988      1.40  |O        |         |         |         |
    9+45       1.6095      1.25  |O        |         |         |         |
    9+50       1.4401      1.12  |O        |         |         |         |
    9+55       1.2886      1.00  |O        |         |         |         |
   10+ 0       1.1530      0.90  IO        |         |         |         |
   10+ 5       1.0316      0.80  IO        |         |         |         |
   10+10       0.9231      0.72  IO        |         |         |         |
   10+15       0.8259      0.64  O         |         |         |         |
   10+20       0.7390      0.57  O         |         |         |         |
   10+25       0.6612      0.51  O         |         |         |         |
   10+30       0.5917      0.46  O         |         |         |         |
   10+35       0.5294      0.41  O         |         |         |         |
   10+40       0.4737      0.37  O         |         |         |         |
   10+45       0.4238      0.33  O         |         |         |         |
   10+50       0.3792      0.29  O         |         |         |         |
   10+55       0.3393      0.26  O         |         |         |         |
   11+ 0       0.3036      0.24  O         |         |         |         |
   11+ 5       0.2717      0.21  O         |         |         |         |
   11+10       0.2431      0.19  O         |         |         |         |
   11+15       0.2175      0.17  O         |         |         |         |
   11+20       0.1946      0.15  O         |         |         |         |
   11+25       0.1741      0.14  O         |         |         |         |
   11+30       0.1558      0.12  O         |         |         |         |
   11+35       0.1394      0.11  O         |         |         |         |
   11+40       0.1247      0.10  O         |         |         |         |
   11+45       0.1116      0.09  O         |         |         |         |
   11+50       0.0999      0.08  O         |         |         |         |
   11+55       0.0894      0.07  O         |         |         |         |
   12+ 0       0.0799      0.06  O         |         |         |         |
   12+ 5       0.0715      0.06  O         |         |         |         |
   12+10       0.0640      0.05  O         |         |         |         |
   12+15       0.0573      0.04  O         |         |         |         |
   12+20       0.0512      0.04  O         |         |         |         |
   12+25       0.0459      0.04  O         |         |         |         |
   12+30       0.0410      0.03  O         |         |         |         |
   12+35       0.0367      0.03  O         |         |         |         |
   12+40       0.0328      0.03  O         |         |         |         |
   12+45       0.0294      0.02  O         |         |         |         |
   12+50       0.0263      0.02  O         |         |         |         |
   12+55       0.0235      0.02  O         |         |         |         |
   13+ 0       0.0211      0.02  O         |         |         |         |
   13+ 5       0.0188      0.01  O         |         |         |         |
   13+10       0.0169      0.01  O         |         |         |         |
   13+15       0.0151      0.01  O         |         |         |         |
   13+20       0.0135      0.01  O         |         |         |         |
   13+25       0.0121      0.01  O         |         |         |         |
   13+30       0.0108      0.00  O         |         |         |         |
   13+35       0.0088      0.00  O         |         |         |         |
   13+40       0.0024      0.00  O         |         |         |         |
--------------------------------------------------------------------------
       ****************************HYDROGRAPH DATA****************************
                   Number of intervals =   164
                   Time interval =    5.0 (Min.)
                   Maximum/Peak flow rate =       36.715 (CFS)
                   Total volume =      15.925 (Ac.Ft)
              Status of hydrographs being held in storage
                        Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
              Peak (CFS)      0.000     0.000     0.000     0.000     0.000
              Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       ************************************************************************

       ------------------------------------------------------------------


       ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
       Process from Point/Station       12.000 to Point/Station       13.000
       **** STORE OR DELETE CURRENT HYDROGRAPH ****
```

```
_____________________________________________________________________
Current stream hydrograph saved in file lgb1out3100.rte
****************************HYDROGRAPH DATA****************************
               Number of intervals =     0
               Time interval =    0.0 (Min.)
               Maximum/Peak flow rate =        0.000 (CFS)
               Total volume =       0.000 (Ac.Ft)
       Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
**********************************************************************

----------------------------------------------------------------------
```

```
                FLOOD HYDROGRAPH ROUTING PROGRAM
          Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                     Study date: 04/23/19

------------------------------------------------------------------------
Legado
Detention Basin B1
100-year 6-hour Inflow Hydrograph

------------------------------------------------------------------------

Program License Serial Number 4029

------------------------------------------------------------------------
******************** HYDROGRAPH INFORMATION **********************

               From study/file name: lgareab16100.rte
*****************************HYDROGRAPH DATA*****************************
               Number of intervals =    78
               Time interval =    5.0 (Min.)
               Maximum/Peak flow rate =      152.342 (CFS)
               Total volume =      19.808 (Ac.Ft)
       Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
************************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       10.000 to Point/Station       11.000
**** RETARDING BASIN ROUTING ****
________________________________________________________________________

User entry of depth-outflow-storage data
------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 78
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
------------------------------------------------------------------------
------------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
------------------------------------------------------------------------
------------------------------------------------------------------------
Depth vs. Storage and Depth vs. Discharge data:
 Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
     (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
------------------------------------------------------------------------
   0.000      0.000      0.000      0.000        0.000
   1.000      0.620     10.000      0.586        0.654
   2.000      1.900     16.380      1.844        1.956
   3.000      3.610     23.170      3.530        3.690
   4.000      5.770     28.370      5.672        5.868
   5.000      8.070     32.760      7.957        8.183
   6.000     10.520     36.630     10.394       10.646
   7.000     13.130     40.120     12.992       13.268
   8.000     15.880     73.340     15.627       16.133
   9.000     18.790    131.180     18.338       19.242
------------------------------------------------------------------------
               Hydrograph Detention Basin Routing
------------------------------------------------------------------------
```

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 38.1 76.17 114.26 152.34	Depth (Ft.)
0.083	2.79	0.15	0.009	O	0.01
0.167	8.64	0.73	0.045	OI	0.07
0.250	11.42	1.71	0.106	O I	0.17
0.333	12.41	2.78	0.173	O I	0.28
0.417	12.91	3.82	0.237	O I	0.38
0.500	14.09	4.84	0.300	OI	0.48
0.583	15.89	5.91	0.366	O I	0.59
0.667	16.35	6.98	0.433	O I	0.70
0.750	16.54	7.98	0.495	O I	0.80
0.833	16.65	8.89	0.551	O I	0.89
0.917	16.71	9.71	0.602	OI	0.97
1.000	17.64	10.16	0.652	OI	1.02
1.083	19.27	10.44	0.708	O I	1.07
1.167	19.70	10.74	0.769	O I	1.12
1.250	19.89	11.05	0.830	O I	1.16
1.333	20.00	11.35	0.891	O I	1.21
1.417	20.06	11.64	0.950	O I	1.26
1.500	20.10	11.93	1.007	O I	1.30
1.583	20.10	12.20	1.062	O I	1.35
1.667	20.10	12.47	1.115	O I	1.39
1.750	20.10	12.73	1.167	O I	1.43
1.833	20.10	12.98	1.217	O I	1.47
1.917	20.10	13.22	1.265	O I	1.50
2.000	21.00	13.46	1.315	O I	1.54
2.083	21.72	13.73	1.368	O I	1.58
2.167	21.43	13.99	1.421	O I	1.63
2.250	22.82	14.27	1.476	O I	1.67
2.333	23.16	14.56	1.535	OI	1.72
2.417	23.31	14.86	1.594	OI	1.76
2.500	23.39	15.14	1.652	OI	1.81
2.583	23.41	15.42	1.708	OI	1.85
2.667	23.45	15.69	1.762	OI	1.89
2.750	24.35	15.97	1.817	O I	1.94
2.833	25.98	16.28	1.880	O I	1.98
2.917	26.41	16.57	1.947	O I	2.03
3.000	26.60	16.83	2.014	O I	2.07
3.083	26.71	17.10	2.081	O I	2.11
3.167	27.67	17.37	2.150	O I	2.15
3.250	29.33	17.67	2.225	O I	2.19
3.333	29.76	17.99	2.306	O I	2.24
3.417	30.85	18.32	2.390	O I	2.29
3.500	33.48	18.70	2.484	O I	2.34
3.583	36.50	19.14	2.594	O I	2.41
3.667	38.78	19.64	2.720	O I	2.48
3.750	40.42	20.17	2.856	O I	2.56
3.833	42.40	20.75	3.000	O I	2.64
3.917	43.93	21.35	3.152	O I	2.73
4.000	45.85	21.99	3.312	O I	2.83
4.083	47.32	22.65	3.479	O I	2.92
4.167	50.10	23.28	3.657	O I	3.02
4.250	53.20	23.75	3.850	O I	3.11
4.333	56.41	24.26	4.063	O I	3.21
4.417	59.70	24.82	4.293	O I	3.32
4.500	62.12	25.41	4.540	O I	3.43
4.583	63.85	26.03	4.797	O I	3.55
4.667	66.77	26.67	5.065	O I	3.67
4.750	69.93	27.36	5.350	O I	3.81
4.833	72.27	28.08	5.648	O I	3.94
4.917	73.94	28.73	5.956	O I	4.08
5.000	76.82	29.33	6.275	O I	4.22
5.083	83.58	30.00	6.623	O I	4.37
5.167	96.93	30.79	7.036	O I	4.55
5.250	110.25	31.74	7.534	O I	4.77
5.333	121.11	32.82	8.108	O I	5.02
5.417	133.37	33.84	8.755	O I	5.28
5.500	152.34	35.02	9.502	O I	5.58

5.583	137.21	36.21	10.254	| O|	|	| I |	5.89
5.667	73.58	36.91	10.728	| O| I|	|	|	6.08
5.750	41.27	37.10	10.868	| OI |	|	|	6.13
5.833	25.51	37.06	10.843	| I O|	|	|	6.12
5.917	16.46	36.91	10.733	| I O|	|	|	6.08
6.000	9.98	36.70	10.570	| I O|	|	|	6.02
6.083	4.88	36.39	10.370	|I O|	|	|	5.94
6.167	1.72	36.03	10.143	I O|	|	|	5.85
6.250	0.77	35.66	9.905	I O|	|	|	5.75
6.333	0.36	35.28	9.664	I O|	|	|	5.65
6.417	0.14	34.90	9.424	I O|	|	|	5.55
6.500	0.05	34.52	9.186	I O|	|	|	5.46
6.583	0.00	34.15	8.950	I O|	|	|	5.36
6.667	0.00	33.78	8.716	I O|	|	|	5.26
6.750	0.00	33.41	8.484	I O|	|	|	5.17
6.833	0.00	33.05	8.255	I O |	|	|	5.08
6.917	0.00	32.68	8.029	I O |	|	|	4.98
7.000	0.00	32.26	7.805	I O |	|	|	4.88
7.083	0.00	31.83	7.585	I O |	|	|	4.79
7.167	0.00	31.42	7.367	I O |	|	|	4.69
7.250	0.00	31.01	7.152	I O |	|	|	4.60
7.333	0.00	30.60	6.940	I O |	|	|	4.51
7.417	0.00	30.20	6.730	I O |	|	|	4.42
7.500	0.00	29.81	6.524	I O |	|	|	4.33
7.583	0.00	29.42	6.320	I O |	|	|	4.24
7.667	0.00	29.04	6.119	I O |	|	|	4.15
7.750	0.00	28.66	5.920	I O |	|	|	4.07
7.833	0.00	28.26	5.724	I O |	|	|	3.98
7.917	0.00	27.79	5.531	I O |	|	|	3.89
8.000	0.00	27.34	5.341	I O |	|	|	3.80
8.083	0.00	26.89	5.154	I O |	|	|	3.71
8.167	0.00	26.45	4.971	I O |	|	|	3.63
8.250	0.00	26.01	4.790	I O |	|	|	3.55
8.333	0.00	25.58	4.612	I O |	|	|	3.46
8.417	0.00	25.16	4.438	I O |	|	|	3.38
8.500	0.00	24.75	4.266	I O |	|	|	3.30
8.583	0.00	24.34	4.097	I O |	|	|	3.23
8.667	0.00	23.94	3.930	I O |	|	|	3.15
8.750	0.00	23.55	3.767	I O |	|	|	3.07
8.833	0.00	23.15	3.606	I O |	|	|	3.00
8.917	0.00	22.53	3.449	I O |	|	|	2.91
9.000	0.00	21.92	3.296	I O |	|	|	2.82
9.083	0.00	21.33	3.147	I O |	|	|	2.73
9.167	0.00	20.76	3.002	I O |	|	|	2.64
9.250	0.00	20.20	2.861	I O |	|	|	2.56
9.333	0.00	19.65	2.724	I O |	|	|	2.48
9.417	0.00	19.12	2.590	I O |	|	|	2.40
9.500	0.00	18.60	2.460	I O |	|	|	2.33
9.583	0.00	18.10	2.334	I O |	|	|	2.25
9.667	0.00	17.61	2.211	I O |	|	|	2.18
9.750	0.00	17.14	2.091	I O |	|	|	2.11
9.833	0.00	16.68	1.975	I O |	|	|	2.04
9.917	0.00	16.19	1.862	I O |	|	|	1.97
10.000	0.00	15.64	1.752	I O |	|	|	1.88
10.083	0.00	15.11	1.646	I O |	|	|	1.80
10.167	0.00	14.60	1.544	I O |	|	|	1.72
10.250	0.00	14.11	1.445	I O |	|	|	1.64
10.333	0.00	13.63	1.349	I O |	|	|	1.57
10.417	0.00	13.17	1.257	I O |	|	|	1.50
10.500	0.00	12.73	1.168	I O |	|	|	1.43
10.583	0.00	12.30	1.082	I O |	|	|	1.36
10.667	0.00	11.89	0.998	I O |	|	|	1.30
10.750	0.00	11.48	0.918	I O |	|	|	1.23
10.833	0.00	11.10	0.840	I O |	|	|	1.17
10.917	0.00	10.72	0.765	I O |	|	|	1.11
11.000	0.00	10.36	0.692	I O |	|	|	1.06
11.083	0.00	10.01	0.622	I O |	|	|	1.00
11.167	0.00	8.98	0.557	IO |	|	|	0.90
11.250	0.00	8.03	0.498	IO |	|	|	0.80
11.333	0.00	7.19	0.446	IO |	|	|	0.72

11.417	0.00	6.43	0.399	IO	|	|	|	|	0.64
11.500	0.00	5.76	0.357	IO	|	|	|	|	0.58
11.583	0.00	5.15	0.319	IO	|	|	|	|	0.51
11.667	0.00	4.61	0.286	O	|	|	|	|	0.46
11.750	0.00	4.12	0.256	O	|	|	|	|	0.41
11.833	0.00	3.69	0.229	O	|	|	|	|	0.37
11.917	0.00	3.30	0.205	O	|	|	|	|	0.33
12.000	0.00	2.95	0.183	O	|	|	|	|	0.30
12.083	0.00	2.64	0.164	O	|	|	|	|	0.26
12.167	0.00	2.36	0.147	O	|	|	|	|	0.24
12.250	0.00	2.12	0.131	O	|	|	|	|	0.21
12.333	0.00	1.89	0.117	O	|	|	|	|	0.19
12.417	0.00	1.69	0.105	O	|	|	|	|	0.17
12.500	0.00	1.52	0.094	O	|	|	|	|	0.15
12.583	0.00	1.36	0.084	O	|	|	|	|	0.14
12.667	0.00	1.21	0.075	O	|	|	|	|	0.12
12.750	0.00	1.09	0.067	O	|	|	|	|	0.11
12.833	0.00	0.97	0.060	O	|	|	|	|	0.10
12.917	0.00	0.87	0.054	O	|	|	|	|	0.09
13.000	0.00	0.78	0.048	O	|	|	|	|	0.08
13.083	0.00	0.70	0.043	O	|	|	|	|	0.07
13.167	0.00	0.62	0.039	O	|	|	|	|	0.06
13.250	0.00	0.56	0.035	O	|	|	|	|	0.06
13.333	0.00	0.50	0.031	O	|	|	|	|	0.05
13.417	0.00	0.45	0.028	O	|	|	|	|	0.04
13.500	0.00	0.40	0.025	O	|	|	|	|	0.04
13.583	0.00	0.36	0.022	O	|	|	|	|	0.04
13.667	0.00	0.32	0.020	O	|	|	|	|	0.03
13.750	0.00	0.29	0.018	O	|	|	|	|	0.03
13.833	0.00	0.26	0.016	O	|	|	|	|	0.03
13.917	0.00	0.23	0.014	O	|	|	|	|	0.02
14.000	0.00	0.20	0.013	O	|	|	|	|	0.02
14.083	0.00	0.18	0.011	O	|	|	|	|	0.02
14.167	0.00	0.16	0.010	O	|	|	|	|	0.02
14.250	0.00	0.15	0.009	O	|	|	|	|	0.01
14.333	0.00	0.13	0.008	O	|	|	|	|	0.01
14.417	0.00	0.12	0.007	O	|	|	|	|	0.01
14.500	0.00	0.11	0.007	O	|	|	|	|	0.01
14.583	0.00	0.09	0.006	O	|	|	|	|	0.01
14.667	0.00	0.08	0.005	O	|	|	|	|	0.01
14.750	0.00	0.08	0.005	O	|	|	|	|	0.01
14.833	0.00	0.07	0.004	O	|	|	|	|	0.01
14.917	0.00	0.06	0.004	O	|	|	|	|	0.01
15.000	0.00	0.05	0.003	O	|	|	|	|	0.01
15.083	0.00	0.05	0.003	O	|	|	|	|	0.00
15.167	0.00	0.04	0.003	O	|	|	|	|	0.00
15.250	0.00	0.04	0.002	O	|	|	|	|	0.00
15.333	0.00	0.03	0.002	O	|	|	|	|	0.00
15.417	0.00	0.03	0.002	O	|	|	|	|	0.00
15.500	0.00	0.03	0.002	O	|	|	|	|	0.00
15.583	0.00	0.02	0.002	O	|	|	|	|	0.00
15.667	0.00	0.02	0.001	O	|	|	|	|	0.00
15.750	0.00	0.02	0.001	O	|	|	|	|	0.00
15.833	0.00	0.02	0.001	O	|	|	|	|	0.00
15.917	0.00	0.02	0.001	O	|	|	|	|	0.00
16.000	0.00	0.01	0.001	O	|	|	|	|	0.00
16.083	0.00	0.01	0.001	O	|	|	|	|	0.00
16.167	0.00	0.01	0.001	O	|	|	|	|	0.00
16.250	0.00	0.01	0.001	O	|	|	|	|	0.00
16.333	0.00	0.01	0.001	O	|	|	|	|	0.00

**********HYDROGRAPH DATA**********

Number of intervals = 196
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 37.096 (CFS)
Total volume = 19.808 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

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Process from Point/Station       11.000 to Point/Station       12.000
**** STREAM ROUTING SCS CONVEX METHOD ****
__________________________________________________________________________
HYDROGRAPH STREAM ROUTING DATA:
Length of stream =   2500.00 (Ft.)
Elevation difference =    6.00 (Ft.)
Slope of channel =  0.002400 (Vert/Horiz)
Channel type - Pipe


Pipe length  =  2500.00(Ft.)   Elevation difference =   6.00(Ft.)
Manning's N = 0.013   No. of pipes = 1
Pipe evaluation using mean flow rate of hydrograph
Required pipe flow  =    22.178(CFS)
Nearest computed pipe diameter  =     33.00(In.)
Calculated individual pipe flow  =    22.178(CFS)
Normal flow depth in pipe =   23.48(In.)
Flow top width inside pipe =   29.90(In.)
Critical Depth =    1.56(Ft.)
Pipe flow velocity =      4.90(Ft/s)
Travel time through pipe =    8.50 min.


Pipe length  =  2500.00(Ft.)   Elevation difference =   6.00(Ft.)
Manning's N = 0.013   No. of pipes = 1
Pipe evaluation using maximum flow rate of hydrograph
Required pipe flow  =    37.096(CFS)
Nearest computed pipe diameter  =     39.00(In.)
Calculated individual pipe flow  =    37.096(CFS)
Normal flow depth in pipe =   29.39(In.)
Flow top width inside pipe =   33.61(In.)
Critical Depth =    1.93(Ft.)
Pipe flow velocity =      5.53(Ft/s)
Travel time through pipe =    7.53 min.


********************** SCS CONVEX CHANNEL ROUTING *********************
Convex method of stream routing  data items:
Using equation: Outflow =
O(t+dt) = (1-c*)O(t+dt-dt*) + Input(c*)
          where c* = 1 - (1-c)^e and dt = c(length)/velocity
          c(v/v+1.7) =   0.7649   Travel time =   7.53 (min.)
        dt*(unit time interval) =   5.00(min.),  e=   0.9118
        dt(routing time-step) =   5.76 (min.),   c* =   0.7328

Output hydrograph delayed by 1  unit time increments


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                  P R I N T  O F  S T O R M
               R u n o f f     H y d r o g r a p h
--------------------------------------------------------------------------
            Hydrograph in   5   Minute intervals (CFS)

     ---------------------------------------------------------------------
Time(h+m) Out = O(CFS) In = I  0        9.3      18.5      27.8      37.1
-------------------------------------------------------------------------
  0+ 5       0.0000      0.15  O         |         |         |         |
  0+10       0.0142      0.73  O         |         |         |         |
  0+15       0.1682      1.71  OI        |         |         |         |
  0+20       0.6766      2.78  O  I      |         |         |         |
  0+25       1.5387      3.82  |O  I     |         |         |         |
  0+30       2.5527      4.84  | O  I    |         |         |         |
  0+35       3.5832      5.91  |  O  I   |         |         |         |
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0+40       4.6098      6.98  |   O  I  |         |         |         |
0+45       5.6672      7.98  |     O I |         |         |         |
0+50       6.7292      8.89  |      O I|         |         |         |
0+55       7.7339      9.71  |       O I         |         |         |
1+ 0       8.6583     10.16  |        OI         |         |         |
1+ 5       9.4705     10.44  |         OI        |         |         |
1+10      10.0015     10.74  |         OI        |         |         |
1+15      10.3511     11.05  |         |O        |         |         |
1+20      10.6683     11.35  |         |OI       |         |         |
1+25      10.9765     11.64  |         |OI       |         |         |
1+30      11.2782     11.93  |         | O       |         |         |
1+35      11.5727     12.20  |         | OI      |         |         |
1+40      11.8592     12.47  |         | OI      |         |         |
1+45      12.1369     12.73  |         |  O      |         |         |
1+50      12.4054     12.98  |         |  O      |         |         |
1+55      12.6650     13.22  |         |  OI     |         |         |
2+ 0      12.9158     13.46  |         |  OI     |         |         |
2+ 5      13.1597     13.73  |         |   O     |         |         |
2+10      13.4080     13.99  |         |   OI    |         |         |
2+15      13.6695     14.27  |         |   OI    |         |         |
2+20      13.9343     14.56  |         |    O    |         |         |
2+25      14.2080     14.86  |         |    OI   |         |         |
2+30      14.4966     15.14  |         |    OI   |         |         |
2+35      14.7875     15.42  |         |    OI   |         |         |
2+40      15.0745     15.69  |         |     O   |         |         |
2+45      15.3547     15.97  |         |     OI  |         |         |
2+50      15.6283     16.28  |         |     OI  |         |         |
2+55      15.9076     16.57  |         |      O  |         |         |
3+ 0      16.2074     16.83  |         |      OI |         |         |
3+ 5      16.4965     17.10  |         |      OI |         |         |
3+10      16.7698     17.37  |         |       O |         |         |
3+15      17.0377     17.67  |         |       OI|         |         |
3+20      17.3114     17.99  |         |       OI|         |         |
3+25      17.6064     18.32  |         |       OI|         |         |
3+30      17.9211     18.70  |         |        OI         |         |
3+35      18.2526     19.14  |         |        OI         |         |
3+40      18.6212     19.64  |         |         OI        |         |
3+45      19.0476     20.17  |         |         OI        |         |
3+50      19.5312     20.75  |         |         |OI       |         |
3+55      20.0584     21.35  |         |         |O I      |         |
4+ 0      20.6222     21.99  |         |         | OI      |         |
4+ 5      21.2190     22.65  |         |         | O I     |         |
4+10      21.8466     23.28  |         |         |  O I    |         |
4+15      22.4974     23.75  |         |         |   OI    |         |
4+20      23.1179     24.26  |         |         |   O I   |         |
4+25      23.6298     24.82  |         |         |    OI   |         |
4+30      24.1452     25.41  |         |         |     OI  |         |
4+35      24.6938     26.03  |         |         |     O I |         |
4+40      25.2777     26.67  |         |         |      OI |         |
4+45      25.8892     27.36  |         |         |      O I|         |
4+50      26.5297     28.08  |         |         |       O I         |
4+55      27.2063     28.73  |         |         |        OI         |
5+ 0      27.9073     29.33  |         |         |         OI        |
5+ 5      28.5659     30.00  |         |         |         O I       |
5+10      29.1937     30.79  |         |         |         |O I      |
5+15      29.8602     31.74  |         |         |         | O I     |
5+20      30.6308     32.82  |         |         |         |  O I    |
5+25      31.5464     33.84  |         |         |         |   O I   |
5+30      32.5791     35.02  |         |         |         |    O I  |
5+35      33.6190     36.21  |         |         |         |     O  I|
5+40      34.7620     36.91  |         |         |         |      O I|
5+45      35.8902     37.10  |         |         |         |       O I
5+50      36.6540     37.06  |         |         |         |        O|
5+55      36.9744     36.91  |         |         |         |        O|
6+ 0      37.0241     36.70  |         |         |         |        O|
6+ 5      36.9226     36.39  |         |         |         |        O|
6+10      36.7278     36.03  |         |         |         |       IO|
6+15      36.4474     35.66  |         |         |         |       IO|
6+20      36.1083     35.28  |         |         |         |       O |
6+25      35.7415     34.90  |         |         |         |      IO |
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 6+30      35.3653     34.52  |         |         |         |      IO |
 6+35      34.9873     34.15  |         |         |         |     IO  |
 6+40      34.6106     33.78  |         |         |         |     IO  |
 6+45      34.2368     33.41  |         |         |         |     O   |
 6+50      33.8665     33.05  |         |         |         |    IO   |
 6+55      33.5001     32.68  |         |         |         |    IO   |
 7+ 0      33.1364     32.26  |         |         |         |   IO    |
 7+ 5      32.7619     31.83  |         |         |         |   IO    |
 7+10      32.3496     31.42  |         |         |         |  IO     |
 7+15      31.9313     31.01  |         |         |         |  IO     |
 7+20      31.5154     30.60  |         |         |         | IO      |
 7+25      31.1041     30.20  |         |         |         | IO      |
 7+30      30.6980     29.81  |         |         |         | IO      |
 7+35      30.2971     29.42  |         |         |         |IO       |
 7+40      29.9015     29.04  |         |         |         |IO       |
 7+45      29.5110     28.66  |         |         |         IO        |
 7+50      29.1256     28.26  |         |         |         IO        |
 7+55      28.7430     27.79  |         |         |        IO         |
 8+ 0      28.3432     27.34  |         |         |        IO         |
 8+ 5      27.8966     26.89  |         |         |       I O         |
 8+10      27.4431     26.45  |         |         |       IO|         |
 8+15      26.9932     26.01  |         |         |       IO|         |
 8+20      26.5497     25.58  |         |         |      IO |         |
 8+25      26.1133     25.16  |         |         |      IO |         |
 8+30      25.6839     24.75  |         |         |     IO  |         |
 8+35      25.2616     24.34  |         |         |     IO  |         |
 8+40      24.8462     23.94  |         |         |    IO   |         |
 8+45      24.4376     23.55  |         |         |    IO   |         |
 8+50      24.0358     23.15  |         |         |   IO    |         |
 8+55      23.6400     22.53  |         |         |   IO    |         |
 9+ 0      23.2235     21.92  |         |         |  I O    |         |
 9+ 5      22.6561     21.33  |         |         |  IO     |         |
 9+10      22.0607     20.76  |         |         | IO      |         |
 9+15      21.4698     20.20  |         |         |I O      |         |
 9+20      20.8917     19.65  |         |         |IO       |         |
 9+25      20.3284     19.12  |         |         IO        |         |
 9+30      19.7801     18.60  |         |         IO        |         |
 9+35      19.2465     18.10  |         |        IO         |         |
 9+40      18.7272     17.61  |         |       I O         |         |
 9+45      18.2220     17.14  |         |       IO|         |         |
 9+50      17.7304     16.68  |         |      I O|         |         |
 9+55      17.2521     16.19  |         |      IO |         |         |
10+ 0      16.7829     15.64  |         |     I O |         |         |
10+ 5      16.2941     15.11  |         |     IO  |         |         |
10+10      15.7649     14.60  |         |    IO   |         |         |
10+15      15.2384     14.11  |         |    IO   |         |         |
10+20      14.7256     13.63  |         |   IO    |         |         |
10+25      14.2290     13.17  |         |   IO    |         |         |
10+30      13.7489     12.73  |         |  IO     |         |         |
10+35      13.2849     12.30  |         |  IO     |         |         |
10+40      12.8366     11.89  |         | IO      |         |         |
10+45      12.4034     11.48  |         | IO      |         |         |
10+50      11.9848     11.10  |         |IO       |         |         |
10+55      11.5803     10.72  |         |IO       |         |         |
11+ 0      11.1895     10.36  |         |IO       |         |         |
11+ 5      10.8119     10.01  |         IO        |         |         |
11+10      10.4470      8.98  |        I|O        |         |         |
11+15      10.0272      8.03  |       I O         |         |         |
11+20       9.1678      7.19  |      I O|         |         |         |
11+25       8.2553      6.43  |     I O |         |         |         |
11+30       7.4006      5.76  |     IO  |         |         |         |
11+35       6.6255      5.15  |    I O  |         |         |         |
11+40       5.9292      4.61  |   I O   |         |         |         |
11+45       5.3055      4.12  |   IO    |         |         |         |
11+50       4.7473      3.69  |  I O    |         |         |         |
11+55       4.2477      3.30  |  IO     |         |         |         |
12+ 0       3.8007      2.95  |  IO     |         |         |         |
12+ 5       3.4007      2.64  | IO      |         |         |         |
12+10       3.0428      2.36  | IO      |         |         |         |
12+15       2.7226      2.12  | O       |         |         |         |
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   12+20       2.4361      1.89  | O       |         |         |         |
   12+25       2.1797      1.69  |IO       |         |         |         |
   12+30       1.9503      1.52  |IO       |         |         |         |
   12+35       1.7451      1.36  |O        |         |         |         |
   12+40       1.5615      1.21  |O        |         |         |         |
   12+45       1.3971      1.09  |O        |         |         |         |
   12+50       1.2501      0.97  |O        |         |         |         |
   12+55       1.1185      0.87  IO        |         |         |         |
   13+ 0       1.0008      0.78  IO        |         |         |         |
   13+ 5       0.8955      0.70  O         |         |         |         |
   13+10       0.8013      0.62  O         |         |         |         |
   13+15       0.7169      0.56  O         |         |         |         |
   13+20       0.6415      0.50  O         |         |         |         |
   13+25       0.5740      0.45  O         |         |         |         |
   13+30       0.5136      0.40  O         |         |         |         |
   13+35       0.4595      0.36  O         |         |         |         |
   13+40       0.4112      0.32  O         |         |         |         |
   13+45       0.3679      0.29  O         |         |         |         |
   13+50       0.3292      0.26  O         |         |         |         |
   13+55       0.2945      0.23  O         |         |         |         |
   14+ 0       0.2635      0.20  O         |         |         |         |
   14+ 5       0.2358      0.18  O         |         |         |         |
   14+10       0.2110      0.16  O         |         |         |         |
   14+15       0.1888      0.15  O         |         |         |         |
   14+20       0.1689      0.13  O         |         |         |         |
   14+25       0.1511      0.12  O         |         |         |         |
   14+30       0.1352      0.11  O         |         |         |         |
   14+35       0.1210      0.09  O         |         |         |         |
   14+40       0.1083      0.08  O         |         |         |         |
   14+45       0.0969      0.08  O         |         |         |         |
   14+50       0.0867      0.07  O         |         |         |         |
   14+55       0.0776      0.06  O         |         |         |         |
   15+ 0       0.0694      0.05  O         |         |         |         |
   15+ 5       0.0621      0.05  O         |         |         |         |
   15+10       0.0556      0.04  O         |         |         |         |
   15+15       0.0497      0.04  O         |         |         |         |
   15+20       0.0445      0.03  O         |         |         |         |
   15+25       0.0398      0.03  O         |         |         |         |
   15+30       0.0356      0.03  O         |         |         |         |
   15+35       0.0319      0.02  O         |         |         |         |
   15+40       0.0285      0.02  O         |         |         |         |
   15+45       0.0255      0.02  O         |         |         |         |
   15+50       0.0228      0.02  O         |         |         |         |
   15+55       0.0204      0.02  O         |         |         |         |
   16+ 0       0.0183      0.01  O         |         |         |         |
   16+ 5       0.0164      0.01  O         |         |         |         |
   16+10       0.0146      0.01  O         |         |         |         |
   16+15       0.0131      0.01  O         |         |         |         |
   16+20       0.0117      0.01  O         |         |         |         |
   16+25       0.0105      0.00  O         |         |         |         |
   16+30       0.0086      0.00  O         |         |         |         |
   16+35       0.0023      0.00  O         |         |         |         |
--------------------------------------------------------------------------
       ****************************HYDROGRAPH DATA****************************
                   Number of intervals =   199
                   Time interval =    5.0 (Min.)
                   Maximum/Peak flow rate =       37.024 (CFS)
                   Total volume =      19.808 (Ac.Ft)
              Status of hydrographs being held in storage
                        Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
              Peak (CFS)      0.000     0.000     0.000     0.000     0.000
              Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       ****************************************************************************

       ----------------------------------------------------------------

       ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
       Process from Point/Station       12.000 to Point/Station       13.000
       **** STORE OR DELETE CURRENT HYDROGRAPH ****
```

```
_____________________________________________________________________
Current stream hydrograph saved in file lgb1out6100.rte
****************************HYDROGRAPH DATA****************************
               Number of intervals =     0
               Time interval =    0.0 (Min.)
               Maximum/Peak flow rate =        0.000 (CFS)
               Total volume =       0.000 (Ac.Ft)
       Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
***********************************************************************

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                FLOOD HYDROGRAPH ROUTING PROGRAM
          Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                     Study date: 04/23/19

------------------------------------------------------------------------

Legado
Detention Basin B1
100-year 24-hour Inflow Hydrograph



------------------------------------------------------------------------


Program License Serial Number 4029

------------------------------------------------------------------------
******************** HYDROGRAPH INFORMATION **********************

               From study/file name: lgareab124100.rte
****************************HYDROGRAPH DATA****************************
               Number of intervals =   294
               Time interval =    5.0 (Min.)
               Maximum/Peak flow rate =       62.062 (CFS)
               Total volume =      32.450 (Ac.Ft)
       Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
************************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       10.000 to Point/Station       11.000
**** RETARDING BASIN ROUTING ****
________________________________________________________________________

User entry of depth-outflow-storage data
------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 294
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
------------------------------------------------------------------------
------------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
------------------------------------------------------------------------
------------------------------------------------------------------------
Depth vs. Storage and Depth vs. Discharge data:
 Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
     (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
------------------------------------------------------------------------
   0.000      0.000      0.000      0.000        0.000
   1.000      0.620     10.000      0.586        0.654
   2.000      1.900     16.380      1.844        1.956
   3.000      3.610     23.170      3.530        3.690
   4.000      5.770     28.370      5.672        5.868
   5.000      8.070     32.760      7.957        8.183
   6.000     10.520     36.630     10.394       10.646
   7.000     13.130     40.120     12.992       13.268
   8.000     15.880     73.340     15.627       16.133
   9.000     18.790    131.180     18.338       19.242
```

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	15.5	31.03	46.55	62.06	Depth (Ft.)
0.083	0.67	0.04	0.002	O					0.00
0.167	1.87	0.16	0.010	O					0.02
0.250	2.19	0.36	0.022	OI					0.04
0.333	2.66	0.58	0.036	OI					0.06
0.417	3.34	0.83	0.052	OI					0.08
0.500	3.54	1.11	0.069	OI					0.11
0.583	3.64	1.37	0.085	OI					0.14
0.667	3.68	1.61	0.100	OI					0.16
0.750	3.70	1.83	0.113	OI					0.18
0.833	4.05	2.05	0.127	|OI					0.20
0.917	4.65	2.29	0.142	|OI					0.23
1.000	4.81	2.54	0.158	|OI					0.25
1.083	4.55	2.77	0.172	|OI					0.28
1.167	3.99	2.93	0.181	|OI					0.29
1.250	3.85	3.03	0.188	|O					0.30
1.333	3.79	3.11	0.193	|O					0.31
1.417	3.75	3.18	0.197	|O					0.32
1.500	3.73	3.24	0.201	|O					0.32
1.583	3.72	3.29	0.204	|O					0.33
1.667	3.72	3.34	0.207	|O					0.33
1.750	3.72	3.38	0.209	|O					0.34
1.833	4.05	3.43	0.213	|OI					0.34
1.917	4.65	3.53	0.219	|OI					0.35
2.000	4.81	3.65	0.227	|OI					0.37
2.083	4.88	3.78	0.234	|OI					0.38
2.167	4.92	3.90	0.242	| O					0.39
2.250	4.94	4.01	0.248	| O					0.40
2.333	4.96	4.11	0.255	| O					0.41
2.417	4.96	4.20	0.260	| O					0.42
2.500	4.96	4.28	0.265	| O					0.43
2.583	5.29	4.37	0.271	| O					0.44
2.667	5.89	4.49	0.279	| OI					0.45
2.750	6.05	4.65	0.288	| OI					0.46
2.833	6.12	4.80	0.298	| OI					0.48
2.917	6.16	4.94	0.306	| OI					0.49
3.000	6.18	5.07	0.314	| OI					0.51
3.083	6.20	5.19	0.322	| OI					0.52
3.167	6.20	5.30	0.328	| OI					0.53
3.250	6.20	5.39	0.334	| OI					0.54
3.333	6.20	5.47	0.339	| OI					0.55
3.417	6.20	5.55	0.344	| OI					0.56
3.500	6.20	5.62	0.348	| OI					0.56
3.583	6.20	5.68	0.352	| OI					0.57
3.667	6.20	5.73	0.356	| OI					0.57
3.750	6.20	5.78	0.359	| OI					0.58
3.833	6.53	5.84	0.362	| O					0.58
3.917	7.13	5.95	0.369	| O					0.59
4.000	7.29	6.08	0.377	| O					0.61
4.083	7.36	6.21	0.385	| O					0.62
4.167	7.40	6.33	0.393	| O					0.63
4.250	7.42	6.45	0.400	| O					0.64
4.333	7.77	6.57	0.407	| OI					0.66
4.417	8.37	6.73	0.417	| OI					0.67
4.500	8.53	6.91	0.428	| OI					0.69
4.583	8.60	7.08	0.439	| OI					0.71
4.667	8.64	7.24	0.449	| OI					0.72
4.750	8.66	7.39	0.458	| OI					0.74
4.833	9.01	7.54	0.468	| OI					0.75
4.917	9.61	7.73	0.479	| OI					0.77
5.000	9.77	7.94	0.492	| OI					0.79
5.083	9.17	8.10	0.502	| O					0.81
5.167	8.01	8.15	0.505	| O					0.81

5.250	7.72	8.12	0.503	IO					0.81
5.333	7.92	8.09	0.501	O					0.81
5.417	8.44	8.10	0.502	O					0.81
5.500	8.56	8.14	0.505	O					0.81
5.583	8.93	8.20	0.509	O					0.82
5.667	9.57	8.31	0.515	O					0.83
5.750	9.75	8.46	0.524	OI					0.85
5.833	9.84	8.60	0.533	OI					0.86
5.917	9.88	8.73	0.541	OI					0.87
6.000	9.90	8.85	0.549	OI					0.89
6.083	10.25	8.98	0.557	OI					0.90
6.167	10.85	9.15	0.567	OI					0.91
6.250	11.01	9.33	0.579	OI					0.93
6.333	11.08	9.51	0.590	OI					0.95
6.417	11.12	9.68	0.600	OI					0.97
6.500	11.14	9.83	0.610	O					0.98
6.583	11.49	9.99	0.619	O					1.00
6.667	12.09	10.06	0.631	OI					1.01
6.750	12.25	10.13	0.646	OI					1.02
6.833	12.32	10.20	0.660	OI					1.03
6.917	12.36	10.27	0.675	OI					1.04
7.000	12.38	10.34	0.689	OI					1.05
7.083	12.39	10.41	0.703	OI					1.06
7.167	12.39	10.48	0.716	OI					1.08
7.250	12.39	10.54	0.729	OI					1.09
7.333	12.75	10.61	0.743	OI					1.10
7.417	13.41	10.70	0.760	OI					1.11
7.500	13.61	10.79	0.779	O I					1.12
7.583	14.26	10.90	0.800	O I					1.14
7.667	15.31	11.03	0.826	O I					1.16
7.750	15.63	11.18	0.856	O I					1.18
7.833	16.33	11.34	0.889	O I					1.21
7.917	17.40	11.53	0.926	O I					1.24
8.000	17.73	11.73	0.967	O I					1.27
8.083	18.98	11.95	1.012	O I					1.31
8.167	21.02	12.23	1.066	O I					1.35
8.250	21.60	12.53	1.128	O I					1.40
8.333	21.89	12.84	1.190	O I					1.45
8.417	22.05	13.15	1.252	O I					1.49
8.500	22.16	13.45	1.313	O I					1.54
8.583	22.78	13.76	1.374	O I					1.59
8.667	23.78	14.08	1.438	O I					1.64
8.750	24.08	14.41	1.505	O I					1.69
8.833	24.77	14.75	1.573	O I					1.74
8.917	25.83	15.11	1.644	O I					1.80
9.000	26.16	15.47	1.718	O I					1.86
9.083	27.41	15.85	1.795	O I					1.92
9.167	29.45	16.28	1.880	O I					1.98
9.250	30.03	16.66	1.971	O I					2.04
9.333	30.86	17.03	2.065	O I					2.10
9.417	31.99	17.42	2.163	O I					2.15
9.500	32.35	17.82	2.263	O I					2.21
9.583	33.08	18.22	2.364	O I					2.27
9.667	34.15	18.64	2.468	O I					2.33
9.750	34.48	19.06	2.575	O I					2.39
9.833	35.18	19.49	2.682	O I					2.46
9.917	36.25	19.92	2.792	O I					2.52
10.000	36.58	20.37	2.904	O I					2.59
10.083	32.99	20.76	3.002	O I					2.64
10.167	26.31	21.00	3.063	O I					2.68
10.250	24.58	21.12	3.093	O I					2.70
10.333	23.83	21.20	3.114	O I					2.71
10.417	23.42	21.27	3.131	O I					2.72
10.500	23.20	21.32	3.144	OI					2.73
10.583	25.77	21.41	3.166	O I					2.74
10.667	30.65	21.59	3.212	O I					2.77
10.750	31.96	21.85	3.278	O I					2.81
10.833	32.57	22.13	3.349	O I					2.85
10.917	32.93	22.42	3.421	O I					2.89
11.000	33.14	22.71	3.493	O I					2.93

```
11.083   32.74   22.98     3.563  |       |  O    I       |       |     2.97
11.167   31.81   23.21     3.626  |       |  O    I       |       |     3.01
11.250   31.58   23.35     3.684  |       |   O   I       |       |     3.03
11.333   31.50   23.48     3.740  |       |   O   I       |       |     3.06
11.417   31.47   23.61     3.794  |       |   O   I       |       |     3.09
11.500   31.47   23.74     3.848  |       |   O   I       |       |     3.11
11.583   30.40   23.86     3.897  |       |   O  I|       |       |     3.13
11.667   28.50   23.95     3.935  |       |   O I |       |       |     3.15
11.750   28.02   24.02     3.965  |       |   O I |       |       |     3.16
11.833   28.35   24.09     3.993  |       |   O I |       |       |     3.18
11.917   29.23   24.17     4.025  |       |   O  I|       |       |     3.19
12.000   29.44   24.25     4.061  |       |   O  I|       |       |     3.21
12.083   33.30   24.37     4.109  |       |   O   |I      |       |     3.23
12.167   40.19   24.58     4.194  |       |   O   |   I   |       |     3.27
12.250   42.05   24.85     4.307  |       |   O   |    I  |       |     3.32
12.333   43.44   25.14     4.429  |       |   O   |     I |       |     3.38
12.417   44.89   25.45     4.559  |       |    O  |      I|       |     3.44
12.500   45.43   25.78     4.693  |       |    O  |      I|       |     3.50
12.583   46.80   26.11     4.832  |       |    O  |       I       |     3.57
12.667   48.83   26.47     4.981  |       |    O  |       |I      |     3.63
12.750   49.41   26.84     5.135  |       |    O  |       |I      |     3.71
12.833   50.23   27.22     5.292  |       |     O |       |I      |     3.78
12.917   51.36   27.61     5.453  |       |     O |       | I     |     3.85
13.000   51.72   28.00     5.617  |       |     O |       | I     |     3.93
13.083   54.59   28.41     5.789  |       |     O |       |   I   |     4.01
13.167   59.53   28.78     5.985  |       |     O |       |     I |     4.09
13.250   60.88   29.19     6.200  |       |      O|       |      I|     4.19
13.333   61.51   29.61     6.419  |       |      O|       |      I|     4.28
13.417   61.86   30.03     6.638  |       |      O|       |      I|     4.38
13.500   62.06   30.44     6.857  |       |      O|       |       I     4.47
13.583   56.30   30.82     7.053  |       |      O|       |    I  |     4.56
13.667   45.66   31.08     7.191  |       |       O      I|       |     4.62
13.750   42.87   31.25     7.281  |       |       O     I |       |     4.66
13.833   41.63   31.40     7.357  |       |       O    I  |       |     4.69
13.917   40.96   31.53     7.424  |       |       O    I  |       |     4.72
14.000   40.60   31.65     7.488  |       |       O   I   |       |     4.75
14.083   42.53   31.78     7.555  |       |       O    I  |       |     4.78
14.167   46.44   31.94     7.642  |       |       O      I|       |     4.81
14.250   47.49   32.14     7.745  |       |       O       I       |     4.86
14.333   47.45   32.34     7.850  |       |       O       I       |     4.90
14.417   46.76   32.53     7.951  |       |       O       I       |     4.95
14.500   46.67   32.72     8.048  |       |       O       I       |     4.99
14.583   46.67   32.88     8.144  |       |       O       I       |     5.03
14.667   46.64   33.03     8.238  |       |       |O      I       |     5.07
14.750   46.63   33.17     8.331  |       |       |O      I       |     5.11
14.833   46.10   33.32     8.422  |       |       |O     I|       |     5.14
14.917   45.16   33.45     8.506  |       |       |O     I|       |     5.18
15.000   44.93   33.57     8.585  |       |       |O     I|       |     5.21
15.083   44.30   33.69     8.661  |       |       |O    I |       |     5.24
15.167   43.30   33.80     8.730  |       |       |O    I |       |     5.27
15.250   43.03   33.90     8.794  |       |       |O    I |       |     5.30
15.333   42.38   34.00     8.855  |       |       |O   I  |       |     5.32
15.417   41.38   34.08     8.909  |       |       |O   I  |       |     5.34
15.500   41.11   34.16     8.958  |       |       |O   I  |       |     5.36
15.583   38.85   34.23     8.998  |       |       |O  I   |       |     5.38
15.667   34.94   34.25     9.016  |       |       |OI      |       |     5.39
15.750   33.90   34.26     9.017  |       |       |O       |       |     5.39
15.833   33.45   34.25     9.013  |       |       |O       |       |     5.38
15.917   33.22   34.24     9.007  |       |       |O       |       |     5.38
16.000   33.10   34.23     8.999  |       |       |O       |       |     5.38
16.083   25.49   34.17     8.966  |       |    I  |O       |       |     5.37
16.167   11.88   34.01     8.859  |     I |       |O       |       |     5.32
16.250    8.28   33.75     8.696  |   I   |       |O       |       |     5.26
16.333    6.66   33.46     8.516  |  I    |       |O       |       |     5.18
16.417    5.76   33.17     8.329  | I     |       |O       |       |     5.11
16.500    5.26   32.87     8.139  | I     |       O        |       |     5.03
16.583    4.62   32.53     7.948  | I     |       O        |       |     4.95
16.667    4.02   32.16     7.755  | I     |       O        |       |     4.86
16.750    3.86   31.79     7.562  |I      |       O        |       |     4.78
16.833    3.79   31.43     7.371  |I      |       O        |       |     4.70
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16.917    3.75    31.06      7.182  |I      |       O       |       |      4.61
17.000    3.73    30.71      6.995  |I      |      O|       |       |      4.53
17.083    4.38    30.36      6.812  | I     |      O|       |       |      4.45
17.167    5.59    30.03      6.639  | I     |      O|       |       |      4.38
17.250    5.90    29.71      6.473  |  I    |      O|       |       |      4.31
17.333    6.05    29.40      6.310  |  I    |      O|       |       |      4.23
17.417    6.13    29.10      6.151  |  I    |      O|       |       |      4.17
17.500    6.17    28.80      5.994  |  I    |     O |       |       |      4.10
17.583    6.20    28.50      5.839  |  I    |     O |       |       |      4.03
17.667    6.20    28.17      5.687  |  I    |     O |       |       |      3.96
17.750    6.20    27.81      5.536  |  I    |     O |       |       |      3.89
17.833    5.86    27.45      5.388  |  I    |     O |       |       |      3.82
17.917    5.26    27.09      5.238  | I     |    O  |       |       |      3.75
18.000    5.10    26.73      5.089  | I     |    O  |       |       |      3.68
18.083    5.03    26.37      4.941  | I     |    O  |       |       |      3.62
18.167    4.99    26.02      4.795  | I     |    O  |       |       |      3.55
18.250    4.97    25.68      4.651  | I     |    O  |       |       |      3.48
18.333    4.96    25.34      4.510  | I     |    O  |       |       |      3.42
18.417    4.96    25.00      4.370  | I     |   O   |       |       |      3.35
18.500    4.96    24.67      4.233  | I     |   O   |       |       |      3.29
18.583    4.62    24.34      4.098  | I     |   O   |       |       |      3.23
18.667    4.02    24.01      3.961  | I     |   O   |       |       |      3.16
18.750    3.86    23.68      3.824  |I      |   O   |       |       |      3.10
18.833    3.46    23.36      3.687  |I      |   O   |       |       |      3.04
18.917    2.82    22.93      3.549  |I      |  O    |       |       |      2.96
19.000    2.64    22.38      3.412  |I      |  O    |       |       |      2.88
19.083    2.89    21.85      3.279  |I      |  O    |       |       |      2.81
19.167    3.45    21.35      3.152  |I      |  O    |       |       |      2.73
19.250    3.58    20.87      3.031  |I      | O     |       |       |      2.66
19.333    3.98    20.41      2.915  | I     | O     |       |       |      2.59
19.417    4.62    19.97      2.805  | I     | O     |       |       |      2.53
19.500    4.80    19.56      2.701  | I     | O     |       |       |      2.47
19.583    4.55    19.16      2.600  | I     |O      |       |       |      2.41
19.667    3.99    18.76      2.499  | I     |O      |       |       |      2.35
19.750    3.85    18.36      2.398  |I      |O      |       |       |      2.29
19.833    3.46    17.96      2.298  |I      |O      |       |       |      2.23
19.917    2.82    17.56      2.198  |I      |O      |       |       |      2.17
20.000    2.64    17.16      2.097  |I      O       |       |       |      2.12
20.083    2.89    16.77      1.999  |I      O       |       |       |      2.06
20.167    3.45    16.41      1.907  |I      O       |       |       |      2.00
20.250    3.58    15.98      1.819  |I      O       |       |       |      1.94
20.333    3.64    15.56      1.736  |I      O       |       |       |      1.87
20.417    3.68    15.16      1.655  |I     O|       |       |       |      1.81
20.500    3.70    14.77      1.577  |I     O|       |       |       |      1.75
20.583    3.72    14.40      1.502  |I     O|       |       |       |      1.69
20.667    3.72    14.04      1.430  |I     O|       |       |       |      1.63
20.750    3.72    13.69      1.360  |I     O|       |       |       |      1.58
20.833    3.39    13.35      1.292  |I    O |       |       |       |      1.52
20.917    2.78    13.00      1.222  |I    O |       |       |       |      1.47
21.000    2.63    12.65      1.152  |I    O |       |       |       |      1.42
21.083    2.89    12.32      1.085  |I    O |       |       |       |      1.36
21.167    3.45    12.01      1.023  |I    O |       |       |       |      1.32
21.250    3.58    11.72      0.966  |I    O |       |       |       |      1.27
21.333    3.31    11.44      0.910  |I   O  |       |       |       |      1.23
21.417    2.75    11.16      0.853  |I   O  |       |       |       |      1.18
21.500    2.61    10.87      0.795  |I   O  |       |       |       |      1.14
21.583    2.89    10.60      0.740  |I   O  |       |       |       |      1.09
21.667    3.45    10.35      0.690  |I   O  |       |       |       |      1.05
21.750    3.58    10.12      0.644  |I   O  |       |       |       |      1.02
21.833    3.31     9.67      0.599  |I  O   |       |       |       |      0.97
21.917    2.75     8.97      0.556  |I  O   |       |       |       |      0.90
22.000    2.61     8.31      0.515  |I  O   |       |       |       |      0.83
22.083    2.89     7.72      0.479  |I O    |       |       |       |      0.77
22.167    3.45     7.24      0.449  |I O    |       |       |       |      0.72
22.250    3.58     6.85      0.425  |I O    |       |       |       |      0.69
22.333    3.31     6.49      0.403  |I O    |       |       |       |      0.65
22.417    2.75     6.13      0.380  |I O    |       |       |       |      0.61
22.500    2.61     5.77      0.357  |IO     |       |       |       |      0.58
22.583    2.55     5.43      0.337  |IO     |       |       |       |      0.54
22.667    2.51     5.13      0.318  |IO     |       |       |       |      0.51
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22.750	2.49	4.85	0.301	|IO	|	|	|	0.48
22.833	2.48	4.60	0.285	|IO	|	|	|	0.46
22.917	2.48	4.38	0.271	|IO	|	|	|	0.44
23.000	2.48	4.18	0.259	|IO	|	|	|	0.42
23.083	2.48	4.00	0.248	|IO	|	|	|	0.40
23.167	2.48	3.84	0.238	|O	|	|	|	0.38
23.250	2.48	3.70	0.229	|O	|	|	|	0.37
23.333	2.48	3.57	0.221	|O	|	|	|	0.36
23.417	2.48	3.45	0.214	|O	|	|	|	0.35
23.500	2.48	3.35	0.208	|O	|	|	|	0.34
23.583	2.48	3.26	0.202	|O	|	|	|	0.33
23.667	2.48	3.18	0.197	|O	|	|	|	0.32
23.750	2.48	3.10	0.192	|O	|	|	|	0.31
23.833	2.48	3.04	0.188	|O	|	|	|	0.30
23.917	2.48	2.98	0.185	|O	|	|	|	0.30
24.000	2.48	2.93	0.181	|O	|	|	|	0.29
24.083	1.81	2.84	0.176	IO	|	|	|	0.28
24.167	0.61	2.67	0.166	IO	|	|	|	0.27
24.250	0.29	2.44	0.151	IO	|	|	|	0.24
24.333	0.15	2.21	0.137	IO	|	|	|	0.22
24.417	0.07	1.98	0.123	IO	|	|	|	0.20
24.500	0.03	1.78	0.110	O	|	|	|	0.18
24.583	0.00	1.60	0.099	O	|	|	|	0.16
24.667	0.00	1.43	0.088	O	|	|	|	0.14
24.750	0.00	1.28	0.079	O	|	|	|	0.13
24.833	0.00	1.14	0.071	O	|	|	|	0.11
24.917	0.00	1.02	0.063	O	|	|	|	0.10
25.000	0.00	0.91	0.057	O	|	|	|	0.09
25.083	0.00	0.82	0.051	O	|	|	|	0.08
25.167	0.00	0.73	0.045	O	|	|	|	0.07
25.250	0.00	0.66	0.041	O	|	|	|	0.07
25.333	0.00	0.59	0.036	O	|	|	|	0.06
25.417	0.00	0.52	0.033	O	|	|	|	0.05
25.500	0.00	0.47	0.029	O	|	|	|	0.05
25.583	0.00	0.42	0.026	O	|	|	|	0.04
25.667	0.00	0.38	0.023	O	|	|	|	0.04
25.750	0.00	0.34	0.021	O	|	|	|	0.03
25.833	0.00	0.30	0.019	O	|	|	|	0.03
25.917	0.00	0.27	0.017	O	|	|	|	0.03
26.000	0.00	0.24	0.015	O	|	|	|	0.02
26.083	0.00	0.22	0.013	O	|	|	|	0.02
26.167	0.00	0.19	0.012	O	|	|	|	0.02
26.250	0.00	0.17	0.011	O	|	|	|	0.02
26.333	0.00	0.15	0.010	O	|	|	|	0.02
26.417	0.00	0.14	0.009	O	|	|	|	0.01
26.500	0.00	0.12	0.008	O	|	|	|	0.01
26.583	0.00	0.11	0.007	O	|	|	|	0.01
26.667	0.00	0.10	0.006	O	|	|	|	0.01
26.750	0.00	0.09	0.005	O	|	|	|	0.01
26.833	0.00	0.08	0.005	O	|	|	|	0.01
26.917	0.00	0.07	0.004	O	|	|	|	0.01
27.000	0.00	0.06	0.004	O	|	|	|	0.01
27.083	0.00	0.06	0.004	O	|	|	|	0.01
27.167	0.00	0.05	0.003	O	|	|	|	0.01
27.250	0.00	0.05	0.003	O	|	|	|	0.00
27.333	0.00	0.04	0.003	O	|	|	|	0.00
27.417	0.00	0.04	0.002	O	|	|	|	0.00
27.500	0.00	0.03	0.002	O	|	|	|	0.00
27.583	0.00	0.03	0.002	O	|	|	|	0.00
27.667	0.00	0.03	0.002	O	|	|	|	0.00
27.750	0.00	0.02	0.001	O	|	|	|	0.00
27.833	0.00	0.02	0.001	O	|	|	|	0.00
27.917	0.00	0.02	0.001	O	|	|	|	0.00
28.000	0.00	0.02	0.001	O	|	|	|	0.00
28.083	0.00	0.01	0.001	O	|	|	|	0.00
28.167	0.00	0.01	0.001	O	|	|	|	0.00
28.250	0.00	0.01	0.001	O	|	|	|	0.00
28.333	0.00	0.01	0.001	O	|	|	|	0.00
28.417	0.00	0.01	0.001	O	|	|	|	0.00

```
**************************HYDROGRAPH DATA**************************
              Number of intervals =   341
              Time interval =    5.0 (Min.)
              Maximum/Peak flow rate =       34.256 (CFS)
              Total volume =      32.449 (Ac.Ft)
       Status of hydrographs being held in storage
                 Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
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Process from Point/Station       11.000 to Point/Station       12.000
**** STREAM ROUTING SCS CONVEX METHOD ****
________________________________________________________________________
HYDROGRAPH STREAM ROUTING DATA:
Length of stream =   2500.00 (Ft.)
Elevation difference =    6.00 (Ft.)
Slope of channel =  0.002400 (Vert/Horiz)
Channel type - Pipe


Pipe length  =  2500.00(Ft.)   Elevation difference =   6.00(Ft.)
Manning's N = 0.013   No. of pipes = 1
Pipe evaluation using mean flow rate of hydrograph
Required pipe flow  =    17.792(CFS)
Nearest computed pipe diameter  =     30.00(In.)
Calculated individual pipe flow  =    17.792(CFS)
Normal flow depth in pipe =   21.94(In.)
Flow top width inside pipe =   26.60(In.)
Critical Depth =    1.43(Ft.)
Pipe flow velocity =      4.62(Ft/s)
Travel time through pipe =    9.01 min.


Pipe length  =  2500.00(Ft.)   Elevation difference =   6.00(Ft.)
Manning's N = 0.013   No. of pipes = 1
Pipe evaluation using maximum flow rate of hydrograph
Required pipe flow  =    34.256(CFS)
Nearest computed pipe diameter  =     36.00(In.)
Calculated individual pipe flow  =    34.256(CFS)
Normal flow depth in pipe =   31.41(In.)
Flow top width inside pipe =   24.02(In.)
Critical Depth =    1.90(Ft.)
Pipe flow velocity =      5.24(Ft/s)
Travel time through pipe =    7.95 min.


********************** SCS CONVEX CHANNEL ROUTING ********************
Convex method of stream routing  data items:
Using equation: Outflow =
O(t+dt) = (1-c*)O(t+dt-dt*) + Input(c*)
          where c* = 1 - (1-c)^e and dt = c(length)/velocity
          c(v/v+1.7) =   0.7550   Travel time =   7.95 (min.)
       dt*(unit time interval) =   5.00(min.),  e=   0.8884
       dt(routing time-step) =   6.01 (min.),   c* =   0.7133

Output hydrograph delayed by 1  unit time increments


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                P R I N T  O F  S T O R M
             R u n o f f     H y d r o g r a p h
------------------------------------------------------------------------
           Hydrograph in   5   Minute intervals (CFS)

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Time(h+m)	Out = O(CFS)	In = I	0	8.6	17.1	25.7	34.3
0+ 5	0.0000	0.04	O				
0+10	0.0042	0.16	O				
0+15	0.0417	0.36	O				
0+20	0.1528	0.58	O				
0+25	0.3269	0.83	O				
0+30	0.5362	1.11	OI				
0+35	0.7805	1.37	OI				
0+40	1.0449	1.61	O				
0+45	1.3049	1.83	OI				
0+50	1.5490	2.05	OI				
0+55	1.7749	2.29	O				
1+ 0	1.9966	2.54	O				
1+ 5	2.2350	2.77	OI				
1+10	2.4829	2.93	OI				
1+15	2.7063	3.03	O				
1+20	2.8765	3.11	O				
1+25	2.9972	3.18	O				
1+30	3.0895	3.24	O				
1+35	3.1641	3.29	O				
1+40	3.2264	3.34	O				
1+45	3.2798	3.38	O				
1+50	3.3263	3.43	OI				
1+55	3.3698	3.53	OI				
2+ 0	3.4254	3.65	OI				
2+ 5	3.5140	3.78	O				
2+10	3.6295	3.90	O				
2+15	3.7512	4.01	O				
2+20	3.8692	4.11	O				
2+25	3.9795	4.20	O				
2+30	4.0808	4.28	O				
2+35	4.1726	4.37	OI				
2+40	4.2571	4.49	OI				
2+45	4.3497	4.65	O				
2+50	4.4714	4.80	O				
2+55	4.6166	4.94	O				
3+ 0	4.7648	5.07	O				
3+ 5	4.9066	5.19	OI				
3+10	5.0381	5.30	OI				
3+15	5.1584	5.39	O				
3+20	5.2672	5.47	O				
3+25	5.3649	5.55	O				
3+30	5.4524	5.62	O				
3+35	5.5307	5.68	O				
3+40	5.6008	5.73	O				
3+45	5.6635	5.78	O				
3+50	5.7196	5.84	O				
3+55	5.7719	5.95	O				
4+ 0	5.8356	6.08	OI				
4+ 5	5.9313	6.21	OI				
4+10	6.0533	6.33	O				
4+15	6.1807	6.45	O				
4+20	6.3039	6.57	O				
4+25	6.4210	6.73	O				
4+30	6.5451	6.91	OI				
4+35	6.6961	7.08	OI				
4+40	6.8679	7.24	O				
4+45	7.0400	7.39	O				
4+50	7.2032	7.54	O				
4+55	7.3560	7.73	OI				
5+ 0	7.5122	7.94	OI				
5+ 5	7.6919	8.10	OI				
5+10	7.8851	8.15	O				
5+15	8.0427	8.12	O				
5+20	8.1153	8.09	O				
5+25	8.1144	8.10	O				
5+30	8.0964	8.14	O				
5+35	8.1021	8.20	O				
5+40	8.1364	8.31	O				

5+45	8.1972	8.46	|	O|	|	|
5+50	8.2972	8.60	|	OI	|	|
5+55	8.4272	8.73	|	OI	|	|
6+ 0	8.5641	8.85	|	O	|	|
6+ 5	8.6969	8.98	|	O	|	|
6+10	8.8228	9.15	|	O	|	|
6+15	8.9550	9.33	|	O	|	|
6+20	9.1133	9.51	|	OI	|	|
6+25	9.2915	9.68	|	OI	|	|
6+30	9.4694	9.83	|	|O	|	|
6+35	9.6378	9.99	|	|O	|	|
6+40	9.7952	10.06	|	|O	|	|
6+45	9.9411	10.13	|	|O	|	|
6+50	10.0323	10.20	|	|O	|	|
6+55	10.1094	10.27	|	|O	|	|
7+ 0	10.1833	10.34	|	|OI	|	|
7+ 5	10.2557	10.41	|	|OI	|	|
7+10	10.3267	10.48	|	| O	|	|
7+15	10.3960	10.54	|	| O	|	|
7+20	10.4633	10.61	|	| O	|	|
7+25	10.5291	10.70	|	| O	|	|
7+30	10.5986	10.79	|	| O	|	|
7+35	10.6794	10.90	|	| O	|	|
7+40	10.7718	11.03	|	| O	|	|
7+45	10.8770	11.18	|	| OI	|	|
7+50	11.0030	11.34	|	| OI	|	|
7+55	11.1474	11.53	|	| O	|	|
8+ 0	11.3073	11.73	|	| O	|	|
8+ 5	11.4881	11.95	|	| O	|	|
8+10	11.6877	12.23	|	| OI	|	|
8+15	11.9101	12.53	|	| OI	|	|
8+20	12.1716	12.84	|	| O	|	|
8+25	12.4658	13.15	|	| OI	|	|
8+30	12.7716	13.45	|	| OI	|	|
8+35	13.0783	13.76	|	| OI	|	|
8+40	13.3822	14.08	|	| OI	|	|
8+45	13.6884	14.41	|	| OI	|	|
8+50	14.0068	14.75	|	| OI	|	|
8+55	14.3358	15.11	|	| OI	|	|
9+ 0	14.6733	15.47	|	| OI	|	|
9+ 5	15.0254	15.85	|	| OI	|	|
9+10	15.3903	16.28	|	| O I|	|	|
9+15	15.7723	16.66	|	| OI|	|	|
9+20	16.1796	17.03	|	| OI|	|	|
9+25	16.5685	17.42	|	| OI	|	|
9+30	16.9471	17.82	|	| OI	|	|
9+35	17.3336	18.22	|	| OI	|	|
9+40	17.7287	18.64	|	| OI	|	|
9+45	18.1302	19.06	|	| |OI	|	|
9+50	18.5425	19.49	|	| |OI	|	|
9+55	18.9626	19.92	|	| | OI	|	|
10+ 0	19.3880	20.37	|	| | OI	|	|
10+ 5	19.8232	20.76	|	| | OI	|	|
10+10	20.2587	21.00	|	| | OI	|	|
10+15	20.6431	21.12	|	| | O	|	|
10+20	20.9102	21.20	|	| | O	|	|
10+25	21.0679	21.27	|	| | O	|	|
10+30	21.1705	21.32	|	| | O	|	|
10+35	21.2452	21.41	|	| | O	|	|
10+40	21.3096	21.59	|	| | OI	|	|
10+45	21.4007	21.85	|	| | OI	|	|
10+50	21.5670	22.13	|	| | O	|	|
10+55	21.8039	22.42	|	| | OI	|	|
11+ 0	22.0729	22.71	|	| | OI	|	|
11+ 5	22.3544	22.98	|	| | O	|	|
11+10	22.6380	23.21	|	| | OI	|	|
11+15	22.9103	23.35	|	| | OI	|	|
11+20	23.1394	23.48	|	| | O	|	|
11+25	23.3041	23.61	|	| | O	|	|
11+30	23.4470	23.74	|	| | O	|	|

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11+35      23.5815     23.86  |         |         |      O  |         |
11+40      23.7109     23.95  |         |         |      O  |         |
11+45      23.8292     24.02  |         |         |      OI |         |
11+50      23.9261     24.09  |         |         |      OI |         |
11+55      24.0041     24.17  |         |         |       O |         |
12+ 0      24.0763     24.25  |         |         |       O |         |
12+ 5      24.1530     24.37  |         |         |       O |         |
12+10      24.2394     24.58  |         |         |       O |         |
12+15      24.3580     24.85  |         |         |       OI|         |
12+20      24.5453     25.14  |         |         |       OI|         |
12+25      24.7957     25.45  |         |         |       OI|         |
12+30      25.0797     25.78  |         |         |        OI         |
12+35      25.3856     26.11  |         |         |        OI         |
12+40      25.7056     26.47  |         |         |         O         |
12+45      26.0386     26.84  |         |         |         OI        |
12+50      26.3905     27.22  |         |         |         OI        |
12+55      26.7577     27.61  |         |         |         |OI       |
13+ 0      27.1337     28.00  |         |         |         |OI       |
13+ 5      27.5187     28.41  |         |         |         | OI      |
13+10      27.9111     28.78  |         |         |         | OI      |
13+15      28.3084     29.19  |         |         |         |  OI     |
13+20      28.6936     29.61  |         |         |         |  OI     |
13+25      29.0977     30.03  |         |         |         |  O I    |
13+30      29.5117     30.44  |         |         |         |   OI    |
13+35      29.9290     30.82  |         |         |         |   OI    |
13+40      30.3411     31.08  |         |         |         |    OI   |
13+45      30.7135     31.25  |         |         |         |    OI   |
13+50      30.9973     31.40  |         |         |         |     O   |
13+55      31.1980     31.53  |         |         |         |     O   |
14+ 0      31.3563     31.65  |         |         |         |     O   |
14+ 5      31.4929     31.78  |         |         |         |     OI  |
14+10      31.6192     31.94  |         |         |         |     OI  |
14+15      31.7522     32.14  |         |         |         |      O  |
14+20      31.9123     32.34  |         |         |         |      O  |
14+25      32.0986     32.53  |         |         |         |      O  |
14+30      32.2940     32.72  |         |         |         |      OI |
14+35      32.4866     32.88  |         |         |         |      OI |
14+40      32.6707     33.03  |         |         |         |       O |
14+45      32.8352     33.17  |         |         |         |       O |
14+50      32.9885     33.32  |         |         |         |       O |
14+55      33.1369     33.45  |         |         |         |       OI|
15+ 0      33.2802     33.57  |         |         |         |       OI|
15+ 5      33.4153     33.69  |         |         |         |        O|
15+10      33.5428     33.80  |         |         |         |        O|
15+15      33.6634     33.90  |         |         |         |        O|
15+20      33.7750     34.00  |         |         |         |        O|
15+25      33.8785     34.08  |         |         |         |        O|
15+30      33.9750     34.16  |         |         |         |        O|
15+35      34.0625     34.23  |         |         |         |        O|
15+40      34.1411     34.25  |         |         |         |        O|
15+45      34.2045     34.26  |         |         |         |        OI
15+50      34.2401     34.25  |         |         |         |        O|
15+55      34.2506     34.24  |         |         |         |        O|
16+ 0      34.2487     34.23  |         |         |         |        O|
16+ 5      34.2409     34.17  |         |         |         |        O|
16+10      34.2253     34.01  |         |         |         |        O|
16+15      34.1691     33.75  |         |         |         |        O|
16+20      34.0226     33.46  |         |         |         |        O|
16+25      33.7928     33.17  |         |         |         |       IO|
16+30      33.5229     32.87  |         |         |         |       IO|
16+35      33.2346     32.53  |         |         |         |      IO |
16+40      32.9334     32.16  |         |         |         |      IO |
16+45      32.6000     31.79  |         |         |         |      IO |
16+50      32.2416     31.43  |         |         |         |     IO  |
16+55      31.8765     31.06  |         |         |         |     IO  |
17+ 0      31.5118     30.71  |         |         |         |    IO   |
17+ 5      31.1501     30.36  |         |         |         |    IO   |
17+10      30.7930     30.03  |         |         |         |    O    |
17+15      30.4443     29.71  |         |         |         |   IO    |
17+20      30.1097     29.40  |         |         |         |   IO    |
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17+25      29.7884     29.10  |         |         |         |  IO     |
17+30      29.4758     28.80  |         |         |         |  IO     |
17+35      29.1696     28.50  |         |         |         |  IO     |
17+40      28.8686     28.17  |         |         |         | IO      |
17+45      28.5671     27.81  |         |         |         | IO      |
17+50      28.2400     27.45  |         |         |         | O       |
17+55      27.8889     27.09  |         |         |         |IO       |
18+ 0      27.5326     26.73  |         |         |         |IO       |
18+ 5      27.1737     26.37  |         |         |         IO        |
18+10      26.8143     26.02  |         |         |         IO        |
18+15      26.4578     25.68  |         |         |        IO         |
18+20      26.1057     25.34  |         |         |        IO         |
18+25      25.7586     25.00  |         |         |        IO         |
18+30      25.4168     24.67  |         |         |       IO|         |
18+35      25.0804     24.34  |         |         |       IO|         |
18+40      24.7492     24.01  |         |         |       O |         |
18+45      24.4208     23.68  |         |         |      IO |         |
18+50      24.0917     23.36  |         |         |      IO |         |
18+55      23.7621     22.93  |         |         |     IO  |         |
19+ 0      23.4211     22.38  |         |         |     IO  |         |
19+ 5      23.0049     21.85  |         |         |    IO   |         |
19+10      22.4988     21.35  |         |         |   I O   |         |
19+15      21.9791     20.87  |         |         |   IO    |         |
19+20      21.4732     20.41  |         |         |  I O    |         |
19+25      20.9874     19.97  |         |         |  IO     |         |
19+30      20.5224     19.56  |         |         | IO      |         |
19+35      20.0818     19.16  |         |         | IO      |         |
19+40      19.6629     18.76  |         |         |IO       |         |
19+45      19.2563     18.36  |         |         |IO       |         |
19+50      18.8533     17.96  |         |         I O       |         |
19+55      18.4527     17.56  |         |         IO        |         |
20+ 0      18.0545     17.16  |         |         IO        |         |
20+ 5      17.6551     16.77  |         |        IO         |         |
20+10      17.2566     16.41  |         |        IO         |         |
20+15      16.8678     15.98  |         |       IO|         |         |
20+20      16.4872     15.56  |         |       IO|         |         |
20+25      16.0737     15.16  |         |      IO |         |         |
20+30      15.6595     14.77  |         |      IO |         |         |
20+35      15.2560     14.40  |         |     IO  |         |         |
20+40      14.8660     14.04  |         |     IO  |         |         |
20+45      14.4894     13.69  |         |    IO   |         |         |
20+50      14.1258     13.35  |         |    IO   |         |         |
20+55      13.7739     13.00  |         |    IO   |         |         |
21+ 0      13.4284     12.65  |         |   IO    |         |         |
21+ 5      13.0822     12.32  |         |   IO    |         |         |
21+10      12.7367     12.01  |         |   O     |         |         |
21+15      12.4024     11.72  |         |  IO     |         |         |
21+20      12.0888     11.44  |         |  IO     |         |         |
21+25      11.7953     11.16  |         |  O      |         |         |
21+30      11.5114     10.87  |         | IO      |         |         |
21+35      11.2271     10.60  |         | IO      |         |         |
21+40      10.9429     10.35  |         | O       |         |         |
21+45      10.6686     10.12  |         |IO       |         |         |
21+50      10.4135      9.67  |         |IO       |         |         |
21+55      10.1496      8.97  |         IO        |         |         |
22+ 0       9.7232      8.31  |        I|O        |         |         |
22+ 5       9.1069      7.72  |        IO         |         |         |
22+10       8.4673      7.24  |       IO|         |         |         |
22+15       7.8792      6.85  |       IO|         |         |         |
22+20       7.3790      6.49  |      IO |         |         |         |
22+25       6.9599      6.13  |      IO |         |         |         |
22+30       6.5835      5.77  |     IO  |         |         |         |
22+35       6.2157      5.43  |     IO  |         |         |         |
22+40       5.8548      5.13  |    IO   |         |         |         |
22+45       5.5160      4.85  |    IO   |         |         |         |
22+50       5.2048      4.60  |    IO   |         |         |         |
22+55       4.9220      4.38  |    O    |         |         |         |
23+ 0       4.6664      4.18  |   IO    |         |         |         |
23+ 5       4.4367      4.00  |   IO    |         |         |         |
23+10       4.2307      3.84  |   O     |         |         |         |
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   23+15       4.0464      3.70  |   O     |         |         |         |
   23+20       3.8814      3.57  |   O     |         |         |         |
   23+25       3.7338      3.45  |   O     |         |         |         |
   23+30       3.6017      3.35  |  IO     |         |         |         |
   23+35       3.4835      3.26  |  IO     |         |         |         |
   23+40       3.3778      3.18  |  O      |         |         |         |
   23+45       3.2832      3.10  |  O      |         |         |         |
   23+50       3.1985      3.04  |  O      |         |         |         |
   23+55       3.1227      2.98  |  O      |         |         |         |
   24+ 0       3.0550      2.93  |  O      |         |         |         |
   24+ 5       2.9943      2.84  |  O      |         |         |         |
   24+10       2.9359      2.67  |  O      |         |         |         |
   24+15       2.8498      2.44  | IO      |         |         |         |
   24+20       2.6953      2.21  | IO      |         |         |         |
   24+25       2.4844      1.98  | O       |         |         |         |
   24+30       2.2590      1.78  | O       |         |         |         |
   24+35       2.0392      1.60  |IO       |         |         |         |
   24+40       1.8329      1.43  |IO       |         |         |         |
   24+45       1.6433      1.28  |O        |         |         |         |
   24+50       1.4713      1.14  |O        |         |         |         |
   24+55       1.3167      1.02  |O        |         |         |         |
   25+ 0       1.1782      0.91  |O        |         |         |         |
   25+ 5       1.0543      0.82  IO        |         |         |         |
   25+10       0.9433      0.73  IO        |         |         |         |
   25+15       0.8440      0.66  O         |         |         |         |
   25+20       0.7552      0.59  O         |         |         |         |
   25+25       0.6757      0.52  O         |         |         |         |
   25+30       0.6046      0.47  O         |         |         |         |
   25+35       0.5410      0.42  O         |         |         |         |
   25+40       0.4841      0.38  O         |         |         |         |
   25+45       0.4331      0.34  O         |         |         |         |
   25+50       0.3875      0.30  O         |         |         |         |
   25+55       0.3468      0.27  O         |         |         |         |
   26+ 0       0.3103      0.24  O         |         |         |         |
   26+ 5       0.2776      0.22  O         |         |         |         |
   26+10       0.2484      0.19  O         |         |         |         |
   26+15       0.2223      0.17  O         |         |         |         |
   26+20       0.1989      0.15  O         |         |         |         |
   26+25       0.1779      0.14  O         |         |         |         |
   26+30       0.1592      0.12  O         |         |         |         |
   26+35       0.1425      0.11  O         |         |         |         |
   26+40       0.1275      0.10  O         |         |         |         |
   26+45       0.1141      0.09  O         |         |         |         |
   26+50       0.1021      0.08  O         |         |         |         |
   26+55       0.0913      0.07  O         |         |         |         |
   27+ 0       0.0817      0.06  O         |         |         |         |
   27+ 5       0.0731      0.06  O         |         |         |         |
   27+10       0.0654      0.05  O         |         |         |         |
   27+15       0.0585      0.05  O         |         |         |         |
   27+20       0.0524      0.04  O         |         |         |         |
   27+25       0.0469      0.04  O         |         |         |         |
   27+30       0.0419      0.03  O         |         |         |         |
   27+35       0.0375      0.03  O         |         |         |         |
   27+40       0.0336      0.03  O         |         |         |         |
   27+45       0.0300      0.02  O         |         |         |         |
   27+50       0.0269      0.02  O         |         |         |         |
   27+55       0.0240      0.02  O         |         |         |         |
   28+ 0       0.0215      0.02  O         |         |         |         |
   28+ 5       0.0193      0.01  O         |         |         |         |
   28+10       0.0172      0.01  O         |         |         |         |
   28+15       0.0154      0.01  O         |         |         |         |
   28+20       0.0138      0.01  O         |         |         |         |
   28+25       0.0123      0.01  O         |         |         |         |
   28+30       0.0110      0.00  O         |         |         |         |
   28+35       0.0089      0.00  O         |         |         |         |
   28+40       0.0025      0.00  O         |         |         |         |
--------------------------------------------------------------------------
      ****************************HYDROGRAPH DATA****************************
                    Number of intervals =   344
                    Time interval =    5.0 (Min.)
```

```
              Maximum/Peak flow rate =       34.251 (CFS)
              Total volume =      32.449 (Ac.Ft)
       Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
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+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       12.000 to Point/Station       13.000
**** STORE OR DELETE CURRENT HYDROGRAPH ****
_______________________________________________________________________________
Current stream hydrograph saved in file lgb1out24100.rte
*****************************HYDROGRAPH DATA*****************************
              Number of intervals =     0
              Time interval =    0.0 (Min.)
              Maximum/Peak flow rate =        0.000 (CFS)
              Total volume =       0.000 (Ac.Ft)
       Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
*******************************************************************************

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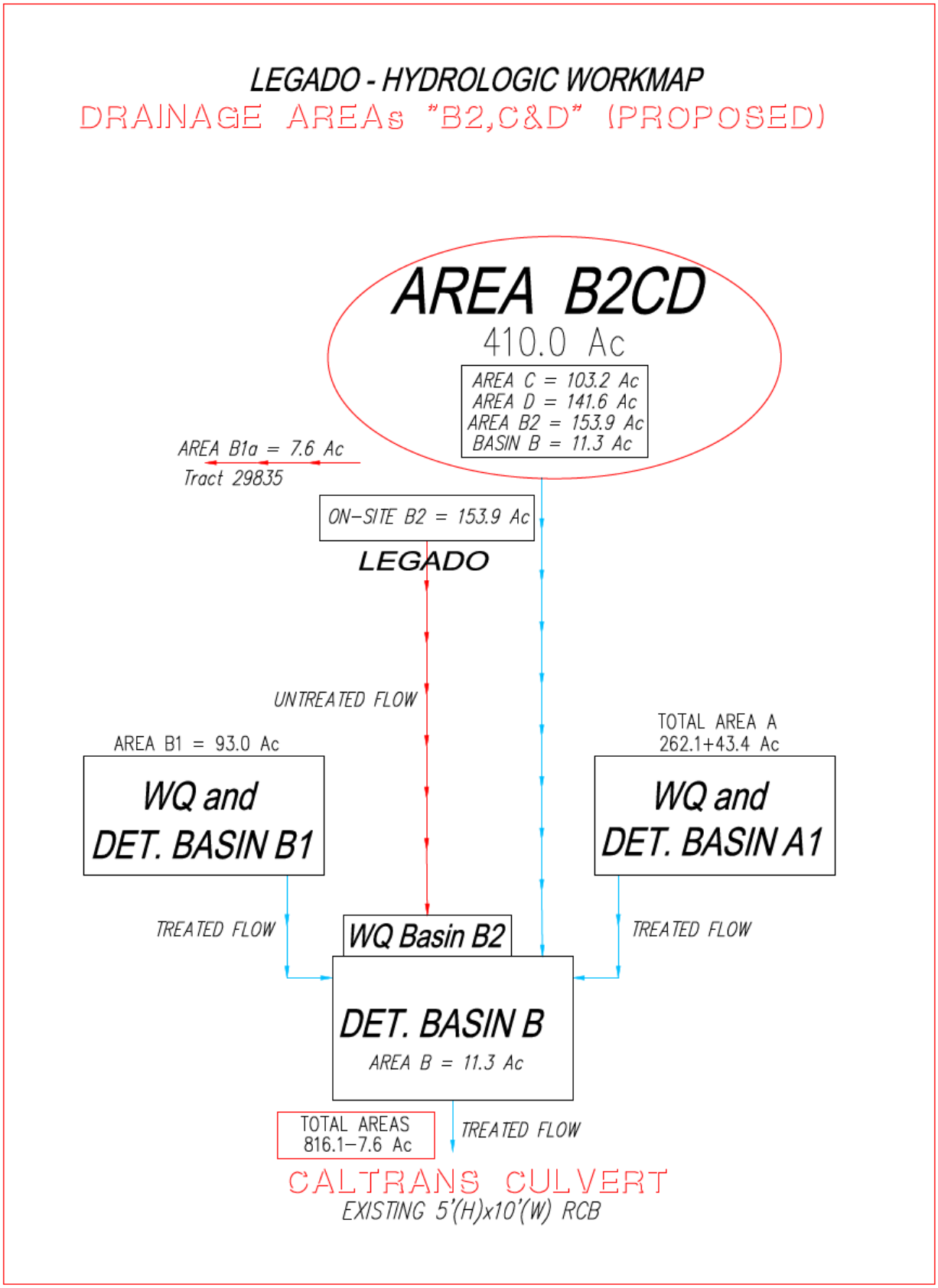
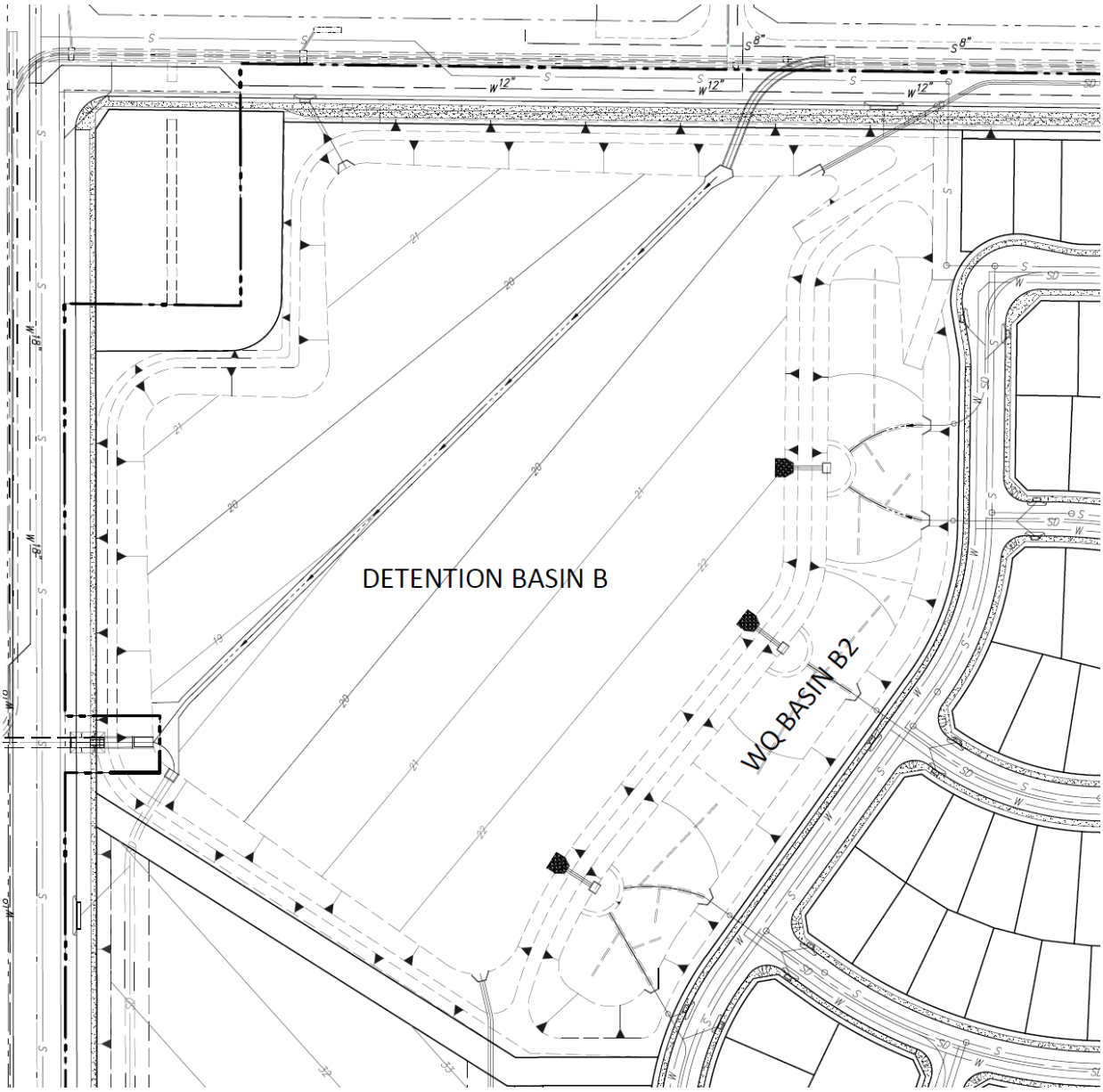

LEGADO - HYDROLOGIC WORKMAP
DRAINAGE AREAs "B2,C&D" (PROPOSED)
AREA B2CD
410.0 Ac
AREA C = 103.2 Ac
AREA D = 141.6 Ac
AREA B2 = 153.9 Ac
BASIN B = 11.3 Ac
AREA B1a = 7.6 Ac
Tract 29835
ON-SITE B2 = 153.9 Ac
LEGADO
UNTREATED FLOW
AREA B1 = 93.0 Ac
WQ and DET. BASIN B1
TOTAL AREA A
262.1+43.4 Ac
WQ and DET. BASIN A1
TREATED FLOW
WQ Basin B2
TREATED FLOW
DET. BASIN B
AREA B = 11.3 Ac
TOTAL AREAS
816.1-7.6 Ac
TREATED FLOW
CALTRANS CULVERT
EXISTING 5'(H)x10'(W) RCB


DETENTION BASIN B
WQ BASIN B2

Detention Basin B2

Basin Volume

Depth	Elev. (ft)	Area (sf)	Vol. inc. (cf)	Vol. Accum. (cf)	Vol. Accum. (Acft)
0	1418.5	0			
0.5	1419	11653	2913	2913	**0.07**
1.5	1420	154524	83089	86002	**1.97**
2.5	1421	307890	231207	317209	**7.28**
3.5	1422	411687	359788	676997	**15.54**
4.5	1423	443088	427388	1104385	**25.35**
5.5	1424	452493	447790	1552175	**35.63**
6.5	1425	462085	457289	2009464	**46.13**
7.5	1426	471798	466942	2476406	**56.85**

FLEMING RANCH – Existing 5'(H)x10'(W) Caltrans Culvert with Maximum Tailwater
TW = 20.03, Q=700 cfs, d = 3.91, WSE = 16.12+3.91 = 20.03'

Solve For: Headwater Elevation

Culvert Summary					
Allowable HW Elevation	0.00	ft	Headwater Depth/Height	1.22	
Computed Headwater Elevation	24.58	ft	Discharge	400.00	cfs
Inlet Control HW Elev.	24.35	ft	Tailwater Elevation	20.03	ft
Outlet Control HW Elev.	24.58	ft	Control Type	Outlet Control	

Grades					
Upstream Invert	18.50	ft	Downstream Invert	17.34	ft
Length	770.00	ft	Constructed Slope	0.001506	ft/ft

Hydraulic Profile					
Profile	M2		Depth, Downstream	3.68	ft
Slope Type	Mild		Normal Depth	N/A	ft
Flow Regime	Subcritical		Critical Depth	3.68	ft
Velocity Downstream	10.88	ft/s	Critical Slope	0.003327	ft/ft

Section					
Section Shape	Box		Mannings Coefficient	0.013	
Section Material	Concrete		Span	10.00	ft
Section Size	10 x 5 ft		Rise	5.00	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	24.58	ft	Upstream Velocity Head	1.10	ft
Ke	0.20		Entrance Loss	0.22	ft

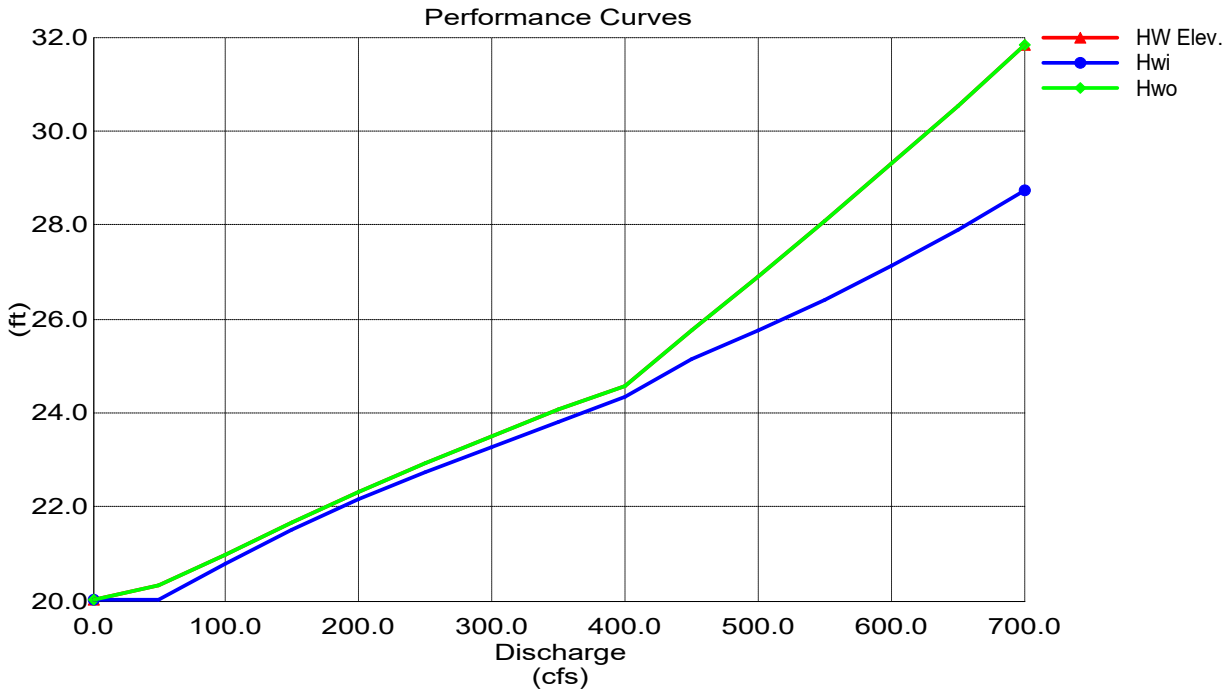
Inlet Control Properties					
Inlet Control HW Elev.	24.35	ft	Flow Control	Transition	
Inlet Type	90° headwall w 45° bevels		Area Full	50.0	ft²
K	0.49500		HDS 5 Chart	10	
M	0.66700		HDS 5 Scale	2	
C	0.03140		Equation Form	2	
Y	0.82000				

Rating Table HW Elevation (with maximum Tailwater):

Range Data:				
	Minimum	Maximum	Increment	
Discharge	0.00	700.00	50.00	cfs

Discharge (cfs)	HW Elev. (ft)	Hwi (ft)	Hwo (ft)	Dn. V (ft/s)	Dn. depth (ft)
0.00	**20.03**	20.03	20.03	0.00	0.00
50.00	**20.32**	20.03	20.32	1.86	2.69
100.00	**20.96**	20.80	20.96	3.72	2.69
150.00	**21.65**	21.51	21.65	5.58	2.69
200.00	**22.31**	22.15	22.31	7.43	2.69
250.00	**22.93**	22.73	22.93	9.29	2.69
300.00	**23.50**	23.28	23.50	9.88	3.04
350.00	**24.06**	23.80	24.06	10.40	3.36
400.00	**24.58**	24.35	24.58	10.88	3.68
450.00	**25.75**	25.14	25.75	11.31	3.98
500.00	**26.92**	25.74	26.92	11.72	4.27
550.00	**28.10**	26.40	28.10	12.10	4.55
600.00	**29.30**	27.12	29.30	12.45	4.82
650.00	**30.53**	27.90	30.53	13.00	5.00
700.00	**31.84**	28.75	31.84	14.00	5.00

Range Data:				
	Minimum	Maximum	Increment	
Discharge	0.00	700.00	50.00	cfs


Performance Curves
HW Elev.
Hwi
Hwo
32.0
30.0
28.0
26.0
24.0
22.0
20.0
(ft)
0.0
100.0
200.0
300.0
400.0
500.0
600.0
700.0
Discharge
(cfs)

FLEMING RANCH – Existing 5'(H)x10'(W) Caltrans Culvert without Tailwater
TW = 17.38, Q=100 cfs, d = 1.26, WSE = 16.12+1.26 = 17.38'

Solve For: Headwater Elevation

Culvert Summary					
Allowable HW Elevation	0.00	ft	Headwater Depth/Height	1.22	
Computed Headwater Elevation	24.58	ft	Discharge	400.00	cfs
Inlet Control HW Elev.	24.35	ft	Tailwater Elevation	17.38	ft
Outlet Control HW Elev.	24.58	ft	Control Type	Outlet Control	

Grades					
Upstream Invert	18.50	ft	Downstream Invert	17.34	ft
Length	770.00	ft	Constructed Slope	0.001506	ft/ft

Hydraulic Profile					
Profile	M2		Depth, Downstream	3.68	ft
Slope Type	Mild		Normal Depth	N/A	ft
Flow Regime	Subcritical		Critical Depth	3.68	ft
Velocity Downstream	10.88	ft/s	Critical Slope	0.003327	ft/ft

Section					
Section Shape	Box		Mannings Coefficient	0.013	
Section Material	Concrete		Span	10.00	ft
Section Size	10 x 5 ft		Rise	5.00	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	24.58	ft	Upstream Velocity Head	1.10	ft
Ke	0.20		Entrance Loss	0.22	ft

Inlet Control Properties					
Inlet Control HW Elev.	24.35	ft	Flow Control	Transition	
Inlet Type	90° headwall w 45° bevels		Area Full	50.0	ft²
K	0.49500		HDS 5 Chart	10	
M	0.66700		HDS 5 Scale	2	
C	0.03140		Equation Form	2	
Y	0.82000				

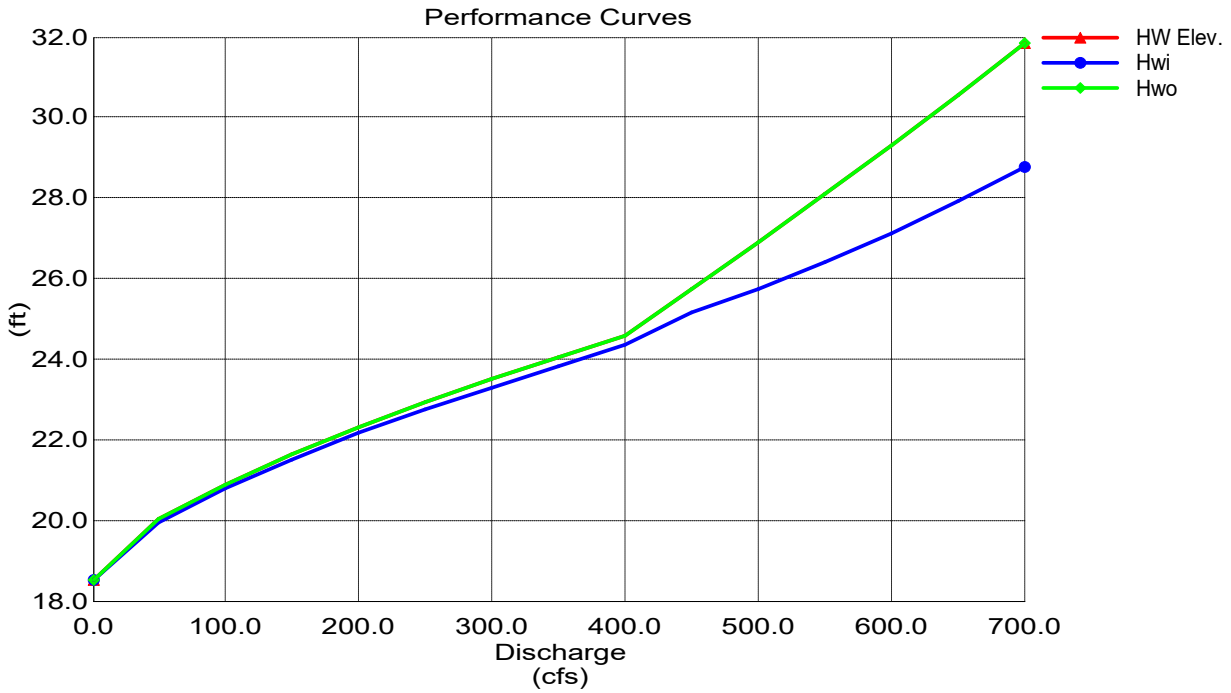
Rating Table HW Elevation:

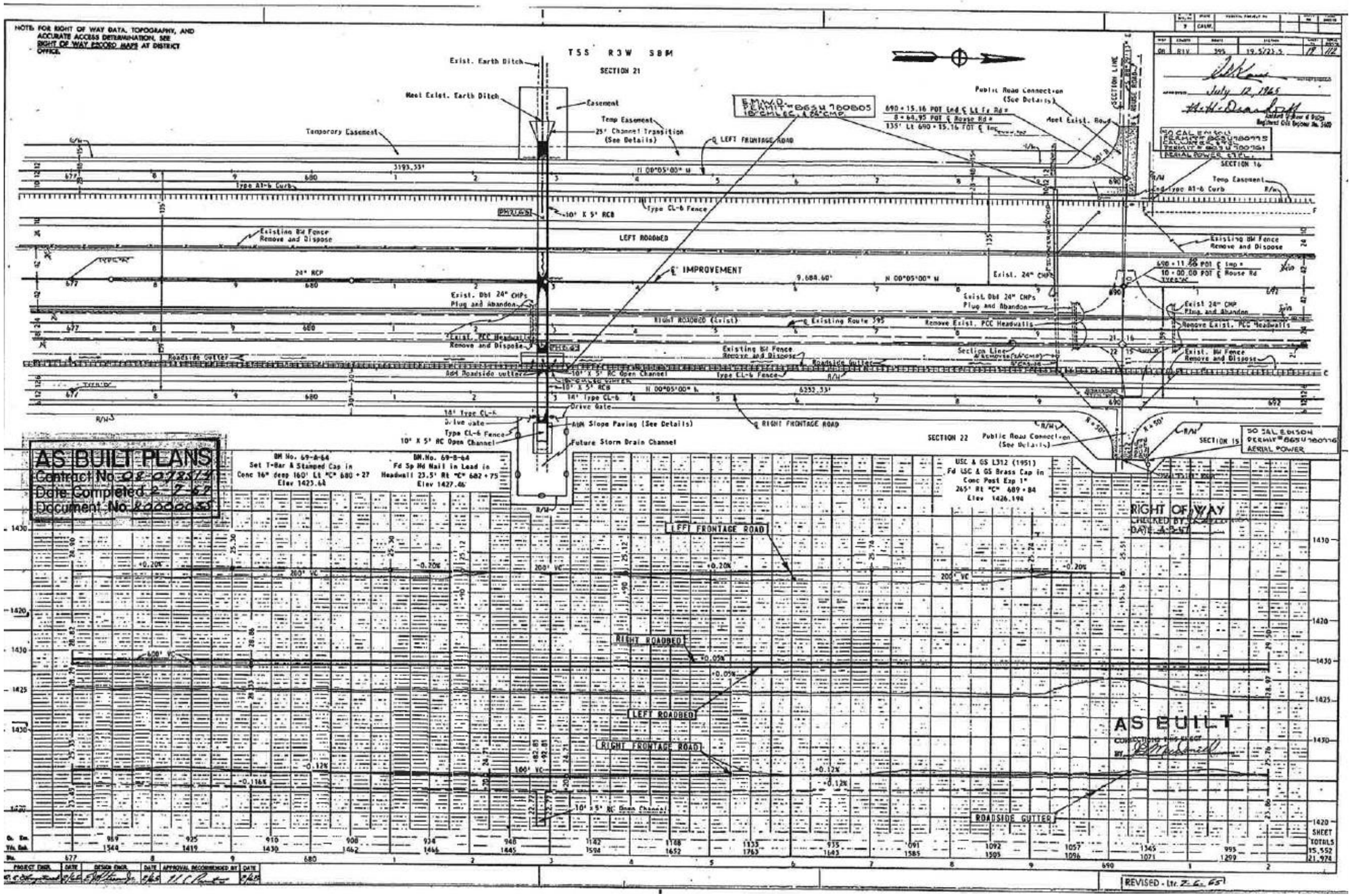
Rating Table HW Elevation (without Tailwater):

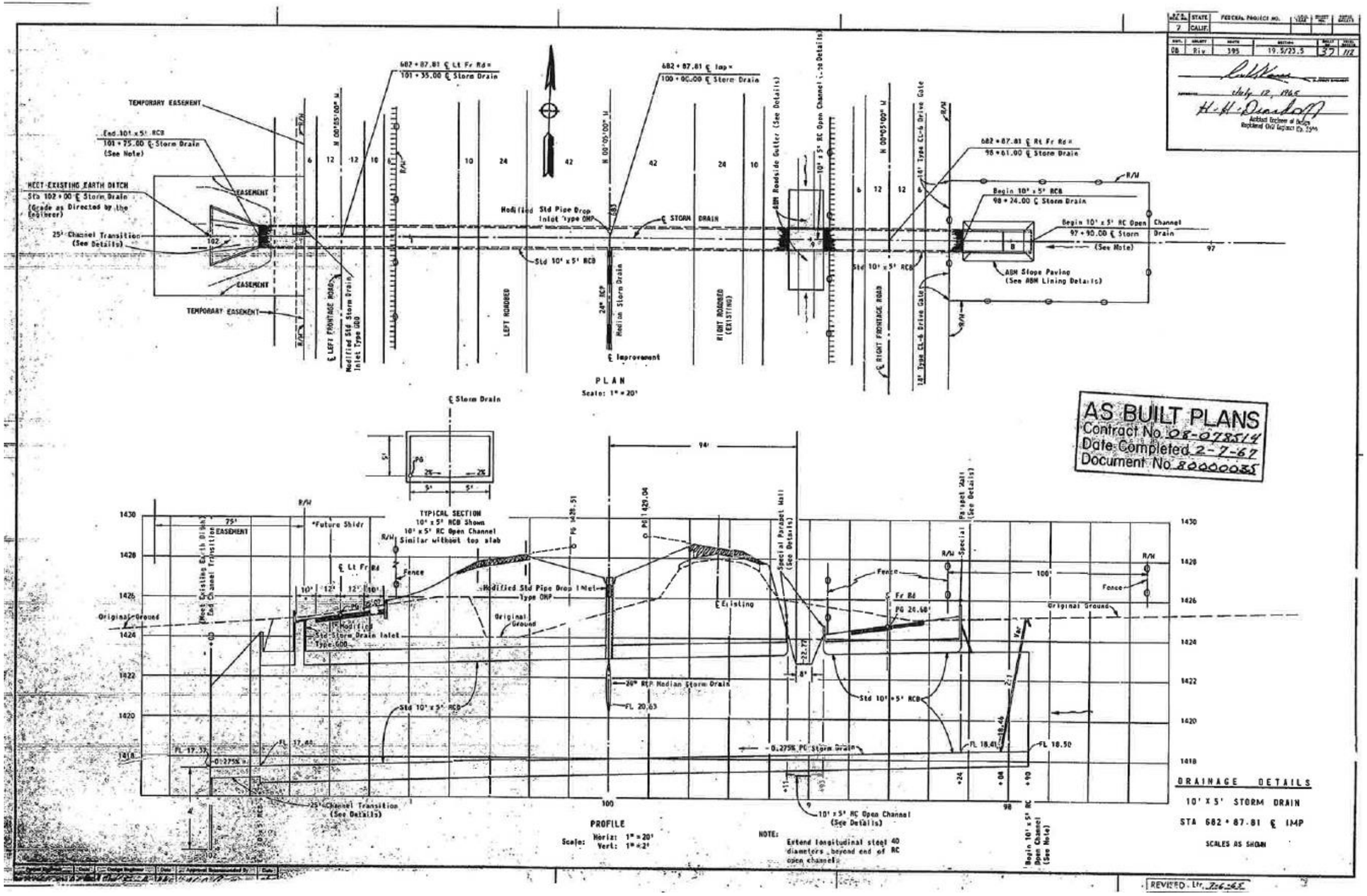
Range Data:				
	Minimum	Maximum	Increment	
Discharge	0.00	700.00	50.00	cfs

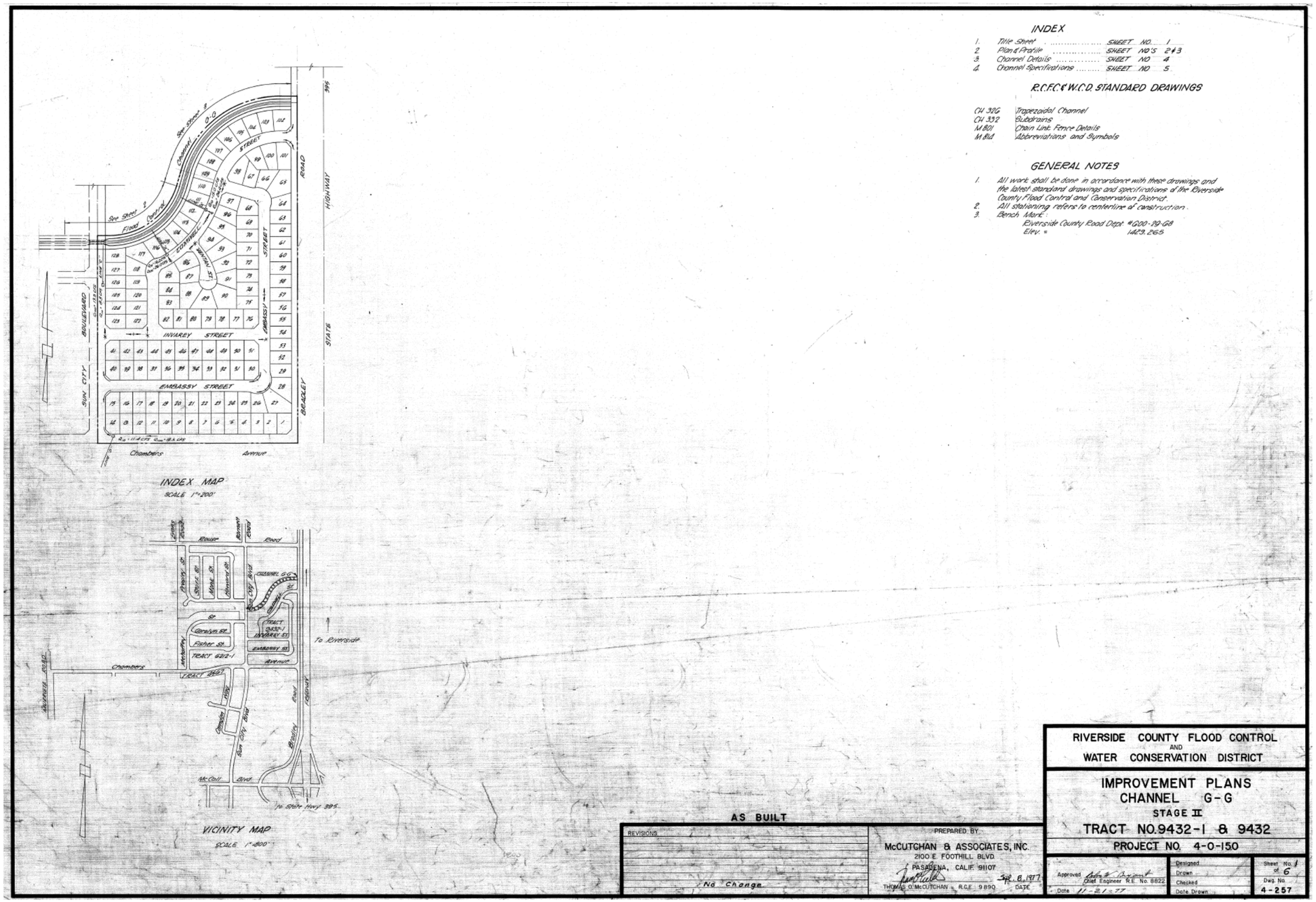
Discharge (cfs)	HW Elev. (ft)	Hwi (ft)	Hwo (ft)	Dn. V (ft/s)	Dn. depth (ft)
0.00	**18.50**	18.50	18.50	0.00	0.00
50.00	**20.01**	19.95	20.01	5.44	0.92
100.00	**20.89**	20.80	20.89	6.85	1.46
150.00	**21.64**	21.51	21.64	7.84	1.91
200.00	**22.31**	22.15	22.31	8.63	2.32
250.00	**22.93**	22.73	22.93	9.30	2.69
300.00	**23.50**	23.28	23.50	9.88	3.04
350.00	**24.06**	23.80	24.06	10.40	3.36
400.00	**24.58**	24.35	24.58	10.88	3.68
450.00	**25.75**	25.14	25.75	11.31	3.98
500.00	**26.92**	25.74	26.92	11.72	4.27
550.00	**28.10**	26.40	28.10	12.10	4.55
600.00	**29.30**	27.12	29.30	12.45	4.82
650.00	**30.53**	27.90	30.53	13.00	5.00
700.00	**31.84**	28.75	31.84	14.00	5.00

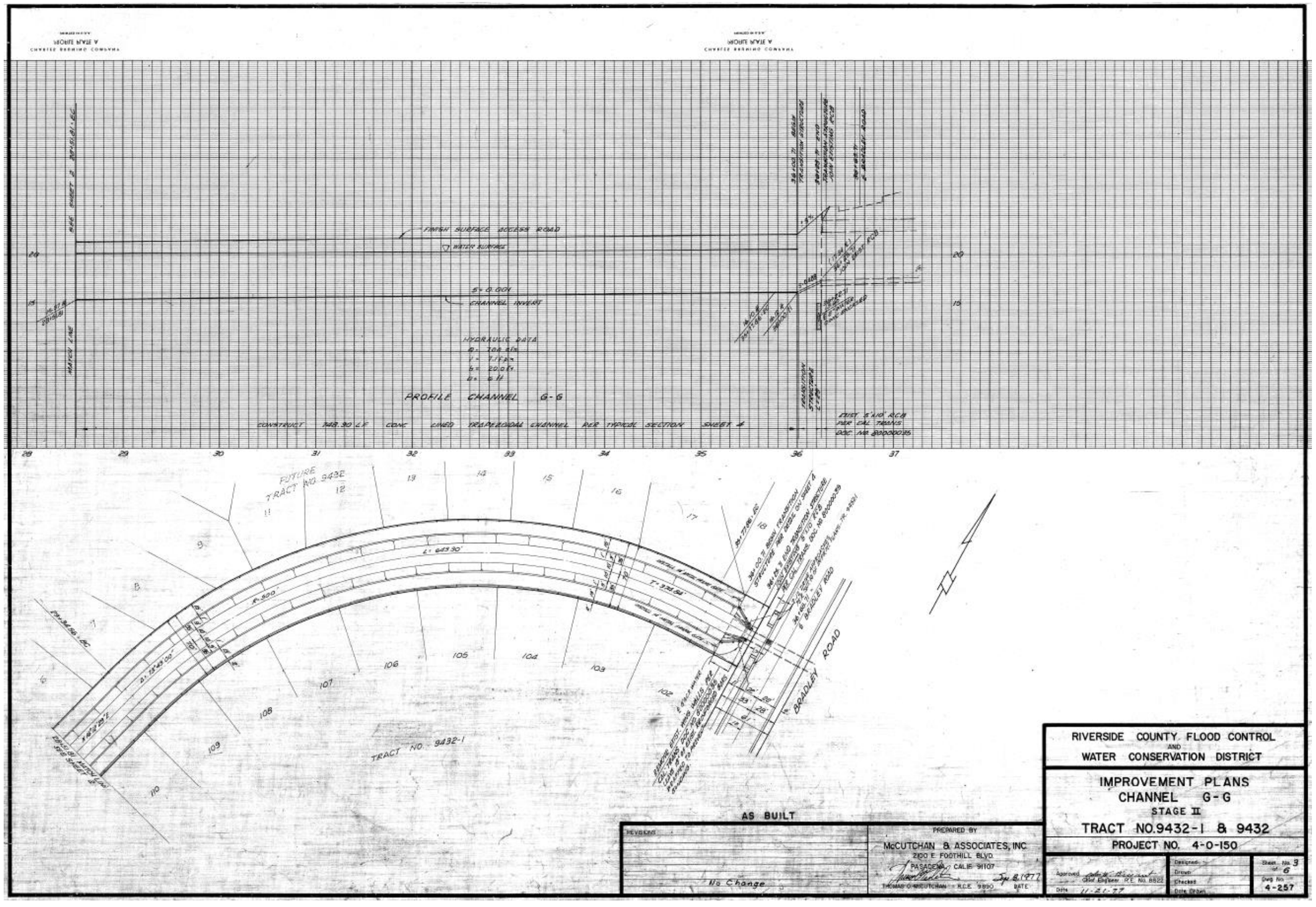
Range Data:				
	Minimum	Maximum	Increment	
Discharge	0.00	700.00	50.00	cfs

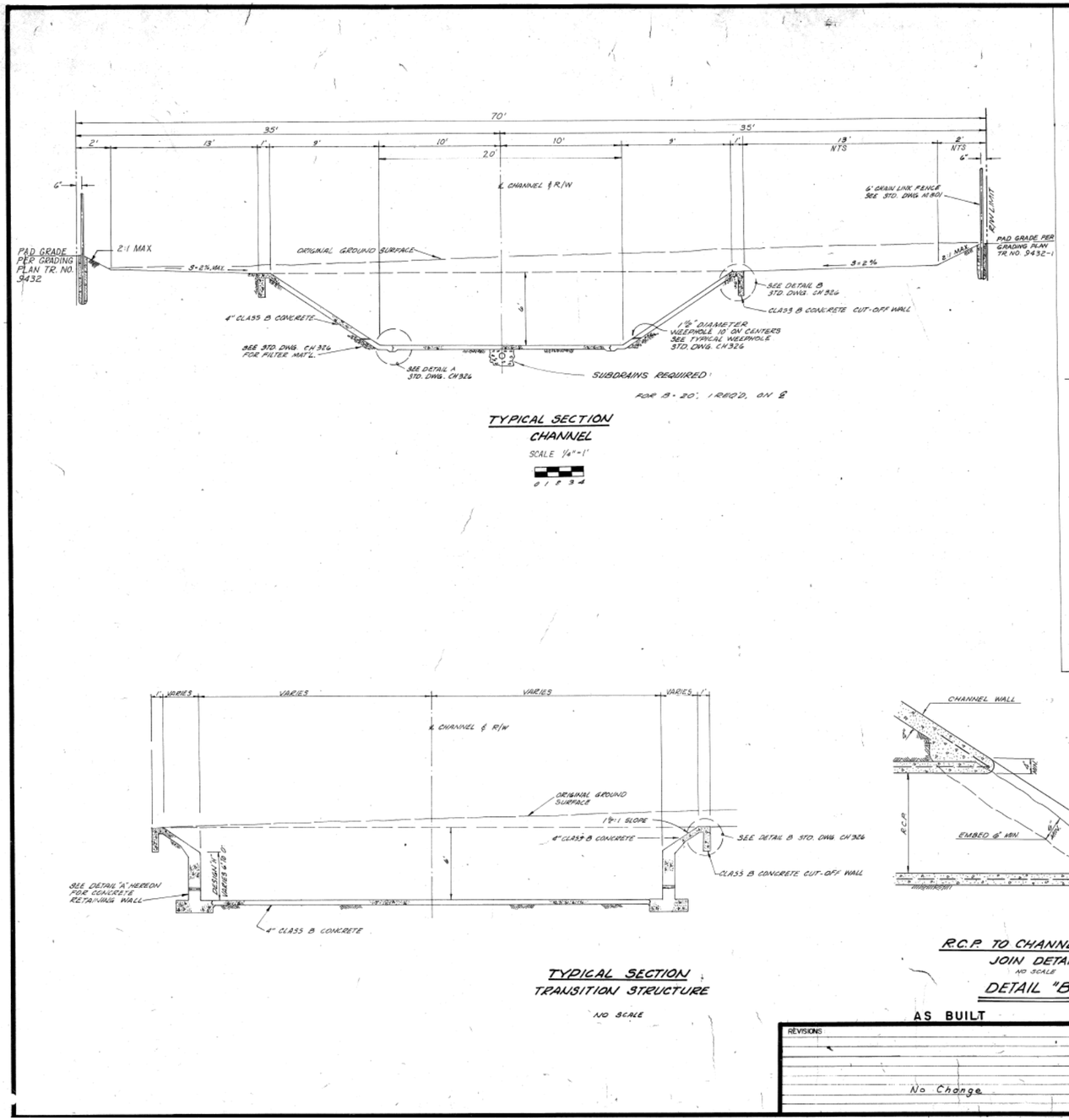

Performance Curves
HW Elev.
Hwi
Hwo
32.0
30.0
28.0
26.0
24.0
22.0
20.0
18.0
(ft)
0.0
100.0
200.0
300.0
400.0
500.0
600.0
700.0
Discharge
(cfs)


NOTE: FOR RIGHT OF WAY DATA, TOPOGRAPHY, AND ACCURATE ACCESS DETERMINATION, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
T5S R3W SBM
SECTION 21
SECTION 22
SECTION 16
SECTION 15
Exist. Earth Ditch
Meet Exist. Earth Ditch
Easement
Temporary Easement
Temp Easement
25' Channel Transition (See Details)
℄ LEFT FRONTAGE ROAD
℄ RIGHT FRONTAGE ROAD
℄ IMPROVEMENT
℄ Existing Route 395
Public Road Connection (See Details)
Meet Exist. Road
Type A1-6 Curb
Type CL-6 Fence
10' X 5' RCB
LEFT ROADBED
RIGHT ROADBED
Existing BW Fence Remove and Dispose
24" RCP
Exist. Dbl 24" CMPs Plug and Abandon
Exist. PCC Headwalls Remove and Dispose
Roadside Gutter
A&M Roadside Gutter
10' X 5' RC Open Channel
14' Type CL-6
Drive Gate
A&M Slope Paving (See Details)
Future Storm Drain Channel
Exist. 24" CMP
Exist. BW Fence Remove and Dispose
Section Line
Exist 24" CMP Plug and Abandon
Remove Exist. PCC Headwalls
9,684.60'
N 00°05'00" W
6252.33'
3193.33'
AS BUILT PLANS
Contract No 08-072874
Date Completed 2-7-67
Document No 80000050
BM No. 69-A-64
Set T-Bar & Stamped Cap in Conc 16" deep 160' Lt "C" 680 + 27
Elev 1423.68
BM.No. 69-B-64
Fd Sp Hd Nail in Lead in Headwall 23.5' Rt "C" 682 + 75
Elev 1427.46
USC & GS L312 (1951)
Fd LSC & GS Brass Cap in Conc Post Exp 1'
265' Rt "C" 689 + 84
Elev 1426.196
RIGHT OF WAY
CHECKED BY
DATE 4-5-67
AS BUILT
CORRECTIONS THIS SHEET
BY
ROADSIDE GUTTER
SHEET TOTALS 15,552 21,975
REVISED - Ltr. 2-6-67
July 12, 1965
SO CAL EDISON
PERMIT 86SU780776
AERIAL POWER

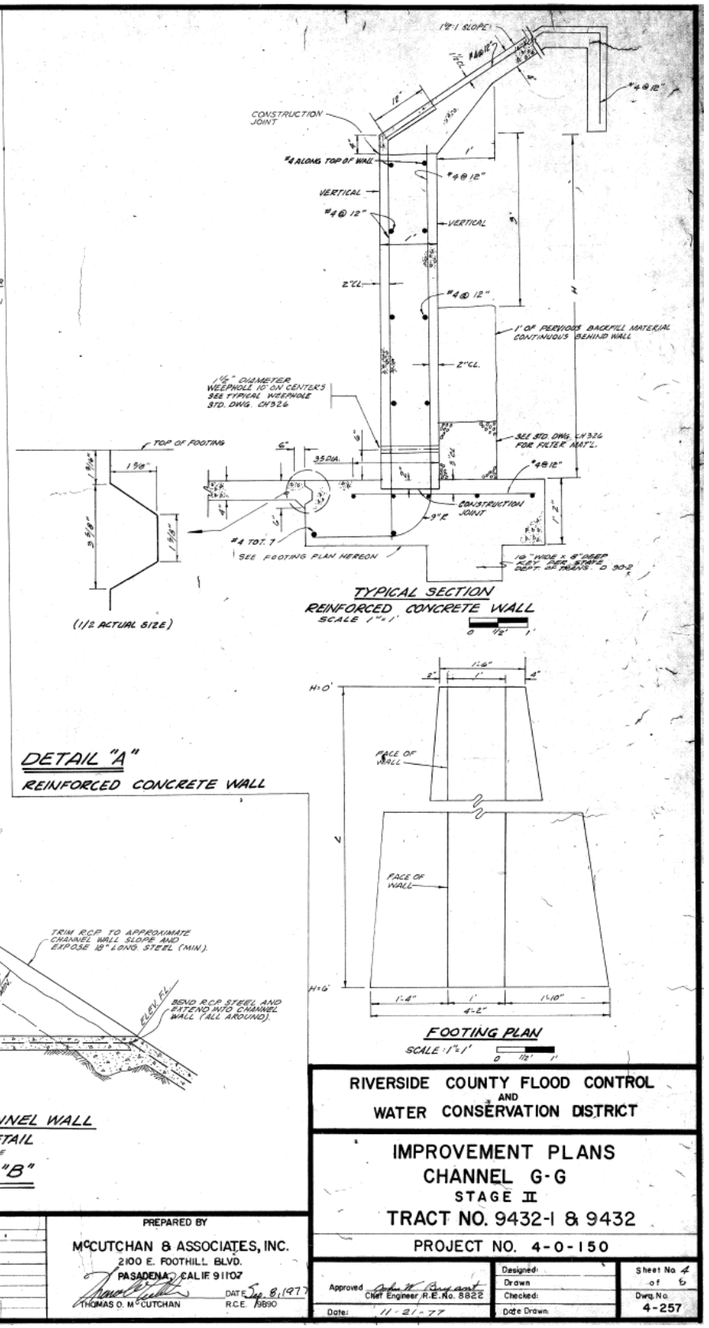

TEMPORARY EASEMENT
Ext. 101' x 5' RCB
101 + 75.00 ℄ Storm Drain
(See Note)
MEET EXISTING EARTH DITCH
Sta 102 + 00 ℄ Storm Drain
(Grade as Directed by the Engineer)
25' Channel Transition
(See Details)
EASEMENT
TEMPORARY EASEMENT
682 + 87.81 ℄ Lt Fr Rd =
101 + 55.00 ℄ Storm Drain
682 + 87.81 ℄ Imp =
100 + 90.00 ℄ Storm Drain
682 + 87.81 ℄ Rt Fr Rd =
98 + 61.00 ℄ Storm Drain
Modified Std Pipe Drop Inlet Type ONP
℄ STORM DRAIN
Std 10' x 5' RCB
24" RCP Median Storm Drain
℄ Improvement
LEFT ROADSIDE
RIGHT ROADSIDE (EXISTING)
ABM Roadside Gutter (See Details)
10' x 5' RC Open Channel (See Details)
18' Type CL-6 Drive Gate
℄ RIGHT FRONTAGE ROAD
Begin 10' x 5' RCB
98 + 24.00 ℄ Storm Drain
Begin 10' x 5' RC Open Channel
97 + 90.00 ℄ Storm Drain
(See Note)
ABM Slope Paving
(See ABM Lining Details)
PLAN
Scale: 1" = 20'
℄ Storm Drain
TYPICAL SECTION
10' x 5' RCB Shown
10' x 5' RC Open Channel
Similar without top slab
*Future Shldr
75' EASEMENT
Meet Existing Earth Ditch End Channel Transition
℄ Lt Fr Rd
Fence
Modified Std Storm Drain Inlet Type 6000
Original Ground
2% Min.
℄ Existing
Special Parabet Wall (See Details)
Special Parapet Wall (See Details)
℄ Fr Rd
PG 26.58'
Std 10' x 5' RCB
24" RCP Median Storm Drain
FL 20.63
FL 17.32
FL 17.60
FL 18.41
FL 18.50
0.2758 PC Storm Drain
25' Channel Transition
(See Details)
10' x 5' RC Open Channel
(See Details)
Begin 10' x 5' RC Open Channel
(See Note)
PROFILE
Scale: Horiz: 1" = 20'
Vert: 1" = 2'
NOTE:
Extend longitudinal steel 40 diameters beyond end of RC open channel.
DRAINAGE DETAILS
10' X 5' STORM DRAIN
STA 682 + 87.81 ℄ IMP
SCALES AS SHOWN
AS BUILT PLANS
Contract No. 08-078514
Date Completed 2-7-67
Document No. 80000035
REVISED - Ltr. 7-26-65


INDEX
1. Title Sheet ..... SHEET NO. 1
2. Plan & Profile ..... SHEET NO'S 2 & 3
3. Channel Details ..... SHEET NO 4
4. Channel Specifications ..... SHEET NO 5
R.C.F.C.& W.C.D. STANDARD DRAWINGS
CH 320 Trapezoidal Channel
CH 332 Subdrains
M 801 Chain Link Fence Details
M 814 Abbreviations and Symbols
GENERAL NOTES
1. All work shall be done in accordance with these drawings and the latest standard drawings and specifications of the Riverside County Flood Control and Conservation District.
2. All stationing refers to centerline of construction.
3. Bench Mark:
Riverside County Road Dept. #G00-19-G8
Elev. = 1429.265
INDEX MAP
SCALE 1"=200'
VICINITY MAP
SCALE 1"=800'
AS BUILT
REVISIONS
No Change
PREPARED BY
McCUTCHAN & ASSOCIATES, INC.
2100 E. FOOTHILL BLVD.
PASADENA, CALIF. 91107
THOMAS O. McCUTCHAN R.C.E. 9890
Sept. 8, 1977 DATE
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
IMPROVEMENT PLANS
CHANNEL G-G
STAGE II
TRACT NO. 9432-1 & 9432
PROJECT NO. 4-0-150
Approved Chief Engineer R.E. No. 8822
Date 11-21-77
Designed
Drawn
Checked
Date Drawn
Sheet No. 1 of 6
Dwg. No. 4-257


FINISH SURFACE ACCESS ROAD
WATER SURFACE
5'± D.GON
CHANNEL INVERT
HYDRAULIC DATA
PROFILE CHANNEL G-G
CONSTRUCT 1418.90 L.F. CONC LINED TRAPEZOIDAL CHANNEL PER TYPICAL SECTION SHEET 4
EXIST 5'±10' R.C.B. PER CAL TRANS DOC. NO. 80000015
FUTURE TRACT NO. 9432
TRACT NO. 9432-1
BRADLEY ROAD
AS BUILT
No Change
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
IMPROVEMENT PLANS
CHANNEL G-G
STAGE II
TRACT NO.9432-1 & 9432
PROJECT NO. 4-0-150
McCUTCHAN & ASSOCIATES, INC.
2100 E. FOOTHILL BLVD.
PASADENA, CALIF. 91107
Sheet No. 3 of 6
Dwg No. 4-257



TYPICAL SECTION
CHANNEL
SCALE 1/4"=1'



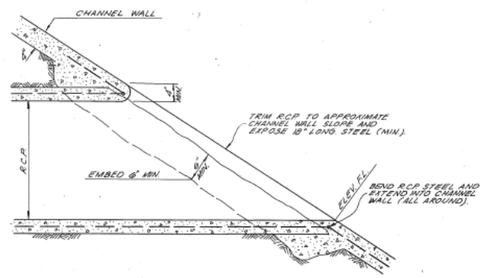
TYPICAL SECTION
REINFORCED CONCRETE WALL
SCALE 1"=1'

(1/2 ACTUAL SIZE)

DETAIL "A"
REINFORCED CONCRETE WALL

FOOTING PLAN
SCALE 1"=1'

TYPICAL SECTION
TRANSITION STRUCTURE
NO SCALE



R.C.P. TO CHANNEL WALL
JOIN DETAIL
NO SCALE

DETAIL "B"

AS BUILT

REVISIONS	PREPARED BY
No Change	McCUTCHAN & ASSOCIATES, INC. 2100 E. FOOTHILL BLVD. PASADENA, CALIF 91107 THOMAS O. McCUTCHAN DATE Sep. 8, 1977 R.C.E. 19890

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

IMPROVEMENT PLANS
CHANNEL G-G
STAGE II
TRACT NO. 9432-1 & 9432

PROJECT NO. 4-0-150

Approved Chief Engineer R.E. No. 5822	Designed:	Sheet No. 4 of 6
Date: 11-21-77	Drawn:	Dwg. No. 4-257
	Checked:	
	Date Drawn:	

Worksheet for Trapezoidal Channel - Conc. Channel G-G

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.014	
Channel Slope	0.0010	ft/ft
Left Side Slope	1.50	ft/ft (H:V)
Right Side Slope	1.50	ft/ft (H:V)
Bottom Width	20.00	ft
Discharge	700.00	ft^3/s

Results

Normal Depth	3.91	ft
Flow Area	101.06	ft^2
Wetted Perimeter	34.09	ft
Hydraulic Radius	2.96	ft
Top Width	31.72	ft
Critical Depth	3.10	ft
Critical Slope	0.00225	ft/ft
Velocity	6.93	ft/s
Velocity Head	0.75	ft
Specific Energy	4.65	ft
Froude Number	0.68	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	3.91	ft
Critical Depth	3.10	ft
Channel Slope	0.0010	ft/ft

GVF Output Data

Critical Slope	0.00225	ft/ft

Cross Section for Trapezoidal Channel - Conc. Channel G-G

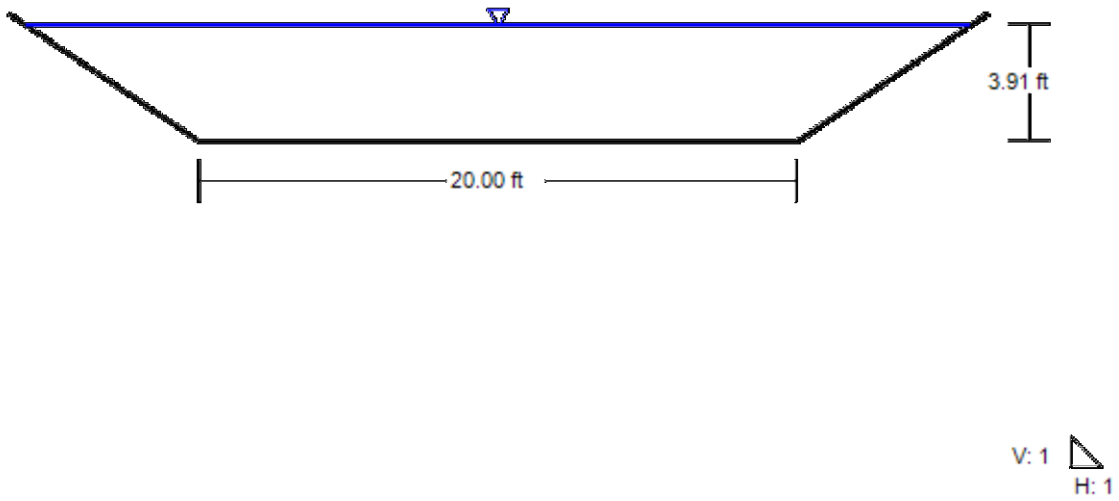
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.014	
Channel Slope	0.0010	ft/ft
Normal Depth	3.91	ft
Left Side Slope	1.50	ft/ft (H:V)
Right Side Slope	1.50	ft/ft (H:V)
Bottom Width	20.00	ft
Discharge	700.00	ft^3/s

Cross Section Image



Rating Table for Trapezoidal Channel - Conc. Channel G-G

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.014	
Channel Slope	0.0010	ft/ft
Left Side Slope	1.50	ft/ft (H:V)
Right Side Slope	1.50	ft/ft (H:V)
Bottom Width	20.00	ft
Discharge	700.00	ft³/s

Discharge (ft³/s)	Normal Depth (ft)	Velocity (ft/s)	Flow Area (ft²)	Wetted Perimeter (ft)	Top Width (ft)
100.00	1.26	3.63	27.57	24.54	23.78
150.00	1.60	4.18	35.86	25.77	24.80
200.00	1.90	4.62	43.30	26.84	25.69
250.00	2.16	4.98	50.22	27.79	26.48
300.00	2.40	5.29	56.72	28.66	27.21
350.00	2.63	5.56	62.91	29.47	27.88
400.00	2.84	5.81	68.85	30.23	28.52
450.00	3.04	6.03	74.59	30.95	29.11
500.00	3.23	6.24	80.15	31.63	29.68
550.00	3.41	6.43	85.57	32.29	30.22
600.00	3.58	6.60	90.85	32.91	30.74
650.00	3.75	6.77	96.01	33.51	31.24
700.00	3.91	6.93	101.06	34.09	31.72

Outlet Structure - Areas B2CD Detention Basin					
Composite Tailwater Rating Curve					
Basin Elevation	**Depth (ft)**	**Basin Volume (Acft)**	**Estimate Q for Culvert Headwater 5'(H)x10'(W) opening @ INV. 1418.5 without tailwater *) (cfs)**	**Estimate Q for Culvert Headwater 5'(H)x10'(W) opening @ INV. 1418.5 with Max. tailwater *) (cfs)**	**Basin Outflow (cfs)**
1418.5	0	0	0	0	**0**
1419	0.5	0.07	20	0	**20**
1420	1.5	1.97	50	0	**50**
1421	2.5	7.28	110	95	**95**
1422	3.5	15.54	170	170	**170**
1423	4.5	25.35	255	255	**255**
1424	5.5	35.63	345	345	**345**
1425	6.5	46.13	420	420	**420**
1426	7.5	56.85	470	470	**470**
***) See Rating Table HW Elevations for Culvert Master Caltrans RCB**					

Summary of Detention Basin B2 Routing (total areas of 410.0 Ac):

100-year 1-hour storm event:

Proposed WQ/Detention Basin B2		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
1485.28	382.18	**6.00**

100-year 3-hour storm event:

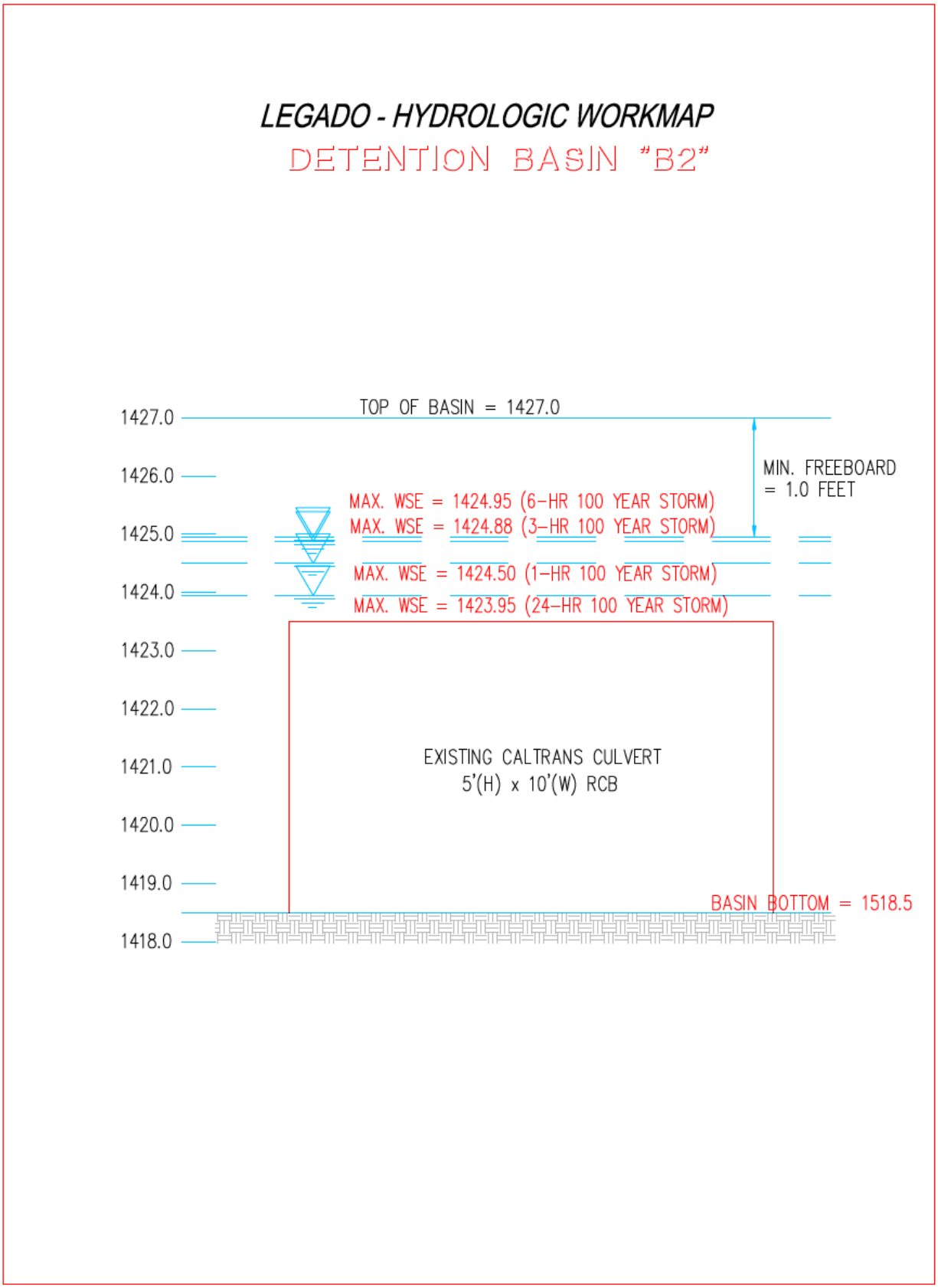
Proposed WQ/Detention Basin B2		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
890.74	410.70	**6.38**

100-year 6-hour storm event:

Proposed WQ/Detention Basin B2		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
793.42	416.38	**6.45**

100-year 24-hour storm event:

Proposed WQ/Detention Basin B2		
Q_{100} Inflow (cfs)	Q_{100} Outflow (cfs)	Basin Depth (ft)
407.72	340.57	**5.45**


LEGADO - HYDROLOGIC WORKMAP
DETENTION BASIN "B2"
TOP OF BASIN = 1427.0
MIN. FREEBOARD
= 1.0 FEET
MAX. WSE = 1424.95 (6-HR 100 YEAR STORM)
MAX. WSE = 1424.88 (3-HR 100 YEAR STORM)
MAX. WSE = 1424.50 (1-HR 100 YEAR STORM)
MAX. WSE = 1423.95 (24-HR 100 YEAR STORM)
EXISTING CALTRANS CULVERT
5'(H) x 10'(W) RCB
BASIN BOTTOM = 1518.5
1427.0
1426.0
1425.0
1424.0
1423.0
1422.0
1421.0
1420.0
1419.0
1418.0

```
                    FLOOD HYDROGRAPH ROUTING PROGRAM
                  Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                              Study date: 04/23/19

      ----------------------------------------------------------------------
      Legado
      Detention Basin B2
      100-year 1-hour Inflow Hydrograph

      ----------------------------------------------------------------------


      Program License Serial Number 4029

      ----------------------------------------------------------------------
      ********************* HYDROGRAPH INFORMATION **********************

                    From study/file name: lgareab2cd1100.rte
      ****************************HYDROGRAPH DATA****************************
                    Number of intervals =    24
                    Time interval =    5.0 (Min.)
                    Maximum/Peak flow rate =     1358.372 (CFS)
                    Total volume =      53.444 (Ac.Ft)
             Status of hydrographs being held in storage
                      Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
             Peak (CFS)      0.000     0.000     0.000     0.000     0.000
             Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      **********************************************************************



      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      Process from Point/Station       10.000 to Point/Station       11.000
      **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
      ______________________________________________________________________
      ********************* HYDROGRAPH INFORMATION **********************

                    From study/file name: lgouta1100.rte
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                       P R I N T  O F  S T O R M
                    R u n o f f     H y d r o g r a p h
      ----------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals (CFS)

      ----------------------------------------------------------------------
Time(h+m) Add q(CFS)  Tot. Q   0      365.3     730.6    1095.9    1461.2
----------------------------------------------------------------------------
  0+ 5       1.1115     25.01  Q         |         |         |         |
  0+10       8.4164    136.35  q  Q      |         |         |         |
  0+15      24.0252    252.34  q     Q   |         |         |         |
  0+20      34.3223    314.76  q       Q |         |         |         |
  0+25      40.5666    362.82  |q       Q|         |         |         |
  0+30      49.5635    417.55  |q        |Q        |         |         |
  0+35      60.4616    468.29  |q        | Q       |         |         |
  0+40      70.8162    544.96  |q        |   Q     |         |         |
  0+45      80.6829    674.19  | q       |       Q |         |         |
  0+50      91.0848   1001.35  | q       |         |      Q  |         |
  0+55     102.8052   1461.18  | q       |         |         |         Q
  1+ 0     115.4321   1143.37  |  q      |         |         |Q        |
  1+ 5     126.0057    732.55  |  q      |         Q         |         |
  1+10     132.7315    482.70  |  q      |  Q      |         |         |
  1+15     136.2806    349.45  |  q     Q|         |         |         |
  1+20     137.9385    283.31  |  q   Q  |         |         |         |
  1+25     138.5467    243.66  |  q  Q   |         |         |         |
  1+30     138.4901    214.60  |  q Q    |         |         |         |
  1+35     137.9492    192.68  |  q Q    |         |         |         |
  1+40     137.0541    175.18  |  qQ     |         |         |         |
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1+45     135.9057    163.31  |  qQ     |         |         |         |
1+50     134.5675    149.82  |  qQ     |         |         |         |
1+55     132.9888    137.22  |  Q      |         |         |         |
2+ 0     131.2364    132.37  |  Q      |         |         |         |
2+ 5     129.4040    129.40  |  Q      |         |         |         |
2+10     127.5278    127.53  |  Q      |         |         |         |
2+15     125.5835    125.58  |  Q      |         |         |         |
2+20     123.4448    123.44  |  Q      |         |         |         |
2+25     121.2152    121.22  |  Q      |         |         |         |
2+30     119.0071    119.01  |  Q      |         |         |         |
2+35     116.8348    116.83  |  Q      |         |         |         |
2+40     114.5796    114.58  |  Q      |         |         |         |
2+45     112.2469    112.25  |  Q      |         |         |         |
2+50     109.9329    109.93  |  Q      |         |         |         |
2+55     107.6667    107.67  | Q       |         |         |         |
3+ 0     105.4187    105.42  | Q       |         |         |         |
3+ 5     103.0275    103.03  | Q       |         |         |         |
3+10     100.5846    100.58  | Q       |         |         |         |
3+15      98.1988     98.20  | Q       |         |         |         |
3+20      95.8702     95.87  | Q       |         |         |         |
3+25      93.4895     93.49  | Q       |         |         |         |
3+30      90.7143     90.71  | Q       |         |         |         |
3+35      87.7834     87.78  | Q       |         |         |         |
3+40      84.9453     84.95  | Q       |         |         |         |
3+45      82.2002     82.20  | Q       |         |         |         |
3+50      79.1758     79.18  | Q       |         |         |         |
3+55      75.6760     75.68  | Q       |         |         |         |
4+ 0      72.1083     72.11  |Q        |         |         |         |
4+ 5      68.7087     68.71  |Q        |         |         |         |
4+10      65.4720     65.47  |Q        |         |         |         |
4+15      61.7794     61.78  |Q        |         |         |         |
4+20      57.7946     57.79  |Q        |         |         |         |
4+25      53.9864     53.99  |Q        |         |         |         |
4+30      50.4335     50.43  |Q        |         |         |         |
4+35      47.1198     47.12  |Q        |         |         |         |
4+40      44.0292     44.03  |Q        |         |         |         |
4+45      41.4343     41.43  |Q        |         |         |         |
4+50      39.3718     39.37  |Q        |         |         |         |
4+55      37.5391     37.54  |Q        |         |         |         |
5+ 0      35.7960     35.80  Q        |         |         |         |
5+ 5      34.1364     34.14  Q        |         |         |         |
5+10      32.5563     32.56  Q        |         |         |         |
5+15      31.0518     31.05  Q        |         |         |         |
5+20      25.5010     25.50  Q        |         |         |         |
5+25      18.2140     18.21  Q        |         |         |         |
5+30      12.7322     12.73  Q        |         |         |         |
5+35       9.0138      9.01  Q        |         |         |         |
5+40       6.4958      6.50  Q        |         |         |         |
5+45       4.7903      4.79  Q        |         |         |         |
5+50       3.6346      3.63  Q        |         |         |         |
5+55       2.8508      2.85  Q        |         |         |         |
6+ 0       2.3188      2.32  Q        |         |         |         |
6+ 5       1.9572      1.96  Q        |         |         |         |
6+10       1.7108      1.71  Q        |         |         |         |
6+15       1.5424      1.54  Q        |         |         |         |
6+20       1.4269      1.43  Q        |         |         |         |
6+25       1.3471      1.35  Q        |         |         |         |
6+30       1.2914      1.29  Q        |         |         |         |
6+35       1.2522      1.25  Q        |         |         |         |
6+40       1.2242      1.22  Q        |         |         |         |
6+45       1.2042      1.20  Q        |         |         |         |
6+50       1.1901      1.19  Q        |         |         |         |
6+55       1.1801      1.18  Q        |         |         |         |
7+ 0       1.1728      1.17  Q        |         |         |         |
7+ 5       1.1673      1.17  Q        |         |         |         |
7+10       1.1632      1.16  Q        |         |         |         |
7+15       1.1599      1.16  Q        |         |         |         |
7+20       1.1571      1.16  Q        |         |         |         |
7+25       1.1548      1.15  Q        |         |         |         |
7+30       1.1527      1.15  Q        |         |         |         |
```

7+35	1.1508	1.15	Q				
7+40	1.1490	1.15	Q				
7+45	1.1474	1.15	Q				
7+50	1.1457	1.15	Q				
7+55	1.1441	1.14	Q				
8+ 0	1.1425	1.14	Q				
8+ 5	1.1409	1.14	Q				
8+10	1.1392	1.14	Q				
8+15	1.1375	1.14	Q				
8+20	1.1358	1.14	Q				
8+25	1.1341	1.13	Q				
8+30	1.1324	1.13	Q				
8+35	1.1307	1.13	Q				
8+40	1.1290	1.13	Q				
8+45	1.1273	1.13	Q				
8+50	1.1256	1.13	Q				
8+55	1.1239	1.12	Q				
9+ 0	1.1222	1.12	Q				
9+ 5	1.1205	1.12	Q				
9+10	1.1188	1.12	Q				
9+15	1.1171	1.12	Q				
9+20	1.1154	1.12	Q				
9+25	1.1137	1.11	Q				
9+30	1.1120	1.11	Q				
9+35	1.1103	1.11	Q				
9+40	1.1086	1.11	Q				
9+45	1.1069	1.11	Q				
9+50	1.1052	1.11	Q				
9+55	1.1036	1.10	Q				
10+ 0	1.1019	1.10	Q				
10+ 5	1.1002	1.10	Q				
10+10	1.0985	1.10	Q				
10+15	1.0969	1.10	Q				
10+20	1.0952	1.10	Q				
10+25	1.0935	1.09	Q				
10+30	1.0919	1.09	Q				
10+35	1.0902	1.09	Q				
10+40	1.0886	1.09	Q				
10+45	1.0869	1.09	Q				
10+50	1.0853	1.09	Q				
10+55	1.0836	1.08	Q				
11+ 0	1.0820	1.08	Q				
11+ 5	1.0803	1.08	Q				
11+10	1.0787	1.08	Q				
11+15	1.0770	1.08	Q				
11+20	1.0754	1.08	Q				
11+25	1.0738	1.07	Q				
11+30	1.0721	1.07	Q				
11+35	1.0705	1.07	Q				
11+40	1.0689	1.07	Q				
11+45	1.0673	1.07	Q				
11+50	1.0656	1.07	Q				
11+55	1.0640	1.06	Q				
12+ 0	1.0624	1.06	Q				
12+ 5	1.0608	1.06	Q				
12+10	1.0592	1.06	Q				
12+15	1.0576	1.06	Q				
12+20	1.0560	1.06	Q				
12+25	1.0544	1.05	Q				
12+30	1.0528	1.05	Q				
12+35	1.0512	1.05	Q				
12+40	1.0496	1.05	Q				
12+45	1.0480	1.05	Q				
12+50	1.0464	1.05	Q				
12+55	1.0448	1.04	Q				
13+ 0	1.0432	1.04	Q				
13+ 5	1.0416	1.04	Q				
13+10	1.0400	1.04	Q				
13+15	1.0385	1.04	Q				
13+20	1.0369	1.04	Q				

13+25	1.0353	1.04	Q				
13+30	1.0337	1.03	Q				
13+35	1.0322	1.03	Q				
13+40	1.0306	1.03	Q				
13+45	1.0290	1.03	Q				
13+50	1.0266	1.03	Q				
13+55	1.0210	1.02	Q				
14+ 0	1.0101	1.01	Q				
14+ 5	0.9941	0.99	Q				
14+10	0.9747	0.97	Q				
14+15	0.9532	0.95	Q				
14+20	0.9305	0.93	Q				
14+25	0.9072	0.91	Q				
14+30	0.8837	0.88	Q				
14+35	0.8603	0.86	Q				
14+40	0.8372	0.84	Q				
14+45	0.8144	0.81	Q				
14+50	0.7922	0.79	Q				
14+55	0.7704	0.77	Q				
15+ 0	0.7492	0.75	Q				
15+ 5	0.7284	0.73	Q				
15+10	0.7083	0.71	Q				
15+15	0.6886	0.69	Q				
15+20	0.6695	0.67	Q				
15+25	0.6510	0.65	Q				
15+30	0.6329	0.63	Q				
15+35	0.6153	0.62	Q				
15+40	0.5982	0.60	Q				
15+45	0.5816	0.58	Q				
15+50	0.5654	0.57	Q				
15+55	0.5497	0.55	Q				
16+ 0	0.5344	0.53	Q				
16+ 5	0.5196	0.52	Q				
16+10	0.5052	0.51	Q				
16+15	0.4911	0.49	Q				
16+20	0.4775	0.48	Q				
16+25	0.4642	0.46	Q				
16+30	0.4513	0.45	Q				
16+35	0.4388	0.44	Q				
16+40	0.4266	0.43	Q				
16+45	0.4147	0.41	Q				
16+50	0.4032	0.40	Q				
16+55	0.3920	0.39	Q				
17+ 0	0.3811	0.38	Q				
17+ 5	0.3705	0.37	Q				
17+10	0.3602	0.36	Q				
17+15	0.3502	0.35	Q				
17+20	0.3405	0.34	Q				
17+25	0.3310	0.33	Q				
17+30	0.3218	0.32	Q				
17+35	0.3129	0.31	Q				
17+40	0.3042	0.30	Q				
17+45	0.2957	0.30	Q				
17+50	0.2875	0.29	Q				
17+55	0.2795	0.28	Q				
18+ 0	0.2717	0.27	Q				
18+ 5	0.2642	0.26	Q				
18+10	0.2568	0.26	Q				
18+15	0.2497	0.25	Q				
18+20	0.2428	0.24	Q				
18+25	0.2360	0.24	Q				
18+30	0.2295	0.23	Q				
18+35	0.2231	0.22	Q				
18+40	0.2169	0.22	Q				
18+45	0.2109	0.21	Q				
18+50	0.2050	0.20	Q				
18+55	0.1993	0.20	Q				
19+ 0	0.1938	0.19	Q				
19+ 5	0.1884	0.19	Q				
19+10	0.1831	0.18	Q				

19+15	0.1781	0.18	Q				
19+20	0.1731	0.17	Q				
19+25	0.1683	0.17	Q				
19+30	0.1636	0.16	Q				
19+35	0.1591	0.16	Q				
19+40	0.1546	0.15	Q				
19+45	0.1504	0.15	Q				
19+50	0.1462	0.15	Q				
19+55	0.1421	0.14	Q				
20+ 0	0.1382	0.14	Q				
20+ 5	0.1343	0.13	Q				
20+10	0.1306	0.13	Q				
20+15	0.1270	0.13	Q				
20+20	0.1234	0.12	Q				
20+25	0.1200	0.12	Q				
20+30	0.1167	0.12	Q				
20+35	0.1134	0.11	Q				
20+40	0.1103	0.11	Q				
20+45	0.1072	0.11	Q				
20+50	0.1042	0.10	Q				
20+55	0.1013	0.10	Q				
21+ 0	0.0985	0.10	Q				
21+ 5	0.0958	0.10	Q				
21+10	0.0931	0.09	Q				
21+15	0.0905	0.09	Q				
21+20	0.0880	0.09	Q				
21+25	0.0856	0.09	Q				
21+30	0.0832	0.08	Q				
21+35	0.0809	0.08	Q				
21+40	0.0786	0.08	Q				
21+45	0.0764	0.08	Q				
21+50	0.0743	0.07	Q				
21+55	0.0723	0.07	Q				
22+ 0	0.0702	0.07	Q				
22+ 5	0.0683	0.07	Q				
22+10	0.0664	0.07	Q				
22+15	0.0646	0.06	Q				
22+20	0.0628	0.06	Q				
22+25	0.0610	0.06	Q				
22+30	0.0593	0.06	Q				
22+35	0.0577	0.06	Q				
22+40	0.0561	0.06	Q				
22+45	0.0545	0.05	Q				
22+50	0.0530	0.05	Q				
22+55	0.0515	0.05	Q				
23+ 0	0.0501	0.05	Q				
23+ 5	0.0487	0.05	Q				
23+10	0.0473	0.05	Q				
23+15	0.0460	0.05	Q				
23+20	0.0447	0.04	Q				
23+25	0.0435	0.04	Q				
23+30	0.0423	0.04	Q				
23+35	0.0411	0.04	Q				
23+40	0.0400	0.04	Q				
23+45	0.0389	0.04	Q				
23+50	0.0378	0.04	Q				
23+55	0.0367	0.04	Q				
24+ 0	0.0357	0.04	Q				
24+ 5	0.0347	0.03	Q				
24+10	0.0338	0.03	Q				
24+15	0.0328	0.03	Q				
24+20	0.0319	0.03	Q				
24+25	0.0310	0.03	Q				
24+30	0.0302	0.03	Q				
24+35	0.0293	0.03	Q				
24+40	0.0285	0.03	Q				
24+45	0.0277	0.03	Q				
24+50	0.0269	0.03	Q				
24+55	0.0262	0.03	Q				
25+ 0	0.0255	0.03	Q				

25+ 5	0.0248	0.02	Q				
25+10	0.0241	0.02	Q				
25+15	0.0234	0.02	Q				
25+20	0.0228	0.02	Q				
25+25	0.0221	0.02	Q				
25+30	0.0215	0.02	Q				
25+35	0.0209	0.02	Q				
25+40	0.0203	0.02	Q				
25+45	0.0198	0.02	Q				
25+50	0.0192	0.02	Q				
25+55	0.0187	0.02	Q				
26+ 0	0.0182	0.02	Q				
26+ 5	0.0177	0.02	Q				
26+10	0.0172	0.02	Q				
26+15	0.0167	0.02	Q				
26+20	0.0162	0.02	Q				
26+25	0.0158	0.02	Q				
26+30	0.0153	0.02	Q				
26+35	0.0149	0.01	Q				
26+40	0.0145	0.01	Q				
26+45	0.0141	0.01	Q				
26+50	0.0137	0.01	Q				
26+55	0.0133	0.01	Q				
27+ 0	0.0129	0.01	Q				
27+ 5	0.0126	0.01	Q				
27+10	0.0122	0.01	Q				
27+15	0.0119	0.01	Q				
27+20	0.0116	0.01	Q				
27+25	0.0112	0.01	Q				
27+30	0.0109	0.01	Q				
27+35	0.0106	0.01	Q				
27+40	0.0103	0.01	Q				
27+45	0.0100	0.01	Q				
27+50	0.0098	0.01	Q				
27+55	0.0095	0.01	Q				
28+ 0	0.0092	0.01	Q				
28+ 5	0.0090	0.01	Q				
28+10	0.0087	0.01	Q				
28+15	0.0085	0.01	Q				
28+20	0.0082	0.01	Q				
28+25	0.0080	0.01	Q				
28+30	0.0078	0.01	Q				
28+35	0.0076	0.01	Q				
28+40	0.0074	0.01	Q				
28+45	0.0072	0.01	Q				
28+50	0.0070	0.01	Q				
28+55	0.0068	0.01	Q				
29+ 0	0.0066	0.01	Q				
29+ 5	0.0064	0.01	Q				
29+10	0.0062	0.01	Q				
29+15	0.0060	0.01	Q				
29+20	0.0059	0.01	Q				
29+25	0.0057	0.01	Q				
29+30	0.0056	0.01	Q				
29+35	0.0054	0.01	Q				
29+40	0.0053	0.01	Q				
29+45	0.0051	0.01	Q				
29+50	0.0050	0.00	Q				
29+55	0.0048	0.00	Q				
30+ 0	0.0047	0.00	Q				
30+ 5	0.0046	0.00	Q				
30+10	0.0044	0.00	Q				
30+15	0.0043	0.00	Q				
30+20	0.0042	0.00	Q				
30+25	0.0041	0.00	Q				
30+30	0.0040	0.00	Q				
30+35	0.0039	0.00	Q				
30+40	0.0037	0.00	Q				
30+45	0.0036	0.00	Q				
30+50	0.0035	0.00	Q				

```
   30+55       0.0034      0.00  Q          |          |          |          |
   31+ 0       0.0033      0.00  Q          |          |          |          |
   31+ 5       0.0033      0.00  Q          |          |          |          |
   31+10       0.0032      0.00  Q          |          |          |          |
   31+15       0.0031      0.00  Q          |          |          |          |
   31+20       0.0030      0.00  Q          |          |          |          |
   31+25       0.0029      0.00  Q          |          |          |          |
   31+30       0.0028      0.00  Q          |          |          |          |
   31+35       0.0027      0.00  Q          |          |          |          |
   31+40       0.0027      0.00  Q          |          |          |          |
   31+45       0.0026      0.00  Q          |          |          |          |
   31+50       0.0025      0.00  Q          |          |          |          |
   31+55       0.0025      0.00  Q          |          |          |          |
   32+ 0       0.0024      0.00  Q          |          |          |          |
   32+ 5       0.0023      0.00  Q          |          |          |          |
   32+10       0.0023      0.00  Q          |          |          |          |
   32+15       0.0021      0.00  Q          |          |          |          |
   32+20       0.0018      0.00  Q          |          |          |          |
   32+25       0.0013      0.00  Q          |          |          |          |
   32+30       0.0000      0.00  Q          |          |          |          |
--------------------------------------------------------------------------
      ****************************HYDROGRAPH DATA**************************
                  Number of intervals =   390
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =     1461.177 (CFS)
                  Total volume =      92.750 (Ac.Ft)
            Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      ****************************************************************************

      ----------------------------------------------------------------------


      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      Process from Point/Station       10.000 to Point/Station       11.000
      **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
      ________________________________________________________________________
      ********************** HYDROGRAPH INFORMATION **********************

                  From study/file name: lgb1out1100.rte
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                     P R I N T  O F  S T O R M
                  R u n o f f     H y d r o g r a p h
      ------------------------------------------------------------------------
                Hydrograph in   5   Minute intervals (CFS)

      ------------------------------------------------------------------------
  Time(h+m) Add q(CFS)  Tot. Q   0      371.3     742.6    1114.0    1485.3
  ------------------------------------------------------------------------
    0+ 5       0.0000     25.01  Q          |          |          |          |
    0+10       0.0991    136.45  q  Q       |          |          |          |
    0+15       1.1264    253.47  q     Q    |          |          |          |
    0+20       4.2978    319.06  q       Q  |          |          |          |
    0+25       8.8136    371.63  q         Q          |          |          |
    0+30      11.5895    429.14  q         |Q         |          |          |
    0+35      14.0599    482.35  q         | Q        |          |          |
    0+40      16.5020    561.46  q         |    Q     |          |          |
    0+45      18.9345    693.12  q         |       Q  |          |          |
    0+50      21.5522   1022.91  q         |          |      Q   |          |
    0+55      24.0992   1485.28  q         |          |          |         Q
    1+ 0      27.2075   1170.58  q         |          |          |Q         |
    1+ 5      30.6768    763.23  q         |          Q          |          |
    1+10      33.3443    516.04  q         |  Q       |          |          |
    1+15      34.7806    384.23  q         Q          |          |          |
    1+20      35.3944    318.70  q       Q  |          |          |          |
    1+25      35.5024    279.16  q      Q   |          |          |          |
    1+30      35.3640    249.97  q     Q    |          |          |          |
    1+35      35.0953    227.77  q     Q    |          |          |          |
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1+40      34.7595    209.94  q    Q    |         |         |         |
1+45      34.3984    197.71  q    Q    |         |         |         |
1+50      34.0303    183.85  q   Q     |         |         |         |
1+55      33.6632    170.89  q   Q     |         |         |         |
2+ 0      33.2992    165.67  q   Q     |         |         |         |
2+ 5      32.9337    162.34  q   Q     |         |         |         |
2+10      32.5346    160.06  q   Q     |         |         |         |
2+15      32.1181    157.70  q   Q     |         |         |         |
2+20      31.7009    155.15  q   Q     |         |         |         |
2+25      31.2875    152.50  q   Q     |         |         |         |
2+30      30.8790    149.89  q   Q     |         |         |         |
2+35      30.4758    147.31  q  Q      |         |         |         |
2+40      30.0778    144.66  q  Q      |         |         |         |
2+45      29.6850    141.93  q  Q      |         |         |         |
2+50      29.2974    139.23  q  Q      |         |         |         |
2+55      28.9148    136.58  q  Q      |         |         |         |
3+ 0      28.5296    133.95  q  Q      |         |         |         |
3+ 5      28.0976    131.13  q  Q      |         |         |         |
3+10      27.6456    128.23  q  Q      |         |         |         |
3+15      27.1937    125.39  q  Q      |         |         |         |
3+20      26.7473    122.62  q  Q      |         |         |         |
3+25      26.3076    119.80  q  Q      |         |         |         |
3+30      25.8751    116.59  q  Q      |         |         |         |
3+35      25.4496    113.23  q  Q      |         |         |         |
3+40      25.0312    109.98  q Q       |         |         |         |
3+45      24.6196    106.82  q Q       |         |         |         |
3+50      24.2147    103.39  q Q       |         |         |         |
3+55      23.8165     99.49  q Q       |         |         |         |
4+ 0      23.4109     95.52  q Q       |         |         |         |
4+ 5      22.9089     91.62  q Q       |         |         |         |
4+10      22.3258     87.80  q Q       |         |         |         |
4+15      21.7328     83.51  q Q       |         |         |         |
4+20      21.1491     78.94  q Q       |         |         |         |
4+25      20.5792     74.57  q Q       |         |         |         |
4+30      20.0242     70.46  qQ        |         |         |         |
4+35      19.4840     66.60  qQ        |         |         |         |
4+40      18.9584     62.99  qQ        |         |         |         |
4+45      18.4469     59.88  qQ        |         |         |         |
4+50      17.9493     57.32  qQ        |         |         |         |
4+55      17.4650     55.00  qQ        |         |         |         |
5+ 0      16.9939     52.79  qQ        |         |         |         |
5+ 5      16.5255     50.66  qQ        |         |         |         |
5+10      16.0036     48.56  qQ        |         |         |         |
5+15      15.4731     46.52  qQ        |         |         |         |
5+20      14.9535     40.45  qQ        |         |         |         |
5+25      14.4495     32.66  Q         |         |         |         |
5+30      13.9620     26.69  Q         |         |         |         |
5+35      13.4909     22.50  Q         |         |         |         |
5+40      13.0356     19.53  Q         |         |         |         |
5+45      12.5957     17.39  Q         |         |         |         |
5+50      12.1706     15.81  Q         |         |         |         |
5+55      11.7599     14.61  Q         |         |         |         |
6+ 0      11.3630     13.68  Q         |         |         |         |
6+ 5      10.9795     12.94  Q         |         |         |         |
6+10      10.6090     12.32  Q         |         |         |         |
6+15      10.2137     11.76  Q         |         |         |         |
6+20       9.5546     10.98  Q         |         |         |         |
6+25       8.6610     10.01  Q         |         |         |         |
6+30       7.7796      9.07  Q         |         |         |         |
6+35       6.9690      8.22  Q         |         |         |         |
6+40       6.2378      7.46  Q         |         |         |         |
6+45       5.5819      6.79  Q         |         |         |         |
6+50       4.9947      6.18  Q         |         |         |         |
6+55       4.4691      5.65  Q         |         |         |         |
7+ 0       3.9988      5.17  Q         |         |         |         |
7+ 5       3.5780      4.75  Q         |         |         |         |
7+10       3.2014      4.36  Q         |         |         |         |
7+15       2.8645      4.02  Q         |         |         |         |
7+20       2.5631      3.72  Q         |         |         |         |
7+25       2.2933      3.45  Q         |         |         |         |
```

7+30	2.0520	3.20	Q				
7+35	1.8361	2.99	Q				
7+40	1.6428	2.79	Q				
7+45	1.4699	2.62	Q				
7+50	1.3153	2.46	Q				
7+55	1.1768	2.32	Q				
8+ 0	1.0530	2.20	Q				
8+ 5	0.9422	2.08	Q				
8+10	0.8430	1.98	Q				
8+15	0.7543	1.89	Q				
8+20	0.6749	1.81	Q				
8+25	0.6039	1.74	Q				
8+30	0.5404	1.67	Q				
8+35	0.4835	1.61	Q				
8+40	0.4326	1.56	Q				
8+45	0.3871	1.51	Q				
8+50	0.3463	1.47	Q				
8+55	0.3099	1.43	Q				
9+ 0	0.2773	1.40	Q				
9+ 5	0.2481	1.37	Q				
9+10	0.2220	1.34	Q				
9+15	0.1986	1.32	Q				
9+20	0.1777	1.29	Q				
9+25	0.1590	1.27	Q				
9+30	0.1423	1.25	Q				
9+35	0.1273	1.24	Q				
9+40	0.1139	1.22	Q				
9+45	0.1019	1.21	Q				
9+50	0.0912	1.20	Q				
9+55	0.0816	1.19	Q				
10+ 0	0.0730	1.17	Q				
10+ 5	0.0653	1.17	Q				
10+10	0.0585	1.16	Q				
10+15	0.0523	1.15	Q				
10+20	0.0468	1.14	Q				
10+25	0.0419	1.14	Q				
10+30	0.0375	1.13	Q				
10+35	0.0335	1.12	Q				
10+40	0.0300	1.12	Q				
10+45	0.0268	1.11	Q				
10+50	0.0240	1.11	Q				
10+55	0.0215	1.11	Q				
11+ 0	0.0192	1.10	Q				
11+ 5	0.0172	1.10	Q				
11+10	0.0154	1.09	Q				
11+15	0.0138	1.09	Q				
11+20	0.0123	1.09	Q				
11+25	0.0110	1.08	Q				
11+30	0.0090	1.08	Q				
11+35	0.0024	1.07	Q				
11+40	0.0000	1.07	Q				
11+45	0.0000	1.07	Q				
11+50	0.0000	1.07	Q				
11+55	0.0000	1.06	Q				
12+ 0	0.0000	1.06	Q				
12+ 5	0.0000	1.06	Q				
12+10	0.0000	1.06	Q				
12+15	0.0000	1.06	Q				
12+20	0.0000	1.06	Q				
12+25	0.0000	1.05	Q				
12+30	0.0000	1.05	Q				
12+35	0.0000	1.05	Q				
12+40	0.0000	1.05	Q				
12+45	0.0000	1.05	Q				
12+50	0.0000	1.05	Q				
12+55	0.0000	1.04	Q				
13+ 0	0.0000	1.04	Q				
13+ 5	0.0000	1.04	Q				
13+10	0.0000	1.04	Q				
13+15	0.0000	1.04	Q				

13+20	0.0000	1.04	Q				
13+25	0.0000	1.04	Q				
13+30	0.0000	1.03	Q				
13+35	0.0000	1.03	Q				
13+40	0.0000	1.03	Q				
13+45	0.0000	1.03	Q				
13+50	0.0000	1.03	Q				
13+55	0.0000	1.02	Q				
14+ 0	0.0000	1.01	Q				
14+ 5	0.0000	0.99	Q				
14+10	0.0000	0.97	Q				
14+15	0.0000	0.95	Q				
14+20	0.0000	0.93	Q				
14+25	0.0000	0.91	Q				
14+30	0.0000	0.88	Q				
14+35	0.0000	0.86	Q				
14+40	0.0000	0.84	Q				
14+45	0.0000	0.81	Q				
14+50	0.0000	0.79	Q				
14+55	0.0000	0.77	Q				
15+ 0	0.0000	0.75	Q				
15+ 5	0.0000	0.73	Q				
15+10	0.0000	0.71	Q				
15+15	0.0000	0.69	Q				
15+20	0.0000	0.67	Q				
15+25	0.0000	0.65	Q				
15+30	0.0000	0.63	Q				
15+35	0.0000	0.62	Q				
15+40	0.0000	0.60	Q				
15+45	0.0000	0.58	Q				
15+50	0.0000	0.57	Q				
15+55	0.0000	0.55	Q				
16+ 0	0.0000	0.53	Q				
16+ 5	0.0000	0.52	Q				
16+10	0.0000	0.51	Q				
16+15	0.0000	0.49	Q				
16+20	0.0000	0.48	Q				
16+25	0.0000	0.46	Q				
16+30	0.0000	0.45	Q				
16+35	0.0000	0.44	Q				
16+40	0.0000	0.43	Q				
16+45	0.0000	0.41	Q				
16+50	0.0000	0.40	Q				
16+55	0.0000	0.39	Q				
17+ 0	0.0000	0.38	Q				
17+ 5	0.0000	0.37	Q				
17+10	0.0000	0.36	Q				
17+15	0.0000	0.35	Q				
17+20	0.0000	0.34	Q				
17+25	0.0000	0.33	Q				
17+30	0.0000	0.32	Q				
17+35	0.0000	0.31	Q				
17+40	0.0000	0.30	Q				
17+45	0.0000	0.30	Q				
17+50	0.0000	0.29	Q				
17+55	0.0000	0.28	Q				
18+ 0	0.0000	0.27	Q				
18+ 5	0.0000	0.26	Q				
18+10	0.0000	0.26	Q				
18+15	0.0000	0.25	Q				
18+20	0.0000	0.24	Q				
18+25	0.0000	0.24	Q				
18+30	0.0000	0.23	Q				
18+35	0.0000	0.22	Q				
18+40	0.0000	0.22	Q				
18+45	0.0000	0.21	Q				
18+50	0.0000	0.20	Q				
18+55	0.0000	0.20	Q				
19+ 0	0.0000	0.19	Q				
19+ 5	0.0000	0.19	Q				

19+10	0.0000	0.18	Q				
19+15	0.0000	0.18	Q				
19+20	0.0000	0.17	Q				
19+25	0.0000	0.17	Q				
19+30	0.0000	0.16	Q				
19+35	0.0000	0.16	Q				
19+40	0.0000	0.15	Q				
19+45	0.0000	0.15	Q				
19+50	0.0000	0.15	Q				
19+55	0.0000	0.14	Q				
20+ 0	0.0000	0.14	Q				
20+ 5	0.0000	0.13	Q				
20+10	0.0000	0.13	Q				
20+15	0.0000	0.13	Q				
20+20	0.0000	0.12	Q				
20+25	0.0000	0.12	Q				
20+30	0.0000	0.12	Q				
20+35	0.0000	0.11	Q				
20+40	0.0000	0.11	Q				
20+45	0.0000	0.11	Q				
20+50	0.0000	0.10	Q				
20+55	0.0000	0.10	Q				
21+ 0	0.0000	0.10	Q				
21+ 5	0.0000	0.10	Q				
21+10	0.0000	0.09	Q				
21+15	0.0000	0.09	Q				
21+20	0.0000	0.09	Q				
21+25	0.0000	0.09	Q				
21+30	0.0000	0.08	Q				
21+35	0.0000	0.08	Q				
21+40	0.0000	0.08	Q				
21+45	0.0000	0.08	Q				
21+50	0.0000	0.07	Q				
21+55	0.0000	0.07	Q				
22+ 0	0.0000	0.07	Q				
22+ 5	0.0000	0.07	Q				
22+10	0.0000	0.07	Q				
22+15	0.0000	0.06	Q				
22+20	0.0000	0.06	Q				
22+25	0.0000	0.06	Q				
22+30	0.0000	0.06	Q				
22+35	0.0000	0.06	Q				
22+40	0.0000	0.06	Q				
22+45	0.0000	0.05	Q				
22+50	0.0000	0.05	Q				
22+55	0.0000	0.05	Q				
23+ 0	0.0000	0.05	Q				
23+ 5	0.0000	0.05	Q				
23+10	0.0000	0.05	Q				
23+15	0.0000	0.05	Q				
23+20	0.0000	0.04	Q				
23+25	0.0000	0.04	Q				
23+30	0.0000	0.04	Q				
23+35	0.0000	0.04	Q				
23+40	0.0000	0.04	Q				
23+45	0.0000	0.04	Q				
23+50	0.0000	0.04	Q				
23+55	0.0000	0.04	Q				
24+ 0	0.0000	0.04	Q				
24+ 5	0.0000	0.03	Q				
24+10	0.0000	0.03	Q				
24+15	0.0000	0.03	Q				
24+20	0.0000	0.03	Q				
24+25	0.0000	0.03	Q				
24+30	0.0000	0.03	Q				
24+35	0.0000	0.03	Q				
24+40	0.0000	0.03	Q				
24+45	0.0000	0.03	Q				
24+50	0.0000	0.03	Q				
24+55	0.0000	0.03	Q				

25+ 0	0.0000	0.03	Q	|	|	|	|
25+ 5	0.0000	0.02	Q	|	|	|	|
25+10	0.0000	0.02	Q	|	|	|	|
25+15	0.0000	0.02	Q	|	|	|	|
25+20	0.0000	0.02	Q	|	|	|	|
25+25	0.0000	0.02	Q	|	|	|	|
25+30	0.0000	0.02	Q	|	|	|	|
25+35	0.0000	0.02	Q	|	|	|	|
25+40	0.0000	0.02	Q	|	|	|	|
25+45	0.0000	0.02	Q	|	|	|	|
25+50	0.0000	0.02	Q	|	|	|	|
25+55	0.0000	0.02	Q	|	|	|	|
26+ 0	0.0000	0.02	Q	|	|	|	|
26+ 5	0.0000	0.02	Q	|	|	|	|
26+10	0.0000	0.02	Q	|	|	|	|
26+15	0.0000	0.02	Q	|	|	|	|
26+20	0.0000	0.02	Q	|	|	|	|
26+25	0.0000	0.02	Q	|	|	|	|
26+30	0.0000	0.02	Q	|	|	|	|
26+35	0.0000	0.01	Q	|	|	|	|
26+40	0.0000	0.01	Q	|	|	|	|
26+45	0.0000	0.01	Q	|	|	|	|
26+50	0.0000	0.01	Q	|	|	|	|
26+55	0.0000	0.01	Q	|	|	|	|
27+ 0	0.0000	0.01	Q	|	|	|	|
27+ 5	0.0000	0.01	Q	|	|	|	|
27+10	0.0000	0.01	Q	|	|	|	|
27+15	0.0000	0.01	Q	|	|	|	|
27+20	0.0000	0.01	Q	|	|	|	|
27+25	0.0000	0.01	Q	|	|	|	|
27+30	0.0000	0.01	Q	|	|	|	|
27+35	0.0000	0.01	Q	|	|	|	|
27+40	0.0000	0.01	Q	|	|	|	|
27+45	0.0000	0.01	Q	|	|	|	|
27+50	0.0000	0.01	Q	|	|	|	|
27+55	0.0000	0.01	Q	|	|	|	|
28+ 0	0.0000	0.01	Q	|	|	|	|
28+ 5	0.0000	0.01	Q	|	|	|	|
28+10	0.0000	0.01	Q	|	|	|	|
28+15	0.0000	0.01	Q	|	|	|	|
28+20	0.0000	0.01	Q	|	|	|	|
28+25	0.0000	0.01	Q	|	|	|	|
28+30	0.0000	0.01	Q	|	|	|	|
28+35	0.0000	0.01	Q	|	|	|	|
28+40	0.0000	0.01	Q	|	|	|	|
28+45	0.0000	0.01	Q	|	|	|	|
28+50	0.0000	0.01	Q	|	|	|	|
28+55	0.0000	0.01	Q	|	|	|	|
29+ 0	0.0000	0.01	Q	|	|	|	|
29+ 5	0.0000	0.01	Q	|	|	|	|
29+10	0.0000	0.01	Q	|	|	|	|
29+15	0.0000	0.01	Q	|	|	|	|
29+20	0.0000	0.01	Q	|	|	|	|
29+25	0.0000	0.01	Q	|	|	|	|
29+30	0.0000	0.01	Q	|	|	|	|
29+35	0.0000	0.01	Q	|	|	|	|
29+40	0.0000	0.01	Q	|	|	|	|
29+45	0.0000	0.01	Q	|	|	|	|
29+50	0.0000	0.00	Q	|	|	|	|
29+55	0.0000	0.00	Q	|	|	|	|
30+ 0	0.0000	0.00	Q	|	|	|	|
30+ 5	0.0000	0.00	Q	|	|	|	|
30+10	0.0000	0.00	Q	|	|	|	|
30+15	0.0000	0.00	Q	|	|	|	|
30+20	0.0000	0.00	Q	|	|	|	|
30+25	0.0000	0.00	Q	|	|	|	|
30+30	0.0000	0.00	Q	|	|	|	|
30+35	0.0000	0.00	Q	|	|	|	|
30+40	0.0000	0.00	Q	|	|	|	|
30+45	0.0000	0.00	Q	|	|	|	|

```
   30+50       0.0000      0.00  Q         |         |         |         |
   30+55       0.0000      0.00  Q         |         |         |         |
   31+ 0       0.0000      0.00  Q         |         |         |         |
   31+ 5       0.0000      0.00  Q         |         |         |         |
   31+10       0.0000      0.00  Q         |         |         |         |
   31+15       0.0000      0.00  Q         |         |         |         |
   31+20       0.0000      0.00  Q         |         |         |         |
   31+25       0.0000      0.00  Q         |         |         |         |
   31+30       0.0000      0.00  Q         |         |         |         |
   31+35       0.0000      0.00  Q         |         |         |         |
   31+40       0.0000      0.00  Q         |         |         |         |
   31+45       0.0000      0.00  Q         |         |         |         |
   31+50       0.0000      0.00  Q         |         |         |         |
   31+55       0.0000      0.00  Q         |         |         |         |
   32+ 0       0.0000      0.00  Q         |         |         |         |
   32+ 5       0.0000      0.00  Q         |         |         |         |
   32+10       0.0000      0.00  Q         |         |         |         |
   32+15       0.0000      0.00  Q         |         |         |         |
   32+20       0.0000      0.00  Q         |         |         |         |
   32+25       0.0000      0.00  Q         |         |         |         |
   32+30       0.0000      0.00  Q         |         |         |         |
-------------------------------------------------------------------------
      ****************************HYDROGRAPH DATA****************************
                  Number of intervals =   390
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =     1485.276 (CFS)
                  Total volume =     104.893 (Ac.Ft)
            Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      *************************************************************************

      ---------------------------------------------------------------------


      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      Process from Point/Station       11.000 to Point/Station       12.000
      **** RETARDING BASIN ROUTING ****

      _____________________________________________________________________

      User entry of depth-outflow-storage data
      ---------------------------------------------------------------------
      Total number of inflow hydrograph intervals = 390
      Hydrograph time unit =  5.000 (Min.)
      Initial depth in storage basin =   0.00(Ft.)
      ---------------------------------------------------------------------
      ---------------------------------------------------------------------
      Initial basin depth =   0.00 (Ft.)
      Initial basin storage =      0.00 (Ac.Ft)
      Initial basin outflow =   0.00 (CFS)
      ---------------------------------------------------------------------
      ---------------------------------------------------------------------
      Depth vs. Storage and Depth vs. Discharge data:
       Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
           (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
      ---------------------------------------------------------------------
        0.000      0.000      0.000      0.000        0.000
        0.500      0.070     20.000      0.001        0.139
        1.500      1.970     50.000      1.798        2.142
        2.500      7.280     95.000      6.953        7.607
        3.500     15.540    170.000     14.955       16.125
        4.500     25.350    255.000     24.472       26.228
        5.500     35.630    345.000     34.442       36.818
        6.500     46.130    420.000     44.684       47.576
        7.500     56.850    470.000     55.232       58.468
      ---------------------------------------------------------------------
                     Hydrograph Detention Basin Routing
      ---------------------------------------------------------------------
```

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 371.3 742.64 1113.96 1485.28	Depth (Ft.)
0.083	25.01	12.40	0.043	O	0.31
0.167	136.45	26.26	0.466	O I	0.71
0.250	253.47	43.66	1.568	O I	1.29
0.333	319.06	60.27	3.182	O I	1.73
0.417	371.63	76.44	5.090	O I	2.09
0.500	429.14	94.81	7.257	O I	2.50
0.583	482.35	116.68	9.668	O I	2.79
0.667	561.46	141.25	12.374	O I	3.12
0.750	693.12	170.69	15.620	O I	3.51
0.833	1022.91	210.52	20.216	O I	3.98
0.917	1485.28	271.15	27.195	O I	4.68
1.000	1170.58	333.00	34.260	O I	5.37
1.083	763.23	365.60	38.513	O I	5.77
1.167	516.04	378.75	40.355	O I	5.95
1.250	384.23	382.18	40.835	O	6.00
1.333	318.70	380.71	40.629	I O	5.98
1.417	279.16	376.78	40.079	I O	5.92
1.500	249.97	371.39	39.325	I O	5.85
1.583	227.77	365.03	38.434	I O	5.77
1.667	209.94	358.01	37.452	I O	5.67
1.750	197.71	350.61	36.415	I O	5.57
1.833	183.85	342.48	35.342	I O	5.47
1.917	170.89	332.82	34.239	I O	5.36
2.000	165.67	323.19	33.138	I O	5.26
2.083	162.34	313.87	32.074	I O	5.15
2.167	160.06	304.93	31.054	I O	5.05
2.250	157.70	296.39	30.077	I O	4.96
2.333	155.15	288.19	29.141	I O	4.87
2.417	152.50	280.33	28.243	I O	4.78
2.500	149.89	272.77	27.380	I O	4.70
2.583	147.31	265.50	26.550	I O	4.62
2.667	144.66	258.51	25.751	I O	4.54
2.750	141.93	251.80	24.980	I O	4.46
2.833	139.23	245.35	24.236	I O	4.39
2.917	136.58	239.13	23.518	I O	4.31
3.000	133.95	233.11	22.823	I O	4.24
3.083	131.13	227.28	22.151	I O	4.17
3.167	128.23	221.62	21.498	I O	4.11
3.250	125.39	216.13	20.864	I O	4.04
3.333	122.62	210.79	20.248	I O	3.98
3.417	119.80	205.60	19.649	I O	3.92
3.500	116.59	200.54	19.064	I O	3.86
3.583	113.23	195.57	18.492	I O	3.80
3.667	109.98	190.71	17.930	I O	3.74
3.750	106.82	185.94	17.380	I O	3.69
3.833	103.39	181.26	16.839	IO	3.63
3.917	99.49	176.63	16.305	IO	3.58
4.000	95.52	172.05	15.776	IO	3.52
4.083	91.62	167.38	15.252	I O	3.47
4.167	87.80	162.67	14.733	I O	3.40
4.250	83.51	158.00	14.219	I O	3.34
4.333	78.94	153.35	13.706	I O	3.28
4.417	74.57	148.70	13.194	I O	3.22
4.500	70.46	144.08	12.686	I O	3.15
4.583	66.60	139.50	12.181	I O	3.09
4.667	62.99	134.97	11.682	IO	3.03
4.750	59.88	130.51	11.191	IO	2.97
4.833	57.32	126.15	10.711	IO	2.92
4.917	55.00	121.91	10.243	IO	2.86
5.000	52.79	117.78	9.789	IO	2.80
5.083	50.66	113.78	9.348	IO	2.75
5.167	48.56	109.89	8.920	IO	2.70
5.250	46.52	106.11	8.503	IO	2.65
5.333	40.45	102.31	8.085	I O	2.60
5.417	32.66	98.32	7.646	I O	2.54
5.500	26.69	94.21	7.187	I O	2.48

5.583	22.50	90.27	6.721	IO	|	|	|	|	2.39
5.667	19.53	86.34	6.258	IO	|	|	|	|	2.31
5.750	17.39	82.49	5.804	IO	|	|	|	|	2.22
5.833	15.81	78.75	5.363	IO	|	|	|	|	2.14
5.917	14.61	75.15	4.938	IO	|	|	|	|	2.06
6.000	13.68	71.69	4.529	IO	|	|	|	|	1.98
6.083	12.94	68.38	4.139	IO	|	|	|	|	1.91
6.167	12.32	65.22	3.766	IO	|	|	|	|	1.84
6.250	11.76	62.20	3.410	IO	|	|	|	|	1.77
6.333	10.98	59.32	3.070	IO	|	|	|	|	1.71
6.417	10.01	56.55	2.743	IO	|	|	|	|	1.65
6.500	9.07	53.88	2.428	IO	|	|	|	|	1.59
6.583	8.22	51.32	2.126	IO	|	|	|	|	1.53
6.667	7.46	47.91	1.838	IO	|	|	|	|	1.43
6.750	6.79	43.71	1.571	O	|	|	|	|	1.29
6.833	6.18	39.87	1.328	O	|	|	|	|	1.16
6.917	5.65	36.37	1.107	O	|	|	|	|	1.05
7.000	5.17	33.17	0.904	O	|	|	|	|	0.94
7.083	4.75	30.26	0.720	O	|	|	|	|	0.84
7.167	4.36	27.61	0.552	O	|	|	|	|	0.75
7.250	4.02	25.20	0.399	O	|	|	|	|	0.67
7.333	3.72	23.00	0.260	O	|	|	|	|	0.60
7.417	3.45	21.00	0.133	O	|	|	|	|	0.53
7.500	3.20	12.05	0.042	O	|	|	|	|	0.30
7.583	2.99	3.17	0.011	O	|	|	|	|	0.08
7.667	2.79	2.89	0.010	O	|	|	|	|	0.07
7.750	2.62	2.71	0.009	O	|	|	|	|	0.07
7.833	2.46	2.54	0.009	O	|	|	|	|	0.06
7.917	2.32	2.39	0.008	O	|	|	|	|	0.06
8.000	2.20	2.26	0.008	O	|	|	|	|	0.06
8.083	2.08	2.14	0.007	O	|	|	|	|	0.05
8.167	1.98	2.03	0.007	O	|	|	|	|	0.05
8.250	1.89	1.94	0.007	O	|	|	|	|	0.05
8.333	1.81	1.85	0.006	O	|	|	|	|	0.05
8.417	1.74	1.78	0.006	O	|	|	|	|	0.04
8.500	1.67	1.71	0.006	O	|	|	|	|	0.04
8.583	1.61	1.64	0.006	O	|	|	|	|	0.04
8.667	1.56	1.59	0.006	O	|	|	|	|	0.04
8.750	1.51	1.54	0.005	O	|	|	|	|	0.04
8.833	1.47	1.49	0.005	O	|	|	|	|	0.04
8.917	1.43	1.45	0.005	O	|	|	|	|	0.04
9.000	1.40	1.42	0.005	O	|	|	|	|	0.04
9.083	1.37	1.38	0.005	O	|	|	|	|	0.03
9.167	1.34	1.35	0.005	O	|	|	|	|	0.03
9.250	1.32	1.33	0.005	O	|	|	|	|	0.03
9.333	1.29	1.30	0.005	O	|	|	|	|	0.03
9.417	1.27	1.28	0.004	O	|	|	|	|	0.03
9.500	1.25	1.26	0.004	O	|	|	|	|	0.03
9.583	1.24	1.25	0.004	O	|	|	|	|	0.03
9.667	1.22	1.23	0.004	O	|	|	|	|	0.03
9.750	1.21	1.22	0.004	O	|	|	|	|	0.03
9.833	1.20	1.20	0.004	O	|	|	|	|	0.03
9.917	1.19	1.19	0.004	O	|	|	|	|	0.03
10.000	1.17	1.18	0.004	O	|	|	|	|	0.03
10.083	1.17	1.17	0.004	O	|	|	|	|	0.03
10.167	1.16	1.16	0.004	O	|	|	|	|	0.03
10.250	1.15	1.15	0.004	O	|	|	|	|	0.03
10.333	1.14	1.15	0.004	O	|	|	|	|	0.03
10.417	1.14	1.14	0.004	O	|	|	|	|	0.03
10.500	1.13	1.13	0.004	O	|	|	|	|	0.03
10.583	1.12	1.13	0.004	O	|	|	|	|	0.03
10.667	1.12	1.12	0.004	O	|	|	|	|	0.03
10.750	1.11	1.12	0.004	O	|	|	|	|	0.03
10.833	1.11	1.11	0.004	O	|	|	|	|	0.03
10.917	1.11	1.11	0.004	O	|	|	|	|	0.03
11.000	1.10	1.10	0.004	O	|	|	|	|	0.03
11.083	1.10	1.10	0.004	O	|	|	|	|	0.03
11.167	1.09	1.10	0.004	O	|	|	|	|	0.03
11.250	1.09	1.09	0.004	O	|	|	|	|	0.03
11.333	1.09	1.09	0.004	O	|	|	|	|	0.03

11.417	1.08	1.09	0.004	O					0.03
11.500	1.08	1.08	0.004	O					0.03
11.583	1.07	1.08	0.004	O					0.03
11.667	1.07	1.07	0.004	O					0.03
11.750	1.07	1.07	0.004	O					0.03
11.833	1.07	1.07	0.004	O					0.03
11.917	1.06	1.06	0.004	O					0.03
12.000	1.06	1.06	0.004	O					0.03
12.083	1.06	1.06	0.004	O					0.03
12.167	1.06	1.06	0.004	O					0.03
12.250	1.06	1.06	0.004	O					0.03
12.333	1.06	1.06	0.004	O					0.03
12.417	1.05	1.06	0.004	O					0.03
12.500	1.05	1.05	0.004	O					0.03
12.583	1.05	1.05	0.004	O					0.03
12.667	1.05	1.05	0.004	O					0.03
12.750	1.05	1.05	0.004	O					0.03
12.833	1.05	1.05	0.004	O					0.03
12.917	1.04	1.05	0.004	O					0.03
13.000	1.04	1.04	0.004	O					0.03
13.083	1.04	1.04	0.004	O					0.03
13.167	1.04	1.04	0.004	O					0.03
13.250	1.04	1.04	0.004	O					0.03
13.333	1.04	1.04	0.004	O					0.03
13.417	1.04	1.04	0.004	O					0.03
13.500	1.03	1.03	0.004	O					0.03
13.583	1.03	1.03	0.004	O					0.03
13.667	1.03	1.03	0.004	O					0.03
13.750	1.03	1.03	0.004	O					0.03
13.833	1.03	1.03	0.004	O					0.03
13.917	1.02	1.02	0.004	O					0.03
14.000	1.01	1.02	0.004	O					0.03
14.083	0.99	1.00	0.004	O					0.03
14.167	0.97	0.98	0.003	O					0.02
14.250	0.95	0.96	0.003	O					0.02
14.333	0.93	0.94	0.003	O					0.02
14.417	0.91	0.92	0.003	O					0.02
14.500	0.88	0.90	0.003	O					0.02
14.583	0.86	0.87	0.003	O					0.02
14.667	0.84	0.85	0.003	O					0.02
14.750	0.81	0.83	0.003	O					0.02
14.833	0.79	0.80	0.003	O					0.02
14.917	0.77	0.78	0.003	O					0.02
15.000	0.75	0.76	0.003	O					0.02
15.083	0.73	0.74	0.003	O					0.02
15.167	0.71	0.72	0.003	O					0.02
15.250	0.69	0.70	0.002	O					0.02
15.333	0.67	0.68	0.002	O					0.02
15.417	0.65	0.66	0.002	O					0.02
15.500	0.63	0.64	0.002	O					0.02
15.583	0.62	0.62	0.002	O					0.02
15.667	0.60	0.61	0.002	O					0.02
15.750	0.58	0.59	0.002	O					0.01
15.833	0.57	0.57	0.002	O					0.01
15.917	0.55	0.56	0.002	O					0.01
16.000	0.53	0.54	0.002	O					0.01
16.083	0.52	0.53	0.002	O					0.01
16.167	0.51	0.51	0.002	O					0.01
16.250	0.49	0.50	0.002	O					0.01
16.333	0.48	0.48	0.002	O					0.01
16.417	0.46	0.47	0.002	O					0.01
16.500	0.45	0.46	0.002	O					0.01
16.583	0.44	0.45	0.002	O					0.01
16.667	0.43	0.43	0.002	O					0.01
16.750	0.41	0.42	0.001	O					0.01
16.833	0.40	0.41	0.001	O					0.01
16.917	0.39	0.40	0.001	O					0.01
17.000	0.38	0.39	0.001	O					0.01
17.083	0.37	0.38	0.001	O					0.01
17.167	0.36	0.37	0.001	O					0.01

17.250	0.35	0.36	0.001	O					0.01
17.333	0.34	0.35	0.001	O					0.01
17.417	0.33	0.34	0.001	O					0.01
17.500	0.32	0.33	0.001	O					0.01
17.583	0.31	0.32	0.001	O					0.01
17.667	0.30	0.31	0.001	O					0.01
17.750	0.30	0.30	0.001	O					0.01
17.833	0.29	0.29	0.001	O					0.01
17.917	0.28	0.28	0.001	O					0.01
18.000	0.27	0.28	0.001	O					0.01
18.083	0.26	0.27	0.001	O					0.01
18.167	0.26	0.26	0.001	O					0.01
18.250	0.25	0.25	0.001	O					0.01
18.333	0.24	0.25	0.001	O					0.01
18.417	0.24	0.24	0.001	O					0.01
18.500	0.23	0.23	0.001	O					0.01
18.583	0.22	0.23	0.001	O					0.01
18.667	0.22	0.22	0.001	O					0.01
18.750	0.21	0.21	0.001	O					0.01
18.833	0.20	0.21	0.001	O					0.01
18.917	0.20	0.20	0.001	O					0.01
19.000	0.19	0.20	0.001	O					0.00
19.083	0.19	0.19	0.001	O					0.00
19.167	0.18	0.19	0.001	O					0.00
19.250	0.18	0.18	0.001	O					0.00
19.333	0.17	0.18	0.001	O					0.00
19.417	0.17	0.17	0.001	O					0.00
19.500	0.16	0.17	0.001	O					0.00
19.583	0.16	0.16	0.001	O					0.00
19.667	0.15	0.16	0.001	O					0.00
19.750	0.15	0.15	0.001	O					0.00
19.833	0.15	0.15	0.001	O					0.00
19.917	0.14	0.14	0.001	O					0.00
20.000	0.14	0.14	0.000	O					0.00
20.083	0.13	0.14	0.000	O					0.00
20.167	0.13	0.13	0.000	O					0.00
20.250	0.13	0.13	0.000	O					0.00
20.333	0.12	0.13	0.000	O					0.00
20.417	0.12	0.12	0.000	O					0.00
20.500	0.12	0.12	0.000	O					0.00
20.583	0.11	0.12	0.000	O					0.00
20.667	0.11	0.11	0.000	O					0.00
20.750	0.11	0.11	0.000	O					0.00
20.833	0.10	0.11	0.000	O					0.00
20.917	0.10	0.10	0.000	O					0.00
21.000	0.10	0.10	0.000	O					0.00
21.083	0.10	0.10	0.000	O					0.00
21.167	0.09	0.09	0.000	O					0.00
21.250	0.09	0.09	0.000	O					0.00
21.333	0.09	0.09	0.000	O					0.00
21.417	0.09	0.09	0.000	O					0.00
21.500	0.08	0.08	0.000	O					0.00
21.583	0.08	0.08	0.000	O					0.00
21.667	0.08	0.08	0.000	O					0.00
21.750	0.08	0.08	0.000	O					0.00
21.833	0.07	0.08	0.000	O					0.00
21.917	0.07	0.07	0.000	O					0.00
22.000	0.07	0.07	0.000	O					0.00
22.083	0.07	0.07	0.000	O					0.00
22.167	0.07	0.07	0.000	O					0.00
22.250	0.06	0.07	0.000	O					0.00
22.333	0.06	0.06	0.000	O					0.00
22.417	0.06	0.06	0.000	O					0.00
22.500	0.06	0.06	0.000	O					0.00
22.583	0.06	0.06	0.000	O					0.00
22.667	0.06	0.06	0.000	O					0.00
22.750	0.05	0.06	0.000	O					0.00
22.833	0.05	0.05	0.000	O					0.00
22.917	0.05	0.05	0.000	O					0.00
23.000	0.05	0.05	0.000	O					0.00

23.083	0.05	0.05	0.000	O					0.00
23.167	0.05	0.05	0.000	O					0.00
23.250	0.05	0.05	0.000	O					0.00
23.333	0.04	0.05	0.000	O					0.00
23.417	0.04	0.04	0.000	O					0.00
23.500	0.04	0.04	0.000	O					0.00
23.583	0.04	0.04	0.000	O					0.00
23.667	0.04	0.04	0.000	O					0.00
23.750	0.04	0.04	0.000	O					0.00
23.833	0.04	0.04	0.000	O					0.00
23.917	0.04	0.04	0.000	O					0.00
24.000	0.04	0.04	0.000	O					0.00
24.083	0.03	0.04	0.000	O					0.00
24.167	0.03	0.03	0.000	O					0.00
24.250	0.03	0.03	0.000	O					0.00
24.333	0.03	0.03	0.000	O					0.00
24.417	0.03	0.03	0.000	O					0.00
24.500	0.03	0.03	0.000	O					0.00
24.583	0.03	0.03	0.000	O					0.00
24.667	0.03	0.03	0.000	O					0.00
24.750	0.03	0.03	0.000	O					0.00
24.833	0.03	0.03	0.000	O					0.00
24.917	0.03	0.03	0.000	O					0.00
25.000	0.03	0.03	0.000	O					0.00
25.083	0.02	0.03	0.000	O					0.00
25.167	0.02	0.02	0.000	O					0.00
25.250	0.02	0.02	0.000	O					0.00
25.333	0.02	0.02	0.000	O					0.00
25.417	0.02	0.02	0.000	O					0.00
25.500	0.02	0.02	0.000	O					0.00
25.583	0.02	0.02	0.000	O					0.00
25.667	0.02	0.02	0.000	O					0.00
25.750	0.02	0.02	0.000	O					0.00
25.833	0.02	0.02	0.000	O					0.00
25.917	0.02	0.02	0.000	O					0.00
26.000	0.02	0.02	0.000	O					0.00
26.083	0.02	0.02	0.000	O					0.00
26.167	0.02	0.02	0.000	O					0.00
26.250	0.02	0.02	0.000	O					0.00
26.333	0.02	0.02	0.000	O					0.00
26.417	0.02	0.02	0.000	O					0.00
26.500	0.02	0.02	0.000	O					0.00
26.583	0.01	0.02	0.000	O					0.00
26.667	0.01	0.01	0.000	O					0.00
26.750	0.01	0.01	0.000	O					0.00
26.833	0.01	0.01	0.000	O					0.00
26.917	0.01	0.01	0.000	O					0.00
27.000	0.01	0.01	0.000	O					0.00
27.083	0.01	0.01	0.000	O					0.00
27.167	0.01	0.01	0.000	O					0.00
27.250	0.01	0.01	0.000	O					0.00
27.333	0.01	0.01	0.000	O					0.00
27.417	0.01	0.01	0.000	O					0.00
27.500	0.01	0.01	0.000	O					0.00
27.583	0.01	0.01	0.000	O					0.00
27.667	0.01	0.01	0.000	O					0.00
27.750	0.01	0.01	0.000	O					0.00
27.833	0.01	0.01	0.000	O					0.00
27.917	0.01	0.01	0.000	O					0.00
28.000	0.01	0.01	0.000	O					0.00
28.083	0.01	0.01	0.000	O					0.00
28.167	0.01	0.01	0.000	O					0.00
28.250	0.01	0.01	0.000	O					0.00
28.333	0.01	0.01	0.000	O					0.00
28.417	0.01	0.01	0.000	O					0.00
28.500	0.01	0.01	0.000	O					0.00
28.583	0.01	0.01	0.000	O					0.00
28.667	0.01	0.01	0.000	O					0.00
28.750	0.01	0.01	0.000	O					0.00
28.833	0.01	0.01	0.000	O					0.00

28.917	0.01	0.01	0.000	O	|	|	|	|	0.00
29.000	0.01	0.01	0.000	O	|	|	|	|	0.00
29.083	0.01	0.01	0.000	O	|	|	|	|	0.00
29.167	0.01	0.01	0.000	O	|	|	|	|	0.00
29.250	0.01	0.01	0.000	O	|	|	|	|	0.00
29.333	0.01	0.01	0.000	O	|	|	|	|	0.00
29.417	0.01	0.01	0.000	O	|	|	|	|	0.00
29.500	0.01	0.01	0.000	O	|	|	|	|	0.00
29.583	0.01	0.01	0.000	O	|	|	|	|	0.00
29.667	0.01	0.01	0.000	O	|	|	|	|	0.00
29.750	0.01	0.01	0.000	O	|	|	|	|	0.00
29.833	0.00	0.01	0.000	O	|	|	|	|	0.00
29.917	0.00	0.00	0.000	O	|	|	|	|	0.00
30.000	0.00	0.00	0.000	O	|	|	|	|	0.00
30.083	0.00	0.00	0.000	O	|	|	|	|	0.00
30.167	0.00	0.00	0.000	O	|	|	|	|	0.00
30.250	0.00	0.00	0.000	O	|	|	|	|	0.00
30.333	0.00	0.00	0.000	O	|	|	|	|	0.00
30.417	0.00	0.00	0.000	O	|	|	|	|	0.00
30.500	0.00	0.00	0.000	O	|	|	|	|	0.00
30.583	0.00	0.00	0.000	O	|	|	|	|	0.00
30.667	0.00	0.00	0.000	O	|	|	|	|	0.00
30.750	0.00	0.00	0.000	O	|	|	|	|	0.00
30.833	0.00	0.00	0.000	O	|	|	|	|	0.00
30.917	0.00	0.00	0.000	O	|	|	|	|	0.00
31.000	0.00	0.00	0.000	O	|	|	|	|	0.00
31.083	0.00	0.00	0.000	O	|	|	|	|	0.00
31.167	0.00	0.00	0.000	O	|	|	|	|	0.00
31.250	0.00	0.00	0.000	O	|	|	|	|	0.00
31.333	0.00	0.00	0.000	O	|	|	|	|	0.00
31.417	0.00	0.00	0.000	O	|	|	|	|	0.00
31.500	0.00	0.00	0.000	O	|	|	|	|	0.00
31.583	0.00	0.00	0.000	O	|	|	|	|	0.00
31.667	0.00	0.00	0.000	O	|	|	|	|	0.00
31.750	0.00	0.00	0.000	O	|	|	|	|	0.00
31.833	0.00	0.00	0.000	O	|	|	|	|	0.00
31.917	0.00	0.00	0.000	O	|	|	|	|	0.00
32.000	0.00	0.00	0.000	O	|	|	|	|	0.00
32.083	0.00	0.00	0.000	O	|	|	|	|	0.00
32.167	0.00	0.00	0.000	O	|	|	|	|	0.00
32.250	0.00	0.00	0.000	O	|	|	|	|	0.00
32.333	0.00	0.00	0.000	O	|	|	|	|	0.00
32.417	0.00	0.00	0.000	O	|	|	|	|	0.00
32.500	0.00	0.00	0.000	O	|	|	|	|	0.00
32.583	0.00	0.00	0.000	O	|	|	|	|	0.00

```
**************************HYDROGRAPH DATA**************************
              Number of intervals =   391
              Time interval =    5.0 (Min.)
              Maximum/Peak flow rate =      382.180 (CFS)
              Total volume =     104.893 (Ac.Ft)
       Status of hydrographs being held in storage
                 Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
*******************************************************************

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                    FLOOD HYDROGRAPH ROUTING PROGRAM
                  Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                              Study date: 04/23/19

      ---------------------------------------------------------------------
      Legado
      Detention Basin B2
      100-year 3-hour Inflow Hydrograph

      ---------------------------------------------------------------------


      Program License Serial Number 4029

      ---------------------------------------------------------------------
      ********************* HYDROGRAPH INFORMATION **********************

                    From study/file name: lgareab2cd3100.rte
      ****************************HYDROGRAPH DATA****************************
                    Number of intervals =    48
                    Time interval =    5.0 (Min.)
                    Maximum/Peak flow rate =      736.169 (CFS)
                    Total volume =      70.283 (Ac.Ft)
             Status of hydrographs being held in storage
                        Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
             Peak (CFS)      0.000     0.000     0.000     0.000     0.000
             Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      *********************************************************************



      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      Process from Point/Station       10.000 to Point/Station       11.000
      **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
      _____________________________________________________________________
      ********************* HYDROGRAPH INFORMATION **********************

                    From study/file name: lgouta3100.rte
      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                       P R I N T  O F  S T O R M
                    R u n o f f     H y d r o g r a p h
      ---------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals (CFS)

      ---------------------------------------------------------------------
 Time(h+m) Add q(CFS)  Tot. Q   0      214.9     429.9     644.8     859.7
 ---------------------------------------------------------------------------
   0+ 5       0.3975     11.76  Q         |         |         |         |
   0+10       2.9985     58.97  q Q       |         |         |         |
   0+15       9.6675     92.14  q   Q     |         |         |         |
   0+20      19.1456    108.46  q    Q    |         |         |         |
   0+25      27.6480    135.25  |q    Q   |         |         |         |
   0+30      31.4630    155.70  |q     Q  |         |         |         |
   0+35      33.2509    173.03  |q      Q |         |         |         |
   0+40      35.3311    177.82  |q      Q |         |         |         |
   0+45      37.5927    190.70  |q      Q |         |         |         |
   0+50      39.9774    198.80  |q       Q|         |         |         |
   0+55      42.8134    193.88  |q       Q|         |         |         |
   1+ 0      45.9138    197.89  | q      Q|         |         |         |
   1+ 5      48.9954    215.30  | q       Q         |         |         |
   1+10      52.3068    241.23  | q       |Q        |         |         |
   1+15      56.1028    258.23  | q       | Q       |         |         |
   1+20      60.3098    265.88  | q       | Q       |         |         |
   1+25      64.2601    271.20  | q       | Q       |         |         |
   1+30      67.8732    298.24  |  q      |  Q      |         |         |
   1+35      71.7487    319.00  |  q      |   Q     |         |         |
   1+40      76.0477    322.77  |  q      |    Q    |         |         |
   1+45      80.0808    342.72  |  q      |    Q    |         |         |
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1+50      83.6538    378.07  |  q       |       Q  |          |          |
1+55      87.3465    391.04  |   q      |        Q |          |          |
2+ 0      91.2803    390.67  |   q      |        Q |          |          |
2+ 5      94.6424    397.19  |   q      |        Q |          |          |
2+10      97.5963    419.26  |   q      |         Q|          |          |
2+15     100.7714    482.22  |   q      |          | Q        |          |
2+20     104.4286    536.12  |   q      |          |   Q      |          |
2+25     108.3685    546.99  |    q     |          |     Q    |          |
2+30     112.7294    672.87  |    q     |          |          |Q         |
2+35     117.7329    794.25  |    q     |          |          |     Q    |
2+40     123.5745    859.74  |    q     |          |          |       Q  |
2+45     129.5918    774.72  |     q    |          |          |     Q    |
2+50     134.7239    573.92  |     q    |          |      Q   |          |
2+55     138.3165    454.39  |     q    |          |Q         |          |
3+ 0      140.5155    394.33  |     q    |        Q |          |          |
3+ 5      141.7520    312.76  |     q    |   Q      |          |          |
3+10      142.1919    247.28  |     q    |Q         |          |          |
3+15      141.9209    211.50  |     q  Q |          |          |          |
3+20      141.1252    189.61  |     q Q  |          |          |          |
3+25      139.9926    173.94  |     q Q  |          |          |          |
3+30      138.6409    161.48  |     qQ   |          |          |          |
3+35      137.1351    151.44  |     qQ   |          |          |          |
3+40      135.5145    143.01  |     Q    |          |          |          |
3+45      133.7589    137.39  |     Q    |          |          |          |
3+50      131.8575    133.97  |     Q    |          |          |          |
3+55      129.8808    130.81  |     Q    |          |          |          |
4+ 0      127.8759    128.03  |    Q     |          |          |          |
4+ 5      125.8532    125.85  |    Q     |          |          |          |
4+10      123.6859    123.69  |    Q     |          |          |          |
4+15      121.4508    121.45  |    Q     |          |          |          |
4+20      119.2448    119.24  |    Q     |          |          |          |
4+25      117.0715    117.07  |    Q     |          |          |          |
4+30      114.8307    114.83  |    Q     |          |          |          |
4+35      112.5042    112.50  |    Q     |          |          |          |
4+40      110.1848    110.18  |    Q     |          |          |          |
4+45      107.9131    107.91  |    Q     |          |          |          |
4+50      105.6821    105.68  |   Q      |          |          |          |
4+55      103.2984    103.30  |   Q      |          |          |          |
5+ 0      100.8488    100.85  |   Q      |          |          |          |
5+ 5       98.4565     98.46  |   Q      |          |          |          |
5+10       96.1215     96.12  |   Q      |          |          |          |
5+15       93.7892     93.79  |   Q      |          |          |          |
5+20       91.0382     91.04  |   Q      |          |          |          |
5+25       88.0968     88.10  |   Q      |          |          |          |
5+30       85.2481     85.25  |  Q       |          |          |          |
5+35       82.4927     82.49  |  Q       |          |          |          |
5+40       79.5379     79.54  |  Q       |          |          |          |
5+45       76.0708     76.07  |  Q       |          |          |          |
5+50       72.4844     72.48  |  Q       |          |          |          |
5+55       69.0662     69.07  |  Q       |          |          |          |
6+ 0       65.8119     65.81  |  Q       |          |          |          |
6+ 5       62.1813     62.18  | Q        |          |          |          |
6+10       58.2199     58.22  | Q        |          |          |          |
6+15       54.3831     54.38  | Q        |          |          |          |
6+20       50.8028     50.80  | Q        |          |          |          |
6+25       47.4636     47.46  | Q        |          |          |          |
6+30       44.3492     44.35  | Q        |          |          |          |
6+35       41.6810     41.68  |Q         |          |          |          |
6+40       39.5722     39.57  |Q         |          |          |          |
6+45       37.7290     37.73  |Q         |          |          |          |
6+50       35.9763     35.98  |Q         |          |          |          |
6+55       34.3076     34.31  |Q         |          |          |          |
7+ 0       32.7189     32.72  |Q         |          |          |          |
7+ 5       31.2062     31.21  |Q         |          |          |          |
7+10       26.1532     26.15  |Q         |          |          |          |
7+15       18.9818     18.98  Q          |          |          |          |
7+20       13.2532     13.25  Q          |          |          |          |
7+25        9.3636      9.36  Q          |          |          |          |
7+30        6.7297      6.73  Q          |          |          |          |
7+35        4.9458      4.95  Q          |          |          |          |
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7+40	3.7370	3.74	Q				
7+45	2.9174	2.92	Q				
7+50	2.3611	2.36	Q				
7+55	1.9831	1.98	Q				
8+ 0	1.7256	1.73	Q				
8+ 5	1.5498	1.55	Q				
8+10	1.4291	1.43	Q				
8+15	1.3459	1.35	Q				
8+20	1.2881	1.29	Q				
8+25	1.2478	1.25	Q				
8+30	1.2198	1.22	Q				
8+35	1.2003	1.20	Q				
8+40	1.1866	1.19	Q				
8+45	1.1769	1.18	Q				
8+50	1.1698	1.17	Q				
8+55	1.1645	1.16	Q				
9+ 0	1.1604	1.16	Q				
9+ 5	1.1572	1.16	Q				
9+10	1.1545	1.15	Q				
9+15	1.1522	1.15	Q				
9+20	1.1501	1.15	Q				
9+25	1.1483	1.15	Q				
9+30	1.1465	1.15	Q				
9+35	1.1448	1.14	Q				
9+40	1.1432	1.14	Q				
9+45	1.1415	1.14	Q				
9+50	1.1398	1.14	Q				
9+55	1.1381	1.14	Q				
10+ 0	1.1364	1.14	Q				
10+ 5	1.1347	1.13	Q				
10+10	1.1330	1.13	Q				
10+15	1.1313	1.13	Q				
10+20	1.1296	1.13	Q				
10+25	1.1279	1.13	Q				
10+30	1.1262	1.13	Q				
10+35	1.1245	1.12	Q				
10+40	1.1228	1.12	Q				
10+45	1.1211	1.12	Q				
10+50	1.1194	1.12	Q				
10+55	1.1177	1.12	Q				
11+ 0	1.1160	1.12	Q				
11+ 5	1.1143	1.11	Q				
11+10	1.1126	1.11	Q				
11+15	1.1109	1.11	Q				
11+20	1.1092	1.11	Q				
11+25	1.1075	1.11	Q				
11+30	1.1058	1.11	Q				
11+35	1.1041	1.10	Q				
11+40	1.1025	1.10	Q				
11+45	1.1008	1.10	Q				
11+50	1.0991	1.10	Q				
11+55	1.0974	1.10	Q				
12+ 0	1.0958	1.10	Q				
12+ 5	1.0941	1.09	Q				
12+10	1.0925	1.09	Q				
12+15	1.0908	1.09	Q				
12+20	1.0891	1.09	Q				
12+25	1.0875	1.09	Q				
12+30	1.0858	1.09	Q				
12+35	1.0842	1.08	Q				
12+40	1.0825	1.08	Q				
12+45	1.0809	1.08	Q				
12+50	1.0792	1.08	Q				
12+55	1.0776	1.08	Q				
13+ 0	1.0760	1.08	Q				
13+ 5	1.0743	1.07	Q				
13+10	1.0727	1.07	Q				
13+15	1.0711	1.07	Q				
13+20	1.0694	1.07	Q				
13+25	1.0678	1.07	Q				

13+30	1.0662	1.07	Q				
13+35	1.0646	1.06	Q				
13+40	1.0630	1.06	Q				
13+45	1.0613	1.06	Q				
13+50	1.0597	1.06	Q				
13+55	1.0581	1.06	Q				
14+ 0	1.0565	1.06	Q				
14+ 5	1.0549	1.05	Q				
14+10	1.0533	1.05	Q				
14+15	1.0517	1.05	Q				
14+20	1.0501	1.05	Q				
14+25	1.0485	1.05	Q				
14+30	1.0469	1.05	Q				
14+35	1.0453	1.05	Q				
14+40	1.0437	1.04	Q				
14+45	1.0422	1.04	Q				
14+50	1.0406	1.04	Q				
14+55	1.0390	1.04	Q				
15+ 0	1.0374	1.04	Q				
15+ 5	1.0358	1.04	Q				
15+10	1.0343	1.03	Q				
15+15	1.0327	1.03	Q				
15+20	1.0311	1.03	Q				
15+25	1.0296	1.03	Q				
15+30	1.0276	1.03	Q				
15+35	1.0233	1.02	Q				
15+40	1.0143	1.01	Q				
15+45	1.0000	1.00	Q				
15+50	0.9816	0.98	Q				
15+55	0.9608	0.96	Q				
16+ 0	0.9384	0.94	Q				
16+ 5	0.9152	0.92	Q				
16+10	0.8918	0.89	Q				
16+15	0.8683	0.87	Q				
16+20	0.8451	0.85	Q				
16+25	0.8222	0.82	Q				
16+30	0.7998	0.80	Q				
16+35	0.7778	0.78	Q				
16+40	0.7564	0.76	Q				
16+45	0.7355	0.74	Q				
16+50	0.7152	0.72	Q				
16+55	0.6953	0.70	Q				
17+ 0	0.6761	0.68	Q				
17+ 5	0.6573	0.66	Q				
17+10	0.6391	0.64	Q				
17+15	0.6213	0.62	Q				
17+20	0.6041	0.60	Q				
17+25	0.5873	0.59	Q				
17+30	0.5710	0.57	Q				
17+35	0.5551	0.56	Q				
17+40	0.5397	0.54	Q				
17+45	0.5247	0.52	Q				
17+50	0.5101	0.51	Q				
17+55	0.4959	0.50	Q				
18+ 0	0.4821	0.48	Q				
18+ 5	0.4687	0.47	Q				
18+10	0.4557	0.46	Q				
18+15	0.4430	0.44	Q				
18+20	0.4307	0.43	Q				
18+25	0.4188	0.42	Q				
18+30	0.4071	0.41	Q				
18+35	0.3958	0.40	Q				
18+40	0.3848	0.38	Q				
18+45	0.3741	0.37	Q				
18+50	0.3637	0.36	Q				
18+55	0.3536	0.35	Q				
19+ 0	0.3438	0.34	Q				
19+ 5	0.3342	0.33	Q				
19+10	0.3249	0.32	Q				
19+15	0.3159	0.32	Q				

19+20	0.3071	0.31	Q				
19+25	0.2986	0.30	Q				
19+30	0.2903	0.29	Q				
19+35	0.2822	0.28	Q				
19+40	0.2744	0.27	Q				
19+45	0.2668	0.27	Q				
19+50	0.2594	0.26	Q				
19+55	0.2521	0.25	Q				
20+ 0	0.2451	0.25	Q				
20+ 5	0.2383	0.24	Q				
20+10	0.2317	0.23	Q				
20+15	0.2253	0.23	Q				
20+20	0.2190	0.22	Q				
20+25	0.2129	0.21	Q				
20+30	0.2070	0.21	Q				
20+35	0.2012	0.20	Q				
20+40	0.1957	0.20	Q				
20+45	0.1902	0.19	Q				
20+50	0.1849	0.18	Q				
20+55	0.1798	0.18	Q				
21+ 0	0.1748	0.17	Q				
21+ 5	0.1699	0.17	Q				
21+10	0.1652	0.17	Q				
21+15	0.1606	0.16	Q				
21+20	0.1562	0.16	Q				
21+25	0.1518	0.15	Q				
21+30	0.1476	0.15	Q				
21+35	0.1435	0.14	Q				
21+40	0.1395	0.14	Q				
21+45	0.1356	0.14	Q				
21+50	0.1319	0.13	Q				
21+55	0.1282	0.13	Q				
22+ 0	0.1246	0.12	Q				
22+ 5	0.1212	0.12	Q				
22+10	0.1178	0.12	Q				
22+15	0.1145	0.11	Q				
22+20	0.1113	0.11	Q				
22+25	0.1083	0.11	Q				
22+30	0.1052	0.11	Q				
22+35	0.1023	0.10	Q				
22+40	0.0995	0.10	Q				
22+45	0.0967	0.10	Q				
22+50	0.0940	0.09	Q				
22+55	0.0914	0.09	Q				
23+ 0	0.0889	0.09	Q				
23+ 5	0.0864	0.09	Q				
23+10	0.0840	0.08	Q				
23+15	0.0817	0.08	Q				
23+20	0.0794	0.08	Q				
23+25	0.0772	0.08	Q				
23+30	0.0750	0.08	Q				
23+35	0.0730	0.07	Q				
23+40	0.0709	0.07	Q				
23+45	0.0690	0.07	Q				
23+50	0.0670	0.07	Q				
23+55	0.0652	0.07	Q				
24+ 0	0.0634	0.06	Q				
24+ 5	0.0616	0.06	Q				
24+10	0.0599	0.06	Q				
24+15	0.0582	0.06	Q				
24+20	0.0566	0.06	Q				
24+25	0.0550	0.06	Q				
24+30	0.0535	0.05	Q				
24+35	0.0520	0.05	Q				
24+40	0.0506	0.05	Q				
24+45	0.0492	0.05	Q				
24+50	0.0478	0.05	Q				
24+55	0.0465	0.05	Q				
25+ 0	0.0452	0.05	Q				
25+ 5	0.0439	0.04	Q				

25+10	0.0427	0.04	Q				
25+15	0.0415	0.04	Q				
25+20	0.0404	0.04	Q				
25+25	0.0392	0.04	Q				
25+30	0.0382	0.04	Q				
25+35	0.0371	0.04	Q				
25+40	0.0361	0.04	Q				
25+45	0.0351	0.04	Q				
25+50	0.0341	0.03	Q				
25+55	0.0331	0.03	Q				
26+ 0	0.0322	0.03	Q				
26+ 5	0.0313	0.03	Q				
26+10	0.0305	0.03	Q				
26+15	0.0296	0.03	Q				
26+20	0.0288	0.03	Q				
26+25	0.0280	0.03	Q				
26+30	0.0272	0.03	Q				
26+35	0.0265	0.03	Q				
26+40	0.0257	0.03	Q				
26+45	0.0250	0.03	Q				
26+50	0.0243	0.02	Q				
26+55	0.0236	0.02	Q				
27+ 0	0.0230	0.02	Q				
27+ 5	0.0223	0.02	Q				
27+10	0.0217	0.02	Q				
27+15	0.0211	0.02	Q				
27+20	0.0205	0.02	Q				
27+25	0.0200	0.02	Q				
27+30	0.0194	0.02	Q				
27+35	0.0189	0.02	Q				
27+40	0.0183	0.02	Q				
27+45	0.0178	0.02	Q				
27+50	0.0173	0.02	Q				
27+55	0.0169	0.02	Q				
28+ 0	0.0164	0.02	Q				
28+ 5	0.0159	0.02	Q				
28+10	0.0155	0.02	Q				
28+15	0.0151	0.02	Q				
28+20	0.0146	0.01	Q				
28+25	0.0142	0.01	Q				
28+30	0.0138	0.01	Q				
28+35	0.0134	0.01	Q				
28+40	0.0131	0.01	Q				
28+45	0.0127	0.01	Q				
28+50	0.0124	0.01	Q				
28+55	0.0120	0.01	Q				
29+ 0	0.0117	0.01	Q				
29+ 5	0.0114	0.01	Q				
29+10	0.0110	0.01	Q				
29+15	0.0107	0.01	Q				
29+20	0.0104	0.01	Q				
29+25	0.0101	0.01	Q				
29+30	0.0099	0.01	Q				
29+35	0.0096	0.01	Q				
29+40	0.0093	0.01	Q				
29+45	0.0091	0.01	Q				
29+50	0.0088	0.01	Q				
29+55	0.0086	0.01	Q				
30+ 0	0.0083	0.01	Q				
30+ 5	0.0081	0.01	Q				
30+10	0.0079	0.01	Q				
30+15	0.0077	0.01	Q				
30+20	0.0074	0.01	Q				
30+25	0.0072	0.01	Q				
30+30	0.0070	0.01	Q				
30+35	0.0068	0.01	Q				
30+40	0.0066	0.01	Q				
30+45	0.0065	0.01	Q				
30+50	0.0063	0.01	Q				
30+55	0.0061	0.01	Q				

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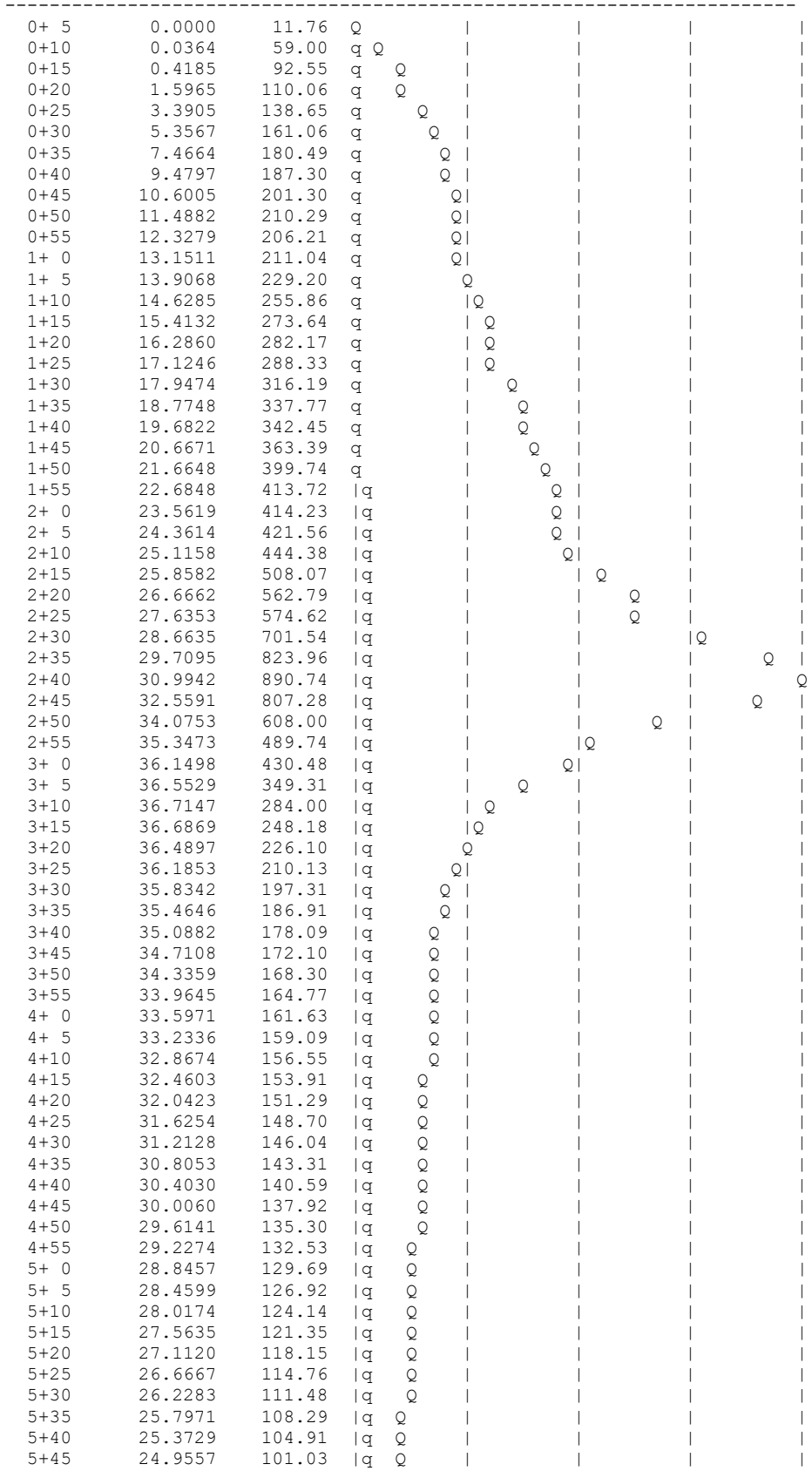
   31+ 0       0.0059      0.01  Q         |         |         |         |
   31+ 5       0.0058      0.01  Q         |         |         |         |
   31+10       0.0056      0.01  Q         |         |         |         |
   31+15       0.0055      0.01  Q         |         |         |         |
   31+20       0.0053      0.01  Q         |         |         |         |
   31+25       0.0052      0.01  Q         |         |         |         |
   31+30       0.0050      0.01  Q         |         |         |         |
   31+35       0.0049      0.00  Q         |         |         |         |
   31+40       0.0047      0.00  Q         |         |         |         |
   31+45       0.0046      0.00  Q         |         |         |         |
   31+50       0.0045      0.00  Q         |         |         |         |
   31+55       0.0044      0.00  Q         |         |         |         |
   32+ 0       0.0042      0.00  Q         |         |         |         |
   32+ 5       0.0041      0.00  Q         |         |         |         |
   32+10       0.0040      0.00  Q         |         |         |         |
   32+15       0.0039      0.00  Q         |         |         |         |
   32+20       0.0038      0.00  Q         |         |         |         |
   32+25       0.0037      0.00  Q         |         |         |         |
   32+30       0.0036      0.00  Q         |         |         |         |
   32+35       0.0035      0.00  Q         |         |         |         |
   32+40       0.0034      0.00  Q         |         |         |         |
   32+45       0.0033      0.00  Q         |         |         |         |
   32+50       0.0032      0.00  Q         |         |         |         |
   32+55       0.0031      0.00  Q         |         |         |         |
   33+ 0       0.0030      0.00  Q         |         |         |         |
   33+ 5       0.0029      0.00  Q         |         |         |         |
   33+10       0.0029      0.00  Q         |         |         |         |
   33+15       0.0028      0.00  Q         |         |         |         |
   33+20       0.0027      0.00  Q         |         |         |         |
   33+25       0.0026      0.00  Q         |         |         |         |
   33+30       0.0025      0.00  Q         |         |         |         |
   33+35       0.0025      0.00  Q         |         |         |         |
   33+40       0.0024      0.00  Q         |         |         |         |
   33+45       0.0023      0.00  Q         |         |         |         |
   33+50       0.0023      0.00  Q         |         |         |         |
   33+55       0.0022      0.00  Q         |         |         |         |
   34+ 0       0.0021      0.00  Q         |         |         |         |
   34+ 5       0.0017      0.00  Q         |         |         |         |
   34+10       0.0013      0.00  Q         |         |         |         |
   34+15       0.0000      0.00  Q         |         |         |         |
-------------------------------------------------------------------------
       ****************************HYDROGRAPH DATA****************************
                    Number of intervals =   411
                    Time interval =    5.0 (Min.)
                    Maximum/Peak flow rate =      859.743 (CFS)
                    Total volume =     121.065 (Ac.Ft)
              Status of hydrographs being held in storage
                         Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
              Peak (CFS)      0.000     0.000     0.000     0.000     0.000
              Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       *************************************************************************

       -------------------------------------------------------------------------


       +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
       Process from Point/Station       10.000 to Point/Station       11.000
       **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
       _________________________________________________________________________
       ********************* HYDROGRAPH INFORMATION **********************

                    From study/file name: lgb1out3100.rte
       +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                       P R I N T  O F  S T O R M
                    R u n o f f     H y d r o g r a p h
       -------------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals (CFS)

       -------------------------------------------------------------------------
  Time(h+m) Add q(CFS)  Tot. Q   0      222.7     445.4     668.1     890.7
```



0+ 5	0.0000	11.76	Q
0+10	0.0364	59.00	q Q
0+15	0.4185	92.55	q Q
0+20	1.5965	110.06	q Q
0+25	3.3905	138.65	q Q
0+30	5.3567	161.06	q Q
0+35	7.4664	180.49	q Q
0+40	9.4797	187.30	q Q
0+45	10.6005	201.30	q Q
0+50	11.4882	210.29	q Q
0+55	12.3279	206.21	q Q
1+ 0	13.1511	211.04	q Q
1+ 5	13.9068	229.20	q Q
1+10	14.6285	255.86	q Q
1+15	15.4132	273.64	q Q
1+20	16.2860	282.17	q Q
1+25	17.1246	288.33	q Q
1+30	17.9474	316.19	q Q
1+35	18.7748	337.77	q Q
1+40	19.6822	342.45	q Q
1+45	20.6671	363.39	q Q
1+50	21.6648	399.74	q Q
1+55	22.6848	413.72	q Q
2+ 0	23.5619	414.23	q Q
2+ 5	24.3614	421.56	q Q
2+10	25.1158	444.38	q Q
2+15	25.8582	508.07	q Q
2+20	26.6662	562.79	q Q
2+25	27.6353	574.62	q Q
2+30	28.6635	701.54	q Q
2+35	29.7095	823.96	q Q
2+40	30.9942	890.74	q Q
2+45	32.5591	807.28	q Q
2+50	34.0753	608.00	q Q
2+55	35.3473	489.74	q Q
3+ 0	36.1498	430.48	q Q
3+ 5	36.5529	349.31	q Q
3+10	36.7147	284.00	q Q
3+15	36.6869	248.18	q Q
3+20	36.4897	226.10	q Q
3+25	36.1853	210.13	q Q
3+30	35.8342	197.31	q Q
3+35	35.4646	186.91	q Q
3+40	35.0882	178.09	q Q
3+45	34.7108	172.10	q Q
3+50	34.3359	168.30	q Q
3+55	33.9645	164.77	q Q
4+ 0	33.5971	161.63	q Q
4+ 5	33.2336	159.09	q Q
4+10	32.8674	156.55	q Q
4+15	32.4603	153.91	q Q
4+20	32.0423	151.29	q Q
4+25	31.6254	148.70	q Q
4+30	31.2128	146.04	q Q
4+35	30.8053	143.31	q Q
4+40	30.4030	140.59	q Q
4+45	30.0060	137.92	q Q
4+50	29.6141	135.30	q Q
4+55	29.2274	132.53	q Q
5+ 0	28.8457	129.69	q Q
5+ 5	28.4599	126.92	q Q
5+10	28.0174	124.14	q Q
5+15	27.5635	121.35	q Q
5+20	27.1120	118.15	q Q
5+25	26.6667	114.76	q Q
5+30	26.2283	111.48	q Q
5+35	25.7971	108.29	q Q
5+40	25.3729	104.91	q Q
5+45	24.9557	101.03	q Q

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 5+50      24.5453     97.03  |q  Q     |         |         |         |
 5+55      24.1417     93.21  |q  Q     |         |         |         |
 6+ 0      23.7447     89.56  |q  Q     |         |         |         |
 6+ 5      23.3362     85.52  |q Q      |         |         |         |
 6+10      22.8063     81.03  |q Q      |         |         |         |
 6+15      22.2178     76.60  q  Q      |         |         |         |
 6+20      21.6255     72.43  q  Q      |         |         |         |
 6+25      21.0440     68.51  q  Q      |         |         |         |
 6+30      20.4768     64.83  q Q       |         |         |         |
 6+35      19.9245     61.61  q Q       |         |         |         |
 6+40      19.3870     58.96  q Q       |         |         |         |
 6+45      18.8640     56.59  q Q       |         |         |         |
 6+50      18.3551     54.33  q Q       |         |         |         |
 6+55      17.8599     52.17  q Q       |         |         |         |
 7+ 0      17.3781     50.10  q Q       |         |         |         |
 7+ 5      16.9084     48.11  q Q       |         |         |         |
 7+10      16.4357     42.59  qQ        |         |         |         |
 7+15      15.9072     34.89  qQ        |         |         |         |
 7+20      15.3774     28.63  qQ        |         |         |         |
 7+25      14.8603     24.22  qQ        |         |         |         |
 7+30      14.3593     21.09  Q         |         |         |         |
 7+35      13.8748     18.82  Q         |         |         |         |
 7+40      13.4066     17.14  Q         |         |         |         |
 7+45      12.9542     15.87  Q         |         |         |         |
 7+50      12.5170     14.88  Q         |         |         |         |
 7+55      12.0946     14.08  Q         |         |         |         |
 8+ 0      11.6864     13.41  Q         |         |         |         |
 8+ 5      11.2920     12.84  Q         |         |         |         |
 8+10      10.9109     12.34  Q         |         |         |         |
 8+15      10.5427     11.89  Q         |         |         |         |
 8+20      10.1376     11.43  Q         |         |         |         |
 8+25       9.3968     10.64  Q         |         |         |         |
 8+30       8.4951      9.71  Q         |         |         |         |
 8+35       7.6245      8.82  Q         |         |         |         |
 8+40       6.8283      8.01  Q         |         |         |         |
 8+45       6.1114      7.29  Q         |         |         |         |
 8+50       5.4687      6.64  Q         |         |         |         |
 8+55       4.8933      6.06  Q         |         |         |         |
 9+ 0       4.3784      5.54  Q         |         |         |         |
 9+ 5       3.9176      5.07  Q         |         |         |         |
 9+10       3.5054      4.66  Q         |         |         |         |
 9+15       3.1365      4.29  Q         |         |         |         |
 9+20       2.8064      3.96  Q         |         |         |         |
 9+25       2.5111      3.66  Q         |         |         |         |
 9+30       2.2468      3.39  Q         |         |         |         |
 9+35       2.0104      3.16  Q         |         |         |         |
 9+40       1.7988      2.94  Q         |         |         |         |
 9+45       1.6095      2.75  Q         |         |         |         |
 9+50       1.4401      2.58  Q         |         |         |         |
 9+55       1.2886      2.43  Q         |         |         |         |
10+ 0       1.1530      2.29  Q         |         |         |         |
10+ 5       1.0316      2.17  Q         |         |         |         |
10+10       0.9231      2.06  Q         |         |         |         |
10+15       0.8259      1.96  Q         |         |         |         |
10+20       0.7390      1.87  Q         |         |         |         |
10+25       0.6612      1.79  Q         |         |         |         |
10+30       0.5917      1.72  Q         |         |         |         |
10+35       0.5294      1.65  Q         |         |         |         |
10+40       0.4737      1.60  Q         |         |         |         |
10+45       0.4238      1.54  Q         |         |         |         |
10+50       0.3792      1.50  Q         |         |         |         |
10+55       0.3393      1.46  Q         |         |         |         |
11+ 0       0.3036      1.42  Q         |         |         |         |
11+ 5       0.2717      1.39  Q         |         |         |         |
11+10       0.2431      1.36  Q         |         |         |         |
11+15       0.2175      1.33  Q         |         |         |         |
11+20       0.1946      1.30  Q         |         |         |         |
11+25       0.1741      1.28  Q         |         |         |         |
11+30       0.1558      1.26  Q         |         |         |         |
11+35       0.1394      1.24  Q         |         |         |         |
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11+40	0.1247	1.23	Q	|	|	|	|
11+45	0.1116	1.21	Q	|	|	|	|
11+50	0.0999	1.20	Q	|	|	|	|
11+55	0.0894	1.19	Q	|	|	|	|
12+ 0	0.0799	1.18	Q	|	|	|	|
12+ 5	0.0715	1.17	Q	|	|	|	|
12+10	0.0640	1.16	Q	|	|	|	|
12+15	0.0573	1.15	Q	|	|	|	|
12+20	0.0512	1.14	Q	|	|	|	|
12+25	0.0459	1.13	Q	|	|	|	|
12+30	0.0410	1.13	Q	|	|	|	|
12+35	0.0367	1.12	Q	|	|	|	|
12+40	0.0328	1.12	Q	|	|	|	|
12+45	0.0294	1.11	Q	|	|	|	|
12+50	0.0263	1.11	Q	|	|	|	|
12+55	0.0235	1.10	Q	|	|	|	|
13+ 0	0.0211	1.10	Q	|	|	|	|
13+ 5	0.0188	1.09	Q	|	|	|	|
13+10	0.0169	1.09	Q	|	|	|	|
13+15	0.0151	1.09	Q	|	|	|	|
13+20	0.0135	1.08	Q	|	|	|	|
13+25	0.0121	1.08	Q	|	|	|	|
13+30	0.0108	1.08	Q	|	|	|	|
13+35	0.0088	1.07	Q	|	|	|	|
13+40	0.0024	1.07	Q	|	|	|	|
13+45	0.0000	1.06	Q	|	|	|	|
13+50	0.0000	1.06	Q	|	|	|	|
13+55	0.0000	1.06	Q	|	|	|	|
14+ 0	0.0000	1.06	Q	|	|	|	|
14+ 5	0.0000	1.05	Q	|	|	|	|
14+10	0.0000	1.05	Q	|	|	|	|
14+15	0.0000	1.05	Q	|	|	|	|
14+20	0.0000	1.05	Q	|	|	|	|
14+25	0.0000	1.05	Q	|	|	|	|
14+30	0.0000	1.05	Q	|	|	|	|
14+35	0.0000	1.05	Q	|	|	|	|
14+40	0.0000	1.04	Q	|	|	|	|
14+45	0.0000	1.04	Q	|	|	|	|
14+50	0.0000	1.04	Q	|	|	|	|
14+55	0.0000	1.04	Q	|	|	|	|
15+ 0	0.0000	1.04	Q	|	|	|	|
15+ 5	0.0000	1.04	Q	|	|	|	|
15+10	0.0000	1.03	Q	|	|	|	|
15+15	0.0000	1.03	Q	|	|	|	|
15+20	0.0000	1.03	Q	|	|	|	|
15+25	0.0000	1.03	Q	|	|	|	|
15+30	0.0000	1.03	Q	|	|	|	|
15+35	0.0000	1.02	Q	|	|	|	|
15+40	0.0000	1.01	Q	|	|	|	|
15+45	0.0000	1.00	Q	|	|	|	|
15+50	0.0000	0.98	Q	|	|	|	|
15+55	0.0000	0.96	Q	|	|	|	|
16+ 0	0.0000	0.94	Q	|	|	|	|
16+ 5	0.0000	0.92	Q	|	|	|	|
16+10	0.0000	0.89	Q	|	|	|	|
16+15	0.0000	0.87	Q	|	|	|	|
16+20	0.0000	0.85	Q	|	|	|	|
16+25	0.0000	0.82	Q	|	|	|	|
16+30	0.0000	0.80	Q	|	|	|	|
16+35	0.0000	0.78	Q	|	|	|	|
16+40	0.0000	0.76	Q	|	|	|	|
16+45	0.0000	0.74	Q	|	|	|	|
16+50	0.0000	0.72	Q	|	|	|	|
16+55	0.0000	0.70	Q	|	|	|	|
17+ 0	0.0000	0.68	Q	|	|	|	|
17+ 5	0.0000	0.66	Q	|	|	|	|
17+10	0.0000	0.64	Q	|	|	|	|
17+15	0.0000	0.62	Q	|	|	|	|
17+20	0.0000	0.60	Q	|	|	|	|
17+25	0.0000	0.59	Q	|	|	|	|

17+30	0.0000	0.57	Q				
17+35	0.0000	0.56	Q				
17+40	0.0000	0.54	Q				
17+45	0.0000	0.52	Q				
17+50	0.0000	0.51	Q				
17+55	0.0000	0.50	Q				
18+ 0	0.0000	0.48	Q				
18+ 5	0.0000	0.47	Q				
18+10	0.0000	0.46	Q				
18+15	0.0000	0.44	Q				
18+20	0.0000	0.43	Q				
18+25	0.0000	0.42	Q				
18+30	0.0000	0.41	Q				
18+35	0.0000	0.40	Q				
18+40	0.0000	0.38	Q				
18+45	0.0000	0.37	Q				
18+50	0.0000	0.36	Q				
18+55	0.0000	0.35	Q				
19+ 0	0.0000	0.34	Q				
19+ 5	0.0000	0.33	Q				
19+10	0.0000	0.32	Q				
19+15	0.0000	0.32	Q				
19+20	0.0000	0.31	Q				
19+25	0.0000	0.30	Q				
19+30	0.0000	0.29	Q				
19+35	0.0000	0.28	Q				
19+40	0.0000	0.27	Q				
19+45	0.0000	0.27	Q				
19+50	0.0000	0.26	Q				
19+55	0.0000	0.25	Q				
20+ 0	0.0000	0.25	Q				
20+ 5	0.0000	0.24	Q				
20+10	0.0000	0.23	Q				
20+15	0.0000	0.23	Q				
20+20	0.0000	0.22	Q				
20+25	0.0000	0.21	Q				
20+30	0.0000	0.21	Q				
20+35	0.0000	0.20	Q				
20+40	0.0000	0.20	Q				
20+45	0.0000	0.19	Q				
20+50	0.0000	0.18	Q				
20+55	0.0000	0.18	Q				
21+ 0	0.0000	0.17	Q				
21+ 5	0.0000	0.17	Q				
21+10	0.0000	0.17	Q				
21+15	0.0000	0.16	Q				
21+20	0.0000	0.16	Q				
21+25	0.0000	0.15	Q				
21+30	0.0000	0.15	Q				
21+35	0.0000	0.14	Q				
21+40	0.0000	0.14	Q				
21+45	0.0000	0.14	Q				
21+50	0.0000	0.13	Q				
21+55	0.0000	0.13	Q				
22+ 0	0.0000	0.12	Q				
22+ 5	0.0000	0.12	Q				
22+10	0.0000	0.12	Q				
22+15	0.0000	0.11	Q				
22+20	0.0000	0.11	Q				
22+25	0.0000	0.11	Q				
22+30	0.0000	0.11	Q				
22+35	0.0000	0.10	Q				
22+40	0.0000	0.10	Q				
22+45	0.0000	0.10	Q				
22+50	0.0000	0.09	Q				
22+55	0.0000	0.09	Q				
23+ 0	0.0000	0.09	Q				
23+ 5	0.0000	0.09	Q				
23+10	0.0000	0.08	Q				
23+15	0.0000	0.08	Q				

23+20	0.0000	0.08	Q				
23+25	0.0000	0.08	Q				
23+30	0.0000	0.08	Q				
23+35	0.0000	0.07	Q				
23+40	0.0000	0.07	Q				
23+45	0.0000	0.07	Q				
23+50	0.0000	0.07	Q				
23+55	0.0000	0.07	Q				
24+ 0	0.0000	0.06	Q				
24+ 5	0.0000	0.06	Q				
24+10	0.0000	0.06	Q				
24+15	0.0000	0.06	Q				
24+20	0.0000	0.06	Q				
24+25	0.0000	0.06	Q				
24+30	0.0000	0.05	Q				
24+35	0.0000	0.05	Q				
24+40	0.0000	0.05	Q				
24+45	0.0000	0.05	Q				
24+50	0.0000	0.05	Q				
24+55	0.0000	0.05	Q				
25+ 0	0.0000	0.05	Q				
25+ 5	0.0000	0.04	Q				
25+10	0.0000	0.04	Q				
25+15	0.0000	0.04	Q				
25+20	0.0000	0.04	Q				
25+25	0.0000	0.04	Q				
25+30	0.0000	0.04	Q				
25+35	0.0000	0.04	Q				
25+40	0.0000	0.04	Q				
25+45	0.0000	0.04	Q				
25+50	0.0000	0.03	Q				
25+55	0.0000	0.03	Q				
26+ 0	0.0000	0.03	Q				
26+ 5	0.0000	0.03	Q				
26+10	0.0000	0.03	Q				
26+15	0.0000	0.03	Q				
26+20	0.0000	0.03	Q				
26+25	0.0000	0.03	Q				
26+30	0.0000	0.03	Q				
26+35	0.0000	0.03	Q				
26+40	0.0000	0.03	Q				
26+45	0.0000	0.03	Q				
26+50	0.0000	0.02	Q				
26+55	0.0000	0.02	Q				
27+ 0	0.0000	0.02	Q				
27+ 5	0.0000	0.02	Q				
27+10	0.0000	0.02	Q				
27+15	0.0000	0.02	Q				
27+20	0.0000	0.02	Q				
27+25	0.0000	0.02	Q				
27+30	0.0000	0.02	Q				
27+35	0.0000	0.02	Q				
27+40	0.0000	0.02	Q				
27+45	0.0000	0.02	Q				
27+50	0.0000	0.02	Q				
27+55	0.0000	0.02	Q				
28+ 0	0.0000	0.02	Q				
28+ 5	0.0000	0.02	Q				
28+10	0.0000	0.02	Q				
28+15	0.0000	0.02	Q				
28+20	0.0000	0.01	Q				
28+25	0.0000	0.01	Q				
28+30	0.0000	0.01	Q				
28+35	0.0000	0.01	Q				
28+40	0.0000	0.01	Q				
28+45	0.0000	0.01	Q				
28+50	0.0000	0.01	Q				
28+55	0.0000	0.01	Q				
29+ 0	0.0000	0.01	Q				
29+ 5	0.0000	0.01	Q				

29+10	0.0000	0.01	Q				
29+15	0.0000	0.01	Q				
29+20	0.0000	0.01	Q				
29+25	0.0000	0.01	Q				
29+30	0.0000	0.01	Q				
29+35	0.0000	0.01	Q				
29+40	0.0000	0.01	Q				
29+45	0.0000	0.01	Q				
29+50	0.0000	0.01	Q				
29+55	0.0000	0.01	Q				
30+ 0	0.0000	0.01	Q				
30+ 5	0.0000	0.01	Q				
30+10	0.0000	0.01	Q				
30+15	0.0000	0.01	Q				
30+20	0.0000	0.01	Q				
30+25	0.0000	0.01	Q				
30+30	0.0000	0.01	Q				
30+35	0.0000	0.01	Q				
30+40	0.0000	0.01	Q				
30+45	0.0000	0.01	Q				
30+50	0.0000	0.01	Q				
30+55	0.0000	0.01	Q				
31+ 0	0.0000	0.01	Q				
31+ 5	0.0000	0.01	Q				
31+10	0.0000	0.01	Q				
31+15	0.0000	0.01	Q				
31+20	0.0000	0.01	Q				
31+25	0.0000	0.01	Q				
31+30	0.0000	0.01	Q				
31+35	0.0000	0.00	Q				
31+40	0.0000	0.00	Q				
31+45	0.0000	0.00	Q				
31+50	0.0000	0.00	Q				
31+55	0.0000	0.00	Q				
32+ 0	0.0000	0.00	Q				
32+ 5	0.0000	0.00	Q				
32+10	0.0000	0.00	Q				
32+15	0.0000	0.00	Q				
32+20	0.0000	0.00	Q				
32+25	0.0000	0.00	Q				
32+30	0.0000	0.00	Q				
32+35	0.0000	0.00	Q				
32+40	0.0000	0.00	Q				
32+45	0.0000	0.00	Q				
32+50	0.0000	0.00	Q				
32+55	0.0000	0.00	Q				
33+ 0	0.0000	0.00	Q				
33+ 5	0.0000	0.00	Q				
33+10	0.0000	0.00	Q				
33+15	0.0000	0.00	Q				
33+20	0.0000	0.00	Q				
33+25	0.0000	0.00	Q				
33+30	0.0000	0.00	Q				
33+35	0.0000	0.00	Q				
33+40	0.0000	0.00	Q				
33+45	0.0000	0.00	Q				
33+50	0.0000	0.00	Q				
33+55	0.0000	0.00	Q				
34+ 0	0.0000	0.00	Q				
34+ 5	0.0000	0.00	Q				
34+10	0.0000	0.00	Q				
34+15	0.0000	0.00	Q				

**********HYDROGRAPH DATA**********

Number of intervals = 411
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 890.738 (CFS)
Total volume = 136.990 (Ac.Ft)

Status of hydrographs being held in storage

Stream 1	Stream 2	Stream 3	Stream 4	Stream 5

```
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
*******************************************************************************

-------------------------------------------------------------------------


+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       11.000 to Point/Station       12.000
**** RETARDING BASIN ROUTING ****

_________________________________________________________________________

User entry of depth-outflow-storage data
---------------------------------------------------------------------
Total number of inflow hydrograph intervals = 411
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
---------------------------------------------------------------------
---------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
---------------------------------------------------------------------
---------------------------------------------------------------------
Depth vs. Storage and Depth vs. Discharge data:
 Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
     (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
---------------------------------------------------------------------
   0.000      0.000      0.000      0.000        0.000
   0.500      0.070     20.000      0.001        0.139
   1.500      1.970     50.000      1.798        2.142
   2.500      7.280     95.000      6.953        7.607
   3.500     15.540    170.000     14.955       16.125
   4.500     25.350    255.000     24.472       26.228
   5.500     35.630    345.000     34.442       36.818
   6.500     46.130    420.000     44.684       47.576
   7.500     56.850    470.000     55.232       58.468
---------------------------------------------------------------------
               Hydrograph Detention Basin Routing
---------------------------------------------------------------------

Graph values: 'I'= unit inflow; 'O'=outflow at time shown
---------------------------------------------------------------------
 Time   Inflow  Outflow    Storage                                      Depth
(Hours)  (CFS)    (CFS)     (Ac.Ft) .0     222.7  445.37  668.05  890.74 (Ft.)
 0.083   11.76     5.83      0.020  O       |       |       |       |     0.15
 0.167   59.00    21.57      0.170  O I     |       |       |       |     0.55
 0.250   92.55    27.16      0.524  O  I    |       |       |       |     0.74
 0.333  110.06    34.81      1.008  |O I    |       |       |       |     0.99
 0.417  138.65    44.05      1.593  |O  I   |       |       |       |     1.30
 0.500  161.06    52.73      2.292  |O   I  |       |       |       |     1.56
 0.583  180.49    59.42      3.082  | O   I |       |       |       |     1.71
 0.667  187.30    66.48      3.915  | O   I |       |       |       |     1.87
 0.750  201.30    73.73      4.770  | O    I|       |       |       |     2.03
 0.833  210.29    81.22      5.654  | O    I|       |       |       |     2.19
 0.917  206.21    88.42      6.504  |  O   I|       |       |       |     2.35
 1.000  211.04    95.25      7.308  |  O   I|       |       |       |     2.50
 1.083  229.20   102.83      8.142  |  O    I       |       |       |     2.60
 1.167  255.86   111.30      9.075  |  O    |I      |       |       |     2.72
 1.250  273.64   120.60     10.100  |   O   |I      |       |       |     2.84
 1.333  282.17   130.14     11.150  |   O   | I     |       |       |     2.97
 1.417  288.33   139.55     12.186  |    O  | I     |       |       |     3.09
 1.500  316.19   149.41     13.273  |    O  |  I    |       |       |     3.23
 1.583  337.77   160.18     14.459  |    O  |   I   |       |       |     3.37
 1.667  342.45   171.04     15.660  |     O |   I   |       |       |     3.51
 1.750  363.39   181.58     16.877  |     O |    I  |       |       |     3.64
 1.833  399.74   193.17     18.214  |     O |     I |       |       |     3.77
 1.917  413.72   205.54     19.642  |      O|     I |       |       |     3.92
 2.000  414.23   217.62     21.036  |      O|     I |       |       |     4.06
 2.083  421.56   229.23     22.375  |       O      I|       |       |     4.20
```

2.167	444.38	241.03	23.738	| O I|	|	|	|	4.34
2.250	508.07	254.66	25.311	|O | I |	|	|	|	4.50
2.333	562.79	271.09	27.188	|O | I |	|	|	|	4.68
2.417	574.62	288.51	29.178	| O | I |	|	|	|	4.87
2.500	701.54	308.97	31.515	| O | |I |	|	|	|	5.10
2.583	823.96	335.53	34.548	| O | | I |	|	|	|	5.39
2.667	890.74	362.29	38.050	| O | | | I	|	|	|	5.73
2.750	807.28	385.65	41.322	| O | | I |	|	|	|	6.04
2.833	608.00	401.11	43.486	| O | I | |	|	|	|	6.25
2.917	489.74	408.21	44.479	| O |I | |	|	|	|	6.34
3.000	430.48	410.70	44.828	| OI| | |	|	|	|	6.38
3.083	349.31	409.70	44.688	| I O | | |	|	|	|	6.36
3.167	284.00	405.23	44.063	| I O | | |	|	|	|	6.30
3.250	248.18	398.55	43.127	I O | | |	|	|	|	6.21
3.333	226.10	390.80	42.043	I O | | |	|	|	|	6.11
3.417	210.13	382.51	40.882	I| O | |	|	|	|	6.00
3.500	197.31	373.93	39.680	I| O | |	|	|	|	5.89
3.583	186.91	365.20	38.458	I | O | |	|	|	|	5.77
3.667	178.09	356.43	37.230	I | O | |	|	|	|	5.65
3.750	172.10	347.72	36.011	I | O | |	|	|	|	5.54
3.833	168.30	337.93	34.822	I | O | |	|	|	|	5.42
3.917	164.77	327.90	33.676	I | O | |	|	|	|	5.31
4.000	161.63	318.26	32.575	I | O | |	|	|	|	5.20
4.083	159.09	309.01	31.520	I | O | |	|	|	|	5.10
4.167	156.55	300.16	30.509	I | O | |	|	|	|	5.00
4.250	153.91	291.68	29.540	I | O | |	|	|	|	4.91
4.333	151.29	283.54	28.610	I | O | |	|	|	|	4.82
4.417	148.70	275.72	27.717	I |O | |	|	|	|	4.73
4.500	146.04	268.21	26.859	I |O | |	|	|	|	4.65
4.583	143.31	260.98	26.033	I |O | |	|	|	|	4.57
4.667	140.59	254.02	25.237	I |O | |	|	|	|	4.49
4.750	137.92	247.37	24.470	I O | |	|	|	|	4.41
4.833	135.30	240.95	23.729	I O | |	|	|	|	4.33
4.917	132.53	234.75	23.013	I O | |	|	|	|	4.26
5.000	129.69	228.75	22.320	I O | |	|	|	|	4.19
5.083	126.92	222.93	21.648	I O | |	|	|	|	4.12
5.167	124.14	217.28	20.997	I O| |	|	|	|	4.06
5.250	121.35	211.80	20.365	I O| |	|	|	|	3.99
5.333	118.15	206.47	19.749	I O| |	|	|	|	3.93
5.417	114.76	201.26	19.147	I O| |	|	|	|	3.87
5.500	111.48	196.15	18.558	I O| |	|	|	|	3.81
5.583	108.29	191.15	17.981	I O | |	|	|	|	3.75
5.667	104.91	186.25	17.415	I O | |	|	|	|	3.69
5.750	101.03	181.42	16.859	I O | |	|	|	|	3.63
5.833	97.03	176.65	16.308	I O | |	|	|	|	3.58
5.917	93.21	171.93	15.762	I O | |	|	|	|	3.52
6.000	89.56	167.13	15.224	I O | |	|	|	|	3.46
6.083	85.52	162.30	14.693	I O | |	|	|	|	3.40
6.167	81.03	157.51	14.165	I O | |	|	|	|	3.33
6.250	76.60	152.74	13.639	I O | |	|	|	|	3.27
6.333	72.43	148.00	13.117	I O | |	|	|	|	3.21
6.417	68.51	143.30	12.599	I O | |	|	|	|	3.14
6.500	64.83	138.65	12.087	I O | |	|	|	|	3.08
6.583	61.61	134.08	11.583	I O | |	|	|	|	3.02
6.667	58.96	129.60	11.091	I O | |	|	|	|	2.96
6.750	56.59	125.25	10.611	I O | |	|	|	|	2.90
6.833	54.33	121.01	10.145	I O | |	|	|	|	2.85
6.917	52.17	116.90	9.692	I O | |	|	|	|	2.79
7.000	50.10	112.92	9.253	I O | |	|	|	|	2.74
7.083	48.11	109.05	8.827	I O | |	|	|	|	2.69
7.167	42.59	105.18	8.402	I O | |	|	|	|	2.64
7.250	34.89	101.16	7.958	I O | |	|	|	|	2.58
7.333	28.63	96.95	7.494	I O | |	|	|	|	2.53
7.417	24.22	92.82	7.023	I O | |	|	|	|	2.45
7.500	21.09	88.84	6.553	I O | |	|	|	|	2.36
7.583	18.82	84.94	6.092	I O | |	|	|	|	2.28
7.667	17.14	81.14	5.644	I O | |	|	|	|	2.19
7.750	15.87	77.47	5.212	I O | |	|	|	|	2.11
7.833	14.88	73.95	4.796	I O | |	|	|	|	2.03
7.917	14.08	70.58	4.398	I O | |	|	|	|	1.96

8.000	13.41	67.36	4.018	I O	|	|	|	| 1.89
8.083	12.84	64.28	3.655	I O	|	|	|	| 1.82
8.167	12.34	61.35	3.309	I O	|	|	|	| 1.75
8.250	11.89	58.56	2.980	I O	|	|	|	| 1.69
8.333	11.43	55.90	2.666	I O	|	|	|	| 1.63
8.417	10.64	53.35	2.366	IO	|	|	|	| 1.57
8.500	9.71	50.91	2.077	IO	|	|	|	| 1.52
8.583	8.82	47.35	1.802	IO	|	|	|	| 1.41
8.667	8.01	43.34	1.548	IO	|	|	|	| 1.28
8.750	7.29	39.66	1.315	IO	|	|	|	| 1.16
8.833	6.64	36.28	1.101	IO	|	|	|	| 1.04
8.917	6.06	33.20	0.906	IO	|	|	|	| 0.94
9.000	5.54	30.37	0.727	IO	|	|	|	| 0.85
9.083	5.07	27.79	0.563	O	|	|	|	| 0.76
9.167	4.66	25.42	0.413	O	|	|	|	| 0.68
9.250	4.29	23.26	0.277	O	|	|	|	| 0.61
9.333	3.96	21.29	0.152	O	|	|	|	| 0.54
9.417	3.66	15.05	0.053	O	|	|	|	| 0.38
9.500	3.39	3.62	0.013	O	|	|	|	| 0.09
9.583	3.16	3.28	0.011	O	|	|	|	| 0.08
9.667	2.94	3.05	0.011	O	|	|	|	| 0.08
9.750	2.75	2.85	0.010	O	|	|	|	| 0.07
9.833	2.58	2.67	0.009	O	|	|	|	| 0.07
9.917	2.43	2.50	0.009	O	|	|	|	| 0.06
10.000	2.29	2.36	0.008	O	|	|	|	| 0.06
10.083	2.17	2.23	0.008	O	|	|	|	| 0.06
10.167	2.06	2.11	0.007	O	|	|	|	| 0.05
10.250	1.96	2.01	0.007	O	|	|	|	| 0.05
10.333	1.87	1.91	0.007	O	|	|	|	| 0.05
10.417	1.79	1.83	0.006	O	|	|	|	| 0.05
10.500	1.72	1.75	0.006	O	|	|	|	| 0.04
10.583	1.65	1.69	0.006	O	|	|	|	| 0.04
10.667	1.60	1.63	0.006	O	|	|	|	| 0.04
10.750	1.54	1.57	0.005	O	|	|	|	| 0.04
10.833	1.50	1.52	0.005	O	|	|	|	| 0.04
10.917	1.46	1.48	0.005	O	|	|	|	| 0.04
11.000	1.42	1.44	0.005	O	|	|	|	| 0.04
11.083	1.39	1.40	0.005	O	|	|	|	| 0.04
11.167	1.36	1.37	0.005	O	|	|	|	| 0.03
11.250	1.33	1.34	0.005	O	|	|	|	| 0.03
11.333	1.30	1.32	0.005	O	|	|	|	| 0.03
11.417	1.28	1.29	0.005	O	|	|	|	| 0.03
11.500	1.26	1.27	0.004	O	|	|	|	| 0.03
11.583	1.24	1.25	0.004	O	|	|	|	| 0.03
11.667	1.23	1.24	0.004	O	|	|	|	| 0.03
11.750	1.21	1.22	0.004	O	|	|	|	| 0.03
11.833	1.20	1.21	0.004	O	|	|	|	| 0.03
11.917	1.19	1.19	0.004	O	|	|	|	| 0.03
12.000	1.18	1.18	0.004	O	|	|	|	| 0.03
12.083	1.17	1.17	0.004	O	|	|	|	| 0.03
12.167	1.16	1.16	0.004	O	|	|	|	| 0.03
12.250	1.15	1.15	0.004	O	|	|	|	| 0.03
12.333	1.14	1.14	0.004	O	|	|	|	| 0.03
12.417	1.13	1.14	0.004	O	|	|	|	| 0.03
12.500	1.13	1.13	0.004	O	|	|	|	| 0.03
12.583	1.12	1.12	0.004	O	|	|	|	| 0.03
12.667	1.12	1.12	0.004	O	|	|	|	| 0.03
12.750	1.11	1.11	0.004	O	|	|	|	| 0.03
12.833	1.11	1.11	0.004	O	|	|	|	| 0.03
12.917	1.10	1.10	0.004	O	|	|	|	| 0.03
13.000	1.10	1.10	0.004	O	|	|	|	| 0.03
13.083	1.09	1.10	0.004	O	|	|	|	| 0.03
13.167	1.09	1.09	0.004	O	|	|	|	| 0.03
13.250	1.09	1.09	0.004	O	|	|	|	| 0.03
13.333	1.08	1.08	0.004	O	|	|	|	| 0.03
13.417	1.08	1.08	0.004	O	|	|	|	| 0.03
13.500	1.08	1.08	0.004	O	|	|	|	| 0.03
13.583	1.07	1.08	0.004	O	|	|	|	| 0.03
13.667	1.07	1.07	0.004	O	|	|	|	| 0.03
13.750	1.06	1.06	0.004	O	|	|	|	| 0.03

13.833	1.06	1.06	0.004	O	|	|	|	|	0.03
13.917	1.06	1.06	0.004	O	|	|	|	|	0.03
14.000	1.06	1.06	0.004	O	|	|	|	|	0.03
14.083	1.05	1.06	0.004	O	|	|	|	|	0.03
14.167	1.05	1.05	0.004	O	|	|	|	|	0.03
14.250	1.05	1.05	0.004	O	|	|	|	|	0.03
14.333	1.05	1.05	0.004	O	|	|	|	|	0.03
14.417	1.05	1.05	0.004	O	|	|	|	|	0.03
14.500	1.05	1.05	0.004	O	|	|	|	|	0.03
14.583	1.05	1.05	0.004	O	|	|	|	|	0.03
14.667	1.04	1.04	0.004	O	|	|	|	|	0.03
14.750	1.04	1.04	0.004	O	|	|	|	|	0.03
14.833	1.04	1.04	0.004	O	|	|	|	|	0.03
14.917	1.04	1.04	0.004	O	|	|	|	|	0.03
15.000	1.04	1.04	0.004	O	|	|	|	|	0.03
15.083	1.04	1.04	0.004	O	|	|	|	|	0.03
15.167	1.03	1.04	0.004	O	|	|	|	|	0.03
15.250	1.03	1.03	0.004	O	|	|	|	|	0.03
15.333	1.03	1.03	0.004	O	|	|	|	|	0.03
15.417	1.03	1.03	0.004	O	|	|	|	|	0.03
15.500	1.03	1.03	0.004	O	|	|	|	|	0.03
15.583	1.02	1.03	0.004	O	|	|	|	|	0.03
15.667	1.01	1.02	0.004	O	|	|	|	|	0.03
15.750	1.00	1.01	0.004	O	|	|	|	|	0.03
15.833	0.98	0.99	0.003	O	|	|	|	|	0.02
15.917	0.96	0.97	0.003	O	|	|	|	|	0.02
16.000	0.94	0.95	0.003	O	|	|	|	|	0.02
16.083	0.92	0.93	0.003	O	|	|	|	|	0.02
16.167	0.89	0.90	0.003	O	|	|	|	|	0.02
16.250	0.87	0.88	0.003	O	|	|	|	|	0.02
16.333	0.85	0.86	0.003	O	|	|	|	|	0.02
16.417	0.82	0.83	0.003	O	|	|	|	|	0.02
16.500	0.80	0.81	0.003	O	|	|	|	|	0.02
16.583	0.78	0.79	0.003	O	|	|	|	|	0.02
16.667	0.76	0.77	0.003	O	|	|	|	|	0.02
16.750	0.74	0.75	0.003	O	|	|	|	|	0.02
16.833	0.72	0.73	0.003	O	|	|	|	|	0.02
16.917	0.70	0.71	0.002	O	|	|	|	|	0.02
17.000	0.68	0.69	0.002	O	|	|	|	|	0.02
17.083	0.66	0.67	0.002	O	|	|	|	|	0.02
17.167	0.64	0.65	0.002	O	|	|	|	|	0.02
17.250	0.62	0.63	0.002	O	|	|	|	|	0.02
17.333	0.60	0.61	0.002	O	|	|	|	|	0.02
17.417	0.59	0.60	0.002	O	|	|	|	|	0.01
17.500	0.57	0.58	0.002	O	|	|	|	|	0.01
17.583	0.56	0.56	0.002	O	|	|	|	|	0.01
17.667	0.54	0.55	0.002	O	|	|	|	|	0.01
17.750	0.52	0.53	0.002	O	|	|	|	|	0.01
17.833	0.51	0.52	0.002	O	|	|	|	|	0.01
17.917	0.50	0.50	0.002	O	|	|	|	|	0.01
18.000	0.48	0.49	0.002	O	|	|	|	|	0.01
18.083	0.47	0.48	0.002	O	|	|	|	|	0.01
18.167	0.46	0.46	0.002	O	|	|	|	|	0.01
18.250	0.44	0.45	0.002	O	|	|	|	|	0.01
18.333	0.43	0.44	0.002	O	|	|	|	|	0.01
18.417	0.42	0.42	0.001	O	|	|	|	|	0.01
18.500	0.41	0.41	0.001	O	|	|	|	|	0.01
18.583	0.40	0.40	0.001	O	|	|	|	|	0.01
18.667	0.38	0.39	0.001	O	|	|	|	|	0.01
18.750	0.37	0.38	0.001	O	|	|	|	|	0.01
18.833	0.36	0.37	0.001	O	|	|	|	|	0.01
18.917	0.35	0.36	0.001	O	|	|	|	|	0.01
19.000	0.34	0.35	0.001	O	|	|	|	|	0.01
19.083	0.33	0.34	0.001	O	|	|	|	|	0.01
19.167	0.32	0.33	0.001	O	|	|	|	|	0.01
19.250	0.32	0.32	0.001	O	|	|	|	|	0.01
19.333	0.31	0.31	0.001	O	|	|	|	|	0.01
19.417	0.30	0.30	0.001	O	|	|	|	|	0.01
19.500	0.29	0.29	0.001	O	|	|	|	|	0.01
19.583	0.28	0.29	0.001	O	|	|	|	|	0.01

19.667	0.27	0.28	0.001	O					0.01
19.750	0.27	0.27	0.001	O					0.01
19.833	0.26	0.26	0.001	O					0.01
19.917	0.25	0.26	0.001	O					0.01
20.000	0.25	0.25	0.001	O					0.01
20.083	0.24	0.24	0.001	O					0.01
20.167	0.23	0.24	0.001	O					0.01
20.250	0.23	0.23	0.001	O					0.01
20.333	0.22	0.22	0.001	O					0.01
20.417	0.21	0.22	0.001	O					0.01
20.500	0.21	0.21	0.001	O					0.01
20.583	0.20	0.20	0.001	O					0.01
20.667	0.20	0.20	0.001	O					0.00
20.750	0.19	0.19	0.001	O					0.00
20.833	0.18	0.19	0.001	O					0.00
20.917	0.18	0.18	0.001	O					0.00
21.000	0.17	0.18	0.001	O					0.00
21.083	0.17	0.17	0.001	O					0.00
21.167	0.17	0.17	0.001	O					0.00
21.250	0.16	0.16	0.001	O					0.00
21.333	0.16	0.16	0.001	O					0.00
21.417	0.15	0.15	0.001	O					0.00
21.500	0.15	0.15	0.001	O					0.00
21.583	0.14	0.15	0.001	O					0.00
21.667	0.14	0.14	0.000	O					0.00
21.750	0.14	0.14	0.000	O					0.00
21.833	0.13	0.13	0.000	O					0.00
21.917	0.13	0.13	0.000	O					0.00
22.000	0.12	0.13	0.000	O					0.00
22.083	0.12	0.12	0.000	O					0.00
22.167	0.12	0.12	0.000	O					0.00
22.250	0.11	0.12	0.000	O					0.00
22.333	0.11	0.11	0.000	O					0.00
22.417	0.11	0.11	0.000	O					0.00
22.500	0.11	0.11	0.000	O					0.00
22.583	0.10	0.10	0.000	O					0.00
22.667	0.10	0.10	0.000	O					0.00
22.750	0.10	0.10	0.000	O					0.00
22.833	0.09	0.10	0.000	O					0.00
22.917	0.09	0.09	0.000	O					0.00
23.000	0.09	0.09	0.000	O					0.00
23.083	0.09	0.09	0.000	O					0.00
23.167	0.08	0.09	0.000	O					0.00
23.250	0.08	0.08	0.000	O					0.00
23.333	0.08	0.08	0.000	O					0.00
23.417	0.08	0.08	0.000	O					0.00
23.500	0.08	0.08	0.000	O					0.00
23.583	0.07	0.07	0.000	O					0.00
23.667	0.07	0.07	0.000	O					0.00
23.750	0.07	0.07	0.000	O					0.00
23.833	0.07	0.07	0.000	O					0.00
23.917	0.07	0.07	0.000	O					0.00
24.000	0.06	0.06	0.000	O					0.00
24.083	0.06	0.06	0.000	O					0.00
24.167	0.06	0.06	0.000	O					0.00
24.250	0.06	0.06	0.000	O					0.00
24.333	0.06	0.06	0.000	O					0.00
24.417	0.06	0.06	0.000	O					0.00
24.500	0.05	0.05	0.000	O					0.00
24.583	0.05	0.05	0.000	O					0.00
24.667	0.05	0.05	0.000	O					0.00
24.750	0.05	0.05	0.000	O					0.00
24.833	0.05	0.05	0.000	O					0.00
24.917	0.05	0.05	0.000	O					0.00
25.000	0.05	0.05	0.000	O					0.00
25.083	0.04	0.04	0.000	O					0.00
25.167	0.04	0.04	0.000	O					0.00
25.250	0.04	0.04	0.000	O					0.00
25.333	0.04	0.04	0.000	O					0.00
25.417	0.04	0.04	0.000	O					0.00

25.500	0.04	0.04	0.000	O					0.00
25.583	0.04	0.04	0.000	O					0.00
25.667	0.04	0.04	0.000	O					0.00
25.750	0.04	0.04	0.000	O					0.00
25.833	0.03	0.03	0.000	O					0.00
25.917	0.03	0.03	0.000	O					0.00
26.000	0.03	0.03	0.000	O					0.00
26.083	0.03	0.03	0.000	O					0.00
26.167	0.03	0.03	0.000	O					0.00
26.250	0.03	0.03	0.000	O					0.00
26.333	0.03	0.03	0.000	O					0.00
26.417	0.03	0.03	0.000	O					0.00
26.500	0.03	0.03	0.000	O					0.00
26.583	0.03	0.03	0.000	O					0.00
26.667	0.03	0.03	0.000	O					0.00
26.750	0.03	0.03	0.000	O					0.00
26.833	0.02	0.02	0.000	O					0.00
26.917	0.02	0.02	0.000	O					0.00
27.000	0.02	0.02	0.000	O					0.00
27.083	0.02	0.02	0.000	O					0.00
27.167	0.02	0.02	0.000	O					0.00
27.250	0.02	0.02	0.000	O					0.00
27.333	0.02	0.02	0.000	O					0.00
27.417	0.02	0.02	0.000	O					0.00
27.500	0.02	0.02	0.000	O					0.00
27.583	0.02	0.02	0.000	O					0.00
27.667	0.02	0.02	0.000	O					0.00
27.750	0.02	0.02	0.000	O					0.00
27.833	0.02	0.02	0.000	O					0.00
27.917	0.02	0.02	0.000	O					0.00
28.000	0.02	0.02	0.000	O					0.00
28.083	0.02	0.02	0.000	O					0.00
28.167	0.02	0.02	0.000	O					0.00
28.250	0.02	0.02	0.000	O					0.00
28.333	0.01	0.01	0.000	O					0.00
28.417	0.01	0.01	0.000	O					0.00
28.500	0.01	0.01	0.000	O					0.00
28.583	0.01	0.01	0.000	O					0.00
28.667	0.01	0.01	0.000	O					0.00
28.750	0.01	0.01	0.000	O					0.00
28.833	0.01	0.01	0.000	O					0.00
28.917	0.01	0.01	0.000	O					0.00
29.000	0.01	0.01	0.000	O					0.00
29.083	0.01	0.01	0.000	O					0.00
29.167	0.01	0.01	0.000	O					0.00
29.250	0.01	0.01	0.000	O					0.00
29.333	0.01	0.01	0.000	O					0.00
29.417	0.01	0.01	0.000	O					0.00
29.500	0.01	0.01	0.000	O					0.00
29.583	0.01	0.01	0.000	O					0.00
29.667	0.01	0.01	0.000	O					0.00
29.750	0.01	0.01	0.000	O					0.00
29.833	0.01	0.01	0.000	O					0.00
29.917	0.01	0.01	0.000	O					0.00
30.000	0.01	0.01	0.000	O					0.00
30.083	0.01	0.01	0.000	O					0.00
30.167	0.01	0.01	0.000	O					0.00
30.250	0.01	0.01	0.000	O					0.00
30.333	0.01	0.01	0.000	O					0.00
30.417	0.01	0.01	0.000	O					0.00
30.500	0.01	0.01	0.000	O					0.00
30.583	0.01	0.01	0.000	O					0.00
30.667	0.01	0.01	0.000	O					0.00
30.750	0.01	0.01	0.000	O					0.00
30.833	0.01	0.01	0.000	O					0.00
30.917	0.01	0.01	0.000	O					0.00
31.000	0.01	0.01	0.000	O					0.00
31.083	0.01	0.01	0.000	O					0.00
31.167	0.01	0.01	0.000	O					0.00
31.250	0.01	0.01	0.000	O					0.00

31.333	0.01	0.01	0.000	O	|	|	|	|	0.00
31.417	0.01	0.01	0.000	O	|	|	|	|	0.00
31.500	0.01	0.01	0.000	O	|	|	|	|	0.00
31.583	0.00	0.00	0.000	O	|	|	|	|	0.00
31.667	0.00	0.00	0.000	O	|	|	|	|	0.00
31.750	0.00	0.00	0.000	O	|	|	|	|	0.00
31.833	0.00	0.00	0.000	O	|	|	|	|	0.00
31.917	0.00	0.00	0.000	O	|	|	|	|	0.00
32.000	0.00	0.00	0.000	O	|	|	|	|	0.00
32.083	0.00	0.00	0.000	O	|	|	|	|	0.00
32.167	0.00	0.00	0.000	O	|	|	|	|	0.00
32.250	0.00	0.00	0.000	O	|	|	|	|	0.00
32.333	0.00	0.00	0.000	O	|	|	|	|	0.00
32.417	0.00	0.00	0.000	O	|	|	|	|	0.00
32.500	0.00	0.00	0.000	O	|	|	|	|	0.00
32.583	0.00	0.00	0.000	O	|	|	|	|	0.00
32.667	0.00	0.00	0.000	O	|	|	|	|	0.00
32.750	0.00	0.00	0.000	O	|	|	|	|	0.00
32.833	0.00	0.00	0.000	O	|	|	|	|	0.00
32.917	0.00	0.00	0.000	O	|	|	|	|	0.00
33.000	0.00	0.00	0.000	O	|	|	|	|	0.00
33.083	0.00	0.00	0.000	O	|	|	|	|	0.00
33.167	0.00	0.00	0.000	O	|	|	|	|	0.00
33.250	0.00	0.00	0.000	O	|	|	|	|	0.00
33.333	0.00	0.00	0.000	O	|	|	|	|	0.00
33.417	0.00	0.00	0.000	O	|	|	|	|	0.00
33.500	0.00	0.00	0.000	O	|	|	|	|	0.00
33.583	0.00	0.00	0.000	O	|	|	|	|	0.00
33.667	0.00	0.00	0.000	O	|	|	|	|	0.00
33.750	0.00	0.00	0.000	O	|	|	|	|	0.00
33.833	0.00	0.00	0.000	O	|	|	|	|	0.00
33.917	0.00	0.00	0.000	O	|	|	|	|	0.00
34.000	0.00	0.00	0.000	O	|	|	|	|	0.00
34.083	0.00	0.00	0.000	O	|	|	|	|	0.00
34.167	0.00	0.00	0.000	O	|	|	|	|	0.00
34.250	0.00	0.00	0.000	O	|	|	|	|	0.00
34.333	0.00	0.00	0.000	O	|	|	|	|	0.00

**********HYDROGRAPH DATA**********

Number of intervals = 412
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 410.700 (CFS)
Total volume = 136.990 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

```
                    FLOOD HYDROGRAPH ROUTING PROGRAM
                  Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                              Study date: 04/23/19


      ---------------------------------------------------------------------
      Legado
      Detention Basin B2
      100-year 6-hour Inflow Hydrograph

      ---------------------------------------------------------------------


      Program License Serial Number 4029

      ---------------------------------------------------------------------
      ********************* HYDROGRAPH INFORMATION **********************

                    From study/file name: lgareab2cd6100.rte
      ****************************HYDROGRAPH DATA****************************
                    Number of intervals =    84
                    Time interval =    5.0 (Min.)
                    Maximum/Peak flow rate =      628.631 (CFS)
                    Total volume =      87.574 (Ac.Ft)
             Status of hydrographs being held in storage
                        Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
             Peak (CFS)      0.000     0.000     0.000     0.000     0.000
             Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
      ***********************************************************************



      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      Process from Point/Station       10.000 to Point/Station       11.000
      **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
      ______________________________________________________________________
      ********************* HYDROGRAPH INFORMATION **********************

                    From study/file name: lgouta6100.rte
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                       P R I N T  O F  S T O R M
                    R u n o f f     H y d r o g r a p h
      ---------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals (CFS)

      ---------------------------------------------------------------------
    Time(h+m) Add q(CFS)  Tot. Q   0      190.0     379.9     569.9     759.8
    ---------------------------------------------------------------------
      0+ 5       0.1331      4.49  Q         |         |         |         |
      0+10       1.0566     23.95  qQ        |         |         |         |
      0+15       3.6618     43.17  q Q       |         |         |         |
      0+20       7.8556     55.21  q Q       |         |         |         |
      0+25      12.5181     63.83  q  Q      |         |         |         |
      0+30      16.7809     72.08  q  Q      |         |         |         |
      0+35      20.6226     83.27  |q  Q     |         |         |         |
      0+40      24.3582     91.88  |q  Q     |         |         |         |
      0+45      27.9499     97.82  |q   Q    |         |         |         |
      0+50      30.0473    101.46  |q   Q    |         |         |         |
      0+55      30.7899    103.27  |q   Q    |         |         |         |
      1+ 0      31.2390    105.94  |q   Q    |         |         |         |
      1+ 5      31.7436    112.61  |q   Q    |         |         |         |
      1+10      32.3511    117.10  |q    Q   |         |         |         |
      1+15      33.0559    119.36  |q    Q   |         |         |         |
      1+20      33.8098    121.06  |q    Q   |         |         |         |
      1+25      34.5770    122.49  |q    Q   |         |         |         |
      1+30      35.3412    123.70  |q    Q   |         |         |         |
      1+35      36.0920    124.74  |q    Q   |         |         |         |
      1+40      36.8229    125.69  |q    Q   |         |         |         |
      1+45      37.5307    126.56  |q    Q   |         |         |         |
      1+50      38.2147    127.35  | q   Q   |         |         |         |
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1+55      38.8745    128.11  | q   Q   |         |         |         |
2+ 0      39.5174    130.24  | q   Q   |         |         |         |
2+ 5      40.1738    135.08  | q    Q  |         |         |         |
2+10      40.8649    135.19  | q    Q  |         |         |         |
2+15      41.6238    139.35  | q    Q  |         |         |         |
2+20      42.5821    143.36  | q    Q  |         |         |         |
2+25      43.6682    145.56  | q    Q  |         |         |         |
2+30      44.7741    147.33  | q    Q  |         |         |         |
2+35      45.9091    148.94  | q    Q  |         |         |         |
2+40      47.1057    150.44  | q    Q  |         |         |         |
2+45      48.3700    153.37  | q     Q |         |         |         |
2+50      49.7253    160.51  | q     Q |         |         |         |
2+55      51.2171    165.75  | q     Q |         |         |         |
3+ 0      52.8277    168.82  | q     Q |         |         |         |
3+ 5      54.4790    171.36  | q      Q|         |         |         |
3+10      56.1223    175.05  | q      Q|         |         |         |
3+15      57.7871    182.71  |  q     Q|         |         |         |
3+20      59.5376    188.36  |  q     Q|         |         |         |
3+25      61.3806    193.24  |  q      Q         |         |         |
3+30      63.2431    203.15  |  q      Q         |         |         |
3+35      64.9318    216.16  |  q      |Q        |         |         |
3+40      66.6859    229.01  |  q      | Q       |         |         |
3+45      68.6975    238.64  |  q      | Q       |         |         |
3+50      70.9275    249.49  |  q      |  Q      |         |         |
3+55      73.3389    258.89  |  q      |  Q      |         |         |
4+ 0      75.9130    269.82  |  q      |   Q     |         |         |
4+ 5      78.6384    279.41  |   q     |   Q     |         |         |
4+10      80.9612    291.46  |   q     |    Q    |         |         |
4+15      83.0852    305.94  |   q     |     Q   |         |         |
4+20      85.3870    321.51  |   q     |     Q   |         |         |
4+25      87.9116    337.78  |   q     |      Q  |         |         |
4+30      90.6653    353.16  |   q     |       Q |         |         |
4+35      93.3596    364.45  |   q     |        Q|         |         |
4+40      95.8032    377.67  |    q    |        Q|         |         |
4+45      98.2335    393.21  |    q    |         Q         |         |
4+50     100.8149    408.12  |    q    |         |Q        |         |
4+55     103.5437    419.34  |    q    |         | Q       |         |
5+ 0     106.1834    432.69  |    q    |         | Q       |         |
5+ 5     108.8006    454.11  |    q    |         |  Q      |         |
5+10     111.6349    498.82  |    q    |         |     Q   |         |
5+15     114.8331    555.80  |     q   |         |       Q|         |
5+20     118.3421    607.66  |     q   |         |        |Q        |
5+25     122.2856    659.06  |     q   |         |        |   Q     |
5+30     126.5715    727.35  |     q   |         |        |      Q  |
5+35     131.1737    759.80  |     q   |         |        |       Q |
5+40     135.5494    589.75  |      q  |         |        |Q        |
5+45     138.8605    421.56  |      q  |         | Q      |         |
5+50     140.7638    332.21  |      q  |       Q |        |         |
5+55     141.5237    279.69  |      q  |    Q    |        |         |
6+ 0     141.5314    241.72  |      q  | Q       |        |         |
6+ 5     141.0204    213.19  |      q  |Q        |        |         |
6+10     140.1213    188.28  |      q Q|         |        |         |
6+15     138.9276    170.72  |      qQ |         |        |         |
6+20     137.5228    158.77  |      qQ |         |        |         |
6+25     135.9752    149.93  |      Q  |         |        |         |
6+30     134.3088    142.08  |      Q  |         |        |         |
6+35     132.4669    135.78  |     qQ  |         |        |         |
6+40     130.5185    132.19  |     Q   |         |        |         |
6+45     128.5398    129.45  |     Q   |         |        |         |
6+50     126.5478    127.02  |     Q   |         |        |         |
6+55     124.4545    124.67  |     Q   |         |        |         |
7+ 0     122.2516    122.32  |     Q   |         |        |         |
7+ 5     120.0358    120.04  |     Q   |         |        |         |
7+10     117.8525    117.85  |     Q   |         |        |         |
7+15     115.6629    115.66  |     Q   |         |        |         |
7+20     113.3601    113.36  |    Q    |         |        |         |
7+25     111.0244    111.02  |    Q    |         |        |         |
7+30     108.7355    108.74  |    Q    |         |        |         |
7+35     106.4941    106.49  |    Q    |         |        |         |
7+40     104.1639    104.16  |    Q    |         |        |         |
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7+45	101.7356	101.74	| Q	|	|	|	|
7+50	99.3226	99.32	| Q	|	|	|	|
7+55	96.9668	96.97	| Q	|	|	|	|
8+ 0	94.6676	94.67	| Q	|	|	|	|
8+ 5	92.0541	92.05	| Q	|	|	|	|
8+10	89.1603	89.16	| Q	|	|	|	|
8+15	86.2779	86.28	| Q	|	|	|	|
8+20	83.4888	83.49	| Q	|	|	|	|
8+25	80.7723	80.77	| Q	|	|	|	|
8+30	77.4187	77.42	| Q	|	|	|	|
8+35	73.7700	73.77	| Q	|	|	|	|
8+40	70.2903	70.29	| Q	|	|	|	|
8+45	66.9773	66.98	| Q	|	|	|	|
8+50	63.5615	63.56	| Q	|	|	|	|
8+55	59.6826	59.68	| Q	|	|	|	|
9+ 0	55.7497	55.75	| Q	|	|	|	|
9+ 5	52.0775	52.08	| Q	|	|	|	|
9+10	48.6525	48.65	| Q	|	|	|	|
9+15	45.4581	45.46	| Q	|	|	|	|
9+20	42.5374	42.54	| Q	|	|	|	|
9+25	40.2700	40.27	| Q	|	|	|	|
9+30	38.3919	38.39	| Q	|	|	|	|
9+35	36.6074	36.61	|Q	|	|	|	|
9+40	34.9085	34.91	|Q	|	|	|	|
9+45	33.2911	33.29	|Q	|	|	|	|
9+50	31.7510	31.75	|Q	|	|	|	|
9+55	28.4663	28.47	|Q	|	|	|	|
10+ 0	21.7099	21.71	|Q	|	|	|	|
10+ 5	15.1155	15.12	Q	|	|	|	|
10+10	10.6250	10.62	Q	|	|	|	|
10+15	7.5843	7.58	Q	|	|	|	|
10+20	5.5251	5.53	Q	|	|	|	|
10+25	4.1300	4.13	Q	|	|	|	|
10+30	3.1844	3.18	Q	|	|	|	|
10+35	2.5428	2.54	Q	|	|	|	|
10+40	2.1070	2.11	Q	|	|	|	|
10+45	1.8105	1.81	Q	|	|	|	|
10+50	1.6082	1.61	Q	|	|	|	|
10+55	1.4697	1.47	Q	|	|	|	|
11+ 0	1.3743	1.37	Q	|	|	|	|
11+ 5	1.3082	1.31	Q	|	|	|	|
11+10	1.2620	1.26	Q	|	|	|	|
11+15	1.2298	1.23	Q	|	|	|	|
11+20	1.2074	1.21	Q	|	|	|	|
11+25	1.1917	1.19	Q	|	|	|	|
11+30	1.1807	1.18	Q	|	|	|	|
11+35	1.1726	1.17	Q	|	|	|	|
11+40	1.1667	1.17	Q	|	|	|	|
11+45	1.1622	1.16	Q	|	|	|	|
11+50	1.1587	1.16	Q	|	|	|	|
11+55	1.1558	1.16	Q	|	|	|	|
12+ 0	1.1534	1.15	Q	|	|	|	|
12+ 5	1.1513	1.15	Q	|	|	|	|
12+10	1.1493	1.15	Q	|	|	|	|
12+15	1.1475	1.15	Q	|	|	|	|
12+20	1.1458	1.15	Q	|	|	|	|
12+25	1.1442	1.14	Q	|	|	|	|
12+30	1.1425	1.14	Q	|	|	|	|
12+35	1.1409	1.14	Q	|	|	|	|
12+40	1.1392	1.14	Q	|	|	|	|
12+45	1.1375	1.14	Q	|	|	|	|
12+50	1.1358	1.14	Q	|	|	|	|
12+55	1.1341	1.13	Q	|	|	|	|
13+ 0	1.1324	1.13	Q	|	|	|	|
13+ 5	1.1306	1.13	Q	|	|	|	|
13+10	1.1289	1.13	Q	|	|	|	|
13+15	1.1272	1.13	Q	|	|	|	|
13+20	1.1255	1.13	Q	|	|	|	|
13+25	1.1238	1.12	Q	|	|	|	|
13+30	1.1221	1.12	Q	|	|	|	|

13+35	1.1204	1.12	Q				
13+40	1.1187	1.12	Q				
13+45	1.1170	1.12	Q				
13+50	1.1153	1.12	Q				
13+55	1.1136	1.11	Q				
14+ 0	1.1119	1.11	Q				
14+ 5	1.1102	1.11	Q				
14+10	1.1085	1.11	Q				
14+15	1.1068	1.11	Q				
14+20	1.1052	1.11	Q				
14+25	1.1035	1.10	Q				
14+30	1.1018	1.10	Q				
14+35	1.1001	1.10	Q				
14+40	1.0985	1.10	Q				
14+45	1.0968	1.10	Q				
14+50	1.0951	1.10	Q				
14+55	1.0935	1.09	Q				
15+ 0	1.0918	1.09	Q				
15+ 5	1.0901	1.09	Q				
15+10	1.0885	1.09	Q				
15+15	1.0868	1.09	Q				
15+20	1.0852	1.09	Q				
15+25	1.0835	1.08	Q				
15+30	1.0819	1.08	Q				
15+35	1.0802	1.08	Q				
15+40	1.0786	1.08	Q				
15+45	1.0770	1.08	Q				
15+50	1.0753	1.08	Q				
15+55	1.0737	1.07	Q				
16+ 0	1.0721	1.07	Q				
16+ 5	1.0704	1.07	Q				
16+10	1.0688	1.07	Q				
16+15	1.0672	1.07	Q				
16+20	1.0656	1.07	Q				
16+25	1.0639	1.06	Q				
16+30	1.0623	1.06	Q				
16+35	1.0607	1.06	Q				
16+40	1.0591	1.06	Q				
16+45	1.0575	1.06	Q				
16+50	1.0559	1.06	Q				
16+55	1.0543	1.05	Q				
17+ 0	1.0527	1.05	Q				
17+ 5	1.0511	1.05	Q				
17+10	1.0495	1.05	Q				
17+15	1.0479	1.05	Q				
17+20	1.0463	1.05	Q				
17+25	1.0447	1.04	Q				
17+30	1.0431	1.04	Q				
17+35	1.0415	1.04	Q				
17+40	1.0400	1.04	Q				
17+45	1.0384	1.04	Q				
17+50	1.0368	1.04	Q				
17+55	1.0352	1.04	Q				
18+ 0	1.0337	1.03	Q				
18+ 5	1.0321	1.03	Q				
18+10	1.0305	1.03	Q				
18+15	1.0289	1.03	Q				
18+20	1.0266	1.03	Q				
18+25	1.0208	1.02	Q				
18+30	1.0096	1.01	Q				
18+35	0.9934	0.99	Q				
18+40	0.9738	0.97	Q				
18+45	0.9522	0.95	Q				
18+50	0.9294	0.93	Q				
18+55	0.9061	0.91	Q				
19+ 0	0.8826	0.88	Q				
19+ 5	0.8592	0.86	Q				
19+10	0.8361	0.84	Q				
19+15	0.8134	0.81	Q				
19+20	0.7911	0.79	Q				

19+25	0.7694	0.77	Q				
19+30	0.7482	0.75	Q				
19+35	0.7275	0.73	Q				
19+40	0.7073	0.71	Q				
19+45	0.6877	0.69	Q				
19+50	0.6687	0.67	Q				
19+55	0.6501	0.65	Q				
20+ 0	0.6320	0.63	Q				
20+ 5	0.6145	0.61	Q				
20+10	0.5974	0.60	Q				
20+15	0.5808	0.58	Q				
20+20	0.5647	0.56	Q				
20+25	0.5490	0.55	Q				
20+30	0.5337	0.53	Q				
20+35	0.5189	0.52	Q				
20+40	0.5045	0.50	Q				
20+45	0.4905	0.49	Q				
20+50	0.4768	0.48	Q				
20+55	0.4636	0.46	Q				
21+ 0	0.4507	0.45	Q				
21+ 5	0.4382	0.44	Q				
21+10	0.4260	0.43	Q				
21+15	0.4142	0.41	Q				
21+20	0.4027	0.40	Q				
21+25	0.3915	0.39	Q				
21+30	0.3806	0.38	Q				
21+35	0.3700	0.37	Q				
21+40	0.3597	0.36	Q				
21+45	0.3497	0.35	Q				
21+50	0.3400	0.34	Q				
21+55	0.3306	0.33	Q				
22+ 0	0.3214	0.32	Q				
22+ 5	0.3124	0.31	Q				
22+10	0.3038	0.30	Q				
22+15	0.2953	0.30	Q				
22+20	0.2871	0.29	Q				
22+25	0.2791	0.28	Q				
22+30	0.2714	0.27	Q				
22+35	0.2638	0.26	Q				
22+40	0.2565	0.26	Q				
22+45	0.2494	0.25	Q				
22+50	0.2424	0.24	Q				
22+55	0.2357	0.24	Q				
23+ 0	0.2292	0.23	Q				
23+ 5	0.2228	0.22	Q				
23+10	0.2166	0.22	Q				
23+15	0.2106	0.21	Q				
23+20	0.2047	0.20	Q				
23+25	0.1990	0.20	Q				
23+30	0.1935	0.19	Q				
23+35	0.1881	0.19	Q				
23+40	0.1829	0.18	Q				
23+45	0.1778	0.18	Q				
23+50	0.1729	0.17	Q				
23+55	0.1681	0.17	Q				
24+ 0	0.1634	0.16	Q				
24+ 5	0.1589	0.16	Q				
24+10	0.1544	0.15	Q				
24+15	0.1502	0.15	Q				
24+20	0.1460	0.15	Q				
24+25	0.1419	0.14	Q				
24+30	0.1380	0.14	Q				
24+35	0.1341	0.13	Q				
24+40	0.1304	0.13	Q				
24+45	0.1268	0.13	Q				
24+50	0.1233	0.12	Q				
24+55	0.1198	0.12	Q				
25+ 0	0.1165	0.12	Q				
25+ 5	0.1133	0.11	Q				
25+10	0.1101	0.11	Q				

25+15	0.1071	0.11	Q				
25+20	0.1041	0.10	Q				
25+25	0.1012	0.10	Q				
25+30	0.0984	0.10	Q				
25+35	0.0957	0.10	Q				
25+40	0.0930	0.09	Q				
25+45	0.0904	0.09	Q				
25+50	0.0879	0.09	Q				
25+55	0.0855	0.09	Q				
26+ 0	0.0831	0.08	Q				
26+ 5	0.0808	0.08	Q				
26+10	0.0785	0.08	Q				
26+15	0.0763	0.08	Q				
26+20	0.0742	0.07	Q				
26+25	0.0722	0.07	Q				
26+30	0.0702	0.07	Q				
26+35	0.0682	0.07	Q				
26+40	0.0663	0.07	Q				
26+45	0.0645	0.06	Q				
26+50	0.0627	0.06	Q				
26+55	0.0609	0.06	Q				
27+ 0	0.0592	0.06	Q				
27+ 5	0.0576	0.06	Q				
27+10	0.0560	0.06	Q				
27+15	0.0544	0.05	Q				
27+20	0.0529	0.05	Q				
27+25	0.0515	0.05	Q				
27+30	0.0500	0.05	Q				
27+35	0.0486	0.05	Q				
27+40	0.0473	0.05	Q				
27+45	0.0460	0.05	Q				
27+50	0.0447	0.04	Q				
27+55	0.0434	0.04	Q				
28+ 0	0.0422	0.04	Q				
28+ 5	0.0411	0.04	Q				
28+10	0.0399	0.04	Q				
28+15	0.0388	0.04	Q				
28+20	0.0377	0.04	Q				
28+25	0.0367	0.04	Q				
28+30	0.0357	0.04	Q				
28+35	0.0347	0.03	Q				
28+40	0.0337	0.03	Q				
28+45	0.0328	0.03	Q				
28+50	0.0319	0.03	Q				
28+55	0.0310	0.03	Q				
29+ 0	0.0301	0.03	Q				
29+ 5	0.0293	0.03	Q				
29+10	0.0285	0.03	Q				
29+15	0.0277	0.03	Q				
29+20	0.0269	0.03	Q				
29+25	0.0262	0.03	Q				
29+30	0.0254	0.03	Q				
29+35	0.0247	0.02	Q				
29+40	0.0240	0.02	Q				
29+45	0.0234	0.02	Q				
29+50	0.0227	0.02	Q				
29+55	0.0221	0.02	Q				
30+ 0	0.0215	0.02	Q				
30+ 5	0.0209	0.02	Q				
30+10	0.0203	0.02	Q				
30+15	0.0197	0.02	Q				
30+20	0.0192	0.02	Q				
30+25	0.0187	0.02	Q				
30+30	0.0181	0.02	Q				
30+35	0.0176	0.02	Q				
30+40	0.0171	0.02	Q				
30+45	0.0167	0.02	Q				
30+50	0.0162	0.02	Q				
30+55	0.0158	0.02	Q				
31+ 0	0.0153	0.02	Q				

31+ 5	0.0149	0.01	Q				
31+10	0.0145	0.01	Q				
31+15	0.0141	0.01	Q				
31+20	0.0137	0.01	Q				
31+25	0.0133	0.01	Q				
31+30	0.0129	0.01	Q				
31+35	0.0126	0.01	Q				
31+40	0.0122	0.01	Q				
31+45	0.0119	0.01	Q				
31+50	0.0116	0.01	Q				
31+55	0.0112	0.01	Q				
32+ 0	0.0109	0.01	Q				
32+ 5	0.0106	0.01	Q				
32+10	0.0103	0.01	Q				
32+15	0.0100	0.01	Q				
32+20	0.0098	0.01	Q				
32+25	0.0095	0.01	Q				
32+30	0.0092	0.01	Q				
32+35	0.0090	0.01	Q				
32+40	0.0087	0.01	Q				
32+45	0.0085	0.01	Q				
32+50	0.0082	0.01	Q				
32+55	0.0080	0.01	Q				
33+ 0	0.0078	0.01	Q				
33+ 5	0.0076	0.01	Q				
33+10	0.0074	0.01	Q				
33+15	0.0072	0.01	Q				
33+20	0.0070	0.01	Q				
33+25	0.0068	0.01	Q				
33+30	0.0066	0.01	Q				
33+35	0.0064	0.01	Q				
33+40	0.0062	0.01	Q				
33+45	0.0060	0.01	Q				
33+50	0.0059	0.01	Q				
33+55	0.0057	0.01	Q				
34+ 0	0.0056	0.01	Q				
34+ 5	0.0054	0.01	Q				
34+10	0.0052	0.01	Q				
34+15	0.0051	0.01	Q				
34+20	0.0050	0.00	Q				
34+25	0.0048	0.00	Q				
34+30	0.0047	0.00	Q				
34+35	0.0046	0.00	Q				
34+40	0.0044	0.00	Q				
34+45	0.0043	0.00	Q				
34+50	0.0042	0.00	Q				
34+55	0.0041	0.00	Q				
35+ 0	0.0040	0.00	Q				
35+ 5	0.0038	0.00	Q				
35+10	0.0037	0.00	Q				
35+15	0.0036	0.00	Q				
35+20	0.0035	0.00	Q				
35+25	0.0034	0.00	Q				
35+30	0.0033	0.00	Q				
35+35	0.0033	0.00	Q				
35+40	0.0032	0.00	Q				
35+45	0.0031	0.00	Q				
35+50	0.0030	0.00	Q				
35+55	0.0029	0.00	Q				
36+ 0	0.0028	0.00	Q				
36+ 5	0.0027	0.00	Q				
36+10	0.0027	0.00	Q				
36+15	0.0026	0.00	Q				
36+20	0.0025	0.00	Q				
36+25	0.0025	0.00	Q				
36+30	0.0024	0.00	Q				
36+35	0.0023	0.00	Q				
36+40	0.0023	0.00	Q				
36+45	0.0021	0.00	Q				
36+50	0.0018	0.00	Q				

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   36+55       0.0013      0.00  Q         |         |         |         |
   37+ 0       0.0000      0.00  Q         |         |         |         |
------------------------------------------------------------------------
       ****************************HYDROGRAPH DATA****************************
                     Number of intervals =   444
                     Time interval =    5.0 (Min.)
                     Maximum/Peak flow rate =      759.805 (CFS)
                     Total volume =     149.709 (Ac.Ft)
              Status of hydrographs being held in storage
                        Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
              Peak (CFS)      0.000     0.000     0.000     0.000     0.000
              Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       ************************************************************************

       ------------------------------------------------------------------------


       ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
       Process from Point/Station       10.000 to Point/Station       11.000
       **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
       ________________________________________________________________________
       ********************* HYDROGRAPH INFORMATION **********************

                     From study/file name: lgb1out6100.rte
       ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        P R I N T  O F  S T O R M
                     R u n o f f     H y d r o g r a p h
       ------------------------------------------------------------------------
                   Hydrograph in   5   Minute intervals (CFS)

       ------------------------------------------------------------------------
  Time(h+m) Add q(CFS)  Tot. Q   0      198.4     396.7     595.1     793.4
  ------------------------------------------------------------------------
    0+ 5       0.0000      4.49  Q         |         |         |         |
    0+10       0.0142     23.97  qQ        |         |         |         |
    0+15       0.1682     43.34  q Q       |         |         |         |
    0+20       0.6766     55.89  q Q       |         |         |         |
    0+25       1.5387     65.37  q  Q      |         |         |         |
    0+30       2.5527     74.64  q  Q      |         |         |         |
    0+35       3.5832     86.85  q   Q     |         |         |         |
    0+40       4.6098     96.49  q   Q     |         |         |         |
    0+45       5.6672    103.48  q    Q    |         |         |         |
    0+50       6.7292    108.19  q    Q    |         |         |         |
    0+55       7.7339    111.00  q    Q    |         |         |         |
    1+ 0       8.6583    114.59  q    Q    |         |         |         |
    1+ 5       9.4705    122.08  q     Q   |         |         |         |
    1+10      10.0015    127.11  q     Q   |         |         |         |
    1+15      10.3511    129.71  q     Q   |         |         |         |
    1+20      10.6683    131.73  q     Q   |         |         |         |
    1+25      10.9765    133.47  q     Q   |         |         |         |
    1+30      11.2782    134.98  q     Q   |         |         |         |
    1+35      11.5727    136.31  q     Q   |         |         |         |
    1+40      11.8592    137.55  q     Q   |         |         |         |
    1+45      12.1369    138.69  q     Q   |         |         |         |
    1+50      12.4054    139.76  q      Q  |         |         |         |
    1+55      12.6650    140.77  q      Q  |         |         |         |
    2+ 0      12.9158    143.15  q      Q  |         |         |         |
    2+ 5      13.1597    148.24  q      Q  |         |         |         |
    2+10      13.4080    148.60  q      Q  |         |         |         |
    2+15      13.6695    153.01  q      Q  |         |         |         |
    2+20      13.9343    157.30  q      Q  |         |         |         |
    2+25      14.2080    159.77  q       Q |         |         |         |
    2+30      14.4966    161.82  q       Q |         |         |         |
    2+35      14.7875    163.73  q       Q |         |         |         |
    2+40      15.0745    165.52  q       Q |         |         |         |
    2+45      15.3547    168.72  q       Q |         |         |         |
    2+50      15.6283    176.13  q       Q |         |         |         |
    2+55      15.9076    181.66  q        Q|         |         |         |
    3+ 0      16.2074    185.03  q        Q|         |         |         |
    3+ 5      16.4965    187.85  q        Q|         |         |         |
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3+10      16.7698    191.82  q         Q|          |          |          |
3+15      17.0377    199.75  q          Q          |          |          |
3+20      17.3114    205.67  q          Q          |          |          |
3+25      17.6064    210.85  q          Q          |          |          |
3+30      17.9211    221.07  q          |Q         |          |          |
3+35      18.2526    234.42  q          |Q         |          |          |
3+40      18.6212    247.63  q          | Q        |          |          |
3+45      19.0476    257.69  q          | Q        |          |          |
3+50      19.5312    269.03  q          |  Q       |          |          |
3+55      20.0584    278.95  |q         |   Q      |          |          |
4+ 0      20.6222    290.44  |q         |   Q      |          |          |
4+ 5      21.2190    300.63  |q         |    Q     |          |          |
4+10      21.8466    313.30  |q         |    Q     |          |          |
4+15      22.4974    328.44  |q         |     Q    |          |          |
4+20      23.1179    344.63  |q         |      Q   |          |          |
4+25      23.6298    361.41  |q         |       Q  |          |          |
4+30      24.1452    377.30  |q         |        Q|          |          |
4+35      24.6938    389.15  |q         |        Q|          |          |
4+40      25.2777    402.94  |q         |         Q          |          |
4+45      25.8892    419.10  |q         |          |Q        |          |
4+50      26.5297    434.65  |q         |          |Q        |          |
4+55      27.2063    446.54  |q         |          | Q       |          |
5+ 0      27.9073    460.60  |q         |          |  Q      |          |
5+ 5      28.5659    482.68  |q         |          |   Q     |          |
5+10      29.1937    528.01  |q         |          |     Q   |          |
5+15      29.8602    585.66  |q         |          |       Q|          |
5+20      30.6308    638.29  |q         |          |        | Q       |
5+25      31.5464    690.61  |q         |          |        |   Q     |
5+30      32.5791    759.93  |q         |          |        |      Q  |
5+35      33.6190    793.42  |q         |          |        |       Q |
5+40      34.7620    624.52  |q         |          |        |Q        |
5+45      35.8902    457.45  |q         |          |  Q     |         |
5+50      36.6540    368.87  |q         |        Q |        |         |
5+55      36.9744    316.67  |q         |     Q    |        |         |
6+ 0      37.0241    278.74  |q         |    Q     |        |         |
6+ 5      36.9226    250.12  |q         |  Q       |        |         |
6+10      36.7278    225.01  |q         |Q         |        |         |
6+15      36.4474    207.17  |q         Q          |        |         |
6+20      36.1083    194.88  |q       Q|          |        |         |
6+25      35.7415    185.67  |q       Q|          |        |         |
6+30      35.3653    177.45  |q      Q |          |        |         |
6+35      34.9873    170.77  |q      Q |          |        |         |
6+40      34.6106    166.80  |q      Q |          |        |         |
6+45      34.2368    163.69  |q      Q |          |        |         |
6+50      33.8665    160.89  |q      Q |          |        |         |
6+55      33.5001    158.17  |q     Q  |          |        |         |
7+ 0      33.1364    155.45  |q     Q  |          |        |         |
7+ 5      32.7619    152.80  |q     Q  |          |        |         |
7+10      32.3496    150.20  |q     Q  |          |        |         |
7+15      31.9313    147.59  |q     Q  |          |        |         |
7+20      31.5154    144.88  |q     Q  |          |        |         |
7+25      31.1041    142.13  |q     Q  |          |        |         |
7+30      30.6980    139.43  |q     Q  |          |        |         |
7+35      30.2971    136.79  |q    Q   |          |        |         |
7+40      29.9015    134.07  |q    Q   |          |        |         |
7+45      29.5110    131.25  |q    Q   |          |        |         |
7+50      29.1256    128.45  |q    Q   |          |        |         |
7+55      28.7430    125.71  |q    Q   |          |        |         |
8+ 0      28.3432    123.01  |q    Q   |          |        |         |
8+ 5      27.8966    119.95  |q    Q   |          |        |         |
8+10      27.4431    116.60  |q   Q    |          |        |         |
8+15      26.9932    113.27  |q   Q    |          |        |         |
8+20      26.5497    110.04  |q   Q    |          |        |         |
8+25      26.1133    106.89  |q   Q    |          |        |         |
8+30      25.6839    103.10  |q   Q    |          |        |         |
8+35      25.2616     99.03  |q  Q     |          |        |         |
8+40      24.8462     95.14  |q  Q     |          |        |         |
8+45      24.4376     91.41  |q  Q     |          |        |         |
8+50      24.0358     87.60  |q  Q     |          |        |         |
8+55      23.6400     83.32  |q  Q     |          |        |         |
```

9+ 0	23.2235	78.97	|q Q	|	|	|	|
9+ 5	22.6561	74.73	|q Q	|	|	|	|
9+10	22.0607	70.71	|q Q	|	|	|	|
9+15	21.4698	66.93	|q Q	|	|	|	|
9+20	20.8917	63.43	|q Q	|	|	|	|
9+25	20.3284	60.60	|q Q	|	|	|	|
9+30	19.7801	58.17	q Q	|	|	|	|
9+35	19.2465	55.85	q Q	|	|	|	|
9+40	18.7272	53.64	q Q	|	|	|	|
9+45	18.2220	51.51	q Q	|	|	|	|
9+50	17.7304	49.48	q Q	|	|	|	|
9+55	17.2521	45.72	q Q	|	|	|	|
10+ 0	16.7829	38.49	qQ	|	|	|	|
10+ 5	16.2941	31.41	qQ	|	|	|	|
10+10	15.7649	26.39	qQ	|	|	|	|
10+15	15.2384	22.82	qQ	|	|	|	|
10+20	14.7256	20.25	qQ	|	|	|	|
10+25	14.2290	18.36	Q	|	|	|	|
10+30	13.7489	16.93	Q	|	|	|	|
10+35	13.2849	15.83	Q	|	|	|	|
10+40	12.8366	14.94	Q	|	|	|	|
10+45	12.4034	14.21	Q	|	|	|	|
10+50	11.9848	13.59	Q	|	|	|	|
10+55	11.5803	13.05	Q	|	|	|	|
11+ 0	11.1895	12.56	Q	|	|	|	|
11+ 5	10.8119	12.12	Q	|	|	|	|
11+10	10.4470	11.71	Q	|	|	|	|
11+15	10.0272	11.26	Q	|	|	|	|
11+20	9.1678	10.38	Q	|	|	|	|
11+25	8.2553	9.45	Q	|	|	|	|
11+30	7.4006	8.58	Q	|	|	|	|
11+35	6.6255	7.80	Q	|	|	|	|
11+40	5.9292	7.10	Q	|	|	|	|
11+45	5.3055	6.47	Q	|	|	|	|
11+50	4.7473	5.91	Q	|	|	|	|
11+55	4.2477	5.40	Q	|	|	|	|
12+ 0	3.8007	4.95	Q	|	|	|	|
12+ 5	3.4007	4.55	Q	|	|	|	|
12+10	3.0428	4.19	Q	|	|	|	|
12+15	2.7226	3.87	Q	|	|	|	|
12+20	2.4361	3.58	Q	|	|	|	|
12+25	2.1797	3.32	Q	|	|	|	|
12+30	1.9503	3.09	Q	|	|	|	|
12+35	1.7451	2.89	Q	|	|	|	|
12+40	1.5615	2.70	Q	|	|	|	|
12+45	1.3971	2.53	Q	|	|	|	|
12+50	1.2501	2.39	Q	|	|	|	|
12+55	1.1185	2.25	Q	|	|	|	|
13+ 0	1.0008	2.13	Q	|	|	|	|
13+ 5	0.8955	2.03	Q	|	|	|	|
13+10	0.8013	1.93	Q	|	|	|	|
13+15	0.7169	1.84	Q	|	|	|	|
13+20	0.6415	1.77	Q	|	|	|	|
13+25	0.5740	1.70	Q	|	|	|	|
13+30	0.5136	1.64	Q	|	|	|	|
13+35	0.4595	1.58	Q	|	|	|	|
13+40	0.4112	1.53	Q	|	|	|	|
13+45	0.3679	1.48	Q	|	|	|	|
13+50	0.3292	1.44	Q	|	|	|	|
13+55	0.2945	1.41	Q	|	|	|	|
14+ 0	0.2635	1.38	Q	|	|	|	|
14+ 5	0.2358	1.35	Q	|	|	|	|
14+10	0.2110	1.32	Q	|	|	|	|
14+15	0.1888	1.30	Q	|	|	|	|
14+20	0.1689	1.27	Q	|	|	|	|
14+25	0.1511	1.25	Q	|	|	|	|
14+30	0.1352	1.24	Q	|	|	|	|
14+35	0.1210	1.22	Q	|	|	|	|
14+40	0.1083	1.21	Q	|	|	|	|
14+45	0.0969	1.19	Q	|	|	|	|

14+50	0.0867	1.18	Q				
14+55	0.0776	1.17	Q				
15+ 0	0.0694	1.16	Q				
15+ 5	0.0621	1.15	Q				
15+10	0.0556	1.14	Q				
15+15	0.0497	1.14	Q				
15+20	0.0445	1.13	Q				
15+25	0.0398	1.12	Q				
15+30	0.0356	1.12	Q				
15+35	0.0319	1.11	Q				
15+40	0.0285	1.11	Q				
15+45	0.0255	1.10	Q				
15+50	0.0228	1.10	Q				
15+55	0.0204	1.09	Q				
16+ 0	0.0183	1.09	Q				
16+ 5	0.0164	1.09	Q				
16+10	0.0146	1.08	Q				
16+15	0.0131	1.08	Q				
16+20	0.0117	1.08	Q				
16+25	0.0105	1.07	Q				
16+30	0.0086	1.07	Q				
16+35	0.0023	1.06	Q				
16+40	0.0000	1.06	Q				
16+45	0.0000	1.06	Q				
16+50	0.0000	1.06	Q				
16+55	0.0000	1.05	Q				
17+ 0	0.0000	1.05	Q				
17+ 5	0.0000	1.05	Q				
17+10	0.0000	1.05	Q				
17+15	0.0000	1.05	Q				
17+20	0.0000	1.05	Q				
17+25	0.0000	1.04	Q				
17+30	0.0000	1.04	Q				
17+35	0.0000	1.04	Q				
17+40	0.0000	1.04	Q				
17+45	0.0000	1.04	Q				
17+50	0.0000	1.04	Q				
17+55	0.0000	1.04	Q				
18+ 0	0.0000	1.03	Q				
18+ 5	0.0000	1.03	Q				
18+10	0.0000	1.03	Q				
18+15	0.0000	1.03	Q				
18+20	0.0000	1.03	Q				
18+25	0.0000	1.02	Q				
18+30	0.0000	1.01	Q				
18+35	0.0000	0.99	Q				
18+40	0.0000	0.97	Q				
18+45	0.0000	0.95	Q				
18+50	0.0000	0.93	Q				
18+55	0.0000	0.91	Q				
19+ 0	0.0000	0.88	Q				
19+ 5	0.0000	0.86	Q				
19+10	0.0000	0.84	Q				
19+15	0.0000	0.81	Q				
19+20	0.0000	0.79	Q				
19+25	0.0000	0.77	Q				
19+30	0.0000	0.75	Q				
19+35	0.0000	0.73	Q				
19+40	0.0000	0.71	Q				
19+45	0.0000	0.69	Q				
19+50	0.0000	0.67	Q				
19+55	0.0000	0.65	Q				
20+ 0	0.0000	0.63	Q				
20+ 5	0.0000	0.61	Q				
20+10	0.0000	0.60	Q				
20+15	0.0000	0.58	Q				
20+20	0.0000	0.56	Q				
20+25	0.0000	0.55	Q				
20+30	0.0000	0.53	Q				
20+35	0.0000	0.52	Q				

20+40	0.0000	0.50	Q				
20+45	0.0000	0.49	Q				
20+50	0.0000	0.48	Q				
20+55	0.0000	0.46	Q				
21+ 0	0.0000	0.45	Q				
21+ 5	0.0000	0.44	Q				
21+10	0.0000	0.43	Q				
21+15	0.0000	0.41	Q				
21+20	0.0000	0.40	Q				
21+25	0.0000	0.39	Q				
21+30	0.0000	0.38	Q				
21+35	0.0000	0.37	Q				
21+40	0.0000	0.36	Q				
21+45	0.0000	0.35	Q				
21+50	0.0000	0.34	Q				
21+55	0.0000	0.33	Q				
22+ 0	0.0000	0.32	Q				
22+ 5	0.0000	0.31	Q				
22+10	0.0000	0.30	Q				
22+15	0.0000	0.30	Q				
22+20	0.0000	0.29	Q				
22+25	0.0000	0.28	Q				
22+30	0.0000	0.27	Q				
22+35	0.0000	0.26	Q				
22+40	0.0000	0.26	Q				
22+45	0.0000	0.25	Q				
22+50	0.0000	0.24	Q				
22+55	0.0000	0.24	Q				
23+ 0	0.0000	0.23	Q				
23+ 5	0.0000	0.22	Q				
23+10	0.0000	0.22	Q				
23+15	0.0000	0.21	Q				
23+20	0.0000	0.20	Q				
23+25	0.0000	0.20	Q				
23+30	0.0000	0.19	Q				
23+35	0.0000	0.19	Q				
23+40	0.0000	0.18	Q				
23+45	0.0000	0.18	Q				
23+50	0.0000	0.17	Q				
23+55	0.0000	0.17	Q				
24+ 0	0.0000	0.16	Q				
24+ 5	0.0000	0.16	Q				
24+10	0.0000	0.15	Q				
24+15	0.0000	0.15	Q				
24+20	0.0000	0.15	Q				
24+25	0.0000	0.14	Q				
24+30	0.0000	0.14	Q				
24+35	0.0000	0.13	Q				
24+40	0.0000	0.13	Q				
24+45	0.0000	0.13	Q				
24+50	0.0000	0.12	Q				
24+55	0.0000	0.12	Q				
25+ 0	0.0000	0.12	Q				
25+ 5	0.0000	0.11	Q				
25+10	0.0000	0.11	Q				
25+15	0.0000	0.11	Q				
25+20	0.0000	0.10	Q				
25+25	0.0000	0.10	Q				
25+30	0.0000	0.10	Q				
25+35	0.0000	0.10	Q				
25+40	0.0000	0.09	Q				
25+45	0.0000	0.09	Q				
25+50	0.0000	0.09	Q				
25+55	0.0000	0.09	Q				
26+ 0	0.0000	0.08	Q				
26+ 5	0.0000	0.08	Q				
26+10	0.0000	0.08	Q				
26+15	0.0000	0.08	Q				
26+20	0.0000	0.07	Q				
26+25	0.0000	0.07	Q				

26+30	0.0000	0.07	Q				
26+35	0.0000	0.07	Q				
26+40	0.0000	0.07	Q				
26+45	0.0000	0.06	Q				
26+50	0.0000	0.06	Q				
26+55	0.0000	0.06	Q				
27+ 0	0.0000	0.06	Q				
27+ 5	0.0000	0.06	Q				
27+10	0.0000	0.06	Q				
27+15	0.0000	0.05	Q				
27+20	0.0000	0.05	Q				
27+25	0.0000	0.05	Q				
27+30	0.0000	0.05	Q				
27+35	0.0000	0.05	Q				
27+40	0.0000	0.05	Q				
27+45	0.0000	0.05	Q				
27+50	0.0000	0.04	Q				
27+55	0.0000	0.04	Q				
28+ 0	0.0000	0.04	Q				
28+ 5	0.0000	0.04	Q				
28+10	0.0000	0.04	Q				
28+15	0.0000	0.04	Q				
28+20	0.0000	0.04	Q				
28+25	0.0000	0.04	Q				
28+30	0.0000	0.04	Q				
28+35	0.0000	0.03	Q				
28+40	0.0000	0.03	Q				
28+45	0.0000	0.03	Q				
28+50	0.0000	0.03	Q				
28+55	0.0000	0.03	Q				
29+ 0	0.0000	0.03	Q				
29+ 5	0.0000	0.03	Q				
29+10	0.0000	0.03	Q				
29+15	0.0000	0.03	Q				
29+20	0.0000	0.03	Q				
29+25	0.0000	0.03	Q				
29+30	0.0000	0.03	Q				
29+35	0.0000	0.02	Q				
29+40	0.0000	0.02	Q				
29+45	0.0000	0.02	Q				
29+50	0.0000	0.02	Q				
29+55	0.0000	0.02	Q				
30+ 0	0.0000	0.02	Q				
30+ 5	0.0000	0.02	Q				
30+10	0.0000	0.02	Q				
30+15	0.0000	0.02	Q				
30+20	0.0000	0.02	Q				
30+25	0.0000	0.02	Q				
30+30	0.0000	0.02	Q				
30+35	0.0000	0.02	Q				
30+40	0.0000	0.02	Q				
30+45	0.0000	0.02	Q				
30+50	0.0000	0.02	Q				
30+55	0.0000	0.02	Q				
31+ 0	0.0000	0.02	Q				
31+ 5	0.0000	0.01	Q				
31+10	0.0000	0.01	Q				
31+15	0.0000	0.01	Q				
31+20	0.0000	0.01	Q				
31+25	0.0000	0.01	Q				
31+30	0.0000	0.01	Q				
31+35	0.0000	0.01	Q				
31+40	0.0000	0.01	Q				
31+45	0.0000	0.01	Q				
31+50	0.0000	0.01	Q				
31+55	0.0000	0.01	Q				
32+ 0	0.0000	0.01	Q				
32+ 5	0.0000	0.01	Q				
32+10	0.0000	0.01	Q				
32+15	0.0000	0.01	Q				

```
   32+20       0.0000      0.01  Q         |         |         |         |
   32+25       0.0000      0.01  Q         |         |         |         |
   32+30       0.0000      0.01  Q         |         |         |         |
   32+35       0.0000      0.01  Q         |         |         |         |
   32+40       0.0000      0.01  Q         |         |         |         |
   32+45       0.0000      0.01  Q         |         |         |         |
   32+50       0.0000      0.01  Q         |         |         |         |
   32+55       0.0000      0.01  Q         |         |         |         |
   33+ 0       0.0000      0.01  Q         |         |         |         |
   33+ 5       0.0000      0.01  Q         |         |         |         |
   33+10       0.0000      0.01  Q         |         |         |         |
   33+15       0.0000      0.01  Q         |         |         |         |
   33+20       0.0000      0.01  Q         |         |         |         |
   33+25       0.0000      0.01  Q         |         |         |         |
   33+30       0.0000      0.01  Q         |         |         |         |
   33+35       0.0000      0.01  Q         |         |         |         |
   33+40       0.0000      0.01  Q         |         |         |         |
   33+45       0.0000      0.01  Q         |         |         |         |
   33+50       0.0000      0.01  Q         |         |         |         |
   33+55       0.0000      0.01  Q         |         |         |         |
   34+ 0       0.0000      0.01  Q         |         |         |         |
   34+ 5       0.0000      0.01  Q         |         |         |         |
   34+10       0.0000      0.01  Q         |         |         |         |
   34+15       0.0000      0.01  Q         |         |         |         |
   34+20       0.0000      0.00  Q         |         |         |         |
   34+25       0.0000      0.00  Q         |         |         |         |
   34+30       0.0000      0.00  Q         |         |         |         |
   34+35       0.0000      0.00  Q         |         |         |         |
   34+40       0.0000      0.00  Q         |         |         |         |
   34+45       0.0000      0.00  Q         |         |         |         |
   34+50       0.0000      0.00  Q         |         |         |         |
   34+55       0.0000      0.00  Q         |         |         |         |
   35+ 0       0.0000      0.00  Q         |         |         |         |
   35+ 5       0.0000      0.00  Q         |         |         |         |
   35+10       0.0000      0.00  Q         |         |         |         |
   35+15       0.0000      0.00  Q         |         |         |         |
   35+20       0.0000      0.00  Q         |         |         |         |
   35+25       0.0000      0.00  Q         |         |         |         |
   35+30       0.0000      0.00  Q         |         |         |         |
   35+35       0.0000      0.00  Q         |         |         |         |
   35+40       0.0000      0.00  Q         |         |         |         |
   35+45       0.0000      0.00  Q         |         |         |         |
   35+50       0.0000      0.00  Q         |         |         |         |
   35+55       0.0000      0.00  Q         |         |         |         |
   36+ 0       0.0000      0.00  Q         |         |         |         |
   36+ 5       0.0000      0.00  Q         |         |         |         |
   36+10       0.0000      0.00  Q         |         |         |         |
   36+15       0.0000      0.00  Q         |         |         |         |
   36+20       0.0000      0.00  Q         |         |         |         |
   36+25       0.0000      0.00  Q         |         |         |         |
   36+30       0.0000      0.00  Q         |         |         |         |
   36+35       0.0000      0.00  Q         |         |         |         |
   36+40       0.0000      0.00  Q         |         |         |         |
   36+45       0.0000      0.00  Q         |         |         |         |
   36+50       0.0000      0.00  Q         |         |         |         |
   36+55       0.0000      0.00  Q         |         |         |         |
   37+ 0       0.0000      0.00  Q         |         |         |         |
---------------------------------------------------------------------------
      ****************************HYDROGRAPH DATA**************************
                  Number of intervals =   444
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =      793.424 (CFS)
                  Total volume =     169.517 (Ac.Ft)
            Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
      ***************************************************************************

      ---------------------------------------------------------------------
```

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++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       11.000 to Point/Station       12.000
**** RETARDING BASIN ROUTING ****
_____________________________________________________________________________

User entry of depth-outflow-storage data
-----------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 444
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
-----------------------------------------------------------------------------
-----------------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
-----------------------------------------------------------------------------
-----------------------------------------------------------------------------
Depth vs. Storage and Depth vs. Discharge data:
 Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
     (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
-----------------------------------------------------------------------------
   0.000      0.000      0.000      0.000        0.000
   0.500      0.070     20.000      0.001        0.139
   1.500      1.970     50.000      1.798        2.142
   2.500      7.280     95.000      6.953        7.607
   3.500     15.540    170.000     14.955       16.125
   4.500     25.350    255.000     24.472       26.228
   5.500     35.630    345.000     34.442       36.818
   6.500     46.130    420.000     44.684       47.576
   7.500     56.850    470.000     55.232       58.468
-----------------------------------------------------------------------------
               Hydrograph Detention Basin Routing
-----------------------------------------------------------------------------

Graph values: 'I'= unit inflow; 'O'=outflow at time shown
-----------------------------------------------------------------------------
 Time   Inflow  Outflow    Storage                                        Depth
(Hours)  (CFS)   (CFS)     (Ac.Ft) .0     198.4  396.71  595.07  793.42 (Ft.)
 0.083    4.49    2.23      0.008  O       |       |       |       |     0.06
 0.167   23.97   14.13      0.049  O       |       |       |       |     0.35
 0.250   43.34   21.40      0.159  OI      |       |       |       |     0.55
 0.333   55.89   24.31      0.343  O I     |       |       |       |     0.64
 0.417   65.37   28.06      0.580  |OI     |       |       |       |     0.77
 0.500   74.64   32.38      0.854  |O I    |       |       |       |     0.91
 0.583   86.85   37.37      1.170  |O I    |       |       |       |     1.08
 0.667   96.49   42.97      1.525  |O I    |       |       |       |     1.27
 0.750  103.48   48.85      1.897  |O  I   |       |       |       |     1.46
 0.833  108.19   52.60      2.277  | O I   |       |       |       |     1.56
 0.917  111.00   55.83      2.658  | O I   |       |       |       |     1.63
 1.000  114.59   59.06      3.039  | O I   |       |       |       |     1.70
 1.083  122.08   62.42      3.436  | O I   |       |       |       |     1.78
 1.167  127.11   65.95      3.852  | O  I  |       |       |       |     1.85
 1.250  129.71   69.49      4.270  | O  I  |       |       |       |     1.93
 1.333  131.73   72.96      4.680  | O  I  |       |       |       |     2.01
 1.417  133.47   76.35      5.079  |  O I  |       |       |       |     2.09
 1.500  134.98   79.63      5.466  |  O I  |       |       |       |     2.16
 1.583  136.31   82.81      5.841  |  O I  |       |       |       |     2.23
 1.667  137.55   85.87      6.203  |  O I  |       |       |       |     2.30
 1.750  138.69   88.84      6.553  |  O I  |       |       |       |     2.36
 1.833  139.76   91.69      6.890  |  O I  |       |       |       |     2.43
 1.917  140.77   94.45      7.215  |  O I  |       |       |       |     2.49
 2.000  143.15   97.29      7.532  |  O I  |       |       |       |     2.53
 2.083  148.24  100.23      7.856  |   OI  |       |       |       |     2.57
 2.167  148.60  103.15      8.178  |   OI  |       |       |       |     2.61
 2.250  153.01  106.04      8.496  |   O I |       |       |       |     2.65
 2.333  157.30  109.02      8.824  |   O I |       |       |       |     2.69
 2.417  159.77  112.02      9.155  |   O I |       |       |       |     2.73
 2.500  161.82  114.98      9.480  |   O I |       |       |       |     2.77
```

2.583	163.73	117.88	9.799	| O I |	|	|	|	2.81
2.667	165.52	120.71	10.112	| O I |	|	|	|	2.84
2.750	168.72	123.53	10.422	| O I |	|	|	|	2.88
2.833	176.13	126.49	10.748	| O I|	|	|	|	2.92
2.917	181.66	129.67	11.098	| O I|	|	|	|	2.96
3.000	185.03	132.92	11.457	| O I|	|	|	|	3.01
3.083	187.85	136.17	11.814	| O I|	|	|	|	3.05
3.167	191.82	139.42	12.172	| O I|	|	|	|	3.09
3.250	199.75	142.84	12.549	| O I |	|	|	|	3.14
3.333	205.67	146.47	12.949	| O I |	|	|	|	3.19
3.417	210.85	150.22	13.361	| O I |	|	|	|	3.24
3.500	221.07	154.20	13.800	| O I |	|	|	|	3.29
3.583	234.42	158.66	14.291	| O |I |	|	|	|	3.35
3.667	247.63	163.66	14.841	| O |I |	|	|	|	3.42
3.750	257.69	169.05	15.436	| O | I |	|	|	|	3.49
3.833	269.03	174.56	16.066	| O| I |	|	|	|	3.55
3.917	278.95	180.32	16.731	| O| I |	|	|	|	3.62
4.000	290.44	186.37	17.429	| O| I |	|	|	|	3.69
4.083	300.63	192.70	18.159	| O| I |	|	|	|	3.77
4.167	313.30	199.32	18.924	| O I |	|	|	|	3.84
4.250	328.44	206.36	19.736	| O I |	|	|	|	3.93
4.333	344.63	213.90	20.607	| O I |	|	|	|	4.02
4.417	361.41	221.96	21.537	| O I |	|	|	|	4.11
4.500	377.30	230.51	22.523	|O I|	|	|	|	4.21
4.583	389.15	239.35	23.544	|O I|	|	|	|	4.32
4.667	402.94	248.43	24.592	| O I |	|	|	|	4.42
4.750	419.10	257.88	25.679	| O I |	|	|	|	4.53
4.833	434.65	267.78	26.809	| O |I |	|	|	|	4.64
4.917	446.54	277.89	27.965	| O | I |	|	|	|	4.75
5.000	460.60	288.17	29.139	| O | I |	|	|	|	4.87
5.083	482.68	298.91	30.366	| O | I |	|	|	|	4.99
5.167	528.01	310.99	31.746	| O | I |	|	|	|	5.12
5.250	585.66	325.38	33.389	| O | I|	|	|	|	5.28
5.333	638.29	342.16	35.305	| O | |I |	|	|	|	5.47
5.417	690.61	358.14	37.470	| O | | I |	|	|	|	5.68
5.500	759.93	375.77	39.938	| O| | | I |	|	|	|	5.91
5.583	793.42	395.02	42.632	| O| | | | I	|	|	|	6.17
5.667	624.52	410.09	44.743	| O | |I |	|	|	|	6.37
5.750	457.45	416.37	45.622	| O I |	|	|	|	6.45
5.833	368.87	416.22	45.601	| I O |	|	|	|	6.45
5.917	316.67	412.69	45.107	| I O |	|	|	|	6.40
6.000	278.74	407.17	44.334	| I O |	|	|	|	6.33
6.083	250.12	400.32	43.375	| I O |	|	|	|	6.24
6.167	225.01	392.51	42.281	|I O|	|	|	|	6.13
6.250	207.17	384.04	41.095	| I O|	|	|	|	6.02
6.333	194.88	375.25	39.865	| I| O|	|	|	|	5.90
6.417	185.67	366.37	38.621	| I| O |	|	|	|	5.78
6.500	177.45	357.49	37.379	| I| O |	|	|	|	5.67
6.583	170.77	348.69	36.147	| I | O |	|	|	|	5.55
6.667	166.80	338.97	34.941	| I | O |	|	|	|	5.43
6.750	163.69	328.80	33.780	| I | O |	|	|	|	5.32
6.833	160.89	319.05	32.666	| I | O |	|	|	|	5.21
6.917	158.17	309.72	31.600	| I | O |	|	|	|	5.11
7.000	155.45	300.77	30.578	| I | O |	|	|	|	5.01
7.083	152.80	292.18	29.597	| I | O |	|	|	|	4.91
7.167	150.20	283.95	28.657	| I | O |	|	|	|	4.82
7.250	147.59	276.05	27.754	| I | O |	|	|	|	4.73
7.333	144.88	268.45	26.886	| I | O |	|	|	|	4.65
7.417	142.13	261.13	26.051	| I | O |	|	|	|	4.57
7.500	139.43	254.10	25.246	| I | O |	|	|	|	4.49
7.583	136.79	247.38	24.470	| I |O |	|	|	|	4.41
7.667	134.07	240.89	23.722	| I |O |	|	|	|	4.33
7.750	131.25	234.62	22.998	| I |O |	|	|	|	4.26
7.833	128.45	228.55	22.297	| I |O |	|	|	|	4.19
7.917	125.71	222.67	21.619	| I O |	|	|	|	4.12
8.000	123.01	216.97	20.961	| I O |	|	|	|	4.05
8.083	119.95	211.44	20.323	| I O |	|	|	|	3.99
8.167	116.60	206.04	19.700	| I O |	|	|	|	3.92
8.250	113.27	200.76	19.090	| I O |	|	|	|	3.86
8.333	110.04	195.60	18.494	| I O|	|	|	|	3.80

8.417	106.89	190.55	17.912	| I O|	|	|	|	3.74
8.500	103.10	185.59	17.340	| I O|	|	|	|	3.68
8.583	99.03	180.69	16.774	| I O|	|	|	|	3.63
8.667	95.14	175.85	16.215	| I O|	|	|	|	3.57
8.750	91.41	171.06	15.663	| I O |	|	|	|	3.51
8.833	87.60	166.17	15.118	| I O |	|	|	|	3.45
8.917	83.32	161.27	14.579	| I O |	|	|	|	3.38
9.000	78.97	156.42	14.044	| I O |	|	|	|	3.32
9.083	74.73	151.59	13.513	| I O |	|	|	|	3.25
9.167	70.71	146.81	12.986	| I O |	|	|	|	3.19
9.250	66.93	142.08	12.465	| I O |	|	|	|	3.13
9.333	63.43	137.42	11.952	| I O |	|	|	|	3.07
9.417	60.60	132.84	11.448	| I O |	|	|	|	3.00
9.500	58.17	128.39	10.957	| I O |	|	|	|	2.95
9.583	55.85	124.06	10.481	| I O |	|	|	|	2.89
9.667	53.64	119.86	10.018	| I O |	|	|	|	2.83
9.750	51.51	115.78	9.568	| I O |	|	|	|	2.78
9.833	49.48	111.82	9.132	|I O |	|	|	|	2.72
9.917	45.72	107.93	8.704	|I O |	|	|	|	2.67
10.000	38.49	103.93	8.264	|I O |	|	|	|	2.62
10.083	31.41	99.75	7.803	|I O |	|	|	|	2.56
10.167	26.39	95.46	7.330	|I O |	|	|	|	2.51
10.250	22.82	91.41	6.856	I O |	|	|	|	2.42
10.333	20.25	87.45	6.389	I O |	|	|	|	2.33
10.417	18.36	83.58	5.933	I O |	|	|	|	2.25
10.500	16.93	79.84	5.491	I O |	|	|	|	2.16
10.583	15.83	76.24	5.067	I O |	|	|	|	2.08
10.667	14.94	72.79	4.659	I O |	|	|	|	2.01
10.750	14.21	69.49	4.270	I O |	|	|	|	1.93
10.833	13.59	66.34	3.898	I O |	|	|	|	1.86
10.917	13.05	63.33	3.543	I O |	|	|	|	1.80
11.000	12.56	60.47	3.205	I O |	|	|	|	1.73
11.083	12.12	57.74	2.883	I O |	|	|	|	1.67
11.167	11.71	55.14	2.576	I O |	|	|	|	1.61
11.250	11.26	52.66	2.284	I O |	|	|	|	1.56
11.333	10.38	50.29	2.004	I O |	|	|	|	1.51
11.417	9.45	46.36	1.740	IO |	|	|	|	1.38
11.500	8.58	42.51	1.496	IO |	|	|	|	1.25
11.583	7.80	38.97	1.272	IO |	|	|	|	1.13
11.667	7.10	35.72	1.066	IO |	|	|	|	1.02
11.750	6.47	32.74	0.877	IO |	|	|	|	0.92
11.833	5.91	30.00	0.703	IO |	|	|	|	0.83
11.917	5.40	27.49	0.544	IO |	|	|	|	0.75
12.000	4.95	25.19	0.398	IO |	|	|	|	0.67
12.083	4.55	23.08	0.265	O |	|	|	|	0.60
12.167	4.19	21.15	0.143	O |	|	|	|	0.54
12.250	3.87	14.07	0.049	O |	|	|	|	0.35
12.333	3.58	3.81	0.013	O |	|	|	|	0.10
12.417	3.32	3.46	0.012	O |	|	|	|	0.09
12.500	3.09	3.21	0.011	O |	|	|	|	0.08
12.583	2.89	2.99	0.010	O |	|	|	|	0.07
12.667	2.70	2.79	0.010	O |	|	|	|	0.07
12.750	2.53	2.62	0.009	O |	|	|	|	0.07
12.833	2.39	2.46	0.009	O |	|	|	|	0.06
12.917	2.25	2.32	0.008	O |	|	|	|	0.06
13.000	2.13	2.19	0.008	O |	|	|	|	0.05
13.083	2.03	2.08	0.007	O |	|	|	|	0.05
13.167	1.93	1.98	0.007	O |	|	|	|	0.05
13.250	1.84	1.89	0.007	O |	|	|	|	0.05
13.333	1.77	1.81	0.006	O |	|	|	|	0.05
13.417	1.70	1.73	0.006	O |	|	|	|	0.04
13.500	1.64	1.67	0.006	O |	|	|	|	0.04
13.583	1.58	1.61	0.006	O |	|	|	|	0.04
13.667	1.53	1.56	0.005	O |	|	|	|	0.04
13.750	1.48	1.51	0.005	O |	|	|	|	0.04
13.833	1.44	1.47	0.005	O |	|	|	|	0.04
13.917	1.41	1.43	0.005	O |	|	|	|	0.04
14.000	1.38	1.39	0.005	O |	|	|	|	0.03
14.083	1.35	1.36	0.005	O |	|	|	|	0.03
14.167	1.32	1.33	0.005	O |	|	|	|	0.03

14.250	1.30	1.31	0.005	O	|	|	|	|	0.03
14.333	1.27	1.29	0.004	O	|	|	|	|	0.03
14.417	1.25	1.26	0.004	O	|	|	|	|	0.03
14.500	1.24	1.25	0.004	O	|	|	|	|	0.03
14.583	1.22	1.23	0.004	O	|	|	|	|	0.03
14.667	1.21	1.21	0.004	O	|	|	|	|	0.03
14.750	1.19	1.20	0.004	O	|	|	|	|	0.03
14.833	1.18	1.19	0.004	O	|	|	|	|	0.03
14.917	1.17	1.18	0.004	O	|	|	|	|	0.03
15.000	1.16	1.17	0.004	O	|	|	|	|	0.03
15.083	1.15	1.16	0.004	O	|	|	|	|	0.03
15.167	1.14	1.15	0.004	O	|	|	|	|	0.03
15.250	1.14	1.14	0.004	O	|	|	|	|	0.03
15.333	1.13	1.13	0.004	O	|	|	|	|	0.03
15.417	1.12	1.13	0.004	O	|	|	|	|	0.03
15.500	1.12	1.12	0.004	O	|	|	|	|	0.03
15.583	1.11	1.11	0.004	O	|	|	|	|	0.03
15.667	1.11	1.11	0.004	O	|	|	|	|	0.03
15.750	1.10	1.10	0.004	O	|	|	|	|	0.03
15.833	1.10	1.10	0.004	O	|	|	|	|	0.03
15.917	1.09	1.10	0.004	O	|	|	|	|	0.03
16.000	1.09	1.09	0.004	O	|	|	|	|	0.03
16.083	1.09	1.09	0.004	O	|	|	|	|	0.03
16.167	1.08	1.09	0.004	O	|	|	|	|	0.03
16.250	1.08	1.08	0.004	O	|	|	|	|	0.03
16.333	1.08	1.08	0.004	O	|	|	|	|	0.03
16.417	1.07	1.08	0.004	O	|	|	|	|	0.03
16.500	1.07	1.07	0.004	O	|	|	|	|	0.03
16.583	1.06	1.07	0.004	O	|	|	|	|	0.03
16.667	1.06	1.06	0.004	O	|	|	|	|	0.03
16.750	1.06	1.06	0.004	O	|	|	|	|	0.03
16.833	1.06	1.06	0.004	O	|	|	|	|	0.03
16.917	1.05	1.06	0.004	O	|	|	|	|	0.03
17.000	1.05	1.05	0.004	O	|	|	|	|	0.03
17.083	1.05	1.05	0.004	O	|	|	|	|	0.03
17.167	1.05	1.05	0.004	O	|	|	|	|	0.03
17.250	1.05	1.05	0.004	O	|	|	|	|	0.03
17.333	1.05	1.05	0.004	O	|	|	|	|	0.03
17.417	1.04	1.05	0.004	O	|	|	|	|	0.03
17.500	1.04	1.04	0.004	O	|	|	|	|	0.03
17.583	1.04	1.04	0.004	O	|	|	|	|	0.03
17.667	1.04	1.04	0.004	O	|	|	|	|	0.03
17.750	1.04	1.04	0.004	O	|	|	|	|	0.03
17.833	1.04	1.04	0.004	O	|	|	|	|	0.03
17.917	1.04	1.04	0.004	O	|	|	|	|	0.03
18.000	1.03	1.03	0.004	O	|	|	|	|	0.03
18.083	1.03	1.03	0.004	O	|	|	|	|	0.03
18.167	1.03	1.03	0.004	O	|	|	|	|	0.03
18.250	1.03	1.03	0.004	O	|	|	|	|	0.03
18.333	1.03	1.03	0.004	O	|	|	|	|	0.03
18.417	1.02	1.02	0.004	O	|	|	|	|	0.03
18.500	1.01	1.02	0.004	O	|	|	|	|	0.03
18.583	0.99	1.00	0.004	O	|	|	|	|	0.03
18.667	0.97	0.98	0.003	O	|	|	|	|	0.02
18.750	0.95	0.96	0.003	O	|	|	|	|	0.02
18.833	0.93	0.94	0.003	O	|	|	|	|	0.02
18.917	0.91	0.92	0.003	O	|	|	|	|	0.02
19.000	0.88	0.89	0.003	O	|	|	|	|	0.02
19.083	0.86	0.87	0.003	O	|	|	|	|	0.02
19.167	0.84	0.85	0.003	O	|	|	|	|	0.02
19.250	0.81	0.82	0.003	O	|	|	|	|	0.02
19.333	0.79	0.80	0.003	O	|	|	|	|	0.02
19.417	0.77	0.78	0.003	O	|	|	|	|	0.02
19.500	0.75	0.76	0.003	O	|	|	|	|	0.02
19.583	0.73	0.74	0.003	O	|	|	|	|	0.02
19.667	0.71	0.72	0.003	O	|	|	|	|	0.02
19.750	0.69	0.70	0.002	O	|	|	|	|	0.02
19.833	0.67	0.68	0.002	O	|	|	|	|	0.02
19.917	0.65	0.66	0.002	O	|	|	|	|	0.02
20.000	0.63	0.64	0.002	O	|	|	|	|	0.02

20.083	0.61	0.62	0.002	O					0.02
20.167	0.60	0.61	0.002	O					0.02
20.250	0.58	0.59	0.002	O					0.01
20.333	0.56	0.57	0.002	O					0.01
20.417	0.55	0.56	0.002	O					0.01
20.500	0.53	0.54	0.002	O					0.01
20.583	0.52	0.53	0.002	O					0.01
20.667	0.50	0.51	0.002	O					0.01
20.750	0.49	0.50	0.002	O					0.01
20.833	0.48	0.48	0.002	O					0.01
20.917	0.46	0.47	0.002	O					0.01
21.000	0.45	0.46	0.002	O					0.01
21.083	0.44	0.44	0.002	O					0.01
21.167	0.43	0.43	0.002	O					0.01
21.250	0.41	0.42	0.001	O					0.01
21.333	0.40	0.41	0.001	O					0.01
21.417	0.39	0.40	0.001	O					0.01
21.500	0.38	0.39	0.001	O					0.01
21.583	0.37	0.38	0.001	O					0.01
21.667	0.36	0.36	0.001	O					0.01
21.750	0.35	0.35	0.001	O					0.01
21.833	0.34	0.34	0.001	O					0.01
21.917	0.33	0.34	0.001	O					0.01
22.000	0.32	0.33	0.001	O					0.01
22.083	0.31	0.32	0.001	O					0.01
22.167	0.30	0.31	0.001	O					0.01
22.250	0.30	0.30	0.001	O					0.01
22.333	0.29	0.29	0.001	O					0.01
22.417	0.28	0.28	0.001	O					0.01
22.500	0.27	0.28	0.001	O					0.01
22.583	0.26	0.27	0.001	O					0.01
22.667	0.26	0.26	0.001	O					0.01
22.750	0.25	0.25	0.001	O					0.01
22.833	0.24	0.25	0.001	O					0.01
22.917	0.24	0.24	0.001	O					0.01
23.000	0.23	0.23	0.001	O					0.01
23.083	0.22	0.23	0.001	O					0.01
23.167	0.22	0.22	0.001	O					0.01
23.250	0.21	0.21	0.001	O					0.01
23.333	0.20	0.21	0.001	O					0.01
23.417	0.20	0.20	0.001	O					0.01
23.500	0.19	0.20	0.001	O					0.00
23.583	0.19	0.19	0.001	O					0.00
23.667	0.18	0.19	0.001	O					0.00
23.750	0.18	0.18	0.001	O					0.00
23.833	0.17	0.18	0.001	O					0.00
23.917	0.17	0.17	0.001	O					0.00
24.000	0.16	0.17	0.001	O					0.00
24.083	0.16	0.16	0.001	O					0.00
24.167	0.15	0.16	0.001	O					0.00
24.250	0.15	0.15	0.001	O					0.00
24.333	0.15	0.15	0.001	O					0.00
24.417	0.14	0.14	0.001	O					0.00
24.500	0.14	0.14	0.000	O					0.00
24.583	0.13	0.14	0.000	O					0.00
24.667	0.13	0.13	0.000	O					0.00
24.750	0.13	0.13	0.000	O					0.00
24.833	0.12	0.13	0.000	O					0.00
24.917	0.12	0.12	0.000	O					0.00
25.000	0.12	0.12	0.000	O					0.00
25.083	0.11	0.11	0.000	O					0.00
25.167	0.11	0.11	0.000	O					0.00
25.250	0.11	0.11	0.000	O					0.00
25.333	0.10	0.11	0.000	O					0.00
25.417	0.10	0.10	0.000	O					0.00
25.500	0.10	0.10	0.000	O					0.00
25.583	0.10	0.10	0.000	O					0.00
25.667	0.09	0.09	0.000	O					0.00
25.750	0.09	0.09	0.000	O					0.00
25.833	0.09	0.09	0.000	O					0.00

25.917	0.09	0.09	0.000	O					0.00
26.000	0.08	0.08	0.000	O					0.00
26.083	0.08	0.08	0.000	O					0.00
26.167	0.08	0.08	0.000	O					0.00
26.250	0.08	0.08	0.000	O					0.00
26.333	0.07	0.08	0.000	O					0.00
26.417	0.07	0.07	0.000	O					0.00
26.500	0.07	0.07	0.000	O					0.00
26.583	0.07	0.07	0.000	O					0.00
26.667	0.07	0.07	0.000	O					0.00
26.750	0.06	0.07	0.000	O					0.00
26.833	0.06	0.06	0.000	O					0.00
26.917	0.06	0.06	0.000	O					0.00
27.000	0.06	0.06	0.000	O					0.00
27.083	0.06	0.06	0.000	O					0.00
27.167	0.06	0.06	0.000	O					0.00
27.250	0.05	0.06	0.000	O					0.00
27.333	0.05	0.05	0.000	O					0.00
27.417	0.05	0.05	0.000	O					0.00
27.500	0.05	0.05	0.000	O					0.00
27.583	0.05	0.05	0.000	O					0.00
27.667	0.05	0.05	0.000	O					0.00
27.750	0.05	0.05	0.000	O					0.00
27.833	0.04	0.05	0.000	O					0.00
27.917	0.04	0.04	0.000	O					0.00
28.000	0.04	0.04	0.000	O					0.00
28.083	0.04	0.04	0.000	O					0.00
28.167	0.04	0.04	0.000	O					0.00
28.250	0.04	0.04	0.000	O					0.00
28.333	0.04	0.04	0.000	O					0.00
28.417	0.04	0.04	0.000	O					0.00
28.500	0.04	0.04	0.000	O					0.00
28.583	0.03	0.04	0.000	O					0.00
28.667	0.03	0.03	0.000	O					0.00
28.750	0.03	0.03	0.000	O					0.00
28.833	0.03	0.03	0.000	O					0.00
28.917	0.03	0.03	0.000	O					0.00
29.000	0.03	0.03	0.000	O					0.00
29.083	0.03	0.03	0.000	O					0.00
29.167	0.03	0.03	0.000	O					0.00
29.250	0.03	0.03	0.000	O					0.00
29.333	0.03	0.03	0.000	O					0.00
29.417	0.03	0.03	0.000	O					0.00
29.500	0.03	0.03	0.000	O					0.00
29.583	0.02	0.03	0.000	O					0.00
29.667	0.02	0.02	0.000	O					0.00
29.750	0.02	0.02	0.000	O					0.00
29.833	0.02	0.02	0.000	O					0.00
29.917	0.02	0.02	0.000	O					0.00
30.000	0.02	0.02	0.000	O					0.00
30.083	0.02	0.02	0.000	O					0.00
30.167	0.02	0.02	0.000	O					0.00
30.250	0.02	0.02	0.000	O					0.00
30.333	0.02	0.02	0.000	O					0.00
30.417	0.02	0.02	0.000	O					0.00
30.500	0.02	0.02	0.000	O					0.00
30.583	0.02	0.02	0.000	O					0.00
30.667	0.02	0.02	0.000	O					0.00
30.750	0.02	0.02	0.000	O					0.00
30.833	0.02	0.02	0.000	O					0.00
30.917	0.02	0.02	0.000	O					0.00
31.000	0.02	0.02	0.000	O					0.00
31.083	0.01	0.02	0.000	O					0.00
31.167	0.01	0.01	0.000	O					0.00
31.250	0.01	0.01	0.000	O					0.00
31.333	0.01	0.01	0.000	O					0.00
31.417	0.01	0.01	0.000	O					0.00
31.500	0.01	0.01	0.000	O					0.00
31.583	0.01	0.01	0.000	O					0.00
31.667	0.01	0.01	0.000	O					0.00

31.750	0.01	0.01	0.000	O					0.00
31.833	0.01	0.01	0.000	O					0.00
31.917	0.01	0.01	0.000	O					0.00
32.000	0.01	0.01	0.000	O					0.00
32.083	0.01	0.01	0.000	O					0.00
32.167	0.01	0.01	0.000	O					0.00
32.250	0.01	0.01	0.000	O					0.00
32.333	0.01	0.01	0.000	O					0.00
32.417	0.01	0.01	0.000	O					0.00
32.500	0.01	0.01	0.000	O					0.00
32.583	0.01	0.01	0.000	O					0.00
32.667	0.01	0.01	0.000	O					0.00
32.750	0.01	0.01	0.000	O					0.00
32.833	0.01	0.01	0.000	O					0.00
32.917	0.01	0.01	0.000	O					0.00
33.000	0.01	0.01	0.000	O					0.00
33.083	0.01	0.01	0.000	O					0.00
33.167	0.01	0.01	0.000	O					0.00
33.250	0.01	0.01	0.000	O					0.00
33.333	0.01	0.01	0.000	O					0.00
33.417	0.01	0.01	0.000	O					0.00
33.500	0.01	0.01	0.000	O					0.00
33.583	0.01	0.01	0.000	O					0.00
33.667	0.01	0.01	0.000	O					0.00
33.750	0.01	0.01	0.000	O					0.00
33.833	0.01	0.01	0.000	O					0.00
33.917	0.01	0.01	0.000	O					0.00
34.000	0.01	0.01	0.000	O					0.00
34.083	0.01	0.01	0.000	O					0.00
34.167	0.01	0.01	0.000	O					0.00
34.250	0.01	0.01	0.000	O					0.00
34.333	0.00	0.01	0.000	O					0.00
34.417	0.00	0.00	0.000	O					0.00
34.500	0.00	0.00	0.000	O					0.00
34.583	0.00	0.00	0.000	O					0.00
34.667	0.00	0.00	0.000	O					0.00
34.750	0.00	0.00	0.000	O					0.00
34.833	0.00	0.00	0.000	O					0.00
34.917	0.00	0.00	0.000	O					0.00
35.000	0.00	0.00	0.000	O					0.00
35.083	0.00	0.00	0.000	O					0.00
35.167	0.00	0.00	0.000	O					0.00
35.250	0.00	0.00	0.000	O					0.00
35.333	0.00	0.00	0.000	O					0.00
35.417	0.00	0.00	0.000	O					0.00
35.500	0.00	0.00	0.000	O					0.00
35.583	0.00	0.00	0.000	O					0.00
35.667	0.00	0.00	0.000	O					0.00
35.750	0.00	0.00	0.000	O					0.00
35.833	0.00	0.00	0.000	O					0.00
35.917	0.00	0.00	0.000	O					0.00
36.000	0.00	0.00	0.000	O					0.00
36.083	0.00	0.00	0.000	O					0.00
36.167	0.00	0.00	0.000	O					0.00
36.250	0.00	0.00	0.000	O					0.00
36.333	0.00	0.00	0.000	O					0.00
36.417	0.00	0.00	0.000	O					0.00
36.500	0.00	0.00	0.000	O					0.00
36.583	0.00	0.00	0.000	O					0.00
36.667	0.00	0.00	0.000	O					0.00
36.750	0.00	0.00	0.000	O					0.00
36.833	0.00	0.00	0.000	O					0.00
36.917	0.00	0.00	0.000	O					0.00
37.000	0.00	0.00	0.000	O					0.00
37.083	0.00	0.00	0.000	O					0.00

**********HYDROGRAPH DATA**********

Number of intervals = 445
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 416.375 (CFS)

```
            Total volume =     169.517 (Ac.Ft)
       Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
****************************************************************************

----------------------------------------------------------------------
```

```
                FLOOD HYDROGRAPH ROUTING PROGRAM
          Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                     Study date: 04/23/19

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 Legado
 Detention Basin B2
 100-year 24-hour Inflow Hydrograph

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 Program License Serial Number 4029

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 ********************* HYDROGRAPH INFORMATION **********************

               From study/file name: lgareab2cd24100.rte
 ****************************HYDROGRAPH DATA****************************
               Number of intervals =   300
               Time interval =    5.0 (Min.)
               Maximum/Peak flow rate =      270.224 (CFS)
               Total volume =     142.088 (Ac.Ft)
        Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
 ************************************************************************



 ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
 Process from Point/Station       10.000 to Point/Station       11.000
 **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
 ________________________________________________________________________
 ********************* HYDROGRAPH INFORMATION **********************

               From study/file name: lgouta24100.rte
 ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                  P R I N T  O F  S T O R M
               R u n o f f     H y d r o g r a p h
 ------------------------------------------------------------------------
            Hydrograph in   5   Minute intervals (CFS)

 ------------------------------------------------------------------------
Time(h+m) Add q(CFS)  Tot. Q   0       94.6     189.1     283.7     378.2
------------------------------------------------------------------------
  0+ 5       0.0309      1.04  Q         |         |         |         |
  0+10       0.2340      5.19  Q         |         |         |         |
  0+15       0.7652      8.26  Q         |         |         |         |
  0+20       1.5611     10.54  qQ        |         |         |         |
  0+25       2.4594     14.01  qQ        |         |         |         |
  0+30       3.4080     16.62  qQ        |         |         |         |
  0+35       4.3529     18.33  qQ        |         |         |         |
  0+40       5.1950     19.67  q Q       |         |         |         |
  0+45       5.8892     20.72  q Q       |         |         |         |
  0+50       6.4614     22.04  q Q       |         |         |         |
  0+55       7.0071     24.74  q Q       |         |         |         |
  1+ 0       7.6275     26.78  q Q       |         |         |         |
  1+ 5       8.2862     27.52  q Q       |         |         |         |
  1+10       8.8111     26.40  q Q       |         |         |         |
  1+15       9.0712     25.62  q Q       |         |         |         |
  1+20       9.1083     25.33  q Q       |         |         |         |
  1+25       9.0560     25.08  q Q       |         |         |         |
  1+30       8.9936     24.90  q Q       |         |         |         |
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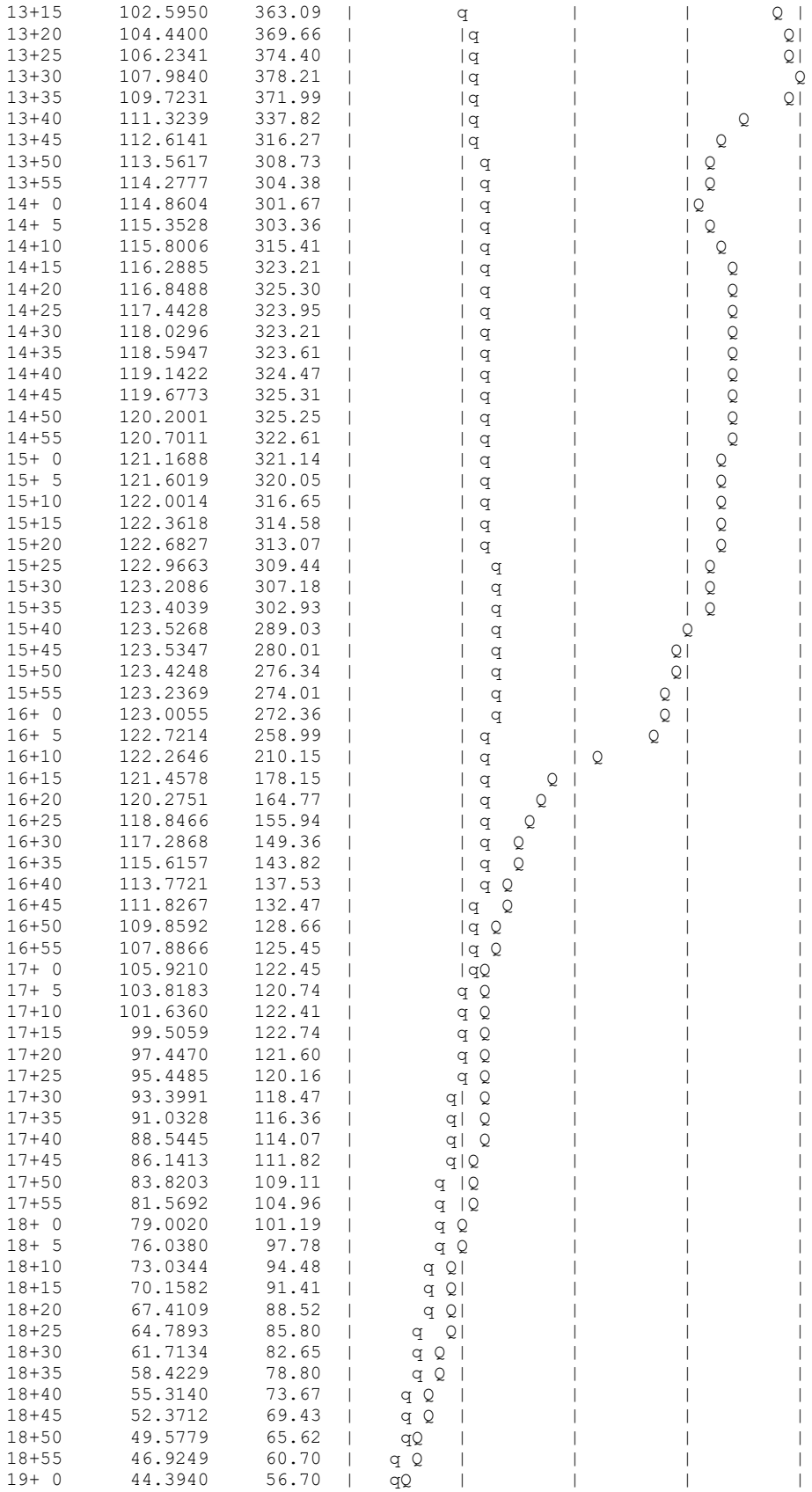
1+35       8.9379     24.76  q Q       |         |         |         |
1+40       8.8927     24.65  q Q       |         |         |         |
1+45       8.8587     24.58  q Q       |         |         |         |
1+50       8.8486     25.03  q Q       |         |         |         |
1+55       8.9312     27.05  q Q       |         |         |         |
2+ 0       9.1828     28.54  q  Q      |         |         |         |
2+ 5       9.5634     29.39  |q Q      |         |         |         |
2+10       9.9568     30.08  |q Q      |         |         |         |
2+15      10.2966     30.62  |q Q      |         |         |         |
2+20      10.5734     31.03  |q Q      |         |         |         |
2+25      10.7944     31.35  |q Q      |         |         |         |
2+30      10.9709     31.61  |q Q      |         |         |         |
2+35      11.1289     32.32  |q Q      |         |         |         |
2+40      11.3474     34.56  |q Q      |         |         |         |
2+45      11.7098     36.22  |q Q      |         |         |         |
2+50      12.1808     37.20  |q Q      |         |         |         |
2+55      12.6470     37.97  |q  Q     |         |         |         |
3+ 0      13.0457     38.56  |q  Q     |         |         |         |
3+ 5      13.3719     39.02  |q  Q     |         |         |         |
3+10      13.6365     39.39  |q  Q     |         |         |         |
3+15      13.8501     39.68  |q  Q     |         |         |         |
3+20      14.0210     39.91  |q  Q     |         |         |         |
3+25      14.1580     40.08  |q  Q     |         |         |         |
3+30      14.2692     40.23  |q  Q     |         |         |         |
3+35      14.3607     40.34  |q  Q     |         |         |         |
3+40      14.4366     40.42  |q  Q     |         |         |         |
3+45      14.5002     40.48  |q  Q     |         |         |         |
3+50      14.5696     41.05  |q  Q     |         |         |         |
3+55      14.7181     43.18  |q  Q     |         |         |         |
4+ 0      15.0247     44.75  |q  Q     |         |         |         |
4+ 5      15.4493     45.67  |q  Q     |         |         |         |
4+10      15.8762     46.39  |q  Q     |         |         |         |
4+15      16.2415     46.96  |q  Q     |         |         |         |
4+20      16.5521     47.90  |q   Q    |         |         |         |
4+25      16.8864     50.32  |q   Q    |         |         |         |
4+30      17.3329     52.11  |q   Q    |         |         |         |
4+35      17.8623     53.18  |q   Q    |         |         |         |
4+40      18.3673     54.02  |q   Q    |         |         |         |
4+45      18.7907     54.68  |q   Q    |         |         |         |
4+50      19.1464     55.69  | q  Q    |         |         |         |
4+55      19.5178     58.14  | q   Q   |         |         |         |
5+ 0      19.9953     59.97  | q   Q   |         |         |         |
5+ 5      20.5198     60.03  | q   Q   |         |         |         |
5+10      20.8446     56.74  | q   Q   |         |         |         |
5+15      20.7577     54.35  | q  Q    |         |         |         |
5+20      20.3518     53.62  | q  Q    |         |         |         |
5+25      19.9438     54.70  | q  Q    |         |         |         |
5+30      19.7550     55.46  | q  Q    |         |         |         |
5+35      19.7872     56.27  | q  Q    |         |         |         |
5+40      19.9877     58.58  | q   Q   |         |         |         |
5+45      20.3569     60.29  | q   Q   |         |         |         |
5+50      20.8342     61.30  | q   Q   |         |         |         |
5+55      21.3006     62.09  | q   Q   |         |         |         |
6+ 0      21.6925     62.69  | q   Q   |         |         |         |
6+ 5      22.0213     63.67  | q   Q   |         |         |         |
6+10      22.3707     66.14  | q   Q   |         |         |         |
6+15      22.8311     67.98  | q    Q  |         |         |         |
6+20      23.3714     69.09  | q    Q  |         |         |         |
6+25      23.8829     69.93  | q    Q  |         |         |         |
6+30      24.3105     70.59  | q    Q  |         |         |         |
6+35      24.6725     71.61  | q    Q  |         |         |         |
6+40      25.0533     74.07  | q    Q  |         |         |         |
6+45      25.5415     75.91  | q     Q |         |         |         |
6+50      26.1060     77.02  | q     Q |         |         |         |
6+55      26.6404     77.89  | q     Q |         |         |         |
7+ 0      27.0883     78.57  | q     Q |         |         |         |
7+ 5      27.4475     79.13  | q     Q |         |         |         |
7+10      27.7315     79.61  | q     Q |         |         |         |
7+15      27.9553     80.04  | q     Q |         |         |         |
7+20      28.1559     81.29  | q     Q |         |         |         |
```

7+25	28.4585	85.12	| q Q|	|	|	|
7+30	28.9992	88.00	| q Q|	|	|	|
7+35	29.7581	90.61	| q Q|	|	|	|
7+40	30.2546	95.11	| q Q	|	|	|
7+45	30.5064	98.01	| q Q	|	|	|
7+50	30.7786	100.35	| q Q	|	|	|
7+55	31.1192	104.88	| q |Q	|	|	|
8+ 0	31.5369	108.07	| q |Q	|	|	|
8+ 5	32.0321	111.59	| q |Q	|	|	|
8+10	32.6190	119.77	| q | Q	|	|	|
8+15	33.3351	125.48	| q | Q	|	|	|
8+20	34.1723	128.49	| q | Q	|	|	|
8+25	35.0728	130.79	| q | Q	|	|	|
8+30	35.9936	132.73	| q | Q	|	|	|
8+35	36.9331	135.26	| q | Q	|	|	|
8+40	37.9422	140.19	| q | Q	|	|	|
8+45	39.0756	143.95	| q | Q	|	|	|
8+50	40.3269	147.26	| q | Q	|	|	|
8+55	41.8002	152.87	| q | Q	|	|	|
9+ 0	43.6531	157.49	| q | Q	|	|	|
9+ 5	45.7091	162.53	| q | Q	|	|	|
9+10	47.8398	172.18	| q | Q	|	|	|
9+15	50.0929	179.36	| q | Q	|	|	|
9+20	52.4615	184.72	| q | Q|	|	|	|
9+25	54.8946	191.89	| q | Q	|	|	|
9+30	57.3697	197.54	| q | Q	|	|	|
9+35	59.8653	202.45	| q | |Q	|	|	|
9+40	62.3621	209.36	| q | | Q	|	|	|
9+45	64.4845	214.44	| q | | Q	|	|	|
9+50	66.3265	218.57	| q | | Q	|	|	|
9+55	68.1559	224.70	| q | | Q	|	|	|
10+ 0	70.0177	229.45	| q | | Q	|	|	|
10+ 5	71.8683	226.70	| q | | Q	|	|	|
10+10	73.5074	205.79	| q | |Q	|	|	|
10+15	74.6753	192.56	| q | Q	|	|	|
10+20	75.3333	187.92	| q | Q|	|	|	|
10+25	75.6561	185.11	| q | Q|	|	|	|
10+30	75.7950	183.22	| q | Q|	|	|	|
10+35	75.8434	186.22	| q | Q|	|	|	|
10+40	75.9589	202.07	| q | |Q	|	|	|
10+45	76.3343	212.50	| q | | Q	|	|	|
10+50	77.0057	216.83	| q | | Q	|	|	|
10+55	77.8566	219.87	| q | | Q	|	|	|
11+ 0	78.7841	222.22	| q | | Q	|	|	|
11+ 5	79.6797	223.31	| q | | Q	|	|	|
11+10	80.4036	221.69	| q | | Q	|	|	|
11+15	81.0072	220.93	| q | | Q	|	|	|
11+20	81.5632	221.28	| q | | Q	|	|	|
11+25	82.0844	221.77	| q | | Q	|	|	|
11+30	82.5839	222.36	| q | | Q	|	|	|
11+35	83.0624	221.21	| q | | Q	|	|	|
11+40	83.4899	214.91	| q | | Q	|	|	|
11+45	83.8209	210.94	| q | | Q	|	|	|
11+50	84.0529	210.41	| q | | Q	|	|	|
11+55	84.2375	213.01	| q | | Q	|	|	|
12+ 0	84.4270	214.76	| q | | Q	|	|	|
12+ 5	84.6600	221.44	| q | | Q	|	|	|
12+10	85.0419	245.55	| q | | Q	|	|	|
12+15	85.7253	261.52	| q| | Q	|	|	|
12+20	86.7329	269.35	| q| | Q	|	|	|
12+25	87.9612	277.62	| q| | Q	|	|	|
12+30	89.3297	283.65	| q| | Q	|	|	|
12+35	90.8000	289.41	| q| | Q	|	|	|
12+40	92.3622	299.58	| q| | Q	|	|	|
12+45	93.7853	306.75	| q| | Q	|	|	|
12+50	95.1064	311.64	| q | Q	|	|	|
12+55	96.4649	318.12	| q | Q	|	|	|
13+ 0	97.8737	323.02	| q | Q	|	|	|
13+ 5	99.3337	330.49	| q | Q	|	|	|
13+10	100.8847	349.83	| q | Q	|	|	|



13+15	102.5950	363.09	q				Q
13+20	104.4400	369.66	q				Q
13+25	106.2341	374.40	q				Q
13+30	107.9840	378.21	q				Q
13+35	109.7231	371.99	q				Q
13+40	111.3239	337.82	q			Q	
13+45	112.6141	316.27	q			Q	
13+50	113.5617	308.73	q			Q	
13+55	114.2777	304.38	q			Q	
14+ 0	114.8604	301.67	q			Q	
14+ 5	115.3528	303.36	q			Q	
14+10	115.8006	315.41	q			Q	
14+15	116.2885	323.21	q			Q	
14+20	116.8488	325.30	q			Q	
14+25	117.4428	323.95	q			Q	
14+30	118.0296	323.21	q			Q	
14+35	118.5947	323.61	q			Q	
14+40	119.1422	324.47	q			Q	
14+45	119.6773	325.31	q			Q	
14+50	120.2001	325.25	q			Q	
14+55	120.7011	322.61	q			Q	
15+ 0	121.1688	321.14	q			Q	
15+ 5	121.6019	320.05	q			Q	
15+10	122.0014	316.65	q			Q	
15+15	122.3618	314.58	q			Q	
15+20	122.6827	313.07	q			Q	
15+25	122.9663	309.44	q			Q	
15+30	123.2086	307.18	q			Q	
15+35	123.4039	302.93	q			Q	
15+40	123.5268	289.03	q		Q		
15+45	123.5347	280.01	q		Q		
15+50	123.4248	276.34	q		Q		
15+55	123.2369	274.01	q		Q		
16+ 0	123.0055	272.36	q		Q		
16+ 5	122.7214	258.99	q		Q		
16+10	122.2646	210.15	q	Q			
16+15	121.4578	178.15	q	Q			
16+20	120.2751	164.77	q	Q			
16+25	118.8466	155.94	q	Q			
16+30	117.2868	149.36	q	Q			
16+35	115.6157	143.82	q	Q			
16+40	113.7721	137.53	q	Q			
16+45	111.8267	132.47	q	Q			
16+50	109.8592	128.66	q	Q			
16+55	107.8866	125.45	q	Q			
17+ 0	105.9210	122.45	q	Q			
17+ 5	103.8183	120.74	q	Q			
17+10	101.6360	122.41	q	Q			
17+15	99.5059	122.74	q	Q			
17+20	97.4470	121.60	q	Q			
17+25	95.4485	120.16	q	Q			
17+30	93.3991	118.47	q	Q			
17+35	91.0328	116.36	q	Q			
17+40	88.5445	114.07	q	Q			
17+45	86.1413	111.82	q	Q			
17+50	83.8203	109.11	q	Q			
17+55	81.5692	104.96	q	Q			
18+ 0	79.0020	101.19	q	Q			
18+ 5	76.0380	97.78	q	Q			
18+10	73.0344	94.48	q	Q			
18+15	70.1582	91.41	q	Q			
18+20	67.4109	88.52	q	Q			
18+25	64.7893	85.80	q	Q			
18+30	61.7134	82.65	q	Q			
18+35	58.4229	78.80	q	Q			
18+40	55.3140	73.67	q	Q			
18+45	52.3712	69.43	q	Q			
18+50	49.5779	65.62	q	Q			
18+55	46.9249	60.70	q	Q			
19+ 0	44.3940	56.70	q	Q			

19+ 5	42.0964	54.28	| qQ	|	|	|
19+10	40.2800	54.04	| qQ	|	|	|
19+15	38.7594	53.51	| qQ	|	|	|
19+20	37.3389	52.89	| q Q	|	|	|
19+25	36.0129	53.70	| q Q	|	|	|
19+30	34.7846	53.83	| q Q	|	|	|
19+35	33.6466	52.73	| q Q	|	|	|
19+40	32.5707	50.04	| q Q	|	|	|
19+45	31.5287	47.97	| q Q	|	|	|
19+50	30.0313	45.65	| qQ	|	|	|
19+55	25.4707	38.96	| q Q	|	|	|
20+ 0	20.1814	32.31	| qQ	|	|	|
20+ 5	16.3546	28.44	|q Q	|	|	|
20+10	13.7079	27.41	|qQ	|	|	|
20+15	12.0331	26.77	|qQ	|	|	|
20+20	11.0592	26.11	|qQ	|	|	|
20+25	10.4976	25.70	|qQ	|	|	|
20+30	10.1600	25.45	|qQ	|	|	|
20+35	9.9529	25.31	|qQ	|	|	|
20+40	9.8265	25.24	|qQ	|	|	|
20+45	9.7498	25.21	|qQ	|	|	|
20+50	9.6866	24.68	|qQ	|	|	|
20+55	9.5545	22.61	|qQ	|	|	|
21+ 0	9.2708	21.09	q Q	|	|	|
21+ 5	8.8884	20.74	q Q	|	|	|
21+10	8.5905	22.12	q Q	|	|	|
21+15	8.5171	23.12	q Q	|	|	|
21+20	8.6200	23.08	q Q	|	|	|
21+25	8.7029	21.38	q Q	|	|	|
21+30	8.6112	20.14	q Q	|	|	|
21+35	8.3818	20.00	q Q	|	|	|
21+40	8.2018	21.56	q Q	|	|	|
21+45	8.2178	22.69	q Q	|	|	|
21+50	8.3858	22.75	q Q	|	|	|
21+55	8.5150	21.13	q Q	|	|	|
22+ 0	8.4571	19.96	q Q	|	|	|
22+ 5	8.2543	19.87	q Q	|	|	|
22+10	8.0954	21.46	q Q	|	|	|
22+15	8.1281	22.60	q Q	|	|	|
22+20	8.3113	22.67	q Q	|	|	|
22+25	8.4553	21.07	q Q	|	|	|
22+30	8.4109	19.92	q Q	|	|	|
22+35	8.2028	19.32	q Q	|	|	|
22+40	7.9495	18.83	qQ	|	|	|
22+45	7.7223	18.45	qQ	|	|	|
22+50	7.5361	18.16	qQ	|	|	|
22+55	7.3887	17.95	qQ	|	|	|
23+ 0	7.2734	17.80	qQ	|	|	|
23+ 5	7.1821	17.67	qQ	|	|	|
23+10	7.1082	17.55	qQ	|	|	|
23+15	7.0479	17.46	qQ	|	|	|
23+20	7.0003	17.39	qQ	|	|	|
23+25	6.9642	17.36	qQ	|	|	|
23+30	6.9362	17.33	qQ	|	|	|
23+35	6.9126	17.30	qQ	|	|	|
23+40	6.8911	17.28	qQ	|	|	|
23+45	6.8722	17.26	qQ	|	|	|
23+50	6.8574	17.25	qQ	|	|	|
23+55	6.8465	17.24	qQ	|	|	|
24+ 0	6.8381	17.23	qQ	|	|	|
24+ 5	6.8008	16.19	qQ	|	|	|
24+10	6.5929	12.03	qQ	|	|	|
24+15	6.0592	8.95	Q	|	|	|
24+20	5.2792	7.20	Q	|	|	|
24+25	4.4858	5.81	Q	|	|	|
24+30	3.8085	4.73	Q	|	|	|
24+35	3.2610	3.92	Q	|	|	|
24+40	2.8254	3.28	Q	|	|	|
24+45	2.4812	2.78	Q	|	|	|
24+50	2.2105	2.40	Q	|	|	|

24+55	1.9972	2.11	Q	|	|	|	|
25+ 0	1.8274	1.87	Q	|	|	|	|
25+ 5	1.6918	1.69	Q	|	|	|	|
25+10	1.5832	1.58	Q	|	|	|	|
25+15	1.4962	1.50	Q	|	|	|	|
25+20	1.4260	1.43	Q	|	|	|	|
25+25	1.3677	1.37	Q	|	|	|	|
25+30	1.3198	1.32	Q	|	|	|	|
25+35	1.2836	1.28	Q	|	|	|	|
25+40	1.2575	1.26	Q	|	|	|	|
25+45	1.2381	1.24	Q	|	|	|	|
25+50	1.2234	1.22	Q	|	|	|	|
25+55	1.2118	1.21	Q	|	|	|	|
26+ 0	1.2023	1.20	Q	|	|	|	|
26+ 5	1.1942	1.19	Q	|	|	|	|
26+10	1.1872	1.19	Q	|	|	|	|
26+15	1.1808	1.18	Q	|	|	|	|
26+20	1.1754	1.18	Q	|	|	|	|
26+25	1.1709	1.17	Q	|	|	|	|
26+30	1.1673	1.17	Q	|	|	|	|
26+35	1.1643	1.16	Q	|	|	|	|
26+40	1.1619	1.16	Q	|	|	|	|
26+45	1.1597	1.16	Q	|	|	|	|
26+50	1.1577	1.16	Q	|	|	|	|
26+55	1.1559	1.16	Q	|	|	|	|
27+ 0	1.1542	1.15	Q	|	|	|	|
27+ 5	1.1526	1.15	Q	|	|	|	|
27+10	1.1509	1.15	Q	|	|	|	|
27+15	1.1494	1.15	Q	|	|	|	|
27+20	1.1478	1.15	Q	|	|	|	|
27+25	1.1463	1.15	Q	|	|	|	|
27+30	1.1447	1.14	Q	|	|	|	|
27+35	1.1432	1.14	Q	|	|	|	|
27+40	1.1416	1.14	Q	|	|	|	|
27+45	1.1400	1.14	Q	|	|	|	|
27+50	1.1383	1.14	Q	|	|	|	|
27+55	1.1366	1.14	Q	|	|	|	|
28+ 0	1.1349	1.13	Q	|	|	|	|
28+ 5	1.1332	1.13	Q	|	|	|	|
28+10	1.1315	1.13	Q	|	|	|	|
28+15	1.1298	1.13	Q	|	|	|	|
28+20	1.1281	1.13	Q	|	|	|	|
28+25	1.1264	1.13	Q	|	|	|	|
28+30	1.1247	1.12	Q	|	|	|	|
28+35	1.1230	1.12	Q	|	|	|	|
28+40	1.1213	1.12	Q	|	|	|	|
28+45	1.1196	1.12	Q	|	|	|	|
28+50	1.1179	1.12	Q	|	|	|	|
28+55	1.1162	1.12	Q	|	|	|	|
29+ 0	1.1145	1.11	Q	|	|	|	|
29+ 5	1.1128	1.11	Q	|	|	|	|
29+10	1.1111	1.11	Q	|	|	|	|
29+15	1.1094	1.11	Q	|	|	|	|
29+20	1.1077	1.11	Q	|	|	|	|
29+25	1.1060	1.11	Q	|	|	|	|
29+30	1.1044	1.10	Q	|	|	|	|
29+35	1.1027	1.10	Q	|	|	|	|
29+40	1.1010	1.10	Q	|	|	|	|
29+45	1.0993	1.10	Q	|	|	|	|
29+50	1.0977	1.10	Q	|	|	|	|
29+55	1.0960	1.10	Q	|	|	|	|
30+ 0	1.0943	1.09	Q	|	|	|	|
30+ 5	1.0927	1.09	Q	|	|	|	|
30+10	1.0910	1.09	Q	|	|	|	|
30+15	1.0894	1.09	Q	|	|	|	|
30+20	1.0877	1.09	Q	|	|	|	|
30+25	1.0861	1.09	Q	|	|	|	|
30+30	1.0844	1.08	Q	|	|	|	|
30+35	1.0828	1.08	Q	|	|	|	|
30+40	1.0811	1.08	Q	|	|	|	|

30+45	1.0795	1.08	Q				
30+50	1.0778	1.08	Q				
30+55	1.0762	1.08	Q				
31+ 0	1.0746	1.07	Q				
31+ 5	1.0729	1.07	Q				
31+10	1.0713	1.07	Q				
31+15	1.0697	1.07	Q				
31+20	1.0680	1.07	Q				
31+25	1.0664	1.07	Q				
31+30	1.0648	1.06	Q				
31+35	1.0632	1.06	Q				
31+40	1.0616	1.06	Q				
31+45	1.0600	1.06	Q				
31+50	1.0583	1.06	Q				
31+55	1.0567	1.06	Q				
32+ 0	1.0551	1.06	Q				
32+ 5	1.0535	1.05	Q				
32+10	1.0519	1.05	Q				
32+15	1.0503	1.05	Q				
32+20	1.0487	1.05	Q				
32+25	1.0471	1.05	Q				
32+30	1.0455	1.05	Q				
32+35	1.0440	1.04	Q				
32+40	1.0424	1.04	Q				
32+45	1.0408	1.04	Q				
32+50	1.0392	1.04	Q				
32+55	1.0376	1.04	Q				
33+ 0	1.0361	1.04	Q				
33+ 5	1.0345	1.03	Q				
33+10	1.0329	1.03	Q				
33+15	1.0313	1.03	Q				
33+20	1.0298	1.03	Q				
33+25	1.0279	1.03	Q				
33+30	1.0241	1.02	Q				
33+35	1.0158	1.02	Q				
33+40	1.0022	1.00	Q				
33+45	0.9843	0.98	Q				
33+50	0.9637	0.96	Q				
33+55	0.9415	0.94	Q				
34+ 0	0.9184	0.92	Q				
34+ 5	0.8950	0.89	Q				
34+10	0.8715	0.87	Q				
34+15	0.8482	0.85	Q				
34+20	0.8253	0.83	Q				
34+25	0.8028	0.80	Q				
34+30	0.7808	0.78	Q				
34+35	0.7593	0.76	Q				
34+40	0.7383	0.74	Q				
34+45	0.7179	0.72	Q				
34+50	0.6980	0.70	Q				
34+55	0.6787	0.68	Q				
35+ 0	0.6598	0.66	Q				
35+ 5	0.6415	0.64	Q				
35+10	0.6237	0.62	Q				
35+15	0.6064	0.61	Q				
35+20	0.5895	0.59	Q				
35+25	0.5732	0.57	Q				
35+30	0.5572	0.56	Q				
35+35	0.5418	0.54	Q				
35+40	0.5267	0.53	Q				
35+45	0.5121	0.51	Q				
35+50	0.4978	0.50	Q				
35+55	0.4840	0.48	Q				
36+ 0	0.4705	0.47	Q				
36+ 5	0.4575	0.46	Q				
36+10	0.4448	0.44	Q				
36+15	0.4324	0.43	Q				
36+20	0.4204	0.42	Q				
36+25	0.4087	0.41	Q				
36+30	0.3973	0.40	Q				

36+35	0.3863	0.39	Q				
36+40	0.3756	0.38	Q				
36+45	0.3651	0.37	Q				
36+50	0.3550	0.35	Q				
36+55	0.3451	0.35	Q				
37+ 0	0.3355	0.34	Q				
37+ 5	0.3262	0.33	Q				
37+10	0.3171	0.32	Q				
37+15	0.3083	0.31	Q				
37+20	0.2998	0.30	Q				
37+25	0.2914	0.29	Q				
37+30	0.2833	0.28	Q				
37+35	0.2755	0.28	Q				
37+40	0.2678	0.27	Q				
37+45	0.2604	0.26	Q				
37+50	0.2531	0.25	Q				
37+55	0.2461	0.25	Q				
38+ 0	0.2392	0.24	Q				
38+ 5	0.2326	0.23	Q				
38+10	0.2261	0.23	Q				
38+15	0.2198	0.22	Q				
38+20	0.2137	0.21	Q				
38+25	0.2078	0.21	Q				
38+30	0.2020	0.20	Q				
38+35	0.1964	0.20	Q				
38+40	0.1910	0.19	Q				
38+45	0.1856	0.19	Q				
38+50	0.1805	0.18	Q				
38+55	0.1755	0.18	Q				
39+ 0	0.1706	0.17	Q				
39+ 5	0.1659	0.17	Q				
39+10	0.1612	0.16	Q				
39+15	0.1568	0.16	Q				
39+20	0.1524	0.15	Q				
39+25	0.1482	0.15	Q				
39+30	0.1441	0.14	Q				
39+35	0.1400	0.14	Q				
39+40	0.1362	0.14	Q				
39+45	0.1324	0.13	Q				
39+50	0.1287	0.13	Q				
39+55	0.1251	0.13	Q				
40+ 0	0.1216	0.12	Q				
40+ 5	0.1183	0.12	Q				
40+10	0.1150	0.11	Q				
40+15	0.1118	0.11	Q				
40+20	0.1087	0.11	Q				
40+25	0.1057	0.11	Q				
40+30	0.1027	0.10	Q				
40+35	0.0999	0.10	Q				
40+40	0.0971	0.10	Q				
40+45	0.0944	0.09	Q				
40+50	0.0918	0.09	Q				
40+55	0.0892	0.09	Q				
41+ 0	0.0867	0.09	Q				
41+ 5	0.0843	0.08	Q				
41+10	0.0820	0.08	Q				
41+15	0.0797	0.08	Q				
41+20	0.0775	0.08	Q				
41+25	0.0753	0.08	Q				
41+30	0.0732	0.07	Q				
41+35	0.0712	0.07	Q				
41+40	0.0692	0.07	Q				
41+45	0.0673	0.07	Q				
41+50	0.0654	0.07	Q				
41+55	0.0636	0.06	Q				
42+ 0	0.0618	0.06	Q				
42+ 5	0.0601	0.06	Q				
42+10	0.0585	0.06	Q				
42+15	0.0568	0.06	Q				
42+20	0.0553	0.06	Q				

42+25	0.0537	0.05	Q				
42+30	0.0522	0.05	Q				
42+35	0.0508	0.05	Q				
42+40	0.0494	0.05	Q				
42+45	0.0480	0.05	Q				
42+50	0.0467	0.05	Q				
42+55	0.0454	0.05	Q				
43+ 0	0.0441	0.04	Q				
43+ 5	0.0429	0.04	Q				
43+10	0.0417	0.04	Q				
43+15	0.0405	0.04	Q				
43+20	0.0394	0.04	Q				
43+25	0.0383	0.04	Q				
43+30	0.0372	0.04	Q				
43+35	0.0362	0.04	Q				
43+40	0.0352	0.04	Q				
43+45	0.0342	0.03	Q				
43+50	0.0333	0.03	Q				
43+55	0.0323	0.03	Q				
44+ 0	0.0314	0.03	Q				
44+ 5	0.0306	0.03	Q				
44+10	0.0297	0.03	Q				
44+15	0.0289	0.03	Q				
44+20	0.0281	0.03	Q				
44+25	0.0273	0.03	Q				
44+30	0.0266	0.03	Q				
44+35	0.0258	0.03	Q				
44+40	0.0251	0.03	Q				
44+45	0.0244	0.02	Q				
44+50	0.0237	0.02	Q				
44+55	0.0231	0.02	Q				
45+ 0	0.0224	0.02	Q				
45+ 5	0.0218	0.02	Q				
45+10	0.0212	0.02	Q				
45+15	0.0206	0.02	Q				
45+20	0.0200	0.02	Q				
45+25	0.0195	0.02	Q				
45+30	0.0189	0.02	Q				
45+35	0.0184	0.02	Q				
45+40	0.0179	0.02	Q				
45+45	0.0174	0.02	Q				
45+50	0.0169	0.02	Q				
45+55	0.0164	0.02	Q				
46+ 0	0.0160	0.02	Q				
46+ 5	0.0155	0.02	Q				
46+10	0.0151	0.02	Q				
46+15	0.0147	0.01	Q				
46+20	0.0143	0.01	Q				
46+25	0.0139	0.01	Q				
46+30	0.0135	0.01	Q				
46+35	0.0131	0.01	Q				
46+40	0.0128	0.01	Q				
46+45	0.0124	0.01	Q				
46+50	0.0121	0.01	Q				
46+55	0.0117	0.01	Q				
47+ 0	0.0114	0.01	Q				
47+ 5	0.0111	0.01	Q				
47+10	0.0108	0.01	Q				
47+15	0.0105	0.01	Q				
47+20	0.0102	0.01	Q				
47+25	0.0099	0.01	Q				
47+30	0.0096	0.01	Q				
47+35	0.0094	0.01	Q				
47+40	0.0091	0.01	Q				
47+45	0.0088	0.01	Q				
47+50	0.0086	0.01	Q				
47+55	0.0084	0.01	Q				
48+ 0	0.0081	0.01	Q				
48+ 5	0.0079	0.01	Q				
48+10	0.0077	0.01	Q				

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   48+15       0.0075      0.01  Q         |         |         |         |
   48+20       0.0073      0.01  Q         |         |         |         |
   48+25       0.0071      0.01  Q         |         |         |         |
   48+30       0.0069      0.01  Q         |         |         |         |
   48+35       0.0067      0.01  Q         |         |         |         |
   48+40       0.0065      0.01  Q         |         |         |         |
   48+45       0.0063      0.01  Q         |         |         |         |
   48+50       0.0061      0.01  Q         |         |         |         |
   48+55       0.0060      0.01  Q         |         |         |         |
   49+ 0       0.0058      0.01  Q         |         |         |         |
   49+ 5       0.0056      0.01  Q         |         |         |         |
   49+10       0.0055      0.01  Q         |         |         |         |
   49+15       0.0053      0.01  Q         |         |         |         |
   49+20       0.0052      0.01  Q         |         |         |         |
   49+25       0.0050      0.01  Q         |         |         |         |
   49+30       0.0049      0.00  Q         |         |         |         |
   49+35       0.0048      0.00  Q         |         |         |         |
   49+40       0.0046      0.00  Q         |         |         |         |
   49+45       0.0045      0.00  Q         |         |         |         |
   49+50       0.0044      0.00  Q         |         |         |         |
   49+55       0.0043      0.00  Q         |         |         |         |
   50+ 0       0.0041      0.00  Q         |         |         |         |
   50+ 5       0.0040      0.00  Q         |         |         |         |
   50+10       0.0039      0.00  Q         |         |         |         |
   50+15       0.0038      0.00  Q         |         |         |         |
   50+20       0.0037      0.00  Q         |         |         |         |
   50+25       0.0036      0.00  Q         |         |         |         |
   50+30       0.0035      0.00  Q         |         |         |         |
   50+35       0.0034      0.00  Q         |         |         |         |
   50+40       0.0033      0.00  Q         |         |         |         |
   50+45       0.0032      0.00  Q         |         |         |         |
   50+50       0.0031      0.00  Q         |         |         |         |
   50+55       0.0030      0.00  Q         |         |         |         |
   51+ 0       0.0029      0.00  Q         |         |         |         |
   51+ 5       0.0029      0.00  Q         |         |         |         |
   51+10       0.0028      0.00  Q         |         |         |         |
   51+15       0.0027      0.00  Q         |         |         |         |
   51+20       0.0026      0.00  Q         |         |         |         |
   51+25       0.0026      0.00  Q         |         |         |         |
   51+30       0.0025      0.00  Q         |         |         |         |
   51+35       0.0024      0.00  Q         |         |         |         |
   51+40       0.0024      0.00  Q         |         |         |         |
   51+45       0.0023      0.00  Q         |         |         |         |
   51+50       0.0022      0.00  Q         |         |         |         |
   51+55       0.0021      0.00  Q         |         |         |         |
   52+ 0       0.0018      0.00  Q         |         |         |         |
   52+ 5       0.0013      0.00  Q         |         |         |         |
   52+10       0.0000      0.00  Q         |         |         |         |
--------------------------------------------------------------------------
      ****************************HYDROGRAPH DATA****************************
                  Number of intervals =   626
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =      378.208 (CFS)
                  Total volume =     239.247 (Ac.Ft)
            Status of hydrographs being held in storage
                        Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
      ****************************************************************************

      ----------------------------------------------------------------------


      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      Process from Point/Station       10.000 to Point/Station       11.000
      **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
      ____________________________________________________________________________
      ********************* HYDROGRAPH INFORMATION **********************

                  From study/file name: lgb1out24100.rte
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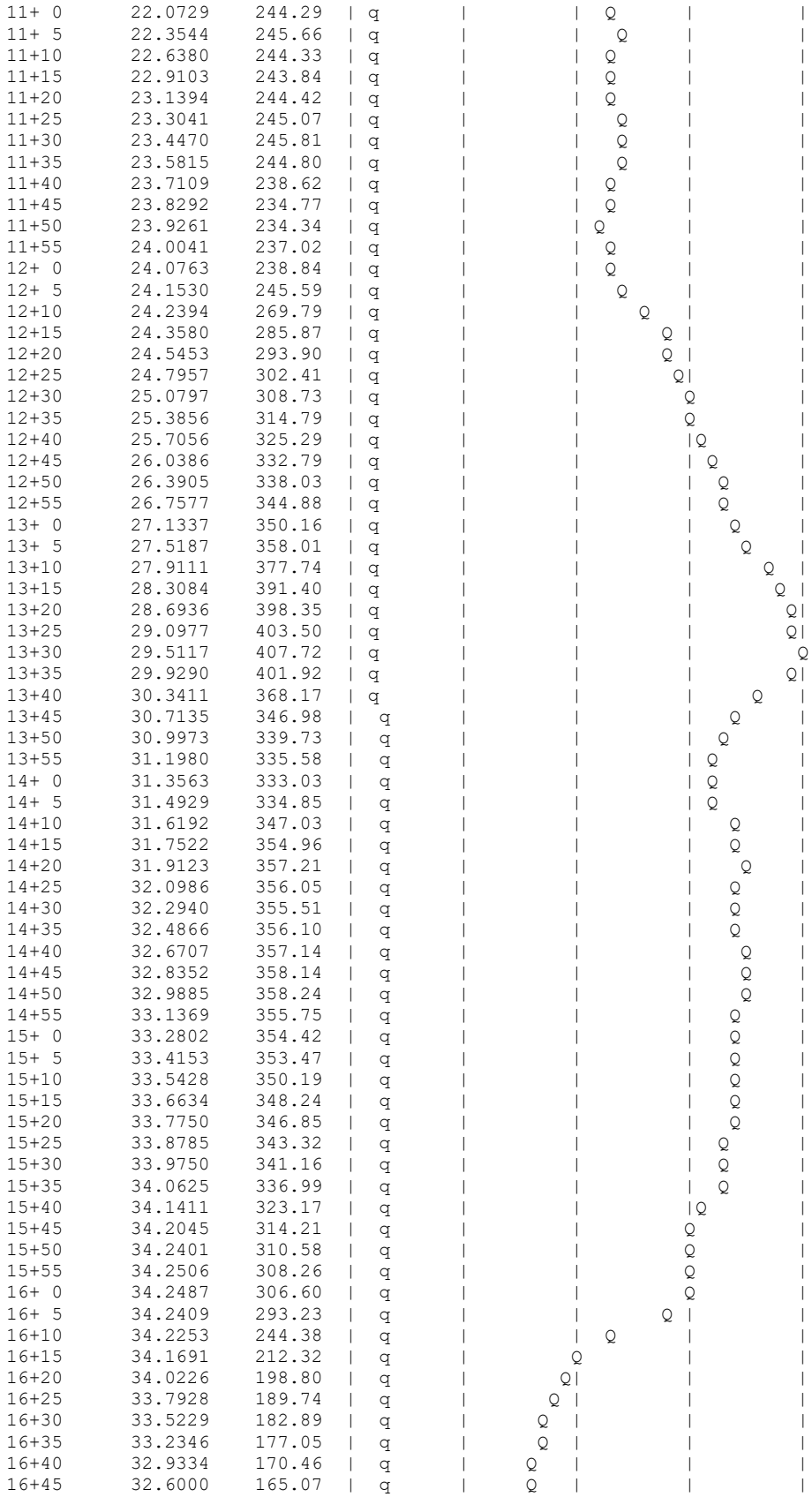
P R I N T O F S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals (CFS)

Time(h+m)	Add q(CFS)	Tot. Q	0	101.9	203.9	305.8	407.7
0+ 5	0.0000	1.04	Q	|	|	|	|
0+10	0.0042	5.20	Q	|	|	|	|
0+15	0.0417	8.30	Q	|	|	|	|
0+20	0.1528	10.69	qQ	|	|	|	|
0+25	0.3269	14.33	qQ	|	|	|	|
0+30	0.5362	17.16	qQ	|	|	|	|
0+35	0.7805	19.11	qQ	|	|	|	|
0+40	1.0449	20.71	q Q	|	|	|	|
0+45	1.3049	22.02	q Q	|	|	|	|
0+50	1.5490	23.59	q Q	|	|	|	|
0+55	1.7749	26.51	q Q	|	|	|	|
1+ 0	1.9966	28.77	q Q	|	|	|	|
1+ 5	2.2350	29.75	q Q	|	|	|	|
1+10	2.4829	28.88	q Q	|	|	|	|
1+15	2.7063	28.33	q Q	|	|	|	|
1+20	2.8765	28.20	q Q	|	|	|	|
1+25	2.9972	28.08	q Q	|	|	|	|
1+30	3.0895	27.99	q Q	|	|	|	|
1+35	3.1641	27.93	q Q	|	|	|	|
1+40	3.2264	27.88	q Q	|	|	|	|
1+45	3.2798	27.86	q Q	|	|	|	|
1+50	3.3263	28.36	q Q	|	|	|	|
1+55	3.3698	30.42	q Q	|	|	|	|
2+ 0	3.4254	31.97	q Q	|	|	|	|
2+ 5	3.5140	32.90	q Q	|	|	|	|
2+10	3.6295	33.71	q Q	|	|	|	|
2+15	3.7512	34.37	q Q	|	|	|	|
2+20	3.8692	34.90	q Q	|	|	|	|
2+25	3.9795	35.33	q Q	|	|	|	|
2+30	4.0808	35.69	q Q	|	|	|	|
2+35	4.1726	36.50	q Q	|	|	|	|
2+40	4.2571	38.81	q Q	|	|	|	|
2+45	4.3497	40.57	q Q	|	|	|	|
2+50	4.4714	41.67	q Q	|	|	|	|
2+55	4.6166	42.58	q Q	|	|	|	|
3+ 0	4.7648	43.33	q Q	|	|	|	|
3+ 5	4.9066	43.93	q Q	|	|	|	|
3+10	5.0381	44.43	q Q	|	|	|	|
3+15	5.1584	44.84	q Q	|	|	|	|
3+20	5.2672	45.18	q Q	|	|	|	|
3+25	5.3649	45.45	q Q	|	|	|	|
3+30	5.4524	45.68	q Q	|	|	|	|
3+35	5.5307	45.87	q Q	|	|	|	|
3+40	5.6008	46.02	q Q	|	|	|	|
3+45	5.6635	46.14	q Q	|	|	|	|
3+50	5.7196	46.77	q Q	|	|	|	|
3+55	5.7719	48.95	q Q	|	|	|	|
4+ 0	5.8356	50.59	q Q	|	|	|	|
4+ 5	5.9313	51.60	q Q	|	|	|	|
4+10	6.0533	52.44	q Q	|	|	|	|
4+15	6.1807	53.14	q Q	|	|	|	|
4+20	6.3039	54.21	q Q	|	|	|	|
4+25	6.4210	56.74	q Q	|	|	|	|
4+30	6.5451	58.65	q Q	|	|	|	|
4+35	6.6961	59.88	q Q	|	|	|	|
4+40	6.8679	60.89	q Q	|	|	|	|
4+45	7.0400	61.72	q Q	|	|	|	|
4+50	7.2032	62.90	q Q	|	|	|	|
4+55	7.3560	65.50	q Q	|	|	|	|
5+ 0	7.5122	67.48	q Q	|	|	|	|
5+ 5	7.6919	67.72	q Q	|	|	|	|

```
 5+10      7.8851     64.62  q     Q   |          |          |          |
 5+15      8.0427     62.39  q     Q   |          |          |          |
 5+20      8.1153     61.73  q     Q   |          |          |          |
 5+25      8.1144     62.81  q     Q   |          |          |          |
 5+30      8.0964     63.55  q     Q   |          |          |          |
 5+35      8.1021     64.37  q     Q   |          |          |          |
 5+40      8.1364     66.71  q     Q   |          |          |          |
 5+45      8.1972     68.49  q     Q   |          |          |          |
 5+50      8.2972     69.60  q     Q   |          |          |          |
 5+55      8.4272     70.52  q     Q   |          |          |          |
 6+ 0      8.5641     71.25  q     Q   |          |          |          |
 6+ 5      8.6969     72.37  q      Q  |          |          |          |
 6+10      8.8228     74.96  q      Q  |          |          |          |
 6+15      8.9550     76.93  q      Q  |          |          |          |
 6+20      9.1133     78.20  q      Q  |          |          |          |
 6+25      9.2915     79.22  q      Q  |          |          |          |
 6+30      9.4694     80.06  q      Q  |          |          |          |
 6+35      9.6378     81.25  q      Q  |          |          |          |
 6+40      9.7952     83.87  q       Q |          |          |          |
 6+45      9.9411     85.85  q       Q |          |          |          |
 6+50     10.0323     87.05  q       Q |          |          |          |
 6+55     10.1094     87.99  q       Q |          |          |          |
 7+ 0      10.1833    88.76  q       Q |          |          |          |
 7+ 5      10.2557    89.39  |q      Q |          |          |          |
 7+10      10.3267    89.94  |q      Q |          |          |          |
 7+15      10.3960    90.43  |q      Q |          |          |          |
 7+20      10.4633    91.75  |q       Q|          |          |          |
 7+25      10.5291    95.65  |q       Q|          |          |          |
 7+30      10.5986    98.60  |q       Q|          |          |          |
 7+35      10.6794   101.29  |q       Q|          |          |          |
 7+40      10.7718   105.89  |q        Q          |          |          |
 7+45      10.8770   108.89  |q        Q          |          |          |
 7+50      11.0030   111.36  |q        Q          |          |          |
 7+55      11.1474   116.02  |q        |Q         |          |          |
 8+ 0      11.3073   119.38  |q        |Q         |          |          |
 8+ 5      11.4881   123.07  |q        | Q        |          |          |
 8+10      11.6877   131.46  |q        | Q        |          |          |
 8+15      11.9101   137.39  |q        |  Q       |          |          |
 8+20      12.1716   140.66  |q        |  Q       |          |          |
 8+25      12.4658   143.25  |q        |   Q      |          |          |
 8+30      12.7716   145.50  |q        |   Q      |          |          |
 8+35      13.0783   148.34  |q        |   Q      |          |          |
 8+40      13.3822   153.57  |q        |    Q     |          |          |
 8+45      13.6884   157.64  |q        |    Q     |          |          |
 8+50      14.0068   161.27  |q        |    Q     |          |          |
 8+55      14.3358   167.21  |q        |     Q    |          |          |
 9+ 0      14.6733   172.16  |q        |     Q    |          |          |
 9+ 5      15.0254   177.55  |q        |      Q   |          |          |
 9+10      15.3903   187.57  |q        |       Q  |          |          |
 9+15      15.7723   195.13  |q        |        Q |          |          |
 9+20      16.1796   200.90  |q        |        Q |          |          |
 9+25      16.5685   208.46  |q        |         Q          |          |
 9+30      16.9471   214.48  |q        |         |Q         |          |
 9+35      17.3336   219.78  |q        |         |Q         |          |
 9+40      17.7287   227.09  |q        |         | Q        |          |
 9+45      18.1302   232.57  |q        |         | Q        |          |
 9+50      18.5425   237.11  |q        |         |  Q       |          |
 9+55      18.9626   243.66  |q        |         |  Q       |          |
10+ 0      19.3880   248.84  |q        |         |   Q      |          |
10+ 5      19.8232   246.52  |q        |         |   Q      |          |
10+10      20.2587   226.04  |q        |         | Q        |          |
10+15      20.6431   213.20  | q       |         Q          |          |
10+20      20.9102   208.83  | q       |         Q          |          |
10+25      21.0679   206.18  | q       |         Q          |          |
10+30      21.1705   204.39  | q       |         Q          |          |
10+35      21.2452   207.46  | q       |         Q          |          |
10+40      21.3096   223.38  | q       |         |Q         |          |
10+45      21.4007   233.90  | q       |         | Q        |          |
10+50      21.5670   238.39  | q       |         |  Q       |          |
10+55      21.8039   241.67  | q       |         |  Q       |          |
```



11+ 0	22.0729	244.29	q			Q		
11+ 5	22.3544	245.66	q			Q		
11+10	22.6380	244.33	q			Q		
11+15	22.9103	243.84	q			Q		
11+20	23.1394	244.42	q			Q		
11+25	23.3041	245.07	q			Q		
11+30	23.4470	245.81	q			Q		
11+35	23.5815	244.80	q			Q		
11+40	23.7109	238.62	q			Q		
11+45	23.8292	234.77	q			Q		
11+50	23.9261	234.34	q			Q		
11+55	24.0041	237.02	q			Q		
12+ 0	24.0763	238.84	q			Q		
12+ 5	24.1530	245.59	q			Q		
12+10	24.2394	269.79	q			Q		
12+15	24.3580	285.87	q			Q		
12+20	24.5453	293.90	q			Q		
12+25	24.7957	302.41	q			Q		
12+30	25.0797	308.73	q			Q		
12+35	25.3856	314.79	q			Q		
12+40	25.7056	325.29	q			Q		
12+45	26.0386	332.79	q			Q		
12+50	26.3905	338.03	q			Q		
12+55	26.7577	344.88	q			Q		
13+ 0	27.1337	350.16	q			Q		
13+ 5	27.5187	358.01	q			Q		
13+10	27.9111	377.74	q			Q		
13+15	28.3084	391.40	q			Q		
13+20	28.6936	398.35	q			Q		
13+25	29.0977	403.50	q			Q		
13+30	29.5117	407.72	q			Q		
13+35	29.9290	401.92	q			Q		
13+40	30.3411	368.17	q			Q		
13+45	30.7135	346.98	q			Q		
13+50	30.9973	339.73	q			Q		
13+55	31.1980	335.58	q			Q		
14+ 0	31.3563	333.03	q			Q		
14+ 5	31.4929	334.85	q			Q		
14+10	31.6192	347.03	q			Q		
14+15	31.7522	354.96	q			Q		
14+20	31.9123	357.21	q			Q		
14+25	32.0986	356.05	q			Q		
14+30	32.2940	355.51	q			Q		
14+35	32.4866	356.10	q			Q		
14+40	32.6707	357.14	q			Q		
14+45	32.8352	358.14	q			Q		
14+50	32.9885	358.24	q			Q		
14+55	33.1369	355.75	q			Q		
15+ 0	33.2802	354.42	q			Q		
15+ 5	33.4153	353.47	q			Q		
15+10	33.5428	350.19	q			Q		
15+15	33.6634	348.24	q			Q		
15+20	33.7750	346.85	q			Q		
15+25	33.8785	343.32	q			Q		
15+30	33.9750	341.16	q			Q		
15+35	34.0625	336.99	q			Q		
15+40	34.1411	323.17	q			Q		
15+45	34.2045	314.21	q			Q		
15+50	34.2401	310.58	q			Q		
15+55	34.2506	308.26	q			Q		
16+ 0	34.2487	306.60	q			Q		
16+ 5	34.2409	293.23	q			Q		
16+10	34.2253	244.38	q			Q		
16+15	34.1691	212.32	q		Q			
16+20	34.0226	198.80	q		Q			
16+25	33.7928	189.74	q		Q			
16+30	33.5229	182.89	q		Q			
16+35	33.2346	177.05	q		Q			
16+40	32.9334	170.46	q		Q			
16+45	32.6000	165.07	q		Q			

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16+50      32.2416    160.90  |  q       |    Q    |         |         |
16+55      31.8765    157.32  |  q       |    Q    |         |         |
17+ 0      31.5118    153.96  |  q       |    Q    |         |         |
17+ 5      31.1501    151.89  |  q       |   Q     |         |         |
17+10      30.7930    153.20  |  q       |    Q    |         |         |
17+15      30.4443    153.19  | q        |    Q    |         |         |
17+20      30.1097    151.71  | q        |   Q     |         |         |
17+25      29.7884    149.95  | q        |   Q     |         |         |
17+30      29.4758    147.95  | q        |   Q     |         |         |
17+35      29.1696    145.53  | q        |   Q     |         |         |
17+40      28.8686    142.94  | q        |   Q     |         |         |
17+45      28.5671    140.39  | q        |  Q      |         |         |
17+50      28.2400    137.35  | q        |  Q      |         |         |
17+55      27.8889    132.85  | q        |  Q      |         |         |
18+ 0      27.5326    128.73  | q        | Q       |         |         |
18+ 5      27.1737    124.95  | q        | Q       |         |         |
18+10      26.8143    121.30  | q        |Q        |         |         |
18+15      26.4578    117.86  | q        |Q        |         |         |
18+20      26.1057    114.63  | q        |Q        |         |         |
18+25      25.7586    111.56  | q       Q        |         |         |
18+30      25.4168    108.06  | q       Q        |         |         |
18+35      25.0804    103.88  | q       Q        |         |         |
18+40      24.7492     98.42  | q      Q|        |         |         |
18+45      24.4208     93.85  | q      Q|        |         |         |
18+50      24.0917     89.71  | q     Q |        |         |         |
18+55      23.7621     84.46  | q     Q |        |         |         |
19+ 0      23.4211     80.12  | q    Q  |        |         |         |
19+ 5      23.0049     77.28  | q    Q  |        |         |         |
19+10      22.4988     76.54  | q    Q  |        |         |         |
19+15      21.9791     75.49  | q    Q  |        |         |         |
19+20      21.4732     74.37  | q    Q  |        |         |         |
19+25      20.9874     74.69  | q    Q  |        |         |         |
19+30      20.5224     74.35  | q    Q  |        |         |         |
19+35      20.0818     72.82  |q     Q  |        |         |         |
19+40      19.6629     69.71  |q    Q   |        |         |         |
19+45      19.2563     67.23  |q    Q   |        |         |         |
19+50      18.8533     64.51  |q    Q   |        |         |         |
19+55      18.4527     57.41  |q   Q    |        |         |         |
20+ 0      18.0545     50.37  |q  Q     |        |         |         |
20+ 5      17.6551     46.10  |q  Q     |        |         |         |
20+10      17.2566     44.67  |q  Q     |        |         |         |
20+15      16.8678     43.63  |q  Q     |        |         |         |
20+20      16.4872     42.60  |q  Q     |        |         |         |
20+25      16.0737     41.78  |q  Q     |        |         |         |
20+30      15.6595     41.11  |q  Q     |        |         |         |
20+35      15.2560     40.56  |q Q      |        |         |         |
20+40      14.8660     40.11  |q Q      |        |         |         |
20+45      14.4894     39.70  |q Q      |        |         |         |
20+50      14.1258     38.80  |q Q      |        |         |         |
20+55      13.7739     36.38  |q Q      |        |         |         |
21+ 0      13.4284     34.52  |q Q      |        |         |         |
21+ 5      13.0822     33.82  |q Q      |        |         |         |
21+10      12.7367     34.86  |q Q      |        |         |         |
21+15      12.4024     35.52  |q Q      |        |         |         |
21+20      12.0888     35.16  |q Q      |        |         |         |
21+25      11.7953     33.17  |q Q      |        |         |         |
21+30      11.5114     31.65  |q Q      |        |         |         |
21+35      11.2271     31.23  |q Q      |        |         |         |
21+40      10.9429     32.51  |q Q      |        |         |         |
21+45      10.6686     33.36  |q Q      |        |         |         |
21+50      10.4135     33.16  |q Q      |        |         |         |
21+55      10.1496     31.28  q  Q      |        |         |         |
22+ 0       9.7232     29.69  q Q       |        |         |         |
22+ 5       9.1069     28.98  q Q       |        |         |         |
22+10       8.4673     29.92  q Q       |        |         |         |
22+15       7.8792     30.48  q Q       |        |         |         |
22+20       7.3790     30.05  q Q       |        |         |         |
22+25       6.9599     28.03  q Q       |        |         |         |
22+30       6.5835     26.50  q Q       |        |         |         |
22+35       6.2157     25.53  q Q       |        |         |         |
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22+40	5.8548	24.69	q	Q	|	|	|
22+45	5.5160	23.96	q	Q	|	|	|
22+50	5.2048	23.37	q	Q	|	|	|
22+55	4.9220	22.87	q	Q	|	|	|
23+ 0	4.6664	22.46	q	Q	|	|	|
23+ 5	4.4367	22.10	q	Q	|	|	|
23+10	4.2307	21.79	q	Q	|	|	|
23+15	4.0464	21.51	q	Q	|	|	|
23+20	3.8814	21.27	q	Q	|	|	|
23+25	3.7338	21.09	q	Q	|	|	|
23+30	3.6017	20.93	q	Q	|	|	|
23+35	3.4835	20.79	q	Q	|	|	|
23+40	3.3778	20.66	q	Q	|	|	|
23+45	3.2832	20.55	q	Q	|	|	|
23+50	3.1985	20.45	q	Q	|	|	|
23+55	3.1227	20.36	q	Q	|	|	|
24+ 0	3.0550	20.29	q	Q	|	|	|
24+ 5	2.9943	19.18	q	Q	|	|	|
24+10	2.9359	14.96	q	Q	|	|	|
24+15	2.8498	11.80	q	Q	|	|	|
24+20	2.6953	9.89	Q		|	|	|
24+25	2.4844	8.29	Q		|	|	|
24+30	2.2590	6.99	Q		|	|	|
24+35	2.0392	5.96	Q		|	|	|
24+40	1.8329	5.11	Q		|	|	|
24+45	1.6433	4.42	Q		|	|	|
24+50	1.4713	3.87	Q		|	|	|
24+55	1.3167	3.42	Q		|	|	|
25+ 0	1.1782	3.05	Q		|	|	|
25+ 5	1.0543	2.75	Q		|	|	|
25+10	0.9433	2.53	Q		|	|	|
25+15	0.8440	2.34	Q		|	|	|
25+20	0.7552	2.18	Q		|	|	|
25+25	0.6757	2.04	Q		|	|	|
25+30	0.6046	1.92	Q		|	|	|
25+35	0.5410	1.82	Q		|	|	|
25+40	0.4841	1.74	Q		|	|	|
25+45	0.4331	1.67	Q		|	|	|
25+50	0.3875	1.61	Q		|	|	|
25+55	0.3468	1.56	Q		|	|	|
26+ 0	0.3103	1.51	Q		|	|	|
26+ 5	0.2776	1.47	Q		|	|	|
26+10	0.2484	1.44	Q		|	|	|
26+15	0.2223	1.40	Q		|	|	|
26+20	0.1989	1.37	Q		|	|	|
26+25	0.1779	1.35	Q		|	|	|
26+30	0.1592	1.33	Q		|	|	|
26+35	0.1425	1.31	Q		|	|	|
26+40	0.1275	1.29	Q		|	|	|
26+45	0.1141	1.27	Q		|	|	|
26+50	0.1021	1.26	Q		|	|	|
26+55	0.0913	1.25	Q		|	|	|
27+ 0	0.0817	1.24	Q		|	|	|
27+ 5	0.0731	1.23	Q		|	|	|
27+10	0.0654	1.22	Q		|	|	|
27+15	0.0585	1.21	Q		|	|	|
27+20	0.0524	1.20	Q		|	|	|
27+25	0.0469	1.19	Q		|	|	|
27+30	0.0419	1.19	Q		|	|	|
27+35	0.0375	1.18	Q		|	|	|
27+40	0.0336	1.18	Q		|	|	|
27+45	0.0300	1.17	Q		|	|	|
27+50	0.0269	1.17	Q		|	|	|
27+55	0.0240	1.16	Q		|	|	|
28+ 0	0.0215	1.16	Q		|	|	|
28+ 5	0.0193	1.15	Q		|	|	|
28+10	0.0172	1.15	Q		|	|	|
28+15	0.0154	1.15	Q		|	|	|
28+20	0.0138	1.14	Q		|	|	|
28+25	0.0123	1.14	Q		|	|	|

28+30	0.0110	1.14	Q				
28+35	0.0089	1.13	Q				
28+40	0.0025	1.12	Q				
28+45	0.0000	1.12	Q				
28+50	0.0000	1.12	Q				
28+55	0.0000	1.12	Q				
29+ 0	0.0000	1.11	Q				
29+ 5	0.0000	1.11	Q				
29+10	0.0000	1.11	Q				
29+15	0.0000	1.11	Q				
29+20	0.0000	1.11	Q				
29+25	0.0000	1.11	Q				
29+30	0.0000	1.10	Q				
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29+45	0.0000	1.10	Q				
29+50	0.0000	1.10	Q				
29+55	0.0000	1.10	Q				
30+ 0	0.0000	1.09	Q				
30+ 5	0.0000	1.09	Q				
30+10	0.0000	1.09	Q				
30+15	0.0000	1.09	Q				
30+20	0.0000	1.09	Q				
30+25	0.0000	1.09	Q				
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30+35	0.0000	1.08	Q				
30+40	0.0000	1.08	Q				
30+45	0.0000	1.08	Q				
30+50	0.0000	1.08	Q				
30+55	0.0000	1.08	Q				
31+ 0	0.0000	1.07	Q				
31+ 5	0.0000	1.07	Q				
31+10	0.0000	1.07	Q				
31+15	0.0000	1.07	Q				
31+20	0.0000	1.07	Q				
31+25	0.0000	1.07	Q				
31+30	0.0000	1.06	Q				
31+35	0.0000	1.06	Q				
31+40	0.0000	1.06	Q				
31+45	0.0000	1.06	Q				
31+50	0.0000	1.06	Q				
31+55	0.0000	1.06	Q				
32+ 0	0.0000	1.06	Q				
32+ 5	0.0000	1.05	Q				
32+10	0.0000	1.05	Q				
32+15	0.0000	1.05	Q				
32+20	0.0000	1.05	Q				
32+25	0.0000	1.05	Q				
32+30	0.0000	1.05	Q				
32+35	0.0000	1.04	Q				
32+40	0.0000	1.04	Q				
32+45	0.0000	1.04	Q				
32+50	0.0000	1.04	Q				
32+55	0.0000	1.04	Q				
33+ 0	0.0000	1.04	Q				
33+ 5	0.0000	1.03	Q				
33+10	0.0000	1.03	Q				
33+15	0.0000	1.03	Q				
33+20	0.0000	1.03	Q				
33+25	0.0000	1.03	Q				
33+30	0.0000	1.02	Q				
33+35	0.0000	1.02	Q				
33+40	0.0000	1.00	Q				
33+45	0.0000	0.98	Q				
33+50	0.0000	0.96	Q				
33+55	0.0000	0.94	Q				
34+ 0	0.0000	0.92	Q				
34+ 5	0.0000	0.89	Q				
34+10	0.0000	0.87	Q				
34+15	0.0000	0.85	Q				

34+20	0.0000	0.83	Q				
34+25	0.0000	0.80	Q				
34+30	0.0000	0.78	Q				
34+35	0.0000	0.76	Q				
34+40	0.0000	0.74	Q				
34+45	0.0000	0.72	Q				
34+50	0.0000	0.70	Q				
34+55	0.0000	0.68	Q				
35+ 0	0.0000	0.66	Q				
35+ 5	0.0000	0.64	Q				
35+10	0.0000	0.62	Q				
35+15	0.0000	0.61	Q				
35+20	0.0000	0.59	Q				
35+25	0.0000	0.57	Q				
35+30	0.0000	0.56	Q				
35+35	0.0000	0.54	Q				
35+40	0.0000	0.53	Q				
35+45	0.0000	0.51	Q				
35+50	0.0000	0.50	Q				
35+55	0.0000	0.48	Q				
36+ 0	0.0000	0.47	Q				
36+ 5	0.0000	0.46	Q				
36+10	0.0000	0.44	Q				
36+15	0.0000	0.43	Q				
36+20	0.0000	0.42	Q				
36+25	0.0000	0.41	Q				
36+30	0.0000	0.40	Q				
36+35	0.0000	0.39	Q				
36+40	0.0000	0.38	Q				
36+45	0.0000	0.37	Q				
36+50	0.0000	0.35	Q				
36+55	0.0000	0.35	Q				
37+ 0	0.0000	0.34	Q				
37+ 5	0.0000	0.33	Q				
37+10	0.0000	0.32	Q				
37+15	0.0000	0.31	Q				
37+20	0.0000	0.30	Q				
37+25	0.0000	0.29	Q				
37+30	0.0000	0.28	Q				
37+35	0.0000	0.28	Q				
37+40	0.0000	0.27	Q				
37+45	0.0000	0.26	Q				
37+50	0.0000	0.25	Q				
37+55	0.0000	0.25	Q				
38+ 0	0.0000	0.24	Q				
38+ 5	0.0000	0.23	Q				
38+10	0.0000	0.23	Q				
38+15	0.0000	0.22	Q				
38+20	0.0000	0.21	Q				
38+25	0.0000	0.21	Q				
38+30	0.0000	0.20	Q				
38+35	0.0000	0.20	Q				
38+40	0.0000	0.19	Q				
38+45	0.0000	0.19	Q				
38+50	0.0000	0.18	Q				
38+55	0.0000	0.18	Q				
39+ 0	0.0000	0.17	Q				
39+ 5	0.0000	0.17	Q				
39+10	0.0000	0.16	Q				
39+15	0.0000	0.16	Q				
39+20	0.0000	0.15	Q				
39+25	0.0000	0.15	Q				
39+30	0.0000	0.14	Q				
39+35	0.0000	0.14	Q				
39+40	0.0000	0.14	Q				
39+45	0.0000	0.13	Q				
39+50	0.0000	0.13	Q				
39+55	0.0000	0.13	Q				
40+ 0	0.0000	0.12	Q				
40+ 5	0.0000	0.12	Q				

40+10	0.0000	0.11	Q				
40+15	0.0000	0.11	Q				
40+20	0.0000	0.11	Q				
40+25	0.0000	0.11	Q				
40+30	0.0000	0.10	Q				
40+35	0.0000	0.10	Q				
40+40	0.0000	0.10	Q				
40+45	0.0000	0.09	Q				
40+50	0.0000	0.09	Q				
40+55	0.0000	0.09	Q				
41+ 0	0.0000	0.09	Q				
41+ 5	0.0000	0.08	Q				
41+10	0.0000	0.08	Q				
41+15	0.0000	0.08	Q				
41+20	0.0000	0.08	Q				
41+25	0.0000	0.08	Q				
41+30	0.0000	0.07	Q				
41+35	0.0000	0.07	Q				
41+40	0.0000	0.07	Q				
41+45	0.0000	0.07	Q				
41+50	0.0000	0.07	Q				
41+55	0.0000	0.06	Q				
42+ 0	0.0000	0.06	Q				
42+ 5	0.0000	0.06	Q				
42+10	0.0000	0.06	Q				
42+15	0.0000	0.06	Q				
42+20	0.0000	0.06	Q				
42+25	0.0000	0.05	Q				
42+30	0.0000	0.05	Q				
42+35	0.0000	0.05	Q				
42+40	0.0000	0.05	Q				
42+45	0.0000	0.05	Q				
42+50	0.0000	0.05	Q				
42+55	0.0000	0.05	Q				
43+ 0	0.0000	0.04	Q				
43+ 5	0.0000	0.04	Q				
43+10	0.0000	0.04	Q				
43+15	0.0000	0.04	Q				
43+20	0.0000	0.04	Q				
43+25	0.0000	0.04	Q				
43+30	0.0000	0.04	Q				
43+35	0.0000	0.04	Q				
43+40	0.0000	0.04	Q				
43+45	0.0000	0.03	Q				
43+50	0.0000	0.03	Q				
43+55	0.0000	0.03	Q				
44+ 0	0.0000	0.03	Q				
44+ 5	0.0000	0.03	Q				
44+10	0.0000	0.03	Q				
44+15	0.0000	0.03	Q				
44+20	0.0000	0.03	Q				
44+25	0.0000	0.03	Q				
44+30	0.0000	0.03	Q				
44+35	0.0000	0.03	Q				
44+40	0.0000	0.03	Q				
44+45	0.0000	0.02	Q				
44+50	0.0000	0.02	Q				
44+55	0.0000	0.02	Q				
45+ 0	0.0000	0.02	Q				
45+ 5	0.0000	0.02	Q				
45+10	0.0000	0.02	Q				
45+15	0.0000	0.02	Q				
45+20	0.0000	0.02	Q				
45+25	0.0000	0.02	Q				
45+30	0.0000	0.02	Q				
45+35	0.0000	0.02	Q				
45+40	0.0000	0.02	Q				
45+45	0.0000	0.02	Q				
45+50	0.0000	0.02	Q				
45+55	0.0000	0.02	Q				

46+ 0	0.0000	0.02	Q				
46+ 5	0.0000	0.02	Q				
46+10	0.0000	0.02	Q				
46+15	0.0000	0.01	Q				
46+20	0.0000	0.01	Q				
46+25	0.0000	0.01	Q				
46+30	0.0000	0.01	Q				
46+35	0.0000	0.01	Q				
46+40	0.0000	0.01	Q				
46+45	0.0000	0.01	Q				
46+50	0.0000	0.01	Q				
46+55	0.0000	0.01	Q				
47+ 0	0.0000	0.01	Q				
47+ 5	0.0000	0.01	Q				
47+10	0.0000	0.01	Q				
47+15	0.0000	0.01	Q				
47+20	0.0000	0.01	Q				
47+25	0.0000	0.01	Q				
47+30	0.0000	0.01	Q				
47+35	0.0000	0.01	Q				
47+40	0.0000	0.01	Q				
47+45	0.0000	0.01	Q				
47+50	0.0000	0.01	Q				
47+55	0.0000	0.01	Q				
48+ 0	0.0000	0.01	Q				
48+ 5	0.0000	0.01	Q				
48+10	0.0000	0.01	Q				
48+15	0.0000	0.01	Q				
48+20	0.0000	0.01	Q				
48+25	0.0000	0.01	Q				
48+30	0.0000	0.01	Q				
48+35	0.0000	0.01	Q				
48+40	0.0000	0.01	Q				
48+45	0.0000	0.01	Q				
48+50	0.0000	0.01	Q				
48+55	0.0000	0.01	Q				
49+ 0	0.0000	0.01	Q				
49+ 5	0.0000	0.01	Q				
49+10	0.0000	0.01	Q				
49+15	0.0000	0.01	Q				
49+20	0.0000	0.01	Q				
49+25	0.0000	0.01	Q				
49+30	0.0000	0.00	Q				
49+35	0.0000	0.00	Q				
49+40	0.0000	0.00	Q				
49+45	0.0000	0.00	Q				
49+50	0.0000	0.00	Q				
49+55	0.0000	0.00	Q				
50+ 0	0.0000	0.00	Q				
50+ 5	0.0000	0.00	Q				
50+10	0.0000	0.00	Q				
50+15	0.0000	0.00	Q				
50+20	0.0000	0.00	Q				
50+25	0.0000	0.00	Q				
50+30	0.0000	0.00	Q				
50+35	0.0000	0.00	Q				
50+40	0.0000	0.00	Q				
50+45	0.0000	0.00	Q				
50+50	0.0000	0.00	Q				
50+55	0.0000	0.00	Q				
51+ 0	0.0000	0.00	Q				
51+ 5	0.0000	0.00	Q				
51+10	0.0000	0.00	Q				
51+15	0.0000	0.00	Q				
51+20	0.0000	0.00	Q				
51+25	0.0000	0.00	Q				
51+30	0.0000	0.00	Q				
51+35	0.0000	0.00	Q				
51+40	0.0000	0.00	Q				
51+45	0.0000	0.00	Q				

```
   51+50       0.0000      0.00  Q         |         |         |         |
   51+55       0.0000      0.00  Q         |         |         |         |
   52+ 0       0.0000      0.00  Q         |         |         |         |
   52+ 5       0.0000      0.00  Q         |         |         |         |
   52+10       0.0000      0.00  Q         |         |         |         |
--------------------------------------------------------------------------
       ****************************HYDROGRAPH DATA****************************
                     Number of intervals =   626
                     Time interval =    5.0 (Min.)
                     Maximum/Peak flow rate =      407.719 (CFS)
                     Total volume =     271.696 (Ac.Ft)
              Status of hydrographs being held in storage
                         Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
              Peak (CFS)      0.000     0.000     0.000     0.000     0.000
              Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       ****************************************************************************

       ----------------------------------------------------------------------


       ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
       Process from Point/Station       11.000 to Point/Station       12.000
       **** RETARDING BASIN ROUTING ****

       ______________________________________________________________________

       User entry of depth-outflow-storage data
       ----------------------------------------------------------------------
       Total number of inflow hydrograph intervals = 626
       Hydrograph time unit =  5.000 (Min.)
       Initial depth in storage basin =   0.00(Ft.)
       ----------------------------------------------------------------------
       ----------------------------------------------------------------------
       Initial basin depth =   0.00 (Ft.)
       Initial basin storage =      0.00 (Ac.Ft)
       Initial basin outflow =   0.00 (CFS)
       ----------------------------------------------------------------------
       ----------------------------------------------------------------------
       Depth vs. Storage and Depth vs. Discharge data:
        Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
            (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
       ----------------------------------------------------------------------
          0.000      0.000      0.000      0.000        0.000
          0.500      0.070     20.000      0.001        0.139
          1.500      1.970     50.000      1.798        2.142
          2.500      7.280     95.000      6.953        7.607
          3.500     15.540    170.000     14.955       16.125
          4.500     25.350    255.000     24.472       26.228
          5.500     35.630    345.000     34.442       36.818
          6.500     46.130    420.000     44.684       47.576
          7.500     56.850    470.000     55.232       58.468
       ----------------------------------------------------------------------
                        Hydrograph Detention Basin Routing
       ----------------------------------------------------------------------

       Graph values: 'I'= unit inflow; 'O'=outflow at time shown
       ----------------------------------------------------------------------
  Time   Inflow  Outflow    Storage                                      Depth
 (Hours)  (CFS)    (CFS)     (Ac.Ft) .0     101.9  203.86  305.79  407.72 (Ft.)
 0.083    1.04     0.51      0.002  O       |       |       |       |     0.01
 0.167    5.20     3.10      0.011  O       |       |       |       |     0.08
 0.250    8.30     6.72      0.024  O       |       |       |       |     0.17
 0.333   10.69     9.48      0.033  O       |       |       |       |     0.24
 0.417   14.33    12.49      0.044  OI      |       |       |       |     0.31
 0.500   17.16    15.72      0.055  |O      |       |       |       |     0.39
 0.583   19.11    18.11      0.063  |O      |       |       |       |     0.45
 0.667   20.71    19.90      0.070  |O      |       |       |       |     0.50
 0.750   22.02    20.14      0.079  |O      |       |       |       |     0.50
 0.833   23.59    20.42      0.096  |O      |       |       |       |     0.51
 0.917   26.51    20.89      0.127  |OI     |       |       |       |     0.53
 1.000   28.77    21.59      0.171  |OI     |       |       |       |     0.55
```

1.083	29.75	22.38	0.221	OI				0.58
1.167	28.88	23.10	0.266	OI				0.60
1.250	28.33	23.66	0.302	OI				0.62
1.333	28.20	24.14	0.332	OI				0.64
1.417	28.08	24.55	0.358	OI				0.65
1.500	27.99	24.91	0.381	OI				0.66
1.583	27.93	25.22	0.401	OI				0.67
1.667	27.88	25.50	0.418	O				0.68
1.750	27.86	25.75	0.434	O				0.69
1.833	28.36	25.99	0.449	O				0.70
1.917	30.42	26.34	0.472	O				0.71
2.000	31.97	26.84	0.503	O				0.73
2.083	32.90	27.42	0.540	O				0.75
2.167	33.71	28.02	0.578	O				0.77
2.250	34.37	28.64	0.618	O				0.79
2.333	34.90	29.26	0.657	O				0.81
2.417	35.33	29.87	0.695	O				0.83
2.500	35.69	30.45	0.732	O				0.85
2.583	36.50	31.03	0.769	O				0.87
2.667	38.81	31.71	0.812	OI				0.89
2.750	40.57	32.54	0.864	OI				0.92
2.833	41.67	33.42	0.920	OI				0.95
2.917	42.58	34.32	0.977	OI				0.98
3.000	43.33	35.21	1.033	OI				1.01
3.083	43.93	36.08	1.088	OI				1.04
3.167	44.43	36.91	1.141	OI				1.06
3.250	44.84	37.71	1.192	OI				1.09
3.333	45.18	38.46	1.239	O				1.12
3.417	45.45	39.17	1.284	O				1.14
3.500	45.68	39.83	1.326	O				1.16
3.583	45.87	40.44	1.365	O				1.18
3.667	46.02	41.01	1.401	O				1.20
3.750	46.14	41.53	1.434	O				1.22
3.833	46.77	42.04	1.466	O				1.23
3.917	48.95	42.64	1.504	O				1.25
4.000	50.59	43.38	1.551	O				1.28
4.083	51.60	44.17	1.601	OI				1.31
4.167	52.44	44.98	1.652	OI				1.33
4.250	53.14	45.79	1.703	OI				1.36
4.333	54.21	46.60	1.755	OI				1.39
4.417	56.74	47.52	1.813	OI				1.42
4.500	58.65	48.57	1.879	OI				1.45
4.583	59.88	49.67	1.949	OI				1.49
4.667	60.89	50.43	2.020	OI				1.51
4.750	61.72	51.04	2.093	O				1.52
4.833	62.90	51.68	2.168	O				1.54
4.917	65.50	52.39	2.252	OI				1.55
5.000	67.48	53.19	2.347	OI				1.57
5.083	67.72	54.01	2.443	OI				1.59
5.167	64.62	54.70	2.524	OI				1.60
5.250	62.39	55.20	2.583	O				1.62
5.333	61.73	55.59	2.629	O				1.62
5.417	62.81	55.97	2.674	O				1.63
5.500	63.55	56.38	2.722	O				1.64
5.583	64.37	56.81	2.773	OI				1.65
5.667	66.71	57.30	2.832	OI				1.66
5.750	68.49	57.89	2.900	OI				1.68
5.833	69.60	58.52	2.975	OI				1.69
5.917	70.52	59.17	3.052	OI				1.70
6.000	71.25	59.84	3.131	OI				1.72
6.083	72.37	60.52	3.211	OI				1.73
6.167	74.96	61.26	3.299	OI				1.75
6.250	76.93	62.09	3.397	O I				1.77
6.333	78.20	62.97	3.501	O I				1.79
6.417	79.22	63.86	3.606	OI				1.81
6.500	80.06	64.76	3.712	OI				1.83
6.583	81.25	65.66	3.818	OI				1.85
6.667	83.87	66.62	3.931	OI				1.87
6.750	85.85	67.65	4.053	OI				1.89
6.833	87.05	68.72	4.179	OI				1.92

6.917	87.99	69.79	4.305	|	OI |	|	|	1.94
7.000	88.76	70.84	4.429	|	OI |	|	|	1.96
7.083	89.39	71.87	4.551	|	O I|	|	|	1.99
7.167	89.94	72.88	4.670	|	O I|	|	|	2.01
7.250	90.43	73.86	4.786	|	O I|	|	|	2.03
7.333	91.75	74.84	4.901	|	O I|	|	|	2.05
7.417	95.65	75.91	5.027	|	O I|	|	|	2.08
7.500	98.60	77.11	5.169	|	OI|	|	|	2.10
7.583	101.29	78.41	5.322	|	OI|	|	|	2.13
7.667	105.89	79.84	5.491	|	O I	|	|	2.16
7.750	108.89	81.40	5.675	|	O I	|	|	2.20
7.833	111.36	83.03	5.867	|	O I	|	|	2.23
7.917	116.02	84.77	6.072	|	O |I	|	|	2.27
8.000	119.38	86.63	6.293	|	O |I	|	|	2.31
8.083	123.07	88.60	6.524	|	O |I	|	|	2.36
8.167	131.46	90.79	6.783	|	O| I	|	|	2.41
8.250	137.39	93.26	7.075	|	O| I	|	|	2.46
8.333	140.66	95.92	7.381	|	O| I	|	|	2.51
8.417	143.25	98.71	7.689	|	O| I	|	|	2.55
8.500	145.50	101.48	7.993	|	O| I	|	|	2.59
8.583	148.34	104.23	8.297	|	O I	|	|	2.62
8.667	153.57	107.07	8.609	|	O I	|	|	2.66
8.750	157.64	110.01	8.933	|	O I	|	|	2.70
8.833	161.27	113.01	9.263	|	O I	|	|	2.74
8.917	167.21	116.11	9.605	|	|O I	|	|	2.78
9.000	172.16	119.36	9.963	|	|O I	|	|	2.82
9.083	177.55	122.73	10.334	|	|O I	|	|	2.87
9.167	187.57	126.36	10.733	|	|O I	|	|	2.92
9.250	195.13	130.30	11.167	|	| O I|	|	|	2.97
9.333	200.90	134.40	11.620	|	| O I|	|	|	3.03
9.417	208.46	138.67	12.089	|	| O I	|	|	3.08
9.500	214.48	143.08	12.575	|	| O I	|	|	3.14
9.583	219.78	147.57	13.070	|	| O |I	|	|	3.20
9.667	227.09	152.17	13.576	|	| O |I	|	|	3.26
9.750	232.57	156.88	14.095	|	| O | I	|	|	3.33
9.833	237.11	161.61	14.616	|	| O | I	|	|	3.39
9.917	243.66	166.38	15.142	|	| O | I	|	|	3.45
10.000	248.84	171.17	15.675	|	| O | I	|	|	3.51
10.083	246.52	175.61	16.187	|	| O | I	|	|	3.57
10.167	226.04	179.12	16.593	|	| O |I	|	|	3.61
10.250	213.20	181.47	16.864	|	| O I	|	|	3.63
10.333	208.83	183.18	17.061	|	| O I	|	|	3.66
10.417	206.18	184.59	17.224	|	| O I	|	|	3.67
10.500	204.39	185.79	17.362	|	| O I	|	|	3.69
10.583	207.46	186.96	17.497	|	| O I	|	|	3.70
10.667	223.38	188.61	17.687	|	| O |I	|	|	3.72
10.750	233.90	190.92	17.955	|	| O | I	|	|	3.75
10.833	238.39	193.55	18.257	|	| O| I	|	|	3.78
10.917	241.67	196.24	18.568	|	| O| I	|	|	3.81
11.000	244.29	198.95	18.881	|	| O| I	|	|	3.84
11.083	245.66	201.61	19.189	|	| O| I	|	|	3.87
11.167	244.33	204.13	19.479	|	| O I	|	|	3.90
11.250	243.84	206.44	19.746	|	| O I	|	|	3.93
11.333	244.42	208.63	19.998	|	| O I	|	|	3.95
11.417	245.07	210.72	20.240	|	| O I	|	|	3.98
11.500	245.81	212.73	20.472	|	| O I	|	|	4.00
11.583	244.80	214.62	20.690	|	| O I	|	|	4.02
11.667	238.62	216.19	20.871	|	| O I	|	|	4.04
11.750	234.77	217.38	21.008	|	| |OI	|	|	4.06
11.833	234.34	218.37	21.123	|	| |OI	|	|	4.07
11.917	237.02	219.38	21.239	|	| |OI	|	|	4.08
12.000	238.84	220.45	21.363	|	| |OI	|	|	4.09
12.083	245.59	221.71	21.508	|	| |O I	|	|	4.11
12.167	269.79	223.80	21.749	|	| |O I	|	|	4.13
12.250	285.87	226.93	22.110	|	| |O I	|	|	4.17
12.333	293.90	230.58	22.531	|	| | O I|	|	|	4.21
12.417	302.41	234.49	22.983	|	| | O I|	|	|	4.26
12.500	308.73	238.61	23.458	|	| | O I	|	|	4.31
12.583	314.79	242.85	23.948	|	| | O I	|	|	4.36
12.667	325.29	247.32	24.464	|	| | O |I	|	|	4.41

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12.750  332.79  252.06     25.010  |        |        |  O    | I     |      4.47
12.833  338.03  256.91     25.568  |        |        |   O   | I     |      4.52
12.917  344.88  261.85     26.133  |        |        |   O   |  I    |      4.58
13.000  350.16  266.87     26.706  |        |        |   O   |  I    |      4.63
13.083  358.01  271.97     27.289  |        |        |    O  |   I   |      4.69
13.167  377.74  277.59     27.930  |        |        |    O  |    I  |      4.75
13.250  391.40  283.85     28.645  |        |        |     O |     I |      4.82
13.333  398.35  290.35     29.387  |        |        |     O |      I|      4.89
13.417  403.50  296.82     30.127  |        |        |      O|      I|      4.96
13.500  407.72  303.19     30.854  |        |        |      O|       I      5.04
13.583  401.92  309.14     31.533  |        |        |       O      I|      5.10
13.667  368.17  313.58     32.041  |        |        |       O   I   |      5.15
13.750  346.98  316.15     32.335  |        |        |       O  I    |      5.18
13.833  339.73  317.75     32.517  |        |        |       O I     |      5.20
13.917  335.58  318.91     32.650  |        |        |       |OI     |      5.21
14.000  333.03  319.81     32.753  |        |        |       |OI     |      5.22
14.083  334.85  320.64     32.847  |        |        |       |OI     |      5.23
14.167  347.03  321.83     32.983  |        |        |       |O I    |      5.24
14.250  354.96  323.53     33.178  |        |        |       |O I    |      5.26
14.333  357.21  325.44     33.396  |        |        |       |O  I   |      5.28
14.417  356.05  327.27     33.604  |        |        |       |O I    |      5.30
14.500  355.51  328.93     33.795  |        |        |       |O I    |      5.32
14.583  356.10  330.51     33.975  |        |        |       |O I    |      5.34
14.667  357.14  332.03     34.149  |        |        |       | O I   |      5.36
14.750  358.14  333.53     34.320  |        |        |       | O I   |      5.37
14.833  358.24  334.98     34.485  |        |        |       | O I   |      5.39
14.917  355.75  336.27     34.632  |        |        |       | OI    |      5.40
15.000  354.42  337.37     34.758  |        |        |       | OI    |      5.42
15.083  353.47  338.34     34.869  |        |        |       | OI    |      5.43
15.167  350.19  339.13     34.959  |        |        |       | OI    |      5.43
15.250  348.24  339.72     35.027  |        |        |       | OI    |      5.44
15.333  346.85  340.18     35.079  |        |        |       | OI    |      5.45
15.417  343.32  340.46     35.112  |        |        |       | O     |      5.45
15.500  341.16  340.57     35.124  |        |        |       | O     |      5.45
15.583  336.99  340.48     35.114  |        |        |       | O     |      5.45
15.667  323.17  339.87     35.044  |        |        |       |IO     |      5.44
15.750  314.21  338.63     34.903  |        |        |       I O     |      5.43
15.833  310.58  337.10     34.727  |        |        |       I O     |      5.41
15.917  308.26  335.48     34.542  |        |        |       I O     |      5.39
16.000  306.60  333.83     34.355  |        |        |       I O     |      5.38
16.083  293.23  331.85     34.128  |        |        |      I| O     |      5.35
16.167  244.38  328.16     33.706  |        |        |  I    |O      |      5.31
16.250  212.32  322.32     33.039  |        |       I       |O      |      5.25
16.333  198.80  315.48     32.259  |        |      I|       O       |      5.17
16.417  189.74  308.39     31.448  |        |     I |       O       |      5.09
16.500  182.89  301.24     30.632  |        |     I |      O|       |      5.01
16.583  177.05  294.14     29.821  |        |    I  |      O|       |      4.93
16.667  170.46  287.10     29.016  |        |    I  |     O |       |      4.86
16.750  165.07  280.11     28.219  |        |   I   |    O  |       |      4.78
16.833  160.90  273.26     27.435  |        |   I   |    O  |       |      4.70
16.917  157.32  266.58     26.672  |        |   I   |   O   |       |      4.63
17.000  153.96  260.08     25.931  |        |   I   |   O   |       |      4.56
17.083  151.89  253.82     25.214  |        |  I    |  O    |       |      4.49
17.167  153.20  247.96     24.537  |        |   I   |  O    |       |      4.42
17.250  153.19  242.46     23.903  |        |   I   |  O    |       |      4.35
17.333  151.71  237.25     23.301  |        |  I    | O     |       |      4.29
17.417  149.95  232.24     22.723  |        |  I    | O     |       |      4.23
17.500  147.95  227.41     22.166  |        |  I    |O      |       |      4.18
17.583  145.53  222.74     21.627  |        |  I    |O      |       |      4.12
17.667  142.94  218.19     21.102  |        |  I    |O      |       |      4.07
17.750  140.39  213.76     20.590  |        |  I    O       |       |      4.01
17.833  137.35  209.42     20.089  |        | I     O       |       |      3.96
17.917  132.85  205.11     19.592  |        | I     O       |       |      3.91
18.000  128.73  200.80     19.095  |        | I    O|       |       |      3.86
18.083  124.95  196.52     18.601  |        |I     O|       |       |      3.81
18.167  121.30  192.27     18.110  |        |I     O|       |       |      3.76
18.250  117.86  188.05     17.624  |        |I    O |       |       |      3.71
18.333  114.63  183.89     17.143  |       I     O |       |       |      3.66
18.417  111.56  179.79     16.670  |       I     O |       |       |      3.62
18.500  108.06  175.74     16.202  |       I    O  |       |       |      3.57
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18.583	103.88	171.69	15.735	| I O |	|	|	3.52
18.667	98.42	167.49	15.264	| I| O |	|	|	3.47
18.750	93.85	163.17	14.787	| I| O |	|	|	3.41
18.833	89.71	158.84	14.311	| I| O |	|	|	3.35
18.917	84.46	154.49	13.832	| I | O |	|	|	3.29
19.000	80.12	150.11	13.349	| I | O |	|	|	3.23
19.083	77.28	145.78	12.873	| I | O |	|	|	3.18
19.167	76.54	141.60	12.413	| I | O |	|	|	3.12
19.250	75.49	137.63	11.975	| I | O |	|	|	3.07
19.333	74.37	133.82	11.556	| I | O |	|	|	3.02
19.417	74.69	130.23	11.160	| I | O |	|	|	2.97
19.500	74.35	126.85	10.788	| I |O |	|	|	2.92
19.583	72.82	123.62	10.432	| I |O |	|	|	2.88
19.667	69.71	120.45	10.082	| I |O |	|	|	2.84
19.750	67.23	117.29	9.735	| I |O |	|	|	2.80
19.833	64.51	114.18	9.392	| I O |	|	|	2.76
19.917	57.41	110.95	9.036	| I O |	|	|	2.71
20.000	50.37	107.49	8.655	| I O |	|	|	2.67
20.083	46.10	103.90	8.260	| I O |	|	|	2.62
20.167	44.67	100.35	7.869	| I O|	|	|	2.57
20.250	43.63	96.94	7.494	| I O|	|	|	2.53
20.333	42.60	93.76	7.134	| I O|	|	|	2.47
20.417	41.78	90.84	6.789	| I O|	|	|	2.41
20.500	41.11	88.04	6.458	| I O |	|	|	2.35
20.583	40.56	85.36	6.142	| I O |	|	|	2.29
20.667	40.11	82.81	5.841	| I O |	|	|	2.23
20.750	39.70	80.37	5.554	| I O |	|	|	2.17
20.833	38.80	78.04	5.279	| I O |	|	|	2.12
20.917	36.38	75.75	5.008	| I O |	|	|	2.07
21.000	34.52	73.46	4.739	| I O |	|	|	2.02
21.083	33.82	71.23	4.476	| I O |	|	|	1.97
21.167	34.86	69.14	4.229	| I O |	|	|	1.93
21.250	35.52	67.22	4.002	| I O |	|	|	1.88
21.333	35.16	65.41	3.788	| I O |	|	|	1.84
21.417	33.17	63.64	3.579	| I O |	|	|	1.80
21.500	31.65	61.87	3.370	| I O |	|	|	1.76
21.583	31.23	60.14	3.167	| I O |	|	|	1.73
21.667	32.51	58.54	2.977	| I O |	|	|	1.69
21.750	33.36	57.09	2.806	| I O |	|	|	1.66
21.833	33.16	55.73	2.647	| I O |	|	|	1.63
21.917	31.28	54.40	2.489	| I O |	|	|	1.60
22.000	29.69	53.04	2.329	| I O |	|	|	1.57
22.083	28.98	51.70	2.171	| I O |	|	|	1.54
22.167	29.92	50.44	2.022	| IO |	|	|	1.51
22.250	30.48	48.71	1.888	| IO |	|	|	1.46
22.333	30.05	46.81	1.768	| IO |	|	|	1.39
22.417	28.03	44.98	1.652	| IO |	|	|	1.33
22.500	26.50	43.15	1.536	| IO |	|	|	1.27
22.583	25.53	41.38	1.424	| IO |	|	|	1.21
22.667	24.69	39.70	1.318	|I O |	|	|	1.16
22.750	23.96	38.12	1.217	|IO |	|	|	1.10
22.833	23.37	36.63	1.123	|IO |	|	|	1.05
22.917	22.87	35.23	1.035	|IO |	|	|	1.01
23.000	22.46	33.94	0.953	|IO |	|	|	0.96
23.083	22.10	32.74	0.877	|IO |	|	|	0.92
23.167	21.79	31.62	0.806	|IO |	|	|	0.89
23.250	21.51	30.59	0.741	|IO |	|	|	0.85
23.333	21.27	29.65	0.681	|IO |	|	|	0.82
23.417	21.09	28.77	0.626	|IO |	|	|	0.79
23.500	20.93	27.97	0.575	|IO |	|	|	0.77
23.583	20.79	27.24	0.528	|IO |	|	|	0.74
23.667	20.66	26.57	0.486	|IO |	|	|	0.72
23.750	20.55	25.95	0.447	|IO |	|	|	0.70
23.833	20.45	25.39	0.411	|O |	|	|	0.68
23.917	20.36	24.88	0.379	|O |	|	|	0.66
24.000	20.29	24.41	0.349	|O |	|	|	0.65
24.083	19.18	23.92	0.319	|O |	|	|	0.63
24.167	14.96	23.22	0.274	|O |	|	|	0.61
24.250	11.80	22.20	0.210	IO |	|	|	0.57
24.333	9.89	21.03	0.135	IO |	|	|	0.53

24.417	8.29	18.08	0.063	IO					0.45
24.500	6.99	7.73	0.027	O					0.19
24.583	5.96	6.49	0.023	O					0.16
24.667	5.11	5.54	0.019	O					0.14
24.750	4.42	4.77	0.017	O					0.12
24.833	3.87	4.15	0.015	O					0.10
24.917	3.42	3.65	0.013	O					0.09
25.000	3.05	3.24	0.011	O					0.08
25.083	2.75	2.90	0.010	O					0.07
25.167	2.53	2.64	0.009	O					0.07
25.250	2.34	2.44	0.009	O					0.06
25.333	2.18	2.26	0.008	O					0.06
25.417	2.04	2.11	0.007	O					0.05
25.500	1.92	1.98	0.007	O					0.05
25.583	1.82	1.88	0.007	O					0.05
25.667	1.74	1.78	0.006	O					0.04
25.750	1.67	1.71	0.006	O					0.04
25.833	1.61	1.64	0.006	O					0.04
25.917	1.56	1.59	0.006	O					0.04
26.000	1.51	1.54	0.005	O					0.04
26.083	1.47	1.49	0.005	O					0.04
26.167	1.44	1.45	0.005	O					0.04
26.250	1.40	1.42	0.005	O					0.04
26.333	1.37	1.39	0.005	O					0.03
26.417	1.35	1.36	0.005	O					0.03
26.500	1.33	1.34	0.005	O					0.03
26.583	1.31	1.32	0.005	O					0.03
26.667	1.29	1.30	0.005	O					0.03
26.750	1.27	1.28	0.004	O					0.03
26.833	1.26	1.27	0.004	O					0.03
26.917	1.25	1.25	0.004	O					0.03
27.000	1.24	1.24	0.004	O					0.03
27.083	1.23	1.23	0.004	O					0.03
27.167	1.22	1.22	0.004	O					0.03
27.250	1.21	1.21	0.004	O					0.03
27.333	1.20	1.20	0.004	O					0.03
27.417	1.19	1.20	0.004	O					0.03
27.500	1.19	1.19	0.004	O					0.03
27.583	1.18	1.18	0.004	O					0.03
27.667	1.18	1.18	0.004	O					0.03
27.750	1.17	1.17	0.004	O					0.03
27.833	1.17	1.17	0.004	O					0.03
27.917	1.16	1.16	0.004	O					0.03
28.000	1.16	1.16	0.004	O					0.03
28.083	1.15	1.15	0.004	O					0.03
28.167	1.15	1.15	0.004	O					0.03
28.250	1.15	1.15	0.004	O					0.03
28.333	1.14	1.14	0.004	O					0.03
28.417	1.14	1.14	0.004	O					0.03
28.500	1.14	1.14	0.004	O					0.03
28.583	1.13	1.13	0.004	O					0.03
28.667	1.12	1.13	0.004	O					0.03
28.750	1.12	1.12	0.004	O					0.03
28.833	1.12	1.12	0.004	O					0.03
28.917	1.12	1.12	0.004	O					0.03
29.000	1.11	1.12	0.004	O					0.03
29.083	1.11	1.11	0.004	O					0.03
29.167	1.11	1.11	0.004	O					0.03
29.250	1.11	1.11	0.004	O					0.03
29.333	1.11	1.11	0.004	O					0.03
29.417	1.11	1.11	0.004	O					0.03
29.500	1.10	1.11	0.004	O					0.03
29.583	1.10	1.10	0.004	O					0.03
29.667	1.10	1.10	0.004	O					0.03
29.750	1.10	1.10	0.004	O					0.03
29.833	1.10	1.10	0.004	O					0.03
29.917	1.10	1.10	0.004	O					0.03
30.000	1.09	1.10	0.004	O					0.03
30.083	1.09	1.09	0.004	O					0.03
30.167	1.09	1.09	0.004	O					0.03

30.250	1.09	1.09	0.004	O					0.03
30.333	1.09	1.09	0.004	O					0.03
30.417	1.09	1.09	0.004	O					0.03
30.500	1.08	1.09	0.004	O					0.03
30.583	1.08	1.08	0.004	O					0.03
30.667	1.08	1.08	0.004	O					0.03
30.750	1.08	1.08	0.004	O					0.03
30.833	1.08	1.08	0.004	O					0.03
30.917	1.08	1.08	0.004	O					0.03
31.000	1.07	1.08	0.004	O					0.03
31.083	1.07	1.07	0.004	O					0.03
31.167	1.07	1.07	0.004	O					0.03
31.250	1.07	1.07	0.004	O					0.03
31.333	1.07	1.07	0.004	O					0.03
31.417	1.07	1.07	0.004	O					0.03
31.500	1.06	1.07	0.004	O					0.03
31.583	1.06	1.06	0.004	O					0.03
31.667	1.06	1.06	0.004	O					0.03
31.750	1.06	1.06	0.004	O					0.03
31.833	1.06	1.06	0.004	O					0.03
31.917	1.06	1.06	0.004	O					0.03
32.000	1.06	1.06	0.004	O					0.03
32.083	1.05	1.05	0.004	O					0.03
32.167	1.05	1.05	0.004	O					0.03
32.250	1.05	1.05	0.004	O					0.03
32.333	1.05	1.05	0.004	O					0.03
32.417	1.05	1.05	0.004	O					0.03
32.500	1.05	1.05	0.004	O					0.03
32.583	1.04	1.04	0.004	O					0.03
32.667	1.04	1.04	0.004	O					0.03
32.750	1.04	1.04	0.004	O					0.03
32.833	1.04	1.04	0.004	O					0.03
32.917	1.04	1.04	0.004	O					0.03
33.000	1.04	1.04	0.004	O					0.03
33.083	1.03	1.04	0.004	O					0.03
33.167	1.03	1.03	0.004	O					0.03
33.250	1.03	1.03	0.004	O					0.03
33.333	1.03	1.03	0.004	O					0.03
33.417	1.03	1.03	0.004	O					0.03
33.500	1.02	1.03	0.004	O					0.03
33.583	1.02	1.02	0.004	O					0.03
33.667	1.00	1.01	0.004	O					0.03
33.750	0.98	0.99	0.003	O					0.02
33.833	0.96	0.97	0.003	O					0.02
33.917	0.94	0.95	0.003	O					0.02
34.000	0.92	0.93	0.003	O					0.02
34.083	0.89	0.91	0.003	O					0.02
34.167	0.87	0.88	0.003	O					0.02
34.250	0.85	0.86	0.003	O					0.02
34.333	0.83	0.84	0.003	O					0.02
34.417	0.80	0.81	0.003	O					0.02
34.500	0.78	0.79	0.003	O					0.02
34.583	0.76	0.77	0.003	O					0.02
34.667	0.74	0.75	0.003	O					0.02
34.750	0.72	0.73	0.003	O					0.02
34.833	0.70	0.71	0.002	O					0.02
34.917	0.68	0.69	0.002	O					0.02
35.000	0.66	0.67	0.002	O					0.02
35.083	0.64	0.65	0.002	O					0.02
35.167	0.62	0.63	0.002	O					0.02
35.250	0.61	0.62	0.002	O					0.02
35.333	0.59	0.60	0.002	O					0.01
35.417	0.57	0.58	0.002	O					0.01
35.500	0.56	0.57	0.002	O					0.01
35.583	0.54	0.55	0.002	O					0.01
35.667	0.53	0.53	0.002	O					0.01
35.750	0.51	0.52	0.002	O					0.01
35.833	0.50	0.51	0.002	O					0.01
35.917	0.48	0.49	0.002	O					0.01
36.000	0.47	0.48	0.002	O					0.01

36.083	0.46	0.46	0.002	O					0.01
36.167	0.44	0.45	0.002	O					0.01
36.250	0.43	0.44	0.002	O					0.01
36.333	0.42	0.43	0.001	O					0.01
36.417	0.41	0.41	0.001	O					0.01
36.500	0.40	0.40	0.001	O					0.01
36.583	0.39	0.39	0.001	O					0.01
36.667	0.38	0.38	0.001	O					0.01
36.750	0.37	0.37	0.001	O					0.01
36.833	0.35	0.36	0.001	O					0.01
36.917	0.35	0.35	0.001	O					0.01
37.000	0.34	0.34	0.001	O					0.01
37.083	0.33	0.33	0.001	O					0.01
37.167	0.32	0.32	0.001	O					0.01
37.250	0.31	0.31	0.001	O					0.01
37.333	0.30	0.30	0.001	O					0.01
37.417	0.29	0.30	0.001	O					0.01
37.500	0.28	0.29	0.001	O					0.01
37.583	0.28	0.28	0.001	O					0.01
37.667	0.27	0.27	0.001	O					0.01
37.750	0.26	0.26	0.001	O					0.01
37.833	0.25	0.26	0.001	O					0.01
37.917	0.25	0.25	0.001	O					0.01
38.000	0.24	0.24	0.001	O					0.01
38.083	0.23	0.24	0.001	O					0.01
38.167	0.23	0.23	0.001	O					0.01
38.250	0.22	0.22	0.001	O					0.01
38.333	0.21	0.22	0.001	O					0.01
38.417	0.21	0.21	0.001	O					0.01
38.500	0.20	0.20	0.001	O					0.01
38.583	0.20	0.20	0.001	O					0.00
38.667	0.19	0.19	0.001	O					0.00
38.750	0.19	0.19	0.001	O					0.00
38.833	0.18	0.18	0.001	O					0.00
38.917	0.18	0.18	0.001	O					0.00
39.000	0.17	0.17	0.001	O					0.00
39.083	0.17	0.17	0.001	O					0.00
39.167	0.16	0.16	0.001	O					0.00
39.250	0.16	0.16	0.001	O					0.00
39.333	0.15	0.15	0.001	O					0.00
39.417	0.15	0.15	0.001	O					0.00
39.500	0.14	0.15	0.001	O					0.00
39.583	0.14	0.14	0.000	O					0.00
39.667	0.14	0.14	0.000	O					0.00
39.750	0.13	0.13	0.000	O					0.00
39.833	0.13	0.13	0.000	O					0.00
39.917	0.13	0.13	0.000	O					0.00
40.000	0.12	0.12	0.000	O					0.00
40.083	0.12	0.12	0.000	O					0.00
40.167	0.11	0.12	0.000	O					0.00
40.250	0.11	0.11	0.000	O					0.00
40.333	0.11	0.11	0.000	O					0.00
40.417	0.11	0.11	0.000	O					0.00
40.500	0.10	0.10	0.000	O					0.00
40.583	0.10	0.10	0.000	O					0.00
40.667	0.10	0.10	0.000	O					0.00
40.750	0.09	0.10	0.000	O					0.00
40.833	0.09	0.09	0.000	O					0.00
40.917	0.09	0.09	0.000	O					0.00
41.000	0.09	0.09	0.000	O					0.00
41.083	0.08	0.09	0.000	O					0.00
41.167	0.08	0.08	0.000	O					0.00
41.250	0.08	0.08	0.000	O					0.00
41.333	0.08	0.08	0.000	O					0.00
41.417	0.08	0.08	0.000	O					0.00
41.500	0.07	0.07	0.000	O					0.00
41.583	0.07	0.07	0.000	O					0.00
41.667	0.07	0.07	0.000	O					0.00
41.750	0.07	0.07	0.000	O					0.00
41.833	0.07	0.07	0.000	O					0.00

41.917	0.06	0.06	0.000	O					0.00
42.000	0.06	0.06	0.000	O					0.00
42.083	0.06	0.06	0.000	O					0.00
42.167	0.06	0.06	0.000	O					0.00
42.250	0.06	0.06	0.000	O					0.00
42.333	0.06	0.06	0.000	O					0.00
42.417	0.05	0.05	0.000	O					0.00
42.500	0.05	0.05	0.000	O					0.00
42.583	0.05	0.05	0.000	O					0.00
42.667	0.05	0.05	0.000	O					0.00
42.750	0.05	0.05	0.000	O					0.00
42.833	0.05	0.05	0.000	O					0.00
42.917	0.05	0.05	0.000	O					0.00
43.000	0.04	0.04	0.000	O					0.00
43.083	0.04	0.04	0.000	O					0.00
43.167	0.04	0.04	0.000	O					0.00
43.250	0.04	0.04	0.000	O					0.00
43.333	0.04	0.04	0.000	O					0.00
43.417	0.04	0.04	0.000	O					0.00
43.500	0.04	0.04	0.000	O					0.00
43.583	0.04	0.04	0.000	O					0.00
43.667	0.04	0.04	0.000	O					0.00
43.750	0.03	0.03	0.000	O					0.00
43.833	0.03	0.03	0.000	O					0.00
43.917	0.03	0.03	0.000	O					0.00
44.000	0.03	0.03	0.000	O					0.00
44.083	0.03	0.03	0.000	O					0.00
44.167	0.03	0.03	0.000	O					0.00
44.250	0.03	0.03	0.000	O					0.00
44.333	0.03	0.03	0.000	O					0.00
44.417	0.03	0.03	0.000	O					0.00
44.500	0.03	0.03	0.000	O					0.00
44.583	0.03	0.03	0.000	O					0.00
44.667	0.03	0.03	0.000	O					0.00
44.750	0.02	0.02	0.000	O					0.00
44.833	0.02	0.02	0.000	O					0.00
44.917	0.02	0.02	0.000	O					0.00
45.000	0.02	0.02	0.000	O					0.00
45.083	0.02	0.02	0.000	O					0.00
45.167	0.02	0.02	0.000	O					0.00
45.250	0.02	0.02	0.000	O					0.00
45.333	0.02	0.02	0.000	O					0.00
45.417	0.02	0.02	0.000	O					0.00
45.500	0.02	0.02	0.000	O					0.00
45.583	0.02	0.02	0.000	O					0.00
45.667	0.02	0.02	0.000	O					0.00
45.750	0.02	0.02	0.000	O					0.00
45.833	0.02	0.02	0.000	O					0.00
45.917	0.02	0.02	0.000	O					0.00
46.000	0.02	0.02	0.000	O					0.00
46.083	0.02	0.02	0.000	O					0.00
46.167	0.02	0.02	0.000	O					0.00
46.250	0.01	0.01	0.000	O					0.00
46.333	0.01	0.01	0.000	O					0.00
46.417	0.01	0.01	0.000	O					0.00
46.500	0.01	0.01	0.000	O					0.00
46.583	0.01	0.01	0.000	O					0.00
46.667	0.01	0.01	0.000	O					0.00
46.750	0.01	0.01	0.000	O					0.00
46.833	0.01	0.01	0.000	O					0.00
46.917	0.01	0.01	0.000	O					0.00
47.000	0.01	0.01	0.000	O					0.00
47.083	0.01	0.01	0.000	O					0.00
47.167	0.01	0.01	0.000	O					0.00
47.250	0.01	0.01	0.000	O					0.00
47.333	0.01	0.01	0.000	O					0.00
47.417	0.01	0.01	0.000	O					0.00
47.500	0.01	0.01	0.000	O					0.00
47.583	0.01	0.01	0.000	O					0.00
47.667	0.01	0.01	0.000	O					0.00

47.750	0.01	0.01	0.000	O	|	|	|	| 0.00
47.833	0.01	0.01	0.000	O	|	|	|	| 0.00
47.917	0.01	0.01	0.000	O	|	|	|	| 0.00
48.000	0.01	0.01	0.000	O	|	|	|	| 0.00
48.083	0.01	0.01	0.000	O	|	|	|	| 0.00
48.167	0.01	0.01	0.000	O	|	|	|	| 0.00
48.250	0.01	0.01	0.000	O	|	|	|	| 0.00
48.333	0.01	0.01	0.000	O	|	|	|	| 0.00
48.417	0.01	0.01	0.000	O	|	|	|	| 0.00
48.500	0.01	0.01	0.000	O	|	|	|	| 0.00
48.583	0.01	0.01	0.000	O	|	|	|	| 0.00
48.667	0.01	0.01	0.000	O	|	|	|	| 0.00
48.750	0.01	0.01	0.000	O	|	|	|	| 0.00
48.833	0.01	0.01	0.000	O	|	|	|	| 0.00
48.917	0.01	0.01	0.000	O	|	|	|	| 0.00
49.000	0.01	0.01	0.000	O	|	|	|	| 0.00
49.083	0.01	0.01	0.000	O	|	|	|	| 0.00
49.167	0.01	0.01	0.000	O	|	|	|	| 0.00
49.250	0.01	0.01	0.000	O	|	|	|	| 0.00
49.333	0.01	0.01	0.000	O	|	|	|	| 0.00
49.417	0.01	0.01	0.000	O	|	|	|	| 0.00
49.500	0.00	0.00	0.000	O	|	|	|	| 0.00
49.583	0.00	0.00	0.000	O	|	|	|	| 0.00
49.667	0.00	0.00	0.000	O	|	|	|	| 0.00
49.750	0.00	0.00	0.000	O	|	|	|	| 0.00
49.833	0.00	0.00	0.000	O	|	|	|	| 0.00
49.917	0.00	0.00	0.000	O	|	|	|	| 0.00
50.000	0.00	0.00	0.000	O	|	|	|	| 0.00
50.083	0.00	0.00	0.000	O	|	|	|	| 0.00
50.167	0.00	0.00	0.000	O	|	|	|	| 0.00
50.250	0.00	0.00	0.000	O	|	|	|	| 0.00
50.333	0.00	0.00	0.000	O	|	|	|	| 0.00
50.417	0.00	0.00	0.000	O	|	|	|	| 0.00
50.500	0.00	0.00	0.000	O	|	|	|	| 0.00
50.583	0.00	0.00	0.000	O	|	|	|	| 0.00
50.667	0.00	0.00	0.000	O	|	|	|	| 0.00
50.750	0.00	0.00	0.000	O	|	|	|	| 0.00
50.833	0.00	0.00	0.000	O	|	|	|	| 0.00
50.917	0.00	0.00	0.000	O	|	|	|	| 0.00
51.000	0.00	0.00	0.000	O	|	|	|	| 0.00
51.083	0.00	0.00	0.000	O	|	|	|	| 0.00
51.167	0.00	0.00	0.000	O	|	|	|	| 0.00
51.250	0.00	0.00	0.000	O	|	|	|	| 0.00
51.333	0.00	0.00	0.000	O	|	|	|	| 0.00
51.417	0.00	0.00	0.000	O	|	|	|	| 0.00
51.500	0.00	0.00	0.000	O	|	|	|	| 0.00
51.583	0.00	0.00	0.000	O	|	|	|	| 0.00
51.667	0.00	0.00	0.000	O	|	|	|	| 0.00
51.750	0.00	0.00	0.000	O	|	|	|	| 0.00
51.833	0.00	0.00	0.000	O	|	|	|	| 0.00
51.917	0.00	0.00	0.000	O	|	|	|	| 0.00
52.000	0.00	0.00	0.000	O	|	|	|	| 0.00
52.083	0.00	0.00	0.000	O	|	|	|	| 0.00
52.167	0.00	0.00	0.000	O	|	|	|	| 0.00
52.250	0.00	0.00	0.000	O	|	|	|	| 0.00

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*****************************HYDROGRAPH DATA*****************************
               Number of intervals =   627
               Time interval =    5.0 (Min.)
               Maximum/Peak flow rate =      340.567 (CFS)
               Total volume =     271.696 (Ac.Ft)
       Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
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