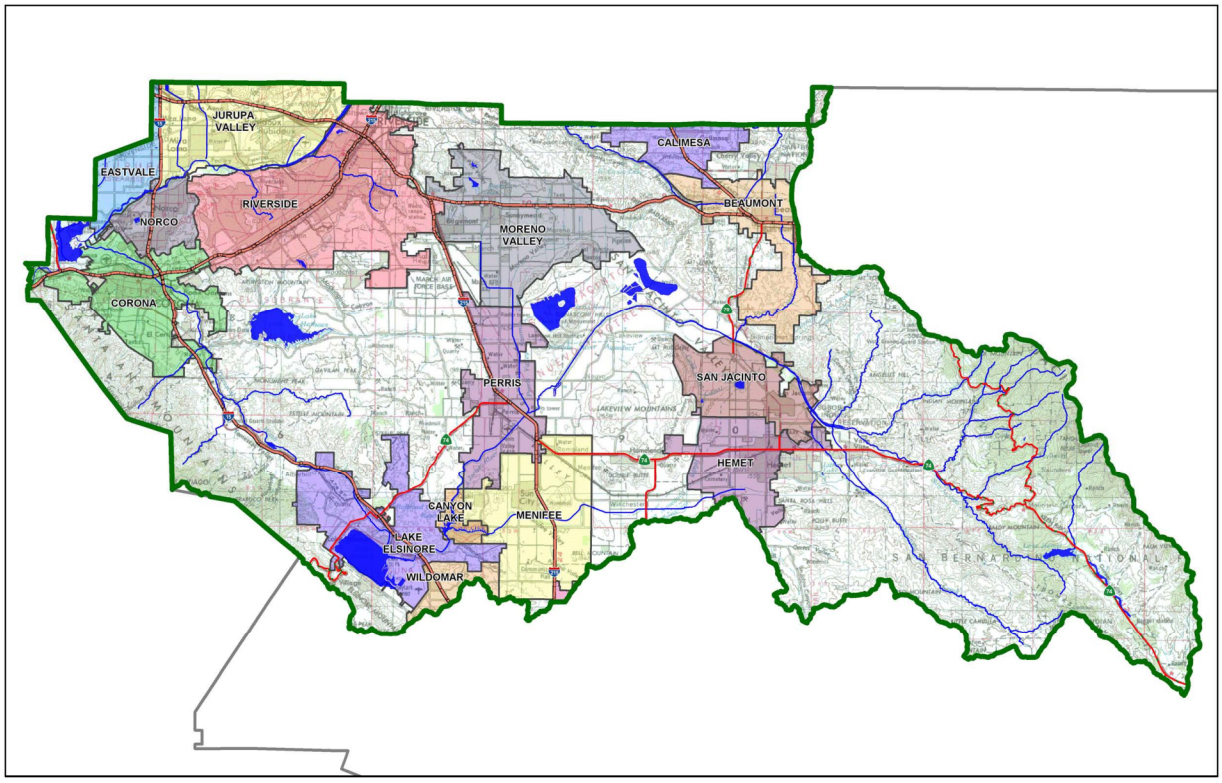
Project Specific Water Quality Management Plan

*A Template for Projects located within the **Santa Ana Watershed** Region of Riverside County*

Project Title: BCI IV Harvill Industrial Center LP

Development No: Insert text here

Design Review/Case No: PPT220001



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☒ **Preliminary**
☐ **Final**

Original Date Prepared: 11/24/2021

Revision Date(s):04/11/2022

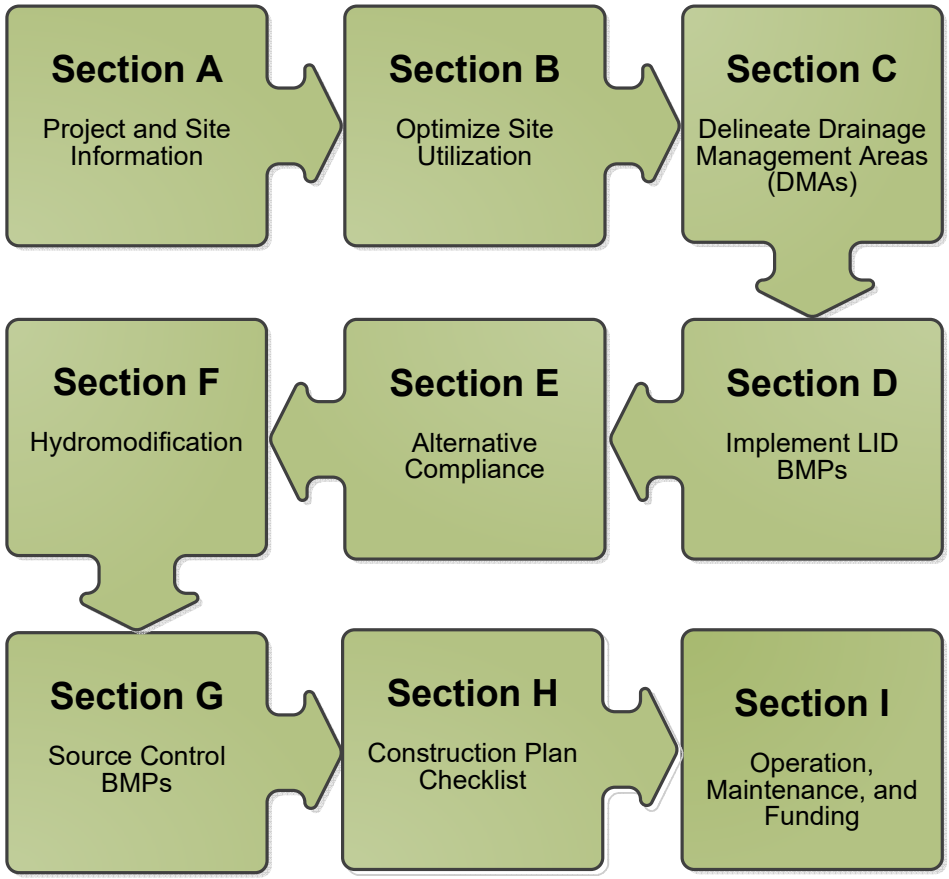
07/06/2022

09/13/2022

Prepared for Compliance with
Regional Board Order No. **R8-2010-0033**
Template revised June 30, 2016

A Brief Introduction

This Project-Specific WQMP Template for the **Santa Ana Region** has been prepared to help guide you in documenting compliance for your project. Because this document has been designed to specifically document compliance, you will need to utilize the WQMP Guidance Document as your "how-to" manual to help guide you through this process. Both the Template and Guidance Document go hand-in-hand, and will help facilitate a well prepared Project-Specific WQMP. Below is a flowchart for the layout of this Template that will provide the steps required to document compliance.



OWNER'S CERTIFICATION

This Project-Specific Water Quality Management Plan (WQMP) has been prepared for Black Creek Group by Kier & Wright for the Harvill project.

This WQMP is intended to comply with the requirements of Riverside Country for R8-2010-0033 which includes the requirement for the preparation and implementation of a Project-Specific WQMP.

The undersigned, while owning the property/project described in the preceding paragraph, shall be responsible for the implementation and funding of this WQMP and will ensure that this WQMP is amended as appropriate to reflect up-to-date conditions on the site. In addition, the property owner accepts responsibility for interim operation and maintenance of Stormwater BMPs until such time as this responsibility is formally transferred to a subsequent owner. This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party (or parties) having responsibility for implementing portions of this WQMP. At least one copy of this WQMP will be maintained at the project site or project office in perpetuity. The undersigned is authorized to certify and to approve implementation of this WQMP. The undersigned is aware that implementation of this WQMP is enforceable under Riverside County Water Quality Ordinance (Municipal Code Section).

"I, the undersigned, certify under penalty of law that the provisions of this WQMP have been reviewed and accepted and that the WQMP will be transferred to future successors in interest."

Owner's Signature	Date
Owner's Printed Name	Owner's Title/Position

PREPARER'S CERTIFICATION

"The selection, sizing and design of stormwater treatment and other stormwater quality and quantity control measures in this plan meet the requirements of Regional Water Quality Control Board Order No. **R8-2010-0033** and any subsequent amendments thereto."

Preparer's Signature	Date
Preparer's Printed Name	Preparer's Title/Position

Preparer's Licensure:

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Section A: Project and Site Information

PROJECT INFORMATION	
Type of Project:	Spec Warehouse
Planning Area:	Not in a specific plan
Community Name:	Mead Valley
Development Name:	Mead Valley
PROJECT LOCATION	
Latitude & Longitude (DMS): 33° 50' 21.71" N , 117° 15' 4.60" W	
Project Watershed and Sub-Watershed: Santa Ana River Watershed	
Gross Acres: 9.58 ac APN(s): 317-130-034, 317-130-035 Map Book and Page No.: PM 165/11	
PROJECT CHARACTERISTICS	
Proposed or Potential Land Use(s)	Industrial Use
Proposed or Potential SIC Code(s)	4226
Area of Impervious Project Footprint (SF)	338,375 SF
Total Area of proposed Impervious Surfaces within the Project Footprint (SF)/or Replacement	338,375 SF
Does the project consist of offsite road improvements?	☒ Y ☐ N
Does the project propose to construct unpaved roads?	☐ Y ☒ N
Is the project part of a larger common plan of development (phased project)?	☐ Y ☒ N
EXISTING SITE CHARACTERISTICS	
Total area of existing Impervious Surfaces within the Project limits Footprint (SF)	0 SF
Is the project located within any MSHCP Criteria Cell?	☐ Y ☒ N
If so, identify the Cell number:	N/A
Are there any natural hydrologic features on the project site?	☐ Y ☒ N
Is a Geotechnical Report attached?	☒ Y ☐ N
If no Geotech. Report, list the NRCS soils type(s) present on the site (A, B, C and/or D)	N/A
What is the Water Quality Design Storm Depth for the project?	0.60 in

A.1 Maps and Site Plans

When completing your Project-Specific WQMP, include a map of the local vicinity and existing site. In addition, include all grading, drainage, landscape/plant palette and other pertinent construction plans in Appendix 2. At a **minimum**, your WQMP Site Plan should include the following:

- Drainage Management Areas
- Proposed Structural BMPs
- Drainage Path
- Drainage Infrastructure, Inlets, Overflows
- Source Control BMPs
- Buildings, Roof Lines, Downspouts
- Impervious Surfaces
- Standard Labeling
- BMP Locations (Lat/Long)

Use your discretion on whether or not you may need to create multiple sheets or can appropriately accommodate these features on one or two sheets. Keep in mind that the Co-Permittee plan reviewer must be able to easily analyze your project utilizing this template and its associated site plans and maps.

A.2 Identify Receiving Waters

Using Table A.1 below, list in order of upstream to downstream, the receiving waters that the project site is tributary to. Continue to fill each row with the Receiving Water's 303(d) listed impairments (if any), designated beneficial uses, and proximity, if any, to a RARE beneficial use. Include a map of the receiving waters in Appendix 1.

Table A.1 Identification of Receiving Waters

Receiving Waters	EPA Approved 303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
Santa Ana River	Nutrients (5B), Pathogens (5A)		

A.3 Additional Permits/Approvals required for the Project:

Table A.2 Other Applicable Permits

Agency	Permit Required	
State Department of Fish and Game, 1602 Streambed Alteration Agreement	☐ Y	☒ N
State Water Resources Control Board, Clean Water Act (CWA) Section 401 Water Quality Cert.	☐ Y	☒ N
US Army Corps of Engineers, CWA Section 404 Permit	☐ Y	☒ N
US Fish and Wildlife, Endangered Species Act Section 7 Biological Opinion	☐ Y	☒ N
Statewide Construction General Permit Coverage	☐ Y	☒ N
Statewide Industrial General Permit Coverage	☐ Y	☒ N
Western Riverside MSHCP Consistency Approval (e.g., JPR, DBESP)	☐ Y	☒ N
Other *(please list in the space below as required)*	☐ Y	☒ N

If yes is answered to any of the questions above, the Co-Permittee may require proof of approval/coverage from those agencies as applicable including documentation of any associated requirements that may affect this Project-Specific WQMP.

Section B: Optimize Site Utilization (LID Principles)

Site Optimization

Did you identify and preserve existing drainage patterns? If so, how? If not, why?

The existing drainage pattern drains the site with mostly sheet flow from west to east based on our topographic survey that was prepared. The existing drainage pattern does not lend itself to be optimal to the proposed site plan, thus the drainage pattern is different in that the site is split into three drainage areas as opposed to one and each drainage area is routed to a treatment control measure.

Did you identify and protect existing vegetation? If so, how? If not, why?

Existing vegetation and trees will be preserved where applicable, most likely along the frontage of Harvill Avenue. Existing trees located within proposed driveways, however; will need to be removed.

Did you identify and preserve natural infiltration capacity? If so, how? If not, why?

The natural infiltration capacity is being preserved however; infiltration will not be the primary treatment as the existing soil has poor infiltration rates. See Appendix 4 for the infiltration report provided by the project geotechnical engineer.

Did you identify and minimize impervious area? If so, how? If not, why?

The proposed impervious area is being utilized to its full potential with landscaping being placed in all areas that do not require impervious pavements.

Did you identify and disperse runoff to adjacent pervious areas? If so, how? If not, why?

Due to the poor native infiltration of the site, on-site storm generated runoff is being surface flowed to bioretention basins where possible and when necessary, captured in catch basins and piped to the bioretention basins. Due to lack of storm drain infrastructure within Cajalco Road, the eastern-most bioretention basin connects to the outlet system of the bioretention basin immediately west prior to discharging into the public main. This prevents redundant connections and parallel routings. Offsite improvements will be captured and treated through the use of self-retaining areas. DMA 4 does not meet the 2:1 criteria however self-retaining areas are implemented in the most applicable areas where on-site improvements do not interfere and to their fullest extent.

Section C: Delineate Drainage Management Areas (DMAs)

Utilizing the procedure in Section 3.3 of the WQMP Guidance Document which discusses the methods of delineating and mapping your project site into individual DMAs, complete Table C.1 below to appropriately categorize the types of classification (e.g., Type A, Type B, etc.) per DMA for your project site. Upon completion of this table, this information will then be used to populate and tabulate the corresponding tables for their respective DMA classifications.

Table C.1 DMA Classifications

DMA Name or ID	Surface Type(s)[1][2]	Area (Sq. Ft.)	DMA Type
DMA 1	Concrete, Roofs, Natural C	286,549	D
DMA 2	Concrete, Roofs, Natural C	68,687	D
DMA 3	Concrete, Natural C	61,846	D
DMA 4	Concrete, Natural C	37,844	C
DMA 5	Concrete	4,779	C
TCM 4	Landscape Planter	1,749	B
TCM 5	Landscape Planter	2,400	B

[1]Reference Table 2-1 in the WQMP Guidance Document to populate this column
[2]If multi-surface provide back-up

Table C.2 Type 'A', Self-Treating Areas

DMA Name or ID	Area (Sq. Ft.)	Stabilization Type	Irrigation Type (if any)

Table C.3 Type 'B', Self-Retaining Areas

Self-Retaining Area				**Type 'C' DMAs that are draining to the Self-Retaining Area**		
DMA Name/ ID	Post-project surface type	Area (square feet) [A]	Storm Depth (inches) [B]	DMA Name/ ID	[C] from Table C.4 = [C]	Required Retention Depth (inches) [D]
TCM 4	Planter	1,749	0.60	DMA 4	35,440	12.76
TCM 5	Planter	2,400	0.60	DMA 5	4,779	1.20

$$[D] = [B] + \frac{[B] \cdot [C]}{[A]}$$

Table C.4 Type 'C', Areas that Drain to Self-Retaining Areas

DMA					Receiving Self-Retaining DMA		
DMA Name/ ID	Area (square feet)	Post-project surface type	Impervious fraction	Product		Area (square feet)	Ratio
	[A]		[B]	[C] = [A] x [B]	DMA name /ID	[D]	[C]/[D]
DMA 4	37,844	Concrete Natural C	0.94	35,440	TCM 4	1,749	20.3 > 2
DMA 5	4,779	Concrete	1.00	4,779	TCM 5	2,400	1.99 < 2

Table C.5 Type 'D', Areas Draining to BMPs

DMA Name or ID	BMP Name or ID
DMA 1	TCM 1
DMA 2	TCM 2
DMA 3	TCM 3
DMA 4	TCM 4
DMA 5	TCM 5

Note: More than one drainage management area can drain to a single LID BMP, however, one drainage management area may not drain to more than one BMP.

Section D: Implement LID BMPs

D.1 Infiltration Applicability

Is there an approved downstream 'Highest and Best Use' for stormwater runoff (see discussion in Chapter 2.4.4 of the WQMP Guidance Document for further details)? ☐ Y ☒ N

If yes has been checked, Infiltration BMPs shall not be used for the site; proceed to section D.3

If no, continue working through this section to implement your LID BMPs. It is recommended that you contact your Co-Permittee to verify whether or not your project discharges to an approved downstream 'Highest and Best Use' feature.

Geotechnical Report

A Geotechnical Report or Phase I Environmental Site Assessment may be required by the Copermittee to confirm present and past site characteristics that may affect the use of Infiltration BMPs. In addition, the Co-Permittee, at their discretion, may not require a geotechnical report for small projects as described in Chapter 2 of the WQMP Guidance Document. If a geotechnical report has been prepared, include it in Appendix 3. In addition, if a Phase I Environmental Site Assessment has been prepared, include it in Appendix 4.

Is this project classified as a small project consistent with the requirements of Chapter 2 of the WQMP Guidance Document? ☐ Y ☒ N

Infiltration Feasibility

Table D.1 below is meant to provide a simple means of assessing which DMAs on your site support Infiltration BMPs and is discussed in the WQMP Guidance Document in Chapter 2.4.5. Check the appropriate box for each question and then list affected DMAs as applicable. If additional space is needed, add a row below the corresponding answer.

Table D.1 Infiltration Feasibility

Does the project site…	YES	NO
…have any DMAs with a seasonal high groundwater mark shallower than 10 feet?		✖
If Yes, list affected DMAs:		
…have any DMAs located within 100 feet of a water supply well?		✖
If Yes, list affected DMAs:		
…have any areas identified by the geotechnical report as posing a public safety risk where infiltration of stormwater could have a negative impact?		✖
If Yes, list affected DMAs:		
…have measured in-situ infiltration rates of less than 1.6 inches / hour?	✖	
If Yes, list affected DMAs: DMA 1, 2, 3, 4, 5		
…have significant cut and/or fill conditions that would preclude in-situ testing of infiltration rates at the final infiltration surface?		✖
If Yes, list affected DMAs:		
…geotechnical report identify other site-specific factors that would preclude effective and safe infiltration?		✖
Describe here:		

If you answered "Yes" to any of the questions above for any DMA, Infiltration BMPs should not be used for those DMAs and you should proceed to the assessment for Harvest and Use below.

D.2 Harvest and Use Assessment

Please check what applies*:*

☐ Reclaimed water will be used for the non-potable water demands for the project.

☐Downstream water rights may be impacted by Harvest and Use as approved by the Regional Board (verify with the Copermittee).

☐The Design Capture Volume will be addressed using Infiltration Only BMPs. In such a case, Harvest and Use BMPs are still encouraged, but it would not be required if the Design Capture Volume will be infiltrated or evapotranspired.

If any of the above boxes have been checked, Harvest and Use BMPs need not be assessed for the site. If none of the above criteria applies, follow the steps below to assess the feasibility of irrigation use, toilet use and other non-potable uses (e.g., industrial use).

Irrigation Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for Irrigation Use BMPs on your site:

Step 1: Identify the total area of irrigated landscape on the site, and the type of landscaping used.

Total Area of Irrigated Landscape: 1.03 acre

Type of Landscaping (Conservation Design or Active Turf): Conservation Design

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for irrigation use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: 7.83 acre

Step 3: Cross reference the Design Storm depth for the project site (see Exhibit A of the WQMP Guidance Document) with the left column of Table 2-3 in Chapter 2 to determine the minimum area of Effective Irrigated Area per Tributary Impervious Area (EIATIA).

Enter your EIATIA factor: 0.79

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum irrigated area that would be required.

Minimum required irrigated area: 6.19 acre

Step 5: Determine if harvesting stormwater runoff for irrigation use is feasible for the project by comparing the total area of irrigated landscape (Step 1) to the minimum required irrigated area (Step 4).

Minimum required irrigated area (Step 4)	Available Irrigated Landscape (Step 1)
6.19	1.03

Toilet Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for toilet flushing uses on your site:

Step 1: Identify the projected total number of daily toilet users during the wet season, and account for any periodic shutdowns or other lapses in occupancy:

Projected Number of Daily Toilet Users: TBD

Project Type: Industrial

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for toilet use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: 7.83 acre

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-2 in Chapter 2 to determine the minimum number or toilet users per tributary impervious acre (TUTIA).

Enter your TUTIA factor: 172

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of toilet users that would be required.

Minimum number of toilet users: 1,347

Step 5: Determine if harvesting stormwater runoff for toilet flushing use is feasible for the project by comparing the Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (Step 4).

Minimum required Toilet Users (Step 4)	Projected number of toilet users (Step 1)
1,347	TBD

Other Non-Potable Use Feasibility

Are there other non-potable uses for stormwater runoff on the site (e.g. industrial use)? See Chapter 2 of the Guidance for further information. If yes, describe below. If no, write N/A.

Insert narrative description here.

Step 1: Identify the projected average daily non-potable demand, in gallons per day, during the wet season and accounting for any periodic shut downs or other lapses in occupancy or operation.

Average Daily Demand: Projected Average Daily Use (gpd)

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for the identified non-potable use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: Insert Area (Acres)

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-4 in Chapter 2 to determine the minimum demand for non-potable uses per tributary impervious acre.

Enter the factor from Table 2-4: Enter Value

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of gallons per day of non-potable use that would be required.

Minimum required use: Minimum use required (gpd)

Step 5: Determine if harvesting stormwater runoff for other non-potable use is feasible for the project by comparing the projected average daily use (Step 1) to the minimum required non-potable use (Step 4).

Minimum required non-potable use (Step 4)	**Projected average daily use (Step 1)**
Minimum use required (gpd)	Projected Average Daily Use (gpd)

If Irrigation, Toilet and Other Use feasibility anticipated demands are less than the applicable minimum values, Harvest and Use BMPs are not required and you should proceed to utilize LID Bioretention and Biotreatment per Section 3.4.2 of the WQMP Guidance Document.

D.3 Bioretention and Biotreatment Assessment

Other LID Bioretention and Biotreatment BMPs as described in Chapter 2.4.7 of the WQMP Guidance Document are feasible on nearly all development sites with sufficient advance planning.

Select one of the following:

☒ LID Bioretention/Biotreatment BMPs will be used for some, or all DMAs of the project as noted below in Section D.4 (note the requirements of Section 3.4.2 in the WQMP Guidance Document).

☐ A site-specific analysis demonstrating the technical infeasibility of all LID BMPs has been performed and is included in Appendix 5. If you plan to submit an analysis demonstrating the technical infeasibility of LID BMPs, request a pre-submittal meeting with the Copermittee to discuss this option. Proceed to Section E to document your alternative compliance measures.

D.4 Feasibility Assessment Summaries

From the Infiltration, Harvest and Use, Bioretention and Biotreatment Sections above, complete Table D.2 below to summarize which LID BMPs are technically feasible, and which are not, based upon the established hierarchy.

Table D.2 LID Prioritization Summary Matrix

DMA Name/ID	LID BMP Hierarchy				No LID (Alternative Compliance)
	1. Infiltration	2. Harvest and use	3. Bioretention	4. Biotreatment	
DMA 1	☐	☐	☒	☐	☐
DMA 2	☐	☐	☒	☐	☐
DMA 3	☐	☐	☒	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐

Bioretention BMP's have been decided to be used instead of infiltration BMP's due to the very low natural infiltration that's been measured on site by the geotechnical engineer. See Appendix 4 for the infiltration report.

D.5 LID BMP Sizing

Each LID BMP must be designed to ensure that the Design Capture Volume will be addressed by the selected BMPs. First**,** calculate the Design Capture Volume for each LID BMP using the V_{BMP} worksheet in Appendix F of the LID BMP Design Handbook. Second**,** design the LID BMP to meet the required V_{BMP} using a method approved by the Copermittee. Utilize the worksheets found in the LID BMP Design Handbook or consult with your Copermittee to assist you in correctly sizing your LID BMPs. Complete Table D.3 below to document the Design Capture Volume and the Proposed Volume for each LID BMP. Provide the completed design procedure sheets for each LID BMP in Appendix 6. You may add additional rows to the table below as needed.

Table D.3 DCV Calculations for LID BMPs

DMA Type/ID	**DMA Area (square feet)**	**Post-Project Surface Type**	**Effective Impervious Fraction, I_f**	**DMA Runoff Factor**	**DMA Areas x Runoff Factor**	***TCM 1***		
	[A]		[B]	[C]	[A] x [C]			
DMA 1	286,549	*Mixed*	0.93	0.78	222,649			
						Design Storm Depth (in)	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
	A_T =283,837 sf				Σ=222,649	0.60	[F] = 11,132	54,765

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*TCM 2*		
	[A]		[B]	[C]	[A] x [C]			
DMA 2	68,687	*Mixed*	0.79	0.59	40,525	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
	A_T =67,257 sf				Σ=40,525	0.60	[F] = 2,026	14,490

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*TCM 3*		
	[A]		[B]	[C]	[A] x [C]			
DMA 3	61,846	*Mixed*	0.83	0.64	39,396	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
	A_T =65,993 sf				Σ=39,396	0.60	[F] = 1,970	14,446

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document
[E] is obtained from Exhibit A in the WQMP Guidance Document
[G] is obtained from a design procedure sheet, such as in LID BMP Design Handbook and placed in Appendix 6

Section E: Alternative Compliance (LID Waiver Program)

LID BMPs are expected to be feasible on virtually all projects. Where LID BMPs have been demonstrated to be infeasible as documented in Section D, other Treatment Control BMPs must be used (subject to LID waiver approval by the Copermittee). Check one of the following Boxes:

☒ LID Principles and LID BMPs have been incorporated into the site design to fully address all Drainage Management Areas. No alternative compliance measures are required for this project and thus this Section is not required to be completed.

- *Or* -

☐ The following Drainage Management Areas are unable to be addressed using LID BMPs. A site-specific analysis demonstrating technical infeasibility of LID BMPs has been approved by the Co-Permittee and included in Appendix 5. Additionally, no downstream regional and/or sub-regional LID BMPs exist or are available for use by the project. The following alternative compliance measures on the following pages are being implemented to ensure that any pollutant loads expected to be discharged by not incorporating LID BMPs, are fully mitigated.

E.1 Identify Pollutants of Concern

Utilizing Table A.1 from Section A above which noted your project's receiving waters and their associated EPA approved 303(d) listed impairments, cross reference this information with that of your selected Priority Development Project Category in Table E.1 below. If the identified General Pollutant Categories are the same as those listed for your receiving waters, then these will be your Pollutants of Concern and the appropriate box or boxes will be checked on the last row. The purpose of this is to document compliance and to help you appropriately plan for mitigating your Pollutants of Concern in lieu of implementing LID BMPs.

Table E.1 Potential Pollutants by Land Use Type

Priority Development Project Categories and/or Project Features (check those that apply)	General Pollutant Categories							
	Bacterial Indicators	Metals	Nutrients	Pesticides	Toxic Organic Compounds	Sediments	Trash & Debris	Oil & Grease
☐ Detached Residential Development	P	N	P	P	N	P	P	P
☐ Attached Residential Development	P	N	P	P	N	P	P	P(2)
■ Commercial/Industrial Development	P(3)	P	P(1)	P(1)	P(5)	P(1)	P	P
☐ Automotive Repair Shops	N	P	N	N	P(4, 5)	N	P	P
☐ Restaurants (>5,000 ft²)	P	N	N	N	N	N	P	P
☐ Hillside Development (>5,000 ft²)	P	N	P	P	N	P	P	P
☐ Parking Lots (>5,000 ft²)	P(6)	P	P(1)	P(1)	P(4)	P(1)	P	P
☐ Retail Gasoline Outlets	N	P	N	N	P	N	P	P
Project Priority Pollutant(s) of Concern	☐	☐	☐	☐	☐	☐	☐	☐

P = Potential

N = Not Potential

(1) A potential Pollutant if non-native landscaping exists or is proposed onsite; otherwise not expected

(2) A potential Pollutant if the project includes uncovered parking areas; otherwise not expected

(3) A potential Pollutant is land use involving animal waste

(4) Specifically petroleum hydrocarbons

(5) Specifically solvents

(6) Bacterial indicators are routinely detected in pavement runoff

E.2 Stormwater Credits

Projects that cannot implement LID BMPs but nevertheless implement smart growth principles are potentially eligible for Stormwater Credits. Utilize Table 3-8 within the WQMP Guidance Document to identify your Project Category and its associated Water Quality Credit. If not applicable, write N/A.

Table E.2 Water Quality Credits

Qualifying Project Categories	Credit Percentage[2]
N/A	
Total Credit Percentage[1]	

[1]*Cannot Exceed 50%*
[2]*Obtain corresponding data from Table 3-8 in the WQMP Guidance Document*

E.3 Sizing Criteria

After you appropriately considered Stormwater Credits for your project, utilize Table E.3 below to appropriately size them to the DCV, or Design Flow Rate, as applicable. Please reference Chapter 3.5.2 of the WQMP Guidance Document for further information.

Table E.3 Treatment Control BMP Sizing

DMA Type/ID	**DMA Area (square feet)**	**Post-Project Surface Type**	**Effective Impervious Fraction, I_f**	**DMA Runoff Factor**	**DMA Area x Runoff Factor**		***Enter BMP Name / Identifier Here***		
	[A]		[B]	[C]	[A] x [C]				
DMA 1	286,549		0.93	0.78	222,649	*Design Storm Depth (in)*	*Minimum Design Capture Volume or Design Flow Rate (cubic feet or cfs)*	*Total Storm Water Credit % Reduction*	*Proposed Volume or Flow on Plans (cubic feet or cfs)*
DMA 2	68,687		0.79	0.59	40,525				
DMA 3	61,846		0.83	0.64	39,396				
	A_T=417,087 sf				Σ=302,570	0.60	[F] = 15,129 cf	0	83,701 cf

[B], [C] is obtained as described in Section 2.3.1 from the WQMP Guidance Document
[E] is for Flow-Based Treatment Control BMPs [E] = .2, for Volume-Based Control Treatment BMPs, [E] obtained from Exhibit A in the WQMP Guidance Document
[G] is for Flow-Based Treatment Control BMPs [G] = 43,560, for Volume-Based Control Treatment BMPs, [G] = 12
[H] is from the Total Credit Percentage as Calculated from Table E.2 above
[I] as obtained from a design procedure sheet from the BMP manufacturer and should be included in Appendix 6

E.4 Treatment Control BMP Selection

Treatment Control BMPs typically provide proprietary treatment mechanisms to treat potential pollutants in runoff, but do not sustain significant biological processes. Treatment Control BMPs must have a removal efficiency of a medium or high effectiveness as quantified below:

- **High**: equal to or greater than 80% removal efficiency
- **Medium**: between 40% and 80% removal efficiency

Such removal efficiency documentation (e.g., studies, reports, etc.) as further discussed in Chapter 3.5.2 of the WQMP Guidance Document, must be included in Appendix 6. In addition, ensure that proposed Treatment Control BMPs are properly identified on the WQMP Site Plan in Appendix 1.

Table E.4 Treatment Control BMP Selection

Selected Treatment Control BMP Name or ID[1]	Priority Pollutant(s) of Concern to Mitigate[2]	Removal Efficiency Percentage[3]
TCM 1		
TCM 2		
TCM 3		

[1] Treatment Control BMPs must not be constructed within Receiving Waters. In addition, a proposed Treatment Control BMP may be listed more than once if they possess more than one qualifying pollutant removal efficiency.

[2] Cross Reference Table E.1 above to populate this column.

[3] As documented in a Co-Permittee Approved Study and provided in Appendix 6.

Section F: Hydromodification

F.1 Hydrologic Conditions of Concern (HCOC) Analysis

Once you have determined that the LID design is adequate to address water quality requirements, you will need to assess if the proposed LID Design may still create a HCOC. Review Chapters 2 and 3 (including Figure 3-7) of the WQMP Guidance Document to determine if your project must mitigate for Hydromodification impacts. If your project meets one of the following criteria which will be indicated by the check boxes below, you do not need to address Hydromodification at this time. However, if the project does not qualify for Exemptions 1, 2 or 3, then additional measures must be added to the design to comply with HCOC criteria. This is discussed in further detail below in Section F.2.

HCOC EXEMPTION 1: The Priority Development Project disturbs less than one acre. The Copermittee has the discretion to require a Project-Specific WQMP to address HCOCs on projects less than one acre on a case by case basis. The disturbed area calculation should include all disturbances associated with larger common plans of development.

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, HCOC criteria do not apply.

HCOC EXEMPTION 2: The volume and time of concentration[1] of storm water runoff for the post-development condition is not significantly different from the pre-development condition for a 2-year return frequency storm (a difference of 5% or less is considered insignificant) using one of the following methods to calculate:

- Riverside County Hydrology Manual
- Technical Release 55 (TR-55): Urban Hydrology for Small Watersheds (NRCS 1986), or derivatives thereof, such as the Santa Barbara Urban Hydrograph Method
- Other methods acceptable to the Co-Permittee

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, report results in Table F.1 below and provide your substantiated hydrologic analysis in Appendix 7.

Table F.1 Hydrologic Conditions of Concern Summary

	2 year – 24 hour		
	Pre-condition	**Post-condition**	**% Difference**
Time of Concentration	24 min	5 min	INSERT VALUE
Volume (Cubic Feet)	24,176 cf	44,780 cf	INSERT VALUE

[1] Time of concentration is defined as the time after the beginning of the rainfall when all portions of the drainage basin are contributing to flow at the outlet.

HCOC EXEMPTION 3: All downstream conveyance channels to an adequate sump (for example, Prado Dam, Lake Elsinore, Canyon Lake, Santa Ana River, or other lake, reservoir or naturally erosion resistant feature) that will receive runoff from the project are engineered and regularly maintained to ensure design flow capacity; no sensitive stream habitat areas will be adversely affected; or are not identified on the Co-Permittees Hydromodification Susceptibility Maps.

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, HCOC criteria do not apply and note below which adequate sump applies to this HCOC qualifier:

F.2 HCOC Mitigation

If none of the above HCOC Exemption Criteria are applicable, HCOC criteria is considered mitigated if they meet one of the following conditions:

a. Additional LID BMPS are implemented onsite or offsite to mitigate potential erosion or habitat impacts as a result of HCOCs. This can be conducted by an evaluation of site-specific conditions utilizing accepted professional methodologies published by entities such as the California Stormwater Quality Association (CASQA), the Southern California Coastal Water Research Project (SCCRWP), or other Co-Permittee approved methodologies for site-specific HCOC analysis.

b. The project is developed consistent with an approved Watershed Action Plan that addresses HCOC in Receiving Waters.

c. Mimicking the pre-development hydrograph with the post-development hydrograph, for a 2-year return frequency storm. Generally, the hydrologic conditions of concern are not significant, if the post-development hydrograph is no more than 10% greater than pre-development hydrograph. In cases where excess volume cannot be infiltrated or captured and reused, discharge from the site must be limited to a flow rate no greater than 110% of the pre-development 2-year peak flow.

We are reducing the post-development runoff Q to be no more than 10% of what the pre-development Q is for the 100-year, 24-hour storm. See Appendix 6 for Hydrology and Basin routing calculations.

Section G: Source Control BMPs

Source control BMPs include permanent, structural features that may be required in your project plans — such as roofs over and berms around trash and recycling areas — and Operational BMPs, such as regular sweeping and "housekeeping", that must be implemented by the site's occupant or user. The MEP standard typically requires both types of BMPs. In general, Operational BMPs cannot be substituted for a feasible and effective permanent BMP. Using the Pollutant Sources/Source Control Checklist in Appendix 8, review the following procedure to specify Source Control BMPs for your site:

1. ***Identify Pollutant Sources*:** Review Column 1 in the Pollutant Sources/Source Control Checklist. Check off the potential sources of Pollutants that apply to your site.

2. ***Note Locations on Project-Specific WQMP Exhibit*:** Note the corresponding requirements listed in Column 2 of the Pollutant Sources/Source Control Checklist. Show the location of each Pollutant source and each permanent Source Control BMP in your Project-Specific WQMP Exhibit located in Appendix 1.

3. ***Prepare a Table and Narrative*:** Check off the corresponding requirements listed in Column 3 in the Pollutant Sources/Source Control Checklist. In the left column of Table G.1 below, list each potential source of runoff Pollutants on your site (from those that you checked in the Pollutant Sources/Source Control Checklist). In the middle column, list the corresponding permanent, Structural Source Control BMPs (from Columns 2 and 3 of the Pollutant Sources/Source Control Checklist) used to prevent Pollutants from entering runoff. **Add additional narrative** in this column that explains any special features, materials or methods of construction that will be used to implement these permanent, Structural Source Control BMPs.

4. ***Identify Operational Source Control BMPs:*** To complete your table, refer once again to the Pollutant Sources/Source Control Checklist. List in the right column of your table the Operational BMPs that should be implemented as long as the anticipated activities continue at the site. Copermittee stormwater ordinances require that applicable Source Control BMPs be implemented; the same BMPs may also be required as a condition of a use permit or other revocable Discretionary Approval for use of the site.

Table G.1 Permanent and Operational Source Control Measures

Potential Sources of Runoff pollutants	Permanent Structural Source Control BMPs	Operational Source Control BMPs
On-site storm drain inlets	Mark all inlets with the words Only Rain Down the Storm Drain" or similar. Catch Basin Markers may be available from the Riverside County Flood Control and Water Conservation District, call 951.955.1200 to verify.	Provide stormwater pollution prevention information to new site owners, lessees, or operators. Maintain and periodically repaint or replace inlet markings Include the following in the lease agreement: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit

		materials so as to create a potential discharge to storm drains.
Landscape/Outdoor Pesticide Use	Preserve existing native trees, shrubs, and ground cover to the maximum extent possible. Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution. Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions. To ensure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.	Maintain landscaping using minimum to no pesticides
Loading Docks	N/A	Move loaded and unloaded items indoors as soon as possible.
Plazas, sidewalks, and parking lots	N/A	Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain

Section H: Construction Plan Checklist

Populate Table H.1 below to assist the plan checker in an expeditious review of your project. The first two columns will contain information that was prepared in previous steps, while the last column will be populated with the corresponding plan sheets. This table is to be completed with the submittal of your final Project-Specific WQMP.

Table H.1 Construction Plan Cross-reference

BMP No. or ID	BMP Identifier and Description	Corresponding Plan Sheet(s)	BMP Location (Lat/Long)
TCM 1	Bioretention Basin	C500	
TCM 2	Bioretention Basin	C500	
TCM 3	Bioretention Basin	C500	
TCM 4	Self-Retaining	C500	
TCM 5	Self-Retaining	C500	

Note that the updated table — or Construction Plan WQMP Checklist — is **only a reference tool** to facilitate an easy comparison of the construction plans to your Project-Specific WQMP. Co-Permittee staff can advise you regarding the process required to propose changes to the approved Project-Specific WQMP.

Section I: Operation, Maintenance and Funding

The Co-permittee will periodically verify that Stormwater BMPs on your site are maintained and continue to operate as designed. To make this possible, your Co-permittee will require that you include in Appendix 9 of this Project-Specific WQMP:

1. A means to finance and implement facility maintenance in perpetuity, including replacement cost.
2. Acceptance of responsibility for maintenance from the time the BMPs are constructed until responsibility for operation and maintenance is legally transferred. A warranty covering a period following construction may also be required.
3. An outline of general maintenance requirements for the Stormwater BMPs you have selected.
4. Figures delineating and designating pervious and impervious areas, location, and type of Stormwater BMP, and tables of pervious and impervious areas served by each facility. Geo-locating the BMPs using a coordinate system of latitude and longitude is recommended to help facilitate a future statewide database system.
5. A separate list and location of self-retaining areas or areas addressed by LID Principles that do not require specialized O&M or inspections but will require typical landscape maintenance as noted in Chapter 5, pages 85-86, in the WQMP Guidance. Include a brief description of typical landscape maintenance for these areas.

Your local Co-Permittee will also require that you prepare and submit a detailed Stormwater BMP Operation and Maintenance Plan that sets forth a maintenance schedule for each of the Stormwater BMPs built on your site. An agreement assigning responsibility for maintenance and providing for inspections and certification may also be required.

Details of these requirements and instructions for preparing a Stormwater BMP Operation and Maintenance Plan are in Chapter 5 of the WQMP Guidance Document.

Maintenance Mechanism: Operation & Maintenance Report

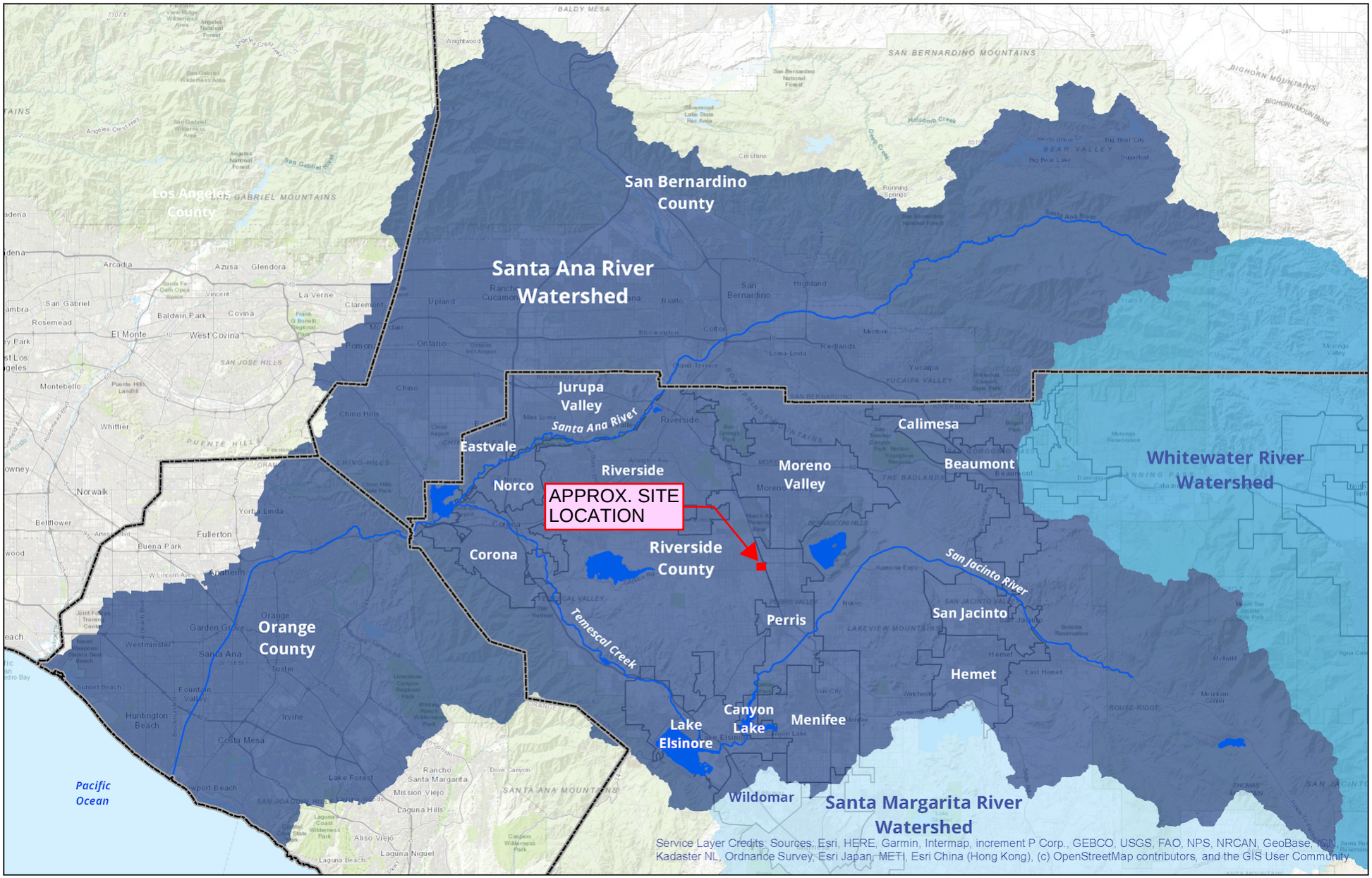
Will the proposed BMPs be maintained by a Homeowners' Association (HOA) or Property Owners Association (POA)?

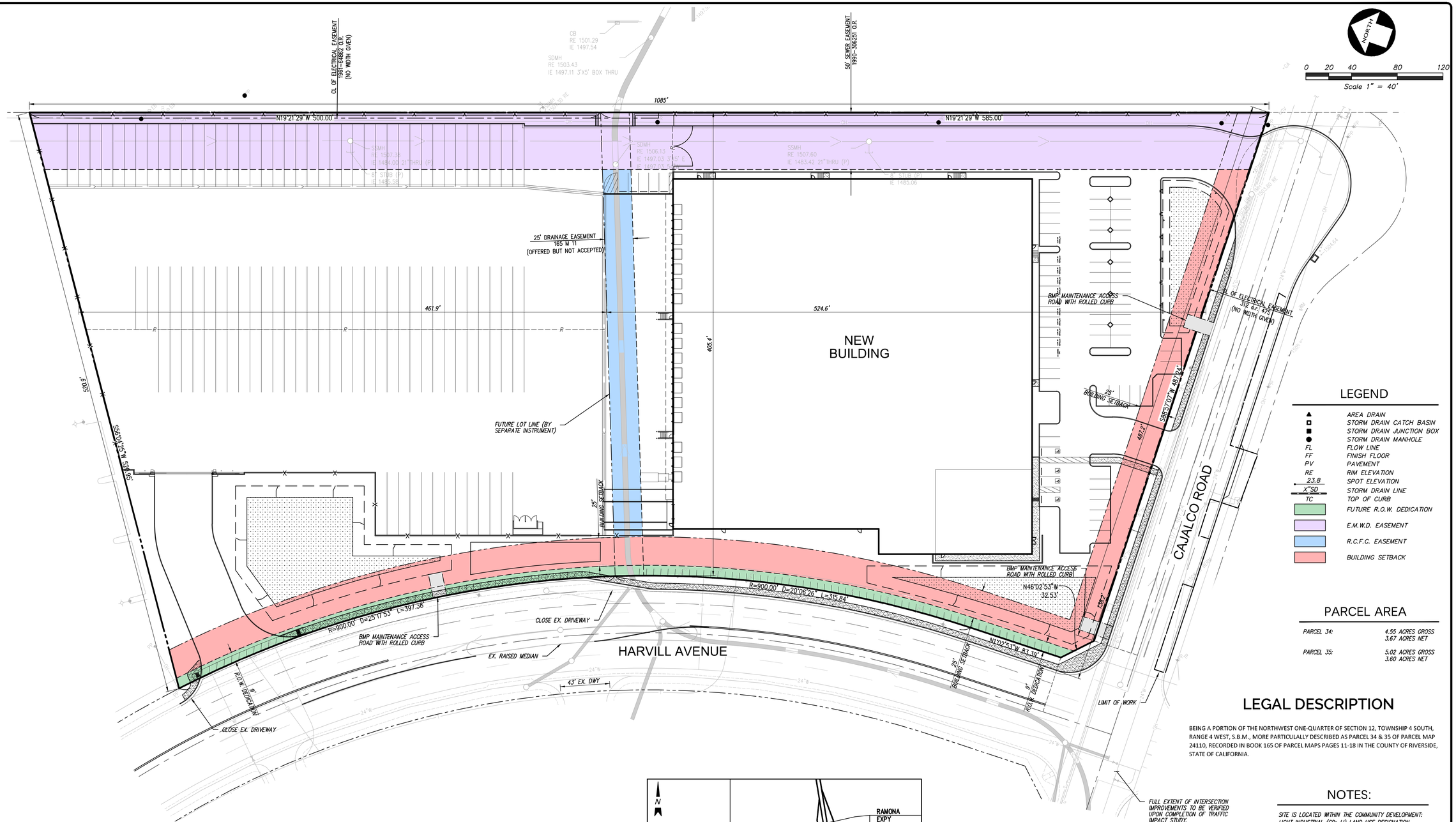
☐ Y ☒ N

Include your Operation and Maintenance Plan and Maintenance Mechanism in Appendix 9. Additionally, include all pertinent forms of educational materials for those personnel that will be maintaining the proposed BMPs within this Project-Specific WQMP in Appendix 10.

Appendix 1: Maps and Site Plans

Location Map, WQMP Site Plan and Receiving Waters Map


San Bernardino County
Santa Ana River Watershed
Los Angeles County
Jurupa Valley
Santa Ana River
Eastvale
Riverside
Norco
APPROX. SITE LOCATION
Corona
Riverside County
Calimesa
Moreno Valley
Beaumont
Whitewater River Watershed
San Jacinto River
Perris
San Jacinto
Temescal Creek
Hemet
Orange County
Canyon Lake
Menifee
Lake Elsinore
Wildomar
Santa Margarita River Watershed
Pacific Ocean
Service Layer Credits: Sources, Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



LEGEND

- AREA DRAIN
- STORM DRAIN CATCH BASIN
- STORM DRAIN JUNCTION BOX
- STORM DRAIN MANHOLE
- FL — FLOW LINE
- FF — FINISH FLOOR
- PV — PAVEMENT
- RE — RIM ELEVATION
- 23.8 — SPOT ELEVATION
- X"SD — STORM DRAIN LINE
- TC — TOP OF CURB
- FUTURE R.O.W. DEDICATION
- E.M.W.D. EASEMENT
- R.C.F.C. EASEMENT
- BUILDING SETBACK

PARCEL AREA

PARCEL 34:	4.55 ACRES GROSS 3.67 ACRES NET
PARCEL 35:	5.02 ACRES GROSS 3.60 ACRES NET

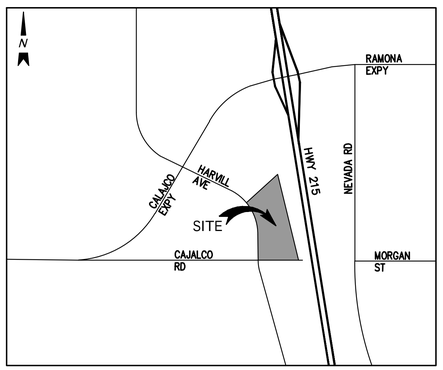
LEGAL DESCRIPTION

BEING A PORTION OF THE NORTHWEST ONE-QUARTER OF SECTION 12, TOWNSHIP 4 SOUTH, RANGE 4 WEST, S.B.M., MORE PARTICULALLY DESCRIBED AS PARCEL 34 & 35 OF PARCEL MAP 24110, RECORDED IN BOOK 165 OF PARCEL MAPS PAGES 11-18 IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA.

NOTES:

SITE IS LOCATED WITHIN THE COMMUNITY DEVELOPMENT: LIGHT INDUSTRIAL (CD: LI) LAND USE DESIGNATION

PROJECT SITE IS LOCATED IN AN AREA OF HIGH PALEONTOLOGICAL SENSITIVITY.



VICINITY MAP

NOT TO SCALE

NO.	REVISION	BY

NO.	REVISION	DATE	BY
	WQMP - REVISIONS	4/13	EMK

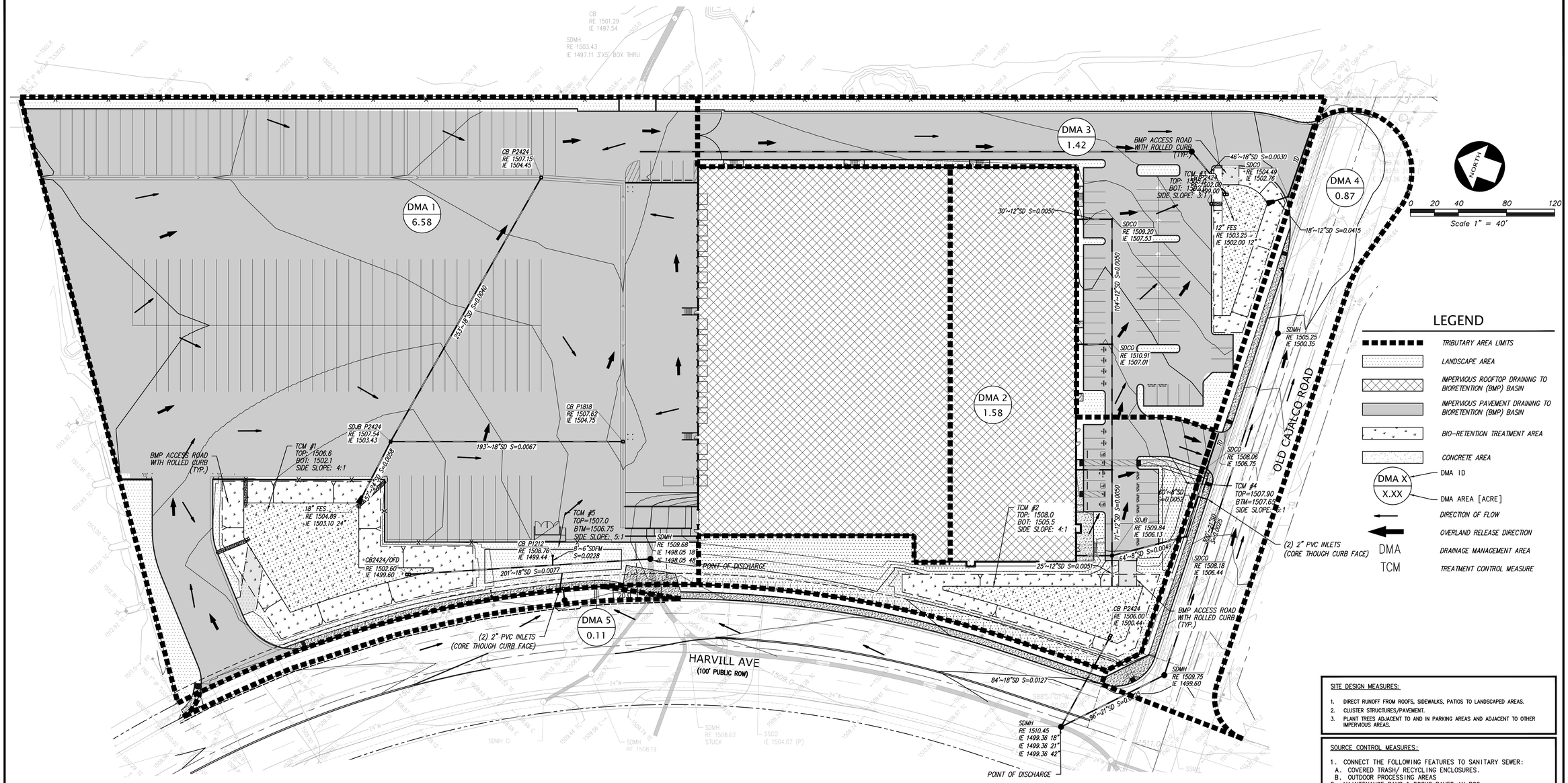
REGISTERED PROFESSIONAL ENGINEER
ERICA M. KAWATA
92986
CIVIL
STATE OF CALIFORNIA

KIER+WRIGHT
163 Technology Drive, Ste. 150
Irvine, CA 92618
Phone: (949) 598-0202
www.kierwright.com

PRELIMINARY SITE PLAN
OF
NEC OF HARVILL AVE. AND CAJALCO RD.
FOR
ARES MANAGEMENT
PERRIS, CALIFORNIA
#PPT220001

DATE	APRIL 13, 2022
SCALE	AS SHOWN
DESIGNER	EMK
DRAWN BY	MRF
JOB NO.	A21626
SHEET	C200
OF	9 SHEETS

Z:\2021\A21626\DWG\ENTITLEMENTS\PD PERMIT\A21626-PIC-GP.dwg 4-13-22 12:26:55 PM ekowata



LEGEND

- TRIBUTARY AREA LIMITS
- LANDSCAPE AREA
- IMPERVIOUS ROOFTOP DRAINING TO BIORETENTION (BMP) BASIN
- IMPERVIOUS PAVEMENT DRAINING TO BIORETENTION (BMP) BASIN
- BIO-RETENTION TREATMENT AREA
- CONCRETE AREA
- DMA ID
- DMA AREA [ACRE]
- DIRECTION OF FLOW
- OVERLAND RELEASE DIRECTION
- DRAINAGE MANAGEMENT AREA
- TREATMENT CONTROL MEASURE

SITE DESIGN MEASURES:

1. DIRECT RUNOFF FROM ROOFS, SIDEWALKS, PATIOS TO LANDSCAPED AREAS.
2. CLUSTER STRUCTURES/PAVEMENT.
3. PLANT TREES ADJACENT TO AND IN PARKING AREAS AND ADJACENT TO OTHER IMPERVIOUS AREAS.

SOURCE CONTROL MEASURES:

1. CONNECT THE FOLLOWING FEATURES TO SANITARY SEWER:
   A. COVERED TRASH/ RECYCLING ENCLOSURES.
   B. OUTDOOR PROCESSING AREAS
2. MAINTENANCE BAYS & DOCKS PAVED IN PCC.
3. BENEFICIAL LANDSCAPING.
4. USE OF WATER EFFICIENT IRRIGATION SYSTEMS.
5. MAINTENANCE (PAVEMENT SWEEPING, CATCH BASIN CLEANING, GOOD HOUSEKEEPING).
6. STORM DRAIN LABELING.

BASIN OUTFLOW SUMMARY [CFS]

		DMA 1	DMA 2	DMA 3	Total
2-Year 1-Hour	Pre-Developemt	3.957	0.950	0.852	5.760
	Post-Developement	6.429	1.735	1.597	9.761
	Basin Outflow	0.196	0.000	0.086	0.282

		DMA 1	DMA 2	DMA 3	Total
5-Year 1-Hour	Pre-Developemt	6.341	1.523	1.366	9.230
	Post-Developement	9.148	2.495	2.264	13.907
	Basin Outflow	0.196	0.049	0.180	0.425

		DMA 1	DMA 2	DMA 3	Total
10-Year 1-Hour	Pre-Developemt	9.309	2.236	2.005	13.550
	Post-Developement	11.513	3.171	2.831	17.515
	Basin Outflow	0.196	0.116	0.196	0.508

		DMA 1	DMA 2	DMA 3	Total
100-Year 1-Hour	Pre-Developemt	16.028	3.849	3.453	23.330
	Post-Developement	18.643	5.172	4.563	28.378
	Basin Outflow	0.196	0.196	0.196	0.588

		DMA 1	DMA 2	DMA 3	Total
2-Year 3-Hour	Pre-Developemt	2.288	0.549	0.493	3.330
	Post-Development	4.029	0.928	0.907	5.864
	Basin Outflow	0.196	0.070	0.196	0.462

		DMA 1	DMA 2	DMA 3	Total
5-Year 3-Hour	Pre-Developemt	3.840	0.922	0.827	5.590
	Post-Development	5.667	1.337	1.273	8.277
	Basin Outflow	0.196	0.148	0.196	0.540

		DMA 1	DMA 2	DMA 3	Total
10-Year 3-Hour	Pre-Developemt	6.190	1.487	1.333	9.010
	Post-Development	7.203	1.748	1.612	10.563
	Basin Outflow	0.196	0.196	0.196	0.588

		DMA 1	DMA 2	DMA 3	Total
100-Year 3-Hour	Pre-Developemt	10.868	2.610	2.341	15.820
	Post-Development	11.594	2.867	2.587	17.048
	Basin Outflow	1.286	0.196	0.196	1.678

		DMA 1	DMA 2	DMA 3	Total
2-Year 6-Hour	Pre-Developemt	1.930	0.464	0.416	2.810
	Post-Development	3.671	0.847	0.824	5.342
	Basin Outflow	0.196	0.141	0.196	0.533

		DMA 1	DMA 2	DMA 3	Total
5-Year 6-Hour	Pre-Developemt	3.387	0.813	0.730	4.930
	Post-Development	5.179	1.228	1.166	7.573
	Basin Outflow	0.196	0.196	0.196	0.588

		DMA 1	DMA 2	DMA 3	Total
10-Year 6-Hour	Pre-Developemt	5.647	1.356	1.217	8.220
	Post-Development	6.625	1.617	1.487	9.729
	Basin Outflow	0.196	0.196	0.196	0.588

		DMA 1	DMA 2	DMA 3	Total
100-Year 6-Hour	Pre-Developemt	10.023	2.407	2.159	14.590
	Post-Development	10.699	2.664	2.401	15.764
	Basin Outflow	4.930	0.627	0.196	5.753

		DMA 1	DMA 2	DMA 3	Total
2-Year 24-Hour	Pre-Developemt	0.172	0.041	0.037	0.250
	Post-Development	1.354	0.292	0.294	1.940
	Basin Outflow	0.196	0.171	0.196	0.563

		DMA 1	DMA 2	DMA 3	Total
5-Year 24-Hour	Pre-Developemt	0.261	0.063	0.056	0.380
	Post-Development	1.838	0.396	0.398	2.632
	Basin Outflow	0.196	0.196	0.196	0.588

		DMA 1	DMA 2	DMA 3	Total
10-Year 24-Hour	Pre-Developemt	1.724	0.414	0.371	2.510
	Post-Development	2.314	0.510	0.501	3.325
	Basin Outflow	1.346	0.196	0.196	1.738

		DMA 1	DMA 2	DMA 3	Total
100-Year 24-Hour	Pre-Developemt	3.882	0.932	0.836	5.650
	Post-Development	4.082	0.957	0.881	5.920
	Basin Outflow	3.639	0.713	0.565	4.917

BASIN SUMMARY

DMA No.	Area (SF)	Area (AC)	Pre-Development Volume (CF)	Post-Development Volume (CF)	Volume Needed to Capture (CF)	Volume in Basin (CF)
1	286,549	6.578	21,442	58,557	37,115	54,765
2	68,687	1.577	5,149	12,638	7,489	14,490
3	61,846	1.420	4,627	12,695	8,068	14,446
4	37,844	0.869	13,024	13,286	261	SELF-RETAINING
5	4,779	0.110	1,481	1,697	216	SELF-RETAINING
Total	459,704	10.55	45,723	98,873	52,672	83,701

STORM WATER QUALITY SUMMARY

DMA No.	Area (SF)	Area (AC)	Landscape (SF)	Landscape (AC)	Imperv. (SF)	Imper. (AC)	Design Capture Volume (CF)	Total Effective Depth (FT)	Minimum Surface Area (SF)	Surface Area Provided (SF)	TCM Number
1	286,549	6.578	21,866	0.502	264,683	6.076	11,495	1.33	8,643	8,632	TCM 1
2	68,687	1.577	16,137	0.370	52,550	1.206	2,152	1.33	1,618	4,167	TCM 2
3	61,846	1.420	11,588	0.266	50,258	1.154	2,310	1.33	1,737	3,677	TCM 3
4	37,844	0.869	2,404	0.055	35,440	0.814	N/A	N/A	N/A	N/A	TCM 4
5	4,779	0.110	0	0.000	4,779	0.110	N/A	N/A	N/A	N/A	TCM 5
Total	459,704	10.55	51,995	1	407,709	9.360	15,957	N/A	11,998	16,476	N/A

NO.	REVISION	BY

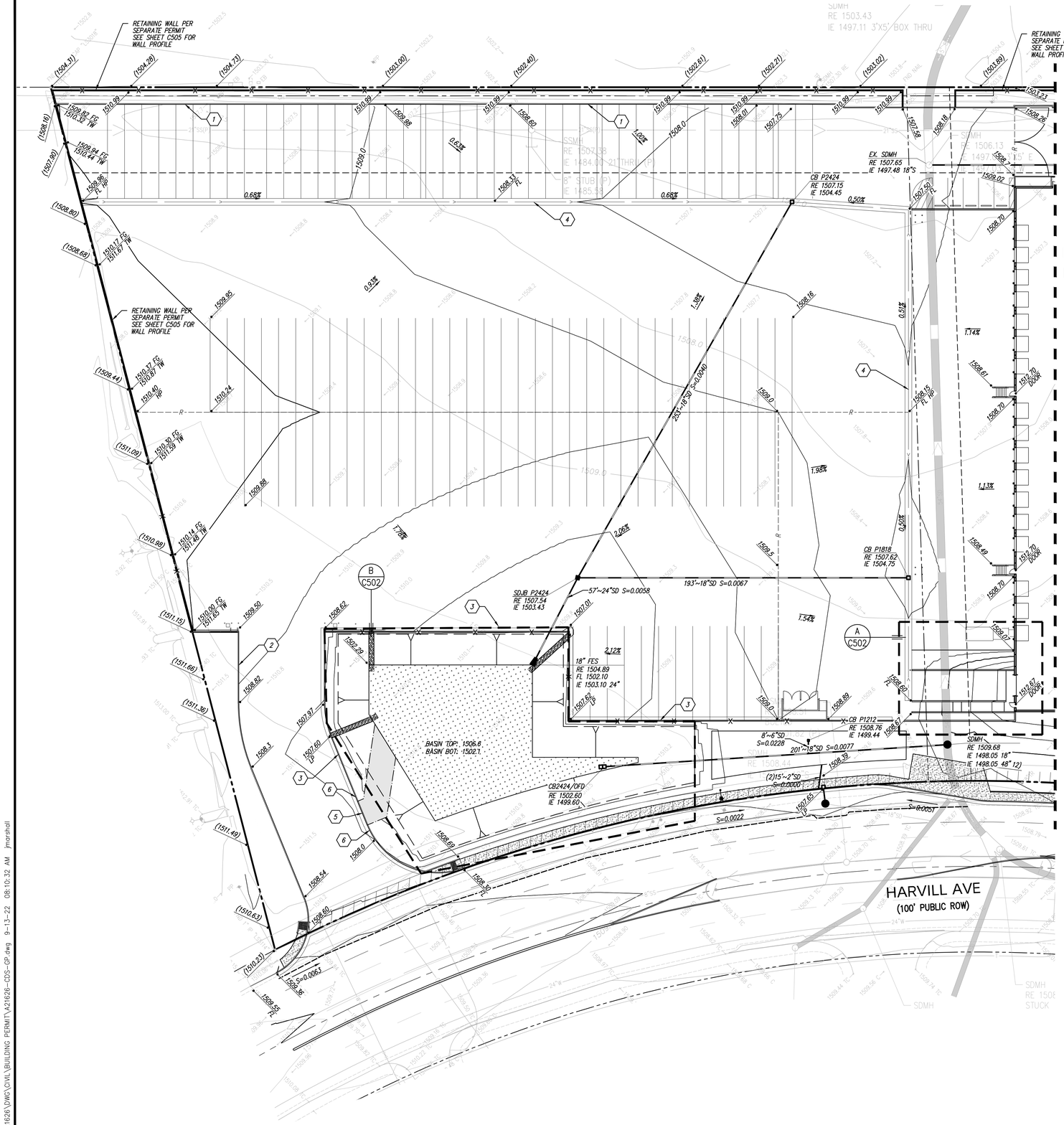
KIER+WRIGHT
163 Technology Drive
Irvine, CA 92620
Phone: (949) 508-8202
www.kierwright.com

STORM WATER QUALITY CONTROL PLAN
OF
BCI IV HARVILL INDUSTRIAL CENTER LP
FOR
ARES MANAGEMENT
PERRIS, CALIFORNIA

DATE	AUG, 2022
SCALE	AS SHOWN
DESIGNER	JAM
DRAWN BY	MRF
JOB NO.	A21626
SHEET	C800
OF	19 SHEETS

Appendix 2: Construction Plans

Grading and Drainage Plans



GRADING KEYNOTES

1. CONSTRUCT 12" CONCRETE CURB PER DETAIL 5/C200
2. CONSTRUCT 6" CONCRETE CURB PER DETAIL 1/C200
3. CONSTRUCT 6" CONCRETE CURB & GUTTER PER DETAIL 3/C200
4. CONSTRUCT VALLEY GUTTER PER DETAIL 4/C200
5. CONSTRUCT TYPE "C" ROLLED CURB PER RIVERSIDE COUNTY DETAIL 202
6. CONSTRUCT 10' CURB TRANSITION PER RIVERSIDE COUNTY DETAIL 211

NORTH

0 15 30 60 90

Scale 1" = 30'

LEGEND

PROPOSED	EXISTING	
		ASPHALT BERM
		BLOCK/RETAINING WALL
		BUILDING LINE
		FLUSH CONCRETE CURB
		CONCRETE CURB
		CONCRETE CURB CUT
		CONCRETE CURB & GUTTER
100	100	CONTOUR LINE
		DRIVEWAY
		EDGE OF PAVEMENT
		FENCE LINE
		LOT LINE
		MONUMENT/MONUMENT LINE
PERF. PIPE		PERFORATED STORM DRAIN PIPE
		PROPERTY LINE
RWL	RWL	RAINWATER LEADER
		SIDEWALK
SD		STORM DRAIN-MANHOLE & CATCH BASIN
100.00	+100.00	THRU CURB DRAIN
		SPOT ELEVATION
		TRAFFIC SIGN
		TREE
		UTILITY BOX
AD	AD	AREA DRAIN
BW	BW	BACK OF WALK
BLDG	BLDG	BUILDING
BL	BL	BUILDING LINE
CB	CB	CATCH BASIN
COTG	COTG	CLEANOUT TO GRADE
C	C	CONCRETE
DR	DR	DOOR
DS	DS	DOWN SPOUT
DIP	DIP	DUCTILE IRON PIPE
ESMT	ESMT	EASEMENT
EW	EW	EDGE OF WALK
FB	FB	FACE OF BERM
FC	FC	FACE OF CURB
FW	FW	FACE OF WALL
FF	FF	FINISHED FLOOR
FL	FL	FLOW LINE
GB	GB	GRADE BREAK
HP	HP	HIGH POINT
IE	IE	INVERT ELEVATION
LP	LP	LOW POINT
LT	LT	LIGHT
OF	OF	OVERFLOW
PV	P	PAVEMENT
RWL	RWL	RAINWATER LEADER
R	R	RIDGE
RE	RE	RIM ELEVATION
RD	RD	ROOF DRAIN
SDJB	SDJB	STORM DRAIN JUNCTION BOX
SDMH	SDMH	STORM DRAIN MANHOLE
SWL	SWL	SWALE
TB	TB	TOP OF BERM
TC	TC	TOP OF CURB
TW	TW	TOP OF WALL
T	T	TRANSFORMER
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NO.	REVISION	BY

KIER+WRIGHT
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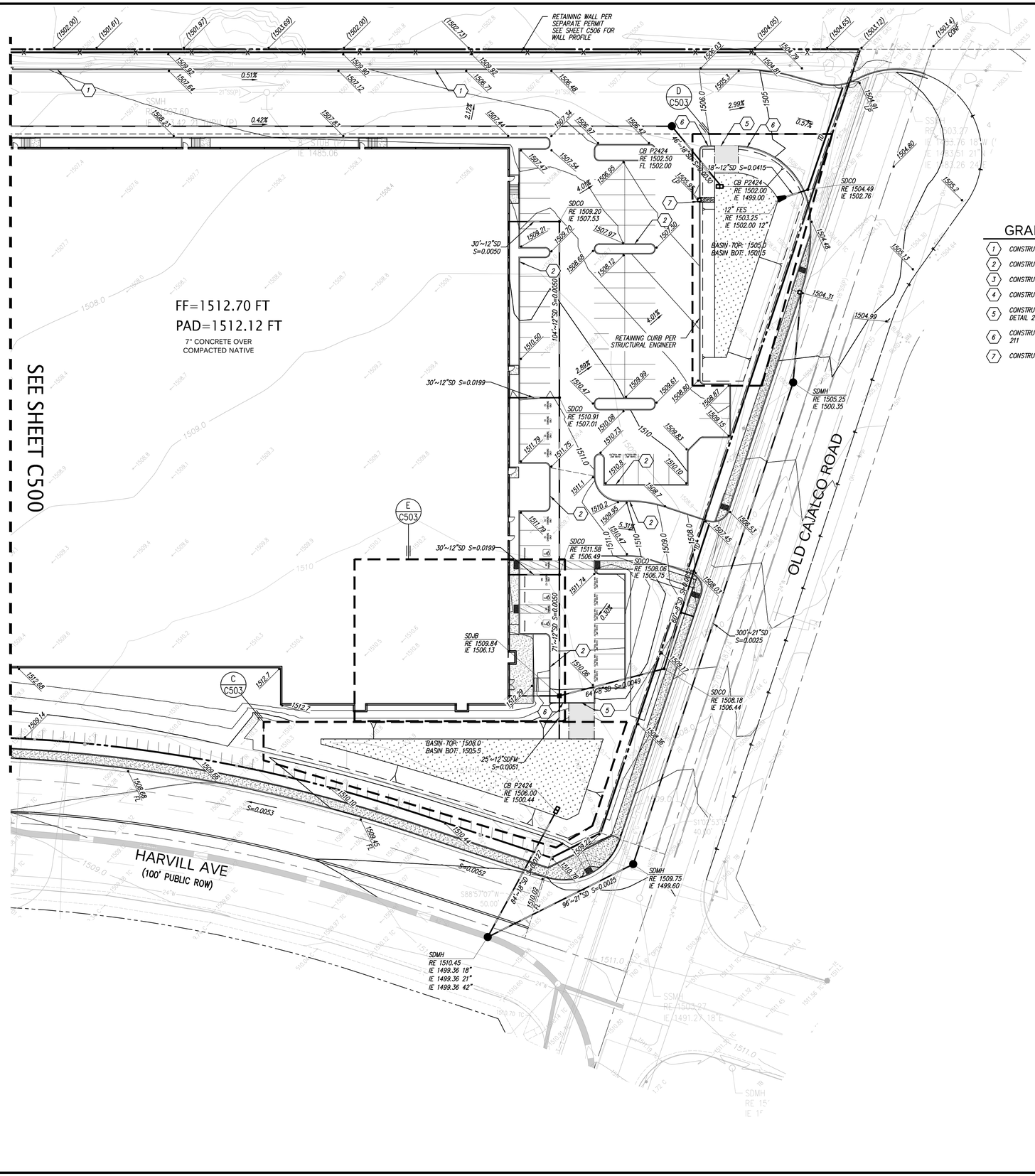
GRADING & DRAINAGE PLAN
OF
BCI IV HARVILL INDUSTRIAL CENTER LP
FOR
ARES MANAGEMENT
PERRIS, CALIFORNIA

DATE	AUG, 2022
SCALE	AS SHOWN
DESIGNER	JAM
DRAWN BY	MRF
JOB NO.	A21626
SHEET	C500
OF	19 SHEETS



NORTH

0 15 30 60 90

Scale 1" = 30'

GRADING KEYNOTES

1. CONSTRUCT 12" CONCRETE CURB PER DETAIL 5/C200
2. CONSTRUCT 6" CONCRETE CURB PER DETAIL 1/C200
3. CONSTRUCT 6" CONCRETE CURB & GUTTER PER DETAIL 3/C200
4. CONSTRUCT VALLEY GUTTER PER DETAIL 4/C200
5. CONSTRUCT TYPE "C" ROLLED CURB PER RIVERSIDE COUNTY DETAIL 202
6. CONSTRUCT 10' CURB TRANSITION PER RIVERSIDE COUNTY DETAIL 211
7. CONSTRUCT CURB INLET PER RIVERSIDE COUNTY DETAIL 300

LEGEND

PROPOSED	EXISTING	
		ASPHALT BERM
		BLOCK/RETAINING WALL
		BUILDING LINE
		FLUSH CONCRETE CURB
		CONCRETE CURB
		CONCRETE CURB CUT
		CONCRETE CURB & GUTTER
100	100	CONTOUR LINE
		DRIVEWAY
		EDGE OF PAVEMENT
		FENCE LINE
		LOT LINE
		MONUMENT/MONUMENT LINE
PERF. PIPE		PERFORATED STORM DRAIN PIPE
		PROPERTY LINE
RWL	RWL	RAINWATER LEADER
		SIDEWALK
SD		STORM DRAIN-MANHOLE & CATCH BASIN
		THRU CURB DRAIN
100.00	+100.00	SPOT ELEVATION
		TRAFFIC SIGN
		TREE
		UTILITY BOX
AD	AD	AREA DRAIN
BW	BW	BACK OF WALK
BLDG	BLDG	BUILDING
BL	BL	BUILDING LINE
CB	CB	CATCH BASIN
COTG	COTG	CLEANOUT TO GRADE
C	C	CONCRETE
DR	DR	DOOR
DS	DS	DOWN SPOUT
DIP	DIP	DUCTILE IRON PIPE
ESMT	ESMT	EASEMENT
EW	EW	EDGE OF WALK
FB	FB	FACE OF BERM
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DRAWN BY	MRF
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SHEET C501
OF 19 SHEETS

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Appendix 3: Soils Information

Geotechnical Study

GEOTECHNICAL INVESTIGATION
PROPOSED WAREHOUSE

NEC Harvill Avenue and Cajalco Road
Riverside County (Perris), California
for
Black Creek Group

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

July 26, 2021

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Black Creek Group
4675 MacArthur Court, Suite 625
Newport Beach, California 92660

Attention: Mr. Peter Schafer
AVP, Development

Project No.: **21G191-1**

Subject: **Geotechnical Investigation**
Proposed Warehouse
NEC Harvill Avenue and Cajalco Road
Riverside County (Perris), California

Gentlemen:

In accordance with your request, we have conducted a geotechnical investigation at the subject site. We are pleased to present this report summarizing the conclusions and recommendations developed from our investigation.

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

SOUTHERN CALIFORNIA GEOTECHNICAL, INC.

Ricardo Frias, RCE 91772
Staff Engineer

REGISTERED PROFESSIONAL ENGINEER
RICARDO FRIAS
No. 91772
CIVIL
STATE OF CALIFORNIA

Robert G. Trazo, GE 2655
Principal Engineer

REGISTERED PROFESSIONAL ENGINEER
ROBERT TRAZO
No. 2655
GEOTECHNICAL
STATE OF CALIFORNIA

Distribution: (1) Addressee

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY

Presented below is a brief summary of the conclusions and recommendations of this investigation. Since this summary is not all inclusive, it should be read in complete context with the entire report.

Geotechnical Design Considerations

- The near-surface native alluvial soils within the upper 6 to 12± feet generally consist of silty sands and clayey sands which possess variable strength and unfavorable consolidation/collapse characteristics. The alluvium greater than 6 to 12± feet generally possess high strengths and densities and favorable consolidation/collapse characteristics.
- Older native alluvial soils were encountered at the ground surface at Boring No. B-2 and at a depth of 1½± feet below the existing site grades at Boring No. B-1, extending to at least the maximum depth explored of 25± feet.
- The near-surface alluvial soils were found to be loose and porous and possess varying strengths. These soils, in their present condition, are not considered suitable for support of the foundation loads of the new structure.
- Remedial grading will be necessary to the upper portion of the near-surface native alluvial soils and replace these materials as compacted structural fill soils.

Site Preparation

- Site stripping of existing vegetated areas should remove include all vegetation, including tree root masses and any organic topsoil.
- Remedial grading is recommended to be performed within the proposed building area in order to remove the upper portion of the near-surface native alluvial soils. The soils within the proposed building area should be overexcavated to a depth of 5 feet below existing grade and to a depth of at least 5 feet below proposed building pad subgrade elevations.
- The proposed foundation influence zones should be overexcavated to a depth of at least 6 feet below proposed foundation bearing grade.
- Following completion of the overexcavation, the exposed soils should be scarified to a depth of at least 12 inches, and thoroughly moisture condition to raise the moisture content of the underlying soils to at least 2 to 4 percent above optimum moisture content, extending to a depth of at least 24 inches. The overexcavation subgrade soils should then be recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. The previously excavated soils may then be replaced as compacted structural fill.
- The new pavement and flatwork subgrade soils are recommended to be scarified to a depth of 12± inches, moisture conditioned and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density.

Building Foundations

- Conventional shallow foundations, supported in newly placed compacted fill.
- 2,500 lbs/ft^2 maximum allowable soil bearing pressure.
- Reinforcement consisting of at least six (6) No. 5 rebars (3 top and 3 bottom) in strip footings due to the presence of expansive soils. Additional reinforcement may be necessary for structural considerations.

Building Floor Slab

- Conventional Slab-on-Grade: minimum 6 inches thick.
- Modulus of Subgrade Reaction: k = 100 psi/in.
- Minimum slab reinforcement: No. 3 bars at 16-inches on-center, in both directions, due to the presence of medium expansive soils at this site. The actual floor slab reinforcement should be determined by the structural engineer, based upon the imposed loading.

Pavements Design Recommendations

ASPHALT PAVEMENTS (R = 30)					
Materials	**Thickness (inches)**				
	Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0)	Truck Traffic			
		TI = 6.0	TI = 7.0	TI = 8.0	TI = 9.0
Asphalt Concrete	3	3½	4	5	5½
Aggregate Base	6	8	10	11	13
Compacted Subgrade	12	12	12	12	12

PORTLAND CEMENT CONCRETE PAVEMENTS (R = 30)				
Materials	**Thickness (inches)**			
	Autos and Light Truck Traffic (TI = 5.0 to 6.0)	Truck Traffic		
		TI = 7.0	TI = 8.0	TI = 9.0
PCC	5	6	7	8
Compacted Subgrade (95% minimum compaction)	12	12	12	12

2.0 SCOPE OF SERVICES

The scope of services performed for this project was in accordance with our Proposal No. 21P238R2, dated June 21, 2021. The scope of services included a visual site reconnaissance, subsurface exploration, field and laboratory testing, and geotechnical engineering analysis to provide criteria for preparing the design of the building foundations, building floor slab, and parking lot pavements along with site preparation recommendations and construction considerations for the proposed development. The evaluation of the environmental aspects of this site was beyond the scope of services for this geotechnical investigation.

3.0 SITE AND PROJECT DESCRIPTION

3.1 Site Conditions

The site is located at the northeast corner of Harvill Avenue and Cajalco Road in an unincorporated portion of Riverside County near Perris, California. The site is bounded to the north by a commercial building, to the west by Harvill Avenue, to the south by Cajalco Road, and to the east by a railroad easement. The general location of the site is illustrated on the Site Location Map, included as Plate 1 of this report.

The site consists of an irregular-shaped parcel, 9.13± acres in size. The site is presently vacant and undeveloped. The eastern property line descends approximately 3 to 6± feet towards the railroad easement. Ground surface cover consists of exposed soil with sparse to moderate native grass and weed growth, and localized areas of debris and trash. Small- to medium-sized trees line the western, southern, and eastern property lines. An existing sewer and electrical easement are located along the eastern property line. The site is also bisected by an existing storm drain easement that trends east to west.

Detailed topographic information was obtained from a topographic survey prepared by Kier-Wright. The topographic plan indicates that the overall site slopes towards the east-central drainage easement. The northern half of the site slopes towards the southeast and the southern half of the site slopes to the northeast at gradients of 1± percent.

3.2 Proposed Development

Based on the conceptual site plan (Scheme 3) prepared by HPA Architecture, the site will be developed with one (1) new warehouse. The building will be 98,000± ft^2 in size, centrally located in the southern half of the site. Dock-high doors will be constructed along the northern building wall. The building is expected to be surrounded by asphaltic concrete in the parking and driving lanes, Portland cement concrete in the truck court area, and limited areas of concrete flatwork and landscape planters.

Detailed structural information has not been provided. It is assumed that the new building will be a single-story structure of tilt-up concrete construction, supported on a conventional shallow foundation system with a concrete slab-on-grade floor. Based on the assumed construction, maximum column and wall loads are expected to be on the order of 100 kips and 4 to 7 kips per linear foot, respectively.

No significant amounts of below grade construction, such as basements or crawl spaces, are expected to be included in the proposed development. Based on the assumed topography, cuts and fills of up to 2 to 3± feet are expected to be necessary to achieve the proposed site grades.

4.0 SUBSURFACE EXPLORATION

4.1 Scope of Exploration/Sampling Methods

The subsurface exploration conducted for this project consisted of seven (7) borings advanced to depths of 10 to 25± feet below the existing site grades. The borings were logged during drilling by a member of our staff.

The borings were advanced with hollow-stem augers, by a conventional truck-mounted drilling rig. Representative bulk and relatively undisturbed soil samples were taken during drilling. Relatively undisturbed soil samples were taken with a split barrel "California Sampler" containing a series of one inch long, 2.416± inch diameter brass rings. This sampling method is described in ASTM Test Method D-3550. In-situ samples were also taken using a 1.4± inch inside diameter split spoon sampler, in general accordance with ASTM D-1586. Both of these samplers are driven into the ground with successive blows of a 140-pound weight falling 30 inches. The blow counts obtained during driving are recorded for further analysis. Bulk samples were collected in plastic bags to retain their original moisture content. The relatively undisturbed ring samples were placed in molded plastic sleeves that were then sealed and transported to our laboratory.

The approximate locations of the borings are indicated on the Boring Location Plan, included as Plate 2 in Appendix A of this report. The Boring Logs, which illustrate the conditions encountered at the boring locations, as well as the results of some of the laboratory testing, are included in Appendix B.

4.2 Geotechnical Conditions

Younger Alluvium

With the exception of Boring No. B-2, native alluvium was encountered at the ground surface at all of the boring locations, extending to at least the maximum depth explored of 25± feet below existing site grades. The younger alluvium generally consists of medium dense silty sands, clayey sands, and sandy silts with varying medium to coarse sands, silt and clay content. Boring Nos. B-5 through B-7 also encountered stiff to hard fine sandy clays and silty clays with varying amounts of sand and silt. It should be noted that Boring No. B-3 encountered soils which possess fine root fibers and porosity within the upper 12± feet.

Older Alluvium

Older native alluvial soils were encountered at the ground surface or beneath the younger alluvium at Boring Nos. B-1 and B-2, extending to the maximum depth explored of 25± feet below ground surface. The older alluvium generally consists of medium dense to dense silty sands, clayey sands, and sandy silts with varying medium to coarse sand, silt and clay content.

Many of the samples encountered were found to be cemented. Boring No. B-2 encountered a layer of loose clayey fine to medium sands at a depth of 6± feet below the existing site grades.

Groundwater

Free water was not encountered during the drilling of any of the borings. Based on the moisture content of the recovered soil samples and the lack of free water in the borings, the static groundwater table is at a greater depth than 25± feet below existing site grades.

As part of our research, we reviewed available groundwater data in order to determine the historic high groundwater level for the site. The primary reference used to determine the historic groundwater depths in this area is the Western Municipal Water District and the San Bernardino Valley Water Conservation District Cooperative Well Measuring Program. High water level from the nearest well is included below:

State Well ID	Approximate Distance from Subject Site	High Water Depth (feet)
04S/03W-07J001S	< 3,484 feet	73.1

Based on topographic information obtained from Google Earth, the elevation at the subject site ranges from 1,511± feet msl in the northeastern area of the site to 1,502± feet msl in the southwestern region of the site. The elevation of the high-water level in the well is 1,459.49± feet msl.

5.0 LABORATORY TESTING

The soil samples recovered from the subsurface exploration were returned to our laboratory for further testing to determine selected physical and engineering properties of the soils. The tests are briefly discussed below. It should be noted that the test results are specific to the actual samples tested, and variations could be expected at other locations and depths.

Classification

All recovered soil samples were classified using the Unified Soil Classification System (USCS), in accordance with ASTM D-2488. Field identifications were then supplemented with additional visual classifications and/or by laboratory testing. The USCS classifications are shown on the Boring Logs and are periodically referenced throughout this report.

Density and Moisture Content

The density has been determined for selected relatively undisturbed ring samples. These densities were determined in general accordance with the method presented in ASTM D-2937. The results are recorded as dry unit weight in pounds per cubic foot. The moisture contents are determined in accordance with ASTM D-2216, and are expressed as a percentage of the dry weight. These test results are presented on the Boring Logs.

Consolidation

Selected soil samples have been tested to determine their consolidation and collapse potential, in accordance with ASTM D-2435. The testing apparatus is designed to accept either natural or remolded samples in a one-inch high ring, approximately 2.416 inches in diameter. Each sample is then loaded incrementally in a geometric progression and the resulting deflection is recorded at selected time intervals. Porous stones are in contact with the top and bottom of the sample to permit the addition or release of pore water. The samples are typically inundated with water at an intermediate load to determine their potential for collapse or heave. The results of the consolidation testing are plotted on Plates C-1 through C-4 in Appendix C of this report.

Maximum Dry Density and Optimum Moisture Content

A representative bulk sample has been tested for its maximum dry density and optimum moisture content. The results have been obtained using the Modified Proctor procedure, per ASTM D-1557, and are presented on Plate C-5 in Appendix C of this report. These tests are generally used to with compare the dry densities of undisturbed field samples, and for later compaction testing. Additional testing of other soil types or soil mixes may be necessary at a later date.

Expansion Index

The expansion potential of the on-site soils was determined in general accordance with ASTM D-4829. The testing apparatus is designed to accept a 4-inch diameter, 1-in high, remolded sample. The sample is initially remolded to 50± 1 percent saturation and then loaded with a

surcharge equivalent to 144 pounds per square foot. The sample is then inundated with water and allowed to swell against the surcharge. The resultant swell or consolidation is recorded after a 24-hour period. The results of the EI testing are as follows:

Sample Identification	Expansion Index	Expansive Potential
B-6 @ 0 to 5 feet	51	Medium

Soluble Sulfates

A representative sample of the near-surface soils was submitted to a subcontracted analytical laboratory for determination of soluble sulfate content. Soluble sulfates are naturally present in soils, and if the concentration is high enough, can result in degradation of concrete which comes into contact with these soils. The results of the soluble sulfate testing are presented below, and are discussed further in a subsequent section of this report.

Sample Identification	Soluble Sulfates (%)	Sulfate Classification
B-1 @ 0 to 5 feet	0.008	Not Applicable (S0)

Corrosivity Testing

One representative bulk sample of the near-surface soils was submitted to a subcontracted corrosion engineering laboratory to identify potentially corrosive characteristics with respect to common construction materials. The corrosivity testing included a determination of the electrical resistivity, pH, and chloride and nitrate concentrations of the soils, as well as other tests. The results of some of these tests are presented below.

Sample Identification	Saturated Resistivity (ohm-cm)	pH	Chlorides (mg/kg)	Nitrates (mg/kg)
B-1 @ 0 to 5 feet	2,200	7.5	42	21

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of our review, field exploration, laboratory testing and geotechnical analysis, the proposed development is considered feasible from a geotechnical standpoint. The recommendations contained in this report should be taken into the design, construction, and grading considerations.

The recommendations are contingent upon all grading and foundation construction activities being monitored by the geotechnical engineer of record. The recommendations are provided with the assumption that an adequate program of client consultation, construction monitoring, and testing will be performed during the final design and construction phases to verify compliance with these recommendations. Maintaining Southern California Geotechnical, Inc., (SCG) as the geotechnical consultant from the beginning to the end of the project will provide continuity of services. The geotechnical engineering firm providing testing and observation services shall assume the responsibility of Geotechnical Engineer of Record.

The Grading Guide Specifications, included as Appendix D, should be considered part of this report, and should be incorporated into the project specifications. The contractor and/or owner of the development should bring to the attention of the geotechnical engineer any conditions that differ from those stated in this report, or which may be detrimental for the development.

6.1 Seismic Design Considerations

The subject site is located in an area which is subject to strong ground motions due to earthquakes. The performance of a site-specific seismic hazards analysis was beyond the scope of this investigation. However, numerous faults capable of producing significant ground motions are located near the subject site. Due to economic considerations, it is not generally considered reasonable to design a structure that is not susceptible to earthquake damage. Therefore, significant damage to structures may be unavoidable during large earthquakes. The proposed structures should, however, be designed to resist structural collapse and thereby provide reasonable protection from serious injury, catastrophic property damage and loss of life.

Faulting and Seismicity

Research of available maps indicates that the subject site is not located within an Alquist-Priolo Earthquake Fault Zone. Furthermore, SCG did not identify any evidence of faulting during the geotechnical investigation. Therefore, the possibility of significant fault rupture on the site is considered to be low.

The potential for other geologic hazards such as seismically induced settlement, lateral spreading, tsunamis, inundation, seiches, flooding, and subsidence affecting the site is considered low.

Seismic Design Parameters

The 2019 California Building Code (CBC) provides procedures for earthquake resistant structural design that include considerations for on-site soil conditions, occupancy, and the configuration of the structure including the structural system and height. The seismic design parameters presented below are based on the soil profile and the proximity of known faults with respect to the subject site.

Based on standards in place at the time of this report, the proposed development is expected to be designed in accordance with the requirements of the 2019 edition of the California Building Code (CBC), which was adopted on January 1, 2020.

The 2019 CBC Seismic Design Parameters have been generated using the SEAOC/OSHPD Seismic Design Maps Tool, a web-based software application available at the website www.seismicmaps.org. This software application calculates seismic design parameters in accordance with several building code reference documents, including ASCE 7-16, upon which the 2019 CBC is based. The application utilizes a database of risk-targeted maximum considered earthquake (MCE_R) site accelerations at 0.01-degree intervals for each of the code documents. The tables below were created using data obtained from the application. The output generated from this program is included as Plate E-1 in Appendix E of this report.

The 2019 CBC requires that a site-specific ground motion study be performed in accordance with Section 11.4.8 of ASCE 7-16 for Site Class D sites with a mapped S_1 value greater than 0.2. However, Section 11.4.8 of ASCE 7-16 also indicates an exception to the requirement for a site-specific ground motion hazard analysis for certain structures on Site Class D sites. The commentary for Section 11 of ASCE 7-16 (Page 534 of Section C11 of ASCE 7-16) indicates that "In general, this exception effectively limits the requirements for site-specific hazard analysis to very tall and or flexible structures at Site Class D sites." **Based on our understanding of the proposed development, the seismic design parameters presented below were calculated assuming that the exception in Section 11.4.8 applies to the proposed structure at this site. However, the structural engineer should verify that this exception is applicable to the proposed structure.** Based on the exception, the spectral response accelerations presented below were calculated using the site coefficients (F_a and F_v) from Tables 1613.2.3(1) and 1613.2.3(2) presented in Section 16.4.4 of the 2019 CBC.

2019 CBC SEISMIC DESIGN PARAMETERS

Parameter		Value
Mapped Spectral Acceleration at 0.2 sec Period	S_S	1.500
Mapped Spectral Acceleration at 1.0 sec Period	S_1	0.561
Site Class	---	D
Site Modified Spectral Acceleration at 0.2 sec Period	S_{MS}	1.500
Site Modified Spectral Acceleration at 1.0 sec Period	S_{M1}	0.976
Design Spectral Acceleration at 0.2 sec Period	S_{DS}	1.000
Design Spectral Acceleration at 1.0 sec Period	S_{D1}	0.650

It should be noted that the site coefficient F_v and the parameters S_{M1} and S_{D1} were not included in the SEAOC/OSHPD Seismic Design Maps Tool output for the 2019 CBC. We calculated these parameters-based on Table 1613.2.3(2) in Section 16.4.4 of the 2019 CBC using the value of S_1 obtained from the Seismic Design Maps Tool, assuming that a site-specific ground motion hazards analysis is not required for the proposed buildings at this site.

Liquefaction

Liquefaction is the loss of strength in generally cohesionless, saturated soils when the pore-water pressure induced in the soil by a seismic event becomes equal to or exceeds the overburden pressure. The primary factors which influence the potential for liquefaction include groundwater table elevation, soil type and plasticity characteristics, relative density of the soil, initial confining pressure, and intensity and duration of ground shaking. The depth within which the occurrence of liquefaction may impact surface improvements is generally identified as the upper 50 feet below the existing ground surface. Liquefaction potential is greater in saturated, loose, poorly graded fine sands with a mean (d_{50}) grain size in the range of 0.075 to 0.2 mm (Seed and Idriss, 1971). Non-sensitive clayey (cohesive) soils which possess a plasticity index of at least 18 (Bray and Sancio, 2006) are generally not considered to be susceptible to liquefaction, nor are those soils which are above the historic static groundwater table.

The Riverside County GIS website indicates that the subject site is located within a zone of low liquefaction susceptibility. In addition, the subsurface conditions encountered at the boring locations are not considered to be conducive to liquefaction. These conditions consist of moderate to high strength younger and older native alluvial soils and no evidence of a long-term groundwater table within the depths explored by the borings. Based on these considerations, liquefaction is not considered to be a design concern for this project.

6.2 Geotechnical Design Considerations

General

The near-surface native alluvial soils within the upper 6 to 12± feet generally consist of silty sands and clayey sands which possess variable strength and unfavorable consolidation/collapse characteristics. The alluvium greater than 6 to 12± feet generally possess high strengths and densities and favorable consolidation/collapse characteristics. Older native alluvial soils were encountered at the ground surface at Boring No. B-2 and at a depth of 1½± feet below the existing site grades at Boring No. B-1, extending to at least the maximum depth explored of 25± feet. The near-surface alluvial soils were found to be loose and porous and possess varying strengths. These soils, in their present condition, are not considered suitable for support of the foundation loads of the new structure. Therefore, remedial grading is considered warranted within the proposed building area in order to remove the upper portion of the near-surface native alluvial soils, and replace these materials as compacted structural fill soils**.**

Settlement

The recommended remedial grading will remove a portion of the near-surface native alluvium, including collapsible/compressible soils, and replace these soils as compacted structural fill. The

native soils that will remain in place below the recommended depth of overexcavation will not be subject to significant load increases from the foundations of the new structure. Provided that the recommended remedial grading is completed, the post-construction static settlements of the proposed structure is expected to be within tolerable limits.

Soluble Sulfates

The results of the soluble sulfate testing indicated a sulfate concentration of approximately 0.008 percent for the selected sample of the near-surface soils. This concentration is considered to be "not applicable" (S0) with respect to the American Concrete Institute (ACI) Publication 318-14 Building Code Requirements for Structural Concrete and Commentary, Section 4.3. Therefore, specialized concrete mix designs are not considered to be necessary, with regard to sulfate protection purposes. It is, however, recommended that additional soluble sulfate testing be conducted at the completion of rough grading to verify the soluble sulfate concentrations of the soils which are present at pad grade within the building area.

Corrosion Potential

The results of laboratory testing indicate that the on-site soils possess a saturated resistivity of 2,200 ohm-cm, and a pH value of 7.5. These test results have been evaluated in accordance with guidelines published by the Ductile Iron Pipe Research Association (DIPRA). The DIPRA guidelines consist of a point system by which characteristics of the soils are used to quantify the corrosivity characteristics of the site. Resistivity and pH are two of the five factors that enter into the evaluation procedure. Redox potential, relative soil moisture content and sulfides are also included. Although sulfide testing was not part of the scope of services for this project, we have evaluated the corrosivity characteristics of the on-site soils using resistivity, pH and moisture content. Based on these factors, and utilizing the DIPRA procedure, **the on-site soils are considered to be slightly corrosive to ductile iron pipe. Therefore, polyethylene encasement or some other appropriate method of protection may be required for iron pipes.**

A relatively low concentration (42 mg/kg) of chlorides were detected in the sample submitted for corrosivity testing. In general, soils possessing chloride concentrations in excess of 500 parts per million (ppm) are considered to be corrosive with respect to steel reinforcement within reinforced concrete. Based on the lack of any significant chlorides in the tested sample, the site is considered to have a C1 chloride exposure in accordance with the American Concrete Institute (ACI) Publication 318 Building Code Requirements for Structural Concrete and Commentary. Therefore, a specialized concrete mix design for reinforced concrete for protection against chloride exposure is not considered warranted.

Nitrates present in soil can be corrosive to copper tubing at concentrations greater than 50 mg/kg. The tested sample possess a nitrate concentration of 21 mg/kg. Based on this test result, the on-site soils are not considered to be corrosive to copper pipe.

Since SCG does not practice in the area of corrosion engineering, we recommend that the client contact a corrosion engineer to provide a more thorough evaluation.

Shrinkage/Subsidence

Based on the results of the laboratory testing, removal and recompaction of the near-surface native alluvium will result in an average shrinkage of 2 to 16 percent. However, the estimated shrinkage of the individual soil layers at the site is highly variable, locally ranging from a minimum shrinkage value of 1 percent to a maximum shrinkage of 20 percent at varying sample depths and locations. It should be noted that the potential shrinkage estimate is based on dry density testing performed on small-diameter samples taken at the boring locations. If a more accurate and precise shrinkage estimate is desired, SCG can perform a shrinkage study involving several excavated test-pits where in-place densities are determined using in-situ testing methods instead of laboratory density testing on small-diameter samples. Please contact SCG for details and a cost estimate regarding a shrinkage study, if desired.

These estimates are based on previous experience and the subsurface conditions encountered at the boring locations. The actual amount of subsidence is expected to be variable and will be dependent on the type of machinery used, repetitions of use, and dynamic effects, all of which are difficult to assess precisely.

Grading and Foundation Plan Review

It is recommended that we be provided with copies of the finalized grading and foundation plans, when they become available, for review with regard to the conclusions, recommendations, and assumptions contained within this report.

6.3 Site Grading Recommendations

The grading recommendations presented below are based on the subsurface conditions encountered at the boring locations and our understanding of the proposed development. We recommend that all grading activities be completed in accordance with the Grading Guide Specifications included as Appendix D of this report, unless superseded by site-specific recommendations presented below.

Site Stripping

Initial site preparation should include stripping of any surficial vegetation and organic soils. Any organic topsoil and tree root masses should be removed during site stripping. Based on conditions encountered at the time of the subsurface exploration, stripping of native grass and weed growth is expected to be necessary throughout the majority of the site. Any trash should also be disposed of prior to site grading. These materials should be disposed of off-site. The actual extent of site stripping should be determined in the field by the geotechnical engineer, based on the organic content and stability of the materials encountered.

Treatment of Existing Soils: Building Pad

Remedial grading should be performed within the proposed building pad area in order to remove a portion of the existing alluvial soils. In general, it is recommended that the overexcavation extend to a depth of at least 5 feet below existing grade, and to a depth of at least 5 feet below proposed grade, whichever is greater. Within the influence zones of the new

foundations, the overexcavation should extend to a depth of at least 6 feet below proposed foundation bearing grade.

The overexcavation areas should extend at least 5 feet beyond the building perimeters, and to an extent equal to the depth of fill below the new foundations. If the proposed structure incorporates any exterior columns (such as for a canopy or overhang) the area of overexcavation should also encompass these areas.

Following completion of the overexcavation, the subgrade soils within the overexcavation areas should be evaluated by the geotechnical engineer to verify their suitability to serve as the structural fill subgrade, as well as to support the foundation loads of the new structure. This evaluation should include proofrolling and probing to identify any soft, loose, or otherwise unstable soils that must be removed. **Some localized areas of deeper excavation may be required if loose, porous, or low-density native soils are encountered at the base of the overexcavation. It should be noted that Boring Nos. B-2 and B-3 encountered porous, loose, and consolable/collapsible soils extending to depths of 6 to 12± feet.**

After a suitable overexcavation subgrade has been achieved, the exposed soils should be scarified to a depth of at least 12 inches and moisture conditioned or air dried to achieve a moisture content of 2 to 4 percent above optimum moisture content. The subgrade soils should then be recompacted to at least 90 percent of the ASTM D-1557 maximum dry density.

The building pad area may then be raised to grade with previously excavated soils or imported, low expansive structural fill. All structural fill soils present within the proposed building area should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density.

Treatment of Existing Soils: Retaining Walls and Site Walls

The existing soils within the areas of proposed retaining and non-retaining site walls should be overexcavated to a depth of at least 3 feet below foundation bearing grade and replaced as compacted structural fill. Subgrades for erection pads for concrete tilt-up walls are considered to be a part of the foundation system and should also be overexcavated. **Additional overexcavation may be required if porous or collapsible alluvium is encountered, as discussed above.** The overexcavation subgrade soils should be evaluated by the geotechnical engineer prior to scarifying, moisture conditioning and recompacting the upper 12 inches of exposed subgrade soils. The previously excavated soils may then be replaced as compacted structural fill.

If the full lateral extent of overexcavation is not achievable for the proposed walls, the foundations should be redesigned using a lower bearing pressure. The geotechnical engineer of record should be contacted for recommendations pertaining to this type of condition.

Treatment of Existing Soils: Parking and Drive Areas

Based on economic considerations, overexcavation of the alluvial soils in the new parking and drive areas is not considered warranted, with the exception of areas where lower strength, or unstable soils are identified by the geotechnical engineer during grading.

Subgrade preparation in the new parking and drive areas should initially consist of removal of all soils disturbed during stripping. The geotechnical engineer should then evaluate the subgrade to identify any areas of additional unsuitable soils. The subgrade soils should then be scarified to a depth of 12± inches, moisture conditioned to 2 to 4 percent above optimum, and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. Based on the presence of variable strength alluvial soils throughout the site, it is expected that some isolated areas of additional overexcavation may be required to remove zones of lower strength, unsuitable soils.

The grading recommendations presented above for the proposed parking and drive areas assume that the owner and/or developer can tolerate minor amounts of settlement within the proposed parking areas. The grading recommendations presented above do not completely mitigate the extent of existing undocumented fill soils and low strength younger alluvium in the parking areas. As such, settlement and associated pavement distress could occur. Typically, repair of such distressed areas involves significantly lower costs than completely mitigating these soils at the time of construction. If the owner cannot tolerate the risk of such settlements, the parking and drive areas should be overexcavated to a depth of 2 feet below proposed pavement subgrade elevation, with the resulting soils replaced as compacted structural fill.

Fill Placement

- Fill soils should be placed in thin (6± inches), near-horizontal lifts, moisture conditioned to 2 to 4 percent above the optimum moisture content, and compacted.
- On-site soils may be used for fill provided they are cleaned of any debris to the satisfaction of the geotechnical engineer.
- All grading and fill placement activities should be completed in accordance with the requirements of the 2019 CBC and the grading code of the city of Perris and/or the county of Riverside.
- All fill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density. Fill soils should be well mixed.
- Compaction tests should be performed periodically by the geotechnical engineer as random verification of compaction and moisture content. These tests are intended to aid the contractor. Since the tests are taken at discrete locations and depths, they may not be indicative of the entire fill and therefore should not relieve the contractor of his responsibility to meet the job specifications.

Imported Structural Fill

All imported structural fill should consist of low expansive (EI < 50), well graded soils possessing at least 10 percent fines (that portion of the sample passing the No. 200 sieve). Additional specifications for structural fill are presented in the Grading Guide Specifications, included as Appendix D.

Utility Trench Backfill

In general, all utility trench backfill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density. As an alternative, a clean sand (minimum Sand Equivalent of 30) may be placed within trenches and compacted in place (jetting or flooding is not recommended). Compacted trench backfill should conform to the requirements of the local

grading code, and more restrictive requirements may be indicated by the city of Perris and/or the county of Riverside. All utility trench backfills should be witnessed by the geotechnical engineer. The trench backfill soils should be compaction tested where possible; probed and visually evaluated elsewhere.

Utility trenches which parallel a footing, and extending below a 1h:1v plane projected from the outside edge of the footing should be backfilled with structural fill soils, compacted to at least 90 percent of the ASTM D-1557 standard. Pea gravel backfill should not be used for these trenches.

6.4 Construction Considerations

Excavation Considerations

The near-surface soils generally consist of silty sands and sandy silts. These materials may be subject to minor to moderate caving within shallow excavations. Where caving does occur, flattened excavation slopes may be sufficient to provide excavation stability. On a preliminary basis, the inclination of temporary slopes should not exceed 2h:1v. Some of the borings encountered soils that generally consist of clayey sands, sandy clays, and silty clays. On a preliminary basis, the inclination of temporary slopes should not exceed 1.5h:1v within clayey soils. Deeper excavations may require some form of external stabilization such as shoring or bracing. Maintaining adequate moisture content within the near-surface soils will improve excavation stability. All excavation activities on this site should be conducted in accordance with Cal-OSHA regulations.

Expansive Soils

Based on results of laboratory testing, the near-surface soils at this site possess a medium expansion potential. Due to the presence of expansive soils at this site, provisions should be made to limit the potential for surface water to penetrate the soils immediately adjacent to the structures. These provisions should include directing surface runoff into rain gutters and area drains, reducing the extent of landscaped areas around the structure, and sloping the ground surface away from the building and planned improvements. Where possible, it is recommended that landscaped planters not be located immediately adjacent to the building. If landscaped planters around the buildings and planned improvements are necessary, it is recommended that drought tolerant plants or a drip irrigation system be utilized, to minimize the potential for deep moisture penetration around the structures and planned improvements.

Presented below is a list of additional soil moisture control recommendations that should be considered by the owner, developer, and civil engineer:

- Ponding and areas of low flow gradients in unpaved walkways, grass and planter areas should be avoided. In general, minimum drainage gradients of 2 percent should be maintained in unpaved areas.
- Bare soil within five feet of proposed structures should be sloped at a minimum five percent gradient away from the structure (about three inches of fall in five feet), or the same area could be paved with a minimum surface gradient of one percent. Pavement is preferable.

- Decorative gravel ground cover tends to provide a reservoir for surface water and may hide areas of ponding or poor drainage. Decorative gravel is, therefore, not recommended and should not be utilized for landscaping unless equipped with a subsurface drainage system designed by a licensed landscape architect.
- Positive drainage devices, such as graded swales, paved ditches, and catch basins should be installed at appropriate locations within the area of proposed development.
- Concrete walks and flatwork should not obstruct the free flow of surface water to the appropriate drainage devices.
- Area drains should be recessed below grade to allow free flow of water into the drain. Concrete or brick flatwork joints should be sealed with mortar or flexible mastic.
- Gutter and downspout systems should be installed to capture all discharge from roof areas. Downspouts should discharge directly into a pipe or paved surface system to be conveyed offsite.
- Enclosed planters adjoining, or in close proximity to proposed structures, should be sealed at the bottom and provided with subsurface collection systems and outlet pipes.
- Depressed planters should be raised with soil to promote runoff (minimum drainage gradient two percent or five percent, see above), and/or equipped with area drains to eliminate ponding.
- Drainage outfall locations should be selected to avoid erosion of slopes and/or properly armored to prevent erosion of graded surfaces. No drainage should be directed over or towards adjoining slopes.
- All drainage devices should be maintained on a regular basis, including frequent observations during the rainy season to keep the drains free of leaves, soil and other debris.
- Landscape irrigation should conform to the recommendations of the landscape architect and should be performed judiciously to preclude either soaking or excessive drying of the foundation soils. This should entail regular watering during the drier portions of the year and little or no irrigation during the rainy season. Automatic sprinkler systems should, therefore, be switched to manual operation during the rainy season. Good irrigation practice typically requires frequent application of limited quantities of water that are sufficient to sustain plant growth, but do not excessively wet the soils. Ponding and/or run-off of irrigation water are indications of excessive watering.

Other provisions, as determined by the landscape architect or civil engineer, may also be appropriate.

Moisture Sensitive Subgrade Soils

Most of the near surface soils possess appreciable silt and clay content and may become unstable if exposed to significant moisture infiltration or disturbance by construction traffic. In addition, based on their granular content, some of the on-site soils will also be susceptible to erosion. The site should, therefore, be graded to prevent ponding of surface water and to prevent water from running into excavations.

Groundwater

The static groundwater table is considered to exist at a depth greater than 25± feet or more below existing grade. Therefore, groundwater is not expected to impact the grading or foundation construction activities.

6.5 Foundation Design and Construction

Based on the preceding grading recommendations, it is assumed that the new building pad will be underlain by newly placed structural fill soils extending to depths of at least 6 feet below

foundation bearing grade. Based on this subsurface profile, the proposed structures may be supported on shallow foundations.

Foundation Design Parameters

New square and rectangular footings may be designed as follows:

- Maximum, net allowable soil bearing pressure: 2,500 lbs/ft^2.
- Minimum wall/column footing width: 14 inches/24 inches.
- Minimum longitudinal steel reinforcement within strip footings: Six (6) No. 5 rebars (3 top and 3 bottom). Due to the presence of expansive soils. Additional reinforcement may be necessary for structural considerations.
- Minimum foundation embedment: 12 inches into suitable structural fill soils, and at least 18 inches below adjacent exterior grade. Interior column footings may be placed immediately beneath the floor slab.
- It is recommended that the perimeter building foundations be continuous across all exterior doorways. Any flatwork adjacent to the exterior doors should be doweled into the perimeter foundations in a manner determined by the structural engineer.

The allowable bearing pressures presented above may be increased by 1/3 when considering short duration wind or seismic loads. The minimum steel reinforcement recommended above is based on standard geotechnical practice. Additional rigidity may be necessary for structural considerations. The actual design of the foundations should be determined by the structural engineer.

Foundation Construction

The foundation subgrade soils should be evaluated at the time of overexcavation, as discussed in Section 6.3 of this report. It is further recommended that the foundation subgrade soils be evaluated by the geotechnical engineer immediately prior to steel or concrete placement. Soils suitable for direct foundation support should consist of newly placed structural fill compacted at least 90 percent of the ASTM D-1557 maximum dry density. Any unsuitable materials should be removed to a depth of suitable bearing compacted structural fill, with the resulting excavations backfilled with compacted fill soils. As an alternative, lean concrete slurry (500 to 1,500 psi) may be used to backfill such isolated overexcavations.

The foundation subgrade soils should also be properly moisture conditioned to 2 to 4 percent above the Modified Proctor optimum, to a depth of at least 12 inches below bearing grade. Since it is typically not feasible to increase the moisture content of the floor slab and foundation subgrade soils once rough grading has been completed, care should be taken to maintain the moisture content of the building pad subgrade soils throughout the construction process.

Estimated Foundation Settlements

Post-construction total and differential static settlements of shallow foundations designed and constructed in accordance with the previously presented recommendations are estimated to be less than 1.0 and 0.5 inches, respectively, under static conditions. Differential movements are expected to occur over a 30-foot span, thereby resulting in an angular distortion of less than 0.002 inches per inch.

Lateral Load Resistance

Lateral load resistance will be developed by a combination of friction acting at the base of foundations and slab and the passive earth pressure developed by footings below grade. The following friction and passive pressure may be used to resist lateral forces:

- Passive Earth Pressure: 250 lbs/ft^3
- Friction Coefficient: 0.28

These are allowable values, and include a factor of safety. When combining friction and passive resistance, the passive pressure component should be reduced by one-third. These values assume that footings will be poured directly against compacted structural fill soils. The maximum allowable passive pressure is 2,500 lbs/ft^2.

6.6 Floor Slab Design and Construction

Subgrades which will support new floor slab should be prepared in accordance with the recommendations contained in the ***Site Grading Recommendations*** section of this report. Based on the anticipated grading which will occur at this site, the floor of the proposed structure may be constructed as a conventional slab-on-grade, supported on newly placed structural fill (or densified existing soils), extending to a depth of at least 5 feet below finished pad grade. Based on geotechnical considerations, the floor slabs may be designed as follows:

- Minimum slab thickness: 6 inches.

- Modulus of Subgrade Reaction: 100 psi/in.

- Minimum slab reinforcement: No. 3 bars at 16-inches on-center, in both directions, due to the presence of medium expansive soils at this site. The actual floor slab reinforcement should be determined by the structural engineer, based upon the imposed loading.

- Slab underlayment: If moisture sensitive floor coverings will be used then minimum slab underlayment should consist of a moisture vapor barrier constructed below the entire slab area where such moisture sensitive floor coverings are expected. The moisture vapor barrier should meet or exceed the Class A rating as defined by ASTM E 1745-97 and have a permeance rating less than 0.01 perms as described in ASTM E 96-95 and ASTM E 154-88. A polyolefin material such as Stego® Wrap Vapor Barrier or equivalent will meet these specifications. The moisture vapor barrier should be properly constructed in accordance with all applicable manufacturer specifications. Given that a rock free subgrade is anticipated and that a capillary break is not required, sand below the barrier

is not required. The need for sand and/or the amount of sand above the moisture vapor barrier should be specified by the structural engineer or concrete contractor. The selection of sand above the barrier is not a geotechnical engineering issue and hence outside our purview. Where moisture sensitive floor coverings are not anticipated, the vapor barrier may be eliminated.

- Moisture condition the floor slab subgrade soils to 2 to 4 percent above the Modified Proctor optimum moisture content, to a depth of 12 inches. The moisture content of the floor slab subgrade soils should be verified by the geotechnical engineer within 24 hours prior to concrete placement.

- Proper concrete curing techniques should be utilized to reduce the potential for slab curling or the formation of excessive shrinkage cracks.

The actual design of the floor slab should be completed by the structural engineer to verify adequate thickness and reinforcement.

6.7 Retaining Wall Design and Construction

Although not indicated on the site plan, some small (less than 6 feet in height) retaining walls may be required in truck court area and to facilitate the new site grades. The parameters recommended for use in the design of these walls are presented below.

Retaining Wall Design Parameters

Based on the soil conditions encountered at the boring locations, the following parameters may be used in the design of new retaining walls for this site. The following parameters assume that only the on-site soils will be utilized for retaining wall backfill. The near-surface soils generally consist of silty sands, clayey sands, and sandy silts. However, the clay soils were found to possess medium expansive potential. **These clayey materials are not considered suitable for use as retaining wall backfill**. Based on the results of laboratory testing, the near-surface silty sands and clayey sands are expected to possess a friction angle of at least 30 degrees when compacted to at least 90 percent of the ASTM D-1557 maximum dry density.

If desired, SCG could provide design parameters for an alternative select backfill material behind the retaining walls. The use of select backfill material could result in lower lateral earth pressures. In order to use the design parameters for the imported select fill, this material must be placed within the entire active failure wedge. This wedge is defined as extending from the heel of the retaining wall upwards at an angle of approximately 60° from horizontal. If select backfill material behind the retaining wall is desired, SCG should be contacted for supplementary recommendations.

RETAINING WALL DESIGN PARAMETERS

Design Parameter		Soil Type: On-Site Sandy Soils
Internal Friction Angle (ϕ)		30°
Unit Weight		135 lbs/ft^3
Equivalent Fluid Pressure:	Active Condition (level backfill)	45 lbs/ft^3
	Active Condition (2h:1v backfill)	73 lbs/ft^3
	At-Rest Condition (level backfill)	68 lbs/ft^3

Regardless of the backfill type, the walls should be designed using a soil-footing coefficient of friction of 0.28 and an equivalent passive pressure of 250 lbs/ft^3. The structural engineer should incorporate appropriate factors of safety in the design of the retaining walls.

The active earth pressure may be used for the design of retaining walls that do not directly support structures or support soils that in turn support structures and which will be allowed to deflect. The at-rest earth pressure should be used for walls that will not be allowed to deflect such as those which will support foundation bearing soils, or which will support foundation loads directly.

Where the soils on the toe side of the retaining wall are not covered by a "hard" surface such as a structure or pavement, the upper 1 foot of soil should be neglected when calculating passive resistance due to the potential for the material to become disturbed or degraded during the life of the structure.

Seismic Lateral Earth Pressures

In accordance with the 2019 CBC, any retaining walls more than 6 feet in height must be designed for seismic lateral earth pressures. If walls 6 feet or more are required for this site, the geotechnical engineer should be contacted for supplementary seismic lateral earth pressure recommendations.

Retaining Wall Foundation Design

The retaining wall foundations should be supported within newly placed compacted structural fill, extending to a depth of at least 3 feet below proposed foundation bearing grade. Foundations to support new retaining walls should be designed in accordance with the general Foundation Design Parameters presented in a previous section of this report.

Backfill Material

On-site soils may be used to backfill the retaining walls. However, all backfill material placed within 3 feet of the back-wall face should have a particle size no greater than 3 inches. The retaining wall backfill materials should be well graded.

It is recommended that a properly installed prefabricated drainage composite such as the MiraDRAIN 6000XL (or approved equivalent), which is specifically designed for use behind retaining walls be used. If the drainage composite material is not covered by an impermeable surface, such as a structure or pavement, a 12-inch thick layer of a low permeability soil should be placed over the backfill to reduce surface water migration to the underlying soils. The drainage composite should be separated from the backfill soils by a suitable geotextile, approved by the geotechnical engineer.

All retaining wall backfill should be placed and compacted under engineering-controlled conditions in the necessary layer thicknesses to ensure an in-place density between 90 and 93 percent of the maximum dry density as determined by the Modified Proctor test (ASTM D1557). Care should be taken to avoid over-compaction of the soils behind the retaining walls, and the use of heavy compaction equipment should be avoided.

Subsurface Drainage

As previously indicated, the retaining wall design parameters are based upon drained backfill conditions. Consequently, some form of permanent drainage system will be necessary in conjunction with the appropriate backfill material. Subsurface drainage may consist of either:

- A weep hole drainage system typically consisting of a series of 2-inch diameter holes in the wall situated slightly above the ground surface elevation on the exposed side of the wall and at an approximate 10-foot on-center spacing. Alternatively, 4-inch diameter holes at an approximate 20-foot on-center spacing can be used for this type of drainage system. In addition, the weep holes should include a 2 cubic foot pocket of open graded gravel, surrounded by an approved geotextile fabric, at each weep hole location.

- A 4-inch diameter perforated pipe surrounded by 2 cubic feet of gravel per linear foot of drain placed behind the wall, above the retaining wall footing. The gravel layer should be wrapped in a suitable geotextile fabric to reduce the potential for migration of fines. The footing drain should be extended to daylight or tied into a storm drainage system. The actual design of this type of system should be determined by the civil engineer to verify that the drainage system possesses the adequate capacity and slope for its intended use.

Weep holes or a footing drain will not be required for building stem walls.

6.8 Pavement Design Parameters

Site preparation in the pavement area should be completed as previously recommended in the ***Site Grading Recommendations*** section of this report. The subsequent pavement recommendations assume proper drainage and construction monitoring, and are based on either PCA or CALTRANS design parameters for a twenty (20) year design period. However, these designs also assume a routine pavement maintenance program to obtain the anticipated 20-year pavement service life.

Pavement Subgrades

It is anticipated that the new pavements will be primarily supported on a layer of compacted structural fill, consisting of scarified, thoroughly moisture conditioned and recompacted existing soils. The on-site soils generally consist of silty sands, clayey sands, and sandy silts and are expected to possess R-values between 30 and 40. Therefore the subsequent pavement design is based upon a conservative R-value of 30. Any fill material imported to the site should have support characteristics equal to or greater than that of the on-site soils and be placed and compacted under engineering-controlled conditions. It is recommended that additional R-value testing be performed after completion of rough grading to verify the pavement support characteristics of the pavement subgrades following site grading.

Asphaltic Concrete

Presented below are the recommended thicknesses for new flexible pavement structures consisting of asphaltic concrete over a granular base. The pavement designs are based on the traffic indices (TI's) indicated. The client and/or civil engineer should verify that these TI's are representative of the anticipated traffic volumes. If the client and/or civil engineer determine that the expected traffic volume will exceed the applicable traffic index, we should be contacted for supplementary recommendations. The design traffic indices equate to the following approximate daily traffic volumes over a 20 year design life, assuming six operational traffic days per week.

Traffic Index	**No. of Heavy Trucks per Day**
4.0	0
5.0	1
6.0	3
7.0	11
8.0	35
9.0	93

For the purpose of the traffic volumes indicated above, a truck is defined as a 5-axle tractor trailer unit with one 8-kip axle and two 32-kip tandem axles. All of the traffic indices allow for 1,000 automobiles per day.
automobiles per day.

ASPHALT PAVEMENTS (R=30)					
Materials	**Thickness (inches)**				
	Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0)	Truck Traffic			
		TI = 6.0	TI = 7.0	TI = 8.0	TI = 9.0
Asphalt Concrete	3	3½	4	5	5½
Aggregate Base	6	8	10	11	13
Compacted Subgrade	12	12	12	12	12

The aggregate base course should be compacted to at least 95 percent of the ASTM D-1557 maximum dry density. The asphaltic concrete should be compacted to at least 95 percent of the Marshall maximum density, as determined by ASTM D-2726. The aggregate base course may consist of crushed aggregate base (CAB) or crushed miscellaneous base (CMB), which is a recycled gravel, asphalt and concrete material. The gradation, R-Value, Sand Equivalent, and Percentage Wear of the CAB or CMB should comply with appropriate specifications contained in the current edition of the "Greenbook" Standard Specifications for Public Works Construction.

Portland Cement Concrete

The preparation of the subgrade soils within concrete pavement areas should be performed as previously described for proposed asphalt pavement areas. The minimum recommended thicknesses for the Portland Cement Concrete pavement sections are as follows:

PORTLAND CEMENT CONCRETE PAVEMENTS (R=30)				
Materials	**Thickness (inches)**			
	Autos and Light Truck Traffic (TI = 5.0 to 6.0)	Truck Traffic		
		TI = 7.0	TI = 8.0	TI = 9.0
PCC	5	6	7	8
Compacted Subgrade (95% minimum compaction)	12	12	12	12

The concrete should have a 28-day compressive strength of at least 3,000 psi. The maximum joint spacing within all of the PCC pavements is recommended to be equal to or less than 30 times the pavement thickness.

7.0 GENERAL COMMENTS

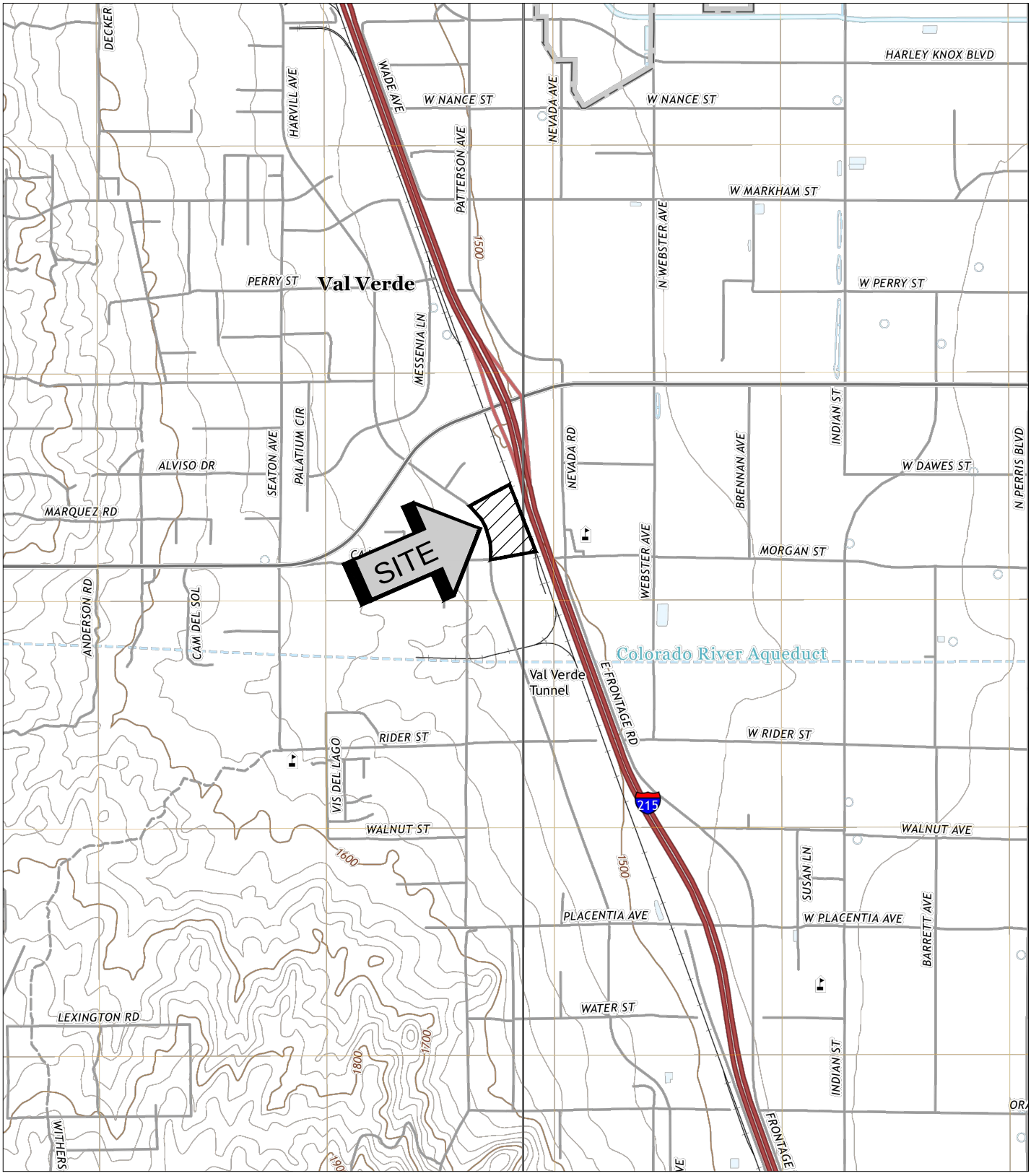
This report has been prepared as an instrument of service for use by the client, in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, civil engineer, and/or structural engineer. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance on this report by an unauthorized third party is at such party's sole risk, and we accept no responsibility for damage or loss which may occur. The client(s)' reliance upon this report is subject to the Engineering Services Agreement, incorporated into our proposal for this project.

The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be representative of the total area, some variations should be expected between boring locations and sample depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted.

The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

APPENDIX A



SOURCE: USGS TOPOGRAPHIC MAP OF STEELE PEAK AND PERRIS QUADRANGLES, RIVERSIDE COUNTY, CALIFORNIA, 2018.

SITE LOCATION MAP

PROPOSED WAREHOUSE

RIVERSIDE COUNTY (PERRIS), CALIFORNIA

SCALE: 1" = 2000'	
DRAWN: MD CHKD: RF	
SCG PROJECT 21G191-1	
PLATE 1	

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL

BNSF RR

N.A.P.

N.A.P.

B-1

B-2

B-3

B-4

B-5

B-6

B-7

19 DOCK DOORS

BUILDING AREA
98,000 S.F.

315'

322'

130'

68'

50'
EMWD SEWER EASEMENT

33'

62'

33'

40'

55'

26'

40'

20'-3"

1507.0

1508.0

1509.0

1510

1511.0

HARVILL AVE

HARVILL AVENUE

CAJALCO ROAD

CAJALCO RD

GEOTECHNICAL LEGEND

APPROXIMATE BORING LOCATION

NORTH
SoCalGeo

NOTE: SITE PLAN PROVIDED BY HPA.
AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH.

BORING LOCATION PLAN

PROPOSED WAREHOUSE

RIVERSIDE COUNTY (PERRIS), CALIFORNIA

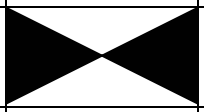
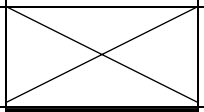
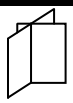
SCALE: 1" = 80'
DRAWN: MD CHKD: RF
SCG PROJECT 21G191-1
PLATE 2

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL

APPENDIX B

BORING LOG LEGEND

SAMPLE TYPE	GRAPHICAL SYMBOL	SAMPLE DESCRIPTION
AUGER		SAMPLE COLLECTED FROM AUGER CUTTINGS, NO FIELD MEASUREMENT OF SOIL STRENGTH. (DISTURBED)
CORE		ROCK CORE SAMPLE: TYPICALLY TAKEN WITH A DIAMOND-TIPPED CORE BARREL. TYPICALLY USED ONLY IN HIGHLY CONSOLIDATED BEDROCK.
GRAB		SOIL SAMPLE TAKEN WITH NO SPECIALIZED EQUIPMENT, SUCH AS FROM A STOCKPILE OR THE GROUND SURFACE. (DISTURBED)
CS		CALIFORNIA SAMPLER: 2-1/2 INCH I.D. SPLIT BARREL SAMPLER, LINED WITH 1-INCH HIGH BRASS RINGS. DRIVEN WITH SPT HAMMER. (RELATIVELY UNDISTURBED)
NSR		NO RECOVERY: THE SAMPLING ATTEMPT DID NOT RESULT IN RECOVERY OF ANY SIGNIFICANT SOIL OR ROCK MATERIAL.
SPT		STANDARD PENETRATION TEST: SAMPLER IS A 1.4 INCH INSIDE DIAMETER SPLIT BARREL, DRIVEN 18 INCHES WITH THE SPT HAMMER. (DISTURBED)
SH		SHELBY TUBE: TAKEN WITH A THIN WALL SAMPLE TUBE, PUSHED INTO THE SOIL AND THEN EXTRACTED. (UNDISTURBED)
VANE		VANE SHEAR TEST: SOIL STRENGTH OBTAINED USING A 4 BLADED SHEAR DEVICE. TYPICALLY USED IN SOFT CLAYS-NO SAMPLE RECOVERED.

COLUMN DESCRIPTIONS

DEPTH: Distance in feet below the ground surface.

SAMPLE: Sample Type as depicted above.

BLOW COUNT: Number of blows required to advance the sampler 12 inches using a 140 lb hammer with a 30-inch drop. 50/3" indicates penetration refusal (>50 blows) at 3 inches. WH indicates that the weight of the hammer was sufficient to push the sampler 6 inches or more.

POCKET PEN.: Approximate shear strength of a cohesive soil sample as measured by pocket penetrometer.

GRAPHIC LOG: Graphic Soil Symbol as depicted on the following page.

DRY DENSITY: Dry density of an undisturbed or relatively undisturbed sample in lbs/ft^3.

MOISTURE CONTENT: Moisture content of a soil sample, expressed as a percentage of the dry weight.

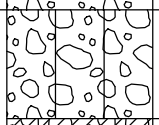
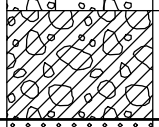
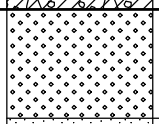
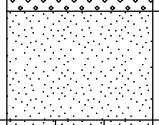
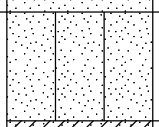
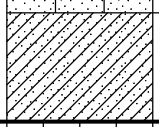
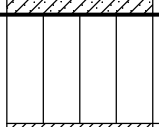
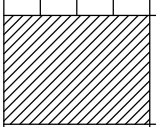
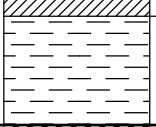
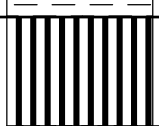
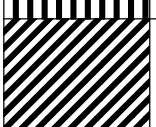
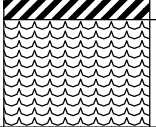
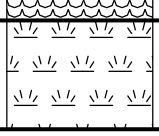
LIQUID LIMIT: The moisture content above which a soil behaves as a liquid.

PLASTIC LIMIT: The moisture content above which a soil behaves as a plastic.

PASSING #200 SIEVE: The percentage of the sample finer than the #200 standard sieve.

UNCONFINED SHEAR: The shear strength of a cohesive soil sample, as measured in the unconfined state.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-1

JOB NO.: 21G191-1 | DRILLING DATE: 7/1/21 | WATER DEPTH: Dry
PROJECT: Proposed Warehouse | DRILLING METHOD: Hollow Stem Auger | CAVE DEPTH: 20 feet
LOCATION: Riverside County (Perris), California | LOGGED BY: Jamie Hayward | READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					YOUNGER ALLUVIUM: Brown Silty fine to medium Sand, trace Clay, slightly porous, medium dense-damp							
		25				113	4					
					OLDER ALLUVIUM: Red Brown Silty fine to coarse Sand, micaceous, slightly cemented, medium dense-damp							
		36				124	3					
5		56			@ 5 feet, cemented, dense	114	5					
		32			Red Brown Silty fine Sand, trace medium to coarse Sand, medium dense-dry	109	1					
		48			Red Brown Clayey fine Sand, some Silt, trace medium Sand, dense-dry to damp	108	2					
10												
		36			@ 14 feet, medium dense	116	6					
15												
					Red Brown Silty fine Sand, little medium Sand, cemented, little calcareous nodules and veining, dense-damp							
		45				100	6					
20												
					Red Brown Silty fine to coarse Sand, medium dense-damp							
		35				112	3					
25												
					Boring Terminated at 25'							

TBL 21G191-1.GPJ SOCALGEO.GDT 7/27/21

TEST BORING LOG **PLATE B-1**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-2

JOB NO.: 21G191-1 | DRILLING DATE: 7/1/21 | WATER DEPTH: Dry
PROJECT: Proposed Warehouse | DRILLING METHOD: Hollow Stem Auger | CAVE DEPTH: 17 feet
LOCATION: Riverside County (Perris), California | LOGGED BY: Jamie Hayward | READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		40			OLDER ALLUVIUM: Red Brown Silty fine to coarse Sand, slightly cemented, dense-damp		6					
		26			Red Brown Clayey fine to medium Sand, little Silt, trace coarse Sand, slightly cemented, medium dense-damp		7					
5		6			@ 6 feet, loose		5					
		11			Red Brown Silty fine to medium Sand, trace Clay, medium dense-damp		5					
10												
		30			Red Brown fine Sandy Silt, slightly cemented, micaceous, dense-damp		7					
15												
		17			Red Brown Silty fine Sand, trace medium Sand, medium dense-damp		5					
20					Boring Terminated at 20'							

TBL 21G191-1.GPJ SOCALGEO.GDT 7/27/21

TEST BORING LOG **PLATE B-2**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-3

JOB NO.: 21G191-1 | DRILLING DATE: 7/1/21 | WATER DEPTH: Dry
PROJECT: Proposed Warehouse | DRILLING METHOD: Hollow Stem Auger | CAVE DEPTH: 22 feet
LOCATION: Riverside County (Perris), California | LOGGED BY: Jamie Hayward | READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		28			YOUNGER ALLUVIUM: Light Brown Silty fine Sand, trace to little Clay, little medium to coarse Sand, medium dense-damp	117	3					
		22			@ 3 feet, trace fine root fibers	123	3					
5		20			@ 5 to 8½ feet, porous	105	3					
		13			@ 7 feet, loose	102	5					
		27			Brown Silty fine to medium Sand, slightly porous, medium dense-damp	104	5					
10												
		20			Brown Silty fine Sand, trace medium Sand, medium dense-damp		4					
15												
		16			@ 18½ feet, trace Clay		4					
20												
		16			Brown Silty fine to medium Sand, medium dense-damp		5					
25					Boring Terminated at 25'							

TBL 21G191-1.GPJ SOCALGEO.GDT 7/27/21

TEST BORING LOG **PLATE B-3**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-4

JOB NO.: 21G191-1 | DRILLING DATE: 7/1/21 | WATER DEPTH: Dry
PROJECT: Proposed Warehouse | DRILLING METHOD: Hollow Stem Auger | CAVE DEPTH: 7 feet
LOCATION: Riverside County (Perris), California | LOGGED BY: Jamie Hayward | READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		13			YOUNGER ALLUVIUM: Brown Silty fine Sand, trace medium Sand, medium dense-damp		3					
		26			@ 3 feet, trace Clay		5					
5		10					4					
		13			Brown fine Sandy Silt, little Clay, trace medium Sand, medium dense-damp		5					
10					Boring Terminated at 10'							

TBL 21G191-1.GPJ SOCALGEO.GDT 7/27/21

TEST BORING LOG **PLATE B-4**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-5

JOB NO.: 21G191-1 | DRILLING DATE: 7/1/21 | WATER DEPTH: Dry
PROJECT: Proposed Warehouse | DRILLING METHOD: Hollow Stem Auger | CAVE DEPTH: 18 feet
LOCATION: Riverside County (Perris), California | LOGGED BY: Jamie Hayward | READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		32			YOUNGER ALLUVIUM: Brown Clayey fine Sand, some Silt, trace medium Sand, dense-damp		4					
		31			@ 3½ feet, trace coarse Sand		5					
5		15			@ 6 to 12 feet, medium dense		5					
		19										No Sample Recovery
10												
					Brown fine Sandy Clay, little Silt, little medium Sand, cemented, very stiff-damp							
		15	4.5				4					
15												
		23	3.0				9					
20					Boring Terminated at 20'							

TBL 21G191-1.GPJ SOCALGEO.GDT 7/27/21

TEST BORING LOG **PLATE B-5**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-6

JOB NO.: 21G191-1
PROJECT: Proposed Warehouse
LOCATION: Riverside County (Perris), California

DRILLING DATE: 7/1/21
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Jamie Hayward

WATER DEPTH: Dry
CAVE DEPTH: 7 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		15			YOUNGER ALLUVIUM: fine Sandy Clay, little medium Sand, little Silt, slightly cemented, medium dense-dry to damp		3					EI = 51 @ 0 to 5 feet
		18					2					
5		20					1					
		32	2.5		Brown fine Sandy Clay, little Silt, cemented, hard-damp		7					
10					Boring Terminated at 10'							

TBL 21G191-1.GPJ SOCALGEO.GDT 7/27/21

TEST BORING LOG

PLATE B-6

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-7

JOB NO.: 21G191-1
PROJECT: Proposed Warehouse
LOCATION: Riverside County (Perris), California

DRILLING DATE: 7/1/21
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Jamie Hayward

WATER DEPTH: Dry
CAVE DEPTH: 7 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		26			YOUNGER ALLUVIUM: Brown Clayey fine Sand, little Silt, trace medium Sand, medium dense-damp		3					
		27			Brown Silty fine to medium Sand, medium dense-dry to damp		2					
5		19					1					
		16	4.5		Brown Silty Clay, some fine Sand, very stiff-dry to damp		2					
10					Boring Terminated at 10'							

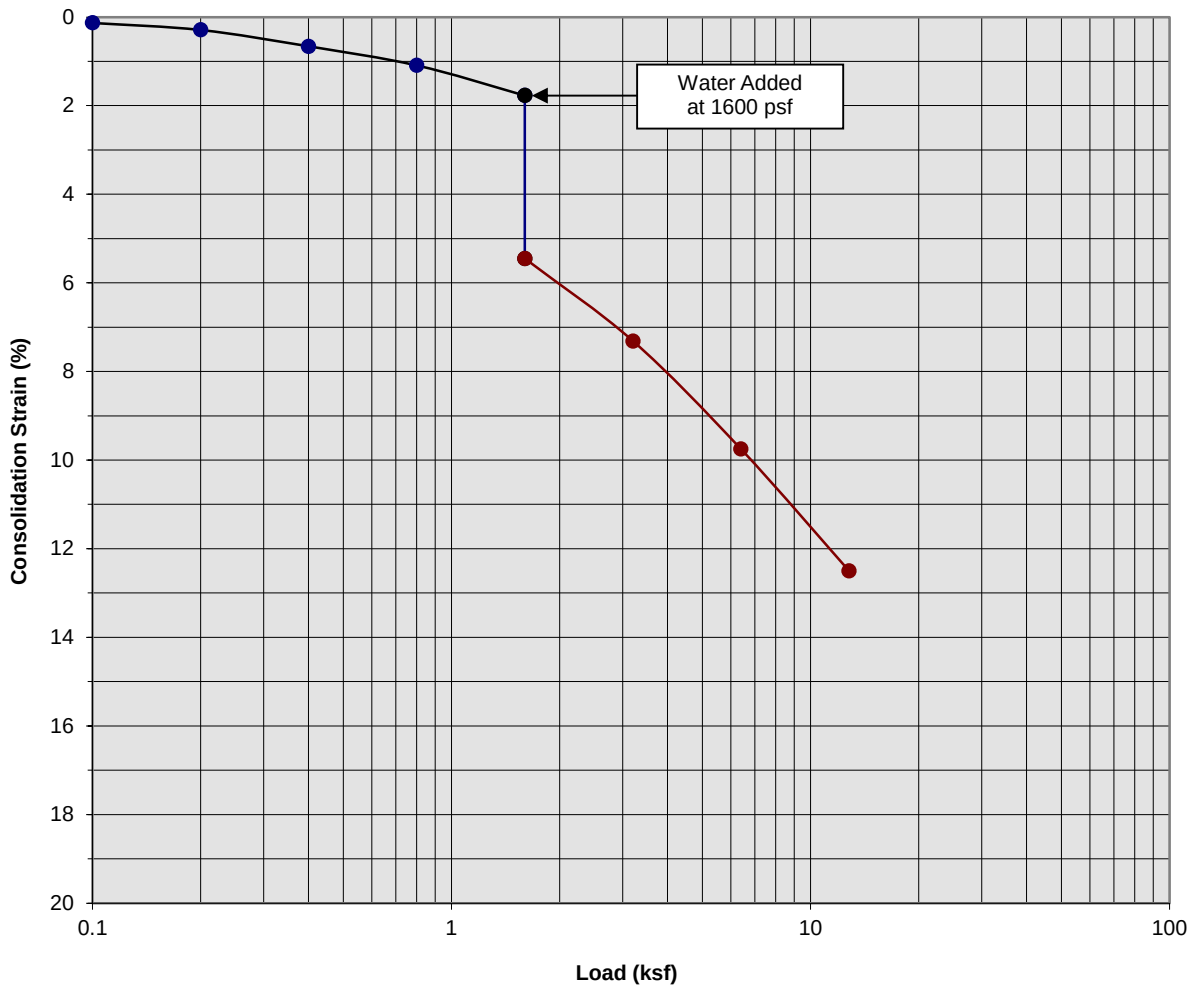
TBL 21G191-1.GPJ SOCALGEO.GDT 7/27/21

TEST BORING LOG

PLATE B-7

APPENDIX C

Consolidation/Collapse Test Results



Classification: Light Brown Silty fine Sand, trace to little Clay, little medium to coarse Sand

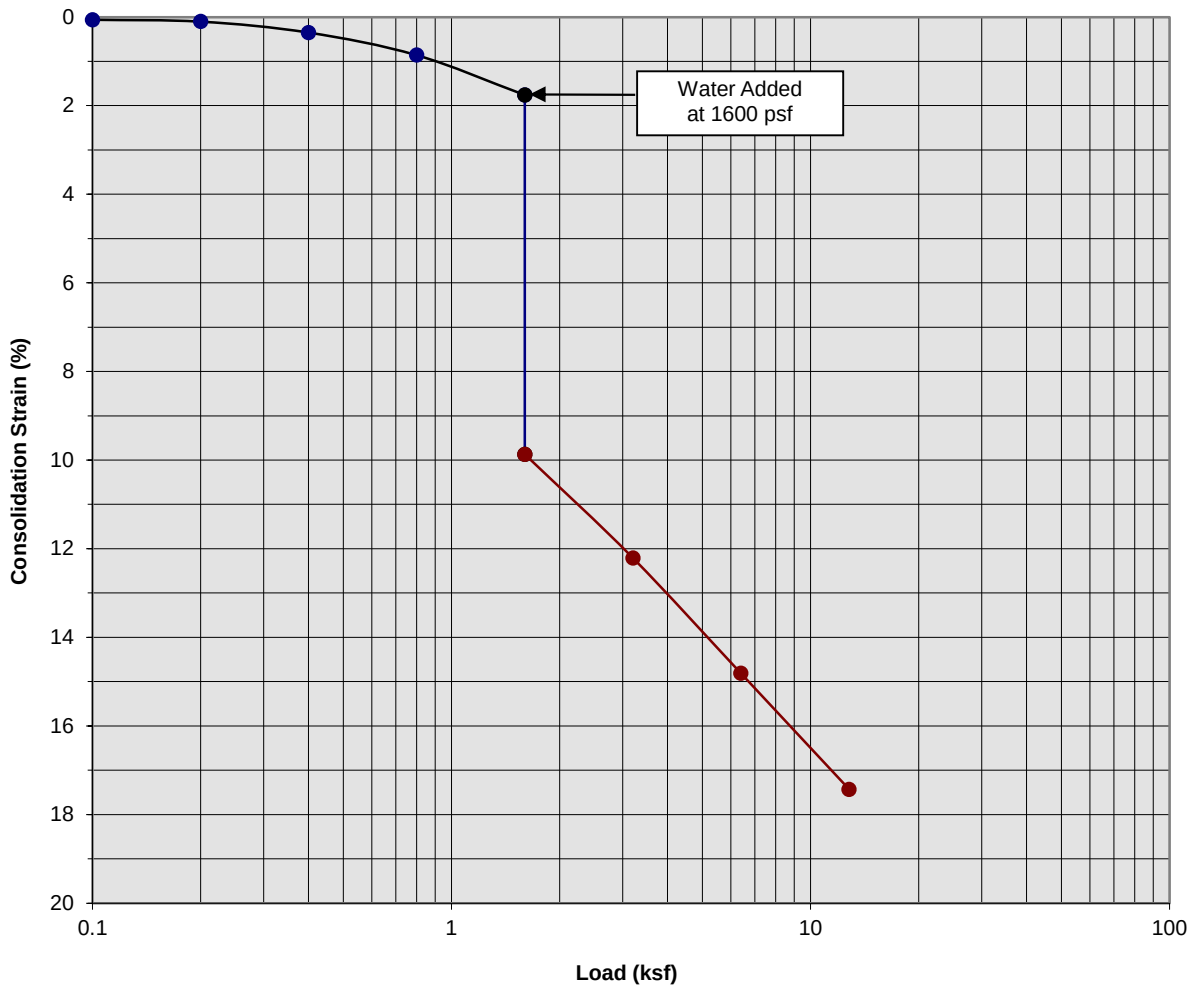
Boring Number:	B-3	Initial Moisture Content (%)	3
Sample Number:	---	Final Moisture Content (%)	13
Depth (ft)	1 to 2	Initial Dry Density (pcf)	117.0
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	133.4
Specimen Thickness (in)	1.0	Percent Collapse (%)	3.68

Proposed Warehouse
Perris, California
Project No. 21G191-1

PLATE C- 1

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Light Brown Silty fine Sand, trace to little Clay, little medium to coarse Sand

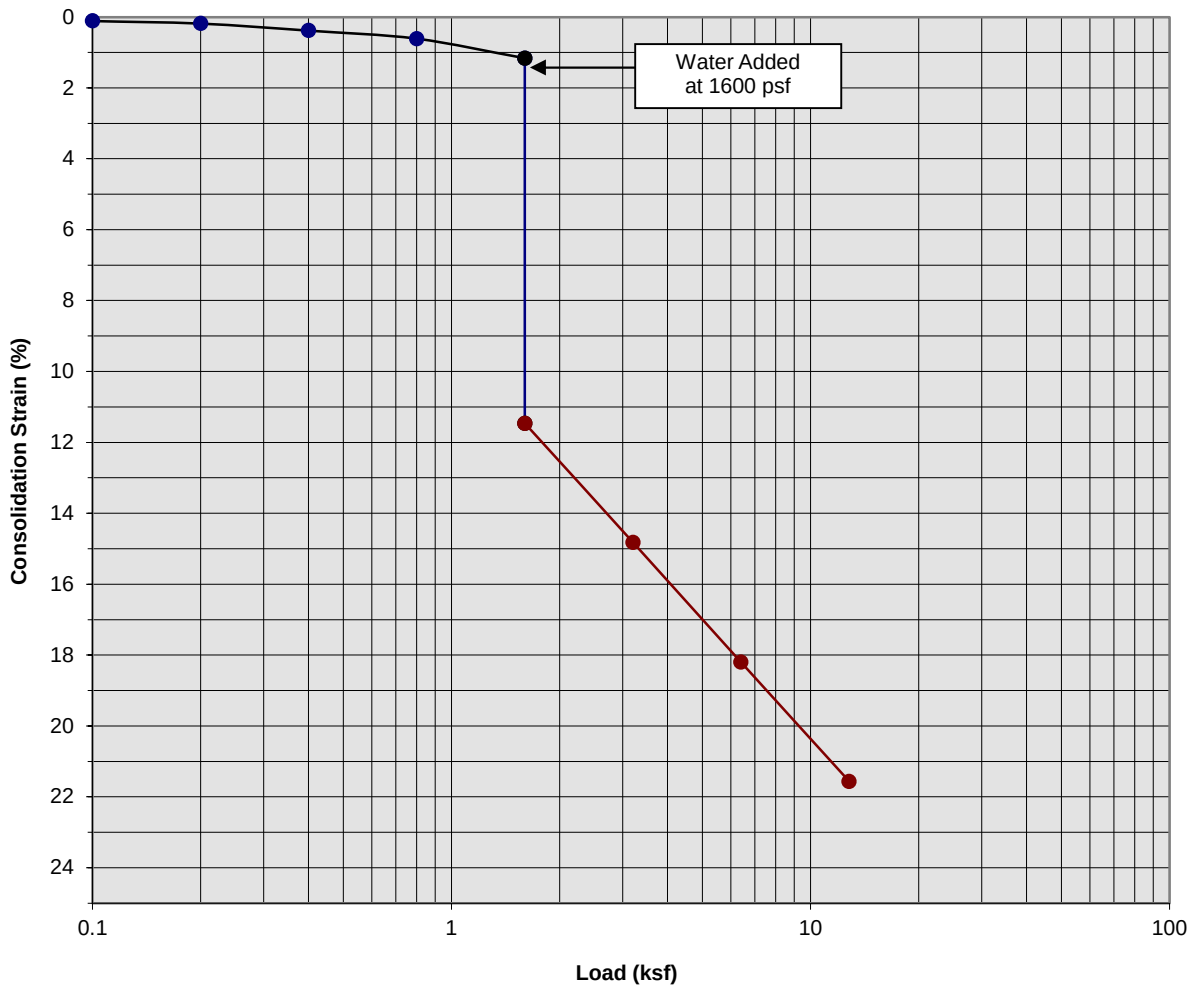
Boring Number:	B-3	Initial Moisture Content (%)	3
Sample Number:	---	Final Moisture Content (%)	14
Depth (ft)	5 to 6	Initial Dry Density (pcf)	105.0
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	127.2
Specimen Thickness (in)	1.0	Percent Collapse (%)	8.11

Proposed Warehouse
Perris, California
Project No. 21G191-1

PLATE C- 2

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Light Brown Silty fine Sand, trace to little Clay, little medium to coarse Sand

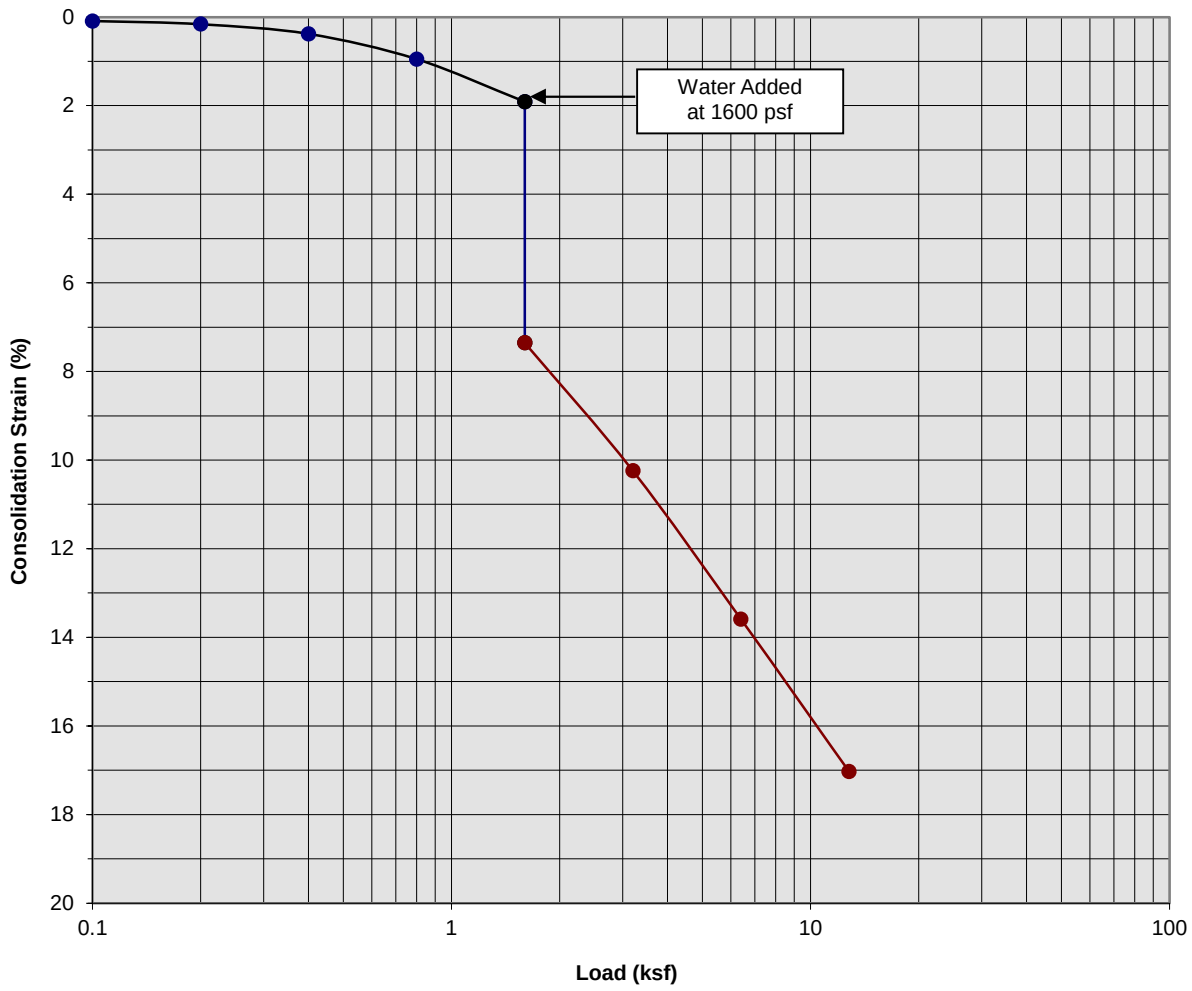
Boring Number:	B-3	Initial Moisture Content (%)	5
Sample Number:	---	Final Moisture Content (%)	16
Depth (ft)	7 to 8	Initial Dry Density (pcf)	102.4
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	130.6
Specimen Thickness (in)	1.0	Percent Collapse (%)	10.30

Proposed Warehouse
Perris, California
Project No. 21G191-1

PLATE C- 3

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Brown Silty fine to medium Sand, slightly porous

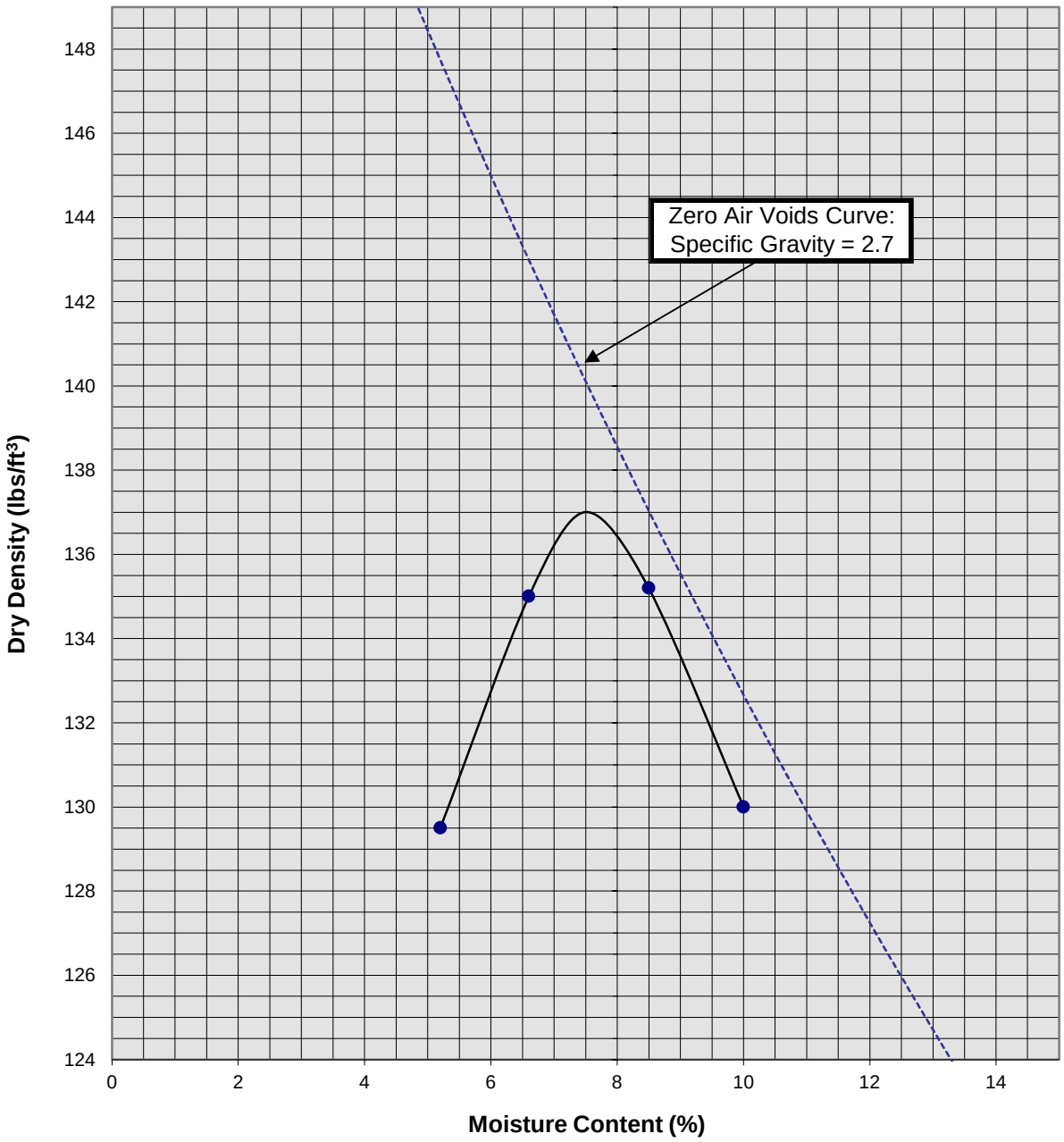
Boring Number:	B-3	Initial Moisture Content (%)	5
Sample Number:	---	Final Moisture Content (%)	16
Depth (ft)	9 to 10	Initial Dry Density (pcf)	104.3
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	125.7
Specimen Thickness (in)	1.0	Percent Collapse (%)	5.44

Proposed Warehouse
Perris, California
Project No. 21G191-1

PLATE C- 4

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Moisture/Density Relationship
ASTM D-1557



Soil ID Number	B-1 @ 0-5'
Optimum Moisture (%)	7.5
Maximum Dry Density (pcf)	137
Soil Classification	Red Brown Silty fine to coarse Sand, trace Clay

Proposed Warehouse
Perris, California
Project No. 21G191-1

PLATE C-5

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

APPENDIX D

GRADING GUIDE SPECIFICATIONS

These grading guide specifications are intended to provide typical procedures for grading operations. They are intended to supplement the recommendations contained in the geotechnical investigation report for this project. Should the recommendations in the geotechnical investigation report conflict with the grading guide specifications, the more site specific recommendations in the geotechnical investigation report will govern.

General

- The Earthwork Contractor is responsible for the satisfactory completion of all earthwork in accordance with the plans and geotechnical reports, and in accordance with city, county, and applicable building codes.

- The Geotechnical Engineer is the representative of the Owner/Builder for the purpose of implementing the report recommendations and guidelines. These duties are not intended to relieve the Earthwork Contractor of any responsibility to perform in a workman-like manner, nor is the Geotechnical Engineer to direct the grading equipment or personnel employed by the Contractor.

- The Earthwork Contractor is required to notify the Geotechnical Engineer of the anticipated work and schedule so that testing and inspections can be provided. If necessary, work may be stopped and redone if personnel have not been scheduled in advance.

- The Earthwork Contractor is required to have suitable and sufficient equipment on the job-site to process, moisture condition, mix and compact the amount of fill being placed to the approved compaction. In addition, suitable support equipment should be available to conform with recommendations and guidelines in this report.

- Canyon cleanouts, overexcavation areas, processed ground to receive fill, key excavations, subdrains and benches should be observed by the Geotechnical Engineer prior to placement of any fill. It is the Earthwork Contractor's responsibility to notify the Geotechnical Engineer of areas that are ready for inspection.

- Excavation, filling, and subgrade preparation should be performed in a manner and sequence that will provide drainage at all times and proper control of erosion. Precipitation, springs, and seepage water encountered shall be pumped or drained to provide a suitable working surface. The Geotechnical Engineer must be informed of springs or water seepage encountered during grading or foundation construction for possible revision to the recommended construction procedures and/or installation of subdrains.

Site Preparation

- The Earthwork Contractor is responsible for all clearing, grubbing, stripping and site preparation for the project in accordance with the recommendations of the Geotechnical Engineer.

- If any materials or areas are encountered by the Earthwork Contractor which are suspected of having toxic or environmentally sensitive contamination, the Geotechnical Engineer and Owner/Builder should be notified immediately.

- Major vegetation should be stripped and disposed of off-site. This includes trees, brush, heavy grasses and any materials considered unsuitable by the Geotechnical Engineer.

- Underground structures such as basements, cesspools or septic disposal systems, mining shafts, tunnels, wells and pipelines should be removed under the inspection of the Geotechnical Engineer and recommendations provided by the Geotechnical Engineer and/or city, county or state agencies. If such structures are known or found, the Geotechnical Engineer should be notified as soon as possible so that recommendations can be formulated.

- Any topsoil, slopewash, colluvium, alluvium and rock materials which are considered unsuitable by the Geotechnical Engineer should be removed prior to fill placement.

- Remaining voids created during site clearing caused by removal of trees, foundations basements, irrigation facilities, etc., should be excavated and filled with compacted fill.

- Subsequent to clearing and removals, areas to receive fill should be scarified to a depth of 10 to 12 inches, moisture conditioned and compacted

- The moisture condition of the processed ground should be at or slightly above the optimum moisture content as determined by the Geotechnical Engineer. Depending upon field conditions, this may require air drying or watering together with mixing and/or discing.

Compacted Fills

- Soil materials imported to or excavated on the property may be utilized in the fill, provided each material has been determined to be suitable in the opinion of the Geotechnical Engineer. Unless otherwise approved by the Geotechnical Engineer, all fill materials shall be free of deleterious, organic, or frozen matter, shall contain no chemicals that may result in the material being classified as “contaminated,” and shall be very low to non-expansive with a maximum expansion index (EI) of 50. The top 12 inches of the compacted fill should have a maximum particle size of 3 inches, and all underlying compacted fill material a maximum 6-inch particle size, except as noted below.

- All soils should be evaluated and tested by the Geotechnical Engineer. Materials with high expansion potential, low strength, poor gradation or containing organic materials may require removal from the site or selective placement and/or mixing to the satisfaction of the Geotechnical Engineer.

- Rock fragments or rocks less than 6 inches in their largest dimensions, or as otherwise determined by the Geotechnical Engineer, may be used in compacted fill, provided the distribution and placement is satisfactory in the opinion of the Geotechnical Engineer.

- Rock fragments or rocks greater than 12 inches should be taken off-site or placed in accordance with recommendations and in areas designated as suitable by the Geotechnical Engineer. These materials should be placed in accordance with Plate D-8 of these Grading Guide Specifications and in accordance with the following recommendations:

    - Rocks 12 inches or more in diameter should be placed in rows at least 15 feet apart, 15 feet from the edge of the fill, and 10 feet or more below subgrade. Spaces should be left between each rock fragment to provide for placement and compaction of soil around the fragments.

    - Fill materials consisting of soil meeting the minimum moisture content requirements and free of oversize material should be placed between and over the rows of rock or

concrete. Ample water and compactive effort should be applied to the fill materials as they are placed in order that all of the voids between each of the fragments are filled and compacted to the specified density.

- Subsequent rows of rocks should be placed such that they are not directly above a row placed in the previous lift of fill. A minimum 5-foot offset between rows is recommended.

- To facilitate future trenching, oversized material should not be placed within the range of foundation excavations, future utilities or other underground construction unless specifically approved by the soil engineer and the developer/owner representative.

- Fill materials approved by the Geotechnical Engineer should be placed in areas previously prepared to receive fill and in evenly placed, near horizontal layers at about 6 to 8 inches in loose thickness, or as otherwise determined by the Geotechnical Engineer for the project.

- Each layer should be moisture conditioned to optimum moisture content, or slightly above, as directed by the Geotechnical Engineer. After proper mixing and/or drying, to evenly distribute the moisture, the layers should be compacted to at least 90 percent of the maximum dry density in compliance with ASTM D-1557-78 unless otherwise indicated.

- Density and moisture content testing should be performed by the Geotechnical Engineer at random intervals and locations as determined by the Geotechnical Engineer. These tests are intended as an aid to the Earthwork Contractor, so he can evaluate his workmanship, equipment effectiveness and site conditions. The Earthwork Contractor is responsible for compaction as required by the Geotechnical Report(s) and governmental agencies.

- Fill areas unused for a period of time may require moisture conditioning, processing and recompaction prior to the start of additional filling. The Earthwork Contractor should notify the Geotechnical Engineer of his intent so that an evaluation can be made.

- Fill placed on ground sloping at a 5-to-1 inclination (horizontal-to-vertical) or steeper should be benched into bedrock or other suitable materials, as directed by the Geotechnical Engineer. Typical details of benching are illustrated on Plates D-2, D-4, and D-5.

- Cut/fill transition lots should have the cut portion overexcavated to a depth of at least 3 feet and rebuilt with fill (see Plate D-1), as determined by the Geotechnical Engineer.

- All cut lots should be inspected by the Geotechnical Engineer for fracturing and other bedrock conditions. If necessary, the pads should be overexcavated to a depth of 3 feet and rebuilt with a uniform, more cohesive soil type to impede moisture penetration.

- Cut portions of pad areas above buttresses or stabilizations should be overexcavated to a depth of 3 feet and rebuilt with uniform, more cohesive compacted fill to impede moisture penetration.

- Non-structural fill adjacent to structural fill should typically be placed in unison to provide lateral support. Backfill along walls must be placed and compacted with care to ensure that excessive unbalanced lateral pressures do not develop. The type of fill material placed adjacent to below grade walls must be properly tested and approved by the Geotechnical Engineer with consideration of the lateral earth pressure used in the design.

Foundations

- The foundation influence zone is defined as extending one foot horizontally from the outside edge of a footing, and proceeding downward at a ½ horizontal to 1 vertical (0.5:1) inclination.

- Where overexcavation beneath a footing subgrade is necessary, it should be conducted so as to encompass the entire foundation influence zone, as described above.

- Compacted fill adjacent to exterior footings should extend at least 12 inches above foundation bearing grade. Compacted fill within the interior of structures should extend to the floor subgrade elevation.

Fill Slopes

- The placement and compaction of fill described above applies to all fill slopes. Slope compaction should be accomplished by overfilling the slope, adequately compacting the fill in even layers, including the overfilled zone and cutting the slope back to expose the compacted core

- Slope compaction may also be achieved by backrolling the slope adequately every 2 to 4 vertical feet during the filling process as well as requiring the earth moving and compaction equipment to work close to the top of the slope. Upon completion of slope construction, the slope face should be compacted with a sheepsfoot connected to a sideboom and then grid rolled. This method of slope compaction should only be used if approved by the Geotechnical Engineer.

- Sandy soils lacking in adequate cohesion may be unstable for a finished slope condition and therefore should not be placed within 15 horizontal feet of the slope face.

- All fill slopes should be keyed into bedrock or other suitable material. Fill keys should be at least 15 feet wide and inclined at 2 percent into the slope. For slopes higher than 30 feet, the fill key width should be equal to one-half the height of the slope (see Plate D-5).

- All fill keys should be cleared of loose slough material prior to geotechnical inspection and should be approved by the Geotechnical Engineer and governmental agencies prior to filling.

- The cut portion of fill over cut slopes should be made first and inspected by the Geotechnical Engineer for possible stabilization requirements. The fill portion should be adequately keyed through all surficial soils and into bedrock or suitable material. Soils should be removed from the transition zone between the cut and fill portions (see Plate D-2).

Cut Slopes

- All cut slopes should be inspected by the Geotechnical Engineer to determine the need for stabilization. The Earthwork Contractor should notify the Geotechnical Engineer when slope cutting is in progress at intervals of 10 vertical feet. Failure to notify may result in a delay in recommendations.

- Cut slopes exposing loose, cohesionless sands should be reported to the Geotechnical Engineer for possible stabilization recommendations.

- All stabilization excavations should be cleared of loose slough material prior to geotechnical inspection. Stakes should be provided by the Civil Engineer to verify the location and dimensions of the key. A typical stabilization fill detail is shown on Plate D-5.

- Stabilization key excavations should be provided with subdrains. Typical subdrain details are shown on Plates D-6.

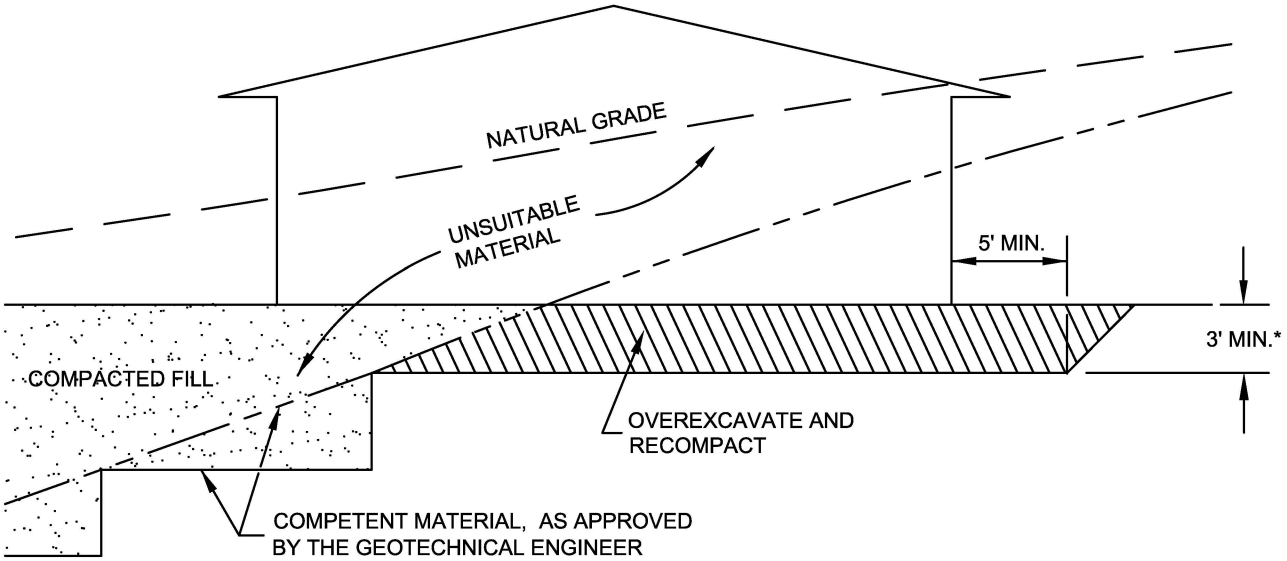
Subdrains

- Subdrains may be required in canyons and swales where fill placement is proposed. Typical subdrain details for canyons are shown on Plate D-3. Subdrains should be installed after approval of removals and before filling, as determined by the Soils Engineer.

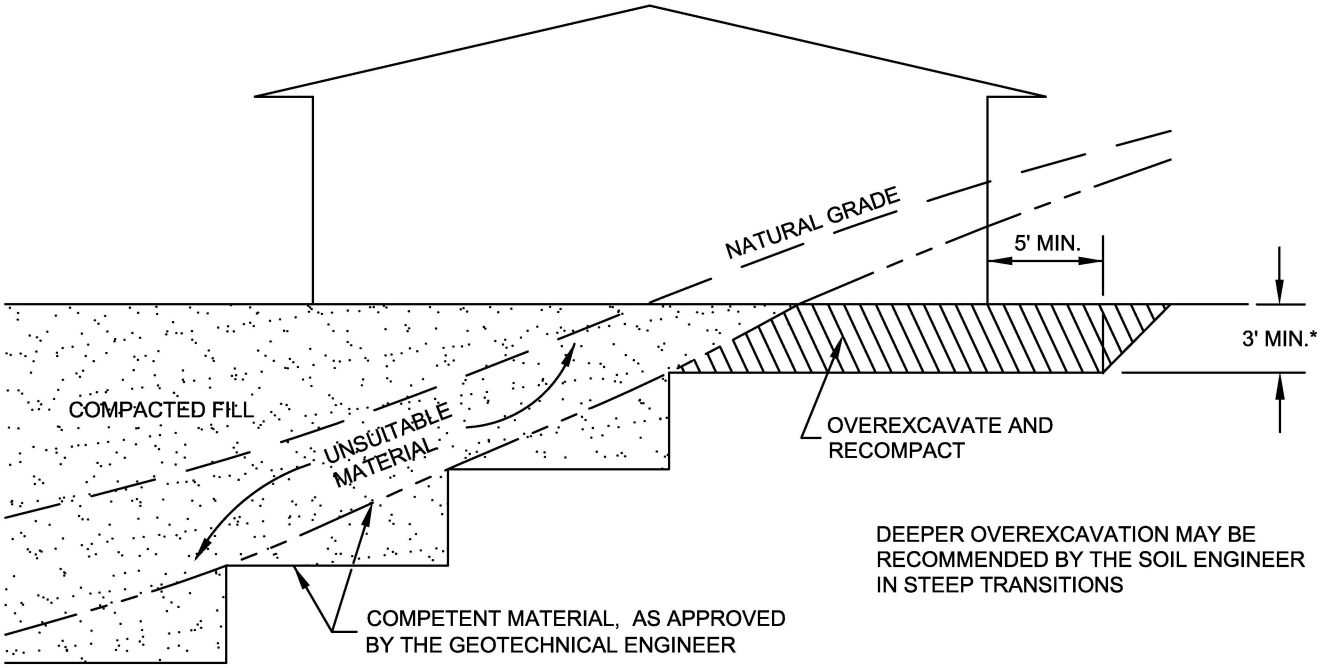
- Plastic pipe may be used for subdrains provided it is Schedule 40 or SDR 35 or equivalent. Pipe should be protected against breakage, typically by placement in a square-cut (backhoe) trench or as recommended by the manufacturer.

- Filter material for subdrains should conform to CALTRANS Specification 68-1.025 or as approved by the Geotechnical Engineer for the specific site conditions. Clean ¾-inch crushed rock may be used provided it is wrapped in an acceptable filter cloth and approved by the Geotechnical Engineer. Pipe diameters should be 6 inches for runs up to 500 feet and 8 inches for the downstream continuations of longer runs. Four-inch diameter pipe may be used in buttress and stabilization fills.

CUT LOT



CUT/FILL LOT (TRANSITION)



*SEE TEXT OF REPORT FOR SPECIFIC RECOMMENDATION. ACTUAL DEPTH OF OVEREXCAVATION MAY BE GREATER.

TRANSITION LOT DETAIL

GRADING GUIDE SPECIFICATIONS

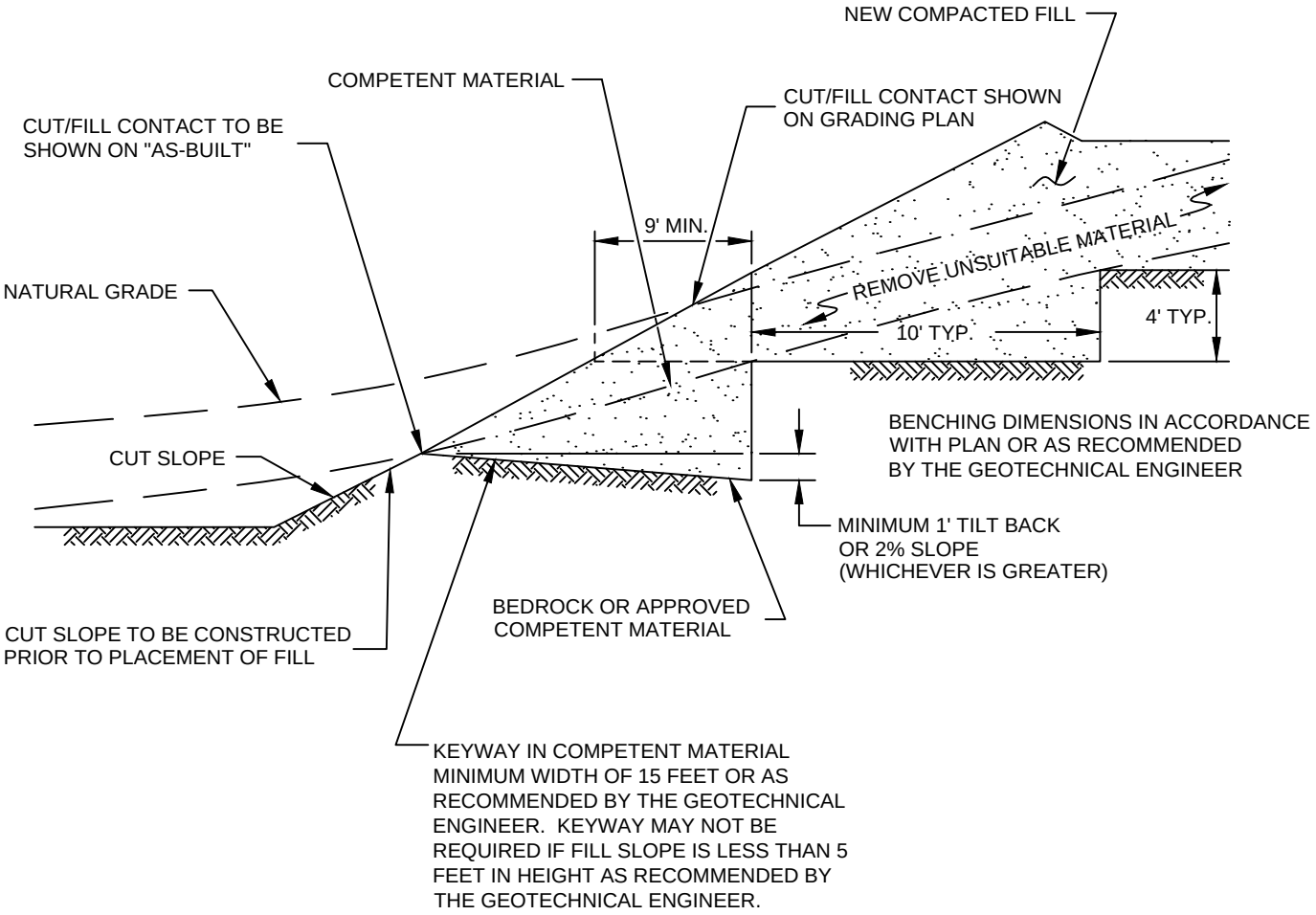
NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-1

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL



FILL ABOVE CUT SLOPE DETAIL

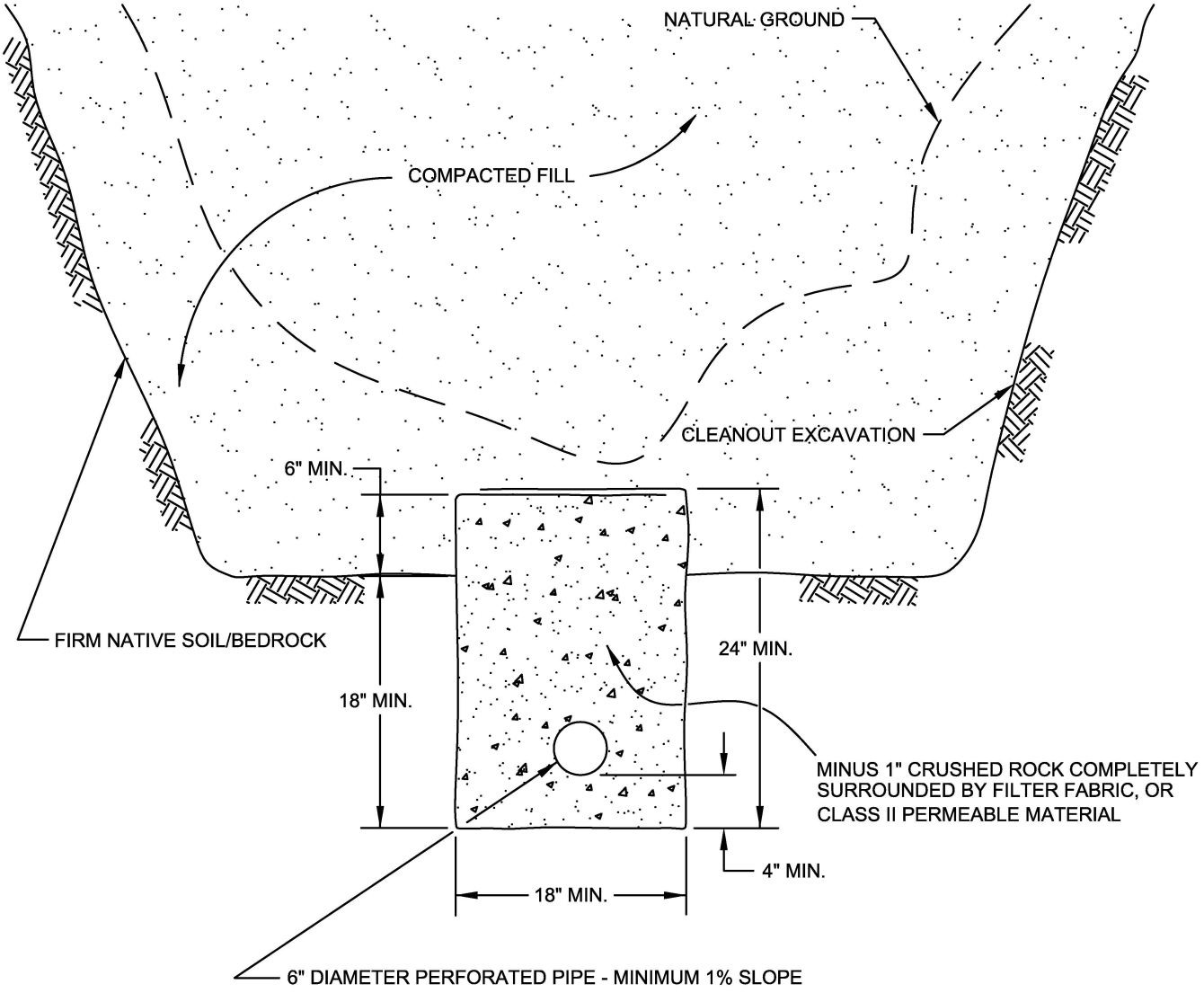
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-2

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



PIPE MATERIAL	DEPTH OF FILL OVER SUBDRAIN
ADS (CORRUGATED POLETHYLENE)	8
TRANSITE UNDERDRAIN	20
PVC OR ABS: SDR 35	35
SDR 21	100

SCHEMATIC ONLY
NOT TO SCALE

CANYON SUBDRAIN DETAIL

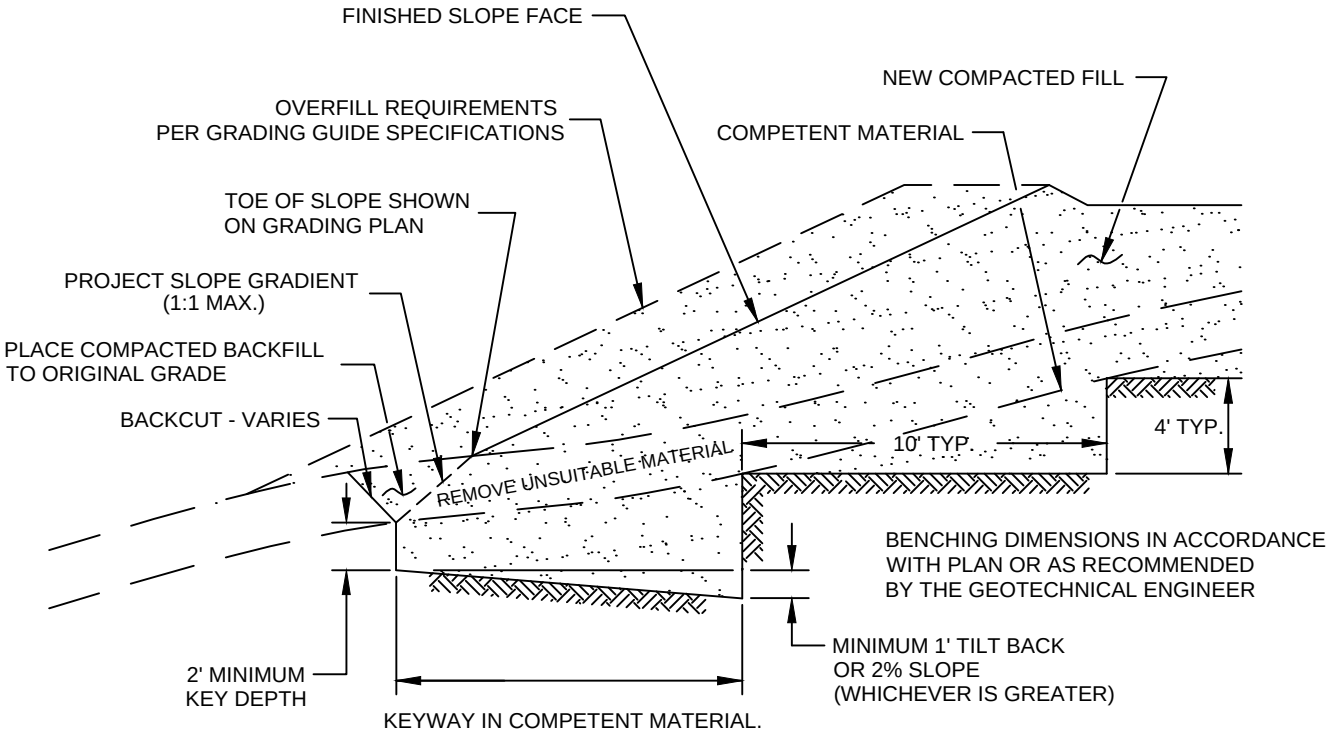
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-3

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



NOTE:
BENCHING SHALL BE REQUIRED WHEN NATURAL SLOPES ARE EQUAL TO OR STEEPER THAN 5:1 OR WHEN RECOMMENDED BY THE GEOTECHNICAL ENGINEER.

FILL ABOVE NATURAL SLOPE DETAIL

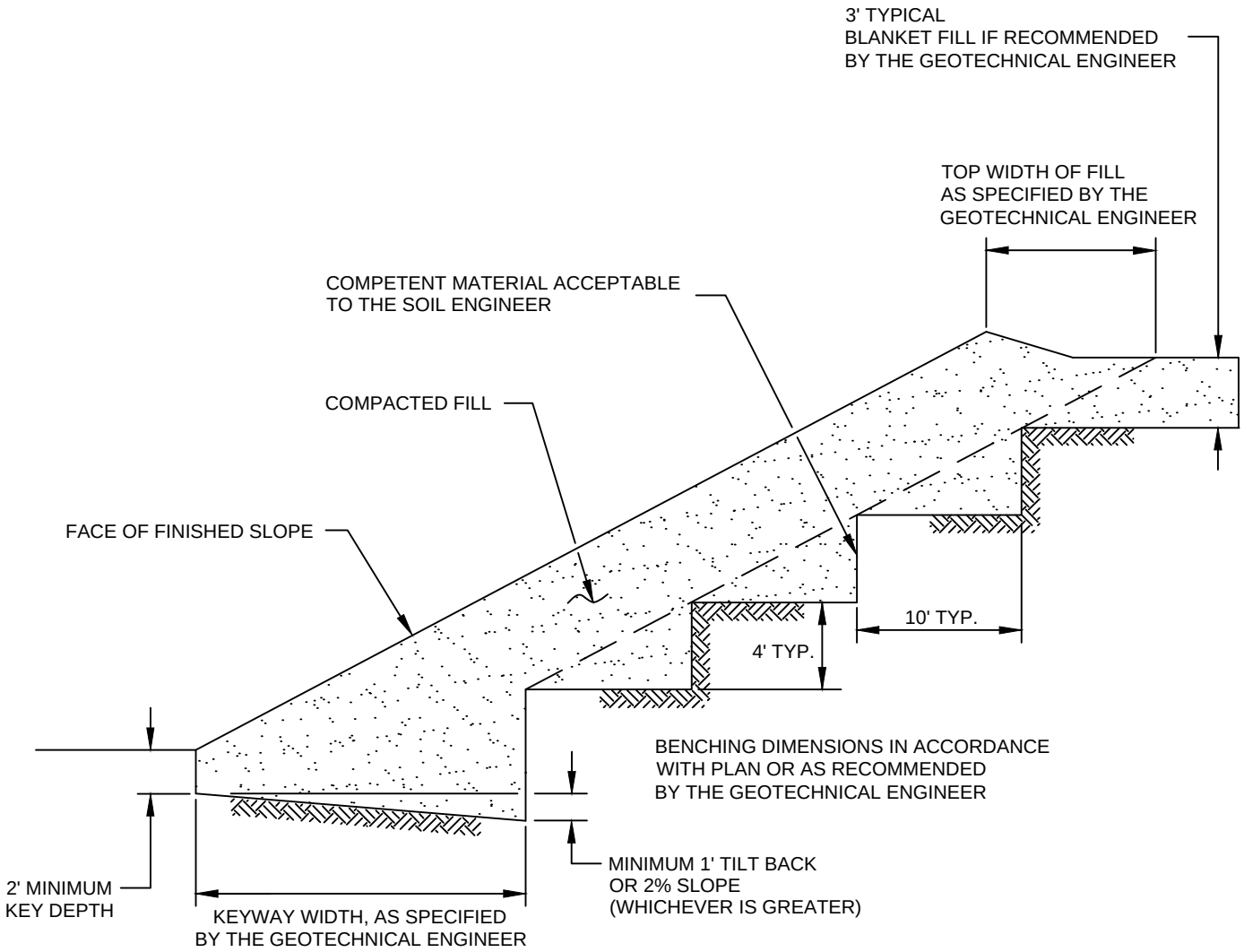
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-4

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



STABILIZATION FILL DETAIL

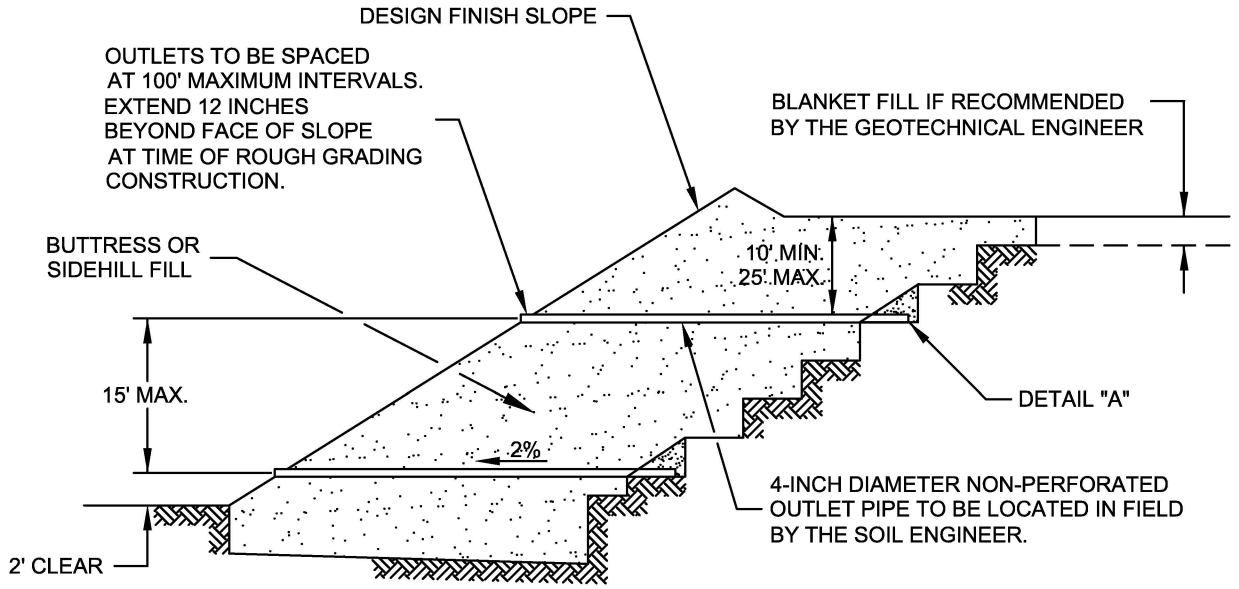
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-5

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



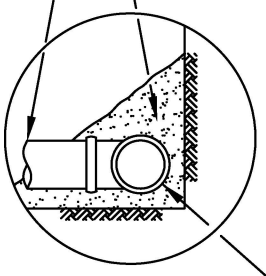
"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8

SAND EQUIVALENT = MINIMUM OF 50



DETAIL "A"

NOTES:
1. TRENCH FOR OUTLET PIPES TO BE BACKFILLED WITH ON-SITE SOIL.

SLOPE FILL SUBDRAINS

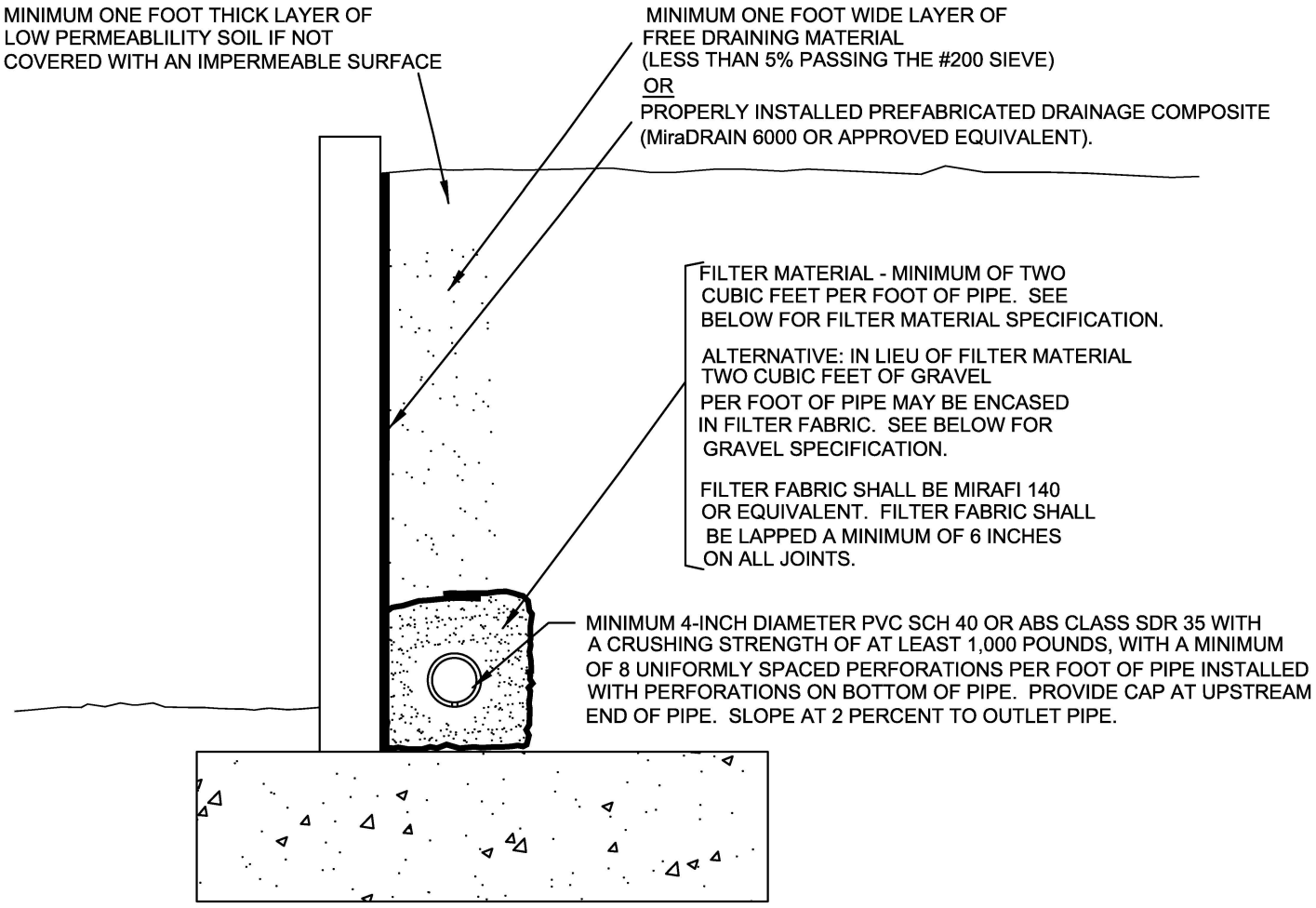
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-6

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8

SAND EQUIVALENT = MINIMUM OF 50

RETAINING WALL BACKDRAINS

GRADING GUIDE SPECIFICATIONS

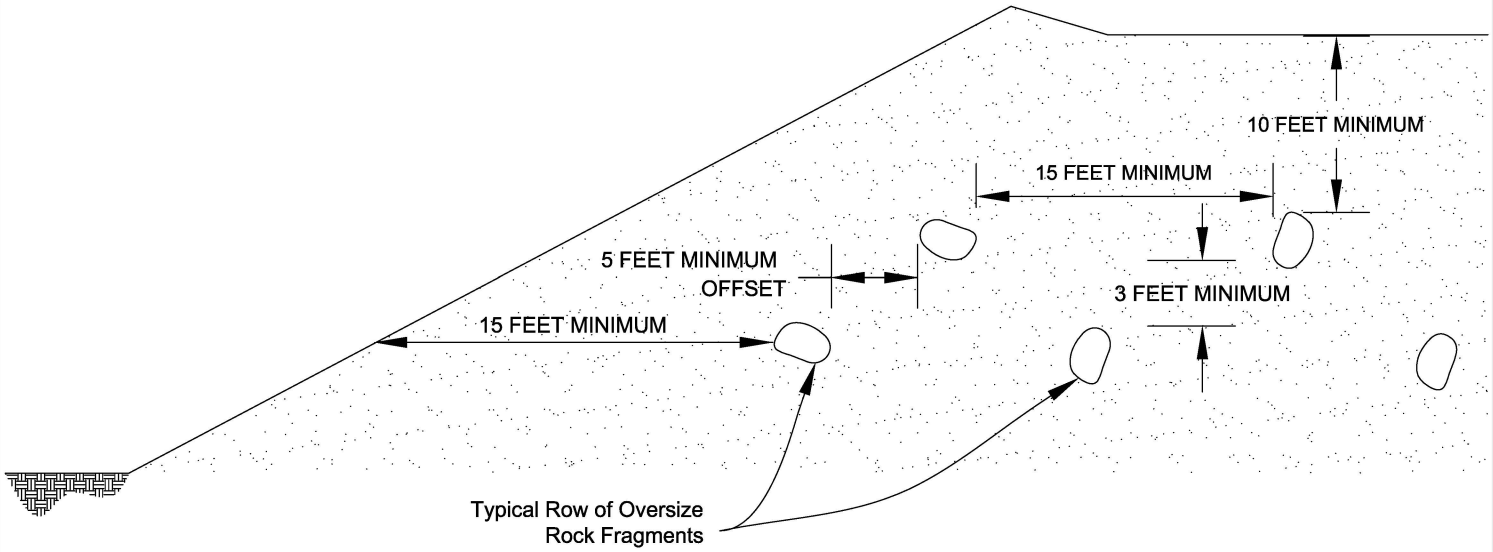
NOT TO SCALE

DRAWN: JAS
CHKD: GKM

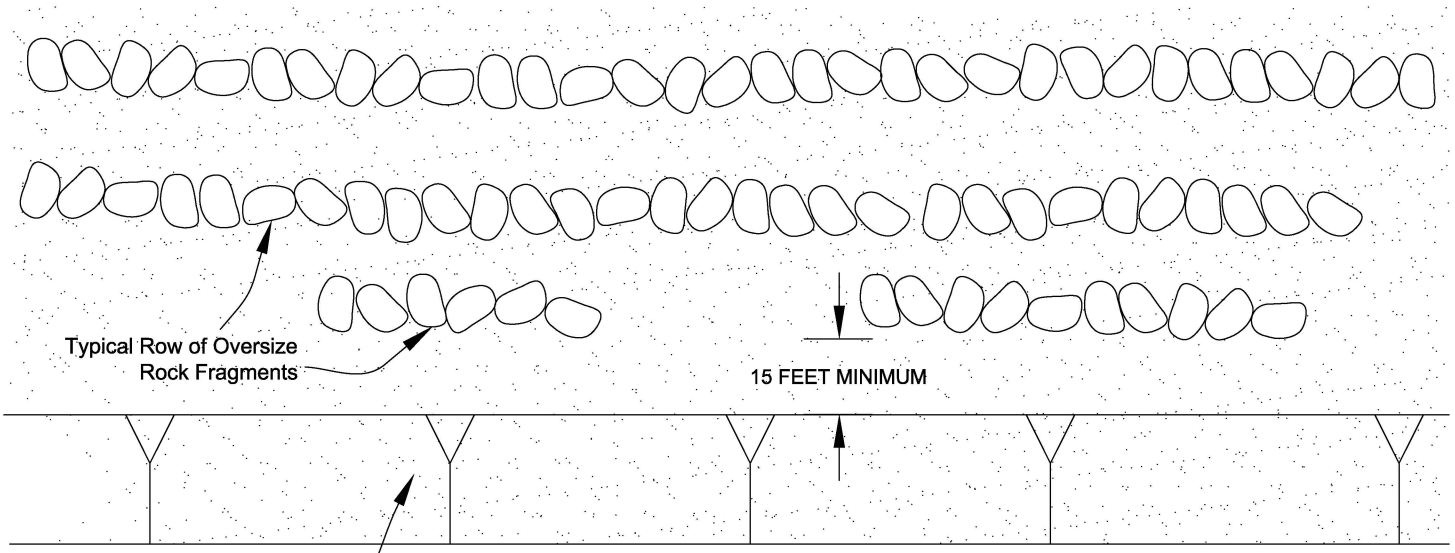
PLATE D-7

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL



Section View



Plan View

PLACEMENT OF OVERSIZED MATERIAL

GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: PM
CHKD: GKM

PLATE D-8

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL

APPENDIX E

OSHPD

Latitude, Longitude: 33.83907359, -117.25130955

Date	7/8/2021, 10:40:20 AM
Design Code Reference Document	ASCE7-16
Risk Category	III
Site Class	D - Stiff Soil

Type	Value	Description
S_S	1.5	MCE_R ground motion. (for 0.2 second period)
S_1	0.561	MCE_R ground motion. (for 1.0s period)
S_{MS}	1.5	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S_{DS}	1	Numeric seismic design value at 0.2 second SA
S_{D1}	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F_a	1	Site amplification factor at 0.2 second
F_v	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.5	MCE_G peak ground acceleration
F_{PGA}	1.1	Site amplification factor at PGA
PGA_M	0.55	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
SsRT	1.511	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	1.614	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.5	Factored deterministic acceleration value. (0.2 second)
S1RT	0.561	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.613	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.6	Factored deterministic acceleration value. (1.0 second)
PGAd	0.5	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.937	Mapped value of the risk coefficient at short periods
C_{R1}	0.915	Mapped value of the risk coefficient at a period of 1 s

SOURCE: SEAOC/OSHPD Seismic Design Maps Tool
<https://seismicmaps.org/>

SEISMIC DESIGN PARAMETERS - 2019 CBC

PROPOSED WAREHOUSE

RIVERSIDE COUNTY (PERRIS), CALIFORNIA

DRAWN: MD
CHKD: GKM

SCG PROJECT
21G191-1

PLATE E-1

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL

Appendix 4: Infiltration Report

Infiltration Testing Data

August 3, 2021

Black Creek Group
4675 MacArthur Court, Suite 625
Newport Beach, California 92660

Attention: Mr. Peter F. Schafer
AVP, Development

Project No.: **21G191-2**

Subject: **Results of Infiltration Testing**
Proposed Warehouse
NEC Harvill Avenue and Cajalco Road
Riverside County (Perris Area), California

Reference: 1) Geotechnical Investigation, Proposed Warehouse, NEC Harvill Avenue and Cajalco Road, Riverside County (Perris Area), California, prepared by Southern California Geotechnical, Inc. (SCG) for Black Creek Group, SCG Project No. 19G191-1, dated July 27, 2021.

Mr. Schafer:

In accordance with your request, we have conducted infiltration testing at the subject site. We are pleased to present this report summarizing the results of the infiltration testing and our design recommendations.

Scope of Services

The scope of services performed for this project was in general accordance with our Proposal No. 21P238R2, dated June 21, 2021. The scope of services included site reconnaissance, subsurface exploration, field testing, and engineering analysis to determine the infiltration rates of the on-site soils. The infiltration testing was performed in general accordance with the Riverside County – Low Impact Development BMP Design Handbook – Section 2.3 of Appendix A, prepared for the Riverside County Department of Environmental Health (RCDEH), dated December 2013 and the ASTM test method D-3385-03, Standard Test Method for Infiltration Rate of Soils in Field Using Double-Ring Infiltrometer.

Site and Project Description

The site is located at the northeast corner of Harvill Avenue and Cajalco Road in an unincorporated portion of Riverside County near Perris, California. The site is bounded to the north by a commercial building, to the west by Harvill Avenue, to the south by Cajalco Road, and to the east by a railroad easement. The general location of the site is illustrated on the Site Location Map, included as Plate 1 of this report.

The site consists of an irregular-shaped parcel, 9.13± acres in size. The site is presently vacant and undeveloped. The eastern property line descends approximately 3 to 6± feet towards the railroad easement. Ground surface cover consists of exposed soil with sparse to moderate native

grass and weed growth, and localized areas of debris and trash. An existing sewer easement is located along the eastern property line.

Detailed topographic information was obtained from a topographic survey prepared by Kier-Wright. The topographic plan indicates that the overall site slopes towards the east-central drainage easement. The northern half of the site slopes towards the southeast and the southern half of the site slopes to the northeast at gradients of 1± percent.

Proposed Development

Based on the conceptual site plan provided to our office by the client, the site will be developed with one (1) new commercial/industrial building. The building will be 98,000± ft^2 in size, located in the southern area of the site. Dock-high doors will be constructed along a portion of the northern building wall. The building is expected to be surrounded by asphaltic concrete in the parking and driving lanes, Portland cement concrete in the truck court area, and limited areas of concrete flatwork and landscape planters.

The proposed development will include on-site infiltration to dispose of storm water. The infiltration system will consist of below-grade chamber systems located in the western area of the site. The bottom of the chambers are expected to be 5 to 10± feet below existing site grades.

Concurrent Study

Southern California Geotechnical, Inc. (SCG) performed a concurrent geotechnical investigation for the subject site. As part of this investigation seven (7) borings (identified as Boring Nos. B-1 through B-7) were advanced to depths of 10 to 25± feet below the existing site grades. Native alluvium was encountered at the ground surface at all of the boring locations, except Boring No. B-2, extending to at least the maximum depth explored of 25± feet below existing site grades. The younger alluvium generally consists of medium dense silty sands, clayey sands, and sandy silts with varying medium to coarse sands, silt and clay content. Boring Nos. B-5 through B-7 also encountered stiff to hard fine sandy clays and silty clays with varying amounts of sand and silt. It should be noted that Boring No. B-3 encountered soils which possess fine root fibers and porosity within the upper 12± feet. Older native alluvial soils were encountered at the ground surface and beneath the younger alluvium at Boring Nos. B-1 and B-2, extending to the maximum depth explored of 25± feet below ground surface. The older alluvium generally consists of medium dense to dense silty sands, clayey sands, and sandy silts with varying medium to coarse sand, silt and clay content. Many of the samples encountered were found to be cemented. Boring No. B-2 encountered a layer of loose clayey fine to medium sands at a depth of 6 feet below the existing site grades. The approximate locations of the concurrent borings are indicated on the Boring Location Plan, included as Plate 2 in Appendix A of this report.

Subsurface Exploration

Scope of Exploration

The subsurface exploration for the infiltration testing consisted of four (4) backhoe-excavated trenches, extending to depths of 5 to 10± feet below existing site grades. The trenches were

logged during excavation by a member of our staff. The approximate locations of the infiltration trenches (identified as I-1 through I-4) are indicated on the Infiltration Test Location Plan, enclosed as Plate 2 of this report.

Geotechnical Conditions

Native older alluvial soils were encountered at the ground surface at all four (4) Infiltration Test locations. The older alluvial strata consisted of dense silty fine to coarse sands with trace quantities of fine gravel. Additionally, variable quantities of coarse sands, clays, and calcareous veining were encountered within the older alluvial strata. The Trench Logs, which illustrate the conditions encountered at the infiltration test locations, are included with this report.

Groundwater

Free water was not encountered during the excavation of any of the trenches or borings from the concurrent study. Based on the moisture content of the recovered soil samples and the lack of free water in the borings, the static groundwater table is at a greater depth than 25± feet below existing site grades.

As part of our research, we reviewed available groundwater data in order to determine the historic high groundwater level for the site. The primary reference used to determine the historic groundwater depths in this area is the Western Municipal Water District and the San Bernardino Valley Water Conservation District Cooperative Well Measuring Program. High water level from the nearest well is included below:

State Well ID	Approximate Distance from Subject Site	High Water Level MSL (feet)
04S/03W-07J001S	< 3,484 feet	73.1

Infiltration Testing – Double Ring Infiltrometer

The infiltration testing was performed in general accordance with the ASTM test method D-3385-03, Standard Test Method for Infiltration Rate of Soils in Field Using Double-Ring Infiltrometer.

Two stainless steel infiltration rings were used for the infiltration testing. The outer infiltration ring is 2 feet in diameter and 20 inches in height. The inner infiltration ring is 1 foot in diameter and 20 inches in height. At each test location, a trench was excavated to the proposed depth of the infiltration system and the outer ring was driven 3± inches into the soil at the base of each trench. The inner ring was centered inside the outer ring and subsequently driven 3± inches into the soil at the base of the trench. The rings were driven into the soil using a sixteen-pound sledge hammer. The soil surrounding the wall of the infiltration rings was only slightly disturbed during the driving process.

Infiltration Testing Procedure

Infiltration testing was performed at both of the infiltration trench locations. The infiltration testing consisted of filling the inner ring and the annular space (the space between the inner and outer

rings) with water, approximately 3 to 4 inches above the soil. To prevent the flow of water from one ring to the other, the water level in both the inner ring and the annular space between the rings was maintained using constant-head float valves. The volume of water that was added to maintain a constant head in the inner ring and the annular space during each time interval was determined and recorded. A cap was placed over the rings to minimize the evaporation of water during the tests.

The schedule for readings was determined based on the observed soil type at the base of each backhoe-excavated trench. Based on the existing soils at the trench locations, the volumetric measurements were made at 20-minute increments. The water volume measurements are presented on the spreadsheets enclosed with this report. The infiltration rates for each of the timed intervals are also tabulated on these spreadsheets

Infiltration Results

The infiltration rates from the tests are tabulated in inches per hour. In accordance with the typically accepted practice, it is recommended that the most conservative reading from the latter part of the infiltration tests be used as the design infiltration rate. The rates are summarized below:

Infiltration Test No.	Test Depth (feet)	Soil Description	Infiltration Rate (inches/hour)
I-1	10	Brown Silty fine to medium Sand, little Calcareous nodules and veining, trace Clay	0.1
I-2	10	Brown Silty fine to medium Sand, trace Clay, little Calcareous veining	0.2
I-3	6	Brown Silty fine to medium Sand, little Calcareous nodules and veining, trace Clay	0.1
I-4	5	Light Brown to Brown Silty fine to coarse Sand, trace Clay nodules, some Calcareous veining	0.1

Laboratory Testing

Moisture Content

The moisture contents for the recovered soil samples within the borings were determined in accordance with ASTM D-2216 and are expressed as a percentage of the dry weight. These test results are presented on the Trench Logs.

Grain Size Analysis

The grain size distribution of selected soils collected from the base of each infiltration test boring have been determined using a range of wire mesh screens. These tests were performed in general accordance with ASTM D-422 and/or ASTM D-1140. The weight of the portion of the sample retained on each screen is recorded and the percentage finer or coarser of the total weight is calculated. The results of these tests are presented on Plates C-1 through C-4 of this report.

Design Recommendations

Four (4) infiltration tests were performed at the subject site. As noted above, the infiltration rates at these locations vary from 0.1 to 0.2 inches per hour. **Based on the results of the infiltration testing and encountered soils throughout the site, infiltration is not considered feasible at this site.**

General Comments

This report has been prepared as an instrument of service for use by the client in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, structural engineer, and/or civil engineer. The design of the proposed storm water infiltration system is the responsibility of the civil engineer. The role of the geotechnical engineer is limited to determination of infiltration rate only. By using the design infiltration rate contained herein, the civil engineer agrees to indemnify, defend, and hold harmless the geotechnical engineer for all aspects of the design and performance of the proposed storm water infiltration system. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance on this report by an unauthorized third party is at such party's sole risk, and we accept no responsibility for damage or loss which may occur.

The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be representative of the total area, some variations should be expected between boring locations and testing depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted. The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

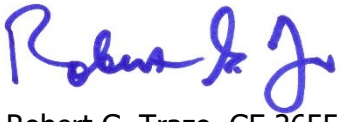
Closure

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

SOUTHERN CALIFORNIA GEOTECHNICAL, INC.

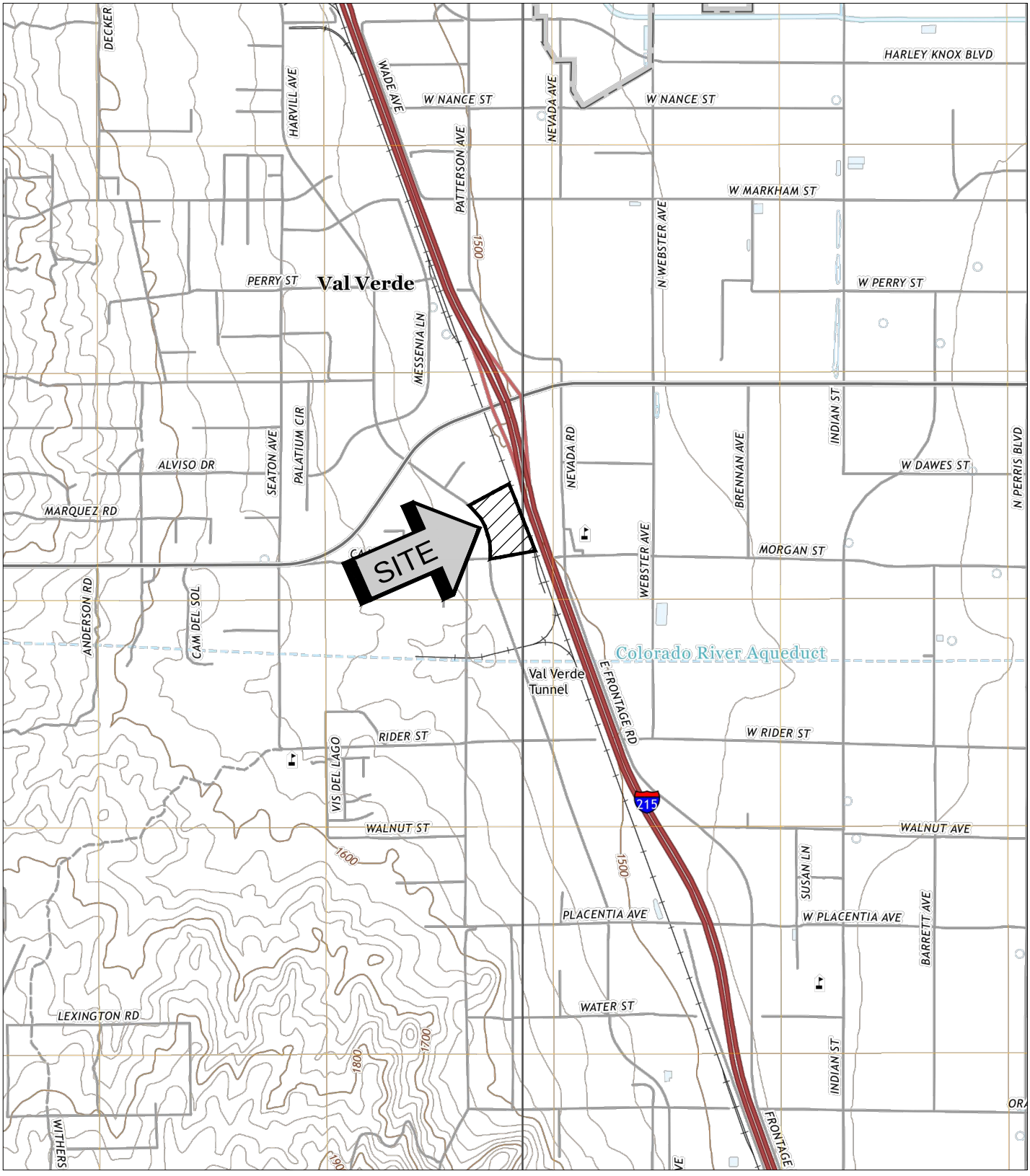
Ryan Bremer
Staff Geologist



Robert G. Trazo, GE 2655
Principal Engineer

Distribution: (1) Addressee

Enclosures: Plate 1 - Site Location Map
Plate 2 - Infiltration Test Location Plan
Trench Logs & Trench Log Legend (6 pages)
Infiltration Test Results Spreadsheets (4 pages)
Grain Size Distribution Results (4 pages)



SOURCE: USGS TOPOGRAPHIC MAP OF STEELE PEAK AND PERRIS QUADRANGLES, RIVERSIDE COUNTY, CALIFORNIA, 2018.

SITE LOCATION MAP

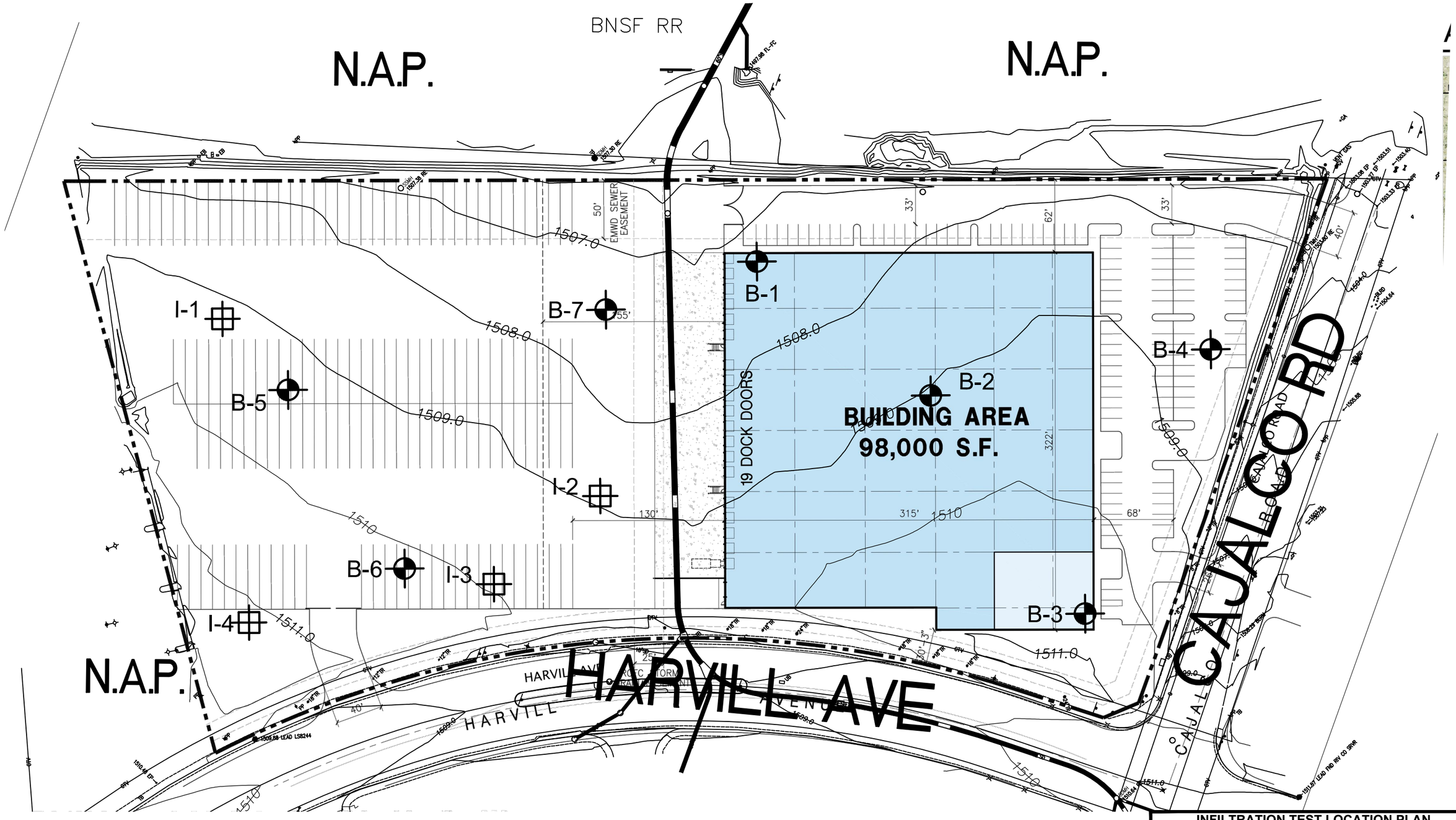
PROPOSED WAREHOUSE

RIVERSIDE COUNTY (PERRIS), CALIFORNIA

SCALE: 1" = 2000'	
DRAWN: MD CHKD: GKM	
SCG PROJECT 21G191-2	
PLATE 1	

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL



GEOTECHNICAL LEGEND

- APPROXIMATE INFILTRATION TEST LOCATION
- APPROXIMATE BORING LOCATION (SCG PROJECT NO. 21G191-1)

NORTH

SoCalGeo

NOTE: SITE PLAN PROVIDED BY HPA.

INFILTRATION TEST LOCATION PLAN

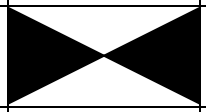
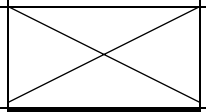
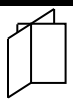
PROPOSED WAREHOUSE

RIVERSIDE COUNTY (PERRIS), CALIFORNIA

SCALE: 1" = 80'	
DRAWN: MD CHKD: RF	
SCG PROJECT 21G191-2	
PLATE 2	

SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH LOG LEGEND

SAMPLE TYPE	GRAPHICAL SYMBOL	SAMPLE DESCRIPTION
AUGER		SAMPLE COLLECTED FROM AUGER CUTTINGS, NO FIELD MEASUREMENT OF SOIL STRENGTH. (DISTURBED)
CORE		ROCK CORE SAMPLE: TYPICALLY TAKEN WITH A DIAMOND-TIPPED CORE BARREL. TYPICALLY USED ONLY IN HIGHLY CONSOLIDATED BEDROCK.
GRAB		SOIL SAMPLE TAKEN WITH NO SPECIALIZED EQUIPMENT, SUCH AS FROM A STOCKPILE OR THE GROUND SURFACE. (DISTURBED)
CS		CALIFORNIA SAMPLER: 2-1/2 INCH I.D. SPLIT BARREL SAMPLER, LINED WITH 1-INCH HIGH BRASS RINGS. DRIVEN WITH SPT HAMMER. (RELATIVELY UNDISTURBED)
NSR		NO RECOVERY: THE SAMPLING ATTEMPT DID NOT RESULT IN RECOVERY OF ANY SIGNIFICANT SOIL OR ROCK MATERIAL.
SPT		STANDARD PENETRATION TEST: SAMPLER IS A 1.4 INCH INSIDE DIAMETER SPLIT BARREL, DRIVEN 18 INCHES WITH THE SPT HAMMER. (DISTURBED)
SH		SHELBY TUBE: TAKEN WITH A THIN WALL SAMPLE TUBE, PUSHED INTO THE SOIL AND THEN EXTRACTED. (UNDISTURBED)
VANE		VANE SHEAR TEST: SOIL STRENGTH OBTAINED USING A 4 BLADED SHEAR DEVICE. TYPICALLY USED IN SOFT CLAYS-NO SAMPLE RECOVERED.

COLUMN DESCRIPTIONS

DEPTH: Distance in feet below the ground surface.

SAMPLE: Sample Type as depicted above.

BLOW COUNT: Number of blows required to advance the sampler 12 inches using a 140 lb hammer with a 30-inch drop. 50/3" indicates penetration refusal (>50 blows) at 3 inches. WH indicates that the weight of the hammer was sufficient to push the sampler 6 inches or more.

POCKET PEN.: Approximate shear strength of a cohesive soil sample as measured by pocket penetrometer.

GRAPHIC LOG: Graphic Soil Symbol as depicted on the following page.

DRY DENSITY: Dry density of an undisturbed or relatively undisturbed sample in lbs/ft^3.

MOISTURE CONTENT: Moisture content of a soil sample, expressed as a percentage of the dry weight.

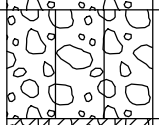
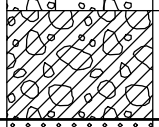
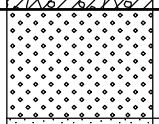
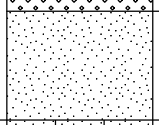
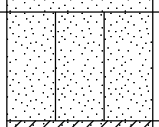
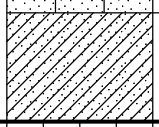
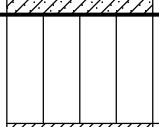
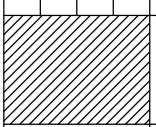
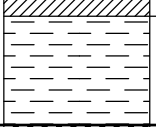
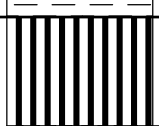
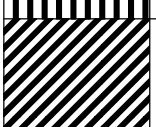
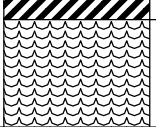
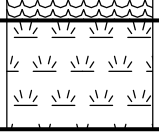
LIQUID LIMIT: The moisture content above which a soil behaves as a liquid.

PLASTIC LIMIT: The moisture content above which a soil behaves as a plastic.

PASSING #200 SIEVE: The percentage of the sample finer than the #200 standard sieve.

UNCONFINED SHEAR: The shear strength of a cohesive soil sample, as measured in the unconfined state.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

TRENCH NO. I-1

JOB NO.: 21G191-2
PROJECT: Proposed Warehouse
LOCATION: Riverside County (Perris), California

DRILLING DATE: 7/1/21
DRILLING METHOD: Backhoe
LOGGED BY: Ryan Bremer

WATER DEPTH: ---
CAVE DEPTH: ---
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
0					OLDER ALLUVIUM: Brown Silty fine to medium Sand, little Calcareous nodules and veining, trace Clay, little porosity, little fine root fibers, dense-damp							
					@ 2½ to 10', no fine root fibers							
5												
							6					
10					Trench Terminated at 10'							

TBL 21G191-2.GPJ SOCALGEO.GDT 8/2/21

TEST TRENCH LOG **PLATE B-1**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

TRENCH NO. I-2

JOB NO.: 21G191-2
PROJECT: Proposed Warehouse
LOCATION: Riverside County (Perris), California

DRILLING DATE: 7/1/21
DRILLING METHOD: Backhoe
LOGGED BY: Ryan Bremer

WATER DEPTH: ---
CAVE DEPTH: ---
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					OLDER ALLUVIUM: Brown Silty fine to medium Sand, trace Clay, little Calcareous veining, trace fine root fibers, dense-dry							
					@ 2 to 10', no fine root fibers							
5												
					@ 8 to 10', trace Clay nodules							
							8					
10					Trench Terminated at 10'							

TBL 21G191-2.GPJ SOCALGEO.GDT 8/2/21

TEST TRENCH LOG **PLATE B-2**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

TRENCH NO. I-3

JOB NO.: 21G191-2
PROJECT: Proposed Warehouse
LOCATION: Riverside County (Perris), California

DRILLING DATE: 7/2/21
DRILLING METHOD: Backhoe
LOGGED BY: Ryan Bremer

WATER DEPTH: ---
CAVE DEPTH: ---
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
5					OLDER ALLUVIUM: Brown Silty fine to medium Sand, little Calcareous nodules and veining, trace Clay nodules, dense-damp		7					
					Trench Terminated at 6'							

TBL 21G191-2.GPJ SOCALGEO.GDT 8/2/21

TEST TRENCH LOG **PLATE B-3**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

TRENCH NO. I-4

JOB NO.: 21G191-2
PROJECT: Proposed Warehouse
LOCATION: Riverside County (Perris), California

DRILLING DATE: 7/2/21
DRILLING METHOD: Backhoe
LOGGED BY: Ryan Bremer

WATER DEPTH: ---
CAVE DEPTH: ---
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					OLDER ALLUVIUM: Light Brown to Brown Silty fine to coarse Sand, trace Clay nodules, some Calcareous veining, dense-dry							
							4					
5					Trench Terminated at 5'							

TBL 21G191-2.GPJ SOCALGEO.GDT 8/2/21

TEST TRENCH LOG

PLATE B-4

INFILTRATION CALCULATIONS

Project Name	Proposed Warehouse
Project Location	Riverside County (Perris), California
Project Number	21G191-2
Engineer	Ryan Bremer

Infiltration Test No: I-1

Constants

	Diameter (ft)	Area (ft^2)	Area (cm^2)
Inner	1	0.79	730
Anlr. Spac	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

Test Interval		Time (hr)	Interval **Elapsed** (min)	Flow Readings: Inner Ring (ml)	Flow Readings: Ring Flow (cm^3)	Flow Readings: Annular Ring (ml)	Flow Readings: Space Flow (cm^3)	Infiltration Rates: Inner Ring* (cm/hr)	Infiltration Rates: Annular Space* (cm/hr)	Infiltration Rates: Inner Ring* (in/hr)	Infiltration Rates: Annular Space* (in/hr)
1	Initial	11:21 AM	20	250	50	1000	400	0.21	0.55	0.08	0.22
	Final	11:41 AM	**20**	300		1400					
2	Initial	11:42 AM	20	300	50	1400	300	0.21	0.41	0.08	0.16
	Final	12:02 PM	**40**	350		1700					
3	Initial	12:04 PM	20	350	50	1700	300	0.21	0.41	0.08	0.16
	Final	12:24 PM	**60**	400		2000					
4	Initial	12:26 PM	20	400	50	2000	200	0.21	0.27	0.08	0.11
	Final	12:46 PM	**80**	450		2200					
5	Initial	12:48 PM	20	450	50	2200	200	0.21	0.27	0.08	0.11
	Final	1:08 PM	**100**	500		2400					

INFILTRATION CALCULATIONS

Project Name	Proposed Warehouse
Project Location	Riverside County (Perris), California
Project Number	21G191-2
Engineer	Ryan Bremer

Infiltration Test No: I-2

Constants

	Diameter (ft)	Area (ft^2)	Area (cm^2)
Inner	1	0.79	730
Anlr. Spac	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

Test Interval		Time (hr)	Interval **Elapsed** (min)	Flow Readings: Inner Ring (ml)	Flow Readings: Ring Flow (cm^3)	Flow Readings: Annular Ring (ml)	Flow Readings: Space Flow (cm^3)	Infiltration Rates: Inner Ring* (cm/hr)	Infiltration Rates: Annular Space* (cm/hr)	Infiltration Rates: Inner Ring* (in/hr)	Infiltration Rates: Annular Space* (in/hr)
1	Initial	10:07 AM	20	250	250	500	1300	1.03	1.78	0.40	0.70
	Final	10:27 AM	**20**	500		1800					
2	Initial	10:33 AM	20	500	200	1800	800	0.82	1.10	0.32	0.43
	Final	10:53 AM	**40**	700		2600					
3	Initial	10:54 AM	20	700	100	2600	600	0.41	0.82	0.16	0.32
	Final	11:14 AM	**60**	800		3200					
4	Initial	11:15 AM	20	800	50	3200	500	0.21	0.69	0.08	0.27
	Final	11:35 AM	**80**	850		3700					
5	Initial	11:35 AM	20	850	50	3700	400	0.21	0.55	0.08	0.22
	Final	11:55 AM	**100**	900		4100					

INFILTRATION CALCULATIONS

Project Name	Proposed Warehouse
Project Location	Riverside County (Perris), California
Project Number	21G191-2
Engineer	Ryan Bremer

Infiltration Test No: I-3

Constants

	Diameter (ft)	Area (ft^2)	Area (cm^2)
Inner	1	0.79	730
Anlr. Spac	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

Test Interval		Time (hr)	Interval **Elapsed** (min)	Flow Readings: Inner Ring (ml)	Flow Readings: Ring Flow (cm^3)	Flow Readings: Annular Ring (ml)	Flow Readings: Space Flow (cm^3)	Infiltration Rates: Inner Ring* (cm/hr)	Infiltration Rates: Annular Space* (cm/hr)	Infiltration Rates: Inner Ring* (in/hr)	Infiltration Rates: Annular Space* (in/hr)
1	Initial	8:20 AM	20	250	0	1000	700	0.00	0.96	0.00	0.38
	Final	8:40 AM	**20**	250		1700					
2	Initial	8:42 AM	20	250	0	1700	600	0.00	0.82	0.00	0.32
	Final	9:02 AM	**40**	250		2300					
3	Initial	9:03 AM	20	250	0	2300	300	0.00	0.41	0.00	0.16
	Final	9:23 AM	**60**	250		2600					
4	Initial	9:24 AM	20	250	0	2600	200	0.00	0.27	0.00	0.11
	Final	9:44 AM	**80**	250		2800					

INFILTRATION CALCULATIONS

Project Name	Proposed Warehouse
Project Location	Riverside County (Perris), California
Project Number	21G191-2
Engineer	Ryan Bremer

Infiltration Test No: I-4

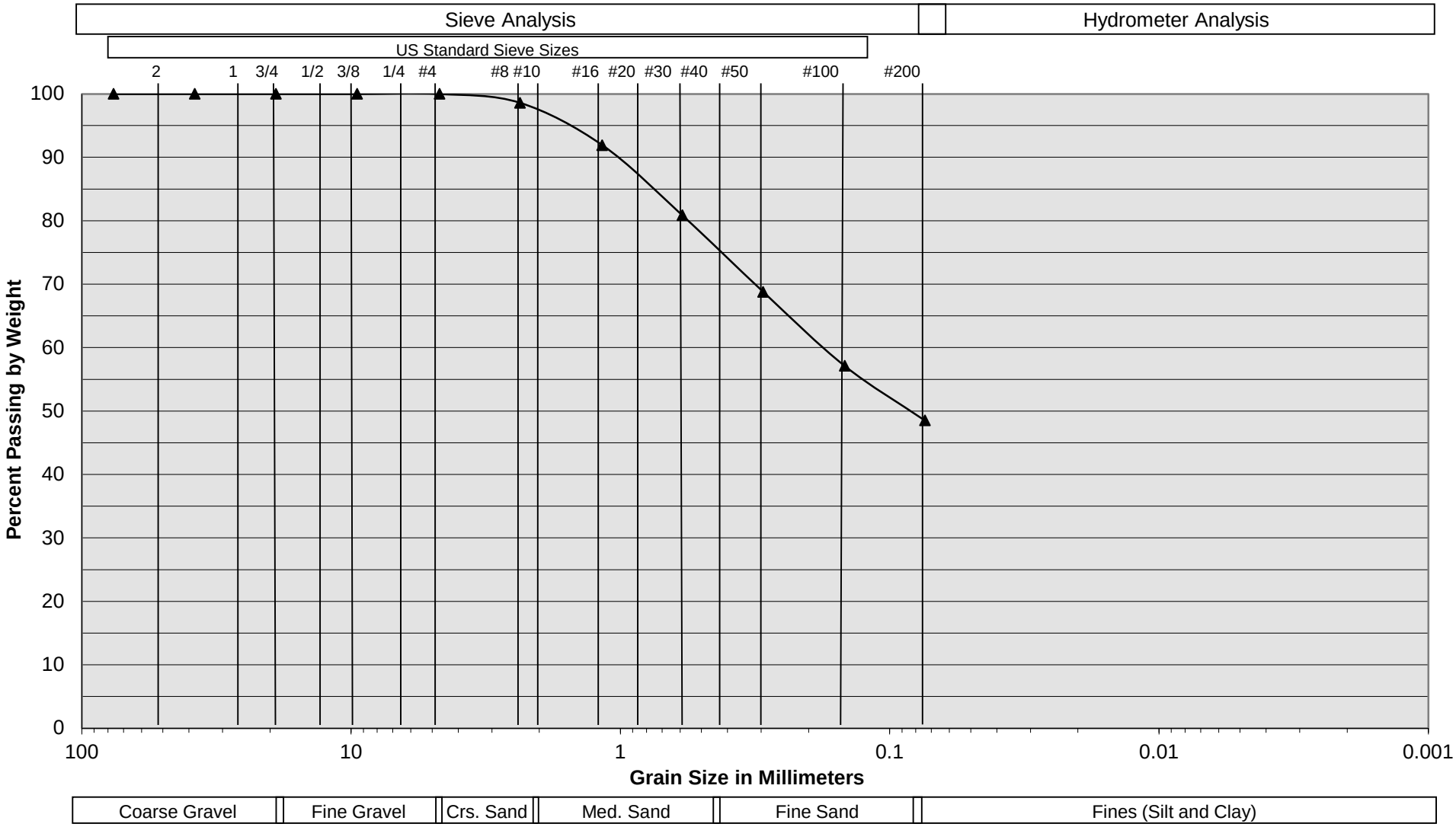
Constants

	Diameter (ft)	Area (ft^2)	Area (cm^2)
Inner	1	0.79	730
Anlr. Spac	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

Test Interval		Time (hr)	Interval **Elapsed** (min)	Flow Readings: Inner Ring (ml)	Flow Readings: Ring Flow (cm^3)	Flow Readings: Annular Ring (ml)	Flow Readings: Space Flow (cm^3)	Infiltration Rates: Inner Ring* (cm/hr)	Infiltration Rates: Annular Space* (cm/hr)	Infiltration Rates: Inner Ring* (in/hr)	Infiltration Rates: Annular Space* (in/hr)
1	Initial	8:41 AM	20	250	0	900	1300	0.00	1.78	0.00	0.70
	Final	9:01 AM	**20**	250		2200					
2	Initial	9:01 AM	20	250	0	2200	700	0.00	0.96	0.00	0.38
	Final	9:21 AM	**40**	250		2900					
3	Initial	9:21 AM	20	250	0	2900	300	0.00	0.41	0.00	0.16
	Final	9:41 AM	**60**	250		3200					
4	Initial	9:41 AM	20	250	0	3200	200	0.00	0.27	0.00	0.11
	Final	10:01 AM	**80**	250		3400					

Grain Size Distribution

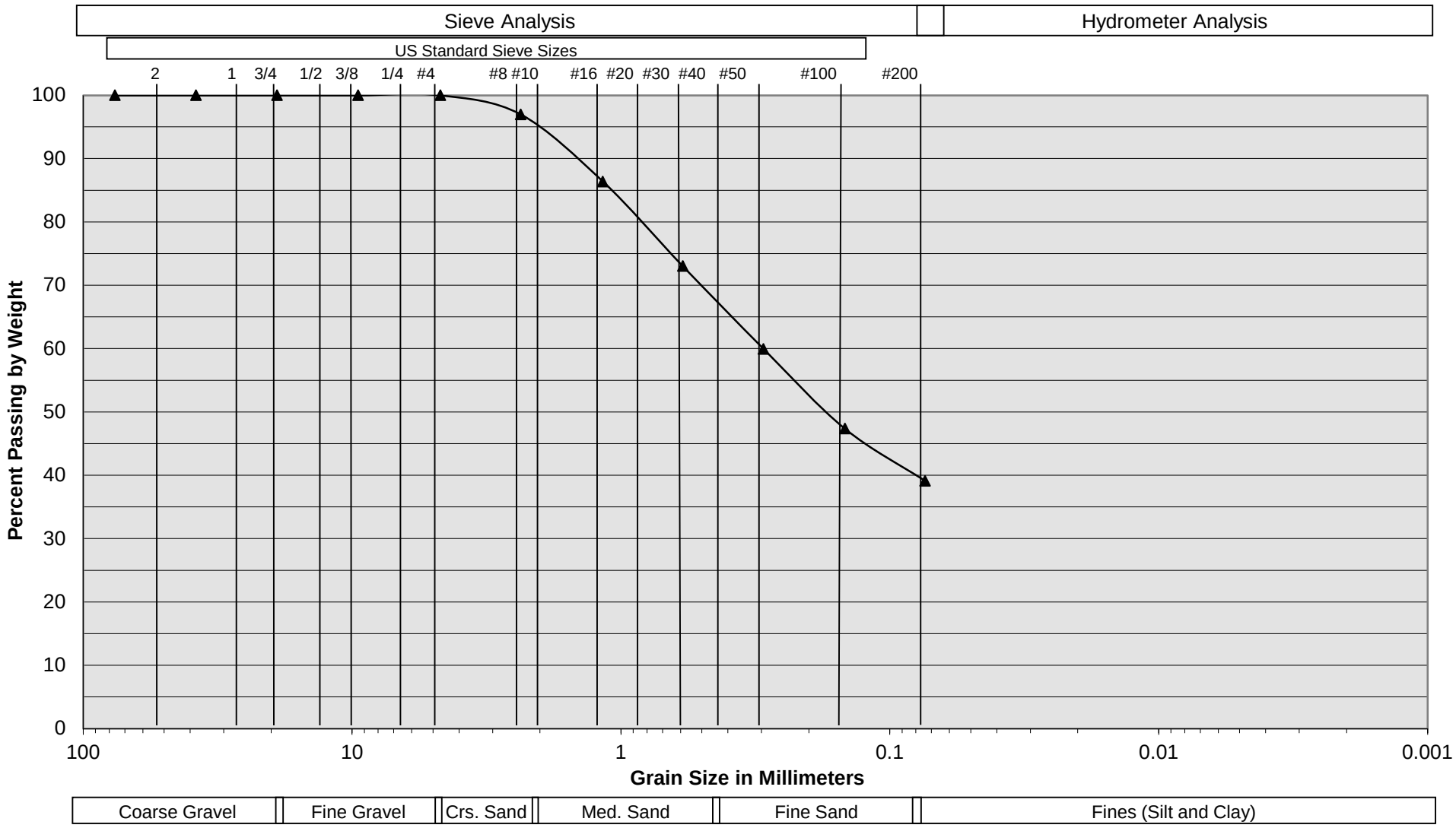


Sample Description	I-1 @ 10'
Soil Classification	Brown Silty fine to medium Sand, little Calcareous nodules and veining, trace Clay

Proposed Warehouse
Riverside County (Perris), California
Project No. 21G191-2
PLATE C- 1

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Grain Size Distribution

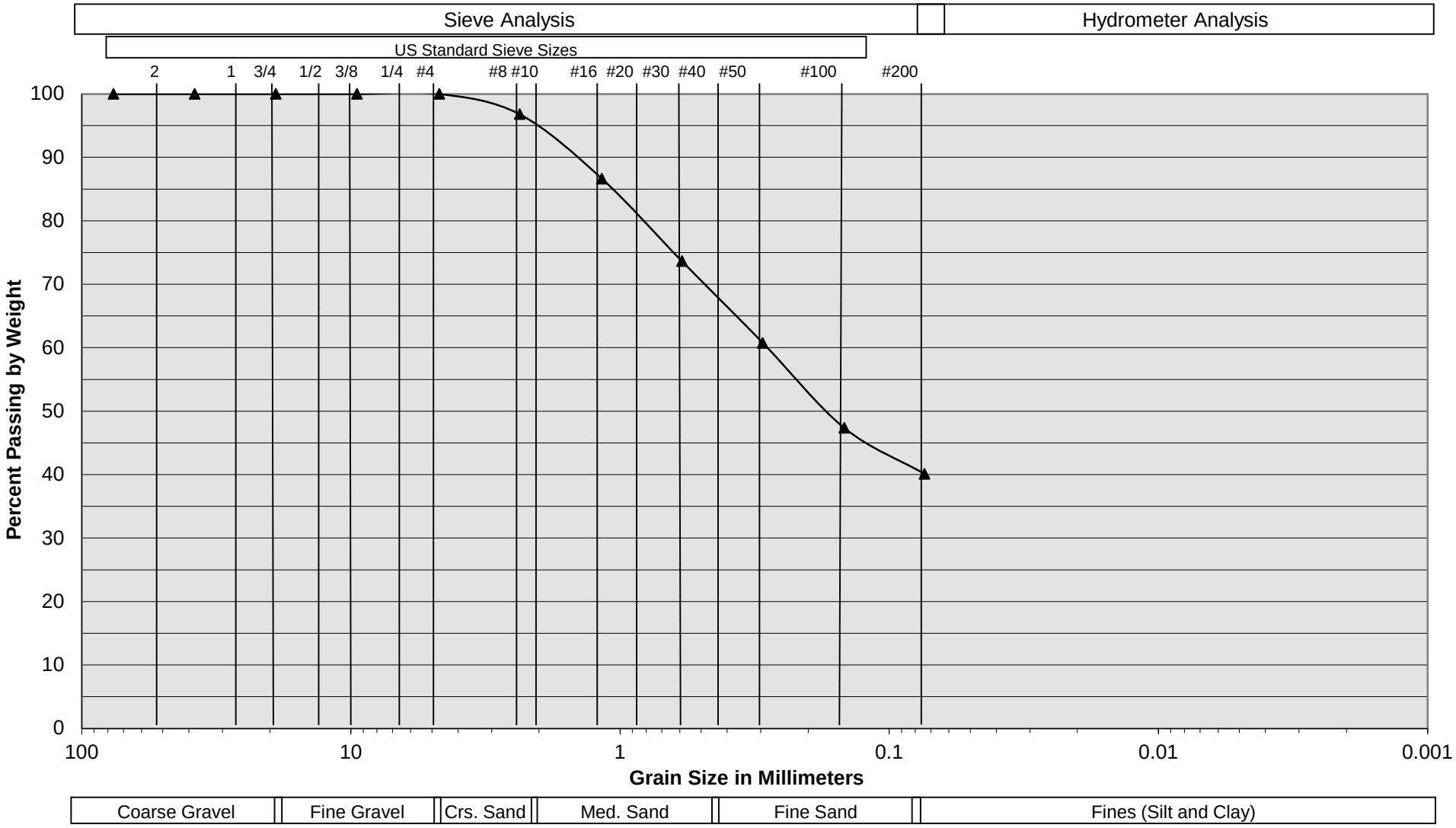


Sample Description	I-2 @ 10'
Soil Classification	Brown Silty fine to medium Sand, trace Clay, trace Calcareous veining

Proposed Warehouse
Riverside County (Perris), California
Project No. 21G191-2
PLATE C- 2

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Grain Size Distribution



Sample Description	I-3 @ 6'
Soil Classification	Brown Silty fine to medium Sand, little Calcareous nodules and veining, trace Clay

Proposed Warehouse
Riverside County (Perris), California
Project No. 21G191-2
PLATE C- 3

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
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Grain Size Distribution

Sample Description	I-4 @ 5'
Soil Classification	Light Brown to Brown Silty fine to coarse Sand, trace Clay nodules, some Calcareous veining

Proposed Warehouse
Riverside County (Perris), California
Project No. 21G191-2
PLATE C- 4

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
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Appendix 5: LID Infeasibility

LID Technical Infeasibility Analysis

TABLE 3-4. LID BMP Applicability

LID BMP Hierarchy	A	B	C	D
	K_{SAT}> 1.6"/hr., and no restrictions on infiltration	Are Harvest and Use BMPs feasible?	0.3"/hr. < K_{SAT} < 1.6"/hr., or unpredictable or unknown	K_{SAT} < 0.3"/hr.
LID Infiltration BMPs*	✓			
Harvest and Use BMPs		✓		✓
LID Bioretention	✓		✓	✓
LID Biotreatment				✓

Notes for Table 3-5:

***See also** Figure 3-6 for guidance in selecting appropriate BMPs*

***Column A:** Selections from this column may be used in locations where the infiltration rate of underlying soils is at least 1.6" per hour and no restrictions on infiltration apply to these locations.*

***Column B:** Harvest and Use BMPs may be used where it can be shown that there is sufficient demand for harvested water and where LID Infiltration BMPs are not feasible.*

***Column C:** Selections in this column may be used in locations where the measured infiltration rate of underlying soils is between 0.3" and 1.6" per hour or where, in accordance with recommendations of a licensed geotechnical engineer, the post-development saturated hydraulic conductivity is uncertain or unknown or cannot be reliably predicted because of soil disturbance or fill, anisotropic soil characteristics, presence of clay lenses, or other factors.*

***Column D:** Selections in this column may be used in locations where the infiltration rate of underlying soils is 0.3" per hour or less. See Chapter 2 for more information.*

** Permeable Pavement, when designed with a maximum of a 2:1 ratio of impervious area to pervious pavement areas, or less, is considered a self-retaining area, and is not considered an LID BMP for the purposes of this table. This table focuses on the 'special case' included in the discussion of 'areas draining to self-retaining areas' above, where a project proponent can choose to design the pervious pavement as a LID BMP in accordance with an approved design, such as the LID BMP Design handbook, and in return drain additional impervious area onto the pervious pavement beyond the 2:1 ratio.*

3.4.2.a. Laying out your LID BMPs

Finding the right location for LID BMPs on your site involves a careful and creative integration of several factors:

- ✓ To make the most efficient use of the site and to maximize aesthetic value, **integrate BMPs with site landscaping**. Many local zoning codes may require landscape setbacks or buffers, or may specify that a minimum portion of the site be landscaped. It may be possible to locate some or all of your site's Stormwater BMPs within this same area, or within utility easements or other non-buildable areas.

- ✓ Bioretention BMPs must be **level or nearly level** all the way around. When configured in a linear fashion (similar to swales) bioretention BMPs may be gently sloped end to end, but opposite sides must be at the same

Appendix 6: BMP Design Details

BMP Sizing, Design Details and other Supporting Documentation

Bioretention Facility - Design Procedure	BMP ID: DMA 1	Legend:	Required Entries / Calculated Cells

Company Name: Kier + Wright — Date: 8/26/2022

Designed by: Jake Marshall — County/City Case No.:

Design Volume

Enter the area tributary to this feature — A_T = 6.58 acres

Enter V_{BMP} determined from Section 2.1 of this Handbook — V_{BMP} = 11,132 ft^3

Type of Bioretention Facility Design

(●) Side slopes required (parallel to parking spaces or adjacent to walkways)

( ) No side slopes required (perpendicular to parking space or Planter Boxes)

Bioretention Facility Surface Area

Depth of Soil Filter Media Layer — d_S = 2.0 ft

Top Width of Bioretention Facility, excluding curb — w_T = 91.0 ft

Total Effective Depth, d_E

$d_E = (0.3) \times d_S + (0.4) \times 1 - (0.7/w_T) + 0.5$ — d_E = 1.49 ft

Minimum Surface Area, A_m

$$A_M\,(ft^2) = \frac{V_{BMP}\,(ft^3)}{d_E\,(ft)}$$

A_M = 7,460 ft^2

Proposed Surface Area — A= 12,083 ft^2

Bioretention Facility Properties

Side Slopes in Bioretention Facility — z = 4 :1

Diameter of Underdrain — 6 inches

Longitudinal Slope of Site (3% maximum) — 0.5 %

6" Check Dam Spacing — 0 feet

Describe Vegetation: Natural Grasses

Notes:

Santa Ana Watershed - BMP Design Volume, V_{BMP}

(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name	Kier & Wright	Date	8/26/2022
Designed by	Jake Marshall	Case No	
Company Project Number/Name	A21626		

BMP Identification

BMP NAME / ID: DMA 1

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth, from the Isohyetal Map in Handbook Appendix E

D_{85}= 0.60 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
DMA 1	*286549*	*Mixed Surface Types*	*0.93105*	*0.78*	*222638.5*			
	286549		***Total***		**222638.5**	**0.60**	***11131.9***	***54,765***

Notes:

Bioretention Facility - Design Procedure	BMP ID: DMA 2	Legend:	Required Entries / Calculated Cells

Company Name:	Kier + Wright	Date:	8/26/2022
Designed by:	Jake Marshall	County/City Case No.:	

Design Volume

Enter the area tributary to this feature	A_T=	1.58	acres
Enter V_{BMP} determined from Section 2.1 of this Handbook	V_{BMP}=	2,026	ft^3

Type of Bioretention Facility Design

(●) Side slopes required (parallel to parking spaces or adjacent to walkways)

( ) No side slopes required (perpendicular to parking space or Planter Boxes)

Bioretention Facility Surface Area

Depth of Soil Filter Media Layer	d_S =	2.0	ft
Top Width of Bioretention Facility, excluding curb	w_T =	48.0	ft
Total Effective Depth, d_E $d_E = (0.3) \times d_S + (0.4) \times 1 - (0.7/w_T) + 0.5$	d_E =	1.49	ft
Minimum Surface Area, A_m $A_M\ (ft^2) = \frac{V_{BMP}\ (ft^3)}{d_E\ (ft)}$	A_M =	1,364	ft^2
Proposed Surface Area	A=	5,775	ft^2

Bioretention Facility Properties

Side Slopes in Bioretention Facility	z =	4	:1
Diameter of Underdrain		6	inches
Longitudinal Slope of Site (3% maximum)		0.5	%
6" Check Dam Spacing		0	feet

Describe Vegetation: Natural Grasses

Notes:

Santa Ana Watershed - BMP Design Volume, V_{BMP}

(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name	Kier & Wright	Date	8/26/2022
Designed by	Jake Marshall	Case No	
Company Project Number/Name	A21626		

BMP Identification

BMP NAME / ID: DMA 2

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth, from the Isohyetal Map in Handbook Appendix E

D_{85}= 0.60 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
DMA 2	*68687*	*Mixed Surface Types*	*0.792*	*0.59*	*40524.7*			
	68687	**Total**			**40524.7**	**0.60**	**2026.2**	**14,490**

Notes:

Bioretention Facility - Design Procedure	BMP ID: DMA 2	Legend:	Required Entries / Calculated Cells

Company Name:	Kier + Wright	Date:	8/26/2022
Designed by:	Jake Marshall	County/City Case No.:	

Design Volume

Enter the area tributary to this feature	A_T=	1.42	acres
Enter V_{BMP} determined from Section 2.1 of this Handbook	V_{BMP}=	1,970	ft^3

Type of Bioretention Facility Design

(●) Side slopes required (parallel to parking spaces or adjacent to walkways)

( ) No side slopes required (perpendicular to parking space or Planter Boxes)

Bioretention Facility Surface Area

Depth of Soil Filter Media Layer	d_S =	2.0	ft
Top Width of Bioretention Facility, excluding curb	w_T =	37.0	ft
Total Effective Depth, d_E $d_E = (0.3) \times d_S + (0.4) \times 1 - (0.7/w_T) + 0.5$	d_E =	1.48	ft
Minimum Surface Area, A_m $A_M\ (ft^2) = \frac{V_{BMP}\ (ft^3)}{d_E\ (ft)}$	A_M =	1,331	ft^2
Proposed Surface Area	A=	4,084	ft^2

Bioretention Facility Properties

Side Slopes in Bioretention Facility	z =	4	:1
Diameter of Underdrain		6	inches
Longitudinal Slope of Site (3% maximum)		0.5	%
6" Check Dam Spacing		0	feet

Describe Vegetation: Natural Grasses

Notes:

Santa Ana Watershed - BMP Design Volume, V_{BMP}

(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

(Note this worksheet shall ***only*** *be used in conjunction with BMP designs from the* ***LID BMP Design Handbook****)*

Company Name: Kier & Wright
Date: 8/26/2022
Designed by: Jake Marshall
Case No:
Company Project Number/Name: A21626

BMP Identification

BMP NAME / ID: DMA 3

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth, from the Isohyetal Map in Handbook Appendix E

D_{85}= 0.60 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
DMA 3	*61846*	*Mixed Surface Types*	*0.83106*	*0.64*	*39395.9*			
	61846	***Total***			**39395.9**	**0.60**	***1969.8***	***14,446***

Notes:

Appendix 7: Hydrology Calculations

Supporting Detail Relating to Hydrologic Conditions of Concern

Existing 2-Year

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

Study date 08/01/22 File: A21626Q100UHEX12.out

++

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

Program License Serial Number 6509

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

English Units used in output format

A21626 EXISTING 2YR-1HR UH

Drainage Area = 9.57(Ac.) = 0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 9.57(Ac.) = 0.015 Sq. Mi.
Length along longest watercourse = 541.43(Ft.)
Length along longest watercourse measured to centroid = 471.06(Ft.)
Length along longest watercourse = 0.103 Mi.
Length along longest watercourse measured to centroid = 0.089 Mi.
Difference in elevation = 9.44(Ft.)
Slope along watercourse = 92.0584 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.051 Hr.
Lag time = 3.07 Min.
25% of lag time = 0.77 Min.
40% of lag time = 1.23 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]

```
        9.57            0.48                    4.60

 100 YEAR Area rainfall data:


 Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        9.57             1.25                   11.97

 STORM EVENT (YEAR) =    2.00
 Area Averaged 2-Year Rainfall =    0.480(In)
 Area Averaged 100-Year Rainfall =    1.250(In)

 Point rain (area averaged) =    0.480(In)
 Areal adjustment factor =   99.99 %
 Adjusted average point rain =    0.480(In)

 Sub-Area Data:
 Area(Ac.)         Runoff Index   Impervious %
      9.575           85.00         0.000
  Total Area Entered =      9.57(Ac.)


 RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
 AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
 85.0  70.0      0.362     0.000        0.362       1.000      0.362
                                                  Sum (F) =   0.362
 Area averaged mean soil loss (F) (In/Hr) =  0.362
 Minimum soil loss rate ((In/Hr)) =  0.181
 (for 24 hour storm duration)
 Soil low loss rate (decimal) =   0.900
 ------------------------------------------------------------------------
 Slope of intensity-duration curve for a 1 hour storm =0.4800
 ------------------------------------------------------------------------

                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        162.684         36.109             3.484
     2   0.167        325.368         46.066             4.445
     3   0.250        488.052         10.495             1.013
     4   0.333        650.736          4.496             0.434
     5   0.417        813.420          2.833             0.273
                                Sum = 100.000   Sum=       9.650
-------------------------------------------------------------------------


 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	4.40	0.253	(0.362)	0.228	0.025
2	0.17	4.50	0.259	(0.362)	0.233	0.026
3	0.25	5.40	0.311	(0.362)	0.280	0.031
4	0.33	5.40	0.311	(0.362)	0.280	0.031
5	0.42	5.70	0.328	(0.362)	0.295	0.033
6	0.50	6.40	0.369	(0.362)	0.332	0.037
7	0.58	7.90	0.455	0.362	(0.410)	0.093
8	0.67	9.10	0.524	0.362	(0.472)	0.162
9	0.75	12.80	0.737	0.362	(0.663)	0.375
10	0.83	25.60	1.474	0.362	(1.327)	1.112
11	0.92	7.90	0.455	0.362	(0.410)	0.093
12	1.00	4.90	0.282	(0.362)	0.254	0.028
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	2.0

Flood volume = Effective rainfall 0.17(In)
times area 9.6(Ac.)/[(In)/(Ft.)] = 0.1(Ac.Ft)
Total soil loss = 0.31(In)
Total soil loss = 0.247(Ac.Ft)
Total rainfall = 0.48(In)
Flood volume = 5929.4 Cubic Feet
Total soil loss = 10752.6 Cubic Feet

Peak flow rate of this hydrograph = 5.762(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 2.5 5.0 7.5 10.0
0+ 5	0.0006	0.09	Q
0+10	0.0020	0.20	Q
0+15	0.0037	0.25	QV
0+20	0.0057	0.28	|Q
0+25	0.0078	0.30	|QV
0+30	0.0100	0.33	|QV
0+35	0.0138	0.54	| Q V
0+40	0.0209	1.04	| Q V
0+45	0.0357	2.15	| Q V
0+50	0.0754	5.76	| VQ
0+55	0.1150	5.75	| Q V
1+ 0	0.1277	1.85	| Q V
1+ 5	0.1332	0.81	| Q V
1+10	0.1358	0.37	|Q V
1+15	0.1361	0.04	Q V

1+20	0.1361	0.01	Q				V

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

Study date 08/01/22 File: A21626Q100UHEX32.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 EXISTING 2YR-3HR UH

Drainage Area = 9.57(Ac.) = 0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 9.57(Ac.) = 0.015 Sq. Mi.
Length along longest watercourse = 541.43(Ft.)
Length along longest watercourse measured to centroid = 471.06(Ft.)
Length along longest watercourse = 0.103 Mi.
Length along longest watercourse measured to centroid = 0.089 Mi.
Difference in elevation = 9.44(Ft.)
Slope along watercourse = 92.0584 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.051 Hr.
Lag time = 3.07 Min.
25% of lag time = 0.77 Min.
40% of lag time = 1.23 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]
        9.57            0.80                   7.66

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        9.57            1.95                  18.67

STORM EVENT (YEAR) =    2.00
Area Averaged 2-Year Rainfall =    0.800(In)
Area Averaged 100-Year Rainfall =    1.950(In)

Point rain (area averaged) =    0.800(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    0.800(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     9.575           85.00         0.000
 Total Area Entered =      9.57(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
85.0  70.0      0.362     0.000        0.362       1.000      0.362
                                                 Sum (F) =   0.362
Area averaged mean soil loss (F) (In/Hr) =  0.362
Minimum soil loss rate ((In/Hr)) =  0.181
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.900
------------------------------------------------------------------------

               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        162.684         36.109              3.484
    2   0.167        325.368         46.066              4.445
    3   0.250        488.052         10.495              1.013
    4   0.333        650.736          4.496              0.434
    5   0.417        813.420          2.833              0.273
                              Sum = 100.000   Sum=       9.650
------------------------------------------------------------------------
```

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	0.125	(0.362)	0.112	0.012
2	0.17	1.30	0.125	(0.362)	0.112	0.012
3	0.25	1.10	0.106	(0.362)	0.095	0.011
4	0.33	1.50	0.144	(0.362)	0.130	0.014
5	0.42	1.50	0.144	(0.362)	0.130	0.014
6	0.50	1.80	0.173	(0.362)	0.156	0.017
7	0.58	1.50	0.144	(0.362)	0.130	0.014
8	0.67	1.80	0.173	(0.362)	0.156	0.017
9	0.75	1.80	0.173	(0.362)	0.156	0.017
10	0.83	1.50	0.144	(0.362)	0.130	0.014
11	0.92	1.60	0.154	(0.362)	0.138	0.015
12	1.00	1.80	0.173	(0.362)	0.156	0.017
13	1.08	2.20	0.211	(0.362)	0.190	0.021
14	1.17	2.20	0.211	(0.362)	0.190	0.021
15	1.25	2.20	0.211	(0.362)	0.190	0.021
16	1.33	2.00	0.192	(0.362)	0.173	0.019
17	1.42	2.60	0.250	(0.362)	0.225	0.025
18	1.50	2.70	0.259	(0.362)	0.233	0.026
19	1.58	2.40	0.230	(0.362)	0.207	0.023
20	1.67	2.70	0.259	(0.362)	0.233	0.026
21	1.75	3.30	0.317	(0.362)	0.285	0.032
22	1.83	3.10	0.298	(0.362)	0.268	0.030
23	1.92	2.90	0.278	(0.362)	0.251	0.028
24	2.00	3.00	0.288	(0.362)	0.259	0.029
25	2.08	3.10	0.298	(0.362)	0.268	0.030
26	2.17	4.20	0.403	0.362	(0.363)	0.041
27	2.25	5.00	0.480	0.362	(0.432)	0.118
28	2.33	3.50	0.336	(0.362)	0.302	0.034
29	2.42	6.80	0.653	0.362	(0.587)	0.291
30	2.50	7.30	0.701	0.362	(0.631)	0.339
31	2.58	8.20	0.787	0.362	(0.708)	0.425
32	2.67	5.90	0.566	0.362	(0.510)	0.204
33	2.75	2.00	0.192	(0.362)	0.173	0.019
34	2.83	1.80	0.173	(0.362)	0.156	0.017
35	2.92	1.80	0.173	(0.362)	0.156	0.017
36	3.00	0.60	0.058	(0.362)	0.052	0.006
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	2.0

Flood volume = Effective rainfall 0.17(In)
times area 9.6(Ac.)/[(In)/(Ft.)] = 0.1(Ac.Ft)
Total soil loss = 0.63(In)
Total soil loss = 0.504(Ac.Ft)
Total rainfall = 0.80(In)
Flood volume = 5848.4 Cubic Feet

Total soil loss = 21956.2 Cubic Feet

Peak flow rate of this hydrograph = 3.330(CFS)

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3 - H O U R S T O R M

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

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0 2.5 5.0 7.5 10.0
0+ 5	0.0003	0.04	Q
0+10	0.0010	0.10	Q
0+15	0.0017	0.10	Q
0+20	0.0025	0.12	Q
0+25	0.0034	0.13	QV
0+30	0.0044	0.15	QV
0+35	0.0055	0.15	QV
0+40	0.0065	0.15	QV
0+45	0.0076	0.16	Q V
0+50	0.0087	0.16	Q V
0+55	0.0097	0.15	Q V
1+ 0	0.0108	0.16	Q V
1+ 5	0.0120	0.18	Q V
1+10	0.0134	0.20	Q V
1+15	0.0147	0.20	Q V
1+20	0.0161	0.20	Q V
1+25	0.0175	0.21	Q V
1+30	0.0192	0.24	Q V
1+35	0.0208	0.23	Q V
1+40	0.0224	0.24	Q V
1+45	0.0242	0.27	|Q V
1+50	0.0262	0.29	|Q V
1+55	0.0281	0.28	|Q V
2+ 0	0.0300	0.28	|Q V
2+ 5	0.0320	0.28	|Q V|
2+10	0.0342	0.33	|Q V
2+15	0.0387	0.64	| Q |V
2+20	0.0435	0.70	| Q | V
2+25	0.0525	1.31	| Q | V
2+30	0.0702	2.57	| Q V
2+35	0.0932	3.33	| | Q | V |
2+40	0.1144	3.08	| | Q | | V |
2+45	0.1256	1.63	| Q | | | V |
2+50	0.1300	0.63	| Q | | | V |
2+55	0.1325	0.36	|Q | | | V|
3+ 0	0.1337	0.18	Q | | | V|
3+ 5	0.1341	0.06	Q | | | V|

```
    3+10       0.1342      0.02  Q         |         |         |        V|
    3+15       0.1343      0.01  Q         |         |         |        V|
    3+20       0.1343      0.00  Q         |         |         |        V|
-------------------------------------------------------------------------
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                  |         |
6+15       0.0365      0.10  Q       V |         |         |         |
6+20       0.0373      0.12  Q       V |         |         |         |
6+25       0.0382      0.13  Q        V|         |         |         |
6+30       0.0392      0.15  Q        V|         |         |         |
6+35       0.0403      0.15  Q        V|         |         |         |
6+40       0.0413      0.15  Q        V|         |         |         |
6+45       0.0424      0.16  Q         V         |         |         |
6+50       0.0435      0.16  Q         V         |         |         |
6+55       0.0445      0.15  Q         V         |         |         |
7+ 0       0.0456      0.16  Q         V         |         |         |
7+ 5       0.0468      0.18  Q         |V        |         |         |
7+10       0.0481      0.20  Q         |V        |         |         |
7+15       0.0495      0.20  Q         |V        |         |         |
7+20       0.0509      0.20  Q         | V       |         |         |
7+25       0.0523      0.21  Q         | V       |         |         |
7+30       0.0539      0.24  Q         | V       |         |         |
7+35       0.0556      0.23  Q         |  V      |         |         |
7+40       0.0572      0.24  Q         |  V      |         |         |
7+45       0.0590      0.27  |Q        |  V      |         |         |
7+50       0.0610      0.29  |Q        |   V     |         |         |
7+55       0.0629      0.28  |Q        |   V     |         |         |
8+ 0       0.0648      0.28  |Q        |    V    |         |         |
8+ 5       0.0668      0.28  |Q        |    V    |         |         |
8+10       0.0690      0.33  |Q        |     V   |         |         |
8+15       0.0734      0.64  | Q       |      V  |         |         |
8+20       0.0783      0.70  | Q       |       V |         |         |
```

```
    8+25       0.0873      1.31  |    Q    |         V         |          |
    8+30       0.1050      2.57  |         Q         |   V     |          |
    8+35       0.1280      3.33  |          |  Q     |          V          |
    8+40       0.1492      3.08  |          | Q      |          |    V     |
    8+45       0.1604      1.63  |     Q    |        |          |      V   |
    8+50       0.1648      0.63  | Q        |        |          |       V  |
    8+55       0.1673      0.36  |Q         |        |          |        V |
    9+ 0       0.1685      0.18  Q          |        |          |        V |
    9+ 5       0.1689      0.06  Q          |        |          |        V |
    9+10       0.1690      0.02  Q          |        |          |        V |
    9+15       0.1690      0.01  Q          |        |          |        V |
    9+20       0.1691      0.00  Q          |        |          |         V
-------------------------------------------------------------------------
```

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

Study date 08/01/22 File: A21626Q100UHEX62.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 EXISTING 2YR-6HR UH

Drainage Area = 9.57(Ac.) = 0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 9.57(Ac.) = 0.015 Sq. Mi.
Length along longest watercourse = 541.43(Ft.)
Length along longest watercourse measured to centroid = 471.06(Ft.)
Length along longest watercourse = 0.103 Mi.
Length along longest watercourse measured to centroid = 0.089 Mi.
Difference in elevation = 9.44(Ft.)
Slope along watercourse = 92.0584 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.051 Hr.
Lag time = 3.07 Min.
25% of lag time = 0.77 Min.
40% of lag time = 1.23 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]
        9.57            1.11                  10.63

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        9.57            2.70                  25.85

STORM EVENT (YEAR) =    2.00
Area Averaged 2-Year Rainfall =    1.110(In)
Area Averaged 100-Year Rainfall =    2.700(In)

Point rain (area averaged) =    1.110(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.110(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     9.575           85.00         0.000
 Total Area Entered =      9.57(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
85.0  70.0      0.362     0.000        0.362       1.000      0.362
                                                 Sum (F) =   0.362
Area averaged mean soil loss (F) (In/Hr) =  0.362
Minimum soil loss rate ((In/Hr)) =  0.181
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.900
------------------------------------------------------------------------

               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        162.684         36.109              3.484
    2   0.167        325.368         46.066              4.445
    3   0.250        488.052         10.495              1.013
    4   0.333        650.736          4.496              0.434
    5   0.417        813.420          2.833              0.273
                              Sum = 100.000   Sum=       9.650
------------------------------------------------------------------------
```

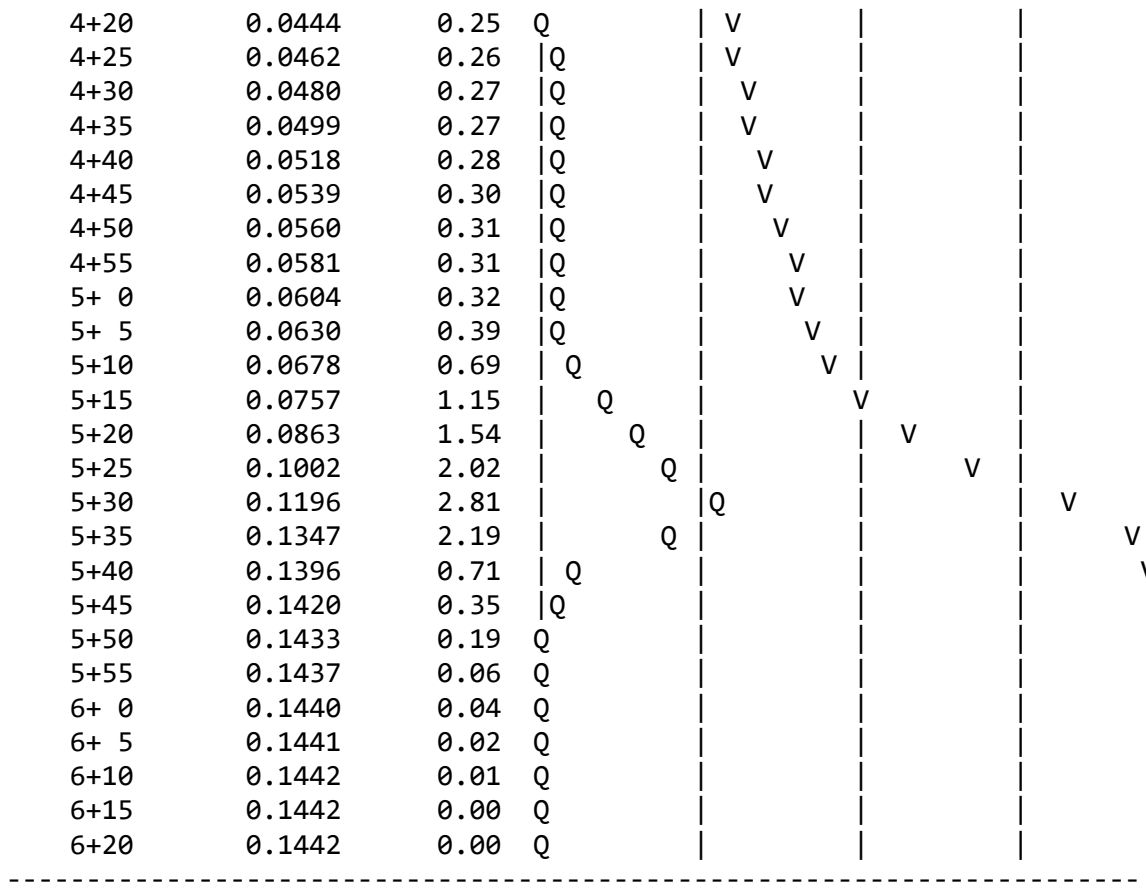
The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.50	0.067	(0.362)	0.060	0.007
2	0.17	0.60	0.080	(0.362)	0.072	0.008
3	0.25	0.60	0.080	(0.362)	0.072	0.008
4	0.33	0.60	0.080	(0.362)	0.072	0.008
5	0.42	0.60	0.080	(0.362)	0.072	0.008
6	0.50	0.70	0.093	(0.362)	0.084	0.009
7	0.58	0.70	0.093	(0.362)	0.084	0.009
8	0.67	0.70	0.093	(0.362)	0.084	0.009
9	0.75	0.70	0.093	(0.362)	0.084	0.009
10	0.83	0.70	0.093	(0.362)	0.084	0.009
11	0.92	0.70	0.093	(0.362)	0.084	0.009
12	1.00	0.80	0.107	(0.362)	0.096	0.011
13	1.08	0.80	0.107	(0.362)	0.096	0.011
14	1.17	0.80	0.107	(0.362)	0.096	0.011
15	1.25	0.80	0.107	(0.362)	0.096	0.011
16	1.33	0.80	0.107	(0.362)	0.096	0.011
17	1.42	0.80	0.107	(0.362)	0.096	0.011
18	1.50	0.80	0.107	(0.362)	0.096	0.011
19	1.58	0.80	0.107	(0.362)	0.096	0.011
20	1.67	0.80	0.107	(0.362)	0.096	0.011
21	1.75	0.80	0.107	(0.362)	0.096	0.011
22	1.83	0.80	0.107	(0.362)	0.096	0.011
23	1.92	0.80	0.107	(0.362)	0.096	0.011
24	2.00	0.90	0.120	(0.362)	0.108	0.012
25	2.08	0.80	0.107	(0.362)	0.096	0.011
26	2.17	0.90	0.120	(0.362)	0.108	0.012
27	2.25	0.90	0.120	(0.362)	0.108	0.012
28	2.33	0.90	0.120	(0.362)	0.108	0.012
29	2.42	0.90	0.120	(0.362)	0.108	0.012
30	2.50	0.90	0.120	(0.362)	0.108	0.012
31	2.58	0.90	0.120	(0.362)	0.108	0.012
32	2.67	0.90	0.120	(0.362)	0.108	0.012
33	2.75	1.00	0.133	(0.362)	0.120	0.013
34	2.83	1.00	0.133	(0.362)	0.120	0.013
35	2.92	1.00	0.133	(0.362)	0.120	0.013
36	3.00	1.00	0.133	(0.362)	0.120	0.013
37	3.08	1.00	0.133	(0.362)	0.120	0.013
38	3.17	1.10	0.147	(0.362)	0.132	0.015
39	3.25	1.10	0.147	(0.362)	0.132	0.015
40	3.33	1.10	0.147	(0.362)	0.132	0.015
41	3.42	1.20	0.160	(0.362)	0.144	0.016
42	3.50	1.30	0.173	(0.362)	0.156	0.017
43	3.58	1.40	0.186	(0.362)	0.168	0.019
44	3.67	1.40	0.186	(0.362)	0.168	0.019

```
45   3.75     1.50      0.200       (  0.362)       0.180        0.020
46   3.83     1.50      0.200       (  0.362)       0.180        0.020
47   3.92     1.60      0.213       (  0.362)       0.192        0.021
48   4.00     1.60      0.213       (  0.362)       0.192        0.021
49   4.08     1.70      0.226       (  0.362)       0.204        0.023
50   4.17     1.80      0.240       (  0.362)       0.216        0.024
51   4.25     1.90      0.253       (  0.362)       0.228        0.025
52   4.33     2.00      0.266       (  0.362)       0.240        0.027
53   4.42     2.10      0.280       (  0.362)       0.252        0.028
54   4.50     2.10      0.280       (  0.362)       0.252        0.028
55   4.58     2.20      0.293       (  0.362)       0.264        0.029
56   4.67     2.30      0.306       (  0.362)       0.276        0.031
57   4.75     2.40      0.320       (  0.362)       0.288        0.032
58   4.83     2.40      0.320       (  0.362)       0.288        0.032
59   4.92     2.50      0.333       (  0.362)       0.300        0.033
60   5.00     2.60      0.346       (  0.362)       0.312        0.035
61   5.08     3.10      0.413          0.362    (  0.372)       0.051
62   5.17     3.60      0.480          0.362    (  0.432)       0.118
63   5.25     3.90      0.519          0.362    (  0.468)       0.157
64   5.33     4.20      0.559          0.362    (  0.503)       0.197
65   5.42     4.70      0.626          0.362    (  0.563)       0.264
66   5.50     5.60      0.746          0.362    (  0.671)       0.384
67   5.58     1.90      0.253       (  0.362)       0.228        0.025
68   5.67     0.90      0.120       (  0.362)       0.108        0.012
69   5.75     0.60      0.080       (  0.362)       0.072        0.008
70   5.83     0.50      0.067       (  0.362)       0.060        0.007
71   5.92     0.30      0.040       (  0.362)       0.036        0.004
72   6.00     0.20      0.027       (  0.362)       0.024        0.003
               (Loss Rate Not Used)
   Sum =     100.0                                   Sum =     2.2
      Flood volume = Effective rainfall      0.18(In)
       times area       9.6(Ac.)/[(In)/(Ft.)] =       0.1(Ac.Ft)
      Total soil loss =      0.93(In)
      Total soil loss =     0.741(Ac.Ft)
      Total rainfall =      1.11(In)
      Flood volume =        6281.9 Cubic Feet
      Total soil loss =       32297.4 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =      2.813(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        2.5       5.0       7.5      10.0
-------------------------------------------------------------------------
  0+ 5       0.0002      0.02  Q         |         |         |         |
```

```
0+10       0.0006      0.06  Q          |          |          |          |
0+15       0.0010      0.07  Q          |          |          |          |
0+20       0.0016      0.07  Q          |          |          |          |
0+25       0.0021      0.08  Q          |          |          |          |
0+30       0.0026      0.08  Q          |          |          |          |
0+35       0.0032      0.09  Q          |          |          |          |
0+40       0.0039      0.09  QV         |          |          |          |
0+45       0.0045      0.09  QV         |          |          |          |
0+50       0.0051      0.09  QV         |          |          |          |
0+55       0.0057      0.09  QV         |          |          |          |
1+ 0       0.0064      0.09  QV         |          |          |          |
1+ 5       0.0071      0.10  QV         |          |          |          |
1+10       0.0078      0.10  Q V        |          |          |          |
1+15       0.0085      0.10  Q V        |          |          |          |
1+20       0.0092      0.10  Q V        |          |          |          |
1+25       0.0099      0.10  Q V        |          |          |          |
1+30       0.0106      0.10  Q V        |          |          |          |
1+35       0.0113      0.10  Q  V       |          |          |          |
1+40       0.0120      0.10  Q  V       |          |          |          |
1+45       0.0127      0.10  Q  V       |          |          |          |
1+50       0.0134      0.10  Q  V       |          |          |          |
1+55       0.0141      0.10  Q  V       |          |          |          |
2+ 0       0.0149      0.11  Q   V      |          |          |          |
2+ 5       0.0156      0.11  Q   V      |          |          |          |
2+10       0.0164      0.11  Q   V      |          |          |          |
2+15       0.0172      0.11  Q   V      |          |          |          |
2+20       0.0180      0.12  Q   V      |          |          |          |
2+25       0.0188      0.12  Q    V     |          |          |          |
2+30       0.0195      0.12  Q    V     |          |          |          |
2+35       0.0203      0.12  Q    V     |          |          |          |
2+40       0.0211      0.12  Q    V     |          |          |          |
2+45       0.0220      0.12  Q     V    |          |          |          |
2+50       0.0228      0.13  Q     V    |          |          |          |
2+55       0.0237      0.13  Q     V    |          |          |          |
3+ 0       0.0246      0.13  Q     V    |          |          |          |
3+ 5       0.0255      0.13  Q      V   |          |          |          |
3+10       0.0264      0.13  Q      V   |          |          |          |
3+15       0.0274      0.14  Q      V   |          |          |          |
3+20       0.0283      0.14  Q      V   |          |          |          |
3+25       0.0293      0.15  Q       V  |          |          |          |
3+30       0.0304      0.16  Q       V  |          |          |          |
3+35       0.0316      0.17  Q       V  |          |          |          |
3+40       0.0328      0.18  Q        V |          |          |          |
3+45       0.0341      0.18  Q        V |          |          |          |
3+50       0.0354      0.19  Q        V |          |          |          |
3+55       0.0367      0.20  Q         V         |          |          |
4+ 0       0.0381      0.20  Q         V         |          |          |
4+ 5       0.0396      0.21  Q         V         |          |          |
4+10       0.0411      0.22  Q         |V        |          |          |
4+15       0.0427      0.23  Q         |V        |          |          |
```


4+20 0.0444 0.25
4+25 0.0462 0.26
4+30 0.0480 0.27
4+35 0.0499 0.27
4+40 0.0518 0.28
4+45 0.0539 0.30
4+50 0.0560 0.31
4+55 0.0581 0.31
5+ 0 0.0604 0.32
5+ 5 0.0630 0.39
5+10 0.0678 0.69
5+15 0.0757 1.15
5+20 0.0863 1.54
5+25 0.1002 2.02
5+30 0.1196 2.81
5+35 0.1347 2.19
5+40 0.1396 0.71
5+45 0.1420 0.35
5+50 0.1433 0.19
5+55 0.1437 0.06
6+ 0 0.1440 0.04
6+ 5 0.1441 0.02
6+10 0.1442 0.01
6+15 0.1442 0.00
6+20 0.1442 0.00

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

Study date 08/01/22 File: A21626Q100UHEX242.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 EXISTING 2YR-24HR UH

Drainage Area = 9.57(Ac.) = 0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 9.57(Ac.) = 0.015 Sq. Mi.
Length along longest watercourse = 541.43(Ft.)
Length along longest watercourse measured to centroid = 471.06(Ft.)
Length along longest watercourse = 0.103 Mi.
Length along longest watercourse measured to centroid = 0.089 Mi.
Difference in elevation = 9.44(Ft.)
Slope along watercourse = 92.0584 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.051 Hr.
Lag time = 3.07 Min.
25% of lag time = 0.77 Min.
40% of lag time = 1.23 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]
        9.57            1.90                  18.19

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        9.57            4.80                  45.96

STORM EVENT (YEAR) =    2.00
Area Averaged 2-Year Rainfall =    1.900(In)
Area Averaged 100-Year Rainfall =    4.800(In)

Point rain (area averaged) =    1.900(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.900(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     9.575           85.00         0.000
 Total Area Entered =      9.57(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
85.0  70.0      0.362     0.000        0.362       1.000      0.362
                                                 Sum (F) =   0.362
Area averaged mean soil loss (F) (In/Hr) =  0.362
Minimum soil loss rate ((In/Hr)) =  0.181
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.900
------------------------------------------------------------------------

               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        162.684         36.109              3.484
    2   0.167        325.368         46.066              4.445
    3   0.250        488.052         10.495              1.013
    4   0.333        650.736          4.496              0.434
    5   0.417        813.420          2.833              0.273
                              Sum = 100.000   Sum=       9.650
------------------------------------------------------------------------
```

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	0.015	(0.642)	0.014	0.002
2	0.17	0.07	0.015	(0.639)	0.014	0.002
3	0.25	0.07	0.015	(0.637)	0.014	0.002
4	0.33	0.10	0.023	(0.634)	0.021	0.002
5	0.42	0.10	0.023	(0.632)	0.021	0.002
6	0.50	0.10	0.023	(0.629)	0.021	0.002
7	0.58	0.10	0.023	(0.627)	0.021	0.002
8	0.67	0.10	0.023	(0.624)	0.021	0.002
9	0.75	0.10	0.023	(0.622)	0.021	0.002
10	0.83	0.13	0.030	(0.620)	0.027	0.003
11	0.92	0.13	0.030	(0.617)	0.027	0.003
12	1.00	0.13	0.030	(0.615)	0.027	0.003
13	1.08	0.10	0.023	(0.612)	0.021	0.002
14	1.17	0.10	0.023	(0.610)	0.021	0.002
15	1.25	0.10	0.023	(0.607)	0.021	0.002
16	1.33	0.10	0.023	(0.605)	0.021	0.002
17	1.42	0.10	0.023	(0.603)	0.021	0.002
18	1.50	0.10	0.023	(0.600)	0.021	0.002
19	1.58	0.10	0.023	(0.598)	0.021	0.002
20	1.67	0.10	0.023	(0.595)	0.021	0.002
21	1.75	0.10	0.023	(0.593)	0.021	0.002
22	1.83	0.13	0.030	(0.591)	0.027	0.003
23	1.92	0.13	0.030	(0.588)	0.027	0.003
24	2.00	0.13	0.030	(0.586)	0.027	0.003
25	2.08	0.13	0.030	(0.583)	0.027	0.003
26	2.17	0.13	0.030	(0.581)	0.027	0.003
27	2.25	0.13	0.030	(0.579)	0.027	0.003
28	2.33	0.13	0.030	(0.576)	0.027	0.003
29	2.42	0.13	0.030	(0.574)	0.027	0.003
30	2.50	0.13	0.030	(0.572)	0.027	0.003
31	2.58	0.17	0.038	(0.569)	0.034	0.004
32	2.67	0.17	0.038	(0.567)	0.034	0.004
33	2.75	0.17	0.038	(0.565)	0.034	0.004
34	2.83	0.17	0.038	(0.562)	0.034	0.004
35	2.92	0.17	0.038	(0.560)	0.034	0.004
36	3.00	0.17	0.038	(0.558)	0.034	0.004
37	3.08	0.17	0.038	(0.555)	0.034	0.004
38	3.17	0.17	0.038	(0.553)	0.034	0.004
39	3.25	0.17	0.038	(0.551)	0.034	0.004
40	3.33	0.17	0.038	(0.549)	0.034	0.004
41	3.42	0.17	0.038	(0.546)	0.034	0.004
42	3.50	0.17	0.038	(0.544)	0.034	0.004
43	3.58	0.17	0.038	(0.542)	0.034	0.004
44	3.67	0.17	0.038	(0.539)	0.034	0.004

45	3.75	0.17	0.038	(0.537)	0.034	0.004
46	3.83	0.20	0.046	(0.535)	0.041	0.005
47	3.92	0.20	0.046	(0.533)	0.041	0.005
48	4.00	0.20	0.046	(0.530)	0.041	0.005
49	4.08	0.20	0.046	(0.528)	0.041	0.005
50	4.17	0.20	0.046	(0.526)	0.041	0.005
51	4.25	0.20	0.046	(0.524)	0.041	0.005
52	4.33	0.23	0.053	(0.521)	0.048	0.005
53	4.42	0.23	0.053	(0.519)	0.048	0.005
54	4.50	0.23	0.053	(0.517)	0.048	0.005
55	4.58	0.23	0.053	(0.515)	0.048	0.005
56	4.67	0.23	0.053	(0.513)	0.048	0.005
57	4.75	0.23	0.053	(0.510)	0.048	0.005
58	4.83	0.27	0.061	(0.508)	0.055	0.006
59	4.92	0.27	0.061	(0.506)	0.055	0.006
60	5.00	0.27	0.061	(0.504)	0.055	0.006
61	5.08	0.20	0.046	(0.502)	0.041	0.005
62	5.17	0.20	0.046	(0.499)	0.041	0.005
63	5.25	0.20	0.046	(0.497)	0.041	0.005
64	5.33	0.23	0.053	(0.495)	0.048	0.005
65	5.42	0.23	0.053	(0.493)	0.048	0.005
66	5.50	0.23	0.053	(0.491)	0.048	0.005
67	5.58	0.27	0.061	(0.489)	0.055	0.006
68	5.67	0.27	0.061	(0.486)	0.055	0.006
69	5.75	0.27	0.061	(0.484)	0.055	0.006
70	5.83	0.27	0.061	(0.482)	0.055	0.006
71	5.92	0.27	0.061	(0.480)	0.055	0.006
72	6.00	0.27	0.061	(0.478)	0.055	0.006
73	6.08	0.30	0.068	(0.476)	0.062	0.007
74	6.17	0.30	0.068	(0.474)	0.062	0.007
75	6.25	0.30	0.068	(0.471)	0.062	0.007
76	6.33	0.30	0.068	(0.469)	0.062	0.007
77	6.42	0.30	0.068	(0.467)	0.062	0.007
78	6.50	0.30	0.068	(0.465)	0.062	0.007
79	6.58	0.33	0.076	(0.463)	0.068	0.008
80	6.67	0.33	0.076	(0.461)	0.068	0.008
81	6.75	0.33	0.076	(0.459)	0.068	0.008
82	6.83	0.33	0.076	(0.457)	0.068	0.008
83	6.92	0.33	0.076	(0.455)	0.068	0.008
84	7.00	0.33	0.076	(0.453)	0.068	0.008
85	7.08	0.33	0.076	(0.451)	0.068	0.008
86	7.17	0.33	0.076	(0.449)	0.068	0.008
87	7.25	0.33	0.076	(0.447)	0.068	0.008
88	7.33	0.37	0.084	(0.445)	0.075	0.008
89	7.42	0.37	0.084	(0.442)	0.075	0.008
90	7.50	0.37	0.084	(0.440)	0.075	0.008
91	7.58	0.40	0.091	(0.438)	0.082	0.009
92	7.67	0.40	0.091	(0.436)	0.082	0.009
93	7.75	0.40	0.091	(0.434)	0.082	0.009
94	7.83	0.43	0.099	(0.432)	0.089	0.010

95	7.92	0.43	0.099	(0.430)	0.089	0.010
96	8.00	0.43	0.099	(0.428)	0.089	0.010
97	8.08	0.50	0.114	(0.426)	0.103	0.011
98	8.17	0.50	0.114	(0.424)	0.103	0.011
99	8.25	0.50	0.114	(0.422)	0.103	0.011
100	8.33	0.50	0.114	(0.420)	0.103	0.011
101	8.42	0.50	0.114	(0.419)	0.103	0.011
102	8.50	0.50	0.114	(0.417)	0.103	0.011
103	8.58	0.53	0.122	(0.415)	0.109	0.012
104	8.67	0.53	0.122	(0.413)	0.109	0.012
105	8.75	0.53	0.122	(0.411)	0.109	0.012
106	8.83	0.57	0.129	(0.409)	0.116	0.013
107	8.92	0.57	0.129	(0.407)	0.116	0.013
108	9.00	0.57	0.129	(0.405)	0.116	0.013
109	9.08	0.63	0.144	(0.403)	0.130	0.014
110	9.17	0.63	0.144	(0.401)	0.130	0.014
111	9.25	0.63	0.144	(0.399)	0.130	0.014
112	9.33	0.67	0.152	(0.397)	0.137	0.015
113	9.42	0.67	0.152	(0.395)	0.137	0.015
114	9.50	0.67	0.152	(0.393)	0.137	0.015
115	9.58	0.70	0.160	(0.392)	0.144	0.016
116	9.67	0.70	0.160	(0.390)	0.144	0.016
117	9.75	0.70	0.160	(0.388)	0.144	0.016
118	9.83	0.73	0.167	(0.386)	0.150	0.017
119	9.92	0.73	0.167	(0.384)	0.150	0.017
120	10.00	0.73	0.167	(0.382)	0.150	0.017
121	10.08	0.50	0.114	(0.380)	0.103	0.011
122	10.17	0.50	0.114	(0.379)	0.103	0.011
123	10.25	0.50	0.114	(0.377)	0.103	0.011
124	10.33	0.50	0.114	(0.375)	0.103	0.011
125	10.42	0.50	0.114	(0.373)	0.103	0.011
126	10.50	0.50	0.114	(0.371)	0.103	0.011
127	10.58	0.67	0.152	(0.369)	0.137	0.015
128	10.67	0.67	0.152	(0.368)	0.137	0.015
129	10.75	0.67	0.152	(0.366)	0.137	0.015
130	10.83	0.67	0.152	(0.364)	0.137	0.015
131	10.92	0.67	0.152	(0.362)	0.137	0.015
132	11.00	0.67	0.152	(0.360)	0.137	0.015
133	11.08	0.63	0.144	(0.359)	0.130	0.014
134	11.17	0.63	0.144	(0.357)	0.130	0.014
135	11.25	0.63	0.144	(0.355)	0.130	0.014
136	11.33	0.63	0.144	(0.353)	0.130	0.014
137	11.42	0.63	0.144	(0.352)	0.130	0.014
138	11.50	0.63	0.144	(0.350)	0.130	0.014
139	11.58	0.57	0.129	(0.348)	0.116	0.013
140	11.67	0.57	0.129	(0.346)	0.116	0.013
141	11.75	0.57	0.129	(0.345)	0.116	0.013
142	11.83	0.60	0.137	(0.343)	0.123	0.014
143	11.92	0.60	0.137	(0.341)	0.123	0.014
144	12.00	0.60	0.137	(0.340)	0.123	0.014

145	12.08	0.83	0.190	(0.338)	0.171	0.019
146	12.17	0.83	0.190	(0.336)	0.171	0.019
147	12.25	0.83	0.190	(0.335)	0.171	0.019
148	12.33	0.87	0.198	(0.333)	0.178	0.020
149	12.42	0.87	0.198	(0.331)	0.178	0.020
150	12.50	0.87	0.198	(0.330)	0.178	0.020
151	12.58	0.93	0.213	(0.328)	0.192	0.021
152	12.67	0.93	0.213	(0.326)	0.192	0.021
153	12.75	0.93	0.213	(0.325)	0.192	0.021
154	12.83	0.97	0.220	(0.323)	0.198	0.022
155	12.92	0.97	0.220	(0.321)	0.198	0.022
156	13.00	0.97	0.220	(0.320)	0.198	0.022
157	13.08	1.13	0.258	(0.318)	0.233	0.026
158	13.17	1.13	0.258	(0.316)	0.233	0.026
159	13.25	1.13	0.258	(0.315)	0.233	0.026
160	13.33	1.13	0.258	(0.313)	0.233	0.026
161	13.42	1.13	0.258	(0.312)	0.233	0.026
162	13.50	1.13	0.258	(0.310)	0.233	0.026
163	13.58	0.77	0.175	(0.308)	0.157	0.017
164	13.67	0.77	0.175	(0.307)	0.157	0.017
165	13.75	0.77	0.175	(0.305)	0.157	0.017
166	13.83	0.77	0.175	(0.304)	0.157	0.017
167	13.92	0.77	0.175	(0.302)	0.157	0.017
168	14.00	0.77	0.175	(0.301)	0.157	0.017
169	14.08	0.90	0.205	(0.299)	0.185	0.021
170	14.17	0.90	0.205	(0.298)	0.185	0.021
171	14.25	0.90	0.205	(0.296)	0.185	0.021
172	14.33	0.87	0.198	(0.295)	0.178	0.020
173	14.42	0.87	0.198	(0.293)	0.178	0.020
174	14.50	0.87	0.198	(0.292)	0.178	0.020
175	14.58	0.87	0.198	(0.290)	0.178	0.020
176	14.67	0.87	0.198	(0.289)	0.178	0.020
177	14.75	0.87	0.198	(0.287)	0.178	0.020
178	14.83	0.83	0.190	(0.286)	0.171	0.019
179	14.92	0.83	0.190	(0.284)	0.171	0.019
180	15.00	0.83	0.190	(0.283)	0.171	0.019
181	15.08	0.80	0.182	(0.281)	0.164	0.018
182	15.17	0.80	0.182	(0.280)	0.164	0.018
183	15.25	0.80	0.182	(0.278)	0.164	0.018
184	15.33	0.77	0.175	(0.277)	0.157	0.017
185	15.42	0.77	0.175	(0.276)	0.157	0.017
186	15.50	0.77	0.175	(0.274)	0.157	0.017
187	15.58	0.63	0.144	(0.273)	0.130	0.014
188	15.67	0.63	0.144	(0.271)	0.130	0.014
189	15.75	0.63	0.144	(0.270)	0.130	0.014
190	15.83	0.63	0.144	(0.269)	0.130	0.014
191	15.92	0.63	0.144	(0.267)	0.130	0.014
192	16.00	0.63	0.144	(0.266)	0.130	0.014
193	16.08	0.13	0.030	(0.264)	0.027	0.003
194	16.17	0.13	0.030	(0.263)	0.027	0.003

195	16.25	0.13	0.030	(0.262)	0.027	0.003
196	16.33	0.13	0.030	(0.260)	0.027	0.003
197	16.42	0.13	0.030	(0.259)	0.027	0.003
198	16.50	0.13	0.030	(0.258)	0.027	0.003
199	16.58	0.10	0.023	(0.256)	0.021	0.002
200	16.67	0.10	0.023	(0.255)	0.021	0.002
201	16.75	0.10	0.023	(0.254)	0.021	0.002
202	16.83	0.10	0.023	(0.253)	0.021	0.002
203	16.92	0.10	0.023	(0.251)	0.021	0.002
204	17.00	0.10	0.023	(0.250)	0.021	0.002
205	17.08	0.17	0.038	(0.249)	0.034	0.004
206	17.17	0.17	0.038	(0.248)	0.034	0.004
207	17.25	0.17	0.038	(0.246)	0.034	0.004
208	17.33	0.17	0.038	(0.245)	0.034	0.004
209	17.42	0.17	0.038	(0.244)	0.034	0.004
210	17.50	0.17	0.038	(0.243)	0.034	0.004
211	17.58	0.17	0.038	(0.241)	0.034	0.004
212	17.67	0.17	0.038	(0.240)	0.034	0.004
213	17.75	0.17	0.038	(0.239)	0.034	0.004
214	17.83	0.13	0.030	(0.238)	0.027	0.003
215	17.92	0.13	0.030	(0.237)	0.027	0.003
216	18.00	0.13	0.030	(0.235)	0.027	0.003
217	18.08	0.13	0.030	(0.234)	0.027	0.003
218	18.17	0.13	0.030	(0.233)	0.027	0.003
219	18.25	0.13	0.030	(0.232)	0.027	0.003
220	18.33	0.13	0.030	(0.231)	0.027	0.003
221	18.42	0.13	0.030	(0.230)	0.027	0.003
222	18.50	0.13	0.030	(0.229)	0.027	0.003
223	18.58	0.10	0.023	(0.228)	0.021	0.002
224	18.67	0.10	0.023	(0.226)	0.021	0.002
225	18.75	0.10	0.023	(0.225)	0.021	0.002
226	18.83	0.07	0.015	(0.224)	0.014	0.002
227	18.92	0.07	0.015	(0.223)	0.014	0.002
228	19.00	0.07	0.015	(0.222)	0.014	0.002
229	19.08	0.10	0.023	(0.221)	0.021	0.002
230	19.17	0.10	0.023	(0.220)	0.021	0.002
231	19.25	0.10	0.023	(0.219)	0.021	0.002
232	19.33	0.13	0.030	(0.218)	0.027	0.003
233	19.42	0.13	0.030	(0.217)	0.027	0.003
234	19.50	0.13	0.030	(0.216)	0.027	0.003
235	19.58	0.10	0.023	(0.215)	0.021	0.002
236	19.67	0.10	0.023	(0.214)	0.021	0.002
237	19.75	0.10	0.023	(0.213)	0.021	0.002
238	19.83	0.07	0.015	(0.212)	0.014	0.002
239	19.92	0.07	0.015	(0.211)	0.014	0.002
240	20.00	0.07	0.015	(0.210)	0.014	0.002
241	20.08	0.10	0.023	(0.209)	0.021	0.002
242	20.17	0.10	0.023	(0.208)	0.021	0.002
243	20.25	0.10	0.023	(0.207)	0.021	0.002
244	20.33	0.10	0.023	(0.207)	0.021	0.002

245	20.42	0.10	0.023	(0.206)	0.021	0.002
246	20.50	0.10	0.023	(0.205)	0.021	0.002
247	20.58	0.10	0.023	(0.204)	0.021	0.002
248	20.67	0.10	0.023	(0.203)	0.021	0.002
249	20.75	0.10	0.023	(0.202)	0.021	0.002
250	20.83	0.07	0.015	(0.201)	0.014	0.002
251	20.92	0.07	0.015	(0.201)	0.014	0.002
252	21.00	0.07	0.015	(0.200)	0.014	0.002
253	21.08	0.10	0.023	(0.199)	0.021	0.002
254	21.17	0.10	0.023	(0.198)	0.021	0.002
255	21.25	0.10	0.023	(0.197)	0.021	0.002
256	21.33	0.07	0.015	(0.197)	0.014	0.002
257	21.42	0.07	0.015	(0.196)	0.014	0.002
258	21.50	0.07	0.015	(0.195)	0.014	0.002
259	21.58	0.10	0.023	(0.195)	0.021	0.002
260	21.67	0.10	0.023	(0.194)	0.021	0.002
261	21.75	0.10	0.023	(0.193)	0.021	0.002
262	21.83	0.07	0.015	(0.192)	0.014	0.002
263	21.92	0.07	0.015	(0.192)	0.014	0.002
264	22.00	0.07	0.015	(0.191)	0.014	0.002
265	22.08	0.10	0.023	(0.190)	0.021	0.002
266	22.17	0.10	0.023	(0.190)	0.021	0.002
267	22.25	0.10	0.023	(0.189)	0.021	0.002
268	22.33	0.07	0.015	(0.189)	0.014	0.002
269	22.42	0.07	0.015	(0.188)	0.014	0.002
270	22.50	0.07	0.015	(0.188)	0.014	0.002
271	22.58	0.07	0.015	(0.187)	0.014	0.002
272	22.67	0.07	0.015	(0.186)	0.014	0.002
273	22.75	0.07	0.015	(0.186)	0.014	0.002
274	22.83	0.07	0.015	(0.185)	0.014	0.002
275	22.92	0.07	0.015	(0.185)	0.014	0.002
276	23.00	0.07	0.015	(0.185)	0.014	0.002
277	23.08	0.07	0.015	(0.184)	0.014	0.002
278	23.17	0.07	0.015	(0.184)	0.014	0.002
279	23.25	0.07	0.015	(0.183)	0.014	0.002
280	23.33	0.07	0.015	(0.183)	0.014	0.002
281	23.42	0.07	0.015	(0.183)	0.014	0.002
282	23.50	0.07	0.015	(0.182)	0.014	0.002
283	23.58	0.07	0.015	(0.182)	0.014	0.002
284	23.67	0.07	0.015	(0.182)	0.014	0.002
285	23.75	0.07	0.015	(0.181)	0.014	0.002
286	23.83	0.07	0.015	(0.181)	0.014	0.002
287	23.92	0.07	0.015	(0.181)	0.014	0.002
288	24.00	0.07	0.015	(0.181)	0.014	0.002

(Loss Rate Not Used)

Sum = 100.0 Sum = 2.3

Flood volume = Effective rainfall 0.19(In)
times area 9.6(Ac.)/[(In)/(Ft.)] = 0.2(Ac.Ft)
Total soil loss = 1.71(In)
Total soil loss = 1.364(Ac.Ft)

Total rainfall = 1.90(In)
Flood volume = 6603.8 Cubic Feet
Total soil loss = 59433.8 Cubic Feet

Peak flow rate of this hydrograph = 0.249(CFS)

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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	2.5	5.0	7.5	10.0
0+ 5	0.0000	0.01	Q				
0+10	0.0001	0.01	Q				
0+15	0.0002	0.01	Q				
0+20	0.0003	0.02	Q				
0+25	0.0005	0.02	Q				
0+30	0.0006	0.02	Q				
0+35	0.0008	0.02	Q				
0+40	0.0009	0.02	Q				
0+45	0.0011	0.02	Q				
0+50	0.0012	0.02	Q				
0+55	0.0014	0.03	Q				
1+ 0	0.0016	0.03	Q				
1+ 5	0.0018	0.03	Q				
1+10	0.0020	0.02	Q				
1+15	0.0021	0.02	Q				
1+20	0.0023	0.02	Q				
1+25	0.0024	0.02	Q				
1+30	0.0026	0.02	Q				
1+35	0.0027	0.02	Q				
1+40	0.0029	0.02	Q				
1+45	0.0030	0.02	Q				
1+50	0.0032	0.02	Q				
1+55	0.0034	0.03	Q				
2+ 0	0.0036	0.03	Q				
2+ 5	0.0038	0.03	QV				
2+10	0.0040	0.03	QV				
2+15	0.0042	0.03	QV				
2+20	0.0044	0.03	QV				
2+25	0.0046	0.03	QV				
2+30	0.0048	0.03	QV				
2+35	0.0050	0.03	QV				
2+40	0.0053	0.04	QV				
2+45	0.0055	0.04	QV				
2+50	0.0058	0.04	QV				
2+55	0.0060	0.04	QV				

3+ 0	0.0063	0.04	QV	|	|	|	|
3+ 5	0.0065	0.04	QV	|	|	|	|
3+10	0.0068	0.04	QV	|	|	|	|
3+15	0.0070	0.04	QV	|	|	|	|
3+20	0.0073	0.04	QV	|	|	|	|
3+25	0.0076	0.04	QV	|	|	|	|
3+30	0.0078	0.04	Q V	|	|	|	|
3+35	0.0081	0.04	Q V	|	|	|	|
3+40	0.0083	0.04	Q V	|	|	|	|
3+45	0.0086	0.04	Q V	|	|	|	|
3+50	0.0088	0.04	Q V	|	|	|	|
3+55	0.0091	0.04	Q V	|	|	|	|
4+ 0	0.0094	0.04	Q V	|	|	|	|
4+ 5	0.0097	0.04	Q V	|	|	|	|
4+10	0.0100	0.04	Q V	|	|	|	|
4+15	0.0103	0.04	Q V	|	|	|	|
4+20	0.0107	0.05	Q V	|	|	|	|
4+25	0.0110	0.05	Q V	|	|	|	|
4+30	0.0113	0.05	Q V	|	|	|	|
4+35	0.0117	0.05	Q V	|	|	|	|
4+40	0.0121	0.05	Q V	|	|	|	|
4+45	0.0124	0.05	Q V	|	|	|	|
4+50	0.0128	0.05	Q V	|	|	|	|
4+55	0.0132	0.06	Q V	|	|	|	|
5+ 0	0.0136	0.06	Q V	|	|	|	|
5+ 5	0.0139	0.05	Q V	|	|	|	|
5+10	0.0143	0.05	Q V	|	|	|	|
5+15	0.0146	0.05	Q V	|	|	|	|
5+20	0.0149	0.05	Q V	|	|	|	|
5+25	0.0152	0.05	Q V	|	|	|	|
5+30	0.0156	0.05	Q V	|	|	|	|
5+35	0.0160	0.05	Q V	|	|	|	|
5+40	0.0164	0.06	Q V	|	|	|	|
5+45	0.0168	0.06	Q V	|	|	|	|
5+50	0.0172	0.06	Q V	|	|	|	|
5+55	0.0176	0.06	Q V	|	|	|	|
6+ 0	0.0180	0.06	Q V	|	|	|	|
6+ 5	0.0184	0.06	Q V	|	|	|	|
6+10	0.0188	0.06	Q V	|	|	|	|
6+15	0.0193	0.07	Q V	|	|	|	|
6+20	0.0197	0.07	Q V	|	|	|	|
6+25	0.0202	0.07	Q V	|	|	|	|
6+30	0.0207	0.07	Q V	|	|	|	|
6+35	0.0211	0.07	Q V	|	|	|	|
6+40	0.0216	0.07	Q V	|	|	|	|
6+45	0.0221	0.07	Q V	|	|	|	|
6+50	0.0226	0.07	Q V	|	|	|	|
6+55	0.0231	0.07	Q V	|	|	|	|
7+ 0	0.0236	0.07	Q V	|	|	|	|
7+ 5	0.0241	0.07	Q V	|	|	|	|

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 7+10       0.0247      0.07  Q     V   |          |          |          |
 7+15       0.0252      0.07  Q     V   |          |          |          |
 7+20       0.0257      0.08  Q     V   |          |          |          |
 7+25       0.0262      0.08  Q     V   |          |          |          |
 7+30       0.0268      0.08  Q      V  |          |          |          |
 7+35       0.0274      0.08  Q      V  |          |          |          |
 7+40       0.0279      0.09  Q      V  |          |          |          |
 7+45       0.0286      0.09  Q      V  |          |          |          |
 7+50       0.0292      0.09  Q      V  |          |          |          |
 7+55       0.0298      0.09  Q      V  |          |          |          |
 8+ 0       0.0305      0.09  Q       V |          |          |          |
 8+ 5       0.0312      0.10  Q       V |          |          |          |
 8+10       0.0319      0.11  Q       V |          |          |          |
 8+15       0.0327      0.11  Q       V |          |          |          |
 8+20       0.0334      0.11  Q       V |          |          |          |
 8+25       0.0342      0.11  Q        V|          |          |          |
 8+30       0.0349      0.11  Q        V|          |          |          |
 8+35       0.0357      0.11  Q        V|          |          |          |
 8+40       0.0365      0.12  Q        V|          |          |          |
 8+45       0.0373      0.12  Q        V|          |          |          |
 8+50       0.0381      0.12  Q         V          |          |          |
 8+55       0.0390      0.12  Q         V          |          |          |
 9+ 0       0.0398      0.12  Q         V          |          |          |
 9+ 5       0.0407      0.13  Q         V          |          |          |
 9+10       0.0417      0.14  Q         V          |          |          |
 9+15       0.0426      0.14  Q          |V         |          |          |
 9+20       0.0436      0.14  Q          |V         |          |          |
 9+25       0.0446      0.15  Q          |V         |          |          |
 9+30       0.0456      0.15  Q          | V        |          |          |
 9+35       0.0466      0.15  Q          | V        |          |          |
 9+40       0.0477      0.15  Q          | V        |          |          |
 9+45       0.0488      0.15  Q          | V        |          |          |
 9+50       0.0498      0.16  Q          |  V       |          |          |
 9+55       0.0509      0.16  Q          |  V       |          |          |
10+ 0       0.0520      0.16  Q          |  V       |          |          |
10+ 5       0.0530      0.14  Q          |  V       |          |          |
10+10       0.0538      0.12  Q          |   V      |          |          |
10+15       0.0546      0.11  Q          |   V      |          |          |
10+20       0.0554      0.11  Q          |   V      |          |          |
10+25       0.0562      0.11  Q          |   V      |          |          |
10+30       0.0569      0.11  Q          |    V     |          |          |
10+35       0.0578      0.12  Q          |    V     |          |          |
10+40       0.0587      0.14  Q          |    V     |          |          |
10+45       0.0597      0.14  Q          |    V     |          |          |
10+50       0.0607      0.15  Q          |     V    |          |          |
10+55       0.0617      0.15  Q          |     V    |          |          |
11+ 0       0.0627      0.15  Q          |     V    |          |          |
11+ 5       0.0637      0.14  Q          |     V    |          |          |
11+10       0.0647      0.14  Q          |      V   |          |          |
11+15       0.0657      0.14  Q          |      V   |          |          |
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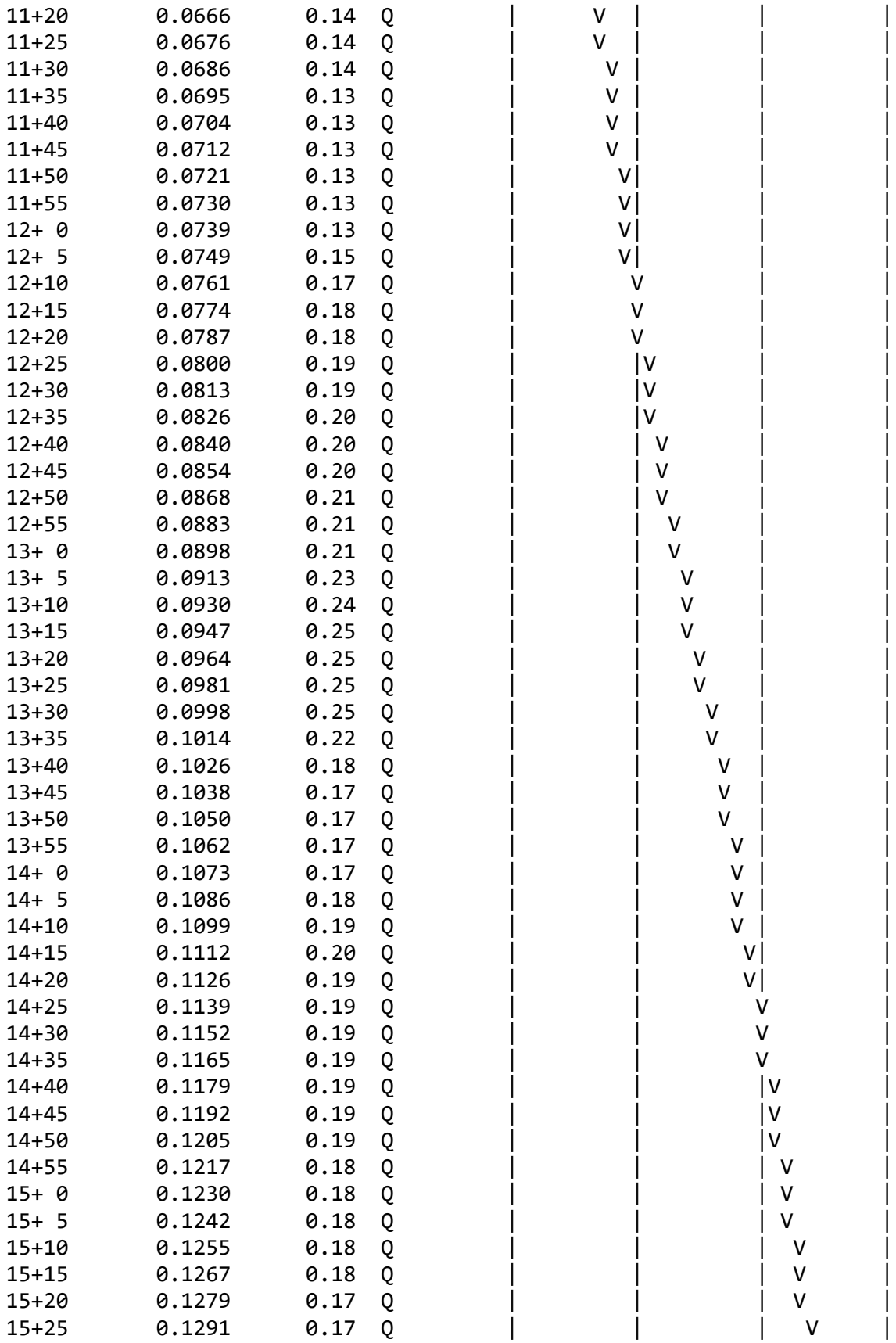

15+30	0.1302	0.17	Q	|	|	|	V |
15+35	0.1313	0.16	Q	|	|	|	V |
15+40	0.1323	0.14	Q	|	|	|	V |
15+45	0.1333	0.14	Q	|	|	|	V |
15+50	0.1342	0.14	Q	|	|	|	V |
15+55	0.1352	0.14	Q	|	|	|	V |
16+ 0	0.1362	0.14	Q	|	|	|	V |
16+ 5	0.1369	0.10	Q	|	|	|	V |
16+10	0.1372	0.05	Q	|	|	|	V |
16+15	0.1374	0.04	Q	|	|	|	V |
16+20	0.1377	0.03	Q	|	|	|	V |
16+25	0.1379	0.03	Q	|	|	|	V |
16+30	0.1381	0.03	Q	|	|	|	V |
16+35	0.1383	0.03	Q	|	|	|	V |
16+40	0.1384	0.02	Q	|	|	|	V |
16+45	0.1386	0.02	Q	|	|	|	V |
16+50	0.1387	0.02	Q	|	|	|	V |
16+55	0.1389	0.02	Q	|	|	|	V |
17+ 0	0.1390	0.02	Q	|	|	|	V |
17+ 5	0.1392	0.03	Q	|	|	|	V |
17+10	0.1395	0.03	Q	|	|	|	V |
17+15	0.1397	0.04	Q	|	|	|	V |
17+20	0.1399	0.04	Q	|	|	|	V |
17+25	0.1402	0.04	Q	|	|	|	V |
17+30	0.1405	0.04	Q	|	|	|	V |
17+35	0.1407	0.04	Q	|	|	|	V |
17+40	0.1410	0.04	Q	|	|	|	V |
17+45	0.1412	0.04	Q	|	|	|	V |
17+50	0.1414	0.03	Q	|	|	|	V |
17+55	0.1417	0.03	Q	|	|	|	V |
18+ 0	0.1419	0.03	Q	|	|	|	V |
18+ 5	0.1421	0.03	Q	|	|	|	V |
18+10	0.1423	0.03	Q	|	|	|	V |
18+15	0.1425	0.03	Q	|	|	|	V |
18+20	0.1427	0.03	Q	|	|	|	V |
18+25	0.1429	0.03	Q	|	|	|	V |
18+30	0.1431	0.03	Q	|	|	|	V |
18+35	0.1433	0.03	Q	|	|	|	V |
18+40	0.1434	0.02	Q	|	|	|	V |
18+45	0.1436	0.02	Q	|	|	|	V |
18+50	0.1437	0.02	Q	|	|	|	V |
18+55	0.1438	0.02	Q	|	|	|	V |
19+ 0	0.1439	0.02	Q	|	|	|	V |
19+ 5	0.1440	0.02	Q	|	|	|	V |
19+10	0.1442	0.02	Q	|	|	|	V |
19+15	0.1443	0.02	Q	|	|	|	V |
19+20	0.1445	0.02	Q	|	|	|	V |
19+25	0.1447	0.03	Q	|	|	|	V |
19+30	0.1449	0.03	Q	|	|	|	V |
19+35	0.1451	0.03	Q	|	|	|	V |

19+40	0.1452	0.02	Q	|	|	|	V |
19+45	0.1454	0.02	Q	|	|	|	V |
19+50	0.1455	0.02	Q	|	|	|	V |
19+55	0.1456	0.02	Q	|	|	|	V |
20+ 0	0.1457	0.02	Q	|	|	|	V |
20+ 5	0.1459	0.02	Q	|	|	|	V |
20+10	0.1460	0.02	Q	|	|	|	V |
20+15	0.1462	0.02	Q	|	|	|	V |
20+20	0.1463	0.02	Q	|	|	|	V |
20+25	0.1465	0.02	Q	|	|	|	V |
20+30	0.1466	0.02	Q	|	|	|	V |
20+35	0.1468	0.02	Q	|	|	|	V |
20+40	0.1469	0.02	Q	|	|	|	V |
20+45	0.1471	0.02	Q	|	|	|	V |
20+50	0.1472	0.02	Q	|	|	|	V |
20+55	0.1473	0.02	Q	|	|	|	V |
21+ 0	0.1474	0.02	Q	|	|	|	V |
21+ 5	0.1475	0.02	Q	|	|	|	V |
21+10	0.1477	0.02	Q	|	|	|	V |
21+15	0.1478	0.02	Q	|	|	|	V|
21+20	0.1480	0.02	Q	|	|	|	V|
21+25	0.1481	0.02	Q	|	|	|	V|
21+30	0.1482	0.02	Q	|	|	|	V|
21+35	0.1483	0.02	Q	|	|	|	V|
21+40	0.1484	0.02	Q	|	|	|	V|
21+45	0.1486	0.02	Q	|	|	|	V|
21+50	0.1487	0.02	Q	|	|	|	V|
21+55	0.1488	0.02	Q	|	|	|	V|
22+ 0	0.1489	0.02	Q	|	|	|	V|
22+ 5	0.1491	0.02	Q	|	|	|	V|
22+10	0.1492	0.02	Q	|	|	|	V|
22+15	0.1493	0.02	Q	|	|	|	V|
22+20	0.1495	0.02	Q	|	|	|	V|
22+25	0.1496	0.02	Q	|	|	|	V|
22+30	0.1497	0.02	Q	|	|	|	V|
22+35	0.1498	0.01	Q	|	|	|	V|
22+40	0.1499	0.01	Q	|	|	|	V|
22+45	0.1500	0.01	Q	|	|	|	V|
22+50	0.1501	0.01	Q	|	|	|	V|
22+55	0.1502	0.01	Q	|	|	|	V|
23+ 0	0.1503	0.01	Q	|	|	|	V|
23+ 5	0.1504	0.01	Q	|	|	|	V|
23+10	0.1505	0.01	Q	|	|	|	V|
23+15	0.1506	0.01	Q	|	|	|	V|
23+20	0.1507	0.01	Q	|	|	|	V|
23+25	0.1508	0.01	Q	|	|	|	V|
23+30	0.1509	0.01	Q	|	|	|	V|
23+35	0.1510	0.01	Q	|	|	|	V|
23+40	0.1511	0.01	Q	|	|	|	V|
23+45	0.1512	0.01	Q	|	|	|	V|

```
   23+50       0.1513      0.01  Q          |          |          |        V|
   23+55       0.1514      0.01  Q          |          |          |        V|
   24+ 0       0.1515      0.01  Q          |          |          |        V|
   24+ 5       0.1516      0.01  Q          |          |          |        V|
   24+10       0.1516      0.00  Q          |          |          |        V|
   24+15       0.1516      0.00  Q          |          |          |        V|
   24+20       0.1516      0.00  Q          |          |          |         V
-------------------------------------------------------------------------
```

Existing 5-Year

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

Study date 08/01/22 File: A21626Q100UHEX15.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 EXISTING 5YR-1HR UH

Drainage Area = 9.57(Ac.) = 0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 9.57(Ac.) = 0.015 Sq. Mi.
Length along longest watercourse = 541.43(Ft.)
Length along longest watercourse measured to centroid = 471.06(Ft.)
Length along longest watercourse = 0.103 Mi.
Length along longest watercourse measured to centroid = 0.089 Mi.
Difference in elevation = 9.44(Ft.)
Slope along watercourse = 92.0584 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.051 Hr.
Lag time = 3.07 Min.
25% of lag time = 0.77 Min.
40% of lag time = 1.23 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]
        9.57            0.48                   4.60

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        9.57            1.25                  11.97

STORM EVENT (YEAR) =    5.00
Area Averaged 2-Year Rainfall =    0.480(In)
Area Averaged 100-Year Rainfall =    1.250(In)

Point rain (area averaged) =    0.660(In)
Areal adjustment factor =   99.99 %
Adjusted average point rain =    0.660(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     9.575           85.00         0.000
 Total Area Entered =      9.57(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
85.0  70.0      0.362     0.000        0.362       1.000      0.362
                                                 Sum (F) =   0.362
Area averaged mean soil loss (F) (In/Hr) =  0.362
Minimum soil loss rate ((In/Hr)) =  0.181
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.900
------------------------------------------------------------------------
Slope of intensity-duration curve for a 1 hour storm =0.4800
------------------------------------------------------------------------

               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        162.684         36.109              3.484
    2   0.167        325.368         46.066              4.445
    3   0.250        488.052         10.495              1.013
    4   0.333        650.736          4.496              0.434
    5   0.417        813.420          2.833              0.273
                              Sum = 100.000   Sum=       9.650
```

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	4.40	0.349	(0.362)	0.314	0.035
2	0.17	4.50	0.357	(0.362)	0.321	0.036
3	0.25	5.40	0.428	0.362	(0.385)	0.066
4	0.33	5.40	0.428	0.362	(0.385)	0.066
5	0.42	5.70	0.452	0.362	(0.406)	0.090
6	0.50	6.40	0.507	0.362	(0.456)	0.145
7	0.58	7.90	0.626	0.362	(0.563)	0.264
8	0.67	9.10	0.721	0.362	(0.649)	0.359
9	0.75	12.80	1.014	0.362	(0.913)	0.652
10	0.83	25.60	2.028	0.362	(1.826)	1.666
11	0.92	7.90	0.626	0.362	(0.563)	0.264
12	1.00	4.90	0.388	(0.362)	0.349	0.039
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	3.7

Flood volume = Effective rainfall 0.31(In)
times area 9.6(Ac.)/[(In)/(Ft.)] = 0.2(Ac.Ft)
Total soil loss = 0.35(In)
Total soil loss = 0.282(Ac.Ft)
Total rainfall = 0.66(In)
Flood volume = 10663.1 Cubic Feet
Total soil loss = 12287.0 Cubic Feet

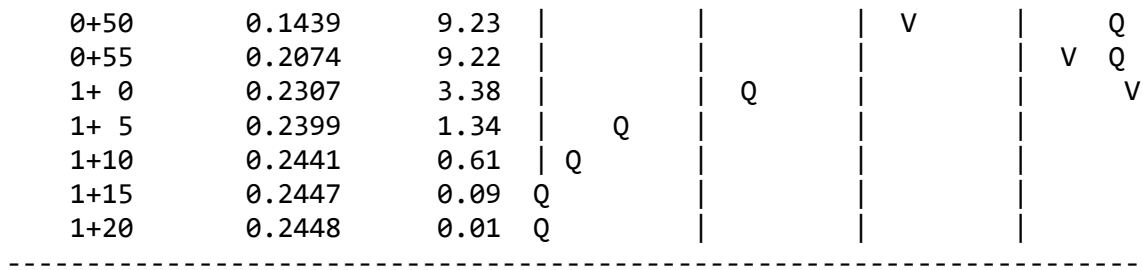
Peak flow rate of this hydrograph = 9.228(CFS)

++

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	2.5	5.0	7.5	10.0
0+ 5	0.0008	0.12	Q				
0+10	0.0028	0.28	VQ				
0+15	0.0057	0.42	VQ				
0+20	0.0096	0.57	VQ				
0+25	0.0144	0.70	Q				
0+30	0.0214	1.01	VQ				
0+35	0.0331	1.70	VQ				
0+40	0.0512	2.63	V Q				
0+45	0.0803	4.23	V Q				


0+50 0.1439 9.23
0+55 0.2074 9.22
1+ 0 0.2307 3.38
1+ 5 0.2399 1.34
1+10 0.2441 0.61
1+15 0.2447 0.09
1+20 0.2448 0.01

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

Study date 08/01/22 File: A21626Q100UHEX35.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 EXISTING 5YR-3HR UH

Drainage Area = 9.57(Ac.) = 0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 9.57(Ac.) = 0.015 Sq. Mi.
Length along longest watercourse = 541.43(Ft.)
Length along longest watercourse measured to centroid = 471.06(Ft.)
Length along longest watercourse = 0.103 Mi.
Length along longest watercourse measured to centroid = 0.089 Mi.
Difference in elevation = 9.44(Ft.)
Slope along watercourse = 92.0584 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.051 Hr.
Lag time = 3.07 Min.
25% of lag time = 0.77 Min.
40% of lag time = 1.23 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]
        9.57            0.80                   7.66

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        9.57            1.95                  18.67

STORM EVENT (YEAR) =    5.00
Area Averaged 2-Year Rainfall =    0.800(In)
Area Averaged 100-Year Rainfall =    1.950(In)

Point rain (area averaged) =    1.069(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.069(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     9.575           85.00         0.000
 Total Area Entered =      9.57(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
85.0  70.0      0.362     0.000        0.362       1.000      0.362
                                                 Sum (F) =   0.362
Area averaged mean soil loss (F) (In/Hr) =  0.362
Minimum soil loss rate ((In/Hr)) =  0.181
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.900
------------------------------------------------------------------------

               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        162.684         36.109              3.484
    2   0.167        325.368         46.066              4.445
    3   0.250        488.052         10.495              1.013
    4   0.333        650.736          4.496              0.434
    5   0.417        813.420          2.833              0.273
                              Sum = 100.000   Sum=       9.650
------------------------------------------------------------------------
```

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	0.167	(0.362)	0.150	0.017
2	0.17	1.30	0.167	(0.362)	0.150	0.017
3	0.25	1.10	0.141	(0.362)	0.127	0.014
4	0.33	1.50	0.192	(0.362)	0.173	0.019
5	0.42	1.50	0.192	(0.362)	0.173	0.019
6	0.50	1.80	0.231	(0.362)	0.208	0.023
7	0.58	1.50	0.192	(0.362)	0.173	0.019
8	0.67	1.80	0.231	(0.362)	0.208	0.023
9	0.75	1.80	0.231	(0.362)	0.208	0.023
10	0.83	1.50	0.192	(0.362)	0.173	0.019
11	0.92	1.60	0.205	(0.362)	0.185	0.021
12	1.00	1.80	0.231	(0.362)	0.208	0.023
13	1.08	2.20	0.282	(0.362)	0.254	0.028
14	1.17	2.20	0.282	(0.362)	0.254	0.028
15	1.25	2.20	0.282	(0.362)	0.254	0.028
16	1.33	2.00	0.257	(0.362)	0.231	0.026
17	1.42	2.60	0.334	(0.362)	0.300	0.033
18	1.50	2.70	0.346	(0.362)	0.312	0.035
19	1.58	2.40	0.308	(0.362)	0.277	0.031
20	1.67	2.70	0.346	(0.362)	0.312	0.035
21	1.75	3.30	0.423	0.362	(0.381)	0.061
22	1.83	3.10	0.398	(0.362)	0.358	0.040
23	1.92	2.90	0.372	(0.362)	0.335	0.037
24	2.00	3.00	0.385	(0.362)	0.346	0.038
25	2.08	3.10	0.398	(0.362)	0.358	0.040
26	2.17	4.20	0.539	0.362	(0.485)	0.177
27	2.25	5.00	0.642	0.362	(0.577)	0.280
28	2.33	3.50	0.449	0.362	(0.404)	0.087
29	2.42	6.80	0.873	0.362	(0.785)	0.511
30	2.50	7.30	0.937	0.362	(0.843)	0.575
31	2.58	8.20	1.052	0.362	(0.947)	0.690
32	2.67	5.90	0.757	0.362	(0.681)	0.395
33	2.75	2.00	0.257	(0.362)	0.231	0.026
34	2.83	1.80	0.231	(0.362)	0.208	0.023
35	2.92	1.80	0.231	(0.362)	0.208	0.023
36	3.00	0.60	0.077	(0.362)	0.069	0.008
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	3.5

Flood volume = Effective rainfall 0.29(In)
times area 9.6(Ac.)/[(In)/(Ft.)] = 0.2(Ac.Ft)
Total soil loss = 0.78(In)
Total soil loss = 0.621(Ac.Ft)
Total rainfall = 1.07(In)
Flood volume = 10113.3 Cubic Feet

Total soil loss = 27053.0 Cubic Feet

Peak flow rate of this hydrograph = 5.594(CFS)

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3 - H O U R S T O R M

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

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0 2.5 5.0 7.5 10.0
0+ 5	0.0004	0.06	Q
0+10	0.0013	0.13	Q
0+15	0.0023	0.14	Q
0+20	0.0033	0.15	Q
0+25	0.0046	0.18	Q
0+30	0.0059	0.20	QV
0+35	0.0073	0.20	QV
0+40	0.0087	0.20	QV
0+45	0.0102	0.22	QV
0+50	0.0116	0.21	Q V
0+55	0.0130	0.20	Q V
1+ 0	0.0144	0.21	Q V
1+ 5	0.0161	0.24	Q V
1+10	0.0179	0.26	Q V
1+15	0.0197	0.27	Q V
1+20	0.0215	0.26	Q V
1+25	0.0234	0.28	Q V
1+30	0.0256	0.32	Q V
1+35	0.0278	0.31	Q V
1+40	0.0299	0.31	Q V
1+45	0.0328	0.42	Q V
1+50	0.0361	0.47	Q V
1+55	0.0388	0.39	Q V
2+ 0	0.0414	0.38	Q V
2+ 5	0.0440	0.38	Q V
2+10	0.0499	0.86	Q V
2+15	0.0625	1.83	Q V
2+20	0.0746	1.75	Q V
2+25	0.0921	2.54	Q V
2+30	0.1233	4.53	Q V
2+35	0.1618	5.59	Q V
2+40	0.1982	5.27	Q V
2+45	0.2184	2.94	Q V
2+50	0.2256	1.05	Q V
2+55	0.2295	0.57	Q V
3+ 0	0.2314	0.27	Q V
3+ 5	0.2319	0.07	Q V

```
    3+10       0.2321      0.02  Q         |         |         |        V|
    3+15       0.2322      0.01  Q         |         |         |        V|
    3+20       0.2322      0.00  Q         |         |         |         V
-------------------------------------------------------------------------
```

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

Study date 08/01/22 File: A21626Q100UHEX65.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 EXISTING 5YR-6HR UH

Drainage Area = 9.57(Ac.) = 0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 9.57(Ac.) = 0.015 Sq. Mi.
Length along longest watercourse = 541.43(Ft.)
Length along longest watercourse measured to centroid = 471.06(Ft.)
Length along longest watercourse = 0.103 Mi.
Length along longest watercourse measured to centroid = 0.089 Mi.
Difference in elevation = 9.44(Ft.)
Slope along watercourse = 92.0584 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.051 Hr.
Lag time = 3.07 Min.
25% of lag time = 0.77 Min.
40% of lag time = 1.23 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]
        9.57            1.11                  10.63

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        9.57            2.70                  25.85

STORM EVENT (YEAR) =    5.00
Area Averaged 2-Year Rainfall =    1.110(In)
Area Averaged 100-Year Rainfall =    2.700(In)

Point rain (area averaged) =    1.482(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.482(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     9.575           85.00         0.000
 Total Area Entered =      9.57(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
85.0  70.0      0.362     0.000        0.362       1.000      0.362
                                                 Sum (F) =   0.362
Area averaged mean soil loss (F) (In/Hr) =  0.362
Minimum soil loss rate ((In/Hr)) =  0.181
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.900
------------------------------------------------------------------------

               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        162.684         36.109              3.484
    2   0.167        325.368         46.066              4.445
    3   0.250        488.052         10.495              1.013
    4   0.333        650.736          4.496              0.434
    5   0.417        813.420          2.833              0.273
                              Sum = 100.000   Sum=       9.650
------------------------------------------------------------------------
```

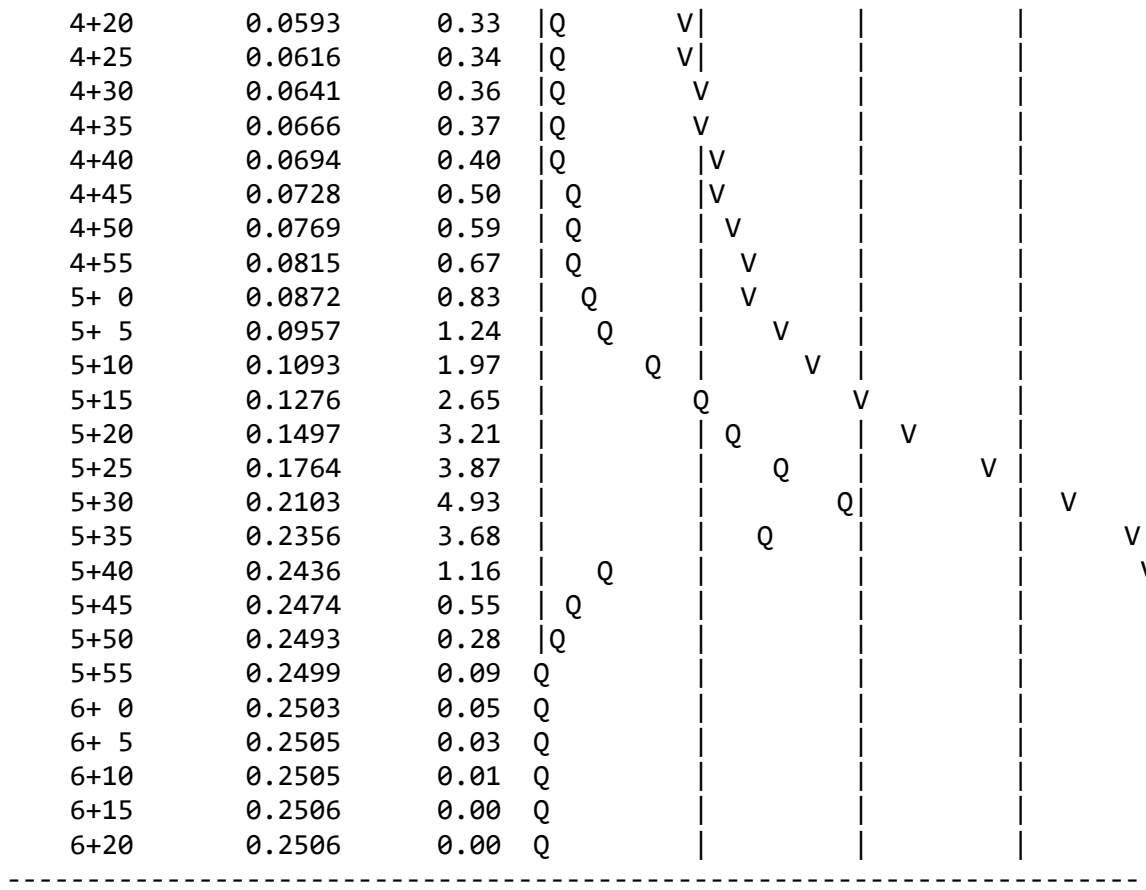
The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.50	0.089	(0.362)	0.080	0.009
2	0.17	0.60	0.107	(0.362)	0.096	0.011
3	0.25	0.60	0.107	(0.362)	0.096	0.011
4	0.33	0.60	0.107	(0.362)	0.096	0.011
5	0.42	0.60	0.107	(0.362)	0.096	0.011
6	0.50	0.70	0.125	(0.362)	0.112	0.012
7	0.58	0.70	0.125	(0.362)	0.112	0.012
8	0.67	0.70	0.125	(0.362)	0.112	0.012
9	0.75	0.70	0.125	(0.362)	0.112	0.012
10	0.83	0.70	0.125	(0.362)	0.112	0.012
11	0.92	0.70	0.125	(0.362)	0.112	0.012
12	1.00	0.80	0.142	(0.362)	0.128	0.014
13	1.08	0.80	0.142	(0.362)	0.128	0.014
14	1.17	0.80	0.142	(0.362)	0.128	0.014
15	1.25	0.80	0.142	(0.362)	0.128	0.014
16	1.33	0.80	0.142	(0.362)	0.128	0.014
17	1.42	0.80	0.142	(0.362)	0.128	0.014
18	1.50	0.80	0.142	(0.362)	0.128	0.014
19	1.58	0.80	0.142	(0.362)	0.128	0.014
20	1.67	0.80	0.142	(0.362)	0.128	0.014
21	1.75	0.80	0.142	(0.362)	0.128	0.014
22	1.83	0.80	0.142	(0.362)	0.128	0.014
23	1.92	0.80	0.142	(0.362)	0.128	0.014
24	2.00	0.90	0.160	(0.362)	0.144	0.016
25	2.08	0.80	0.142	(0.362)	0.128	0.014
26	2.17	0.90	0.160	(0.362)	0.144	0.016
27	2.25	0.90	0.160	(0.362)	0.144	0.016
28	2.33	0.90	0.160	(0.362)	0.144	0.016
29	2.42	0.90	0.160	(0.362)	0.144	0.016
30	2.50	0.90	0.160	(0.362)	0.144	0.016
31	2.58	0.90	0.160	(0.362)	0.144	0.016
32	2.67	0.90	0.160	(0.362)	0.144	0.016
33	2.75	1.00	0.178	(0.362)	0.160	0.018
34	2.83	1.00	0.178	(0.362)	0.160	0.018
35	2.92	1.00	0.178	(0.362)	0.160	0.018
36	3.00	1.00	0.178	(0.362)	0.160	0.018
37	3.08	1.00	0.178	(0.362)	0.160	0.018
38	3.17	1.10	0.196	(0.362)	0.176	0.020
39	3.25	1.10	0.196	(0.362)	0.176	0.020
40	3.33	1.10	0.196	(0.362)	0.176	0.020
41	3.42	1.20	0.213	(0.362)	0.192	0.021
42	3.50	1.30	0.231	(0.362)	0.208	0.023
43	3.58	1.40	0.249	(0.362)	0.224	0.025
44	3.67	1.40	0.249	(0.362)	0.224	0.025

```
45   3.75     1.50      0.267       (  0.362)       0.240        0.027
46   3.83     1.50      0.267       (  0.362)       0.240        0.027
47   3.92     1.60      0.285       (  0.362)       0.256        0.028
48   4.00     1.60      0.285       (  0.362)       0.256        0.028
49   4.08     1.70      0.302       (  0.362)       0.272        0.030
50   4.17     1.80      0.320       (  0.362)       0.288        0.032
51   4.25     1.90      0.338       (  0.362)       0.304        0.034
52   4.33     2.00      0.356       (  0.362)       0.320        0.036
53   4.42     2.10      0.374       (  0.362)       0.336        0.037
54   4.50     2.10      0.374       (  0.362)       0.336        0.037
55   4.58     2.20      0.391       (  0.362)       0.352        0.039
56   4.67     2.30      0.409          0.362    (  0.368)       0.047
57   4.75     2.40      0.427          0.362    (  0.384)       0.065
58   4.83     2.40      0.427          0.362    (  0.384)       0.065
59   4.92     2.50      0.445          0.362    (  0.400)       0.083
60   5.00     2.60      0.462          0.362    (  0.416)       0.100
61   5.08     3.10      0.551          0.362    (  0.496)       0.189
62   5.17     3.60      0.640          0.362    (  0.576)       0.278
63   5.25     3.90      0.694          0.362    (  0.624)       0.332
64   5.33     4.20      0.747          0.362    (  0.672)       0.385
65   5.42     4.70      0.836          0.362    (  0.752)       0.474
66   5.50     5.60      0.996          0.362    (  0.897)       0.634
67   5.58     1.90      0.338       (  0.362)       0.304        0.034
68   5.67     0.90      0.160       (  0.362)       0.144        0.016
69   5.75     0.60      0.107       (  0.362)       0.096        0.011
70   5.83     0.50      0.089       (  0.362)       0.080        0.009
71   5.92     0.30      0.053       (  0.362)       0.048        0.005
72   6.00     0.20      0.036       (  0.362)       0.032        0.004
               (Loss Rate Not Used)
   Sum =     100.0                                    Sum =     3.8
      Flood volume = Effective rainfall      0.31(In)
       times area       9.6(Ac.)/[(In)/(Ft.)] =       0.3(Ac.Ft)
      Total soil loss =      1.17(In)
      Total soil loss =     0.932(Ac.Ft)
      Total rainfall =      1.48(In)
      Flood volume =       10915.0 Cubic Feet
      Total soil loss =       40608.1 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =      4.930(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        2.5       5.0       7.5      10.0
-------------------------------------------------------------------------
  0+ 5       0.0002      0.03  Q         |         |         |         |
```

```
0+10       0.0007      0.08  Q          |          |          |          |
0+15       0.0014      0.09  Q          |          |          |          |
0+20       0.0021      0.10  Q          |          |          |          |
0+25       0.0028      0.10  Q          |          |          |          |
0+30       0.0035      0.11  Q          |          |          |          |
0+35       0.0043      0.12  Q          |          |          |          |
0+40       0.0052      0.12  Q          |          |          |          |
0+45       0.0060      0.12  Q          |          |          |          |
0+50       0.0068      0.12  QV         |          |          |          |
0+55       0.0076      0.12  QV         |          |          |          |
1+ 0       0.0085      0.13  QV         |          |          |          |
1+ 5       0.0094      0.13  QV         |          |          |          |
1+10       0.0104      0.14  QV         |          |          |          |
1+15       0.0113      0.14  QV         |          |          |          |
1+20       0.0123      0.14  QV         |          |          |          |
1+25       0.0132      0.14  Q V        |          |          |          |
1+30       0.0142      0.14  Q V        |          |          |          |
1+35       0.0151      0.14  Q V        |          |          |          |
1+40       0.0160      0.14  Q V        |          |          |          |
1+45       0.0170      0.14  Q V        |          |          |          |
1+50       0.0179      0.14  Q V        |          |          |          |
1+55       0.0189      0.14  Q  V       |          |          |          |
2+ 0       0.0199      0.14  Q  V       |          |          |          |
2+ 5       0.0209      0.15  Q  V       |          |          |          |
2+10       0.0219      0.15  Q  V       |          |          |          |
2+15       0.0229      0.15  Q  V       |          |          |          |
2+20       0.0240      0.15  Q  V       |          |          |          |
2+25       0.0250      0.15  Q  V       |          |          |          |
2+30       0.0261      0.15  Q   V      |          |          |          |
2+35       0.0272      0.15  Q   V      |          |          |          |
2+40       0.0282      0.15  Q   V      |          |          |          |
2+45       0.0293      0.16  Q   V      |          |          |          |
2+50       0.0305      0.17  Q   V      |          |          |          |
2+55       0.0317      0.17  Q    V     |          |          |          |
3+ 0       0.0329      0.17  Q    V     |          |          |          |
3+ 5       0.0340      0.17  Q    V     |          |          |          |
3+10       0.0353      0.18  Q    V     |          |          |          |
3+15       0.0365      0.19  Q    V     |          |          |          |
3+20       0.0378      0.19  Q     V    |          |          |          |
3+25       0.0392      0.19  Q     V    |          |          |          |
3+30       0.0406      0.21  Q     V    |          |          |          |
3+35       0.0422      0.23  Q     V    |          |          |          |
3+40       0.0438      0.24  Q     V    |          |          |          |
3+45       0.0455      0.24  Q      V   |          |          |          |
3+50       0.0472      0.25  |Q     V   |          |          |          |
3+55       0.0490      0.26  |Q     V   |          |          |          |
4+ 0       0.0509      0.27  |Q      V  |          |          |          |
4+ 5       0.0528      0.28  |Q      V  |          |          |          |
4+10       0.0549      0.29  |Q      V  |          |          |          |
4+15       0.0570      0.31  |Q       V|          |          |          |
```


4+20 0.0593 0.33
4+25 0.0616 0.34
4+30 0.0641 0.36
4+35 0.0666 0.37
4+40 0.0694 0.40
4+45 0.0728 0.50
4+50 0.0769 0.59
4+55 0.0815 0.67
5+ 0 0.0872 0.83
5+ 5 0.0957 1.24
5+10 0.1093 1.97
5+15 0.1276 2.65
5+20 0.1497 3.21
5+25 0.1764 3.87
5+30 0.2103 4.93
5+35 0.2356 3.68
5+40 0.2436 1.16
5+45 0.2474 0.55
5+50 0.2493 0.28
5+55 0.2499 0.09
6+ 0 0.2503 0.05
6+ 5 0.2505 0.03
6+10 0.2505 0.01
6+15 0.2506 0.00
6+20 0.2506 0.00

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

Study date 08/01/22 File: A21626Q100UHEX245.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 EXISTING 5YR-24HR UH

Drainage Area = 9.57(Ac.) = 0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 9.57(Ac.) = 0.015 Sq. Mi.
Length along longest watercourse = 541.43(Ft.)
Length along longest watercourse measured to centroid = 471.06(Ft.)
Length along longest watercourse = 0.103 Mi.
Length along longest watercourse measured to centroid = 0.089 Mi.
Difference in elevation = 9.44(Ft.)
Slope along watercourse = 92.0584 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.051 Hr.
Lag time = 3.07 Min.
25% of lag time = 0.77 Min.
40% of lag time = 1.23 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]
        9.57            1.90                  18.19

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        9.57            4.80                  45.96

STORM EVENT (YEAR) =    5.00
Area Averaged 2-Year Rainfall =    1.900(In)
Area Averaged 100-Year Rainfall =    4.800(In)

Point rain (area averaged) =    2.579(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    2.579(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     9.575           85.00         0.000
 Total Area Entered =      9.57(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
85.0  70.0      0.362     0.000        0.362       1.000      0.362
                                                 Sum (F) =   0.362
Area averaged mean soil loss (F) (In/Hr) =  0.362
Minimum soil loss rate ((In/Hr)) =  0.181
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.900
------------------------------------------------------------------------

               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        162.684         36.109              3.484
    2   0.167        325.368         46.066              4.445
    3   0.250        488.052         10.495              1.013
    4   0.333        650.736          4.496              0.434
    5   0.417        813.420          2.833              0.273
                              Sum = 100.000   Sum=       9.650
------------------------------------------------------------------------
```

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	0.021	(0.642)	0.019	0.002
2	0.17	0.07	0.021	(0.639)	0.019	0.002
3	0.25	0.07	0.021	(0.637)	0.019	0.002
4	0.33	0.10	0.031	(0.634)	0.028	0.003
5	0.42	0.10	0.031	(0.632)	0.028	0.003
6	0.50	0.10	0.031	(0.629)	0.028	0.003
7	0.58	0.10	0.031	(0.627)	0.028	0.003
8	0.67	0.10	0.031	(0.624)	0.028	0.003
9	0.75	0.10	0.031	(0.622)	0.028	0.003
10	0.83	0.13	0.041	(0.620)	0.037	0.004
11	0.92	0.13	0.041	(0.617)	0.037	0.004
12	1.00	0.13	0.041	(0.615)	0.037	0.004
13	1.08	0.10	0.031	(0.612)	0.028	0.003
14	1.17	0.10	0.031	(0.610)	0.028	0.003
15	1.25	0.10	0.031	(0.607)	0.028	0.003
16	1.33	0.10	0.031	(0.605)	0.028	0.003
17	1.42	0.10	0.031	(0.603)	0.028	0.003
18	1.50	0.10	0.031	(0.600)	0.028	0.003
19	1.58	0.10	0.031	(0.598)	0.028	0.003
20	1.67	0.10	0.031	(0.595)	0.028	0.003
21	1.75	0.10	0.031	(0.593)	0.028	0.003
22	1.83	0.13	0.041	(0.591)	0.037	0.004
23	1.92	0.13	0.041	(0.588)	0.037	0.004
24	2.00	0.13	0.041	(0.586)	0.037	0.004
25	2.08	0.13	0.041	(0.583)	0.037	0.004
26	2.17	0.13	0.041	(0.581)	0.037	0.004
27	2.25	0.13	0.041	(0.579)	0.037	0.004
28	2.33	0.13	0.041	(0.576)	0.037	0.004
29	2.42	0.13	0.041	(0.574)	0.037	0.004
30	2.50	0.13	0.041	(0.572)	0.037	0.004
31	2.58	0.17	0.052	(0.569)	0.046	0.005
32	2.67	0.17	0.052	(0.567)	0.046	0.005
33	2.75	0.17	0.052	(0.565)	0.046	0.005
34	2.83	0.17	0.052	(0.562)	0.046	0.005
35	2.92	0.17	0.052	(0.560)	0.046	0.005
36	3.00	0.17	0.052	(0.558)	0.046	0.005
37	3.08	0.17	0.052	(0.555)	0.046	0.005
38	3.17	0.17	0.052	(0.553)	0.046	0.005
39	3.25	0.17	0.052	(0.551)	0.046	0.005
40	3.33	0.17	0.052	(0.549)	0.046	0.005
41	3.42	0.17	0.052	(0.546)	0.046	0.005
42	3.50	0.17	0.052	(0.544)	0.046	0.005
43	3.58	0.17	0.052	(0.542)	0.046	0.005
44	3.67	0.17	0.052	(0.539)	0.046	0.005

45	3.75	0.17	0.052	(0.537)	0.046	0.005
46	3.83	0.20	0.062	(0.535)	0.056	0.006
47	3.92	0.20	0.062	(0.533)	0.056	0.006
48	4.00	0.20	0.062	(0.530)	0.056	0.006
49	4.08	0.20	0.062	(0.528)	0.056	0.006
50	4.17	0.20	0.062	(0.526)	0.056	0.006
51	4.25	0.20	0.062	(0.524)	0.056	0.006
52	4.33	0.23	0.072	(0.521)	0.065	0.007
53	4.42	0.23	0.072	(0.519)	0.065	0.007
54	4.50	0.23	0.072	(0.517)	0.065	0.007
55	4.58	0.23	0.072	(0.515)	0.065	0.007
56	4.67	0.23	0.072	(0.513)	0.065	0.007
57	4.75	0.23	0.072	(0.510)	0.065	0.007
58	4.83	0.27	0.083	(0.508)	0.074	0.008
59	4.92	0.27	0.083	(0.506)	0.074	0.008
60	5.00	0.27	0.083	(0.504)	0.074	0.008
61	5.08	0.20	0.062	(0.502)	0.056	0.006
62	5.17	0.20	0.062	(0.499)	0.056	0.006
63	5.25	0.20	0.062	(0.497)	0.056	0.006
64	5.33	0.23	0.072	(0.495)	0.065	0.007
65	5.42	0.23	0.072	(0.493)	0.065	0.007
66	5.50	0.23	0.072	(0.491)	0.065	0.007
67	5.58	0.27	0.083	(0.489)	0.074	0.008
68	5.67	0.27	0.083	(0.486)	0.074	0.008
69	5.75	0.27	0.083	(0.484)	0.074	0.008
70	5.83	0.27	0.083	(0.482)	0.074	0.008
71	5.92	0.27	0.083	(0.480)	0.074	0.008
72	6.00	0.27	0.083	(0.478)	0.074	0.008
73	6.08	0.30	0.093	(0.476)	0.084	0.009
74	6.17	0.30	0.093	(0.474)	0.084	0.009
75	6.25	0.30	0.093	(0.471)	0.084	0.009
76	6.33	0.30	0.093	(0.469)	0.084	0.009
77	6.42	0.30	0.093	(0.467)	0.084	0.009
78	6.50	0.30	0.093	(0.465)	0.084	0.009
79	6.58	0.33	0.103	(0.463)	0.093	0.010
80	6.67	0.33	0.103	(0.461)	0.093	0.010
81	6.75	0.33	0.103	(0.459)	0.093	0.010
82	6.83	0.33	0.103	(0.457)	0.093	0.010
83	6.92	0.33	0.103	(0.455)	0.093	0.010
84	7.00	0.33	0.103	(0.453)	0.093	0.010
85	7.08	0.33	0.103	(0.451)	0.093	0.010
86	7.17	0.33	0.103	(0.449)	0.093	0.010
87	7.25	0.33	0.103	(0.447)	0.093	0.010
88	7.33	0.37	0.113	(0.445)	0.102	0.011
89	7.42	0.37	0.113	(0.442)	0.102	0.011
90	7.50	0.37	0.113	(0.440)	0.102	0.011
91	7.58	0.40	0.124	(0.438)	0.111	0.012
92	7.67	0.40	0.124	(0.436)	0.111	0.012
93	7.75	0.40	0.124	(0.434)	0.111	0.012
94	7.83	0.43	0.134	(0.432)	0.121	0.013

95	7.92	0.43	0.134	(0.430)	0.121	0.013
96	8.00	0.43	0.134	(0.428)	0.121	0.013
97	8.08	0.50	0.155	(0.426)	0.139	0.015
98	8.17	0.50	0.155	(0.424)	0.139	0.015
99	8.25	0.50	0.155	(0.422)	0.139	0.015
100	8.33	0.50	0.155	(0.420)	0.139	0.015
101	8.42	0.50	0.155	(0.419)	0.139	0.015
102	8.50	0.50	0.155	(0.417)	0.139	0.015
103	8.58	0.53	0.165	(0.415)	0.149	0.017
104	8.67	0.53	0.165	(0.413)	0.149	0.017
105	8.75	0.53	0.165	(0.411)	0.149	0.017
106	8.83	0.57	0.175	(0.409)	0.158	0.018
107	8.92	0.57	0.175	(0.407)	0.158	0.018
108	9.00	0.57	0.175	(0.405)	0.158	0.018
109	9.08	0.63	0.196	(0.403)	0.176	0.020
110	9.17	0.63	0.196	(0.401)	0.176	0.020
111	9.25	0.63	0.196	(0.399)	0.176	0.020
112	9.33	0.67	0.206	(0.397)	0.186	0.021
113	9.42	0.67	0.206	(0.395)	0.186	0.021
114	9.50	0.67	0.206	(0.393)	0.186	0.021
115	9.58	0.70	0.217	(0.392)	0.195	0.022
116	9.67	0.70	0.217	(0.390)	0.195	0.022
117	9.75	0.70	0.217	(0.388)	0.195	0.022
118	9.83	0.73	0.227	(0.386)	0.204	0.023
119	9.92	0.73	0.227	(0.384)	0.204	0.023
120	10.00	0.73	0.227	(0.382)	0.204	0.023
121	10.08	0.50	0.155	(0.380)	0.139	0.015
122	10.17	0.50	0.155	(0.379)	0.139	0.015
123	10.25	0.50	0.155	(0.377)	0.139	0.015
124	10.33	0.50	0.155	(0.375)	0.139	0.015
125	10.42	0.50	0.155	(0.373)	0.139	0.015
126	10.50	0.50	0.155	(0.371)	0.139	0.015
127	10.58	0.67	0.206	(0.369)	0.186	0.021
128	10.67	0.67	0.206	(0.368)	0.186	0.021
129	10.75	0.67	0.206	(0.366)	0.186	0.021
130	10.83	0.67	0.206	(0.364)	0.186	0.021
131	10.92	0.67	0.206	(0.362)	0.186	0.021
132	11.00	0.67	0.206	(0.360)	0.186	0.021
133	11.08	0.63	0.196	(0.359)	0.176	0.020
134	11.17	0.63	0.196	(0.357)	0.176	0.020
135	11.25	0.63	0.196	(0.355)	0.176	0.020
136	11.33	0.63	0.196	(0.353)	0.176	0.020
137	11.42	0.63	0.196	(0.352)	0.176	0.020
138	11.50	0.63	0.196	(0.350)	0.176	0.020
139	11.58	0.57	0.175	(0.348)	0.158	0.018
140	11.67	0.57	0.175	(0.346)	0.158	0.018
141	11.75	0.57	0.175	(0.345)	0.158	0.018
142	11.83	0.60	0.186	(0.343)	0.167	0.019
143	11.92	0.60	0.186	(0.341)	0.167	0.019
144	12.00	0.60	0.186	(0.340)	0.167	0.019

145	12.08	0.83	0.258	(	0.338)	0.232	0.026
146	12.17	0.83	0.258	(	0.336)	0.232	0.026
147	12.25	0.83	0.258	(	0.335)	0.232	0.026
148	12.33	0.87	0.268	(	0.333)	0.241	0.027
149	12.42	0.87	0.268	(	0.331)	0.241	0.027
150	12.50	0.87	0.268	(	0.330)	0.241	0.027
151	12.58	0.93	0.289	(	0.328)	0.260	0.029
152	12.67	0.93	0.289	(	0.326)	0.260	0.029
153	12.75	0.93	0.289	(	0.325)	0.260	0.029
154	12.83	0.97	0.299	(	0.323)	0.269	0.030
155	12.92	0.97	0.299	(	0.321)	0.269	0.030
156	13.00	0.97	0.299	(	0.320)	0.269	0.030
157	13.08	1.13	0.351	(	0.318)	0.316	0.035
158	13.17	1.13	0.351	(	0.316)	0.316	0.035
159	13.25	1.13	0.351		0.315	(0.316)	0.036
160	13.33	1.13	0.351		0.313	(0.316)	0.038
161	13.42	1.13	0.351		0.312	(0.316)	0.039
162	13.50	1.13	0.351		0.310	(0.316)	0.041
163	13.58	0.77	0.237	(	0.308)	0.214	0.024
164	13.67	0.77	0.237	(	0.307)	0.214	0.024
165	13.75	0.77	0.237	(	0.305)	0.214	0.024
166	13.83	0.77	0.237	(	0.304)	0.214	0.024
167	13.92	0.77	0.237	(	0.302)	0.214	0.024
168	14.00	0.77	0.237	(	0.301)	0.214	0.024
169	14.08	0.90	0.279	(	0.299)	0.251	0.028
170	14.17	0.90	0.279	(	0.298)	0.251	0.028
171	14.25	0.90	0.279	(	0.296)	0.251	0.028
172	14.33	0.87	0.268	(	0.295)	0.241	0.027
173	14.42	0.87	0.268	(	0.293)	0.241	0.027
174	14.50	0.87	0.268	(	0.292)	0.241	0.027
175	14.58	0.87	0.268	(	0.290)	0.241	0.027
176	14.67	0.87	0.268	(	0.289)	0.241	0.027
177	14.75	0.87	0.268	(	0.287)	0.241	0.027
178	14.83	0.83	0.258	(	0.286)	0.232	0.026
179	14.92	0.83	0.258	(	0.284)	0.232	0.026
180	15.00	0.83	0.258	(	0.283)	0.232	0.026
181	15.08	0.80	0.248	(	0.281)	0.223	0.025
182	15.17	0.80	0.248	(	0.280)	0.223	0.025
183	15.25	0.80	0.248	(	0.278)	0.223	0.025
184	15.33	0.77	0.237	(	0.277)	0.214	0.024
185	15.42	0.77	0.237	(	0.276)	0.214	0.024
186	15.50	0.77	0.237	(	0.274)	0.214	0.024
187	15.58	0.63	0.196	(	0.273)	0.176	0.020
188	15.67	0.63	0.196	(	0.271)	0.176	0.020
189	15.75	0.63	0.196	(	0.270)	0.176	0.020
190	15.83	0.63	0.196	(	0.269)	0.176	0.020
191	15.92	0.63	0.196	(	0.267)	0.176	0.020
192	16.00	0.63	0.196	(	0.266)	0.176	0.020
193	16.08	0.13	0.041	(	0.264)	0.037	0.004
194	16.17	0.13	0.041	(	0.263)	0.037	0.004

195	16.25	0.13	0.041	(0.262)	0.037	0.004
196	16.33	0.13	0.041	(0.260)	0.037	0.004
197	16.42	0.13	0.041	(0.259)	0.037	0.004
198	16.50	0.13	0.041	(0.258)	0.037	0.004
199	16.58	0.10	0.031	(0.256)	0.028	0.003
200	16.67	0.10	0.031	(0.255)	0.028	0.003
201	16.75	0.10	0.031	(0.254)	0.028	0.003
202	16.83	0.10	0.031	(0.253)	0.028	0.003
203	16.92	0.10	0.031	(0.251)	0.028	0.003
204	17.00	0.10	0.031	(0.250)	0.028	0.003
205	17.08	0.17	0.052	(0.249)	0.046	0.005
206	17.17	0.17	0.052	(0.248)	0.046	0.005
207	17.25	0.17	0.052	(0.246)	0.046	0.005
208	17.33	0.17	0.052	(0.245)	0.046	0.005
209	17.42	0.17	0.052	(0.244)	0.046	0.005
210	17.50	0.17	0.052	(0.243)	0.046	0.005
211	17.58	0.17	0.052	(0.241)	0.046	0.005
212	17.67	0.17	0.052	(0.240)	0.046	0.005
213	17.75	0.17	0.052	(0.239)	0.046	0.005
214	17.83	0.13	0.041	(0.238)	0.037	0.004
215	17.92	0.13	0.041	(0.237)	0.037	0.004
216	18.00	0.13	0.041	(0.235)	0.037	0.004
217	18.08	0.13	0.041	(0.234)	0.037	0.004
218	18.17	0.13	0.041	(0.233)	0.037	0.004
219	18.25	0.13	0.041	(0.232)	0.037	0.004
220	18.33	0.13	0.041	(0.231)	0.037	0.004
221	18.42	0.13	0.041	(0.230)	0.037	0.004
222	18.50	0.13	0.041	(0.229)	0.037	0.004
223	18.58	0.10	0.031	(0.228)	0.028	0.003
224	18.67	0.10	0.031	(0.226)	0.028	0.003
225	18.75	0.10	0.031	(0.225)	0.028	0.003
226	18.83	0.07	0.021	(0.224)	0.019	0.002
227	18.92	0.07	0.021	(0.223)	0.019	0.002
228	19.00	0.07	0.021	(0.222)	0.019	0.002
229	19.08	0.10	0.031	(0.221)	0.028	0.003
230	19.17	0.10	0.031	(0.220)	0.028	0.003
231	19.25	0.10	0.031	(0.219)	0.028	0.003
232	19.33	0.13	0.041	(0.218)	0.037	0.004
233	19.42	0.13	0.041	(0.217)	0.037	0.004
234	19.50	0.13	0.041	(0.216)	0.037	0.004
235	19.58	0.10	0.031	(0.215)	0.028	0.003
236	19.67	0.10	0.031	(0.214)	0.028	0.003
237	19.75	0.10	0.031	(0.213)	0.028	0.003
238	19.83	0.07	0.021	(0.212)	0.019	0.002
239	19.92	0.07	0.021	(0.211)	0.019	0.002
240	20.00	0.07	0.021	(0.210)	0.019	0.002
241	20.08	0.10	0.031	(0.209)	0.028	0.003
242	20.17	0.10	0.031	(0.208)	0.028	0.003
243	20.25	0.10	0.031	(0.207)	0.028	0.003
244	20.33	0.10	0.031	(0.207)	0.028	0.003

245	20.42	0.10	0.031	(0.206)	0.028	0.003
246	20.50	0.10	0.031	(0.205)	0.028	0.003
247	20.58	0.10	0.031	(0.204)	0.028	0.003
248	20.67	0.10	0.031	(0.203)	0.028	0.003
249	20.75	0.10	0.031	(0.202)	0.028	0.003
250	20.83	0.07	0.021	(0.201)	0.019	0.002
251	20.92	0.07	0.021	(0.201)	0.019	0.002
252	21.00	0.07	0.021	(0.200)	0.019	0.002
253	21.08	0.10	0.031	(0.199)	0.028	0.003
254	21.17	0.10	0.031	(0.198)	0.028	0.003
255	21.25	0.10	0.031	(0.197)	0.028	0.003
256	21.33	0.07	0.021	(0.197)	0.019	0.002
257	21.42	0.07	0.021	(0.196)	0.019	0.002
258	21.50	0.07	0.021	(0.195)	0.019	0.002
259	21.58	0.10	0.031	(0.195)	0.028	0.003
260	21.67	0.10	0.031	(0.194)	0.028	0.003
261	21.75	0.10	0.031	(0.193)	0.028	0.003
262	21.83	0.07	0.021	(0.192)	0.019	0.002
263	21.92	0.07	0.021	(0.192)	0.019	0.002
264	22.00	0.07	0.021	(0.191)	0.019	0.002
265	22.08	0.10	0.031	(0.190)	0.028	0.003
266	22.17	0.10	0.031	(0.190)	0.028	0.003
267	22.25	0.10	0.031	(0.189)	0.028	0.003
268	22.33	0.07	0.021	(0.189)	0.019	0.002
269	22.42	0.07	0.021	(0.188)	0.019	0.002
270	22.50	0.07	0.021	(0.188)	0.019	0.002
271	22.58	0.07	0.021	(0.187)	0.019	0.002
272	22.67	0.07	0.021	(0.186)	0.019	0.002
273	22.75	0.07	0.021	(0.186)	0.019	0.002
274	22.83	0.07	0.021	(0.185)	0.019	0.002
275	22.92	0.07	0.021	(0.185)	0.019	0.002
276	23.00	0.07	0.021	(0.185)	0.019	0.002
277	23.08	0.07	0.021	(0.184)	0.019	0.002
278	23.17	0.07	0.021	(0.184)	0.019	0.002
279	23.25	0.07	0.021	(0.183)	0.019	0.002
280	23.33	0.07	0.021	(0.183)	0.019	0.002
281	23.42	0.07	0.021	(0.183)	0.019	0.002
282	23.50	0.07	0.021	(0.182)	0.019	0.002
283	23.58	0.07	0.021	(0.182)	0.019	0.002
284	23.67	0.07	0.021	(0.182)	0.019	0.002
285	23.75	0.07	0.021	(0.181)	0.019	0.002
286	23.83	0.07	0.021	(0.181)	0.019	0.002
287	23.92	0.07	0.021	(0.181)	0.019	0.002
288	24.00	0.07	0.021	(0.181)	0.019	0.002

(Loss Rate Not Used)

Sum = 100.0 Sum = 3.1

Flood volume = Effective rainfall 0.26(In)
times area 9.6(Ac.)/[(In)/(Ft.)] = 0.2(Ac.Ft)
Total soil loss = 2.32(In)
Total soil loss = 1.851(Ac.Ft)

Total rainfall = 2.58(In)
Flood volume = 9002.2 Cubic Feet
Total soil loss = 80643.7 Cubic Feet

Peak flow rate of this hydrograph = 0.379(CFS)

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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	2.5	5.0	7.5	10.0
0+ 5	0.0000	0.01	Q				
0+10	0.0002	0.02	Q				
0+15	0.0003	0.02	Q				
0+20	0.0004	0.02	Q				
0+25	0.0006	0.03	Q				
0+30	0.0008	0.03	Q				
0+35	0.0010	0.03	Q				
0+40	0.0013	0.03	Q				
0+45	0.0015	0.03	Q				
0+50	0.0017	0.03	Q				
0+55	0.0020	0.04	Q				
1+ 0	0.0022	0.04	Q				
1+ 5	0.0025	0.04	Q				
1+10	0.0027	0.03	Q				
1+15	0.0029	0.03	Q				
1+20	0.0031	0.03	Q				
1+25	0.0033	0.03	Q				
1+30	0.0035	0.03	Q				
1+35	0.0037	0.03	Q				
1+40	0.0039	0.03	Q				
1+45	0.0041	0.03	Q				
1+50	0.0044	0.03	Q				
1+55	0.0046	0.04	Q				
2+ 0	0.0049	0.04	Q				
2+ 5	0.0052	0.04	QV				
2+10	0.0054	0.04	QV				
2+15	0.0057	0.04	QV				
2+20	0.0060	0.04	QV				
2+25	0.0063	0.04	QV				
2+30	0.0065	0.04	QV				
2+35	0.0068	0.04	QV				
2+40	0.0072	0.05	QV				
2+45	0.0075	0.05	QV				
2+50	0.0078	0.05	QV				
2+55	0.0082	0.05	QV				

3+ 0	0.0085	0.05	QV	|	|	|	|
3+ 5	0.0089	0.05	QV	|	|	|	|
3+10	0.0092	0.05	QV	|	|	|	|
3+15	0.0096	0.05	QV	|	|	|	|
3+20	0.0099	0.05	QV	|	|	|	|
3+25	0.0102	0.05	QV	|	|	|	|
3+30	0.0106	0.05	Q V	|	|	|	|
3+35	0.0109	0.05	Q V	|	|	|	|
3+40	0.0113	0.05	Q V	|	|	|	|
3+45	0.0116	0.05	Q V	|	|	|	|
3+50	0.0120	0.05	Q V	|	|	|	|
3+55	0.0124	0.06	Q V	|	|	|	|
4+ 0	0.0128	0.06	Q V	|	|	|	|
4+ 5	0.0132	0.06	Q V	|	|	|	|
4+10	0.0136	0.06	Q V	|	|	|	|
4+15	0.0140	0.06	Q V	|	|	|	|
4+20	0.0145	0.06	Q V	|	|	|	|
4+25	0.0149	0.07	Q V	|	|	|	|
4+30	0.0154	0.07	Q V	|	|	|	|
4+35	0.0159	0.07	Q V	|	|	|	|
4+40	0.0164	0.07	Q V	|	|	|	|
4+45	0.0168	0.07	Q V	|	|	|	|
4+50	0.0174	0.07	Q V	|	|	|	|
4+55	0.0179	0.08	Q V	|	|	|	|
5+ 0	0.0184	0.08	Q V	|	|	|	|
5+ 5	0.0189	0.07	Q V	|	|	|	|
5+10	0.0194	0.06	Q V	|	|	|	|
5+15	0.0198	0.06	Q V	|	|	|	|
5+20	0.0202	0.06	Q V	|	|	|	|
5+25	0.0207	0.07	Q V	|	|	|	|
5+30	0.0212	0.07	Q V	|	|	|	|
5+35	0.0217	0.07	Q V	|	|	|	|
5+40	0.0222	0.08	Q V	|	|	|	|
5+45	0.0228	0.08	Q V	|	|	|	|
5+50	0.0233	0.08	Q V	|	|	|	|
5+55	0.0238	0.08	Q V	|	|	|	|
6+ 0	0.0244	0.08	Q V	|	|	|	|
6+ 5	0.0250	0.08	Q V	|	|	|	|
6+10	0.0256	0.09	Q V	|	|	|	|
6+15	0.0262	0.09	Q V	|	|	|	|
6+20	0.0268	0.09	Q V	|	|	|	|
6+25	0.0274	0.09	Q V	|	|	|	|
6+30	0.0280	0.09	Q V	|	|	|	|
6+35	0.0287	0.09	Q V	|	|	|	|
6+40	0.0294	0.10	Q V	|	|	|	|
6+45	0.0300	0.10	Q V	|	|	|	|
6+50	0.0307	0.10	Q V	|	|	|	|
6+55	0.0314	0.10	Q V	|	|	|	|
7+ 0	0.0321	0.10	Q V	|	|	|	|
7+ 5	0.0328	0.10	Q V	|	|	|	|

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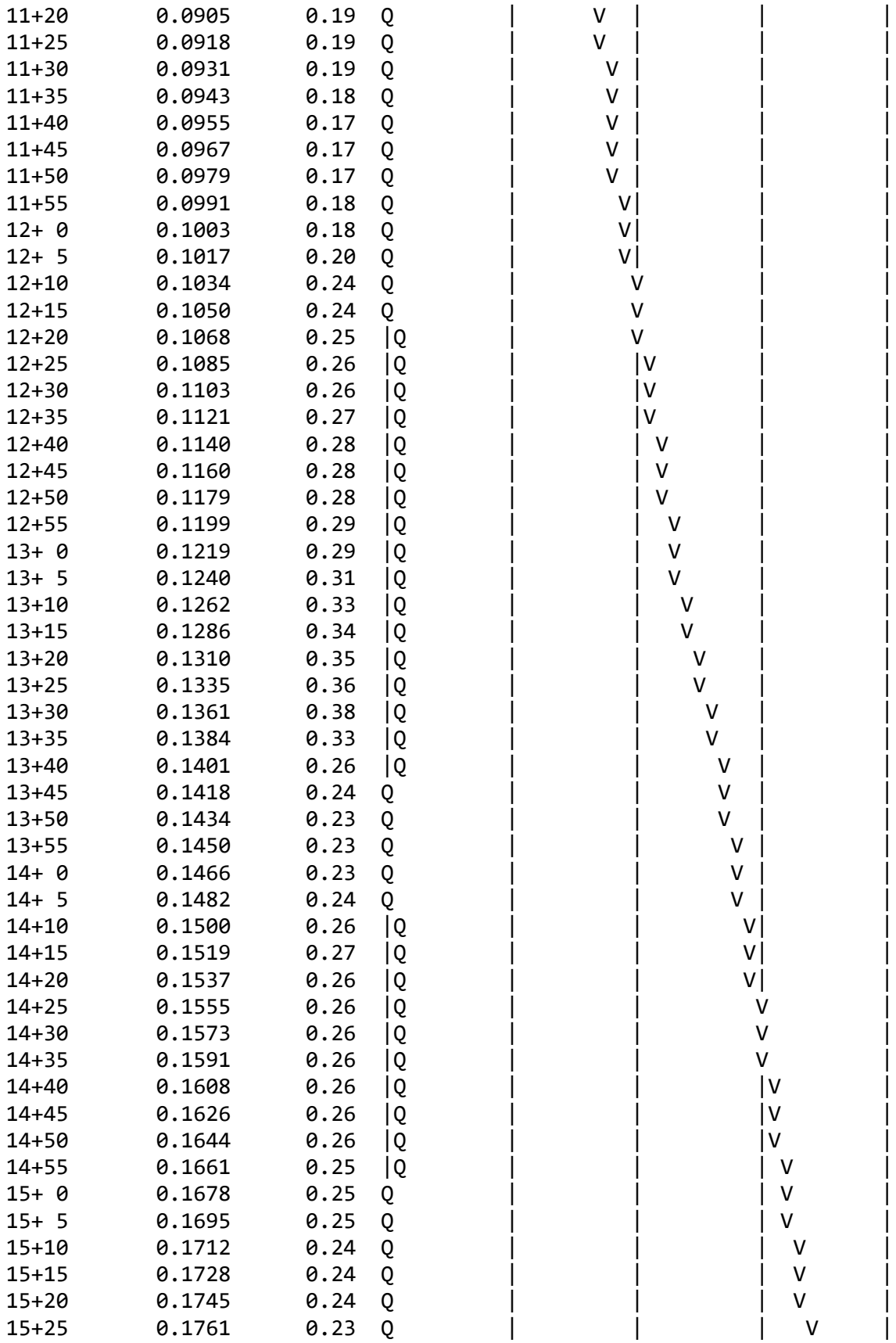
 7+10       0.0335      0.10  Q     V   |          |          |          |
 7+15       0.0341      0.10  Q     V   |          |          |          |
 7+20       0.0349      0.10  Q     V   |          |          |          |
 7+25       0.0356      0.11  Q     V   |          |          |          |
 7+30       0.0364      0.11  Q      V  |          |          |          |
 7+35       0.0371      0.11  Q      V  |          |          |          |
 7+40       0.0379      0.12  Q      V  |          |          |          |
 7+45       0.0388      0.12  Q      V  |          |          |          |
 7+50       0.0396      0.12  Q      V  |          |          |          |
 7+55       0.0405      0.13  Q      V  |          |          |          |
 8+ 0       0.0414      0.13  Q       V |          |          |          |
 8+ 5       0.0423      0.14  Q       V |          |          |          |
 8+10       0.0433      0.15  Q       V |          |          |          |
 8+15       0.0443      0.15  Q       V |          |          |          |
 8+20       0.0454      0.15  Q       V |          |          |          |
 8+25       0.0464      0.15  Q       V |          |          |          |
 8+30       0.0474      0.15  Q        V|          |          |          |
 8+35       0.0485      0.15  Q        V|          |          |          |
 8+40       0.0496      0.16  Q        V|          |          |          |
 8+45       0.0506      0.16  Q        V|          |          |          |
 8+50       0.0518      0.16  Q         V          |          |          |
 8+55       0.0529      0.17  Q         V          |          |          |
 9+ 0       0.0541      0.17  Q         V          |          |          |
 9+ 5       0.0553      0.18  Q         V          |          |          |
 9+10       0.0566      0.19  Q         V          |          |          |
 9+15       0.0579      0.19  Q          |V         |          |          |
 9+20       0.0592      0.19  Q          |V         |          |          |
 9+25       0.0606      0.20  Q          |V         |          |          |
 9+30       0.0619      0.20  Q          |V         |          |          |
 9+35       0.0633      0.20  Q          | V        |          |          |
 9+40       0.0647      0.21  Q          | V        |          |          |
 9+45       0.0662      0.21  Q          | V        |          |          |
 9+50       0.0676      0.21  Q          |  V       |          |          |
 9+55       0.0691      0.22  Q          |  V       |          |          |
10+ 0       0.0706      0.22  Q          |  V       |          |          |
10+ 5       0.0720      0.19  Q          |  V       |          |          |
10+10       0.0731      0.16  Q          |   V      |          |          |
10+15       0.0742      0.15  Q          |   V      |          |          |
10+20       0.0752      0.15  Q          |   V      |          |          |
10+25       0.0762      0.15  Q          |   V      |          |          |
10+30       0.0773      0.15  Q          |   V      |          |          |
10+35       0.0784      0.17  Q          |    V     |          |          |
10+40       0.0797      0.19  Q          |    V     |          |          |
10+45       0.0811      0.20  Q          |    V     |          |          |
10+50       0.0824      0.20  Q          |    V     |          |          |
10+55       0.0838      0.20  Q          |     V    |          |          |
11+ 0       0.0852      0.20  Q          |     V    |          |          |
11+ 5       0.0865      0.20  Q          |     V    |          |          |
11+10       0.0878      0.19  Q          |      V   |          |          |
11+15       0.0891      0.19  Q          |      V   |          |          |
```



15+30	0.1776	0.23	Q	|	|	|	V |
15+35	0.1791	0.21	Q	|	|	|	V |
15+40	0.1805	0.20	Q	|	|	|	V |
15+45	0.1818	0.19	Q	|	|	|	V |
15+50	0.1831	0.19	Q	|	|	|	V |
15+55	0.1844	0.19	Q	|	|	|	V |
16+ 0	0.1857	0.19	Q	|	|	|	V |
16+ 5	0.1866	0.14	Q	|	|	|	V |
16+10	0.1871	0.07	Q	|	|	|	V |
16+15	0.1874	0.05	Q	|	|	|	V |
16+20	0.1878	0.04	Q	|	|	|	V |
16+25	0.1880	0.04	Q	|	|	|	V |
16+30	0.1883	0.04	Q	|	|	|	V |
16+35	0.1886	0.04	Q	|	|	|	V |
16+40	0.1888	0.03	Q	|	|	|	V |
16+45	0.1890	0.03	Q	|	|	|	V |
16+50	0.1892	0.03	Q	|	|	|	V |
16+55	0.1894	0.03	Q	|	|	|	V |
17+ 0	0.1896	0.03	Q	|	|	|	V |
17+ 5	0.1899	0.04	Q	|	|	|	V |
17+10	0.1902	0.05	Q	|	|	|	V |
17+15	0.1905	0.05	Q	|	|	|	V |
17+20	0.1908	0.05	Q	|	|	|	V |
17+25	0.1912	0.05	Q	|	|	|	V |
17+30	0.1915	0.05	Q	|	|	|	V |
17+35	0.1919	0.05	Q	|	|	|	V |
17+40	0.1922	0.05	Q	|	|	|	V |
17+45	0.1926	0.05	Q	|	|	|	V |
17+50	0.1929	0.05	Q	|	|	|	V |
17+55	0.1932	0.04	Q	|	|	|	V |
18+ 0	0.1934	0.04	Q	|	|	|	V |
18+ 5	0.1937	0.04	Q	|	|	|	V |
18+10	0.1940	0.04	Q	|	|	|	V |
18+15	0.1943	0.04	Q	|	|	|	V |
18+20	0.1945	0.04	Q	|	|	|	V |
18+25	0.1948	0.04	Q	|	|	|	V |
18+30	0.1951	0.04	Q	|	|	|	V |
18+35	0.1953	0.04	Q	|	|	|	V |
18+40	0.1956	0.03	Q	|	|	|	V |
18+45	0.1958	0.03	Q	|	|	|	V |
18+50	0.1960	0.03	Q	|	|	|	V |
18+55	0.1961	0.02	Q	|	|	|	V |
19+ 0	0.1962	0.02	Q	|	|	|	V |
19+ 5	0.1964	0.02	Q	|	|	|	V |
19+10	0.1966	0.03	Q	|	|	|	V |
19+15	0.1968	0.03	Q	|	|	|	V |
19+20	0.1970	0.03	Q	|	|	|	V |
19+25	0.1973	0.04	Q	|	|	|	V |
19+30	0.1976	0.04	Q	|	|	|	V |
19+35	0.1978	0.04	Q	|	|	|	V |

19+40	0.1980	0.03	Q	|	|	|	V |
19+45	0.1982	0.03	Q	|	|	|	V |
19+50	0.1984	0.03	Q	|	|	|	V |
19+55	0.1986	0.02	Q	|	|	|	V |
20+ 0	0.1987	0.02	Q	|	|	|	V |
20+ 5	0.1989	0.02	Q	|	|	|	V |
20+10	0.1991	0.03	Q	|	|	|	V |
20+15	0.1993	0.03	Q	|	|	|	V |
20+20	0.1995	0.03	Q	|	|	|	V |
20+25	0.1997	0.03	Q	|	|	|	V |
20+30	0.1999	0.03	Q	|	|	|	V |
20+35	0.2001	0.03	Q	|	|	|	V |
20+40	0.2003	0.03	Q	|	|	|	V |
20+45	0.2005	0.03	Q	|	|	|	V |
20+50	0.2007	0.03	Q	|	|	|	V |
20+55	0.2008	0.02	Q	|	|	|	V |
21+ 0	0.2010	0.02	Q	|	|	|	V |
21+ 5	0.2011	0.02	Q	|	|	|	V |
21+10	0.2013	0.03	Q	|	|	|	V |
21+15	0.2015	0.03	Q	|	|	|	V|
21+20	0.2017	0.03	Q	|	|	|	V|
21+25	0.2019	0.02	Q	|	|	|	V|
21+30	0.2020	0.02	Q	|	|	|	V|
21+35	0.2022	0.02	Q	|	|	|	V|
21+40	0.2024	0.03	Q	|	|	|	V|
21+45	0.2026	0.03	Q	|	|	|	V|
21+50	0.2027	0.03	Q	|	|	|	V|
21+55	0.2029	0.02	Q	|	|	|	V|
22+ 0	0.2030	0.02	Q	|	|	|	V|
22+ 5	0.2032	0.02	Q	|	|	|	V|
22+10	0.2034	0.03	Q	|	|	|	V|
22+15	0.2036	0.03	Q	|	|	|	V|
22+20	0.2038	0.03	Q	|	|	|	V|
22+25	0.2039	0.02	Q	|	|	|	V|
22+30	0.2041	0.02	Q	|	|	|	V|
22+35	0.2042	0.02	Q	|	|	|	V|
22+40	0.2043	0.02	Q	|	|	|	V|
22+45	0.2045	0.02	Q	|	|	|	V|
22+50	0.2046	0.02	Q	|	|	|	V|
22+55	0.2048	0.02	Q	|	|	|	V|
23+ 0	0.2049	0.02	Q	|	|	|	V|
23+ 5	0.2050	0.02	Q	|	|	|	V|
23+10	0.2052	0.02	Q	|	|	|	V|
23+15	0.2053	0.02	Q	|	|	|	V|
23+20	0.2054	0.02	Q	|	|	|	V|
23+25	0.2056	0.02	Q	|	|	|	V|
23+30	0.2057	0.02	Q	|	|	|	V|
23+35	0.2059	0.02	Q	|	|	|	V|
23+40	0.2060	0.02	Q	|	|	|	V|
23+45	0.2061	0.02	Q	|	|	|	V|

```
   23+50       0.2063      0.02  Q          |          |          |         V|
   23+55       0.2064      0.02  Q          |          |          |         V|
   24+ 0       0.2065      0.02  Q          |          |          |         V|
   24+ 5       0.2066      0.01  Q          |          |          |         V|
   24+10       0.2066      0.00  Q          |          |          |         V|
   24+15       0.2067      0.00  Q          |          |          |         V|
   24+20       0.2067      0.00  Q          |          |          |          V
-------------------------------------------------------------------------------
```

Existing 10-Year

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

Study date 08/01/22 File: A21626Q100UHEX110.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 EXISTING 10YR-1HR UH

Drainage Area = 9.57(Ac.) = 0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 9.57(Ac.) = 0.015 Sq. Mi.
Length along longest watercourse = 541.43(Ft.)
Length along longest watercourse measured to centroid = 471.06(Ft.)
Length along longest watercourse = 0.103 Mi.
Length along longest watercourse measured to centroid = 0.089 Mi.
Difference in elevation = 9.44(Ft.)
Slope along watercourse = 92.0584 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.051 Hr.
Lag time = 3.07 Min.
25% of lag time = 0.77 Min.
40% of lag time = 1.23 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]
        9.57            0.48                   4.60

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        9.57            1.25                  11.97

STORM EVENT (YEAR) =   10.00
Area Averaged 2-Year Rainfall =    0.480(In)
Area Averaged 100-Year Rainfall =    1.250(In)

Point rain (area averaged) =    0.797(In)
Areal adjustment factor =   99.99 %
Adjusted average point rain =    0.797(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     9.575           85.00         0.000
 Total Area Entered =      9.57(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-2     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
85.0  85.0      0.187     0.000        0.187       1.000      0.187
                                                 Sum (F) =   0.187
Area averaged mean soil loss (F) (In/Hr) =  0.187
Minimum soil loss rate ((In/Hr)) =  0.094
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.900
------------------------------------------------------------------------
Slope of intensity-duration curve for a 1 hour storm =0.4800
------------------------------------------------------------------------

               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        162.684         36.109              3.484
    2   0.167        325.368         46.066              4.445
    3   0.250        488.052         10.495              1.013
    4   0.333        650.736          4.496              0.434
    5   0.417        813.420          2.833              0.273
                              Sum = 100.000   Sum=       9.650
```

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	4.40	0.421	0.187	(0.379)	0.234
2	0.17	4.50	0.430	0.187	(0.387)	0.243
3	0.25	5.40	0.516	0.187	(0.465)	0.329
4	0.33	5.40	0.516	0.187	(0.465)	0.329
5	0.42	5.70	0.545	0.187	(0.490)	0.358
6	0.50	6.40	0.612	0.187	(0.551)	0.425
7	0.58	7.90	0.755	0.187	(0.680)	0.568
8	0.67	9.10	0.870	0.187	(0.783)	0.683
9	0.75	12.80	1.224	0.187	(1.101)	1.037
10	0.83	25.60	2.448	0.187	(2.203)	2.261
11	0.92	7.90	0.755	0.187	(0.680)	0.568
12	1.00	4.90	0.468	0.187	(0.422)	0.281
		(Loss Rate Not Used)				
	Sum =	100.0			Sum =	7.3

Flood volume = Effective rainfall 0.61(In)
times area 9.6(Ac.)/[(In)/(Ft.)] = 0.5(Ac.Ft)
Total soil loss = 0.19(In)
Total soil loss = 0.149(Ac.Ft)
Total rainfall = 0.80(In)
Flood volume = 21192.0 Cubic Feet
Total soil loss = 6499.6 Cubic Feet

Peak flow rate of this hydrograph = 13.547(CFS)

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

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0 5.0 10.0 15.0 20.0
0+ 5	0.0056	0.81	VQ
0+10	0.0186	1.89	|V Q
0+15	0.0356	2.47	| V Q
0+20	0.0560	2.96	| VQ
0+25	0.0781	3.22	| Q
0+30	0.1030	3.62	| QV
0+35	0.1338	4.47	| Q |V
0+40	0.1723	5.58	| |Q V
0+45	0.2240	7.51	| | Q V |

```
    0+50       0.3173     13.55  |         |         |     VQ  |         |
    0+55       0.4105     13.54  |         |         |      Q  |  V      |
    1+ 0       0.4548      6.44  |         | Q       |         |      V  |
    1+ 5       0.4761      3.09  |     Q   |         |         |        V|
    1+10       0.4841      1.15  | Q       |         |         |        V|
    1+15       0.4860      0.28  Q         |         |         |        V|
    1+20       0.4865      0.08  Q         |         |         |         V
---------------------------------------------------------------------------
```

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

Study date 08/01/22 File: A21626Q100UHEX310.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 EXISTING 10YR-3HR UH

Drainage Area = 9.57(Ac.) = 0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 9.57(Ac.) = 0.015 Sq. Mi.
Length along longest watercourse = 541.43(Ft.)
Length along longest watercourse measured to centroid = 471.06(Ft.)
Length along longest watercourse = 0.103 Mi.
Length along longest watercourse measured to centroid = 0.089 Mi.
Difference in elevation = 9.44(Ft.)
Slope along watercourse = 92.0584 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.051 Hr.
Lag time = 3.07 Min.
25% of lag time = 0.77 Min.
40% of lag time = 1.23 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]
        9.57            0.80                   7.66

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        9.57            1.95                  18.67

STORM EVENT (YEAR) =   10.00
Area Averaged 2-Year Rainfall =    0.800(In)
Area Averaged 100-Year Rainfall =    1.950(In)

Point rain (area averaged) =    1.273(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.273(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     9.575           85.00         0.000
 Total Area Entered =      9.57(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-2     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
85.0  85.0      0.187     0.000        0.187       1.000      0.187
                                                 Sum (F) =   0.187
Area averaged mean soil loss (F) (In/Hr) =  0.187
Minimum soil loss rate ((In/Hr)) =  0.094
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.900
------------------------------------------------------------------------

               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        162.684         36.109              3.484
    2   0.167        325.368         46.066              4.445
    3   0.250        488.052         10.495              1.013
    4   0.333        650.736          4.496              0.434
    5   0.417        813.420          2.833              0.273
                              Sum = 100.000   Sum=       9.650
------------------------------------------------------------------------
```

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	0.199	(0.187)	0.179	0.020
2	0.17	1.30	0.199	(0.187)	0.179	0.020
3	0.25	1.10	0.168	(0.187)	0.151	0.017
4	0.33	1.50	0.229	0.187	(0.206)	0.042
5	0.42	1.50	0.229	0.187	(0.206)	0.042
6	0.50	1.80	0.275	0.187	(0.247)	0.088
7	0.58	1.50	0.229	0.187	(0.206)	0.042
8	0.67	1.80	0.275	0.187	(0.247)	0.088
9	0.75	1.80	0.275	0.187	(0.247)	0.088
10	0.83	1.50	0.229	0.187	(0.206)	0.042
11	0.92	1.60	0.244	0.187	(0.220)	0.057
12	1.00	1.80	0.275	0.187	(0.247)	0.088
13	1.08	2.20	0.336	0.187	(0.302)	0.149
14	1.17	2.20	0.336	0.187	(0.302)	0.149
15	1.25	2.20	0.336	0.187	(0.302)	0.149
16	1.33	2.00	0.306	0.187	(0.275)	0.119
17	1.42	2.60	0.397	0.187	(0.357)	0.210
18	1.50	2.70	0.412	0.187	(0.371)	0.225
19	1.58	2.40	0.367	0.187	(0.330)	0.180
20	1.67	2.70	0.412	0.187	(0.371)	0.225
21	1.75	3.30	0.504	0.187	(0.454)	0.317
22	1.83	3.10	0.474	0.187	(0.426)	0.287
23	1.92	2.90	0.443	0.187	(0.399)	0.256
24	2.00	3.00	0.458	0.187	(0.412)	0.271
25	2.08	3.10	0.474	0.187	(0.426)	0.287
26	2.17	4.20	0.642	0.187	(0.577)	0.455
27	2.25	5.00	0.764	0.187	(0.687)	0.577
28	2.33	3.50	0.535	0.187	(0.481)	0.348
29	2.42	6.80	1.039	0.187	(0.935)	0.852
30	2.50	7.30	1.115	0.187	(1.004)	0.928
31	2.58	8.20	1.253	0.187	(1.127)	1.066
32	2.67	5.90	0.901	0.187	(0.811)	0.714
33	2.75	2.00	0.306	0.187	(0.275)	0.119
34	2.83	1.80	0.275	0.187	(0.247)	0.088
35	2.92	1.80	0.275	0.187	(0.247)	0.088
36	3.00	0.60	0.092	(0.187)	0.082	0.009
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	8.7

Flood volume = Effective rainfall 0.73(In)
times area 9.6(Ac.)/[(In)/(Ft.)] = 0.6(Ac.Ft)
Total soil loss = 0.55(In)
Total soil loss = 0.437(Ac.Ft)
Total rainfall = 1.27(In)
Flood volume = 25203.6 Cubic Feet

Total soil loss = 19044.7 Cubic Feet

Peak flow rate of this hydrograph = 9.015(CFS)

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3 - H O U R S T O R M

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

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0 2.5 5.0 7.5 10.0
0+ 5	0.0005	0.07	Q
0+10	0.0016	0.16	Q
0+15	0.0027	0.17	Q
0+20	0.0044	0.25	VQ
0+25	0.0070	0.37	VQ
0+30	0.0107	0.55	V Q
0+35	0.0149	0.60	VQ
0+40	0.0191	0.61	VQ
0+45	0.0246	0.79	V Q
0+50	0.0292	0.67	Q
0+55	0.0328	0.53	Q
1+ 0	0.0374	0.67	Q
1+ 5	0.0444	1.01	VQ
1+10	0.0534	1.31	V Q
1+15	0.0629	1.39	VQ
1+20	0.0720	1.32	VQ
1+25	0.0824	1.52	VQ
1+30	0.0959	1.95	VQ
1+35	0.1092	1.93	Q
1+40	0.1225	1.94	QV
1+45	0.1394	2.45	Q
1+50	0.1585	2.78	VQ
1+55	0.1766	2.64	Q V
2+ 0	0.1944	2.57	Q V
2+ 5	0.2128	2.68	Q V
2+10	0.2357	3.32	Q V
2+15	0.2668	4.51	Q
2+20	0.2973	4.44	Q V
2+25	0.3343	5.38	Q V
2+30	0.3877	7.75	V Q
2+35	0.4498	9.02	V Q
2+40	0.5093	8.64	QV
2+45	0.5458	5.31	Q V
2+50	0.5615	2.27	Q V
2+55	0.5713	1.42	Q V
3+ 0	0.5765	0.76	Q V
3+ 5	0.5779	0.20	Q V

3+10	0.5784	0.07	Q	|	|	|	V|
3+15	0.5786	0.03	Q	|	|	|	V|
3+20	0.5786	0.00	Q	|	|	|	V|

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

Study date 08/01/22 File: A21626Q100UHEX610.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 EXISTING 10YR-6HR UH

Drainage Area = 9.57(Ac.) = 0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 9.57(Ac.) = 0.015 Sq. Mi.
Length along longest watercourse = 541.43(Ft.)
Length along longest watercourse measured to centroid = 471.06(Ft.)
Length along longest watercourse = 0.103 Mi.
Length along longest watercourse measured to centroid = 0.089 Mi.
Difference in elevation = 9.44(Ft.)
Slope along watercourse = 92.0584 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.051 Hr.
Lag time = 3.07 Min.
25% of lag time = 0.77 Min.
40% of lag time = 1.23 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]
        9.57            1.11                  10.63

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        9.57            2.70                  25.85

STORM EVENT (YEAR) =   10.00
Area Averaged 2-Year Rainfall =    1.110(In)
Area Averaged 100-Year Rainfall =    2.700(In)

Point rain (area averaged) =    1.764(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.764(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     9.575           85.00         0.000
 Total Area Entered =      9.57(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-2     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
85.0  85.0      0.187     0.000        0.187       1.000      0.187
                                                 Sum (F) =   0.187
Area averaged mean soil loss (F) (In/Hr) =  0.187
Minimum soil loss rate ((In/Hr)) =  0.094
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.900
------------------------------------------------------------------------

               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        162.684         36.109              3.484
    2   0.167        325.368         46.066              4.445
    3   0.250        488.052         10.495              1.013
    4   0.333        650.736          4.496              0.434
    5   0.417        813.420          2.833              0.273
                              Sum = 100.000   Sum=       9.650
------------------------------------------------------------------------
```

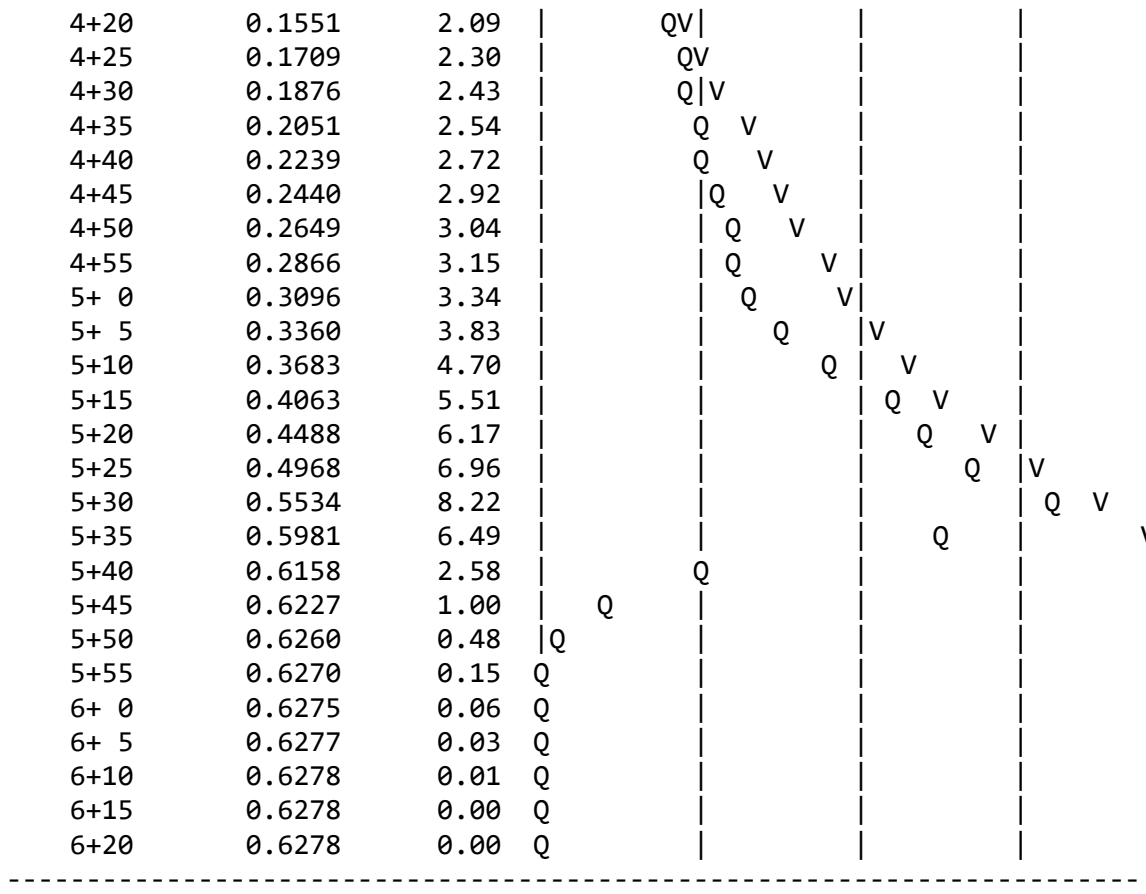
The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.50	0.106	(0.187)	0.095	0.011
2	0.17	0.60	0.127	(0.187)	0.114	0.013
3	0.25	0.60	0.127	(0.187)	0.114	0.013
4	0.33	0.60	0.127	(0.187)	0.114	0.013
5	0.42	0.60	0.127	(0.187)	0.114	0.013
6	0.50	0.70	0.148	(0.187)	0.133	0.015
7	0.58	0.70	0.148	(0.187)	0.133	0.015
8	0.67	0.70	0.148	(0.187)	0.133	0.015
9	0.75	0.70	0.148	(0.187)	0.133	0.015
10	0.83	0.70	0.148	(0.187)	0.133	0.015
11	0.92	0.70	0.148	(0.187)	0.133	0.015
12	1.00	0.80	0.169	(0.187)	0.152	0.017
13	1.08	0.80	0.169	(0.187)	0.152	0.017
14	1.17	0.80	0.169	(0.187)	0.152	0.017
15	1.25	0.80	0.169	(0.187)	0.152	0.017
16	1.33	0.80	0.169	(0.187)	0.152	0.017
17	1.42	0.80	0.169	(0.187)	0.152	0.017
18	1.50	0.80	0.169	(0.187)	0.152	0.017
19	1.58	0.80	0.169	(0.187)	0.152	0.017
20	1.67	0.80	0.169	(0.187)	0.152	0.017
21	1.75	0.80	0.169	(0.187)	0.152	0.017
22	1.83	0.80	0.169	(0.187)	0.152	0.017
23	1.92	0.80	0.169	(0.187)	0.152	0.017
24	2.00	0.90	0.191	(0.187)	0.171	0.019
25	2.08	0.80	0.169	(0.187)	0.152	0.017
26	2.17	0.90	0.191	(0.187)	0.171	0.019
27	2.25	0.90	0.191	(0.187)	0.171	0.019
28	2.33	0.90	0.191	(0.187)	0.171	0.019
29	2.42	0.90	0.191	(0.187)	0.171	0.019
30	2.50	0.90	0.191	(0.187)	0.171	0.019
31	2.58	0.90	0.191	(0.187)	0.171	0.019
32	2.67	0.90	0.191	(0.187)	0.171	0.019
33	2.75	1.00	0.212	0.187	(0.191)	0.025
34	2.83	1.00	0.212	0.187	(0.191)	0.025
35	2.92	1.00	0.212	0.187	(0.191)	0.025
36	3.00	1.00	0.212	0.187	(0.191)	0.025
37	3.08	1.00	0.212	0.187	(0.191)	0.025
38	3.17	1.10	0.233	0.187	(0.210)	0.046
39	3.25	1.10	0.233	0.187	(0.210)	0.046
40	3.33	1.10	0.233	0.187	(0.210)	0.046
41	3.42	1.20	0.254	0.187	(0.229)	0.067
42	3.50	1.30	0.275	0.187	(0.248)	0.088
43	3.58	1.40	0.296	0.187	(0.267)	0.109
44	3.67	1.40	0.296	0.187	(0.267)	0.109

```
45   3.75     1.50      0.318          0.187    (  0.286)        0.131
46   3.83     1.50      0.318          0.187    (  0.286)        0.131
47   3.92     1.60      0.339          0.187    (  0.305)        0.152
48   4.00     1.60      0.339          0.187    (  0.305)        0.152
49   4.08     1.70      0.360          0.187    (  0.324)        0.173
50   4.17     1.80      0.381          0.187    (  0.343)        0.194
51   4.25     1.90      0.402          0.187    (  0.362)        0.215
52   4.33     2.00      0.423          0.187    (  0.381)        0.236
53   4.42     2.10      0.445          0.187    (  0.400)        0.258
54   4.50     2.10      0.445          0.187    (  0.400)        0.258
55   4.58     2.20      0.466          0.187    (  0.419)        0.279
56   4.67     2.30      0.487          0.187    (  0.438)        0.300
57   4.75     2.40      0.508          0.187    (  0.457)        0.321
58   4.83     2.40      0.508          0.187    (  0.457)        0.321
59   4.92     2.50      0.529          0.187    (  0.476)        0.342
60   5.00     2.60      0.550          0.187    (  0.495)        0.363
61   5.08     3.10      0.656          0.187    (  0.591)        0.469
62   5.17     3.60      0.762          0.187    (  0.686)        0.575
63   5.25     3.90      0.826          0.187    (  0.743)        0.639
64   5.33     4.20      0.889          0.187    (  0.800)        0.702
65   5.42     4.70      0.995          0.187    (  0.895)        0.808
66   5.50     5.60      1.185          0.187    (  1.067)        0.998
67   5.58     1.90      0.402          0.187    (  0.362)        0.215
68   5.67     0.90      0.191       (  0.187)       0.171        0.019
69   5.75     0.60      0.127       (  0.187)       0.114        0.013
70   5.83     0.50      0.106       (  0.187)       0.095        0.011
71   5.92     0.30      0.064       (  0.187)       0.057        0.006
72   6.00     0.20      0.042       (  0.187)       0.038        0.004
               (Loss Rate Not Used)
   Sum =     100.0                                    Sum =     9.4
      Flood volume = Effective rainfall      0.79(In)
       times area       9.6(Ac.)/[(In)/(Ft.)] =       0.6(Ac.Ft)
      Total soil loss =      0.98(In)
      Total soil loss =     0.780(Ac.Ft)
      Total rainfall =      1.76(In)
      Flood volume =       27347.6 Cubic Feet
      Total soil loss =       33967.0 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =      8.220(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        2.5       5.0       7.5      10.0
-------------------------------------------------------------------------
  0+ 5       0.0003      0.04  Q         |         |         |         |
```

0+10	0.0009	0.09	Q	|	|	|	|
0+15	0.0017	0.11	Q	|	|	|	|
0+20	0.0025	0.12	Q	|	|	|	|
0+25	0.0033	0.12	Q	|	|	|	|
0+30	0.0042	0.13	Q	|	|	|	|
0+35	0.0052	0.14	Q	|	|	|	|
0+40	0.0061	0.14	Q	|	|	|	|
0+45	0.0071	0.14	Q	|	|	|	|
0+50	0.0081	0.14	Q	|	|	|	|
0+55	0.0091	0.14	Q	|	|	|	|
1+ 0	0.0101	0.15	Q	|	|	|	|
1+ 5	0.0112	0.16	Q	|	|	|	|
1+10	0.0123	0.16	Q	|	|	|	|
1+15	0.0135	0.16	Q	|	|	|	|
1+20	0.0146	0.16	Q	|	|	|	|
1+25	0.0157	0.16	QV	|	|	|	|
1+30	0.0168	0.16	QV	|	|	|	|
1+35	0.0180	0.16	QV	|	|	|	|
1+40	0.0191	0.16	QV	|	|	|	|
1+45	0.0202	0.16	QV	|	|	|	|
1+50	0.0213	0.16	QV	|	|	|	|
1+55	0.0225	0.16	QV	|	|	|	|
2+ 0	0.0236	0.17	QV	|	|	|	|
2+ 5	0.0248	0.17	QV	|	|	|	|
2+10	0.0260	0.17	QV	|	|	|	|
2+15	0.0273	0.18	QV	|	|	|	|
2+20	0.0285	0.18	QV	|	|	|	|
2+25	0.0298	0.18	QV	|	|	|	|
2+30	0.0311	0.18	QV	|	|	|	|
2+35	0.0323	0.18	Q V	|	|	|	|
2+40	0.0336	0.18	Q V	|	|	|	|
2+45	0.0350	0.20	Q V	|	|	|	|
2+50	0.0366	0.23	Q V	|	|	|	|
2+55	0.0382	0.23	Q V	|	|	|	|
3+ 0	0.0398	0.24	Q V	|	|	|	|
3+ 5	0.0415	0.24	Q V	|	|	|	|
3+10	0.0436	0.31	|QV	|	|	|	|
3+15	0.0464	0.41	|QV	|	|	|	|
3+20	0.0494	0.43	|Q V	|	|	|	|
3+25	0.0529	0.51	| QV	|	|	|	|
3+30	0.0576	0.68	| QV	|	|	|	|
3+35	0.0636	0.87	| QV	|	|	|	|
3+40	0.0705	1.00	| QV	|	|	|	|
3+45	0.0781	1.11	| Q	|	|	|	|
3+50	0.0865	1.22	| QV	|	|	|	|
3+55	0.0956	1.32	| QV	|	|	|	|
4+ 0	0.1054	1.42	| QV	|	|	|	|
4+ 5	0.1159	1.52	| QV	|	|	|	|
4+10	0.1276	1.70	| Q V	|	|	|	|
4+15	0.1407	1.90	| QV	|	|	|	|


4+20 0.1551 2.09
4+25 0.1709 2.30
4+30 0.1876 2.43
4+35 0.2051 2.54
4+40 0.2239 2.72
4+45 0.2440 2.92
4+50 0.2649 3.04
4+55 0.2866 3.15
5+ 0 0.3096 3.34
5+ 5 0.3360 3.83
5+10 0.3683 4.70
5+15 0.4063 5.51
5+20 0.4488 6.17
5+25 0.4968 6.96
5+30 0.5534 8.22
5+35 0.5981 6.49
5+40 0.6158 2.58
5+45 0.6227 1.00
5+50 0.6260 0.48
5+55 0.6270 0.15
6+ 0 0.6275 0.06
6+ 5 0.6277 0.03
6+10 0.6278 0.01
6+15 0.6278 0.00
6+20 0.6278 0.00

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

Study date 08/01/22 File: A21626Q100UHEX2410.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 EXISTING 10YR-24HR UH

Drainage Area = 9.57(Ac.) = 0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 9.57(Ac.) = 0.015 Sq. Mi.
Length along longest watercourse = 541.43(Ft.)
Length along longest watercourse measured to centroid = 471.06(Ft.)
Length along longest watercourse = 0.103 Mi.
Length along longest watercourse measured to centroid = 0.089 Mi.
Difference in elevation = 9.44(Ft.)
Slope along watercourse = 92.0584 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.051 Hr.
Lag time = 3.07 Min.
25% of lag time = 0.77 Min.
40% of lag time = 1.23 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]
        9.57            1.90                  18.19

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        9.57            4.80                  45.96

STORM EVENT (YEAR) =   10.00
Area Averaged 2-Year Rainfall =    1.900(In)
Area Averaged 100-Year Rainfall =    4.800(In)

Point rain (area averaged) =    3.093(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    3.093(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     9.575           85.00         0.000
 Total Area Entered =      9.57(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-2     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
85.0  85.0      0.187     0.000        0.187       1.000      0.187
                                                 Sum (F) =   0.187
Area averaged mean soil loss (F) (In/Hr) =  0.187
Minimum soil loss rate ((In/Hr)) =  0.094
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.900
------------------------------------------------------------------------

               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        162.684         36.109              3.484
    2   0.167        325.368         46.066              4.445
    3   0.250        488.052         10.495              1.013
    4   0.333        650.736          4.496              0.434
    5   0.417        813.420          2.833              0.273
                              Sum = 100.000   Sum=       9.650
------------------------------------------------------------------------
```

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	0.025	(0.331)	0.022	0.002
2	0.17	0.07	0.025	(0.330)	0.022	0.002
3	0.25	0.07	0.025	(0.329)	0.022	0.002
4	0.33	0.10	0.037	(0.328)	0.033	0.004
5	0.42	0.10	0.037	(0.326)	0.033	0.004
6	0.50	0.10	0.037	(0.325)	0.033	0.004
7	0.58	0.10	0.037	(0.324)	0.033	0.004
8	0.67	0.10	0.037	(0.323)	0.033	0.004
9	0.75	0.10	0.037	(0.321)	0.033	0.004
10	0.83	0.13	0.049	(0.320)	0.045	0.005
11	0.92	0.13	0.049	(0.319)	0.045	0.005
12	1.00	0.13	0.049	(0.318)	0.045	0.005
13	1.08	0.10	0.037	(0.316)	0.033	0.004
14	1.17	0.10	0.037	(0.315)	0.033	0.004
15	1.25	0.10	0.037	(0.314)	0.033	0.004
16	1.33	0.10	0.037	(0.313)	0.033	0.004
17	1.42	0.10	0.037	(0.311)	0.033	0.004
18	1.50	0.10	0.037	(0.310)	0.033	0.004
19	1.58	0.10	0.037	(0.309)	0.033	0.004
20	1.67	0.10	0.037	(0.308)	0.033	0.004
21	1.75	0.10	0.037	(0.306)	0.033	0.004
22	1.83	0.13	0.049	(0.305)	0.045	0.005
23	1.92	0.13	0.049	(0.304)	0.045	0.005
24	2.00	0.13	0.049	(0.303)	0.045	0.005
25	2.08	0.13	0.049	(0.301)	0.045	0.005
26	2.17	0.13	0.049	(0.300)	0.045	0.005
27	2.25	0.13	0.049	(0.299)	0.045	0.005
28	2.33	0.13	0.049	(0.298)	0.045	0.005
29	2.42	0.13	0.049	(0.297)	0.045	0.005
30	2.50	0.13	0.049	(0.295)	0.045	0.005
31	2.58	0.17	0.062	(0.294)	0.056	0.006
32	2.67	0.17	0.062	(0.293)	0.056	0.006
33	2.75	0.17	0.062	(0.292)	0.056	0.006
34	2.83	0.17	0.062	(0.291)	0.056	0.006
35	2.92	0.17	0.062	(0.289)	0.056	0.006
36	3.00	0.17	0.062	(0.288)	0.056	0.006
37	3.08	0.17	0.062	(0.287)	0.056	0.006
38	3.17	0.17	0.062	(0.286)	0.056	0.006
39	3.25	0.17	0.062	(0.285)	0.056	0.006
40	3.33	0.17	0.062	(0.283)	0.056	0.006
41	3.42	0.17	0.062	(0.282)	0.056	0.006
42	3.50	0.17	0.062	(0.281)	0.056	0.006
43	3.58	0.17	0.062	(0.280)	0.056	0.006
44	3.67	0.17	0.062	(0.279)	0.056	0.006

45	3.75	0.17	0.062	(0.277)	0.056	0.006
46	3.83	0.20	0.074	(0.276)	0.067	0.007
47	3.92	0.20	0.074	(0.275)	0.067	0.007
48	4.00	0.20	0.074	(0.274)	0.067	0.007
49	4.08	0.20	0.074	(0.273)	0.067	0.007
50	4.17	0.20	0.074	(0.272)	0.067	0.007
51	4.25	0.20	0.074	(0.270)	0.067	0.007
52	4.33	0.23	0.087	(0.269)	0.078	0.009
53	4.42	0.23	0.087	(0.268)	0.078	0.009
54	4.50	0.23	0.087	(0.267)	0.078	0.009
55	4.58	0.23	0.087	(0.266)	0.078	0.009
56	4.67	0.23	0.087	(0.265)	0.078	0.009
57	4.75	0.23	0.087	(0.264)	0.078	0.009
58	4.83	0.27	0.099	(0.262)	0.089	0.010
59	4.92	0.27	0.099	(0.261)	0.089	0.010
60	5.00	0.27	0.099	(0.260)	0.089	0.010
61	5.08	0.20	0.074	(0.259)	0.067	0.007
62	5.17	0.20	0.074	(0.258)	0.067	0.007
63	5.25	0.20	0.074	(0.257)	0.067	0.007
64	5.33	0.23	0.087	(0.256)	0.078	0.009
65	5.42	0.23	0.087	(0.255)	0.078	0.009
66	5.50	0.23	0.087	(0.253)	0.078	0.009
67	5.58	0.27	0.099	(0.252)	0.089	0.010
68	5.67	0.27	0.099	(0.251)	0.089	0.010
69	5.75	0.27	0.099	(0.250)	0.089	0.010
70	5.83	0.27	0.099	(0.249)	0.089	0.010
71	5.92	0.27	0.099	(0.248)	0.089	0.010
72	6.00	0.27	0.099	(0.247)	0.089	0.010
73	6.08	0.30	0.111	(0.246)	0.100	0.011
74	6.17	0.30	0.111	(0.245)	0.100	0.011
75	6.25	0.30	0.111	(0.244)	0.100	0.011
76	6.33	0.30	0.111	(0.242)	0.100	0.011
77	6.42	0.30	0.111	(0.241)	0.100	0.011
78	6.50	0.30	0.111	(0.240)	0.100	0.011
79	6.58	0.33	0.124	(0.239)	0.111	0.012
80	6.67	0.33	0.124	(0.238)	0.111	0.012
81	6.75	0.33	0.124	(0.237)	0.111	0.012
82	6.83	0.33	0.124	(0.236)	0.111	0.012
83	6.92	0.33	0.124	(0.235)	0.111	0.012
84	7.00	0.33	0.124	(0.234)	0.111	0.012
85	7.08	0.33	0.124	(0.233)	0.111	0.012
86	7.17	0.33	0.124	(0.232)	0.111	0.012
87	7.25	0.33	0.124	(0.231)	0.111	0.012
88	7.33	0.37	0.136	(0.230)	0.122	0.014
89	7.42	0.37	0.136	(0.229)	0.122	0.014
90	7.50	0.37	0.136	(0.228)	0.122	0.014
91	7.58	0.40	0.148	(0.226)	0.134	0.015
92	7.67	0.40	0.148	(0.225)	0.134	0.015
93	7.75	0.40	0.148	(0.224)	0.134	0.015
94	7.83	0.43	0.161	(0.223)	0.145	0.016

95	7.92	0.43	0.161	(	0.222)	0.145		0.016
96	8.00	0.43	0.161	(	0.221)	0.145		0.016
97	8.08	0.50	0.186	(	0.220)	0.167		0.019
98	8.17	0.50	0.186	(	0.219)	0.167		0.019
99	8.25	0.50	0.186	(	0.218)	0.167		0.019
100	8.33	0.50	0.186	(	0.217)	0.167		0.019
101	8.42	0.50	0.186	(	0.216)	0.167		0.019
102	8.50	0.50	0.186	(	0.215)	0.167		0.019
103	8.58	0.53	0.198	(	0.214)	0.178		0.020
104	8.67	0.53	0.198	(	0.213)	0.178		0.020
105	8.75	0.53	0.198	(	0.212)	0.178		0.020
106	8.83	0.57	0.210	(	0.211)	0.189		0.021
107	8.92	0.57	0.210	(	0.210)	0.189		0.021
108	9.00	0.57	0.210	(	0.209)	0.189		0.021
109	9.08	0.63	0.235		0.208	(0.212)		0.027
110	9.17	0.63	0.235		0.207	(0.212)		0.028
111	9.25	0.63	0.235		0.206	(0.212)		0.029
112	9.33	0.67	0.247		0.205	(0.223)		0.042
113	9.42	0.67	0.247		0.204	(0.223)		0.043
114	9.50	0.67	0.247		0.203	(0.223)		0.044
115	9.58	0.70	0.260		0.202	(0.234)		0.058
116	9.67	0.70	0.260		0.201	(0.234)		0.058
117	9.75	0.70	0.260		0.200	(0.234)		0.059
118	9.83	0.73	0.272		0.199	(0.245)		0.073
119	9.92	0.73	0.272		0.198	(0.245)		0.074
120	10.00	0.73	0.272		0.197	(0.245)		0.075
121	10.08	0.50	0.186	(	0.197)	0.167		0.019
122	10.17	0.50	0.186	(	0.196)	0.167		0.019
123	10.25	0.50	0.186	(	0.195)	0.167		0.019
124	10.33	0.50	0.186	(	0.194)	0.167		0.019
125	10.42	0.50	0.186	(	0.193)	0.167		0.019
126	10.50	0.50	0.186	(	0.192)	0.167		0.019
127	10.58	0.67	0.247		0.191	(0.223)		0.057
128	10.67	0.67	0.247		0.190	(0.223)		0.058
129	10.75	0.67	0.247		0.189	(0.223)		0.058
130	10.83	0.67	0.247		0.188	(0.223)		0.059
131	10.92	0.67	0.247		0.187	(0.223)		0.060
132	11.00	0.67	0.247		0.186	(0.223)		0.061
133	11.08	0.63	0.235		0.185	(0.212)		0.050
134	11.17	0.63	0.235		0.184	(0.212)		0.051
135	11.25	0.63	0.235		0.183	(0.212)		0.052
136	11.33	0.63	0.235		0.183	(0.212)		0.052
137	11.42	0.63	0.235		0.182	(0.212)		0.053
138	11.50	0.63	0.235		0.181	(0.212)		0.054
139	11.58	0.57	0.210		0.180	(0.189)		0.030
140	11.67	0.57	0.210		0.179	(0.189)		0.031
141	11.75	0.57	0.210		0.178	(0.189)		0.032
142	11.83	0.60	0.223		0.177	(0.200)		0.045
143	11.92	0.60	0.223		0.176	(0.200)		0.046
144	12.00	0.60	0.223		0.175	(0.200)		0.047

145	12.08	0.83	0.309		0.175	(0.278)		0.135
146	12.17	0.83	0.309		0.174	(0.278)		0.136
147	12.25	0.83	0.309		0.173	(0.278)		0.136
148	12.33	0.87	0.322		0.172	(0.290)		0.150
149	12.42	0.87	0.322		0.171	(0.290)		0.151
150	12.50	0.87	0.322		0.170	(0.290)		0.151
151	12.58	0.93	0.346		0.169	(0.312)		0.177
152	12.67	0.93	0.346		0.169	(0.312)		0.178
153	12.75	0.93	0.346		0.168	(0.312)		0.179
154	12.83	0.97	0.359		0.167	(0.323)		0.192
155	12.92	0.97	0.359		0.166	(0.323)		0.193
156	13.00	0.97	0.359		0.165	(0.323)		0.194
157	13.08	1.13	0.421		0.164	(0.379)		0.256
158	13.17	1.13	0.421		0.163	(0.379)		0.257
159	13.25	1.13	0.421		0.163	(0.379)		0.258
160	13.33	1.13	0.421		0.162	(0.379)		0.259
161	13.42	1.13	0.421		0.161	(0.379)		0.260
162	13.50	1.13	0.421		0.160	(0.379)		0.260
163	13.58	0.77	0.285		0.159	(0.256)		0.125
164	13.67	0.77	0.285		0.159	(0.256)		0.126
165	13.75	0.77	0.285		0.158	(0.256)		0.127
166	13.83	0.77	0.285		0.157	(0.256)		0.128
167	13.92	0.77	0.285		0.156	(0.256)		0.128
168	14.00	0.77	0.285		0.155	(0.256)		0.129
169	14.08	0.90	0.334		0.155	(0.301)		0.180
170	14.17	0.90	0.334		0.154	(0.301)		0.180
171	14.25	0.90	0.334		0.153	(0.301)		0.181
172	14.33	0.87	0.322		0.152	(0.290)		0.169
173	14.42	0.87	0.322		0.151	(0.290)		0.170
174	14.50	0.87	0.322		0.151	(0.290)		0.171
175	14.58	0.87	0.322		0.150	(0.290)		0.172
176	14.67	0.87	0.322		0.149	(0.290)		0.173
177	14.75	0.87	0.322		0.148	(0.290)		0.173
178	14.83	0.83	0.309		0.148	(0.278)		0.162
179	14.92	0.83	0.309		0.147	(0.278)		0.162
180	15.00	0.83	0.309		0.146	(0.278)		0.163
181	15.08	0.80	0.297		0.145	(0.267)		0.152
182	15.17	0.80	0.297		0.145	(0.267)		0.152
183	15.25	0.80	0.297		0.144	(0.267)		0.153
184	15.33	0.77	0.285		0.143	(0.256)		0.141
185	15.42	0.77	0.285		0.142	(0.256)		0.142
186	15.50	0.77	0.285		0.142	(0.256)		0.143
187	15.58	0.63	0.235		0.141	(0.212)		0.094
188	15.67	0.63	0.235		0.140	(0.212)		0.095
189	15.75	0.63	0.235		0.139	(0.212)		0.096
190	15.83	0.63	0.235		0.139	(0.212)		0.096
191	15.92	0.63	0.235		0.138	(0.212)		0.097
192	16.00	0.63	0.235		0.137	(0.212)		0.098
193	16.08	0.13	0.049	(	0.137)	0.045		0.005
194	16.17	0.13	0.049	(	0.136)	0.045		0.005

195	16.25	0.13	0.049	(0.135)	0.045	0.005
196	16.33	0.13	0.049	(0.135)	0.045	0.005
197	16.42	0.13	0.049	(0.134)	0.045	0.005
198	16.50	0.13	0.049	(0.133)	0.045	0.005
199	16.58	0.10	0.037	(0.132)	0.033	0.004
200	16.67	0.10	0.037	(0.132)	0.033	0.004
201	16.75	0.10	0.037	(0.131)	0.033	0.004
202	16.83	0.10	0.037	(0.130)	0.033	0.004
203	16.92	0.10	0.037	(0.130)	0.033	0.004
204	17.00	0.10	0.037	(0.129)	0.033	0.004
205	17.08	0.17	0.062	(0.129)	0.056	0.006
206	17.17	0.17	0.062	(0.128)	0.056	0.006
207	17.25	0.17	0.062	(0.127)	0.056	0.006
208	17.33	0.17	0.062	(0.127)	0.056	0.006
209	17.42	0.17	0.062	(0.126)	0.056	0.006
210	17.50	0.17	0.062	(0.125)	0.056	0.006
211	17.58	0.17	0.062	(0.125)	0.056	0.006
212	17.67	0.17	0.062	(0.124)	0.056	0.006
213	17.75	0.17	0.062	(0.123)	0.056	0.006
214	17.83	0.13	0.049	(0.123)	0.045	0.005
215	17.92	0.13	0.049	(0.122)	0.045	0.005
216	18.00	0.13	0.049	(0.122)	0.045	0.005
217	18.08	0.13	0.049	(0.121)	0.045	0.005
218	18.17	0.13	0.049	(0.120)	0.045	0.005
219	18.25	0.13	0.049	(0.120)	0.045	0.005
220	18.33	0.13	0.049	(0.119)	0.045	0.005
221	18.42	0.13	0.049	(0.119)	0.045	0.005
222	18.50	0.13	0.049	(0.118)	0.045	0.005
223	18.58	0.10	0.037	(0.118)	0.033	0.004
224	18.67	0.10	0.037	(0.117)	0.033	0.004
225	18.75	0.10	0.037	(0.116)	0.033	0.004
226	18.83	0.07	0.025	(0.116)	0.022	0.002
227	18.92	0.07	0.025	(0.115)	0.022	0.002
228	19.00	0.07	0.025	(0.115)	0.022	0.002
229	19.08	0.10	0.037	(0.114)	0.033	0.004
230	19.17	0.10	0.037	(0.114)	0.033	0.004
231	19.25	0.10	0.037	(0.113)	0.033	0.004
232	19.33	0.13	0.049	(0.113)	0.045	0.005
233	19.42	0.13	0.049	(0.112)	0.045	0.005
234	19.50	0.13	0.049	(0.112)	0.045	0.005
235	19.58	0.10	0.037	(0.111)	0.033	0.004
236	19.67	0.10	0.037	(0.111)	0.033	0.004
237	19.75	0.10	0.037	(0.110)	0.033	0.004
238	19.83	0.07	0.025	(0.110)	0.022	0.002
239	19.92	0.07	0.025	(0.109)	0.022	0.002
240	20.00	0.07	0.025	(0.109)	0.022	0.002
241	20.08	0.10	0.037	(0.108)	0.033	0.004
242	20.17	0.10	0.037	(0.108)	0.033	0.004
243	20.25	0.10	0.037	(0.107)	0.033	0.004
244	20.33	0.10	0.037	(0.107)	0.033	0.004

245	20.42	0.10	0.037	(0.106)	0.033	0.004
246	20.50	0.10	0.037	(0.106)	0.033	0.004
247	20.58	0.10	0.037	(0.105)	0.033	0.004
248	20.67	0.10	0.037	(0.105)	0.033	0.004
249	20.75	0.10	0.037	(0.104)	0.033	0.004
250	20.83	0.07	0.025	(0.104)	0.022	0.002
251	20.92	0.07	0.025	(0.104)	0.022	0.002
252	21.00	0.07	0.025	(0.103)	0.022	0.002
253	21.08	0.10	0.037	(0.103)	0.033	0.004
254	21.17	0.10	0.037	(0.102)	0.033	0.004
255	21.25	0.10	0.037	(0.102)	0.033	0.004
256	21.33	0.07	0.025	(0.102)	0.022	0.002
257	21.42	0.07	0.025	(0.101)	0.022	0.002
258	21.50	0.07	0.025	(0.101)	0.022	0.002
259	21.58	0.10	0.037	(0.100)	0.033	0.004
260	21.67	0.10	0.037	(0.100)	0.033	0.004
261	21.75	0.10	0.037	(0.100)	0.033	0.004
262	21.83	0.07	0.025	(0.099)	0.022	0.002
263	21.92	0.07	0.025	(0.099)	0.022	0.002
264	22.00	0.07	0.025	(0.099)	0.022	0.002
265	22.08	0.10	0.037	(0.098)	0.033	0.004
266	22.17	0.10	0.037	(0.098)	0.033	0.004
267	22.25	0.10	0.037	(0.098)	0.033	0.004
268	22.33	0.07	0.025	(0.097)	0.022	0.002
269	22.42	0.07	0.025	(0.097)	0.022	0.002
270	22.50	0.07	0.025	(0.097)	0.022	0.002
271	22.58	0.07	0.025	(0.097)	0.022	0.002
272	22.67	0.07	0.025	(0.096)	0.022	0.002
273	22.75	0.07	0.025	(0.096)	0.022	0.002
274	22.83	0.07	0.025	(0.096)	0.022	0.002
275	22.92	0.07	0.025	(0.096)	0.022	0.002
276	23.00	0.07	0.025	(0.095)	0.022	0.002
277	23.08	0.07	0.025	(0.095)	0.022	0.002
278	23.17	0.07	0.025	(0.095)	0.022	0.002
279	23.25	0.07	0.025	(0.095)	0.022	0.002
280	23.33	0.07	0.025	(0.095)	0.022	0.002
281	23.42	0.07	0.025	(0.094)	0.022	0.002
282	23.50	0.07	0.025	(0.094)	0.022	0.002
283	23.58	0.07	0.025	(0.094)	0.022	0.002
284	23.67	0.07	0.025	(0.094)	0.022	0.002
285	23.75	0.07	0.025	(0.094)	0.022	0.002
286	23.83	0.07	0.025	(0.094)	0.022	0.002
287	23.92	0.07	0.025	(0.094)	0.022	0.002
288	24.00	0.07	0.025	(0.094)	0.022	0.002

(Loss Rate Not Used)

Sum = 100.0 Sum = 10.8

Flood volume = Effective rainfall 0.90(In)
times area 9.6(Ac.)/[(In)/(Ft.)] = 0.7(Ac.Ft)
Total soil loss = 2.20(In)
Total soil loss = 1.752(Ac.Ft)

Total rainfall = 3.09(In)
Flood volume = 31201.4 Cubic Feet
Total soil loss = 76303.7 Cubic Feet

Peak flow rate of this hydrograph = 2.508(CFS)

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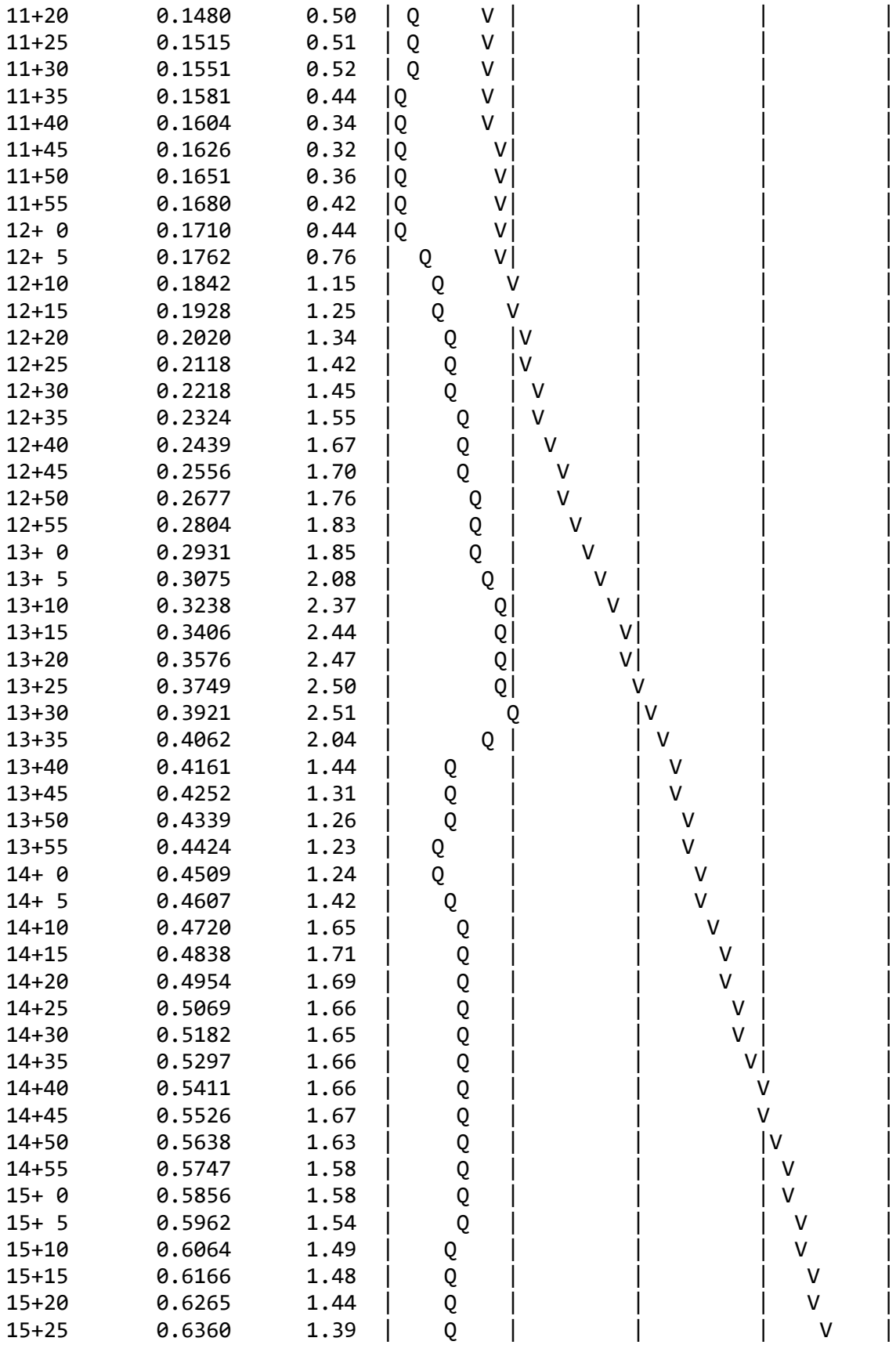
24 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	2.5	5.0	7.5	10.0
0+ 5	0.0001	0.01	Q				
0+10	0.0002	0.02	Q				
0+15	0.0003	0.02	Q				
0+20	0.0005	0.03	Q				
0+25	0.0008	0.03	Q				
0+30	0.0010	0.03	Q				
0+35	0.0013	0.04	Q				
0+40	0.0015	0.04	Q				
0+45	0.0017	0.04	Q				
0+50	0.0020	0.04	Q				
0+55	0.0023	0.05	Q				
1+ 0	0.0027	0.05	Q				
1+ 5	0.0030	0.04	Q				
1+10	0.0032	0.04	Q				
1+15	0.0035	0.04	Q				
1+20	0.0037	0.04	Q				
1+25	0.0040	0.04	Q				
1+30	0.0042	0.04	Q				
1+35	0.0045	0.04	Q				
1+40	0.0047	0.04	Q				
1+45	0.0050	0.04	Q				
1+50	0.0052	0.04	Q				
1+55	0.0055	0.05	Q				
2+ 0	0.0059	0.05	Q				
2+ 5	0.0062	0.05	Q				
2+10	0.0065	0.05	Q				
2+15	0.0069	0.05	Q				
2+20	0.0072	0.05	Q				
2+25	0.0075	0.05	Q				
2+30	0.0078	0.05	Q				
2+35	0.0082	0.05	Q				
2+40	0.0086	0.06	Q				
2+45	0.0090	0.06	Q				
2+50	0.0094	0.06	Q				
2+55	0.0098	0.06	Q				

3+ 0	0.0102	0.06	Q				
3+ 5	0.0106	0.06	Q				
3+10	0.0111	0.06	Q				
3+15	0.0115	0.06	Q				
3+20	0.0119	0.06	Q				
3+25	0.0123	0.06	Q				
3+30	0.0127	0.06	Q				
3+35	0.0131	0.06	Q				
3+40	0.0135	0.06	Q				
3+45	0.0139	0.06	Q				
3+50	0.0144	0.06	Q				
3+55	0.0149	0.07	Q				
4+ 0	0.0153	0.07	Q				
4+ 5	0.0158	0.07	Q				
4+10	0.0163	0.07	Q				
4+15	0.0168	0.07	Q				
4+20	0.0173	0.08	Q				
4+25	0.0179	0.08	Q				
4+30	0.0185	0.08	QV				
4+35	0.0191	0.08	QV				
4+40	0.0196	0.08	QV				
4+45	0.0202	0.08	QV				
4+50	0.0208	0.09	QV				
4+55	0.0215	0.09	QV				
5+ 0	0.0221	0.09	QV				
5+ 5	0.0227	0.09	QV				
5+10	0.0232	0.08	QV				
5+15	0.0237	0.07	QV				
5+20	0.0243	0.08	QV				
5+25	0.0248	0.08	QV				
5+30	0.0254	0.08	QV				
5+35	0.0260	0.09	QV				
5+40	0.0266	0.09	QV				
5+45	0.0273	0.09	QV				
5+50	0.0279	0.10	QV				
5+55	0.0286	0.10	QV				
6+ 0	0.0293	0.10	QV				
6+ 5	0.0299	0.10	QV				
6+10	0.0307	0.11	QV				
6+15	0.0314	0.11	QV				
6+20	0.0321	0.11	QV				
6+25	0.0329	0.11	QV				
6+30	0.0336	0.11	QV				
6+35	0.0344	0.11	QV				
6+40	0.0352	0.12	QV				
6+45	0.0360	0.12	Q V				
6+50	0.0368	0.12	Q V				
6+55	0.0377	0.12	Q V				
7+ 0	0.0385	0.12	Q V				
7+ 5	0.0393	0.12	Q V				

7+10	0.0401	0.12	Q V	|	|	|	|
7+15	0.0410	0.12	Q V	|	|	|	|
7+20	0.0418	0.12	Q V	|	|	|	|
7+25	0.0427	0.13	Q V	|	|	|	|
7+30	0.0436	0.13	Q V	|	|	|	|
7+35	0.0445	0.14	Q V	|	|	|	|
7+40	0.0455	0.14	Q V	|	|	|	|
7+45	0.0465	0.14	Q V	|	|	|	|
7+50	0.0475	0.15	Q V	|	|	|	|
7+55	0.0485	0.15	Q V	|	|	|	|
8+ 0	0.0496	0.15	Q V	|	|	|	|
8+ 5	0.0507	0.16	Q V	|	|	|	|
8+10	0.0519	0.17	Q V	|	|	|	|
8+15	0.0532	0.18	Q V	|	|	|	|
8+20	0.0544	0.18	Q V	|	|	|	|
8+25	0.0556	0.18	Q V	|	|	|	|
8+30	0.0569	0.18	Q V	|	|	|	|
8+35	0.0581	0.18	Q V	|	|	|	|
8+40	0.0594	0.19	Q V	|	|	|	|
8+45	0.0607	0.19	Q V	|	|	|	|
8+50	0.0621	0.20	Q V	|	|	|	|
8+55	0.0635	0.20	Q V	|	|	|	|
9+ 0	0.0649	0.20	Q V	|	|	|	|
9+ 5	0.0664	0.22	Q V	|	|	|	|
9+10	0.0681	0.25	|Q V	|	|	|	|
9+15	0.0700	0.27	|Q V	|	|	|	|
9+20	0.0722	0.32	|Q V	|	|	|	|
9+25	0.0749	0.39	|Q V	|	|	|	|
9+30	0.0777	0.41	|Q V	|	|	|	|
9+35	0.0809	0.47	|Q V	|	|	|	|
9+40	0.0846	0.53	| Q V	|	|	|	|
9+45	0.0884	0.56	| Q V	|	|	|	|
9+50	0.0926	0.61	| Q V	|	|	|	|
9+55	0.0973	0.68	| Q V	|	|	|	|
10+ 0	0.1022	0.70	| Q V	|	|	|	|
10+ 5	0.1058	0.52	| Q V	|	|	|	|
10+10	0.1077	0.27	|Q V	|	|	|	|
10+15	0.1092	0.22	Q V	|	|	|	|
10+20	0.1105	0.19	Q V	|	|	|	|
10+25	0.1117	0.18	Q V	|	|	|	|
10+30	0.1130	0.18	Q V	|	|	|	|
10+35	0.1151	0.31	|Q V	|	|	|	|
10+40	0.1185	0.48	|Q V	|	|	|	|
10+45	0.1221	0.53	| Q V	|	|	|	|
10+50	0.1259	0.55	| Q V	|	|	|	|
10+55	0.1299	0.57	| Q V	|	|	|	|
11+ 0	0.1339	0.58	| Q V	|	|	|	|
11+ 5	0.1377	0.55	| Q V	|	|	|	|
11+10	0.1411	0.50	| Q V	|	|	|	|
11+15	0.1446	0.50	|Q V	|	|	|	|



15+30	0.6456	1.38	| Q	|	|	| V	|
15+35	0.6539	1.21	| Q	|	|	| V	|
15+40	0.6608	0.99	| Q	|	|	| V	|
15+45	0.6673	0.95	| Q	|	|	| V	|
15+50	0.6738	0.94	| Q	|	|	| V	|
15+55	0.6802	0.93	| Q	|	|	| V	|
16+ 0	0.6866	0.94	| Q	|	|	| V	|
16+ 5	0.6909	0.62	| Q	|	|	| V	|
16+10	0.6923	0.21	Q	|	|	| V	|
16+15	0.6931	0.11	Q	|	|	| V	|
16+20	0.6936	0.07	Q	|	|	| V	|
16+25	0.6939	0.05	Q	|	|	| V	|
16+30	0.6943	0.05	Q	|	|	| V	|
16+35	0.6946	0.04	Q	|	|	| V	|
16+40	0.6948	0.04	Q	|	|	| V	|
16+45	0.6951	0.04	Q	|	|	| V	|
16+50	0.6953	0.04	Q	|	|	| V	|
16+55	0.6956	0.04	Q	|	|	| V	|
17+ 0	0.6958	0.04	Q	|	|	| V	|
17+ 5	0.6961	0.04	Q	|	|	| V	|
17+10	0.6965	0.06	Q	|	|	| V	|
17+15	0.6969	0.06	Q	|	|	| V	|
17+20	0.6973	0.06	Q	|	|	| V	|
17+25	0.6977	0.06	Q	|	|	| V	|
17+30	0.6981	0.06	Q	|	|	| V	|
17+35	0.6985	0.06	Q	|	|	| V	|
17+40	0.6990	0.06	Q	|	|	| V	|
17+45	0.6994	0.06	Q	|	|	| V	|
17+50	0.6998	0.06	Q	|	|	| V	|
17+55	0.7001	0.05	Q	|	|	| V	|
18+ 0	0.7004	0.05	Q	|	|	| V	|
18+ 5	0.7008	0.05	Q	|	|	| V	|
18+10	0.7011	0.05	Q	|	|	| V	|
18+15	0.7014	0.05	Q	|	|	| V	|
18+20	0.7018	0.05	Q	|	|	| V	|
18+25	0.7021	0.05	Q	|	|	| V	|
18+30	0.7024	0.05	Q	|	|	| V	|
18+35	0.7027	0.04	Q	|	|	| V	|
18+40	0.7030	0.04	Q	|	|	| V	|
18+45	0.7032	0.04	Q	|	|	| V	|
18+50	0.7034	0.03	Q	|	|	| V	|
18+55	0.7036	0.03	Q	|	|	| V	|
19+ 0	0.7038	0.02	Q	|	|	| V	|
19+ 5	0.7040	0.03	Q	|	|	| V	|
19+10	0.7042	0.03	Q	|	|	| V	|
19+15	0.7045	0.03	Q	|	|	| V	|
19+20	0.7047	0.04	Q	|	|	| V	|
19+25	0.7050	0.05	Q	|	|	| V	|
19+30	0.7054	0.05	Q	|	|	| V	|
19+35	0.7057	0.04	Q	|	|	| V	|

19+40	0.7059	0.04	Q	|	|	|	V|
19+45	0.7062	0.04	Q	|	|	|	V|
19+50	0.7064	0.03	Q	|	|	|	V|
19+55	0.7066	0.03	Q	|	|	|	V|
20+ 0	0.7068	0.02	Q	|	|	|	V|
20+ 5	0.7069	0.03	Q	|	|	|	V|
20+10	0.7072	0.03	Q	|	|	|	V|
20+15	0.7074	0.03	Q	|	|	|	V|
20+20	0.7077	0.04	Q	|	|	|	V|
20+25	0.7079	0.04	Q	|	|	|	V|
20+30	0.7082	0.04	Q	|	|	|	V|
20+35	0.7084	0.04	Q	|	|	|	V|
20+40	0.7087	0.04	Q	|	|	|	V|
20+45	0.7089	0.04	Q	|	|	|	V|
20+50	0.7091	0.03	Q	|	|	|	V|
20+55	0.7093	0.03	Q	|	|	|	V|
21+ 0	0.7095	0.02	Q	|	|	|	V|
21+ 5	0.7097	0.03	Q	|	|	|	V|
21+10	0.7099	0.03	Q	|	|	|	V|
21+15	0.7101	0.03	Q	|	|	|	V|
21+20	0.7104	0.03	Q	|	|	|	V|
21+25	0.7105	0.03	Q	|	|	|	V|
21+30	0.7107	0.02	Q	|	|	|	V|
21+35	0.7109	0.03	Q	|	|	|	V|
21+40	0.7111	0.03	Q	|	|	|	V|
21+45	0.7114	0.03	Q	|	|	|	V|
21+50	0.7116	0.03	Q	|	|	|	V|
21+55	0.7118	0.03	Q	|	|	|	V|
22+ 0	0.7119	0.02	Q	|	|	|	V|
22+ 5	0.7121	0.03	Q	|	|	|	V|
22+10	0.7124	0.03	Q	|	|	|	V|
22+15	0.7126	0.03	Q	|	|	|	V|
22+20	0.7128	0.03	Q	|	|	|	V|
22+25	0.7130	0.03	Q	|	|	|	V|
22+30	0.7132	0.02	Q	|	|	|	V|
22+35	0.7133	0.02	Q	|	|	|	V|
22+40	0.7135	0.02	Q	|	|	|	V|
22+45	0.7137	0.02	Q	|	|	|	V|
22+50	0.7138	0.02	Q	|	|	|	V|
22+55	0.7140	0.02	Q	|	|	|	V|
23+ 0	0.7142	0.02	Q	|	|	|	V|
23+ 5	0.7143	0.02	Q	|	|	|	V|
23+10	0.7145	0.02	Q	|	|	|	V|
23+15	0.7147	0.02	Q	|	|	|	V|
23+20	0.7148	0.02	Q	|	|	|	V|
23+25	0.7150	0.02	Q	|	|	|	V|
23+30	0.7151	0.02	Q	|	|	|	V|
23+35	0.7153	0.02	Q	|	|	|	V|
23+40	0.7155	0.02	Q	|	|	|	V|
23+45	0.7156	0.02	Q	|	|	|	V|

```
   23+50       0.7158      0.02  Q         |         |         |        V|
   23+55       0.7160      0.02  Q         |         |         |        V|
   24+ 0       0.7161      0.02  Q         |         |         |        V|
   24+ 5       0.7162      0.02  Q         |         |         |        V|
   24+10       0.7163      0.00  Q         |         |         |        V|
   24+15       0.7163      0.00  Q         |         |         |        V|
   24+20       0.7163      0.00  Q         |         |         |         V
-------------------------------------------------------------------------
```

Existing 100-Year

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

Study date 08/01/22 File: A21626Q100UHEX1100.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 EXISTING 100YR-1HR UH

Drainage Area = 9.57(Ac.) = 0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 9.57(Ac.) = 0.015 Sq. Mi.
Length along longest watercourse = 541.43(Ft.)
Length along longest watercourse measured to centroid = 471.06(Ft.)
Length along longest watercourse = 0.103 Mi.
Length along longest watercourse measured to centroid = 0.089 Mi.
Difference in elevation = 9.44(Ft.)
Slope along watercourse = 92.0584 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.051 Hr.
Lag time = 3.07 Min.
25% of lag time = 0.77 Min.
40% of lag time = 1.23 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]
        9.57            0.48                   4.60

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        9.57            1.25                  11.97

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.480(In)
Area Averaged 100-Year Rainfall =    1.250(In)

Point rain (area averaged) =    1.250(In)
Areal adjustment factor =   99.99 %
Adjusted average point rain =    1.250(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     9.575           85.00         0.000
 Total Area Entered =      9.57(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
85.0  94.0      0.078     0.000        0.078       1.000      0.078
                                                 Sum (F) =   0.078
Area averaged mean soil loss (F) (In/Hr) =  0.078
Minimum soil loss rate ((In/Hr)) =  0.039
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.900
------------------------------------------------------------------------
Slope of intensity-duration curve for a 1 hour storm =0.4800
------------------------------------------------------------------------

               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        162.684         36.109              3.484
    2   0.167        325.368         46.066              4.445
    3   0.250        488.052         10.495              1.013
    4   0.333        650.736          4.496              0.434
    5   0.417        813.420          2.833              0.273
                              Sum = 100.000   Sum=       9.650
```

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	4.40	0.660	0.078	(0.594)	0.582
2	0.17	4.50	0.675	0.078	(0.607)	0.597
3	0.25	5.40	0.810	0.078	(0.729)	0.732
4	0.33	5.40	0.810	0.078	(0.729)	0.732
5	0.42	5.70	0.855	0.078	(0.769)	0.777
6	0.50	6.40	0.960	0.078	(0.864)	0.882
7	0.58	7.90	1.185	0.078	(1.066)	1.107
8	0.67	9.10	1.365	0.078	(1.228)	1.287
9	0.75	12.80	1.920	0.078	(1.728)	1.842
10	0.83	25.60	3.840	0.078	(3.456)	3.762
11	0.92	7.90	1.185	0.078	(1.066)	1.107
12	1.00	4.90	0.735	0.078	(0.661)	0.657
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	14.1

Flood volume = Effective rainfall 1.17(In)
times area 9.6(Ac.)/[(In)/(Ft.)] = 0.9(Ac.Ft)
Total soil loss = 0.08(In)
Total soil loss = 0.062(Ac.Ft)
Total rainfall = 1.25(In)
Flood volume = 40731.7 Cubic Feet
Total soil loss = 2711.1 Cubic Feet

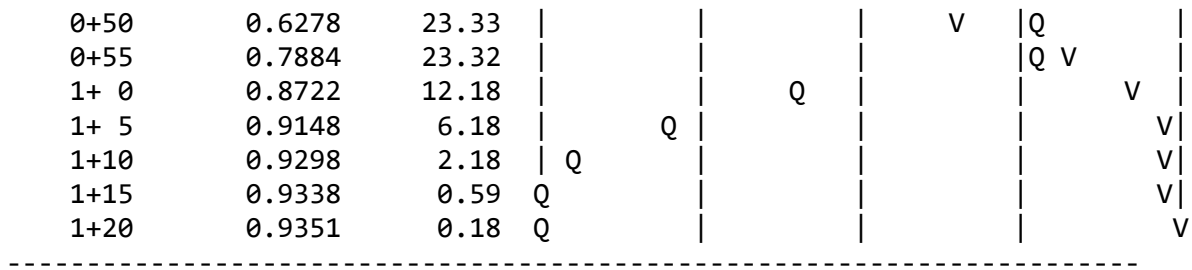
Peak flow rate of this hydrograph = 23.332(CFS)

++

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	7.5	15.0	22.5	30.0
0+ 5	0.0140	2.03	V Q	|	|	|	|
0+10	0.0461	4.67	|V Q	|	|	|	|
0+15	0.0861	5.80	| V Q	|	|	|	|
0+20	0.1319	6.66	| V Q	|	|	|	|
0+25	0.1810	7.12	| V Q|	|	|	|	|
0+30	0.2344	7.75	| Q	|	|	|	|
0+35	0.2970	9.09	| | Q	|	|	|	|
0+40	0.3716	10.84	| | QV	|	|	|	|
0+45	0.4671	13.86	| | QV|	|	|	|	|


0+50 0.6278 23.33
0+55 0.7884 23.32
1+ 0 0.8722 12.18
1+ 5 0.9148 6.18
1+10 0.9298 2.18
1+15 0.9338 0.59
1+20 0.9351 0.18

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

Study date 08/01/22 File: A21626Q100UHEX3100.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 EXISTING 100YR-3HR UH

Drainage Area = 9.57(Ac.) = 0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 9.57(Ac.) = 0.015 Sq. Mi.
Length along longest watercourse = 541.43(Ft.)
Length along longest watercourse measured to centroid = 471.06(Ft.)
Length along longest watercourse = 0.103 Mi.
Length along longest watercourse measured to centroid = 0.089 Mi.
Difference in elevation = 9.44(Ft.)
Slope along watercourse = 92.0584 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.051 Hr.
Lag time = 3.07 Min.
25% of lag time = 0.77 Min.
40% of lag time = 1.23 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]
        9.57            0.80                   7.66

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        9.57            1.95                  18.67

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.800(In)
Area Averaged 100-Year Rainfall =    1.950(In)

Point rain (area averaged) =    1.950(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.950(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     9.575           85.00         0.000
 Total Area Entered =      9.57(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
85.0  94.0      0.078     0.000        0.078       1.000      0.078
                                                 Sum (F) =   0.078
Area averaged mean soil loss (F) (In/Hr) =  0.078
Minimum soil loss rate ((In/Hr)) =  0.039
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.900
------------------------------------------------------------------------

               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        162.684         36.109              3.484
    2   0.167        325.368         46.066              4.445
    3   0.250        488.052         10.495              1.013
    4   0.333        650.736          4.496              0.434
    5   0.417        813.420          2.833              0.273
                              Sum = 100.000   Sum=       9.650
------------------------------------------------------------------------
```

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	0.304	0.078	(0.274)	0.226
2	0.17	1.30	0.304	0.078	(0.274)	0.226
3	0.25	1.10	0.257	0.078	(0.232)	0.179
4	0.33	1.50	0.351	0.078	(0.316)	0.273
5	0.42	1.50	0.351	0.078	(0.316)	0.273
6	0.50	1.80	0.421	0.078	(0.379)	0.343
7	0.58	1.50	0.351	0.078	(0.316)	0.273
8	0.67	1.80	0.421	0.078	(0.379)	0.343
9	0.75	1.80	0.421	0.078	(0.379)	0.343
10	0.83	1.50	0.351	0.078	(0.316)	0.273
11	0.92	1.60	0.374	0.078	(0.337)	0.296
12	1.00	1.80	0.421	0.078	(0.379)	0.343
13	1.08	2.20	0.515	0.078	(0.463)	0.437
14	1.17	2.20	0.515	0.078	(0.463)	0.437
15	1.25	2.20	0.515	0.078	(0.463)	0.437
16	1.33	2.00	0.468	0.078	(0.421)	0.390
17	1.42	2.60	0.608	0.078	(0.548)	0.530
18	1.50	2.70	0.632	0.078	(0.569)	0.554
19	1.58	2.40	0.562	0.078	(0.505)	0.484
20	1.67	2.70	0.632	0.078	(0.569)	0.554
21	1.75	3.30	0.772	0.078	(0.695)	0.694
22	1.83	3.10	0.725	0.078	(0.653)	0.647
23	1.92	2.90	0.679	0.078	(0.611)	0.601
24	2.00	3.00	0.702	0.078	(0.632)	0.624
25	2.08	3.10	0.725	0.078	(0.653)	0.647
26	2.17	4.20	0.983	0.078	(0.884)	0.905
27	2.25	5.00	1.170	0.078	(1.053)	1.092
28	2.33	3.50	0.819	0.078	(0.737)	0.741
29	2.42	6.80	1.591	0.078	(1.432)	1.513
30	2.50	7.30	1.708	0.078	(1.537)	1.630
31	2.58	8.20	1.919	0.078	(1.727)	1.841
32	2.67	5.90	1.381	0.078	(1.242)	1.303
33	2.75	2.00	0.468	0.078	(0.421)	0.390
34	2.83	1.80	0.421	0.078	(0.379)	0.343
35	2.92	1.80	0.421	0.078	(0.379)	0.343
36	3.00	0.60	0.140	0.078	(0.126)	0.062
		(Loss Rate Not Used)				
Sum =		100.0				Sum = 20.6

Flood volume = Effective rainfall 1.72(In)
times area 9.6(Ac.)/[(In)/(Ft.)] = 1.4(Ac.Ft)
Total soil loss = 0.23(In)
Total soil loss = 0.187(Ac.Ft)
Total rainfall = 1.95(In)
Flood volume = 59640.6 Cubic Feet

Total soil loss = 8133.2 Cubic Feet

Peak flow rate of this hydrograph = 15.821(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 5.0 10.0 15.0 20.0
0+ 5	0.0054	0.79	VQ
0+10	0.0178	1.79	V Q
0+15	0.0306	1.86	V Q
0+20	0.0449	2.08	V Q
0+25	0.0622	2.51	V Q
0+30	0.0816	2.83	V Q
0+35	0.1018	2.92	V Q
0+40	0.1221	2.95	V Q
0+45	0.1443	3.22	V Q
0+50	0.1652	3.04	V Q
0+55	0.1846	2.82	Q
1+ 0	0.2055	3.03	Q
1+ 5	0.2301	3.56	VQ
1+10	0.2577	4.02	VQ
1+15	0.2862	4.14	Q
1+20	0.3140	4.03	QV
1+25	0.3438	4.34	Q V
1+30	0.3782	4.99	Q V
1+35	0.4125	4.98	Q V
1+40	0.4468	4.98	Q V
1+45	0.4864	5.76	Q V
1+50	0.5296	6.27	Q V
1+55	0.5712	6.05	Q V
2+ 0	0.6123	5.96	Q V
2+ 5	0.6544	6.11	Q V
2+10	0.7033	7.10	Q V
2+15	0.7647	8.92	Q V
2+20	0.8254	8.81	Q V
2+25	0.8960	10.25	Q V
2+30	0.9916	13.89	QV
2+35	1.1005	15.82	QV
2+40	1.2055	15.24	Q V
2+45	1.2753	10.14	Q V
2+50	1.3132	5.50	Q V
2+55	1.3420	4.19	Q V
3+ 0	1.3600	2.62	Q V
3+ 5	1.3661	0.88	Q V

```
    3+10       1.3682      0.31  Q         |         |         |        V|
    3+15       1.3690      0.12  Q         |         |         |        V|
    3+20       1.3692      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

Study date 08/01/22 File: A21626Q100UHEX6100.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 EXISTING 100YR-6HR UH

Drainage Area = 9.57(Ac.) = 0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 9.57(Ac.) = 0.015 Sq. Mi.
Length along longest watercourse = 541.43(Ft.)
Length along longest watercourse measured to centroid = 471.06(Ft.)
Length along longest watercourse = 0.103 Mi.
Length along longest watercourse measured to centroid = 0.089 Mi.
Difference in elevation = 9.44(Ft.)
Slope along watercourse = 92.0584 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.051 Hr.
Lag time = 3.07 Min.
25% of lag time = 0.77 Min.
40% of lag time = 1.23 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]
        9.57            1.11                  10.63

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        9.57            2.70                  25.85

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    1.110(In)
Area Averaged 100-Year Rainfall =    2.700(In)

Point rain (area averaged) =    2.700(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    2.700(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     9.575           85.00         0.000
 Total Area Entered =      9.57(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
85.0  94.0      0.078     0.000        0.078       1.000      0.078
                                                 Sum (F) =   0.078
Area averaged mean soil loss (F) (In/Hr) =  0.078
Minimum soil loss rate ((In/Hr)) =  0.039
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.900
------------------------------------------------------------------------

               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        162.684         36.109              3.484
    2   0.167        325.368         46.066              4.445
    3   0.250        488.052         10.495              1.013
    4   0.333        650.736          4.496              0.434
    5   0.417        813.420          2.833              0.273
                              Sum = 100.000   Sum=       9.650
------------------------------------------------------------------------
```

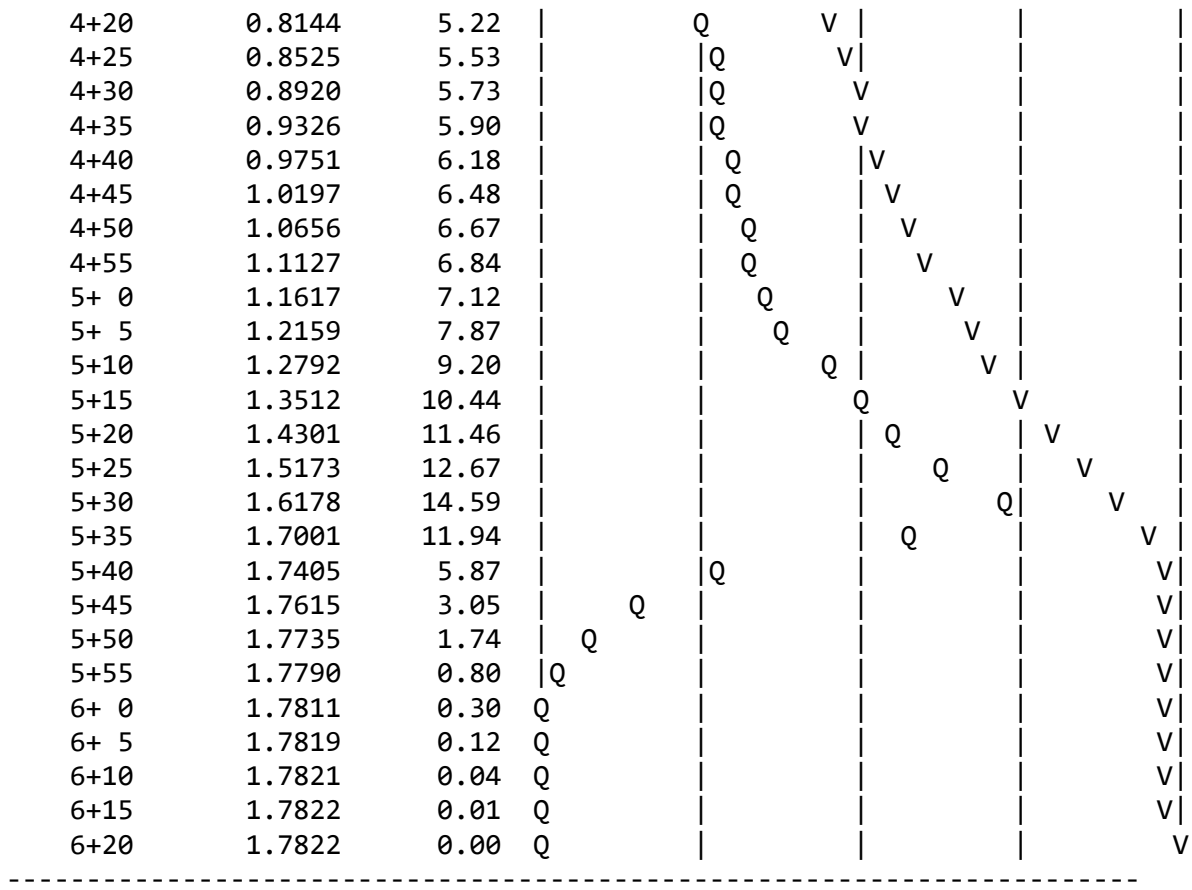
The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.50	0.162	0.078	(0.146)	0.084
2	0.17	0.60	0.194	0.078	(0.175)	0.116
3	0.25	0.60	0.194	0.078	(0.175)	0.116
4	0.33	0.60	0.194	0.078	(0.175)	0.116
5	0.42	0.60	0.194	0.078	(0.175)	0.116
6	0.50	0.70	0.227	0.078	(0.204)	0.149
7	0.58	0.70	0.227	0.078	(0.204)	0.149
8	0.67	0.70	0.227	0.078	(0.204)	0.149
9	0.75	0.70	0.227	0.078	(0.204)	0.149
10	0.83	0.70	0.227	0.078	(0.204)	0.149
11	0.92	0.70	0.227	0.078	(0.204)	0.149
12	1.00	0.80	0.259	0.078	(0.233)	0.181
13	1.08	0.80	0.259	0.078	(0.233)	0.181
14	1.17	0.80	0.259	0.078	(0.233)	0.181
15	1.25	0.80	0.259	0.078	(0.233)	0.181
16	1.33	0.80	0.259	0.078	(0.233)	0.181
17	1.42	0.80	0.259	0.078	(0.233)	0.181
18	1.50	0.80	0.259	0.078	(0.233)	0.181
19	1.58	0.80	0.259	0.078	(0.233)	0.181
20	1.67	0.80	0.259	0.078	(0.233)	0.181
21	1.75	0.80	0.259	0.078	(0.233)	0.181
22	1.83	0.80	0.259	0.078	(0.233)	0.181
23	1.92	0.80	0.259	0.078	(0.233)	0.181
24	2.00	0.90	0.292	0.078	(0.262)	0.214
25	2.08	0.80	0.259	0.078	(0.233)	0.181
26	2.17	0.90	0.292	0.078	(0.262)	0.214
27	2.25	0.90	0.292	0.078	(0.262)	0.214
28	2.33	0.90	0.292	0.078	(0.262)	0.214
29	2.42	0.90	0.292	0.078	(0.262)	0.214
30	2.50	0.90	0.292	0.078	(0.262)	0.214
31	2.58	0.90	0.292	0.078	(0.262)	0.214
32	2.67	0.90	0.292	0.078	(0.262)	0.214
33	2.75	1.00	0.324	0.078	(0.292)	0.246
34	2.83	1.00	0.324	0.078	(0.292)	0.246
35	2.92	1.00	0.324	0.078	(0.292)	0.246
36	3.00	1.00	0.324	0.078	(0.292)	0.246
37	3.08	1.00	0.324	0.078	(0.292)	0.246
38	3.17	1.10	0.356	0.078	(0.321)	0.278
39	3.25	1.10	0.356	0.078	(0.321)	0.278
40	3.33	1.10	0.356	0.078	(0.321)	0.278
41	3.42	1.20	0.389	0.078	(0.350)	0.311
42	3.50	1.30	0.421	0.078	(0.379)	0.343
43	3.58	1.40	0.454	0.078	(0.408)	0.376
44	3.67	1.40	0.454	0.078	(0.408)	0.376

```
45   3.75     1.50      0.486          0.078    (  0.437)        0.408
46   3.83     1.50      0.486          0.078    (  0.437)        0.408
47   3.92     1.60      0.518          0.078    (  0.467)        0.440
48   4.00     1.60      0.518          0.078    (  0.467)        0.440
49   4.08     1.70      0.551          0.078    (  0.496)        0.473
50   4.17     1.80      0.583          0.078    (  0.525)        0.505
51   4.25     1.90      0.616          0.078    (  0.554)        0.538
52   4.33     2.00      0.648          0.078    (  0.583)        0.570
53   4.42     2.10      0.680          0.078    (  0.612)        0.602
54   4.50     2.10      0.680          0.078    (  0.612)        0.602
55   4.58     2.20      0.713          0.078    (  0.641)        0.635
56   4.67     2.30      0.745          0.078    (  0.671)        0.667
57   4.75     2.40      0.778          0.078    (  0.700)        0.700
58   4.83     2.40      0.778          0.078    (  0.700)        0.700
59   4.92     2.50      0.810          0.078    (  0.729)        0.732
60   5.00     2.60      0.842          0.078    (  0.758)        0.764
61   5.08     3.10      1.004          0.078    (  0.904)        0.926
62   5.17     3.60      1.166          0.078    (  1.050)        1.088
63   5.25     3.90      1.264          0.078    (  1.137)        1.186
64   5.33     4.20      1.361          0.078    (  1.225)        1.283
65   5.42     4.70      1.523          0.078    (  1.370)        1.445
66   5.50     5.60      1.814          0.078    (  1.633)        1.736
67   5.58     1.90      0.616          0.078    (  0.554)        0.538
68   5.67     0.90      0.292          0.078    (  0.262)        0.214
69   5.75     0.60      0.194          0.078    (  0.175)        0.116
70   5.83     0.50      0.162          0.078    (  0.146)        0.084
71   5.92     0.30      0.097          0.078    (  0.087)        0.019
72   6.00     0.20      0.065       (  0.078)       0.058        0.006
               (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    26.8
      Flood volume = Effective rainfall      2.23(In)
       times area       9.6(Ac.)/[(In)/(Ft.)] =       1.8(Ac.Ft)
      Total soil loss =      0.47(In)
      Total soil loss =     0.372(Ac.Ft)
      Total rainfall =      2.70(In)
      Flood volume =       77632.1 Cubic Feet
      Total soil loss =       16209.4 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =     14.591(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        5.0      10.0      15.0      20.0
-----------------------------------------------------------------------
  0+ 5       0.0020      0.29  Q         |         |         |         |
```

```
0+10       0.0074      0.78  VQ        |         |         |         |
0+15       0.0143      1.01  V Q       |         |         |         |
0+20       0.0218      1.08  V Q       |         |         |         |
0+25       0.0294      1.11  V Q       |         |         |         |
0+30       0.0379      1.24  V Q       |         |         |         |
0+35       0.0475      1.38  |VQ       |         |         |         |
0+40       0.0572      1.41  |VQ       |         |         |         |
0+45       0.0670      1.43  |VQ       |         |         |         |
0+50       0.0769      1.44  |VQ       |         |         |         |
0+55       0.0868      1.44  |VQ       |         |         |         |
1+ 0       0.0975      1.55  | VQ      |         |         |         |
1+ 5       0.1091      1.69  | VQ      |         |         |         |
1+10       0.1210      1.73  | VQ      |         |         |         |
1+15       0.1330      1.74  | VQ      |         |         |         |
1+20       0.1451      1.75  |  Q      |         |         |         |
1+25       0.1571      1.75  |  Q      |         |         |         |
1+30       0.1692      1.75  |  Q      |         |         |         |
1+35       0.1812      1.75  |  QV     |         |         |         |
1+40       0.1933      1.75  |  QV     |         |         |         |
1+45       0.2053      1.75  |  QV     |         |         |         |
1+50       0.2174      1.75  |  QV     |         |         |         |
1+55       0.2294      1.75  |  Q V    |         |         |         |
2+ 0       0.2422      1.86  |  Q V    |         |         |         |
2+ 5       0.2553      1.89  |  Q V    |         |         |         |
2+10       0.2683      1.90  |  Q  V   |         |         |         |
2+15       0.2822      2.02  |   Q V   |         |         |         |
2+20       0.2963      2.05  |   Q V   |         |         |         |
2+25       0.3105      2.05  |   Q V   |         |         |         |
2+30       0.3247      2.06  |   Q  V  |         |         |         |
2+35       0.3389      2.06  |   Q  V  |         |         |         |
2+40       0.3531      2.06  |   Q  V  |         |         |         |
2+45       0.3681      2.18  |   Q   V |         |         |         |
2+50       0.3841      2.32  |   Q   V |         |         |         |
2+55       0.4002      2.35  |   Q   V |         |         |         |
3+ 0       0.4165      2.37  |   Q    V|         |         |         |
3+ 5       0.4329      2.37  |   Q    V|         |         |         |
3+10       0.4500      2.49  |   Q     V         |         |         |
3+15       0.4682      2.63  |    Q    V         |         |         |
3+20       0.4865      2.66  |    Q    V         |         |         |
3+25       0.5057      2.79  |    Q    |V        |         |         |
3+30       0.5268      3.06  |     Q   |V        |         |         |
3+35       0.5499      3.35  |     Q   | V       |         |         |
3+40       0.5742      3.54  |      Q  | V       |         |         |
3+45       0.5998      3.71  |      Q  |  V      |         |         |
3+50       0.6264      3.87  |      Q  |   V     |         |         |
3+55       0.6542      4.03  |       Q |   V     |         |         |
4+ 0       0.6830      4.19  |       Q |    V    |         |         |
4+ 5       0.7129      4.34  |       Q |     V   |         |         |
4+10       0.7447      4.61  |        Q|     V   |         |         |
4+15       0.7785      4.91  |         Q|      V  |         |         |
```


4+20 0.8144 5.22
4+25 0.8525 5.53
4+30 0.8920 5.73
4+35 0.9326 5.90
4+40 0.9751 6.18
4+45 1.0197 6.48
4+50 1.0656 6.67
4+55 1.1127 6.84
5+ 0 1.1617 7.12
5+ 5 1.2159 7.87
5+10 1.2792 9.20
5+15 1.3512 10.44
5+20 1.4301 11.46
5+25 1.5173 12.67
5+30 1.6178 14.59
5+35 1.7001 11.94
5+40 1.7405 5.87
5+45 1.7615 3.05
5+50 1.7735 1.74
5+55 1.7790 0.80
6+ 0 1.7811 0.30
6+ 5 1.7819 0.12
6+10 1.7821 0.04
6+15 1.7822 0.01
6+20 1.7822 0.00

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

Study date 08/01/22 File: A21626Q100UHEX24100.out

++

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

Program License Serial Number 6509

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

English Units used in output format

A21626 EXISTING 100YR-24HR UH

Drainage Area = 9.57(Ac.) = 0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 9.57(Ac.) = 0.015 Sq. Mi.
Length along longest watercourse = 541.43(Ft.)
Length along longest watercourse measured to centroid = 471.06(Ft.)
Length along longest watercourse = 0.103 Mi.
Length along longest watercourse measured to centroid = 0.089 Mi.
Difference in elevation = 9.44(Ft.)
Slope along watercourse = 92.0584 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.051 Hr.
Lag time = 3.07 Min.
25% of lag time = 0.77 Min.
40% of lag time = 1.23 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]
        9.57            1.90                  18.19

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        9.57            4.80                  45.96

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    1.900(In)
Area Averaged 100-Year Rainfall =    4.800(In)

Point rain (area averaged) =    4.800(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    4.800(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     9.575           85.00         0.000
 Total Area Entered =      9.57(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
85.0  94.0      0.078     0.000        0.078       1.000      0.078
                                                 Sum (F) =   0.078
Area averaged mean soil loss (F) (In/Hr) =  0.078
Minimum soil loss rate ((In/Hr)) =  0.039
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.900
------------------------------------------------------------------------

               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        162.684         36.109              3.484
    2   0.167        325.368         46.066              4.445
    3   0.250        488.052         10.495              1.013
    4   0.333        650.736          4.496              0.434
    5   0.417        813.420          2.833              0.273
                              Sum = 100.000   Sum=       9.650
------------------------------------------------------------------------
```

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	0.038	(0.138)	0.035	0.004
2	0.17	0.07	0.038	(0.138)	0.035	0.004
3	0.25	0.07	0.038	(0.137)	0.035	0.004
4	0.33	0.10	0.058	(0.137)	0.052	0.006
5	0.42	0.10	0.058	(0.136)	0.052	0.006
6	0.50	0.10	0.058	(0.136)	0.052	0.006
7	0.58	0.10	0.058	(0.135)	0.052	0.006
8	0.67	0.10	0.058	(0.135)	0.052	0.006
9	0.75	0.10	0.058	(0.134)	0.052	0.006
10	0.83	0.13	0.077	(0.133)	0.069	0.008
11	0.92	0.13	0.077	(0.133)	0.069	0.008
12	1.00	0.13	0.077	(0.132)	0.069	0.008
13	1.08	0.10	0.058	(0.132)	0.052	0.006
14	1.17	0.10	0.058	(0.131)	0.052	0.006
15	1.25	0.10	0.058	(0.131)	0.052	0.006
16	1.33	0.10	0.058	(0.130)	0.052	0.006
17	1.42	0.10	0.058	(0.130)	0.052	0.006
18	1.50	0.10	0.058	(0.129)	0.052	0.006
19	1.58	0.10	0.058	(0.129)	0.052	0.006
20	1.67	0.10	0.058	(0.128)	0.052	0.006
21	1.75	0.10	0.058	(0.128)	0.052	0.006
22	1.83	0.13	0.077	(0.127)	0.069	0.008
23	1.92	0.13	0.077	(0.127)	0.069	0.008
24	2.00	0.13	0.077	(0.126)	0.069	0.008
25	2.08	0.13	0.077	(0.126)	0.069	0.008
26	2.17	0.13	0.077	(0.125)	0.069	0.008
27	2.25	0.13	0.077	(0.125)	0.069	0.008
28	2.33	0.13	0.077	(0.124)	0.069	0.008
29	2.42	0.13	0.077	(0.124)	0.069	0.008
30	2.50	0.13	0.077	(0.123)	0.069	0.008
31	2.58	0.17	0.096	(0.123)	0.086	0.010
32	2.67	0.17	0.096	(0.122)	0.086	0.010
33	2.75	0.17	0.096	(0.122)	0.086	0.010
34	2.83	0.17	0.096	(0.121)	0.086	0.010
35	2.92	0.17	0.096	(0.121)	0.086	0.010
36	3.00	0.17	0.096	(0.120)	0.086	0.010
37	3.08	0.17	0.096	(0.120)	0.086	0.010
38	3.17	0.17	0.096	(0.119)	0.086	0.010
39	3.25	0.17	0.096	(0.119)	0.086	0.010
40	3.33	0.17	0.096	(0.118)	0.086	0.010
41	3.42	0.17	0.096	(0.118)	0.086	0.010
42	3.50	0.17	0.096	(0.117)	0.086	0.010
43	3.58	0.17	0.096	(0.117)	0.086	0.010
44	3.67	0.17	0.096	(0.116)	0.086	0.010

45	3.75	0.17	0.096	(	0.116)		0.086		0.010
46	3.83	0.20	0.115	(	0.115)		0.104		0.012
47	3.92	0.20	0.115	(	0.115)		0.104		0.012
48	4.00	0.20	0.115	(	0.114)		0.104		0.012
49	4.08	0.20	0.115	(	0.114)		0.104		0.012
50	4.17	0.20	0.115	(	0.113)		0.104		0.012
51	4.25	0.20	0.115	(	0.113)		0.104		0.012
52	4.33	0.23	0.134		0.112	(	0.121)		0.022
53	4.42	0.23	0.134		0.112	(	0.121)		0.023
54	4.50	0.23	0.134		0.111	(	0.121)		0.023
55	4.58	0.23	0.134		0.111	(	0.121)		0.023
56	4.67	0.23	0.134		0.110	(	0.121)		0.024
57	4.75	0.23	0.134		0.110	(	0.121)		0.024
58	4.83	0.27	0.154		0.109	(	0.138)		0.044
59	4.92	0.27	0.154		0.109	(	0.138)		0.045
60	5.00	0.27	0.154		0.109	(	0.138)		0.045
61	5.08	0.20	0.115	(	0.108)		0.104		0.012
62	5.17	0.20	0.115	(	0.108)		0.104		0.012
63	5.25	0.20	0.115	(	0.107)		0.104		0.012
64	5.33	0.23	0.134		0.107	(	0.121)		0.028
65	5.42	0.23	0.134		0.106	(	0.121)		0.028
66	5.50	0.23	0.134		0.106	(	0.121)		0.029
67	5.58	0.27	0.154		0.105	(	0.138)		0.048
68	5.67	0.27	0.154		0.105	(	0.138)		0.049
69	5.75	0.27	0.154		0.104	(	0.138)		0.049
70	5.83	0.27	0.154		0.104	(	0.138)		0.050
71	5.92	0.27	0.154		0.103	(	0.138)		0.050
72	6.00	0.27	0.154		0.103	(	0.138)		0.051
73	6.08	0.30	0.173		0.103	(	0.156)		0.070
74	6.17	0.30	0.173		0.102	(	0.156)		0.071
75	6.25	0.30	0.173		0.102	(	0.156)		0.071
76	6.33	0.30	0.173		0.101	(	0.156)		0.072
77	6.42	0.30	0.173		0.101	(	0.156)		0.072
78	6.50	0.30	0.173		0.100	(	0.156)		0.073
79	6.58	0.33	0.192		0.100	(	0.173)		0.092
80	6.67	0.33	0.192		0.099	(	0.173)		0.093
81	6.75	0.33	0.192		0.099	(	0.173)		0.093
82	6.83	0.33	0.192		0.098	(	0.173)		0.094
83	6.92	0.33	0.192		0.098	(	0.173)		0.094
84	7.00	0.33	0.192		0.098	(	0.173)		0.094
85	7.08	0.33	0.192		0.097	(	0.173)		0.095
86	7.17	0.33	0.192		0.097	(	0.173)		0.095
87	7.25	0.33	0.192		0.096	(	0.173)		0.096
88	7.33	0.37	0.211		0.096	(	0.190)		0.115
89	7.42	0.37	0.211		0.095	(	0.190)		0.116
90	7.50	0.37	0.211		0.095	(	0.190)		0.116
91	7.58	0.40	0.230		0.094	(	0.207)		0.136
92	7.67	0.40	0.230		0.094	(	0.207)		0.136
93	7.75	0.40	0.230		0.094	(	0.207)		0.137
94	7.83	0.43	0.250		0.093	(	0.225)		0.156

95	7.92	0.43	0.250	0.093	(	0.225)	0.157
96	8.00	0.43	0.250	0.092	(	0.225)	0.157
97	8.08	0.50	0.288	0.092	(	0.259)	0.196
98	8.17	0.50	0.288	0.091	(	0.259)	0.197
99	8.25	0.50	0.288	0.091	(	0.259)	0.197
100	8.33	0.50	0.288	0.091	(	0.259)	0.197
101	8.42	0.50	0.288	0.090	(	0.259)	0.198
102	8.50	0.50	0.288	0.090	(	0.259)	0.198
103	8.58	0.53	0.307	0.089	(	0.276)	0.218
104	8.67	0.53	0.307	0.089	(	0.276)	0.218
105	8.75	0.53	0.307	0.088	(	0.276)	0.219
106	8.83	0.57	0.326	0.088	(	0.294)	0.238
107	8.92	0.57	0.326	0.088	(	0.294)	0.239
108	9.00	0.57	0.326	0.087	(	0.294)	0.239
109	9.08	0.63	0.365	0.087	(	0.328)	0.278
110	9.17	0.63	0.365	0.086	(	0.328)	0.278
111	9.25	0.63	0.365	0.086	(	0.328)	0.279
112	9.33	0.67	0.384	0.086	(	0.346)	0.298
113	9.42	0.67	0.384	0.085	(	0.346)	0.299
114	9.50	0.67	0.384	0.085	(	0.346)	0.299
115	9.58	0.70	0.403	0.084	(	0.363)	0.319
116	9.67	0.70	0.403	0.084	(	0.363)	0.319
117	9.75	0.70	0.403	0.084	(	0.363)	0.320
118	9.83	0.73	0.422	0.083	(	0.380)	0.339
119	9.92	0.73	0.422	0.083	(	0.380)	0.340
120	10.00	0.73	0.422	0.082	(	0.380)	0.340
121	10.08	0.50	0.288	0.082	(	0.259)	0.206
122	10.17	0.50	0.288	0.082	(	0.259)	0.206
123	10.25	0.50	0.288	0.081	(	0.259)	0.207
124	10.33	0.50	0.288	0.081	(	0.259)	0.207
125	10.42	0.50	0.288	0.080	(	0.259)	0.208
126	10.50	0.50	0.288	0.080	(	0.259)	0.208
127	10.58	0.67	0.384	0.080	(	0.346)	0.304
128	10.67	0.67	0.384	0.079	(	0.346)	0.305
129	10.75	0.67	0.384	0.079	(	0.346)	0.305
130	10.83	0.67	0.384	0.078	(	0.346)	0.306
131	10.92	0.67	0.384	0.078	(	0.346)	0.306
132	11.00	0.67	0.384	0.078	(	0.346)	0.306
133	11.08	0.63	0.365	0.077	(	0.328)	0.287
134	11.17	0.63	0.365	0.077	(	0.328)	0.288
135	11.25	0.63	0.365	0.077	(	0.328)	0.288
136	11.33	0.63	0.365	0.076	(	0.328)	0.289
137	11.42	0.63	0.365	0.076	(	0.328)	0.289
138	11.50	0.63	0.365	0.075	(	0.328)	0.289
139	11.58	0.57	0.326	0.075	(	0.294)	0.251
140	11.67	0.57	0.326	0.075	(	0.294)	0.252
141	11.75	0.57	0.326	0.074	(	0.294)	0.252
142	11.83	0.60	0.346	0.074	(	0.311)	0.272
143	11.92	0.60	0.346	0.074	(	0.311)	0.272
144	12.00	0.60	0.346	0.073	(	0.311)	0.272

145	12.08	0.83	0.480	0.073	(	0.432)	0.407
146	12.17	0.83	0.480	0.072	(	0.432)	0.408
147	12.25	0.83	0.480	0.072	(	0.432)	0.408
148	12.33	0.87	0.499	0.072	(	0.449)	0.427
149	12.42	0.87	0.499	0.071	(	0.449)	0.428
150	12.50	0.87	0.499	0.071	(	0.449)	0.428
151	12.58	0.93	0.538	0.071	(	0.484)	0.467
152	12.67	0.93	0.538	0.070	(	0.484)	0.467
153	12.75	0.93	0.538	0.070	(	0.484)	0.468
154	12.83	0.97	0.557	0.070	(	0.501)	0.487
155	12.92	0.97	0.557	0.069	(	0.501)	0.488
156	13.00	0.97	0.557	0.069	(	0.501)	0.488
157	13.08	1.13	0.653	0.069	(	0.588)	0.584
158	13.17	1.13	0.653	0.068	(	0.588)	0.585
159	13.25	1.13	0.653	0.068	(	0.588)	0.585
160	13.33	1.13	0.653	0.067	(	0.588)	0.585
161	13.42	1.13	0.653	0.067	(	0.588)	0.586
162	13.50	1.13	0.653	0.067	(	0.588)	0.586
163	13.58	0.77	0.442	0.066	(	0.397)	0.375
164	13.67	0.77	0.442	0.066	(	0.397)	0.375
165	13.75	0.77	0.442	0.066	(	0.397)	0.376
166	13.83	0.77	0.442	0.065	(	0.397)	0.376
167	13.92	0.77	0.442	0.065	(	0.397)	0.376
168	14.00	0.77	0.442	0.065	(	0.397)	0.377
169	14.08	0.90	0.518	0.064	(	0.467)	0.454
170	14.17	0.90	0.518	0.064	(	0.467)	0.454
171	14.25	0.90	0.518	0.064	(	0.467)	0.455
172	14.33	0.87	0.499	0.063	(	0.449)	0.436
173	14.42	0.87	0.499	0.063	(	0.449)	0.436
174	14.50	0.87	0.499	0.063	(	0.449)	0.436
175	14.58	0.87	0.499	0.063	(	0.449)	0.437
176	14.67	0.87	0.499	0.062	(	0.449)	0.437
177	14.75	0.87	0.499	0.062	(	0.449)	0.437
178	14.83	0.83	0.480	0.062	(	0.432)	0.418
179	14.92	0.83	0.480	0.061	(	0.432)	0.419
180	15.00	0.83	0.480	0.061	(	0.432)	0.419
181	15.08	0.80	0.461	0.061	(	0.415)	0.400
182	15.17	0.80	0.461	0.060	(	0.415)	0.400
183	15.25	0.80	0.461	0.060	(	0.415)	0.401
184	15.33	0.77	0.442	0.060	(	0.397)	0.382
185	15.42	0.77	0.442	0.059	(	0.397)	0.382
186	15.50	0.77	0.442	0.059	(	0.397)	0.383
187	15.58	0.63	0.365	0.059	(	0.328)	0.306
188	15.67	0.63	0.365	0.058	(	0.328)	0.306
189	15.75	0.63	0.365	0.058	(	0.328)	0.307
190	15.83	0.63	0.365	0.058	(	0.328)	0.307
191	15.92	0.63	0.365	0.058	(	0.328)	0.307
192	16.00	0.63	0.365	0.057	(	0.328)	0.308
193	16.08	0.13	0.077	0.057	(	0.069)	0.020
194	16.17	0.13	0.077	0.057	(	0.069)	0.020

195	16.25	0.13	0.077		0.056	(	0.069)	0.020
196	16.33	0.13	0.077		0.056	(	0.069)	0.021
197	16.42	0.13	0.077		0.056	(	0.069)	0.021
198	16.50	0.13	0.077		0.056	(	0.069)	0.021
199	16.58	0.10	0.058	(	0.055)		0.052	0.006
200	16.67	0.10	0.058	(	0.055)		0.052	0.006
201	16.75	0.10	0.058	(	0.055)		0.052	0.006
202	16.83	0.10	0.058	(	0.054)		0.052	0.006
203	16.92	0.10	0.058	(	0.054)		0.052	0.006
204	17.00	0.10	0.058	(	0.054)		0.052	0.006
205	17.08	0.17	0.096		0.054	(	0.086)	0.042
206	17.17	0.17	0.096		0.053	(	0.086)	0.043
207	17.25	0.17	0.096		0.053	(	0.086)	0.043
208	17.33	0.17	0.096		0.053	(	0.086)	0.043
209	17.42	0.17	0.096		0.053	(	0.086)	0.043
210	17.50	0.17	0.096		0.052	(	0.086)	0.044
211	17.58	0.17	0.096		0.052	(	0.086)	0.044
212	17.67	0.17	0.096		0.052	(	0.086)	0.044
213	17.75	0.17	0.096		0.051	(	0.086)	0.045
214	17.83	0.13	0.077		0.051	(	0.069)	0.026
215	17.92	0.13	0.077		0.051	(	0.069)	0.026
216	18.00	0.13	0.077		0.051	(	0.069)	0.026
217	18.08	0.13	0.077		0.050	(	0.069)	0.026
218	18.17	0.13	0.077		0.050	(	0.069)	0.027
219	18.25	0.13	0.077		0.050	(	0.069)	0.027
220	18.33	0.13	0.077		0.050	(	0.069)	0.027
221	18.42	0.13	0.077		0.050	(	0.069)	0.027
222	18.50	0.13	0.077		0.049	(	0.069)	0.028
223	18.58	0.10	0.058		0.049	(	0.052)	0.009
224	18.67	0.10	0.058		0.049	(	0.052)	0.009
225	18.75	0.10	0.058		0.049	(	0.052)	0.009
226	18.83	0.07	0.038	(	0.048)		0.035	0.004
227	18.92	0.07	0.038	(	0.048)		0.035	0.004
228	19.00	0.07	0.038	(	0.048)		0.035	0.004
229	19.08	0.10	0.058		0.048	(	0.052)	0.010
230	19.17	0.10	0.058		0.047	(	0.052)	0.010
231	19.25	0.10	0.058		0.047	(	0.052)	0.010
232	19.33	0.13	0.077		0.047	(	0.069)	0.030
233	19.42	0.13	0.077		0.047	(	0.069)	0.030
234	19.50	0.13	0.077		0.047	(	0.069)	0.030
235	19.58	0.10	0.058		0.046	(	0.052)	0.011
236	19.67	0.10	0.058		0.046	(	0.052)	0.011
237	19.75	0.10	0.058		0.046	(	0.052)	0.012
238	19.83	0.07	0.038	(	0.046)		0.035	0.004
239	19.92	0.07	0.038	(	0.045)		0.035	0.004
240	20.00	0.07	0.038	(	0.045)		0.035	0.004
241	20.08	0.10	0.058		0.045	(	0.052)	0.013
242	20.17	0.10	0.058		0.045	(	0.052)	0.013
243	20.25	0.10	0.058		0.045	(	0.052)	0.013
244	20.33	0.10	0.058		0.045	(	0.052)	0.013

245	20.42	0.10	0.058		0.044	(0.052)		0.013
246	20.50	0.10	0.058		0.044	(0.052)		0.013
247	20.58	0.10	0.058		0.044	(0.052)		0.014
248	20.67	0.10	0.058		0.044	(0.052)		0.014
249	20.75	0.10	0.058		0.044	(0.052)		0.014
250	20.83	0.07	0.038	(0.043)		0.035		0.004
251	20.92	0.07	0.038	(0.043)		0.035		0.004
252	21.00	0.07	0.038	(0.043)		0.035		0.004
253	21.08	0.10	0.058		0.043	(0.052)		0.015
254	21.17	0.10	0.058		0.043	(0.052)		0.015
255	21.25	0.10	0.058		0.043	(0.052)		0.015
256	21.33	0.07	0.038	(0.042)		0.035		0.004
257	21.42	0.07	0.038	(0.042)		0.035		0.004
258	21.50	0.07	0.038	(0.042)		0.035		0.004
259	21.58	0.10	0.058		0.042	(0.052)		0.016
260	21.67	0.10	0.058		0.042	(0.052)		0.016
261	21.75	0.10	0.058		0.042	(0.052)		0.016
262	21.83	0.07	0.038	(0.041)		0.035		0.004
263	21.92	0.07	0.038	(0.041)		0.035		0.004
264	22.00	0.07	0.038	(0.041)		0.035		0.004
265	22.08	0.10	0.058		0.041	(0.052)		0.017
266	22.17	0.10	0.058		0.041	(0.052)		0.017
267	22.25	0.10	0.058		0.041	(0.052)		0.017
268	22.33	0.07	0.038	(0.041)		0.035		0.004
269	22.42	0.07	0.038	(0.041)		0.035		0.004
270	22.50	0.07	0.038	(0.040)		0.035		0.004
271	22.58	0.07	0.038	(0.040)		0.035		0.004
272	22.67	0.07	0.038	(0.040)		0.035		0.004
273	22.75	0.07	0.038	(0.040)		0.035		0.004
274	22.83	0.07	0.038	(0.040)		0.035		0.004
275	22.92	0.07	0.038	(0.040)		0.035		0.004
276	23.00	0.07	0.038	(0.040)		0.035		0.004
277	23.08	0.07	0.038	(0.040)		0.035		0.004
278	23.17	0.07	0.038	(0.040)		0.035		0.004
279	23.25	0.07	0.038	(0.040)		0.035		0.004
280	23.33	0.07	0.038	(0.039)		0.035		0.004
281	23.42	0.07	0.038	(0.039)		0.035		0.004
282	23.50	0.07	0.038	(0.039)		0.035		0.004
283	23.58	0.07	0.038	(0.039)		0.035		0.004
284	23.67	0.07	0.038	(0.039)		0.035		0.004
285	23.75	0.07	0.038	(0.039)		0.035		0.004
286	23.83	0.07	0.038	(0.039)		0.035		0.004
287	23.92	0.07	0.038	(0.039)		0.035		0.004
288	24.00	0.07	0.038	(0.039)		0.035		0.004

(Loss Rate Not Used)

Sum = 100.0 Sum = 38.2

Flood volume = Effective rainfall 3.18(In)
times area 9.6(Ac.)/[(In)/(Ft.)] = 2.5(Ac.Ft)
Total soil loss = 1.62(In)
Total soil loss = 1.292(Ac.Ft)

Total rainfall = 4.80(In)
Flood volume = 110546.0 Cubic Feet
Total soil loss = 56285.6 Cubic Feet

Peak flow rate of this hydrograph = 5.654(CFS)

++

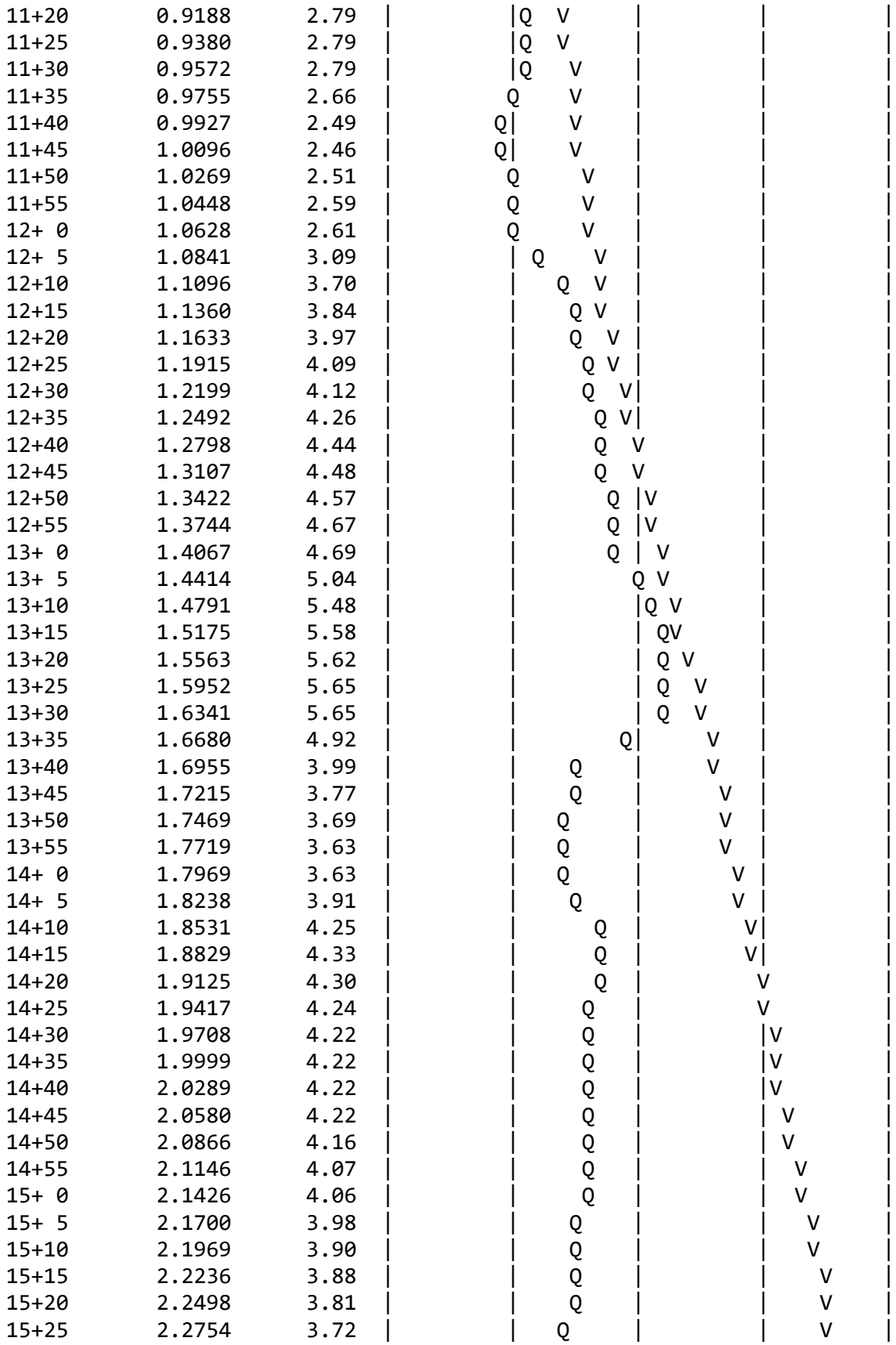
24 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	2.5	5.0	7.5	10.0
0+ 5	0.0001	0.01	Q				
0+10	0.0003	0.03	Q				
0+15	0.0005	0.03	Q				
0+20	0.0008	0.04	Q				
0+25	0.0012	0.05	Q				
0+30	0.0016	0.05	Q				
0+35	0.0019	0.06	Q				
0+40	0.0023	0.06	Q				
0+45	0.0027	0.06	Q				
0+50	0.0031	0.06	Q				
0+55	0.0036	0.07	Q				
1+ 0	0.0041	0.07	Q				
1+ 5	0.0046	0.07	Q				
1+10	0.0050	0.06	Q				
1+15	0.0054	0.06	Q				
1+20	0.0058	0.06	Q				
1+25	0.0062	0.06	Q				
1+30	0.0065	0.06	Q				
1+35	0.0069	0.06	Q				
1+40	0.0073	0.06	Q				
1+45	0.0077	0.06	Q				
1+50	0.0081	0.06	Q				
1+55	0.0086	0.07	Q				
2+ 0	0.0091	0.07	Q				
2+ 5	0.0096	0.07	Q				
2+10	0.0101	0.07	Q				
2+15	0.0106	0.07	Q				
2+20	0.0111	0.07	Q				
2+25	0.0117	0.07	Q				
2+30	0.0122	0.07	Q				
2+35	0.0127	0.08	Q				
2+40	0.0133	0.09	Q				
2+45	0.0140	0.09	Q				
2+50	0.0146	0.09	Q				
2+55	0.0152	0.09	Q				

3+ 0	0.0159	0.09	Q				
3+ 5	0.0165	0.09	Q				
3+10	0.0172	0.09	Q				
3+15	0.0178	0.09	Q				
3+20	0.0184	0.09	Q				
3+25	0.0191	0.09	Q				
3+30	0.0197	0.09	Q				
3+35	0.0204	0.09	Q				
3+40	0.0210	0.09	Q				
3+45	0.0216	0.09	Q				
3+50	0.0223	0.10	Q				
3+55	0.0231	0.11	Q				
4+ 0	0.0238	0.11	Q				
4+ 5	0.0246	0.11	Q				
4+10	0.0253	0.11	Q				
4+15	0.0261	0.11	Q				
4+20	0.0271	0.15	Q				
4+25	0.0285	0.20	Q				
4+30	0.0299	0.21	Q				
4+35	0.0314	0.22	Q				
4+40	0.0330	0.23	Q				
4+45	0.0346	0.23	Q				
4+50	0.0367	0.30	VQ				
4+55	0.0394	0.39	VQ				
5+ 0	0.0423	0.42	VQ				
5+ 5	0.0444	0.31	VQ				
5+10	0.0456	0.17	Q				
5+15	0.0465	0.13	Q				
5+20	0.0477	0.18	Q				
5+25	0.0494	0.24	Q				
5+30	0.0512	0.26	VQ				
5+35	0.0535	0.34	VQ				
5+40	0.0565	0.43	VQ				
5+45	0.0597	0.46	VQ				
5+50	0.0629	0.47	VQ				
5+55	0.0662	0.48	|Q				
6+ 0	0.0696	0.48	|Q				
6+ 5	0.0734	0.56	|VQ				
6+10	0.0778	0.65	|VQ				
6+15	0.0825	0.67	|VQ				
6+20	0.0872	0.68	|VQ				
6+25	0.0919	0.69	|VQ				
6+30	0.0967	0.70	|VQ				
6+35	0.1020	0.77	|V Q				
6+40	0.1079	0.86	|V Q				
6+45	0.1140	0.88	|V Q				
6+50	0.1201	0.89	|V Q				
6+55	0.1264	0.90	|V Q				
7+ 0	0.1326	0.91	| VQ				
7+ 5	0.1389	0.91	| VQ				

7+10	0.1452	0.92	VQ			
7+15	0.1516	0.92	VQ			
7+20	0.1584	0.99	VQ			
7+25	0.1658	1.08	V Q			
7+30	0.1735	1.11	V Q			
7+35	0.1816	1.18	V Q			
7+40	0.1904	1.28	V Q			
7+45	0.1994	1.30	V Q			
7+50	0.2089	1.38	V Q			
7+55	0.2191	1.48	V Q			
8+ 0	0.2294	1.50	V Q			
8+ 5	0.2408	1.65	V Q			
8+10	0.2534	1.83	V Q			
8+15	0.2663	1.87	V Q			
8+20	0.2793	1.89	V Q			
8+25	0.2924	1.91	V Q			
8+30	0.3056	1.91	V Q			
8+35	0.3192	1.98	V Q			
8+40	0.3335	2.07	V Q			
8+45	0.3479	2.09	V Q			
8+50	0.3629	2.17	V Q			
8+55	0.3785	2.27	V Q			
9+ 0	0.3943	2.29	V Q			
9+ 5	0.4111	2.44	V Q			
9+10	0.4291	2.62	V Q			
9+15	0.4474	2.66	V Q			
9+20	0.4663	2.75	V Q			
9+25	0.4860	2.85	V Q			
9+30	0.5057	2.87	V Q			
9+35	0.5261	2.95	V Q			
9+40	0.5470	3.05	V Q			
9+45	0.5682	3.07	V Q			
9+50	0.5898	3.15	V Q			
9+55	0.6122	3.24	V Q			
10+ 0	0.6347	3.27	V Q			
10+ 5	0.6540	2.81	VQ			
10+10	0.6693	2.22	Q V			
10+15	0.6837	2.09	Q V			
10+20	0.6977	2.03	Q V			
10+25	0.7115	2.00	Q V			
10+30	0.7253	2.00	Q V			
10+35	0.7414	2.34	Q V			
10+40	0.7605	2.77	Q			
10+45	0.7803	2.87	QV			
10+50	0.8004	2.92	QV			
10+55	0.8208	2.95	QV			
11+ 0	0.8411	2.95	Q V			
11+ 5	0.8610	2.89	Q V			
11+10	0.8804	2.81	Q V			
11+15	0.8996	2.79	Q V			



15+30	2.3009	3.70	|	| Q	|	| V	|
15+35	2.3246	3.43	|	| Q	|	| V	|
15+40	2.3458	3.09	|	| Q	|	| V	|
15+45	2.3666	3.01	|	| Q	|	| V	|
15+50	2.3871	2.98	|	|Q	|	| V	|
15+55	2.4075	2.96	|	|Q	|	| V	|
16+ 0	2.4280	2.97	|	|Q	|	| V	|
16+ 5	2.4415	1.97	| Q	|	|	| V	|
16+10	2.4462	0.69	| Q	|	|	| V	|
16+15	2.4490	0.40	|Q	|	|	| V	|
16+20	2.4509	0.28	|Q	|	|	| V	|
16+25	2.4522	0.20	Q	|	|	| V	|
16+30	2.4536	0.20	Q	|	|	| V	|
16+35	2.4547	0.15	Q	|	|	| V	|
16+40	2.4552	0.08	Q	|	|	| V	|
16+45	2.4557	0.07	Q	|	|	| V	|
16+50	2.4561	0.06	Q	|	|	| V	|
16+55	2.4565	0.06	Q	|	|	| V	|
17+ 0	2.4569	0.06	Q	|	|	| V	|
17+ 5	2.4581	0.18	Q	|	|	| V	|
17+10	2.4605	0.35	|Q	|	|	| V	|
17+15	2.4632	0.39	|Q	|	|	| V	|
17+20	2.4660	0.40	|Q	|	|	| V	|
17+25	2.4688	0.42	|Q	|	|	| V	|
17+30	2.4717	0.42	|Q	|	|	| V	|
17+35	2.4746	0.42	|Q	|	|	| V	|
17+40	2.4776	0.42	|Q	|	|	| V	|
17+45	2.4805	0.43	|Q	|	|	| V	|
17+50	2.4830	0.36	|Q	|	|	| V	|
17+55	2.4849	0.28	|Q	|	|	| V	|
18+ 0	2.4868	0.26	|Q	|	|	| V	|
18+ 5	2.4885	0.26	|Q	|	|	| V	|
18+10	2.4903	0.25	|Q	|	|	| V	|
18+15	2.4920	0.26	|Q	|	|	| V	|
18+20	2.4938	0.26	|Q	|	|	| V	|
18+25	2.4956	0.26	|Q	|	|	| V	|
18+30	2.4974	0.26	|Q	|	|	| V	|
18+35	2.4988	0.20	Q	|	|	| V	|
18+40	2.4996	0.12	Q	|	|	| V	|
18+45	2.5003	0.10	Q	|	|	| V	|
18+50	2.5008	0.07	Q	|	|	| V	|
18+55	2.5011	0.05	Q	|	|	| V	|
19+ 0	2.5014	0.04	Q	|	|	| V	|
19+ 5	2.5018	0.06	Q	|	|	| V	|
19+10	2.5024	0.09	Q	|	|	| V	|
19+15	2.5031	0.09	Q	|	|	| V	|
19+20	2.5042	0.17	Q	|	|	| V	|
19+25	2.5060	0.26	|Q	|	|	| V	|
19+30	2.5079	0.28	|Q	|	|	| V	|
19+35	2.5094	0.22	Q	|	|	| V	|

19+40	2.5104	0.14	Q	|	|	|	V|
19+45	2.5112	0.12	Q	|	|	|	V|
19+50	2.5118	0.09	Q	|	|	|	V|
19+55	2.5122	0.05	Q	|	|	|	V|
20+ 0	2.5125	0.04	Q	|	|	|	V|
20+ 5	2.5130	0.07	Q	|	|	|	V|
20+10	2.5137	0.11	Q	|	|	|	V|
20+15	2.5145	0.12	Q	|	|	|	V|
20+20	2.5153	0.12	Q	|	|	|	V|
20+25	2.5162	0.13	Q	|	|	|	V|
20+30	2.5171	0.13	Q	|	|	|	V|
20+35	2.5180	0.13	Q	|	|	|	V|
20+40	2.5189	0.13	Q	|	|	|	V|
20+45	2.5198	0.13	Q	|	|	|	V|
20+50	2.5205	0.10	Q	|	|	|	V|
20+55	2.5209	0.05	Q	|	|	|	V|
21+ 0	2.5212	0.04	Q	|	|	|	V|
21+ 5	2.5217	0.08	Q	|	|	|	V|
21+10	2.5226	0.12	Q	|	|	|	V|
21+15	2.5235	0.14	Q	|	|	|	V|
21+20	2.5242	0.10	Q	|	|	|	V|
21+25	2.5246	0.06	Q	|	|	|	V|
21+30	2.5249	0.04	Q	|	|	|	V|
21+35	2.5255	0.08	Q	|	|	|	V|
21+40	2.5264	0.13	Q	|	|	|	V|
21+45	2.5274	0.14	Q	|	|	|	V|
21+50	2.5281	0.11	Q	|	|	|	V|
21+55	2.5285	0.06	Q	|	|	|	V|
22+ 0	2.5288	0.05	Q	|	|	|	V|
22+ 5	2.5294	0.08	Q	|	|	|	V|
22+10	2.5304	0.14	Q	|	|	|	V|
22+15	2.5314	0.15	Q	|	|	|	V|
22+20	2.5322	0.11	Q	|	|	|	V|
22+25	2.5326	0.06	Q	|	|	|	V|
22+30	2.5329	0.05	Q	|	|	|	V|
22+35	2.5332	0.04	Q	|	|	|	V|
22+40	2.5335	0.04	Q	|	|	|	V|
22+45	2.5337	0.04	Q	|	|	|	V|
22+50	2.5340	0.04	Q	|	|	|	V|
22+55	2.5342	0.04	Q	|	|	|	V|
23+ 0	2.5345	0.04	Q	|	|	|	V|
23+ 5	2.5347	0.04	Q	|	|	|	V|
23+10	2.5350	0.04	Q	|	|	|	V|
23+15	2.5353	0.04	Q	|	|	|	V|
23+20	2.5355	0.04	Q	|	|	|	V|
23+25	2.5358	0.04	Q	|	|	|	V|
23+30	2.5360	0.04	Q	|	|	|	V|
23+35	2.5363	0.04	Q	|	|	|	V|
23+40	2.5365	0.04	Q	|	|	|	V|
23+45	2.5368	0.04	Q	|	|	|	V|

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   23+50       2.5370      0.04  Q         |          |          |        V|
   23+55       2.5373      0.04  Q         |          |          |        V|
   24+ 0       2.5376      0.04  Q         |          |          |        V|
   24+ 5       2.5377      0.02  Q         |          |          |        V|
   24+10       2.5378      0.01  Q         |          |          |        V|
   24+15       2.5378      0.00  Q         |          |          |        V|
   24+20       2.5378      0.00  Q         |          |          |        V|
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DMA 1 Proposed 2-Year

FLOOD HYDROGRAPH ROUTING PROGRAM

Study date: 08/24/22

A21626 DMA 1 2YR-1H BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA1Q100UH12.rte
**********HYDROGRAPH DATA**********
Number of intervals = 15
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 6.429 (CFS)
Total volume = 0.217 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.00(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.50(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   4.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   1.00(Ft.)    Capacity =   6.28(CFS)

Total outflow at this depth =      6.48(CFS)

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Total number of inflow hydrograph intervals = 15
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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
0.500	0.093	0.000	0.093	0.093
1.000	0.197	0.196	0.196	0.198
1.500	0.313	0.196	0.312	0.314
2.000	0.440	0.196	0.439	0.441
2.500	0.580	0.196	0.579	0.581
3.000	0.732	0.196	0.731	0.733
3.500	0.897	0.196	0.896	0.898
4.000	1.075	4.639	1.059	1.091
4.500	1.267	6.480	1.245	1.289

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 1.6 3.21 4.82 6.43	Depth (Ft.)
0.083	0.68	0.00	0.002	O I | | | |	0.01
0.167	1.23	0.00	0.009	O I | | | |	0.05
0.250	1.47	0.00	0.018	O I| | | |	0.10
0.333	1.61	0.00	0.029	O I| | | |	0.15
0.417	1.67	0.00	0.040	O I | | |	0.22
0.500	1.82	0.00	0.052	O |I | | |	0.28
0.583	2.14	0.00	0.066	O | I | | |	0.35
0.667	2.53	0.00	0.082	O | I | | |	0.44
0.750	3.37	0.02	0.102	O | | I | |	0.54
0.833	6.43	0.08	0.135	O | | | | I	0.70
0.917	5.11	0.15	0.174	O | | | |I |	0.89
1.000	2.40	0.20	0.199	O | I | | |	1.01
1.083	0.92	0.20	0.209	O I | | | |	1.05
1.167	0.15	0.20	0.212	O | | | | |	1.06
1.250	0.03	0.20	0.211	O | | | | |	1.06
1.333	0.00	0.20	0.209	O | | | | |	1.05
1.417	0.00	0.20	0.208	O | | | | |	1.05
1.500	0.00	0.20	0.207	O | | | | |	1.04
1.583	0.00	0.20	0.205	O | | | | |	1.04

1.667	0.00	0.20	0.204	O	|	|	|	1.03
1.750	0.00	0.20	0.203	O	|	|	|	1.02
1.833	0.00	0.20	0.201	O	|	|	|	1.02
1.917	0.00	0.20	0.200	O	|	|	|	1.01
2.000	0.00	0.20	0.199	O	|	|	|	1.01
2.083	0.00	0.20	0.197	O	|	|	|	1.00
2.167	0.00	0.19	0.196	O	|	|	|	1.00
2.250	0.00	0.19	0.195	O	|	|	|	0.99
2.333	0.00	0.19	0.193	O	|	|	|	0.98
2.417	0.00	0.19	0.192	O	|	|	|	0.98
2.500	0.00	0.18	0.191	O	|	|	|	0.97
2.583	0.00	0.18	0.189	O	|	|	|	0.96
2.667	0.00	0.18	0.188	O	|	|	|	0.96
2.750	0.00	0.18	0.187	O	|	|	|	0.95
2.833	0.00	0.18	0.186	O	|	|	|	0.95
2.917	0.00	0.17	0.185	O	|	|	|	0.94
3.000	0.00	0.17	0.183	O	|	|	|	0.93
3.083	0.00	0.17	0.182	O	|	|	|	0.93
3.167	0.00	0.17	0.181	O	|	|	|	0.92
3.250	0.00	0.16	0.180	O	|	|	|	0.92
3.333	0.00	0.16	0.179	O	|	|	|	0.91
3.417	0.00	0.16	0.178	O	|	|	|	0.91
3.500	0.00	0.16	0.177	O	|	|	|	0.90
3.583	0.00	0.16	0.176	O	|	|	|	0.90
3.667	0.00	0.15	0.174	O	|	|	|	0.89
3.750	0.00	0.15	0.173	O	|	|	|	0.89
3.833	0.00	0.15	0.172	O	|	|	|	0.88
3.917	0.00	0.15	0.171	O	|	|	|	0.88
4.000	0.00	0.15	0.170	O	|	|	|	0.87
4.083	0.00	0.14	0.169	O	|	|	|	0.87
4.167	0.00	0.14	0.168	O	|	|	|	0.86
4.250	0.00	0.14	0.167	O	|	|	|	0.86
4.333	0.00	0.14	0.166	O	|	|	|	0.85
4.417	0.00	0.14	0.165	O	|	|	|	0.85
4.500	0.00	0.14	0.165	O	|	|	|	0.84
4.583	0.00	0.13	0.164	O	|	|	|	0.84
4.667	0.00	0.13	0.163	O	|	|	|	0.84
4.750	0.00	0.13	0.162	O	|	|	|	0.83
4.833	0.00	0.13	0.161	O	|	|	|	0.83
4.917	0.00	0.13	0.160	O	|	|	|	0.82
5.000	0.00	0.12	0.159	O	|	|	|	0.82
5.083	0.00	0.12	0.158	O	|	|	|	0.81
5.167	0.00	0.12	0.157	O	|	|	|	0.81
5.250	0.00	0.12	0.157	O	|	|	|	0.81
5.333	0.00	0.12	0.156	O	|	|	|	0.80
5.417	0.00	0.12	0.155	O	|	|	|	0.80
5.500	0.00	0.12	0.154	O	|	|	|	0.79
5.583	0.00	0.11	0.153	O	|	|	|	0.79
5.667	0.00	0.11	0.153	O	|	|	|	0.79
5.750	0.00	0.11	0.152	O	|	|	|	0.78

5.833	0.00	0.11	0.151	O				0.78
5.917	0.00	0.11	0.150	O				0.78
6.000	0.00	0.11	0.150	O				0.77
6.083	0.00	0.11	0.149	O				0.77
6.167	0.00	0.10	0.148	O				0.77
6.250	0.00	0.10	0.147	O				0.76
6.333	0.00	0.10	0.147	O				0.76
6.417	0.00	0.10	0.146	O				0.76
6.500	0.00	0.10	0.145	O				0.75
6.583	0.00	0.10	0.145	O				0.75
6.667	0.00	0.10	0.144	O				0.75
6.750	0.00	0.10	0.143	O				0.74
6.833	0.00	0.09	0.143	O				0.74
6.917	0.00	0.09	0.142	O				0.74
7.000	0.00	0.09	0.141	O				0.73
7.083	0.00	0.09	0.141	O				0.73
7.167	0.00	0.09	0.140	O				0.73
7.250	0.00	0.09	0.140	O				0.72
7.333	0.00	0.09	0.139	O				0.72
7.417	0.00	0.09	0.138	O				0.72
7.500	0.00	0.08	0.138	O				0.72
7.583	0.00	0.08	0.137	O				0.71
7.667	0.00	0.08	0.137	O				0.71
7.750	0.00	0.08	0.136	O				0.71
7.833	0.00	0.08	0.136	O				0.70
7.917	0.00	0.08	0.135	O				0.70
8.000	0.00	0.08	0.134	O				0.70
8.083	0.00	0.08	0.134	O				0.70
8.167	0.00	0.08	0.133	O				0.69
8.250	0.00	0.08	0.133	O				0.69
8.333	0.00	0.07	0.132	O				0.69
8.417	0.00	0.07	0.132	O				0.69
8.500	0.00	0.07	0.131	O				0.68
8.583	0.00	0.07	0.131	O				0.68
8.667	0.00	0.07	0.130	O				0.68
8.750	0.00	0.07	0.130	O				0.68
8.833	0.00	0.07	0.129	O				0.67
8.917	0.00	0.07	0.129	O				0.67
9.000	0.00	0.07	0.128	O				0.67
9.083	0.00	0.07	0.128	O				0.67
9.167	0.00	0.07	0.128	O				0.67
9.250	0.00	0.06	0.127	O				0.66
9.333	0.00	0.06	0.127	O				0.66
9.417	0.00	0.06	0.126	O				0.66
9.500	0.00	0.06	0.126	O				0.66
9.583	0.00	0.06	0.125	O				0.66
9.667	0.00	0.06	0.125	O				0.65
9.750	0.00	0.06	0.125	O				0.65
9.833	0.00	0.06	0.124	O				0.65
9.917	0.00	0.06	0.124	O				0.65

10.000	0.00	0.06	0.123	O				0.65
10.083	0.00	0.06	0.123	O				0.64
10.167	0.00	0.06	0.123	O				0.64
10.250	0.00	0.06	0.122	O				0.64
10.333	0.00	0.05	0.122	O				0.64
10.417	0.00	0.05	0.121	O				0.64
10.500	0.00	0.05	0.121	O				0.63
10.583	0.00	0.05	0.121	O				0.63
10.667	0.00	0.05	0.120	O				0.63
10.750	0.00	0.05	0.120	O				0.63
10.833	0.00	0.05	0.120	O				0.63
10.917	0.00	0.05	0.119	O				0.63
11.000	0.00	0.05	0.119	O				0.62
11.083	0.00	0.05	0.119	O				0.62
11.167	0.00	0.05	0.118	O				0.62
11.250	0.00	0.05	0.118	O				0.62
11.333	0.00	0.05	0.118	O				0.62
11.417	0.00	0.05	0.117	O				0.62
11.500	0.00	0.05	0.117	O				0.62
11.583	0.00	0.04	0.117	O				0.61
11.667	0.00	0.04	0.116	O				0.61
11.750	0.00	0.04	0.116	O				0.61
11.833	0.00	0.04	0.116	O				0.61
11.917	0.00	0.04	0.115	O				0.61
12.000	0.00	0.04	0.115	O				0.61
12.083	0.00	0.04	0.115	O				0.61
12.167	0.00	0.04	0.115	O				0.60
12.250	0.00	0.04	0.114	O				0.60
12.333	0.00	0.04	0.114	O				0.60
12.417	0.00	0.04	0.114	O				0.60
12.500	0.00	0.04	0.114	O				0.60
12.583	0.00	0.04	0.113	O				0.60
12.667	0.00	0.04	0.113	O				0.60
12.750	0.00	0.04	0.113	O				0.59
12.833	0.00	0.04	0.112	O				0.59
12.917	0.00	0.04	0.112	O				0.59
13.000	0.00	0.04	0.112	O				0.59
13.083	0.00	0.04	0.112	O				0.59
13.167	0.00	0.03	0.112	O				0.59
13.250	0.00	0.03	0.111	O				0.59
13.333	0.00	0.03	0.111	O				0.59
13.417	0.00	0.03	0.111	O				0.59
13.500	0.00	0.03	0.111	O				0.58
13.583	0.00	0.03	0.110	O				0.58
13.667	0.00	0.03	0.110	O				0.58
13.750	0.00	0.03	0.110	O				0.58
13.833	0.00	0.03	0.110	O				0.58
13.917	0.00	0.03	0.109	O				0.58
14.000	0.00	0.03	0.109	O				0.58
14.083	0.00	0.03	0.109	O				0.58

14.167	0.00	0.03	0.109	O	|	|	|	0.58
14.250	0.00	0.03	0.109	O	|	|	|	0.58
14.333	0.00	0.03	0.108	O	|	|	|	0.57
14.417	0.00	0.03	0.108	O	|	|	|	0.57
14.500	0.00	0.03	0.108	O	|	|	|	0.57
14.583	0.00	0.03	0.108	O	|	|	|	0.57
14.667	0.00	0.03	0.108	O	|	|	|	0.57
14.750	0.00	0.03	0.107	O	|	|	|	0.57
14.833	0.00	0.03	0.107	O	|	|	|	0.57
14.917	0.00	0.03	0.107	O	|	|	|	0.57
15.000	0.00	0.03	0.107	O	|	|	|	0.57
15.083	0.00	0.03	0.107	O	|	|	|	0.57
15.167	0.00	0.03	0.107	O	|	|	|	0.57
15.250	0.00	0.03	0.106	O	|	|	|	0.56
15.333	0.00	0.02	0.106	O	|	|	|	0.56
15.417	0.00	0.02	0.106	O	|	|	|	0.56
15.500	0.00	0.02	0.106	O	|	|	|	0.56
15.583	0.00	0.02	0.106	O	|	|	|	0.56
15.667	0.00	0.02	0.106	O	|	|	|	0.56
15.750	0.00	0.02	0.105	O	|	|	|	0.56
15.833	0.00	0.02	0.105	O	|	|	|	0.56
15.917	0.00	0.02	0.105	O	|	|	|	0.56
16.000	0.00	0.02	0.105	O	|	|	|	0.56
16.083	0.00	0.02	0.105	O	|	|	|	0.56
16.167	0.00	0.02	0.105	O	|	|	|	0.56
16.250	0.00	0.02	0.104	O	|	|	|	0.55
16.333	0.00	0.02	0.104	O	|	|	|	0.55
16.417	0.00	0.02	0.104	O	|	|	|	0.55
16.500	0.00	0.02	0.104	O	|	|	|	0.55
16.583	0.00	0.02	0.104	O	|	|	|	0.55
16.667	0.00	0.02	0.104	O	|	|	|	0.55
16.750	0.00	0.02	0.104	O	|	|	|	0.55
16.833	0.00	0.02	0.103	O	|	|	|	0.55
16.917	0.00	0.02	0.103	O	|	|	|	0.55
17.000	0.00	0.02	0.103	O	|	|	|	0.55
17.083	0.00	0.02	0.103	O	|	|	|	0.55
17.167	0.00	0.02	0.103	O	|	|	|	0.55
17.250	0.00	0.02	0.103	O	|	|	|	0.55
17.333	0.00	0.02	0.103	O	|	|	|	0.55
17.417	0.00	0.02	0.103	O	|	|	|	0.55
17.500	0.00	0.02	0.102	O	|	|	|	0.55
17.583	0.00	0.02	0.102	O	|	|	|	0.54
17.667	0.00	0.02	0.102	O	|	|	|	0.54
17.750	0.00	0.02	0.102	O	|	|	|	0.54
17.833	0.00	0.02	0.102	O	|	|	|	0.54
17.917	0.00	0.02	0.102	O	|	|	|	0.54
18.000	0.00	0.02	0.102	O	|	|	|	0.54
18.083	0.00	0.02	0.102	O	|	|	|	0.54
18.167	0.00	0.02	0.101	O	|	|	|	0.54
18.250	0.00	0.02	0.101	O	|	|	|	0.54

18.333	0.00	0.02	0.101	O	|	|	|	0.54
18.417	0.00	0.02	0.101	O	|	|	|	0.54
18.500	0.00	0.02	0.101	O	|	|	|	0.54
18.583	0.00	0.02	0.101	O	|	|	|	0.54
18.667	0.00	0.01	0.101	O	|	|	|	0.54
18.750	0.00	0.01	0.101	O	|	|	|	0.54
18.833	0.00	0.01	0.101	O	|	|	|	0.54
18.917	0.00	0.01	0.101	O	|	|	|	0.54
19.000	0.00	0.01	0.100	O	|	|	|	0.54
19.083	0.00	0.01	0.100	O	|	|	|	0.54
19.167	0.00	0.01	0.100	O	|	|	|	0.53
19.250	0.00	0.01	0.100	O	|	|	|	0.53
19.333	0.00	0.01	0.100	O	|	|	|	0.53
19.417	0.00	0.01	0.100	O	|	|	|	0.53
19.500	0.00	0.01	0.100	O	|	|	|	0.53
19.583	0.00	0.01	0.100	O	|	|	|	0.53
19.667	0.00	0.01	0.100	O	|	|	|	0.53
19.750	0.00	0.01	0.100	O	|	|	|	0.53
19.833	0.00	0.01	0.100	O	|	|	|	0.53
19.917	0.00	0.01	0.099	O	|	|	|	0.53
20.000	0.00	0.01	0.099	O	|	|	|	0.53
20.083	0.00	0.01	0.099	O	|	|	|	0.53
20.167	0.00	0.01	0.099	O	|	|	|	0.53
20.250	0.00	0.01	0.099	O	|	|	|	0.53
20.333	0.00	0.01	0.099	O	|	|	|	0.53
20.417	0.00	0.01	0.099	O	|	|	|	0.53
20.500	0.00	0.01	0.099	O	|	|	|	0.53
20.583	0.00	0.01	0.099	O	|	|	|	0.53
20.667	0.00	0.01	0.099	O	|	|	|	0.53
20.750	0.00	0.01	0.099	O	|	|	|	0.53
20.833	0.00	0.01	0.099	O	|	|	|	0.53
20.917	0.00	0.01	0.099	O	|	|	|	0.53
21.000	0.00	0.01	0.098	O	|	|	|	0.53
21.083	0.00	0.01	0.098	O	|	|	|	0.53
21.167	0.00	0.01	0.098	O	|	|	|	0.53
21.250	0.00	0.01	0.098	O	|	|	|	0.53
21.333	0.00	0.01	0.098	O	|	|	|	0.52
21.417	0.00	0.01	0.098	O	|	|	|	0.52
21.500	0.00	0.01	0.098	O	|	|	|	0.52
21.583	0.00	0.01	0.098	O	|	|	|	0.52
21.667	0.00	0.01	0.098	O	|	|	|	0.52
21.750	0.00	0.01	0.098	O	|	|	|	0.52
21.833	0.00	0.01	0.098	O	|	|	|	0.52
21.917	0.00	0.01	0.098	O	|	|	|	0.52
22.000	0.00	0.01	0.098	O	|	|	|	0.52
22.083	0.00	0.01	0.098	O	|	|	|	0.52
22.167	0.00	0.01	0.098	O	|	|	|	0.52
22.250	0.00	0.01	0.097	O	|	|	|	0.52
22.333	0.00	0.01	0.097	O	|	|	|	0.52
22.417	0.00	0.01	0.097	O	|	|	|	0.52

22.500	0.00	0.01	0.097	O	|	|	|	0.52
22.583	0.00	0.01	0.097	O	|	|	|	0.52
22.667	0.00	0.01	0.097	O	|	|	|	0.52
22.750	0.00	0.01	0.097	O	|	|	|	0.52
22.833	0.00	0.01	0.097	O	|	|	|	0.52
22.917	0.00	0.01	0.097	O	|	|	|	0.52
23.000	0.00	0.01	0.097	O	|	|	|	0.52
23.083	0.00	0.01	0.097	O	|	|	|	0.52
23.167	0.00	0.01	0.097	O	|	|	|	0.52
23.250	0.00	0.01	0.097	O	|	|	|	0.52
23.333	0.00	0.01	0.097	O	|	|	|	0.52
23.417	0.00	0.01	0.097	O	|	|	|	0.52
23.500	0.00	0.01	0.097	O	|	|	|	0.52
23.583	0.00	0.01	0.097	O	|	|	|	0.52
23.667	0.00	0.01	0.097	O	|	|	|	0.52
23.750	0.00	0.01	0.097	O	|	|	|	0.52
23.833	0.00	0.01	0.097	O	|	|	|	0.52
23.917	0.00	0.01	0.096	O	|	|	|	0.52
24.000	0.00	0.01	0.096	O	|	|	|	0.52
24.083	0.00	0.01	0.096	O	|	|	|	0.52
24.167	0.00	0.01	0.096	O	|	|	|	0.52
24.250	0.00	0.01	0.096	O	|	|	|	0.52
24.333	0.00	0.01	0.096	O	|	|	|	0.52
24.417	0.00	0.01	0.096	O	|	|	|	0.52
24.500	0.00	0.01	0.096	O	|	|	|	0.52
24.583	0.00	0.01	0.096	O	|	|	|	0.51
24.667	0.00	0.01	0.096	O	|	|	|	0.51
24.750	0.00	0.01	0.096	O	|	|	|	0.51
24.833	0.00	0.01	0.096	O	|	|	|	0.51
24.917	0.00	0.01	0.096	O	|	|	|	0.51
25.000	0.00	0.01	0.096	O	|	|	|	0.51
25.083	0.00	0.01	0.096	O	|	|	|	0.51
25.167	0.00	0.01	0.096	O	|	|	|	0.51
25.250	0.00	0.01	0.096	O	|	|	|	0.51
25.333	0.00	0.01	0.096	O	|	|	|	0.51
25.417	0.00	0.01	0.096	O	|	|	|	0.51
25.500	0.00	0.01	0.096	O	|	|	|	0.51
25.583	0.00	0.01	0.096	O	|	|	|	0.51
25.667	0.00	0.00	0.096	O	|	|	|	0.51
25.750	0.00	0.00	0.096	O	|	|	|	0.51
25.833	0.00	0.00	0.096	O	|	|	|	0.51
25.917	0.00	0.00	0.096	O	|	|	|	0.51
26.000	0.00	0.00	0.095	O	|	|	|	0.51
26.083	0.00	0.00	0.095	O	|	|	|	0.51
26.167	0.00	0.00	0.095	O	|	|	|	0.51
26.250	0.00	0.00	0.095	O	|	|	|	0.51
26.333	0.00	0.00	0.095	O	|	|	|	0.51
26.417	0.00	0.00	0.095	O	|	|	|	0.51
26.500	0.00	0.00	0.095	O	|	|	|	0.51
26.583	0.00	0.00	0.095	O	|	|	|	0.51

26.667	0.00	0.00	0.095	O	|	|	|	0.51
26.750	0.00	0.00	0.095	O	|	|	|	0.51
26.833	0.00	0.00	0.095	O	|	|	|	0.51
26.917	0.00	0.00	0.095	O	|	|	|	0.51
27.000	0.00	0.00	0.095	O	|	|	|	0.51
27.083	0.00	0.00	0.095	O	|	|	|	0.51
27.167	0.00	0.00	0.095	O	|	|	|	0.51
27.250	0.00	0.00	0.095	O	|	|	|	0.51
27.333	0.00	0.00	0.095	O	|	|	|	0.51
27.417	0.00	0.00	0.095	O	|	|	|	0.51
27.500	0.00	0.00	0.095	O	|	|	|	0.51
27.583	0.00	0.00	0.095	O	|	|	|	0.51
27.667	0.00	0.00	0.095	O	|	|	|	0.51
27.750	0.00	0.00	0.095	O	|	|	|	0.51
27.833	0.00	0.00	0.095	O	|	|	|	0.51
27.917	0.00	0.00	0.095	O	|	|	|	0.51
28.000	0.00	0.00	0.095	O	|	|	|	0.51
28.083	0.00	0.00	0.095	O	|	|	|	0.51
28.167	0.00	0.00	0.095	O	|	|	|	0.51
28.250	0.00	0.00	0.095	O	|	|	|	0.51
28.333	0.00	0.00	0.095	O	|	|	|	0.51
28.417	0.00	0.00	0.095	O	|	|	|	0.51
28.500	0.00	0.00	0.095	O	|	|	|	0.51
28.583	0.00	0.00	0.095	O	|	|	|	0.51
28.667	0.00	0.00	0.095	O	|	|	|	0.51
28.750	0.00	0.00	0.095	O	|	|	|	0.51
28.833	0.00	0.00	0.095	O	|	|	|	0.51
28.917	0.00	0.00	0.095	O	|	|	|	0.51
29.000	0.00	0.00	0.095	O	|	|	|	0.51
29.083	0.00	0.00	0.095	O	|	|	|	0.51
29.167	0.00	0.00	0.095	O	|	|	|	0.51
29.250	0.00	0.00	0.095	O	|	|	|	0.51
29.333	0.00	0.00	0.094	O	|	|	|	0.51
29.417	0.00	0.00	0.094	O	|	|	|	0.51
29.500	0.00	0.00	0.094	O	|	|	|	0.51
29.583	0.00	0.00	0.094	O	|	|	|	0.51
29.667	0.00	0.00	0.094	O	|	|	|	0.51
29.750	0.00	0.00	0.094	O	|	|	|	0.51
29.833	0.00	0.00	0.094	O	|	|	|	0.51
29.917	0.00	0.00	0.094	O	|	|	|	0.51
30.000	0.00	0.00	0.094	O	|	|	|	0.51
30.083	0.00	0.00	0.094	O	|	|	|	0.51
30.167	0.00	0.00	0.094	O	|	|	|	0.51
30.250	0.00	0.00	0.094	O	|	|	|	0.51
30.333	0.00	0.00	0.094	O	|	|	|	0.51
30.417	0.00	0.00	0.094	O	|	|	|	0.51
30.500	0.00	0.00	0.094	O	|	|	|	0.51
30.583	0.00	0.00	0.094	O	|	|	|	0.51
30.667	0.00	0.00	0.094	O	|	|	|	0.51
30.750	0.00	0.00	0.094	O	|	|	|	0.51

30.833	0.00	0.00	0.094	O	|	|	|	0.51
30.917	0.00	0.00	0.094	O	|	|	|	0.51
31.000	0.00	0.00	0.094	O	|	|	|	0.51
31.083	0.00	0.00	0.094	O	|	|	|	0.51
31.167	0.00	0.00	0.094	O	|	|	|	0.51
31.250	0.00	0.00	0.094	O	|	|	|	0.51
31.333	0.00	0.00	0.094	O	|	|	|	0.51
31.417	0.00	0.00	0.094	O	|	|	|	0.51
31.500	0.00	0.00	0.094	O	|	|	|	0.51
31.583	0.00	0.00	0.094	O	|	|	|	0.51
31.667	0.00	0.00	0.094	O	|	|	|	0.50
31.750	0.00	0.00	0.094	O	|	|	|	0.50
31.833	0.00	0.00	0.094	O	|	|	|	0.50
31.917	0.00	0.00	0.094	O	|	|	|	0.50
32.000	0.00	0.00	0.094	O	|	|	|	0.50
32.083	0.00	0.00	0.094	O	|	|	|	0.50
32.167	0.00	0.00	0.094	O	|	|	|	0.50
32.250	0.00	0.00	0.094	O	|	|	|	0.50
32.333	0.00	0.00	0.094	O	|	|	|	0.50
32.417	0.00	0.00	0.094	O	|	|	|	0.50
32.500	0.00	0.00	0.094	O	|	|	|	0.50
32.583	0.00	0.00	0.094	O	|	|	|	0.50
32.667	0.00	0.00	0.094	O	|	|	|	0.50
32.750	0.00	0.00	0.094	O	|	|	|	0.50
32.833	0.00	0.00	0.094	O	|	|	|	0.50
32.917	0.00	0.00	0.094	O	|	|	|	0.50
33.000	0.00	0.00	0.094	O	|	|	|	0.50
33.083	0.00	0.00	0.094	O	|	|	|	0.50
33.167	0.00	0.00	0.094	O	|	|	|	0.50
33.250	0.00	0.00	0.094	O	|	|	|	0.50
33.333	0.00	0.00	0.094	O	|	|	|	0.50
33.417	0.00	0.00	0.094	O	|	|	|	0.50
33.500	0.00	0.00	0.094	O	|	|	|	0.50
33.583	0.00	0.00	0.094	O	|	|	|	0.50
33.667	0.00	0.00	0.094	O	|	|	|	0.50
33.750	0.00	0.00	0.094	O	|	|	|	0.50
33.833	0.00	0.00	0.094	O	|	|	|	0.50
33.917	0.00	0.00	0.094	O	|	|	|	0.50
34.000	0.00	0.00	0.094	O	|	|	|	0.50
34.083	0.00	0.00	0.094	O	|	|	|	0.50
34.167	0.00	0.00	0.094	O	|	|	|	0.50
34.250	0.00	0.00	0.094	O	|	|	|	0.50
34.333	0.00	0.00	0.094	O	|	|	|	0.50
34.417	0.00	0.00	0.094	O	|	|	|	0.50
34.500	0.00	0.00	0.094	O	|	|	|	0.50
34.583	0.00	0.00	0.094	O	|	|	|	0.50
34.667	0.00	0.00	0.094	O	|	|	|	0.50
34.750	0.00	0.00	0.094	O	|	|	|	0.50
34.833	0.00	0.00	0.094	O	|	|	|	0.50
34.917	0.00	0.00	0.094	O	|	|	|	0.50

35.000	0.00	0.00	0.094	O	|	|	|	0.50
35.083	0.00	0.00	0.094	O	|	|	|	0.50
35.167	0.00	0.00	0.094	O	|	|	|	0.50
35.250	0.00	0.00	0.094	O	|	|	|	0.50
35.333	0.00	0.00	0.094	O	|	|	|	0.50
35.417	0.00	0.00	0.094	O	|	|	|	0.50
35.500	0.00	0.00	0.094	O	|	|	|	0.50
35.583	0.00	0.00	0.094	O	|	|	|	0.50
35.667	0.00	0.00	0.094	O	|	|	|	0.50
35.750	0.00	0.00	0.094	O	|	|	|	0.50
35.833	0.00	0.00	0.094	O	|	|	|	0.50
35.917	0.00	0.00	0.094	O	|	|	|	0.50
36.000	0.00	0.00	0.094	O	|	|	|	0.50

Remaining water in basin = 0.09 (Ac.Ft)

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

Number of intervals = 432
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.124 (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

Study date: 08/24/22

A21626 DMA 1 2YR-3HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA1Q100UH32.rte
**********HYDROGRAPH DATA**********
Number of intervals = 39
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 4.029 (CFS)
Total volume = 0.349 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.00(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.50(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   4.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   1.00(Ft.)    Capacity =   6.28(CFS)

Total outflow at this depth =      6.48(CFS)

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Total number of inflow hydrograph intervals = 39
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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
0.500	0.093	0.000	0.093	0.093
1.000	0.197	0.196	0.196	0.198
1.500	0.313	0.196	0.312	0.314
2.000	0.440	0.196	0.439	0.441
2.500	0.580	0.196	0.579	0.581
3.000	0.732	0.196	0.731	0.733
3.500	0.897	0.196	0.896	0.898
4.000	1.075	4.639	1.059	1.091
4.500	1.267	6.480	1.245	1.289

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 1.0 2.01 3.02 4.03	Depth (Ft.)
0.083	0.34	0.00	0.001	O I	0.01
0.167	0.60	0.00	0.004	O I	0.02
0.250	0.59	0.00	0.008	O I	0.05
0.333	0.67	0.00	0.013	O I	0.07
0.417	0.74	0.00	0.018	O I	0.09
0.500	0.83	0.00	0.023	O I	0.12
0.583	0.81	0.00	0.029	O I	0.15
0.667	0.84	0.00	0.034	O I	0.18
0.750	0.90	0.00	0.040	O I	0.22
0.833	0.83	0.00	0.046	O I	0.25
0.917	0.79	0.00	0.052	O I	0.28
1.000	0.85	0.00	0.058	O I	0.31
1.083	1.00	0.00	0.064	O I	0.34
1.167	1.09	0.00	0.071	O I	0.38
1.250	1.10	0.00	0.079	O I	0.42
1.333	1.05	0.00	0.086	O I	0.46
1.417	1.17	0.00	0.094	O I	0.50
1.500	1.31	0.02	0.102	O I	0.54
1.583	1.27	0.03	0.111	O I	0.59

1.667	1.30	0.05	0.119	O	| I	|	|	|	0.63
1.750	1.50	0.07	0.129	O	| I	|	|	|	0.67
1.833	1.58	0.09	0.139	O	| I	|	|	|	0.72
1.917	1.51	0.11	0.149	O	| I	|	|	|	0.77
2.000	1.50	0.12	0.158	O	| I	|	|	|	0.81
2.083	1.53	0.14	0.168	|O	| I	|	|	|	0.86
2.167	1.84	0.16	0.178	|O	| I	|	|	|	0.91
2.250	2.27	0.19	0.191	|O	| I	|	|	|	0.97
2.333	2.08	0.20	0.205	|O	| I	|	|	|	1.03
2.417	2.70	0.20	0.220	|O	| I	|	|	|	1.10
2.500	3.50	0.20	0.240	|O	| I	|	|	|	1.19
2.583	4.03	0.20	0.265	|O	| I	|	|	|	1.29
2.667	3.59	0.20	0.290	|O	| I	|	|	|	1.40
2.750	2.07	0.20	0.308	|O	| I	|	|	|	1.48
2.833	1.15	0.20	0.318	|O	|I	|	|	|	1.52
2.917	0.95	0.20	0.323	|O	I|	|	|	|	1.54
3.000	0.60	0.20	0.327	|O	I |	|	|	|	1.56
3.083	0.20	0.20	0.329	|O	|	|	|	|	1.56
3.167	0.04	0.20	0.328	IO	|	|	|	|	1.56
3.250	0.01	0.20	0.327	IO	|	|	|	|	1.56
3.333	0.00	0.20	0.326	IO	|	|	|	|	1.55
3.417	0.00	0.20	0.324	IO	|	|	|	|	1.54
3.500	0.00	0.20	0.323	IO	|	|	|	|	1.54
3.583	0.00	0.20	0.322	IO	|	|	|	|	1.53
3.667	0.00	0.20	0.320	IO	|	|	|	|	1.53
3.750	0.00	0.20	0.319	IO	|	|	|	|	1.52
3.833	0.00	0.20	0.318	IO	|	|	|	|	1.52
3.917	0.00	0.20	0.316	IO	|	|	|	|	1.51
4.000	0.00	0.20	0.315	IO	|	|	|	|	1.51
4.083	0.00	0.20	0.314	IO	|	|	|	|	1.50
4.167	0.00	0.20	0.312	IO	|	|	|	|	1.50
4.250	0.00	0.20	0.311	IO	|	|	|	|	1.49
4.333	0.00	0.20	0.310	IO	|	|	|	|	1.48
4.417	0.00	0.20	0.308	IO	|	|	|	|	1.48
4.500	0.00	0.20	0.307	IO	|	|	|	|	1.47
4.583	0.00	0.20	0.305	IO	|	|	|	|	1.47
4.667	0.00	0.20	0.304	IO	|	|	|	|	1.46
4.750	0.00	0.20	0.303	IO	|	|	|	|	1.46
4.833	0.00	0.20	0.301	IO	|	|	|	|	1.45
4.917	0.00	0.20	0.300	IO	|	|	|	|	1.44
5.000	0.00	0.20	0.299	IO	|	|	|	|	1.44
5.083	0.00	0.20	0.297	IO	|	|	|	|	1.43
5.167	0.00	0.20	0.296	IO	|	|	|	|	1.43
5.250	0.00	0.20	0.295	IO	|	|	|	|	1.42
5.333	0.00	0.20	0.293	IO	|	|	|	|	1.41
5.417	0.00	0.20	0.292	IO	|	|	|	|	1.41
5.500	0.00	0.20	0.291	IO	|	|	|	|	1.40
5.583	0.00	0.20	0.289	IO	|	|	|	|	1.40
5.667	0.00	0.20	0.288	IO	|	|	|	|	1.39
5.750	0.00	0.20	0.287	IO	|	|	|	|	1.39

5.833	0.00	0.20	0.285	IO				1.38
5.917	0.00	0.20	0.284	IO				1.37
6.000	0.00	0.20	0.282	IO				1.37
6.083	0.00	0.20	0.281	IO				1.36
6.167	0.00	0.20	0.280	IO				1.36
6.250	0.00	0.20	0.278	IO				1.35
6.333	0.00	0.20	0.277	IO				1.35
6.417	0.00	0.20	0.276	IO				1.34
6.500	0.00	0.20	0.274	IO				1.33
6.583	0.00	0.20	0.273	IO				1.33
6.667	0.00	0.20	0.272	IO				1.32
6.750	0.00	0.20	0.270	IO				1.32
6.833	0.00	0.20	0.269	IO				1.31
6.917	0.00	0.20	0.268	IO				1.30
7.000	0.00	0.20	0.266	IO				1.30
7.083	0.00	0.20	0.265	IO				1.29
7.167	0.00	0.20	0.264	IO				1.29
7.250	0.00	0.20	0.262	IO				1.28
7.333	0.00	0.20	0.261	IO				1.28
7.417	0.00	0.20	0.259	IO				1.27
7.500	0.00	0.20	0.258	IO				1.26
7.583	0.00	0.20	0.257	IO				1.26
7.667	0.00	0.20	0.255	IO				1.25
7.750	0.00	0.20	0.254	IO				1.25
7.833	0.00	0.20	0.253	IO				1.24
7.917	0.00	0.20	0.251	IO				1.23
8.000	0.00	0.20	0.250	IO				1.23
8.083	0.00	0.20	0.249	IO				1.22
8.167	0.00	0.20	0.247	IO				1.22
8.250	0.00	0.20	0.246	IO				1.21
8.333	0.00	0.20	0.245	IO				1.21
8.417	0.00	0.20	0.243	IO				1.20
8.500	0.00	0.20	0.242	IO				1.19
8.583	0.00	0.20	0.241	IO				1.19
8.667	0.00	0.20	0.239	IO				1.18
8.750	0.00	0.20	0.238	IO				1.18
8.833	0.00	0.20	0.236	IO				1.17
8.917	0.00	0.20	0.235	IO				1.16
9.000	0.00	0.20	0.234	IO				1.16
9.083	0.00	0.20	0.232	IO				1.15
9.167	0.00	0.20	0.231	IO				1.15
9.250	0.00	0.20	0.230	IO				1.14
9.333	0.00	0.20	0.228	IO				1.14
9.417	0.00	0.20	0.227	IO				1.13
9.500	0.00	0.20	0.226	IO				1.12
9.583	0.00	0.20	0.224	IO				1.12
9.667	0.00	0.20	0.223	IO				1.11
9.750	0.00	0.20	0.222	IO				1.11
9.833	0.00	0.20	0.220	IO				1.10
9.917	0.00	0.20	0.219	IO				1.09

10.000	0.00	0.20	0.218	IO				1.09
10.083	0.00	0.20	0.216	IO				1.08
10.167	0.00	0.20	0.215	IO				1.08
10.250	0.00	0.20	0.213	IO				1.07
10.333	0.00	0.20	0.212	IO				1.07
10.417	0.00	0.20	0.211	IO				1.06
10.500	0.00	0.20	0.209	IO				1.05
10.583	0.00	0.20	0.208	IO				1.05
10.667	0.00	0.20	0.207	IO				1.04
10.750	0.00	0.20	0.205	IO				1.04
10.833	0.00	0.20	0.204	IO				1.03
10.917	0.00	0.20	0.203	IO				1.02
11.000	0.00	0.20	0.201	IO				1.02
11.083	0.00	0.20	0.200	IO				1.01
11.167	0.00	0.20	0.199	IO				1.01
11.250	0.00	0.20	0.197	IO				1.00
11.333	0.00	0.19	0.196	IO				0.99
11.417	0.00	0.19	0.195	IO				0.99
11.500	0.00	0.19	0.193	IO				0.98
11.583	0.00	0.19	0.192	IO				0.98
11.667	0.00	0.18	0.191	IO				0.97
11.750	0.00	0.18	0.189	IO				0.96
11.833	0.00	0.18	0.188	IO				0.96
11.917	0.00	0.18	0.187	IO				0.95
12.000	0.00	0.18	0.186	IO				0.95
12.083	0.00	0.17	0.185	IO				0.94
12.167	0.00	0.17	0.183	IO				0.93
12.250	0.00	0.17	0.182	IO				0.93
12.333	0.00	0.17	0.181	IO				0.92
12.417	0.00	0.16	0.180	IO				0.92
12.500	0.00	0.16	0.179	IO				0.91
12.583	0.00	0.16	0.178	IO				0.91
12.667	0.00	0.16	0.177	IO				0.90
12.750	0.00	0.16	0.176	IO				0.90
12.833	0.00	0.15	0.174	IO				0.89
12.917	0.00	0.15	0.173	IO				0.89
13.000	0.00	0.15	0.172	IO				0.88
13.083	0.00	0.15	0.171	IO				0.88
13.167	0.00	0.15	0.170	IO				0.87
13.250	0.00	0.14	0.169	IO				0.87
13.333	0.00	0.14	0.168	IO				0.86
13.417	0.00	0.14	0.167	IO				0.86
13.500	0.00	0.14	0.166	IO				0.85
13.583	0.00	0.14	0.165	IO				0.85
13.667	0.00	0.14	0.165	IO				0.84
13.750	0.00	0.13	0.164	IO				0.84
13.833	0.00	0.13	0.163	IO				0.83
13.917	0.00	0.13	0.162	IO				0.83
14.000	0.00	0.13	0.161	IO				0.83
14.083	0.00	0.13	0.160	IO				0.82

14.167	0.00	0.12	0.159	O				0.82
14.250	0.00	0.12	0.158	O				0.81
14.333	0.00	0.12	0.157	O				0.81
14.417	0.00	0.12	0.157	O				0.81
14.500	0.00	0.12	0.156	O				0.80
14.583	0.00	0.12	0.155	O				0.80
14.667	0.00	0.12	0.154	O				0.79
14.750	0.00	0.11	0.153	O				0.79
14.833	0.00	0.11	0.153	O				0.79
14.917	0.00	0.11	0.152	O				0.78
15.000	0.00	0.11	0.151	O				0.78
15.083	0.00	0.11	0.150	O				0.78
15.167	0.00	0.11	0.150	O				0.77
15.250	0.00	0.11	0.149	O				0.77
15.333	0.00	0.10	0.148	O				0.77
15.417	0.00	0.10	0.147	O				0.76
15.500	0.00	0.10	0.147	O				0.76
15.583	0.00	0.10	0.146	O				0.75
15.667	0.00	0.10	0.145	O				0.75
15.750	0.00	0.10	0.145	O				0.75
15.833	0.00	0.10	0.144	O				0.75
15.917	0.00	0.10	0.143	O				0.74
16.000	0.00	0.09	0.143	O				0.74
16.083	0.00	0.09	0.142	O				0.74
16.167	0.00	0.09	0.141	O				0.73
16.250	0.00	0.09	0.141	O				0.73
16.333	0.00	0.09	0.140	O				0.73
16.417	0.00	0.09	0.140	O				0.72
16.500	0.00	0.09	0.139	O				0.72
16.583	0.00	0.09	0.138	O				0.72
16.667	0.00	0.08	0.138	O				0.72
16.750	0.00	0.08	0.137	O				0.71
16.833	0.00	0.08	0.137	O				0.71
16.917	0.00	0.08	0.136	O				0.71
17.000	0.00	0.08	0.136	O				0.70
17.083	0.00	0.08	0.135	O				0.70
17.167	0.00	0.08	0.134	O				0.70
17.250	0.00	0.08	0.134	O				0.70
17.333	0.00	0.08	0.133	O				0.69
17.417	0.00	0.08	0.133	O				0.69
17.500	0.00	0.07	0.132	O				0.69
17.583	0.00	0.07	0.132	O				0.69
17.667	0.00	0.07	0.131	O				0.68
17.750	0.00	0.07	0.131	O				0.68
17.833	0.00	0.07	0.130	O				0.68
17.917	0.00	0.07	0.130	O				0.68
18.000	0.00	0.07	0.129	O				0.67
18.083	0.00	0.07	0.129	O				0.67
18.167	0.00	0.07	0.128	O				0.67
18.250	0.00	0.07	0.128	O				0.67

18.333	0.00	0.07	0.128	O	|	|	|	0.67
18.417	0.00	0.06	0.127	O	|	|	|	0.66
18.500	0.00	0.06	0.127	O	|	|	|	0.66
18.583	0.00	0.06	0.126	O	|	|	|	0.66
18.667	0.00	0.06	0.126	O	|	|	|	0.66
18.750	0.00	0.06	0.125	O	|	|	|	0.66
18.833	0.00	0.06	0.125	O	|	|	|	0.65
18.917	0.00	0.06	0.125	O	|	|	|	0.65
19.000	0.00	0.06	0.124	O	|	|	|	0.65
19.083	0.00	0.06	0.124	O	|	|	|	0.65
19.167	0.00	0.06	0.123	O	|	|	|	0.65
19.250	0.00	0.06	0.123	O	|	|	|	0.64
19.333	0.00	0.06	0.123	O	|	|	|	0.64
19.417	0.00	0.06	0.122	O	|	|	|	0.64
19.500	0.00	0.05	0.122	O	|	|	|	0.64
19.583	0.00	0.05	0.121	O	|	|	|	0.64
19.667	0.00	0.05	0.121	O	|	|	|	0.63
19.750	0.00	0.05	0.121	O	|	|	|	0.63
19.833	0.00	0.05	0.120	O	|	|	|	0.63
19.917	0.00	0.05	0.120	O	|	|	|	0.63
20.000	0.00	0.05	0.120	O	|	|	|	0.63
20.083	0.00	0.05	0.119	O	|	|	|	0.63
20.167	0.00	0.05	0.119	O	|	|	|	0.62
20.250	0.00	0.05	0.119	O	|	|	|	0.62
20.333	0.00	0.05	0.118	O	|	|	|	0.62
20.417	0.00	0.05	0.118	O	|	|	|	0.62
20.500	0.00	0.05	0.118	O	|	|	|	0.62
20.583	0.00	0.05	0.117	O	|	|	|	0.62
20.667	0.00	0.05	0.117	O	|	|	|	0.62
20.750	0.00	0.04	0.117	O	|	|	|	0.61
20.833	0.00	0.04	0.116	O	|	|	|	0.61
20.917	0.00	0.04	0.116	O	|	|	|	0.61
21.000	0.00	0.04	0.116	O	|	|	|	0.61
21.083	0.00	0.04	0.115	O	|	|	|	0.61
21.167	0.00	0.04	0.115	O	|	|	|	0.61
21.250	0.00	0.04	0.115	O	|	|	|	0.61
21.333	0.00	0.04	0.115	O	|	|	|	0.60
21.417	0.00	0.04	0.114	O	|	|	|	0.60
21.500	0.00	0.04	0.114	O	|	|	|	0.60
21.583	0.00	0.04	0.114	O	|	|	|	0.60
21.667	0.00	0.04	0.114	O	|	|	|	0.60
21.750	0.00	0.04	0.113	O	|	|	|	0.60
21.833	0.00	0.04	0.113	O	|	|	|	0.60
21.917	0.00	0.04	0.113	O	|	|	|	0.59
22.000	0.00	0.04	0.112	O	|	|	|	0.59
22.083	0.00	0.04	0.112	O	|	|	|	0.59
22.167	0.00	0.04	0.112	O	|	|	|	0.59
22.250	0.00	0.04	0.112	O	|	|	|	0.59
22.333	0.00	0.03	0.111	O	|	|	|	0.59
22.417	0.00	0.03	0.111	O	|	|	|	0.59

22.500	0.00	0.03	0.111	O	|	|	|	0.59
22.583	0.00	0.03	0.111	O	|	|	|	0.59
22.667	0.00	0.03	0.111	O	|	|	|	0.58
22.750	0.00	0.03	0.110	O	|	|	|	0.58
22.833	0.00	0.03	0.110	O	|	|	|	0.58
22.917	0.00	0.03	0.110	O	|	|	|	0.58
23.000	0.00	0.03	0.110	O	|	|	|	0.58
23.083	0.00	0.03	0.109	O	|	|	|	0.58
23.167	0.00	0.03	0.109	O	|	|	|	0.58
23.250	0.00	0.03	0.109	O	|	|	|	0.58
23.333	0.00	0.03	0.109	O	|	|	|	0.58
23.417	0.00	0.03	0.109	O	|	|	|	0.58
23.500	0.00	0.03	0.108	O	|	|	|	0.57
23.583	0.00	0.03	0.108	O	|	|	|	0.57
23.667	0.00	0.03	0.108	O	|	|	|	0.57
23.750	0.00	0.03	0.108	O	|	|	|	0.57
23.833	0.00	0.03	0.108	O	|	|	|	0.57
23.917	0.00	0.03	0.107	O	|	|	|	0.57
24.000	0.00	0.03	0.107	O	|	|	|	0.57
24.083	0.00	0.03	0.107	O	|	|	|	0.57
24.167	0.00	0.03	0.107	O	|	|	|	0.57
24.250	0.00	0.03	0.107	O	|	|	|	0.57
24.333	0.00	0.03	0.107	O	|	|	|	0.57
24.417	0.00	0.03	0.106	O	|	|	|	0.56
24.500	0.00	0.02	0.106	O	|	|	|	0.56
24.583	0.00	0.02	0.106	O	|	|	|	0.56
24.667	0.00	0.02	0.106	O	|	|	|	0.56
24.750	0.00	0.02	0.106	O	|	|	|	0.56
24.833	0.00	0.02	0.106	O	|	|	|	0.56
24.917	0.00	0.02	0.105	O	|	|	|	0.56
25.000	0.00	0.02	0.105	O	|	|	|	0.56
25.083	0.00	0.02	0.105	O	|	|	|	0.56
25.167	0.00	0.02	0.105	O	|	|	|	0.56
25.250	0.00	0.02	0.105	O	|	|	|	0.56
25.333	0.00	0.02	0.105	O	|	|	|	0.56
25.417	0.00	0.02	0.104	O	|	|	|	0.55
25.500	0.00	0.02	0.104	O	|	|	|	0.55
25.583	0.00	0.02	0.104	O	|	|	|	0.55
25.667	0.00	0.02	0.104	O	|	|	|	0.55
25.750	0.00	0.02	0.104	O	|	|	|	0.55
25.833	0.00	0.02	0.104	O	|	|	|	0.55
25.917	0.00	0.02	0.104	O	|	|	|	0.55
26.000	0.00	0.02	0.103	O	|	|	|	0.55
26.083	0.00	0.02	0.103	O	|	|	|	0.55
26.167	0.00	0.02	0.103	O	|	|	|	0.55
26.250	0.00	0.02	0.103	O	|	|	|	0.55
26.333	0.00	0.02	0.103	O	|	|	|	0.55
26.417	0.00	0.02	0.103	O	|	|	|	0.55
26.500	0.00	0.02	0.103	O	|	|	|	0.55
26.583	0.00	0.02	0.103	O	|	|	|	0.55

26.667	0.00	0.02	0.102	O				0.55
26.750	0.00	0.02	0.102	O				0.54
26.833	0.00	0.02	0.102	O				0.54
26.917	0.00	0.02	0.102	O				0.54
27.000	0.00	0.02	0.102	O				0.54
27.083	0.00	0.02	0.102	O				0.54
27.167	0.00	0.02	0.102	O				0.54
27.250	0.00	0.02	0.102	O				0.54
27.333	0.00	0.02	0.101	O				0.54
27.417	0.00	0.02	0.101	O				0.54
27.500	0.00	0.02	0.101	O				0.54
27.583	0.00	0.02	0.101	O				0.54
27.667	0.00	0.02	0.101	O				0.54
27.750	0.00	0.01	0.101	O				0.54
27.833	0.00	0.01	0.101	O				0.54
27.917	0.00	0.01	0.101	O				0.54
28.000	0.00	0.01	0.101	O				0.54
28.083	0.00	0.01	0.101	O				0.54
28.167	0.00	0.01	0.100	O				0.54
28.250	0.00	0.01	0.100	O				0.54
28.333	0.00	0.01	0.100	O				0.53
28.417	0.00	0.01	0.100	O				0.53
28.500	0.00	0.01	0.100	O				0.53
28.583	0.00	0.01	0.100	O				0.53
28.667	0.00	0.01	0.100	O				0.53
28.750	0.00	0.01	0.100	O				0.53
28.833	0.00	0.01	0.100	O				0.53
28.917	0.00	0.01	0.100	O				0.53
29.000	0.00	0.01	0.100	O				0.53
29.083	0.00	0.01	0.099	O				0.53
29.167	0.00	0.01	0.099	O				0.53
29.250	0.00	0.01	0.099	O				0.53
29.333	0.00	0.01	0.099	O				0.53
29.417	0.00	0.01	0.099	O				0.53
29.500	0.00	0.01	0.099	O				0.53
29.583	0.00	0.01	0.099	O				0.53
29.667	0.00	0.01	0.099	O				0.53
29.750	0.00	0.01	0.099	O				0.53
29.833	0.00	0.01	0.099	O				0.53
29.917	0.00	0.01	0.099	O				0.53
30.000	0.00	0.01	0.099	O				0.53
30.083	0.00	0.01	0.099	O				0.53
30.167	0.00	0.01	0.098	O				0.53
30.250	0.00	0.01	0.098	O				0.53
30.333	0.00	0.01	0.098	O				0.53
30.417	0.00	0.01	0.098	O				0.53
30.500	0.00	0.01	0.098	O				0.52
30.583	0.00	0.01	0.098	O				0.52
30.667	0.00	0.01	0.098	O				0.52
30.750	0.00	0.01	0.098	O				0.52

30.833	0.00	0.01	0.098	O	|	|	|	0.52
30.917	0.00	0.01	0.098	O	|	|	|	0.52
31.000	0.00	0.01	0.098	O	|	|	|	0.52
31.083	0.00	0.01	0.098	O	|	|	|	0.52
31.167	0.00	0.01	0.098	O	|	|	|	0.52
31.250	0.00	0.01	0.098	O	|	|	|	0.52
31.333	0.00	0.01	0.098	O	|	|	|	0.52
31.417	0.00	0.01	0.097	O	|	|	|	0.52
31.500	0.00	0.01	0.097	O	|	|	|	0.52
31.583	0.00	0.01	0.097	O	|	|	|	0.52
31.667	0.00	0.01	0.097	O	|	|	|	0.52
31.750	0.00	0.01	0.097	O	|	|	|	0.52
31.833	0.00	0.01	0.097	O	|	|	|	0.52
31.917	0.00	0.01	0.097	O	|	|	|	0.52
32.000	0.00	0.01	0.097	O	|	|	|	0.52
32.083	0.00	0.01	0.097	O	|	|	|	0.52
32.167	0.00	0.01	0.097	O	|	|	|	0.52
32.250	0.00	0.01	0.097	O	|	|	|	0.52
32.333	0.00	0.01	0.097	O	|	|	|	0.52
32.417	0.00	0.01	0.097	O	|	|	|	0.52
32.500	0.00	0.01	0.097	O	|	|	|	0.52
32.583	0.00	0.01	0.097	O	|	|	|	0.52
32.667	0.00	0.01	0.097	O	|	|	|	0.52
32.750	0.00	0.01	0.097	O	|	|	|	0.52
32.833	0.00	0.01	0.097	O	|	|	|	0.52
32.917	0.00	0.01	0.097	O	|	|	|	0.52
33.000	0.00	0.01	0.097	O	|	|	|	0.52
33.083	0.00	0.01	0.096	O	|	|	|	0.52
33.167	0.00	0.01	0.096	O	|	|	|	0.52
33.250	0.00	0.01	0.096	O	|	|	|	0.52
33.333	0.00	0.01	0.096	O	|	|	|	0.52
33.417	0.00	0.01	0.096	O	|	|	|	0.52
33.500	0.00	0.01	0.096	O	|	|	|	0.52
33.583	0.00	0.01	0.096	O	|	|	|	0.52
33.667	0.00	0.01	0.096	O	|	|	|	0.52
33.750	0.00	0.01	0.096	O	|	|	|	0.51
33.833	0.00	0.01	0.096	O	|	|	|	0.51
33.917	0.00	0.01	0.096	O	|	|	|	0.51
34.000	0.00	0.01	0.096	O	|	|	|	0.51
34.083	0.00	0.01	0.096	O	|	|	|	0.51
34.167	0.00	0.01	0.096	O	|	|	|	0.51
34.250	0.00	0.01	0.096	O	|	|	|	0.51
34.333	0.00	0.01	0.096	O	|	|	|	0.51
34.417	0.00	0.01	0.096	O	|	|	|	0.51
34.500	0.00	0.01	0.096	O	|	|	|	0.51
34.583	0.00	0.01	0.096	O	|	|	|	0.51
34.667	0.00	0.01	0.096	O	|	|	|	0.51
34.750	0.00	0.01	0.096	O	|	|	|	0.51
34.833	0.00	0.00	0.096	O	|	|	|	0.51
34.917	0.00	0.00	0.096	O	|	|	|	0.51

35.000	0.00	0.00	0.096	O				0.51
35.083	0.00	0.00	0.096	O				0.51
35.167	0.00	0.00	0.095	O				0.51
35.250	0.00	0.00	0.095	O				0.51
35.333	0.00	0.00	0.095	O				0.51
35.417	0.00	0.00	0.095	O				0.51
35.500	0.00	0.00	0.095	O				0.51
35.583	0.00	0.00	0.095	O				0.51
35.667	0.00	0.00	0.095	O				0.51
35.750	0.00	0.00	0.095	O				0.51
35.833	0.00	0.00	0.095	O				0.51
35.917	0.00	0.00	0.095	O				0.51
36.000	0.00	0.00	0.095	O				0.51
36.083	0.00	0.00	0.095	O				0.51
36.167	0.00	0.00	0.095	O				0.51
36.250	0.00	0.00	0.095	O				0.51
36.333	0.00	0.00	0.095	O				0.51
36.417	0.00	0.00	0.095	O				0.51
36.500	0.00	0.00	0.095	O				0.51
36.583	0.00	0.00	0.095	O				0.51
36.667	0.00	0.00	0.095	O				0.51
36.750	0.00	0.00	0.095	O				0.51
36.833	0.00	0.00	0.095	O				0.51
36.917	0.00	0.00	0.095	O				0.51
37.000	0.00	0.00	0.095	O				0.51
37.083	0.00	0.00	0.095	O				0.51
37.167	0.00	0.00	0.095	O				0.51
37.250	0.00	0.00	0.095	O				0.51
37.333	0.00	0.00	0.095	O				0.51
37.417	0.00	0.00	0.095	O				0.51
37.500	0.00	0.00	0.095	O				0.51
37.583	0.00	0.00	0.095	O				0.51
37.667	0.00	0.00	0.095	O				0.51
37.750	0.00	0.00	0.095	O				0.51
37.833	0.00	0.00	0.095	O				0.51
37.917	0.00	0.00	0.095	O				0.51
38.000	0.00	0.00	0.095	O				0.51
38.083	0.00	0.00	0.095	O				0.51
38.167	0.00	0.00	0.095	O				0.51
38.250	0.00	0.00	0.095	O				0.51
38.333	0.00	0.00	0.095	O				0.51
38.417	0.00	0.00	0.095	O				0.51
38.500	0.00	0.00	0.094	O				0.51
38.583	0.00	0.00	0.094	O				0.51
38.667	0.00	0.00	0.094	O				0.51
38.750	0.00	0.00	0.094	O				0.51
38.833	0.00	0.00	0.094	O				0.51
38.917	0.00	0.00	0.094	O				0.51
39.000	0.00	0.00	0.094	O				0.51
39.083	0.00	0.00	0.094	O				0.51

39.167	0.00	0.00	0.094	O	|	|	|	0.51
39.250	0.00	0.00	0.094	O	|	|	|	0.51
39.333	0.00	0.00	0.094	O	|	|	|	0.51
39.417	0.00	0.00	0.094	O	|	|	|	0.51
39.500	0.00	0.00	0.094	O	|	|	|	0.51
39.583	0.00	0.00	0.094	O	|	|	|	0.51
39.667	0.00	0.00	0.094	O	|	|	|	0.51
39.750	0.00	0.00	0.094	O	|	|	|	0.51
39.833	0.00	0.00	0.094	O	|	|	|	0.51
39.917	0.00	0.00	0.094	O	|	|	|	0.51
40.000	0.00	0.00	0.094	O	|	|	|	0.51
40.083	0.00	0.00	0.094	O	|	|	|	0.51
40.167	0.00	0.00	0.094	O	|	|	|	0.51
40.250	0.00	0.00	0.094	O	|	|	|	0.51
40.333	0.00	0.00	0.094	O	|	|	|	0.51
40.417	0.00	0.00	0.094	O	|	|	|	0.51
40.500	0.00	0.00	0.094	O	|	|	|	0.51
40.583	0.00	0.00	0.094	O	|	|	|	0.51
40.667	0.00	0.00	0.094	O	|	|	|	0.51
40.750	0.00	0.00	0.094	O	|	|	|	0.51
40.833	0.00	0.00	0.094	O	|	|	|	0.50
40.917	0.00	0.00	0.094	O	|	|	|	0.50
41.000	0.00	0.00	0.094	O	|	|	|	0.50
41.083	0.00	0.00	0.094	O	|	|	|	0.50
41.167	0.00	0.00	0.094	O	|	|	|	0.50
41.250	0.00	0.00	0.094	O	|	|	|	0.50
41.333	0.00	0.00	0.094	O	|	|	|	0.50
41.417	0.00	0.00	0.094	O	|	|	|	0.50
41.500	0.00	0.00	0.094	O	|	|	|	0.50
41.583	0.00	0.00	0.094	O	|	|	|	0.50
41.667	0.00	0.00	0.094	O	|	|	|	0.50
41.750	0.00	0.00	0.094	O	|	|	|	0.50
41.833	0.00	0.00	0.094	O	|	|	|	0.50
41.917	0.00	0.00	0.094	O	|	|	|	0.50
42.000	0.00	0.00	0.094	O	|	|	|	0.50
42.083	0.00	0.00	0.094	O	|	|	|	0.50
42.167	0.00	0.00	0.094	O	|	|	|	0.50
42.250	0.00	0.00	0.094	O	|	|	|	0.50
42.333	0.00	0.00	0.094	O	|	|	|	0.50
42.417	0.00	0.00	0.094	O	|	|	|	0.50
42.500	0.00	0.00	0.094	O	|	|	|	0.50
42.583	0.00	0.00	0.094	O	|	|	|	0.50
42.667	0.00	0.00	0.094	O	|	|	|	0.50
42.750	0.00	0.00	0.094	O	|	|	|	0.50
42.833	0.00	0.00	0.094	O	|	|	|	0.50
42.917	0.00	0.00	0.094	O	|	|	|	0.50
43.000	0.00	0.00	0.094	O	|	|	|	0.50
43.083	0.00	0.00	0.094	O	|	|	|	0.50
43.167	0.00	0.00	0.094	O	|	|	|	0.50
43.250	0.00	0.00	0.094	O	|	|	|	0.50

43.333	0.00	0.00	0.094	O	|	|	|	|	0.50
43.417	0.00	0.00	0.094	O	|	|	|	|	0.50
43.500	0.00	0.00	0.094	O	|	|	|	|	0.50
43.583	0.00	0.00	0.094	O	|	|	|	|	0.50
43.667	0.00	0.00	0.094	O	|	|	|	|	0.50
43.750	0.00	0.00	0.094	O	|	|	|	|	0.50
43.833	0.00	0.00	0.094	O	|	|	|	|	0.50
43.917	0.00	0.00	0.094	O	|	|	|	|	0.50
44.000	0.00	0.00	0.094	O	|	|	|	|	0.50
44.083	0.00	0.00	0.094	O	|	|	|	|	0.50
44.167	0.00	0.00	0.094	O	|	|	|	|	0.50
44.250	0.00	0.00	0.094	O	|	|	|	|	0.50
44.333	0.00	0.00	0.094	O	|	|	|	|	0.50
44.417	0.00	0.00	0.094	O	|	|	|	|	0.50
44.500	0.00	0.00	0.094	O	|	|	|	|	0.50
44.583	0.00	0.00	0.094	O	|	|	|	|	0.50
44.667	0.00	0.00	0.094	O	|	|	|	|	0.50
44.750	0.00	0.00	0.094	O	|	|	|	|	0.50
44.833	0.00	0.00	0.094	O	|	|	|	|	0.50
44.917	0.00	0.00	0.094	O	|	|	|	|	0.50
45.000	0.00	0.00	0.094	O	|	|	|	|	0.50
45.083	0.00	0.00	0.094	O	|	|	|	|	0.50
45.167	0.00	0.00	0.094	O	|	|	|	|	0.50

Remaining water in basin = 0.09 (Ac.Ft)

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

Number of intervals = 542
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.256 (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

Study date: 08/24/22

A21626 DMA 1 2YR-6HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA1Q100UH62.rte
**********HYDROGRAPH DATA**********
Number of intervals = 75
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 3.671 (CFS)
Total volume = 0.482 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.00(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.50(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   4.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   1.00(Ft.)    Capacity =   6.28(CFS)

Total outflow at this depth =      6.48(CFS)

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Total number of inflow hydrograph intervals = 75
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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
0.500	0.093	0.000	0.093	0.093
1.000	0.197	0.196	0.196	0.198
1.500	0.313	0.196	0.312	0.314
2.000	0.440	0.196	0.439	0.441
2.500	0.580	0.196	0.579	0.581
3.000	0.732	0.196	0.731	0.733
3.500	0.897	0.196	0.896	0.898
4.000	1.075	4.639	1.059	1.091
4.500	1.267	6.480	1.245	1.289

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.9	1.84	2.75	3.67	Depth (Ft.)
0.083	0.18	0.00	0.001	OI	|	|	|	|	0.00
0.167	0.35	0.00	0.002	O I	|	|	|	|	0.01
0.250	0.41	0.00	0.005	O I	|	|	|	|	0.03
0.333	0.42	0.00	0.008	O I	|	|	|	|	0.04
0.417	0.42	0.00	0.011	O I	|	|	|	|	0.06
0.500	0.45	0.00	0.014	O I	|	|	|	|	0.07
0.583	0.48	0.00	0.017	O I	|	|	|	|	0.09
0.667	0.49	0.00	0.020	O I	|	|	|	|	0.11
0.750	0.49	0.00	0.024	O I	|	|	|	|	0.13
0.833	0.49	0.00	0.027	O I	|	|	|	|	0.15
0.917	0.49	0.00	0.030	O I	|	|	|	|	0.16
1.000	0.52	0.00	0.034	O I	|	|	|	|	0.18
1.083	0.55	0.00	0.038	O I	|	|	|	|	0.20
1.167	0.56	0.00	0.041	O I	|	|	|	|	0.22
1.250	0.56	0.00	0.045	O I	|	|	|	|	0.24
1.333	0.56	0.00	0.049	O I	|	|	|	|	0.26
1.417	0.56	0.00	0.053	O I	|	|	|	|	0.28
1.500	0.56	0.00	0.057	O I	|	|	|	|	0.31
1.583	0.56	0.00	0.061	O I	|	|	|	|	0.33

1.667	0.56	0.00	0.065	O	I	|	|	|	0.35
1.750	0.56	0.00	0.068	O	I	|	|	|	0.37
1.833	0.56	0.00	0.072	O	I	|	|	|	0.39
1.917	0.56	0.00	0.076	O	I	|	|	|	0.41
2.000	0.59	0.00	0.080	O	I	|	|	|	0.43
2.083	0.59	0.00	0.084	O	I	|	|	|	0.45
2.167	0.60	0.00	0.088	O	I	|	|	|	0.47
2.250	0.62	0.00	0.092	O	I	|	|	|	0.50
2.333	0.63	0.01	0.097	O	I	|	|	|	0.52
2.417	0.63	0.01	0.101	O	I	|	|	|	0.54
2.500	0.63	0.02	0.105	O	I	|	|	|	0.56
2.583	0.63	0.03	0.109	O	I	|	|	|	0.58
2.667	0.63	0.04	0.113	O	I	|	|	|	0.60
2.750	0.66	0.05	0.118	O	I	|	|	|	0.62
2.833	0.69	0.05	0.122	O	I	|	|	|	0.64
2.917	0.70	0.06	0.126	O	I	|	|	|	0.66
3.000	0.70	0.07	0.131	O	I	|	|	|	0.68
3.083	0.70	0.08	0.135	O	I	|	|	|	0.70
3.167	0.73	0.09	0.139	O	I	|	|	|	0.72
3.250	0.76	0.10	0.144	O	I	|	|	|	0.74
3.333	0.77	0.10	0.148	O	I	|	|	|	0.77
3.417	0.80	0.11	0.153	O	I	|	|	|	0.79
3.500	0.87	0.12	0.158	|O	I	|	|	|	0.81
3.583	0.94	0.13	0.163	|O	I	|	|	|	0.84
3.667	0.97	0.14	0.169	|O	I	|	|	|	0.86
3.750	1.01	0.15	0.175	|O	I	|	|	|	0.89
3.833	1.04	0.17	0.181	|O	|I	|	|	|	0.92
3.917	1.08	0.18	0.187	|O	|I	|	|	|	0.95
4.000	1.11	0.19	0.193	|O	|I	|	|	|	0.98
4.083	1.15	0.20	0.199	|O	| I	|	|	|	1.01
4.167	1.22	0.20	0.206	|O	| I	|	|	|	1.04
4.250	1.28	0.20	0.214	|O	| I	|	|	|	1.07
4.333	1.35	0.20	0.221	|O	| I	|	|	|	1.10
4.417	1.42	0.20	0.229	|O	| I	|	|	|	1.14
4.500	1.46	0.20	0.238	|O	| I	|	|	|	1.18
4.583	1.50	0.20	0.247	|O	| I	|	|	|	1.22
4.667	1.57	0.20	0.256	|O	| I	|	|	|	1.25
4.750	1.63	0.20	0.266	|O	| I	|	|	|	1.30
4.833	1.67	0.20	0.276	|O	| I	|	|	|	1.34
4.917	1.71	0.20	0.286	|O	| I	|	|	|	1.38
5.000	1.77	0.20	0.297	|O	| I	|	|	|	1.43
5.083	1.99	0.20	0.308	|O	| |I	|	|	|	1.48
5.167	2.31	0.20	0.322	|O	| I	|	|	|	1.53
5.250	2.58	0.20	0.337	|O	| I	|	|	|	1.60
5.333	2.80	0.20	0.354	|O	| I	|	|	|	1.66
5.417	3.10	0.20	0.373	|O	| I	|	|	|	1.74
5.500	3.67	0.20	0.395	|O	| I	|	|	|	1.82
5.583	2.59	0.20	0.416	|O	| I	|	|	|	1.90
5.667	1.20	0.20	0.427	|O	| I	|	|	|	1.95
5.750	0.63	0.20	0.432	|O	I	|	|	|	1.97

5.833	0.41	0.20	0.435	|O I	|	|	|	1.98
5.917	0.29	0.20	0.436	|OI	|	|	|	1.98
6.000	0.19	0.20	0.436	|O	|	|	|	1.98
6.083	0.08	0.20	0.435	IO	|	|	|	1.98
6.167	0.01	0.20	0.434	IO	|	|	|	1.98
6.250	0.00	0.20	0.433	IO	|	|	|	1.97
6.333	0.00	0.20	0.432	IO	|	|	|	1.97
6.417	0.00	0.20	0.430	IO	|	|	|	1.96
6.500	0.00	0.20	0.429	IO	|	|	|	1.96
6.583	0.00	0.20	0.428	IO	|	|	|	1.95
6.667	0.00	0.20	0.426	IO	|	|	|	1.95
6.750	0.00	0.20	0.425	IO	|	|	|	1.94
6.833	0.00	0.20	0.424	IO	|	|	|	1.94
6.917	0.00	0.20	0.422	IO	|	|	|	1.93
7.000	0.00	0.20	0.421	IO	|	|	|	1.92
7.083	0.00	0.20	0.420	IO	|	|	|	1.92
7.167	0.00	0.20	0.418	IO	|	|	|	1.91
7.250	0.00	0.20	0.417	IO	|	|	|	1.91
7.333	0.00	0.20	0.416	IO	|	|	|	1.90
7.417	0.00	0.20	0.414	IO	|	|	|	1.90
7.500	0.00	0.20	0.413	IO	|	|	|	1.89
7.583	0.00	0.20	0.411	IO	|	|	|	1.89
7.667	0.00	0.20	0.410	IO	|	|	|	1.88
7.750	0.00	0.20	0.409	IO	|	|	|	1.88
7.833	0.00	0.20	0.407	IO	|	|	|	1.87
7.917	0.00	0.20	0.406	IO	|	|	|	1.87
8.000	0.00	0.20	0.405	IO	|	|	|	1.86
8.083	0.00	0.20	0.403	IO	|	|	|	1.86
8.167	0.00	0.20	0.402	IO	|	|	|	1.85
8.250	0.00	0.20	0.401	IO	|	|	|	1.84
8.333	0.00	0.20	0.399	IO	|	|	|	1.84
8.417	0.00	0.20	0.398	IO	|	|	|	1.83
8.500	0.00	0.20	0.397	IO	|	|	|	1.83
8.583	0.00	0.20	0.395	IO	|	|	|	1.82
8.667	0.00	0.20	0.394	IO	|	|	|	1.82
8.750	0.00	0.20	0.393	IO	|	|	|	1.81
8.833	0.00	0.20	0.391	IO	|	|	|	1.81
8.917	0.00	0.20	0.390	IO	|	|	|	1.80
9.000	0.00	0.20	0.388	IO	|	|	|	1.80
9.083	0.00	0.20	0.387	IO	|	|	|	1.79
9.167	0.00	0.20	0.386	IO	|	|	|	1.79
9.250	0.00	0.20	0.384	IO	|	|	|	1.78
9.333	0.00	0.20	0.383	IO	|	|	|	1.78
9.417	0.00	0.20	0.382	IO	|	|	|	1.77
9.500	0.00	0.20	0.380	IO	|	|	|	1.77
9.583	0.00	0.20	0.379	IO	|	|	|	1.76
9.667	0.00	0.20	0.378	IO	|	|	|	1.75
9.750	0.00	0.20	0.376	IO	|	|	|	1.75
9.833	0.00	0.20	0.375	IO	|	|	|	1.74
9.917	0.00	0.20	0.374	IO	|	|	|	1.74

10.000	0.00	0.20	0.372	IO				1.73
10.083	0.00	0.20	0.371	IO				1.73
10.167	0.00	0.20	0.370	IO				1.72
10.250	0.00	0.20	0.368	IO				1.72
10.333	0.00	0.20	0.367	IO				1.71
10.417	0.00	0.20	0.365	IO				1.71
10.500	0.00	0.20	0.364	IO				1.70
10.583	0.00	0.20	0.363	IO				1.70
10.667	0.00	0.20	0.361	IO				1.69
10.750	0.00	0.20	0.360	IO				1.69
10.833	0.00	0.20	0.359	IO				1.68
10.917	0.00	0.20	0.357	IO				1.67
11.000	0.00	0.20	0.356	IO				1.67
11.083	0.00	0.20	0.355	IO				1.66
11.167	0.00	0.20	0.353	IO				1.66
11.250	0.00	0.20	0.352	IO				1.65
11.333	0.00	0.20	0.351	IO				1.65
11.417	0.00	0.20	0.349	IO				1.64
11.500	0.00	0.20	0.348	IO				1.64
11.583	0.00	0.20	0.347	IO				1.63
11.667	0.00	0.20	0.345	IO				1.63
11.750	0.00	0.20	0.344	IO				1.62
11.833	0.00	0.20	0.342	IO				1.62
11.917	0.00	0.20	0.341	IO				1.61
12.000	0.00	0.20	0.340	IO				1.61
12.083	0.00	0.20	0.338	IO				1.60
12.167	0.00	0.20	0.337	IO				1.59
12.250	0.00	0.20	0.336	IO				1.59
12.333	0.00	0.20	0.334	IO				1.58
12.417	0.00	0.20	0.333	IO				1.58
12.500	0.00	0.20	0.332	IO				1.57
12.583	0.00	0.20	0.330	IO				1.57
12.667	0.00	0.20	0.329	IO				1.56
12.750	0.00	0.20	0.328	IO				1.56
12.833	0.00	0.20	0.326	IO				1.55
12.917	0.00	0.20	0.325	IO				1.55
13.000	0.00	0.20	0.324	IO				1.54
13.083	0.00	0.20	0.322	IO				1.54
13.167	0.00	0.20	0.321	IO				1.53
13.250	0.00	0.20	0.319	IO				1.53
13.333	0.00	0.20	0.318	IO				1.52
13.417	0.00	0.20	0.317	IO				1.51
13.500	0.00	0.20	0.315	IO				1.51
13.583	0.00	0.20	0.314	IO				1.50
13.667	0.00	0.20	0.313	IO				1.50
13.750	0.00	0.20	0.311	IO				1.49
13.833	0.00	0.20	0.310	IO				1.49
13.917	0.00	0.20	0.309	IO				1.48
14.000	0.00	0.20	0.307	IO				1.48
14.083	0.00	0.20	0.306	IO				1.47

14.167	0.00	0.20	0.305	IO				1.46
14.250	0.00	0.20	0.303	IO				1.46
14.333	0.00	0.20	0.302	IO				1.45
14.417	0.00	0.20	0.301	IO				1.45
14.500	0.00	0.20	0.299	IO				1.44
14.583	0.00	0.20	0.298	IO				1.43
14.667	0.00	0.20	0.297	IO				1.43
14.750	0.00	0.20	0.295	IO				1.42
14.833	0.00	0.20	0.294	IO				1.42
14.917	0.00	0.20	0.292	IO				1.41
15.000	0.00	0.20	0.291	IO				1.41
15.083	0.00	0.20	0.290	IO				1.40
15.167	0.00	0.20	0.288	IO				1.39
15.250	0.00	0.20	0.287	IO				1.39
15.333	0.00	0.20	0.286	IO				1.38
15.417	0.00	0.20	0.284	IO				1.38
15.500	0.00	0.20	0.283	IO				1.37
15.583	0.00	0.20	0.282	IO				1.36
15.667	0.00	0.20	0.280	IO				1.36
15.750	0.00	0.20	0.279	IO				1.35
15.833	0.00	0.20	0.278	IO				1.35
15.917	0.00	0.20	0.276	IO				1.34
16.000	0.00	0.20	0.275	IO				1.34
16.083	0.00	0.20	0.274	IO				1.33
16.167	0.00	0.20	0.272	IO				1.32
16.250	0.00	0.20	0.271	IO				1.32
16.333	0.00	0.20	0.269	IO				1.31
16.417	0.00	0.20	0.268	IO				1.31
16.500	0.00	0.20	0.267	IO				1.30
16.583	0.00	0.20	0.265	IO				1.29
16.667	0.00	0.20	0.264	IO				1.29
16.750	0.00	0.20	0.263	IO				1.28
16.833	0.00	0.20	0.261	IO				1.28
16.917	0.00	0.20	0.260	IO				1.27
17.000	0.00	0.20	0.259	IO				1.27
17.083	0.00	0.20	0.257	IO				1.26
17.167	0.00	0.20	0.256	IO				1.25
17.250	0.00	0.20	0.255	IO				1.25
17.333	0.00	0.20	0.253	IO				1.24
17.417	0.00	0.20	0.252	IO				1.24
17.500	0.00	0.20	0.251	IO				1.23
17.583	0.00	0.20	0.249	IO				1.22
17.667	0.00	0.20	0.248	IO				1.22
17.750	0.00	0.20	0.246	IO				1.21
17.833	0.00	0.20	0.245	IO				1.21
17.917	0.00	0.20	0.244	IO				1.20
18.000	0.00	0.20	0.242	IO				1.20
18.083	0.00	0.20	0.241	IO				1.19
18.167	0.00	0.20	0.240	IO				1.18
18.250	0.00	0.20	0.238	IO				1.18

18.333	0.00	0.20	0.237	IO				1.17
18.417	0.00	0.20	0.236	IO				1.17
18.500	0.00	0.20	0.234	IO				1.16
18.583	0.00	0.20	0.233	IO				1.15
18.667	0.00	0.20	0.232	IO				1.15
18.750	0.00	0.20	0.230	IO				1.14
18.833	0.00	0.20	0.229	IO				1.14
18.917	0.00	0.20	0.228	IO				1.13
19.000	0.00	0.20	0.226	IO				1.13
19.083	0.00	0.20	0.225	IO				1.12
19.167	0.00	0.20	0.223	IO				1.11
19.250	0.00	0.20	0.222	IO				1.11
19.333	0.00	0.20	0.221	IO				1.10
19.417	0.00	0.20	0.219	IO				1.10
19.500	0.00	0.20	0.218	IO				1.09
19.583	0.00	0.20	0.217	IO				1.09
19.667	0.00	0.20	0.215	IO				1.08
19.750	0.00	0.20	0.214	IO				1.07
19.833	0.00	0.20	0.213	IO				1.07
19.917	0.00	0.20	0.211	IO				1.06
20.000	0.00	0.20	0.210	IO				1.06
20.083	0.00	0.20	0.209	IO				1.05
20.167	0.00	0.20	0.207	IO				1.04
20.250	0.00	0.20	0.206	IO				1.04
20.333	0.00	0.20	0.205	IO				1.03
20.417	0.00	0.20	0.203	IO				1.03
20.500	0.00	0.20	0.202	IO				1.02
20.583	0.00	0.20	0.200	IO				1.02
20.667	0.00	0.20	0.199	IO				1.01
20.750	0.00	0.20	0.198	IO				1.00
20.833	0.00	0.20	0.196	IO				1.00
20.917	0.00	0.19	0.195	IO				0.99
21.000	0.00	0.19	0.194	IO				0.98
21.083	0.00	0.19	0.192	IO				0.98
21.167	0.00	0.19	0.191	IO				0.97
21.250	0.00	0.18	0.190	IO				0.97
21.333	0.00	0.18	0.189	IO				0.96
21.417	0.00	0.18	0.187	IO				0.95
21.500	0.00	0.18	0.186	IO				0.95
21.583	0.00	0.17	0.185	IO				0.94
21.667	0.00	0.17	0.184	IO				0.94
21.750	0.00	0.17	0.183	IO				0.93
21.833	0.00	0.17	0.181	IO				0.93
21.917	0.00	0.16	0.180	IO				0.92
22.000	0.00	0.16	0.179	IO				0.91
22.083	0.00	0.16	0.178	IO				0.91
22.167	0.00	0.16	0.177	IO				0.90
22.250	0.00	0.16	0.176	IO				0.90
22.333	0.00	0.15	0.175	IO				0.89
22.417	0.00	0.15	0.174	IO				0.89

22.500	0.00	0.15	0.173	IO				0.88
22.583	0.00	0.15	0.172	IO				0.88
22.667	0.00	0.15	0.171	IO				0.87
22.750	0.00	0.14	0.170	IO				0.87
22.833	0.00	0.14	0.169	IO				0.86
22.917	0.00	0.14	0.168	IO				0.86
23.000	0.00	0.14	0.167	IO				0.85
23.083	0.00	0.14	0.166	IO				0.85
23.167	0.00	0.14	0.165	IO				0.85
23.250	0.00	0.13	0.164	IO				0.84
23.333	0.00	0.13	0.163	IO				0.84
23.417	0.00	0.13	0.162	IO				0.83
23.500	0.00	0.13	0.161	IO				0.83
23.583	0.00	0.13	0.160	IO				0.82
23.667	0.00	0.13	0.159	IO				0.82
23.750	0.00	0.12	0.159	IO				0.82
23.833	0.00	0.12	0.158	IO				0.81
23.917	0.00	0.12	0.157	IO				0.81
24.000	0.00	0.12	0.156	IO				0.80
24.083	0.00	0.12	0.155	IO				0.80
24.167	0.00	0.12	0.154	IO				0.80
24.250	0.00	0.11	0.154	O				0.79
24.333	0.00	0.11	0.153	O				0.79
24.417	0.00	0.11	0.152	O				0.78
24.500	0.00	0.11	0.151	O				0.78
24.583	0.00	0.11	0.151	O				0.78
24.667	0.00	0.11	0.150	O				0.77
24.750	0.00	0.11	0.149	O				0.77
24.833	0.00	0.10	0.148	O				0.77
24.917	0.00	0.10	0.148	O				0.76
25.000	0.00	0.10	0.147	O				0.76
25.083	0.00	0.10	0.146	O				0.76
25.167	0.00	0.10	0.146	O				0.75
25.250	0.00	0.10	0.145	O				0.75
25.333	0.00	0.10	0.144	O				0.75
25.417	0.00	0.10	0.144	O				0.74
25.500	0.00	0.09	0.143	O				0.74
25.583	0.00	0.09	0.142	O				0.74
25.667	0.00	0.09	0.142	O				0.73
25.750	0.00	0.09	0.141	O				0.73
25.833	0.00	0.09	0.140	O				0.73
25.917	0.00	0.09	0.140	O				0.72
26.000	0.00	0.09	0.139	O				0.72
26.083	0.00	0.09	0.139	O				0.72
26.167	0.00	0.08	0.138	O				0.72
26.250	0.00	0.08	0.137	O				0.71
26.333	0.00	0.08	0.137	O				0.71
26.417	0.00	0.08	0.136	O				0.71
26.500	0.00	0.08	0.136	O				0.71
26.583	0.00	0.08	0.135	O				0.70

26.667	0.00	0.08	0.135	O	|	|	|	0.70
26.750	0.00	0.08	0.134	O	|	|	|	0.70
26.833	0.00	0.08	0.134	O	|	|	|	0.70
26.917	0.00	0.08	0.133	O	|	|	|	0.69
27.000	0.00	0.07	0.133	O	|	|	|	0.69
27.083	0.00	0.07	0.132	O	|	|	|	0.69
27.167	0.00	0.07	0.132	O	|	|	|	0.69
27.250	0.00	0.07	0.131	O	|	|	|	0.68
27.333	0.00	0.07	0.131	O	|	|	|	0.68
27.417	0.00	0.07	0.130	O	|	|	|	0.68
27.500	0.00	0.07	0.130	O	|	|	|	0.68
27.583	0.00	0.07	0.129	O	|	|	|	0.67
27.667	0.00	0.07	0.129	O	|	|	|	0.67
27.750	0.00	0.07	0.128	O	|	|	|	0.67
27.833	0.00	0.07	0.128	O	|	|	|	0.67
27.917	0.00	0.06	0.127	O	|	|	|	0.66
28.000	0.00	0.06	0.127	O	|	|	|	0.66
28.083	0.00	0.06	0.126	O	|	|	|	0.66
28.167	0.00	0.06	0.126	O	|	|	|	0.66
28.250	0.00	0.06	0.126	O	|	|	|	0.66
28.333	0.00	0.06	0.125	O	|	|	|	0.65
28.417	0.00	0.06	0.125	O	|	|	|	0.65
28.500	0.00	0.06	0.124	O	|	|	|	0.65
28.583	0.00	0.06	0.124	O	|	|	|	0.65
28.667	0.00	0.06	0.123	O	|	|	|	0.65
28.750	0.00	0.06	0.123	O	|	|	|	0.64
28.833	0.00	0.06	0.123	O	|	|	|	0.64
28.917	0.00	0.06	0.122	O	|	|	|	0.64
29.000	0.00	0.05	0.122	O	|	|	|	0.64
29.083	0.00	0.05	0.122	O	|	|	|	0.64
29.167	0.00	0.05	0.121	O	|	|	|	0.64
29.250	0.00	0.05	0.121	O	|	|	|	0.63
29.333	0.00	0.05	0.120	O	|	|	|	0.63
29.417	0.00	0.05	0.120	O	|	|	|	0.63
29.500	0.00	0.05	0.120	O	|	|	|	0.63
29.583	0.00	0.05	0.119	O	|	|	|	0.63
29.667	0.00	0.05	0.119	O	|	|	|	0.63
29.750	0.00	0.05	0.119	O	|	|	|	0.62
29.833	0.00	0.05	0.118	O	|	|	|	0.62
29.917	0.00	0.05	0.118	O	|	|	|	0.62
30.000	0.00	0.05	0.118	O	|	|	|	0.62
30.083	0.00	0.05	0.117	O	|	|	|	0.62
30.167	0.00	0.05	0.117	O	|	|	|	0.62
30.250	0.00	0.04	0.117	O	|	|	|	0.61
30.333	0.00	0.04	0.116	O	|	|	|	0.61
30.417	0.00	0.04	0.116	O	|	|	|	0.61
30.500	0.00	0.04	0.116	O	|	|	|	0.61
30.583	0.00	0.04	0.116	O	|	|	|	0.61
30.667	0.00	0.04	0.115	O	|	|	|	0.61
30.750	0.00	0.04	0.115	O	|	|	|	0.61

30.833	0.00	0.04	0.115	O	|	|	|	0.60
30.917	0.00	0.04	0.114	O	|	|	|	0.60
31.000	0.00	0.04	0.114	O	|	|	|	0.60
31.083	0.00	0.04	0.114	O	|	|	|	0.60
31.167	0.00	0.04	0.114	O	|	|	|	0.60
31.250	0.00	0.04	0.113	O	|	|	|	0.60
31.333	0.00	0.04	0.113	O	|	|	|	0.60
31.417	0.00	0.04	0.113	O	|	|	|	0.60
31.500	0.00	0.04	0.113	O	|	|	|	0.59
31.583	0.00	0.04	0.112	O	|	|	|	0.59
31.667	0.00	0.04	0.112	O	|	|	|	0.59
31.750	0.00	0.04	0.112	O	|	|	|	0.59
31.833	0.00	0.04	0.112	O	|	|	|	0.59
31.917	0.00	0.03	0.111	O	|	|	|	0.59
32.000	0.00	0.03	0.111	O	|	|	|	0.59
32.083	0.00	0.03	0.111	O	|	|	|	0.59
32.167	0.00	0.03	0.111	O	|	|	|	0.58
32.250	0.00	0.03	0.110	O	|	|	|	0.58
32.333	0.00	0.03	0.110	O	|	|	|	0.58
32.417	0.00	0.03	0.110	O	|	|	|	0.58
32.500	0.00	0.03	0.110	O	|	|	|	0.58
32.583	0.00	0.03	0.110	O	|	|	|	0.58
32.667	0.00	0.03	0.109	O	|	|	|	0.58
32.750	0.00	0.03	0.109	O	|	|	|	0.58
32.833	0.00	0.03	0.109	O	|	|	|	0.58
32.917	0.00	0.03	0.109	O	|	|	|	0.58
33.000	0.00	0.03	0.108	O	|	|	|	0.57
33.083	0.00	0.03	0.108	O	|	|	|	0.57
33.167	0.00	0.03	0.108	O	|	|	|	0.57
33.250	0.00	0.03	0.108	O	|	|	|	0.57
33.333	0.00	0.03	0.108	O	|	|	|	0.57
33.417	0.00	0.03	0.108	O	|	|	|	0.57
33.500	0.00	0.03	0.107	O	|	|	|	0.57
33.583	0.00	0.03	0.107	O	|	|	|	0.57
33.667	0.00	0.03	0.107	O	|	|	|	0.57
33.750	0.00	0.03	0.107	O	|	|	|	0.57
33.833	0.00	0.03	0.107	O	|	|	|	0.57
33.917	0.00	0.03	0.106	O	|	|	|	0.56
34.000	0.00	0.03	0.106	O	|	|	|	0.56
34.083	0.00	0.02	0.106	O	|	|	|	0.56
34.167	0.00	0.02	0.106	O	|	|	|	0.56
34.250	0.00	0.02	0.106	O	|	|	|	0.56
34.333	0.00	0.02	0.106	O	|	|	|	0.56
34.417	0.00	0.02	0.105	O	|	|	|	0.56
34.500	0.00	0.02	0.105	O	|	|	|	0.56
34.583	0.00	0.02	0.105	O	|	|	|	0.56
34.667	0.00	0.02	0.105	O	|	|	|	0.56
34.750	0.00	0.02	0.105	O	|	|	|	0.56
34.833	0.00	0.02	0.105	O	|	|	|	0.56
34.917	0.00	0.02	0.104	O	|	|	|	0.56

35.000	0.00	0.02	0.104	O				0.55
35.083	0.00	0.02	0.104	O				0.55
35.167	0.00	0.02	0.104	O				0.55
35.250	0.00	0.02	0.104	O				0.55
35.333	0.00	0.02	0.104	O				0.55
35.417	0.00	0.02	0.104	O				0.55
35.500	0.00	0.02	0.103	O				0.55
35.583	0.00	0.02	0.103	O				0.55
35.667	0.00	0.02	0.103	O				0.55
35.750	0.00	0.02	0.103	O				0.55
35.833	0.00	0.02	0.103	O				0.55
35.917	0.00	0.02	0.103	O				0.55
36.000	0.00	0.02	0.103	O				0.55
36.083	0.00	0.02	0.103	O				0.55
36.167	0.00	0.02	0.102	O				0.55
36.250	0.00	0.02	0.102	O				0.54
36.333	0.00	0.02	0.102	O				0.54
36.417	0.00	0.02	0.102	O				0.54
36.500	0.00	0.02	0.102	O				0.54
36.583	0.00	0.02	0.102	O				0.54
36.667	0.00	0.02	0.102	O				0.54
36.750	0.00	0.02	0.102	O				0.54
36.833	0.00	0.02	0.102	O				0.54
36.917	0.00	0.02	0.101	O				0.54
37.000	0.00	0.02	0.101	O				0.54
37.083	0.00	0.02	0.101	O				0.54
37.167	0.00	0.02	0.101	O				0.54
37.250	0.00	0.02	0.101	O				0.54
37.333	0.00	0.01	0.101	O				0.54
37.417	0.00	0.01	0.101	O				0.54
37.500	0.00	0.01	0.101	O				0.54
37.583	0.00	0.01	0.101	O				0.54
37.667	0.00	0.01	0.100	O				0.54
37.750	0.00	0.01	0.100	O				0.54
37.833	0.00	0.01	0.100	O				0.54
37.917	0.00	0.01	0.100	O				0.53
38.000	0.00	0.01	0.100	O				0.53
38.083	0.00	0.01	0.100	O				0.53
38.167	0.00	0.01	0.100	O				0.53
38.250	0.00	0.01	0.100	O				0.53
38.333	0.00	0.01	0.100	O				0.53
38.417	0.00	0.01	0.100	O				0.53
38.500	0.00	0.01	0.100	O				0.53
38.583	0.00	0.01	0.099	O				0.53
38.667	0.00	0.01	0.099	O				0.53
38.750	0.00	0.01	0.099	O				0.53
38.833	0.00	0.01	0.099	O				0.53
38.917	0.00	0.01	0.099	O				0.53
39.000	0.00	0.01	0.099	O				0.53
39.083	0.00	0.01	0.099	O				0.53

39.167	0.00	0.01	0.099	O	|	|	|	0.53
39.250	0.00	0.01	0.099	O	|	|	|	0.53
39.333	0.00	0.01	0.099	O	|	|	|	0.53
39.417	0.00	0.01	0.099	O	|	|	|	0.53
39.500	0.00	0.01	0.099	O	|	|	|	0.53
39.583	0.00	0.01	0.099	O	|	|	|	0.53
39.667	0.00	0.01	0.098	O	|	|	|	0.53
39.750	0.00	0.01	0.098	O	|	|	|	0.53
39.833	0.00	0.01	0.098	O	|	|	|	0.53
39.917	0.00	0.01	0.098	O	|	|	|	0.53
40.000	0.00	0.01	0.098	O	|	|	|	0.52
40.083	0.00	0.01	0.098	O	|	|	|	0.52
40.167	0.00	0.01	0.098	O	|	|	|	0.52
40.250	0.00	0.01	0.098	O	|	|	|	0.52
40.333	0.00	0.01	0.098	O	|	|	|	0.52
40.417	0.00	0.01	0.098	O	|	|	|	0.52
40.500	0.00	0.01	0.098	O	|	|	|	0.52
40.583	0.00	0.01	0.098	O	|	|	|	0.52
40.667	0.00	0.01	0.098	O	|	|	|	0.52
40.750	0.00	0.01	0.098	O	|	|	|	0.52
40.833	0.00	0.01	0.098	O	|	|	|	0.52
40.917	0.00	0.01	0.098	O	|	|	|	0.52
41.000	0.00	0.01	0.097	O	|	|	|	0.52
41.083	0.00	0.01	0.097	O	|	|	|	0.52
41.167	0.00	0.01	0.097	O	|	|	|	0.52
41.250	0.00	0.01	0.097	O	|	|	|	0.52
41.333	0.00	0.01	0.097	O	|	|	|	0.52
41.417	0.00	0.01	0.097	O	|	|	|	0.52
41.500	0.00	0.01	0.097	O	|	|	|	0.52
41.583	0.00	0.01	0.097	O	|	|	|	0.52
41.667	0.00	0.01	0.097	O	|	|	|	0.52
41.750	0.00	0.01	0.097	O	|	|	|	0.52
41.833	0.00	0.01	0.097	O	|	|	|	0.52
41.917	0.00	0.01	0.097	O	|	|	|	0.52
42.000	0.00	0.01	0.097	O	|	|	|	0.52
42.083	0.00	0.01	0.097	O	|	|	|	0.52
42.167	0.00	0.01	0.097	O	|	|	|	0.52
42.250	0.00	0.01	0.097	O	|	|	|	0.52
42.333	0.00	0.01	0.097	O	|	|	|	0.52
42.417	0.00	0.01	0.097	O	|	|	|	0.52
42.500	0.00	0.01	0.097	O	|	|	|	0.52
42.583	0.00	0.01	0.096	O	|	|	|	0.52
42.667	0.00	0.01	0.096	O	|	|	|	0.52
42.750	0.00	0.01	0.096	O	|	|	|	0.52
42.833	0.00	0.01	0.096	O	|	|	|	0.52
42.917	0.00	0.01	0.096	O	|	|	|	0.52
43.000	0.00	0.01	0.096	O	|	|	|	0.52
43.083	0.00	0.01	0.096	O	|	|	|	0.52
43.167	0.00	0.01	0.096	O	|	|	|	0.52
43.250	0.00	0.01	0.096	O	|	|	|	0.52

43.333	0.00	0.01	0.096	O	|	|	|	0.51
43.417	0.00	0.01	0.096	O	|	|	|	0.51
43.500	0.00	0.01	0.096	O	|	|	|	0.51
43.583	0.00	0.01	0.096	O	|	|	|	0.51
43.667	0.00	0.01	0.096	O	|	|	|	0.51
43.750	0.00	0.01	0.096	O	|	|	|	0.51
43.833	0.00	0.01	0.096	O	|	|	|	0.51
43.917	0.00	0.01	0.096	O	|	|	|	0.51
44.000	0.00	0.01	0.096	O	|	|	|	0.51
44.083	0.00	0.01	0.096	O	|	|	|	0.51
44.167	0.00	0.01	0.096	O	|	|	|	0.51
44.250	0.00	0.01	0.096	O	|	|	|	0.51
44.333	0.00	0.00	0.096	O	|	|	|	0.51
44.417	0.00	0.00	0.096	O	|	|	|	0.51
44.500	0.00	0.00	0.096	O	|	|	|	0.51
44.583	0.00	0.00	0.096	O	|	|	|	0.51
44.667	0.00	0.00	0.096	O	|	|	|	0.51
44.750	0.00	0.00	0.095	O	|	|	|	0.51
44.833	0.00	0.00	0.095	O	|	|	|	0.51
44.917	0.00	0.00	0.095	O	|	|	|	0.51
45.000	0.00	0.00	0.095	O	|	|	|	0.51
45.083	0.00	0.00	0.095	O	|	|	|	0.51
45.167	0.00	0.00	0.095	O	|	|	|	0.51
45.250	0.00	0.00	0.095	O	|	|	|	0.51
45.333	0.00	0.00	0.095	O	|	|	|	0.51
45.417	0.00	0.00	0.095	O	|	|	|	0.51
45.500	0.00	0.00	0.095	O	|	|	|	0.51
45.583	0.00	0.00	0.095	O	|	|	|	0.51
45.667	0.00	0.00	0.095	O	|	|	|	0.51
45.750	0.00	0.00	0.095	O	|	|	|	0.51
45.833	0.00	0.00	0.095	O	|	|	|	0.51
45.917	0.00	0.00	0.095	O	|	|	|	0.51
46.000	0.00	0.00	0.095	O	|	|	|	0.51
46.083	0.00	0.00	0.095	O	|	|	|	0.51
46.167	0.00	0.00	0.095	O	|	|	|	0.51
46.250	0.00	0.00	0.095	O	|	|	|	0.51
46.333	0.00	0.00	0.095	O	|	|	|	0.51
46.417	0.00	0.00	0.095	O	|	|	|	0.51
46.500	0.00	0.00	0.095	O	|	|	|	0.51
46.583	0.00	0.00	0.095	O	|	|	|	0.51
46.667	0.00	0.00	0.095	O	|	|	|	0.51
46.750	0.00	0.00	0.095	O	|	|	|	0.51
46.833	0.00	0.00	0.095	O	|	|	|	0.51
46.917	0.00	0.00	0.095	O	|	|	|	0.51
47.000	0.00	0.00	0.095	O	|	|	|	0.51
47.083	0.00	0.00	0.095	O	|	|	|	0.51
47.167	0.00	0.00	0.095	O	|	|	|	0.51
47.250	0.00	0.00	0.095	O	|	|	|	0.51
47.333	0.00	0.00	0.095	O	|	|	|	0.51
47.417	0.00	0.00	0.095	O	|	|	|	0.51

47.500	0.00	0.00	0.095	O	|	|	|	0.51
47.583	0.00	0.00	0.095	O	|	|	|	0.51
47.667	0.00	0.00	0.095	O	|	|	|	0.51
47.750	0.00	0.00	0.095	O	|	|	|	0.51
47.833	0.00	0.00	0.095	O	|	|	|	0.51
47.917	0.00	0.00	0.095	O	|	|	|	0.51
48.000	0.00	0.00	0.094	O	|	|	|	0.51
48.083	0.00	0.00	0.094	O	|	|	|	0.51
48.167	0.00	0.00	0.094	O	|	|	|	0.51
48.250	0.00	0.00	0.094	O	|	|	|	0.51
48.333	0.00	0.00	0.094	O	|	|	|	0.51
48.417	0.00	0.00	0.094	O	|	|	|	0.51
48.500	0.00	0.00	0.094	O	|	|	|	0.51
48.583	0.00	0.00	0.094	O	|	|	|	0.51
48.667	0.00	0.00	0.094	O	|	|	|	0.51
48.750	0.00	0.00	0.094	O	|	|	|	0.51
48.833	0.00	0.00	0.094	O	|	|	|	0.51
48.917	0.00	0.00	0.094	O	|	|	|	0.51
49.000	0.00	0.00	0.094	O	|	|	|	0.51
49.083	0.00	0.00	0.094	O	|	|	|	0.51
49.167	0.00	0.00	0.094	O	|	|	|	0.51
49.250	0.00	0.00	0.094	O	|	|	|	0.51
49.333	0.00	0.00	0.094	O	|	|	|	0.51
49.417	0.00	0.00	0.094	O	|	|	|	0.51
49.500	0.00	0.00	0.094	O	|	|	|	0.51
49.583	0.00	0.00	0.094	O	|	|	|	0.51
49.667	0.00	0.00	0.094	O	|	|	|	0.51
49.750	0.00	0.00	0.094	O	|	|	|	0.51
49.833	0.00	0.00	0.094	O	|	|	|	0.51
49.917	0.00	0.00	0.094	O	|	|	|	0.51
50.000	0.00	0.00	0.094	O	|	|	|	0.51
50.083	0.00	0.00	0.094	O	|	|	|	0.51
50.167	0.00	0.00	0.094	O	|	|	|	0.51
50.250	0.00	0.00	0.094	O	|	|	|	0.51
50.333	0.00	0.00	0.094	O	|	|	|	0.50
50.417	0.00	0.00	0.094	O	|	|	|	0.50
50.500	0.00	0.00	0.094	O	|	|	|	0.50
50.583	0.00	0.00	0.094	O	|	|	|	0.50
50.667	0.00	0.00	0.094	O	|	|	|	0.50
50.750	0.00	0.00	0.094	O	|	|	|	0.50
50.833	0.00	0.00	0.094	O	|	|	|	0.50
50.917	0.00	0.00	0.094	O	|	|	|	0.50
51.000	0.00	0.00	0.094	O	|	|	|	0.50
51.083	0.00	0.00	0.094	O	|	|	|	0.50
51.167	0.00	0.00	0.094	O	|	|	|	0.50
51.250	0.00	0.00	0.094	O	|	|	|	0.50
51.333	0.00	0.00	0.094	O	|	|	|	0.50
51.417	0.00	0.00	0.094	O	|	|	|	0.50
51.500	0.00	0.00	0.094	O	|	|	|	0.50
51.583	0.00	0.00	0.094	O	|	|	|	0.50

51.667	0.00	0.00	0.094	O	|	|	|	|	0.50
51.750	0.00	0.00	0.094	O	|	|	|	|	0.50
51.833	0.00	0.00	0.094	O	|	|	|	|	0.50
51.917	0.00	0.00	0.094	O	|	|	|	|	0.50
52.000	0.00	0.00	0.094	O	|	|	|	|	0.50
52.083	0.00	0.00	0.094	O	|	|	|	|	0.50
52.167	0.00	0.00	0.094	O	|	|	|	|	0.50
52.250	0.00	0.00	0.094	O	|	|	|	|	0.50
52.333	0.00	0.00	0.094	O	|	|	|	|	0.50
52.417	0.00	0.00	0.094	O	|	|	|	|	0.50
52.500	0.00	0.00	0.094	O	|	|	|	|	0.50
52.583	0.00	0.00	0.094	O	|	|	|	|	0.50
52.667	0.00	0.00	0.094	O	|	|	|	|	0.50
52.750	0.00	0.00	0.094	O	|	|	|	|	0.50
52.833	0.00	0.00	0.094	O	|	|	|	|	0.50
52.917	0.00	0.00	0.094	O	|	|	|	|	0.50
53.000	0.00	0.00	0.094	O	|	|	|	|	0.50
53.083	0.00	0.00	0.094	O	|	|	|	|	0.50
53.167	0.00	0.00	0.094	O	|	|	|	|	0.50
53.250	0.00	0.00	0.094	O	|	|	|	|	0.50
53.333	0.00	0.00	0.094	O	|	|	|	|	0.50
53.417	0.00	0.00	0.094	O	|	|	|	|	0.50
53.500	0.00	0.00	0.094	O	|	|	|	|	0.50
53.583	0.00	0.00	0.094	O	|	|	|	|	0.50
53.667	0.00	0.00	0.094	O	|	|	|	|	0.50
53.750	0.00	0.00	0.094	O	|	|	|	|	0.50
53.833	0.00	0.00	0.094	O	|	|	|	|	0.50
53.917	0.00	0.00	0.094	O	|	|	|	|	0.50
54.000	0.00	0.00	0.094	O	|	|	|	|	0.50
54.083	0.00	0.00	0.094	O	|	|	|	|	0.50
54.167	0.00	0.00	0.094	O	|	|	|	|	0.50
54.250	0.00	0.00	0.094	O	|	|	|	|	0.50
54.333	0.00	0.00	0.094	O	|	|	|	|	0.50
54.417	0.00	0.00	0.094	O	|	|	|	|	0.50
54.500	0.00	0.00	0.094	O	|	|	|	|	0.50
54.583	0.00	0.00	0.094	O	|	|	|	|	0.50
54.667	0.00	0.00	0.094	O	|	|	|	|	0.50

Remaining water in basin = 0.09 (Ac.Ft)

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

Number of intervals = 656
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.389 (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

Study date: 08/24/22

A21626 2YR-24HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA1Q100UH242.rte
**********HYDROGRAPH DATA**********
Number of intervals = 291
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 1.354 (CFS)
Total volume = 0.823 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

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flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.00(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.50(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   4.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   1.00(Ft.)    Capacity =   6.28(CFS)

Total outflow at this depth =      6.48(CFS)

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Total number of inflow hydrograph intervals = 291
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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
0.500	0.093	0.000	0.093	0.093
1.000	0.197	0.196	0.196	0.198
1.500	0.313	0.196	0.312	0.314
2.000	0.440	0.196	0.439	0.441
2.500	0.580	0.196	0.579	0.581
3.000	0.732	0.196	0.731	0.733
3.500	0.897	0.196	0.896	0.898
4.000	1.075	4.639	1.059	1.091
4.500	1.267	6.480	1.245	1.289

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.3	0.68	1.02	1.35	Depth (Ft.)
0.083	0.04	0.00	0.000	O	|	|	|	|	0.00
0.167	0.07	0.00	0.001	OI	|	|	|	|	0.00
0.250	0.08	0.00	0.001	OI	|	|	|	|	0.01
0.333	0.10	0.00	0.002	O I	|	|	|	|	0.01
0.417	0.12	0.00	0.002	O I	|	|	|	|	0.01
0.500	0.12	0.00	0.003	O I	|	|	|	|	0.02
0.583	0.12	0.00	0.004	O I	|	|	|	|	0.02
0.667	0.12	0.00	0.005	O I	|	|	|	|	0.03
0.750	0.12	0.00	0.006	O I	|	|	|	|	0.03
0.833	0.14	0.00	0.007	O I	|	|	|	|	0.04
0.917	0.16	0.00	0.008	O I	|	|	|	|	0.04
1.000	0.16	0.00	0.009	O I	|	|	|	|	0.05
1.083	0.14	0.00	0.010	O I	|	|	|	|	0.05
1.167	0.12	0.00	0.011	O I	|	|	|	|	0.06
1.250	0.12	0.00	0.011	O I	|	|	|	|	0.06
1.333	0.12	0.00	0.012	O I	|	|	|	|	0.07
1.417	0.12	0.00	0.013	O I	|	|	|	|	0.07
1.500	0.12	0.00	0.014	O I	|	|	|	|	0.07
1.583	0.12	0.00	0.015	O I	|	|	|	|	0.08

1.667	0.12	0.00	0.016	O I	|	|	|	0.08
1.750	0.12	0.00	0.016	O I	|	|	|	0.09
1.833	0.14	0.00	0.017	O I	|	|	|	0.09
1.917	0.16	0.00	0.018	O I	|	|	|	0.10
2.000	0.16	0.00	0.019	O I	|	|	|	0.10
2.083	0.16	0.00	0.020	O I	|	|	|	0.11
2.167	0.16	0.00	0.022	O I	|	|	|	0.12
2.250	0.16	0.00	0.023	O I	|	|	|	0.12
2.333	0.16	0.00	0.024	O I	|	|	|	0.13
2.417	0.16	0.00	0.025	O I	|	|	|	0.13
2.500	0.16	0.00	0.026	O I	|	|	|	0.14
2.583	0.18	0.00	0.027	O I	|	|	|	0.15
2.667	0.20	0.00	0.028	O I	|	|	|	0.15
2.750	0.20	0.00	0.030	O I	|	|	|	0.16
2.833	0.20	0.00	0.031	O I	|	|	|	0.17
2.917	0.20	0.00	0.033	O I	|	|	|	0.17
3.000	0.20	0.00	0.034	O I	|	|	|	0.18
3.083	0.20	0.00	0.035	O I	|	|	|	0.19
3.167	0.20	0.00	0.037	O I	|	|	|	0.20
3.250	0.20	0.00	0.038	O I	|	|	|	0.20
3.333	0.20	0.00	0.039	O I	|	|	|	0.21
3.417	0.20	0.00	0.041	O I	|	|	|	0.22
3.500	0.20	0.00	0.042	O I	|	|	|	0.23
3.583	0.20	0.00	0.043	O I	|	|	|	0.23
3.667	0.20	0.00	0.045	O I	|	|	|	0.24
3.750	0.20	0.00	0.046	O I	|	|	|	0.25
3.833	0.22	0.00	0.048	O I	|	|	|	0.26
3.917	0.24	0.00	0.049	O I	|	|	|	0.26
4.000	0.24	0.00	0.051	O I	|	|	|	0.27
4.083	0.24	0.00	0.053	O I	|	|	|	0.28
4.167	0.24	0.00	0.054	O I	|	|	|	0.29
4.250	0.24	0.00	0.056	O I	|	|	|	0.30
4.333	0.26	0.00	0.058	O I	|	|	|	0.31
4.417	0.28	0.00	0.059	O I	|	|	|	0.32
4.500	0.28	0.00	0.061	O I	|	|	|	0.33
4.583	0.28	0.00	0.063	O I	|	|	|	0.34
4.667	0.28	0.00	0.065	O I	|	|	|	0.35
4.750	0.28	0.00	0.067	O I	|	|	|	0.36
4.833	0.30	0.00	0.069	O I	|	|	|	0.37
4.917	0.32	0.00	0.071	O I	|	|	|	0.38
5.000	0.32	0.00	0.073	O I	|	|	|	0.39
5.083	0.28	0.00	0.075	O I	|	|	|	0.41
5.167	0.25	0.00	0.077	O I	|	|	|	0.41
5.250	0.24	0.00	0.079	O I	|	|	|	0.42
5.333	0.26	0.00	0.081	O I	|	|	|	0.43
5.417	0.28	0.00	0.082	O I	|	|	|	0.44
5.500	0.28	0.00	0.084	O I	|	|	|	0.45
5.583	0.30	0.00	0.086	O I	|	|	|	0.46
5.667	0.32	0.00	0.088	O I	|	|	|	0.48
5.750	0.32	0.00	0.091	O I	|	|	|	0.49

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5.833    0.32    0.00      0.093  O      I|       |       |       |      0.50
5.917    0.32    0.00      0.095  O      I|       |       |       |      0.51
6.000    0.32    0.01      0.097  O      I|       |       |       |      0.52
6.083    0.34    0.01      0.099  O       I       |       |       |      0.53
6.167    0.35    0.02      0.102  O       I       |       |       |      0.54
6.250    0.36    0.02      0.104  O       I       |       |       |      0.55
6.333    0.36    0.02      0.106  O       I       |       |       |      0.56
6.417    0.36    0.03      0.109  O       I       |       |       |      0.57
6.500    0.36    0.03      0.111  O       I       |       |       |      0.59
6.583    0.38    0.04      0.113  O       I       |       |       |      0.60
6.667    0.39    0.04      0.115  |O      |I      |       |       |      0.61
6.750    0.40    0.05      0.118  |O      |I      |       |       |      0.62
6.833    0.40    0.05      0.120  |O      |I      |       |       |      0.63
6.917    0.40    0.06      0.123  |O      |I      |       |       |      0.64
7.000    0.40    0.06      0.125  |O      |I      |       |       |      0.65
7.083    0.40    0.06      0.127  |O      |I      |       |       |      0.66
7.167    0.40    0.07      0.130  |O      |I      |       |       |      0.68
7.250    0.40    0.07      0.132  |O      |I      |       |       |      0.69
7.333    0.42    0.08      0.134  |O      |I      |       |       |      0.70
7.417    0.43    0.08      0.137  |O      | I     |       |       |      0.71
7.500    0.44    0.09      0.139  | O     | I     |       |       |      0.72
7.583    0.46    0.09      0.141  | O     | I     |       |       |      0.73
7.667    0.47    0.10      0.144  | O     |  I    |       |       |      0.75
7.750    0.48    0.10      0.147  | O     |  I    |       |       |      0.76
7.833    0.50    0.11      0.149  | O     |  I    |       |       |      0.77
7.917    0.51    0.11      0.152  | O     |   I   |       |       |      0.78
8.000    0.52    0.12      0.155  | O     |   I   |       |       |      0.80
8.083    0.56    0.12      0.158  | O     |    I  |       |       |      0.81
8.167    0.59    0.13      0.161  |  O    |    I  |       |       |      0.83
8.250    0.60    0.13      0.164  |  O    |     I |       |       |      0.84
8.333    0.60    0.14      0.167  |  O    |     I |       |       |      0.86
8.417    0.60    0.15      0.170  |  O    |     I |       |       |      0.87
8.500    0.60    0.15      0.173  |  O    |     I |       |       |      0.89
8.583    0.62    0.16      0.176  |  O    |     I |       |       |      0.90
8.667    0.63    0.16      0.180  |  O    |     I |       |       |      0.92
8.750    0.64    0.17      0.183  |   O   |      I|       |       |      0.93
8.833    0.66    0.18      0.186  |   O   |      I|       |       |      0.95
8.917    0.67    0.18      0.189  |   O   |      I|       |       |      0.96
9.000    0.68    0.19      0.193  |   O   |      I|       |       |      0.98
9.083    0.72    0.20      0.196  |   O   |       I       |       |      1.00
9.167    0.75    0.20      0.200  |   O   |       |I      |       |      1.01
9.250    0.76    0.20      0.204  |   O   |       |I      |       |      1.03
9.333    0.78    0.20      0.208  |   O   |       | I     |       |      1.05
9.417    0.79    0.20      0.212  |   O   |       | I     |       |      1.06
9.500    0.80    0.20      0.216  |   O   |       | I     |       |      1.08
9.583    0.82    0.20      0.220  |   O   |       |  I    |       |      1.10
9.667    0.83    0.20      0.224  |   O   |       |  I    |       |      1.12
9.750    0.84    0.20      0.229  |   O   |       |  I    |       |      1.14
9.833    0.86    0.20      0.233  |   O   |       |   I   |       |      1.16
9.917    0.87    0.20      0.238  |   O   |       |   I   |       |      1.18
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10.000	0.88	0.20	0.243	O		I		1.20
10.083	0.73	0.20	0.247	O	I			1.21
10.167	0.62	0.20	0.250	O	I			1.23
10.250	0.60	0.20	0.253	O	I			1.24
10.333	0.60	0.20	0.256	O	I			1.25
10.417	0.60	0.20	0.258	O	I			1.27
10.500	0.60	0.20	0.261	O	I			1.28
10.583	0.70	0.20	0.264	O	I			1.29
10.667	0.78	0.20	0.268	O	I			1.31
10.750	0.79	0.20	0.272	O	I			1.32
10.833	0.80	0.20	0.276	O	I			1.34
10.917	0.80	0.20	0.280	O	I			1.36
11.000	0.80	0.20	0.285	O	I			1.38
11.083	0.78	0.20	0.289	O	I			1.39
11.167	0.76	0.20	0.293	O	I			1.41
11.250	0.76	0.20	0.296	O	I			1.43
11.333	0.76	0.20	0.300	O	I			1.45
11.417	0.76	0.20	0.304	O	I			1.46
11.500	0.76	0.20	0.308	O	I			1.48
11.583	0.72	0.20	0.312	O	I			1.49
11.667	0.68	0.20	0.315	O	I			1.51
11.750	0.68	0.20	0.319	O	I			1.52
11.833	0.70	0.20	0.322	O	I			1.54
11.917	0.71	0.20	0.325	O	I			1.55
12.000	0.72	0.20	0.329	O	I			1.56
12.083	0.86	0.20	0.333	O		I		1.58
12.167	0.97	0.20	0.338	O		I		1.60
12.250	0.99	0.20	0.343	O		I		1.62
12.333	1.02	0.20	0.349	O		I		1.64
12.417	1.03	0.20	0.355	O		I		1.66
12.500	1.03	0.20	0.360	O		I		1.69
12.583	1.08	0.20	0.366	O		I		1.71
12.667	1.11	0.20	0.373	O		I		1.73
12.750	1.11	0.20	0.379	O		I		1.76
12.833	1.14	0.20	0.385	O		I		1.78
12.917	1.15	0.20	0.392	O		I		1.81
13.000	1.15	0.20	0.398	O		I		1.84
13.083	1.26	0.20	0.405	O		I		1.86
13.167	1.34	0.20	0.413	O		I		1.89
13.250	1.35	0.20	0.421	O		I		1.92
13.333	1.35	0.20	0.429	O		I		1.96
13.417	1.35	0.20	0.437	O		I		1.99
13.500	1.35	0.20	0.445	O		I		2.02
13.583	1.13	0.20	0.452	O		I		2.04
13.667	0.95	0.20	0.458	O		I		2.06
13.750	0.92	0.20	0.463	O		I		2.08
13.833	0.92	0.20	0.468	O		I		2.10
13.917	0.92	0.20	0.473	O		I		2.12
14.000	0.92	0.20	0.478	O		I		2.13
14.083	1.00	0.20	0.483	O		I		2.15

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14.167    1.06    0.20      0.489  |    O    |         |         |I       |      2.17
14.250    1.07    0.20      0.495  |    O    |         |         |I       |      2.20
14.333    1.05    0.20      0.501  |    O    |         |        I        |      2.22
14.417    1.04    0.20      0.506  |    O    |         |        I        |      2.24
14.500    1.04    0.20      0.512  |    O    |         |        I        |      2.26
14.583    1.04    0.20      0.518  |    O    |         |        I        |      2.28
14.667    1.04    0.20      0.524  |    O    |         |        I        |      2.30
14.750    1.04    0.20      0.530  |    O    |         |        I        |      2.32
14.833    1.01    0.20      0.535  |    O    |         |       I|        |      2.34
14.917    1.00    0.20      0.541  |    O    |         |       I|        |      2.36
15.000    1.00    0.20      0.546  |    O    |         |       I|        |      2.38
15.083    0.98    0.20      0.552  |    O    |         |       I|        |      2.40
15.167    0.96    0.20      0.557  |    O    |         |      I |        |      2.42
15.250    0.96    0.20      0.562  |    O    |         |      I |        |      2.44
15.333    0.94    0.20      0.568  |    O    |         |      I |        |      2.46
15.417    0.92    0.20      0.573  |    O    |         |     I  |        |      2.47
15.500    0.92    0.20      0.578  |    O    |         |     I  |        |      2.49
15.583    0.83    0.20      0.582  |    O    |         |  I     |        |      2.51
15.667    0.77    0.20      0.586  |    O    |         | I      |        |      2.52
15.750    0.76    0.20      0.590  |    O    |         |I       |        |      2.53
15.833    0.76    0.20      0.594  |    O    |         |I       |        |      2.55
15.917    0.76    0.20      0.598  |    O    |         |I       |        |      2.56
16.000    0.76    0.20      0.602  |    O    |         |I       |        |      2.57
16.083    0.45    0.20      0.605  |    O    | I       |        |        |      2.58
16.167    0.21    0.20      0.606  |   OI    |         |        |        |      2.58
16.250    0.17    0.20      0.606  |    O    |         |        |        |      2.58
16.333    0.16    0.20      0.605  |   IO    |         |        |        |      2.58
16.417    0.16    0.20      0.605  |   IO    |         |        |        |      2.58
16.500    0.16    0.20      0.605  |   IO    |         |        |        |      2.58
16.583    0.14    0.20      0.605  |   IO    |         |        |        |      2.58
16.667    0.12    0.20      0.604  | I O     |         |        |        |      2.58
16.750    0.12    0.20      0.604  | I O     |         |        |        |      2.58
16.833    0.12    0.20      0.603  | I O     |         |        |        |      2.58
16.917    0.12    0.20      0.603  | I O     |         |        |        |      2.57
17.000    0.12    0.20      0.602  | I O     |         |        |        |      2.57
17.083    0.16    0.20      0.602  |   IO    |         |        |        |      2.57
17.167    0.19    0.20      0.602  |    O    |         |        |        |      2.57
17.250    0.20    0.20      0.601  |    O    |         |        |        |      2.57
17.333    0.20    0.20      0.602  |    O    |         |        |        |      2.57
17.417    0.20    0.20      0.602  |    O    |         |        |        |      2.57
17.500    0.20    0.20      0.602  |    O    |         |        |        |      2.57
17.583    0.20    0.20      0.602  |    O    |         |        |        |      2.57
17.667    0.20    0.20      0.602  |    O    |         |        |        |      2.57
17.750    0.20    0.20      0.602  |    O    |         |        |        |      2.57
17.833    0.18    0.20      0.602  |    O    |         |        |        |      2.57
17.917    0.16    0.20      0.601  |   IO    |         |        |        |      2.57
18.000    0.16    0.20      0.601  |   IO    |         |        |        |      2.57
18.083    0.16    0.20      0.601  |   IO    |         |        |        |      2.57
18.167    0.16    0.20      0.601  |   IO    |         |        |        |      2.57
18.250    0.16    0.20      0.600  |   IO    |         |        |        |      2.57
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18.333	0.16	0.20	0.600	IO				2.57
18.417	0.16	0.20	0.600	IO				2.57
18.500	0.16	0.20	0.600	IO				2.56
18.583	0.14	0.20	0.599	IO				2.56
18.667	0.12	0.20	0.599	I O				2.56
18.750	0.12	0.20	0.598	I O				2.56
18.833	0.10	0.20	0.598	I O				2.56
18.917	0.08	0.20	0.597	I O				2.56
19.000	0.08	0.20	0.596	I O				2.55
19.083	0.10	0.20	0.595	I O				2.55
19.167	0.12	0.20	0.595	I O				2.55
19.250	0.12	0.20	0.594	I O				2.55
19.333	0.14	0.20	0.594	IO				2.55
19.417	0.16	0.20	0.594	IO				2.54
19.500	0.16	0.20	0.593	IO				2.54
19.583	0.14	0.20	0.593	IO				2.54
19.667	0.12	0.20	0.592	I O				2.54
19.750	0.12	0.20	0.592	I O				2.54
19.833	0.10	0.20	0.591	I O				2.54
19.917	0.08	0.20	0.591	I O				2.53
20.000	0.08	0.20	0.590	I O				2.53
20.083	0.10	0.20	0.589	I O				2.53
20.167	0.12	0.20	0.589	I O				2.53
20.250	0.12	0.20	0.588	I O				2.53
20.333	0.12	0.20	0.587	I O				2.52
20.417	0.12	0.20	0.587	I O				2.52
20.500	0.12	0.20	0.586	I O				2.52
20.583	0.12	0.20	0.586	I O				2.52
20.667	0.12	0.20	0.585	I O				2.52
20.750	0.12	0.20	0.585	I O				2.52
20.833	0.10	0.20	0.584	I O				2.51
20.917	0.08	0.20	0.583	I O				2.51
21.000	0.08	0.20	0.583	I O				2.51
21.083	0.10	0.20	0.582	I O				2.51
21.167	0.12	0.20	0.581	I O				2.50
21.250	0.12	0.20	0.581	I O				2.50
21.333	0.10	0.20	0.580	I O				2.50
21.417	0.08	0.20	0.579	I O				2.50
21.500	0.08	0.20	0.579	I O				2.50
21.583	0.10	0.20	0.578	I O				2.49
21.667	0.12	0.20	0.577	I O				2.49
21.750	0.12	0.20	0.577	I O				2.49
21.833	0.10	0.20	0.576	I O				2.49
21.917	0.08	0.20	0.575	I O				2.48
22.000	0.08	0.20	0.575	I O				2.48
22.083	0.10	0.20	0.574	I O				2.48
22.167	0.12	0.20	0.573	I O				2.48
22.250	0.12	0.20	0.573	I O				2.47
22.333	0.10	0.20	0.572	I O				2.47
22.417	0.08	0.20	0.571	I O				2.47

22.500	0.08	0.20	0.571	I	O				2.47
22.583	0.08	0.20	0.570	I	O				2.46
22.667	0.08	0.20	0.569	I	O				2.46
22.750	0.08	0.20	0.568	I	O				2.46
22.833	0.08	0.20	0.567	I	O				2.46
22.917	0.08	0.20	0.567	I	O				2.45
23.000	0.08	0.20	0.566	I	O				2.45
23.083	0.08	0.20	0.565	I	O				2.45
23.167	0.08	0.20	0.564	I	O				2.44
23.250	0.08	0.20	0.563	I	O				2.44
23.333	0.08	0.20	0.563	I	O				2.44
23.417	0.08	0.20	0.562	I	O				2.44
23.500	0.08	0.20	0.561	I	O				2.43
23.583	0.08	0.20	0.560	I	O				2.43
23.667	0.08	0.20	0.559	I	O				2.43
23.750	0.08	0.20	0.559	I	O				2.42
23.833	0.08	0.20	0.558	I	O				2.42
23.917	0.08	0.20	0.557	I	O				2.42
24.000	0.08	0.20	0.556	I	O				2.42
24.083	0.04	0.20	0.555	I	O				2.41
24.167	0.01	0.20	0.554	I	O				2.41
24.250	0.00	0.20	0.553	I	O				2.40
24.333	0.00	0.20	0.551	I	O				2.40
24.417	0.00	0.20	0.550	I	O				2.39
24.500	0.00	0.20	0.549	I	O				2.39
24.583	0.00	0.20	0.547	I	O				2.38
24.667	0.00	0.20	0.546	I	O				2.38
24.750	0.00	0.20	0.545	I	O				2.37
24.833	0.00	0.20	0.543	I	O				2.37
24.917	0.00	0.20	0.542	I	O				2.36
25.000	0.00	0.20	0.541	I	O				2.36
25.083	0.00	0.20	0.539	I	O				2.35
25.167	0.00	0.20	0.538	I	O				2.35
25.250	0.00	0.20	0.537	I	O				2.34
25.333	0.00	0.20	0.535	I	O				2.34
25.417	0.00	0.20	0.534	I	O				2.34
25.500	0.00	0.20	0.532	I	O				2.33
25.583	0.00	0.20	0.531	I	O				2.33
25.667	0.00	0.20	0.530	I	O				2.32
25.750	0.00	0.20	0.528	I	O				2.32
25.833	0.00	0.20	0.527	I	O				2.31
25.917	0.00	0.20	0.526	I	O				2.31
26.000	0.00	0.20	0.524	I	O				2.30
26.083	0.00	0.20	0.523	I	O				2.30
26.167	0.00	0.20	0.522	I	O				2.29
26.250	0.00	0.20	0.520	I	O				2.29
26.333	0.00	0.20	0.519	I	O				2.28
26.417	0.00	0.20	0.518	I	O				2.28
26.500	0.00	0.20	0.516	I	O				2.27
26.583	0.00	0.20	0.515	I	O				2.27

26.667	0.00	0.20	0.514	I	O					2.26
26.750	0.00	0.20	0.512	I	O					2.26
26.833	0.00	0.20	0.511	I	O					2.25
26.917	0.00	0.20	0.509	I	O					2.25
27.000	0.00	0.20	0.508	I	O					2.24
27.083	0.00	0.20	0.507	I	O					2.24
27.167	0.00	0.20	0.505	I	O					2.23
27.250	0.00	0.20	0.504	I	O					2.23
27.333	0.00	0.20	0.503	I	O					2.22
27.417	0.00	0.20	0.501	I	O					2.22
27.500	0.00	0.20	0.500	I	O					2.21
27.583	0.00	0.20	0.499	I	O					2.21
27.667	0.00	0.20	0.497	I	O					2.20
27.750	0.00	0.20	0.496	I	O					2.20
27.833	0.00	0.20	0.495	I	O					2.20
27.917	0.00	0.20	0.493	I	O					2.19
28.000	0.00	0.20	0.492	I	O					2.19
28.083	0.00	0.20	0.491	I	O					2.18
28.167	0.00	0.20	0.489	I	O					2.18
28.250	0.00	0.20	0.488	I	O					2.17
28.333	0.00	0.20	0.486	I	O					2.17
28.417	0.00	0.20	0.485	I	O					2.16
28.500	0.00	0.20	0.484	I	O					2.16
28.583	0.00	0.20	0.482	I	O					2.15
28.667	0.00	0.20	0.481	I	O					2.15
28.750	0.00	0.20	0.480	I	O					2.14
28.833	0.00	0.20	0.478	I	O					2.14
28.917	0.00	0.20	0.477	I	O					2.13
29.000	0.00	0.20	0.476	I	O					2.13
29.083	0.00	0.20	0.474	I	O					2.12
29.167	0.00	0.20	0.473	I	O					2.12
29.250	0.00	0.20	0.472	I	O					2.11
29.333	0.00	0.20	0.470	I	O					2.11
29.417	0.00	0.20	0.469	I	O					2.10
29.500	0.00	0.20	0.468	I	O					2.10
29.583	0.00	0.20	0.466	I	O					2.09
29.667	0.00	0.20	0.465	I	O					2.09
29.750	0.00	0.20	0.464	I	O					2.08
29.833	0.00	0.20	0.462	I	O					2.08
29.917	0.00	0.20	0.461	I	O					2.07
30.000	0.00	0.20	0.459	I	O					2.07
30.083	0.00	0.20	0.458	I	O					2.06
30.167	0.00	0.20	0.457	I	O					2.06
30.250	0.00	0.20	0.455	I	O					2.05
30.333	0.00	0.20	0.454	I	O					2.05
30.417	0.00	0.20	0.453	I	O					2.05
30.500	0.00	0.20	0.451	I	O					2.04
30.583	0.00	0.20	0.450	I	O					2.04
30.667	0.00	0.20	0.449	I	O					2.03
30.750	0.00	0.20	0.447	I	O					2.03

30.833	0.00	0.20	0.446	I	O					2.02
30.917	0.00	0.20	0.445	I	O					2.02
31.000	0.00	0.20	0.443	I	O					2.01
31.083	0.00	0.20	0.442	I	O					2.01
31.167	0.00	0.20	0.441	I	O					2.00
31.250	0.00	0.20	0.439	I	O					2.00
31.333	0.00	0.20	0.438	I	O					1.99
31.417	0.00	0.20	0.436	I	O					1.99
31.500	0.00	0.20	0.435	I	O					1.98
31.583	0.00	0.20	0.434	I	O					1.98
31.667	0.00	0.20	0.432	I	O					1.97
31.750	0.00	0.20	0.431	I	O					1.96
31.833	0.00	0.20	0.430	I	O					1.96
31.917	0.00	0.20	0.428	I	O					1.95
32.000	0.00	0.20	0.427	I	O					1.95
32.083	0.00	0.20	0.426	I	O					1.94
32.167	0.00	0.20	0.424	I	O					1.94
32.250	0.00	0.20	0.423	I	O					1.93
32.333	0.00	0.20	0.422	I	O					1.93
32.417	0.00	0.20	0.420	I	O					1.92
32.500	0.00	0.20	0.419	I	O					1.92
32.583	0.00	0.20	0.418	I	O					1.91
32.667	0.00	0.20	0.416	I	O					1.91
32.750	0.00	0.20	0.415	I	O					1.90
32.833	0.00	0.20	0.413	I	O					1.90
32.917	0.00	0.20	0.412	I	O					1.89
33.000	0.00	0.20	0.411	I	O					1.88
33.083	0.00	0.20	0.409	I	O					1.88
33.167	0.00	0.20	0.408	I	O					1.87
33.250	0.00	0.20	0.407	I	O					1.87
33.333	0.00	0.20	0.405	I	O					1.86
33.417	0.00	0.20	0.404	I	O					1.86
33.500	0.00	0.20	0.403	I	O					1.85
33.583	0.00	0.20	0.401	I	O					1.85
33.667	0.00	0.20	0.400	I	O					1.84
33.750	0.00	0.20	0.399	I	O					1.84
33.833	0.00	0.20	0.397	I	O					1.83
33.917	0.00	0.20	0.396	I	O					1.83
34.000	0.00	0.20	0.395	I	O					1.82
34.083	0.00	0.20	0.393	I	O					1.82
34.167	0.00	0.20	0.392	I	O					1.81
34.250	0.00	0.20	0.390	I	O					1.81
34.333	0.00	0.20	0.389	I	O					1.80
34.417	0.00	0.20	0.388	I	O					1.79
34.500	0.00	0.20	0.386	I	O					1.79
34.583	0.00	0.20	0.385	I	O					1.78
34.667	0.00	0.20	0.384	I	O					1.78
34.750	0.00	0.20	0.382	I	O					1.77
34.833	0.00	0.20	0.381	I	O					1.77
34.917	0.00	0.20	0.380	I	O					1.76

35.000	0.00	0.20	0.378	I	O					1.76
35.083	0.00	0.20	0.377	I	O					1.75
35.167	0.00	0.20	0.376	I	O					1.75
35.250	0.00	0.20	0.374	I	O					1.74
35.333	0.00	0.20	0.373	I	O					1.74
35.417	0.00	0.20	0.372	I	O					1.73
35.500	0.00	0.20	0.370	I	O					1.73
35.583	0.00	0.20	0.369	I	O					1.72
35.667	0.00	0.20	0.367	I	O					1.71
35.750	0.00	0.20	0.366	I	O					1.71
35.833	0.00	0.20	0.365	I	O					1.70
35.917	0.00	0.20	0.363	I	O					1.70
36.000	0.00	0.20	0.362	I	O					1.69
36.083	0.00	0.20	0.361	I	O					1.69
36.167	0.00	0.20	0.359	I	O					1.68
36.250	0.00	0.20	0.358	I	O					1.68
36.333	0.00	0.20	0.357	I	O					1.67
36.417	0.00	0.20	0.355	I	O					1.67
36.500	0.00	0.20	0.354	I	O					1.66
36.583	0.00	0.20	0.353	I	O					1.66
36.667	0.00	0.20	0.351	I	O					1.65
36.750	0.00	0.20	0.350	I	O					1.65
36.833	0.00	0.20	0.349	I	O					1.64
36.917	0.00	0.20	0.347	I	O					1.63
37.000	0.00	0.20	0.346	I	O					1.63
37.083	0.00	0.20	0.345	I	O					1.62
37.167	0.00	0.20	0.343	I	O					1.62
37.250	0.00	0.20	0.342	I	O					1.61
37.333	0.00	0.20	0.340	I	O					1.61
37.417	0.00	0.20	0.339	I	O					1.60
37.500	0.00	0.20	0.338	I	O					1.60
37.583	0.00	0.20	0.336	I	O					1.59
37.667	0.00	0.20	0.335	I	O					1.59
37.750	0.00	0.20	0.334	I	O					1.58
37.833	0.00	0.20	0.332	I	O					1.58
37.917	0.00	0.20	0.331	I	O					1.57
38.000	0.00	0.20	0.330	I	O					1.57
38.083	0.00	0.20	0.328	I	O					1.56
38.167	0.00	0.20	0.327	I	O					1.55
38.250	0.00	0.20	0.326	I	O					1.55
38.333	0.00	0.20	0.324	I	O					1.54
38.417	0.00	0.20	0.323	I	O					1.54
38.500	0.00	0.20	0.322	I	O					1.53
38.583	0.00	0.20	0.320	I	O					1.53
38.667	0.00	0.20	0.319	I	O					1.52
38.750	0.00	0.20	0.317	I	O					1.52
38.833	0.00	0.20	0.316	I	O					1.51
38.917	0.00	0.20	0.315	I	O					1.51
39.000	0.00	0.20	0.313	I	O					1.50
39.083	0.00	0.20	0.312	I	O					1.50

39.167	0.00	0.20	0.311	I	O					1.49
39.250	0.00	0.20	0.309	I	O					1.48
39.333	0.00	0.20	0.308	I	O					1.48
39.417	0.00	0.20	0.307	I	O					1.47
39.500	0.00	0.20	0.305	I	O					1.47
39.583	0.00	0.20	0.304	I	O					1.46
39.667	0.00	0.20	0.303	I	O					1.46
39.750	0.00	0.20	0.301	I	O					1.45
39.833	0.00	0.20	0.300	I	O					1.44
39.917	0.00	0.20	0.299	I	O					1.44
40.000	0.00	0.20	0.297	I	O					1.43
40.083	0.00	0.20	0.296	I	O					1.43
40.167	0.00	0.20	0.294	I	O					1.42
40.250	0.00	0.20	0.293	I	O					1.41
40.333	0.00	0.20	0.292	I	O					1.41
40.417	0.00	0.20	0.290	I	O					1.40
40.500	0.00	0.20	0.289	I	O					1.40
40.583	0.00	0.20	0.288	I	O					1.39
40.667	0.00	0.20	0.286	I	O					1.39
40.750	0.00	0.20	0.285	I	O					1.38
40.833	0.00	0.20	0.284	I	O					1.37
40.917	0.00	0.20	0.282	I	O					1.37
41.000	0.00	0.20	0.281	I	O					1.36
41.083	0.00	0.20	0.280	I	O					1.36
41.167	0.00	0.20	0.278	I	O					1.35
41.250	0.00	0.20	0.277	I	O					1.34
41.333	0.00	0.20	0.276	I	O					1.34
41.417	0.00	0.20	0.274	I	O					1.33
41.500	0.00	0.20	0.273	I	O					1.33
41.583	0.00	0.20	0.271	I	O					1.32
41.667	0.00	0.20	0.270	I	O					1.32
41.750	0.00	0.20	0.269	I	O					1.31
41.833	0.00	0.20	0.267	I	O					1.30
41.917	0.00	0.20	0.266	I	O					1.30
42.000	0.00	0.20	0.265	I	O					1.29
42.083	0.00	0.20	0.263	I	O					1.29
42.167	0.00	0.20	0.262	I	O					1.28
42.250	0.00	0.20	0.261	I	O					1.27
42.333	0.00	0.20	0.259	I	O					1.27
42.417	0.00	0.20	0.258	I	O					1.26
42.500	0.00	0.20	0.257	I	O					1.26
42.583	0.00	0.20	0.255	I	O					1.25
42.667	0.00	0.20	0.254	I	O					1.25
42.750	0.00	0.20	0.253	I	O					1.24
42.833	0.00	0.20	0.251	I	O					1.23
42.917	0.00	0.20	0.250	I	O					1.23
43.000	0.00	0.20	0.248	I	O					1.22
43.083	0.00	0.20	0.247	I	O					1.22
43.167	0.00	0.20	0.246	I	O					1.21
43.250	0.00	0.20	0.244	I	O					1.20

43.333	0.00	0.20	0.243	I	O				1.20
43.417	0.00	0.20	0.242	I	O				1.19
43.500	0.00	0.20	0.240	I	O				1.19
43.583	0.00	0.20	0.239	I	O				1.18
43.667	0.00	0.20	0.238	I	O				1.18
43.750	0.00	0.20	0.236	I	O				1.17
43.833	0.00	0.20	0.235	I	O				1.16
43.917	0.00	0.20	0.234	I	O				1.16
44.000	0.00	0.20	0.232	I	O				1.15
44.083	0.00	0.20	0.231	I	O				1.15
44.167	0.00	0.20	0.230	I	O				1.14
44.250	0.00	0.20	0.228	I	O				1.13
44.333	0.00	0.20	0.227	I	O				1.13
44.417	0.00	0.20	0.226	I	O				1.12
44.500	0.00	0.20	0.224	I	O				1.12
44.583	0.00	0.20	0.223	I	O				1.11
44.667	0.00	0.20	0.221	I	O				1.11
44.750	0.00	0.20	0.220	I	O				1.10
44.833	0.00	0.20	0.219	I	O				1.09
44.917	0.00	0.20	0.217	I	O				1.09
45.000	0.00	0.20	0.216	I	O				1.08
45.083	0.00	0.20	0.215	I	O				1.08
45.167	0.00	0.20	0.213	I	O				1.07
45.250	0.00	0.20	0.212	I	O				1.06
45.333	0.00	0.20	0.211	I	O				1.06
45.417	0.00	0.20	0.209	I	O				1.05
45.500	0.00	0.20	0.208	I	O				1.05
45.583	0.00	0.20	0.207	I	O				1.04
45.667	0.00	0.20	0.205	I	O				1.04
45.750	0.00	0.20	0.204	I	O				1.03
45.833	0.00	0.20	0.203	I	O				1.02
45.917	0.00	0.20	0.201	I	O				1.02
46.000	0.00	0.20	0.200	I	O				1.01
46.083	0.00	0.20	0.198	I	O				1.01
46.167	0.00	0.20	0.197	I	O				1.00
46.250	0.00	0.19	0.196	I	O				0.99
46.333	0.00	0.19	0.194	I	O				0.99
46.417	0.00	0.19	0.193	I	O				0.98
46.500	0.00	0.19	0.192	I	O				0.98
46.583	0.00	0.18	0.191	I	O				0.97
46.667	0.00	0.18	0.189	I	O				0.96
46.750	0.00	0.18	0.188	I	O				0.96
46.833	0.00	0.18	0.187	I	O				0.95
46.917	0.00	0.17	0.186	I	O				0.95
47.000	0.00	0.17	0.184	I	O				0.94
47.083	0.00	0.17	0.183	I	O				0.93
47.167	0.00	0.17	0.182	I	O				0.93
47.250	0.00	0.17	0.181	I	O				0.92
47.333	0.00	0.16	0.180	I	O				0.92
47.417	0.00	0.16	0.179	I	O				0.91

47.500	0.00	0.16	0.178	I	O	|	|	|	0.91
47.583	0.00	0.16	0.176	I	O	|	|	|	0.90
47.667	0.00	0.16	0.175	I	O	|	|	|	0.90
47.750	0.00	0.15	0.174	I	O	|	|	|	0.89
47.833	0.00	0.15	0.173	I	O	|	|	|	0.89
47.917	0.00	0.15	0.172	I	O	|	|	|	0.88
48.000	0.00	0.15	0.171	I	O	|	|	|	0.88
48.083	0.00	0.15	0.170	I	O	|	|	|	0.87
48.167	0.00	0.14	0.169	I	O	|	|	|	0.87
48.250	0.00	0.14	0.168	I	O	|	|	|	0.86
48.333	0.00	0.14	0.167	I	O	|	|	|	0.86
48.417	0.00	0.14	0.166	I	O	|	|	|	0.85
48.500	0.00	0.14	0.165	I	O	|	|	|	0.85
48.583	0.00	0.13	0.164	I	O	|	|	|	0.84
48.667	0.00	0.13	0.163	I	O	|	|	|	0.84
48.750	0.00	0.13	0.163	I	O	|	|	|	0.83
48.833	0.00	0.13	0.162	I	O	|	|	|	0.83
48.917	0.00	0.13	0.161	I	O	|	|	|	0.83
49.000	0.00	0.13	0.160	I	O	|	|	|	0.82
49.083	0.00	0.12	0.159	I	O	|	|	|	0.82
49.167	0.00	0.12	0.158	I	O	|	|	|	0.81
49.250	0.00	0.12	0.157	I	O	|	|	|	0.81
49.333	0.00	0.12	0.157	I	O	|	|	|	0.81
49.417	0.00	0.12	0.156	I	O	|	|	|	0.80
49.500	0.00	0.12	0.155	I	O	|	|	|	0.80
49.583	0.00	0.12	0.154	I	O	|	|	|	0.79
49.667	0.00	0.11	0.153	I	O	|	|	|	0.79
49.750	0.00	0.11	0.153	I	O	|	|	|	0.79
49.833	0.00	0.11	0.152	I	O	|	|	|	0.78
49.917	0.00	0.11	0.151	I	O	|	|	|	0.78
50.000	0.00	0.11	0.150	I	O	|	|	|	0.78
50.083	0.00	0.11	0.150	I	O	|	|	|	0.77
50.167	0.00	0.11	0.149	I	O	|	|	|	0.77
50.250	0.00	0.10	0.148	I	O	|	|	|	0.76
50.333	0.00	0.10	0.147	I	O	|	|	|	0.76
50.417	0.00	0.10	0.147	I	O	|	|	|	0.76
50.500	0.00	0.10	0.146	I	O	|	|	|	0.75
50.583	0.00	0.10	0.145	I	O	|	|	|	0.75
50.667	0.00	0.10	0.145	I	O	|	|	|	0.75
50.750	0.00	0.10	0.144	I	O	|	|	|	0.74
50.833	0.00	0.09	0.143	I	O	|	|	|	0.74
50.917	0.00	0.09	0.143	I	O	|	|	|	0.74
51.000	0.00	0.09	0.142	I	O	|	|	|	0.74
51.083	0.00	0.09	0.141	I	O	|	|	|	0.73
51.167	0.00	0.09	0.141	I	O	|	|	|	0.73
51.250	0.00	0.09	0.140	I	O	|	|	|	0.73
51.333	0.00	0.09	0.139	I	O	|	|	|	0.72
51.417	0.00	0.09	0.139	I	O	|	|	|	0.72
51.500	0.00	0.09	0.138	I	O	|	|	|	0.72
51.583	0.00	0.08	0.138	I	O	|	|	|	0.71

51.667	0.00	0.08	0.137	IO				0.71
51.750	0.00	0.08	0.137	IO				0.71
51.833	0.00	0.08	0.136	IO				0.71
51.917	0.00	0.08	0.135	IO				0.70
52.000	0.00	0.08	0.135	IO				0.70
52.083	0.00	0.08	0.134	IO				0.70
52.167	0.00	0.08	0.134	IO				0.70
52.250	0.00	0.08	0.133	IO				0.69
52.333	0.00	0.08	0.133	IO				0.69
52.417	0.00	0.07	0.132	IO				0.69
52.500	0.00	0.07	0.132	IO				0.69
52.583	0.00	0.07	0.131	IO				0.68
52.667	0.00	0.07	0.131	IO				0.68
52.750	0.00	0.07	0.130	IO				0.68
52.833	0.00	0.07	0.130	IO				0.68
52.917	0.00	0.07	0.129	IO				0.67
53.000	0.00	0.07	0.129	IO				0.67
53.083	0.00	0.07	0.128	IO				0.67
53.167	0.00	0.07	0.128	IO				0.67
53.250	0.00	0.07	0.127	IO				0.67
53.333	0.00	0.06	0.127	IO				0.66
53.417	0.00	0.06	0.127	IO				0.66
53.500	0.00	0.06	0.126	IO				0.66
53.583	0.00	0.06	0.126	IO				0.66
53.667	0.00	0.06	0.125	IO				0.66
53.750	0.00	0.06	0.125	IO				0.65
53.833	0.00	0.06	0.124	IO				0.65
53.917	0.00	0.06	0.124	IO				0.65
54.000	0.00	0.06	0.124	IO				0.65
54.083	0.00	0.06	0.123	IO				0.65
54.167	0.00	0.06	0.123	IO				0.64
54.250	0.00	0.06	0.122	IO				0.64
54.333	0.00	0.05	0.122	IO				0.64
54.417	0.00	0.05	0.122	IO				0.64
54.500	0.00	0.05	0.121	IO				0.64
54.583	0.00	0.05	0.121	IO				0.63
54.667	0.00	0.05	0.121	IO				0.63
54.750	0.00	0.05	0.120	IO				0.63
54.833	0.00	0.05	0.120	IO				0.63
54.917	0.00	0.05	0.120	IO				0.63
55.000	0.00	0.05	0.119	IO				0.63
55.083	0.00	0.05	0.119	IO				0.62
55.167	0.00	0.05	0.119	IO				0.62
55.250	0.00	0.05	0.118	IO				0.62
55.333	0.00	0.05	0.118	IO				0.62
55.417	0.00	0.05	0.118	IO				0.62
55.500	0.00	0.05	0.117	IO				0.62
55.583	0.00	0.05	0.117	IO				0.62
55.667	0.00	0.04	0.117	IO				0.61
55.750	0.00	0.04	0.116	IO				0.61

55.833	0.00	0.04	0.116	IO				0.61
55.917	0.00	0.04	0.116	IO				0.61
56.000	0.00	0.04	0.115	IO				0.61
56.083	0.00	0.04	0.115	O				0.61
56.167	0.00	0.04	0.115	O				0.61
56.250	0.00	0.04	0.115	O				0.60
56.333	0.00	0.04	0.114	O				0.60
56.417	0.00	0.04	0.114	O				0.60
56.500	0.00	0.04	0.114	O				0.60
56.583	0.00	0.04	0.113	O				0.60
56.667	0.00	0.04	0.113	O				0.60
56.750	0.00	0.04	0.113	O				0.60
56.833	0.00	0.04	0.113	O				0.59
56.917	0.00	0.04	0.112	O				0.59
57.000	0.00	0.04	0.112	O				0.59
57.083	0.00	0.04	0.112	O				0.59
57.167	0.00	0.04	0.112	O				0.59
57.250	0.00	0.03	0.111	O				0.59
57.333	0.00	0.03	0.111	O				0.59
57.417	0.00	0.03	0.111	O				0.59
57.500	0.00	0.03	0.111	O				0.59
57.583	0.00	0.03	0.111	O				0.58
57.667	0.00	0.03	0.110	O				0.58
57.750	0.00	0.03	0.110	O				0.58
57.833	0.00	0.03	0.110	O				0.58
57.917	0.00	0.03	0.110	O				0.58
58.000	0.00	0.03	0.109	O				0.58
58.083	0.00	0.03	0.109	O				0.58
58.167	0.00	0.03	0.109	O				0.58
58.250	0.00	0.03	0.109	O				0.58
58.333	0.00	0.03	0.109	O				0.57
58.417	0.00	0.03	0.108	O				0.57
58.500	0.00	0.03	0.108	O				0.57
58.583	0.00	0.03	0.108	O				0.57
58.667	0.00	0.03	0.108	O				0.57
58.750	0.00	0.03	0.108	O				0.57
58.833	0.00	0.03	0.107	O				0.57
58.917	0.00	0.03	0.107	O				0.57
59.000	0.00	0.03	0.107	O				0.57
59.083	0.00	0.03	0.107	O				0.57
59.167	0.00	0.03	0.107	O				0.57
59.250	0.00	0.03	0.107	O				0.56
59.333	0.00	0.03	0.106	O				0.56
59.417	0.00	0.02	0.106	O				0.56
59.500	0.00	0.02	0.106	O				0.56
59.583	0.00	0.02	0.106	O				0.56
59.667	0.00	0.02	0.106	O				0.56
59.750	0.00	0.02	0.106	O				0.56
59.833	0.00	0.02	0.105	O				0.56
59.917	0.00	0.02	0.105	O				0.56

60.000	0.00	0.02	0.105	O	|	|	|	0.56
60.083	0.00	0.02	0.105	O	|	|	|	0.56
60.167	0.00	0.02	0.105	O	|	|	|	0.56
60.250	0.00	0.02	0.105	O	|	|	|	0.56
60.333	0.00	0.02	0.104	O	|	|	|	0.55
60.417	0.00	0.02	0.104	O	|	|	|	0.55
60.500	0.00	0.02	0.104	O	|	|	|	0.55
60.583	0.00	0.02	0.104	O	|	|	|	0.55
60.667	0.00	0.02	0.104	O	|	|	|	0.55
60.750	0.00	0.02	0.104	O	|	|	|	0.55
60.833	0.00	0.02	0.104	O	|	|	|	0.55
60.917	0.00	0.02	0.103	O	|	|	|	0.55
61.000	0.00	0.02	0.103	O	|	|	|	0.55
61.083	0.00	0.02	0.103	O	|	|	|	0.55
61.167	0.00	0.02	0.103	O	|	|	|	0.55
61.250	0.00	0.02	0.103	O	|	|	|	0.55
61.333	0.00	0.02	0.103	O	|	|	|	0.55
61.417	0.00	0.02	0.103	O	|	|	|	0.55
61.500	0.00	0.02	0.103	O	|	|	|	0.55
61.583	0.00	0.02	0.102	O	|	|	|	0.55
61.667	0.00	0.02	0.102	O	|	|	|	0.54
61.750	0.00	0.02	0.102	O	|	|	|	0.54
61.833	0.00	0.02	0.102	O	|	|	|	0.54
61.917	0.00	0.02	0.102	O	|	|	|	0.54
62.000	0.00	0.02	0.102	O	|	|	|	0.54
62.083	0.00	0.02	0.102	O	|	|	|	0.54
62.167	0.00	0.02	0.102	O	|	|	|	0.54
62.250	0.00	0.02	0.101	O	|	|	|	0.54
62.333	0.00	0.02	0.101	O	|	|	|	0.54
62.417	0.00	0.02	0.101	O	|	|	|	0.54
62.500	0.00	0.02	0.101	O	|	|	|	0.54
62.583	0.00	0.02	0.101	O	|	|	|	0.54
62.667	0.00	0.01	0.101	O	|	|	|	0.54
62.750	0.00	0.01	0.101	O	|	|	|	0.54
62.833	0.00	0.01	0.101	O	|	|	|	0.54
62.917	0.00	0.01	0.101	O	|	|	|	0.54
63.000	0.00	0.01	0.101	O	|	|	|	0.54
63.083	0.00	0.01	0.100	O	|	|	|	0.54
63.167	0.00	0.01	0.100	O	|	|	|	0.54
63.250	0.00	0.01	0.100	O	|	|	|	0.53
63.333	0.00	0.01	0.100	O	|	|	|	0.53
63.417	0.00	0.01	0.100	O	|	|	|	0.53
63.500	0.00	0.01	0.100	O	|	|	|	0.53
63.583	0.00	0.01	0.100	O	|	|	|	0.53
63.667	0.00	0.01	0.100	O	|	|	|	0.53
63.750	0.00	0.01	0.100	O	|	|	|	0.53
63.833	0.00	0.01	0.100	O	|	|	|	0.53
63.917	0.00	0.01	0.100	O	|	|	|	0.53
64.000	0.00	0.01	0.099	O	|	|	|	0.53
64.083	0.00	0.01	0.099	O	|	|	|	0.53

64.167	0.00	0.01	0.099	O	|	|	|	0.53
64.250	0.00	0.01	0.099	O	|	|	|	0.53
64.333	0.00	0.01	0.099	O	|	|	|	0.53
64.417	0.00	0.01	0.099	O	|	|	|	0.53
64.500	0.00	0.01	0.099	O	|	|	|	0.53
64.583	0.00	0.01	0.099	O	|	|	|	0.53
64.667	0.00	0.01	0.099	O	|	|	|	0.53
64.750	0.00	0.01	0.099	O	|	|	|	0.53
64.833	0.00	0.01	0.099	O	|	|	|	0.53
64.917	0.00	0.01	0.099	O	|	|	|	0.53
65.000	0.00	0.01	0.099	O	|	|	|	0.53
65.083	0.00	0.01	0.098	O	|	|	|	0.53
65.167	0.00	0.01	0.098	O	|	|	|	0.53
65.250	0.00	0.01	0.098	O	|	|	|	0.53
65.333	0.00	0.01	0.098	O	|	|	|	0.53
65.417	0.00	0.01	0.098	O	|	|	|	0.52
65.500	0.00	0.01	0.098	O	|	|	|	0.52
65.583	0.00	0.01	0.098	O	|	|	|	0.52
65.667	0.00	0.01	0.098	O	|	|	|	0.52
65.750	0.00	0.01	0.098	O	|	|	|	0.52
65.833	0.00	0.01	0.098	O	|	|	|	0.52
65.917	0.00	0.01	0.098	O	|	|	|	0.52
66.000	0.00	0.01	0.098	O	|	|	|	0.52
66.083	0.00	0.01	0.098	O	|	|	|	0.52
66.167	0.00	0.01	0.098	O	|	|	|	0.52
66.250	0.00	0.01	0.098	O	|	|	|	0.52
66.333	0.00	0.01	0.097	O	|	|	|	0.52
66.417	0.00	0.01	0.097	O	|	|	|	0.52
66.500	0.00	0.01	0.097	O	|	|	|	0.52
66.583	0.00	0.01	0.097	O	|	|	|	0.52
66.667	0.00	0.01	0.097	O	|	|	|	0.52
66.750	0.00	0.01	0.097	O	|	|	|	0.52
66.833	0.00	0.01	0.097	O	|	|	|	0.52
66.917	0.00	0.01	0.097	O	|	|	|	0.52
67.000	0.00	0.01	0.097	O	|	|	|	0.52
67.083	0.00	0.01	0.097	O	|	|	|	0.52
67.167	0.00	0.01	0.097	O	|	|	|	0.52
67.250	0.00	0.01	0.097	O	|	|	|	0.52
67.333	0.00	0.01	0.097	O	|	|	|	0.52
67.417	0.00	0.01	0.097	O	|	|	|	0.52
67.500	0.00	0.01	0.097	O	|	|	|	0.52
67.583	0.00	0.01	0.097	O	|	|	|	0.52
67.667	0.00	0.01	0.097	O	|	|	|	0.52
67.750	0.00	0.01	0.097	O	|	|	|	0.52
67.833	0.00	0.01	0.097	O	|	|	|	0.52
67.917	0.00	0.01	0.096	O	|	|	|	0.52
68.000	0.00	0.01	0.096	O	|	|	|	0.52
68.083	0.00	0.01	0.096	O	|	|	|	0.52
68.167	0.00	0.01	0.096	O	|	|	|	0.52
68.250	0.00	0.01	0.096	O	|	|	|	0.52

68.333	0.00	0.01	0.096	O	|	|	|	0.52
68.417	0.00	0.01	0.096	O	|	|	|	0.52
68.500	0.00	0.01	0.096	O	|	|	|	0.52
68.583	0.00	0.01	0.096	O	|	|	|	0.52
68.667	0.00	0.01	0.096	O	|	|	|	0.51
68.750	0.00	0.01	0.096	O	|	|	|	0.51
68.833	0.00	0.01	0.096	O	|	|	|	0.51
68.917	0.00	0.01	0.096	O	|	|	|	0.51
69.000	0.00	0.01	0.096	O	|	|	|	0.51
69.083	0.00	0.01	0.096	O	|	|	|	0.51
69.167	0.00	0.01	0.096	O	|	|	|	0.51
69.250	0.00	0.01	0.096	O	|	|	|	0.51
69.333	0.00	0.01	0.096	O	|	|	|	0.51
69.417	0.00	0.01	0.096	O	|	|	|	0.51
69.500	0.00	0.01	0.096	O	|	|	|	0.51
69.583	0.00	0.01	0.096	O	|	|	|	0.51
69.667	0.00	0.01	0.096	O	|	|	|	0.51
69.750	0.00	0.00	0.096	O	|	|	|	0.51
69.833	0.00	0.00	0.096	O	|	|	|	0.51
69.917	0.00	0.00	0.096	O	|	|	|	0.51
70.000	0.00	0.00	0.096	O	|	|	|	0.51
70.083	0.00	0.00	0.095	O	|	|	|	0.51
70.167	0.00	0.00	0.095	O	|	|	|	0.51
70.250	0.00	0.00	0.095	O	|	|	|	0.51
70.333	0.00	0.00	0.095	O	|	|	|	0.51
70.417	0.00	0.00	0.095	O	|	|	|	0.51
70.500	0.00	0.00	0.095	O	|	|	|	0.51
70.583	0.00	0.00	0.095	O	|	|	|	0.51
70.667	0.00	0.00	0.095	O	|	|	|	0.51
70.750	0.00	0.00	0.095	O	|	|	|	0.51
70.833	0.00	0.00	0.095	O	|	|	|	0.51
70.917	0.00	0.00	0.095	O	|	|	|	0.51
71.000	0.00	0.00	0.095	O	|	|	|	0.51
71.083	0.00	0.00	0.095	O	|	|	|	0.51
71.167	0.00	0.00	0.095	O	|	|	|	0.51
71.250	0.00	0.00	0.095	O	|	|	|	0.51
71.333	0.00	0.00	0.095	O	|	|	|	0.51
71.417	0.00	0.00	0.095	O	|	|	|	0.51
71.500	0.00	0.00	0.095	O	|	|	|	0.51
71.583	0.00	0.00	0.095	O	|	|	|	0.51
71.667	0.00	0.00	0.095	O	|	|	|	0.51
71.750	0.00	0.00	0.095	O	|	|	|	0.51
71.833	0.00	0.00	0.095	O	|	|	|	0.51
71.917	0.00	0.00	0.095	O	|	|	|	0.51
72.000	0.00	0.00	0.095	O	|	|	|	0.51
72.083	0.00	0.00	0.095	O	|	|	|	0.51
72.167	0.00	0.00	0.095	O	|	|	|	0.51
72.250	0.00	0.00	0.095	O	|	|	|	0.51
72.333	0.00	0.00	0.095	O	|	|	|	0.51
72.417	0.00	0.00	0.095	O	|	|	|	0.51

72.500	0.00	0.00	0.095	O				0.51
72.583	0.00	0.00	0.095	O				0.51
72.667	0.00	0.00	0.095	O				0.51
72.750	0.00	0.00	0.095	O				0.51
72.833	0.00	0.00	0.095	O				0.51
72.917	0.00	0.00	0.095	O				0.51
73.000	0.00	0.00	0.095	O				0.51
73.083	0.00	0.00	0.095	O				0.51
73.167	0.00	0.00	0.095	O				0.51
73.250	0.00	0.00	0.095	O				0.51
73.333	0.00	0.00	0.095	O				0.51
73.417	0.00	0.00	0.094	O				0.51
73.500	0.00	0.00	0.094	O				0.51
73.583	0.00	0.00	0.094	O				0.51
73.667	0.00	0.00	0.094	O				0.51
73.750	0.00	0.00	0.094	O				0.51
73.833	0.00	0.00	0.094	O				0.51
73.917	0.00	0.00	0.094	O				0.51
74.000	0.00	0.00	0.094	O				0.51
74.083	0.00	0.00	0.094	O				0.51
74.167	0.00	0.00	0.094	O				0.51
74.250	0.00	0.00	0.094	O				0.51
74.333	0.00	0.00	0.094	O				0.51
74.417	0.00	0.00	0.094	O				0.51
74.500	0.00	0.00	0.094	O				0.51
74.583	0.00	0.00	0.094	O				0.51
74.667	0.00	0.00	0.094	O				0.51
74.750	0.00	0.00	0.094	O				0.51
74.833	0.00	0.00	0.094	O				0.51
74.917	0.00	0.00	0.094	O				0.51
75.000	0.00	0.00	0.094	O				0.51
75.083	0.00	0.00	0.094	O				0.51
75.167	0.00	0.00	0.094	O				0.51
75.250	0.00	0.00	0.094	O				0.51
75.333	0.00	0.00	0.094	O				0.51
75.417	0.00	0.00	0.094	O				0.51
75.500	0.00	0.00	0.094	O				0.51
75.583	0.00	0.00	0.094	O				0.51
75.667	0.00	0.00	0.094	O				0.51
75.750	0.00	0.00	0.094	O				0.50
75.833	0.00	0.00	0.094	O				0.50
75.917	0.00	0.00	0.094	O				0.50
76.000	0.00	0.00	0.094	O				0.50
76.083	0.00	0.00	0.094	O				0.50
76.167	0.00	0.00	0.094	O				0.50
76.250	0.00	0.00	0.094	O				0.50
76.333	0.00	0.00	0.094	O				0.50
76.417	0.00	0.00	0.094	O				0.50
76.500	0.00	0.00	0.094	O				0.50
76.583	0.00	0.00	0.094	O				0.50

76.667	0.00	0.00	0.094	O	|	|	|	|	0.50
76.750	0.00	0.00	0.094	O	|	|	|	|	0.50
76.833	0.00	0.00	0.094	O	|	|	|	|	0.50
76.917	0.00	0.00	0.094	O	|	|	|	|	0.50
77.000	0.00	0.00	0.094	O	|	|	|	|	0.50
77.083	0.00	0.00	0.094	O	|	|	|	|	0.50
77.167	0.00	0.00	0.094	O	|	|	|	|	0.50
77.250	0.00	0.00	0.094	O	|	|	|	|	0.50
77.333	0.00	0.00	0.094	O	|	|	|	|	0.50
77.417	0.00	0.00	0.094	O	|	|	|	|	0.50
77.500	0.00	0.00	0.094	O	|	|	|	|	0.50
77.583	0.00	0.00	0.094	O	|	|	|	|	0.50
77.667	0.00	0.00	0.094	O	|	|	|	|	0.50
77.750	0.00	0.00	0.094	O	|	|	|	|	0.50
77.833	0.00	0.00	0.094	O	|	|	|	|	0.50
77.917	0.00	0.00	0.094	O	|	|	|	|	0.50
78.000	0.00	0.00	0.094	O	|	|	|	|	0.50
78.083	0.00	0.00	0.094	O	|	|	|	|	0.50
78.167	0.00	0.00	0.094	O	|	|	|	|	0.50
78.250	0.00	0.00	0.094	O	|	|	|	|	0.50
78.333	0.00	0.00	0.094	O	|	|	|	|	0.50
78.417	0.00	0.00	0.094	O	|	|	|	|	0.50
78.500	0.00	0.00	0.094	O	|	|	|	|	0.50
78.583	0.00	0.00	0.094	O	|	|	|	|	0.50
78.667	0.00	0.00	0.094	O	|	|	|	|	0.50
78.750	0.00	0.00	0.094	O	|	|	|	|	0.50
78.833	0.00	0.00	0.094	O	|	|	|	|	0.50
78.917	0.00	0.00	0.094	O	|	|	|	|	0.50
79.000	0.00	0.00	0.094	O	|	|	|	|	0.50
79.083	0.00	0.00	0.094	O	|	|	|	|	0.50
79.167	0.00	0.00	0.094	O	|	|	|	|	0.50
79.250	0.00	0.00	0.094	O	|	|	|	|	0.50
79.333	0.00	0.00	0.094	O	|	|	|	|	0.50
79.417	0.00	0.00	0.094	O	|	|	|	|	0.50
79.500	0.00	0.00	0.094	O	|	|	|	|	0.50
79.583	0.00	0.00	0.094	O	|	|	|	|	0.50
79.667	0.00	0.00	0.094	O	|	|	|	|	0.50
79.750	0.00	0.00	0.094	O	|	|	|	|	0.50
79.833	0.00	0.00	0.094	O	|	|	|	|	0.50
79.917	0.00	0.00	0.094	O	|	|	|	|	0.50
80.000	0.00	0.00	0.094	O	|	|	|	|	0.50
80.083	0.00	0.00	0.094	O	|	|	|	|	0.50

Remaining water in basin = 0.09 (Ac.Ft)

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

Number of intervals = 961

Time interval = 5.0 (Min.)

```
                Maximum/Peak flow rate =        0.196 (CFS)
                Total volume =       0.729 (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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U n i t H y d r o g r a p h A n a l y s i s

Study date 08/01/22 File: A21626DMA1Q100UH12.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 2YR-1HR UH

Drainage Area = 6.58(Ac.) = 0.010 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 6.58(Ac.) = 0.010 Sq. Mi.
Length along longest watercourse = 808.65(Ft.)
Length along longest watercourse measured to centroid = 622.75(Ft.)
Length along longest watercourse = 0.153 Mi.
Length along longest watercourse measured to centroid = 0.118 Mi.
Difference in elevation = 7.00(Ft.)
Slope along watercourse = 45.7058 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.033 Hr.
Lag time = 1.97 Min.
25% of lag time = 0.49 Min.
40% of lag time = 0.79 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]

```
        6.58            0.48                    3.16

 100 YEAR Area rainfall data:


 Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        6.58            1.25                    8.22

 STORM EVENT (YEAR) =    2.00
 Area Averaged 2-Year Rainfall =    0.480(In)
 Area Averaged 100-Year Rainfall =    1.250(In)

 Point rain (area averaged) =    0.480(In)
 Areal adjustment factor =   99.99 %
 Adjusted average point rain =    0.480(In)

 Sub-Area Data:
 Area(Ac.)         Runoff Index   Impervious %
      6.578           69.00         0.862
  Total Area Entered =      6.58(Ac.)


 RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
 AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
 69.0  49.8      0.574     0.862        0.129       1.000      0.129
                                                  Sum (F) =   0.129
 Area averaged mean soil loss (F) (In/Hr) =  0.129
 Minimum soil loss rate ((In/Hr)) =  0.064
 (for 24 hour storm duration)
 Soil low loss rate (decimal) =   0.210
 ------------------------------------------------------------------------
 Slope of intensity-duration curve for a 1 hour storm =0.4800
 ------------------------------------------------------------------------

                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        253.789         51.385             3.407
     2   0.167        507.577         39.821             2.640
     3   0.250        761.366          6.897             0.457
     4   0.333       1015.155          1.897             0.126
                                Sum = 100.000   Sum=      6.629
------------------------------------------------------------------------


 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	4.40	0.253	(0.129)	0.053	0.200
2	0.17	4.50	0.259	(0.129)	0.054	0.205
3	0.25	5.40	0.311	(0.129)	0.065	0.246
4	0.33	5.40	0.311	(0.129)	0.065	0.246
5	0.42	5.70	0.328	(0.129)	0.069	0.259
6	0.50	6.40	0.369	(0.129)	0.077	0.291
7	0.58	7.90	0.455	(0.129)	0.096	0.359
8	0.67	9.10	0.524	(0.129)	0.110	0.414
9	0.75	12.80	0.737	0.129	(0.155)	0.609
10	0.83	25.60	1.474	0.129	(0.310)	1.346
11	0.92	7.90	0.455	(0.129)	0.096	0.359
12	1.00	4.90	0.282	(0.129)	0.059	0.223
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	4.8

Flood volume = Effective rainfall 0.40(In)
times area 6.6(Ac.)/[(In)/(Ft.)] = 0.2(Ac.Ft)
Total soil loss = 0.08(In)
Total soil loss = 0.046(Ac.Ft)
Total rainfall = 0.48(In)
Flood volume = 9466.1 Cubic Feet
Total soil loss = 1994.7 Cubic Feet

Peak flow rate of this hydrograph = 6.429(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 2.5 5.0 7.5 10.0
0+ 5	0.0047	0.68	V Q | | | |
0+10	0.0131	1.23	| V Q | | | |
0+15	0.0233	1.47	| VQ | | | |
0+20	0.0343	1.61	| Q | | | |
0+25	0.0458	1.67	| Q V | | | |
0+30	0.0584	1.82	| Q V | | |
0+35	0.0731	2.14	| Q | V | | |
0+40	0.0905	2.53	| Q V | | |
0+45	0.1137	3.37	| | Q V | |
0+50	0.1580	6.43	| | | Q V| |
0+55	0.1932	5.11	| | Q | V |
1+ 0	0.2098	2.40	| Q| | | V |
1+ 5	0.2161	0.92	| Q | | | V|
1+10	0.2171	0.15	Q | | | V|
1+15	0.2173	0.03	Q | | | V

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

Study date 08/02/22 File: A21626DMA1Q100UH32.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 2YR-3HR UH

Drainage Area = 6.58(Ac.) = 0.010 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 6.58(Ac.) = 0.010 Sq. Mi.
Length along longest watercourse = 808.65(Ft.)
Length along longest watercourse measured to centroid = 622.75(Ft.)
Length along longest watercourse = 0.153 Mi.
Length along longest watercourse measured to centroid = 0.118 Mi.
Difference in elevation = 7.00(Ft.)
Slope along watercourse = 45.7058 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.033 Hr.
Lag time = 1.97 Min.
25% of lag time = 0.49 Min.
40% of lag time = 0.79 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]
        6.58            0.80                  5.26

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        6.58            1.95                 12.83

STORM EVENT (YEAR) =    2.00
Area Averaged 2-Year Rainfall =    0.800(In)
Area Averaged 100-Year Rainfall =    1.950(In)

Point rain (area averaged) =    0.800(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    0.800(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     6.578           69.00         0.862
 Total Area Entered =      6.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.862        0.129       1.000      0.129
                                                 Sum (F) =   0.129
Area averaged mean soil loss (F) (In/Hr) =  0.129
Minimum soil loss rate ((In/Hr)) =  0.064
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.210
------------------------------------------------------------------------

               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        253.789         51.385              3.407
    2   0.167        507.577         39.821              2.640
    3   0.250        761.366          6.897              0.457
    4   0.333       1015.155          1.897              0.126
                               Sum = 100.000   Sum=       6.629
------------------------------------------------------------------------
```

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	0.125	(0.129)	0.026	0.099
2	0.17	1.30	0.125	(0.129)	0.026	0.099
3	0.25	1.10	0.106	(0.129)	0.022	0.083
4	0.33	1.50	0.144	(0.129)	0.030	0.114
5	0.42	1.50	0.144	(0.129)	0.030	0.114
6	0.50	1.80	0.173	(0.129)	0.036	0.137
7	0.58	1.50	0.144	(0.129)	0.030	0.114
8	0.67	1.80	0.173	(0.129)	0.036	0.137
9	0.75	1.80	0.173	(0.129)	0.036	0.137
10	0.83	1.50	0.144	(0.129)	0.030	0.114
11	0.92	1.60	0.154	(0.129)	0.032	0.121
12	1.00	1.80	0.173	(0.129)	0.036	0.137
13	1.08	2.20	0.211	(0.129)	0.044	0.167
14	1.17	2.20	0.211	(0.129)	0.044	0.167
15	1.25	2.20	0.211	(0.129)	0.044	0.167
16	1.33	2.00	0.192	(0.129)	0.040	0.152
17	1.42	2.60	0.250	(0.129)	0.052	0.197
18	1.50	2.70	0.259	(0.129)	0.054	0.205
19	1.58	2.40	0.230	(0.129)	0.048	0.182
20	1.67	2.70	0.259	(0.129)	0.054	0.205
21	1.75	3.30	0.317	(0.129)	0.067	0.250
22	1.83	3.10	0.298	(0.129)	0.062	0.235
23	1.92	2.90	0.278	(0.129)	0.058	0.220
24	2.00	3.00	0.288	(0.129)	0.060	0.228
25	2.08	3.10	0.298	(0.129)	0.062	0.235
26	2.17	4.20	0.403	(0.129)	0.085	0.319
27	2.25	5.00	0.480	(0.129)	0.101	0.379
28	2.33	3.50	0.336	(0.129)	0.071	0.265
29	2.42	6.80	0.653	0.129	(0.137)	0.524
30	2.50	7.30	0.701	0.129	(0.147)	0.572
31	2.58	8.20	0.787	0.129	(0.165)	0.658
32	2.67	5.90	0.566	(0.129)	0.119	0.447
33	2.75	2.00	0.192	(0.129)	0.040	0.152
34	2.83	1.80	0.173	(0.129)	0.036	0.137
35	2.92	1.80	0.173	(0.129)	0.036	0.137
36	3.00	0.60	0.058	(0.129)	0.012	0.046
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	7.6

Flood volume = Effective rainfall 0.64(In)
times area 6.6(Ac.)/[(In)/(Ft.)] = 0.3(Ac.Ft)
Total soil loss = 0.16(In)
Total soil loss = 0.089(Ac.Ft)
Total rainfall = 0.80(In)
Flood volume = 15216.9 Cubic Feet
Total soil loss = 3885.0 Cubic Feet

Peak flow rate of this hydrograph = 4.029(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 2.5 5.0 7.5 10.0
0+ 5	0.0023	0.34	VQ
0+10	0.0064	0.60	V Q
0+15	0.0105	0.59	|VQ
0+20	0.0151	0.67	|VQ
0+25	0.0202	0.74	| Q
0+30	0.0259	0.83	| VQ
0+35	0.0315	0.81	| Q
0+40	0.0373	0.84	| QV
0+45	0.0434	0.90	| QV
0+50	0.0491	0.83	| Q V
0+55	0.0546	0.79	| Q V
1+ 0	0.0605	0.85	| Q V
1+ 5	0.0674	1.00	| Q V
1+10	0.0748	1.09	| Q V
1+15	0.0824	1.10	| Q V|
1+20	0.0897	1.05	| Q V
1+25	0.0978	1.17	| Q |V
1+30	0.1068	1.31	| Q | V
1+35	0.1155	1.27	| Q | V
1+40	0.1245	1.30	| Q | V
1+45	0.1348	1.50	| Q | V
1+50	0.1457	1.58	| Q | V
1+55	0.1561	1.51	| Q | V
2+ 0	0.1664	1.50	| Q | V|
2+ 5	0.1769	1.53	| Q | V
2+10	0.1896	1.84	| Q | |V
2+15	0.2052	2.27	| Q| | V
2+20	0.2196	2.08	| Q | | V
2+25	0.2382	2.70	| Q | V |
2+30	0.2623	3.50	| | Q | V
2+35	0.2900	4.03	| | Q | | V
2+40	0.3148	3.59	| | Q | | V
2+45	0.3290	2.07	| Q | | | V
2+50	0.3370	1.15	| Q | | | V
2+55	0.3435	0.95	| Q | | | V|
3+ 0	0.3477	0.60	| Q | | | V|
3+ 5	0.3490	0.20	Q | | | V|
3+10	0.3493	0.04	Q | | | V|

```
    3+15       0.3493      0.01  Q         |         |         |         V
-------------------------------------------------------------------------
```

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

Study date 08/02/22 File: A21626DMA1Q100UH62.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 2YR-6HR UH

Drainage Area = 6.58(Ac.) = 0.010 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 6.58(Ac.) = 0.010 Sq. Mi.
Length along longest watercourse = 808.65(Ft.)
Length along longest watercourse measured to centroid = 622.75(Ft.)
Length along longest watercourse = 0.153 Mi.
Length along longest watercourse measured to centroid = 0.118 Mi.
Difference in elevation = 7.00(Ft.)
Slope along watercourse = 45.7058 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.033 Hr.
Lag time = 1.97 Min.
25% of lag time = 0.49 Min.
40% of lag time = 0.79 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]
        6.58            1.11                  7.30

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        6.58            2.70                 17.76

STORM EVENT (YEAR) =    2.00
Area Averaged 2-Year Rainfall =    1.110(In)
Area Averaged 100-Year Rainfall =    2.700(In)

Point rain (area averaged) =    1.110(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.110(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     6.578           69.00         0.862
 Total Area Entered =      6.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.862        0.129       1.000      0.129
                                                 Sum (F) =   0.129
Area averaged mean soil loss (F) (In/Hr) =  0.129
Minimum soil loss rate ((In/Hr)) =  0.064
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.210
------------------------------------------------------------------------

               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        253.789         51.385             3.407
    2   0.167        507.577         39.821             2.640
    3   0.250        761.366          6.897             0.457
    4   0.333       1015.155          1.897             0.126
                               Sum = 100.000   Sum=       6.629
------------------------------------------------------------------------
```

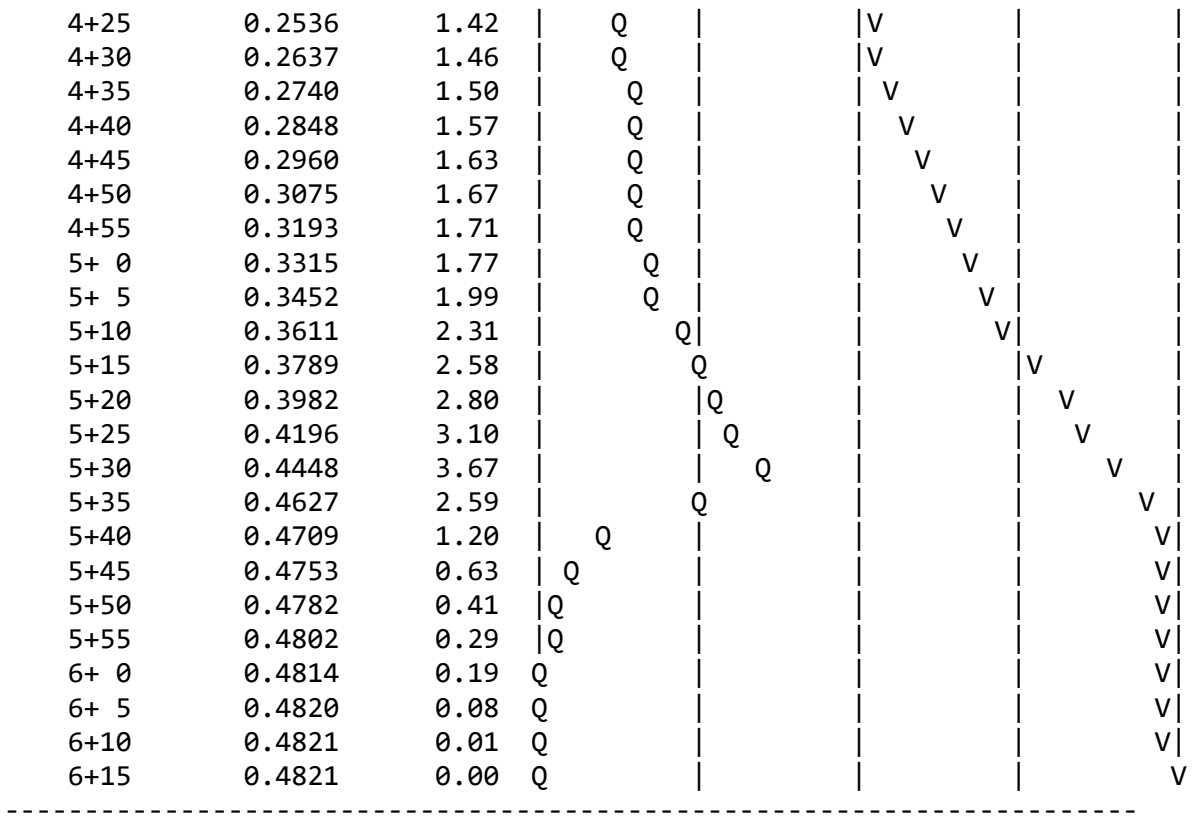
The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.50	0.067	(0.129)	0.014	0.053
2	0.17	0.60	0.080	(0.129)	0.017	0.063
3	0.25	0.60	0.080	(0.129)	0.017	0.063
4	0.33	0.60	0.080	(0.129)	0.017	0.063
5	0.42	0.60	0.080	(0.129)	0.017	0.063
6	0.50	0.70	0.093	(0.129)	0.020	0.074
7	0.58	0.70	0.093	(0.129)	0.020	0.074
8	0.67	0.70	0.093	(0.129)	0.020	0.074
9	0.75	0.70	0.093	(0.129)	0.020	0.074
10	0.83	0.70	0.093	(0.129)	0.020	0.074
11	0.92	0.70	0.093	(0.129)	0.020	0.074
12	1.00	0.80	0.107	(0.129)	0.022	0.084
13	1.08	0.80	0.107	(0.129)	0.022	0.084
14	1.17	0.80	0.107	(0.129)	0.022	0.084
15	1.25	0.80	0.107	(0.129)	0.022	0.084
16	1.33	0.80	0.107	(0.129)	0.022	0.084
17	1.42	0.80	0.107	(0.129)	0.022	0.084
18	1.50	0.80	0.107	(0.129)	0.022	0.084
19	1.58	0.80	0.107	(0.129)	0.022	0.084
20	1.67	0.80	0.107	(0.129)	0.022	0.084
21	1.75	0.80	0.107	(0.129)	0.022	0.084
22	1.83	0.80	0.107	(0.129)	0.022	0.084
23	1.92	0.80	0.107	(0.129)	0.022	0.084
24	2.00	0.90	0.120	(0.129)	0.025	0.095
25	2.08	0.80	0.107	(0.129)	0.022	0.084
26	2.17	0.90	0.120	(0.129)	0.025	0.095
27	2.25	0.90	0.120	(0.129)	0.025	0.095
28	2.33	0.90	0.120	(0.129)	0.025	0.095
29	2.42	0.90	0.120	(0.129)	0.025	0.095
30	2.50	0.90	0.120	(0.129)	0.025	0.095
31	2.58	0.90	0.120	(0.129)	0.025	0.095
32	2.67	0.90	0.120	(0.129)	0.025	0.095
33	2.75	1.00	0.133	(0.129)	0.028	0.105
34	2.83	1.00	0.133	(0.129)	0.028	0.105
35	2.92	1.00	0.133	(0.129)	0.028	0.105
36	3.00	1.00	0.133	(0.129)	0.028	0.105
37	3.08	1.00	0.133	(0.129)	0.028	0.105
38	3.17	1.10	0.147	(0.129)	0.031	0.116
39	3.25	1.10	0.147	(0.129)	0.031	0.116
40	3.33	1.10	0.147	(0.129)	0.031	0.116
41	3.42	1.20	0.160	(0.129)	0.034	0.126
42	3.50	1.30	0.173	(0.129)	0.036	0.137
43	3.58	1.40	0.186	(0.129)	0.039	0.147
44	3.67	1.40	0.186	(0.129)	0.039	0.147
45	3.75	1.50	0.200	(0.129)	0.042	0.158

```
46   3.83     1.50      0.200       (  0.129)       0.042        0.158
47   3.92     1.60      0.213       (  0.129)       0.045        0.168
48   4.00     1.60      0.213       (  0.129)       0.045        0.168
49   4.08     1.70      0.226       (  0.129)       0.048        0.179
50   4.17     1.80      0.240       (  0.129)       0.050        0.189
51   4.25     1.90      0.253       (  0.129)       0.053        0.200
52   4.33     2.00      0.266       (  0.129)       0.056        0.210
53   4.42     2.10      0.280       (  0.129)       0.059        0.221
54   4.50     2.10      0.280       (  0.129)       0.059        0.221
55   4.58     2.20      0.293       (  0.129)       0.062        0.231
56   4.67     2.30      0.306       (  0.129)       0.064        0.242
57   4.75     2.40      0.320       (  0.129)       0.067        0.253
58   4.83     2.40      0.320       (  0.129)       0.067        0.253
59   4.92     2.50      0.333       (  0.129)       0.070        0.263
60   5.00     2.60      0.346       (  0.129)       0.073        0.274
61   5.08     3.10      0.413       (  0.129)       0.087        0.326
62   5.17     3.60      0.480       (  0.129)       0.101        0.379
63   5.25     3.90      0.519       (  0.129)       0.109        0.410
64   5.33     4.20      0.559       (  0.129)       0.117        0.442
65   5.42     4.70      0.626          0.129    (  0.131)       0.497
66   5.50     5.60      0.746          0.129    (  0.157)       0.617
67   5.58     1.90      0.253       (  0.129)       0.053        0.200
68   5.67     0.90      0.120       (  0.129)       0.025        0.095
69   5.75     0.60      0.080       (  0.129)       0.017        0.063
70   5.83     0.50      0.067       (  0.129)       0.014        0.053
71   5.92     0.30      0.040       (  0.129)       0.008        0.032
72   6.00     0.20      0.027       (  0.129)       0.006        0.021
               (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    10.6
      Flood volume = Effective rainfall      0.88(In)
       times area       6.6(Ac.)/[(In)/(Ft.)] =       0.5(Ac.Ft)
      Total soil loss =      0.23(In)
      Total soil loss =     0.126(Ac.Ft)
      Total rainfall =      1.11(In)
      Flood volume =       20999.4 Cubic Feet
      Total soil loss =        5504.7 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =      3.671(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        2.5       5.0       7.5      10.0
-------------------------------------------------------------------------
  0+ 5       0.0012      0.18  Q         |         |         |         |
  0+10       0.0037      0.35  VQ        |         |         |         |
```

```
0+15       0.0065      0.41  VQ        |         |         |         |
0+20       0.0093      0.42  VQ        |         |         |         |
0+25       0.0122      0.42  |Q        |         |         |         |
0+30       0.0154      0.45  |Q        |         |         |         |
0+35       0.0187      0.48  |Q        |         |         |         |
0+40       0.0220      0.49  |Q        |         |         |         |
0+45       0.0254      0.49  |QV       |         |         |         |
0+50       0.0288      0.49  |QV       |         |         |         |
0+55       0.0321      0.49  |QV       |         |         |         |
1+ 0       0.0357      0.52  | Q       |         |         |         |
1+ 5       0.0395      0.55  | QV      |         |         |         |
1+10       0.0434      0.56  | QV      |         |         |         |
1+15       0.0472      0.56  | QV      |         |         |         |
1+20       0.0511      0.56  | Q V     |         |         |         |
1+25       0.0549      0.56  | Q V     |         |         |         |
1+30       0.0588      0.56  | Q V     |         |         |         |
1+35       0.0626      0.56  | Q  V    |         |         |         |
1+40       0.0665      0.56  | Q  V    |         |         |         |
1+45       0.0703      0.56  | Q  V    |         |         |         |
1+50       0.0741      0.56  | Q   V   |         |         |         |
1+55       0.0780      0.56  | Q   V   |         |         |         |
2+ 0       0.0821      0.59  | Q   V   |         |         |         |
2+ 5       0.0861      0.59  | Q    V  |         |         |         |
2+10       0.0902      0.60  | Q    V  |         |         |         |
2+15       0.0945      0.62  | Q    V  |         |         |         |
2+20       0.0989      0.63  | Q     V |         |         |         |
2+25       0.1032      0.63  | Q     V |         |         |         |
2+30       0.1075      0.63  | Q     V |         |         |         |
2+35       0.1118      0.63  | Q      V|         |         |         |
2+40       0.1162      0.63  | Q      V|         |         |         |
2+45       0.1207      0.66  | Q       V         |         |         |
2+50       0.1255      0.69  | Q       V         |         |         |
2+55       0.1303      0.70  | Q       V         |         |         |
3+ 0       0.1351      0.70  | Q       |V        |         |         |
3+ 5       0.1399      0.70  | Q       |V        |         |         |
3+10       0.1450      0.73  | Q       | V       |         |         |
3+15       0.1502      0.76  |  Q      | V       |         |         |
3+20       0.1555      0.77  |  Q      | V       |         |         |
3+25       0.1610      0.80  |  Q      |  V      |         |         |
3+30       0.1670      0.87  |  Q      |  V      |         |         |
3+35       0.1734      0.94  |  Q      |   V     |         |         |
3+40       0.1801      0.97  |  Q      |   V     |         |         |
3+45       0.1871      1.01  |   Q     |    V    |         |         |
3+50       0.1943      1.04  |   Q     |     V   |         |         |
3+55       0.2017      1.08  |   Q     |     V   |         |         |
4+ 0       0.2093      1.11  |   Q     |      V  |         |         |
4+ 5       0.2173      1.15  |   Q     |       V |         |         |
4+10       0.2257      1.22  |   Q     |       V |         |         |
4+15       0.2345      1.28  |    Q    |        V|         |         |
4+20       0.2438      1.35  |    Q    |         V         |         |
```


4+25 0.2536 1.42
4+30 0.2637 1.46
4+35 0.2740 1.50
4+40 0.2848 1.57
4+45 0.2960 1.63
4+50 0.3075 1.67
4+55 0.3193 1.71
5+ 0 0.3315 1.77
5+ 5 0.3452 1.99
5+10 0.3611 2.31
5+15 0.3789 2.58
5+20 0.3982 2.80
5+25 0.4196 3.10
5+30 0.4448 3.67
5+35 0.4627 2.59
5+40 0.4709 1.20
5+45 0.4753 0.63
5+50 0.4782 0.41
5+55 0.4802 0.29
6+ 0 0.4814 0.19
6+ 5 0.4820 0.08
6+10 0.4821 0.01
6+15 0.4821 0.00

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

Study date 08/02/22 File: A21626DMA1Q100UH242.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 2YR-24HR UH

Drainage Area = 6.58(Ac.) = 0.010 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 6.58(Ac.) = 0.010 Sq. Mi.
Length along longest watercourse = 808.65(Ft.)
Length along longest watercourse measured to centroid = 622.75(Ft.)
Length along longest watercourse = 0.153 Mi.
Length along longest watercourse measured to centroid = 0.118 Mi.
Difference in elevation = 7.00(Ft.)
Slope along watercourse = 45.7058 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.033 Hr.
Lag time = 1.97 Min.
25% of lag time = 0.49 Min.
40% of lag time = 0.79 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]
        6.58            1.90                  12.50

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        6.58            4.80                  31.57

STORM EVENT (YEAR) =    2.00
Area Averaged 2-Year Rainfall =    1.900(In)
Area Averaged 100-Year Rainfall =    4.800(In)

Point rain (area averaged) =    1.900(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.900(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     6.578           69.00         0.862
 Total Area Entered =      6.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.862        0.129       1.000      0.129
                                                 Sum (F) =   0.129
Area averaged mean soil loss (F) (In/Hr) =  0.129
Minimum soil loss rate ((In/Hr)) =  0.064
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.210
------------------------------------------------------------------------

               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        253.789         51.385              3.407
    2   0.167        507.577         39.821              2.640
    3   0.250        761.366          6.897              0.457
    4   0.333       1015.155          1.897              0.126
                               Sum = 100.000   Sum=       6.629
------------------------------------------------------------------------
```

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	0.015	(0.228)	0.003	0.012
2	0.17	0.07	0.015	(0.227)	0.003	0.012
3	0.25	0.07	0.015	(0.226)	0.003	0.012
4	0.33	0.10	0.023	(0.225)	0.005	0.018
5	0.42	0.10	0.023	(0.225)	0.005	0.018
6	0.50	0.10	0.023	(0.224)	0.005	0.018
7	0.58	0.10	0.023	(0.223)	0.005	0.018
8	0.67	0.10	0.023	(0.222)	0.005	0.018
9	0.75	0.10	0.023	(0.221)	0.005	0.018
10	0.83	0.13	0.030	(0.220)	0.006	0.024
11	0.92	0.13	0.030	(0.219)	0.006	0.024
12	1.00	0.13	0.030	(0.219)	0.006	0.024
13	1.08	0.10	0.023	(0.218)	0.005	0.018
14	1.17	0.10	0.023	(0.217)	0.005	0.018
15	1.25	0.10	0.023	(0.216)	0.005	0.018
16	1.33	0.10	0.023	(0.215)	0.005	0.018
17	1.42	0.10	0.023	(0.214)	0.005	0.018
18	1.50	0.10	0.023	(0.213)	0.005	0.018
19	1.58	0.10	0.023	(0.213)	0.005	0.018
20	1.67	0.10	0.023	(0.212)	0.005	0.018
21	1.75	0.10	0.023	(0.211)	0.005	0.018
22	1.83	0.13	0.030	(0.210)	0.006	0.024
23	1.92	0.13	0.030	(0.209)	0.006	0.024
24	2.00	0.13	0.030	(0.208)	0.006	0.024
25	2.08	0.13	0.030	(0.207)	0.006	0.024
26	2.17	0.13	0.030	(0.207)	0.006	0.024
27	2.25	0.13	0.030	(0.206)	0.006	0.024
28	2.33	0.13	0.030	(0.205)	0.006	0.024
29	2.42	0.13	0.030	(0.204)	0.006	0.024
30	2.50	0.13	0.030	(0.203)	0.006	0.024
31	2.58	0.17	0.038	(0.202)	0.008	0.030
32	2.67	0.17	0.038	(0.202)	0.008	0.030
33	2.75	0.17	0.038	(0.201)	0.008	0.030
34	2.83	0.17	0.038	(0.200)	0.008	0.030
35	2.92	0.17	0.038	(0.199)	0.008	0.030
36	3.00	0.17	0.038	(0.198)	0.008	0.030
37	3.08	0.17	0.038	(0.197)	0.008	0.030
38	3.17	0.17	0.038	(0.197)	0.008	0.030
39	3.25	0.17	0.038	(0.196)	0.008	0.030
40	3.33	0.17	0.038	(0.195)	0.008	0.030
41	3.42	0.17	0.038	(0.194)	0.008	0.030
42	3.50	0.17	0.038	(0.193)	0.008	0.030
43	3.58	0.17	0.038	(0.193)	0.008	0.030
44	3.67	0.17	0.038	(0.192)	0.008	0.030
45	3.75	0.17	0.038	(0.191)	0.008	0.030

46	3.83	0.20	0.046	(0.190)	0.010	0.036
47	3.92	0.20	0.046	(0.189)	0.010	0.036
48	4.00	0.20	0.046	(0.189)	0.010	0.036
49	4.08	0.20	0.046	(0.188)	0.010	0.036
50	4.17	0.20	0.046	(0.187)	0.010	0.036
51	4.25	0.20	0.046	(0.186)	0.010	0.036
52	4.33	0.23	0.053	(0.185)	0.011	0.042
53	4.42	0.23	0.053	(0.185)	0.011	0.042
54	4.50	0.23	0.053	(0.184)	0.011	0.042
55	4.58	0.23	0.053	(0.183)	0.011	0.042
56	4.67	0.23	0.053	(0.182)	0.011	0.042
57	4.75	0.23	0.053	(0.181)	0.011	0.042
58	4.83	0.27	0.061	(0.181)	0.013	0.048
59	4.92	0.27	0.061	(0.180)	0.013	0.048
60	5.00	0.27	0.061	(0.179)	0.013	0.048
61	5.08	0.20	0.046	(0.178)	0.010	0.036
62	5.17	0.20	0.046	(0.178)	0.010	0.036
63	5.25	0.20	0.046	(0.177)	0.010	0.036
64	5.33	0.23	0.053	(0.176)	0.011	0.042
65	5.42	0.23	0.053	(0.175)	0.011	0.042
66	5.50	0.23	0.053	(0.174)	0.011	0.042
67	5.58	0.27	0.061	(0.174)	0.013	0.048
68	5.67	0.27	0.061	(0.173)	0.013	0.048
69	5.75	0.27	0.061	(0.172)	0.013	0.048
70	5.83	0.27	0.061	(0.171)	0.013	0.048
71	5.92	0.27	0.061	(0.171)	0.013	0.048
72	6.00	0.27	0.061	(0.170)	0.013	0.048
73	6.08	0.30	0.068	(0.169)	0.014	0.054
74	6.17	0.30	0.068	(0.168)	0.014	0.054
75	6.25	0.30	0.068	(0.168)	0.014	0.054
76	6.33	0.30	0.068	(0.167)	0.014	0.054
77	6.42	0.30	0.068	(0.166)	0.014	0.054
78	6.50	0.30	0.068	(0.165)	0.014	0.054
79	6.58	0.33	0.076	(0.165)	0.016	0.060
80	6.67	0.33	0.076	(0.164)	0.016	0.060
81	6.75	0.33	0.076	(0.163)	0.016	0.060
82	6.83	0.33	0.076	(0.162)	0.016	0.060
83	6.92	0.33	0.076	(0.162)	0.016	0.060
84	7.00	0.33	0.076	(0.161)	0.016	0.060
85	7.08	0.33	0.076	(0.160)	0.016	0.060
86	7.17	0.33	0.076	(0.159)	0.016	0.060
87	7.25	0.33	0.076	(0.159)	0.016	0.060
88	7.33	0.37	0.084	(0.158)	0.018	0.066
89	7.42	0.37	0.084	(0.157)	0.018	0.066
90	7.50	0.37	0.084	(0.157)	0.018	0.066
91	7.58	0.40	0.091	(0.156)	0.019	0.072
92	7.67	0.40	0.091	(0.155)	0.019	0.072
93	7.75	0.40	0.091	(0.154)	0.019	0.072
94	7.83	0.43	0.099	(0.154)	0.021	0.078
95	7.92	0.43	0.099	(0.153)	0.021	0.078

96	8.00	0.43	0.099	(0.152)	0.021	0.078
97	8.08	0.50	0.114	(0.152)	0.024	0.090
98	8.17	0.50	0.114	(0.151)	0.024	0.090
99	8.25	0.50	0.114	(0.150)	0.024	0.090
100	8.33	0.50	0.114	(0.149)	0.024	0.090
101	8.42	0.50	0.114	(0.149)	0.024	0.090
102	8.50	0.50	0.114	(0.148)	0.024	0.090
103	8.58	0.53	0.122	(0.147)	0.026	0.096
104	8.67	0.53	0.122	(0.147)	0.026	0.096
105	8.75	0.53	0.122	(0.146)	0.026	0.096
106	8.83	0.57	0.129	(0.145)	0.027	0.102
107	8.92	0.57	0.129	(0.145)	0.027	0.102
108	9.00	0.57	0.129	(0.144)	0.027	0.102
109	9.08	0.63	0.144	(0.143)	0.030	0.114
110	9.17	0.63	0.144	(0.143)	0.030	0.114
111	9.25	0.63	0.144	(0.142)	0.030	0.114
112	9.33	0.67	0.152	(0.141)	0.032	0.120
113	9.42	0.67	0.152	(0.141)	0.032	0.120
114	9.50	0.67	0.152	(0.140)	0.032	0.120
115	9.58	0.70	0.160	(0.139)	0.034	0.126
116	9.67	0.70	0.160	(0.139)	0.034	0.126
117	9.75	0.70	0.160	(0.138)	0.034	0.126
118	9.83	0.73	0.167	(0.137)	0.035	0.132
119	9.92	0.73	0.167	(0.137)	0.035	0.132
120	10.00	0.73	0.167	(0.136)	0.035	0.132
121	10.08	0.50	0.114	(0.135)	0.024	0.090
122	10.17	0.50	0.114	(0.135)	0.024	0.090
123	10.25	0.50	0.114	(0.134)	0.024	0.090
124	10.33	0.50	0.114	(0.133)	0.024	0.090
125	10.42	0.50	0.114	(0.133)	0.024	0.090
126	10.50	0.50	0.114	(0.132)	0.024	0.090
127	10.58	0.67	0.152	(0.131)	0.032	0.120
128	10.67	0.67	0.152	(0.131)	0.032	0.120
129	10.75	0.67	0.152	(0.130)	0.032	0.120
130	10.83	0.67	0.152	(0.129)	0.032	0.120
131	10.92	0.67	0.152	(0.129)	0.032	0.120
132	11.00	0.67	0.152	(0.128)	0.032	0.120
133	11.08	0.63	0.144	(0.128)	0.030	0.114
134	11.17	0.63	0.144	(0.127)	0.030	0.114
135	11.25	0.63	0.144	(0.126)	0.030	0.114
136	11.33	0.63	0.144	(0.126)	0.030	0.114
137	11.42	0.63	0.144	(0.125)	0.030	0.114
138	11.50	0.63	0.144	(0.124)	0.030	0.114
139	11.58	0.57	0.129	(0.124)	0.027	0.102
140	11.67	0.57	0.129	(0.123)	0.027	0.102
141	11.75	0.57	0.129	(0.123)	0.027	0.102
142	11.83	0.60	0.137	(0.122)	0.029	0.108
143	11.92	0.60	0.137	(0.121)	0.029	0.108
144	12.00	0.60	0.137	(0.121)	0.029	0.108
145	12.08	0.83	0.190	(0.120)	0.040	0.150

146	12.17	0.83	0.190	(0.120)	0.040	0.150
147	12.25	0.83	0.190	(0.119)	0.040	0.150
148	12.33	0.87	0.198	(0.118)	0.041	0.156
149	12.42	0.87	0.198	(0.118)	0.041	0.156
150	12.50	0.87	0.198	(0.117)	0.041	0.156
151	12.58	0.93	0.213	(0.117)	0.045	0.168
152	12.67	0.93	0.213	(0.116)	0.045	0.168
153	12.75	0.93	0.213	(0.115)	0.045	0.168
154	12.83	0.97	0.220	(0.115)	0.046	0.174
155	12.92	0.97	0.220	(0.114)	0.046	0.174
156	13.00	0.97	0.220	(0.114)	0.046	0.174
157	13.08	1.13	0.258	(0.113)	0.054	0.204
158	13.17	1.13	0.258	(0.112)	0.054	0.204
159	13.25	1.13	0.258	(0.112)	0.054	0.204
160	13.33	1.13	0.258	(0.111)	0.054	0.204
161	13.42	1.13	0.258	(0.111)	0.054	0.204
162	13.50	1.13	0.258	(0.110)	0.054	0.204
163	13.58	0.77	0.175	(0.110)	0.037	0.138
164	13.67	0.77	0.175	(0.109)	0.037	0.138
165	13.75	0.77	0.175	(0.109)	0.037	0.138
166	13.83	0.77	0.175	(0.108)	0.037	0.138
167	13.92	0.77	0.175	(0.107)	0.037	0.138
168	14.00	0.77	0.175	(0.107)	0.037	0.138
169	14.08	0.90	0.205	(0.106)	0.043	0.162
170	14.17	0.90	0.205	(0.106)	0.043	0.162
171	14.25	0.90	0.205	(0.105)	0.043	0.162
172	14.33	0.87	0.198	(0.105)	0.041	0.156
173	14.42	0.87	0.198	(0.104)	0.041	0.156
174	14.50	0.87	0.198	(0.104)	0.041	0.156
175	14.58	0.87	0.198	(0.103)	0.041	0.156
176	14.67	0.87	0.198	(0.103)	0.041	0.156
177	14.75	0.87	0.198	(0.102)	0.041	0.156
178	14.83	0.83	0.190	(0.102)	0.040	0.150
179	14.92	0.83	0.190	(0.101)	0.040	0.150
180	15.00	0.83	0.190	(0.101)	0.040	0.150
181	15.08	0.80	0.182	(0.100)	0.038	0.144
182	15.17	0.80	0.182	(0.099)	0.038	0.144
183	15.25	0.80	0.182	(0.099)	0.038	0.144
184	15.33	0.77	0.175	(0.098)	0.037	0.138
185	15.42	0.77	0.175	(0.098)	0.037	0.138
186	15.50	0.77	0.175	(0.097)	0.037	0.138
187	15.58	0.63	0.144	(0.097)	0.030	0.114
188	15.67	0.63	0.144	(0.096)	0.030	0.114
189	15.75	0.63	0.144	(0.096)	0.030	0.114
190	15.83	0.63	0.144	(0.095)	0.030	0.114
191	15.92	0.63	0.144	(0.095)	0.030	0.114
192	16.00	0.63	0.144	(0.094)	0.030	0.114
193	16.08	0.13	0.030	(0.094)	0.006	0.024
194	16.17	0.13	0.030	(0.094)	0.006	0.024
195	16.25	0.13	0.030	(0.093)	0.006	0.024

196	16.33	0.13	0.030	(0.093)	0.006	0.024
197	16.42	0.13	0.030	(0.092)	0.006	0.024
198	16.50	0.13	0.030	(0.092)	0.006	0.024
199	16.58	0.10	0.023	(0.091)	0.005	0.018
200	16.67	0.10	0.023	(0.091)	0.005	0.018
201	16.75	0.10	0.023	(0.090)	0.005	0.018
202	16.83	0.10	0.023	(0.090)	0.005	0.018
203	16.92	0.10	0.023	(0.089)	0.005	0.018
204	17.00	0.10	0.023	(0.089)	0.005	0.018
205	17.08	0.17	0.038	(0.088)	0.008	0.030
206	17.17	0.17	0.038	(0.088)	0.008	0.030
207	17.25	0.17	0.038	(0.088)	0.008	0.030
208	17.33	0.17	0.038	(0.087)	0.008	0.030
209	17.42	0.17	0.038	(0.087)	0.008	0.030
210	17.50	0.17	0.038	(0.086)	0.008	0.030
211	17.58	0.17	0.038	(0.086)	0.008	0.030
212	17.67	0.17	0.038	(0.085)	0.008	0.030
213	17.75	0.17	0.038	(0.085)	0.008	0.030
214	17.83	0.13	0.030	(0.085)	0.006	0.024
215	17.92	0.13	0.030	(0.084)	0.006	0.024
216	18.00	0.13	0.030	(0.084)	0.006	0.024
217	18.08	0.13	0.030	(0.083)	0.006	0.024
218	18.17	0.13	0.030	(0.083)	0.006	0.024
219	18.25	0.13	0.030	(0.082)	0.006	0.024
220	18.33	0.13	0.030	(0.082)	0.006	0.024
221	18.42	0.13	0.030	(0.082)	0.006	0.024
222	18.50	0.13	0.030	(0.081)	0.006	0.024
223	18.58	0.10	0.023	(0.081)	0.005	0.018
224	18.67	0.10	0.023	(0.080)	0.005	0.018
225	18.75	0.10	0.023	(0.080)	0.005	0.018
226	18.83	0.07	0.015	(0.080)	0.003	0.012
227	18.92	0.07	0.015	(0.079)	0.003	0.012
228	19.00	0.07	0.015	(0.079)	0.003	0.012
229	19.08	0.10	0.023	(0.079)	0.005	0.018
230	19.17	0.10	0.023	(0.078)	0.005	0.018
231	19.25	0.10	0.023	(0.078)	0.005	0.018
232	19.33	0.13	0.030	(0.077)	0.006	0.024
233	19.42	0.13	0.030	(0.077)	0.006	0.024
234	19.50	0.13	0.030	(0.077)	0.006	0.024
235	19.58	0.10	0.023	(0.076)	0.005	0.018
236	19.67	0.10	0.023	(0.076)	0.005	0.018
237	19.75	0.10	0.023	(0.076)	0.005	0.018
238	19.83	0.07	0.015	(0.075)	0.003	0.012
239	19.92	0.07	0.015	(0.075)	0.003	0.012
240	20.00	0.07	0.015	(0.075)	0.003	0.012
241	20.08	0.10	0.023	(0.074)	0.005	0.018
242	20.17	0.10	0.023	(0.074)	0.005	0.018
243	20.25	0.10	0.023	(0.074)	0.005	0.018
244	20.33	0.10	0.023	(0.073)	0.005	0.018
245	20.42	0.10	0.023	(0.073)	0.005	0.018

246	20.50	0.10	0.023	(0.073)	0.005	0.018
247	20.58	0.10	0.023	(0.072)	0.005	0.018
248	20.67	0.10	0.023	(0.072)	0.005	0.018
249	20.75	0.10	0.023	(0.072)	0.005	0.018
250	20.83	0.07	0.015	(0.072)	0.003	0.012
251	20.92	0.07	0.015	(0.071)	0.003	0.012
252	21.00	0.07	0.015	(0.071)	0.003	0.012
253	21.08	0.10	0.023	(0.071)	0.005	0.018
254	21.17	0.10	0.023	(0.070)	0.005	0.018
255	21.25	0.10	0.023	(0.070)	0.005	0.018
256	21.33	0.07	0.015	(0.070)	0.003	0.012
257	21.42	0.07	0.015	(0.070)	0.003	0.012
258	21.50	0.07	0.015	(0.069)	0.003	0.012
259	21.58	0.10	0.023	(0.069)	0.005	0.018
260	21.67	0.10	0.023	(0.069)	0.005	0.018
261	21.75	0.10	0.023	(0.069)	0.005	0.018
262	21.83	0.07	0.015	(0.068)	0.003	0.012
263	21.92	0.07	0.015	(0.068)	0.003	0.012
264	22.00	0.07	0.015	(0.068)	0.003	0.012
265	22.08	0.10	0.023	(0.068)	0.005	0.018
266	22.17	0.10	0.023	(0.067)	0.005	0.018
267	22.25	0.10	0.023	(0.067)	0.005	0.018
268	22.33	0.07	0.015	(0.067)	0.003	0.012
269	22.42	0.07	0.015	(0.067)	0.003	0.012
270	22.50	0.07	0.015	(0.067)	0.003	0.012
271	22.58	0.07	0.015	(0.066)	0.003	0.012
272	22.67	0.07	0.015	(0.066)	0.003	0.012
273	22.75	0.07	0.015	(0.066)	0.003	0.012
274	22.83	0.07	0.015	(0.066)	0.003	0.012
275	22.92	0.07	0.015	(0.066)	0.003	0.012
276	23.00	0.07	0.015	(0.066)	0.003	0.012
277	23.08	0.07	0.015	(0.065)	0.003	0.012
278	23.17	0.07	0.015	(0.065)	0.003	0.012
279	23.25	0.07	0.015	(0.065)	0.003	0.012
280	23.33	0.07	0.015	(0.065)	0.003	0.012
281	23.42	0.07	0.015	(0.065)	0.003	0.012
282	23.50	0.07	0.015	(0.065)	0.003	0.012
283	23.58	0.07	0.015	(0.065)	0.003	0.012
284	23.67	0.07	0.015	(0.065)	0.003	0.012
285	23.75	0.07	0.015	(0.065)	0.003	0.012
286	23.83	0.07	0.015	(0.064)	0.003	0.012
287	23.92	0.07	0.015	(0.064)	0.003	0.012
288	24.00	0.07	0.015	(0.064)	0.003	0.012

(Loss Rate Not Used)

Sum = 100.0 Sum = 18.0

Flood volume = Effective rainfall 1.50(In)
times area 6.6(Ac.)/[(In)/(Ft.)] = 0.8(Ac.Ft)
Total soil loss = 0.40(In)
Total soil loss = 0.219(Ac.Ft)
Total rainfall = 1.90(In)

Flood volume = 35840.6 Cubic Feet
Total soil loss = 9527.3 Cubic Feet

Peak flow rate of this hydrograph = 1.354(CFS)

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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	2.5	5.0	7.5	10.0
0+ 5	0.0003	0.04	Q				
0+10	0.0008	0.07	Q				
0+15	0.0013	0.08	Q				
0+20	0.0020	0.10	Q				
0+25	0.0028	0.12	Q				
0+30	0.0036	0.12	Q				
0+35	0.0044	0.12	Q				
0+40	0.0053	0.12	Q				
0+45	0.0061	0.12	Q				
0+50	0.0071	0.14	Q				
0+55	0.0081	0.16	Q				
1+ 0	0.0092	0.16	Q				
1+ 5	0.0102	0.14	Q				
1+10	0.0110	0.12	Q				
1+15	0.0119	0.12	Q				
1+20	0.0127	0.12	Q				
1+25	0.0135	0.12	Q				
1+30	0.0143	0.12	Q				
1+35	0.0151	0.12	Q				
1+40	0.0160	0.12	Q				
1+45	0.0168	0.12	Q				
1+50	0.0178	0.14	Q				
1+55	0.0188	0.16	Q				
2+ 0	0.0199	0.16	Q				
2+ 5	0.0210	0.16	QV				
2+10	0.0221	0.16	QV				
2+15	0.0232	0.16	QV				
2+20	0.0243	0.16	QV				
2+25	0.0254	0.16	QV				
2+30	0.0265	0.16	QV				
2+35	0.0277	0.18	QV				
2+40	0.0291	0.20	QV				
2+45	0.0305	0.20	QV				
2+50	0.0318	0.20	QV				
2+55	0.0332	0.20	QV				
3+ 0	0.0346	0.20	QV				

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3+ 5       0.0359      0.20  QV        |         |         |         |
3+10       0.0373      0.20  QV        |         |         |         |
3+15       0.0387      0.20  QV        |         |         |         |
3+20       0.0401      0.20  QV        |         |         |         |
3+25       0.0414      0.20  Q V       |         |         |         |
3+30       0.0428      0.20  Q V       |         |         |         |
3+35       0.0442      0.20  Q V       |         |         |         |
3+40       0.0455      0.20  Q V       |         |         |         |
3+45       0.0469      0.20  Q V       |         |         |         |
3+50       0.0484      0.22  Q V       |         |         |         |
3+55       0.0500      0.24  Q V       |         |         |         |
4+ 0       0.0517      0.24  Q V       |         |         |         |
4+ 5       0.0533      0.24  Q V       |         |         |         |
4+10       0.0550      0.24  Q V       |         |         |         |
4+15       0.0566      0.24  Q V       |         |         |         |
4+20       0.0584      0.26  |QV       |         |         |         |
4+25       0.0603      0.28  |QV       |         |         |         |
4+30       0.0622      0.28  |Q V      |         |         |         |
4+35       0.0641      0.28  |Q V      |         |         |         |
4+40       0.0661      0.28  |Q V      |         |         |         |
4+45       0.0680      0.28  |Q V      |         |         |         |
4+50       0.0700      0.30  |Q V      |         |         |         |
4+55       0.0722      0.32  |Q V      |         |         |         |
5+ 0       0.0744      0.32  |Q V      |         |         |         |
5+ 5       0.0763      0.28  |Q V      |         |         |         |
5+10       0.0780      0.25  Q  V      |         |         |         |
5+15       0.0797      0.24  Q  V      |         |         |         |
5+20       0.0814      0.26  |Q V      |         |         |         |
5+25       0.0833      0.28  |Q  V     |         |         |         |
5+30       0.0853      0.28  |Q  V     |         |         |         |
5+35       0.0873      0.30  |Q  V     |         |         |         |
5+40       0.0895      0.32  |Q  V     |         |         |         |
5+45       0.0917      0.32  |Q  V     |         |         |         |
5+50       0.0939      0.32  |Q  V     |         |         |         |
5+55       0.0961      0.32  |Q  V     |         |         |         |
6+ 0       0.0983      0.32  |Q  V     |         |         |         |
6+ 5       0.1006      0.34  |Q  V     |         |         |         |
6+10       0.1030      0.35  |Q   V    |         |         |         |
6+15       0.1055      0.36  |Q   V    |         |         |         |
6+20       0.1080      0.36  |Q   V    |         |         |         |
6+25       0.1104      0.36  |Q   V    |         |         |         |
6+30       0.1129      0.36  |Q   V    |         |         |         |
6+35       0.1155      0.38  |Q   V    |         |         |         |
6+40       0.1182      0.39  |Q   V    |         |         |         |
6+45       0.1210      0.40  |Q   V    |         |         |         |
6+50       0.1237      0.40  |Q    V   |         |         |         |
6+55       0.1265      0.40  |Q    V   |         |         |         |
7+ 0       0.1292      0.40  |Q    V   |         |         |         |
7+ 5       0.1319      0.40  |Q    V   |         |         |         |
7+10       0.1347      0.40  |Q    V   |         |         |         |
```
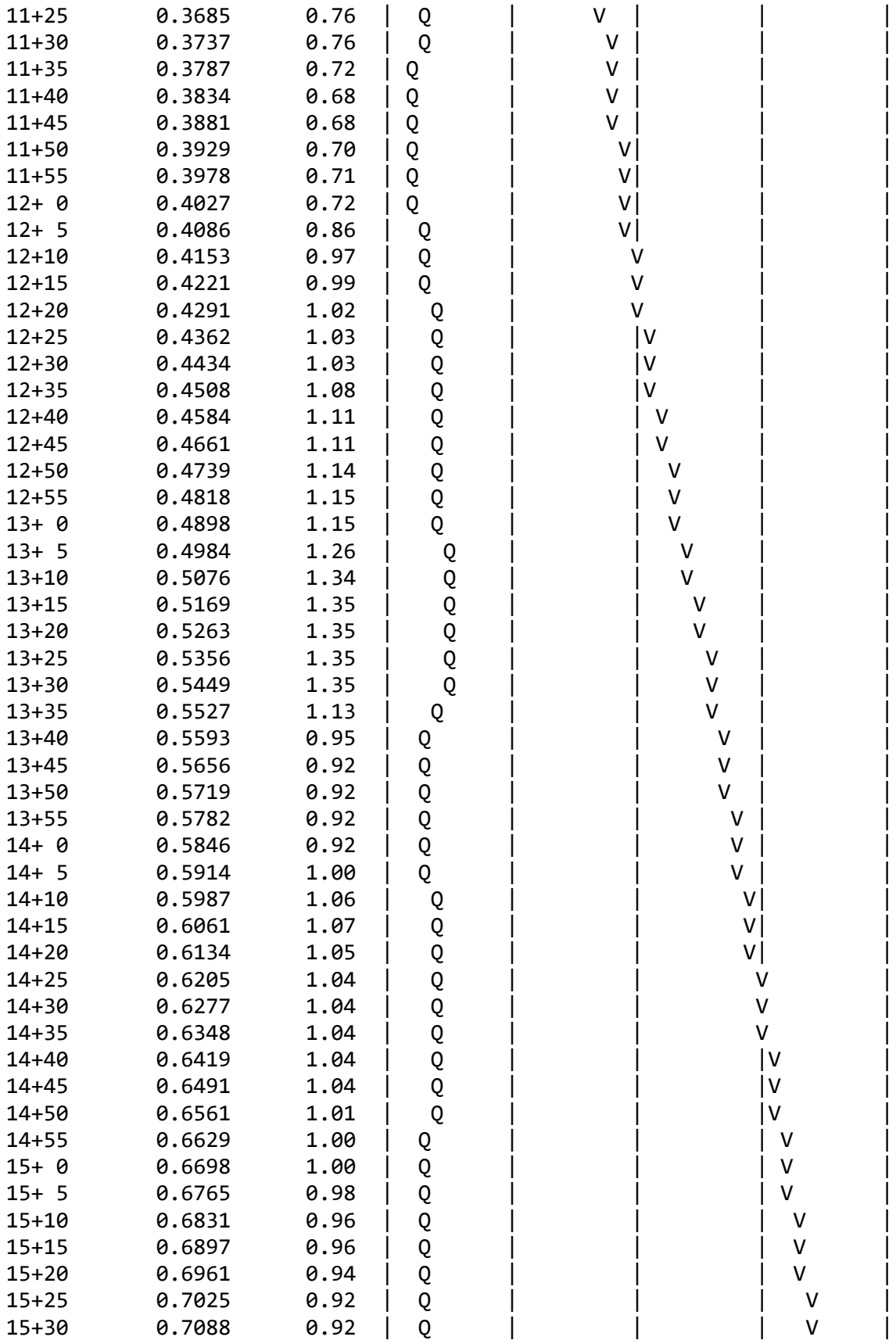

7+15	0.1374	0.40	Q V				
7+20	0.1403	0.42	Q V				
7+25	0.1433	0.43	Q V				
7+30	0.1463	0.44	Q V				
7+35	0.1495	0.46	Q V				
7+40	0.1527	0.47	Q V				
7+45	0.1560	0.48	Q V				
7+50	0.1595	0.50	Q V				
7+55	0.1630	0.51	Q V				
8+ 0	0.1666	0.52	Q V				
8+ 5	0.1704	0.56	Q V				
8+10	0.1745	0.59	Q V				
8+15	0.1786	0.60	Q V				
8+20	0.1827	0.60	Q V				
8+25	0.1868	0.60	Q V				
8+30	0.1909	0.60	Q V				
8+35	0.1952	0.62	Q V				
8+40	0.1995	0.63	Q V				
8+45	0.2039	0.64	Q V				
8+50	0.2084	0.66	Q V				
8+55	0.2131	0.67	Q V				
9+ 0	0.2177	0.68	Q V				
9+ 5	0.2227	0.72	Q V				
9+10	0.2278	0.75	Q V				
9+15	0.2330	0.76	Q V				
9+20	0.2384	0.78	Q V				
9+25	0.2439	0.79	Q V				
9+30	0.2493	0.80	Q V				
9+35	0.2550	0.82	Q V				
9+40	0.2607	0.83	Q V				
9+45	0.2665	0.84	Q V				
9+50	0.2724	0.86	Q V				
9+55	0.2784	0.87	Q V				
10+ 0	0.2844	0.88	Q V				
10+ 5	0.2894	0.73	Q V				
10+10	0.2937	0.62	Q V				
10+15	0.2979	0.60	Q V				
10+20	0.3020	0.60	Q V				
10+25	0.3061	0.60	Q V				
10+30	0.3102	0.60	Q V				
10+35	0.3150	0.70	Q V				
10+40	0.3204	0.78	Q V				
10+45	0.3259	0.79	Q V				
10+50	0.3313	0.80	Q V				
10+55	0.3368	0.80	Q V				
11+ 0	0.3423	0.80	Q V				
11+ 5	0.3477	0.78	Q V				
11+10	0.3529	0.76	Q V				
11+15	0.3581	0.76	Q V				
11+20	0.3633	0.76	Q V				



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15+35       0.7145      0.83  |  Q      |         |         |   V     |
15+40       0.7198      0.77  |  Q      |         |         |   V     |
15+45       0.7251      0.76  |  Q      |         |         |    V    |
15+50       0.7303      0.76  |  Q      |         |         |    V    |
15+55       0.7355      0.76  |  Q      |         |         |    V    |
16+ 0       0.7407      0.76  |  Q      |         |         |     V   |
16+ 5       0.7438      0.45  |Q        |         |         |     V   |
16+10       0.7453      0.21  Q         |         |         |     V   |
16+15       0.7464      0.17  Q         |         |         |     V   |
16+20       0.7475      0.16  Q         |         |         |     V   |
16+25       0.7486      0.16  Q         |         |         |     V   |
16+30       0.7497      0.16  Q         |         |         |     V   |
16+35       0.7507      0.14  Q         |         |         |     V   |
16+40       0.7515      0.12  Q         |         |         |     V   |
16+45       0.7524      0.12  Q         |         |         |     V   |
16+50       0.7532      0.12  Q         |         |         |     V   |
16+55       0.7540      0.12  Q         |         |         |     V   |
17+ 0       0.7548      0.12  Q         |         |         |     V   |
17+ 5       0.7559      0.16  Q         |         |         |     V   |
17+10       0.7573      0.19  Q         |         |         |     V   |
17+15       0.7586      0.20  Q         |         |         |     V   |
17+20       0.7600      0.20  Q         |         |         |     V   |
17+25       0.7614      0.20  Q         |         |         |      V  |
17+30       0.7627      0.20  Q         |         |         |      V  |
17+35       0.7641      0.20  Q         |         |         |      V  |
17+40       0.7655      0.20  Q         |         |         |      V  |
17+45       0.7668      0.20  Q         |         |         |      V  |
17+50       0.7681      0.18  Q         |         |         |      V  |
17+55       0.7692      0.16  Q         |         |         |      V  |
18+ 0       0.7703      0.16  Q         |         |         |      V  |
18+ 5       0.7714      0.16  Q         |         |         |      V  |
18+10       0.7725      0.16  Q         |         |         |      V  |
18+15       0.7736      0.16  Q         |         |         |      V  |
18+20       0.7747      0.16  Q         |         |         |      V  |
18+25       0.7758      0.16  Q         |         |         |      V  |
18+30       0.7769      0.16  Q         |         |         |      V  |
18+35       0.7778      0.14  Q         |         |         |      V  |
18+40       0.7787      0.12  Q         |         |         |      V  |
18+45       0.7795      0.12  Q         |         |         |      V  |
18+50       0.7802      0.10  Q         |         |         |      V  |
18+55       0.7808      0.08  Q         |         |         |      V  |
19+ 0       0.7813      0.08  Q         |         |         |      V  |
19+ 5       0.7820      0.10  Q         |         |         |       V |
19+10       0.7828      0.12  Q         |         |         |       V |
19+15       0.7836      0.12  Q         |         |         |       V |
19+20       0.7846      0.14  Q         |         |         |       V |
19+25       0.7857      0.16  Q         |         |         |       V |
19+30       0.7868      0.16  Q         |         |         |       V |
19+35       0.7877      0.14  Q         |         |         |       V |
19+40       0.7886      0.12  Q         |         |         |       V |
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19+45	0.7894	0.12	Q	|	|	|	V |
19+50	0.7901	0.10	Q	|	|	|	V |
19+55	0.7906	0.08	Q	|	|	|	V |
20+ 0	0.7912	0.08	Q	|	|	|	V |
20+ 5	0.7919	0.10	Q	|	|	|	V |
20+10	0.7927	0.12	Q	|	|	|	V |
20+15	0.7935	0.12	Q	|	|	|	V |
20+20	0.7943	0.12	Q	|	|	|	V |
20+25	0.7951	0.12	Q	|	|	|	V |
20+30	0.7960	0.12	Q	|	|	|	V |
20+35	0.7968	0.12	Q	|	|	|	V |
20+40	0.7976	0.12	Q	|	|	|	V |
20+45	0.7984	0.12	Q	|	|	|	V |
20+50	0.7991	0.10	Q	|	|	|	V |
20+55	0.7997	0.08	Q	|	|	|	V |
21+ 0	0.8002	0.08	Q	|	|	|	V |
21+ 5	0.8009	0.10	Q	|	|	|	V |
21+10	0.8017	0.12	Q	|	|	|	V |
21+15	0.8026	0.12	Q	|	|	|	V|
21+20	0.8032	0.10	Q	|	|	|	V|
21+25	0.8038	0.08	Q	|	|	|	V|
21+30	0.8044	0.08	Q	|	|	|	V|
21+35	0.8051	0.10	Q	|	|	|	V|
21+40	0.8058	0.12	Q	|	|	|	V|
21+45	0.8067	0.12	Q	|	|	|	V|
21+50	0.8073	0.10	Q	|	|	|	V|
21+55	0.8079	0.08	Q	|	|	|	V|
22+ 0	0.8085	0.08	Q	|	|	|	V|
22+ 5	0.8092	0.10	Q	|	|	|	V|
22+10	0.8100	0.12	Q	|	|	|	V|
22+15	0.8108	0.12	Q	|	|	|	V|
22+20	0.8115	0.10	Q	|	|	|	V|
22+25	0.8120	0.08	Q	|	|	|	V|
22+30	0.8126	0.08	Q	|	|	|	V|
22+35	0.8131	0.08	Q	|	|	|	V|
22+40	0.8137	0.08	Q	|	|	|	V|
22+45	0.8142	0.08	Q	|	|	|	V|
22+50	0.8148	0.08	Q	|	|	|	V|
22+55	0.8153	0.08	Q	|	|	|	V|
23+ 0	0.8159	0.08	Q	|	|	|	V|
23+ 5	0.8164	0.08	Q	|	|	|	V|
23+10	0.8170	0.08	Q	|	|	|	V|
23+15	0.8175	0.08	Q	|	|	|	V|
23+20	0.8181	0.08	Q	|	|	|	V|
23+25	0.8186	0.08	Q	|	|	|	V|
23+30	0.8192	0.08	Q	|	|	|	V|
23+35	0.8197	0.08	Q	|	|	|	V|
23+40	0.8203	0.08	Q	|	|	|	V|
23+45	0.8208	0.08	Q	|	|	|	V|
23+50	0.8214	0.08	Q	|	|	|	V|

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   23+55       0.8219      0.08  Q         |         |         |        V|
   24+ 0       0.8225      0.08  Q         |         |         |        V|
   24+ 5       0.8227      0.04  Q         |         |         |        V|
   24+10       0.8228      0.01  Q         |         |         |        V|
   24+15       0.8228      0.00  Q         |         |         |        V|
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DMA 1 Proposed 5-Year

FLOOD HYDROGRAPH ROUTING PROGRAM

Study date: 08/24/22

A21626 DMA 1 5YR-1HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA1Q100UH15.rte
**********HYDROGRAPH DATA**********
Number of intervals = 15
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 9.148 (CFS)
Total volume = 0.305 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.00(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.50(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   4.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   1.00(Ft.)    Capacity =   6.28(CFS)

Total outflow at this depth =      6.48(CFS)

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Total number of inflow hydrograph intervals = 15
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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
0.500	0.093	0.000	0.093	0.093
1.000	0.197	0.196	0.196	0.198
1.500	0.313	0.196	0.312	0.314
2.000	0.440	0.196	0.439	0.441
2.500	0.580	0.196	0.579	0.581
3.000	0.732	0.196	0.731	0.733
3.500	0.897	0.196	0.896	0.898
4.000	1.075	4.639	1.059	1.091
4.500	1.267	6.480	1.245	1.289

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 2.3 4.57 6.86 9.15	Depth (Ft.)
0.083	0.94	0.00	0.003	O I | | | |	0.02
0.167	1.69	0.00	0.012	O I | | | |	0.07
0.250	2.02	0.00	0.025	O I| | | |	0.13
0.333	2.21	0.00	0.040	O I| | | |	0.21
0.417	2.30	0.00	0.055	O I | | |	0.30
0.500	2.51	0.00	0.072	O I | | |	0.39
0.583	2.96	0.00	0.090	O | I | | |	0.49
0.667	3.56	0.04	0.113	O | I | | |	0.60
0.750	4.86	0.09	0.141	O | |I | |	0.73
0.833	9.15	0.18	0.189	O | | | |I	0.96
0.917	7.19	0.20	0.244	O | | |I |	1.20
1.000	3.34	0.20	0.279	O | I | | |	1.35
1.083	1.28	0.20	0.293	O I | | | |	1.41
1.167	0.20	0.20	0.297	O | | | | |	1.43
1.250	0.04	0.20	0.296	O | | | | |	1.43
1.333	0.00	0.20	0.295	O | | | | |	1.42
1.417	0.00	0.20	0.294	O | | | | |	1.42
1.500	0.00	0.20	0.292	O | | | | |	1.41
1.583	0.00	0.20	0.291	O | | | | |	1.41

1.667	0.00	0.20	0.290	O	|	|	|	1.40
1.750	0.00	0.20	0.288	O	|	|	|	1.39
1.833	0.00	0.20	0.287	O	|	|	|	1.39
1.917	0.00	0.20	0.286	O	|	|	|	1.38
2.000	0.00	0.20	0.284	O	|	|	|	1.38
2.083	0.00	0.20	0.283	O	|	|	|	1.37
2.167	0.00	0.20	0.282	O	|	|	|	1.36
2.250	0.00	0.20	0.280	O	|	|	|	1.36
2.333	0.00	0.20	0.279	O	|	|	|	1.35
2.417	0.00	0.20	0.278	O	|	|	|	1.35
2.500	0.00	0.20	0.276	O	|	|	|	1.34
2.583	0.00	0.20	0.275	O	|	|	|	1.34
2.667	0.00	0.20	0.273	O	|	|	|	1.33
2.750	0.00	0.20	0.272	O	|	|	|	1.32
2.833	0.00	0.20	0.271	O	|	|	|	1.32
2.917	0.00	0.20	0.269	O	|	|	|	1.31
3.000	0.00	0.20	0.268	O	|	|	|	1.31
3.083	0.00	0.20	0.267	O	|	|	|	1.30
3.167	0.00	0.20	0.265	O	|	|	|	1.29
3.250	0.00	0.20	0.264	O	|	|	|	1.29
3.333	0.00	0.20	0.263	O	|	|	|	1.28
3.417	0.00	0.20	0.261	O	|	|	|	1.28
3.500	0.00	0.20	0.260	O	|	|	|	1.27
3.583	0.00	0.20	0.259	O	|	|	|	1.27
3.667	0.00	0.20	0.257	O	|	|	|	1.26
3.750	0.00	0.20	0.256	O	|	|	|	1.25
3.833	0.00	0.20	0.255	O	|	|	|	1.25
3.917	0.00	0.20	0.253	O	|	|	|	1.24
4.000	0.00	0.20	0.252	O	|	|	|	1.24
4.083	0.00	0.20	0.250	O	|	|	|	1.23
4.167	0.00	0.20	0.249	O	|	|	|	1.22
4.250	0.00	0.20	0.248	O	|	|	|	1.22
4.333	0.00	0.20	0.246	O	|	|	|	1.21
4.417	0.00	0.20	0.245	O	|	|	|	1.21
4.500	0.00	0.20	0.244	O	|	|	|	1.20
4.583	0.00	0.20	0.242	O	|	|	|	1.20
4.667	0.00	0.20	0.241	O	|	|	|	1.19
4.750	0.00	0.20	0.240	O	|	|	|	1.18
4.833	0.00	0.20	0.238	O	|	|	|	1.18
4.917	0.00	0.20	0.237	O	|	|	|	1.17
5.000	0.00	0.20	0.236	O	|	|	|	1.17
5.083	0.00	0.20	0.234	O	|	|	|	1.16
5.167	0.00	0.20	0.233	O	|	|	|	1.15
5.250	0.00	0.20	0.232	O	|	|	|	1.15
5.333	0.00	0.20	0.230	O	|	|	|	1.14
5.417	0.00	0.20	0.229	O	|	|	|	1.14
5.500	0.00	0.20	0.227	O	|	|	|	1.13
5.583	0.00	0.20	0.226	O	|	|	|	1.13
5.667	0.00	0.20	0.225	O	|	|	|	1.12
5.750	0.00	0.20	0.223	O	|	|	|	1.11

5.833	0.00	0.20	0.222	O				1.11
5.917	0.00	0.20	0.221	O				1.10
6.000	0.00	0.20	0.219	O				1.10
6.083	0.00	0.20	0.218	O				1.09
6.167	0.00	0.20	0.217	O				1.08
6.250	0.00	0.20	0.215	O				1.08
6.333	0.00	0.20	0.214	O				1.07
6.417	0.00	0.20	0.213	O				1.07
6.500	0.00	0.20	0.211	O				1.06
6.583	0.00	0.20	0.210	O				1.06
6.667	0.00	0.20	0.209	O				1.05
6.750	0.00	0.20	0.207	O				1.04
6.833	0.00	0.20	0.206	O				1.04
6.917	0.00	0.20	0.205	O				1.03
7.000	0.00	0.20	0.203	O				1.03
7.083	0.00	0.20	0.202	O				1.02
7.167	0.00	0.20	0.200	O				1.01
7.250	0.00	0.20	0.199	O				1.01
7.333	0.00	0.20	0.198	O				1.00
7.417	0.00	0.20	0.196	O				1.00
7.500	0.00	0.19	0.195	O				0.99
7.583	0.00	0.19	0.194	O				0.98
7.667	0.00	0.19	0.192	O				0.98
7.750	0.00	0.19	0.191	O				0.97
7.833	0.00	0.18	0.190	O				0.97
7.917	0.00	0.18	0.189	O				0.96
8.000	0.00	0.18	0.187	O				0.95
8.083	0.00	0.18	0.186	O				0.95
8.167	0.00	0.17	0.185	O				0.94
8.250	0.00	0.17	0.184	O				0.94
8.333	0.00	0.17	0.183	O				0.93
8.417	0.00	0.17	0.181	O				0.93
8.500	0.00	0.16	0.180	O				0.92
8.583	0.00	0.16	0.179	O				0.91
8.667	0.00	0.16	0.178	O				0.91
8.750	0.00	0.16	0.177	O				0.90
8.833	0.00	0.16	0.176	O				0.90
8.917	0.00	0.15	0.175	O				0.89
9.000	0.00	0.15	0.174	O				0.89
9.083	0.00	0.15	0.173	O				0.88
9.167	0.00	0.15	0.172	O				0.88
9.250	0.00	0.15	0.171	O				0.87
9.333	0.00	0.14	0.170	O				0.87
9.417	0.00	0.14	0.169	O				0.86
9.500	0.00	0.14	0.168	O				0.86
9.583	0.00	0.14	0.167	O				0.85
9.667	0.00	0.14	0.166	O				0.85
9.750	0.00	0.14	0.165	O				0.85
9.833	0.00	0.13	0.164	O				0.84
9.917	0.00	0.13	0.163	O				0.84

10.000	0.00	0.13	0.162	O	|	|	|	0.83
10.083	0.00	0.13	0.161	O	|	|	|	0.83
10.167	0.00	0.13	0.160	O	|	|	|	0.82
10.250	0.00	0.13	0.159	O	|	|	|	0.82
10.333	0.00	0.12	0.159	O	|	|	|	0.82
10.417	0.00	0.12	0.158	O	|	|	|	0.81
10.500	0.00	0.12	0.157	O	|	|	|	0.81
10.583	0.00	0.12	0.156	O	|	|	|	0.80
10.667	0.00	0.12	0.155	O	|	|	|	0.80
10.750	0.00	0.12	0.154	O	|	|	|	0.80
10.833	0.00	0.11	0.154	O	|	|	|	0.79
10.917	0.00	0.11	0.153	O	|	|	|	0.79
11.000	0.00	0.11	0.152	O	|	|	|	0.78
11.083	0.00	0.11	0.151	O	|	|	|	0.78
11.167	0.00	0.11	0.151	O	|	|	|	0.78
11.250	0.00	0.11	0.150	O	|	|	|	0.77
11.333	0.00	0.11	0.149	O	|	|	|	0.77
11.417	0.00	0.10	0.148	O	|	|	|	0.77
11.500	0.00	0.10	0.148	O	|	|	|	0.76
11.583	0.00	0.10	0.147	O	|	|	|	0.76
11.667	0.00	0.10	0.146	O	|	|	|	0.76
11.750	0.00	0.10	0.146	O	|	|	|	0.75
11.833	0.00	0.10	0.145	O	|	|	|	0.75
11.917	0.00	0.10	0.144	O	|	|	|	0.75
12.000	0.00	0.10	0.144	O	|	|	|	0.74
12.083	0.00	0.09	0.143	O	|	|	|	0.74
12.167	0.00	0.09	0.142	O	|	|	|	0.74
12.250	0.00	0.09	0.142	O	|	|	|	0.73
12.333	0.00	0.09	0.141	O	|	|	|	0.73
12.417	0.00	0.09	0.140	O	|	|	|	0.73
12.500	0.00	0.09	0.140	O	|	|	|	0.72
12.583	0.00	0.09	0.139	O	|	|	|	0.72
12.667	0.00	0.09	0.139	O	|	|	|	0.72
12.750	0.00	0.08	0.138	O	|	|	|	0.72
12.833	0.00	0.08	0.137	O	|	|	|	0.71
12.917	0.00	0.08	0.137	O	|	|	|	0.71
13.000	0.00	0.08	0.136	O	|	|	|	0.71
13.083	0.00	0.08	0.136	O	|	|	|	0.71
13.167	0.00	0.08	0.135	O	|	|	|	0.70
13.250	0.00	0.08	0.135	O	|	|	|	0.70
13.333	0.00	0.08	0.134	O	|	|	|	0.70
13.417	0.00	0.08	0.134	O	|	|	|	0.69
13.500	0.00	0.08	0.133	O	|	|	|	0.69
13.583	0.00	0.07	0.133	O	|	|	|	0.69
13.667	0.00	0.07	0.132	O	|	|	|	0.69
13.750	0.00	0.07	0.131	O	|	|	|	0.69
13.833	0.00	0.07	0.131	O	|	|	|	0.68
13.917	0.00	0.07	0.130	O	|	|	|	0.68
14.000	0.00	0.07	0.130	O	|	|	|	0.68
14.083	0.00	0.07	0.130	O	|	|	|	0.68

14.167	0.00	0.07	0.129	O	|	|	|	0.67
14.250	0.00	0.07	0.129	O	|	|	|	0.67
14.333	0.00	0.07	0.128	O	|	|	|	0.67
14.417	0.00	0.07	0.128	O	|	|	|	0.67
14.500	0.00	0.06	0.127	O	|	|	|	0.66
14.583	0.00	0.06	0.127	O	|	|	|	0.66
14.667	0.00	0.06	0.126	O	|	|	|	0.66
14.750	0.00	0.06	0.126	O	|	|	|	0.66
14.833	0.00	0.06	0.126	O	|	|	|	0.66
14.917	0.00	0.06	0.125	O	|	|	|	0.65
15.000	0.00	0.06	0.125	O	|	|	|	0.65
15.083	0.00	0.06	0.124	O	|	|	|	0.65
15.167	0.00	0.06	0.124	O	|	|	|	0.65
15.250	0.00	0.06	0.123	O	|	|	|	0.65
15.333	0.00	0.06	0.123	O	|	|	|	0.64
15.417	0.00	0.06	0.123	O	|	|	|	0.64
15.500	0.00	0.06	0.122	O	|	|	|	0.64
15.583	0.00	0.05	0.122	O	|	|	|	0.64
15.667	0.00	0.05	0.122	O	|	|	|	0.64
15.750	0.00	0.05	0.121	O	|	|	|	0.64
15.833	0.00	0.05	0.121	O	|	|	|	0.63
15.917	0.00	0.05	0.120	O	|	|	|	0.63
16.000	0.00	0.05	0.120	O	|	|	|	0.63
16.083	0.00	0.05	0.120	O	|	|	|	0.63
16.167	0.00	0.05	0.119	O	|	|	|	0.63
16.250	0.00	0.05	0.119	O	|	|	|	0.63
16.333	0.00	0.05	0.119	O	|	|	|	0.62
16.417	0.00	0.05	0.118	O	|	|	|	0.62
16.500	0.00	0.05	0.118	O	|	|	|	0.62
16.583	0.00	0.05	0.118	O	|	|	|	0.62
16.667	0.00	0.05	0.117	O	|	|	|	0.62
16.750	0.00	0.05	0.117	O	|	|	|	0.62
16.833	0.00	0.04	0.117	O	|	|	|	0.61
16.917	0.00	0.04	0.116	O	|	|	|	0.61
17.000	0.00	0.04	0.116	O	|	|	|	0.61
17.083	0.00	0.04	0.116	O	|	|	|	0.61
17.167	0.00	0.04	0.116	O	|	|	|	0.61
17.250	0.00	0.04	0.115	O	|	|	|	0.61
17.333	0.00	0.04	0.115	O	|	|	|	0.61
17.417	0.00	0.04	0.115	O	|	|	|	0.60
17.500	0.00	0.04	0.114	O	|	|	|	0.60
17.583	0.00	0.04	0.114	O	|	|	|	0.60
17.667	0.00	0.04	0.114	O	|	|	|	0.60
17.750	0.00	0.04	0.114	O	|	|	|	0.60
17.833	0.00	0.04	0.113	O	|	|	|	0.60
17.917	0.00	0.04	0.113	O	|	|	|	0.60
18.000	0.00	0.04	0.113	O	|	|	|	0.60
18.083	0.00	0.04	0.113	O	|	|	|	0.59
18.167	0.00	0.04	0.112	O	|	|	|	0.59
18.250	0.00	0.04	0.112	O	|	|	|	0.59

18.333	0.00	0.04	0.112	O	|	|	|	0.59
18.417	0.00	0.04	0.112	O	|	|	|	0.59
18.500	0.00	0.03	0.111	O	|	|	|	0.59
18.583	0.00	0.03	0.111	O	|	|	|	0.59
18.667	0.00	0.03	0.111	O	|	|	|	0.59
18.750	0.00	0.03	0.111	O	|	|	|	0.58
18.833	0.00	0.03	0.110	O	|	|	|	0.58
18.917	0.00	0.03	0.110	O	|	|	|	0.58
19.000	0.00	0.03	0.110	O	|	|	|	0.58
19.083	0.00	0.03	0.110	O	|	|	|	0.58
19.167	0.00	0.03	0.110	O	|	|	|	0.58
19.250	0.00	0.03	0.109	O	|	|	|	0.58
19.333	0.00	0.03	0.109	O	|	|	|	0.58
19.417	0.00	0.03	0.109	O	|	|	|	0.58
19.500	0.00	0.03	0.109	O	|	|	|	0.58
19.583	0.00	0.03	0.108	O	|	|	|	0.57
19.667	0.00	0.03	0.108	O	|	|	|	0.57
19.750	0.00	0.03	0.108	O	|	|	|	0.57
19.833	0.00	0.03	0.108	O	|	|	|	0.57
19.917	0.00	0.03	0.108	O	|	|	|	0.57
20.000	0.00	0.03	0.108	O	|	|	|	0.57
20.083	0.00	0.03	0.107	O	|	|	|	0.57
20.167	0.00	0.03	0.107	O	|	|	|	0.57
20.250	0.00	0.03	0.107	O	|	|	|	0.57
20.333	0.00	0.03	0.107	O	|	|	|	0.57
20.417	0.00	0.03	0.107	O	|	|	|	0.57
20.500	0.00	0.03	0.106	O	|	|	|	0.56
20.583	0.00	0.03	0.106	O	|	|	|	0.56
20.667	0.00	0.02	0.106	O	|	|	|	0.56
20.750	0.00	0.02	0.106	O	|	|	|	0.56
20.833	0.00	0.02	0.106	O	|	|	|	0.56
20.917	0.00	0.02	0.106	O	|	|	|	0.56
21.000	0.00	0.02	0.105	O	|	|	|	0.56
21.083	0.00	0.02	0.105	O	|	|	|	0.56
21.167	0.00	0.02	0.105	O	|	|	|	0.56
21.250	0.00	0.02	0.105	O	|	|	|	0.56
21.333	0.00	0.02	0.105	O	|	|	|	0.56
21.417	0.00	0.02	0.105	O	|	|	|	0.56
21.500	0.00	0.02	0.104	O	|	|	|	0.56
21.583	0.00	0.02	0.104	O	|	|	|	0.55
21.667	0.00	0.02	0.104	O	|	|	|	0.55
21.750	0.00	0.02	0.104	O	|	|	|	0.55
21.833	0.00	0.02	0.104	O	|	|	|	0.55
21.917	0.00	0.02	0.104	O	|	|	|	0.55
22.000	0.00	0.02	0.104	O	|	|	|	0.55
22.083	0.00	0.02	0.103	O	|	|	|	0.55
22.167	0.00	0.02	0.103	O	|	|	|	0.55
22.250	0.00	0.02	0.103	O	|	|	|	0.55
22.333	0.00	0.02	0.103	O	|	|	|	0.55
22.417	0.00	0.02	0.103	O	|	|	|	0.55

22.500	0.00	0.02	0.103	O				0.55
22.583	0.00	0.02	0.103	O				0.55
22.667	0.00	0.02	0.103	O				0.55
22.750	0.00	0.02	0.102	O				0.55
22.833	0.00	0.02	0.102	O				0.54
22.917	0.00	0.02	0.102	O				0.54
23.000	0.00	0.02	0.102	O				0.54
23.083	0.00	0.02	0.102	O				0.54
23.167	0.00	0.02	0.102	O				0.54
23.250	0.00	0.02	0.102	O				0.54
23.333	0.00	0.02	0.102	O				0.54
23.417	0.00	0.02	0.102	O				0.54
23.500	0.00	0.02	0.101	O				0.54
23.583	0.00	0.02	0.101	O				0.54
23.667	0.00	0.02	0.101	O				0.54
23.750	0.00	0.02	0.101	O				0.54
23.833	0.00	0.02	0.101	O				0.54
23.917	0.00	0.01	0.101	O				0.54
24.000	0.00	0.01	0.101	O				0.54
24.083	0.00	0.01	0.101	O				0.54
24.167	0.00	0.01	0.101	O				0.54
24.250	0.00	0.01	0.100	O				0.54
24.333	0.00	0.01	0.100	O				0.54
24.417	0.00	0.01	0.100	O				0.54
24.500	0.00	0.01	0.100	O				0.53
24.583	0.00	0.01	0.100	O				0.53
24.667	0.00	0.01	0.100	O				0.53
24.750	0.00	0.01	0.100	O				0.53
24.833	0.00	0.01	0.100	O				0.53
24.917	0.00	0.01	0.100	O				0.53
25.000	0.00	0.01	0.100	O				0.53
25.083	0.00	0.01	0.100	O				0.53
25.167	0.00	0.01	0.099	O				0.53
25.250	0.00	0.01	0.099	O				0.53
25.333	0.00	0.01	0.099	O				0.53
25.417	0.00	0.01	0.099	O				0.53
25.500	0.00	0.01	0.099	O				0.53
25.583	0.00	0.01	0.099	O				0.53
25.667	0.00	0.01	0.099	O				0.53
25.750	0.00	0.01	0.099	O				0.53
25.833	0.00	0.01	0.099	O				0.53
25.917	0.00	0.01	0.099	O				0.53
26.000	0.00	0.01	0.099	O				0.53
26.083	0.00	0.01	0.099	O				0.53
26.167	0.00	0.01	0.099	O				0.53
26.250	0.00	0.01	0.098	O				0.53
26.333	0.00	0.01	0.098	O				0.53
26.417	0.00	0.01	0.098	O				0.53
26.500	0.00	0.01	0.098	O				0.53
26.583	0.00	0.01	0.098	O				0.52

26.667	0.00	0.01	0.098	O	|	|	|	0.52
26.750	0.00	0.01	0.098	O	|	|	|	0.52
26.833	0.00	0.01	0.098	O	|	|	|	0.52
26.917	0.00	0.01	0.098	O	|	|	|	0.52
27.000	0.00	0.01	0.098	O	|	|	|	0.52
27.083	0.00	0.01	0.098	O	|	|	|	0.52
27.167	0.00	0.01	0.098	O	|	|	|	0.52
27.250	0.00	0.01	0.098	O	|	|	|	0.52
27.333	0.00	0.01	0.098	O	|	|	|	0.52
27.417	0.00	0.01	0.098	O	|	|	|	0.52
27.500	0.00	0.01	0.098	O	|	|	|	0.52
27.583	0.00	0.01	0.097	O	|	|	|	0.52
27.667	0.00	0.01	0.097	O	|	|	|	0.52
27.750	0.00	0.01	0.097	O	|	|	|	0.52
27.833	0.00	0.01	0.097	O	|	|	|	0.52
27.917	0.00	0.01	0.097	O	|	|	|	0.52
28.000	0.00	0.01	0.097	O	|	|	|	0.52
28.083	0.00	0.01	0.097	O	|	|	|	0.52
28.167	0.00	0.01	0.097	O	|	|	|	0.52
28.250	0.00	0.01	0.097	O	|	|	|	0.52
28.333	0.00	0.01	0.097	O	|	|	|	0.52
28.417	0.00	0.01	0.097	O	|	|	|	0.52
28.500	0.00	0.01	0.097	O	|	|	|	0.52
28.583	0.00	0.01	0.097	O	|	|	|	0.52
28.667	0.00	0.01	0.097	O	|	|	|	0.52
28.750	0.00	0.01	0.097	O	|	|	|	0.52
28.833	0.00	0.01	0.097	O	|	|	|	0.52
28.917	0.00	0.01	0.097	O	|	|	|	0.52
29.000	0.00	0.01	0.097	O	|	|	|	0.52
29.083	0.00	0.01	0.097	O	|	|	|	0.52
29.167	0.00	0.01	0.096	O	|	|	|	0.52
29.250	0.00	0.01	0.096	O	|	|	|	0.52
29.333	0.00	0.01	0.096	O	|	|	|	0.52
29.417	0.00	0.01	0.096	O	|	|	|	0.52
29.500	0.00	0.01	0.096	O	|	|	|	0.52
29.583	0.00	0.01	0.096	O	|	|	|	0.52
29.667	0.00	0.01	0.096	O	|	|	|	0.52
29.750	0.00	0.01	0.096	O	|	|	|	0.52
29.833	0.00	0.01	0.096	O	|	|	|	0.52
29.917	0.00	0.01	0.096	O	|	|	|	0.51
30.000	0.00	0.01	0.096	O	|	|	|	0.51
30.083	0.00	0.01	0.096	O	|	|	|	0.51
30.167	0.00	0.01	0.096	O	|	|	|	0.51
30.250	0.00	0.01	0.096	O	|	|	|	0.51
30.333	0.00	0.01	0.096	O	|	|	|	0.51
30.417	0.00	0.01	0.096	O	|	|	|	0.51
30.500	0.00	0.01	0.096	O	|	|	|	0.51
30.583	0.00	0.01	0.096	O	|	|	|	0.51
30.667	0.00	0.01	0.096	O	|	|	|	0.51
30.750	0.00	0.01	0.096	O	|	|	|	0.51

30.833	0.00	0.01	0.096	O	|	|	|	0.51
30.917	0.00	0.00	0.096	O	|	|	|	0.51
31.000	0.00	0.00	0.096	O	|	|	|	0.51
31.083	0.00	0.00	0.096	O	|	|	|	0.51
31.167	0.00	0.00	0.096	O	|	|	|	0.51
31.250	0.00	0.00	0.096	O	|	|	|	0.51
31.333	0.00	0.00	0.095	O	|	|	|	0.51
31.417	0.00	0.00	0.095	O	|	|	|	0.51
31.500	0.00	0.00	0.095	O	|	|	|	0.51
31.583	0.00	0.00	0.095	O	|	|	|	0.51
31.667	0.00	0.00	0.095	O	|	|	|	0.51
31.750	0.00	0.00	0.095	O	|	|	|	0.51
31.833	0.00	0.00	0.095	O	|	|	|	0.51
31.917	0.00	0.00	0.095	O	|	|	|	0.51
32.000	0.00	0.00	0.095	O	|	|	|	0.51
32.083	0.00	0.00	0.095	O	|	|	|	0.51
32.167	0.00	0.00	0.095	O	|	|	|	0.51
32.250	0.00	0.00	0.095	O	|	|	|	0.51
32.333	0.00	0.00	0.095	O	|	|	|	0.51
32.417	0.00	0.00	0.095	O	|	|	|	0.51
32.500	0.00	0.00	0.095	O	|	|	|	0.51
32.583	0.00	0.00	0.095	O	|	|	|	0.51
32.667	0.00	0.00	0.095	O	|	|	|	0.51
32.750	0.00	0.00	0.095	O	|	|	|	0.51
32.833	0.00	0.00	0.095	O	|	|	|	0.51
32.917	0.00	0.00	0.095	O	|	|	|	0.51
33.000	0.00	0.00	0.095	O	|	|	|	0.51
33.083	0.00	0.00	0.095	O	|	|	|	0.51
33.167	0.00	0.00	0.095	O	|	|	|	0.51
33.250	0.00	0.00	0.095	O	|	|	|	0.51
33.333	0.00	0.00	0.095	O	|	|	|	0.51
33.417	0.00	0.00	0.095	O	|	|	|	0.51
33.500	0.00	0.00	0.095	O	|	|	|	0.51
33.583	0.00	0.00	0.095	O	|	|	|	0.51
33.667	0.00	0.00	0.095	O	|	|	|	0.51
33.750	0.00	0.00	0.095	O	|	|	|	0.51
33.833	0.00	0.00	0.095	O	|	|	|	0.51
33.917	0.00	0.00	0.095	O	|	|	|	0.51
34.000	0.00	0.00	0.095	O	|	|	|	0.51
34.083	0.00	0.00	0.095	O	|	|	|	0.51
34.167	0.00	0.00	0.095	O	|	|	|	0.51
34.250	0.00	0.00	0.095	O	|	|	|	0.51
34.333	0.00	0.00	0.095	O	|	|	|	0.51
34.417	0.00	0.00	0.095	O	|	|	|	0.51
34.500	0.00	0.00	0.095	O	|	|	|	0.51
34.583	0.00	0.00	0.094	O	|	|	|	0.51
34.667	0.00	0.00	0.094	O	|	|	|	0.51
34.750	0.00	0.00	0.094	O	|	|	|	0.51
34.833	0.00	0.00	0.094	O	|	|	|	0.51
34.917	0.00	0.00	0.094	O	|	|	|	0.51

35.000	0.00	0.00	0.094	O	|	|	|	0.51
35.083	0.00	0.00	0.094	O	|	|	|	0.51
35.167	0.00	0.00	0.094	O	|	|	|	0.51
35.250	0.00	0.00	0.094	O	|	|	|	0.51
35.333	0.00	0.00	0.094	O	|	|	|	0.51
35.417	0.00	0.00	0.094	O	|	|	|	0.51
35.500	0.00	0.00	0.094	O	|	|	|	0.51
35.583	0.00	0.00	0.094	O	|	|	|	0.51
35.667	0.00	0.00	0.094	O	|	|	|	0.51
35.750	0.00	0.00	0.094	O	|	|	|	0.51
35.833	0.00	0.00	0.094	O	|	|	|	0.51
35.917	0.00	0.00	0.094	O	|	|	|	0.51
36.000	0.00	0.00	0.094	O	|	|	|	0.51
36.083	0.00	0.00	0.094	O	|	|	|	0.51
36.167	0.00	0.00	0.094	O	|	|	|	0.51
36.250	0.00	0.00	0.094	O	|	|	|	0.51
36.333	0.00	0.00	0.094	O	|	|	|	0.51
36.417	0.00	0.00	0.094	O	|	|	|	0.51
36.500	0.00	0.00	0.094	O	|	|	|	0.51
36.583	0.00	0.00	0.094	O	|	|	|	0.51
36.667	0.00	0.00	0.094	O	|	|	|	0.51
36.750	0.00	0.00	0.094	O	|	|	|	0.51
36.833	0.00	0.00	0.094	O	|	|	|	0.51
36.917	0.00	0.00	0.094	O	|	|	|	0.50
37.000	0.00	0.00	0.094	O	|	|	|	0.50
37.083	0.00	0.00	0.094	O	|	|	|	0.50
37.167	0.00	0.00	0.094	O	|	|	|	0.50
37.250	0.00	0.00	0.094	O	|	|	|	0.50
37.333	0.00	0.00	0.094	O	|	|	|	0.50
37.417	0.00	0.00	0.094	O	|	|	|	0.50
37.500	0.00	0.00	0.094	O	|	|	|	0.50
37.583	0.00	0.00	0.094	O	|	|	|	0.50
37.667	0.00	0.00	0.094	O	|	|	|	0.50
37.750	0.00	0.00	0.094	O	|	|	|	0.50
37.833	0.00	0.00	0.094	O	|	|	|	0.50
37.917	0.00	0.00	0.094	O	|	|	|	0.50
38.000	0.00	0.00	0.094	O	|	|	|	0.50
38.083	0.00	0.00	0.094	O	|	|	|	0.50
38.167	0.00	0.00	0.094	O	|	|	|	0.50
38.250	0.00	0.00	0.094	O	|	|	|	0.50
38.333	0.00	0.00	0.094	O	|	|	|	0.50
38.417	0.00	0.00	0.094	O	|	|	|	0.50
38.500	0.00	0.00	0.094	O	|	|	|	0.50
38.583	0.00	0.00	0.094	O	|	|	|	0.50
38.667	0.00	0.00	0.094	O	|	|	|	0.50
38.750	0.00	0.00	0.094	O	|	|	|	0.50
38.833	0.00	0.00	0.094	O	|	|	|	0.50
38.917	0.00	0.00	0.094	O	|	|	|	0.50
39.000	0.00	0.00	0.094	O	|	|	|	0.50
39.083	0.00	0.00	0.094	O	|	|	|	0.50

39.167	0.00	0.00	0.094	O	|	|	|	0.50
39.250	0.00	0.00	0.094	O	|	|	|	0.50
39.333	0.00	0.00	0.094	O	|	|	|	0.50
39.417	0.00	0.00	0.094	O	|	|	|	0.50
39.500	0.00	0.00	0.094	O	|	|	|	0.50
39.583	0.00	0.00	0.094	O	|	|	|	0.50
39.667	0.00	0.00	0.094	O	|	|	|	0.50
39.750	0.00	0.00	0.094	O	|	|	|	0.50
39.833	0.00	0.00	0.094	O	|	|	|	0.50
39.917	0.00	0.00	0.094	O	|	|	|	0.50
40.000	0.00	0.00	0.094	O	|	|	|	0.50
40.083	0.00	0.00	0.094	O	|	|	|	0.50
40.167	0.00	0.00	0.094	O	|	|	|	0.50
40.250	0.00	0.00	0.094	O	|	|	|	0.50
40.333	0.00	0.00	0.094	O	|	|	|	0.50
40.417	0.00	0.00	0.094	O	|	|	|	0.50
40.500	0.00	0.00	0.094	O	|	|	|	0.50
40.583	0.00	0.00	0.094	O	|	|	|	0.50
40.667	0.00	0.00	0.094	O	|	|	|	0.50
40.750	0.00	0.00	0.094	O	|	|	|	0.50
40.833	0.00	0.00	0.094	O	|	|	|	0.50
40.917	0.00	0.00	0.094	O	|	|	|	0.50
41.000	0.00	0.00	0.094	O	|	|	|	0.50
41.083	0.00	0.00	0.094	O	|	|	|	0.50
41.167	0.00	0.00	0.094	O	|	|	|	0.50
41.250	0.00	0.00	0.094	O	|	|	|	0.50

Remaining water in basin = 0.09 (Ac.Ft)

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

Number of intervals = 495
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.211 (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

Study date: 08/24/22

A21626 DMA 1 5YR-3HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA1Q100UH35.rte
**********HYDROGRAPH DATA**********
Number of intervals = 39
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 5.667 (CFS)
Total volume = 0.475 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.00(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.50(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   4.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   1.00(Ft.)    Capacity =   6.28(CFS)

Total outflow at this depth =      6.48(CFS)

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Total number of inflow hydrograph intervals = 39
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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
0.500	0.093	0.000	0.093	0.093
1.000	0.197	0.196	0.196	0.198
1.500	0.313	0.196	0.312	0.314
2.000	0.440	0.196	0.439	0.441
2.500	0.580	0.196	0.579	0.581
3.000	0.732	0.196	0.731	0.733
3.500	0.897	0.196	0.896	0.898
4.000	1.075	4.639	1.059	1.091
4.500	1.267	6.480	1.245	1.289

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 1.4 2.83 4.25 5.67	Depth (Ft.)
0.083	0.45	0.00	0.002	O I	0.01
0.167	0.80	0.00	0.006	O I	0.03
0.250	0.79	0.00	0.011	O I	0.06
0.333	0.89	0.00	0.017	O I	0.09
0.417	0.99	0.00	0.024	O I	0.13
0.500	1.11	0.00	0.031	O I	0.17
0.583	1.09	0.00	0.038	O I	0.21
0.667	1.13	0.00	0.046	O I	0.25
0.750	1.20	0.00	0.054	O I	0.29
0.833	1.10	0.00	0.062	O I	0.33
0.917	1.06	0.00	0.069	O I	0.37
1.000	1.14	0.00	0.077	O I	0.41
1.083	1.34	0.00	0.085	O I	0.46
1.167	1.45	0.00	0.095	O I	0.51
1.250	1.47	0.02	0.105	O I	0.56
1.333	1.41	0.04	0.115	O I	0.60
1.417	1.56	0.06	0.125	O I	0.65
1.500	1.75	0.08	0.136	O I	0.70
1.583	1.70	0.10	0.147	O I	0.76

1.667	1.73	0.12	0.158	O	|I	|	|	|	0.81
1.750	2.01	0.15	0.170	O	| I	|	|	|	0.87
1.833	2.11	0.17	0.183	O	| I	|	|	|	0.93
1.917	2.02	0.19	0.196	|O	| I	|	|	|	0.99
2.000	2.00	0.20	0.208	|O	| I	|	|	|	1.05
2.083	2.05	0.20	0.221	|O	| I	|	|	|	1.10
2.167	2.46	0.20	0.235	|O	| I	|	|	|	1.16
2.250	3.05	0.20	0.253	|O	| |I	|	|	|	1.24
2.333	2.80	0.20	0.272	|O	| I|	|	|	|	1.32
2.417	3.76	0.20	0.293	|O	| | I	|	|	|	1.41
2.500	4.95	0.20	0.321	|O	| |	I |	|	|	1.53
2.583	5.67	0.20	0.357	|O	| |	|	| I|	|	1.67
2.667	5.04	0.20	0.392	|O	| |	| I	|	|	1.81
2.750	2.87	0.20	0.418	|O	| I	|	|	|	1.91
2.833	1.56	0.20	0.432	|O	I |	|	|	|	1.97
2.917	1.28	0.20	0.440	|O	I|	|	|	|	2.00
3.000	0.80	0.20	0.446	|O I	|	|	|	|	2.02
3.083	0.27	0.20	0.448	|O	|	|	|	|	2.03
3.167	0.05	0.20	0.448	IO	|	|	|	|	2.03
3.250	0.01	0.20	0.447	IO	|	|	|	|	2.03
3.333	0.00	0.20	0.446	IO	|	|	|	|	2.02
3.417	0.00	0.20	0.444	IO	|	|	|	|	2.02
3.500	0.00	0.20	0.443	IO	|	|	|	|	2.01
3.583	0.00	0.20	0.442	IO	|	|	|	|	2.01
3.667	0.00	0.20	0.440	IO	|	|	|	|	2.00
3.750	0.00	0.20	0.439	IO	|	|	|	|	2.00
3.833	0.00	0.20	0.438	IO	|	|	|	|	1.99
3.917	0.00	0.20	0.436	IO	|	|	|	|	1.99
4.000	0.00	0.20	0.435	IO	|	|	|	|	1.98
4.083	0.00	0.20	0.434	IO	|	|	|	|	1.97
4.167	0.00	0.20	0.432	IO	|	|	|	|	1.97
4.250	0.00	0.20	0.431	IO	|	|	|	|	1.96
4.333	0.00	0.20	0.430	IO	|	|	|	|	1.96
4.417	0.00	0.20	0.428	IO	|	|	|	|	1.95
4.500	0.00	0.20	0.427	IO	|	|	|	|	1.95
4.583	0.00	0.20	0.425	IO	|	|	|	|	1.94
4.667	0.00	0.20	0.424	IO	|	|	|	|	1.94
4.750	0.00	0.20	0.423	IO	|	|	|	|	1.93
4.833	0.00	0.20	0.421	IO	|	|	|	|	1.93
4.917	0.00	0.20	0.420	IO	|	|	|	|	1.92
5.000	0.00	0.20	0.419	IO	|	|	|	|	1.92
5.083	0.00	0.20	0.417	IO	|	|	|	|	1.91
5.167	0.00	0.20	0.416	IO	|	|	|	|	1.91
5.250	0.00	0.20	0.415	IO	|	|	|	|	1.90
5.333	0.00	0.20	0.413	IO	|	|	|	|	1.89
5.417	0.00	0.20	0.412	IO	|	|	|	|	1.89
5.500	0.00	0.20	0.411	IO	|	|	|	|	1.88
5.583	0.00	0.20	0.409	IO	|	|	|	|	1.88
5.667	0.00	0.20	0.408	IO	|	|	|	|	1.87
5.750	0.00	0.20	0.407	IO	|	|	|	|	1.87

5.833	0.00	0.20	0.405	IO				1.86
5.917	0.00	0.20	0.404	IO				1.86
6.000	0.00	0.20	0.402	IO				1.85
6.083	0.00	0.20	0.401	IO				1.85
6.167	0.00	0.20	0.400	IO				1.84
6.250	0.00	0.20	0.398	IO				1.84
6.333	0.00	0.20	0.397	IO				1.83
6.417	0.00	0.20	0.396	IO				1.83
6.500	0.00	0.20	0.394	IO				1.82
6.583	0.00	0.20	0.393	IO				1.82
6.667	0.00	0.20	0.392	IO				1.81
6.750	0.00	0.20	0.390	IO				1.80
6.833	0.00	0.20	0.389	IO				1.80
6.917	0.00	0.20	0.388	IO				1.79
7.000	0.00	0.20	0.386	IO				1.79
7.083	0.00	0.20	0.385	IO				1.78
7.167	0.00	0.20	0.384	IO				1.78
7.250	0.00	0.20	0.382	IO				1.77
7.333	0.00	0.20	0.381	IO				1.77
7.417	0.00	0.20	0.379	IO				1.76
7.500	0.00	0.20	0.378	IO				1.76
7.583	0.00	0.20	0.377	IO				1.75
7.667	0.00	0.20	0.375	IO				1.75
7.750	0.00	0.20	0.374	IO				1.74
7.833	0.00	0.20	0.373	IO				1.74
7.917	0.00	0.20	0.371	IO				1.73
8.000	0.00	0.20	0.370	IO				1.72
8.083	0.00	0.20	0.369	IO				1.72
8.167	0.00	0.20	0.367	IO				1.71
8.250	0.00	0.20	0.366	IO				1.71
8.333	0.00	0.20	0.365	IO				1.70
8.417	0.00	0.20	0.363	IO				1.70
8.500	0.00	0.20	0.362	IO				1.69
8.583	0.00	0.20	0.361	IO				1.69
8.667	0.00	0.20	0.359	IO				1.68
8.750	0.00	0.20	0.358	IO				1.68
8.833	0.00	0.20	0.357	IO				1.67
8.917	0.00	0.20	0.355	IO				1.67
9.000	0.00	0.20	0.354	IO				1.66
9.083	0.00	0.20	0.352	IO				1.66
9.167	0.00	0.20	0.351	IO				1.65
9.250	0.00	0.20	0.350	IO				1.64
9.333	0.00	0.20	0.348	IO				1.64
9.417	0.00	0.20	0.347	IO				1.63
9.500	0.00	0.20	0.346	IO				1.63
9.583	0.00	0.20	0.344	IO				1.62
9.667	0.00	0.20	0.343	IO				1.62
9.750	0.00	0.20	0.342	IO				1.61
9.833	0.00	0.20	0.340	IO				1.61
9.917	0.00	0.20	0.339	IO				1.60

10.000	0.00	0.20	0.338	IO				1.60
10.083	0.00	0.20	0.336	IO				1.59
10.167	0.00	0.20	0.335	IO				1.59
10.250	0.00	0.20	0.334	IO				1.58
10.333	0.00	0.20	0.332	IO				1.58
10.417	0.00	0.20	0.331	IO				1.57
10.500	0.00	0.20	0.329	IO				1.56
10.583	0.00	0.20	0.328	IO				1.56
10.667	0.00	0.20	0.327	IO				1.55
10.750	0.00	0.20	0.325	IO				1.55
10.833	0.00	0.20	0.324	IO				1.54
10.917	0.00	0.20	0.323	IO				1.54
11.000	0.00	0.20	0.321	IO				1.53
11.083	0.00	0.20	0.320	IO				1.53
11.167	0.00	0.20	0.319	IO				1.52
11.250	0.00	0.20	0.317	IO				1.52
11.333	0.00	0.20	0.316	IO				1.51
11.417	0.00	0.20	0.315	IO				1.51
11.500	0.00	0.20	0.313	IO				1.50
11.583	0.00	0.20	0.312	IO				1.50
11.667	0.00	0.20	0.311	IO				1.49
11.750	0.00	0.20	0.309	IO				1.48
11.833	0.00	0.20	0.308	IO				1.48
11.917	0.00	0.20	0.306	IO				1.47
12.000	0.00	0.20	0.305	IO				1.47
12.083	0.00	0.20	0.304	IO				1.46
12.167	0.00	0.20	0.302	IO				1.45
12.250	0.00	0.20	0.301	IO				1.45
12.333	0.00	0.20	0.300	IO				1.44
12.417	0.00	0.20	0.298	IO				1.44
12.500	0.00	0.20	0.297	IO				1.43
12.583	0.00	0.20	0.296	IO				1.43
12.667	0.00	0.20	0.294	IO				1.42
12.750	0.00	0.20	0.293	IO				1.41
12.833	0.00	0.20	0.292	IO				1.41
12.917	0.00	0.20	0.290	IO				1.40
13.000	0.00	0.20	0.289	IO				1.40
13.083	0.00	0.20	0.288	IO				1.39
13.167	0.00	0.20	0.286	IO				1.38
13.250	0.00	0.20	0.285	IO				1.38
13.333	0.00	0.20	0.283	IO				1.37
13.417	0.00	0.20	0.282	IO				1.37
13.500	0.00	0.20	0.281	IO				1.36
13.583	0.00	0.20	0.279	IO				1.36
13.667	0.00	0.20	0.278	IO				1.35
13.750	0.00	0.20	0.277	IO				1.34
13.833	0.00	0.20	0.275	IO				1.34
13.917	0.00	0.20	0.274	IO				1.33
14.000	0.00	0.20	0.273	IO				1.33
14.083	0.00	0.20	0.271	IO				1.32

14.167	0.00	0.20	0.270	IO				1.31
14.250	0.00	0.20	0.269	IO				1.31
14.333	0.00	0.20	0.267	IO				1.30
14.417	0.00	0.20	0.266	IO				1.30
14.500	0.00	0.20	0.265	IO				1.29
14.583	0.00	0.20	0.263	IO				1.29
14.667	0.00	0.20	0.262	IO				1.28
14.750	0.00	0.20	0.260	IO				1.27
14.833	0.00	0.20	0.259	IO				1.27
14.917	0.00	0.20	0.258	IO				1.26
15.000	0.00	0.20	0.256	IO				1.26
15.083	0.00	0.20	0.255	IO				1.25
15.167	0.00	0.20	0.254	IO				1.24
15.250	0.00	0.20	0.252	IO				1.24
15.333	0.00	0.20	0.251	IO				1.23
15.417	0.00	0.20	0.250	IO				1.23
15.500	0.00	0.20	0.248	IO				1.22
15.583	0.00	0.20	0.247	IO				1.22
15.667	0.00	0.20	0.246	IO				1.21
15.750	0.00	0.20	0.244	IO				1.20
15.833	0.00	0.20	0.243	IO				1.20
15.917	0.00	0.20	0.242	IO				1.19
16.000	0.00	0.20	0.240	IO				1.19
16.083	0.00	0.20	0.239	IO				1.18
16.167	0.00	0.20	0.238	IO				1.17
16.250	0.00	0.20	0.236	IO				1.17
16.333	0.00	0.20	0.235	IO				1.16
16.417	0.00	0.20	0.233	IO				1.16
16.500	0.00	0.20	0.232	IO				1.15
16.583	0.00	0.20	0.231	IO				1.15
16.667	0.00	0.20	0.229	IO				1.14
16.750	0.00	0.20	0.228	IO				1.13
16.833	0.00	0.20	0.227	IO				1.13
16.917	0.00	0.20	0.225	IO				1.12
17.000	0.00	0.20	0.224	IO				1.12
17.083	0.00	0.20	0.223	IO				1.11
17.167	0.00	0.20	0.221	IO				1.10
17.250	0.00	0.20	0.220	IO				1.10
17.333	0.00	0.20	0.219	IO				1.09
17.417	0.00	0.20	0.217	IO				1.09
17.500	0.00	0.20	0.216	IO				1.08
17.583	0.00	0.20	0.215	IO				1.08
17.667	0.00	0.20	0.213	IO				1.07
17.750	0.00	0.20	0.212	IO				1.06
17.833	0.00	0.20	0.210	IO				1.06
17.917	0.00	0.20	0.209	IO				1.05
18.000	0.00	0.20	0.208	IO				1.05
18.083	0.00	0.20	0.206	IO				1.04
18.167	0.00	0.20	0.205	IO				1.03
18.250	0.00	0.20	0.204	IO				1.03

18.333	0.00	0.20	0.202	IO				1.02
18.417	0.00	0.20	0.201	IO				1.02
18.500	0.00	0.20	0.200	IO				1.01
18.583	0.00	0.20	0.198	IO				1.01
18.667	0.00	0.20	0.197	IO				1.00
18.750	0.00	0.19	0.196	IO				0.99
18.833	0.00	0.19	0.194	IO				0.99
18.917	0.00	0.19	0.193	IO				0.98
19.000	0.00	0.19	0.192	IO				0.97
19.083	0.00	0.18	0.190	IO				0.97
19.167	0.00	0.18	0.189	IO				0.96
19.250	0.00	0.18	0.188	IO				0.96
19.333	0.00	0.18	0.187	O				0.95
19.417	0.00	0.17	0.185	O				0.94
19.500	0.00	0.17	0.184	O				0.94
19.583	0.00	0.17	0.183	O				0.93
19.667	0.00	0.17	0.182	O				0.93
19.750	0.00	0.17	0.181	O				0.92
19.833	0.00	0.16	0.180	O				0.92
19.917	0.00	0.16	0.179	O				0.91
20.000	0.00	0.16	0.177	O				0.91
20.083	0.00	0.16	0.176	O				0.90
20.167	0.00	0.16	0.175	O				0.90
20.250	0.00	0.15	0.174	O				0.89
20.333	0.00	0.15	0.173	O				0.89
20.417	0.00	0.15	0.172	O				0.88
20.500	0.00	0.15	0.171	O				0.88
20.583	0.00	0.15	0.170	O				0.87
20.667	0.00	0.14	0.169	O				0.87
20.750	0.00	0.14	0.168	O				0.86
20.833	0.00	0.14	0.167	O				0.86
20.917	0.00	0.14	0.166	O				0.85
21.000	0.00	0.14	0.165	O				0.85
21.083	0.00	0.13	0.164	O				0.84
21.167	0.00	0.13	0.163	O				0.84
21.250	0.00	0.13	0.162	O				0.83
21.333	0.00	0.13	0.162	O				0.83
21.417	0.00	0.13	0.161	O				0.83
21.500	0.00	0.13	0.160	O				0.82
21.583	0.00	0.12	0.159	O				0.82
21.667	0.00	0.12	0.158	O				0.81
21.750	0.00	0.12	0.157	O				0.81
21.833	0.00	0.12	0.156	O				0.80
21.917	0.00	0.12	0.156	O				0.80
22.000	0.00	0.12	0.155	O				0.80
22.083	0.00	0.12	0.154	O				0.79
22.167	0.00	0.11	0.153	O				0.79
22.250	0.00	0.11	0.152	O				0.79
22.333	0.00	0.11	0.152	O				0.78
22.417	0.00	0.11	0.151	O				0.78

22.500	0.00	0.11	0.150	O				0.77
22.583	0.00	0.11	0.149	O				0.77
22.667	0.00	0.11	0.149	O				0.77
22.750	0.00	0.10	0.148	O				0.76
22.833	0.00	0.10	0.147	O				0.76
22.917	0.00	0.10	0.147	O				0.76
23.000	0.00	0.10	0.146	O				0.75
23.083	0.00	0.10	0.145	O				0.75
23.167	0.00	0.10	0.145	O				0.75
23.250	0.00	0.10	0.144	O				0.74
23.333	0.00	0.09	0.143	O				0.74
23.417	0.00	0.09	0.143	O				0.74
23.500	0.00	0.09	0.142	O				0.74
23.583	0.00	0.09	0.141	O				0.73
23.667	0.00	0.09	0.141	O				0.73
23.750	0.00	0.09	0.140	O				0.73
23.833	0.00	0.09	0.139	O				0.72
23.917	0.00	0.09	0.139	O				0.72
24.000	0.00	0.09	0.138	O				0.72
24.083	0.00	0.08	0.138	O				0.71
24.167	0.00	0.08	0.137	O				0.71
24.250	0.00	0.08	0.136	O				0.71
24.333	0.00	0.08	0.136	O				0.71
24.417	0.00	0.08	0.135	O				0.70
24.500	0.00	0.08	0.135	O				0.70
24.583	0.00	0.08	0.134	O				0.70
24.667	0.00	0.08	0.134	O				0.70
24.750	0.00	0.08	0.133	O				0.69
24.833	0.00	0.07	0.133	O				0.69
24.917	0.00	0.07	0.132	O				0.69
25.000	0.00	0.07	0.132	O				0.69
25.083	0.00	0.07	0.131	O				0.68
25.167	0.00	0.07	0.131	O				0.68
25.250	0.00	0.07	0.130	O				0.68
25.333	0.00	0.07	0.130	O				0.68
25.417	0.00	0.07	0.129	O				0.67
25.500	0.00	0.07	0.129	O				0.67
25.583	0.00	0.07	0.128	O				0.67
25.667	0.00	0.07	0.128	O				0.67
25.750	0.00	0.06	0.127	O				0.67
25.833	0.00	0.06	0.127	O				0.66
25.917	0.00	0.06	0.127	O				0.66
26.000	0.00	0.06	0.126	O				0.66
26.083	0.00	0.06	0.126	O				0.66
26.167	0.00	0.06	0.125	O				0.66
26.250	0.00	0.06	0.125	O				0.65
26.333	0.00	0.06	0.124	O				0.65
26.417	0.00	0.06	0.124	O				0.65
26.500	0.00	0.06	0.124	O				0.65
26.583	0.00	0.06	0.123	O				0.65

26.667	0.00	0.06	0.123	O	|	|	|	0.64
26.750	0.00	0.06	0.122	O	|	|	|	0.64
26.833	0.00	0.05	0.122	O	|	|	|	0.64
26.917	0.00	0.05	0.122	O	|	|	|	0.64
27.000	0.00	0.05	0.121	O	|	|	|	0.64
27.083	0.00	0.05	0.121	O	|	|	|	0.63
27.167	0.00	0.05	0.121	O	|	|	|	0.63
27.250	0.00	0.05	0.120	O	|	|	|	0.63
27.333	0.00	0.05	0.120	O	|	|	|	0.63
27.417	0.00	0.05	0.120	O	|	|	|	0.63
27.500	0.00	0.05	0.119	O	|	|	|	0.63
27.583	0.00	0.05	0.119	O	|	|	|	0.62
27.667	0.00	0.05	0.119	O	|	|	|	0.62
27.750	0.00	0.05	0.118	O	|	|	|	0.62
27.833	0.00	0.05	0.118	O	|	|	|	0.62
27.917	0.00	0.05	0.118	O	|	|	|	0.62
28.000	0.00	0.05	0.117	O	|	|	|	0.62
28.083	0.00	0.05	0.117	O	|	|	|	0.61
28.167	0.00	0.04	0.117	O	|	|	|	0.61
28.250	0.00	0.04	0.116	O	|	|	|	0.61
28.333	0.00	0.04	0.116	O	|	|	|	0.61
28.417	0.00	0.04	0.116	O	|	|	|	0.61
28.500	0.00	0.04	0.115	O	|	|	|	0.61
28.583	0.00	0.04	0.115	O	|	|	|	0.61
28.667	0.00	0.04	0.115	O	|	|	|	0.60
28.750	0.00	0.04	0.115	O	|	|	|	0.60
28.833	0.00	0.04	0.114	O	|	|	|	0.60
28.917	0.00	0.04	0.114	O	|	|	|	0.60
29.000	0.00	0.04	0.114	O	|	|	|	0.60
29.083	0.00	0.04	0.113	O	|	|	|	0.60
29.167	0.00	0.04	0.113	O	|	|	|	0.60
29.250	0.00	0.04	0.113	O	|	|	|	0.60
29.333	0.00	0.04	0.113	O	|	|	|	0.59
29.417	0.00	0.04	0.112	O	|	|	|	0.59
29.500	0.00	0.04	0.112	O	|	|	|	0.59
29.583	0.00	0.04	0.112	O	|	|	|	0.59
29.667	0.00	0.04	0.112	O	|	|	|	0.59
29.750	0.00	0.03	0.111	O	|	|	|	0.59
29.833	0.00	0.03	0.111	O	|	|	|	0.59
29.917	0.00	0.03	0.111	O	|	|	|	0.59
30.000	0.00	0.03	0.111	O	|	|	|	0.59
30.083	0.00	0.03	0.111	O	|	|	|	0.58
30.167	0.00	0.03	0.110	O	|	|	|	0.58
30.250	0.00	0.03	0.110	O	|	|	|	0.58
30.333	0.00	0.03	0.110	O	|	|	|	0.58
30.417	0.00	0.03	0.110	O	|	|	|	0.58
30.500	0.00	0.03	0.109	O	|	|	|	0.58
30.583	0.00	0.03	0.109	O	|	|	|	0.58
30.667	0.00	0.03	0.109	O	|	|	|	0.58
30.750	0.00	0.03	0.109	O	|	|	|	0.58

30.833	0.00	0.03	0.109	O	|	|	|	0.57
30.917	0.00	0.03	0.108	O	|	|	|	0.57
31.000	0.00	0.03	0.108	O	|	|	|	0.57
31.083	0.00	0.03	0.108	O	|	|	|	0.57
31.167	0.00	0.03	0.108	O	|	|	|	0.57
31.250	0.00	0.03	0.108	O	|	|	|	0.57
31.333	0.00	0.03	0.107	O	|	|	|	0.57
31.417	0.00	0.03	0.107	O	|	|	|	0.57
31.500	0.00	0.03	0.107	O	|	|	|	0.57
31.583	0.00	0.03	0.107	O	|	|	|	0.57
31.667	0.00	0.03	0.107	O	|	|	|	0.57
31.750	0.00	0.03	0.106	O	|	|	|	0.56
31.833	0.00	0.03	0.106	O	|	|	|	0.56
31.917	0.00	0.02	0.106	O	|	|	|	0.56
32.000	0.00	0.02	0.106	O	|	|	|	0.56
32.083	0.00	0.02	0.106	O	|	|	|	0.56
32.167	0.00	0.02	0.106	O	|	|	|	0.56
32.250	0.00	0.02	0.105	O	|	|	|	0.56
32.333	0.00	0.02	0.105	O	|	|	|	0.56
32.417	0.00	0.02	0.105	O	|	|	|	0.56
32.500	0.00	0.02	0.105	O	|	|	|	0.56
32.583	0.00	0.02	0.105	O	|	|	|	0.56
32.667	0.00	0.02	0.105	O	|	|	|	0.56
32.750	0.00	0.02	0.105	O	|	|	|	0.56
32.833	0.00	0.02	0.104	O	|	|	|	0.55
32.917	0.00	0.02	0.104	O	|	|	|	0.55
33.000	0.00	0.02	0.104	O	|	|	|	0.55
33.083	0.00	0.02	0.104	O	|	|	|	0.55
33.167	0.00	0.02	0.104	O	|	|	|	0.55
33.250	0.00	0.02	0.104	O	|	|	|	0.55
33.333	0.00	0.02	0.104	O	|	|	|	0.55
33.417	0.00	0.02	0.103	O	|	|	|	0.55
33.500	0.00	0.02	0.103	O	|	|	|	0.55
33.583	0.00	0.02	0.103	O	|	|	|	0.55
33.667	0.00	0.02	0.103	O	|	|	|	0.55
33.750	0.00	0.02	0.103	O	|	|	|	0.55
33.833	0.00	0.02	0.103	O	|	|	|	0.55
33.917	0.00	0.02	0.103	O	|	|	|	0.55
34.000	0.00	0.02	0.103	O	|	|	|	0.55
34.083	0.00	0.02	0.102	O	|	|	|	0.55
34.167	0.00	0.02	0.102	O	|	|	|	0.54
34.250	0.00	0.02	0.102	O	|	|	|	0.54
34.333	0.00	0.02	0.102	O	|	|	|	0.54
34.417	0.00	0.02	0.102	O	|	|	|	0.54
34.500	0.00	0.02	0.102	O	|	|	|	0.54
34.583	0.00	0.02	0.102	O	|	|	|	0.54
34.667	0.00	0.02	0.102	O	|	|	|	0.54
34.750	0.00	0.02	0.101	O	|	|	|	0.54
34.833	0.00	0.02	0.101	O	|	|	|	0.54
34.917	0.00	0.02	0.101	O	|	|	|	0.54

35.000	0.00	0.02	0.101	O	|	|	|	0.54
35.083	0.00	0.02	0.101	O	|	|	|	0.54
35.167	0.00	0.01	0.101	O	|	|	|	0.54
35.250	0.00	0.01	0.101	O	|	|	|	0.54
35.333	0.00	0.01	0.101	O	|	|	|	0.54
35.417	0.00	0.01	0.101	O	|	|	|	0.54
35.500	0.00	0.01	0.101	O	|	|	|	0.54
35.583	0.00	0.01	0.100	O	|	|	|	0.54
35.667	0.00	0.01	0.100	O	|	|	|	0.54
35.750	0.00	0.01	0.100	O	|	|	|	0.53
35.833	0.00	0.01	0.100	O	|	|	|	0.53
35.917	0.00	0.01	0.100	O	|	|	|	0.53
36.000	0.00	0.01	0.100	O	|	|	|	0.53
36.083	0.00	0.01	0.100	O	|	|	|	0.53
36.167	0.00	0.01	0.100	O	|	|	|	0.53
36.250	0.00	0.01	0.100	O	|	|	|	0.53
36.333	0.00	0.01	0.100	O	|	|	|	0.53
36.417	0.00	0.01	0.100	O	|	|	|	0.53
36.500	0.00	0.01	0.099	O	|	|	|	0.53
36.583	0.00	0.01	0.099	O	|	|	|	0.53
36.667	0.00	0.01	0.099	O	|	|	|	0.53
36.750	0.00	0.01	0.099	O	|	|	|	0.53
36.833	0.00	0.01	0.099	O	|	|	|	0.53
36.917	0.00	0.01	0.099	O	|	|	|	0.53
37.000	0.00	0.01	0.099	O	|	|	|	0.53
37.083	0.00	0.01	0.099	O	|	|	|	0.53
37.167	0.00	0.01	0.099	O	|	|	|	0.53
37.250	0.00	0.01	0.099	O	|	|	|	0.53
37.333	0.00	0.01	0.099	O	|	|	|	0.53
37.417	0.00	0.01	0.099	O	|	|	|	0.53
37.500	0.00	0.01	0.099	O	|	|	|	0.53
37.583	0.00	0.01	0.098	O	|	|	|	0.53
37.667	0.00	0.01	0.098	O	|	|	|	0.53
37.750	0.00	0.01	0.098	O	|	|	|	0.53
37.833	0.00	0.01	0.098	O	|	|	|	0.53
37.917	0.00	0.01	0.098	O	|	|	|	0.52
38.000	0.00	0.01	0.098	O	|	|	|	0.52
38.083	0.00	0.01	0.098	O	|	|	|	0.52
38.167	0.00	0.01	0.098	O	|	|	|	0.52
38.250	0.00	0.01	0.098	O	|	|	|	0.52
38.333	0.00	0.01	0.098	O	|	|	|	0.52
38.417	0.00	0.01	0.098	O	|	|	|	0.52
38.500	0.00	0.01	0.098	O	|	|	|	0.52
38.583	0.00	0.01	0.098	O	|	|	|	0.52
38.667	0.00	0.01	0.098	O	|	|	|	0.52
38.750	0.00	0.01	0.098	O	|	|	|	0.52
38.833	0.00	0.01	0.097	O	|	|	|	0.52
38.917	0.00	0.01	0.097	O	|	|	|	0.52
39.000	0.00	0.01	0.097	O	|	|	|	0.52
39.083	0.00	0.01	0.097	O	|	|	|	0.52

39.167	0.00	0.01	0.097	O	|	|	|	0.52
39.250	0.00	0.01	0.097	O	|	|	|	0.52
39.333	0.00	0.01	0.097	O	|	|	|	0.52
39.417	0.00	0.01	0.097	O	|	|	|	0.52
39.500	0.00	0.01	0.097	O	|	|	|	0.52
39.583	0.00	0.01	0.097	O	|	|	|	0.52
39.667	0.00	0.01	0.097	O	|	|	|	0.52
39.750	0.00	0.01	0.097	O	|	|	|	0.52
39.833	0.00	0.01	0.097	O	|	|	|	0.52
39.917	0.00	0.01	0.097	O	|	|	|	0.52
40.000	0.00	0.01	0.097	O	|	|	|	0.52
40.083	0.00	0.01	0.097	O	|	|	|	0.52
40.167	0.00	0.01	0.097	O	|	|	|	0.52
40.250	0.00	0.01	0.097	O	|	|	|	0.52
40.333	0.00	0.01	0.097	O	|	|	|	0.52
40.417	0.00	0.01	0.096	O	|	|	|	0.52
40.500	0.00	0.01	0.096	O	|	|	|	0.52
40.583	0.00	0.01	0.096	O	|	|	|	0.52
40.667	0.00	0.01	0.096	O	|	|	|	0.52
40.750	0.00	0.01	0.096	O	|	|	|	0.52
40.833	0.00	0.01	0.096	O	|	|	|	0.52
40.917	0.00	0.01	0.096	O	|	|	|	0.52
41.000	0.00	0.01	0.096	O	|	|	|	0.52
41.083	0.00	0.01	0.096	O	|	|	|	0.52
41.167	0.00	0.01	0.096	O	|	|	|	0.51
41.250	0.00	0.01	0.096	O	|	|	|	0.51
41.333	0.00	0.01	0.096	O	|	|	|	0.51
41.417	0.00	0.01	0.096	O	|	|	|	0.51
41.500	0.00	0.01	0.096	O	|	|	|	0.51
41.583	0.00	0.01	0.096	O	|	|	|	0.51
41.667	0.00	0.01	0.096	O	|	|	|	0.51
41.750	0.00	0.01	0.096	O	|	|	|	0.51
41.833	0.00	0.01	0.096	O	|	|	|	0.51
41.917	0.00	0.01	0.096	O	|	|	|	0.51
42.000	0.00	0.01	0.096	O	|	|	|	0.51
42.083	0.00	0.01	0.096	O	|	|	|	0.51
42.167	0.00	0.01	0.096	O	|	|	|	0.51
42.250	0.00	0.00	0.096	O	|	|	|	0.51
42.333	0.00	0.00	0.096	O	|	|	|	0.51
42.417	0.00	0.00	0.096	O	|	|	|	0.51
42.500	0.00	0.00	0.096	O	|	|	|	0.51
42.583	0.00	0.00	0.095	O	|	|	|	0.51
42.667	0.00	0.00	0.095	O	|	|	|	0.51
42.750	0.00	0.00	0.095	O	|	|	|	0.51
42.833	0.00	0.00	0.095	O	|	|	|	0.51
42.917	0.00	0.00	0.095	O	|	|	|	0.51
43.000	0.00	0.00	0.095	O	|	|	|	0.51
43.083	0.00	0.00	0.095	O	|	|	|	0.51
43.167	0.00	0.00	0.095	O	|	|	|	0.51
43.250	0.00	0.00	0.095	O	|	|	|	0.51

43.333	0.00	0.00	0.095	O	|	|	|	0.51
43.417	0.00	0.00	0.095	O	|	|	|	0.51
43.500	0.00	0.00	0.095	O	|	|	|	0.51
43.583	0.00	0.00	0.095	O	|	|	|	0.51
43.667	0.00	0.00	0.095	O	|	|	|	0.51
43.750	0.00	0.00	0.095	O	|	|	|	0.51
43.833	0.00	0.00	0.095	O	|	|	|	0.51
43.917	0.00	0.00	0.095	O	|	|	|	0.51
44.000	0.00	0.00	0.095	O	|	|	|	0.51
44.083	0.00	0.00	0.095	O	|	|	|	0.51
44.167	0.00	0.00	0.095	O	|	|	|	0.51
44.250	0.00	0.00	0.095	O	|	|	|	0.51
44.333	0.00	0.00	0.095	O	|	|	|	0.51
44.417	0.00	0.00	0.095	O	|	|	|	0.51
44.500	0.00	0.00	0.095	O	|	|	|	0.51
44.583	0.00	0.00	0.095	O	|	|	|	0.51
44.667	0.00	0.00	0.095	O	|	|	|	0.51
44.750	0.00	0.00	0.095	O	|	|	|	0.51
44.833	0.00	0.00	0.095	O	|	|	|	0.51
44.917	0.00	0.00	0.095	O	|	|	|	0.51
45.000	0.00	0.00	0.095	O	|	|	|	0.51
45.083	0.00	0.00	0.095	O	|	|	|	0.51
45.167	0.00	0.00	0.095	O	|	|	|	0.51
45.250	0.00	0.00	0.095	O	|	|	|	0.51
45.333	0.00	0.00	0.095	O	|	|	|	0.51
45.417	0.00	0.00	0.095	O	|	|	|	0.51
45.500	0.00	0.00	0.095	O	|	|	|	0.51
45.583	0.00	0.00	0.095	O	|	|	|	0.51
45.667	0.00	0.00	0.095	O	|	|	|	0.51
45.750	0.00	0.00	0.095	O	|	|	|	0.51
45.833	0.00	0.00	0.094	O	|	|	|	0.51
45.917	0.00	0.00	0.094	O	|	|	|	0.51
46.000	0.00	0.00	0.094	O	|	|	|	0.51
46.083	0.00	0.00	0.094	O	|	|	|	0.51
46.167	0.00	0.00	0.094	O	|	|	|	0.51
46.250	0.00	0.00	0.094	O	|	|	|	0.51
46.333	0.00	0.00	0.094	O	|	|	|	0.51
46.417	0.00	0.00	0.094	O	|	|	|	0.51
46.500	0.00	0.00	0.094	O	|	|	|	0.51
46.583	0.00	0.00	0.094	O	|	|	|	0.51
46.667	0.00	0.00	0.094	O	|	|	|	0.51
46.750	0.00	0.00	0.094	O	|	|	|	0.51
46.833	0.00	0.00	0.094	O	|	|	|	0.51
46.917	0.00	0.00	0.094	O	|	|	|	0.51
47.000	0.00	0.00	0.094	O	|	|	|	0.51
47.083	0.00	0.00	0.094	O	|	|	|	0.51
47.167	0.00	0.00	0.094	O	|	|	|	0.51
47.250	0.00	0.00	0.094	O	|	|	|	0.51
47.333	0.00	0.00	0.094	O	|	|	|	0.51
47.417	0.00	0.00	0.094	O	|	|	|	0.51

47.500	0.00	0.00	0.094	O	|	|	|	0.51
47.583	0.00	0.00	0.094	O	|	|	|	0.51
47.667	0.00	0.00	0.094	O	|	|	|	0.51
47.750	0.00	0.00	0.094	O	|	|	|	0.51
47.833	0.00	0.00	0.094	O	|	|	|	0.51
47.917	0.00	0.00	0.094	O	|	|	|	0.51
48.000	0.00	0.00	0.094	O	|	|	|	0.51
48.083	0.00	0.00	0.094	O	|	|	|	0.51
48.167	0.00	0.00	0.094	O	|	|	|	0.51
48.250	0.00	0.00	0.094	O	|	|	|	0.50
48.333	0.00	0.00	0.094	O	|	|	|	0.50
48.417	0.00	0.00	0.094	O	|	|	|	0.50
48.500	0.00	0.00	0.094	O	|	|	|	0.50
48.583	0.00	0.00	0.094	O	|	|	|	0.50
48.667	0.00	0.00	0.094	O	|	|	|	0.50
48.750	0.00	0.00	0.094	O	|	|	|	0.50
48.833	0.00	0.00	0.094	O	|	|	|	0.50
48.917	0.00	0.00	0.094	O	|	|	|	0.50
49.000	0.00	0.00	0.094	O	|	|	|	0.50
49.083	0.00	0.00	0.094	O	|	|	|	0.50
49.167	0.00	0.00	0.094	O	|	|	|	0.50
49.250	0.00	0.00	0.094	O	|	|	|	0.50
49.333	0.00	0.00	0.094	O	|	|	|	0.50
49.417	0.00	0.00	0.094	O	|	|	|	0.50
49.500	0.00	0.00	0.094	O	|	|	|	0.50
49.583	0.00	0.00	0.094	O	|	|	|	0.50
49.667	0.00	0.00	0.094	O	|	|	|	0.50
49.750	0.00	0.00	0.094	O	|	|	|	0.50
49.833	0.00	0.00	0.094	O	|	|	|	0.50
49.917	0.00	0.00	0.094	O	|	|	|	0.50
50.000	0.00	0.00	0.094	O	|	|	|	0.50
50.083	0.00	0.00	0.094	O	|	|	|	0.50
50.167	0.00	0.00	0.094	O	|	|	|	0.50
50.250	0.00	0.00	0.094	O	|	|	|	0.50
50.333	0.00	0.00	0.094	O	|	|	|	0.50
50.417	0.00	0.00	0.094	O	|	|	|	0.50
50.500	0.00	0.00	0.094	O	|	|	|	0.50
50.583	0.00	0.00	0.094	O	|	|	|	0.50
50.667	0.00	0.00	0.094	O	|	|	|	0.50
50.750	0.00	0.00	0.094	O	|	|	|	0.50
50.833	0.00	0.00	0.094	O	|	|	|	0.50
50.917	0.00	0.00	0.094	O	|	|	|	0.50
51.000	0.00	0.00	0.094	O	|	|	|	0.50
51.083	0.00	0.00	0.094	O	|	|	|	0.50
51.167	0.00	0.00	0.094	O	|	|	|	0.50
51.250	0.00	0.00	0.094	O	|	|	|	0.50
51.333	0.00	0.00	0.094	O	|	|	|	0.50
51.417	0.00	0.00	0.094	O	|	|	|	0.50
51.500	0.00	0.00	0.094	O	|	|	|	0.50
51.583	0.00	0.00	0.094	O	|	|	|	0.50

51.667	0.00	0.00	0.094	O	|	|	|	|	0.50
51.750	0.00	0.00	0.094	O	|	|	|	|	0.50
51.833	0.00	0.00	0.094	O	|	|	|	|	0.50
51.917	0.00	0.00	0.094	O	|	|	|	|	0.50
52.000	0.00	0.00	0.094	O	|	|	|	|	0.50
52.083	0.00	0.00	0.094	O	|	|	|	|	0.50
52.167	0.00	0.00	0.094	O	|	|	|	|	0.50
52.250	0.00	0.00	0.094	O	|	|	|	|	0.50
52.333	0.00	0.00	0.094	O	|	|	|	|	0.50
52.417	0.00	0.00	0.094	O	|	|	|	|	0.50
52.500	0.00	0.00	0.094	O	|	|	|	|	0.50
52.583	0.00	0.00	0.094	O	|	|	|	|	0.50

Remaining water in basin = 0.09 (Ac.Ft)

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

Number of intervals = 631
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.381 (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

Study date: 08/24/22

A21626 DMA 1 5YR-6HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA1Q100UH65.rte
**********HYDROGRAPH DATA**********
Number of intervals = 75
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 5.179 (CFS)
Total volume = 0.650 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.00(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.50(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   4.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   1.00(Ft.)    Capacity =   6.28(CFS)

Total outflow at this depth =      6.48(CFS)

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Total number of inflow hydrograph intervals = 75
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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
0.500	0.093	0.000	0.093	0.093
1.000	0.197	0.196	0.196	0.198
1.500	0.313	0.196	0.312	0.314
2.000	0.440	0.196	0.439	0.441
2.500	0.580	0.196	0.579	0.581
3.000	0.732	0.196	0.731	0.733
3.500	0.897	0.196	0.896	0.898
4.000	1.075	4.639	1.059	1.091
4.500	1.267	6.480	1.245	1.289

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 1.3 2.59 3.88 5.18	Depth (Ft.)
0.083	0.24	0.00	0.001	OI	0.00
0.167	0.47	0.00	0.003	O I	0.02
0.250	0.54	0.00	0.007	O I	0.04
0.333	0.56	0.00	0.011	O I	0.06
0.417	0.56	0.00	0.014	O I	0.08
0.500	0.61	0.00	0.018	O I	0.10
0.583	0.64	0.00	0.023	O I	0.12
0.667	0.65	0.00	0.027	O I	0.15
0.750	0.65	0.00	0.032	O I	0.17
0.833	0.65	0.00	0.036	O I	0.19
0.917	0.65	0.00	0.041	O I	0.22
1.000	0.70	0.00	0.045	O I	0.24
1.083	0.74	0.00	0.050	O I	0.27
1.167	0.74	0.00	0.055	O I	0.30
1.250	0.75	0.00	0.061	O I	0.33
1.333	0.75	0.00	0.066	O I	0.35
1.417	0.75	0.00	0.071	O I	0.38
1.500	0.75	0.00	0.076	O I	0.41
1.583	0.75	0.00	0.081	O I	0.44

1.667	0.75	0.00	0.086	O	I	|	|	|	0.46
1.750	0.75	0.00	0.091	O	I	|	|	|	0.49
1.833	0.75	0.01	0.096	O	I	|	|	|	0.52
1.917	0.75	0.02	0.101	O	I	|	|	|	0.54
2.000	0.79	0.03	0.107	O	I	|	|	|	0.57
2.083	0.78	0.04	0.112	O	I	|	|	|	0.59
2.167	0.80	0.05	0.117	O	I	|	|	|	0.62
2.250	0.83	0.06	0.122	O	I	|	|	|	0.64
2.333	0.84	0.07	0.128	O	I	|	|	|	0.67
2.417	0.84	0.08	0.133	O	I	|	|	|	0.69
2.500	0.84	0.09	0.138	O	I	|	|	|	0.72
2.583	0.84	0.09	0.143	O	I	|	|	|	0.74
2.667	0.84	0.10	0.148	O	I	|	|	|	0.77
2.750	0.89	0.11	0.154	O	I	|	|	|	0.79
2.833	0.92	0.12	0.159	O	I	|	|	|	0.82
2.917	0.93	0.13	0.164	O	I	|	|	|	0.84
3.000	0.93	0.15	0.170	O	I	|	|	|	0.87
3.083	0.93	0.16	0.175	O	I	|	|	|	0.90
3.167	0.98	0.17	0.181	O	I	|	|	|	0.92
3.250	1.02	0.18	0.187	O	I	|	|	|	0.95
3.333	1.02	0.19	0.192	O	I	|	|	|	0.98
3.417	1.07	0.20	0.198	O	I	|	|	|	1.01
3.500	1.16	0.20	0.205	O	I	|	|	|	1.03
3.583	1.25	0.20	0.211	O	I	|	|	|	1.06
3.667	1.29	0.20	0.219	O	I	|	|	|	1.09
3.750	1.35	0.20	0.227	O	I	|	|	|	1.13
3.833	1.39	0.20	0.235	O	I	|	|	|	1.16
3.917	1.44	0.20	0.243	O	I	|	|	|	1.20
4.000	1.48	0.20	0.252	O	I	|	|	|	1.24
4.083	1.54	0.20	0.261	O	I	|	|	|	1.28
4.167	1.62	0.20	0.270	O	I	|	|	|	1.32
4.250	1.72	0.20	0.281	O	I	|	|	|	1.36
4.333	1.81	0.20	0.291	O	I	|	|	|	1.41
4.417	1.90	0.20	0.303	O	I	|	|	|	1.46
4.500	1.95	0.20	0.315	O	I	|	|	|	1.51
4.583	2.00	0.20	0.327	O	I	|	|	|	1.55
4.667	2.09	0.20	0.340	O	I	|	|	|	1.61
4.750	2.18	0.20	0.353	O	I	|	|	|	1.66
4.833	2.23	0.20	0.367	O	I	|	|	|	1.71
4.917	2.28	0.20	0.381	O	I	|	|	|	1.77
5.000	2.37	0.20	0.396	O	I	|	|	|	1.83
5.083	2.65	0.20	0.412	O	I	|	|	|	1.89
5.167	3.11	0.20	0.430	O	I	|	|	|	1.96
5.250	3.52	0.20	0.452	O	I	|	|	|	2.04
5.333	3.89	0.20	0.476	O	I	|	|	|	2.13
5.417	4.37	0.20	0.503	O	I	|	|	|	2.22
5.500	5.18	0.20	0.534	O	I	|	|	|	2.34
5.583	3.60	0.20	0.563	O	I	|	|	|	2.44
5.667	1.62	0.20	0.580	O	I	|	|	|	2.50
5.750	0.85	0.20	0.587	O	I	|	|	|	2.52

5.833	0.55	0.20	0.591	|O I				2.53
5.917	0.38	0.20	0.592	|OI				2.54
6.000	0.25	0.20	0.593	|O				2.54
6.083	0.10	0.20	0.593	IO				2.54
6.167	0.02	0.20	0.592	IO				2.54
6.250	0.00	0.20	0.591	IO				2.54
6.333	0.00	0.20	0.590	IO				2.53
6.417	0.00	0.20	0.588	IO				2.53
6.500	0.00	0.20	0.587	IO				2.52
6.583	0.00	0.20	0.586	IO				2.52
6.667	0.00	0.20	0.584	IO				2.51
6.750	0.00	0.20	0.583	IO				2.51
6.833	0.00	0.20	0.581	IO				2.50
6.917	0.00	0.20	0.580	IO				2.50
7.000	0.00	0.20	0.579	IO				2.50
7.083	0.00	0.20	0.577	IO				2.49
7.167	0.00	0.20	0.576	IO				2.49
7.250	0.00	0.20	0.575	IO				2.48
7.333	0.00	0.20	0.573	IO				2.48
7.417	0.00	0.20	0.572	IO				2.47
7.500	0.00	0.20	0.571	IO				2.47
7.583	0.00	0.20	0.569	IO				2.46
7.667	0.00	0.20	0.568	IO				2.46
7.750	0.00	0.20	0.567	IO				2.45
7.833	0.00	0.20	0.565	IO				2.45
7.917	0.00	0.20	0.564	IO				2.44
8.000	0.00	0.20	0.563	IO				2.44
8.083	0.00	0.20	0.561	IO				2.43
8.167	0.00	0.20	0.560	IO				2.43
8.250	0.00	0.20	0.558	IO				2.42
8.333	0.00	0.20	0.557	IO				2.42
8.417	0.00	0.20	0.556	IO				2.41
8.500	0.00	0.20	0.554	IO				2.41
8.583	0.00	0.20	0.553	IO				2.40
8.667	0.00	0.20	0.552	IO				2.40
8.750	0.00	0.20	0.550	IO				2.39
8.833	0.00	0.20	0.549	IO				2.39
8.917	0.00	0.20	0.548	IO				2.38
9.000	0.00	0.20	0.546	IO				2.38
9.083	0.00	0.20	0.545	IO				2.37
9.167	0.00	0.20	0.544	IO				2.37
9.250	0.00	0.20	0.542	IO				2.37
9.333	0.00	0.20	0.541	IO				2.36
9.417	0.00	0.20	0.540	IO				2.36
9.500	0.00	0.20	0.538	IO				2.35
9.583	0.00	0.20	0.537	IO				2.35
9.667	0.00	0.20	0.536	IO				2.34
9.750	0.00	0.20	0.534	IO				2.34
9.833	0.00	0.20	0.533	IO				2.33
9.917	0.00	0.20	0.531	IO				2.33

10.000	0.00	0.20	0.530	IO				2.32
10.083	0.00	0.20	0.529	IO				2.32
10.167	0.00	0.20	0.527	IO				2.31
10.250	0.00	0.20	0.526	IO				2.31
10.333	0.00	0.20	0.525	IO				2.30
10.417	0.00	0.20	0.523	IO				2.30
10.500	0.00	0.20	0.522	IO				2.29
10.583	0.00	0.20	0.521	IO				2.29
10.667	0.00	0.20	0.519	IO				2.28
10.750	0.00	0.20	0.518	IO				2.28
10.833	0.00	0.20	0.517	IO				2.27
10.917	0.00	0.20	0.515	IO				2.27
11.000	0.00	0.20	0.514	IO				2.26
11.083	0.00	0.20	0.513	IO				2.26
11.167	0.00	0.20	0.511	IO				2.25
11.250	0.00	0.20	0.510	IO				2.25
11.333	0.00	0.20	0.508	IO				2.24
11.417	0.00	0.20	0.507	IO				2.24
11.500	0.00	0.20	0.506	IO				2.23
11.583	0.00	0.20	0.504	IO				2.23
11.667	0.00	0.20	0.503	IO				2.23
11.750	0.00	0.20	0.502	IO				2.22
11.833	0.00	0.20	0.500	IO				2.22
11.917	0.00	0.20	0.499	IO				2.21
12.000	0.00	0.20	0.498	IO				2.21
12.083	0.00	0.20	0.496	IO				2.20
12.167	0.00	0.20	0.495	IO				2.20
12.250	0.00	0.20	0.494	IO				2.19
12.333	0.00	0.20	0.492	IO				2.19
12.417	0.00	0.20	0.491	IO				2.18
12.500	0.00	0.20	0.490	IO				2.18
12.583	0.00	0.20	0.488	IO				2.17
12.667	0.00	0.20	0.487	IO				2.17
12.750	0.00	0.20	0.485	IO				2.16
12.833	0.00	0.20	0.484	IO				2.16
12.917	0.00	0.20	0.483	IO				2.15
13.000	0.00	0.20	0.481	IO				2.15
13.083	0.00	0.20	0.480	IO				2.14
13.167	0.00	0.20	0.479	IO				2.14
13.250	0.00	0.20	0.477	IO				2.13
13.333	0.00	0.20	0.476	IO				2.13
13.417	0.00	0.20	0.475	IO				2.12
13.500	0.00	0.20	0.473	IO				2.12
13.583	0.00	0.20	0.472	IO				2.11
13.667	0.00	0.20	0.471	IO				2.11
13.750	0.00	0.20	0.469	IO				2.10
13.833	0.00	0.20	0.468	IO				2.10
13.917	0.00	0.20	0.467	IO				2.09
14.000	0.00	0.20	0.465	IO				2.09
14.083	0.00	0.20	0.464	IO				2.09

14.167	0.00	0.20	0.462	IO				2.08
14.250	0.00	0.20	0.461	IO				2.08
14.333	0.00	0.20	0.460	IO				2.07
14.417	0.00	0.20	0.458	IO				2.07
14.500	0.00	0.20	0.457	IO				2.06
14.583	0.00	0.20	0.456	IO				2.06
14.667	0.00	0.20	0.454	IO				2.05
14.750	0.00	0.20	0.453	IO				2.05
14.833	0.00	0.20	0.452	IO				2.04
14.917	0.00	0.20	0.450	IO				2.04
15.000	0.00	0.20	0.449	IO				2.03
15.083	0.00	0.20	0.448	IO				2.03
15.167	0.00	0.20	0.446	IO				2.02
15.250	0.00	0.20	0.445	IO				2.02
15.333	0.00	0.20	0.444	IO				2.01
15.417	0.00	0.20	0.442	IO				2.01
15.500	0.00	0.20	0.441	IO				2.00
15.583	0.00	0.20	0.439	IO				2.00
15.667	0.00	0.20	0.438	IO				1.99
15.750	0.00	0.20	0.437	IO				1.99
15.833	0.00	0.20	0.435	IO				1.98
15.917	0.00	0.20	0.434	IO				1.98
16.000	0.00	0.20	0.433	IO				1.97
16.083	0.00	0.20	0.431	IO				1.97
16.167	0.00	0.20	0.430	IO				1.96
16.250	0.00	0.20	0.429	IO				1.96
16.333	0.00	0.20	0.427	IO				1.95
16.417	0.00	0.20	0.426	IO				1.94
16.500	0.00	0.20	0.425	IO				1.94
16.583	0.00	0.20	0.423	IO				1.93
16.667	0.00	0.20	0.422	IO				1.93
16.750	0.00	0.20	0.421	IO				1.92
16.833	0.00	0.20	0.419	IO				1.92
16.917	0.00	0.20	0.418	IO				1.91
17.000	0.00	0.20	0.417	IO				1.91
17.083	0.00	0.20	0.415	IO				1.90
17.167	0.00	0.20	0.414	IO				1.90
17.250	0.00	0.20	0.412	IO				1.89
17.333	0.00	0.20	0.411	IO				1.89
17.417	0.00	0.20	0.410	IO				1.88
17.500	0.00	0.20	0.408	IO				1.88
17.583	0.00	0.20	0.407	IO				1.87
17.667	0.00	0.20	0.406	IO				1.86
17.750	0.00	0.20	0.404	IO				1.86
17.833	0.00	0.20	0.403	IO				1.85
17.917	0.00	0.20	0.402	IO				1.85
18.000	0.00	0.20	0.400	IO				1.84
18.083	0.00	0.20	0.399	IO				1.84
18.167	0.00	0.20	0.398	IO				1.83
18.250	0.00	0.20	0.396	IO				1.83

18.333	0.00	0.20	0.395	IO				1.82
18.417	0.00	0.20	0.394	IO				1.82
18.500	0.00	0.20	0.392	IO				1.81
18.583	0.00	0.20	0.391	IO				1.81
18.667	0.00	0.20	0.389	IO				1.80
18.750	0.00	0.20	0.388	IO				1.80
18.833	0.00	0.20	0.387	IO				1.79
18.917	0.00	0.20	0.385	IO				1.79
19.000	0.00	0.20	0.384	IO				1.78
19.083	0.00	0.20	0.383	IO				1.77
19.167	0.00	0.20	0.381	IO				1.77
19.250	0.00	0.20	0.380	IO				1.76
19.333	0.00	0.20	0.379	IO				1.76
19.417	0.00	0.20	0.377	IO				1.75
19.500	0.00	0.20	0.376	IO				1.75
19.583	0.00	0.20	0.375	IO				1.74
19.667	0.00	0.20	0.373	IO				1.74
19.750	0.00	0.20	0.372	IO				1.73
19.833	0.00	0.20	0.371	IO				1.73
19.917	0.00	0.20	0.369	IO				1.72
20.000	0.00	0.20	0.368	IO				1.72
20.083	0.00	0.20	0.366	IO				1.71
20.167	0.00	0.20	0.365	IO				1.71
20.250	0.00	0.20	0.364	IO				1.70
20.333	0.00	0.20	0.362	IO				1.69
20.417	0.00	0.20	0.361	IO				1.69
20.500	0.00	0.20	0.360	IO				1.68
20.583	0.00	0.20	0.358	IO				1.68
20.667	0.00	0.20	0.357	IO				1.67
20.750	0.00	0.20	0.356	IO				1.67
20.833	0.00	0.20	0.354	IO				1.66
20.917	0.00	0.20	0.353	IO				1.66
21.000	0.00	0.20	0.352	IO				1.65
21.083	0.00	0.20	0.350	IO				1.65
21.167	0.00	0.20	0.349	IO				1.64
21.250	0.00	0.20	0.348	IO				1.64
21.333	0.00	0.20	0.346	IO				1.63
21.417	0.00	0.20	0.345	IO				1.63
21.500	0.00	0.20	0.343	IO				1.62
21.583	0.00	0.20	0.342	IO				1.61
21.667	0.00	0.20	0.341	IO				1.61
21.750	0.00	0.20	0.339	IO				1.60
21.833	0.00	0.20	0.338	IO				1.60
21.917	0.00	0.20	0.337	IO				1.59
22.000	0.00	0.20	0.335	IO				1.59
22.083	0.00	0.20	0.334	IO				1.58
22.167	0.00	0.20	0.333	IO				1.58
22.250	0.00	0.20	0.331	IO				1.57
22.333	0.00	0.20	0.330	IO				1.57
22.417	0.00	0.20	0.329	IO				1.56

22.500	0.00	0.20	0.327	IO				1.56
22.583	0.00	0.20	0.326	IO				1.55
22.667	0.00	0.20	0.325	IO				1.55
22.750	0.00	0.20	0.323	IO				1.54
22.833	0.00	0.20	0.322	IO				1.53
22.917	0.00	0.20	0.320	IO				1.53
23.000	0.00	0.20	0.319	IO				1.52
23.083	0.00	0.20	0.318	IO				1.52
23.167	0.00	0.20	0.316	IO				1.51
23.250	0.00	0.20	0.315	IO				1.51
23.333	0.00	0.20	0.314	IO				1.50
23.417	0.00	0.20	0.312	IO				1.50
23.500	0.00	0.20	0.311	IO				1.49
23.583	0.00	0.20	0.310	IO				1.49
23.667	0.00	0.20	0.308	IO				1.48
23.750	0.00	0.20	0.307	IO				1.47
23.833	0.00	0.20	0.306	IO				1.47
23.917	0.00	0.20	0.304	IO				1.46
24.000	0.00	0.20	0.303	IO				1.46
24.083	0.00	0.20	0.302	IO				1.45
24.167	0.00	0.20	0.300	IO				1.44
24.250	0.00	0.20	0.299	IO				1.44
24.333	0.00	0.20	0.298	IO				1.43
24.417	0.00	0.20	0.296	IO				1.43
24.500	0.00	0.20	0.295	IO				1.42
24.583	0.00	0.20	0.293	IO				1.42
24.667	0.00	0.20	0.292	IO				1.41
24.750	0.00	0.20	0.291	IO				1.40
24.833	0.00	0.20	0.289	IO				1.40
24.917	0.00	0.20	0.288	IO				1.39
25.000	0.00	0.20	0.287	IO				1.39
25.083	0.00	0.20	0.285	IO				1.38
25.167	0.00	0.20	0.284	IO				1.37
25.250	0.00	0.20	0.283	IO				1.37
25.333	0.00	0.20	0.281	IO				1.36
25.417	0.00	0.20	0.280	IO				1.36
25.500	0.00	0.20	0.279	IO				1.35
25.583	0.00	0.20	0.277	IO				1.35
25.667	0.00	0.20	0.276	IO				1.34
25.750	0.00	0.20	0.275	IO				1.33
25.833	0.00	0.20	0.273	IO				1.33
25.917	0.00	0.20	0.272	IO				1.32
26.000	0.00	0.20	0.270	IO				1.32
26.083	0.00	0.20	0.269	IO				1.31
26.167	0.00	0.20	0.268	IO				1.30
26.250	0.00	0.20	0.266	IO				1.30
26.333	0.00	0.20	0.265	IO				1.29
26.417	0.00	0.20	0.264	IO				1.29
26.500	0.00	0.20	0.262	IO				1.28
26.583	0.00	0.20	0.261	IO				1.28

26.667	0.00	0.20	0.260	IO				1.27
26.750	0.00	0.20	0.258	IO				1.26
26.833	0.00	0.20	0.257	IO				1.26
26.917	0.00	0.20	0.256	IO				1.25
27.000	0.00	0.20	0.254	IO				1.25
27.083	0.00	0.20	0.253	IO				1.24
27.167	0.00	0.20	0.252	IO				1.24
27.250	0.00	0.20	0.250	IO				1.23
27.333	0.00	0.20	0.249	IO				1.22
27.417	0.00	0.20	0.247	IO				1.22
27.500	0.00	0.20	0.246	IO				1.21
27.583	0.00	0.20	0.245	IO				1.21
27.667	0.00	0.20	0.243	IO				1.20
27.750	0.00	0.20	0.242	IO				1.19
27.833	0.00	0.20	0.241	IO				1.19
27.917	0.00	0.20	0.239	IO				1.18
28.000	0.00	0.20	0.238	IO				1.18
28.083	0.00	0.20	0.237	IO				1.17
28.167	0.00	0.20	0.235	IO				1.17
28.250	0.00	0.20	0.234	IO				1.16
28.333	0.00	0.20	0.233	IO				1.15
28.417	0.00	0.20	0.231	IO				1.15
28.500	0.00	0.20	0.230	IO				1.14
28.583	0.00	0.20	0.229	IO				1.14
28.667	0.00	0.20	0.227	IO				1.13
28.750	0.00	0.20	0.226	IO				1.12
28.833	0.00	0.20	0.224	IO				1.12
28.917	0.00	0.20	0.223	IO				1.11
29.000	0.00	0.20	0.222	IO				1.11
29.083	0.00	0.20	0.220	IO				1.10
29.167	0.00	0.20	0.219	IO				1.10
29.250	0.00	0.20	0.218	IO				1.09
29.333	0.00	0.20	0.216	IO				1.08
29.417	0.00	0.20	0.215	IO				1.08
29.500	0.00	0.20	0.214	IO				1.07
29.583	0.00	0.20	0.212	IO				1.07
29.667	0.00	0.20	0.211	IO				1.06
29.750	0.00	0.20	0.210	IO				1.05
29.833	0.00	0.20	0.208	IO				1.05
29.917	0.00	0.20	0.207	IO				1.04
30.000	0.00	0.20	0.206	IO				1.04
30.083	0.00	0.20	0.204	IO				1.03
30.167	0.00	0.20	0.203	IO				1.03
30.250	0.00	0.20	0.201	IO				1.02
30.333	0.00	0.20	0.200	IO				1.01
30.417	0.00	0.20	0.199	IO				1.01
30.500	0.00	0.20	0.197	IO				1.00
30.583	0.00	0.19	0.196	IO				1.00
30.667	0.00	0.19	0.195	IO				0.99
30.750	0.00	0.19	0.193	IO				0.98

30.833	0.00	0.19	0.192	IO				0.98
30.917	0.00	0.18	0.191	IO				0.97
31.000	0.00	0.18	0.190	IO				0.96
31.083	0.00	0.18	0.188	IO				0.96
31.167	0.00	0.18	0.187	IO				0.95
31.250	0.00	0.18	0.186	IO				0.95
31.333	0.00	0.17	0.185	IO				0.94
31.417	0.00	0.17	0.184	IO				0.94
31.500	0.00	0.17	0.182	IO				0.93
31.583	0.00	0.17	0.181	IO				0.92
31.667	0.00	0.16	0.180	IO				0.92
31.750	0.00	0.16	0.179	IO				0.91
31.833	0.00	0.16	0.178	O				0.91
31.917	0.00	0.16	0.177	O				0.90
32.000	0.00	0.16	0.176	O				0.90
32.083	0.00	0.15	0.175	O				0.89
32.167	0.00	0.15	0.174	O				0.89
32.250	0.00	0.15	0.172	O				0.88
32.333	0.00	0.15	0.171	O				0.88
32.417	0.00	0.15	0.170	O				0.87
32.500	0.00	0.14	0.169	O				0.87
32.583	0.00	0.14	0.168	O				0.86
32.667	0.00	0.14	0.167	O				0.86
32.750	0.00	0.14	0.167	O				0.85
32.833	0.00	0.14	0.166	O				0.85
32.917	0.00	0.14	0.165	O				0.84
33.000	0.00	0.13	0.164	O				0.84
33.083	0.00	0.13	0.163	O				0.84
33.167	0.00	0.13	0.162	O				0.83
33.250	0.00	0.13	0.161	O				0.83
33.333	0.00	0.13	0.160	O				0.82
33.417	0.00	0.13	0.159	O				0.82
33.500	0.00	0.12	0.158	O				0.81
33.583	0.00	0.12	0.158	O				0.81
33.667	0.00	0.12	0.157	O				0.81
33.750	0.00	0.12	0.156	O				0.80
33.833	0.00	0.12	0.155	O				0.80
33.917	0.00	0.12	0.154	O				0.79
34.000	0.00	0.11	0.153	O				0.79
34.083	0.00	0.11	0.153	O				0.79
34.167	0.00	0.11	0.152	O				0.78
34.250	0.00	0.11	0.151	O				0.78
34.333	0.00	0.11	0.150	O				0.78
34.417	0.00	0.11	0.150	O				0.77
34.500	0.00	0.11	0.149	O				0.77
34.583	0.00	0.10	0.148	O				0.77
34.667	0.00	0.10	0.148	O				0.76
34.750	0.00	0.10	0.147	O				0.76
34.833	0.00	0.10	0.146	O				0.76
34.917	0.00	0.10	0.145	O				0.75

35.000	0.00	0.10	0.145	O				0.75
35.083	0.00	0.10	0.144	O				0.75
35.167	0.00	0.10	0.143	O				0.74
35.250	0.00	0.09	0.143	O				0.74
35.333	0.00	0.09	0.142	O				0.74
35.417	0.00	0.09	0.141	O				0.73
35.500	0.00	0.09	0.141	O				0.73
35.583	0.00	0.09	0.140	O				0.73
35.667	0.00	0.09	0.140	O				0.72
35.750	0.00	0.09	0.139	O				0.72
35.833	0.00	0.09	0.138	O				0.72
35.917	0.00	0.08	0.138	O				0.72
36.000	0.00	0.08	0.137	O				0.71
36.083	0.00	0.08	0.137	O				0.71
36.167	0.00	0.08	0.136	O				0.71
36.250	0.00	0.08	0.136	O				0.70
36.333	0.00	0.08	0.135	O				0.70
36.417	0.00	0.08	0.134	O				0.70
36.500	0.00	0.08	0.134	O				0.70
36.583	0.00	0.08	0.133	O				0.69
36.667	0.00	0.08	0.133	O				0.69
36.750	0.00	0.07	0.132	O				0.69
36.833	0.00	0.07	0.132	O				0.69
36.917	0.00	0.07	0.131	O				0.68
37.000	0.00	0.07	0.131	O				0.68
37.083	0.00	0.07	0.130	O				0.68
37.167	0.00	0.07	0.130	O				0.68
37.250	0.00	0.07	0.129	O				0.68
37.333	0.00	0.07	0.129	O				0.67
37.417	0.00	0.07	0.128	O				0.67
37.500	0.00	0.07	0.128	O				0.67
37.583	0.00	0.07	0.128	O				0.67
37.667	0.00	0.06	0.127	O				0.66
37.750	0.00	0.06	0.127	O				0.66
37.833	0.00	0.06	0.126	O				0.66
37.917	0.00	0.06	0.126	O				0.66
38.000	0.00	0.06	0.125	O				0.66
38.083	0.00	0.06	0.125	O				0.65
38.167	0.00	0.06	0.125	O				0.65
38.250	0.00	0.06	0.124	O				0.65
38.333	0.00	0.06	0.124	O				0.65
38.417	0.00	0.06	0.123	O				0.65
38.500	0.00	0.06	0.123	O				0.64
38.583	0.00	0.06	0.123	O				0.64
38.667	0.00	0.06	0.122	O				0.64
38.750	0.00	0.05	0.122	O				0.64
38.833	0.00	0.05	0.121	O				0.64
38.917	0.00	0.05	0.121	O				0.64
39.000	0.00	0.05	0.121	O				0.63
39.083	0.00	0.05	0.120	O				0.63

39.167	0.00	0.05	0.120	O	|	|	|	0.63
39.250	0.00	0.05	0.120	O	|	|	|	0.63
39.333	0.00	0.05	0.119	O	|	|	|	0.63
39.417	0.00	0.05	0.119	O	|	|	|	0.62
39.500	0.00	0.05	0.119	O	|	|	|	0.62
39.583	0.00	0.05	0.118	O	|	|	|	0.62
39.667	0.00	0.05	0.118	O	|	|	|	0.62
39.750	0.00	0.05	0.118	O	|	|	|	0.62
39.833	0.00	0.05	0.117	O	|	|	|	0.62
39.917	0.00	0.05	0.117	O	|	|	|	0.62
40.000	0.00	0.04	0.117	O	|	|	|	0.61
40.083	0.00	0.04	0.116	O	|	|	|	0.61
40.167	0.00	0.04	0.116	O	|	|	|	0.61
40.250	0.00	0.04	0.116	O	|	|	|	0.61
40.333	0.00	0.04	0.116	O	|	|	|	0.61
40.417	0.00	0.04	0.115	O	|	|	|	0.61
40.500	0.00	0.04	0.115	O	|	|	|	0.61
40.583	0.00	0.04	0.115	O	|	|	|	0.60
40.667	0.00	0.04	0.114	O	|	|	|	0.60
40.750	0.00	0.04	0.114	O	|	|	|	0.60
40.833	0.00	0.04	0.114	O	|	|	|	0.60
40.917	0.00	0.04	0.114	O	|	|	|	0.60
41.000	0.00	0.04	0.113	O	|	|	|	0.60
41.083	0.00	0.04	0.113	O	|	|	|	0.60
41.167	0.00	0.04	0.113	O	|	|	|	0.60
41.250	0.00	0.04	0.113	O	|	|	|	0.59
41.333	0.00	0.04	0.112	O	|	|	|	0.59
41.417	0.00	0.04	0.112	O	|	|	|	0.59
41.500	0.00	0.04	0.112	O	|	|	|	0.59
41.583	0.00	0.03	0.112	O	|	|	|	0.59
41.667	0.00	0.03	0.111	O	|	|	|	0.59
41.750	0.00	0.03	0.111	O	|	|	|	0.59
41.833	0.00	0.03	0.111	O	|	|	|	0.59
41.917	0.00	0.03	0.111	O	|	|	|	0.58
42.000	0.00	0.03	0.110	O	|	|	|	0.58
42.083	0.00	0.03	0.110	O	|	|	|	0.58
42.167	0.00	0.03	0.110	O	|	|	|	0.58
42.250	0.00	0.03	0.110	O	|	|	|	0.58
42.333	0.00	0.03	0.109	O	|	|	|	0.58
42.417	0.00	0.03	0.109	O	|	|	|	0.58
42.500	0.00	0.03	0.109	O	|	|	|	0.58
42.583	0.00	0.03	0.109	O	|	|	|	0.58
42.667	0.00	0.03	0.109	O	|	|	|	0.58
42.750	0.00	0.03	0.108	O	|	|	|	0.57
42.833	0.00	0.03	0.108	O	|	|	|	0.57
42.917	0.00	0.03	0.108	O	|	|	|	0.57
43.000	0.00	0.03	0.108	O	|	|	|	0.57
43.083	0.00	0.03	0.108	O	|	|	|	0.57
43.167	0.00	0.03	0.107	O	|	|	|	0.57
43.250	0.00	0.03	0.107	O	|	|	|	0.57

43.333	0.00	0.03	0.107	O				0.57
43.417	0.00	0.03	0.107	O				0.57
43.500	0.00	0.03	0.107	O				0.57
43.583	0.00	0.03	0.107	O				0.57
43.667	0.00	0.03	0.106	O				0.56
43.750	0.00	0.02	0.106	O				0.56
43.833	0.00	0.02	0.106	O				0.56
43.917	0.00	0.02	0.106	O				0.56
44.000	0.00	0.02	0.106	O				0.56
44.083	0.00	0.02	0.106	O				0.56
44.167	0.00	0.02	0.105	O				0.56
44.250	0.00	0.02	0.105	O				0.56
44.333	0.00	0.02	0.105	O				0.56
44.417	0.00	0.02	0.105	O				0.56
44.500	0.00	0.02	0.105	O				0.56
44.583	0.00	0.02	0.105	O				0.56
44.667	0.00	0.02	0.104	O				0.56
44.750	0.00	0.02	0.104	O				0.55
44.833	0.00	0.02	0.104	O				0.55
44.917	0.00	0.02	0.104	O				0.55
45.000	0.00	0.02	0.104	O				0.55
45.083	0.00	0.02	0.104	O				0.55
45.167	0.00	0.02	0.104	O				0.55
45.250	0.00	0.02	0.103	O				0.55
45.333	0.00	0.02	0.103	O				0.55
45.417	0.00	0.02	0.103	O				0.55
45.500	0.00	0.02	0.103	O				0.55
45.583	0.00	0.02	0.103	O				0.55
45.667	0.00	0.02	0.103	O				0.55
45.750	0.00	0.02	0.103	O				0.55
45.833	0.00	0.02	0.103	O				0.55
45.917	0.00	0.02	0.102	O				0.55
46.000	0.00	0.02	0.102	O				0.54
46.083	0.00	0.02	0.102	O				0.54
46.167	0.00	0.02	0.102	O				0.54
46.250	0.00	0.02	0.102	O				0.54
46.333	0.00	0.02	0.102	O				0.54
46.417	0.00	0.02	0.102	O				0.54
46.500	0.00	0.02	0.102	O				0.54
46.583	0.00	0.02	0.101	O				0.54
46.667	0.00	0.02	0.101	O				0.54
46.750	0.00	0.02	0.101	O				0.54
46.833	0.00	0.02	0.101	O				0.54
46.917	0.00	0.02	0.101	O				0.54
47.000	0.00	0.02	0.101	O				0.54
47.083	0.00	0.01	0.101	O				0.54
47.167	0.00	0.01	0.101	O				0.54
47.250	0.00	0.01	0.101	O				0.54
47.333	0.00	0.01	0.101	O				0.54
47.417	0.00	0.01	0.100	O				0.54

47.500	0.00	0.01	0.100	O	|	|	|	0.54
47.583	0.00	0.01	0.100	O	|	|	|	0.53
47.667	0.00	0.01	0.100	O	|	|	|	0.53
47.750	0.00	0.01	0.100	O	|	|	|	0.53
47.833	0.00	0.01	0.100	O	|	|	|	0.53
47.917	0.00	0.01	0.100	O	|	|	|	0.53
48.000	0.00	0.01	0.100	O	|	|	|	0.53
48.083	0.00	0.01	0.100	O	|	|	|	0.53
48.167	0.00	0.01	0.100	O	|	|	|	0.53
48.250	0.00	0.01	0.100	O	|	|	|	0.53
48.333	0.00	0.01	0.099	O	|	|	|	0.53
48.417	0.00	0.01	0.099	O	|	|	|	0.53
48.500	0.00	0.01	0.099	O	|	|	|	0.53
48.583	0.00	0.01	0.099	O	|	|	|	0.53
48.667	0.00	0.01	0.099	O	|	|	|	0.53
48.750	0.00	0.01	0.099	O	|	|	|	0.53
48.833	0.00	0.01	0.099	O	|	|	|	0.53
48.917	0.00	0.01	0.099	O	|	|	|	0.53
49.000	0.00	0.01	0.099	O	|	|	|	0.53
49.083	0.00	0.01	0.099	O	|	|	|	0.53
49.167	0.00	0.01	0.099	O	|	|	|	0.53
49.250	0.00	0.01	0.099	O	|	|	|	0.53
49.333	0.00	0.01	0.099	O	|	|	|	0.53
49.417	0.00	0.01	0.098	O	|	|	|	0.53
49.500	0.00	0.01	0.098	O	|	|	|	0.53
49.583	0.00	0.01	0.098	O	|	|	|	0.53
49.667	0.00	0.01	0.098	O	|	|	|	0.53
49.750	0.00	0.01	0.098	O	|	|	|	0.52
49.833	0.00	0.01	0.098	O	|	|	|	0.52
49.917	0.00	0.01	0.098	O	|	|	|	0.52
50.000	0.00	0.01	0.098	O	|	|	|	0.52
50.083	0.00	0.01	0.098	O	|	|	|	0.52
50.167	0.00	0.01	0.098	O	|	|	|	0.52
50.250	0.00	0.01	0.098	O	|	|	|	0.52
50.333	0.00	0.01	0.098	O	|	|	|	0.52
50.417	0.00	0.01	0.098	O	|	|	|	0.52
50.500	0.00	0.01	0.098	O	|	|	|	0.52
50.583	0.00	0.01	0.098	O	|	|	|	0.52
50.667	0.00	0.01	0.097	O	|	|	|	0.52
50.750	0.00	0.01	0.097	O	|	|	|	0.52
50.833	0.00	0.01	0.097	O	|	|	|	0.52
50.917	0.00	0.01	0.097	O	|	|	|	0.52
51.000	0.00	0.01	0.097	O	|	|	|	0.52
51.083	0.00	0.01	0.097	O	|	|	|	0.52
51.167	0.00	0.01	0.097	O	|	|	|	0.52
51.250	0.00	0.01	0.097	O	|	|	|	0.52
51.333	0.00	0.01	0.097	O	|	|	|	0.52
51.417	0.00	0.01	0.097	O	|	|	|	0.52
51.500	0.00	0.01	0.097	O	|	|	|	0.52
51.583	0.00	0.01	0.097	O	|	|	|	0.52

51.667	0.00	0.01	0.097	O	|	|	|	0.52
51.750	0.00	0.01	0.097	O	|	|	|	0.52
51.833	0.00	0.01	0.097	O	|	|	|	0.52
51.917	0.00	0.01	0.097	O	|	|	|	0.52
52.000	0.00	0.01	0.097	O	|	|	|	0.52
52.083	0.00	0.01	0.097	O	|	|	|	0.52
52.167	0.00	0.01	0.097	O	|	|	|	0.52
52.250	0.00	0.01	0.097	O	|	|	|	0.52
52.333	0.00	0.01	0.096	O	|	|	|	0.52
52.417	0.00	0.01	0.096	O	|	|	|	0.52
52.500	0.00	0.01	0.096	O	|	|	|	0.52
52.583	0.00	0.01	0.096	O	|	|	|	0.52
52.667	0.00	0.01	0.096	O	|	|	|	0.52
52.750	0.00	0.01	0.096	O	|	|	|	0.52
52.833	0.00	0.01	0.096	O	|	|	|	0.52
52.917	0.00	0.01	0.096	O	|	|	|	0.52
53.000	0.00	0.01	0.096	O	|	|	|	0.52
53.083	0.00	0.01	0.096	O	|	|	|	0.51
53.167	0.00	0.01	0.096	O	|	|	|	0.51
53.250	0.00	0.01	0.096	O	|	|	|	0.51
53.333	0.00	0.01	0.096	O	|	|	|	0.51
53.417	0.00	0.01	0.096	O	|	|	|	0.51
53.500	0.00	0.01	0.096	O	|	|	|	0.51
53.583	0.00	0.01	0.096	O	|	|	|	0.51
53.667	0.00	0.01	0.096	O	|	|	|	0.51
53.750	0.00	0.01	0.096	O	|	|	|	0.51
53.833	0.00	0.01	0.096	O	|	|	|	0.51
53.917	0.00	0.01	0.096	O	|	|	|	0.51
54.000	0.00	0.01	0.096	O	|	|	|	0.51
54.083	0.00	0.00	0.096	O	|	|	|	0.51
54.167	0.00	0.00	0.096	O	|	|	|	0.51
54.250	0.00	0.00	0.096	O	|	|	|	0.51
54.333	0.00	0.00	0.096	O	|	|	|	0.51
54.417	0.00	0.00	0.096	O	|	|	|	0.51
54.500	0.00	0.00	0.095	O	|	|	|	0.51
54.583	0.00	0.00	0.095	O	|	|	|	0.51
54.667	0.00	0.00	0.095	O	|	|	|	0.51
54.750	0.00	0.00	0.095	O	|	|	|	0.51
54.833	0.00	0.00	0.095	O	|	|	|	0.51
54.917	0.00	0.00	0.095	O	|	|	|	0.51
55.000	0.00	0.00	0.095	O	|	|	|	0.51
55.083	0.00	0.00	0.095	O	|	|	|	0.51
55.167	0.00	0.00	0.095	O	|	|	|	0.51
55.250	0.00	0.00	0.095	O	|	|	|	0.51
55.333	0.00	0.00	0.095	O	|	|	|	0.51
55.417	0.00	0.00	0.095	O	|	|	|	0.51
55.500	0.00	0.00	0.095	O	|	|	|	0.51
55.583	0.00	0.00	0.095	O	|	|	|	0.51
55.667	0.00	0.00	0.095	O	|	|	|	0.51
55.750	0.00	0.00	0.095	O	|	|	|	0.51

55.833	0.00	0.00	0.095	O	|	|	|	0.51
55.917	0.00	0.00	0.095	O	|	|	|	0.51
56.000	0.00	0.00	0.095	O	|	|	|	0.51
56.083	0.00	0.00	0.095	O	|	|	|	0.51
56.167	0.00	0.00	0.095	O	|	|	|	0.51
56.250	0.00	0.00	0.095	O	|	|	|	0.51
56.333	0.00	0.00	0.095	O	|	|	|	0.51
56.417	0.00	0.00	0.095	O	|	|	|	0.51
56.500	0.00	0.00	0.095	O	|	|	|	0.51
56.583	0.00	0.00	0.095	O	|	|	|	0.51
56.667	0.00	0.00	0.095	O	|	|	|	0.51
56.750	0.00	0.00	0.095	O	|	|	|	0.51
56.833	0.00	0.00	0.095	O	|	|	|	0.51
56.917	0.00	0.00	0.095	O	|	|	|	0.51
57.000	0.00	0.00	0.095	O	|	|	|	0.51
57.083	0.00	0.00	0.095	O	|	|	|	0.51
57.167	0.00	0.00	0.095	O	|	|	|	0.51
57.250	0.00	0.00	0.095	O	|	|	|	0.51
57.333	0.00	0.00	0.095	O	|	|	|	0.51
57.417	0.00	0.00	0.095	O	|	|	|	0.51
57.500	0.00	0.00	0.095	O	|	|	|	0.51
57.583	0.00	0.00	0.095	O	|	|	|	0.51
57.667	0.00	0.00	0.095	O	|	|	|	0.51
57.750	0.00	0.00	0.094	O	|	|	|	0.51
57.833	0.00	0.00	0.094	O	|	|	|	0.51
57.917	0.00	0.00	0.094	O	|	|	|	0.51
58.000	0.00	0.00	0.094	O	|	|	|	0.51
58.083	0.00	0.00	0.094	O	|	|	|	0.51
58.167	0.00	0.00	0.094	O	|	|	|	0.51
58.250	0.00	0.00	0.094	O	|	|	|	0.51
58.333	0.00	0.00	0.094	O	|	|	|	0.51
58.417	0.00	0.00	0.094	O	|	|	|	0.51
58.500	0.00	0.00	0.094	O	|	|	|	0.51
58.583	0.00	0.00	0.094	O	|	|	|	0.51
58.667	0.00	0.00	0.094	O	|	|	|	0.51
58.750	0.00	0.00	0.094	O	|	|	|	0.51
58.833	0.00	0.00	0.094	O	|	|	|	0.51
58.917	0.00	0.00	0.094	O	|	|	|	0.51
59.000	0.00	0.00	0.094	O	|	|	|	0.51
59.083	0.00	0.00	0.094	O	|	|	|	0.51
59.167	0.00	0.00	0.094	O	|	|	|	0.51
59.250	0.00	0.00	0.094	O	|	|	|	0.51
59.333	0.00	0.00	0.094	O	|	|	|	0.51
59.417	0.00	0.00	0.094	O	|	|	|	0.51
59.500	0.00	0.00	0.094	O	|	|	|	0.51
59.583	0.00	0.00	0.094	O	|	|	|	0.51
59.667	0.00	0.00	0.094	O	|	|	|	0.51
59.750	0.00	0.00	0.094	O	|	|	|	0.51
59.833	0.00	0.00	0.094	O	|	|	|	0.51
59.917	0.00	0.00	0.094	O	|	|	|	0.51

60.000	0.00	0.00	0.094	O	|	|	|	0.51
60.083	0.00	0.00	0.094	O	|	|	|	0.50
60.167	0.00	0.00	0.094	O	|	|	|	0.50
60.250	0.00	0.00	0.094	O	|	|	|	0.50
60.333	0.00	0.00	0.094	O	|	|	|	0.50
60.417	0.00	0.00	0.094	O	|	|	|	0.50
60.500	0.00	0.00	0.094	O	|	|	|	0.50
60.583	0.00	0.00	0.094	O	|	|	|	0.50
60.667	0.00	0.00	0.094	O	|	|	|	0.50
60.750	0.00	0.00	0.094	O	|	|	|	0.50
60.833	0.00	0.00	0.094	O	|	|	|	0.50
60.917	0.00	0.00	0.094	O	|	|	|	0.50
61.000	0.00	0.00	0.094	O	|	|	|	0.50
61.083	0.00	0.00	0.094	O	|	|	|	0.50
61.167	0.00	0.00	0.094	O	|	|	|	0.50
61.250	0.00	0.00	0.094	O	|	|	|	0.50
61.333	0.00	0.00	0.094	O	|	|	|	0.50
61.417	0.00	0.00	0.094	O	|	|	|	0.50
61.500	0.00	0.00	0.094	O	|	|	|	0.50
61.583	0.00	0.00	0.094	O	|	|	|	0.50
61.667	0.00	0.00	0.094	O	|	|	|	0.50
61.750	0.00	0.00	0.094	O	|	|	|	0.50
61.833	0.00	0.00	0.094	O	|	|	|	0.50
61.917	0.00	0.00	0.094	O	|	|	|	0.50
62.000	0.00	0.00	0.094	O	|	|	|	0.50
62.083	0.00	0.00	0.094	O	|	|	|	0.50
62.167	0.00	0.00	0.094	O	|	|	|	0.50
62.250	0.00	0.00	0.094	O	|	|	|	0.50
62.333	0.00	0.00	0.094	O	|	|	|	0.50
62.417	0.00	0.00	0.094	O	|	|	|	0.50
62.500	0.00	0.00	0.094	O	|	|	|	0.50
62.583	0.00	0.00	0.094	O	|	|	|	0.50
62.667	0.00	0.00	0.094	O	|	|	|	0.50
62.750	0.00	0.00	0.094	O	|	|	|	0.50
62.833	0.00	0.00	0.094	O	|	|	|	0.50
62.917	0.00	0.00	0.094	O	|	|	|	0.50
63.000	0.00	0.00	0.094	O	|	|	|	0.50
63.083	0.00	0.00	0.094	O	|	|	|	0.50
63.167	0.00	0.00	0.094	O	|	|	|	0.50
63.250	0.00	0.00	0.094	O	|	|	|	0.50
63.333	0.00	0.00	0.094	O	|	|	|	0.50
63.417	0.00	0.00	0.094	O	|	|	|	0.50
63.500	0.00	0.00	0.094	O	|	|	|	0.50
63.583	0.00	0.00	0.094	O	|	|	|	0.50
63.667	0.00	0.00	0.094	O	|	|	|	0.50
63.750	0.00	0.00	0.094	O	|	|	|	0.50
63.833	0.00	0.00	0.094	O	|	|	|	0.50
63.917	0.00	0.00	0.094	O	|	|	|	0.50
64.000	0.00	0.00	0.094	O	|	|	|	0.50
64.083	0.00	0.00	0.094	O	|	|	|	0.50

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64.167    0.00    0.00      0.094  O       |       |       |       |     0.50
64.250    0.00    0.00      0.094  O       |       |       |       |     0.50
64.333    0.00    0.00      0.094  O       |       |       |       |     0.50
64.417    0.00    0.00      0.094  O       |       |       |       |     0.50

       Remaining water in basin =    0.09 (Ac.Ft)


       ****************************HYDROGRAPH DATA****************************
                      Number of intervals =   773
                      Time interval =    5.0 (Min.)
                      Maximum/Peak flow rate =        0.196 (CFS)
                      Total volume =       0.557 (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

Study date: 08/24/22

A21626 DMA 1 5YR-24HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA1Q100UH245.rte
**********HYDROGRAPH DATA**********
Number of intervals = 291
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 1.838 (CFS)
Total volume = 1.117 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.00(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.50(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   4.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   1.00(Ft.)    Capacity =   6.28(CFS)

Total outflow at this depth =      6.48(CFS)

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Total number of inflow hydrograph intervals = 291
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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
0.500	0.093	0.000	0.093	0.093
1.000	0.197	0.196	0.196	0.198
1.500	0.313	0.196	0.312	0.314
2.000	0.440	0.196	0.439	0.441
2.500	0.580	0.196	0.579	0.581
3.000	0.732	0.196	0.731	0.733
3.500	0.897	0.196	0.896	0.898
4.000	1.075	4.639	1.059	1.091
4.500	1.267	6.480	1.245	1.289

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.5	0.92	1.38	1.84	Depth (Ft.)
0.083	0.06	0.00	0.000	O	|	|	|	|	0.00
0.167	0.10	0.00	0.001	OI	|	|	|	|	0.00
0.250	0.11	0.00	0.001	OI	|	|	|	|	0.01
0.333	0.14	0.00	0.002	O I	|	|	|	|	0.01
0.417	0.16	0.00	0.003	O I	|	|	|	|	0.02
0.500	0.16	0.00	0.004	O I	|	|	|	|	0.02
0.583	0.16	0.00	0.005	O I	|	|	|	|	0.03
0.667	0.16	0.00	0.007	O I	|	|	|	|	0.04
0.750	0.16	0.00	0.008	O I	|	|	|	|	0.04
0.833	0.19	0.00	0.009	O I	|	|	|	|	0.05
0.917	0.21	0.00	0.010	O I	|	|	|	|	0.06
1.000	0.22	0.00	0.012	O I	|	|	|	|	0.06
1.083	0.19	0.00	0.013	O I	|	|	|	|	0.07
1.167	0.17	0.00	0.014	O I	|	|	|	|	0.08
1.250	0.16	0.00	0.016	O I	|	|	|	|	0.08
1.333	0.16	0.00	0.017	O I	|	|	|	|	0.09
1.417	0.16	0.00	0.018	O I	|	|	|	|	0.10
1.500	0.16	0.00	0.019	O I	|	|	|	|	0.10
1.583	0.16	0.00	0.020	O I	|	|	|	|	0.11

1.667	0.16	0.00	0.021	O I	|	|	|	0.11
1.750	0.16	0.00	0.022	O I	|	|	|	0.12
1.833	0.19	0.00	0.023	O I	|	|	|	0.13
1.917	0.21	0.00	0.025	O I	|	|	|	0.13
2.000	0.22	0.00	0.026	O I	|	|	|	0.14
2.083	0.22	0.00	0.028	O I	|	|	|	0.15
2.167	0.22	0.00	0.029	O I	|	|	|	0.16
2.250	0.22	0.00	0.031	O I	|	|	|	0.17
2.333	0.22	0.00	0.032	O I	|	|	|	0.17
2.417	0.22	0.00	0.034	O I	|	|	|	0.18
2.500	0.22	0.00	0.035	O I	|	|	|	0.19
2.583	0.24	0.00	0.037	O I	|	|	|	0.20
2.667	0.27	0.00	0.039	O I	|	|	|	0.21
2.750	0.27	0.00	0.040	O I	|	|	|	0.22
2.833	0.27	0.00	0.042	O I	|	|	|	0.23
2.917	0.27	0.00	0.044	O I	|	|	|	0.24
3.000	0.27	0.00	0.046	O I	|	|	|	0.25
3.083	0.27	0.00	0.048	O I	|	|	|	0.26
3.167	0.27	0.00	0.050	O I	|	|	|	0.27
3.250	0.27	0.00	0.052	O I	|	|	|	0.28
3.333	0.27	0.00	0.053	O I	|	|	|	0.29
3.417	0.27	0.00	0.055	O I	|	|	|	0.30
3.500	0.27	0.00	0.057	O I	|	|	|	0.31
3.583	0.27	0.00	0.059	O I	|	|	|	0.32
3.667	0.27	0.00	0.061	O I	|	|	|	0.33
3.750	0.27	0.00	0.063	O I	|	|	|	0.34
3.833	0.30	0.00	0.065	O I	|	|	|	0.35
3.917	0.32	0.00	0.067	O I	|	|	|	0.36
4.000	0.32	0.00	0.069	O I	|	|	|	0.37
4.083	0.32	0.00	0.071	O I	|	|	|	0.38
4.167	0.32	0.00	0.074	O I	|	|	|	0.40
4.250	0.32	0.00	0.076	O I	|	|	|	0.41
4.333	0.35	0.00	0.078	O I	|	|	|	0.42
4.417	0.37	0.00	0.081	O I	|	|	|	0.43
4.500	0.38	0.00	0.083	O I	|	|	|	0.45
4.583	0.38	0.00	0.086	O I	|	|	|	0.46
4.667	0.38	0.00	0.088	O I	|	|	|	0.48
4.750	0.38	0.00	0.091	O I	|	|	|	0.49
4.833	0.41	0.00	0.094	O I	|	|	|	0.50
4.917	0.43	0.01	0.097	O I	|	|	|	0.52
5.000	0.43	0.01	0.099	O I	|	|	|	0.53
5.083	0.38	0.02	0.102	O I	|	|	|	0.54
5.167	0.33	0.02	0.104	O I	|	|	|	0.55
5.250	0.33	0.03	0.107	O I	|	|	|	0.56
5.333	0.35	0.03	0.109	O I	|	|	|	0.58
5.417	0.37	0.03	0.111	O I	|	|	|	0.59
5.500	0.38	0.04	0.113	O I	|	|	|	0.60
5.583	0.41	0.04	0.116	O I	|	|	|	0.61
5.667	0.43	0.05	0.118	O I	|	|	|	0.62
5.750	0.43	0.05	0.121	O I	|	|	|	0.63

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5.833    0.43    0.06      0.123   |O     I|       |       |       |     0.65
5.917    0.43    0.06      0.126   |O     I|       |       |       |     0.66
6.000    0.43    0.07      0.129   |O     I|       |       |       |     0.67
6.083    0.46    0.07      0.131   |O      I       |       |       |     0.68
6.167    0.48    0.08      0.134   |O      I       |       |       |     0.70
6.250    0.49    0.08      0.137   |O      I       |       |       |     0.71
6.333    0.49    0.09      0.139   |O      I       |       |       |     0.72
6.417    0.49    0.09      0.142   |O      I       |       |       |     0.74
6.500    0.49    0.10      0.145   |O      I       |       |       |     0.75
6.583    0.51    0.10      0.148   |O      I       |       |       |     0.76
6.667    0.54    0.11      0.151   |O      |I      |       |       |     0.78
6.750    0.54    0.11      0.153   |O      |I      |       |       |     0.79
6.833    0.54    0.12      0.156   | O     |I      |       |       |     0.80
6.917    0.54    0.13      0.159   | O     |I      |       |       |     0.82
7.000    0.54    0.13      0.162   | O     |I      |       |       |     0.83
7.083    0.54    0.14      0.165   | O     |I      |       |       |     0.85
7.167    0.54    0.14      0.168   | O     |I      |       |       |     0.86
7.250    0.54    0.15      0.170   | O     |I      |       |       |     0.87
7.333    0.57    0.15      0.173   | O     |I      |       |       |     0.89
7.417    0.59    0.16      0.176   | O     | I     |       |       |     0.90
7.500    0.59    0.16      0.179   | O     | I     |       |       |     0.91
7.583    0.62    0.17      0.182   | O     | I     |       |       |     0.93
7.667    0.64    0.17      0.185   |  O    |  I    |       |       |     0.94
7.750    0.65    0.18      0.189   |  O    |  I    |       |       |     0.96
7.833    0.68    0.19      0.192   |  O    |  I    |       |       |     0.98
7.917    0.70    0.19      0.195   |  O    |   I   |       |       |     0.99
8.000    0.70    0.20      0.199   |  O    |   I   |       |       |     1.01
8.083    0.76    0.20      0.202   |  O    |    I  |       |       |     1.02
8.167    0.80    0.20      0.206   |  O    |    I  |       |       |     1.04
8.250    0.81    0.20      0.211   |  O    |     I |       |       |     1.06
8.333    0.81    0.20      0.215   |  O    |     I |       |       |     1.08
8.417    0.81    0.20      0.219   |  O    |     I |       |       |     1.10
8.500    0.81    0.20      0.223   |  O    |     I |       |       |     1.11
8.583    0.84    0.20      0.228   |  O    |     I |       |       |     1.13
8.667    0.86    0.20      0.232   |  O    |     I |       |       |     1.15
8.750    0.86    0.20      0.237   |  O    |      I|       |       |     1.17
8.833    0.89    0.20      0.241   |  O    |      I|       |       |     1.19
8.917    0.91    0.20      0.246   |  O    |      I|       |       |     1.21
9.000    0.92    0.20      0.251   |  O    |      I|       |       |     1.23
9.083    0.97    0.20      0.256   |  O    |       I       |       |     1.26
9.167    1.02    0.20      0.262   |  O    |       |I      |       |     1.28
9.250    1.03    0.20      0.268   |  O    |       |I      |       |     1.30
9.333    1.05    0.20      0.273   |  O    |       | I     |       |     1.33
9.417    1.08    0.20      0.279   |  O    |       | I     |       |     1.36
9.500    1.08    0.20      0.285   |  O    |       | I     |       |     1.38
9.583    1.11    0.20      0.292   |  O    |       |  I    |       |     1.41
9.667    1.13    0.20      0.298   |  O    |       |  I    |       |     1.44
9.750    1.13    0.20      0.304   |  O    |       |  I    |       |     1.46
9.833    1.16    0.20      0.311   |  O    |       |   I   |       |     1.49
9.917    1.18    0.20      0.318   |  O    |       |   I   |       |     1.52
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10.000	1.19	0.20	0.325	O			I		1.55
10.083	0.99	0.20	0.331	O		I			1.57
10.167	0.84	0.20	0.336	O	I				1.59
10.250	0.82	0.20	0.340	O	I				1.61
10.333	0.81	0.20	0.344	O	I				1.62
10.417	0.81	0.20	0.349	O	I				1.64
10.500	0.81	0.20	0.353	O	I				1.66
10.583	0.95	0.20	0.358	O		I			1.68
10.667	1.06	0.20	0.363	O		I			1.70
10.750	1.08	0.20	0.369	O		I			1.72
10.833	1.08	0.20	0.375	O		I			1.74
10.917	1.08	0.20	0.381	O		I			1.77
11.000	1.08	0.20	0.387	O		I			1.79
11.083	1.05	0.20	0.393	O		I			1.82
11.167	1.03	0.20	0.399	O		I			1.84
11.250	1.03	0.20	0.405	O		I			1.86
11.333	1.03	0.20	0.411	O		I			1.88
11.417	1.03	0.20	0.416	O		I			1.91
11.500	1.03	0.20	0.422	O		I			1.93
11.583	0.97	0.20	0.428	O		I			1.95
11.667	0.93	0.20	0.433	O		I			1.97
11.750	0.92	0.20	0.438	O		I			1.99
11.833	0.95	0.20	0.443	O		I			2.01
11.917	0.97	0.20	0.448	O		I			2.03
12.000	0.97	0.20	0.453	O		I			2.05
12.083	1.17	0.20	0.459	O			I		2.07
12.167	1.32	0.20	0.467	O			I		2.10
12.250	1.34	0.20	0.475	O			I		2.12
12.333	1.38	0.20	0.483	O			I		2.15
12.417	1.40	0.20	0.491	O			I		2.18
12.500	1.40	0.20	0.499	O			I		2.21
12.583	1.46	0.20	0.508	O			I		2.24
12.667	1.50	0.20	0.516	O			I		2.27
12.750	1.51	0.20	0.525	O			I		2.31
12.833	1.54	0.20	0.535	O			I		2.34
12.917	1.56	0.20	0.544	O			I		2.37
13.000	1.57	0.20	0.553	O			I		2.41
13.083	1.71	0.20	0.563	O			I		2.44
13.167	1.81	0.20	0.574	O			I		2.48
13.250	1.83	0.20	0.585	O			I		2.52
13.333	1.84	0.20	0.597	O			I		2.55
13.417	1.84	0.20	0.608	O			I		2.59
13.500	1.84	0.20	0.619	O			I		2.63
13.583	1.53	0.20	0.629	O			I		2.66
13.667	1.30	0.20	0.638	O			I		2.69
13.750	1.25	0.20	0.645	O			I		2.71
13.833	1.24	0.20	0.653	O			I		2.74
13.917	1.24	0.20	0.660	O			I		2.76
14.000	1.24	0.20	0.667	O			I		2.79
14.083	1.35	0.20	0.675	O			I		2.81

14.167	1.44	0.20	0.683	O			I	2.84
14.250	1.46	0.20	0.691	O			I	2.87
14.333	1.43	0.20	0.700	O			I	2.89
14.417	1.41	0.20	0.708	O			I	2.92
14.500	1.41	0.20	0.717	O			I	2.95
14.583	1.41	0.20	0.725	O			I	2.98
14.667	1.41	0.20	0.733	O			I	3.00
14.750	1.41	0.20	0.742	O			I	3.03
14.833	1.38	0.20	0.750	O			I	3.05
14.917	1.36	0.20	0.758	O			I	3.08
15.000	1.35	0.20	0.766	O			I	3.10
15.083	1.32	0.20	0.774	O			I	3.13
15.167	1.30	0.20	0.782	O			I	3.15
15.250	1.30	0.20	0.789	O			I	3.17
15.333	1.27	0.20	0.797	O			I	3.20
15.417	1.25	0.20	0.804	O			I	3.22
15.500	1.24	0.20	0.811	O			I	3.24
15.583	1.13	0.20	0.818	O		I		3.26
15.667	1.05	0.20	0.824	O		I		3.28
15.750	1.03	0.20	0.830	O		I		3.30
15.833	1.03	0.20	0.836	O		I		3.31
15.917	1.03	0.20	0.841	O		I		3.33
16.000	1.03	0.20	0.847	O		I		3.35
16.083	0.61	0.20	0.852	O	I			3.36
16.167	0.29	0.20	0.853	O I				3.37
16.250	0.23	0.20	0.854	OI				3.37
16.333	0.22	0.20	0.854	O				3.37
16.417	0.22	0.20	0.854	O				3.37
16.500	0.22	0.20	0.854	O				3.37
16.583	0.19	0.20	0.854	O				3.37
16.667	0.17	0.20	0.854	IO				3.37
16.750	0.16	0.20	0.854	IO				3.37
16.833	0.16	0.20	0.854	IO				3.37
16.917	0.16	0.20	0.853	IO				3.37
17.000	0.16	0.20	0.853	IO				3.37
17.083	0.22	0.20	0.853	O				3.37
17.167	0.26	0.20	0.853	OI				3.37
17.250	0.27	0.20	0.854	OI				3.37
17.333	0.27	0.20	0.854	OI				3.37
17.417	0.27	0.20	0.855	OI				3.37
17.500	0.27	0.20	0.855	OI				3.37
17.583	0.27	0.20	0.856	OI				3.38
17.667	0.27	0.20	0.856	OI				3.38
17.750	0.27	0.20	0.857	OI				3.38
17.833	0.24	0.20	0.857	OI				3.38
17.917	0.22	0.20	0.858	O				3.38
18.000	0.22	0.20	0.858	O				3.38
18.083	0.22	0.20	0.858	O				3.38
18.167	0.22	0.20	0.858	O				3.38
18.250	0.22	0.20	0.858	O				3.38

18.333	0.22	0.20	0.858	O				3.38
18.417	0.22	0.20	0.858	O				3.38
18.500	0.22	0.20	0.859	O				3.38
18.583	0.19	0.20	0.859	O				3.38
18.667	0.17	0.20	0.858	IO				3.38
18.750	0.16	0.20	0.858	IO				3.38
18.833	0.13	0.20	0.858	IO				3.38
18.917	0.11	0.20	0.857	I O				3.38
19.000	0.11	0.20	0.857	I O				3.38
19.083	0.14	0.20	0.856	IO				3.38
19.167	0.16	0.20	0.856	IO				3.38
19.250	0.16	0.20	0.856	IO				3.37
19.333	0.19	0.20	0.856	O				3.37
19.417	0.21	0.20	0.856	O				3.37
19.500	0.22	0.20	0.856	O				3.37
19.583	0.19	0.20	0.856	O				3.38
19.667	0.17	0.20	0.856	IO				3.37
19.750	0.16	0.20	0.855	IO				3.37
19.833	0.13	0.20	0.855	IO				3.37
19.917	0.11	0.20	0.855	I O				3.37
20.000	0.11	0.20	0.854	I O				3.37
20.083	0.14	0.20	0.853	IO				3.37
20.167	0.16	0.20	0.853	IO				3.37
20.250	0.16	0.20	0.853	IO				3.37
20.333	0.16	0.20	0.853	IO				3.37
20.417	0.16	0.20	0.852	IO				3.36
20.500	0.16	0.20	0.852	IO				3.36
20.583	0.16	0.20	0.852	IO				3.36
20.667	0.16	0.20	0.852	IO				3.36
20.750	0.16	0.20	0.851	IO				3.36
20.833	0.13	0.20	0.851	IO				3.36
20.917	0.11	0.20	0.851	I O				3.36
21.000	0.11	0.20	0.850	I O				3.36
21.083	0.14	0.20	0.850	IO				3.36
21.167	0.16	0.20	0.849	IO				3.36
21.250	0.16	0.20	0.849	IO				3.35
21.333	0.13	0.20	0.849	IO				3.35
21.417	0.11	0.20	0.848	I O				3.35
21.500	0.11	0.20	0.848	I O				3.35
21.583	0.14	0.20	0.847	IO				3.35
21.667	0.16	0.20	0.847	IO				3.35
21.750	0.16	0.20	0.846	IO				3.35
21.833	0.13	0.20	0.846	IO				3.35
21.917	0.11	0.20	0.846	I O				3.34
22.000	0.11	0.20	0.845	I O				3.34
22.083	0.14	0.20	0.844	IO				3.34
22.167	0.16	0.20	0.844	IO				3.34
22.250	0.16	0.20	0.844	IO				3.34
22.333	0.13	0.20	0.844	IO				3.34
22.417	0.11	0.20	0.843	I O				3.34

22.500	0.11	0.20	0.842	I O				3.33
22.583	0.11	0.20	0.842	I O				3.33
22.667	0.11	0.20	0.841	I O				3.33
22.750	0.11	0.20	0.841	I O				3.33
22.833	0.11	0.20	0.840	I O				3.33
22.917	0.11	0.20	0.839	I O				3.33
23.000	0.11	0.20	0.839	I O				3.32
23.083	0.11	0.20	0.838	I O				3.32
23.167	0.11	0.20	0.838	I O				3.32
23.250	0.11	0.20	0.837	I O				3.32
23.333	0.11	0.20	0.836	I O				3.32
23.417	0.11	0.20	0.836	I O				3.31
23.500	0.11	0.20	0.835	I O				3.31
23.583	0.11	0.20	0.835	I O				3.31
23.667	0.11	0.20	0.834	I O				3.31
23.750	0.11	0.20	0.833	I O				3.31
23.833	0.11	0.20	0.833	I O				3.31
23.917	0.11	0.20	0.832	I O				3.30
24.000	0.11	0.20	0.832	I O				3.30
24.083	0.05	0.20	0.831	I O				3.30
24.167	0.01	0.20	0.830	I O				3.30
24.250	0.00	0.20	0.828	I O				3.29
24.333	0.00	0.20	0.827	I O				3.29
24.417	0.00	0.20	0.826	I O				3.28
24.500	0.00	0.20	0.824	I O				3.28
24.583	0.00	0.20	0.823	I O				3.28
24.667	0.00	0.20	0.822	I O				3.27
24.750	0.00	0.20	0.820	I O				3.27
24.833	0.00	0.20	0.819	I O				3.26
24.917	0.00	0.20	0.817	I O				3.26
25.000	0.00	0.20	0.816	I O				3.25
25.083	0.00	0.20	0.815	I O				3.25
25.167	0.00	0.20	0.813	I O				3.25
25.250	0.00	0.20	0.812	I O				3.24
25.333	0.00	0.20	0.811	I O				3.24
25.417	0.00	0.20	0.809	I O				3.23
25.500	0.00	0.20	0.808	I O				3.23
25.583	0.00	0.20	0.807	I O				3.23
25.667	0.00	0.20	0.805	I O				3.22
25.750	0.00	0.20	0.804	I O				3.22
25.833	0.00	0.20	0.803	I O				3.21
25.917	0.00	0.20	0.801	I O				3.21
26.000	0.00	0.20	0.800	I O				3.21
26.083	0.00	0.20	0.799	I O				3.20
26.167	0.00	0.20	0.797	I O				3.20
26.250	0.00	0.20	0.796	I O				3.19
26.333	0.00	0.20	0.794	I O				3.19
26.417	0.00	0.20	0.793	I O				3.19
26.500	0.00	0.20	0.792	I O				3.18
26.583	0.00	0.20	0.790	I O				3.18

26.667	0.00	0.20	0.789	I	O					3.17
26.750	0.00	0.20	0.788	I	O					3.17
26.833	0.00	0.20	0.786	I	O					3.16
26.917	0.00	0.20	0.785	I	O					3.16
27.000	0.00	0.20	0.784	I	O					3.16
27.083	0.00	0.20	0.782	I	O					3.15
27.167	0.00	0.20	0.781	I	O					3.15
27.250	0.00	0.20	0.780	I	O					3.14
27.333	0.00	0.20	0.778	I	O					3.14
27.417	0.00	0.20	0.777	I	O					3.14
27.500	0.00	0.20	0.776	I	O					3.13
27.583	0.00	0.20	0.774	I	O					3.13
27.667	0.00	0.20	0.773	I	O					3.12
27.750	0.00	0.20	0.772	I	O					3.12
27.833	0.00	0.20	0.770	I	O					3.12
27.917	0.00	0.20	0.769	I	O					3.11
28.000	0.00	0.20	0.767	I	O					3.11
28.083	0.00	0.20	0.766	I	O					3.10
28.167	0.00	0.20	0.765	I	O					3.10
28.250	0.00	0.20	0.763	I	O					3.10
28.333	0.00	0.20	0.762	I	O					3.09
28.417	0.00	0.20	0.761	I	O					3.09
28.500	0.00	0.20	0.759	I	O					3.08
28.583	0.00	0.20	0.758	I	O					3.08
28.667	0.00	0.20	0.757	I	O					3.07
28.750	0.00	0.20	0.755	I	O					3.07
28.833	0.00	0.20	0.754	I	O					3.07
28.917	0.00	0.20	0.753	I	O					3.06
29.000	0.00	0.20	0.751	I	O					3.06
29.083	0.00	0.20	0.750	I	O					3.05
29.167	0.00	0.20	0.749	I	O					3.05
29.250	0.00	0.20	0.747	I	O					3.05
29.333	0.00	0.20	0.746	I	O					3.04
29.417	0.00	0.20	0.744	I	O					3.04
29.500	0.00	0.20	0.743	I	O					3.03
29.583	0.00	0.20	0.742	I	O					3.03
29.667	0.00	0.20	0.740	I	O					3.03
29.750	0.00	0.20	0.739	I	O					3.02
29.833	0.00	0.20	0.738	I	O					3.02
29.917	0.00	0.20	0.736	I	O					3.01
30.000	0.00	0.20	0.735	I	O					3.01
30.083	0.00	0.20	0.734	I	O					3.00
30.167	0.00	0.20	0.732	I	O					3.00
30.250	0.00	0.20	0.731	I	O					3.00
30.333	0.00	0.20	0.730	I	O					2.99
30.417	0.00	0.20	0.728	I	O					2.99
30.500	0.00	0.20	0.727	I	O					2.98
30.583	0.00	0.20	0.726	I	O					2.98
30.667	0.00	0.20	0.724	I	O					2.97
30.750	0.00	0.20	0.723	I	O					2.97

30.833	0.00	0.20	0.721	I	O					2.97
30.917	0.00	0.20	0.720	I	O					2.96
31.000	0.00	0.20	0.719	I	O					2.96
31.083	0.00	0.20	0.717	I	O					2.95
31.167	0.00	0.20	0.716	I	O					2.95
31.250	0.00	0.20	0.715	I	O					2.94
31.333	0.00	0.20	0.713	I	O					2.94
31.417	0.00	0.20	0.712	I	O					2.93
31.500	0.00	0.20	0.711	I	O					2.93
31.583	0.00	0.20	0.709	I	O					2.93
31.667	0.00	0.20	0.708	I	O					2.92
31.750	0.00	0.20	0.707	I	O					2.92
31.833	0.00	0.20	0.705	I	O					2.91
31.917	0.00	0.20	0.704	I	O					2.91
32.000	0.00	0.20	0.703	I	O					2.90
32.083	0.00	0.20	0.701	I	O					2.90
32.167	0.00	0.20	0.700	I	O					2.89
32.250	0.00	0.20	0.698	I	O					2.89
32.333	0.00	0.20	0.697	I	O					2.89
32.417	0.00	0.20	0.696	I	O					2.88
32.500	0.00	0.20	0.694	I	O					2.88
32.583	0.00	0.20	0.693	I	O					2.87
32.667	0.00	0.20	0.692	I	O					2.87
32.750	0.00	0.20	0.690	I	O					2.86
32.833	0.00	0.20	0.689	I	O					2.86
32.917	0.00	0.20	0.688	I	O					2.85
33.000	0.00	0.20	0.686	I	O					2.85
33.083	0.00	0.20	0.685	I	O					2.85
33.167	0.00	0.20	0.684	I	O					2.84
33.250	0.00	0.20	0.682	I	O					2.84
33.333	0.00	0.20	0.681	I	O					2.83
33.417	0.00	0.20	0.680	I	O					2.83
33.500	0.00	0.20	0.678	I	O					2.82
33.583	0.00	0.20	0.677	I	O					2.82
33.667	0.00	0.20	0.675	I	O					2.81
33.750	0.00	0.20	0.674	I	O					2.81
33.833	0.00	0.20	0.673	I	O					2.81
33.917	0.00	0.20	0.671	I	O					2.80
34.000	0.00	0.20	0.670	I	O					2.80
34.083	0.00	0.20	0.669	I	O					2.79
34.167	0.00	0.20	0.667	I	O					2.79
34.250	0.00	0.20	0.666	I	O					2.78
34.333	0.00	0.20	0.665	I	O					2.78
34.417	0.00	0.20	0.663	I	O					2.77
34.500	0.00	0.20	0.662	I	O					2.77
34.583	0.00	0.20	0.661	I	O					2.77
34.667	0.00	0.20	0.659	I	O					2.76
34.750	0.00	0.20	0.658	I	O					2.76
34.833	0.00	0.20	0.657	I	O					2.75
34.917	0.00	0.20	0.655	I	O					2.75

35.000	0.00	0.20	0.654	I	O				2.74
35.083	0.00	0.20	0.653	I	O				2.74
35.167	0.00	0.20	0.651	I	O				2.73
35.250	0.00	0.20	0.650	I	O				2.73
35.333	0.00	0.20	0.648	I	O				2.73
35.417	0.00	0.20	0.647	I	O				2.72
35.500	0.00	0.20	0.646	I	O				2.72
35.583	0.00	0.20	0.644	I	O				2.71
35.667	0.00	0.20	0.643	I	O				2.71
35.750	0.00	0.20	0.642	I	O				2.70
35.833	0.00	0.20	0.640	I	O				2.70
35.917	0.00	0.20	0.639	I	O				2.69
36.000	0.00	0.20	0.638	I	O				2.69
36.083	0.00	0.20	0.636	I	O				2.69
36.167	0.00	0.20	0.635	I	O				2.68
36.250	0.00	0.20	0.634	I	O				2.68
36.333	0.00	0.20	0.632	I	O				2.67
36.417	0.00	0.20	0.631	I	O				2.67
36.500	0.00	0.20	0.630	I	O				2.66
36.583	0.00	0.20	0.628	I	O				2.66
36.667	0.00	0.20	0.627	I	O				2.65
36.750	0.00	0.20	0.625	I	O				2.65
36.833	0.00	0.20	0.624	I	O				2.65
36.917	0.00	0.20	0.623	I	O				2.64
37.000	0.00	0.20	0.621	I	O				2.64
37.083	0.00	0.20	0.620	I	O				2.63
37.167	0.00	0.20	0.619	I	O				2.63
37.250	0.00	0.20	0.617	I	O				2.62
37.333	0.00	0.20	0.616	I	O				2.62
37.417	0.00	0.20	0.615	I	O				2.61
37.500	0.00	0.20	0.613	I	O				2.61
37.583	0.00	0.20	0.612	I	O				2.61
37.667	0.00	0.20	0.611	I	O				2.60
37.750	0.00	0.20	0.609	I	O				2.60
37.833	0.00	0.20	0.608	I	O				2.59
37.917	0.00	0.20	0.607	I	O				2.59
38.000	0.00	0.20	0.605	I	O				2.58
38.083	0.00	0.20	0.604	I	O				2.58
38.167	0.00	0.20	0.602	I	O				2.57
38.250	0.00	0.20	0.601	I	O				2.57
38.333	0.00	0.20	0.600	I	O				2.57
38.417	0.00	0.20	0.598	I	O				2.56
38.500	0.00	0.20	0.597	I	O				2.56
38.583	0.00	0.20	0.596	I	O				2.55
38.667	0.00	0.20	0.594	I	O				2.55
38.750	0.00	0.20	0.593	I	O				2.54
38.833	0.00	0.20	0.592	I	O				2.54
38.917	0.00	0.20	0.590	I	O				2.53
39.000	0.00	0.20	0.589	I	O				2.53
39.083	0.00	0.20	0.588	I	O				2.52

39.167	0.00	0.20	0.586	I	O				2.52
39.250	0.00	0.20	0.585	I	O				2.52
39.333	0.00	0.20	0.584	I	O				2.51
39.417	0.00	0.20	0.582	I	O				2.51
39.500	0.00	0.20	0.581	I	O				2.50
39.583	0.00	0.20	0.579	I	O				2.50
39.667	0.00	0.20	0.578	I	O				2.49
39.750	0.00	0.20	0.577	I	O				2.49
39.833	0.00	0.20	0.575	I	O				2.48
39.917	0.00	0.20	0.574	I	O				2.48
40.000	0.00	0.20	0.573	I	O				2.47
40.083	0.00	0.20	0.571	I	O				2.47
40.167	0.00	0.20	0.570	I	O				2.46
40.250	0.00	0.20	0.569	I	O				2.46
40.333	0.00	0.20	0.567	I	O				2.45
40.417	0.00	0.20	0.566	I	O				2.45
40.500	0.00	0.20	0.565	I	O				2.45
40.583	0.00	0.20	0.563	I	O				2.44
40.667	0.00	0.20	0.562	I	O				2.44
40.750	0.00	0.20	0.561	I	O				2.43
40.833	0.00	0.20	0.559	I	O				2.43
40.917	0.00	0.20	0.558	I	O				2.42
41.000	0.00	0.20	0.556	I	O				2.42
41.083	0.00	0.20	0.555	I	O				2.41
41.167	0.00	0.20	0.554	I	O				2.41
41.250	0.00	0.20	0.552	I	O				2.40
41.333	0.00	0.20	0.551	I	O				2.40
41.417	0.00	0.20	0.550	I	O				2.39
41.500	0.00	0.20	0.548	I	O				2.39
41.583	0.00	0.20	0.547	I	O				2.38
41.667	0.00	0.20	0.546	I	O				2.38
41.750	0.00	0.20	0.544	I	O				2.37
41.833	0.00	0.20	0.543	I	O				2.37
41.917	0.00	0.20	0.542	I	O				2.36
42.000	0.00	0.20	0.540	I	O				2.36
42.083	0.00	0.20	0.539	I	O				2.35
42.167	0.00	0.20	0.538	I	O				2.35
42.250	0.00	0.20	0.536	I	O				2.34
42.333	0.00	0.20	0.535	I	O				2.34
42.417	0.00	0.20	0.534	I	O				2.33
42.500	0.00	0.20	0.532	I	O				2.33
42.583	0.00	0.20	0.531	I	O				2.32
42.667	0.00	0.20	0.529	I	O				2.32
42.750	0.00	0.20	0.528	I	O				2.31
42.833	0.00	0.20	0.527	I	O				2.31
42.917	0.00	0.20	0.525	I	O				2.30
43.000	0.00	0.20	0.524	I	O				2.30
43.083	0.00	0.20	0.523	I	O				2.30
43.167	0.00	0.20	0.521	I	O				2.29
43.250	0.00	0.20	0.520	I	O				2.29

43.333	0.00	0.20	0.519	I	O				2.28
43.417	0.00	0.20	0.517	I	O				2.28
43.500	0.00	0.20	0.516	I	O				2.27
43.583	0.00	0.20	0.515	I	O				2.27
43.667	0.00	0.20	0.513	I	O				2.26
43.750	0.00	0.20	0.512	I	O				2.26
43.833	0.00	0.20	0.511	I	O				2.25
43.917	0.00	0.20	0.509	I	O				2.25
44.000	0.00	0.20	0.508	I	O				2.24
44.083	0.00	0.20	0.506	I	O				2.24
44.167	0.00	0.20	0.505	I	O				2.23
44.250	0.00	0.20	0.504	I	O				2.23
44.333	0.00	0.20	0.502	I	O				2.22
44.417	0.00	0.20	0.501	I	O				2.22
44.500	0.00	0.20	0.500	I	O				2.21
44.583	0.00	0.20	0.498	I	O				2.21
44.667	0.00	0.20	0.497	I	O				2.20
44.750	0.00	0.20	0.496	I	O				2.20
44.833	0.00	0.20	0.494	I	O				2.19
44.917	0.00	0.20	0.493	I	O				2.19
45.000	0.00	0.20	0.492	I	O				2.18
45.083	0.00	0.20	0.490	I	O				2.18
45.167	0.00	0.20	0.489	I	O				2.17
45.250	0.00	0.20	0.488	I	O				2.17
45.333	0.00	0.20	0.486	I	O				2.16
45.417	0.00	0.20	0.485	I	O				2.16
45.500	0.00	0.20	0.483	I	O				2.16
45.583	0.00	0.20	0.482	I	O				2.15
45.667	0.00	0.20	0.481	I	O				2.15
45.750	0.00	0.20	0.479	I	O				2.14
45.833	0.00	0.20	0.478	I	O				2.14
45.917	0.00	0.20	0.477	I	O				2.13
46.000	0.00	0.20	0.475	I	O				2.13
46.083	0.00	0.20	0.474	I	O				2.12
46.167	0.00	0.20	0.473	I	O				2.12
46.250	0.00	0.20	0.471	I	O				2.11
46.333	0.00	0.20	0.470	I	O				2.11
46.417	0.00	0.20	0.469	I	O				2.10
46.500	0.00	0.20	0.467	I	O				2.10
46.583	0.00	0.20	0.466	I	O				2.09
46.667	0.00	0.20	0.465	I	O				2.09
46.750	0.00	0.20	0.463	I	O				2.08
46.833	0.00	0.20	0.462	I	O				2.08
46.917	0.00	0.20	0.460	I	O				2.07
47.000	0.00	0.20	0.459	I	O				2.07
47.083	0.00	0.20	0.458	I	O				2.06
47.167	0.00	0.20	0.456	I	O				2.06
47.250	0.00	0.20	0.455	I	O				2.05
47.333	0.00	0.20	0.454	I	O				2.05
47.417	0.00	0.20	0.452	I	O				2.04

47.500	0.00	0.20	0.451	I	O	|	|	|	2.04
47.583	0.00	0.20	0.450	I	O	|	|	|	2.03
47.667	0.00	0.20	0.448	I	O	|	|	|	2.03
47.750	0.00	0.20	0.447	I	O	|	|	|	2.02
47.833	0.00	0.20	0.446	I	O	|	|	|	2.02
47.917	0.00	0.20	0.444	I	O	|	|	|	2.02
48.000	0.00	0.20	0.443	I	O	|	|	|	2.01
48.083	0.00	0.20	0.442	I	O	|	|	|	2.01
48.167	0.00	0.20	0.440	I	O	|	|	|	2.00
48.250	0.00	0.20	0.439	I	O	|	|	|	2.00
48.333	0.00	0.20	0.437	I	O	|	|	|	1.99
48.417	0.00	0.20	0.436	I	O	|	|	|	1.98
48.500	0.00	0.20	0.435	I	O	|	|	|	1.98
48.583	0.00	0.20	0.433	I	O	|	|	|	1.97
48.667	0.00	0.20	0.432	I	O	|	|	|	1.97
48.750	0.00	0.20	0.431	I	O	|	|	|	1.96
48.833	0.00	0.20	0.429	I	O	|	|	|	1.96
48.917	0.00	0.20	0.428	I	O	|	|	|	1.95
49.000	0.00	0.20	0.427	I	O	|	|	|	1.95
49.083	0.00	0.20	0.425	I	O	|	|	|	1.94
49.167	0.00	0.20	0.424	I	O	|	|	|	1.94
49.250	0.00	0.20	0.423	I	O	|	|	|	1.93
49.333	0.00	0.20	0.421	I	O	|	|	|	1.93
49.417	0.00	0.20	0.420	I	O	|	|	|	1.92
49.500	0.00	0.20	0.419	I	O	|	|	|	1.92
49.583	0.00	0.20	0.417	I	O	|	|	|	1.91
49.667	0.00	0.20	0.416	I	O	|	|	|	1.90
49.750	0.00	0.20	0.415	I	O	|	|	|	1.90
49.833	0.00	0.20	0.413	I	O	|	|	|	1.89
49.917	0.00	0.20	0.412	I	O	|	|	|	1.89
50.000	0.00	0.20	0.410	I	O	|	|	|	1.88
50.083	0.00	0.20	0.409	I	O	|	|	|	1.88
50.167	0.00	0.20	0.408	I	O	|	|	|	1.87
50.250	0.00	0.20	0.406	I	O	|	|	|	1.87
50.333	0.00	0.20	0.405	I	O	|	|	|	1.86
50.417	0.00	0.20	0.404	I	O	|	|	|	1.86
50.500	0.00	0.20	0.402	I	O	|	|	|	1.85
50.583	0.00	0.20	0.401	I	O	|	|	|	1.85
50.667	0.00	0.20	0.400	I	O	|	|	|	1.84
50.750	0.00	0.20	0.398	I	O	|	|	|	1.84
50.833	0.00	0.20	0.397	I	O	|	|	|	1.83
50.917	0.00	0.20	0.396	I	O	|	|	|	1.83
51.000	0.00	0.20	0.394	I	O	|	|	|	1.82
51.083	0.00	0.20	0.393	I	O	|	|	|	1.81
51.167	0.00	0.20	0.392	I	O	|	|	|	1.81
51.250	0.00	0.20	0.390	I	O	|	|	|	1.80
51.333	0.00	0.20	0.389	I	O	|	|	|	1.80
51.417	0.00	0.20	0.387	I	O	|	|	|	1.79
51.500	0.00	0.20	0.386	I	O	|	|	|	1.79
51.583	0.00	0.20	0.385	I	O	|	|	|	1.78

51.667	0.00	0.20	0.383	I	O					1.78
51.750	0.00	0.20	0.382	I	O					1.77
51.833	0.00	0.20	0.381	I	O					1.77
51.917	0.00	0.20	0.379	I	O					1.76
52.000	0.00	0.20	0.378	I	O					1.76
52.083	0.00	0.20	0.377	I	O					1.75
52.167	0.00	0.20	0.375	I	O					1.75
52.250	0.00	0.20	0.374	I	O					1.74
52.333	0.00	0.20	0.373	I	O					1.73
52.417	0.00	0.20	0.371	I	O					1.73
52.500	0.00	0.20	0.370	I	O					1.72
52.583	0.00	0.20	0.369	I	O					1.72
52.667	0.00	0.20	0.367	I	O					1.71
52.750	0.00	0.20	0.366	I	O					1.71
52.833	0.00	0.20	0.364	I	O					1.70
52.917	0.00	0.20	0.363	I	O					1.70
53.000	0.00	0.20	0.362	I	O					1.69
53.083	0.00	0.20	0.360	I	O					1.69
53.167	0.00	0.20	0.359	I	O					1.68
53.250	0.00	0.20	0.358	I	O					1.68
53.333	0.00	0.20	0.356	I	O					1.67
53.417	0.00	0.20	0.355	I	O					1.67
53.500	0.00	0.20	0.354	I	O					1.66
53.583	0.00	0.20	0.352	I	O					1.65
53.667	0.00	0.20	0.351	I	O					1.65
53.750	0.00	0.20	0.350	I	O					1.64
53.833	0.00	0.20	0.348	I	O					1.64
53.917	0.00	0.20	0.347	I	O					1.63
54.000	0.00	0.20	0.346	I	O					1.63
54.083	0.00	0.20	0.344	I	O					1.62
54.167	0.00	0.20	0.343	I	O					1.62
54.250	0.00	0.20	0.341	I	O					1.61
54.333	0.00	0.20	0.340	I	O					1.61
54.417	0.00	0.20	0.339	I	O					1.60
54.500	0.00	0.20	0.337	I	O					1.60
54.583	0.00	0.20	0.336	I	O					1.59
54.667	0.00	0.20	0.335	I	O					1.59
54.750	0.00	0.20	0.333	I	O					1.58
54.833	0.00	0.20	0.332	I	O					1.57
54.917	0.00	0.20	0.331	I	O					1.57
55.000	0.00	0.20	0.329	I	O					1.56
55.083	0.00	0.20	0.328	I	O					1.56
55.167	0.00	0.20	0.327	I	O					1.55
55.250	0.00	0.20	0.325	I	O					1.55
55.333	0.00	0.20	0.324	I	O					1.54
55.417	0.00	0.20	0.323	I	O					1.54
55.500	0.00	0.20	0.321	I	O					1.53
55.583	0.00	0.20	0.320	I	O					1.53
55.667	0.00	0.20	0.318	I	O					1.52
55.750	0.00	0.20	0.317	I	O					1.52

55.833	0.00	0.20	0.316	I	O					1.51
55.917	0.00	0.20	0.314	I	O					1.51
56.000	0.00	0.20	0.313	I	O					1.50
56.083	0.00	0.20	0.312	I	O					1.49
56.167	0.00	0.20	0.310	I	O					1.49
56.250	0.00	0.20	0.309	I	O					1.48
56.333	0.00	0.20	0.308	I	O					1.48
56.417	0.00	0.20	0.306	I	O					1.47
56.500	0.00	0.20	0.305	I	O					1.47
56.583	0.00	0.20	0.304	I	O					1.46
56.667	0.00	0.20	0.302	I	O					1.45
56.750	0.00	0.20	0.301	I	O					1.45
56.833	0.00	0.20	0.300	I	O					1.44
56.917	0.00	0.20	0.298	I	O					1.44
57.000	0.00	0.20	0.297	I	O					1.43
57.083	0.00	0.20	0.296	I	O					1.42
57.167	0.00	0.20	0.294	I	O					1.42
57.250	0.00	0.20	0.293	I	O					1.41
57.333	0.00	0.20	0.291	I	O					1.41
57.417	0.00	0.20	0.290	I	O					1.40
57.500	0.00	0.20	0.289	I	O					1.40
57.583	0.00	0.20	0.287	I	O					1.39
57.667	0.00	0.20	0.286	I	O					1.38
57.750	0.00	0.20	0.285	I	O					1.38
57.833	0.00	0.20	0.283	I	O					1.37
57.917	0.00	0.20	0.282	I	O					1.37
58.000	0.00	0.20	0.281	I	O					1.36
58.083	0.00	0.20	0.279	I	O					1.35
58.167	0.00	0.20	0.278	I	O					1.35
58.250	0.00	0.20	0.277	I	O					1.34
58.333	0.00	0.20	0.275	I	O					1.34
58.417	0.00	0.20	0.274	I	O					1.33
58.500	0.00	0.20	0.273	I	O					1.33
58.583	0.00	0.20	0.271	I	O					1.32
58.667	0.00	0.20	0.270	I	O					1.31
58.750	0.00	0.20	0.268	I	O					1.31
58.833	0.00	0.20	0.267	I	O					1.30
58.917	0.00	0.20	0.266	I	O					1.30
59.000	0.00	0.20	0.264	I	O					1.29
59.083	0.00	0.20	0.263	I	O					1.28
59.167	0.00	0.20	0.262	I	O					1.28
59.250	0.00	0.20	0.260	I	O					1.27
59.333	0.00	0.20	0.259	I	O					1.27
59.417	0.00	0.20	0.258	I	O					1.26
59.500	0.00	0.20	0.256	I	O					1.26
59.583	0.00	0.20	0.255	I	O					1.25
59.667	0.00	0.20	0.254	I	O					1.24
59.750	0.00	0.20	0.252	I	O					1.24
59.833	0.00	0.20	0.251	I	O					1.23
59.917	0.00	0.20	0.250	I	O					1.23

60.000	0.00	0.20	0.248	I	O	|	|	|	1.22
60.083	0.00	0.20	0.247	I	O	|	|	|	1.21
60.167	0.00	0.20	0.245	I	O	|	|	|	1.21
60.250	0.00	0.20	0.244	I	O	|	|	|	1.20
60.333	0.00	0.20	0.243	I	O	|	|	|	1.20
60.417	0.00	0.20	0.241	I	O	|	|	|	1.19
60.500	0.00	0.20	0.240	I	O	|	|	|	1.19
60.583	0.00	0.20	0.239	I	O	|	|	|	1.18
60.667	0.00	0.20	0.237	I	O	|	|	|	1.17
60.750	0.00	0.20	0.236	I	O	|	|	|	1.17
60.833	0.00	0.20	0.235	I	O	|	|	|	1.16
60.917	0.00	0.20	0.233	I	O	|	|	|	1.16
61.000	0.00	0.20	0.232	I	O	|	|	|	1.15
61.083	0.00	0.20	0.231	I	O	|	|	|	1.14
61.167	0.00	0.20	0.229	I	O	|	|	|	1.14
61.250	0.00	0.20	0.228	I	O	|	|	|	1.13
61.333	0.00	0.20	0.227	I	O	|	|	|	1.13
61.417	0.00	0.20	0.225	I	O	|	|	|	1.12
61.500	0.00	0.20	0.224	I	O	|	|	|	1.12
61.583	0.00	0.20	0.222	I	O	|	|	|	1.11
61.667	0.00	0.20	0.221	I	O	|	|	|	1.10
61.750	0.00	0.20	0.220	I	O	|	|	|	1.10
61.833	0.00	0.20	0.218	I	O	|	|	|	1.09
61.917	0.00	0.20	0.217	I	O	|	|	|	1.09
62.000	0.00	0.20	0.216	I	O	|	|	|	1.08
62.083	0.00	0.20	0.214	I	O	|	|	|	1.07
62.167	0.00	0.20	0.213	I	O	|	|	|	1.07
62.250	0.00	0.20	0.212	I	O	|	|	|	1.06
62.333	0.00	0.20	0.210	I	O	|	|	|	1.06
62.417	0.00	0.20	0.209	I	O	|	|	|	1.05
62.500	0.00	0.20	0.208	I	O	|	|	|	1.05
62.583	0.00	0.20	0.206	I	O	|	|	|	1.04
62.667	0.00	0.20	0.205	I	O	|	|	|	1.03
62.750	0.00	0.20	0.204	I	O	|	|	|	1.03
62.833	0.00	0.20	0.202	I	O	|	|	|	1.02
62.917	0.00	0.20	0.201	I	O	|	|	|	1.02
63.000	0.00	0.20	0.199	I	O	|	|	|	1.01
63.083	0.00	0.20	0.198	I	O	|	|	|	1.00
63.167	0.00	0.20	0.197	I	O	|	|	|	1.00
63.250	0.00	0.19	0.195	I	O	|	|	|	0.99
63.333	0.00	0.19	0.194	I	O	|	|	|	0.99
63.417	0.00	0.19	0.193	I	O	|	|	|	0.98
63.500	0.00	0.19	0.192	I	O	|	|	|	0.97
63.583	0.00	0.18	0.190	I	O	|	|	|	0.97
63.667	0.00	0.18	0.189	I	O	|	|	|	0.96
63.750	0.00	0.18	0.188	I	O	|	|	|	0.96
63.833	0.00	0.18	0.187	I	O	|	|	|	0.95
63.917	0.00	0.17	0.185	I	O	|	|	|	0.94
64.000	0.00	0.17	0.184	I	O	|	|	|	0.94
64.083	0.00	0.17	0.183	I	O	|	|	|	0.93

64.167	0.00	0.17	0.182	I O				0.93
64.250	0.00	0.17	0.181	I O				0.92
64.333	0.00	0.16	0.180	I O				0.92
64.417	0.00	0.16	0.178	I O				0.91
64.500	0.00	0.16	0.177	I O				0.91
64.583	0.00	0.16	0.176	I O				0.90
64.667	0.00	0.16	0.175	I O				0.89
64.750	0.00	0.15	0.174	I O				0.89
64.833	0.00	0.15	0.173	I O				0.88
64.917	0.00	0.15	0.172	I O				0.88
65.000	0.00	0.15	0.171	I O				0.87
65.083	0.00	0.15	0.170	I O				0.87
65.167	0.00	0.14	0.169	I O				0.87
65.250	0.00	0.14	0.168	I O				0.86
65.333	0.00	0.14	0.167	I O				0.86
65.417	0.00	0.14	0.166	I O				0.85
65.500	0.00	0.14	0.165	I O				0.85
65.583	0.00	0.13	0.164	I O				0.84
65.667	0.00	0.13	0.163	I O				0.84
65.750	0.00	0.13	0.162	I O				0.83
65.833	0.00	0.13	0.161	I O				0.83
65.917	0.00	0.13	0.161	I O				0.82
66.000	0.00	0.13	0.160	I O				0.82
66.083	0.00	0.12	0.159	I O				0.82
66.167	0.00	0.12	0.158	I O				0.81
66.250	0.00	0.12	0.157	I O				0.81
66.333	0.00	0.12	0.156	I O				0.80
66.417	0.00	0.12	0.156	I O				0.80
66.500	0.00	0.12	0.155	I O				0.80
66.583	0.00	0.11	0.154	I O				0.79
66.667	0.00	0.11	0.153	IO				0.79
66.750	0.00	0.11	0.152	IO				0.79
66.833	0.00	0.11	0.152	IO				0.78
66.917	0.00	0.11	0.151	IO				0.78
67.000	0.00	0.11	0.150	IO				0.77
67.083	0.00	0.11	0.149	IO				0.77
67.167	0.00	0.10	0.149	IO				0.77
67.250	0.00	0.10	0.148	IO				0.76
67.333	0.00	0.10	0.147	IO				0.76
67.417	0.00	0.10	0.146	IO				0.76
67.500	0.00	0.10	0.146	IO				0.75
67.583	0.00	0.10	0.145	IO				0.75
67.667	0.00	0.10	0.144	IO				0.75
67.750	0.00	0.10	0.144	IO				0.74
67.833	0.00	0.09	0.143	IO				0.74
67.917	0.00	0.09	0.142	IO				0.74
68.000	0.00	0.09	0.142	IO				0.73
68.083	0.00	0.09	0.141	IO				0.73
68.167	0.00	0.09	0.141	IO				0.73
68.250	0.00	0.09	0.140	IO				0.73

68.333	0.00	0.09	0.139	IO				0.72
68.417	0.00	0.09	0.139	IO				0.72
68.500	0.00	0.09	0.138	IO				0.72
68.583	0.00	0.08	0.138	IO				0.71
68.667	0.00	0.08	0.137	IO				0.71
68.750	0.00	0.08	0.136	IO				0.71
68.833	0.00	0.08	0.136	IO				0.71
68.917	0.00	0.08	0.135	IO				0.70
69.000	0.00	0.08	0.135	IO				0.70
69.083	0.00	0.08	0.134	IO				0.70
69.167	0.00	0.08	0.134	IO				0.70
69.250	0.00	0.08	0.133	IO				0.69
69.333	0.00	0.07	0.133	IO				0.69
69.417	0.00	0.07	0.132	IO				0.69
69.500	0.00	0.07	0.132	IO				0.69
69.583	0.00	0.07	0.131	IO				0.68
69.667	0.00	0.07	0.131	IO				0.68
69.750	0.00	0.07	0.130	IO				0.68
69.833	0.00	0.07	0.130	IO				0.68
69.917	0.00	0.07	0.129	IO				0.67
70.000	0.00	0.07	0.129	IO				0.67
70.083	0.00	0.07	0.128	IO				0.67
70.167	0.00	0.07	0.128	IO				0.67
70.250	0.00	0.06	0.127	IO				0.67
70.333	0.00	0.06	0.127	IO				0.66
70.417	0.00	0.06	0.126	IO				0.66
70.500	0.00	0.06	0.126	IO				0.66
70.583	0.00	0.06	0.126	IO				0.66
70.667	0.00	0.06	0.125	IO				0.65
70.750	0.00	0.06	0.125	IO				0.65
70.833	0.00	0.06	0.124	IO				0.65
70.917	0.00	0.06	0.124	IO				0.65
71.000	0.00	0.06	0.124	IO				0.65
71.083	0.00	0.06	0.123	O				0.65
71.167	0.00	0.06	0.123	O				0.64
71.250	0.00	0.06	0.122	O				0.64
71.333	0.00	0.05	0.122	O				0.64
71.417	0.00	0.05	0.122	O				0.64
71.500	0.00	0.05	0.121	O				0.64
71.583	0.00	0.05	0.121	O				0.63
71.667	0.00	0.05	0.121	O				0.63
71.750	0.00	0.05	0.120	O				0.63
71.833	0.00	0.05	0.120	O				0.63
71.917	0.00	0.05	0.119	O				0.63
72.000	0.00	0.05	0.119	O				0.63
72.083	0.00	0.05	0.119	O				0.62
72.167	0.00	0.05	0.118	O				0.62
72.250	0.00	0.05	0.118	O				0.62
72.333	0.00	0.05	0.118	O				0.62
72.417	0.00	0.05	0.118	O				0.62

72.500	0.00	0.05	0.117	O	|	|	|	0.62
72.583	0.00	0.05	0.117	O	|	|	|	0.61
72.667	0.00	0.04	0.117	O	|	|	|	0.61
72.750	0.00	0.04	0.116	O	|	|	|	0.61
72.833	0.00	0.04	0.116	O	|	|	|	0.61
72.917	0.00	0.04	0.116	O	|	|	|	0.61
73.000	0.00	0.04	0.115	O	|	|	|	0.61
73.083	0.00	0.04	0.115	O	|	|	|	0.61
73.167	0.00	0.04	0.115	O	|	|	|	0.60
73.250	0.00	0.04	0.115	O	|	|	|	0.60
73.333	0.00	0.04	0.114	O	|	|	|	0.60
73.417	0.00	0.04	0.114	O	|	|	|	0.60
73.500	0.00	0.04	0.114	O	|	|	|	0.60
73.583	0.00	0.04	0.113	O	|	|	|	0.60
73.667	0.00	0.04	0.113	O	|	|	|	0.60
73.750	0.00	0.04	0.113	O	|	|	|	0.60
73.833	0.00	0.04	0.113	O	|	|	|	0.59
73.917	0.00	0.04	0.112	O	|	|	|	0.59
74.000	0.00	0.04	0.112	O	|	|	|	0.59
74.083	0.00	0.04	0.112	O	|	|	|	0.59
74.167	0.00	0.04	0.112	O	|	|	|	0.59
74.250	0.00	0.03	0.111	O	|	|	|	0.59
74.333	0.00	0.03	0.111	O	|	|	|	0.59
74.417	0.00	0.03	0.111	O	|	|	|	0.59
74.500	0.00	0.03	0.111	O	|	|	|	0.59
74.583	0.00	0.03	0.110	O	|	|	|	0.58
74.667	0.00	0.03	0.110	O	|	|	|	0.58
74.750	0.00	0.03	0.110	O	|	|	|	0.58
74.833	0.00	0.03	0.110	O	|	|	|	0.58
74.917	0.00	0.03	0.110	O	|	|	|	0.58
75.000	0.00	0.03	0.109	O	|	|	|	0.58
75.083	0.00	0.03	0.109	O	|	|	|	0.58
75.167	0.00	0.03	0.109	O	|	|	|	0.58
75.250	0.00	0.03	0.109	O	|	|	|	0.58
75.333	0.00	0.03	0.109	O	|	|	|	0.57
75.417	0.00	0.03	0.108	O	|	|	|	0.57
75.500	0.00	0.03	0.108	O	|	|	|	0.57
75.583	0.00	0.03	0.108	O	|	|	|	0.57
75.667	0.00	0.03	0.108	O	|	|	|	0.57
75.750	0.00	0.03	0.108	O	|	|	|	0.57
75.833	0.00	0.03	0.107	O	|	|	|	0.57
75.917	0.00	0.03	0.107	O	|	|	|	0.57
76.000	0.00	0.03	0.107	O	|	|	|	0.57
76.083	0.00	0.03	0.107	O	|	|	|	0.57
76.167	0.00	0.03	0.107	O	|	|	|	0.57
76.250	0.00	0.03	0.106	O	|	|	|	0.56
76.333	0.00	0.03	0.106	O	|	|	|	0.56
76.417	0.00	0.02	0.106	O	|	|	|	0.56
76.500	0.00	0.02	0.106	O	|	|	|	0.56
76.583	0.00	0.02	0.106	O	|	|	|	0.56

76.667	0.00	0.02	0.106	O				0.56
76.750	0.00	0.02	0.105	O				0.56
76.833	0.00	0.02	0.105	O				0.56
76.917	0.00	0.02	0.105	O				0.56
77.000	0.00	0.02	0.105	O				0.56
77.083	0.00	0.02	0.105	O				0.56
77.167	0.00	0.02	0.105	O				0.56
77.250	0.00	0.02	0.105	O				0.56
77.333	0.00	0.02	0.104	O				0.55
77.417	0.00	0.02	0.104	O				0.55
77.500	0.00	0.02	0.104	O				0.55
77.583	0.00	0.02	0.104	O				0.55
77.667	0.00	0.02	0.104	O				0.55
77.750	0.00	0.02	0.104	O				0.55
77.833	0.00	0.02	0.104	O				0.55
77.917	0.00	0.02	0.103	O				0.55
78.000	0.00	0.02	0.103	O				0.55
78.083	0.00	0.02	0.103	O				0.55
78.167	0.00	0.02	0.103	O				0.55
78.250	0.00	0.02	0.103	O				0.55
78.333	0.00	0.02	0.103	O				0.55
78.417	0.00	0.02	0.103	O				0.55
78.500	0.00	0.02	0.102	O				0.55
78.583	0.00	0.02	0.102	O				0.55
78.667	0.00	0.02	0.102	O				0.54
78.750	0.00	0.02	0.102	O				0.54
78.833	0.00	0.02	0.102	O				0.54
78.917	0.00	0.02	0.102	O				0.54
79.000	0.00	0.02	0.102	O				0.54
79.083	0.00	0.02	0.102	O				0.54
79.167	0.00	0.02	0.102	O				0.54
79.250	0.00	0.02	0.101	O				0.54
79.333	0.00	0.02	0.101	O				0.54
79.417	0.00	0.02	0.101	O				0.54
79.500	0.00	0.02	0.101	O				0.54
79.583	0.00	0.02	0.101	O				0.54
79.667	0.00	0.01	0.101	O				0.54
79.750	0.00	0.01	0.101	O				0.54
79.833	0.00	0.01	0.101	O				0.54
79.917	0.00	0.01	0.101	O				0.54
80.000	0.00	0.01	0.101	O				0.54
80.083	0.00	0.01	0.100	O				0.54
80.167	0.00	0.01	0.100	O				0.54
80.250	0.00	0.01	0.100	O				0.53
80.333	0.00	0.01	0.100	O				0.53
80.417	0.00	0.01	0.100	O				0.53
80.500	0.00	0.01	0.100	O				0.53
80.583	0.00	0.01	0.100	O				0.53
80.667	0.00	0.01	0.100	O				0.53
80.750	0.00	0.01	0.100	O				0.53

80.833	0.00	0.01	0.100	O	|	|	|	0.53
80.917	0.00	0.01	0.100	O	|	|	|	0.53
81.000	0.00	0.01	0.099	O	|	|	|	0.53
81.083	0.00	0.01	0.099	O	|	|	|	0.53
81.167	0.00	0.01	0.099	O	|	|	|	0.53
81.250	0.00	0.01	0.099	O	|	|	|	0.53
81.333	0.00	0.01	0.099	O	|	|	|	0.53
81.417	0.00	0.01	0.099	O	|	|	|	0.53
81.500	0.00	0.01	0.099	O	|	|	|	0.53
81.583	0.00	0.01	0.099	O	|	|	|	0.53
81.667	0.00	0.01	0.099	O	|	|	|	0.53
81.750	0.00	0.01	0.099	O	|	|	|	0.53
81.833	0.00	0.01	0.099	O	|	|	|	0.53
81.917	0.00	0.01	0.099	O	|	|	|	0.53
82.000	0.00	0.01	0.098	O	|	|	|	0.53
82.083	0.00	0.01	0.098	O	|	|	|	0.53
82.167	0.00	0.01	0.098	O	|	|	|	0.53
82.250	0.00	0.01	0.098	O	|	|	|	0.53
82.333	0.00	0.01	0.098	O	|	|	|	0.53
82.417	0.00	0.01	0.098	O	|	|	|	0.52
82.500	0.00	0.01	0.098	O	|	|	|	0.52
82.583	0.00	0.01	0.098	O	|	|	|	0.52
82.667	0.00	0.01	0.098	O	|	|	|	0.52
82.750	0.00	0.01	0.098	O	|	|	|	0.52
82.833	0.00	0.01	0.098	O	|	|	|	0.52
82.917	0.00	0.01	0.098	O	|	|	|	0.52
83.000	0.00	0.01	0.098	O	|	|	|	0.52
83.083	0.00	0.01	0.098	O	|	|	|	0.52
83.167	0.00	0.01	0.098	O	|	|	|	0.52
83.250	0.00	0.01	0.098	O	|	|	|	0.52
83.333	0.00	0.01	0.097	O	|	|	|	0.52
83.417	0.00	0.01	0.097	O	|	|	|	0.52
83.500	0.00	0.01	0.097	O	|	|	|	0.52
83.583	0.00	0.01	0.097	O	|	|	|	0.52
83.667	0.00	0.01	0.097	O	|	|	|	0.52
83.750	0.00	0.01	0.097	O	|	|	|	0.52
83.833	0.00	0.01	0.097	O	|	|	|	0.52
83.917	0.00	0.01	0.097	O	|	|	|	0.52
84.000	0.00	0.01	0.097	O	|	|	|	0.52
84.083	0.00	0.01	0.097	O	|	|	|	0.52
84.167	0.00	0.01	0.097	O	|	|	|	0.52
84.250	0.00	0.01	0.097	O	|	|	|	0.52
84.333	0.00	0.01	0.097	O	|	|	|	0.52
84.417	0.00	0.01	0.097	O	|	|	|	0.52
84.500	0.00	0.01	0.097	O	|	|	|	0.52
84.583	0.00	0.01	0.097	O	|	|	|	0.52
84.667	0.00	0.01	0.097	O	|	|	|	0.52
84.750	0.00	0.01	0.097	O	|	|	|	0.52
84.833	0.00	0.01	0.097	O	|	|	|	0.52
84.917	0.00	0.01	0.096	O	|	|	|	0.52

85.000	0.00	0.01	0.096	O	|	|	|	0.52
85.083	0.00	0.01	0.096	O	|	|	|	0.52
85.167	0.00	0.01	0.096	O	|	|	|	0.52
85.250	0.00	0.01	0.096	O	|	|	|	0.52
85.333	0.00	0.01	0.096	O	|	|	|	0.52
85.417	0.00	0.01	0.096	O	|	|	|	0.52
85.500	0.00	0.01	0.096	O	|	|	|	0.52
85.583	0.00	0.01	0.096	O	|	|	|	0.52
85.667	0.00	0.01	0.096	O	|	|	|	0.51
85.750	0.00	0.01	0.096	O	|	|	|	0.51
85.833	0.00	0.01	0.096	O	|	|	|	0.51
85.917	0.00	0.01	0.096	O	|	|	|	0.51
86.000	0.00	0.01	0.096	O	|	|	|	0.51
86.083	0.00	0.01	0.096	O	|	|	|	0.51
86.167	0.00	0.01	0.096	O	|	|	|	0.51
86.250	0.00	0.01	0.096	O	|	|	|	0.51
86.333	0.00	0.01	0.096	O	|	|	|	0.51
86.417	0.00	0.01	0.096	O	|	|	|	0.51
86.500	0.00	0.01	0.096	O	|	|	|	0.51
86.583	0.00	0.01	0.096	O	|	|	|	0.51
86.667	0.00	0.01	0.096	O	|	|	|	0.51
86.750	0.00	0.00	0.096	O	|	|	|	0.51
86.833	0.00	0.00	0.096	O	|	|	|	0.51
86.917	0.00	0.00	0.096	O	|	|	|	0.51
87.000	0.00	0.00	0.096	O	|	|	|	0.51
87.083	0.00	0.00	0.095	O	|	|	|	0.51
87.167	0.00	0.00	0.095	O	|	|	|	0.51
87.250	0.00	0.00	0.095	O	|	|	|	0.51
87.333	0.00	0.00	0.095	O	|	|	|	0.51
87.417	0.00	0.00	0.095	O	|	|	|	0.51
87.500	0.00	0.00	0.095	O	|	|	|	0.51
87.583	0.00	0.00	0.095	O	|	|	|	0.51
87.667	0.00	0.00	0.095	O	|	|	|	0.51
87.750	0.00	0.00	0.095	O	|	|	|	0.51
87.833	0.00	0.00	0.095	O	|	|	|	0.51
87.917	0.00	0.00	0.095	O	|	|	|	0.51
88.000	0.00	0.00	0.095	O	|	|	|	0.51
88.083	0.00	0.00	0.095	O	|	|	|	0.51
88.167	0.00	0.00	0.095	O	|	|	|	0.51
88.250	0.00	0.00	0.095	O	|	|	|	0.51
88.333	0.00	0.00	0.095	O	|	|	|	0.51
88.417	0.00	0.00	0.095	O	|	|	|	0.51
88.500	0.00	0.00	0.095	O	|	|	|	0.51
88.583	0.00	0.00	0.095	O	|	|	|	0.51
88.667	0.00	0.00	0.095	O	|	|	|	0.51
88.750	0.00	0.00	0.095	O	|	|	|	0.51
88.833	0.00	0.00	0.095	O	|	|	|	0.51
88.917	0.00	0.00	0.095	O	|	|	|	0.51
89.000	0.00	0.00	0.095	O	|	|	|	0.51
89.083	0.00	0.00	0.095	O	|	|	|	0.51

89.167	0.00	0.00	0.095	O	|	|	|	0.51
89.250	0.00	0.00	0.095	O	|	|	|	0.51
89.333	0.00	0.00	0.095	O	|	|	|	0.51
89.417	0.00	0.00	0.095	O	|	|	|	0.51
89.500	0.00	0.00	0.095	O	|	|	|	0.51
89.583	0.00	0.00	0.095	O	|	|	|	0.51
89.667	0.00	0.00	0.095	O	|	|	|	0.51
89.750	0.00	0.00	0.095	O	|	|	|	0.51
89.833	0.00	0.00	0.095	O	|	|	|	0.51
89.917	0.00	0.00	0.095	O	|	|	|	0.51
90.000	0.00	0.00	0.095	O	|	|	|	0.51
90.083	0.00	0.00	0.095	O	|	|	|	0.51
90.167	0.00	0.00	0.095	O	|	|	|	0.51
90.250	0.00	0.00	0.095	O	|	|	|	0.51
90.333	0.00	0.00	0.094	O	|	|	|	0.51
90.417	0.00	0.00	0.094	O	|	|	|	0.51
90.500	0.00	0.00	0.094	O	|	|	|	0.51
90.583	0.00	0.00	0.094	O	|	|	|	0.51
90.667	0.00	0.00	0.094	O	|	|	|	0.51
90.750	0.00	0.00	0.094	O	|	|	|	0.51
90.833	0.00	0.00	0.094	O	|	|	|	0.51
90.917	0.00	0.00	0.094	O	|	|	|	0.51
91.000	0.00	0.00	0.094	O	|	|	|	0.51
91.083	0.00	0.00	0.094	O	|	|	|	0.51
91.167	0.00	0.00	0.094	O	|	|	|	0.51
91.250	0.00	0.00	0.094	O	|	|	|	0.51
91.333	0.00	0.00	0.094	O	|	|	|	0.51
91.417	0.00	0.00	0.094	O	|	|	|	0.51
91.500	0.00	0.00	0.094	O	|	|	|	0.51
91.583	0.00	0.00	0.094	O	|	|	|	0.51
91.667	0.00	0.00	0.094	O	|	|	|	0.51
91.750	0.00	0.00	0.094	O	|	|	|	0.51
91.833	0.00	0.00	0.094	O	|	|	|	0.51
91.917	0.00	0.00	0.094	O	|	|	|	0.51
92.000	0.00	0.00	0.094	O	|	|	|	0.51
92.083	0.00	0.00	0.094	O	|	|	|	0.51
92.167	0.00	0.00	0.094	O	|	|	|	0.51
92.250	0.00	0.00	0.094	O	|	|	|	0.51
92.333	0.00	0.00	0.094	O	|	|	|	0.51
92.417	0.00	0.00	0.094	O	|	|	|	0.51
92.500	0.00	0.00	0.094	O	|	|	|	0.51
92.583	0.00	0.00	0.094	O	|	|	|	0.51
92.667	0.00	0.00	0.094	O	|	|	|	0.51
92.750	0.00	0.00	0.094	O	|	|	|	0.50
92.833	0.00	0.00	0.094	O	|	|	|	0.50
92.917	0.00	0.00	0.094	O	|	|	|	0.50
93.000	0.00	0.00	0.094	O	|	|	|	0.50
93.083	0.00	0.00	0.094	O	|	|	|	0.50
93.167	0.00	0.00	0.094	O	|	|	|	0.50
93.250	0.00	0.00	0.094	O	|	|	|	0.50

93.333	0.00	0.00	0.094	O	|	|	|	0.50
93.417	0.00	0.00	0.094	O	|	|	|	0.50
93.500	0.00	0.00	0.094	O	|	|	|	0.50
93.583	0.00	0.00	0.094	O	|	|	|	0.50
93.667	0.00	0.00	0.094	O	|	|	|	0.50
93.750	0.00	0.00	0.094	O	|	|	|	0.50
93.833	0.00	0.00	0.094	O	|	|	|	0.50
93.917	0.00	0.00	0.094	O	|	|	|	0.50
94.000	0.00	0.00	0.094	O	|	|	|	0.50
94.083	0.00	0.00	0.094	O	|	|	|	0.50
94.167	0.00	0.00	0.094	O	|	|	|	0.50
94.250	0.00	0.00	0.094	O	|	|	|	0.50
94.333	0.00	0.00	0.094	O	|	|	|	0.50
94.417	0.00	0.00	0.094	O	|	|	|	0.50
94.500	0.00	0.00	0.094	O	|	|	|	0.50
94.583	0.00	0.00	0.094	O	|	|	|	0.50
94.667	0.00	0.00	0.094	O	|	|	|	0.50
94.750	0.00	0.00	0.094	O	|	|	|	0.50
94.833	0.00	0.00	0.094	O	|	|	|	0.50
94.917	0.00	0.00	0.094	O	|	|	|	0.50
95.000	0.00	0.00	0.094	O	|	|	|	0.50
95.083	0.00	0.00	0.094	O	|	|	|	0.50
95.167	0.00	0.00	0.094	O	|	|	|	0.50
95.250	0.00	0.00	0.094	O	|	|	|	0.50
95.333	0.00	0.00	0.094	O	|	|	|	0.50
95.417	0.00	0.00	0.094	O	|	|	|	0.50
95.500	0.00	0.00	0.094	O	|	|	|	0.50
95.583	0.00	0.00	0.094	O	|	|	|	0.50
95.667	0.00	0.00	0.094	O	|	|	|	0.50
95.750	0.00	0.00	0.094	O	|	|	|	0.50
95.833	0.00	0.00	0.094	O	|	|	|	0.50
95.917	0.00	0.00	0.094	O	|	|	|	0.50
96.000	0.00	0.00	0.094	O	|	|	|	0.50
96.083	0.00	0.00	0.094	O	|	|	|	0.50
96.167	0.00	0.00	0.094	O	|	|	|	0.50
96.250	0.00	0.00	0.094	O	|	|	|	0.50
96.333	0.00	0.00	0.094	O	|	|	|	0.50
96.417	0.00	0.00	0.094	O	|	|	|	0.50
96.500	0.00	0.00	0.094	O	|	|	|	0.50
96.583	0.00	0.00	0.094	O	|	|	|	0.50
96.667	0.00	0.00	0.094	O	|	|	|	0.50
96.750	0.00	0.00	0.094	O	|	|	|	0.50
96.833	0.00	0.00	0.094	O	|	|	|	0.50
96.917	0.00	0.00	0.094	O	|	|	|	0.50
97.000	0.00	0.00	0.094	O	|	|	|	0.50

Remaining water in basin = 0.09 (Ac.Ft)

```
**************************HYDROGRAPH DATA**************************
                Number of intervals =  1164
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =        0.196 (CFS)
                Total volume =       1.023 (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
***********************************************************************

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

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

Study date 08/01/22 File: A21626DMA1Q100UH15.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 5YR-1HR UH

Drainage Area = 6.58(Ac.) = 0.010 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 6.58(Ac.) = 0.010 Sq. Mi.
Length along longest watercourse = 808.65(Ft.)
Length along longest watercourse measured to centroid = 622.75(Ft.)
Length along longest watercourse = 0.153 Mi.
Length along longest watercourse measured to centroid = 0.118 Mi.
Difference in elevation = 7.00(Ft.)
Slope along watercourse = 45.7058 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.033 Hr.
Lag time = 1.97 Min.
25% of lag time = 0.49 Min.
40% of lag time = 0.79 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]
        6.58            0.48                    3.16

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        6.58            1.25                    8.22

STORM EVENT (YEAR) =    5.00
Area Averaged 2-Year Rainfall =    0.480(In)
Area Averaged 100-Year Rainfall =    1.250(In)

Point rain (area averaged) =    0.660(In)
Areal adjustment factor =   99.99 %
Adjusted average point rain =    0.660(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     6.578           69.00         0.862
 Total Area Entered =      6.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.862        0.129       1.000      0.129
                                                 Sum (F) =   0.129
Area averaged mean soil loss (F) (In/Hr) =  0.129
Minimum soil loss rate ((In/Hr)) =  0.064
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.210
------------------------------------------------------------------------
Slope of intensity-duration curve for a 1 hour storm =0.4800
------------------------------------------------------------------------

                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        253.789         51.385              3.407
    2   0.167        507.577         39.821              2.640
    3   0.250        761.366          6.897              0.457
    4   0.333       1015.155          1.897              0.126
                              Sum = 100.000   Sum=       6.629
-----------------------------------------------------------------
```

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	4.40	0.349	(0.129)	0.073	0.275
2	0.17	4.50	0.357	(0.129)	0.075	0.282
3	0.25	5.40	0.428	(0.129)	0.090	0.338
4	0.33	5.40	0.428	(0.129)	0.090	0.338
5	0.42	5.70	0.452	(0.129)	0.095	0.357
6	0.50	6.40	0.507	(0.129)	0.106	0.401
7	0.58	7.90	0.626	0.129	(0.131)	0.497
8	0.67	9.10	0.721	0.129	(0.151)	0.592
9	0.75	12.80	1.014	0.129	(0.213)	0.886
10	0.83	25.60	2.028	0.129	(0.426)	1.900
11	0.92	7.90	0.626	0.129	(0.131)	0.497
12	1.00	4.90	0.388	(0.129)	0.082	0.307
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	6.7

Flood volume = Effective rainfall 0.56(In)
times area 6.6(Ac.)/[(In)/(Ft.)] = 0.3(Ac.Ft)
Total soil loss = 0.10(In)
Total soil loss = 0.057(Ac.Ft)
Total rainfall = 0.66(In)
Flood volume = 13271.6 Cubic Feet
Total soil loss = 2495.5 Cubic Feet

Peak flow rate of this hydrograph = 9.148(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 2.5 5.0 7.5 10.0
0+ 5	0.0065	0.94	V Q | | | |
0+10	0.0181	1.69	| V Q | | | |
0+15	0.0320	2.02	| V Q | | | |
0+20	0.0472	2.21	| V Q | | | |
0+25	0.0631	2.30	| VQ| | | |
0+30	0.0803	2.51	| Q | | |
0+35	0.1007	2.96	| |Q V | | |
0+40	0.1252	3.56	| | Q V | | |
0+45	0.1587	4.86	| | QV | |
0+50	0.2217	9.15	| | | V| Q |

```
    0+55       0.2712      7.19  |         |         |       Q |    V    |
    1+ 0       0.2942      3.34  |         |  Q      |         |       V |
    1+ 5       0.3030      1.28  |    Q    |         |         |        V|
    1+10       0.3044      0.20  Q         |         |         |        V|
    1+15       0.3047      0.04  Q         |         |         |         V
---------------------------------------------------------------------------
```

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

Study date 08/01/22 File: A21626DMA1Q100UH35.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 5YR-3HR UH

Drainage Area = 6.58(Ac.) = 0.010 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 6.58(Ac.) = 0.010 Sq. Mi.
Length along longest watercourse = 808.65(Ft.)
Length along longest watercourse measured to centroid = 622.75(Ft.)
Length along longest watercourse = 0.153 Mi.
Length along longest watercourse measured to centroid = 0.118 Mi.
Difference in elevation = 7.00(Ft.)
Slope along watercourse = 45.7058 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.033 Hr.
Lag time = 1.97 Min.
25% of lag time = 0.49 Min.
40% of lag time = 0.79 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]
        6.58            0.80                  5.26

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        6.58            1.95                 12.83

STORM EVENT (YEAR) =    5.00
Area Averaged 2-Year Rainfall =    0.800(In)
Area Averaged 100-Year Rainfall =    1.950(In)

Point rain (area averaged) =    1.069(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.069(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     6.578           69.00         0.862
 Total Area Entered =      6.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.862        0.129       1.000      0.129
                                                 Sum (F) =   0.129
Area averaged mean soil loss (F) (In/Hr) =  0.129
Minimum soil loss rate ((In/Hr)) =  0.064
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.210
------------------------------------------------------------------------

               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        253.789         51.385              3.407
    2   0.167        507.577         39.821              2.640
    3   0.250        761.366          6.897              0.457
    4   0.333       1015.155          1.897              0.126
                               Sum = 100.000   Sum=       6.629
------------------------------------------------------------------------
```

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	0.167	(0.129)	0.035	0.132
2	0.17	1.30	0.167	(0.129)	0.035	0.132
3	0.25	1.10	0.141	(0.129)	0.030	0.112
4	0.33	1.50	0.192	(0.129)	0.040	0.152
5	0.42	1.50	0.192	(0.129)	0.040	0.152
6	0.50	1.80	0.231	(0.129)	0.049	0.182
7	0.58	1.50	0.192	(0.129)	0.040	0.152
8	0.67	1.80	0.231	(0.129)	0.049	0.182
9	0.75	1.80	0.231	(0.129)	0.049	0.182
10	0.83	1.50	0.192	(0.129)	0.040	0.152
11	0.92	1.60	0.205	(0.129)	0.043	0.162
12	1.00	1.80	0.231	(0.129)	0.049	0.182
13	1.08	2.20	0.282	(0.129)	0.059	0.223
14	1.17	2.20	0.282	(0.129)	0.059	0.223
15	1.25	2.20	0.282	(0.129)	0.059	0.223
16	1.33	2.00	0.257	(0.129)	0.054	0.203
17	1.42	2.60	0.334	(0.129)	0.070	0.264
18	1.50	2.70	0.346	(0.129)	0.073	0.274
19	1.58	2.40	0.308	(0.129)	0.065	0.243
20	1.67	2.70	0.346	(0.129)	0.073	0.274
21	1.75	3.30	0.423	(0.129)	0.089	0.335
22	1.83	3.10	0.398	(0.129)	0.084	0.314
23	1.92	2.90	0.372	(0.129)	0.078	0.294
24	2.00	3.00	0.385	(0.129)	0.081	0.304
25	2.08	3.10	0.398	(0.129)	0.084	0.314
26	2.17	4.20	0.539	(0.129)	0.113	0.426
27	2.25	5.00	0.642	0.129	(0.135)	0.513
28	2.33	3.50	0.449	(0.129)	0.094	0.355
29	2.42	6.80	0.873	0.129	(0.183)	0.744
30	2.50	7.30	0.937	0.129	(0.197)	0.808
31	2.58	8.20	1.052	0.129	(0.221)	0.924
32	2.67	5.90	0.757	0.129	(0.159)	0.628
33	2.75	2.00	0.257	(0.129)	0.054	0.203
34	2.83	1.80	0.231	(0.129)	0.049	0.182
35	2.92	1.80	0.231	(0.129)	0.049	0.182
36	3.00	0.60	0.077	(0.129)	0.016	0.061
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	10.4

Flood volume = Effective rainfall 0.87(In)
times area 6.6(Ac.)/[(In)/(Ft.)] = 0.5(Ac.Ft)
Total soil loss = 0.20(In)
Total soil loss = 0.112(Ac.Ft)
Total rainfall = 1.07(In)
Flood volume = 20671.4 Cubic Feet
Total soil loss = 4862.1 Cubic Feet

Peak flow rate of this hydrograph = 5.667(CFS)

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3 - H O U R S T O R M

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

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0 2.5 5.0 7.5 10.0
0+ 5	0.0031	0.45	VQ | | | |
0+10	0.0086	0.80	V Q | | | |
0+15	0.0140	0.79	|V Q | | | |
0+20	0.0201	0.89	|V Q | | | |
0+25	0.0269	0.99	| VQ | | | |
0+30	0.0346	1.11	| V Q | | | |
0+35	0.0421	1.09	| VQ | | | |
0+40	0.0498	1.13	| Q | | | |
0+45	0.0581	1.20	| Q | | | |
0+50	0.0657	1.10	| QV | | | |
0+55	0.0730	1.06	| Q V | | | |
1+ 0	0.0808	1.14	| Q V | | | |
1+ 5	0.0900	1.34	| Q V | | | |
1+10	0.1000	1.45	| Q V | | | |
1+15	0.1102	1.47	| Q V| | | |
1+20	0.1199	1.41	| Q V | | |
1+25	0.1307	1.56	| Q |V | | |
1+30	0.1427	1.75	| Q | V | | |
1+35	0.1544	1.70	| Q | V | | |
1+40	0.1664	1.73	| Q | V | | |
1+45	0.1802	2.01	| Q | V | | |
1+50	0.1947	2.11	| Q | V | | |
1+55	0.2086	2.02	| Q | V | | |
2+ 0	0.2224	2.00	| Q | V | | |
2+ 5	0.2365	2.05	| Q | V| | |
2+10	0.2534	2.46	| Q| |V | |
2+15	0.2745	3.05	| | Q | V | |
2+20	0.2937	2.80	| |Q | V | |
2+25	0.3196	3.76	| | Q | V | |
2+30	0.3537	4.95	| | Q| V| |
2+35	0.3927	5.67	| | | Q | V |
2+40	0.4275	5.04	| | Q | V |
2+45	0.4473	2.87	| |Q | | V |
2+50	0.4580	1.56	| Q | | V |
2+55	0.4668	1.28	| Q | | V|
3+ 0	0.4723	0.80	| Q | | V|
3+ 5	0.4741	0.27	|Q | | V|
3+10	0.4745	0.05	Q | | V|

```
    3+15        0.4746       0.01  Q          |          |          |          V
-------------------------------------------------------------------------------
```

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

Study date 08/02/22 File: A21626DMA1Q100UH65.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 5YR-6HR UH

Drainage Area = 6.58(Ac.) = 0.010 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 6.58(Ac.) = 0.010 Sq. Mi.
Length along longest watercourse = 808.65(Ft.)
Length along longest watercourse measured to centroid = 622.75(Ft.)
Length along longest watercourse = 0.153 Mi.
Length along longest watercourse measured to centroid = 0.118 Mi.
Difference in elevation = 7.00(Ft.)
Slope along watercourse = 45.7058 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.033 Hr.
Lag time = 1.97 Min.
25% of lag time = 0.49 Min.
40% of lag time = 0.79 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]
        6.58            1.11                  7.30

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        6.58            2.70                 17.76

STORM EVENT (YEAR) =    5.00
Area Averaged 2-Year Rainfall =    1.110(In)
Area Averaged 100-Year Rainfall =    2.700(In)

Point rain (area averaged) =    1.482(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.482(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     6.578           69.00         0.862
 Total Area Entered =      6.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.862        0.129       1.000      0.129
                                                 Sum (F) =   0.129
Area averaged mean soil loss (F) (In/Hr) =  0.129
Minimum soil loss rate ((In/Hr)) =  0.064
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.210
------------------------------------------------------------------------

               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        253.789         51.385              3.407
    2   0.167        507.577         39.821              2.640
    3   0.250        761.366          6.897              0.457
    4   0.333       1015.155          1.897              0.126
                               Sum = 100.000   Sum=       6.629
------------------------------------------------------------------------
```

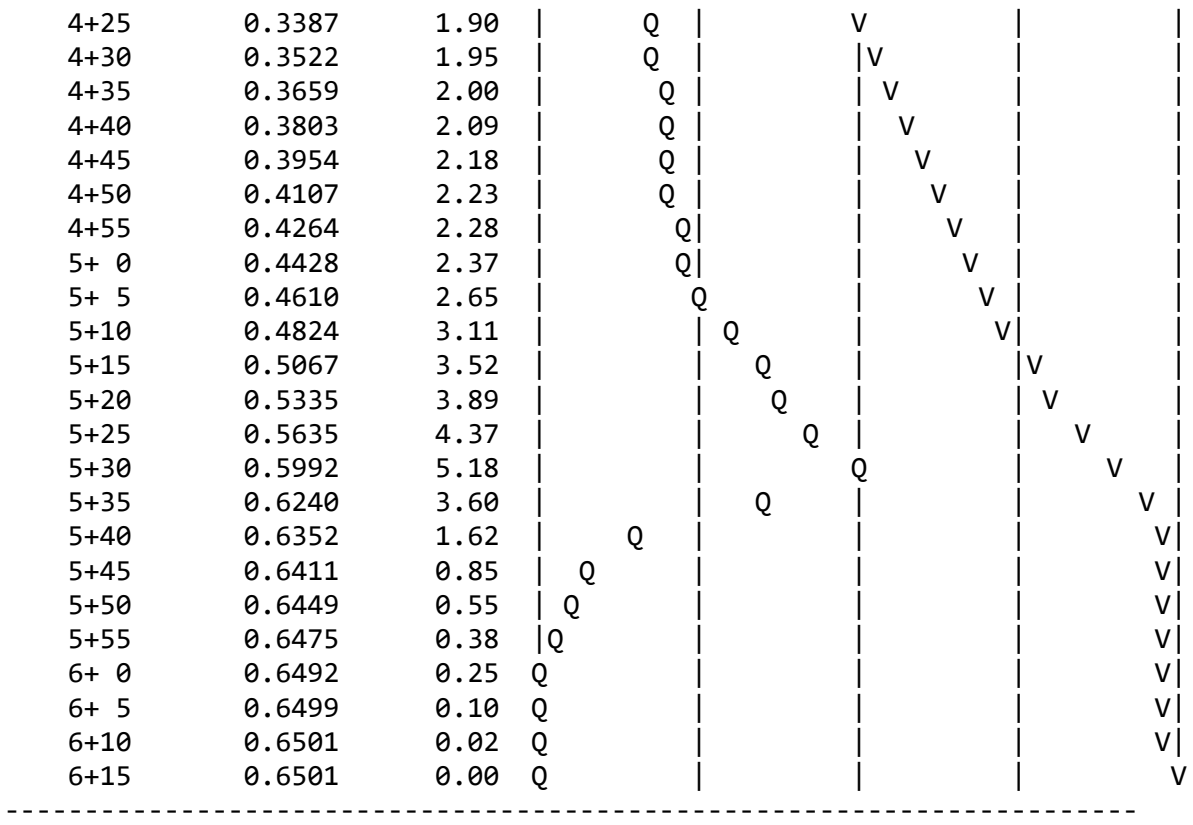
The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.50	0.089	(0.129)	0.019	0.070
2	0.17	0.60	0.107	(0.129)	0.022	0.084
3	0.25	0.60	0.107	(0.129)	0.022	0.084
4	0.33	0.60	0.107	(0.129)	0.022	0.084
5	0.42	0.60	0.107	(0.129)	0.022	0.084
6	0.50	0.70	0.125	(0.129)	0.026	0.098
7	0.58	0.70	0.125	(0.129)	0.026	0.098
8	0.67	0.70	0.125	(0.129)	0.026	0.098
9	0.75	0.70	0.125	(0.129)	0.026	0.098
10	0.83	0.70	0.125	(0.129)	0.026	0.098
11	0.92	0.70	0.125	(0.129)	0.026	0.098
12	1.00	0.80	0.142	(0.129)	0.030	0.112
13	1.08	0.80	0.142	(0.129)	0.030	0.112
14	1.17	0.80	0.142	(0.129)	0.030	0.112
15	1.25	0.80	0.142	(0.129)	0.030	0.112
16	1.33	0.80	0.142	(0.129)	0.030	0.112
17	1.42	0.80	0.142	(0.129)	0.030	0.112
18	1.50	0.80	0.142	(0.129)	0.030	0.112
19	1.58	0.80	0.142	(0.129)	0.030	0.112
20	1.67	0.80	0.142	(0.129)	0.030	0.112
21	1.75	0.80	0.142	(0.129)	0.030	0.112
22	1.83	0.80	0.142	(0.129)	0.030	0.112
23	1.92	0.80	0.142	(0.129)	0.030	0.112
24	2.00	0.90	0.160	(0.129)	0.034	0.126
25	2.08	0.80	0.142	(0.129)	0.030	0.112
26	2.17	0.90	0.160	(0.129)	0.034	0.126
27	2.25	0.90	0.160	(0.129)	0.034	0.126
28	2.33	0.90	0.160	(0.129)	0.034	0.126
29	2.42	0.90	0.160	(0.129)	0.034	0.126
30	2.50	0.90	0.160	(0.129)	0.034	0.126
31	2.58	0.90	0.160	(0.129)	0.034	0.126
32	2.67	0.90	0.160	(0.129)	0.034	0.126
33	2.75	1.00	0.178	(0.129)	0.037	0.141
34	2.83	1.00	0.178	(0.129)	0.037	0.141
35	2.92	1.00	0.178	(0.129)	0.037	0.141
36	3.00	1.00	0.178	(0.129)	0.037	0.141
37	3.08	1.00	0.178	(0.129)	0.037	0.141
38	3.17	1.10	0.196	(0.129)	0.041	0.155
39	3.25	1.10	0.196	(0.129)	0.041	0.155
40	3.33	1.10	0.196	(0.129)	0.041	0.155
41	3.42	1.20	0.213	(0.129)	0.045	0.169
42	3.50	1.30	0.231	(0.129)	0.049	0.183
43	3.58	1.40	0.249	(0.129)	0.052	0.197
44	3.67	1.40	0.249	(0.129)	0.052	0.197
45	3.75	1.50	0.267	(0.129)	0.056	0.211

```
46   3.83     1.50      0.267       (  0.129)       0.056        0.211
47   3.92     1.60      0.285       (  0.129)       0.060        0.225
48   4.00     1.60      0.285       (  0.129)       0.060        0.225
49   4.08     1.70      0.302       (  0.129)       0.064        0.239
50   4.17     1.80      0.320       (  0.129)       0.067        0.253
51   4.25     1.90      0.338       (  0.129)       0.071        0.267
52   4.33     2.00      0.356       (  0.129)       0.075        0.281
53   4.42     2.10      0.374       (  0.129)       0.078        0.295
54   4.50     2.10      0.374       (  0.129)       0.078        0.295
55   4.58     2.20      0.391       (  0.129)       0.082        0.309
56   4.67     2.30      0.409       (  0.129)       0.086        0.323
57   4.75     2.40      0.427       (  0.129)       0.090        0.337
58   4.83     2.40      0.427       (  0.129)       0.090        0.337
59   4.92     2.50      0.445       (  0.129)       0.093        0.351
60   5.00     2.60      0.463       (  0.129)       0.097        0.365
61   5.08     3.10      0.551       (  0.129)       0.116        0.436
62   5.17     3.60      0.640          0.129    (  0.134)       0.512
63   5.25     3.90      0.694          0.129    (  0.146)       0.565
64   5.33     4.20      0.747          0.129    (  0.157)       0.618
65   5.42     4.70      0.836          0.129    (  0.176)       0.707
66   5.50     5.60      0.996          0.129    (  0.209)       0.867
67   5.58     1.90      0.338       (  0.129)       0.071        0.267
68   5.67     0.90      0.160       (  0.129)       0.034        0.126
69   5.75     0.60      0.107       (  0.129)       0.022        0.084
70   5.83     0.50      0.089       (  0.129)       0.019        0.070
71   5.92     0.30      0.053       (  0.129)       0.011        0.042
72   6.00     0.20      0.036       (  0.129)       0.007        0.028
               (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    14.2
      Flood volume = Effective rainfall      1.19(In)
       times area       6.6(Ac.)/[(In)/(Ft.)] =       0.7(Ac.Ft)
      Total soil loss =      0.30(In)
      Total soil loss =     0.162(Ac.Ft)
      Total rainfall =      1.48(In)
      Flood volume =       28318.3 Cubic Feet
      Total soil loss =        7078.2 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =      5.179(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        2.5       5.0       7.5      10.0
-------------------------------------------------------------------------
  0+ 5       0.0016      0.24  Q         |         |         |         |
  0+10       0.0049      0.47  VQ        |         |         |         |
```

```
0+15       0.0086      0.54  V Q       |         |         |         |
0+20       0.0125      0.56  V Q       |         |         |         |
0+25       0.0163      0.56  |VQ       |         |         |         |
0+30       0.0205      0.61  |VQ       |         |         |         |
0+35       0.0250      0.64  |VQ       |         |         |         |
0+40       0.0294      0.65  |VQ       |         |         |         |
0+45       0.0339      0.65  | Q       |         |         |         |
0+50       0.0384      0.65  | Q       |         |         |         |
0+55       0.0429      0.65  | Q       |         |         |         |
1+ 0       0.0477      0.70  | Q       |         |         |         |
1+ 5       0.0528      0.74  | QV      |         |         |         |
1+10       0.0579      0.74  | QV      |         |         |         |
1+15       0.0631      0.75  | QV      |         |         |         |
1+20       0.0682      0.75  | Q V     |         |         |         |
1+25       0.0733      0.75  | Q V     |         |         |         |
1+30       0.0785      0.75  | Q V     |         |         |         |
1+35       0.0836      0.75  | Q  V    |         |         |         |
1+40       0.0888      0.75  | Q  V    |         |         |         |
1+45       0.0939      0.75  | Q  V    |         |         |         |
1+50       0.0990      0.75  | Q   V   |         |         |         |
1+55       0.1042      0.75  | Q   V   |         |         |         |
2+ 0       0.1096      0.79  |  Q  V   |         |         |         |
2+ 5       0.1150      0.78  |  Q   V  |         |         |         |
2+10       0.1205      0.80  |  Q   V  |         |         |         |
2+15       0.1263      0.83  |  Q   V  |         |         |         |
2+20       0.1320      0.84  |  Q    V |         |         |         |
2+25       0.1378      0.84  |  Q    V |         |         |         |
2+30       0.1436      0.84  |  Q    V |         |         |         |
2+35       0.1494      0.84  |  Q     V|         |         |         |
2+40       0.1551      0.84  |  Q     V|         |         |         |
2+45       0.1612      0.89  |  Q     V|         |         |         |
2+50       0.1676      0.92  |  Q      V         |         |         |
2+55       0.1740      0.93  |  Q      V         |         |         |
3+ 0       0.1804      0.93  |  Q      |V        |         |         |
3+ 5       0.1869      0.93  |  Q      |V        |         |         |
3+10       0.1936      0.98  |  Q      |V        |         |         |
3+15       0.2006      1.02  |   Q     | V       |         |         |
3+20       0.2077      1.02  |   Q     | V       |         |         |
3+25       0.2150      1.07  |   Q     |  V      |         |         |
3+30       0.2230      1.16  |   Q     |  V      |         |         |
3+35       0.2316      1.25  |   Q     |   V     |         |         |
3+40       0.2405      1.29  |    Q    |   V     |         |         |
3+45       0.2499      1.35  |    Q    |    V    |         |         |
3+50       0.2594      1.39  |    Q    |    V    |         |         |
3+55       0.2694      1.44  |    Q    |     V   |         |         |
4+ 0       0.2796      1.48  |    Q    |      V  |         |         |
4+ 5       0.2902      1.54  |     Q   |      V  |         |         |
4+10       0.3014      1.62  |     Q   |       V |         |         |
4+15       0.3132      1.72  |     Q   |        V|         |         |
4+20       0.3256      1.81  |      Q  |         V         |         |
```


4+25 0.3387 1.90
4+30 0.3522 1.95
4+35 0.3659 2.00
4+40 0.3803 2.09
4+45 0.3954 2.18
4+50 0.4107 2.23
4+55 0.4264 2.28
5+ 0 0.4428 2.37
5+ 5 0.4610 2.65
5+10 0.4824 3.11
5+15 0.5067 3.52
5+20 0.5335 3.89
5+25 0.5635 4.37
5+30 0.5992 5.18
5+35 0.6240 3.60
5+40 0.6352 1.62
5+45 0.6411 0.85
5+50 0.6449 0.55
5+55 0.6475 0.38
6+ 0 0.6492 0.25
6+ 5 0.6499 0.10
6+10 0.6501 0.02
6+15 0.6501 0.00

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

Study date 08/02/22 File: A21626DMA1Q100UH245.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 5YR-24HR UH

Drainage Area = 6.58(Ac.) = 0.010 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 6.58(Ac.) = 0.010 Sq. Mi.
Length along longest watercourse = 808.65(Ft.)
Length along longest watercourse measured to centroid = 622.75(Ft.)
Length along longest watercourse = 0.153 Mi.
Length along longest watercourse measured to centroid = 0.118 Mi.
Difference in elevation = 7.00(Ft.)
Slope along watercourse = 45.7058 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.033 Hr.
Lag time = 1.97 Min.
25% of lag time = 0.49 Min.
40% of lag time = 0.79 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]
        6.58            1.90                  12.50

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        6.58            4.80                  31.57

STORM EVENT (YEAR) =    5.00
Area Averaged 2-Year Rainfall =    1.900(In)
Area Averaged 100-Year Rainfall =    4.800(In)

Point rain (area averaged) =    2.579(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    2.579(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     6.578           69.00         0.862
 Total Area Entered =      6.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.862        0.129       1.000      0.129
                                                 Sum (F) =   0.129
Area averaged mean soil loss (F) (In/Hr) =  0.129
Minimum soil loss rate ((In/Hr)) =  0.064
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.210
------------------------------------------------------------------------

               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        253.789         51.385              3.407
    2   0.167        507.577         39.821              2.640
    3   0.250        761.366          6.897              0.457
    4   0.333       1015.155          1.897              0.126
                               Sum = 100.000   Sum=       6.629
------------------------------------------------------------------------
```

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	0.021	(0.228)	0.004	0.016
2	0.17	0.07	0.021	(0.227)	0.004	0.016
3	0.25	0.07	0.021	(0.226)	0.004	0.016
4	0.33	0.10	0.031	(0.225)	0.006	0.024
5	0.42	0.10	0.031	(0.225)	0.006	0.024
6	0.50	0.10	0.031	(0.224)	0.006	0.024
7	0.58	0.10	0.031	(0.223)	0.006	0.024
8	0.67	0.10	0.031	(0.222)	0.006	0.024
9	0.75	0.10	0.031	(0.221)	0.006	0.024
10	0.83	0.13	0.041	(0.220)	0.009	0.033
11	0.92	0.13	0.041	(0.219)	0.009	0.033
12	1.00	0.13	0.041	(0.219)	0.009	0.033
13	1.08	0.10	0.031	(0.218)	0.006	0.024
14	1.17	0.10	0.031	(0.217)	0.006	0.024
15	1.25	0.10	0.031	(0.216)	0.006	0.024
16	1.33	0.10	0.031	(0.215)	0.006	0.024
17	1.42	0.10	0.031	(0.214)	0.006	0.024
18	1.50	0.10	0.031	(0.213)	0.006	0.024
19	1.58	0.10	0.031	(0.213)	0.006	0.024
20	1.67	0.10	0.031	(0.212)	0.006	0.024
21	1.75	0.10	0.031	(0.211)	0.006	0.024
22	1.83	0.13	0.041	(0.210)	0.009	0.033
23	1.92	0.13	0.041	(0.209)	0.009	0.033
24	2.00	0.13	0.041	(0.208)	0.009	0.033
25	2.08	0.13	0.041	(0.207)	0.009	0.033
26	2.17	0.13	0.041	(0.207)	0.009	0.033
27	2.25	0.13	0.041	(0.206)	0.009	0.033
28	2.33	0.13	0.041	(0.205)	0.009	0.033
29	2.42	0.13	0.041	(0.204)	0.009	0.033
30	2.50	0.13	0.041	(0.203)	0.009	0.033
31	2.58	0.17	0.052	(0.202)	0.011	0.041
32	2.67	0.17	0.052	(0.202)	0.011	0.041
33	2.75	0.17	0.052	(0.201)	0.011	0.041
34	2.83	0.17	0.052	(0.200)	0.011	0.041
35	2.92	0.17	0.052	(0.199)	0.011	0.041
36	3.00	0.17	0.052	(0.198)	0.011	0.041
37	3.08	0.17	0.052	(0.197)	0.011	0.041
38	3.17	0.17	0.052	(0.197)	0.011	0.041
39	3.25	0.17	0.052	(0.196)	0.011	0.041
40	3.33	0.17	0.052	(0.195)	0.011	0.041
41	3.42	0.17	0.052	(0.194)	0.011	0.041
42	3.50	0.17	0.052	(0.193)	0.011	0.041
43	3.58	0.17	0.052	(0.193)	0.011	0.041
44	3.67	0.17	0.052	(0.192)	0.011	0.041
45	3.75	0.17	0.052	(0.191)	0.011	0.041

46	3.83	0.20	0.062	(0.190)	0.013	0.049
47	3.92	0.20	0.062	(0.189)	0.013	0.049
48	4.00	0.20	0.062	(0.189)	0.013	0.049
49	4.08	0.20	0.062	(0.188)	0.013	0.049
50	4.17	0.20	0.062	(0.187)	0.013	0.049
51	4.25	0.20	0.062	(0.186)	0.013	0.049
52	4.33	0.23	0.072	(0.185)	0.015	0.057
53	4.42	0.23	0.072	(0.185)	0.015	0.057
54	4.50	0.23	0.072	(0.184)	0.015	0.057
55	4.58	0.23	0.072	(0.183)	0.015	0.057
56	4.67	0.23	0.072	(0.182)	0.015	0.057
57	4.75	0.23	0.072	(0.181)	0.015	0.057
58	4.83	0.27	0.083	(0.181)	0.017	0.065
59	4.92	0.27	0.083	(0.180)	0.017	0.065
60	5.00	0.27	0.083	(0.179)	0.017	0.065
61	5.08	0.20	0.062	(0.178)	0.013	0.049
62	5.17	0.20	0.062	(0.178)	0.013	0.049
63	5.25	0.20	0.062	(0.177)	0.013	0.049
64	5.33	0.23	0.072	(0.176)	0.015	0.057
65	5.42	0.23	0.072	(0.175)	0.015	0.057
66	5.50	0.23	0.072	(0.174)	0.015	0.057
67	5.58	0.27	0.083	(0.174)	0.017	0.065
68	5.67	0.27	0.083	(0.173)	0.017	0.065
69	5.75	0.27	0.083	(0.172)	0.017	0.065
70	5.83	0.27	0.083	(0.171)	0.017	0.065
71	5.92	0.27	0.083	(0.171)	0.017	0.065
72	6.00	0.27	0.083	(0.170)	0.017	0.065
73	6.08	0.30	0.093	(0.169)	0.019	0.073
74	6.17	0.30	0.093	(0.168)	0.019	0.073
75	6.25	0.30	0.093	(0.168)	0.019	0.073
76	6.33	0.30	0.093	(0.167)	0.019	0.073
77	6.42	0.30	0.093	(0.166)	0.019	0.073
78	6.50	0.30	0.093	(0.165)	0.019	0.073
79	6.58	0.33	0.103	(0.165)	0.022	0.082
80	6.67	0.33	0.103	(0.164)	0.022	0.082
81	6.75	0.33	0.103	(0.163)	0.022	0.082
82	6.83	0.33	0.103	(0.162)	0.022	0.082
83	6.92	0.33	0.103	(0.162)	0.022	0.082
84	7.00	0.33	0.103	(0.161)	0.022	0.082
85	7.08	0.33	0.103	(0.160)	0.022	0.082
86	7.17	0.33	0.103	(0.159)	0.022	0.082
87	7.25	0.33	0.103	(0.159)	0.022	0.082
88	7.33	0.37	0.113	(0.158)	0.024	0.090
89	7.42	0.37	0.113	(0.157)	0.024	0.090
90	7.50	0.37	0.113	(0.157)	0.024	0.090
91	7.58	0.40	0.124	(0.156)	0.026	0.098
92	7.67	0.40	0.124	(0.155)	0.026	0.098
93	7.75	0.40	0.124	(0.154)	0.026	0.098
94	7.83	0.43	0.134	(0.154)	0.028	0.106
95	7.92	0.43	0.134	(0.153)	0.028	0.106

96	8.00	0.43	0.134	(0.152)	0.028	0.106
97	8.08	0.50	0.155	(0.152)	0.032	0.122
98	8.17	0.50	0.155	(0.151)	0.032	0.122
99	8.25	0.50	0.155	(0.150)	0.032	0.122
100	8.33	0.50	0.155	(0.149)	0.032	0.122
101	8.42	0.50	0.155	(0.149)	0.032	0.122
102	8.50	0.50	0.155	(0.148)	0.032	0.122
103	8.58	0.53	0.165	(0.147)	0.035	0.130
104	8.67	0.53	0.165	(0.147)	0.035	0.130
105	8.75	0.53	0.165	(0.146)	0.035	0.130
106	8.83	0.57	0.175	(0.145)	0.037	0.139
107	8.92	0.57	0.175	(0.145)	0.037	0.139
108	9.00	0.57	0.175	(0.144)	0.037	0.139
109	9.08	0.63	0.196	(0.143)	0.041	0.155
110	9.17	0.63	0.196	(0.143)	0.041	0.155
111	9.25	0.63	0.196	(0.142)	0.041	0.155
112	9.33	0.67	0.206	(0.141)	0.043	0.163
113	9.42	0.67	0.206	(0.141)	0.043	0.163
114	9.50	0.67	0.206	(0.140)	0.043	0.163
115	9.58	0.70	0.217	(0.139)	0.045	0.171
116	9.67	0.70	0.217	(0.139)	0.045	0.171
117	9.75	0.70	0.217	(0.138)	0.045	0.171
118	9.83	0.73	0.227	(0.137)	0.048	0.179
119	9.92	0.73	0.227	(0.137)	0.048	0.179
120	10.00	0.73	0.227	(0.136)	0.048	0.179
121	10.08	0.50	0.155	(0.135)	0.032	0.122
122	10.17	0.50	0.155	(0.135)	0.032	0.122
123	10.25	0.50	0.155	(0.134)	0.032	0.122
124	10.33	0.50	0.155	(0.133)	0.032	0.122
125	10.42	0.50	0.155	(0.133)	0.032	0.122
126	10.50	0.50	0.155	(0.132)	0.032	0.122
127	10.58	0.67	0.206	(0.131)	0.043	0.163
128	10.67	0.67	0.206	(0.131)	0.043	0.163
129	10.75	0.67	0.206	(0.130)	0.043	0.163
130	10.83	0.67	0.206	(0.129)	0.043	0.163
131	10.92	0.67	0.206	(0.129)	0.043	0.163
132	11.00	0.67	0.206	(0.128)	0.043	0.163
133	11.08	0.63	0.196	(0.128)	0.041	0.155
134	11.17	0.63	0.196	(0.127)	0.041	0.155
135	11.25	0.63	0.196	(0.126)	0.041	0.155
136	11.33	0.63	0.196	(0.126)	0.041	0.155
137	11.42	0.63	0.196	(0.125)	0.041	0.155
138	11.50	0.63	0.196	(0.124)	0.041	0.155
139	11.58	0.57	0.175	(0.124)	0.037	0.139
140	11.67	0.57	0.175	(0.123)	0.037	0.139
141	11.75	0.57	0.175	(0.123)	0.037	0.139
142	11.83	0.60	0.186	(0.122)	0.039	0.147
143	11.92	0.60	0.186	(0.121)	0.039	0.147
144	12.00	0.60	0.186	(0.121)	0.039	0.147
145	12.08	0.83	0.258	(0.120)	0.054	0.204

146	12.17	0.83	0.258	(0.120)	0.054	0.204
147	12.25	0.83	0.258	(0.119)	0.054	0.204
148	12.33	0.87	0.268	(0.118)	0.056	0.212
149	12.42	0.87	0.268	(0.118)	0.056	0.212
150	12.50	0.87	0.268	(0.117)	0.056	0.212
151	12.58	0.93	0.289	(0.117)	0.061	0.228
152	12.67	0.93	0.289	(0.116)	0.061	0.228
153	12.75	0.93	0.289	(0.115)	0.061	0.228
154	12.83	0.97	0.299	(0.115)	0.063	0.236
155	12.92	0.97	0.299	(0.114)	0.063	0.236
156	13.00	0.97	0.299	(0.114)	0.063	0.236
157	13.08	1.13	0.351	(0.113)	0.074	0.277
158	13.17	1.13	0.351	(0.112)	0.074	0.277
159	13.25	1.13	0.351	(0.112)	0.074	0.277
160	13.33	1.13	0.351	(0.111)	0.074	0.277
161	13.42	1.13	0.351	(0.111)	0.074	0.277
162	13.50	1.13	0.351	(0.110)	0.074	0.277
163	13.58	0.77	0.237	(0.110)	0.050	0.187
164	13.67	0.77	0.237	(0.109)	0.050	0.187
165	13.75	0.77	0.237	(0.109)	0.050	0.187
166	13.83	0.77	0.237	(0.108)	0.050	0.187
167	13.92	0.77	0.237	(0.107)	0.050	0.187
168	14.00	0.77	0.237	(0.107)	0.050	0.187
169	14.08	0.90	0.279	(0.106)	0.058	0.220
170	14.17	0.90	0.279	(0.106)	0.058	0.220
171	14.25	0.90	0.279	(0.105)	0.058	0.220
172	14.33	0.87	0.268	(0.105)	0.056	0.212
173	14.42	0.87	0.268	(0.104)	0.056	0.212
174	14.50	0.87	0.268	(0.104)	0.056	0.212
175	14.58	0.87	0.268	(0.103)	0.056	0.212
176	14.67	0.87	0.268	(0.103)	0.056	0.212
177	14.75	0.87	0.268	(0.102)	0.056	0.212
178	14.83	0.83	0.258	(0.102)	0.054	0.204
179	14.92	0.83	0.258	(0.101)	0.054	0.204
180	15.00	0.83	0.258	(0.101)	0.054	0.204
181	15.08	0.80	0.248	(0.100)	0.052	0.196
182	15.17	0.80	0.248	(0.099)	0.052	0.196
183	15.25	0.80	0.248	(0.099)	0.052	0.196
184	15.33	0.77	0.237	(0.098)	0.050	0.187
185	15.42	0.77	0.237	(0.098)	0.050	0.187
186	15.50	0.77	0.237	(0.097)	0.050	0.187
187	15.58	0.63	0.196	(0.097)	0.041	0.155
188	15.67	0.63	0.196	(0.096)	0.041	0.155
189	15.75	0.63	0.196	(0.096)	0.041	0.155
190	15.83	0.63	0.196	(0.095)	0.041	0.155
191	15.92	0.63	0.196	(0.095)	0.041	0.155
192	16.00	0.63	0.196	(0.094)	0.041	0.155
193	16.08	0.13	0.041	(0.094)	0.009	0.033
194	16.17	0.13	0.041	(0.094)	0.009	0.033
195	16.25	0.13	0.041	(0.093)	0.009	0.033

196	16.33	0.13	0.041	(0.093)	0.009	0.033
197	16.42	0.13	0.041	(0.092)	0.009	0.033
198	16.50	0.13	0.041	(0.092)	0.009	0.033
199	16.58	0.10	0.031	(0.091)	0.006	0.024
200	16.67	0.10	0.031	(0.091)	0.006	0.024
201	16.75	0.10	0.031	(0.090)	0.006	0.024
202	16.83	0.10	0.031	(0.090)	0.006	0.024
203	16.92	0.10	0.031	(0.089)	0.006	0.024
204	17.00	0.10	0.031	(0.089)	0.006	0.024
205	17.08	0.17	0.052	(0.088)	0.011	0.041
206	17.17	0.17	0.052	(0.088)	0.011	0.041
207	17.25	0.17	0.052	(0.088)	0.011	0.041
208	17.33	0.17	0.052	(0.087)	0.011	0.041
209	17.42	0.17	0.052	(0.087)	0.011	0.041
210	17.50	0.17	0.052	(0.086)	0.011	0.041
211	17.58	0.17	0.052	(0.086)	0.011	0.041
212	17.67	0.17	0.052	(0.085)	0.011	0.041
213	17.75	0.17	0.052	(0.085)	0.011	0.041
214	17.83	0.13	0.041	(0.085)	0.009	0.033
215	17.92	0.13	0.041	(0.084)	0.009	0.033
216	18.00	0.13	0.041	(0.084)	0.009	0.033
217	18.08	0.13	0.041	(0.083)	0.009	0.033
218	18.17	0.13	0.041	(0.083)	0.009	0.033
219	18.25	0.13	0.041	(0.082)	0.009	0.033
220	18.33	0.13	0.041	(0.082)	0.009	0.033
221	18.42	0.13	0.041	(0.082)	0.009	0.033
222	18.50	0.13	0.041	(0.081)	0.009	0.033
223	18.58	0.10	0.031	(0.081)	0.006	0.024
224	18.67	0.10	0.031	(0.080)	0.006	0.024
225	18.75	0.10	0.031	(0.080)	0.006	0.024
226	18.83	0.07	0.021	(0.080)	0.004	0.016
227	18.92	0.07	0.021	(0.079)	0.004	0.016
228	19.00	0.07	0.021	(0.079)	0.004	0.016
229	19.08	0.10	0.031	(0.079)	0.006	0.024
230	19.17	0.10	0.031	(0.078)	0.006	0.024
231	19.25	0.10	0.031	(0.078)	0.006	0.024
232	19.33	0.13	0.041	(0.077)	0.009	0.033
233	19.42	0.13	0.041	(0.077)	0.009	0.033
234	19.50	0.13	0.041	(0.077)	0.009	0.033
235	19.58	0.10	0.031	(0.076)	0.006	0.024
236	19.67	0.10	0.031	(0.076)	0.006	0.024
237	19.75	0.10	0.031	(0.076)	0.006	0.024
238	19.83	0.07	0.021	(0.075)	0.004	0.016
239	19.92	0.07	0.021	(0.075)	0.004	0.016
240	20.00	0.07	0.021	(0.075)	0.004	0.016
241	20.08	0.10	0.031	(0.074)	0.006	0.024
242	20.17	0.10	0.031	(0.074)	0.006	0.024
243	20.25	0.10	0.031	(0.074)	0.006	0.024
244	20.33	0.10	0.031	(0.073)	0.006	0.024
245	20.42	0.10	0.031	(0.073)	0.006	0.024

246	20.50	0.10	0.031	(0.073)	0.006	0.024
247	20.58	0.10	0.031	(0.072)	0.006	0.024
248	20.67	0.10	0.031	(0.072)	0.006	0.024
249	20.75	0.10	0.031	(0.072)	0.006	0.024
250	20.83	0.07	0.021	(0.072)	0.004	0.016
251	20.92	0.07	0.021	(0.071)	0.004	0.016
252	21.00	0.07	0.021	(0.071)	0.004	0.016
253	21.08	0.10	0.031	(0.071)	0.006	0.024
254	21.17	0.10	0.031	(0.070)	0.006	0.024
255	21.25	0.10	0.031	(0.070)	0.006	0.024
256	21.33	0.07	0.021	(0.070)	0.004	0.016
257	21.42	0.07	0.021	(0.070)	0.004	0.016
258	21.50	0.07	0.021	(0.069)	0.004	0.016
259	21.58	0.10	0.031	(0.069)	0.006	0.024
260	21.67	0.10	0.031	(0.069)	0.006	0.024
261	21.75	0.10	0.031	(0.069)	0.006	0.024
262	21.83	0.07	0.021	(0.068)	0.004	0.016
263	21.92	0.07	0.021	(0.068)	0.004	0.016
264	22.00	0.07	0.021	(0.068)	0.004	0.016
265	22.08	0.10	0.031	(0.068)	0.006	0.024
266	22.17	0.10	0.031	(0.067)	0.006	0.024
267	22.25	0.10	0.031	(0.067)	0.006	0.024
268	22.33	0.07	0.021	(0.067)	0.004	0.016
269	22.42	0.07	0.021	(0.067)	0.004	0.016
270	22.50	0.07	0.021	(0.067)	0.004	0.016
271	22.58	0.07	0.021	(0.066)	0.004	0.016
272	22.67	0.07	0.021	(0.066)	0.004	0.016
273	22.75	0.07	0.021	(0.066)	0.004	0.016
274	22.83	0.07	0.021	(0.066)	0.004	0.016
275	22.92	0.07	0.021	(0.066)	0.004	0.016
276	23.00	0.07	0.021	(0.066)	0.004	0.016
277	23.08	0.07	0.021	(0.065)	0.004	0.016
278	23.17	0.07	0.021	(0.065)	0.004	0.016
279	23.25	0.07	0.021	(0.065)	0.004	0.016
280	23.33	0.07	0.021	(0.065)	0.004	0.016
281	23.42	0.07	0.021	(0.065)	0.004	0.016
282	23.50	0.07	0.021	(0.065)	0.004	0.016
283	23.58	0.07	0.021	(0.065)	0.004	0.016
284	23.67	0.07	0.021	(0.065)	0.004	0.016
285	23.75	0.07	0.021	(0.065)	0.004	0.016
286	23.83	0.07	0.021	(0.064)	0.004	0.016
287	23.92	0.07	0.021	(0.064)	0.004	0.016
288	24.00	0.07	0.021	(0.064)	0.004	0.016

(Loss Rate Not Used)

Sum = 100.0 Sum = 24.5

Flood volume = Effective rainfall 2.04(In)
times area 6.6(Ac.)/[(In)/(Ft.)] = 1.1(Ac.Ft)
Total soil loss = 0.54(In)
Total soil loss = 0.297(Ac.Ft)
Total rainfall = 2.58(In)

Flood volume = 48653.7 Cubic Feet
Total soil loss = 12933.3 Cubic Feet

Peak flow rate of this hydrograph = 1.838(CFS)

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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	2.5	5.0	7.5	10.0
0+ 5	0.0004	0.06	Q				
0+10	0.0011	0.10	Q				
0+15	0.0018	0.11	Q				
0+20	0.0027	0.14	Q				
0+25	0.0038	0.16	Q				
0+30	0.0049	0.16	Q				
0+35	0.0060	0.16	Q				
0+40	0.0072	0.16	Q				
0+45	0.0083	0.16	Q				
0+50	0.0096	0.19	Q				
0+55	0.0110	0.21	Q				
1+ 0	0.0125	0.22	Q				
1+ 5	0.0138	0.19	Q				
1+10	0.0150	0.17	Q				
1+15	0.0161	0.16	Q				
1+20	0.0172	0.16	Q				
1+25	0.0183	0.16	Q				
1+30	0.0194	0.16	Q				
1+35	0.0206	0.16	Q				
1+40	0.0217	0.16	Q				
1+45	0.0228	0.16	Q				
1+50	0.0241	0.19	Q				
1+55	0.0256	0.21	Q				
2+ 0	0.0270	0.22	Q				
2+ 5	0.0285	0.22	QV				
2+10	0.0300	0.22	QV				
2+15	0.0315	0.22	QV				
2+20	0.0330	0.22	QV				
2+25	0.0345	0.22	QV				
2+30	0.0360	0.22	QV				
2+35	0.0377	0.24	QV				
2+40	0.0395	0.27	|Q				
2+45	0.0413	0.27	|Q				
2+50	0.0432	0.27	|Q				
2+55	0.0451	0.27	|Q				
3+ 0	0.0469	0.27	|Q				

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3+ 5       0.0488      0.27  |Q         |          |          |          |
3+10       0.0506      0.27  |Q         |          |          |          |
3+15       0.0525      0.27  |Q         |          |          |          |
3+20       0.0544      0.27  |Q         |          |          |          |
3+25       0.0562      0.27  |QV        |          |          |          |
3+30       0.0581      0.27  |QV        |          |          |          |
3+35       0.0600      0.27  |QV        |          |          |          |
3+40       0.0618      0.27  |QV        |          |          |          |
3+45       0.0637      0.27  |QV        |          |          |          |
3+50       0.0657      0.30  |QV        |          |          |          |
3+55       0.0679      0.32  |QV        |          |          |          |
4+ 0       0.0702      0.32  |QV        |          |          |          |
4+ 5       0.0724      0.32  |QV        |          |          |          |
4+10       0.0746      0.32  |QV        |          |          |          |
4+15       0.0769      0.32  |QV        |          |          |          |
4+20       0.0793      0.35  |QV        |          |          |          |
4+25       0.0819      0.37  |QV        |          |          |          |
4+30       0.0845      0.38  |Q V       |          |          |          |
4+35       0.0871      0.38  |Q V       |          |          |          |
4+40       0.0897      0.38  |Q V       |          |          |          |
4+45       0.0923      0.38  |Q V       |          |          |          |
4+50       0.0951      0.41  |Q V       |          |          |          |
4+55       0.0980      0.43  |Q V       |          |          |          |
5+ 0       0.1010      0.43  |Q V       |          |          |          |
5+ 5       0.1036      0.38  |Q V       |          |          |          |
5+10       0.1059      0.33  |Q V       |          |          |          |
5+15       0.1081      0.33  |Q V       |          |          |          |
5+20       0.1106      0.35  |Q V       |          |          |          |
5+25       0.1131      0.37  |Q  V      |          |          |          |
5+30       0.1157      0.38  |Q  V      |          |          |          |
5+35       0.1185      0.41  |Q  V      |          |          |          |
5+40       0.1215      0.43  |Q  V      |          |          |          |
5+45       0.1244      0.43  |Q  V      |          |          |          |
5+50       0.1274      0.43  |Q  V      |          |          |          |
5+55       0.1304      0.43  |Q  V      |          |          |          |
6+ 0       0.1334      0.43  |Q  V      |          |          |          |
6+ 5       0.1366      0.46  |Q  V      |          |          |          |
6+10       0.1399      0.48  |Q   V     |          |          |          |
6+15       0.1432      0.49  |Q   V     |          |          |          |
6+20       0.1466      0.49  |Q   V     |          |          |          |
6+25       0.1499      0.49  |Q   V     |          |          |          |
6+30       0.1533      0.49  |Q   V     |          |          |          |
6+35       0.1568      0.51  | Q  V     |          |          |          |
6+40       0.1605      0.54  | Q  V     |          |          |          |
6+45       0.1642      0.54  | Q  V     |          |          |          |
6+50       0.1679      0.54  | Q   V    |          |          |          |
6+55       0.1717      0.54  | Q   V    |          |          |          |
7+ 0       0.1754      0.54  | Q   V    |          |          |          |
7+ 5       0.1791      0.54  | Q   V    |          |          |          |
7+10       0.1828      0.54  | Q   V    |          |          |          |
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7+15	0.1866	0.54	Q V				
7+20	0.1905	0.57	Q V				
7+25	0.1945	0.59	Q V				
7+30	0.1986	0.59	Q V				
7+35	0.2029	0.62	Q V				
7+40	0.2073	0.64	Q V				
7+45	0.2118	0.65	Q V				
7+50	0.2165	0.68	Q V				
7+55	0.2213	0.70	Q V				
8+ 0	0.2261	0.70	Q V				
8+ 5	0.2313	0.76	Q V				
8+10	0.2368	0.80	Q V				
8+15	0.2424	0.81	Q V				
8+20	0.2480	0.81	Q V				
8+25	0.2536	0.81	Q V				
8+30	0.2592	0.81	Q V				
8+35	0.2649	0.84	Q V				
8+40	0.2709	0.86	Q V				
8+45	0.2768	0.86	Q V				
8+50	0.2830	0.89	Q V				
8+55	0.2893	0.91	Q V				
9+ 0	0.2956	0.92	Q V				
9+ 5	0.3023	0.97	Q V				
9+10	0.3093	1.02	Q V				
9+15	0.3164	1.03	Q V				
9+20	0.3236	1.05	Q V				
9+25	0.3310	1.08	Q V				
9+30	0.3385	1.08	Q V				
9+35	0.3461	1.11	Q V				
9+40	0.3539	1.13	Q V				
9+45	0.3617	1.13	Q V				
9+50	0.3697	1.16	Q V				
9+55	0.3779	1.18	Q V				
10+ 0	0.3861	1.19	Q V				
10+ 5	0.3929	0.99	Q V				
10+10	0.3987	0.84	Q V				
10+15	0.4044	0.82	Q V				
10+20	0.4100	0.81	Q V				
10+25	0.4155	0.81	Q V				
10+30	0.4211	0.81	Q V				
10+35	0.4277	0.95	Q V				
10+40	0.4349	1.06	Q V				
10+45	0.4424	1.08	Q V				
10+50	0.4498	1.08	Q V				
10+55	0.4573	1.08	Q V				
11+ 0	0.4647	1.08	Q V				
11+ 5	0.4720	1.05	Q V				
11+10	0.4791	1.03	Q V				
11+15	0.4861	1.03	Q V				
11+20	0.4932	1.03	Q V				

11+25	0.5003	1.03	Q		V		
11+30	0.5074	1.03	Q		V		
11+35	0.5141	0.97	Q		V		
11+40	0.5204	0.93	Q		V		
11+45	0.5268	0.92	Q		V		
11+50	0.5333	0.95	Q		V		
11+55	0.5400	0.97	Q		V		
12+ 0	0.5467	0.97	Q		V		
12+ 5	0.5547	1.17	Q		V		
12+10	0.5638	1.32	Q		V		
12+15	0.5731	1.34	Q		V		
12+20	0.5826	1.38	Q		V		
12+25	0.5922	1.40	Q		V		
12+30	0.6019	1.40	Q		V		
12+35	0.6119	1.46	Q		V		
12+40	0.6223	1.50	Q		V		
12+45	0.6327	1.51	Q		V		
12+50	0.6433	1.54	Q		V		
12+55	0.6541	1.56	Q		V		
13+ 0	0.6649	1.57	Q		V		
13+ 5	0.6766	1.71	Q		V		
13+10	0.6891	1.81	Q		V		
13+15	0.7017	1.83	Q		V		
13+20	0.7144	1.84	Q		V		
13+25	0.7271	1.84	Q		V		
13+30	0.7397	1.84	Q		V		
13+35	0.7503	1.53	Q		V		
13+40	0.7592	1.30	Q		V		
13+45	0.7678	1.25	Q		V		
13+50	0.7764	1.24	Q		V		
13+55	0.7850	1.24	Q		V		
14+ 0	0.7935	1.24	Q		V		
14+ 5	0.8029	1.35	Q		V		
14+10	0.8128	1.44	Q		V		
14+15	0.8228	1.46	Q		V		
14+20	0.8327	1.43	Q		V		
14+25	0.8424	1.41	Q		V		
14+30	0.8521	1.41	Q		V		
14+35	0.8617	1.41	Q		V		
14+40	0.8714	1.41	Q		V		
14+45	0.8811	1.41	Q		V		
14+50	0.8906	1.38	Q		V		
14+55	0.8999	1.36	Q		V		
15+ 0	0.9092	1.35	Q		V		
15+ 5	0.9184	1.32	Q		V		
15+10	0.9273	1.30	Q		V		
15+15	0.9363	1.30	Q		V		
15+20	0.9450	1.27	Q		V		
15+25	0.9536	1.25	Q		V		
15+30	0.9622	1.24	Q		V		

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15+35       0.9700      1.13  |   Q     |         |         |   V     |
15+40       0.9772      1.05  |   Q     |         |         |   V     |
15+45       0.9843      1.03  |   Q     |         |         |    V    |
15+50       0.9914      1.03  |   Q     |         |         |    V    |
15+55       0.9984      1.03  |   Q     |         |         |    V    |
16+ 0       1.0055      1.03  |   Q     |         |         |     V   |
16+ 5       1.0097      0.61  | Q       |         |         |     V   |
16+10       1.0117      0.29  |Q        |         |         |     V   |
16+15       1.0133      0.23  Q         |         |         |     V   |
16+20       1.0148      0.22  Q         |         |         |     V   |
16+25       1.0163      0.22  Q         |         |         |     V   |
16+30       1.0178      0.22  Q         |         |         |     V   |
16+35       1.0191      0.19  Q         |         |         |     V   |
16+40       1.0202      0.17  Q         |         |         |     V   |
16+45       1.0213      0.16  Q         |         |         |     V   |
16+50       1.0224      0.16  Q         |         |         |     V   |
16+55       1.0236      0.16  Q         |         |         |     V   |
17+ 0       1.0247      0.16  Q         |         |         |     V   |
17+ 5       1.0262      0.22  Q         |         |         |     V   |
17+10       1.0280      0.26  |Q        |         |         |     V   |
17+15       1.0298      0.27  |Q        |         |         |     V   |
17+20       1.0317      0.27  |Q        |         |         |     V   |
17+25       1.0335      0.27  |Q        |         |         |      V  |
17+30       1.0354      0.27  |Q        |         |         |      V  |
17+35       1.0373      0.27  |Q        |         |         |      V  |
17+40       1.0391      0.27  |Q        |         |         |      V  |
17+45       1.0410      0.27  |Q        |         |         |      V  |
17+50       1.0427      0.24  Q         |         |         |      V  |
17+55       1.0442      0.22  Q         |         |         |      V  |
18+ 0       1.0457      0.22  Q         |         |         |      V  |
18+ 5       1.0472      0.22  Q         |         |         |      V  |
18+10       1.0487      0.22  Q         |         |         |      V  |
18+15       1.0502      0.22  Q         |         |         |      V  |
18+20       1.0516      0.22  Q         |         |         |      V  |
18+25       1.0531      0.22  Q         |         |         |      V  |
18+30       1.0546      0.22  Q         |         |         |      V  |
18+35       1.0559      0.19  Q         |         |         |      V  |
18+40       1.0571      0.17  Q         |         |         |      V  |
18+45       1.0582      0.16  Q         |         |         |      V  |
18+50       1.0591      0.13  Q         |         |         |      V  |
18+55       1.0599      0.11  Q         |         |         |      V  |
19+ 0       1.0606      0.11  Q         |         |         |      V  |
19+ 5       1.0616      0.14  Q         |         |         |       V |
19+10       1.0627      0.16  Q         |         |         |       V |
19+15       1.0638      0.16  Q         |         |         |       V |
19+20       1.0651      0.19  Q         |         |         |       V |
19+25       1.0665      0.21  Q         |         |         |       V |
19+30       1.0680      0.22  Q         |         |         |       V |
19+35       1.0693      0.19  Q         |         |         |       V |
19+40       1.0705      0.17  Q         |         |         |       V |
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19+45	1.0716	0.16	Q	|	|	|	V |
19+50	1.0725	0.13	Q	|	|	|	V |
19+55	1.0733	0.11	Q	|	|	|	V |
20+ 0	1.0740	0.11	Q	|	|	|	V |
20+ 5	1.0750	0.14	Q	|	|	|	V |
20+10	1.0761	0.16	Q	|	|	|	V |
20+15	1.0772	0.16	Q	|	|	|	V |
20+20	1.0783	0.16	Q	|	|	|	V |
20+25	1.0794	0.16	Q	|	|	|	V |
20+30	1.0805	0.16	Q	|	|	|	V |
20+35	1.0816	0.16	Q	|	|	|	V |
20+40	1.0828	0.16	Q	|	|	|	V |
20+45	1.0839	0.16	Q	|	|	|	V |
20+50	1.0848	0.13	Q	|	|	|	V |
20+55	1.0856	0.11	Q	|	|	|	V |
21+ 0	1.0863	0.11	Q	|	|	|	V |
21+ 5	1.0873	0.14	Q	|	|	|	V |
21+10	1.0884	0.16	Q	|	|	|	V |
21+15	1.0895	0.16	Q	|	|	|	V|
21+20	1.0904	0.13	Q	|	|	|	V|
21+25	1.0912	0.11	Q	|	|	|	V|
21+30	1.0919	0.11	Q	|	|	|	V|
21+35	1.0929	0.14	Q	|	|	|	V|
21+40	1.0939	0.16	Q	|	|	|	V|
21+45	1.0951	0.16	Q	|	|	|	V|
21+50	1.0960	0.13	Q	|	|	|	V|
21+55	1.0968	0.11	Q	|	|	|	V|
22+ 0	1.0975	0.11	Q	|	|	|	V|
22+ 5	1.0984	0.14	Q	|	|	|	V|
22+10	1.0995	0.16	Q	|	|	|	V|
22+15	1.1006	0.16	Q	|	|	|	V|
22+20	1.1016	0.13	Q	|	|	|	V|
22+25	1.1023	0.11	Q	|	|	|	V|
22+30	1.1031	0.11	Q	|	|	|	V|
22+35	1.1038	0.11	Q	|	|	|	V|
22+40	1.1046	0.11	Q	|	|	|	V|
22+45	1.1053	0.11	Q	|	|	|	V|
22+50	1.1061	0.11	Q	|	|	|	V|
22+55	1.1068	0.11	Q	|	|	|	V|
23+ 0	1.1076	0.11	Q	|	|	|	V|
23+ 5	1.1083	0.11	Q	|	|	|	V|
23+10	1.1090	0.11	Q	|	|	|	V|
23+15	1.1098	0.11	Q	|	|	|	V|
23+20	1.1105	0.11	Q	|	|	|	V|
23+25	1.1113	0.11	Q	|	|	|	V|
23+30	1.1120	0.11	Q	|	|	|	V|
23+35	1.1128	0.11	Q	|	|	|	V|
23+40	1.1135	0.11	Q	|	|	|	V|
23+45	1.1143	0.11	Q	|	|	|	V|
23+50	1.1150	0.11	Q	|	|	|	V|

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   23+55       1.1157      0.11  Q         |         |         |        V|
   24+ 0       1.1165      0.11  Q         |         |         |        V|
   24+ 5       1.1169      0.05  Q         |         |         |        V|
   24+10       1.1169      0.01  Q         |         |         |        V|
   24+15       1.1169      0.00  Q         |         |         |         V
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DMA 1 Proposed 10-Year

FLOOD HYDROGRAPH ROUTING PROGRAM

Study date: 08/24/22

A21626 DMA 1 10YR-1HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA1Q100UH110.rte
**********HYDROGRAPH DATA**********
Number of intervals = 15
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 11.513 (CFS)
Total volume = 0.391 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

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flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.00(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.50(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   4.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   1.00(Ft.)    Capacity =   6.28(CFS)

Total outflow at this depth =      6.48(CFS)

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Total number of inflow hydrograph intervals = 15
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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
0.500	0.093	0.000	0.093	0.093
1.000	0.197	0.196	0.196	0.198
1.500	0.313	0.196	0.312	0.314
2.000	0.440	0.196	0.439	0.441
2.500	0.580	0.196	0.579	0.581
3.000	0.732	0.196	0.731	0.733
3.500	0.897	0.196	0.896	0.898
4.000	1.075	4.639	1.059	1.091
4.500	1.267	6.480	1.245	1.289

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 2.9 5.76 8.63 11.51	Depth (Ft.)
0.083	1.15	0.00	0.004	O I | | | |	0.02
0.167	2.07	0.00	0.015	O I | | | |	0.08
0.250	2.54	0.00	0.031	O I| | | |	0.17
0.333	2.82	0.00	0.049	O I| | | |	0.27
0.417	2.96	0.00	0.069	O I | | |	0.37
0.500	3.27	0.00	0.091	O |I | | |	0.49
0.583	3.95	0.04	0.115	O | I | | |	0.61
0.667	4.75	0.10	0.145	O | I | | |	0.75
0.750	6.34	0.17	0.182	O | |I | |	0.93
0.833	11.51	0.20	0.242	O | | | I	1.20
0.917	9.15	0.20	0.312	O | | |I |	1.50
1.000	4.31	0.20	0.357	O | I | | |	1.67
1.083	1.62	0.20	0.376	O I | | | |	1.75
1.167	0.26	0.20	0.381	O | | | |	1.77
1.250	0.05	0.20	0.381	O | | | |	1.77
1.333	0.00	0.20	0.380	O | | | |	1.76
1.417	0.00	0.20	0.379	O | | | |	1.76
1.500	0.00	0.20	0.377	O | | | |	1.75
1.583	0.00	0.20	0.376	O | | | |	1.75

1.667	0.00	0.20	0.375	O	|	|	|	1.74
1.750	0.00	0.20	0.373	O	|	|	|	1.74
1.833	0.00	0.20	0.372	O	|	|	|	1.73
1.917	0.00	0.20	0.371	O	|	|	|	1.73
2.000	0.00	0.20	0.369	O	|	|	|	1.72
2.083	0.00	0.20	0.368	O	|	|	|	1.72
2.167	0.00	0.20	0.366	O	|	|	|	1.71
2.250	0.00	0.20	0.365	O	|	|	|	1.71
2.333	0.00	0.20	0.364	O	|	|	|	1.70
2.417	0.00	0.20	0.362	O	|	|	|	1.69
2.500	0.00	0.20	0.361	O	|	|	|	1.69
2.583	0.00	0.20	0.360	O	|	|	|	1.68
2.667	0.00	0.20	0.358	O	|	|	|	1.68
2.750	0.00	0.20	0.357	O	|	|	|	1.67
2.833	0.00	0.20	0.356	O	|	|	|	1.67
2.917	0.00	0.20	0.354	O	|	|	|	1.66
3.000	0.00	0.20	0.353	O	|	|	|	1.66
3.083	0.00	0.20	0.352	O	|	|	|	1.65
3.167	0.00	0.20	0.350	O	|	|	|	1.65
3.250	0.00	0.20	0.349	O	|	|	|	1.64
3.333	0.00	0.20	0.348	O	|	|	|	1.64
3.417	0.00	0.20	0.346	O	|	|	|	1.63
3.500	0.00	0.20	0.345	O	|	|	|	1.63
3.583	0.00	0.20	0.343	O	|	|	|	1.62
3.667	0.00	0.20	0.342	O	|	|	|	1.61
3.750	0.00	0.20	0.341	O	|	|	|	1.61
3.833	0.00	0.20	0.339	O	|	|	|	1.60
3.917	0.00	0.20	0.338	O	|	|	|	1.60
4.000	0.00	0.20	0.337	O	|	|	|	1.59
4.083	0.00	0.20	0.335	O	|	|	|	1.59
4.167	0.00	0.20	0.334	O	|	|	|	1.58
4.250	0.00	0.20	0.333	O	|	|	|	1.58
4.333	0.00	0.20	0.331	O	|	|	|	1.57
4.417	0.00	0.20	0.330	O	|	|	|	1.57
4.500	0.00	0.20	0.329	O	|	|	|	1.56
4.583	0.00	0.20	0.327	O	|	|	|	1.56
4.667	0.00	0.20	0.326	O	|	|	|	1.55
4.750	0.00	0.20	0.325	O	|	|	|	1.55
4.833	0.00	0.20	0.323	O	|	|	|	1.54
4.917	0.00	0.20	0.322	O	|	|	|	1.53
5.000	0.00	0.20	0.321	O	|	|	|	1.53
5.083	0.00	0.20	0.319	O	|	|	|	1.52
5.167	0.00	0.20	0.318	O	|	|	|	1.52
5.250	0.00	0.20	0.316	O	|	|	|	1.51
5.333	0.00	0.20	0.315	O	|	|	|	1.51
5.417	0.00	0.20	0.314	O	|	|	|	1.50
5.500	0.00	0.20	0.312	O	|	|	|	1.50
5.583	0.00	0.20	0.311	O	|	|	|	1.49
5.667	0.00	0.20	0.310	O	|	|	|	1.49
5.750	0.00	0.20	0.308	O	|	|	|	1.48

5.833	0.00	0.20	0.307	O	|	|	|	1.47
5.917	0.00	0.20	0.306	O	|	|	|	1.47
6.000	0.00	0.20	0.304	O	|	|	|	1.46
6.083	0.00	0.20	0.303	O	|	|	|	1.46
6.167	0.00	0.20	0.302	O	|	|	|	1.45
6.250	0.00	0.20	0.300	O	|	|	|	1.44
6.333	0.00	0.20	0.299	O	|	|	|	1.44
6.417	0.00	0.20	0.298	O	|	|	|	1.43
6.500	0.00	0.20	0.296	O	|	|	|	1.43
6.583	0.00	0.20	0.295	O	|	|	|	1.42
6.667	0.00	0.20	0.293	O	|	|	|	1.42
6.750	0.00	0.20	0.292	O	|	|	|	1.41
6.833	0.00	0.20	0.291	O	|	|	|	1.40
6.917	0.00	0.20	0.289	O	|	|	|	1.40
7.000	0.00	0.20	0.288	O	|	|	|	1.39
7.083	0.00	0.20	0.287	O	|	|	|	1.39
7.167	0.00	0.20	0.285	O	|	|	|	1.38
7.250	0.00	0.20	0.284	O	|	|	|	1.37
7.333	0.00	0.20	0.283	O	|	|	|	1.37
7.417	0.00	0.20	0.281	O	|	|	|	1.36
7.500	0.00	0.20	0.280	O	|	|	|	1.36
7.583	0.00	0.20	0.279	O	|	|	|	1.35
7.667	0.00	0.20	0.277	O	|	|	|	1.35
7.750	0.00	0.20	0.276	O	|	|	|	1.34
7.833	0.00	0.20	0.275	O	|	|	|	1.33
7.917	0.00	0.20	0.273	O	|	|	|	1.33
8.000	0.00	0.20	0.272	O	|	|	|	1.32
8.083	0.00	0.20	0.270	O	|	|	|	1.32
8.167	0.00	0.20	0.269	O	|	|	|	1.31
8.250	0.00	0.20	0.268	O	|	|	|	1.31
8.333	0.00	0.20	0.266	O	|	|	|	1.30
8.417	0.00	0.20	0.265	O	|	|	|	1.29
8.500	0.00	0.20	0.264	O	|	|	|	1.29
8.583	0.00	0.20	0.262	O	|	|	|	1.28
8.667	0.00	0.20	0.261	O	|	|	|	1.28
8.750	0.00	0.20	0.260	O	|	|	|	1.27
8.833	0.00	0.20	0.258	O	|	|	|	1.26
8.917	0.00	0.20	0.257	O	|	|	|	1.26
9.000	0.00	0.20	0.256	O	|	|	|	1.25
9.083	0.00	0.20	0.254	O	|	|	|	1.25
9.167	0.00	0.20	0.253	O	|	|	|	1.24
9.250	0.00	0.20	0.252	O	|	|	|	1.24
9.333	0.00	0.20	0.250	O	|	|	|	1.23
9.417	0.00	0.20	0.249	O	|	|	|	1.22
9.500	0.00	0.20	0.247	O	|	|	|	1.22
9.583	0.00	0.20	0.246	O	|	|	|	1.21
9.667	0.00	0.20	0.245	O	|	|	|	1.21
9.750	0.00	0.20	0.243	O	|	|	|	1.20
9.833	0.00	0.20	0.242	O	|	|	|	1.19
9.917	0.00	0.20	0.241	O	|	|	|	1.19

10.000	0.00	0.20	0.239	O				1.18
10.083	0.00	0.20	0.238	O				1.18
10.167	0.00	0.20	0.237	O				1.17
10.250	0.00	0.20	0.235	O				1.17
10.333	0.00	0.20	0.234	O				1.16
10.417	0.00	0.20	0.233	O				1.15
10.500	0.00	0.20	0.231	O				1.15
10.583	0.00	0.20	0.230	O				1.14
10.667	0.00	0.20	0.229	O				1.14
10.750	0.00	0.20	0.227	O				1.13
10.833	0.00	0.20	0.226	O				1.12
10.917	0.00	0.20	0.224	O				1.12
11.000	0.00	0.20	0.223	O				1.11
11.083	0.00	0.20	0.222	O				1.11
11.167	0.00	0.20	0.220	O				1.10
11.250	0.00	0.20	0.219	O				1.10
11.333	0.00	0.20	0.218	O				1.09
11.417	0.00	0.20	0.216	O				1.08
11.500	0.00	0.20	0.215	O				1.08
11.583	0.00	0.20	0.214	O				1.07
11.667	0.00	0.20	0.212	O				1.07
11.750	0.00	0.20	0.211	O				1.06
11.833	0.00	0.20	0.210	O				1.05
11.917	0.00	0.20	0.208	O				1.05
12.000	0.00	0.20	0.207	O				1.04
12.083	0.00	0.20	0.206	O				1.04
12.167	0.00	0.20	0.204	O				1.03
12.250	0.00	0.20	0.203	O				1.03
12.333	0.00	0.20	0.202	O				1.02
12.417	0.00	0.20	0.200	O				1.01
12.500	0.00	0.20	0.199	O				1.01
12.583	0.00	0.20	0.197	O				1.00
12.667	0.00	0.19	0.196	O				1.00
12.750	0.00	0.19	0.195	O				0.99
12.833	0.00	0.19	0.193	O				0.98
12.917	0.00	0.19	0.192	O				0.98
13.000	0.00	0.18	0.191	O				0.97
13.083	0.00	0.18	0.190	O				0.96
13.167	0.00	0.18	0.188	O				0.96
13.250	0.00	0.18	0.187	O				0.95
13.333	0.00	0.18	0.186	O				0.95
13.417	0.00	0.17	0.185	O				0.94
13.500	0.00	0.17	0.184	O				0.94
13.583	0.00	0.17	0.182	O				0.93
13.667	0.00	0.17	0.181	O				0.92
13.750	0.00	0.16	0.180	O				0.92
13.833	0.00	0.16	0.179	O				0.91
13.917	0.00	0.16	0.178	O				0.91
14.000	0.00	0.16	0.177	O				0.90
14.083	0.00	0.16	0.176	O				0.90

14.167	0.00	0.15	0.175	O				0.89
14.250	0.00	0.15	0.174	O				0.89
14.333	0.00	0.15	0.172	O				0.88
14.417	0.00	0.15	0.171	O				0.88
14.500	0.00	0.15	0.170	O				0.87
14.583	0.00	0.14	0.169	O				0.87
14.667	0.00	0.14	0.168	O				0.86
14.750	0.00	0.14	0.167	O				0.86
14.833	0.00	0.14	0.167	O				0.85
14.917	0.00	0.14	0.166	O				0.85
15.000	0.00	0.14	0.165	O				0.84
15.083	0.00	0.13	0.164	O				0.84
15.167	0.00	0.13	0.163	O				0.84
15.250	0.00	0.13	0.162	O				0.83
15.333	0.00	0.13	0.161	O				0.83
15.417	0.00	0.13	0.160	O				0.82
15.500	0.00	0.13	0.159	O				0.82
15.583	0.00	0.12	0.158	O				0.81
15.667	0.00	0.12	0.158	O				0.81
15.750	0.00	0.12	0.157	O				0.81
15.833	0.00	0.12	0.156	O				0.80
15.917	0.00	0.12	0.155	O				0.80
16.000	0.00	0.12	0.154	O				0.79
16.083	0.00	0.11	0.154	O				0.79
16.167	0.00	0.11	0.153	O				0.79
16.250	0.00	0.11	0.152	O				0.78
16.333	0.00	0.11	0.151	O				0.78
16.417	0.00	0.11	0.150	O				0.78
16.500	0.00	0.11	0.150	O				0.77
16.583	0.00	0.11	0.149	O				0.77
16.667	0.00	0.10	0.148	O				0.77
16.750	0.00	0.10	0.148	O				0.76
16.833	0.00	0.10	0.147	O				0.76
16.917	0.00	0.10	0.146	O				0.76
17.000	0.00	0.10	0.145	O				0.75
17.083	0.00	0.10	0.145	O				0.75
17.167	0.00	0.10	0.144	O				0.75
17.250	0.00	0.10	0.143	O				0.74
17.333	0.00	0.09	0.143	O				0.74
17.417	0.00	0.09	0.142	O				0.74
17.500	0.00	0.09	0.142	O				0.73
17.583	0.00	0.09	0.141	O				0.73
17.667	0.00	0.09	0.140	O				0.73
17.750	0.00	0.09	0.140	O				0.72
17.833	0.00	0.09	0.139	O				0.72
17.917	0.00	0.09	0.138	O				0.72
18.000	0.00	0.08	0.138	O				0.72
18.083	0.00	0.08	0.137	O				0.71
18.167	0.00	0.08	0.137	O				0.71
18.250	0.00	0.08	0.136	O				0.71

18.333	0.00	0.08	0.136	O				0.70
18.417	0.00	0.08	0.135	O				0.70
18.500	0.00	0.08	0.134	O				0.70
18.583	0.00	0.08	0.134	O				0.70
18.667	0.00	0.08	0.133	O				0.69
18.750	0.00	0.08	0.133	O				0.69
18.833	0.00	0.07	0.132	O				0.69
18.917	0.00	0.07	0.132	O				0.69
19.000	0.00	0.07	0.131	O				0.68
19.083	0.00	0.07	0.131	O				0.68
19.167	0.00	0.07	0.130	O				0.68
19.250	0.00	0.07	0.130	O				0.68
19.333	0.00	0.07	0.129	O				0.68
19.417	0.00	0.07	0.129	O				0.67
19.500	0.00	0.07	0.129	O				0.67
19.583	0.00	0.07	0.128	O				0.67
19.667	0.00	0.07	0.128	O				0.67
19.750	0.00	0.06	0.127	O				0.66
19.833	0.00	0.06	0.127	O				0.66
19.917	0.00	0.06	0.126	O				0.66
20.000	0.00	0.06	0.126	O				0.66
20.083	0.00	0.06	0.125	O				0.66
20.167	0.00	0.06	0.125	O				0.65
20.250	0.00	0.06	0.125	O				0.65
20.333	0.00	0.06	0.124	O				0.65
20.417	0.00	0.06	0.124	O				0.65
20.500	0.00	0.06	0.123	O				0.65
20.583	0.00	0.06	0.123	O				0.64
20.667	0.00	0.06	0.123	O				0.64
20.750	0.00	0.06	0.122	O				0.64
20.833	0.00	0.05	0.122	O				0.64
20.917	0.00	0.05	0.121	O				0.64
21.000	0.00	0.05	0.121	O				0.64
21.083	0.00	0.05	0.121	O				0.63
21.167	0.00	0.05	0.120	O				0.63
21.250	0.00	0.05	0.120	O				0.63
21.333	0.00	0.05	0.120	O				0.63
21.417	0.00	0.05	0.119	O				0.63
21.500	0.00	0.05	0.119	O				0.62
21.583	0.00	0.05	0.119	O				0.62
21.667	0.00	0.05	0.118	O				0.62
21.750	0.00	0.05	0.118	O				0.62
21.833	0.00	0.05	0.118	O				0.62
21.917	0.00	0.05	0.117	O				0.62
22.000	0.00	0.05	0.117	O				0.62
22.083	0.00	0.04	0.117	O				0.61
22.167	0.00	0.04	0.116	O				0.61
22.250	0.00	0.04	0.116	O				0.61
22.333	0.00	0.04	0.116	O				0.61
22.417	0.00	0.04	0.116	O				0.61

22.500	0.00	0.04	0.115	O	|	|	|	0.61
22.583	0.00	0.04	0.115	O	|	|	|	0.61
22.667	0.00	0.04	0.115	O	|	|	|	0.60
22.750	0.00	0.04	0.114	O	|	|	|	0.60
22.833	0.00	0.04	0.114	O	|	|	|	0.60
22.917	0.00	0.04	0.114	O	|	|	|	0.60
23.000	0.00	0.04	0.114	O	|	|	|	0.60
23.083	0.00	0.04	0.113	O	|	|	|	0.60
23.167	0.00	0.04	0.113	O	|	|	|	0.60
23.250	0.00	0.04	0.113	O	|	|	|	0.60
23.333	0.00	0.04	0.113	O	|	|	|	0.59
23.417	0.00	0.04	0.112	O	|	|	|	0.59
23.500	0.00	0.04	0.112	O	|	|	|	0.59
23.583	0.00	0.04	0.112	O	|	|	|	0.59
23.667	0.00	0.03	0.112	O	|	|	|	0.59
23.750	0.00	0.03	0.111	O	|	|	|	0.59
23.833	0.00	0.03	0.111	O	|	|	|	0.59
23.917	0.00	0.03	0.111	O	|	|	|	0.59
24.000	0.00	0.03	0.111	O	|	|	|	0.58
24.083	0.00	0.03	0.110	O	|	|	|	0.58
24.167	0.00	0.03	0.110	O	|	|	|	0.58
24.250	0.00	0.03	0.110	O	|	|	|	0.58
24.333	0.00	0.03	0.110	O	|	|	|	0.58
24.417	0.00	0.03	0.109	O	|	|	|	0.58
24.500	0.00	0.03	0.109	O	|	|	|	0.58
24.583	0.00	0.03	0.109	O	|	|	|	0.58
24.667	0.00	0.03	0.109	O	|	|	|	0.58
24.750	0.00	0.03	0.109	O	|	|	|	0.58
24.833	0.00	0.03	0.108	O	|	|	|	0.57
24.917	0.00	0.03	0.108	O	|	|	|	0.57
25.000	0.00	0.03	0.108	O	|	|	|	0.57
25.083	0.00	0.03	0.108	O	|	|	|	0.57
25.167	0.00	0.03	0.108	O	|	|	|	0.57
25.250	0.00	0.03	0.107	O	|	|	|	0.57
25.333	0.00	0.03	0.107	O	|	|	|	0.57
25.417	0.00	0.03	0.107	O	|	|	|	0.57
25.500	0.00	0.03	0.107	O	|	|	|	0.57
25.583	0.00	0.03	0.107	O	|	|	|	0.57
25.667	0.00	0.03	0.107	O	|	|	|	0.57
25.750	0.00	0.03	0.106	O	|	|	|	0.56
25.833	0.00	0.02	0.106	O	|	|	|	0.56
25.917	0.00	0.02	0.106	O	|	|	|	0.56
26.000	0.00	0.02	0.106	O	|	|	|	0.56
26.083	0.00	0.02	0.106	O	|	|	|	0.56
26.167	0.00	0.02	0.106	O	|	|	|	0.56
26.250	0.00	0.02	0.105	O	|	|	|	0.56
26.333	0.00	0.02	0.105	O	|	|	|	0.56
26.417	0.00	0.02	0.105	O	|	|	|	0.56
26.500	0.00	0.02	0.105	O	|	|	|	0.56
26.583	0.00	0.02	0.105	O	|	|	|	0.56

26.667	0.00	0.02	0.105	O	|	|	|	0.56
26.750	0.00	0.02	0.104	O	|	|	|	0.56
26.833	0.00	0.02	0.104	O	|	|	|	0.55
26.917	0.00	0.02	0.104	O	|	|	|	0.55
27.000	0.00	0.02	0.104	O	|	|	|	0.55
27.083	0.00	0.02	0.104	O	|	|	|	0.55
27.167	0.00	0.02	0.104	O	|	|	|	0.55
27.250	0.00	0.02	0.104	O	|	|	|	0.55
27.333	0.00	0.02	0.103	O	|	|	|	0.55
27.417	0.00	0.02	0.103	O	|	|	|	0.55
27.500	0.00	0.02	0.103	O	|	|	|	0.55
27.583	0.00	0.02	0.103	O	|	|	|	0.55
27.667	0.00	0.02	0.103	O	|	|	|	0.55
27.750	0.00	0.02	0.103	O	|	|	|	0.55
27.833	0.00	0.02	0.103	O	|	|	|	0.55
27.917	0.00	0.02	0.103	O	|	|	|	0.55
28.000	0.00	0.02	0.102	O	|	|	|	0.55
28.083	0.00	0.02	0.102	O	|	|	|	0.54
28.167	0.00	0.02	0.102	O	|	|	|	0.54
28.250	0.00	0.02	0.102	O	|	|	|	0.54
28.333	0.00	0.02	0.102	O	|	|	|	0.54
28.417	0.00	0.02	0.102	O	|	|	|	0.54
28.500	0.00	0.02	0.102	O	|	|	|	0.54
28.583	0.00	0.02	0.102	O	|	|	|	0.54
28.667	0.00	0.02	0.101	O	|	|	|	0.54
28.750	0.00	0.02	0.101	O	|	|	|	0.54
28.833	0.00	0.02	0.101	O	|	|	|	0.54
28.917	0.00	0.02	0.101	O	|	|	|	0.54
29.000	0.00	0.02	0.101	O	|	|	|	0.54
29.083	0.00	0.02	0.101	O	|	|	|	0.54
29.167	0.00	0.01	0.101	O	|	|	|	0.54
29.250	0.00	0.01	0.101	O	|	|	|	0.54
29.333	0.00	0.01	0.101	O	|	|	|	0.54
29.417	0.00	0.01	0.101	O	|	|	|	0.54
29.500	0.00	0.01	0.100	O	|	|	|	0.54
29.583	0.00	0.01	0.100	O	|	|	|	0.54
29.667	0.00	0.01	0.100	O	|	|	|	0.53
29.750	0.00	0.01	0.100	O	|	|	|	0.53
29.833	0.00	0.01	0.100	O	|	|	|	0.53
29.917	0.00	0.01	0.100	O	|	|	|	0.53
30.000	0.00	0.01	0.100	O	|	|	|	0.53
30.083	0.00	0.01	0.100	O	|	|	|	0.53
30.167	0.00	0.01	0.100	O	|	|	|	0.53
30.250	0.00	0.01	0.100	O	|	|	|	0.53
30.333	0.00	0.01	0.100	O	|	|	|	0.53
30.417	0.00	0.01	0.099	O	|	|	|	0.53
30.500	0.00	0.01	0.099	O	|	|	|	0.53
30.583	0.00	0.01	0.099	O	|	|	|	0.53
30.667	0.00	0.01	0.099	O	|	|	|	0.53
30.750	0.00	0.01	0.099	O	|	|	|	0.53

30.833	0.00	0.01	0.099	O	|	|	|	0.53
30.917	0.00	0.01	0.099	O	|	|	|	0.53
31.000	0.00	0.01	0.099	O	|	|	|	0.53
31.083	0.00	0.01	0.099	O	|	|	|	0.53
31.167	0.00	0.01	0.099	O	|	|	|	0.53
31.250	0.00	0.01	0.099	O	|	|	|	0.53
31.333	0.00	0.01	0.099	O	|	|	|	0.53
31.417	0.00	0.01	0.099	O	|	|	|	0.53
31.500	0.00	0.01	0.098	O	|	|	|	0.53
31.583	0.00	0.01	0.098	O	|	|	|	0.53
31.667	0.00	0.01	0.098	O	|	|	|	0.53
31.750	0.00	0.01	0.098	O	|	|	|	0.53
31.833	0.00	0.01	0.098	O	|	|	|	0.52
31.917	0.00	0.01	0.098	O	|	|	|	0.52
32.000	0.00	0.01	0.098	O	|	|	|	0.52
32.083	0.00	0.01	0.098	O	|	|	|	0.52
32.167	0.00	0.01	0.098	O	|	|	|	0.52
32.250	0.00	0.01	0.098	O	|	|	|	0.52
32.333	0.00	0.01	0.098	O	|	|	|	0.52
32.417	0.00	0.01	0.098	O	|	|	|	0.52
32.500	0.00	0.01	0.098	O	|	|	|	0.52
32.583	0.00	0.01	0.098	O	|	|	|	0.52
32.667	0.00	0.01	0.098	O	|	|	|	0.52
32.750	0.00	0.01	0.097	O	|	|	|	0.52
32.833	0.00	0.01	0.097	O	|	|	|	0.52
32.917	0.00	0.01	0.097	O	|	|	|	0.52
33.000	0.00	0.01	0.097	O	|	|	|	0.52
33.083	0.00	0.01	0.097	O	|	|	|	0.52
33.167	0.00	0.01	0.097	O	|	|	|	0.52
33.250	0.00	0.01	0.097	O	|	|	|	0.52
33.333	0.00	0.01	0.097	O	|	|	|	0.52
33.417	0.00	0.01	0.097	O	|	|	|	0.52
33.500	0.00	0.01	0.097	O	|	|	|	0.52
33.583	0.00	0.01	0.097	O	|	|	|	0.52
33.667	0.00	0.01	0.097	O	|	|	|	0.52
33.750	0.00	0.01	0.097	O	|	|	|	0.52
33.833	0.00	0.01	0.097	O	|	|	|	0.52
33.917	0.00	0.01	0.097	O	|	|	|	0.52
34.000	0.00	0.01	0.097	O	|	|	|	0.52
34.083	0.00	0.01	0.097	O	|	|	|	0.52
34.167	0.00	0.01	0.097	O	|	|	|	0.52
34.250	0.00	0.01	0.097	O	|	|	|	0.52
34.333	0.00	0.01	0.097	O	|	|	|	0.52
34.417	0.00	0.01	0.096	O	|	|	|	0.52
34.500	0.00	0.01	0.096	O	|	|	|	0.52
34.583	0.00	0.01	0.096	O	|	|	|	0.52
34.667	0.00	0.01	0.096	O	|	|	|	0.52
34.750	0.00	0.01	0.096	O	|	|	|	0.52
34.833	0.00	0.01	0.096	O	|	|	|	0.52
34.917	0.00	0.01	0.096	O	|	|	|	0.52

35.000	0.00	0.01	0.096	O	|	|	|	0.52
35.083	0.00	0.01	0.096	O	|	|	|	0.52
35.167	0.00	0.01	0.096	O	|	|	|	0.51
35.250	0.00	0.01	0.096	O	|	|	|	0.51
35.333	0.00	0.01	0.096	O	|	|	|	0.51
35.417	0.00	0.01	0.096	O	|	|	|	0.51
35.500	0.00	0.01	0.096	O	|	|	|	0.51
35.583	0.00	0.01	0.096	O	|	|	|	0.51
35.667	0.00	0.01	0.096	O	|	|	|	0.51
35.750	0.00	0.01	0.096	O	|	|	|	0.51
35.833	0.00	0.01	0.096	O	|	|	|	0.51
35.917	0.00	0.01	0.096	O	|	|	|	0.51
36.000	0.00	0.01	0.096	O	|	|	|	0.51
36.083	0.00	0.01	0.096	O	|	|	|	0.51
36.167	0.00	0.00	0.096	O	|	|	|	0.51
36.250	0.00	0.00	0.096	O	|	|	|	0.51
36.333	0.00	0.00	0.096	O	|	|	|	0.51
36.417	0.00	0.00	0.096	O	|	|	|	0.51
36.500	0.00	0.00	0.096	O	|	|	|	0.51
36.583	0.00	0.00	0.095	O	|	|	|	0.51
36.667	0.00	0.00	0.095	O	|	|	|	0.51
36.750	0.00	0.00	0.095	O	|	|	|	0.51
36.833	0.00	0.00	0.095	O	|	|	|	0.51
36.917	0.00	0.00	0.095	O	|	|	|	0.51
37.000	0.00	0.00	0.095	O	|	|	|	0.51
37.083	0.00	0.00	0.095	O	|	|	|	0.51
37.167	0.00	0.00	0.095	O	|	|	|	0.51
37.250	0.00	0.00	0.095	O	|	|	|	0.51
37.333	0.00	0.00	0.095	O	|	|	|	0.51
37.417	0.00	0.00	0.095	O	|	|	|	0.51
37.500	0.00	0.00	0.095	O	|	|	|	0.51
37.583	0.00	0.00	0.095	O	|	|	|	0.51
37.667	0.00	0.00	0.095	O	|	|	|	0.51
37.750	0.00	0.00	0.095	O	|	|	|	0.51
37.833	0.00	0.00	0.095	O	|	|	|	0.51
37.917	0.00	0.00	0.095	O	|	|	|	0.51
38.000	0.00	0.00	0.095	O	|	|	|	0.51
38.083	0.00	0.00	0.095	O	|	|	|	0.51
38.167	0.00	0.00	0.095	O	|	|	|	0.51
38.250	0.00	0.00	0.095	O	|	|	|	0.51
38.333	0.00	0.00	0.095	O	|	|	|	0.51
38.417	0.00	0.00	0.095	O	|	|	|	0.51
38.500	0.00	0.00	0.095	O	|	|	|	0.51
38.583	0.00	0.00	0.095	O	|	|	|	0.51
38.667	0.00	0.00	0.095	O	|	|	|	0.51
38.750	0.00	0.00	0.095	O	|	|	|	0.51
38.833	0.00	0.00	0.095	O	|	|	|	0.51
38.917	0.00	0.00	0.095	O	|	|	|	0.51
39.000	0.00	0.00	0.095	O	|	|	|	0.51
39.083	0.00	0.00	0.095	O	|	|	|	0.51

39.167	0.00	0.00	0.095	O	|	|	|	0.51
39.250	0.00	0.00	0.095	O	|	|	|	0.51
39.333	0.00	0.00	0.095	O	|	|	|	0.51
39.417	0.00	0.00	0.095	O	|	|	|	0.51
39.500	0.00	0.00	0.095	O	|	|	|	0.51
39.583	0.00	0.00	0.095	O	|	|	|	0.51
39.667	0.00	0.00	0.095	O	|	|	|	0.51
39.750	0.00	0.00	0.095	O	|	|	|	0.51
39.833	0.00	0.00	0.094	O	|	|	|	0.51
39.917	0.00	0.00	0.094	O	|	|	|	0.51
40.000	0.00	0.00	0.094	O	|	|	|	0.51
40.083	0.00	0.00	0.094	O	|	|	|	0.51
40.167	0.00	0.00	0.094	O	|	|	|	0.51
40.250	0.00	0.00	0.094	O	|	|	|	0.51
40.333	0.00	0.00	0.094	O	|	|	|	0.51
40.417	0.00	0.00	0.094	O	|	|	|	0.51
40.500	0.00	0.00	0.094	O	|	|	|	0.51
40.583	0.00	0.00	0.094	O	|	|	|	0.51
40.667	0.00	0.00	0.094	O	|	|	|	0.51
40.750	0.00	0.00	0.094	O	|	|	|	0.51
40.833	0.00	0.00	0.094	O	|	|	|	0.51
40.917	0.00	0.00	0.094	O	|	|	|	0.51
41.000	0.00	0.00	0.094	O	|	|	|	0.51
41.083	0.00	0.00	0.094	O	|	|	|	0.51
41.167	0.00	0.00	0.094	O	|	|	|	0.51
41.250	0.00	0.00	0.094	O	|	|	|	0.51
41.333	0.00	0.00	0.094	O	|	|	|	0.51
41.417	0.00	0.00	0.094	O	|	|	|	0.51
41.500	0.00	0.00	0.094	O	|	|	|	0.51
41.583	0.00	0.00	0.094	O	|	|	|	0.51
41.667	0.00	0.00	0.094	O	|	|	|	0.51
41.750	0.00	0.00	0.094	O	|	|	|	0.51
41.833	0.00	0.00	0.094	O	|	|	|	0.51
41.917	0.00	0.00	0.094	O	|	|	|	0.51
42.000	0.00	0.00	0.094	O	|	|	|	0.51
42.083	0.00	0.00	0.094	O	|	|	|	0.51
42.167	0.00	0.00	0.094	O	|	|	|	0.50
42.250	0.00	0.00	0.094	O	|	|	|	0.50
42.333	0.00	0.00	0.094	O	|	|	|	0.50
42.417	0.00	0.00	0.094	O	|	|	|	0.50
42.500	0.00	0.00	0.094	O	|	|	|	0.50
42.583	0.00	0.00	0.094	O	|	|	|	0.50
42.667	0.00	0.00	0.094	O	|	|	|	0.50
42.750	0.00	0.00	0.094	O	|	|	|	0.50
42.833	0.00	0.00	0.094	O	|	|	|	0.50
42.917	0.00	0.00	0.094	O	|	|	|	0.50
43.000	0.00	0.00	0.094	O	|	|	|	0.50
43.083	0.00	0.00	0.094	O	|	|	|	0.50
43.167	0.00	0.00	0.094	O	|	|	|	0.50
43.250	0.00	0.00	0.094	O	|	|	|	0.50

43.333	0.00	0.00	0.094	O	|	|	|	|	0.50
43.417	0.00	0.00	0.094	O	|	|	|	|	0.50
43.500	0.00	0.00	0.094	O	|	|	|	|	0.50
43.583	0.00	0.00	0.094	O	|	|	|	|	0.50
43.667	0.00	0.00	0.094	O	|	|	|	|	0.50
43.750	0.00	0.00	0.094	O	|	|	|	|	0.50
43.833	0.00	0.00	0.094	O	|	|	|	|	0.50
43.917	0.00	0.00	0.094	O	|	|	|	|	0.50
44.000	0.00	0.00	0.094	O	|	|	|	|	0.50
44.083	0.00	0.00	0.094	O	|	|	|	|	0.50
44.167	0.00	0.00	0.094	O	|	|	|	|	0.50
44.250	0.00	0.00	0.094	O	|	|	|	|	0.50
44.333	0.00	0.00	0.094	O	|	|	|	|	0.50
44.417	0.00	0.00	0.094	O	|	|	|	|	0.50
44.500	0.00	0.00	0.094	O	|	|	|	|	0.50
44.583	0.00	0.00	0.094	O	|	|	|	|	0.50
44.667	0.00	0.00	0.094	O	|	|	|	|	0.50
44.750	0.00	0.00	0.094	O	|	|	|	|	0.50
44.833	0.00	0.00	0.094	O	|	|	|	|	0.50
44.917	0.00	0.00	0.094	O	|	|	|	|	0.50
45.000	0.00	0.00	0.094	O	|	|	|	|	0.50
45.083	0.00	0.00	0.094	O	|	|	|	|	0.50
45.167	0.00	0.00	0.094	O	|	|	|	|	0.50
45.250	0.00	0.00	0.094	O	|	|	|	|	0.50
45.333	0.00	0.00	0.094	O	|	|	|	|	0.50
45.417	0.00	0.00	0.094	O	|	|	|	|	0.50
45.500	0.00	0.00	0.094	O	|	|	|	|	0.50
45.583	0.00	0.00	0.094	O	|	|	|	|	0.50
45.667	0.00	0.00	0.094	O	|	|	|	|	0.50
45.750	0.00	0.00	0.094	O	|	|	|	|	0.50
45.833	0.00	0.00	0.094	O	|	|	|	|	0.50
45.917	0.00	0.00	0.094	O	|	|	|	|	0.50
46.000	0.00	0.00	0.094	O	|	|	|	|	0.50
46.083	0.00	0.00	0.094	O	|	|	|	|	0.50
46.167	0.00	0.00	0.094	O	|	|	|	|	0.50
46.250	0.00	0.00	0.094	O	|	|	|	|	0.50
46.333	0.00	0.00	0.094	O	|	|	|	|	0.50
46.417	0.00	0.00	0.094	O	|	|	|	|	0.50
46.500	0.00	0.00	0.094	O	|	|	|	|	0.50

Remaining water in basin = 0.09 (Ac.Ft)

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

Number of intervals = 558
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.297 (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

Study date: 08/24/22

A21626 DMA 1 10YR-3HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA1Q100UH310.rte
**********HYDROGRAPH DATA**********
Number of intervals = 39
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 7.203 (CFS)
Total volume = 0.588 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.00(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.50(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   4.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   1.00(Ft.)    Capacity =   6.28(CFS)

Total outflow at this depth =      6.48(CFS)

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Total number of inflow hydrograph intervals = 39
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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
0.500	0.093	0.000	0.093	0.093
1.000	0.197	0.196	0.196	0.198
1.500	0.313	0.196	0.312	0.314
2.000	0.440	0.196	0.439	0.441
2.500	0.580	0.196	0.579	0.581
3.000	0.732	0.196	0.731	0.733
3.500	0.897	0.196	0.896	0.898
4.000	1.075	4.639	1.059	1.091
4.500	1.267	6.480	1.245	1.289

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 1.8 3.60 5.40 7.20	Depth (Ft.)
0.083	0.53	0.00	0.002	O I | | | |	0.01
0.167	0.95	0.00	0.007	O I | | | |	0.04
0.250	0.94	0.00	0.013	O I | | | |	0.07
0.333	1.06	0.00	0.020	O I | | | |	0.11
0.417	1.18	0.00	0.028	O I | | | |	0.15
0.500	1.32	0.00	0.037	O I | | | |	0.20
0.583	1.30	0.00	0.046	O I | | | |	0.25
0.667	1.34	0.00	0.055	O I | | | |	0.29
0.750	1.42	0.00	0.064	O I | | | |	0.35
0.833	1.31	0.00	0.074	O I | | | |	0.40
0.917	1.26	0.00	0.083	O I | | | |	0.44
1.000	1.36	0.00	0.092	O I | | | |	0.49
1.083	1.59	0.02	0.102	O I| | | |	0.54
1.167	1.73	0.04	0.113	O I| | | |	0.60
1.250	1.76	0.06	0.125	O I| | | |	0.65
1.333	1.68	0.08	0.136	O I| | | |	0.71
1.417	1.86	0.10	0.147	O I | | |	0.76
1.500	2.09	0.13	0.160	O |I | | |	0.82
1.583	2.03	0.15	0.174	O |I | | |	0.89

1.667	2.08	0.18	0.187	O	|I	|	|	|	0.95
1.750	2.48	0.20	0.201	O	| I	|	|	|	1.02
1.833	2.63	0.20	0.217	O	| I	|	|	|	1.09
1.917	2.49	0.20	0.233	O	| I	|	|	|	1.16
2.000	2.46	0.20	0.249	O	| I	|	|	|	1.22
2.083	2.53	0.20	0.265	O	| I	|	|	|	1.29
2.167	3.15	0.20	0.283	O	| I	|	|	|	1.37
2.250	4.02	0.20	0.306	O	| |I	|	|	|	1.47
2.333	3.64	0.20	0.331	O	| I	|	|	|	1.57
2.417	4.83	0.20	0.359	O	| |	I |	|	|	1.68
2.500	6.33	0.20	0.396	O	| |	|	I |	|	1.83
2.583	7.20	0.20	0.442	O	| |	|	|	I |	2.01
2.667	6.47	0.20	0.487	O	| |	|	I |	|	2.17
2.750	3.65	0.20	0.521	O	| I	|	|	|	2.29
2.833	1.90	0.20	0.539	O	I |	|	|	|	2.35
2.917	1.53	0.20	0.549	O	I |	|	|	|	2.39
3.000	0.95	0.20	0.556	O	I |	|	|	|	2.41
3.083	0.32	0.20	0.559	OI	|	|	|	|	2.43
3.167	0.06	0.20	0.559	O	|	|	|	|	2.43
3.250	0.01	0.20	0.558	O	|	|	|	|	2.42
3.333	0.00	0.20	0.557	O	|	|	|	|	2.42
3.417	0.00	0.20	0.555	O	|	|	|	|	2.41
3.500	0.00	0.20	0.554	O	|	|	|	|	2.41
3.583	0.00	0.20	0.553	O	|	|	|	|	2.40
3.667	0.00	0.20	0.551	O	|	|	|	|	2.40
3.750	0.00	0.20	0.550	O	|	|	|	|	2.39
3.833	0.00	0.20	0.549	O	|	|	|	|	2.39
3.917	0.00	0.20	0.547	O	|	|	|	|	2.38
4.000	0.00	0.20	0.546	O	|	|	|	|	2.38
4.083	0.00	0.20	0.545	O	|	|	|	|	2.37
4.167	0.00	0.20	0.543	O	|	|	|	|	2.37
4.250	0.00	0.20	0.542	O	|	|	|	|	2.36
4.333	0.00	0.20	0.540	O	|	|	|	|	2.36
4.417	0.00	0.20	0.539	O	|	|	|	|	2.35
4.500	0.00	0.20	0.538	O	|	|	|	|	2.35
4.583	0.00	0.20	0.536	O	|	|	|	|	2.34
4.667	0.00	0.20	0.535	O	|	|	|	|	2.34
4.750	0.00	0.20	0.534	O	|	|	|	|	2.33
4.833	0.00	0.20	0.532	O	|	|	|	|	2.33
4.917	0.00	0.20	0.531	O	|	|	|	|	2.33
5.000	0.00	0.20	0.530	O	|	|	|	|	2.32
5.083	0.00	0.20	0.528	O	|	|	|	|	2.32
5.167	0.00	0.20	0.527	O	|	|	|	|	2.31
5.250	0.00	0.20	0.526	O	|	|	|	|	2.31
5.333	0.00	0.20	0.524	O	|	|	|	|	2.30
5.417	0.00	0.20	0.523	O	|	|	|	|	2.30
5.500	0.00	0.20	0.522	O	|	|	|	|	2.29
5.583	0.00	0.20	0.520	O	|	|	|	|	2.29
5.667	0.00	0.20	0.519	O	|	|	|	|	2.28
5.750	0.00	0.20	0.518	O	|	|	|	|	2.28

5.833	0.00	0.20	0.516	O	|	|	|	2.27
5.917	0.00	0.20	0.515	O	|	|	|	2.27
6.000	0.00	0.20	0.513	O	|	|	|	2.26
6.083	0.00	0.20	0.512	O	|	|	|	2.26
6.167	0.00	0.20	0.511	O	|	|	|	2.25
6.250	0.00	0.20	0.509	O	|	|	|	2.25
6.333	0.00	0.20	0.508	O	|	|	|	2.24
6.417	0.00	0.20	0.507	O	|	|	|	2.24
6.500	0.00	0.20	0.505	O	|	|	|	2.23
6.583	0.00	0.20	0.504	O	|	|	|	2.23
6.667	0.00	0.20	0.503	O	|	|	|	2.22
6.750	0.00	0.20	0.501	O	|	|	|	2.22
6.833	0.00	0.20	0.500	O	|	|	|	2.21
6.917	0.00	0.20	0.499	O	|	|	|	2.21
7.000	0.00	0.20	0.497	O	|	|	|	2.20
7.083	0.00	0.20	0.496	O	|	|	|	2.20
7.167	0.00	0.20	0.495	O	|	|	|	2.19
7.250	0.00	0.20	0.493	O	|	|	|	2.19
7.333	0.00	0.20	0.492	O	|	|	|	2.19
7.417	0.00	0.20	0.490	O	|	|	|	2.18
7.500	0.00	0.20	0.489	O	|	|	|	2.18
7.583	0.00	0.20	0.488	O	|	|	|	2.17
7.667	0.00	0.20	0.486	O	|	|	|	2.17
7.750	0.00	0.20	0.485	O	|	|	|	2.16
7.833	0.00	0.20	0.484	O	|	|	|	2.16
7.917	0.00	0.20	0.482	O	|	|	|	2.15
8.000	0.00	0.20	0.481	O	|	|	|	2.15
8.083	0.00	0.20	0.480	O	|	|	|	2.14
8.167	0.00	0.20	0.478	O	|	|	|	2.14
8.250	0.00	0.20	0.477	O	|	|	|	2.13
8.333	0.00	0.20	0.476	O	|	|	|	2.13
8.417	0.00	0.20	0.474	O	|	|	|	2.12
8.500	0.00	0.20	0.473	O	|	|	|	2.12
8.583	0.00	0.20	0.472	O	|	|	|	2.11
8.667	0.00	0.20	0.470	O	|	|	|	2.11
8.750	0.00	0.20	0.469	O	|	|	|	2.10
8.833	0.00	0.20	0.467	O	|	|	|	2.10
8.917	0.00	0.20	0.466	O	|	|	|	2.09
9.000	0.00	0.20	0.465	O	|	|	|	2.09
9.083	0.00	0.20	0.463	O	|	|	|	2.08
9.167	0.00	0.20	0.462	O	|	|	|	2.08
9.250	0.00	0.20	0.461	O	|	|	|	2.07
9.333	0.00	0.20	0.459	O	|	|	|	2.07
9.417	0.00	0.20	0.458	O	|	|	|	2.06
9.500	0.00	0.20	0.457	O	|	|	|	2.06
9.583	0.00	0.20	0.455	O	|	|	|	2.05
9.667	0.00	0.20	0.454	O	|	|	|	2.05
9.750	0.00	0.20	0.453	O	|	|	|	2.04
9.833	0.00	0.20	0.451	O	|	|	|	2.04
9.917	0.00	0.20	0.450	O	|	|	|	2.04

10.000	0.00	0.20	0.449	O	|	|	|	2.03
10.083	0.00	0.20	0.447	O	|	|	|	2.03
10.167	0.00	0.20	0.446	O	|	|	|	2.02
10.250	0.00	0.20	0.444	O	|	|	|	2.02
10.333	0.00	0.20	0.443	O	|	|	|	2.01
10.417	0.00	0.20	0.442	O	|	|	|	2.01
10.500	0.00	0.20	0.440	O	|	|	|	2.00
10.583	0.00	0.20	0.439	O	|	|	|	2.00
10.667	0.00	0.20	0.438	O	|	|	|	1.99
10.750	0.00	0.20	0.436	O	|	|	|	1.99
10.833	0.00	0.20	0.435	O	|	|	|	1.98
10.917	0.00	0.20	0.434	O	|	|	|	1.98
11.000	0.00	0.20	0.432	O	|	|	|	1.97
11.083	0.00	0.20	0.431	O	|	|	|	1.96
11.167	0.00	0.20	0.430	O	|	|	|	1.96
11.250	0.00	0.20	0.428	O	|	|	|	1.95
11.333	0.00	0.20	0.427	O	|	|	|	1.95
11.417	0.00	0.20	0.426	O	|	|	|	1.94
11.500	0.00	0.20	0.424	O	|	|	|	1.94
11.583	0.00	0.20	0.423	O	|	|	|	1.93
11.667	0.00	0.20	0.421	O	|	|	|	1.93
11.750	0.00	0.20	0.420	O	|	|	|	1.92
11.833	0.00	0.20	0.419	O	|	|	|	1.92
11.917	0.00	0.20	0.417	O	|	|	|	1.91
12.000	0.00	0.20	0.416	O	|	|	|	1.91
12.083	0.00	0.20	0.415	O	|	|	|	1.90
12.167	0.00	0.20	0.413	O	|	|	|	1.90
12.250	0.00	0.20	0.412	O	|	|	|	1.89
12.333	0.00	0.20	0.411	O	|	|	|	1.88
12.417	0.00	0.20	0.409	O	|	|	|	1.88
12.500	0.00	0.20	0.408	O	|	|	|	1.87
12.583	0.00	0.20	0.407	O	|	|	|	1.87
12.667	0.00	0.20	0.405	O	|	|	|	1.86
12.750	0.00	0.20	0.404	O	|	|	|	1.86
12.833	0.00	0.20	0.403	O	|	|	|	1.85
12.917	0.00	0.20	0.401	O	|	|	|	1.85
13.000	0.00	0.20	0.400	O	|	|	|	1.84
13.083	0.00	0.20	0.399	O	|	|	|	1.84
13.167	0.00	0.20	0.397	O	|	|	|	1.83
13.250	0.00	0.20	0.396	O	|	|	|	1.83
13.333	0.00	0.20	0.394	O	|	|	|	1.82
13.417	0.00	0.20	0.393	O	|	|	|	1.82
13.500	0.00	0.20	0.392	O	|	|	|	1.81
13.583	0.00	0.20	0.390	O	|	|	|	1.80
13.667	0.00	0.20	0.389	O	|	|	|	1.80
13.750	0.00	0.20	0.388	O	|	|	|	1.79
13.833	0.00	0.20	0.386	O	|	|	|	1.79
13.917	0.00	0.20	0.385	O	|	|	|	1.78
14.000	0.00	0.20	0.384	O	|	|	|	1.78
14.083	0.00	0.20	0.382	O	|	|	|	1.77

14.167	0.00	0.20	0.381	O	|	|	|	1.77
14.250	0.00	0.20	0.380	O	|	|	|	1.76
14.333	0.00	0.20	0.378	O	|	|	|	1.76
14.417	0.00	0.20	0.377	O	|	|	|	1.75
14.500	0.00	0.20	0.376	O	|	|	|	1.75
14.583	0.00	0.20	0.374	O	|	|	|	1.74
14.667	0.00	0.20	0.373	O	|	|	|	1.74
14.750	0.00	0.20	0.371	O	|	|	|	1.73
14.833	0.00	0.20	0.370	O	|	|	|	1.72
14.917	0.00	0.20	0.369	O	|	|	|	1.72
15.000	0.00	0.20	0.367	O	|	|	|	1.71
15.083	0.00	0.20	0.366	O	|	|	|	1.71
15.167	0.00	0.20	0.365	O	|	|	|	1.70
15.250	0.00	0.20	0.363	O	|	|	|	1.70
15.333	0.00	0.20	0.362	O	|	|	|	1.69
15.417	0.00	0.20	0.361	O	|	|	|	1.69
15.500	0.00	0.20	0.359	O	|	|	|	1.68
15.583	0.00	0.20	0.358	O	|	|	|	1.68
15.667	0.00	0.20	0.357	O	|	|	|	1.67
15.750	0.00	0.20	0.355	O	|	|	|	1.67
15.833	0.00	0.20	0.354	O	|	|	|	1.66
15.917	0.00	0.20	0.353	O	|	|	|	1.66
16.000	0.00	0.20	0.351	O	|	|	|	1.65
16.083	0.00	0.20	0.350	O	|	|	|	1.64
16.167	0.00	0.20	0.348	O	|	|	|	1.64
16.250	0.00	0.20	0.347	O	|	|	|	1.63
16.333	0.00	0.20	0.346	O	|	|	|	1.63
16.417	0.00	0.20	0.344	O	|	|	|	1.62
16.500	0.00	0.20	0.343	O	|	|	|	1.62
16.583	0.00	0.20	0.342	O	|	|	|	1.61
16.667	0.00	0.20	0.340	O	|	|	|	1.61
16.750	0.00	0.20	0.339	O	|	|	|	1.60
16.833	0.00	0.20	0.338	O	|	|	|	1.60
16.917	0.00	0.20	0.336	O	|	|	|	1.59
17.000	0.00	0.20	0.335	O	|	|	|	1.59
17.083	0.00	0.20	0.334	O	|	|	|	1.58
17.167	0.00	0.20	0.332	O	|	|	|	1.58
17.250	0.00	0.20	0.331	O	|	|	|	1.57
17.333	0.00	0.20	0.330	O	|	|	|	1.57
17.417	0.00	0.20	0.328	O	|	|	|	1.56
17.500	0.00	0.20	0.327	O	|	|	|	1.55
17.583	0.00	0.20	0.325	O	|	|	|	1.55
17.667	0.00	0.20	0.324	O	|	|	|	1.54
17.750	0.00	0.20	0.323	O	|	|	|	1.54
17.833	0.00	0.20	0.321	O	|	|	|	1.53
17.917	0.00	0.20	0.320	O	|	|	|	1.53
18.000	0.00	0.20	0.319	O	|	|	|	1.52
18.083	0.00	0.20	0.317	O	|	|	|	1.52
18.167	0.00	0.20	0.316	O	|	|	|	1.51
18.250	0.00	0.20	0.315	O	|	|	|	1.51

18.333	0.00	0.20	0.313	O	|	|	|	1.50
18.417	0.00	0.20	0.312	O	|	|	|	1.50
18.500	0.00	0.20	0.311	O	|	|	|	1.49
18.583	0.00	0.20	0.309	O	|	|	|	1.48
18.667	0.00	0.20	0.308	O	|	|	|	1.48
18.750	0.00	0.20	0.307	O	|	|	|	1.47
18.833	0.00	0.20	0.305	O	|	|	|	1.47
18.917	0.00	0.20	0.304	O	|	|	|	1.46
19.000	0.00	0.20	0.302	O	|	|	|	1.45
19.083	0.00	0.20	0.301	O	|	|	|	1.45
19.167	0.00	0.20	0.300	O	|	|	|	1.44
19.250	0.00	0.20	0.298	O	|	|	|	1.44
19.333	0.00	0.20	0.297	O	|	|	|	1.43
19.417	0.00	0.20	0.296	O	|	|	|	1.43
19.500	0.00	0.20	0.294	O	|	|	|	1.42
19.583	0.00	0.20	0.293	O	|	|	|	1.41
19.667	0.00	0.20	0.292	O	|	|	|	1.41
19.750	0.00	0.20	0.290	O	|	|	|	1.40
19.833	0.00	0.20	0.289	O	|	|	|	1.40
19.917	0.00	0.20	0.288	O	|	|	|	1.39
20.000	0.00	0.20	0.286	O	|	|	|	1.38
20.083	0.00	0.20	0.285	O	|	|	|	1.38
20.167	0.00	0.20	0.284	O	|	|	|	1.37
20.250	0.00	0.20	0.282	O	|	|	|	1.37
20.333	0.00	0.20	0.281	O	|	|	|	1.36
20.417	0.00	0.20	0.280	O	|	|	|	1.36
20.500	0.00	0.20	0.278	O	|	|	|	1.35
20.583	0.00	0.20	0.277	O	|	|	|	1.34
20.667	0.00	0.20	0.275	O	|	|	|	1.34
20.750	0.00	0.20	0.274	O	|	|	|	1.33
20.833	0.00	0.20	0.273	O	|	|	|	1.33
20.917	0.00	0.20	0.271	O	|	|	|	1.32
21.000	0.00	0.20	0.270	O	|	|	|	1.31
21.083	0.00	0.20	0.269	O	|	|	|	1.31
21.167	0.00	0.20	0.267	O	|	|	|	1.30
21.250	0.00	0.20	0.266	O	|	|	|	1.30
21.333	0.00	0.20	0.265	O	|	|	|	1.29
21.417	0.00	0.20	0.263	O	|	|	|	1.29
21.500	0.00	0.20	0.262	O	|	|	|	1.28
21.583	0.00	0.20	0.261	O	|	|	|	1.27
21.667	0.00	0.20	0.259	O	|	|	|	1.27
21.750	0.00	0.20	0.258	O	|	|	|	1.26
21.833	0.00	0.20	0.257	O	|	|	|	1.26
21.917	0.00	0.20	0.255	O	|	|	|	1.25
22.000	0.00	0.20	0.254	O	|	|	|	1.24
22.083	0.00	0.20	0.252	O	|	|	|	1.24
22.167	0.00	0.20	0.251	O	|	|	|	1.23
22.250	0.00	0.20	0.250	O	|	|	|	1.23
22.333	0.00	0.20	0.248	O	|	|	|	1.22
22.417	0.00	0.20	0.247	O	|	|	|	1.22

22.500	0.00	0.20	0.246	O				1.21
22.583	0.00	0.20	0.244	O				1.20
22.667	0.00	0.20	0.243	O				1.20
22.750	0.00	0.20	0.242	O				1.19
22.833	0.00	0.20	0.240	O				1.19
22.917	0.00	0.20	0.239	O				1.18
23.000	0.00	0.20	0.238	O				1.17
23.083	0.00	0.20	0.236	O				1.17
23.167	0.00	0.20	0.235	O				1.16
23.250	0.00	0.20	0.234	O				1.16
23.333	0.00	0.20	0.232	O				1.15
23.417	0.00	0.20	0.231	O				1.15
23.500	0.00	0.20	0.229	O				1.14
23.583	0.00	0.20	0.228	O				1.13
23.667	0.00	0.20	0.227	O				1.13
23.750	0.00	0.20	0.225	O				1.12
23.833	0.00	0.20	0.224	O				1.12
23.917	0.00	0.20	0.223	O				1.11
24.000	0.00	0.20	0.221	O				1.11
24.083	0.00	0.20	0.220	O				1.10
24.167	0.00	0.20	0.219	O				1.09
24.250	0.00	0.20	0.217	O				1.09
24.333	0.00	0.20	0.216	O				1.08
24.417	0.00	0.20	0.215	O				1.08
24.500	0.00	0.20	0.213	O				1.07
24.583	0.00	0.20	0.212	O				1.06
24.667	0.00	0.20	0.211	O				1.06
24.750	0.00	0.20	0.209	O				1.05
24.833	0.00	0.20	0.208	O				1.05
24.917	0.00	0.20	0.206	O				1.04
25.000	0.00	0.20	0.205	O				1.04
25.083	0.00	0.20	0.204	O				1.03
25.167	0.00	0.20	0.202	O				1.02
25.250	0.00	0.20	0.201	O				1.02
25.333	0.00	0.20	0.200	O				1.01
25.417	0.00	0.20	0.198	O				1.01
25.500	0.00	0.20	0.197	O				1.00
25.583	0.00	0.19	0.196	O				0.99
25.667	0.00	0.19	0.194	O				0.99
25.750	0.00	0.19	0.193	O				0.98
25.833	0.00	0.19	0.192	O				0.97
25.917	0.00	0.18	0.190	O				0.97
26.000	0.00	0.18	0.189	O				0.96
26.083	0.00	0.18	0.188	O				0.96
26.167	0.00	0.18	0.187	O				0.95
26.250	0.00	0.17	0.186	O				0.94
26.333	0.00	0.17	0.184	O				0.94
26.417	0.00	0.17	0.183	O				0.93
26.500	0.00	0.17	0.182	O				0.93
26.583	0.00	0.17	0.181	O				0.92

26.667	0.00	0.16	0.180	O				0.92
26.750	0.00	0.16	0.179	O				0.91
26.833	0.00	0.16	0.177	O				0.91
26.917	0.00	0.16	0.176	O				0.90
27.000	0.00	0.16	0.175	O				0.90
27.083	0.00	0.15	0.174	O				0.89
27.167	0.00	0.15	0.173	O				0.89
27.250	0.00	0.15	0.172	O				0.88
27.333	0.00	0.15	0.171	O				0.88
27.417	0.00	0.15	0.170	O				0.87
27.500	0.00	0.14	0.169	O				0.87
27.583	0.00	0.14	0.168	O				0.86
27.667	0.00	0.14	0.167	O				0.86
27.750	0.00	0.14	0.166	O				0.85
27.833	0.00	0.14	0.165	O				0.85
27.917	0.00	0.13	0.164	O				0.84
28.000	0.00	0.13	0.163	O				0.84
28.083	0.00	0.13	0.163	O				0.83
28.167	0.00	0.13	0.162	O				0.83
28.250	0.00	0.13	0.161	O				0.83
28.333	0.00	0.13	0.160	O				0.82
28.417	0.00	0.12	0.159	O				0.82
28.500	0.00	0.12	0.158	O				0.81
28.583	0.00	0.12	0.157	O				0.81
28.667	0.00	0.12	0.156	O				0.81
28.750	0.00	0.12	0.156	O				0.80
28.833	0.00	0.12	0.155	O				0.80
28.917	0.00	0.12	0.154	O				0.79
29.000	0.00	0.11	0.153	O				0.79
29.083	0.00	0.11	0.152	O				0.79
29.167	0.00	0.11	0.152	O				0.78
29.250	0.00	0.11	0.151	O				0.78
29.333	0.00	0.11	0.150	O				0.77
29.417	0.00	0.11	0.149	O				0.77
29.500	0.00	0.11	0.149	O				0.77
29.583	0.00	0.10	0.148	O				0.76
29.667	0.00	0.10	0.147	O				0.76
29.750	0.00	0.10	0.147	O				0.76
29.833	0.00	0.10	0.146	O				0.75
29.917	0.00	0.10	0.145	O				0.75
30.000	0.00	0.10	0.145	O				0.75
30.083	0.00	0.10	0.144	O				0.74
30.167	0.00	0.09	0.143	O				0.74
30.250	0.00	0.09	0.143	O				0.74
30.333	0.00	0.09	0.142	O				0.74
30.417	0.00	0.09	0.141	O				0.73
30.500	0.00	0.09	0.141	O				0.73
30.583	0.00	0.09	0.140	O				0.73
30.667	0.00	0.09	0.139	O				0.72
30.750	0.00	0.09	0.139	O				0.72

30.833	0.00	0.09	0.138	O	|	|	|	0.72
30.917	0.00	0.08	0.138	O	|	|	|	0.71
31.000	0.00	0.08	0.137	O	|	|	|	0.71
31.083	0.00	0.08	0.137	O	|	|	|	0.71
31.167	0.00	0.08	0.136	O	|	|	|	0.71
31.250	0.00	0.08	0.135	O	|	|	|	0.70
31.333	0.00	0.08	0.135	O	|	|	|	0.70
31.417	0.00	0.08	0.134	O	|	|	|	0.70
31.500	0.00	0.08	0.134	O	|	|	|	0.70
31.583	0.00	0.08	0.133	O	|	|	|	0.69
31.667	0.00	0.08	0.133	O	|	|	|	0.69
31.750	0.00	0.07	0.132	O	|	|	|	0.69
31.833	0.00	0.07	0.132	O	|	|	|	0.69
31.917	0.00	0.07	0.131	O	|	|	|	0.68
32.000	0.00	0.07	0.131	O	|	|	|	0.68
32.083	0.00	0.07	0.130	O	|	|	|	0.68
32.167	0.00	0.07	0.130	O	|	|	|	0.68
32.250	0.00	0.07	0.129	O	|	|	|	0.67
32.333	0.00	0.07	0.129	O	|	|	|	0.67
32.417	0.00	0.07	0.128	O	|	|	|	0.67
32.500	0.00	0.07	0.128	O	|	|	|	0.67
32.583	0.00	0.07	0.127	O	|	|	|	0.67
32.667	0.00	0.06	0.127	O	|	|	|	0.66
32.750	0.00	0.06	0.127	O	|	|	|	0.66
32.833	0.00	0.06	0.126	O	|	|	|	0.66
32.917	0.00	0.06	0.126	O	|	|	|	0.66
33.000	0.00	0.06	0.125	O	|	|	|	0.66
33.083	0.00	0.06	0.125	O	|	|	|	0.65
33.167	0.00	0.06	0.124	O	|	|	|	0.65
33.250	0.00	0.06	0.124	O	|	|	|	0.65
33.333	0.00	0.06	0.124	O	|	|	|	0.65
33.417	0.00	0.06	0.123	O	|	|	|	0.65
33.500	0.00	0.06	0.123	O	|	|	|	0.64
33.583	0.00	0.06	0.122	O	|	|	|	0.64
33.667	0.00	0.05	0.122	O	|	|	|	0.64
33.750	0.00	0.05	0.122	O	|	|	|	0.64
33.833	0.00	0.05	0.121	O	|	|	|	0.64
33.917	0.00	0.05	0.121	O	|	|	|	0.63
34.000	0.00	0.05	0.121	O	|	|	|	0.63
34.083	0.00	0.05	0.120	O	|	|	|	0.63
34.167	0.00	0.05	0.120	O	|	|	|	0.63
34.250	0.00	0.05	0.120	O	|	|	|	0.63
34.333	0.00	0.05	0.119	O	|	|	|	0.63
34.417	0.00	0.05	0.119	O	|	|	|	0.62
34.500	0.00	0.05	0.119	O	|	|	|	0.62
34.583	0.00	0.05	0.118	O	|	|	|	0.62
34.667	0.00	0.05	0.118	O	|	|	|	0.62
34.750	0.00	0.05	0.118	O	|	|	|	0.62
34.833	0.00	0.05	0.117	O	|	|	|	0.62
34.917	0.00	0.05	0.117	O	|	|	|	0.62

35.000	0.00	0.04	0.117	O				0.61
35.083	0.00	0.04	0.116	O				0.61
35.167	0.00	0.04	0.116	O				0.61
35.250	0.00	0.04	0.116	O				0.61
35.333	0.00	0.04	0.115	O				0.61
35.417	0.00	0.04	0.115	O				0.61
35.500	0.00	0.04	0.115	O				0.61
35.583	0.00	0.04	0.115	O				0.60
35.667	0.00	0.04	0.114	O				0.60
35.750	0.00	0.04	0.114	O				0.60
35.833	0.00	0.04	0.114	O				0.60
35.917	0.00	0.04	0.113	O				0.60
36.000	0.00	0.04	0.113	O				0.60
36.083	0.00	0.04	0.113	O				0.60
36.167	0.00	0.04	0.113	O				0.59
36.250	0.00	0.04	0.112	O				0.59
36.333	0.00	0.04	0.112	O				0.59
36.417	0.00	0.04	0.112	O				0.59
36.500	0.00	0.04	0.112	O				0.59
36.583	0.00	0.03	0.111	O				0.59
36.667	0.00	0.03	0.111	O				0.59
36.750	0.00	0.03	0.111	O				0.59
36.833	0.00	0.03	0.111	O				0.59
36.917	0.00	0.03	0.111	O				0.58
37.000	0.00	0.03	0.110	O				0.58
37.083	0.00	0.03	0.110	O				0.58
37.167	0.00	0.03	0.110	O				0.58
37.250	0.00	0.03	0.110	O				0.58
37.333	0.00	0.03	0.109	O				0.58
37.417	0.00	0.03	0.109	O				0.58
37.500	0.00	0.03	0.109	O				0.58
37.583	0.00	0.03	0.109	O				0.58
37.667	0.00	0.03	0.109	O				0.57
37.750	0.00	0.03	0.108	O				0.57
37.833	0.00	0.03	0.108	O				0.57
37.917	0.00	0.03	0.108	O				0.57
38.000	0.00	0.03	0.108	O				0.57
38.083	0.00	0.03	0.108	O				0.57
38.167	0.00	0.03	0.107	O				0.57
38.250	0.00	0.03	0.107	O				0.57
38.333	0.00	0.03	0.107	O				0.57
38.417	0.00	0.03	0.107	O				0.57
38.500	0.00	0.03	0.107	O				0.57
38.583	0.00	0.03	0.107	O				0.56
38.667	0.00	0.03	0.106	O				0.56
38.750	0.00	0.02	0.106	O				0.56
38.833	0.00	0.02	0.106	O				0.56
38.917	0.00	0.02	0.106	O				0.56
39.000	0.00	0.02	0.106	O				0.56
39.083	0.00	0.02	0.105	O				0.56

39.167	0.00	0.02	0.105	O	|	|	|	0.56
39.250	0.00	0.02	0.105	O	|	|	|	0.56
39.333	0.00	0.02	0.105	O	|	|	|	0.56
39.417	0.00	0.02	0.105	O	|	|	|	0.56
39.500	0.00	0.02	0.105	O	|	|	|	0.56
39.583	0.00	0.02	0.105	O	|	|	|	0.56
39.667	0.00	0.02	0.104	O	|	|	|	0.55
39.750	0.00	0.02	0.104	O	|	|	|	0.55
39.833	0.00	0.02	0.104	O	|	|	|	0.55
39.917	0.00	0.02	0.104	O	|	|	|	0.55
40.000	0.00	0.02	0.104	O	|	|	|	0.55
40.083	0.00	0.02	0.104	O	|	|	|	0.55
40.167	0.00	0.02	0.104	O	|	|	|	0.55
40.250	0.00	0.02	0.103	O	|	|	|	0.55
40.333	0.00	0.02	0.103	O	|	|	|	0.55
40.417	0.00	0.02	0.103	O	|	|	|	0.55
40.500	0.00	0.02	0.103	O	|	|	|	0.55
40.583	0.00	0.02	0.103	O	|	|	|	0.55
40.667	0.00	0.02	0.103	O	|	|	|	0.55
40.750	0.00	0.02	0.103	O	|	|	|	0.55
40.833	0.00	0.02	0.103	O	|	|	|	0.55
40.917	0.00	0.02	0.102	O	|	|	|	0.55
41.000	0.00	0.02	0.102	O	|	|	|	0.54
41.083	0.00	0.02	0.102	O	|	|	|	0.54
41.167	0.00	0.02	0.102	O	|	|	|	0.54
41.250	0.00	0.02	0.102	O	|	|	|	0.54
41.333	0.00	0.02	0.102	O	|	|	|	0.54
41.417	0.00	0.02	0.102	O	|	|	|	0.54
41.500	0.00	0.02	0.102	O	|	|	|	0.54
41.583	0.00	0.02	0.101	O	|	|	|	0.54
41.667	0.00	0.02	0.101	O	|	|	|	0.54
41.750	0.00	0.02	0.101	O	|	|	|	0.54
41.833	0.00	0.02	0.101	O	|	|	|	0.54
41.917	0.00	0.02	0.101	O	|	|	|	0.54
42.000	0.00	0.01	0.101	O	|	|	|	0.54
42.083	0.00	0.01	0.101	O	|	|	|	0.54
42.167	0.00	0.01	0.101	O	|	|	|	0.54
42.250	0.00	0.01	0.101	O	|	|	|	0.54
42.333	0.00	0.01	0.101	O	|	|	|	0.54
42.417	0.00	0.01	0.100	O	|	|	|	0.54
42.500	0.00	0.01	0.100	O	|	|	|	0.54
42.583	0.00	0.01	0.100	O	|	|	|	0.53
42.667	0.00	0.01	0.100	O	|	|	|	0.53
42.750	0.00	0.01	0.100	O	|	|	|	0.53
42.833	0.00	0.01	0.100	O	|	|	|	0.53
42.917	0.00	0.01	0.100	O	|	|	|	0.53
43.000	0.00	0.01	0.100	O	|	|	|	0.53
43.083	0.00	0.01	0.100	O	|	|	|	0.53
43.167	0.00	0.01	0.100	O	|	|	|	0.53
43.250	0.00	0.01	0.100	O	|	|	|	0.53

43.333	0.00	0.01	0.099	O				0.53
43.417	0.00	0.01	0.099	O				0.53
43.500	0.00	0.01	0.099	O				0.53
43.583	0.00	0.01	0.099	O				0.53
43.667	0.00	0.01	0.099	O				0.53
43.750	0.00	0.01	0.099	O				0.53
43.833	0.00	0.01	0.099	O				0.53
43.917	0.00	0.01	0.099	O				0.53
44.000	0.00	0.01	0.099	O				0.53
44.083	0.00	0.01	0.099	O				0.53
44.167	0.00	0.01	0.099	O				0.53
44.250	0.00	0.01	0.099	O				0.53
44.333	0.00	0.01	0.099	O				0.53
44.417	0.00	0.01	0.098	O				0.53
44.500	0.00	0.01	0.098	O				0.53
44.583	0.00	0.01	0.098	O				0.53
44.667	0.00	0.01	0.098	O				0.53
44.750	0.00	0.01	0.098	O				0.52
44.833	0.00	0.01	0.098	O				0.52
44.917	0.00	0.01	0.098	O				0.52
45.000	0.00	0.01	0.098	O				0.52
45.083	0.00	0.01	0.098	O				0.52
45.167	0.00	0.01	0.098	O				0.52
45.250	0.00	0.01	0.098	O				0.52
45.333	0.00	0.01	0.098	O				0.52
45.417	0.00	0.01	0.098	O				0.52
45.500	0.00	0.01	0.098	O				0.52
45.583	0.00	0.01	0.098	O				0.52
45.667	0.00	0.01	0.097	O				0.52
45.750	0.00	0.01	0.097	O				0.52
45.833	0.00	0.01	0.097	O				0.52
45.917	0.00	0.01	0.097	O				0.52
46.000	0.00	0.01	0.097	O				0.52
46.083	0.00	0.01	0.097	O				0.52
46.167	0.00	0.01	0.097	O				0.52
46.250	0.00	0.01	0.097	O				0.52
46.333	0.00	0.01	0.097	O				0.52
46.417	0.00	0.01	0.097	O				0.52
46.500	0.00	0.01	0.097	O				0.52
46.583	0.00	0.01	0.097	O				0.52
46.667	0.00	0.01	0.097	O				0.52
46.750	0.00	0.01	0.097	O				0.52
46.833	0.00	0.01	0.097	O				0.52
46.917	0.00	0.01	0.097	O				0.52
47.000	0.00	0.01	0.097	O				0.52
47.083	0.00	0.01	0.097	O				0.52
47.167	0.00	0.01	0.097	O				0.52
47.250	0.00	0.01	0.096	O				0.52
47.333	0.00	0.01	0.096	O				0.52
47.417	0.00	0.01	0.096	O				0.52

47.500	0.00	0.01	0.096	O	|	|	|	0.52
47.583	0.00	0.01	0.096	O	|	|	|	0.52
47.667	0.00	0.01	0.096	O	|	|	|	0.52
47.750	0.00	0.01	0.096	O	|	|	|	0.52
47.833	0.00	0.01	0.096	O	|	|	|	0.52
47.917	0.00	0.01	0.096	O	|	|	|	0.52
48.000	0.00	0.01	0.096	O	|	|	|	0.51
48.083	0.00	0.01	0.096	O	|	|	|	0.51
48.167	0.00	0.01	0.096	O	|	|	|	0.51
48.250	0.00	0.01	0.096	O	|	|	|	0.51
48.333	0.00	0.01	0.096	O	|	|	|	0.51
48.417	0.00	0.01	0.096	O	|	|	|	0.51
48.500	0.00	0.01	0.096	O	|	|	|	0.51
48.583	0.00	0.01	0.096	O	|	|	|	0.51
48.667	0.00	0.01	0.096	O	|	|	|	0.51
48.750	0.00	0.01	0.096	O	|	|	|	0.51
48.833	0.00	0.01	0.096	O	|	|	|	0.51
48.917	0.00	0.01	0.096	O	|	|	|	0.51
49.000	0.00	0.01	0.096	O	|	|	|	0.51
49.083	0.00	0.00	0.096	O	|	|	|	0.51
49.167	0.00	0.00	0.096	O	|	|	|	0.51
49.250	0.00	0.00	0.096	O	|	|	|	0.51
49.333	0.00	0.00	0.096	O	|	|	|	0.51
49.417	0.00	0.00	0.095	O	|	|	|	0.51
49.500	0.00	0.00	0.095	O	|	|	|	0.51
49.583	0.00	0.00	0.095	O	|	|	|	0.51
49.667	0.00	0.00	0.095	O	|	|	|	0.51
49.750	0.00	0.00	0.095	O	|	|	|	0.51
49.833	0.00	0.00	0.095	O	|	|	|	0.51
49.917	0.00	0.00	0.095	O	|	|	|	0.51
50.000	0.00	0.00	0.095	O	|	|	|	0.51
50.083	0.00	0.00	0.095	O	|	|	|	0.51
50.167	0.00	0.00	0.095	O	|	|	|	0.51
50.250	0.00	0.00	0.095	O	|	|	|	0.51
50.333	0.00	0.00	0.095	O	|	|	|	0.51
50.417	0.00	0.00	0.095	O	|	|	|	0.51
50.500	0.00	0.00	0.095	O	|	|	|	0.51
50.583	0.00	0.00	0.095	O	|	|	|	0.51
50.667	0.00	0.00	0.095	O	|	|	|	0.51
50.750	0.00	0.00	0.095	O	|	|	|	0.51
50.833	0.00	0.00	0.095	O	|	|	|	0.51
50.917	0.00	0.00	0.095	O	|	|	|	0.51
51.000	0.00	0.00	0.095	O	|	|	|	0.51
51.083	0.00	0.00	0.095	O	|	|	|	0.51
51.167	0.00	0.00	0.095	O	|	|	|	0.51
51.250	0.00	0.00	0.095	O	|	|	|	0.51
51.333	0.00	0.00	0.095	O	|	|	|	0.51
51.417	0.00	0.00	0.095	O	|	|	|	0.51
51.500	0.00	0.00	0.095	O	|	|	|	0.51
51.583	0.00	0.00	0.095	O	|	|	|	0.51

51.667	0.00	0.00	0.095	O	|	|	|	0.51
51.750	0.00	0.00	0.095	O	|	|	|	0.51
51.833	0.00	0.00	0.095	O	|	|	|	0.51
51.917	0.00	0.00	0.095	O	|	|	|	0.51
52.000	0.00	0.00	0.095	O	|	|	|	0.51
52.083	0.00	0.00	0.095	O	|	|	|	0.51
52.167	0.00	0.00	0.095	O	|	|	|	0.51
52.250	0.00	0.00	0.095	O	|	|	|	0.51
52.333	0.00	0.00	0.095	O	|	|	|	0.51
52.417	0.00	0.00	0.095	O	|	|	|	0.51
52.500	0.00	0.00	0.095	O	|	|	|	0.51
52.583	0.00	0.00	0.095	O	|	|	|	0.51
52.667	0.00	0.00	0.095	O	|	|	|	0.51
52.750	0.00	0.00	0.094	O	|	|	|	0.51
52.833	0.00	0.00	0.094	O	|	|	|	0.51
52.917	0.00	0.00	0.094	O	|	|	|	0.51
53.000	0.00	0.00	0.094	O	|	|	|	0.51
53.083	0.00	0.00	0.094	O	|	|	|	0.51
53.167	0.00	0.00	0.094	O	|	|	|	0.51
53.250	0.00	0.00	0.094	O	|	|	|	0.51
53.333	0.00	0.00	0.094	O	|	|	|	0.51
53.417	0.00	0.00	0.094	O	|	|	|	0.51
53.500	0.00	0.00	0.094	O	|	|	|	0.51
53.583	0.00	0.00	0.094	O	|	|	|	0.51
53.667	0.00	0.00	0.094	O	|	|	|	0.51
53.750	0.00	0.00	0.094	O	|	|	|	0.51
53.833	0.00	0.00	0.094	O	|	|	|	0.51
53.917	0.00	0.00	0.094	O	|	|	|	0.51
54.000	0.00	0.00	0.094	O	|	|	|	0.51
54.083	0.00	0.00	0.094	O	|	|	|	0.51
54.167	0.00	0.00	0.094	O	|	|	|	0.51
54.250	0.00	0.00	0.094	O	|	|	|	0.51
54.333	0.00	0.00	0.094	O	|	|	|	0.51
54.417	0.00	0.00	0.094	O	|	|	|	0.51
54.500	0.00	0.00	0.094	O	|	|	|	0.51
54.583	0.00	0.00	0.094	O	|	|	|	0.51
54.667	0.00	0.00	0.094	O	|	|	|	0.51
54.750	0.00	0.00	0.094	O	|	|	|	0.51
54.833	0.00	0.00	0.094	O	|	|	|	0.51
54.917	0.00	0.00	0.094	O	|	|	|	0.51
55.000	0.00	0.00	0.094	O	|	|	|	0.51
55.083	0.00	0.00	0.094	O	|	|	|	0.50
55.167	0.00	0.00	0.094	O	|	|	|	0.50
55.250	0.00	0.00	0.094	O	|	|	|	0.50
55.333	0.00	0.00	0.094	O	|	|	|	0.50
55.417	0.00	0.00	0.094	O	|	|	|	0.50
55.500	0.00	0.00	0.094	O	|	|	|	0.50
55.583	0.00	0.00	0.094	O	|	|	|	0.50
55.667	0.00	0.00	0.094	O	|	|	|	0.50
55.750	0.00	0.00	0.094	O	|	|	|	0.50

55.833	0.00	0.00	0.094	O	|	|	|	|	0.50
55.917	0.00	0.00	0.094	O	|	|	|	|	0.50
56.000	0.00	0.00	0.094	O	|	|	|	|	0.50
56.083	0.00	0.00	0.094	O	|	|	|	|	0.50
56.167	0.00	0.00	0.094	O	|	|	|	|	0.50
56.250	0.00	0.00	0.094	O	|	|	|	|	0.50
56.333	0.00	0.00	0.094	O	|	|	|	|	0.50
56.417	0.00	0.00	0.094	O	|	|	|	|	0.50
56.500	0.00	0.00	0.094	O	|	|	|	|	0.50
56.583	0.00	0.00	0.094	O	|	|	|	|	0.50
56.667	0.00	0.00	0.094	O	|	|	|	|	0.50
56.750	0.00	0.00	0.094	O	|	|	|	|	0.50
56.833	0.00	0.00	0.094	O	|	|	|	|	0.50
56.917	0.00	0.00	0.094	O	|	|	|	|	0.50
57.000	0.00	0.00	0.094	O	|	|	|	|	0.50
57.083	0.00	0.00	0.094	O	|	|	|	|	0.50
57.167	0.00	0.00	0.094	O	|	|	|	|	0.50
57.250	0.00	0.00	0.094	O	|	|	|	|	0.50
57.333	0.00	0.00	0.094	O	|	|	|	|	0.50
57.417	0.00	0.00	0.094	O	|	|	|	|	0.50
57.500	0.00	0.00	0.094	O	|	|	|	|	0.50
57.583	0.00	0.00	0.094	O	|	|	|	|	0.50
57.667	0.00	0.00	0.094	O	|	|	|	|	0.50
57.750	0.00	0.00	0.094	O	|	|	|	|	0.50
57.833	0.00	0.00	0.094	O	|	|	|	|	0.50
57.917	0.00	0.00	0.094	O	|	|	|	|	0.50
58.000	0.00	0.00	0.094	O	|	|	|	|	0.50
58.083	0.00	0.00	0.094	O	|	|	|	|	0.50
58.167	0.00	0.00	0.094	O	|	|	|	|	0.50
58.250	0.00	0.00	0.094	O	|	|	|	|	0.50
58.333	0.00	0.00	0.094	O	|	|	|	|	0.50
58.417	0.00	0.00	0.094	O	|	|	|	|	0.50
58.500	0.00	0.00	0.094	O	|	|	|	|	0.50
58.583	0.00	0.00	0.094	O	|	|	|	|	0.50
58.667	0.00	0.00	0.094	O	|	|	|	|	0.50
58.750	0.00	0.00	0.094	O	|	|	|	|	0.50
58.833	0.00	0.00	0.094	O	|	|	|	|	0.50
58.917	0.00	0.00	0.094	O	|	|	|	|	0.50
59.000	0.00	0.00	0.094	O	|	|	|	|	0.50
59.083	0.00	0.00	0.094	O	|	|	|	|	0.50
59.167	0.00	0.00	0.094	O	|	|	|	|	0.50
59.250	0.00	0.00	0.094	O	|	|	|	|	0.50
59.333	0.00	0.00	0.094	O	|	|	|	|	0.50
59.417	0.00	0.00	0.094	O	|	|	|	|	0.50

Remaining water in basin = 0.09 (Ac.Ft)

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

```
                Number of intervals =   713
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =        0.196 (CFS)
                Total volume =       0.495 (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

Study date: 08/24/22

A21626 DMA 1 10YR-6HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA1Q100UH610.rte
**********HYDROGRAPH DATA**********
Number of intervals = 75
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 6.625 (CFS)
Total volume = 0.800 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.00(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.50(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   4.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   1.00(Ft.)    Capacity =   6.28(CFS)

Total outflow at this depth =      6.48(CFS)

------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 75
```

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
0.500	0.093	0.000	0.093	0.093
1.000	0.197	0.196	0.196	0.198
1.500	0.313	0.196	0.312	0.314
2.000	0.440	0.196	0.439	0.441
2.500	0.580	0.196	0.579	0.581
3.000	0.732	0.196	0.731	0.733
3.500	0.897	0.196	0.896	0.898
4.000	1.075	4.639	1.059	1.091
4.500	1.267	6.480	1.245	1.289

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 1.7 3.31 4.97 6.62	Depth (Ft.)
0.083	0.28	0.00	0.001	OI | | | |	0.01
0.167	0.56	0.00	0.004	O I | | | |	0.02
0.250	0.65	0.00	0.008	O I | | | |	0.04
0.333	0.66	0.00	0.013	O I | | | |	0.07
0.417	0.67	0.00	0.017	O I | | | |	0.09
0.500	0.72	0.00	0.022	O I | | | |	0.12
0.583	0.77	0.00	0.027	O I | | | |	0.15
0.667	0.77	0.00	0.032	O I | | | |	0.17
0.750	0.78	0.00	0.038	O I | | | |	0.20
0.833	0.78	0.00	0.043	O I | | | |	0.23
0.917	0.78	0.00	0.048	O I | | | |	0.26
1.000	0.83	0.00	0.054	O I | | | |	0.29
1.083	0.88	0.00	0.060	O I | | | |	0.32
1.167	0.89	0.00	0.066	O I | | | |	0.35
1.250	0.89	0.00	0.072	O I | | | |	0.39
1.333	0.89	0.00	0.078	O I | | | |	0.42
1.417	0.89	0.00	0.084	O I | | | |	0.45
1.500	0.89	0.00	0.090	O I | | | |	0.49
1.583	0.89	0.01	0.096	O I | | | |	0.52

```
1.667    0.89    0.02      0.102  O   I   |       |       |       |     0.55
1.750    0.89    0.03      0.108  O   I   |       |       |       |     0.57
1.833    0.89    0.04      0.114  O   I   |       |       |       |     0.60
1.917    0.89    0.05      0.120  O   I   |       |       |       |     0.63
2.000    0.94    0.06      0.126  O   I   |       |       |       |     0.66
2.083    0.93    0.07      0.132  O   I   |       |       |       |     0.69
2.167    0.95    0.08      0.138  O   I   |       |       |       |     0.72
2.250    0.99    0.10      0.144  O   I   |       |       |       |     0.75
2.333    1.00    0.11      0.150  O   I   |       |       |       |     0.77
2.417    1.00    0.12      0.156  O   I   |       |       |       |     0.80
2.500    1.00    0.13      0.162  O   I   |       |       |       |     0.83
2.583    1.00    0.14      0.168  O   I   |       |       |       |     0.86
2.667    1.00    0.15      0.174  O   I   |       |       |       |     0.89
2.750    1.06    0.16      0.180  O    I  |       |       |       |     0.92
2.833    1.10    0.18      0.186  O    I  |       |       |       |     0.95
2.917    1.11    0.19      0.193  O    I  |       |       |       |     0.98
3.000    1.11    0.20      0.199  O    I  |       |       |       |     1.01
3.083    1.11    0.20      0.205  O    I  |       |       |       |     1.04
3.167    1.17    0.20      0.212  O    I  |       |       |       |     1.06
3.250    1.21    0.20      0.219  O    I  |       |       |       |     1.09
3.333    1.22    0.20      0.226  O    I  |       |       |       |     1.12
3.417    1.28    0.20      0.233  O     I |       |       |       |     1.15
3.500    1.38    0.20      0.241  O     I |       |       |       |     1.19
3.583    1.49    0.20      0.249  O      I|       |       |       |     1.22
3.667    1.54    0.20      0.258  O      I|       |       |       |     1.26
3.750    1.61    0.20      0.268  O      I|       |       |       |     1.30
3.833    1.65    0.20      0.278  O      I|       |       |       |     1.35
3.917    1.72    0.20      0.288  O       I       |       |       |     1.39
4.000    1.77    0.20      0.298  O       I       |       |       |     1.44
4.083    1.83    0.20      0.309  O       I       |       |       |     1.48
4.167    1.93    0.20      0.321  O       |I      |       |       |     1.53
4.250    2.04    0.20      0.333  O       |I      |       |       |     1.58
4.333    2.17    0.20      0.347  O       | I     |       |       |     1.63
4.417    2.31    0.20      0.361  O       |  I    |       |       |     1.69
4.500    2.38    0.20      0.375  O       |  I    |       |       |     1.75
4.583    2.46    0.20      0.391  O       |  I    |       |       |     1.81
4.667    2.59    0.20      0.407  O       |   I   |       |       |     1.87
4.750    2.73    0.20      0.424  O       |    I  |       |       |     1.94
4.833    2.80    0.20      0.442  O       |    I  |       |       |     2.01
4.917    2.88    0.20      0.460  O       |    I  |       |       |     2.07
5.000    3.02    0.20      0.479  O       |     I |       |       |     2.14
5.083    3.44    0.20      0.500  O       |       I       |       |     2.21
5.167    4.09    0.20      0.524  O       |       |  I    |       |     2.30
5.250    4.64    0.20      0.553  O       |       |     I |       |     2.40
5.333    5.09    0.20      0.585  O       |       |       I       |     2.52
5.417    5.66    0.20      0.621  O       |       |       |  I    |     2.63
5.500    6.62    0.20      0.662  O       |       |       |      I|     2.77
5.583    4.51    0.20      0.699  O       |       |    I  |       |     2.89
5.667    1.97    0.20      0.720  O       |I      |       |       |     2.96
5.750    1.02    0.20      0.729  O   I   |       |       |       |     2.99
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5.833	0.66	0.20	0.733	O I				3.00
5.917	0.46	0.20	0.736	O I				3.01
6.000	0.30	0.20	0.737	OI				3.01
6.083	0.12	0.20	0.737	O				3.01
6.167	0.02	0.20	0.736	O				3.01
6.250	0.00	0.20	0.735	O				3.01
6.333	0.00	0.20	0.733	O				3.00
6.417	0.00	0.20	0.732	O				3.00
6.500	0.00	0.20	0.731	O				3.00
6.583	0.00	0.20	0.729	O				2.99
6.667	0.00	0.20	0.728	O				2.99
6.750	0.00	0.20	0.727	O				2.98
6.833	0.00	0.20	0.725	O				2.98
6.917	0.00	0.20	0.724	O				2.97
7.000	0.00	0.20	0.723	O				2.97
7.083	0.00	0.20	0.721	O				2.96
7.167	0.00	0.20	0.720	O				2.96
7.250	0.00	0.20	0.719	O				2.96
7.333	0.00	0.20	0.717	O				2.95
7.417	0.00	0.20	0.716	O				2.95
7.500	0.00	0.20	0.715	O				2.94
7.583	0.00	0.20	0.713	O				2.94
7.667	0.00	0.20	0.712	O				2.93
7.750	0.00	0.20	0.710	O				2.93
7.833	0.00	0.20	0.709	O				2.92
7.917	0.00	0.20	0.708	O				2.92
8.000	0.00	0.20	0.706	O				2.92
8.083	0.00	0.20	0.705	O				2.91
8.167	0.00	0.20	0.704	O				2.91
8.250	0.00	0.20	0.702	O				2.90
8.333	0.00	0.20	0.701	O				2.90
8.417	0.00	0.20	0.700	O				2.89
8.500	0.00	0.20	0.698	O				2.89
8.583	0.00	0.20	0.697	O				2.88
8.667	0.00	0.20	0.696	O				2.88
8.750	0.00	0.20	0.694	O				2.88
8.833	0.00	0.20	0.693	O				2.87
8.917	0.00	0.20	0.692	O				2.87
9.000	0.00	0.20	0.690	O				2.86
9.083	0.00	0.20	0.689	O				2.86
9.167	0.00	0.20	0.688	O				2.85
9.250	0.00	0.20	0.686	O				2.85
9.333	0.00	0.20	0.685	O				2.84
9.417	0.00	0.20	0.683	O				2.84
9.500	0.00	0.20	0.682	O				2.84
9.583	0.00	0.20	0.681	O				2.83
9.667	0.00	0.20	0.679	O				2.83
9.750	0.00	0.20	0.678	O				2.82
9.833	0.00	0.20	0.677	O				2.82
9.917	0.00	0.20	0.675	O				2.81

10.000	0.00	0.20	0.674	O	|	|	|	2.81
10.083	0.00	0.20	0.673	O	|	|	|	2.80
10.167	0.00	0.20	0.671	O	|	|	|	2.80
10.250	0.00	0.20	0.670	O	|	|	|	2.80
10.333	0.00	0.20	0.669	O	|	|	|	2.79
10.417	0.00	0.20	0.667	O	|	|	|	2.79
10.500	0.00	0.20	0.666	O	|	|	|	2.78
10.583	0.00	0.20	0.665	O	|	|	|	2.78
10.667	0.00	0.20	0.663	O	|	|	|	2.77
10.750	0.00	0.20	0.662	O	|	|	|	2.77
10.833	0.00	0.20	0.660	O	|	|	|	2.76
10.917	0.00	0.20	0.659	O	|	|	|	2.76
11.000	0.00	0.20	0.658	O	|	|	|	2.76
11.083	0.00	0.20	0.656	O	|	|	|	2.75
11.167	0.00	0.20	0.655	O	|	|	|	2.75
11.250	0.00	0.20	0.654	O	|	|	|	2.74
11.333	0.00	0.20	0.652	O	|	|	|	2.74
11.417	0.00	0.20	0.651	O	|	|	|	2.73
11.500	0.00	0.20	0.650	O	|	|	|	2.73
11.583	0.00	0.20	0.648	O	|	|	|	2.72
11.667	0.00	0.20	0.647	O	|	|	|	2.72
11.750	0.00	0.20	0.646	O	|	|	|	2.72
11.833	0.00	0.20	0.644	O	|	|	|	2.71
11.917	0.00	0.20	0.643	O	|	|	|	2.71
12.000	0.00	0.20	0.642	O	|	|	|	2.70
12.083	0.00	0.20	0.640	O	|	|	|	2.70
12.167	0.00	0.20	0.639	O	|	|	|	2.69
12.250	0.00	0.20	0.637	O	|	|	|	2.69
12.333	0.00	0.20	0.636	O	|	|	|	2.68
12.417	0.00	0.20	0.635	O	|	|	|	2.68
12.500	0.00	0.20	0.633	O	|	|	|	2.68
12.583	0.00	0.20	0.632	O	|	|	|	2.67
12.667	0.00	0.20	0.631	O	|	|	|	2.67
12.750	0.00	0.20	0.629	O	|	|	|	2.66
12.833	0.00	0.20	0.628	O	|	|	|	2.66
12.917	0.00	0.20	0.627	O	|	|	|	2.65
13.000	0.00	0.20	0.625	O	|	|	|	2.65
13.083	0.00	0.20	0.624	O	|	|	|	2.64
13.167	0.00	0.20	0.623	O	|	|	|	2.64
13.250	0.00	0.20	0.621	O	|	|	|	2.64
13.333	0.00	0.20	0.620	O	|	|	|	2.63
13.417	0.00	0.20	0.619	O	|	|	|	2.63
13.500	0.00	0.20	0.617	O	|	|	|	2.62
13.583	0.00	0.20	0.616	O	|	|	|	2.62
13.667	0.00	0.20	0.614	O	|	|	|	2.61
13.750	0.00	0.20	0.613	O	|	|	|	2.61
13.833	0.00	0.20	0.612	O	|	|	|	2.60
13.917	0.00	0.20	0.610	O	|	|	|	2.60
14.000	0.00	0.20	0.609	O	|	|	|	2.60
14.083	0.00	0.20	0.608	O	|	|	|	2.59

14.167	0.00	0.20	0.606	O	|	|	|	2.59
14.250	0.00	0.20	0.605	O	|	|	|	2.58
14.333	0.00	0.20	0.604	O	|	|	|	2.58
14.417	0.00	0.20	0.602	O	|	|	|	2.57
14.500	0.00	0.20	0.601	O	|	|	|	2.57
14.583	0.00	0.20	0.600	O	|	|	|	2.56
14.667	0.00	0.20	0.598	O	|	|	|	2.56
14.750	0.00	0.20	0.597	O	|	|	|	2.56
14.833	0.00	0.20	0.596	O	|	|	|	2.55
14.917	0.00	0.20	0.594	O	|	|	|	2.55
15.000	0.00	0.20	0.593	O	|	|	|	2.54
15.083	0.00	0.20	0.591	O	|	|	|	2.54
15.167	0.00	0.20	0.590	O	|	|	|	2.53
15.250	0.00	0.20	0.589	O	|	|	|	2.53
15.333	0.00	0.20	0.587	O	|	|	|	2.52
15.417	0.00	0.20	0.586	O	|	|	|	2.52
15.500	0.00	0.20	0.585	O	|	|	|	2.52
15.583	0.00	0.20	0.583	O	|	|	|	2.51
15.667	0.00	0.20	0.582	O	|	|	|	2.51
15.750	0.00	0.20	0.581	O	|	|	|	2.50
15.833	0.00	0.20	0.579	O	|	|	|	2.50
15.917	0.00	0.20	0.578	O	|	|	|	2.49
16.000	0.00	0.20	0.577	O	|	|	|	2.49
16.083	0.00	0.20	0.575	O	|	|	|	2.48
16.167	0.00	0.20	0.574	O	|	|	|	2.48
16.250	0.00	0.20	0.573	O	|	|	|	2.47
16.333	0.00	0.20	0.571	O	|	|	|	2.47
16.417	0.00	0.20	0.570	O	|	|	|	2.46
16.500	0.00	0.20	0.569	O	|	|	|	2.46
16.583	0.00	0.20	0.567	O	|	|	|	2.45
16.667	0.00	0.20	0.566	O	|	|	|	2.45
16.750	0.00	0.20	0.564	O	|	|	|	2.44
16.833	0.00	0.20	0.563	O	|	|	|	2.44
16.917	0.00	0.20	0.562	O	|	|	|	2.43
17.000	0.00	0.20	0.560	O	|	|	|	2.43
17.083	0.00	0.20	0.559	O	|	|	|	2.43
17.167	0.00	0.20	0.558	O	|	|	|	2.42
17.250	0.00	0.20	0.556	O	|	|	|	2.42
17.333	0.00	0.20	0.555	O	|	|	|	2.41
17.417	0.00	0.20	0.554	O	|	|	|	2.41
17.500	0.00	0.20	0.552	O	|	|	|	2.40
17.583	0.00	0.20	0.551	O	|	|	|	2.40
17.667	0.00	0.20	0.550	O	|	|	|	2.39
17.750	0.00	0.20	0.548	O	|	|	|	2.39
17.833	0.00	0.20	0.547	O	|	|	|	2.38
17.917	0.00	0.20	0.546	O	|	|	|	2.38
18.000	0.00	0.20	0.544	O	|	|	|	2.37
18.083	0.00	0.20	0.543	O	|	|	|	2.37
18.167	0.00	0.20	0.541	O	|	|	|	2.36
18.250	0.00	0.20	0.540	O	|	|	|	2.36

18.333	0.00	0.20	0.539	O	|	|	|	2.35
18.417	0.00	0.20	0.537	O	|	|	|	2.35
18.500	0.00	0.20	0.536	O	|	|	|	2.34
18.583	0.00	0.20	0.535	O	|	|	|	2.34
18.667	0.00	0.20	0.533	O	|	|	|	2.33
18.750	0.00	0.20	0.532	O	|	|	|	2.33
18.833	0.00	0.20	0.531	O	|	|	|	2.32
18.917	0.00	0.20	0.529	O	|	|	|	2.32
19.000	0.00	0.20	0.528	O	|	|	|	2.31
19.083	0.00	0.20	0.527	O	|	|	|	2.31
19.167	0.00	0.20	0.525	O	|	|	|	2.30
19.250	0.00	0.20	0.524	O	|	|	|	2.30
19.333	0.00	0.20	0.523	O	|	|	|	2.29
19.417	0.00	0.20	0.521	O	|	|	|	2.29
19.500	0.00	0.20	0.520	O	|	|	|	2.29
19.583	0.00	0.20	0.518	O	|	|	|	2.28
19.667	0.00	0.20	0.517	O	|	|	|	2.28
19.750	0.00	0.20	0.516	O	|	|	|	2.27
19.833	0.00	0.20	0.514	O	|	|	|	2.27
19.917	0.00	0.20	0.513	O	|	|	|	2.26
20.000	0.00	0.20	0.512	O	|	|	|	2.26
20.083	0.00	0.20	0.510	O	|	|	|	2.25
20.167	0.00	0.20	0.509	O	|	|	|	2.25
20.250	0.00	0.20	0.508	O	|	|	|	2.24
20.333	0.00	0.20	0.506	O	|	|	|	2.24
20.417	0.00	0.20	0.505	O	|	|	|	2.23
20.500	0.00	0.20	0.504	O	|	|	|	2.23
20.583	0.00	0.20	0.502	O	|	|	|	2.22
20.667	0.00	0.20	0.501	O	|	|	|	2.22
20.750	0.00	0.20	0.500	O	|	|	|	2.21
20.833	0.00	0.20	0.498	O	|	|	|	2.21
20.917	0.00	0.20	0.497	O	|	|	|	2.20
21.000	0.00	0.20	0.495	O	|	|	|	2.20
21.083	0.00	0.20	0.494	O	|	|	|	2.19
21.167	0.00	0.20	0.493	O	|	|	|	2.19
21.250	0.00	0.20	0.491	O	|	|	|	2.18
21.333	0.00	0.20	0.490	O	|	|	|	2.18
21.417	0.00	0.20	0.489	O	|	|	|	2.17
21.500	0.00	0.20	0.487	O	|	|	|	2.17
21.583	0.00	0.20	0.486	O	|	|	|	2.16
21.667	0.00	0.20	0.485	O	|	|	|	2.16
21.750	0.00	0.20	0.483	O	|	|	|	2.15
21.833	0.00	0.20	0.482	O	|	|	|	2.15
21.917	0.00	0.20	0.481	O	|	|	|	2.15
22.000	0.00	0.20	0.479	O	|	|	|	2.14
22.083	0.00	0.20	0.478	O	|	|	|	2.14
22.167	0.00	0.20	0.477	O	|	|	|	2.13
22.250	0.00	0.20	0.475	O	|	|	|	2.13
22.333	0.00	0.20	0.474	O	|	|	|	2.12
22.417	0.00	0.20	0.472	O	|	|	|	2.12

22.500	0.00	0.20	0.471	O				2.11
22.583	0.00	0.20	0.470	O				2.11
22.667	0.00	0.20	0.468	O				2.10
22.750	0.00	0.20	0.467	O				2.10
22.833	0.00	0.20	0.466	O				2.09
22.917	0.00	0.20	0.464	O				2.09
23.000	0.00	0.20	0.463	O				2.08
23.083	0.00	0.20	0.462	O				2.08
23.167	0.00	0.20	0.460	O				2.07
23.250	0.00	0.20	0.459	O				2.07
23.333	0.00	0.20	0.458	O				2.06
23.417	0.00	0.20	0.456	O				2.06
23.500	0.00	0.20	0.455	O				2.05
23.583	0.00	0.20	0.454	O				2.05
23.667	0.00	0.20	0.452	O				2.04
23.750	0.00	0.20	0.451	O				2.04
23.833	0.00	0.20	0.450	O				2.03
23.917	0.00	0.20	0.448	O				2.03
24.000	0.00	0.20	0.447	O				2.02
24.083	0.00	0.20	0.445	O				2.02
24.167	0.00	0.20	0.444	O				2.01
24.250	0.00	0.20	0.443	O				2.01
24.333	0.00	0.20	0.441	O				2.00
24.417	0.00	0.20	0.440	O				2.00
24.500	0.00	0.20	0.439	O				1.99
24.583	0.00	0.20	0.437	O				1.99
24.667	0.00	0.20	0.436	O				1.98
24.750	0.00	0.20	0.435	O				1.98
24.833	0.00	0.20	0.433	O				1.97
24.917	0.00	0.20	0.432	O				1.97
25.000	0.00	0.20	0.431	O				1.96
25.083	0.00	0.20	0.429	O				1.96
25.167	0.00	0.20	0.428	O				1.95
25.250	0.00	0.20	0.427	O				1.95
25.333	0.00	0.20	0.425	O				1.94
25.417	0.00	0.20	0.424	O				1.94
25.500	0.00	0.20	0.422	O				1.93
25.583	0.00	0.20	0.421	O				1.93
25.667	0.00	0.20	0.420	O				1.92
25.750	0.00	0.20	0.418	O				1.91
25.833	0.00	0.20	0.417	O				1.91
25.917	0.00	0.20	0.416	O				1.90
26.000	0.00	0.20	0.414	O				1.90
26.083	0.00	0.20	0.413	O				1.89
26.167	0.00	0.20	0.412	O				1.89
26.250	0.00	0.20	0.410	O				1.88
26.333	0.00	0.20	0.409	O				1.88
26.417	0.00	0.20	0.408	O				1.87
26.500	0.00	0.20	0.406	O				1.87
26.583	0.00	0.20	0.405	O				1.86

26.667	0.00	0.20	0.404	O	|	|	|	1.86
26.750	0.00	0.20	0.402	O	|	|	|	1.85
26.833	0.00	0.20	0.401	O	|	|	|	1.85
26.917	0.00	0.20	0.399	O	|	|	|	1.84
27.000	0.00	0.20	0.398	O	|	|	|	1.84
27.083	0.00	0.20	0.397	O	|	|	|	1.83
27.167	0.00	0.20	0.395	O	|	|	|	1.82
27.250	0.00	0.20	0.394	O	|	|	|	1.82
27.333	0.00	0.20	0.393	O	|	|	|	1.81
27.417	0.00	0.20	0.391	O	|	|	|	1.81
27.500	0.00	0.20	0.390	O	|	|	|	1.80
27.583	0.00	0.20	0.389	O	|	|	|	1.80
27.667	0.00	0.20	0.387	O	|	|	|	1.79
27.750	0.00	0.20	0.386	O	|	|	|	1.79
27.833	0.00	0.20	0.385	O	|	|	|	1.78
27.917	0.00	0.20	0.383	O	|	|	|	1.78
28.000	0.00	0.20	0.382	O	|	|	|	1.77
28.083	0.00	0.20	0.381	O	|	|	|	1.77
28.167	0.00	0.20	0.379	O	|	|	|	1.76
28.250	0.00	0.20	0.378	O	|	|	|	1.76
28.333	0.00	0.20	0.376	O	|	|	|	1.75
28.417	0.00	0.20	0.375	O	|	|	|	1.74
28.500	0.00	0.20	0.374	O	|	|	|	1.74
28.583	0.00	0.20	0.372	O	|	|	|	1.73
28.667	0.00	0.20	0.371	O	|	|	|	1.73
28.750	0.00	0.20	0.370	O	|	|	|	1.72
28.833	0.00	0.20	0.368	O	|	|	|	1.72
28.917	0.00	0.20	0.367	O	|	|	|	1.71
29.000	0.00	0.20	0.366	O	|	|	|	1.71
29.083	0.00	0.20	0.364	O	|	|	|	1.70
29.167	0.00	0.20	0.363	O	|	|	|	1.70
29.250	0.00	0.20	0.362	O	|	|	|	1.69
29.333	0.00	0.20	0.360	O	|	|	|	1.69
29.417	0.00	0.20	0.359	O	|	|	|	1.68
29.500	0.00	0.20	0.358	O	|	|	|	1.68
29.583	0.00	0.20	0.356	O	|	|	|	1.67
29.667	0.00	0.20	0.355	O	|	|	|	1.66
29.750	0.00	0.20	0.353	O	|	|	|	1.66
29.833	0.00	0.20	0.352	O	|	|	|	1.65
29.917	0.00	0.20	0.351	O	|	|	|	1.65
30.000	0.00	0.20	0.349	O	|	|	|	1.64
30.083	0.00	0.20	0.348	O	|	|	|	1.64
30.167	0.00	0.20	0.347	O	|	|	|	1.63
30.250	0.00	0.20	0.345	O	|	|	|	1.63
30.333	0.00	0.20	0.344	O	|	|	|	1.62
30.417	0.00	0.20	0.343	O	|	|	|	1.62
30.500	0.00	0.20	0.341	O	|	|	|	1.61
30.583	0.00	0.20	0.340	O	|	|	|	1.61
30.667	0.00	0.20	0.339	O	|	|	|	1.60
30.750	0.00	0.20	0.337	O	|	|	|	1.60

30.833	0.00	0.20	0.336	O	|	|	|	1.59
30.917	0.00	0.20	0.335	O	|	|	|	1.58
31.000	0.00	0.20	0.333	O	|	|	|	1.58
31.083	0.00	0.20	0.332	O	|	|	|	1.57
31.167	0.00	0.20	0.331	O	|	|	|	1.57
31.250	0.00	0.20	0.329	O	|	|	|	1.56
31.333	0.00	0.20	0.328	O	|	|	|	1.56
31.417	0.00	0.20	0.326	O	|	|	|	1.55
31.500	0.00	0.20	0.325	O	|	|	|	1.55
31.583	0.00	0.20	0.324	O	|	|	|	1.54
31.667	0.00	0.20	0.322	O	|	|	|	1.54
31.750	0.00	0.20	0.321	O	|	|	|	1.53
31.833	0.00	0.20	0.320	O	|	|	|	1.53
31.917	0.00	0.20	0.318	O	|	|	|	1.52
32.000	0.00	0.20	0.317	O	|	|	|	1.52
32.083	0.00	0.20	0.316	O	|	|	|	1.51
32.167	0.00	0.20	0.314	O	|	|	|	1.51
32.250	0.00	0.20	0.313	O	|	|	|	1.50
32.333	0.00	0.20	0.312	O	|	|	|	1.49
32.417	0.00	0.20	0.310	O	|	|	|	1.49
32.500	0.00	0.20	0.309	O	|	|	|	1.48
32.583	0.00	0.20	0.308	O	|	|	|	1.48
32.667	0.00	0.20	0.306	O	|	|	|	1.47
32.750	0.00	0.20	0.305	O	|	|	|	1.46
32.833	0.00	0.20	0.303	O	|	|	|	1.46
32.917	0.00	0.20	0.302	O	|	|	|	1.45
33.000	0.00	0.20	0.301	O	|	|	|	1.45
33.083	0.00	0.20	0.299	O	|	|	|	1.44
33.167	0.00	0.20	0.298	O	|	|	|	1.44
33.250	0.00	0.20	0.297	O	|	|	|	1.43
33.333	0.00	0.20	0.295	O	|	|	|	1.42
33.417	0.00	0.20	0.294	O	|	|	|	1.42
33.500	0.00	0.20	0.293	O	|	|	|	1.41
33.583	0.00	0.20	0.291	O	|	|	|	1.41
33.667	0.00	0.20	0.290	O	|	|	|	1.40
33.750	0.00	0.20	0.289	O	|	|	|	1.39
33.833	0.00	0.20	0.287	O	|	|	|	1.39
33.917	0.00	0.20	0.286	O	|	|	|	1.38
34.000	0.00	0.20	0.285	O	|	|	|	1.38
34.083	0.00	0.20	0.283	O	|	|	|	1.37
34.167	0.00	0.20	0.282	O	|	|	|	1.37
34.250	0.00	0.20	0.280	O	|	|	|	1.36
34.333	0.00	0.20	0.279	O	|	|	|	1.35
34.417	0.00	0.20	0.278	O	|	|	|	1.35
34.500	0.00	0.20	0.276	O	|	|	|	1.34
34.583	0.00	0.20	0.275	O	|	|	|	1.34
34.667	0.00	0.20	0.274	O	|	|	|	1.33
34.750	0.00	0.20	0.272	O	|	|	|	1.32
34.833	0.00	0.20	0.271	O	|	|	|	1.32
34.917	0.00	0.20	0.270	O	|	|	|	1.31

35.000	0.00	0.20	0.268	O	|	|	|	1.31
35.083	0.00	0.20	0.267	O	|	|	|	1.30
35.167	0.00	0.20	0.266	O	|	|	|	1.30
35.250	0.00	0.20	0.264	O	|	|	|	1.29
35.333	0.00	0.20	0.263	O	|	|	|	1.28
35.417	0.00	0.20	0.262	O	|	|	|	1.28
35.500	0.00	0.20	0.260	O	|	|	|	1.27
35.583	0.00	0.20	0.259	O	|	|	|	1.27
35.667	0.00	0.20	0.257	O	|	|	|	1.26
35.750	0.00	0.20	0.256	O	|	|	|	1.25
35.833	0.00	0.20	0.255	O	|	|	|	1.25
35.917	0.00	0.20	0.253	O	|	|	|	1.24
36.000	0.00	0.20	0.252	O	|	|	|	1.24
36.083	0.00	0.20	0.251	O	|	|	|	1.23
36.167	0.00	0.20	0.249	O	|	|	|	1.23
36.250	0.00	0.20	0.248	O	|	|	|	1.22
36.333	0.00	0.20	0.247	O	|	|	|	1.21
36.417	0.00	0.20	0.245	O	|	|	|	1.21
36.500	0.00	0.20	0.244	O	|	|	|	1.20
36.583	0.00	0.20	0.243	O	|	|	|	1.20
36.667	0.00	0.20	0.241	O	|	|	|	1.19
36.750	0.00	0.20	0.240	O	|	|	|	1.18
36.833	0.00	0.20	0.239	O	|	|	|	1.18
36.917	0.00	0.20	0.237	O	|	|	|	1.17
37.000	0.00	0.20	0.236	O	|	|	|	1.17
37.083	0.00	0.20	0.234	O	|	|	|	1.16
37.167	0.00	0.20	0.233	O	|	|	|	1.16
37.250	0.00	0.20	0.232	O	|	|	|	1.15
37.333	0.00	0.20	0.230	O	|	|	|	1.14
37.417	0.00	0.20	0.229	O	|	|	|	1.14
37.500	0.00	0.20	0.228	O	|	|	|	1.13
37.583	0.00	0.20	0.226	O	|	|	|	1.13
37.667	0.00	0.20	0.225	O	|	|	|	1.12
37.750	0.00	0.20	0.224	O	|	|	|	1.11
37.833	0.00	0.20	0.222	O	|	|	|	1.11
37.917	0.00	0.20	0.221	O	|	|	|	1.10
38.000	0.00	0.20	0.220	O	|	|	|	1.10
38.083	0.00	0.20	0.218	O	|	|	|	1.09
38.167	0.00	0.20	0.217	O	|	|	|	1.09
38.250	0.00	0.20	0.216	O	|	|	|	1.08
38.333	0.00	0.20	0.214	O	|	|	|	1.07
38.417	0.00	0.20	0.213	O	|	|	|	1.07
38.500	0.00	0.20	0.212	O	|	|	|	1.06
38.583	0.00	0.20	0.210	O	|	|	|	1.06
38.667	0.00	0.20	0.209	O	|	|	|	1.05
38.750	0.00	0.20	0.207	O	|	|	|	1.05
38.833	0.00	0.20	0.206	O	|	|	|	1.04
38.917	0.00	0.20	0.205	O	|	|	|	1.03
39.000	0.00	0.20	0.203	O	|	|	|	1.03
39.083	0.00	0.20	0.202	O	|	|	|	1.02

39.167	0.00	0.20	0.201	O				1.02
39.250	0.00	0.20	0.199	O				1.01
39.333	0.00	0.20	0.198	O				1.00
39.417	0.00	0.20	0.197	O				1.00
39.500	0.00	0.19	0.195	O				0.99
39.583	0.00	0.19	0.194	O				0.99
39.667	0.00	0.19	0.193	O				0.98
39.750	0.00	0.19	0.191	O				0.97
39.833	0.00	0.18	0.190	O				0.97
39.917	0.00	0.18	0.189	O				0.96
40.000	0.00	0.18	0.188	O				0.95
40.083	0.00	0.18	0.186	O				0.95
40.167	0.00	0.17	0.185	O				0.94
40.250	0.00	0.17	0.184	O				0.94
40.333	0.00	0.17	0.183	O				0.93
40.417	0.00	0.17	0.182	O				0.93
40.500	0.00	0.17	0.181	O				0.92
40.583	0.00	0.16	0.179	O				0.92
40.667	0.00	0.16	0.178	O				0.91
40.750	0.00	0.16	0.177	O				0.90
40.833	0.00	0.16	0.176	O				0.90
40.917	0.00	0.15	0.175	O				0.89
41.000	0.00	0.15	0.174	O				0.89
41.083	0.00	0.15	0.173	O				0.88
41.167	0.00	0.15	0.172	O				0.88
41.250	0.00	0.15	0.171	O				0.87
41.333	0.00	0.15	0.170	O				0.87
41.417	0.00	0.14	0.169	O				0.86
41.500	0.00	0.14	0.168	O				0.86
41.583	0.00	0.14	0.167	O				0.86
41.667	0.00	0.14	0.166	O				0.85
41.750	0.00	0.14	0.165	O				0.85
41.833	0.00	0.13	0.164	O				0.84
41.917	0.00	0.13	0.163	O				0.84
42.000	0.00	0.13	0.162	O				0.83
42.083	0.00	0.13	0.161	O				0.83
42.167	0.00	0.13	0.160	O				0.82
42.250	0.00	0.13	0.160	O				0.82
42.333	0.00	0.12	0.159	O				0.82
42.417	0.00	0.12	0.158	O				0.81
42.500	0.00	0.12	0.157	O				0.81
42.583	0.00	0.12	0.156	O				0.80
42.667	0.00	0.12	0.155	O				0.80
42.750	0.00	0.12	0.155	O				0.80
42.833	0.00	0.11	0.154	O				0.79
42.917	0.00	0.11	0.153	O				0.79
43.000	0.00	0.11	0.152	O				0.78
43.083	0.00	0.11	0.151	O				0.78
43.167	0.00	0.11	0.151	O				0.78
43.250	0.00	0.11	0.150	O				0.77

43.333	0.00	0.11	0.149	O	|	|	|	0.77
43.417	0.00	0.10	0.149	O	|	|	|	0.77
43.500	0.00	0.10	0.148	O	|	|	|	0.76
43.583	0.00	0.10	0.147	O	|	|	|	0.76
43.667	0.00	0.10	0.146	O	|	|	|	0.76
43.750	0.00	0.10	0.146	O	|	|	|	0.75
43.833	0.00	0.10	0.145	O	|	|	|	0.75
43.917	0.00	0.10	0.144	O	|	|	|	0.75
44.000	0.00	0.10	0.144	O	|	|	|	0.74
44.083	0.00	0.09	0.143	O	|	|	|	0.74
44.167	0.00	0.09	0.142	O	|	|	|	0.74
44.250	0.00	0.09	0.142	O	|	|	|	0.73
44.333	0.00	0.09	0.141	O	|	|	|	0.73
44.417	0.00	0.09	0.140	O	|	|	|	0.73
44.500	0.00	0.09	0.140	O	|	|	|	0.73
44.583	0.00	0.09	0.139	O	|	|	|	0.72
44.667	0.00	0.09	0.139	O	|	|	|	0.72
44.750	0.00	0.09	0.138	O	|	|	|	0.72
44.833	0.00	0.08	0.138	O	|	|	|	0.71
44.917	0.00	0.08	0.137	O	|	|	|	0.71
45.000	0.00	0.08	0.136	O	|	|	|	0.71
45.083	0.00	0.08	0.136	O	|	|	|	0.71
45.167	0.00	0.08	0.135	O	|	|	|	0.70
45.250	0.00	0.08	0.135	O	|	|	|	0.70
45.333	0.00	0.08	0.134	O	|	|	|	0.70
45.417	0.00	0.08	0.134	O	|	|	|	0.70
45.500	0.00	0.08	0.133	O	|	|	|	0.69
45.583	0.00	0.07	0.133	O	|	|	|	0.69
45.667	0.00	0.07	0.132	O	|	|	|	0.69
45.750	0.00	0.07	0.132	O	|	|	|	0.69
45.833	0.00	0.07	0.131	O	|	|	|	0.68
45.917	0.00	0.07	0.131	O	|	|	|	0.68
46.000	0.00	0.07	0.130	O	|	|	|	0.68
46.083	0.00	0.07	0.130	O	|	|	|	0.68
46.167	0.00	0.07	0.129	O	|	|	|	0.67
46.250	0.00	0.07	0.129	O	|	|	|	0.67
46.333	0.00	0.07	0.128	O	|	|	|	0.67
46.417	0.00	0.07	0.128	O	|	|	|	0.67
46.500	0.00	0.06	0.127	O	|	|	|	0.66
46.583	0.00	0.06	0.127	O	|	|	|	0.66
46.667	0.00	0.06	0.126	O	|	|	|	0.66
46.750	0.00	0.06	0.126	O	|	|	|	0.66
46.833	0.00	0.06	0.126	O	|	|	|	0.66
46.917	0.00	0.06	0.125	O	|	|	|	0.65
47.000	0.00	0.06	0.125	O	|	|	|	0.65
47.083	0.00	0.06	0.124	O	|	|	|	0.65
47.167	0.00	0.06	0.124	O	|	|	|	0.65
47.250	0.00	0.06	0.124	O	|	|	|	0.65
47.333	0.00	0.06	0.123	O	|	|	|	0.64
47.417	0.00	0.06	0.123	O	|	|	|	0.64

47.500	0.00	0.06	0.122	O				0.64
47.583	0.00	0.05	0.122	O				0.64
47.667	0.00	0.05	0.122	O				0.64
47.750	0.00	0.05	0.121	O				0.64
47.833	0.00	0.05	0.121	O				0.63
47.917	0.00	0.05	0.121	O				0.63
48.000	0.00	0.05	0.120	O				0.63
48.083	0.00	0.05	0.120	O				0.63
48.167	0.00	0.05	0.119	O				0.63
48.250	0.00	0.05	0.119	O				0.63
48.333	0.00	0.05	0.119	O				0.62
48.417	0.00	0.05	0.118	O				0.62
48.500	0.00	0.05	0.118	O				0.62
48.583	0.00	0.05	0.118	O				0.62
48.667	0.00	0.05	0.117	O				0.62
48.750	0.00	0.05	0.117	O				0.62
48.833	0.00	0.05	0.117	O				0.61
48.917	0.00	0.04	0.117	O				0.61
49.000	0.00	0.04	0.116	O				0.61
49.083	0.00	0.04	0.116	O				0.61
49.167	0.00	0.04	0.116	O				0.61
49.250	0.00	0.04	0.115	O				0.61
49.333	0.00	0.04	0.115	O				0.61
49.417	0.00	0.04	0.115	O				0.60
49.500	0.00	0.04	0.114	O				0.60
49.583	0.00	0.04	0.114	O				0.60
49.667	0.00	0.04	0.114	O				0.60
49.750	0.00	0.04	0.114	O				0.60
49.833	0.00	0.04	0.113	O				0.60
49.917	0.00	0.04	0.113	O				0.60
50.000	0.00	0.04	0.113	O				0.60
50.083	0.00	0.04	0.113	O				0.59
50.167	0.00	0.04	0.112	O				0.59
50.250	0.00	0.04	0.112	O				0.59
50.333	0.00	0.04	0.112	O				0.59
50.417	0.00	0.04	0.112	O				0.59
50.500	0.00	0.03	0.111	O				0.59
50.583	0.00	0.03	0.111	O				0.59
50.667	0.00	0.03	0.111	O				0.59
50.750	0.00	0.03	0.111	O				0.59
50.833	0.00	0.03	0.110	O				0.58
50.917	0.00	0.03	0.110	O				0.58
51.000	0.00	0.03	0.110	O				0.58
51.083	0.00	0.03	0.110	O				0.58
51.167	0.00	0.03	0.110	O				0.58
51.250	0.00	0.03	0.109	O				0.58
51.333	0.00	0.03	0.109	O				0.58
51.417	0.00	0.03	0.109	O				0.58
51.500	0.00	0.03	0.109	O				0.58
51.583	0.00	0.03	0.109	O				0.57

51.667	0.00	0.03	0.108	O				0.57
51.750	0.00	0.03	0.108	O				0.57
51.833	0.00	0.03	0.108	O				0.57
51.917	0.00	0.03	0.108	O				0.57
52.000	0.00	0.03	0.108	O				0.57
52.083	0.00	0.03	0.107	O				0.57
52.167	0.00	0.03	0.107	O				0.57
52.250	0.00	0.03	0.107	O				0.57
52.333	0.00	0.03	0.107	O				0.57
52.417	0.00	0.03	0.107	O				0.57
52.500	0.00	0.03	0.106	O				0.56
52.583	0.00	0.03	0.106	O				0.56
52.667	0.00	0.02	0.106	O				0.56
52.750	0.00	0.02	0.106	O				0.56
52.833	0.00	0.02	0.106	O				0.56
52.917	0.00	0.02	0.106	O				0.56
53.000	0.00	0.02	0.105	O				0.56
53.083	0.00	0.02	0.105	O				0.56
53.167	0.00	0.02	0.105	O				0.56
53.250	0.00	0.02	0.105	O				0.56
53.333	0.00	0.02	0.105	O				0.56
53.417	0.00	0.02	0.105	O				0.56
53.500	0.00	0.02	0.105	O				0.56
53.583	0.00	0.02	0.104	O				0.55
53.667	0.00	0.02	0.104	O				0.55
53.750	0.00	0.02	0.104	O				0.55
53.833	0.00	0.02	0.104	O				0.55
53.917	0.00	0.02	0.104	O				0.55
54.000	0.00	0.02	0.104	O				0.55
54.083	0.00	0.02	0.104	O				0.55
54.167	0.00	0.02	0.103	O				0.55
54.250	0.00	0.02	0.103	O				0.55
54.333	0.00	0.02	0.103	O				0.55
54.417	0.00	0.02	0.103	O				0.55
54.500	0.00	0.02	0.103	O				0.55
54.583	0.00	0.02	0.103	O				0.55
54.667	0.00	0.02	0.103	O				0.55
54.750	0.00	0.02	0.102	O				0.55
54.833	0.00	0.02	0.102	O				0.54
54.917	0.00	0.02	0.102	O				0.54
55.000	0.00	0.02	0.102	O				0.54
55.083	0.00	0.02	0.102	O				0.54
55.167	0.00	0.02	0.102	O				0.54
55.250	0.00	0.02	0.102	O				0.54
55.333	0.00	0.02	0.102	O				0.54
55.417	0.00	0.02	0.102	O				0.54
55.500	0.00	0.02	0.101	O				0.54
55.583	0.00	0.02	0.101	O				0.54
55.667	0.00	0.02	0.101	O				0.54
55.750	0.00	0.02	0.101	O				0.54

55.833	0.00	0.02	0.101	O	|	|	|	0.54
55.917	0.00	0.01	0.101	O	|	|	|	0.54
56.000	0.00	0.01	0.101	O	|	|	|	0.54
56.083	0.00	0.01	0.101	O	|	|	|	0.54
56.167	0.00	0.01	0.101	O	|	|	|	0.54
56.250	0.00	0.01	0.100	O	|	|	|	0.54
56.333	0.00	0.01	0.100	O	|	|	|	0.54
56.417	0.00	0.01	0.100	O	|	|	|	0.54
56.500	0.00	0.01	0.100	O	|	|	|	0.53
56.583	0.00	0.01	0.100	O	|	|	|	0.53
56.667	0.00	0.01	0.100	O	|	|	|	0.53
56.750	0.00	0.01	0.100	O	|	|	|	0.53
56.833	0.00	0.01	0.100	O	|	|	|	0.53
56.917	0.00	0.01	0.100	O	|	|	|	0.53
57.000	0.00	0.01	0.100	O	|	|	|	0.53
57.083	0.00	0.01	0.100	O	|	|	|	0.53
57.167	0.00	0.01	0.099	O	|	|	|	0.53
57.250	0.00	0.01	0.099	O	|	|	|	0.53
57.333	0.00	0.01	0.099	O	|	|	|	0.53
57.417	0.00	0.01	0.099	O	|	|	|	0.53
57.500	0.00	0.01	0.099	O	|	|	|	0.53
57.583	0.00	0.01	0.099	O	|	|	|	0.53
57.667	0.00	0.01	0.099	O	|	|	|	0.53
57.750	0.00	0.01	0.099	O	|	|	|	0.53
57.833	0.00	0.01	0.099	O	|	|	|	0.53
57.917	0.00	0.01	0.099	O	|	|	|	0.53
58.000	0.00	0.01	0.099	O	|	|	|	0.53
58.083	0.00	0.01	0.099	O	|	|	|	0.53
58.167	0.00	0.01	0.099	O	|	|	|	0.53
58.250	0.00	0.01	0.098	O	|	|	|	0.53
58.333	0.00	0.01	0.098	O	|	|	|	0.53
58.417	0.00	0.01	0.098	O	|	|	|	0.53
58.500	0.00	0.01	0.098	O	|	|	|	0.53
58.583	0.00	0.01	0.098	O	|	|	|	0.53
58.667	0.00	0.01	0.098	O	|	|	|	0.52
58.750	0.00	0.01	0.098	O	|	|	|	0.52
58.833	0.00	0.01	0.098	O	|	|	|	0.52
58.917	0.00	0.01	0.098	O	|	|	|	0.52
59.000	0.00	0.01	0.098	O	|	|	|	0.52
59.083	0.00	0.01	0.098	O	|	|	|	0.52
59.167	0.00	0.01	0.098	O	|	|	|	0.52
59.250	0.00	0.01	0.098	O	|	|	|	0.52
59.333	0.00	0.01	0.098	O	|	|	|	0.52
59.417	0.00	0.01	0.098	O	|	|	|	0.52
59.500	0.00	0.01	0.098	O	|	|	|	0.52
59.583	0.00	0.01	0.097	O	|	|	|	0.52
59.667	0.00	0.01	0.097	O	|	|	|	0.52
59.750	0.00	0.01	0.097	O	|	|	|	0.52
59.833	0.00	0.01	0.097	O	|	|	|	0.52
59.917	0.00	0.01	0.097	O	|	|	|	0.52

60.000	0.00	0.01	0.097	O	|	|	|	0.52
60.083	0.00	0.01	0.097	O	|	|	|	0.52
60.167	0.00	0.01	0.097	O	|	|	|	0.52
60.250	0.00	0.01	0.097	O	|	|	|	0.52
60.333	0.00	0.01	0.097	O	|	|	|	0.52
60.417	0.00	0.01	0.097	O	|	|	|	0.52
60.500	0.00	0.01	0.097	O	|	|	|	0.52
60.583	0.00	0.01	0.097	O	|	|	|	0.52
60.667	0.00	0.01	0.097	O	|	|	|	0.52
60.750	0.00	0.01	0.097	O	|	|	|	0.52
60.833	0.00	0.01	0.097	O	|	|	|	0.52
60.917	0.00	0.01	0.097	O	|	|	|	0.52
61.000	0.00	0.01	0.097	O	|	|	|	0.52
61.083	0.00	0.01	0.097	O	|	|	|	0.52
61.167	0.00	0.01	0.096	O	|	|	|	0.52
61.250	0.00	0.01	0.096	O	|	|	|	0.52
61.333	0.00	0.01	0.096	O	|	|	|	0.52
61.417	0.00	0.01	0.096	O	|	|	|	0.52
61.500	0.00	0.01	0.096	O	|	|	|	0.52
61.583	0.00	0.01	0.096	O	|	|	|	0.52
61.667	0.00	0.01	0.096	O	|	|	|	0.52
61.750	0.00	0.01	0.096	O	|	|	|	0.52
61.833	0.00	0.01	0.096	O	|	|	|	0.52
61.917	0.00	0.01	0.096	O	|	|	|	0.51
62.000	0.00	0.01	0.096	O	|	|	|	0.51
62.083	0.00	0.01	0.096	O	|	|	|	0.51
62.167	0.00	0.01	0.096	O	|	|	|	0.51
62.250	0.00	0.01	0.096	O	|	|	|	0.51
62.333	0.00	0.01	0.096	O	|	|	|	0.51
62.417	0.00	0.01	0.096	O	|	|	|	0.51
62.500	0.00	0.01	0.096	O	|	|	|	0.51
62.583	0.00	0.01	0.096	O	|	|	|	0.51
62.667	0.00	0.01	0.096	O	|	|	|	0.51
62.750	0.00	0.01	0.096	O	|	|	|	0.51
62.833	0.00	0.01	0.096	O	|	|	|	0.51
62.917	0.00	0.01	0.096	O	|	|	|	0.51
63.000	0.00	0.00	0.096	O	|	|	|	0.51
63.083	0.00	0.00	0.096	O	|	|	|	0.51
63.167	0.00	0.00	0.096	O	|	|	|	0.51
63.250	0.00	0.00	0.096	O	|	|	|	0.51
63.333	0.00	0.00	0.095	O	|	|	|	0.51
63.417	0.00	0.00	0.095	O	|	|	|	0.51
63.500	0.00	0.00	0.095	O	|	|	|	0.51
63.583	0.00	0.00	0.095	O	|	|	|	0.51
63.667	0.00	0.00	0.095	O	|	|	|	0.51
63.750	0.00	0.00	0.095	O	|	|	|	0.51
63.833	0.00	0.00	0.095	O	|	|	|	0.51
63.917	0.00	0.00	0.095	O	|	|	|	0.51
64.000	0.00	0.00	0.095	O	|	|	|	0.51
64.083	0.00	0.00	0.095	O	|	|	|	0.51

64.167	0.00	0.00	0.095	O	|	|	|	0.51
64.250	0.00	0.00	0.095	O	|	|	|	0.51
64.333	0.00	0.00	0.095	O	|	|	|	0.51
64.417	0.00	0.00	0.095	O	|	|	|	0.51
64.500	0.00	0.00	0.095	O	|	|	|	0.51
64.583	0.00	0.00	0.095	O	|	|	|	0.51
64.667	0.00	0.00	0.095	O	|	|	|	0.51
64.750	0.00	0.00	0.095	O	|	|	|	0.51
64.833	0.00	0.00	0.095	O	|	|	|	0.51
64.917	0.00	0.00	0.095	O	|	|	|	0.51
65.000	0.00	0.00	0.095	O	|	|	|	0.51
65.083	0.00	0.00	0.095	O	|	|	|	0.51
65.167	0.00	0.00	0.095	O	|	|	|	0.51
65.250	0.00	0.00	0.095	O	|	|	|	0.51
65.333	0.00	0.00	0.095	O	|	|	|	0.51
65.417	0.00	0.00	0.095	O	|	|	|	0.51
65.500	0.00	0.00	0.095	O	|	|	|	0.51
65.583	0.00	0.00	0.095	O	|	|	|	0.51
65.667	0.00	0.00	0.095	O	|	|	|	0.51
65.750	0.00	0.00	0.095	O	|	|	|	0.51
65.833	0.00	0.00	0.095	O	|	|	|	0.51
65.917	0.00	0.00	0.095	O	|	|	|	0.51
66.000	0.00	0.00	0.095	O	|	|	|	0.51
66.083	0.00	0.00	0.095	O	|	|	|	0.51
66.167	0.00	0.00	0.095	O	|	|	|	0.51
66.250	0.00	0.00	0.095	O	|	|	|	0.51
66.333	0.00	0.00	0.095	O	|	|	|	0.51
66.417	0.00	0.00	0.095	O	|	|	|	0.51
66.500	0.00	0.00	0.095	O	|	|	|	0.51
66.583	0.00	0.00	0.094	O	|	|	|	0.51
66.667	0.00	0.00	0.094	O	|	|	|	0.51
66.750	0.00	0.00	0.094	O	|	|	|	0.51
66.833	0.00	0.00	0.094	O	|	|	|	0.51
66.917	0.00	0.00	0.094	O	|	|	|	0.51
67.000	0.00	0.00	0.094	O	|	|	|	0.51
67.083	0.00	0.00	0.094	O	|	|	|	0.51
67.167	0.00	0.00	0.094	O	|	|	|	0.51
67.250	0.00	0.00	0.094	O	|	|	|	0.51
67.333	0.00	0.00	0.094	O	|	|	|	0.51
67.417	0.00	0.00	0.094	O	|	|	|	0.51
67.500	0.00	0.00	0.094	O	|	|	|	0.51
67.583	0.00	0.00	0.094	O	|	|	|	0.51
67.667	0.00	0.00	0.094	O	|	|	|	0.51
67.750	0.00	0.00	0.094	O	|	|	|	0.51
67.833	0.00	0.00	0.094	O	|	|	|	0.51
67.917	0.00	0.00	0.094	O	|	|	|	0.51
68.000	0.00	0.00	0.094	O	|	|	|	0.51
68.083	0.00	0.00	0.094	O	|	|	|	0.51
68.167	0.00	0.00	0.094	O	|	|	|	0.51
68.250	0.00	0.00	0.094	O	|	|	|	0.51

68.333	0.00	0.00	0.094	O	|	|	|	0.51
68.417	0.00	0.00	0.094	O	|	|	|	0.51
68.500	0.00	0.00	0.094	O	|	|	|	0.51
68.583	0.00	0.00	0.094	O	|	|	|	0.51
68.667	0.00	0.00	0.094	O	|	|	|	0.51
68.750	0.00	0.00	0.094	O	|	|	|	0.51
68.833	0.00	0.00	0.094	O	|	|	|	0.51
68.917	0.00	0.00	0.094	O	|	|	|	0.50
69.000	0.00	0.00	0.094	O	|	|	|	0.50
69.083	0.00	0.00	0.094	O	|	|	|	0.50
69.167	0.00	0.00	0.094	O	|	|	|	0.50
69.250	0.00	0.00	0.094	O	|	|	|	0.50
69.333	0.00	0.00	0.094	O	|	|	|	0.50
69.417	0.00	0.00	0.094	O	|	|	|	0.50
69.500	0.00	0.00	0.094	O	|	|	|	0.50
69.583	0.00	0.00	0.094	O	|	|	|	0.50
69.667	0.00	0.00	0.094	O	|	|	|	0.50
69.750	0.00	0.00	0.094	O	|	|	|	0.50
69.833	0.00	0.00	0.094	O	|	|	|	0.50
69.917	0.00	0.00	0.094	O	|	|	|	0.50
70.000	0.00	0.00	0.094	O	|	|	|	0.50
70.083	0.00	0.00	0.094	O	|	|	|	0.50
70.167	0.00	0.00	0.094	O	|	|	|	0.50
70.250	0.00	0.00	0.094	O	|	|	|	0.50
70.333	0.00	0.00	0.094	O	|	|	|	0.50
70.417	0.00	0.00	0.094	O	|	|	|	0.50
70.500	0.00	0.00	0.094	O	|	|	|	0.50
70.583	0.00	0.00	0.094	O	|	|	|	0.50
70.667	0.00	0.00	0.094	O	|	|	|	0.50
70.750	0.00	0.00	0.094	O	|	|	|	0.50
70.833	0.00	0.00	0.094	O	|	|	|	0.50
70.917	0.00	0.00	0.094	O	|	|	|	0.50
71.000	0.00	0.00	0.094	O	|	|	|	0.50
71.083	0.00	0.00	0.094	O	|	|	|	0.50
71.167	0.00	0.00	0.094	O	|	|	|	0.50
71.250	0.00	0.00	0.094	O	|	|	|	0.50
71.333	0.00	0.00	0.094	O	|	|	|	0.50
71.417	0.00	0.00	0.094	O	|	|	|	0.50
71.500	0.00	0.00	0.094	O	|	|	|	0.50
71.583	0.00	0.00	0.094	O	|	|	|	0.50
71.667	0.00	0.00	0.094	O	|	|	|	0.50
71.750	0.00	0.00	0.094	O	|	|	|	0.50
71.833	0.00	0.00	0.094	O	|	|	|	0.50
71.917	0.00	0.00	0.094	O	|	|	|	0.50
72.000	0.00	0.00	0.094	O	|	|	|	0.50
72.083	0.00	0.00	0.094	O	|	|	|	0.50
72.167	0.00	0.00	0.094	O	|	|	|	0.50
72.250	0.00	0.00	0.094	O	|	|	|	0.50
72.333	0.00	0.00	0.094	O	|	|	|	0.50
72.417	0.00	0.00	0.094	O	|	|	|	0.50

72.500	0.00	0.00	0.094	O	|	|	|	0.50
72.583	0.00	0.00	0.094	O	|	|	|	0.50
72.667	0.00	0.00	0.094	O	|	|	|	0.50
72.750	0.00	0.00	0.094	O	|	|	|	0.50
72.833	0.00	0.00	0.094	O	|	|	|	0.50
72.917	0.00	0.00	0.094	O	|	|	|	0.50
73.000	0.00	0.00	0.094	O	|	|	|	0.50
73.083	0.00	0.00	0.094	O	|	|	|	0.50
73.167	0.00	0.00	0.094	O	|	|	|	0.50
73.250	0.00	0.00	0.094	O	|	|	|	0.50

Remaining water in basin = 0.09 (Ac.Ft)

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

Number of intervals = 879
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.706 (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

Study date: 08/24/22

A21626 DMA 1 10YR-24HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA1Q100UH2410.rte
**********HYDROGRAPH DATA**********
Number of intervals = 291
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 2.314 (CFS)
Total volume = 1.344 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.00(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.50(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   4.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   1.00(Ft.)    Capacity =   6.28(CFS)

Total outflow at this depth =      6.48(CFS)

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Total number of inflow hydrograph intervals = 291
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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
0.500	0.093	0.000	0.093	0.093
1.000	0.197	0.196	0.196	0.198
1.500	0.313	0.196	0.312	0.314
2.000	0.440	0.196	0.439	0.441
2.500	0.580	0.196	0.579	0.581
3.000	0.732	0.196	0.731	0.733
3.500	0.897	0.196	0.896	0.898
4.000	1.075	4.639	1.059	1.091
4.500	1.267	6.480	1.245	1.289

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.6	1.16	1.74	2.31	Depth (Ft.)
0.083	0.07	0.00	0.000	O	|	|	|	|	0.00
0.167	0.12	0.00	0.001	OI	|	|	|	|	0.00
0.250	0.13	0.00	0.002	OI	|	|	|	|	0.01
0.333	0.16	0.00	0.003	O I	|	|	|	|	0.01
0.417	0.19	0.00	0.004	O I	|	|	|	|	0.02
0.500	0.19	0.00	0.005	O I	|	|	|	|	0.03
0.583	0.19	0.00	0.007	O I	|	|	|	|	0.04
0.667	0.19	0.00	0.008	O I	|	|	|	|	0.04
0.750	0.19	0.00	0.009	O I	|	|	|	|	0.05
0.833	0.23	0.00	0.011	O I	|	|	|	|	0.06
0.917	0.25	0.00	0.012	O I	|	|	|	|	0.07
1.000	0.26	0.00	0.014	O I	|	|	|	|	0.08
1.083	0.23	0.00	0.016	O I	|	|	|	|	0.08
1.167	0.20	0.00	0.017	O I	|	|	|	|	0.09
1.250	0.20	0.00	0.019	O I	|	|	|	|	0.10
1.333	0.19	0.00	0.020	O I	|	|	|	|	0.11
1.417	0.19	0.00	0.021	O I	|	|	|	|	0.11
1.500	0.19	0.00	0.023	O I	|	|	|	|	0.12
1.583	0.19	0.00	0.024	O I	|	|	|	|	0.13

1.667	0.19	0.00	0.025	O I	|	|	|	0.14
1.750	0.19	0.00	0.027	O I	|	|	|	0.14
1.833	0.23	0.00	0.028	O I	|	|	|	0.15
1.917	0.25	0.00	0.030	O I	|	|	|	0.16
2.000	0.26	0.00	0.032	O I	|	|	|	0.17
2.083	0.26	0.00	0.033	O I	|	|	|	0.18
2.167	0.26	0.00	0.035	O I	|	|	|	0.19
2.250	0.26	0.00	0.037	O I	|	|	|	0.20
2.333	0.26	0.00	0.039	O I	|	|	|	0.21
2.417	0.26	0.00	0.040	O I	|	|	|	0.22
2.500	0.26	0.00	0.042	O I	|	|	|	0.23
2.583	0.29	0.00	0.044	O I	|	|	|	0.24
2.667	0.32	0.00	0.046	O I	|	|	|	0.25
2.750	0.32	0.00	0.048	O I	|	|	|	0.26
2.833	0.32	0.00	0.051	O I	|	|	|	0.27
2.917	0.32	0.00	0.053	O I	|	|	|	0.28
3.000	0.32	0.00	0.055	O I	|	|	|	0.30
3.083	0.32	0.00	0.057	O I	|	|	|	0.31
3.167	0.32	0.00	0.060	O I	|	|	|	0.32
3.250	0.32	0.00	0.062	O I	|	|	|	0.33
3.333	0.32	0.00	0.064	O I	|	|	|	0.34
3.417	0.32	0.00	0.066	O I	|	|	|	0.36
3.500	0.32	0.00	0.069	O I	|	|	|	0.37
3.583	0.32	0.00	0.071	O I	|	|	|	0.38
3.667	0.32	0.00	0.073	O I	|	|	|	0.39
3.750	0.32	0.00	0.075	O I	|	|	|	0.40
3.833	0.36	0.00	0.078	O I	|	|	|	0.42
3.917	0.38	0.00	0.080	O I	|	|	|	0.43
4.000	0.39	0.00	0.083	O I	|	|	|	0.45
4.083	0.39	0.00	0.085	O I	|	|	|	0.46
4.167	0.39	0.00	0.088	O I	|	|	|	0.47
4.250	0.39	0.00	0.091	O I	|	|	|	0.49
4.333	0.42	0.00	0.094	O I	|	|	|	0.50
4.417	0.45	0.01	0.097	O I	|	|	|	0.52
4.500	0.45	0.01	0.100	O I	|	|	|	0.53
4.583	0.45	0.02	0.103	O I	|	|	|	0.55
4.667	0.45	0.02	0.106	O I	|	|	|	0.56
4.750	0.45	0.03	0.109	O I	|	|	|	0.57
4.833	0.49	0.04	0.112	O I	|	|	|	0.59
4.917	0.51	0.04	0.115	O I	|	|	|	0.60
5.000	0.52	0.05	0.118	O I	|	|	|	0.62
5.083	0.45	0.05	0.121	O I	|	|	|	0.63
5.167	0.40	0.06	0.124	O I	|	|	|	0.65
5.250	0.39	0.06	0.126	O I	|	|	|	0.66
5.333	0.42	0.07	0.128	O I	|	|	|	0.67
5.417	0.45	0.07	0.131	O I	|	|	|	0.68
5.500	0.45	0.08	0.133	|O I	|	|	|	0.69
5.583	0.49	0.08	0.136	|O I	|	|	|	0.71
5.667	0.51	0.09	0.139	|O I	|	|	|	0.72
5.750	0.52	0.09	0.142	|O I	|	|	|	0.73

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5.833    0.52    0.10      0.145  |O     I|       |       |       |     0.75
5.917    0.52    0.10      0.148  |O     I|       |       |       |     0.76
6.000    0.52    0.11      0.150  |O     I|       |       |       |     0.78
6.083    0.55    0.11      0.153  |O     I|       |       |       |     0.79
6.167    0.58    0.12      0.156  |O     I|       |       |       |     0.81
6.250    0.58    0.13      0.160  |O      I       |       |       |     0.82
6.333    0.58    0.13      0.163  |O      I       |       |       |     0.84
6.417    0.58    0.14      0.166  |O      I       |       |       |     0.85
6.500    0.58    0.14      0.169  |O      I       |       |       |     0.86
6.583    0.62    0.15      0.172  | O     I       |       |       |     0.88
6.667    0.64    0.16      0.175  | O     I       |       |       |     0.90
6.750    0.65    0.16      0.179  | O     I       |       |       |     0.91
6.833    0.65    0.17      0.182  | O     I       |       |       |     0.93
6.917    0.65    0.17      0.185  | O     I       |       |       |     0.94
7.000    0.65    0.18      0.189  | O     I       |       |       |     0.96
7.083    0.65    0.19      0.192  | O     I       |       |       |     0.97
7.167    0.65    0.19      0.195  | O     I       |       |       |     0.99
7.250    0.65    0.20      0.198  | O     I       |       |       |     1.00
7.333    0.68    0.20      0.201  | O     |I      |       |       |     1.02
7.417    0.71    0.20      0.205  | O     |I      |       |       |     1.03
7.500    0.71    0.20      0.208  | O     |I      |       |       |     1.05
7.583    0.75    0.20      0.212  | O     | I     |       |       |     1.06
7.667    0.77    0.20      0.216  | O     | I     |       |       |     1.08
7.750    0.78    0.20      0.220  | O     | I     |       |       |     1.10
7.833    0.81    0.20      0.224  | O     |  I    |       |       |     1.12
7.917    0.84    0.20      0.228  | O     |  I    |       |       |     1.13
8.000    0.84    0.20      0.233  | O     |  I    |       |       |     1.15
8.083    0.91    0.20      0.237  | O     |   I   |       |       |     1.17
8.167    0.96    0.20      0.242  | O     |    I  |       |       |     1.20
8.250    0.97    0.20      0.248  | O     |    I  |       |       |     1.22
8.333    0.97    0.20      0.253  | O     |    I  |       |       |     1.24
8.417    0.97    0.20      0.258  | O     |    I  |       |       |     1.26
8.500    0.97    0.20      0.264  | O     |    I  |       |       |     1.29
8.583    1.01    0.20      0.269  | O     |    I  |       |       |     1.31
8.667    1.03    0.20      0.275  | O     |     I |       |       |     1.34
8.750    1.04    0.20      0.281  | O     |     I |       |       |     1.36
8.833    1.07    0.20      0.286  | O     |     I |       |       |     1.39
8.917    1.10    0.20      0.293  | O     |      I|       |       |     1.41
9.000    1.10    0.20      0.299  | O     |      I|       |       |     1.44
9.083    1.17    0.20      0.305  | O     |       I       |       |     1.47
9.167    1.22    0.20      0.312  | O     |       I       |       |     1.50
9.250    1.23    0.20      0.319  | O     |       |I      |       |     1.52
9.333    1.27    0.20      0.326  | O     |       |I      |       |     1.55
9.417    1.29    0.20      0.334  | O     |       |I      |       |     1.58
9.500    1.30    0.20      0.341  | O     |       |I      |       |     1.61
9.583    1.33    0.20      0.349  | O     |       | I     |       |     1.64
9.667    1.36    0.20      0.357  | O     |       | I     |       |     1.67
9.750    1.36    0.20      0.365  | O     |       | I     |       |     1.70
9.833    1.39    0.20      0.373  | O     |       |  I    |       |     1.74
9.917    1.42    0.20      0.382  | O     |       |  I    |       |     1.77
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10.000	1.43	0.20	0.390	O	|	| I |	|	1.80
10.083	1.19	0.20	0.398	O	|	I |	|	1.83
10.167	1.01	0.20	0.404	O	|	I |	|	1.86
10.250	0.98	0.20	0.409	O	|	I |	|	1.88
10.333	0.97	0.20	0.415	O	|	I |	|	1.90
10.417	0.97	0.20	0.420	O	|	I |	|	1.92
10.500	0.97	0.20	0.425	O	|	I |	|	1.94
10.583	1.14	0.20	0.431	O	|	I |	|	1.97
10.667	1.27	0.20	0.438	O	|	|I |	|	1.99
10.750	1.29	0.20	0.446	O	|	|I |	|	2.02
10.833	1.30	0.20	0.453	O	|	|I |	|	2.05
10.917	1.30	0.20	0.461	O	|	|I |	|	2.07
11.000	1.30	0.20	0.468	O	|	|I |	|	2.10
11.083	1.26	0.20	0.476	O	|	|I |	|	2.13
11.167	1.24	0.20	0.483	O	|	|I |	|	2.15
11.250	1.23	0.20	0.490	O	|	|I |	|	2.18
11.333	1.23	0.20	0.497	O	|	|I |	|	2.21
11.417	1.23	0.20	0.505	O	|	|I |	|	2.23
11.500	1.23	0.20	0.512	O	|	|I |	|	2.26
11.583	1.17	0.20	0.519	O	|	I |	|	2.28
11.667	1.11	0.20	0.525	O	|	I |	|	2.30
11.750	1.10	0.20	0.531	O	|	I |	|	2.33
11.833	1.14	0.20	0.538	O	|	I |	|	2.35
11.917	1.16	0.20	0.544	O	|	I |	|	2.37
12.000	1.17	0.20	0.551	O	|	I |	|	2.40
12.083	1.40	0.20	0.558	O	|	| I |	|	2.42
12.167	1.58	0.20	0.567	O	|	| I |	|	2.46
12.250	1.61	0.20	0.577	O	|	| I |	|	2.49
12.333	1.65	0.20	0.587	O	|	| I |	|	2.52
12.417	1.68	0.20	0.597	O	|	| I |	|	2.56
12.500	1.68	0.20	0.607	O	|	| I |	|	2.59
12.583	1.75	0.20	0.618	O	|	| I |	|	2.62
12.667	1.80	0.20	0.629	O	|	| I |	|	2.66
12.750	1.81	0.20	0.640	O	|	| |I |	|	2.70
12.833	1.85	0.20	0.651	O	|	| |I |	|	2.73
12.917	1.88	0.20	0.663	O	|	| | I |	|	2.77
13.000	1.89	0.20	0.674	O	|	| | I |	|	2.81
13.083	2.10	0.20	0.687	O	|	| | | I |	|	2.85
13.167	2.27	0.20	0.700	O	|	| | | I |	|	2.90
13.250	2.30	0.20	0.715	O	|	| | | I |	|	2.94
13.333	2.31	0.20	0.729	O	|	| | | I |	|	2.99
13.417	2.31	0.20	0.744	O	|	| | | I |	|	3.04
13.500	2.31	0.20	0.758	O	|	| | | I |	|	3.08
13.583	1.89	0.20	0.771	O	|	| | | I |	|	3.12
13.667	1.56	0.20	0.782	O	|	| I |	|	3.15
13.750	1.51	0.20	0.791	O	|	| I |	|	3.18
13.833	1.49	0.20	0.800	O	|	| I |	|	3.21
13.917	1.49	0.20	0.809	O	|	| I |	|	3.23
14.000	1.49	0.20	0.818	O	|	| I |	|	3.26
14.083	1.63	0.20	0.827	O	|	| I |	|	3.29

14.167	1.74	0.20	0.838	O			I	3.32
14.250	1.76	0.20	0.848	O			I	3.35
14.333	1.72	0.20	0.859	O			I	3.38
14.417	1.69	0.20	0.869	O			I	3.42
14.500	1.69	0.20	0.880	O			I	3.45
14.583	1.69	0.20	0.890	O			I	3.48
14.667	1.69	0.27	0.900	O			I	3.51
14.750	1.69	0.49	0.909	O			I	3.53
14.833	1.66	0.68	0.916	O			I	3.55
14.917	1.63	0.83	0.922	O			I	3.57
15.000	1.62	0.96	0.928	O			I	3.59
15.083	1.59	1.06	0.932	O			I	3.60
15.167	1.56	1.14	0.935	O			I	3.61
15.250	1.56	1.21	0.938	O			I	3.61
15.333	1.52	1.26	0.940	O			I	3.62
15.417	1.50	1.30	0.941	O			I	3.62
15.500	1.49	1.33	0.942	O			I	3.63
15.583	1.36	1.35	0.943	O				3.63
15.667	1.25	1.34	0.943	IO				3.63
15.750	1.24	1.32	0.942	IO				3.63
15.833	1.23	1.31	0.942	IO				3.63
15.917	1.23	1.30	0.941	O				3.62
16.000	1.23	1.29	0.941	O				3.62
16.083	0.73	1.24	0.939	I		O		3.62
16.167	0.34	1.13	0.934	I		O		3.60
16.250	0.28	1.00	0.929	I		O		3.59
16.333	0.26	0.88	0.925	I		O		3.58
16.417	0.26	0.78	0.921	I	O			3.57
16.500	0.26	0.70	0.917	I	O			3.56
16.583	0.23	0.63	0.914	I	O			3.55
16.667	0.20	0.56	0.912	I	O			3.54
16.750	0.20	0.51	0.909	I	O			3.53
16.833	0.19	0.46	0.907	I	O			3.53
16.917	0.19	0.41	0.906	I	O			3.52
17.000	0.19	0.38	0.904	I	O			3.52
17.083	0.26	0.36	0.903	IO				3.52
17.167	0.31	0.34	0.903	O				3.52
17.250	0.32	0.34	0.903	O				3.52
17.333	0.32	0.34	0.903	O				3.52
17.417	0.32	0.34	0.903	O				3.52
17.500	0.32	0.33	0.903	O				3.52
17.583	0.32	0.33	0.902	O				3.52
17.667	0.32	0.33	0.902	O				3.52
17.750	0.32	0.33	0.902	O				3.52
17.833	0.29	0.33	0.902	O				3.51
17.917	0.27	0.32	0.902	IO				3.51
18.000	0.26	0.31	0.902	IO				3.51
18.083	0.26	0.30	0.901	IO				3.51
18.167	0.26	0.30	0.901	IO				3.51
18.250	0.26	0.29	0.901	IO				3.51

18.333	0.26	0.28	0.901	O				3.51
18.417	0.26	0.28	0.900	O				3.51
18.500	0.26	0.28	0.900	O				3.51
18.583	0.23	0.27	0.900	O				3.51
18.667	0.20	0.26	0.900	IO				3.51
18.750	0.20	0.25	0.899	IO				3.51
18.833	0.16	0.24	0.899	IO				3.50
18.917	0.14	0.23	0.898	I O				3.50
19.000	0.13	0.21	0.898	IO				3.50
19.083	0.16	0.20	0.897	O				3.50
19.167	0.19	0.20	0.897	O				3.50
19.250	0.19	0.20	0.897	O				3.50
19.333	0.23	0.20	0.897	OI				3.50
19.417	0.25	0.21	0.897	OI				3.50
19.500	0.26	0.21	0.898	OI				3.50
19.583	0.23	0.22	0.898	O				3.50
19.667	0.20	0.22	0.898	IO				3.50
19.750	0.20	0.21	0.898	O				3.50
19.833	0.16	0.21	0.897	O				3.50
19.917	0.14	0.20	0.897	IO				3.50
20.000	0.13	0.20	0.897	IO				3.50
20.083	0.16	0.20	0.896	O				3.50
20.167	0.19	0.20	0.896	O				3.50
20.250	0.19	0.20	0.896	O				3.50
20.333	0.19	0.20	0.896	O				3.50
20.417	0.19	0.20	0.896	O				3.50
20.500	0.19	0.20	0.896	O				3.50
20.583	0.19	0.20	0.896	O				3.50
20.667	0.19	0.20	0.896	O				3.50
20.750	0.19	0.20	0.896	O				3.50
20.833	0.16	0.20	0.896	O				3.50
20.917	0.14	0.20	0.896	IO				3.50
21.000	0.13	0.20	0.895	IO				3.49
21.083	0.16	0.20	0.895	O				3.49
21.167	0.19	0.20	0.895	O				3.49
21.250	0.19	0.20	0.895	O				3.49
21.333	0.16	0.20	0.895	O				3.49
21.417	0.14	0.20	0.894	IO				3.49
21.500	0.13	0.20	0.894	IO				3.49
21.583	0.16	0.20	0.893	O				3.49
21.667	0.19	0.20	0.893	O				3.49
21.750	0.19	0.20	0.893	O				3.49
21.833	0.16	0.20	0.893	O				3.49
21.917	0.14	0.20	0.893	IO				3.49
22.000	0.13	0.20	0.892	IO				3.49
22.083	0.16	0.20	0.892	O				3.48
22.167	0.19	0.20	0.892	O				3.48
22.250	0.19	0.20	0.892	O				3.48
22.333	0.16	0.20	0.892	O				3.48
22.417	0.14	0.20	0.891	IO				3.48

22.500	0.13	0.20	0.891	|IO	|	|	|	3.48
22.583	0.13	0.20	0.890	|IO	|	|	|	3.48
22.667	0.13	0.20	0.890	|IO	|	|	|	3.48
22.750	0.13	0.20	0.890	|IO	|	|	|	3.48
22.833	0.13	0.20	0.889	|IO	|	|	|	3.48
22.917	0.13	0.20	0.889	|IO	|	|	|	3.47
23.000	0.13	0.20	0.888	|IO	|	|	|	3.47
23.083	0.13	0.20	0.888	|IO	|	|	|	3.47
23.167	0.13	0.20	0.887	|IO	|	|	|	3.47
23.250	0.13	0.20	0.887	|IO	|	|	|	3.47
23.333	0.13	0.20	0.886	|IO	|	|	|	3.47
23.417	0.13	0.20	0.886	|IO	|	|	|	3.47
23.500	0.13	0.20	0.885	|IO	|	|	|	3.46
23.583	0.13	0.20	0.885	|IO	|	|	|	3.46
23.667	0.13	0.20	0.884	|IO	|	|	|	3.46
23.750	0.13	0.20	0.884	|IO	|	|	|	3.46
23.833	0.13	0.20	0.884	|IO	|	|	|	3.46
23.917	0.13	0.20	0.883	|IO	|	|	|	3.46
24.000	0.13	0.20	0.883	|IO	|	|	|	3.46
24.083	0.06	0.20	0.882	I O	|	|	|	3.45
24.167	0.01	0.20	0.881	I O	|	|	|	3.45
24.250	0.00	0.20	0.880	I O	|	|	|	3.45
24.333	0.00	0.20	0.878	I O	|	|	|	3.44
24.417	0.00	0.20	0.877	I O	|	|	|	3.44
24.500	0.00	0.20	0.876	I O	|	|	|	3.43
24.583	0.00	0.20	0.874	I O	|	|	|	3.43
24.667	0.00	0.20	0.873	I O	|	|	|	3.43
24.750	0.00	0.20	0.871	I O	|	|	|	3.42
24.833	0.00	0.20	0.870	I O	|	|	|	3.42
24.917	0.00	0.20	0.869	I O	|	|	|	3.41
25.000	0.00	0.20	0.867	I O	|	|	|	3.41
25.083	0.00	0.20	0.866	I O	|	|	|	3.41
25.167	0.00	0.20	0.865	I O	|	|	|	3.40
25.250	0.00	0.20	0.863	I O	|	|	|	3.40
25.333	0.00	0.20	0.862	I O	|	|	|	3.39
25.417	0.00	0.20	0.861	I O	|	|	|	3.39
25.500	0.00	0.20	0.859	I O	|	|	|	3.39
25.583	0.00	0.20	0.858	I O	|	|	|	3.38
25.667	0.00	0.20	0.857	I O	|	|	|	3.38
25.750	0.00	0.20	0.855	I O	|	|	|	3.37
25.833	0.00	0.20	0.854	I O	|	|	|	3.37
25.917	0.00	0.20	0.853	I O	|	|	|	3.37
26.000	0.00	0.20	0.851	I O	|	|	|	3.36
26.083	0.00	0.20	0.850	I O	|	|	|	3.36
26.167	0.00	0.20	0.848	I O	|	|	|	3.35
26.250	0.00	0.20	0.847	I O	|	|	|	3.35
26.333	0.00	0.20	0.846	I O	|	|	|	3.34
26.417	0.00	0.20	0.844	I O	|	|	|	3.34
26.500	0.00	0.20	0.843	I O	|	|	|	3.34
26.583	0.00	0.20	0.842	I O	|	|	|	3.33

26.667	0.00	0.20	0.840	I O				3.33
26.750	0.00	0.20	0.839	I O				3.32
26.833	0.00	0.20	0.838	I O				3.32
26.917	0.00	0.20	0.836	I O				3.32
27.000	0.00	0.20	0.835	I O				3.31
27.083	0.00	0.20	0.834	I O				3.31
27.167	0.00	0.20	0.832	I O				3.30
27.250	0.00	0.20	0.831	I O				3.30
27.333	0.00	0.20	0.830	I O				3.30
27.417	0.00	0.20	0.828	I O				3.29
27.500	0.00	0.20	0.827	I O				3.29
27.583	0.00	0.20	0.825	I O				3.28
27.667	0.00	0.20	0.824	I O				3.28
27.750	0.00	0.20	0.823	I O				3.28
27.833	0.00	0.20	0.821	I O				3.27
27.917	0.00	0.20	0.820	I O				3.27
28.000	0.00	0.20	0.819	I O				3.26
28.083	0.00	0.20	0.817	I O				3.26
28.167	0.00	0.20	0.816	I O				3.25
28.250	0.00	0.20	0.815	I O				3.25
28.333	0.00	0.20	0.813	I O				3.25
28.417	0.00	0.20	0.812	I O				3.24
28.500	0.00	0.20	0.811	I O				3.24
28.583	0.00	0.20	0.809	I O				3.23
28.667	0.00	0.20	0.808	I O				3.23
28.750	0.00	0.20	0.807	I O				3.23
28.833	0.00	0.20	0.805	I O				3.22
28.917	0.00	0.20	0.804	I O				3.22
29.000	0.00	0.20	0.802	I O				3.21
29.083	0.00	0.20	0.801	I O				3.21
29.167	0.00	0.20	0.800	I O				3.21
29.250	0.00	0.20	0.798	I O				3.20
29.333	0.00	0.20	0.797	I O				3.20
29.417	0.00	0.20	0.796	I O				3.19
29.500	0.00	0.20	0.794	I O				3.19
29.583	0.00	0.20	0.793	I O				3.18
29.667	0.00	0.20	0.792	I O				3.18
29.750	0.00	0.20	0.790	I O				3.18
29.833	0.00	0.20	0.789	I O				3.17
29.917	0.00	0.20	0.788	I O				3.17
30.000	0.00	0.20	0.786	I O				3.16
30.083	0.00	0.20	0.785	I O				3.16
30.167	0.00	0.20	0.784	I O				3.16
30.250	0.00	0.20	0.782	I O				3.15
30.333	0.00	0.20	0.781	I O				3.15
30.417	0.00	0.20	0.780	I O				3.14
30.500	0.00	0.20	0.778	I O				3.14
30.583	0.00	0.20	0.777	I O				3.14
30.667	0.00	0.20	0.775	I O				3.13
30.750	0.00	0.20	0.774	I O				3.13

30.833	0.00	0.20	0.773	I O	|	|	|	3.12
30.917	0.00	0.20	0.771	I O	|	|	|	3.12
31.000	0.00	0.20	0.770	I O	|	|	|	3.12
31.083	0.00	0.20	0.769	I O	|	|	|	3.11
31.167	0.00	0.20	0.767	I O	|	|	|	3.11
31.250	0.00	0.20	0.766	I O	|	|	|	3.10
31.333	0.00	0.20	0.765	I O	|	|	|	3.10
31.417	0.00	0.20	0.763	I O	|	|	|	3.09
31.500	0.00	0.20	0.762	I O	|	|	|	3.09
31.583	0.00	0.20	0.761	I O	|	|	|	3.09
31.667	0.00	0.20	0.759	I O	|	|	|	3.08
31.750	0.00	0.20	0.758	I O	|	|	|	3.08
31.833	0.00	0.20	0.757	I O	|	|	|	3.07
31.917	0.00	0.20	0.755	I O	|	|	|	3.07
32.000	0.00	0.20	0.754	I O	|	|	|	3.07
32.083	0.00	0.20	0.752	I O	|	|	|	3.06
32.167	0.00	0.20	0.751	I O	|	|	|	3.06
32.250	0.00	0.20	0.750	I O	|	|	|	3.05
32.333	0.00	0.20	0.748	I O	|	|	|	3.05
32.417	0.00	0.20	0.747	I O	|	|	|	3.05
32.500	0.00	0.20	0.746	I O	|	|	|	3.04
32.583	0.00	0.20	0.744	I O	|	|	|	3.04
32.667	0.00	0.20	0.743	I O	|	|	|	3.03
32.750	0.00	0.20	0.742	I O	|	|	|	3.03
32.833	0.00	0.20	0.740	I O	|	|	|	3.03
32.917	0.00	0.20	0.739	I O	|	|	|	3.02
33.000	0.00	0.20	0.738	I O	|	|	|	3.02
33.083	0.00	0.20	0.736	I O	|	|	|	3.01
33.167	0.00	0.20	0.735	I O	|	|	|	3.01
33.250	0.00	0.20	0.734	I O	|	|	|	3.00
33.333	0.00	0.20	0.732	I O	|	|	|	3.00
33.417	0.00	0.20	0.731	I O	|	|	|	3.00
33.500	0.00	0.20	0.729	I O	|	|	|	2.99
33.583	0.00	0.20	0.728	I O	|	|	|	2.99
33.667	0.00	0.20	0.727	I O	|	|	|	2.98
33.750	0.00	0.20	0.725	I O	|	|	|	2.98
33.833	0.00	0.20	0.724	I O	|	|	|	2.97
33.917	0.00	0.20	0.723	I O	|	|	|	2.97
34.000	0.00	0.20	0.721	I O	|	|	|	2.96
34.083	0.00	0.20	0.720	I O	|	|	|	2.96
34.167	0.00	0.20	0.719	I O	|	|	|	2.96
34.250	0.00	0.20	0.717	I O	|	|	|	2.95
34.333	0.00	0.20	0.716	I O	|	|	|	2.95
34.417	0.00	0.20	0.715	I O	|	|	|	2.94
34.500	0.00	0.20	0.713	I O	|	|	|	2.94
34.583	0.00	0.20	0.712	I O	|	|	|	2.93
34.667	0.00	0.20	0.711	I O	|	|	|	2.93
34.750	0.00	0.20	0.709	I O	|	|	|	2.92
34.833	0.00	0.20	0.708	I O	|	|	|	2.92
34.917	0.00	0.20	0.706	I O	|	|	|	2.92

35.000	0.00	0.20	0.705	I O				2.91
35.083	0.00	0.20	0.704	I O				2.91
35.167	0.00	0.20	0.702	I O				2.90
35.250	0.00	0.20	0.701	I O				2.90
35.333	0.00	0.20	0.700	I O				2.89
35.417	0.00	0.20	0.698	I O				2.89
35.500	0.00	0.20	0.697	I O				2.88
35.583	0.00	0.20	0.696	I O				2.88
35.667	0.00	0.20	0.694	I O				2.88
35.750	0.00	0.20	0.693	I O				2.87
35.833	0.00	0.20	0.692	I O				2.87
35.917	0.00	0.20	0.690	I O				2.86
36.000	0.00	0.20	0.689	I O				2.86
36.083	0.00	0.20	0.688	I O				2.85
36.167	0.00	0.20	0.686	I O				2.85
36.250	0.00	0.20	0.685	I O				2.84
36.333	0.00	0.20	0.683	I O				2.84
36.417	0.00	0.20	0.682	I O				2.84
36.500	0.00	0.20	0.681	I O				2.83
36.583	0.00	0.20	0.679	I O				2.83
36.667	0.00	0.20	0.678	I O				2.82
36.750	0.00	0.20	0.677	I O				2.82
36.833	0.00	0.20	0.675	I O				2.81
36.917	0.00	0.20	0.674	I O				2.81
37.000	0.00	0.20	0.673	I O				2.80
37.083	0.00	0.20	0.671	I O				2.80
37.167	0.00	0.20	0.670	I O				2.80
37.250	0.00	0.20	0.669	I O				2.79
37.333	0.00	0.20	0.667	I O				2.79
37.417	0.00	0.20	0.666	I O				2.78
37.500	0.00	0.20	0.665	I O				2.78
37.583	0.00	0.20	0.663	I O				2.77
37.667	0.00	0.20	0.662	I O				2.77
37.750	0.00	0.20	0.661	I O				2.76
37.833	0.00	0.20	0.659	I O				2.76
37.917	0.00	0.20	0.658	I O				2.76
38.000	0.00	0.20	0.656	I O				2.75
38.083	0.00	0.20	0.655	I O				2.75
38.167	0.00	0.20	0.654	I O				2.74
38.250	0.00	0.20	0.652	I O				2.74
38.333	0.00	0.20	0.651	I O				2.73
38.417	0.00	0.20	0.650	I O				2.73
38.500	0.00	0.20	0.648	I O				2.72
38.583	0.00	0.20	0.647	I O				2.72
38.667	0.00	0.20	0.646	I O				2.72
38.750	0.00	0.20	0.644	I O				2.71
38.833	0.00	0.20	0.643	I O				2.71
38.917	0.00	0.20	0.642	I O				2.70
39.000	0.00	0.20	0.640	I O				2.70
39.083	0.00	0.20	0.639	I O				2.69

39.167	0.00	0.20	0.638	I	O	|	|	|	| 2.69
39.250	0.00	0.20	0.636	I	O	|	|	|	| 2.68
39.333	0.00	0.20	0.635	I	O	|	|	|	| 2.68
39.417	0.00	0.20	0.633	I	O	|	|	|	| 2.68
39.500	0.00	0.20	0.632	I	O	|	|	|	| 2.67
39.583	0.00	0.20	0.631	I	O	|	|	|	| 2.67
39.667	0.00	0.20	0.629	I	O	|	|	|	| 2.66
39.750	0.00	0.20	0.628	I	O	|	|	|	| 2.66
39.833	0.00	0.20	0.627	I	O	|	|	|	| 2.65
39.917	0.00	0.20	0.625	I	O	|	|	|	| 2.65
40.000	0.00	0.20	0.624	I	O	|	|	|	| 2.64
40.083	0.00	0.20	0.623	I	O	|	|	|	| 2.64
40.167	0.00	0.20	0.621	I	O	|	|	|	| 2.64
40.250	0.00	0.20	0.620	I	O	|	|	|	| 2.63
40.333	0.00	0.20	0.619	I	O	|	|	|	| 2.63
40.417	0.00	0.20	0.617	I	O	|	|	|	| 2.62
40.500	0.00	0.20	0.616	I	O	|	|	|	| 2.62
40.583	0.00	0.20	0.615	I	O	|	|	|	| 2.61
40.667	0.00	0.20	0.613	I	O	|	|	|	| 2.61
40.750	0.00	0.20	0.612	I	O	|	|	|	| 2.60
40.833	0.00	0.20	0.610	I	O	|	|	|	| 2.60
40.917	0.00	0.20	0.609	I	O	|	|	|	| 2.60
41.000	0.00	0.20	0.608	I	O	|	|	|	| 2.59
41.083	0.00	0.20	0.606	I	O	|	|	|	| 2.59
41.167	0.00	0.20	0.605	I	O	|	|	|	| 2.58
41.250	0.00	0.20	0.604	I	O	|	|	|	| 2.58
41.333	0.00	0.20	0.602	I	O	|	|	|	| 2.57
41.417	0.00	0.20	0.601	I	O	|	|	|	| 2.57
41.500	0.00	0.20	0.600	I	O	|	|	|	| 2.56
41.583	0.00	0.20	0.598	I	O	|	|	|	| 2.56
41.667	0.00	0.20	0.597	I	O	|	|	|	| 2.56
41.750	0.00	0.20	0.596	I	O	|	|	|	| 2.55
41.833	0.00	0.20	0.594	I	O	|	|	|	| 2.55
41.917	0.00	0.20	0.593	I	O	|	|	|	| 2.54
42.000	0.00	0.20	0.592	I	O	|	|	|	| 2.54
42.083	0.00	0.20	0.590	I	O	|	|	|	| 2.53
42.167	0.00	0.20	0.589	I	O	|	|	|	| 2.53
42.250	0.00	0.20	0.587	I	O	|	|	|	| 2.52
42.333	0.00	0.20	0.586	I	O	|	|	|	| 2.52
42.417	0.00	0.20	0.585	I	O	|	|	|	| 2.52
42.500	0.00	0.20	0.583	I	O	|	|	|	| 2.51
42.583	0.00	0.20	0.582	I	O	|	|	|	| 2.51
42.667	0.00	0.20	0.581	I	O	|	|	|	| 2.50
42.750	0.00	0.20	0.579	I	O	|	|	|	| 2.50
42.833	0.00	0.20	0.578	I	O	|	|	|	| 2.49
42.917	0.00	0.20	0.577	I	O	|	|	|	| 2.49
43.000	0.00	0.20	0.575	I	O	|	|	|	| 2.48
43.083	0.00	0.20	0.574	I	O	|	|	|	| 2.48
43.167	0.00	0.20	0.573	I	O	|	|	|	| 2.47
43.250	0.00	0.20	0.571	I	O	|	|	|	| 2.47

43.333	0.00	0.20	0.570	I O				2.46
43.417	0.00	0.20	0.569	I O				2.46
43.500	0.00	0.20	0.567	I O				2.45
43.583	0.00	0.20	0.566	I O				2.45
43.667	0.00	0.20	0.564	I O				2.44
43.750	0.00	0.20	0.563	I O				2.44
43.833	0.00	0.20	0.562	I O				2.43
43.917	0.00	0.20	0.560	I O				2.43
44.000	0.00	0.20	0.559	I O				2.43
44.083	0.00	0.20	0.558	I O				2.42
44.167	0.00	0.20	0.556	I O				2.42
44.250	0.00	0.20	0.555	I O				2.41
44.333	0.00	0.20	0.554	I O				2.41
44.417	0.00	0.20	0.552	I O				2.40
44.500	0.00	0.20	0.551	I O				2.40
44.583	0.00	0.20	0.550	I O				2.39
44.667	0.00	0.20	0.548	I O				2.39
44.750	0.00	0.20	0.547	I O				2.38
44.833	0.00	0.20	0.546	I O				2.38
44.917	0.00	0.20	0.544	I O				2.37
45.000	0.00	0.20	0.543	I O				2.37
45.083	0.00	0.20	0.542	I O				2.36
45.167	0.00	0.20	0.540	I O				2.36
45.250	0.00	0.20	0.539	I O				2.35
45.333	0.00	0.20	0.537	I O				2.35
45.417	0.00	0.20	0.536	I O				2.34
45.500	0.00	0.20	0.535	I O				2.34
45.583	0.00	0.20	0.533	I O				2.33
45.667	0.00	0.20	0.532	I O				2.33
45.750	0.00	0.20	0.531	I O				2.32
45.833	0.00	0.20	0.529	I O				2.32
45.917	0.00	0.20	0.528	I O				2.31
46.000	0.00	0.20	0.527	I O				2.31
46.083	0.00	0.20	0.525	I O				2.30
46.167	0.00	0.20	0.524	I O				2.30
46.250	0.00	0.20	0.523	I O				2.29
46.333	0.00	0.20	0.521	I O				2.29
46.417	0.00	0.20	0.520	I O				2.29
46.500	0.00	0.20	0.519	I O				2.28
46.583	0.00	0.20	0.517	I O				2.28
46.667	0.00	0.20	0.516	I O				2.27
46.750	0.00	0.20	0.514	I O				2.27
46.833	0.00	0.20	0.513	I O				2.26
46.917	0.00	0.20	0.512	I O				2.26
47.000	0.00	0.20	0.510	I O				2.25
47.083	0.00	0.20	0.509	I O				2.25
47.167	0.00	0.20	0.508	I O				2.24
47.250	0.00	0.20	0.506	I O				2.24
47.333	0.00	0.20	0.505	I O				2.23
47.417	0.00	0.20	0.504	I O				2.23

47.500	0.00	0.20	0.502	I O				2.22
47.583	0.00	0.20	0.501	I O				2.22
47.667	0.00	0.20	0.500	I O				2.21
47.750	0.00	0.20	0.498	I O				2.21
47.833	0.00	0.20	0.497	I O				2.20
47.917	0.00	0.20	0.496	I O				2.20
48.000	0.00	0.20	0.494	I O				2.19
48.083	0.00	0.20	0.493	I O				2.19
48.167	0.00	0.20	0.491	I O				2.18
48.250	0.00	0.20	0.490	I O				2.18
48.333	0.00	0.20	0.489	I O				2.17
48.417	0.00	0.20	0.487	I O				2.17
48.500	0.00	0.20	0.486	I O				2.16
48.583	0.00	0.20	0.485	I O				2.16
48.667	0.00	0.20	0.483	I O				2.15
48.750	0.00	0.20	0.482	I O				2.15
48.833	0.00	0.20	0.481	I O				2.15
48.917	0.00	0.20	0.479	I O				2.14
49.000	0.00	0.20	0.478	I O				2.14
49.083	0.00	0.20	0.477	I O				2.13
49.167	0.00	0.20	0.475	I O				2.13
49.250	0.00	0.20	0.474	I O				2.12
49.333	0.00	0.20	0.473	I O				2.12
49.417	0.00	0.20	0.471	I O				2.11
49.500	0.00	0.20	0.470	I O				2.11
49.583	0.00	0.20	0.468	I O				2.10
49.667	0.00	0.20	0.467	I O				2.10
49.750	0.00	0.20	0.466	I O				2.09
49.833	0.00	0.20	0.464	I O				2.09
49.917	0.00	0.20	0.463	I O				2.08
50.000	0.00	0.20	0.462	I O				2.08
50.083	0.00	0.20	0.460	I O				2.07
50.167	0.00	0.20	0.459	I O				2.07
50.250	0.00	0.20	0.458	I O				2.06
50.333	0.00	0.20	0.456	I O				2.06
50.417	0.00	0.20	0.455	I O				2.05
50.500	0.00	0.20	0.454	I O				2.05
50.583	0.00	0.20	0.452	I O				2.04
50.667	0.00	0.20	0.451	I O				2.04
50.750	0.00	0.20	0.450	I O				2.03
50.833	0.00	0.20	0.448	I O				2.03
50.917	0.00	0.20	0.447	I O				2.02
51.000	0.00	0.20	0.445	I O				2.02
51.083	0.00	0.20	0.444	I O				2.01
51.167	0.00	0.20	0.443	I O				2.01
51.250	0.00	0.20	0.441	I O				2.01
51.333	0.00	0.20	0.440	I O				2.00
51.417	0.00	0.20	0.439	I O				1.99
51.500	0.00	0.20	0.437	I O				1.99
51.583	0.00	0.20	0.436	I O				1.98

51.667	0.00	0.20	0.435	I	O	|	|	|	| 1.98
51.750	0.00	0.20	0.433	I	O	|	|	|	| 1.97
51.833	0.00	0.20	0.432	I	O	|	|	|	| 1.97
51.917	0.00	0.20	0.431	I	O	|	|	|	| 1.96
52.000	0.00	0.20	0.429	I	O	|	|	|	| 1.96
52.083	0.00	0.20	0.428	I	O	|	|	|	| 1.95
52.167	0.00	0.20	0.427	I	O	|	|	|	| 1.95
52.250	0.00	0.20	0.425	I	O	|	|	|	| 1.94
52.333	0.00	0.20	0.424	I	O	|	|	|	| 1.94
52.417	0.00	0.20	0.423	I	O	|	|	|	| 1.93
52.500	0.00	0.20	0.421	I	O	|	|	|	| 1.93
52.583	0.00	0.20	0.420	I	O	|	|	|	| 1.92
52.667	0.00	0.20	0.418	I	O	|	|	|	| 1.92
52.750	0.00	0.20	0.417	I	O	|	|	|	| 1.91
52.833	0.00	0.20	0.416	I	O	|	|	|	| 1.90
52.917	0.00	0.20	0.414	I	O	|	|	|	| 1.90
53.000	0.00	0.20	0.413	I	O	|	|	|	| 1.89
53.083	0.00	0.20	0.412	I	O	|	|	|	| 1.89
53.167	0.00	0.20	0.410	I	O	|	|	|	| 1.88
53.250	0.00	0.20	0.409	I	O	|	|	|	| 1.88
53.333	0.00	0.20	0.408	I	O	|	|	|	| 1.87
53.417	0.00	0.20	0.406	I	O	|	|	|	| 1.87
53.500	0.00	0.20	0.405	I	O	|	|	|	| 1.86
53.583	0.00	0.20	0.404	I	O	|	|	|	| 1.86
53.667	0.00	0.20	0.402	I	O	|	|	|	| 1.85
53.750	0.00	0.20	0.401	I	O	|	|	|	| 1.85
53.833	0.00	0.20	0.400	I	O	|	|	|	| 1.84
53.917	0.00	0.20	0.398	I	O	|	|	|	| 1.84
54.000	0.00	0.20	0.397	I	O	|	|	|	| 1.83
54.083	0.00	0.20	0.395	I	O	|	|	|	| 1.82
54.167	0.00	0.20	0.394	I	O	|	|	|	| 1.82
54.250	0.00	0.20	0.393	I	O	|	|	|	| 1.81
54.333	0.00	0.20	0.391	I	O	|	|	|	| 1.81
54.417	0.00	0.20	0.390	I	O	|	|	|	| 1.80
54.500	0.00	0.20	0.389	I	O	|	|	|	| 1.80
54.583	0.00	0.20	0.387	I	O	|	|	|	| 1.79
54.667	0.00	0.20	0.386	I	O	|	|	|	| 1.79
54.750	0.00	0.20	0.385	I	O	|	|	|	| 1.78
54.833	0.00	0.20	0.383	I	O	|	|	|	| 1.78
54.917	0.00	0.20	0.382	I	O	|	|	|	| 1.77
55.000	0.00	0.20	0.381	I	O	|	|	|	| 1.77
55.083	0.00	0.20	0.379	I	O	|	|	|	| 1.76
55.167	0.00	0.20	0.378	I	O	|	|	|	| 1.76
55.250	0.00	0.20	0.377	I	O	|	|	|	| 1.75
55.333	0.00	0.20	0.375	I	O	|	|	|	| 1.74
55.417	0.00	0.20	0.374	I	O	|	|	|	| 1.74
55.500	0.00	0.20	0.372	I	O	|	|	|	| 1.73
55.583	0.00	0.20	0.371	I	O	|	|	|	| 1.73
55.667	0.00	0.20	0.370	I	O	|	|	|	| 1.72
55.750	0.00	0.20	0.368	I	O	|	|	|	| 1.72

55.833	0.00	0.20	0.367	I	O	|	|	|	1.71
55.917	0.00	0.20	0.366	I	O	|	|	|	1.71
56.000	0.00	0.20	0.364	I	O	|	|	|	1.70
56.083	0.00	0.20	0.363	I	O	|	|	|	1.70
56.167	0.00	0.20	0.362	I	O	|	|	|	1.69
56.250	0.00	0.20	0.360	I	O	|	|	|	1.69
56.333	0.00	0.20	0.359	I	O	|	|	|	1.68
56.417	0.00	0.20	0.358	I	O	|	|	|	1.68
56.500	0.00	0.20	0.356	I	O	|	|	|	1.67
56.583	0.00	0.20	0.355	I	O	|	|	|	1.66
56.667	0.00	0.20	0.354	I	O	|	|	|	1.66
56.750	0.00	0.20	0.352	I	O	|	|	|	1.65
56.833	0.00	0.20	0.351	I	O	|	|	|	1.65
56.917	0.00	0.20	0.349	I	O	|	|	|	1.64
57.000	0.00	0.20	0.348	I	O	|	|	|	1.64
57.083	0.00	0.20	0.347	I	O	|	|	|	1.63
57.167	0.00	0.20	0.345	I	O	|	|	|	1.63
57.250	0.00	0.20	0.344	I	O	|	|	|	1.62
57.333	0.00	0.20	0.343	I	O	|	|	|	1.62
57.417	0.00	0.20	0.341	I	O	|	|	|	1.61
57.500	0.00	0.20	0.340	I	O	|	|	|	1.61
57.583	0.00	0.20	0.339	I	O	|	|	|	1.60
57.667	0.00	0.20	0.337	I	O	|	|	|	1.60
57.750	0.00	0.20	0.336	I	O	|	|	|	1.59
57.833	0.00	0.20	0.335	I	O	|	|	|	1.59
57.917	0.00	0.20	0.333	I	O	|	|	|	1.58
58.000	0.00	0.20	0.332	I	O	|	|	|	1.57
58.083	0.00	0.20	0.331	I	O	|	|	|	1.57
58.167	0.00	0.20	0.329	I	O	|	|	|	1.56
58.250	0.00	0.20	0.328	I	O	|	|	|	1.56
58.333	0.00	0.20	0.326	I	O	|	|	|	1.55
58.417	0.00	0.20	0.325	I	O	|	|	|	1.55
58.500	0.00	0.20	0.324	I	O	|	|	|	1.54
58.583	0.00	0.20	0.322	I	O	|	|	|	1.54
58.667	0.00	0.20	0.321	I	O	|	|	|	1.53
58.750	0.00	0.20	0.320	I	O	|	|	|	1.53
58.833	0.00	0.20	0.318	I	O	|	|	|	1.52
58.917	0.00	0.20	0.317	I	O	|	|	|	1.52
59.000	0.00	0.20	0.316	I	O	|	|	|	1.51
59.083	0.00	0.20	0.314	I	O	|	|	|	1.51
59.167	0.00	0.20	0.313	I	O	|	|	|	1.50
59.250	0.00	0.20	0.312	I	O	|	|	|	1.49
59.333	0.00	0.20	0.310	I	O	|	|	|	1.49
59.417	0.00	0.20	0.309	I	O	|	|	|	1.48
59.500	0.00	0.20	0.308	I	O	|	|	|	1.48
59.583	0.00	0.20	0.306	I	O	|	|	|	1.47
59.667	0.00	0.20	0.305	I	O	|	|	|	1.46
59.750	0.00	0.20	0.304	I	O	|	|	|	1.46
59.833	0.00	0.20	0.302	I	O	|	|	|	1.45
59.917	0.00	0.20	0.301	I	O	|	|	|	1.45

60.000	0.00	0.20	0.299	I	O	|	|	|	1.44
60.083	0.00	0.20	0.298	I	O	|	|	|	1.44
60.167	0.00	0.20	0.297	I	O	|	|	|	1.43
60.250	0.00	0.20	0.295	I	O	|	|	|	1.42
60.333	0.00	0.20	0.294	I	O	|	|	|	1.42
60.417	0.00	0.20	0.293	I	O	|	|	|	1.41
60.500	0.00	0.20	0.291	I	O	|	|	|	1.41
60.583	0.00	0.20	0.290	I	O	|	|	|	1.40
60.667	0.00	0.20	0.289	I	O	|	|	|	1.39
60.750	0.00	0.20	0.287	I	O	|	|	|	1.39
60.833	0.00	0.20	0.286	I	O	|	|	|	1.38
60.917	0.00	0.20	0.285	I	O	|	|	|	1.38
61.000	0.00	0.20	0.283	I	O	|	|	|	1.37
61.083	0.00	0.20	0.282	I	O	|	|	|	1.37
61.167	0.00	0.20	0.281	I	O	|	|	|	1.36
61.250	0.00	0.20	0.279	I	O	|	|	|	1.35
61.333	0.00	0.20	0.278	I	O	|	|	|	1.35
61.417	0.00	0.20	0.276	I	O	|	|	|	1.34
61.500	0.00	0.20	0.275	I	O	|	|	|	1.34
61.583	0.00	0.20	0.274	I	O	|	|	|	1.33
61.667	0.00	0.20	0.272	I	O	|	|	|	1.33
61.750	0.00	0.20	0.271	I	O	|	|	|	1.32
61.833	0.00	0.20	0.270	I	O	|	|	|	1.31
61.917	0.00	0.20	0.268	I	O	|	|	|	1.31
62.000	0.00	0.20	0.267	I	O	|	|	|	1.30
62.083	0.00	0.20	0.266	I	O	|	|	|	1.30
62.167	0.00	0.20	0.264	I	O	|	|	|	1.29
62.250	0.00	0.20	0.263	I	O	|	|	|	1.28
62.333	0.00	0.20	0.262	I	O	|	|	|	1.28
62.417	0.00	0.20	0.260	I	O	|	|	|	1.27
62.500	0.00	0.20	0.259	I	O	|	|	|	1.27
62.583	0.00	0.20	0.258	I	O	|	|	|	1.26
62.667	0.00	0.20	0.256	I	O	|	|	|	1.26
62.750	0.00	0.20	0.255	I	O	|	|	|	1.25
62.833	0.00	0.20	0.253	I	O	|	|	|	1.24
62.917	0.00	0.20	0.252	I	O	|	|	|	1.24
63.000	0.00	0.20	0.251	I	O	|	|	|	1.23
63.083	0.00	0.20	0.249	I	O	|	|	|	1.23
63.167	0.00	0.20	0.248	I	O	|	|	|	1.22
63.250	0.00	0.20	0.247	I	O	|	|	|	1.21
63.333	0.00	0.20	0.245	I	O	|	|	|	1.21
63.417	0.00	0.20	0.244	I	O	|	|	|	1.20
63.500	0.00	0.20	0.243	I	O	|	|	|	1.20
63.583	0.00	0.20	0.241	I	O	|	|	|	1.19
63.667	0.00	0.20	0.240	I	O	|	|	|	1.19
63.750	0.00	0.20	0.239	I	O	|	|	|	1.18
63.833	0.00	0.20	0.237	I	O	|	|	|	1.17
63.917	0.00	0.20	0.236	I	O	|	|	|	1.17
64.000	0.00	0.20	0.235	I	O	|	|	|	1.16
64.083	0.00	0.20	0.233	I	O	|	|	|	1.16

64.167	0.00	0.20	0.232	I O	|	|	|	1.15
64.250	0.00	0.20	0.230	I O	|	|	|	1.14
64.333	0.00	0.20	0.229	I O	|	|	|	1.14
64.417	0.00	0.20	0.228	I O	|	|	|	1.13
64.500	0.00	0.20	0.226	I O	|	|	|	1.13
64.583	0.00	0.20	0.225	I O	|	|	|	1.12
64.667	0.00	0.20	0.224	I O	|	|	|	1.12
64.750	0.00	0.20	0.222	I O	|	|	|	1.11
64.833	0.00	0.20	0.221	I O	|	|	|	1.10
64.917	0.00	0.20	0.220	I O	|	|	|	1.10
65.000	0.00	0.20	0.218	I O	|	|	|	1.09
65.083	0.00	0.20	0.217	I O	|	|	|	1.09
65.167	0.00	0.20	0.216	I O	|	|	|	1.08
65.250	0.00	0.20	0.214	I O	|	|	|	1.07
65.333	0.00	0.20	0.213	I O	|	|	|	1.07
65.417	0.00	0.20	0.212	I O	|	|	|	1.06
65.500	0.00	0.20	0.210	I O	|	|	|	1.06
65.583	0.00	0.20	0.209	I O	|	|	|	1.05
65.667	0.00	0.20	0.207	I O	|	|	|	1.05
65.750	0.00	0.20	0.206	I O	|	|	|	1.04
65.833	0.00	0.20	0.205	I O	|	|	|	1.03
65.917	0.00	0.20	0.203	I O	|	|	|	1.03
66.000	0.00	0.20	0.202	I O	|	|	|	1.02
66.083	0.00	0.20	0.201	I O	|	|	|	1.02
66.167	0.00	0.20	0.199	I O	|	|	|	1.01
66.250	0.00	0.20	0.198	I O	|	|	|	1.00
66.333	0.00	0.20	0.197	I O	|	|	|	1.00
66.417	0.00	0.19	0.195	I O	|	|	|	0.99
66.500	0.00	0.19	0.194	I O	|	|	|	0.99
66.583	0.00	0.19	0.193	I O	|	|	|	0.98
66.667	0.00	0.19	0.191	I O	|	|	|	0.97
66.750	0.00	0.18	0.190	I O	|	|	|	0.97
66.833	0.00	0.18	0.189	I O	|	|	|	0.96
66.917	0.00	0.18	0.188	I O	|	|	|	0.96
67.000	0.00	0.18	0.186	I O	|	|	|	0.95
67.083	0.00	0.17	0.185	I O	|	|	|	0.94
67.167	0.00	0.17	0.184	I O	|	|	|	0.94
67.250	0.00	0.17	0.183	I O	|	|	|	0.93
67.333	0.00	0.17	0.182	I O	|	|	|	0.93
67.417	0.00	0.17	0.181	I O	|	|	|	0.92
67.500	0.00	0.16	0.179	I O	|	|	|	0.92
67.583	0.00	0.16	0.178	I O	|	|	|	0.91
67.667	0.00	0.16	0.177	I O	|	|	|	0.90
67.750	0.00	0.16	0.176	I O	|	|	|	0.90
67.833	0.00	0.15	0.175	I O	|	|	|	0.89
67.917	0.00	0.15	0.174	I O	|	|	|	0.89
68.000	0.00	0.15	0.173	I O	|	|	|	0.88
68.083	0.00	0.15	0.172	I O	|	|	|	0.88
68.167	0.00	0.15	0.171	I O	|	|	|	0.87
68.250	0.00	0.15	0.170	I O	|	|	|	0.87

68.333	0.00	0.14	0.169	IO				0.86
68.417	0.00	0.14	0.168	IO				0.86
68.500	0.00	0.14	0.167	IO				0.86
68.583	0.00	0.14	0.166	IO				0.85
68.667	0.00	0.14	0.165	IO				0.85
68.750	0.00	0.13	0.164	IO				0.84
68.833	0.00	0.13	0.163	IO				0.84
68.917	0.00	0.13	0.162	IO				0.83
69.000	0.00	0.13	0.161	IO				0.83
69.083	0.00	0.13	0.161	IO				0.82
69.167	0.00	0.13	0.160	IO				0.82
69.250	0.00	0.12	0.159	IO				0.82
69.333	0.00	0.12	0.158	IO				0.81
69.417	0.00	0.12	0.157	IO				0.81
69.500	0.00	0.12	0.156	IO				0.80
69.583	0.00	0.12	0.155	IO				0.80
69.667	0.00	0.12	0.155	IO				0.80
69.750	0.00	0.11	0.154	IO				0.79
69.833	0.00	0.11	0.153	IO				0.79
69.917	0.00	0.11	0.152	IO				0.78
70.000	0.00	0.11	0.152	IO				0.78
70.083	0.00	0.11	0.151	IO				0.78
70.167	0.00	0.11	0.150	IO				0.77
70.250	0.00	0.11	0.149	IO				0.77
70.333	0.00	0.10	0.149	IO				0.77
70.417	0.00	0.10	0.148	IO				0.76
70.500	0.00	0.10	0.147	IO				0.76
70.583	0.00	0.10	0.146	IO				0.76
70.667	0.00	0.10	0.146	IO				0.75
70.750	0.00	0.10	0.145	IO				0.75
70.833	0.00	0.10	0.144	IO				0.75
70.917	0.00	0.10	0.144	IO				0.74
71.000	0.00	0.09	0.143	IO				0.74
71.083	0.00	0.09	0.142	IO				0.74
71.167	0.00	0.09	0.142	IO				0.73
71.250	0.00	0.09	0.141	IO				0.73
71.333	0.00	0.09	0.141	IO				0.73
71.417	0.00	0.09	0.140	IO				0.73
71.500	0.00	0.09	0.139	IO				0.72
71.583	0.00	0.09	0.139	IO				0.72
71.667	0.00	0.09	0.138	IO				0.72
71.750	0.00	0.08	0.138	IO				0.71
71.833	0.00	0.08	0.137	IO				0.71
71.917	0.00	0.08	0.136	IO				0.71
72.000	0.00	0.08	0.136	IO				0.71
72.083	0.00	0.08	0.135	IO				0.70
72.167	0.00	0.08	0.135	IO				0.70
72.250	0.00	0.08	0.134	IO				0.70
72.333	0.00	0.08	0.134	IO				0.70
72.417	0.00	0.08	0.133	IO				0.69

72.500	0.00	0.07	0.133	IO				0.69
72.583	0.00	0.07	0.132	IO				0.69
72.667	0.00	0.07	0.132	IO				0.69
72.750	0.00	0.07	0.131	O				0.68
72.833	0.00	0.07	0.131	O				0.68
72.917	0.00	0.07	0.130	O				0.68
73.000	0.00	0.07	0.130	O				0.68
73.083	0.00	0.07	0.129	O				0.67
73.167	0.00	0.07	0.129	O				0.67
73.250	0.00	0.07	0.128	O				0.67
73.333	0.00	0.07	0.128	O				0.67
73.417	0.00	0.06	0.127	O				0.67
73.500	0.00	0.06	0.127	O				0.66
73.583	0.00	0.06	0.126	O				0.66
73.667	0.00	0.06	0.126	O				0.66
73.750	0.00	0.06	0.126	O				0.66
73.833	0.00	0.06	0.125	O				0.65
73.917	0.00	0.06	0.125	O				0.65
74.000	0.00	0.06	0.124	O				0.65
74.083	0.00	0.06	0.124	O				0.65
74.167	0.00	0.06	0.124	O				0.65
74.250	0.00	0.06	0.123	O				0.64
74.333	0.00	0.06	0.123	O				0.64
74.417	0.00	0.06	0.122	O				0.64
74.500	0.00	0.05	0.122	O				0.64
74.583	0.00	0.05	0.122	O				0.64
74.667	0.00	0.05	0.121	O				0.64
74.750	0.00	0.05	0.121	O				0.63
74.833	0.00	0.05	0.121	O				0.63
74.917	0.00	0.05	0.120	O				0.63
75.000	0.00	0.05	0.120	O				0.63
75.083	0.00	0.05	0.119	O				0.63
75.167	0.00	0.05	0.119	O				0.63
75.250	0.00	0.05	0.119	O				0.62
75.333	0.00	0.05	0.118	O				0.62
75.417	0.00	0.05	0.118	O				0.62
75.500	0.00	0.05	0.118	O				0.62
75.583	0.00	0.05	0.117	O				0.62
75.667	0.00	0.05	0.117	O				0.62
75.750	0.00	0.05	0.117	O				0.61
75.833	0.00	0.04	0.117	O				0.61
75.917	0.00	0.04	0.116	O				0.61
76.000	0.00	0.04	0.116	O				0.61
76.083	0.00	0.04	0.116	O				0.61
76.167	0.00	0.04	0.115	O				0.61
76.250	0.00	0.04	0.115	O				0.61
76.333	0.00	0.04	0.115	O				0.60
76.417	0.00	0.04	0.114	O				0.60
76.500	0.00	0.04	0.114	O				0.60
76.583	0.00	0.04	0.114	O				0.60

76.667	0.00	0.04	0.114	O	|	|	|	0.60
76.750	0.00	0.04	0.113	O	|	|	|	0.60
76.833	0.00	0.04	0.113	O	|	|	|	0.60
76.917	0.00	0.04	0.113	O	|	|	|	0.60
77.000	0.00	0.04	0.113	O	|	|	|	0.59
77.083	0.00	0.04	0.112	O	|	|	|	0.59
77.167	0.00	0.04	0.112	O	|	|	|	0.59
77.250	0.00	0.04	0.112	O	|	|	|	0.59
77.333	0.00	0.04	0.112	O	|	|	|	0.59
77.417	0.00	0.03	0.111	O	|	|	|	0.59
77.500	0.00	0.03	0.111	O	|	|	|	0.59
77.583	0.00	0.03	0.111	O	|	|	|	0.59
77.667	0.00	0.03	0.111	O	|	|	|	0.59
77.750	0.00	0.03	0.110	O	|	|	|	0.58
77.833	0.00	0.03	0.110	O	|	|	|	0.58
77.917	0.00	0.03	0.110	O	|	|	|	0.58
78.000	0.00	0.03	0.110	O	|	|	|	0.58
78.083	0.00	0.03	0.110	O	|	|	|	0.58
78.167	0.00	0.03	0.109	O	|	|	|	0.58
78.250	0.00	0.03	0.109	O	|	|	|	0.58
78.333	0.00	0.03	0.109	O	|	|	|	0.58
78.417	0.00	0.03	0.109	O	|	|	|	0.58
78.500	0.00	0.03	0.109	O	|	|	|	0.57
78.583	0.00	0.03	0.108	O	|	|	|	0.57
78.667	0.00	0.03	0.108	O	|	|	|	0.57
78.750	0.00	0.03	0.108	O	|	|	|	0.57
78.833	0.00	0.03	0.108	O	|	|	|	0.57
78.917	0.00	0.03	0.108	O	|	|	|	0.57
79.000	0.00	0.03	0.107	O	|	|	|	0.57
79.083	0.00	0.03	0.107	O	|	|	|	0.57
79.167	0.00	0.03	0.107	O	|	|	|	0.57
79.250	0.00	0.03	0.107	O	|	|	|	0.57
79.333	0.00	0.03	0.107	O	|	|	|	0.57
79.417	0.00	0.03	0.106	O	|	|	|	0.56
79.500	0.00	0.03	0.106	O	|	|	|	0.56
79.583	0.00	0.02	0.106	O	|	|	|	0.56
79.667	0.00	0.02	0.106	O	|	|	|	0.56
79.750	0.00	0.02	0.106	O	|	|	|	0.56
79.833	0.00	0.02	0.106	O	|	|	|	0.56
79.917	0.00	0.02	0.105	O	|	|	|	0.56
80.000	0.00	0.02	0.105	O	|	|	|	0.56
80.083	0.00	0.02	0.105	O	|	|	|	0.56
80.167	0.00	0.02	0.105	O	|	|	|	0.56
80.250	0.00	0.02	0.105	O	|	|	|	0.56
80.333	0.00	0.02	0.105	O	|	|	|	0.56
80.417	0.00	0.02	0.105	O	|	|	|	0.56
80.500	0.00	0.02	0.104	O	|	|	|	0.55
80.583	0.00	0.02	0.104	O	|	|	|	0.55
80.667	0.00	0.02	0.104	O	|	|	|	0.55
80.750	0.00	0.02	0.104	O	|	|	|	0.55

80.833	0.00	0.02	0.104	O	|	|	|	0.55
80.917	0.00	0.02	0.104	O	|	|	|	0.55
81.000	0.00	0.02	0.104	O	|	|	|	0.55
81.083	0.00	0.02	0.103	O	|	|	|	0.55
81.167	0.00	0.02	0.103	O	|	|	|	0.55
81.250	0.00	0.02	0.103	O	|	|	|	0.55
81.333	0.00	0.02	0.103	O	|	|	|	0.55
81.417	0.00	0.02	0.103	O	|	|	|	0.55
81.500	0.00	0.02	0.103	O	|	|	|	0.55
81.583	0.00	0.02	0.103	O	|	|	|	0.55
81.667	0.00	0.02	0.102	O	|	|	|	0.55
81.750	0.00	0.02	0.102	O	|	|	|	0.54
81.833	0.00	0.02	0.102	O	|	|	|	0.54
81.917	0.00	0.02	0.102	O	|	|	|	0.54
82.000	0.00	0.02	0.102	O	|	|	|	0.54
82.083	0.00	0.02	0.102	O	|	|	|	0.54
82.167	0.00	0.02	0.102	O	|	|	|	0.54
82.250	0.00	0.02	0.102	O	|	|	|	0.54
82.333	0.00	0.02	0.102	O	|	|	|	0.54
82.417	0.00	0.02	0.101	O	|	|	|	0.54
82.500	0.00	0.02	0.101	O	|	|	|	0.54
82.583	0.00	0.02	0.101	O	|	|	|	0.54
82.667	0.00	0.02	0.101	O	|	|	|	0.54
82.750	0.00	0.02	0.101	O	|	|	|	0.54
82.833	0.00	0.01	0.101	O	|	|	|	0.54
82.917	0.00	0.01	0.101	O	|	|	|	0.54
83.000	0.00	0.01	0.101	O	|	|	|	0.54
83.083	0.00	0.01	0.101	O	|	|	|	0.54
83.167	0.00	0.01	0.100	O	|	|	|	0.54
83.250	0.00	0.01	0.100	O	|	|	|	0.54
83.333	0.00	0.01	0.100	O	|	|	|	0.54
83.417	0.00	0.01	0.100	O	|	|	|	0.53
83.500	0.00	0.01	0.100	O	|	|	|	0.53
83.583	0.00	0.01	0.100	O	|	|	|	0.53
83.667	0.00	0.01	0.100	O	|	|	|	0.53
83.750	0.00	0.01	0.100	O	|	|	|	0.53
83.833	0.00	0.01	0.100	O	|	|	|	0.53
83.917	0.00	0.01	0.100	O	|	|	|	0.53
84.000	0.00	0.01	0.100	O	|	|	|	0.53
84.083	0.00	0.01	0.099	O	|	|	|	0.53
84.167	0.00	0.01	0.099	O	|	|	|	0.53
84.250	0.00	0.01	0.099	O	|	|	|	0.53
84.333	0.00	0.01	0.099	O	|	|	|	0.53
84.417	0.00	0.01	0.099	O	|	|	|	0.53
84.500	0.00	0.01	0.099	O	|	|	|	0.53
84.583	0.00	0.01	0.099	O	|	|	|	0.53
84.667	0.00	0.01	0.099	O	|	|	|	0.53
84.750	0.00	0.01	0.099	O	|	|	|	0.53
84.833	0.00	0.01	0.099	O	|	|	|	0.53
84.917	0.00	0.01	0.099	O	|	|	|	0.53

85.000	0.00	0.01	0.099	O	|	|	|	0.53
85.083	0.00	0.01	0.099	O	|	|	|	0.53
85.167	0.00	0.01	0.098	O	|	|	|	0.53
85.250	0.00	0.01	0.098	O	|	|	|	0.53
85.333	0.00	0.01	0.098	O	|	|	|	0.53
85.417	0.00	0.01	0.098	O	|	|	|	0.53
85.500	0.00	0.01	0.098	O	|	|	|	0.53
85.583	0.00	0.01	0.098	O	|	|	|	0.52
85.667	0.00	0.01	0.098	O	|	|	|	0.52
85.750	0.00	0.01	0.098	O	|	|	|	0.52
85.833	0.00	0.01	0.098	O	|	|	|	0.52
85.917	0.00	0.01	0.098	O	|	|	|	0.52
86.000	0.00	0.01	0.098	O	|	|	|	0.52
86.083	0.00	0.01	0.098	O	|	|	|	0.52
86.167	0.00	0.01	0.098	O	|	|	|	0.52
86.250	0.00	0.01	0.098	O	|	|	|	0.52
86.333	0.00	0.01	0.098	O	|	|	|	0.52
86.417	0.00	0.01	0.098	O	|	|	|	0.52
86.500	0.00	0.01	0.097	O	|	|	|	0.52
86.583	0.00	0.01	0.097	O	|	|	|	0.52
86.667	0.00	0.01	0.097	O	|	|	|	0.52
86.750	0.00	0.01	0.097	O	|	|	|	0.52
86.833	0.00	0.01	0.097	O	|	|	|	0.52
86.917	0.00	0.01	0.097	O	|	|	|	0.52
87.000	0.00	0.01	0.097	O	|	|	|	0.52
87.083	0.00	0.01	0.097	O	|	|	|	0.52
87.167	0.00	0.01	0.097	O	|	|	|	0.52
87.250	0.00	0.01	0.097	O	|	|	|	0.52
87.333	0.00	0.01	0.097	O	|	|	|	0.52
87.417	0.00	0.01	0.097	O	|	|	|	0.52
87.500	0.00	0.01	0.097	O	|	|	|	0.52
87.583	0.00	0.01	0.097	O	|	|	|	0.52
87.667	0.00	0.01	0.097	O	|	|	|	0.52
87.750	0.00	0.01	0.097	O	|	|	|	0.52
87.833	0.00	0.01	0.097	O	|	|	|	0.52
87.917	0.00	0.01	0.097	O	|	|	|	0.52
88.000	0.00	0.01	0.097	O	|	|	|	0.52
88.083	0.00	0.01	0.096	O	|	|	|	0.52
88.167	0.00	0.01	0.096	O	|	|	|	0.52
88.250	0.00	0.01	0.096	O	|	|	|	0.52
88.333	0.00	0.01	0.096	O	|	|	|	0.52
88.417	0.00	0.01	0.096	O	|	|	|	0.52
88.500	0.00	0.01	0.096	O	|	|	|	0.52
88.583	0.00	0.01	0.096	O	|	|	|	0.52
88.667	0.00	0.01	0.096	O	|	|	|	0.52
88.750	0.00	0.01	0.096	O	|	|	|	0.52
88.833	0.00	0.01	0.096	O	|	|	|	0.51
88.917	0.00	0.01	0.096	O	|	|	|	0.51
89.000	0.00	0.01	0.096	O	|	|	|	0.51
89.083	0.00	0.01	0.096	O	|	|	|	0.51

89.167	0.00	0.01	0.096	O	|	|	|	0.51
89.250	0.00	0.01	0.096	O	|	|	|	0.51
89.333	0.00	0.01	0.096	O	|	|	|	0.51
89.417	0.00	0.01	0.096	O	|	|	|	0.51
89.500	0.00	0.01	0.096	O	|	|	|	0.51
89.583	0.00	0.01	0.096	O	|	|	|	0.51
89.667	0.00	0.01	0.096	O	|	|	|	0.51
89.750	0.00	0.01	0.096	O	|	|	|	0.51
89.833	0.00	0.01	0.096	O	|	|	|	0.51
89.917	0.00	0.00	0.096	O	|	|	|	0.51
90.000	0.00	0.00	0.096	O	|	|	|	0.51
90.083	0.00	0.00	0.096	O	|	|	|	0.51
90.167	0.00	0.00	0.096	O	|	|	|	0.51
90.250	0.00	0.00	0.095	O	|	|	|	0.51
90.333	0.00	0.00	0.095	O	|	|	|	0.51
90.417	0.00	0.00	0.095	O	|	|	|	0.51
90.500	0.00	0.00	0.095	O	|	|	|	0.51
90.583	0.00	0.00	0.095	O	|	|	|	0.51
90.667	0.00	0.00	0.095	O	|	|	|	0.51
90.750	0.00	0.00	0.095	O	|	|	|	0.51
90.833	0.00	0.00	0.095	O	|	|	|	0.51
90.917	0.00	0.00	0.095	O	|	|	|	0.51
91.000	0.00	0.00	0.095	O	|	|	|	0.51
91.083	0.00	0.00	0.095	O	|	|	|	0.51
91.167	0.00	0.00	0.095	O	|	|	|	0.51
91.250	0.00	0.00	0.095	O	|	|	|	0.51
91.333	0.00	0.00	0.095	O	|	|	|	0.51
91.417	0.00	0.00	0.095	O	|	|	|	0.51
91.500	0.00	0.00	0.095	O	|	|	|	0.51
91.583	0.00	0.00	0.095	O	|	|	|	0.51
91.667	0.00	0.00	0.095	O	|	|	|	0.51
91.750	0.00	0.00	0.095	O	|	|	|	0.51
91.833	0.00	0.00	0.095	O	|	|	|	0.51
91.917	0.00	0.00	0.095	O	|	|	|	0.51
92.000	0.00	0.00	0.095	O	|	|	|	0.51
92.083	0.00	0.00	0.095	O	|	|	|	0.51
92.167	0.00	0.00	0.095	O	|	|	|	0.51
92.250	0.00	0.00	0.095	O	|	|	|	0.51
92.333	0.00	0.00	0.095	O	|	|	|	0.51
92.417	0.00	0.00	0.095	O	|	|	|	0.51
92.500	0.00	0.00	0.095	O	|	|	|	0.51
92.583	0.00	0.00	0.095	O	|	|	|	0.51
92.667	0.00	0.00	0.095	O	|	|	|	0.51
92.750	0.00	0.00	0.095	O	|	|	|	0.51
92.833	0.00	0.00	0.095	O	|	|	|	0.51
92.917	0.00	0.00	0.095	O	|	|	|	0.51
93.000	0.00	0.00	0.095	O	|	|	|	0.51
93.083	0.00	0.00	0.095	O	|	|	|	0.51
93.167	0.00	0.00	0.095	O	|	|	|	0.51
93.250	0.00	0.00	0.095	O	|	|	|	0.51

93.333	0.00	0.00	0.095	O	|	|	|	0.51
93.417	0.00	0.00	0.095	O	|	|	|	0.51
93.500	0.00	0.00	0.094	O	|	|	|	0.51
93.583	0.00	0.00	0.094	O	|	|	|	0.51
93.667	0.00	0.00	0.094	O	|	|	|	0.51
93.750	0.00	0.00	0.094	O	|	|	|	0.51
93.833	0.00	0.00	0.094	O	|	|	|	0.51
93.917	0.00	0.00	0.094	O	|	|	|	0.51
94.000	0.00	0.00	0.094	O	|	|	|	0.51
94.083	0.00	0.00	0.094	O	|	|	|	0.51
94.167	0.00	0.00	0.094	O	|	|	|	0.51
94.250	0.00	0.00	0.094	O	|	|	|	0.51
94.333	0.00	0.00	0.094	O	|	|	|	0.51
94.417	0.00	0.00	0.094	O	|	|	|	0.51
94.500	0.00	0.00	0.094	O	|	|	|	0.51
94.583	0.00	0.00	0.094	O	|	|	|	0.51
94.667	0.00	0.00	0.094	O	|	|	|	0.51
94.750	0.00	0.00	0.094	O	|	|	|	0.51
94.833	0.00	0.00	0.094	O	|	|	|	0.51
94.917	0.00	0.00	0.094	O	|	|	|	0.51
95.000	0.00	0.00	0.094	O	|	|	|	0.51
95.083	0.00	0.00	0.094	O	|	|	|	0.51
95.167	0.00	0.00	0.094	O	|	|	|	0.51
95.250	0.00	0.00	0.094	O	|	|	|	0.51
95.333	0.00	0.00	0.094	O	|	|	|	0.51
95.417	0.00	0.00	0.094	O	|	|	|	0.51
95.500	0.00	0.00	0.094	O	|	|	|	0.51
95.583	0.00	0.00	0.094	O	|	|	|	0.51
95.667	0.00	0.00	0.094	O	|	|	|	0.51
95.750	0.00	0.00	0.094	O	|	|	|	0.51
95.833	0.00	0.00	0.094	O	|	|	|	0.50
95.917	0.00	0.00	0.094	O	|	|	|	0.50
96.000	0.00	0.00	0.094	O	|	|	|	0.50
96.083	0.00	0.00	0.094	O	|	|	|	0.50
96.167	0.00	0.00	0.094	O	|	|	|	0.50
96.250	0.00	0.00	0.094	O	|	|	|	0.50
96.333	0.00	0.00	0.094	O	|	|	|	0.50
96.417	0.00	0.00	0.094	O	|	|	|	0.50
96.500	0.00	0.00	0.094	O	|	|	|	0.50
96.583	0.00	0.00	0.094	O	|	|	|	0.50
96.667	0.00	0.00	0.094	O	|	|	|	0.50
96.750	0.00	0.00	0.094	O	|	|	|	0.50
96.833	0.00	0.00	0.094	O	|	|	|	0.50
96.917	0.00	0.00	0.094	O	|	|	|	0.50
97.000	0.00	0.00	0.094	O	|	|	|	0.50
97.083	0.00	0.00	0.094	O	|	|	|	0.50
97.167	0.00	0.00	0.094	O	|	|	|	0.50
97.250	0.00	0.00	0.094	O	|	|	|	0.50
97.333	0.00	0.00	0.094	O	|	|	|	0.50
97.417	0.00	0.00	0.094	O	|	|	|	0.50

97.500	0.00	0.00	0.094	O	|	|	|	|	0.50
97.583	0.00	0.00	0.094	O	|	|	|	|	0.50
97.667	0.00	0.00	0.094	O	|	|	|	|	0.50
97.750	0.00	0.00	0.094	O	|	|	|	|	0.50
97.833	0.00	0.00	0.094	O	|	|	|	|	0.50
97.917	0.00	0.00	0.094	O	|	|	|	|	0.50
98.000	0.00	0.00	0.094	O	|	|	|	|	0.50
98.083	0.00	0.00	0.094	O	|	|	|	|	0.50
98.167	0.00	0.00	0.094	O	|	|	|	|	0.50
98.250	0.00	0.00	0.094	O	|	|	|	|	0.50
98.333	0.00	0.00	0.094	O	|	|	|	|	0.50
98.417	0.00	0.00	0.094	O	|	|	|	|	0.50
98.500	0.00	0.00	0.094	O	|	|	|	|	0.50
98.583	0.00	0.00	0.094	O	|	|	|	|	0.50
98.667	0.00	0.00	0.094	O	|	|	|	|	0.50
98.750	0.00	0.00	0.094	O	|	|	|	|	0.50
98.833	0.00	0.00	0.094	O	|	|	|	|	0.50
98.917	0.00	0.00	0.094	O	|	|	|	|	0.50
99.000	0.00	0.00	0.094	O	|	|	|	|	0.50
99.083	0.00	0.00	0.094	O	|	|	|	|	0.50
99.167	0.00	0.00	0.094	O	|	|	|	|	0.50
99.250	0.00	0.00	0.094	O	|	|	|	|	0.50
99.333	0.00	0.00	0.094	O	|	|	|	|	0.50
99.417	0.00	0.00	0.094	O	|	|	|	|	0.50
99.500	0.00	0.00	0.094	O	|	|	|	|	0.50
99.583	0.00	0.00	0.094	O	|	|	|	|	0.50
99.667	0.00	0.00	0.094	O	|	|	|	|	0.50
99.750	0.00	0.00	0.094	O	|	|	|	|	0.50
99.833	0.00	0.00	0.094	O	|	|	|	|	0.50
99.917	0.00	0.00	0.094	O	|	|	|	|	0.50
100.000	0.00	0.00	0.094	O	|	|	|	|	0.50
100.083	0.00	0.00	0.094	O	|	|	|	|	0.50
100.167	0.00	0.00	0.094	O	|	|	|	|	0.50

Remaining water in basin = 0.09 (Ac.Ft)

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

Number of intervals = 1202
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 1.346 (CFS)
Total volume = 1.251 (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

****

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

Study date 08/02/22 File: A21626DMA1Q100UH110.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 10YR - 1HR UH

Drainage Area = 6.58(Ac.) = 0.010 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 6.58(Ac.) = 0.010 Sq. Mi.
Length along longest watercourse = 808.65(Ft.)
Length along longest watercourse measured to centroid = 622.75(Ft.)
Length along longest watercourse = 0.153 Mi.
Length along longest watercourse measured to centroid = 0.118 Mi.
Difference in elevation = 7.00(Ft.)
Slope along watercourse = 45.7058 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.033 Hr.
Lag time = 1.97 Min.
25% of lag time = 0.49 Min.
40% of lag time = 0.79 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]
        6.58            0.48                    3.16

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        6.58            1.25                    8.22

STORM EVENT (YEAR) =   10.00
Area Averaged 2-Year Rainfall =    0.480(In)
Area Averaged 100-Year Rainfall =    1.250(In)

Point rain (area averaged) =    0.797(In)
Areal adjustment factor =   99.99 %
Adjusted average point rain =    0.797(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     6.578           69.00         0.862
 Total Area Entered =      6.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-2     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  69.0      0.373     0.862        0.084       1.000      0.084
                                                 Sum (F) =   0.084
Area averaged mean soil loss (F) (In/Hr) =  0.084
Minimum soil loss rate ((In/Hr)) =  0.042
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.210
------------------------------------------------------------------------
Slope of intensity-duration curve for a 1 hour storm =0.4800
------------------------------------------------------------------------

                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        253.789         51.385              3.407
    2   0.167        507.577         39.821              2.640
    3   0.250        761.366          6.897              0.457
    4   0.333       1015.155          1.897              0.126
                              Sum = 100.000   Sum=       6.629
-----------------------------------------------------------------
```

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	4.40	0.421	0.084	(0.088)	0.337
2	0.17	4.50	0.430	0.084	(0.090)	0.347
3	0.25	5.40	0.516	0.084	(0.108)	0.433
4	0.33	5.40	0.516	0.084	(0.108)	0.433
5	0.42	5.70	0.545	0.084	(0.114)	0.461
6	0.50	6.40	0.612	0.084	(0.128)	0.528
7	0.58	7.90	0.755	0.084	(0.159)	0.672
8	0.67	9.10	0.870	0.084	(0.183)	0.786
9	0.75	12.80	1.224	0.084	(0.257)	1.140
10	0.83	25.60	2.448	0.084	(0.514)	2.364
11	0.92	7.90	0.755	0.084	(0.159)	0.672
12	1.00	4.90	0.468	0.084	(0.098)	0.385
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	8.6

Flood volume = Effective rainfall 0.71(In)
times area 6.6(Ac.)/[(In)/(Ft.)] = 0.4(Ac.Ft)
Total soil loss = 0.08(In)
Total soil loss = 0.046(Ac.Ft)
Total rainfall = 0.80(In)
Flood volume = 17028.8 Cubic Feet
Total soil loss = 1995.8 Cubic Feet

Peak flow rate of this hydrograph = 11.513(CFS)

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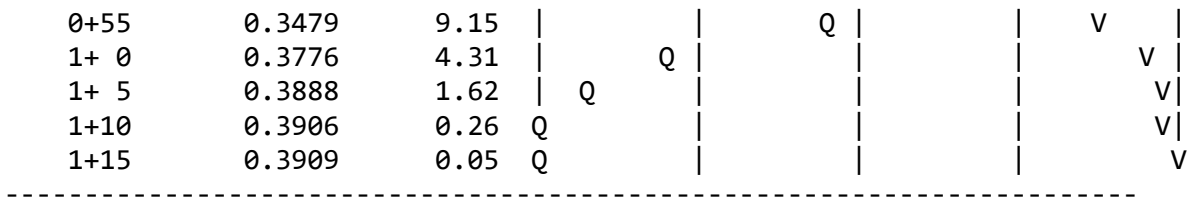
1 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0 5.0 10.0 15.0 20.0
0+ 5	0.0079	1.15	V Q
0+10	0.0222	2.07	| V Q
0+15	0.0397	2.54	| VQ
0+20	0.0591	2.82	| QV
0+25	0.0795	2.96	| Q V
0+30	0.1020	3.27	| Q V
0+35	0.1292	3.95	| Q | V
0+40	0.1620	4.75	| Q| V
0+45	0.2056	6.34	| | Q |V
0+50	0.2849	11.51	| | | Q V|


0+55 0.3479 9.15
1+ 0 0.3776 4.31
1+ 5 0.3888 1.62
1+10 0.3906 0.26
1+15 0.3909 0.05

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

Study date 08/02/22 File: A21626DMA1Q100UH310.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 10YR - 3HR UH

Drainage Area = 6.58(Ac.) = 0.010 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 6.58(Ac.) = 0.010 Sq. Mi.
Length along longest watercourse = 808.65(Ft.)
Length along longest watercourse measured to centroid = 622.75(Ft.)
Length along longest watercourse = 0.153 Mi.
Length along longest watercourse measured to centroid = 0.118 Mi.
Difference in elevation = 7.00(Ft.)
Slope along watercourse = 45.7058 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.033 Hr.
Lag time = 1.97 Min.
25% of lag time = 0.49 Min.
40% of lag time = 0.79 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]
        6.58            0.80                  5.26

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        6.58            1.95                 12.83

STORM EVENT (YEAR) =   10.00
Area Averaged 2-Year Rainfall =    0.800(In)
Area Averaged 100-Year Rainfall =    1.950(In)

Point rain (area averaged) =    1.273(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.273(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     6.578           69.00         0.862
 Total Area Entered =      6.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-2     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  69.0      0.373     0.862        0.084       1.000      0.084
                                                 Sum (F) =   0.084
Area averaged mean soil loss (F) (In/Hr) =  0.084
Minimum soil loss rate ((In/Hr)) =  0.042
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.210
------------------------------------------------------------------------

               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        253.789         51.385              3.407
    2   0.167        507.577         39.821              2.640
    3   0.250        761.366          6.897              0.457
    4   0.333       1015.155          1.897              0.126
                               Sum = 100.000   Sum=       6.629
------------------------------------------------------------------------
```

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	0.199	(0.084)	0.042	0.157
2	0.17	1.30	0.199	(0.084)	0.042	0.157
3	0.25	1.10	0.168	(0.084)	0.035	0.133
4	0.33	1.50	0.229	(0.084)	0.048	0.181
5	0.42	1.50	0.229	(0.084)	0.048	0.181
6	0.50	1.80	0.275	(0.084)	0.058	0.217
7	0.58	1.50	0.229	(0.084)	0.048	0.181
8	0.67	1.80	0.275	(0.084)	0.058	0.217
9	0.75	1.80	0.275	(0.084)	0.058	0.217
10	0.83	1.50	0.229	(0.084)	0.048	0.181
11	0.92	1.60	0.244	(0.084)	0.051	0.193
12	1.00	1.80	0.275	(0.084)	0.058	0.217
13	1.08	2.20	0.336	(0.084)	0.071	0.266
14	1.17	2.20	0.336	(0.084)	0.071	0.266
15	1.25	2.20	0.336	(0.084)	0.071	0.266
16	1.33	2.00	0.306	(0.084)	0.064	0.241
17	1.42	2.60	0.397	(0.084)	0.083	0.314
18	1.50	2.70	0.412	0.084	(0.087)	0.329
19	1.58	2.40	0.367	(0.084)	0.077	0.290
20	1.67	2.70	0.412	0.084	(0.087)	0.329
21	1.75	3.30	0.504	0.084	(0.106)	0.421
22	1.83	3.10	0.474	0.084	(0.099)	0.390
23	1.92	2.90	0.443	0.084	(0.093)	0.359
24	2.00	3.00	0.458	0.084	(0.096)	0.375
25	2.08	3.10	0.474	0.084	(0.099)	0.390
26	2.17	4.20	0.642	0.084	(0.135)	0.558
27	2.25	5.00	0.764	0.084	(0.160)	0.680
28	2.33	3.50	0.535	0.084	(0.112)	0.451
29	2.42	6.80	1.039	0.084	(0.218)	0.955
30	2.50	7.30	1.115	0.084	(0.234)	1.032
31	2.58	8.20	1.253	0.084	(0.263)	1.169
32	2.67	5.90	0.901	0.084	(0.189)	0.818
33	2.75	2.00	0.306	(0.084)	0.064	0.241
34	2.83	1.80	0.275	(0.084)	0.058	0.217
35	2.92	1.80	0.275	(0.084)	0.058	0.217
36	3.00	0.60	0.092	(0.084)	0.019	0.072
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	12.9

Flood volume = Effective rainfall 1.07(In)
times area 6.6(Ac.)/[(In)/(Ft.)] = 0.6(Ac.Ft)
Total soil loss = 0.20(In)
Total soil loss = 0.110(Ac.Ft)
Total rainfall = 1.27(In)
Flood volume = 25625.5 Cubic Feet
Total soil loss = 4773.4 Cubic Feet

Peak flow rate of this hydrograph = 7.203(CFS)

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3 - H O U R S T O R M

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

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0 2.5 5.0 7.5 10.0
0+ 5	0.0037	0.53	V Q
0+10	0.0102	0.95	V Q
0+15	0.0167	0.94	V Q
0+20	0.0240	1.06	V Q
0+25	0.0321	1.18	V Q
0+30	0.0412	1.32	V Q
0+35	0.0501	1.30	V Q
0+40	0.0593	1.34	VQ
0+45	0.0691	1.42	VQ
0+50	0.0782	1.31	Q
0+55	0.0869	1.26	Q
1+ 0	0.0962	1.36	QV
1+ 5	0.1072	1.59	QV
1+10	0.1191	1.73	Q V
1+15	0.1312	1.76	QV
1+20	0.1427	1.68	Q V
1+25	0.1556	1.86	Q V
1+30	0.1700	2.09	Q V
1+35	0.1840	2.03	Q V
1+40	0.1983	2.08	Q V
1+45	0.2153	2.48	Q V
1+50	0.2334	2.63	Q V
1+55	0.2506	2.49	Q V
2+ 0	0.2675	2.46	Q V
2+ 5	0.2849	2.53	Q V
2+10	0.3066	3.15	Q V
2+15	0.3343	4.02	Q V
2+20	0.3593	3.64	Q V
2+25	0.3926	4.83	Q V
2+30	0.4362	6.33	Q V
2+35	0.4858	7.20	Q V
2+40	0.5303	6.47	Q V
2+45	0.5555	3.65	Q V
2+50	0.5685	1.90	Q V
2+55	0.5791	1.53	Q V
3+ 0	0.5856	0.95	Q V
3+ 5	0.5878	0.32	Q V
3+10	0.5882	0.06	Q V

```
    3+15       0.5883      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

Study date 08/02/22 File: A21626DMA1Q100UH610.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 10YR-6HR UH

Drainage Area = 6.58(Ac.) = 0.010 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 6.58(Ac.) = 0.010 Sq. Mi.
Length along longest watercourse = 808.65(Ft.)
Length along longest watercourse measured to centroid = 622.75(Ft.)
Length along longest watercourse = 0.153 Mi.
Length along longest watercourse measured to centroid = 0.118 Mi.
Difference in elevation = 7.00(Ft.)
Slope along watercourse = 45.7058 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.033 Hr.
Lag time = 1.97 Min.
25% of lag time = 0.49 Min.
40% of lag time = 0.79 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]
        6.58            1.11                  7.30

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        6.58            2.70                 17.76

STORM EVENT (YEAR) =   10.00
Area Averaged 2-Year Rainfall =    1.110(In)
Area Averaged 100-Year Rainfall =    2.700(In)

Point rain (area averaged) =    1.764(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.764(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     6.578           69.00         0.862
 Total Area Entered =      6.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-2     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  69.0      0.373     0.862        0.084       1.000      0.084
                                                 Sum (F) =   0.084
Area averaged mean soil loss (F) (In/Hr) =  0.084
Minimum soil loss rate ((In/Hr)) =  0.042
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.210
------------------------------------------------------------------------

               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        253.789         51.385              3.407
    2   0.167        507.577         39.821              2.640
    3   0.250        761.366          6.897              0.457
    4   0.333       1015.155          1.897              0.126
                               Sum = 100.000   Sum=       6.629
------------------------------------------------------------------------
```

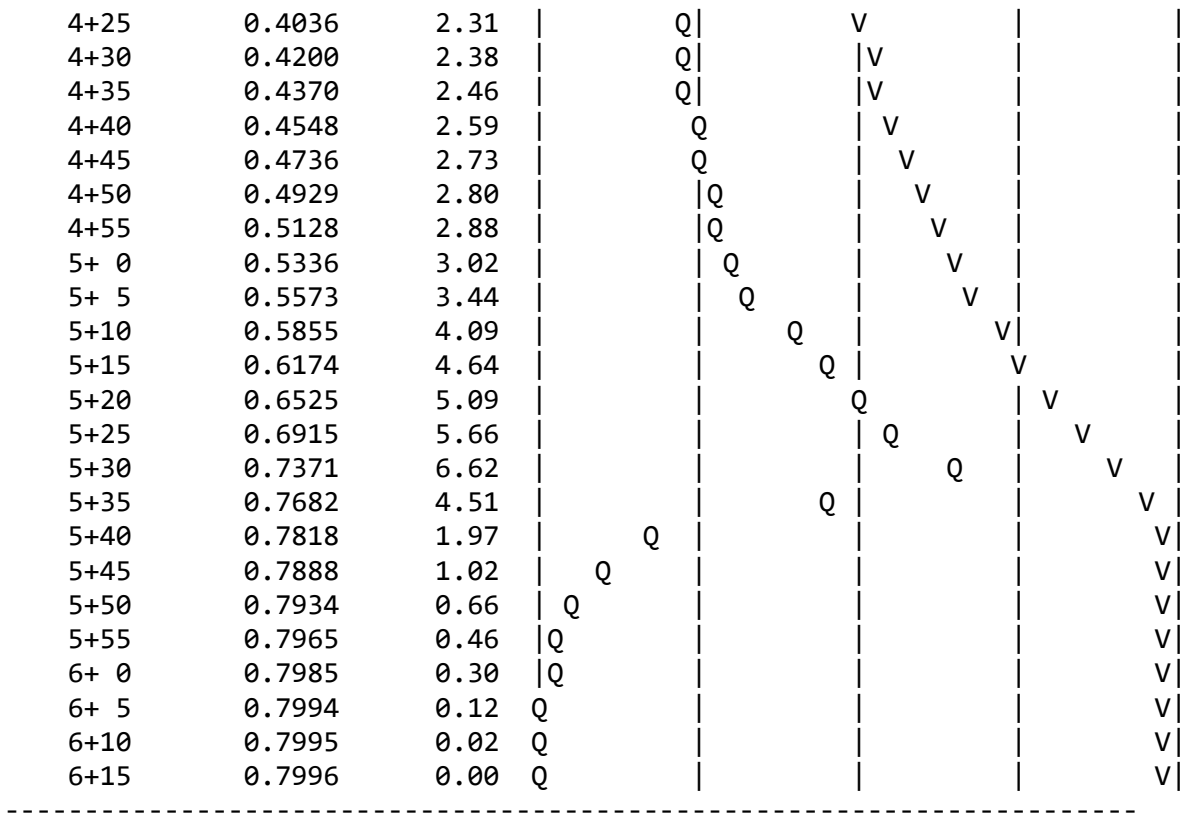
The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.50	0.106	(0.084)	0.022	0.084
2	0.17	0.60	0.127	(0.084)	0.027	0.100
3	0.25	0.60	0.127	(0.084)	0.027	0.100
4	0.33	0.60	0.127	(0.084)	0.027	0.100
5	0.42	0.60	0.127	(0.084)	0.027	0.100
6	0.50	0.70	0.148	(0.084)	0.031	0.117
7	0.58	0.70	0.148	(0.084)	0.031	0.117
8	0.67	0.70	0.148	(0.084)	0.031	0.117
9	0.75	0.70	0.148	(0.084)	0.031	0.117
10	0.83	0.70	0.148	(0.084)	0.031	0.117
11	0.92	0.70	0.148	(0.084)	0.031	0.117
12	1.00	0.80	0.169	(0.084)	0.036	0.134
13	1.08	0.80	0.169	(0.084)	0.036	0.134
14	1.17	0.80	0.169	(0.084)	0.036	0.134
15	1.25	0.80	0.169	(0.084)	0.036	0.134
16	1.33	0.80	0.169	(0.084)	0.036	0.134
17	1.42	0.80	0.169	(0.084)	0.036	0.134
18	1.50	0.80	0.169	(0.084)	0.036	0.134
19	1.58	0.80	0.169	(0.084)	0.036	0.134
20	1.67	0.80	0.169	(0.084)	0.036	0.134
21	1.75	0.80	0.169	(0.084)	0.036	0.134
22	1.83	0.80	0.169	(0.084)	0.036	0.134
23	1.92	0.80	0.169	(0.084)	0.036	0.134
24	2.00	0.90	0.191	(0.084)	0.040	0.151
25	2.08	0.80	0.169	(0.084)	0.036	0.134
26	2.17	0.90	0.191	(0.084)	0.040	0.151
27	2.25	0.90	0.191	(0.084)	0.040	0.151
28	2.33	0.90	0.191	(0.084)	0.040	0.151
29	2.42	0.90	0.191	(0.084)	0.040	0.151
30	2.50	0.90	0.191	(0.084)	0.040	0.151
31	2.58	0.90	0.191	(0.084)	0.040	0.151
32	2.67	0.90	0.191	(0.084)	0.040	0.151
33	2.75	1.00	0.212	(0.084)	0.044	0.167
34	2.83	1.00	0.212	(0.084)	0.044	0.167
35	2.92	1.00	0.212	(0.084)	0.044	0.167
36	3.00	1.00	0.212	(0.084)	0.044	0.167
37	3.08	1.00	0.212	(0.084)	0.044	0.167
38	3.17	1.10	0.233	(0.084)	0.049	0.184
39	3.25	1.10	0.233	(0.084)	0.049	0.184
40	3.33	1.10	0.233	(0.084)	0.049	0.184
41	3.42	1.20	0.254	(0.084)	0.053	0.201
42	3.50	1.30	0.275	(0.084)	0.058	0.217
43	3.58	1.40	0.296	(0.084)	0.062	0.234
44	3.67	1.40	0.296	(0.084)	0.062	0.234
45	3.75	1.50	0.318	(0.084)	0.067	0.251

```
46   3.83     1.50      0.318       (  0.084)       0.067        0.251
47   3.92     1.60      0.339       (  0.084)       0.071        0.268
48   4.00     1.60      0.339       (  0.084)       0.071        0.268
49   4.08     1.70      0.360       (  0.084)       0.076        0.284
50   4.17     1.80      0.381       (  0.084)       0.080        0.301
51   4.25     1.90      0.402          0.084    (  0.084)        0.319
52   4.33     2.00      0.423          0.084    (  0.089)        0.340
53   4.42     2.10      0.445          0.084    (  0.093)        0.361
54   4.50     2.10      0.445          0.084    (  0.093)        0.361
55   4.58     2.20      0.466          0.084    (  0.098)        0.382
56   4.67     2.30      0.487          0.084    (  0.102)        0.403
57   4.75     2.40      0.508          0.084    (  0.107)        0.424
58   4.83     2.40      0.508          0.084    (  0.107)        0.424
59   4.92     2.50      0.529          0.084    (  0.111)        0.446
60   5.00     2.60      0.550          0.084    (  0.116)        0.467
61   5.08     3.10      0.656          0.084    (  0.138)        0.573
62   5.17     3.60      0.762          0.084    (  0.160)        0.679
63   5.25     3.90      0.826          0.084    (  0.173)        0.742
64   5.33     4.20      0.889          0.084    (  0.187)        0.806
65   5.42     4.70      0.995          0.084    (  0.209)        0.911
66   5.50     5.60      1.185          0.084    (  0.249)        1.102
67   5.58     1.90      0.402          0.084    (  0.084)        0.319
68   5.67     0.90      0.191       (  0.084)       0.040        0.151
69   5.75     0.60      0.127       (  0.084)       0.027        0.100
70   5.83     0.50      0.106       (  0.084)       0.022        0.084
71   5.92     0.30      0.064       (  0.084)       0.013        0.050
72   6.00     0.20      0.042       (  0.084)       0.009        0.033
               (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    17.5
      Flood volume = Effective rainfall      1.46(In)
       times area       6.6(Ac.)/[(In)/(Ft.)] =       0.8(Ac.Ft)
      Total soil loss =      0.31(In)
      Total soil loss =     0.167(Ac.Ft)
      Total rainfall =      1.76(In)
      Flood volume =       34828.9 Cubic Feet
      Total soil loss =        7294.5 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =      6.625(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        2.5       5.0       7.5      10.0
-------------------------------------------------------------------------
  0+ 5       0.0020      0.28  VQ        |         |         |         |
  0+10       0.0058      0.56  V Q       |         |         |         |
```

```
0+15       0.0103      0.65  V Q       |         |         |         |
0+20       0.0149      0.66  V Q       |         |         |         |
0+25       0.0194      0.67  V Q       |         |         |         |
0+30       0.0244      0.72  |VQ       |         |         |         |
0+35       0.0297      0.77  |V Q      |         |         |         |
0+40       0.0350      0.77  |V Q      |         |         |         |
0+45       0.0404      0.78  | VQ      |         |         |         |
0+50       0.0457      0.78  | VQ      |         |         |         |
0+55       0.0511      0.78  | VQ      |         |         |         |
1+ 0       0.0568      0.83  | VQ      |         |         |         |
1+ 5       0.0629      0.88  |  Q      |         |         |         |
1+10       0.0690      0.89  |  Q      |         |         |         |
1+15       0.0751      0.89  |  Q      |         |         |         |
1+20       0.0812      0.89  |  QV     |         |         |         |
1+25       0.0873      0.89  |  QV     |         |         |         |
1+30       0.0934      0.89  |  QV     |         |         |         |
1+35       0.0995      0.89  |  QV     |         |         |         |
1+40       0.1056      0.89  |  Q V    |         |         |         |
1+45       0.1117      0.89  |  Q V    |         |         |         |
1+50       0.1178      0.89  |  Q V    |         |         |         |
1+55       0.1240      0.89  |  Q  V   |         |         |         |
2+ 0       0.1305      0.94  |  Q  V   |         |         |         |
2+ 5       0.1369      0.93  |  Q  V   |         |         |         |
2+10       0.1434      0.95  |  Q   V  |         |         |         |
2+15       0.1503      0.99  |  Q   V  |         |         |         |
2+20       0.1571      1.00  |  Q   V  |         |         |         |
2+25       0.1640      1.00  |  Q    V |         |         |         |
2+30       0.1709      1.00  |  Q    V |         |         |         |
2+35       0.1777      1.00  |  Q    V |         |         |         |
2+40       0.1846      1.00  |  Q     V|         |         |         |
2+45       0.1919      1.06  |   Q    V|         |         |         |
2+50       0.1995      1.10  |   Q    V|         |         |         |
2+55       0.2071      1.11  |   Q     V         |         |         |
3+ 0       0.2147      1.11  |   Q     V         |         |         |
3+ 5       0.2224      1.11  |   Q     |V        |         |         |
3+10       0.2304      1.17  |   Q     |V        |         |         |
3+15       0.2387      1.21  |   Q     |V        |         |         |
3+20       0.2471      1.22  |   Q     | V       |         |         |
3+25       0.2559      1.28  |    Q    | V       |         |         |
3+30       0.2654      1.38  |    Q    |  V      |         |         |
3+35       0.2756      1.49  |    Q    |  V      |         |         |
3+40       0.2863      1.54  |     Q   |   V     |         |         |
3+45       0.2973      1.61  |     Q   |   V     |         |         |
3+50       0.3087      1.65  |     Q   |    V    |         |         |
3+55       0.3206      1.72  |     Q   |     V   |         |         |
4+ 0       0.3327      1.77  |      Q  |     V   |         |         |
4+ 5       0.3453      1.83  |      Q  |      V  |         |         |
4+10       0.3586      1.93  |      Q  |      V  |         |         |
4+15       0.3727      2.04  |       Q |       V |         |         |
4+20       0.3877      2.17  |       Q |        V|         |         |
```


4+25 0.4036 2.31
4+30 0.4200 2.38
4+35 0.4370 2.46
4+40 0.4548 2.59
4+45 0.4736 2.73
4+50 0.4929 2.80
4+55 0.5128 2.88
5+ 0 0.5336 3.02
5+ 5 0.5573 3.44
5+10 0.5855 4.09
5+15 0.6174 4.64
5+20 0.6525 5.09
5+25 0.6915 5.66
5+30 0.7371 6.62
5+35 0.7682 4.51
5+40 0.7818 1.97
5+45 0.7888 1.02
5+50 0.7934 0.66
5+55 0.7965 0.46
6+ 0 0.7985 0.30
6+ 5 0.7994 0.12
6+10 0.7995 0.02
6+15 0.7996 0.00

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

Study date 08/02/22 File: A21626DMA1Q100UH2410.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 10YR-24HR UH

Drainage Area = 6.58(Ac.) = 0.010 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 6.58(Ac.) = 0.010 Sq. Mi.
Length along longest watercourse = 808.65(Ft.)
Length along longest watercourse measured to centroid = 622.75(Ft.)
Length along longest watercourse = 0.153 Mi.
Length along longest watercourse measured to centroid = 0.118 Mi.
Difference in elevation = 7.00(Ft.)
Slope along watercourse = 45.7058 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.033 Hr.
Lag time = 1.97 Min.
25% of lag time = 0.49 Min.
40% of lag time = 0.79 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]
        6.58            1.90                  12.50

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        6.58            4.80                  31.57

STORM EVENT (YEAR) =   10.00
Area Averaged 2-Year Rainfall =    1.900(In)
Area Averaged 100-Year Rainfall =    4.800(In)

Point rain (area averaged) =    3.093(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    3.093(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     6.578           69.00         0.862
 Total Area Entered =      6.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-2     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  69.0      0.373     0.862        0.084       1.000      0.084
                                                 Sum (F) =   0.084
Area averaged mean soil loss (F) (In/Hr) =  0.084
Minimum soil loss rate ((In/Hr)) =  0.042
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.210
------------------------------------------------------------------------

               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        253.789         51.385              3.407
    2   0.167        507.577         39.821              2.640
    3   0.250        761.366          6.897              0.457
    4   0.333       1015.155          1.897              0.126
                               Sum = 100.000   Sum=       6.629
------------------------------------------------------------------------
```

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	0.025	(0.148)	0.005	0.020
2	0.17	0.07	0.025	(0.148)	0.005	0.020
3	0.25	0.07	0.025	(0.147)	0.005	0.020
4	0.33	0.10	0.037	(0.146)	0.008	0.029
5	0.42	0.10	0.037	(0.146)	0.008	0.029
6	0.50	0.10	0.037	(0.145)	0.008	0.029
7	0.58	0.10	0.037	(0.145)	0.008	0.029
8	0.67	0.10	0.037	(0.144)	0.008	0.029
9	0.75	0.10	0.037	(0.144)	0.008	0.029
10	0.83	0.13	0.049	(0.143)	0.010	0.039
11	0.92	0.13	0.049	(0.142)	0.010	0.039
12	1.00	0.13	0.049	(0.142)	0.010	0.039
13	1.08	0.10	0.037	(0.141)	0.008	0.029
14	1.17	0.10	0.037	(0.141)	0.008	0.029
15	1.25	0.10	0.037	(0.140)	0.008	0.029
16	1.33	0.10	0.037	(0.140)	0.008	0.029
17	1.42	0.10	0.037	(0.139)	0.008	0.029
18	1.50	0.10	0.037	(0.139)	0.008	0.029
19	1.58	0.10	0.037	(0.138)	0.008	0.029
20	1.67	0.10	0.037	(0.137)	0.008	0.029
21	1.75	0.10	0.037	(0.137)	0.008	0.029
22	1.83	0.13	0.049	(0.136)	0.010	0.039
23	1.92	0.13	0.049	(0.136)	0.010	0.039
24	2.00	0.13	0.049	(0.135)	0.010	0.039
25	2.08	0.13	0.049	(0.135)	0.010	0.039
26	2.17	0.13	0.049	(0.134)	0.010	0.039
27	2.25	0.13	0.049	(0.134)	0.010	0.039
28	2.33	0.13	0.049	(0.133)	0.010	0.039
29	2.42	0.13	0.049	(0.133)	0.010	0.039
30	2.50	0.13	0.049	(0.132)	0.010	0.039
31	2.58	0.17	0.062	(0.131)	0.013	0.049
32	2.67	0.17	0.062	(0.131)	0.013	0.049
33	2.75	0.17	0.062	(0.130)	0.013	0.049
34	2.83	0.17	0.062	(0.130)	0.013	0.049
35	2.92	0.17	0.062	(0.129)	0.013	0.049
36	3.00	0.17	0.062	(0.129)	0.013	0.049
37	3.08	0.17	0.062	(0.128)	0.013	0.049
38	3.17	0.17	0.062	(0.128)	0.013	0.049
39	3.25	0.17	0.062	(0.127)	0.013	0.049
40	3.33	0.17	0.062	(0.127)	0.013	0.049
41	3.42	0.17	0.062	(0.126)	0.013	0.049
42	3.50	0.17	0.062	(0.126)	0.013	0.049
43	3.58	0.17	0.062	(0.125)	0.013	0.049
44	3.67	0.17	0.062	(0.125)	0.013	0.049
45	3.75	0.17	0.062	(0.124)	0.013	0.049

46	3.83	0.20	0.074	(0.123)	0.016	0.059
47	3.92	0.20	0.074	(0.123)	0.016	0.059
48	4.00	0.20	0.074	(0.122)	0.016	0.059
49	4.08	0.20	0.074	(0.122)	0.016	0.059
50	4.17	0.20	0.074	(0.121)	0.016	0.059
51	4.25	0.20	0.074	(0.121)	0.016	0.059
52	4.33	0.23	0.087	(0.120)	0.018	0.068
53	4.42	0.23	0.087	(0.120)	0.018	0.068
54	4.50	0.23	0.087	(0.119)	0.018	0.068
55	4.58	0.23	0.087	(0.119)	0.018	0.068
56	4.67	0.23	0.087	(0.118)	0.018	0.068
57	4.75	0.23	0.087	(0.118)	0.018	0.068
58	4.83	0.27	0.099	(0.117)	0.021	0.078
59	4.92	0.27	0.099	(0.117)	0.021	0.078
60	5.00	0.27	0.099	(0.116)	0.021	0.078
61	5.08	0.20	0.074	(0.116)	0.016	0.059
62	5.17	0.20	0.074	(0.115)	0.016	0.059
63	5.25	0.20	0.074	(0.115)	0.016	0.059
64	5.33	0.23	0.087	(0.114)	0.018	0.068
65	5.42	0.23	0.087	(0.114)	0.018	0.068
66	5.50	0.23	0.087	(0.113)	0.018	0.068
67	5.58	0.27	0.099	(0.113)	0.021	0.078
68	5.67	0.27	0.099	(0.112)	0.021	0.078
69	5.75	0.27	0.099	(0.112)	0.021	0.078
70	5.83	0.27	0.099	(0.111)	0.021	0.078
71	5.92	0.27	0.099	(0.111)	0.021	0.078
72	6.00	0.27	0.099	(0.110)	0.021	0.078
73	6.08	0.30	0.111	(0.110)	0.023	0.088
74	6.17	0.30	0.111	(0.109)	0.023	0.088
75	6.25	0.30	0.111	(0.109)	0.023	0.088
76	6.33	0.30	0.111	(0.108)	0.023	0.088
77	6.42	0.30	0.111	(0.108)	0.023	0.088
78	6.50	0.30	0.111	(0.107)	0.023	0.088
79	6.58	0.33	0.124	(0.107)	0.026	0.098
80	6.67	0.33	0.124	(0.106)	0.026	0.098
81	6.75	0.33	0.124	(0.106)	0.026	0.098
82	6.83	0.33	0.124	(0.105)	0.026	0.098
83	6.92	0.33	0.124	(0.105)	0.026	0.098
84	7.00	0.33	0.124	(0.105)	0.026	0.098
85	7.08	0.33	0.124	(0.104)	0.026	0.098
86	7.17	0.33	0.124	(0.104)	0.026	0.098
87	7.25	0.33	0.124	(0.103)	0.026	0.098
88	7.33	0.37	0.136	(0.103)	0.029	0.108
89	7.42	0.37	0.136	(0.102)	0.029	0.108
90	7.50	0.37	0.136	(0.102)	0.029	0.108
91	7.58	0.40	0.148	(0.101)	0.031	0.117
92	7.67	0.40	0.148	(0.101)	0.031	0.117
93	7.75	0.40	0.148	(0.100)	0.031	0.117
94	7.83	0.43	0.161	(0.100)	0.034	0.127
95	7.92	0.43	0.161	(0.099)	0.034	0.127

96	8.00	0.43	0.161	(0.099)	0.034	0.127
97	8.08	0.50	0.186	(0.098)	0.039	0.147
98	8.17	0.50	0.186	(0.098)	0.039	0.147
99	8.25	0.50	0.186	(0.098)	0.039	0.147
100	8.33	0.50	0.186	(0.097)	0.039	0.147
101	8.42	0.50	0.186	(0.097)	0.039	0.147
102	8.50	0.50	0.186	(0.096)	0.039	0.147
103	8.58	0.53	0.198	(0.096)	0.042	0.156
104	8.67	0.53	0.198	(0.095)	0.042	0.156
105	8.75	0.53	0.198	(0.095)	0.042	0.156
106	8.83	0.57	0.210	(0.094)	0.044	0.166
107	8.92	0.57	0.210	(0.094)	0.044	0.166
108	9.00	0.57	0.210	(0.093)	0.044	0.166
109	9.08	0.63	0.235	(0.093)	0.049	0.186
110	9.17	0.63	0.235	(0.093)	0.049	0.186
111	9.25	0.63	0.235	(0.092)	0.049	0.186
112	9.33	0.67	0.247	(0.092)	0.052	0.195
113	9.42	0.67	0.247	(0.091)	0.052	0.195
114	9.50	0.67	0.247	(0.091)	0.052	0.195
115	9.58	0.70	0.260	(0.090)	0.055	0.205
116	9.67	0.70	0.260	(0.090)	0.055	0.205
117	9.75	0.70	0.260	(0.090)	0.055	0.205
118	9.83	0.73	0.272	(0.089)	0.057	0.215
119	9.92	0.73	0.272	(0.089)	0.057	0.215
120	10.00	0.73	0.272	(0.088)	0.057	0.215
121	10.08	0.50	0.186	(0.088)	0.039	0.147
122	10.17	0.50	0.186	(0.087)	0.039	0.147
123	10.25	0.50	0.186	(0.087)	0.039	0.147
124	10.33	0.50	0.186	(0.087)	0.039	0.147
125	10.42	0.50	0.186	(0.086)	0.039	0.147
126	10.50	0.50	0.186	(0.086)	0.039	0.147
127	10.58	0.67	0.247	(0.085)	0.052	0.195
128	10.67	0.67	0.247	(0.085)	0.052	0.195
129	10.75	0.67	0.247	(0.084)	0.052	0.195
130	10.83	0.67	0.247	(0.084)	0.052	0.195
131	10.92	0.67	0.247	(0.084)	0.052	0.195
132	11.00	0.67	0.247	(0.083)	0.052	0.195
133	11.08	0.63	0.235	(0.083)	0.049	0.186
134	11.17	0.63	0.235	(0.082)	0.049	0.186
135	11.25	0.63	0.235	(0.082)	0.049	0.186
136	11.33	0.63	0.235	(0.082)	0.049	0.186
137	11.42	0.63	0.235	(0.081)	0.049	0.186
138	11.50	0.63	0.235	(0.081)	0.049	0.186
139	11.58	0.57	0.210	(0.080)	0.044	0.166
140	11.67	0.57	0.210	(0.080)	0.044	0.166
141	11.75	0.57	0.210	(0.080)	0.044	0.166
142	11.83	0.60	0.223	(0.079)	0.047	0.176
143	11.92	0.60	0.223	(0.079)	0.047	0.176
144	12.00	0.60	0.223	(0.078)	0.047	0.176
145	12.08	0.83	0.309	(0.078)	0.065	0.244

146	12.17	0.83	0.309	(0.078)	0.065	0.244
147	12.25	0.83	0.309	(0.077)	0.065	0.244
148	12.33	0.87	0.322	(0.077)	0.068	0.254
149	12.42	0.87	0.322	(0.076)	0.068	0.254
150	12.50	0.87	0.322	(0.076)	0.068	0.254
151	12.58	0.93	0.346	(0.076)	0.073	0.274
152	12.67	0.93	0.346	(0.075)	0.073	0.274
153	12.75	0.93	0.346	(0.075)	0.073	0.274
154	12.83	0.97	0.359	0.075	(0.075)	0.284
155	12.92	0.97	0.359	0.074	(0.075)	0.285
156	13.00	0.97	0.359	0.074	(0.075)	0.285
157	13.08	1.13	0.421	0.073	(0.088)	0.347
158	13.17	1.13	0.421	0.073	(0.088)	0.348
159	13.25	1.13	0.421	0.073	(0.088)	0.348
160	13.33	1.13	0.421	0.072	(0.088)	0.348
161	13.42	1.13	0.421	0.072	(0.088)	0.349
162	13.50	1.13	0.421	0.072	(0.088)	0.349
163	13.58	0.77	0.285	(0.071)	0.060	0.225
164	13.67	0.77	0.285	(0.071)	0.060	0.225
165	13.75	0.77	0.285	(0.071)	0.060	0.225
166	13.83	0.77	0.285	(0.070)	0.060	0.225
167	13.92	0.77	0.285	(0.070)	0.060	0.225
168	14.00	0.77	0.285	(0.069)	0.060	0.225
169	14.08	0.90	0.334	0.069	(0.070)	0.265
170	14.17	0.90	0.334	0.069	(0.070)	0.265
171	14.25	0.90	0.334	0.068	(0.070)	0.266
172	14.33	0.87	0.322	(0.068)	0.068	0.254
173	14.42	0.87	0.322	(0.068)	0.068	0.254
174	14.50	0.87	0.322	0.067	(0.068)	0.254
175	14.58	0.87	0.322	0.067	(0.068)	0.255
176	14.67	0.87	0.322	0.067	(0.068)	0.255
177	14.75	0.87	0.322	0.066	(0.068)	0.255
178	14.83	0.83	0.309	(0.066)	0.065	0.244
179	14.92	0.83	0.309	(0.066)	0.065	0.244
180	15.00	0.83	0.309	(0.065)	0.065	0.244
181	15.08	0.80	0.297	(0.065)	0.062	0.235
182	15.17	0.80	0.297	(0.065)	0.062	0.235
183	15.25	0.80	0.297	(0.064)	0.062	0.235
184	15.33	0.77	0.285	(0.064)	0.060	0.225
185	15.42	0.77	0.285	(0.064)	0.060	0.225
186	15.50	0.77	0.285	(0.063)	0.060	0.225
187	15.58	0.63	0.235	(0.063)	0.049	0.186
188	15.67	0.63	0.235	(0.063)	0.049	0.186
189	15.75	0.63	0.235	(0.062)	0.049	0.186
190	15.83	0.63	0.235	(0.062)	0.049	0.186
191	15.92	0.63	0.235	(0.062)	0.049	0.186
192	16.00	0.63	0.235	(0.061)	0.049	0.186
193	16.08	0.13	0.049	(0.061)	0.010	0.039
194	16.17	0.13	0.049	(0.061)	0.010	0.039
195	16.25	0.13	0.049	(0.060)	0.010	0.039

196	16.33	0.13	0.049	(0.060)	0.010	0.039
197	16.42	0.13	0.049	(0.060)	0.010	0.039
198	16.50	0.13	0.049	(0.060)	0.010	0.039
199	16.58	0.10	0.037	(0.059)	0.008	0.029
200	16.67	0.10	0.037	(0.059)	0.008	0.029
201	16.75	0.10	0.037	(0.059)	0.008	0.029
202	16.83	0.10	0.037	(0.058)	0.008	0.029
203	16.92	0.10	0.037	(0.058)	0.008	0.029
204	17.00	0.10	0.037	(0.058)	0.008	0.029
205	17.08	0.17	0.062	(0.057)	0.013	0.049
206	17.17	0.17	0.062	(0.057)	0.013	0.049
207	17.25	0.17	0.062	(0.057)	0.013	0.049
208	17.33	0.17	0.062	(0.057)	0.013	0.049
209	17.42	0.17	0.062	(0.056)	0.013	0.049
210	17.50	0.17	0.062	(0.056)	0.013	0.049
211	17.58	0.17	0.062	(0.056)	0.013	0.049
212	17.67	0.17	0.062	(0.055)	0.013	0.049
213	17.75	0.17	0.062	(0.055)	0.013	0.049
214	17.83	0.13	0.049	(0.055)	0.010	0.039
215	17.92	0.13	0.049	(0.055)	0.010	0.039
216	18.00	0.13	0.049	(0.054)	0.010	0.039
217	18.08	0.13	0.049	(0.054)	0.010	0.039
218	18.17	0.13	0.049	(0.054)	0.010	0.039
219	18.25	0.13	0.049	(0.054)	0.010	0.039
220	18.33	0.13	0.049	(0.053)	0.010	0.039
221	18.42	0.13	0.049	(0.053)	0.010	0.039
222	18.50	0.13	0.049	(0.053)	0.010	0.039
223	18.58	0.10	0.037	(0.053)	0.008	0.029
224	18.67	0.10	0.037	(0.052)	0.008	0.029
225	18.75	0.10	0.037	(0.052)	0.008	0.029
226	18.83	0.07	0.025	(0.052)	0.005	0.020
227	18.92	0.07	0.025	(0.052)	0.005	0.020
228	19.00	0.07	0.025	(0.051)	0.005	0.020
229	19.08	0.10	0.037	(0.051)	0.008	0.029
230	19.17	0.10	0.037	(0.051)	0.008	0.029
231	19.25	0.10	0.037	(0.051)	0.008	0.029
232	19.33	0.13	0.049	(0.050)	0.010	0.039
233	19.42	0.13	0.049	(0.050)	0.010	0.039
234	19.50	0.13	0.049	(0.050)	0.010	0.039
235	19.58	0.10	0.037	(0.050)	0.008	0.029
236	19.67	0.10	0.037	(0.049)	0.008	0.029
237	19.75	0.10	0.037	(0.049)	0.008	0.029
238	19.83	0.07	0.025	(0.049)	0.005	0.020
239	19.92	0.07	0.025	(0.049)	0.005	0.020
240	20.00	0.07	0.025	(0.049)	0.005	0.020
241	20.08	0.10	0.037	(0.048)	0.008	0.029
242	20.17	0.10	0.037	(0.048)	0.008	0.029
243	20.25	0.10	0.037	(0.048)	0.008	0.029
244	20.33	0.10	0.037	(0.048)	0.008	0.029
245	20.42	0.10	0.037	(0.047)	0.008	0.029

246	20.50	0.10	0.037	(0.047)	0.008	0.029
247	20.58	0.10	0.037	(0.047)	0.008	0.029
248	20.67	0.10	0.037	(0.047)	0.008	0.029
249	20.75	0.10	0.037	(0.047)	0.008	0.029
250	20.83	0.07	0.025	(0.047)	0.005	0.020
251	20.92	0.07	0.025	(0.046)	0.005	0.020
252	21.00	0.07	0.025	(0.046)	0.005	0.020
253	21.08	0.10	0.037	(0.046)	0.008	0.029
254	21.17	0.10	0.037	(0.046)	0.008	0.029
255	21.25	0.10	0.037	(0.046)	0.008	0.029
256	21.33	0.07	0.025	(0.045)	0.005	0.020
257	21.42	0.07	0.025	(0.045)	0.005	0.020
258	21.50	0.07	0.025	(0.045)	0.005	0.020
259	21.58	0.10	0.037	(0.045)	0.008	0.029
260	21.67	0.10	0.037	(0.045)	0.008	0.029
261	21.75	0.10	0.037	(0.045)	0.008	0.029
262	21.83	0.07	0.025	(0.044)	0.005	0.020
263	21.92	0.07	0.025	(0.044)	0.005	0.020
264	22.00	0.07	0.025	(0.044)	0.005	0.020
265	22.08	0.10	0.037	(0.044)	0.008	0.029
266	22.17	0.10	0.037	(0.044)	0.008	0.029
267	22.25	0.10	0.037	(0.044)	0.008	0.029
268	22.33	0.07	0.025	(0.044)	0.005	0.020
269	22.42	0.07	0.025	(0.043)	0.005	0.020
270	22.50	0.07	0.025	(0.043)	0.005	0.020
271	22.58	0.07	0.025	(0.043)	0.005	0.020
272	22.67	0.07	0.025	(0.043)	0.005	0.020
273	22.75	0.07	0.025	(0.043)	0.005	0.020
274	22.83	0.07	0.025	(0.043)	0.005	0.020
275	22.92	0.07	0.025	(0.043)	0.005	0.020
276	23.00	0.07	0.025	(0.043)	0.005	0.020
277	23.08	0.07	0.025	(0.043)	0.005	0.020
278	23.17	0.07	0.025	(0.042)	0.005	0.020
279	23.25	0.07	0.025	(0.042)	0.005	0.020
280	23.33	0.07	0.025	(0.042)	0.005	0.020
281	23.42	0.07	0.025	(0.042)	0.005	0.020
282	23.50	0.07	0.025	(0.042)	0.005	0.020
283	23.58	0.07	0.025	(0.042)	0.005	0.020
284	23.67	0.07	0.025	(0.042)	0.005	0.020
285	23.75	0.07	0.025	(0.042)	0.005	0.020
286	23.83	0.07	0.025	(0.042)	0.005	0.020
287	23.92	0.07	0.025	(0.042)	0.005	0.020
288	24.00	0.07	0.025	(0.042)	0.005	0.020

(Loss Rate Not Used)

Sum = 100.0 Sum = 29.4

Flood volume = Effective rainfall 2.45(In)
times area 6.6(Ac.)/[(In)/(Ft.)] = 1.3(Ac.Ft)
Total soil loss = 0.64(In)
Total soil loss = 0.351(Ac.Ft)
Total rainfall = 3.09(In)

Flood volume = 58556.7 Cubic Feet
Total soil loss = 15299.4 Cubic Feet

Peak flow rate of this hydrograph = 2.314(CFS)

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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	2.5	5.0	7.5	10.0
0+ 5	0.0005	0.07	Q				
0+10	0.0013	0.12	Q				
0+15	0.0021	0.13	Q				
0+20	0.0033	0.16	Q				
0+25	0.0046	0.19	Q				
0+30	0.0059	0.19	Q				
0+35	0.0072	0.19	Q				
0+40	0.0086	0.19	Q				
0+45	0.0099	0.19	Q				
0+50	0.0115	0.23	Q				
0+55	0.0132	0.25	VQ				
1+ 0	0.0150	0.26	VQ				
1+ 5	0.0166	0.23	Q				
1+10	0.0179	0.20	Q				
1+15	0.0193	0.20	Q				
1+20	0.0206	0.19	Q				
1+25	0.0220	0.19	Q				
1+30	0.0233	0.19	Q				
1+35	0.0247	0.19	Q				
1+40	0.0260	0.19	Q				
1+45	0.0273	0.19	Q				
1+50	0.0289	0.23	Q				
1+55	0.0306	0.25	VQ				
2+ 0	0.0324	0.26	VQ				
2+ 5	0.0342	0.26	|Q				
2+10	0.0360	0.26	|Q				
2+15	0.0378	0.26	|Q				
2+20	0.0396	0.26	|Q				
2+25	0.0414	0.26	|Q				
2+30	0.0431	0.26	|Q				
2+35	0.0452	0.29	|Q				
2+40	0.0474	0.32	|Q				
2+45	0.0496	0.32	|Q				
2+50	0.0518	0.32	|Q				
2+55	0.0540	0.32	|Q				
3+ 0	0.0563	0.32	|Q				

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3+ 5       0.0585      0.32  |Q         |          |          |          |
3+10       0.0607      0.32  |Q         |          |          |          |
3+15       0.0630      0.32  |Q         |          |          |          |
3+20       0.0652      0.32  |Q         |          |          |          |
3+25       0.0674      0.32  |QV        |          |          |          |
3+30       0.0697      0.32  |QV        |          |          |          |
3+35       0.0719      0.32  |QV        |          |          |          |
3+40       0.0741      0.32  |QV        |          |          |          |
3+45       0.0764      0.32  |QV        |          |          |          |
3+50       0.0788      0.36  |QV        |          |          |          |
3+55       0.0815      0.38  |QV        |          |          |          |
4+ 0       0.0841      0.39  |QV        |          |          |          |
4+ 5       0.0868      0.39  |QV        |          |          |          |
4+10       0.0895      0.39  |QV        |          |          |          |
4+15       0.0922      0.39  |QV        |          |          |          |
4+20       0.0951      0.42  |QV        |          |          |          |
4+25       0.0982      0.45  |QV        |          |          |          |
4+30       0.1013      0.45  |Q V       |          |          |          |
4+35       0.1044      0.45  |Q V       |          |          |          |
4+40       0.1075      0.45  |Q V       |          |          |          |
4+45       0.1107      0.45  |Q V       |          |          |          |
4+50       0.1140      0.49  |Q V       |          |          |          |
4+55       0.1175      0.51  | QV       |          |          |          |
5+ 0       0.1211      0.52  | QV       |          |          |          |
5+ 5       0.1242      0.45  |Q V       |          |          |          |
5+10       0.1270      0.40  |Q V       |          |          |          |
5+15       0.1297      0.39  |Q V       |          |          |          |
5+20       0.1326      0.42  |Q V       |          |          |          |
5+25       0.1357      0.45  |Q  V      |          |          |          |
5+30       0.1388      0.45  |Q  V      |          |          |          |
5+35       0.1421      0.49  |Q  V      |          |          |          |
5+40       0.1457      0.51  | Q V      |          |          |          |
5+45       0.1492      0.52  | Q V      |          |          |          |
5+50       0.1528      0.52  | Q V      |          |          |          |
5+55       0.1564      0.52  | Q V      |          |          |          |
6+ 0       0.1600      0.52  | Q V      |          |          |          |
6+ 5       0.1638      0.55  | Q V      |          |          |          |
6+10       0.1677      0.58  | Q V      |          |          |          |
6+15       0.1717      0.58  | Q  V     |          |          |          |
6+20       0.1758      0.58  | Q  V     |          |          |          |
6+25       0.1798      0.58  | Q  V     |          |          |          |
6+30       0.1838      0.58  | Q  V     |          |          |          |
6+35       0.1880      0.62  | Q  V     |          |          |          |
6+40       0.1925      0.64  | Q  V     |          |          |          |
6+45       0.1969      0.65  | Q  V     |          |          |          |
6+50       0.2014      0.65  | Q  V     |          |          |          |
6+55       0.2059      0.65  | Q   V    |          |          |          |
7+ 0       0.2103      0.65  | Q   V    |          |          |          |
7+ 5       0.2148      0.65  | Q   V    |          |          |          |
7+10       0.2193      0.65  | Q   V    |          |          |          |
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7+15	0.2237	0.65	Q V				
7+20	0.2284	0.68	Q V				
7+25	0.2333	0.71	Q V				
7+30	0.2382	0.71	Q V				
7+35	0.2433	0.75	Q V				
7+40	0.2486	0.77	Q V				
7+45	0.2540	0.78	Q V				
7+50	0.2596	0.81	Q V				
7+55	0.2653	0.84	Q V				
8+ 0	0.2711	0.84	Q V				
8+ 5	0.2774	0.91	Q V				
8+10	0.2840	0.96	Q V				
8+15	0.2907	0.97	Q V				
8+20	0.2974	0.97	Q V				
8+25	0.3041	0.97	Q V				
8+30	0.3108	0.97	Q V				
8+35	0.3177	1.01	Q V				
8+40	0.3248	1.03	Q V				
8+45	0.3320	1.04	Q V				
8+50	0.3393	1.07	Q V				
8+55	0.3469	1.10	Q V				
9+ 0	0.3545	1.10	Q V				
9+ 5	0.3625	1.17	Q V				
9+10	0.3709	1.22	Q V				
9+15	0.3794	1.23	Q V				
9+20	0.3881	1.27	Q V				
9+25	0.3970	1.29	Q V				
9+30	0.4059	1.30	Q V				
9+35	0.4151	1.33	Q V				
9+40	0.4244	1.36	Q V				
9+45	0.4338	1.36	Q V				
9+50	0.4434	1.39	Q V				
9+55	0.4532	1.42	Q V				
10+ 0	0.4630	1.43	Q V				
10+ 5	0.4712	1.19	Q V				
10+10	0.4782	1.01	Q V				
10+15	0.4849	0.98	Q V				
10+20	0.4916	0.97	Q V				
10+25	0.4983	0.97	Q V				
10+30	0.5050	0.97	Q V				
10+35	0.5129	1.14	Q V				
10+40	0.5216	1.27	Q V				
10+45	0.5305	1.29	Q V				
10+50	0.5394	1.30	Q V				
10+55	0.5483	1.30	Q V				
11+ 0	0.5573	1.30	Q V				
11+ 5	0.5660	1.26	Q V				
11+10	0.5745	1.24	Q V				
11+15	0.5830	1.23	Q V				
11+20	0.5915	1.23	Q V				

11+25	0.6000	1.23	Q	V			
11+30	0.6084	1.23	Q	V			
11+35	0.6165	1.17	Q	V			
11+40	0.6241	1.11	Q	V			
11+45	0.6317	1.10	Q	V			
11+50	0.6396	1.14	Q	V			
11+55	0.6476	1.16	Q	V			
12+ 0	0.6556	1.17	Q	V			
12+ 5	0.6652	1.40	Q	V			
12+10	0.6761	1.58	Q	V			
12+15	0.6872	1.61	Q	V			
12+20	0.6986	1.65	Q	V			
12+25	0.7102	1.68	Q	V			
12+30	0.7218	1.68	Q	V			
12+35	0.7338	1.75	Q	V			
12+40	0.7463	1.80	Q	V			
12+45	0.7588	1.81	Q	V			
12+50	0.7715	1.85	Q	V			
12+55	0.7844	1.88	Q	V			
13+ 0	0.7974	1.89	Q	V			
13+ 5	0.8119	2.10	Q	V			
13+10	0.8275	2.27	Q	V			
13+15	0.8434	2.30	Q	V			
13+20	0.8593	2.31	Q	V			
13+25	0.8752	2.31	Q	V			
13+30	0.8911	2.31	Q	V			
13+35	0.9042	1.89	Q	V			
13+40	0.9149	1.56	Q	V			
13+45	0.9253	1.51	Q	V			
13+50	0.9356	1.49	Q	V			
13+55	0.9458	1.49	Q	V			
14+ 0	0.9561	1.49	Q	V			
14+ 5	0.9673	1.63	Q	V			
14+10	0.9793	1.74	Q	V			
14+15	0.9914	1.76	Q	V			
14+20	1.0032	1.72	Q	V			
14+25	1.0149	1.69	Q	V			
14+30	1.0265	1.69	Q	V			
14+35	1.0381	1.69	Q	V			
14+40	1.0498	1.69	Q	V			
14+45	1.0614	1.69	Q	V			
14+50	1.0728	1.66	Q	V			
14+55	1.0840	1.63	Q	V			
15+ 0	1.0952	1.62	Q	V			
15+ 5	1.1061	1.59	Q	V			
15+10	1.1169	1.56	Q	V			
15+15	1.1276	1.56	Q	V			
15+20	1.1381	1.52	Q	V			
15+25	1.1484	1.50	Q	V			
15+30	1.1587	1.49	Q	V			

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15+35       1.1681      1.36  |    Q    |         |         |   V     |
15+40       1.1767      1.25  |    Q    |         |         |    V    |
15+45       1.1852      1.24  |   Q     |         |         |    V    |
15+50       1.1937      1.23  |   Q     |         |         |    V    |
15+55       1.2022      1.23  |   Q     |         |         |    V    |
16+ 0       1.2107      1.23  |   Q     |         |         |     V   |
16+ 5       1.2157      0.73  | Q       |         |         |     V   |
16+10       1.2181      0.34  |Q        |         |         |     V   |
16+15       1.2200      0.28  |Q        |         |         |     V   |
16+20       1.2218      0.26  |Q        |         |         |     V   |
16+25       1.2236      0.26  |Q        |         |         |     V   |
16+30       1.2253      0.26  |Q        |         |         |     V   |
16+35       1.2269      0.23  Q         |         |         |     V   |
16+40       1.2283      0.20  Q         |         |         |     V   |
16+45       1.2296      0.20  Q         |         |         |     V   |
16+50       1.2310      0.19  Q         |         |         |     V   |
16+55       1.2323      0.19  Q         |         |         |     V   |
17+ 0       1.2336      0.19  Q         |         |         |     V   |
17+ 5       1.2354      0.26  |Q        |         |         |     V   |
17+10       1.2376      0.31  |Q        |         |         |     V   |
17+15       1.2398      0.32  |Q        |         |         |     V   |
17+20       1.2420      0.32  |Q        |         |         |     V   |
17+25       1.2443      0.32  |Q        |         |         |      V  |
17+30       1.2465      0.32  |Q        |         |         |      V  |
17+35       1.2487      0.32  |Q        |         |         |      V  |
17+40       1.2510      0.32  |Q        |         |         |      V  |
17+45       1.2532      0.32  |Q        |         |         |      V  |
17+50       1.2552      0.29  |Q        |         |         |      V  |
17+55       1.2570      0.27  |Q        |         |         |      V  |
18+ 0       1.2588      0.26  |Q        |         |         |      V  |
18+ 5       1.2606      0.26  |Q        |         |         |      V  |
18+10       1.2624      0.26  |Q        |         |         |      V  |
18+15       1.2642      0.26  |Q        |         |         |      V  |
18+20       1.2660      0.26  |Q        |         |         |      V  |
18+25       1.2678      0.26  |Q        |         |         |      V  |
18+30       1.2695      0.26  |Q        |         |         |      V  |
18+35       1.2711      0.23  Q         |         |         |      V  |
18+40       1.2725      0.20  Q         |         |         |      V  |
18+45       1.2738      0.20  Q         |         |         |      V  |
18+50       1.2749      0.16  Q         |         |         |      V  |
18+55       1.2759      0.14  Q         |         |         |      V  |
19+ 0       1.2768      0.13  Q         |         |         |      V  |
19+ 5       1.2779      0.16  Q         |         |         |       V |
19+10       1.2792      0.19  Q         |         |         |       V |
19+15       1.2805      0.19  Q         |         |         |       V |
19+20       1.2821      0.23  Q         |         |         |       V |
19+25       1.2838      0.25  |Q        |         |         |       V |
19+30       1.2856      0.26  |Q        |         |         |       V |
19+35       1.2872      0.23  Q         |         |         |       V |
19+40       1.2886      0.20  Q         |         |         |       V |
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19+45	1.2899	0.20	Q	|	|	|	V |
19+50	1.2910	0.16	Q	|	|	|	V |
19+55	1.2919	0.14	Q	|	|	|	V |
20+ 0	1.2928	0.13	Q	|	|	|	V |
20+ 5	1.2940	0.16	Q	|	|	|	V |
20+10	1.2953	0.19	Q	|	|	|	V |
20+15	1.2966	0.19	Q	|	|	|	V |
20+20	1.2979	0.19	Q	|	|	|	V |
20+25	1.2993	0.19	Q	|	|	|	V |
20+30	1.3006	0.19	Q	|	|	|	V |
20+35	1.3020	0.19	Q	|	|	|	V |
20+40	1.3033	0.19	Q	|	|	|	V |
20+45	1.3046	0.19	Q	|	|	|	V |
20+50	1.3057	0.16	Q	|	|	|	V |
20+55	1.3067	0.14	Q	|	|	|	V |
21+ 0	1.3076	0.13	Q	|	|	|	V |
21+ 5	1.3087	0.16	Q	|	|	|	V |
21+10	1.3100	0.19	Q	|	|	|	V |
21+15	1.3113	0.19	Q	|	|	|	V|
21+20	1.3124	0.16	Q	|	|	|	V|
21+25	1.3134	0.14	Q	|	|	|	V|
21+30	1.3143	0.13	Q	|	|	|	V|
21+35	1.3154	0.16	Q	|	|	|	V|
21+40	1.3167	0.19	Q	|	|	|	V|
21+45	1.3180	0.19	Q	|	|	|	V|
21+50	1.3191	0.16	Q	|	|	|	V|
21+55	1.3201	0.14	Q	|	|	|	V|
22+ 0	1.3210	0.13	Q	|	|	|	V|
22+ 5	1.3221	0.16	Q	|	|	|	V|
22+10	1.3234	0.19	Q	|	|	|	V|
22+15	1.3247	0.19	Q	|	|	|	V|
22+20	1.3258	0.16	Q	|	|	|	V|
22+25	1.3268	0.14	Q	|	|	|	V|
22+30	1.3277	0.13	Q	|	|	|	V|
22+35	1.3286	0.13	Q	|	|	|	V|
22+40	1.3295	0.13	Q	|	|	|	V|
22+45	1.3304	0.13	Q	|	|	|	V|
22+50	1.3312	0.13	Q	|	|	|	V|
22+55	1.3321	0.13	Q	|	|	|	V|
23+ 0	1.3330	0.13	Q	|	|	|	V|
23+ 5	1.3339	0.13	Q	|	|	|	V|
23+10	1.3348	0.13	Q	|	|	|	V|
23+15	1.3357	0.13	Q	|	|	|	V|
23+20	1.3366	0.13	Q	|	|	|	V|
23+25	1.3375	0.13	Q	|	|	|	V|
23+30	1.3384	0.13	Q	|	|	|	V|
23+35	1.3393	0.13	Q	|	|	|	V|
23+40	1.3402	0.13	Q	|	|	|	V|
23+45	1.3411	0.13	Q	|	|	|	V|
23+50	1.3420	0.13	Q	|	|	|	V|

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   23+55       1.3429      0.13  Q         |         |         |        V|
   24+ 0       1.3437      0.13  Q         |         |         |        V|
   24+ 5       1.3442      0.06  Q         |         |         |        V|
   24+10       1.3443      0.01  Q         |         |         |        V|
   24+15       1.3443      0.00  Q         |         |         |        V|
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DMA 1 Proposed 100-Year

FLOOD HYDROGRAPH ROUTING PROGRAM

Study date: 08/24/22

A21626 DMA 1 100YR-1HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA1Q100UH1100.rte
**********HYDROGRAPH DATA**********
Number of intervals = 15
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 18.643 (CFS)
Total volume = 0.661 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.00(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.50(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   4.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   1.00(Ft.)    Capacity =   6.28(CFS)

Total outflow at this depth =      6.48(CFS)

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Total number of inflow hydrograph intervals = 15
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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
0.500	0.093	0.000	0.093	0.093
1.000	0.197	0.196	0.196	0.198
1.500	0.313	0.196	0.312	0.314
2.000	0.440	0.196	0.439	0.441
2.500	0.580	0.196	0.579	0.581
3.000	0.732	0.196	0.731	0.733
3.500	0.897	0.196	0.896	0.898
4.000	1.075	4.639	1.059	1.091
4.500	1.267	6.480	1.245	1.289

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 4.7 9.32 13.98 18.64	Depth (Ft.)
0.083	2.10	0.00	0.007	O I | | | |	0.04
0.167	3.78	0.00	0.027	O I | | | |	0.15
0.250	4.56	0.00	0.056	O I| | | |	0.30
0.333	5.00	0.00	0.089	O I | | |	0.48
0.417	5.22	0.06	0.124	O I | | |	0.65
0.500	5.71	0.13	0.161	O |I | | |	0.83
0.583	6.78	0.20	0.203	O | I | | |	1.03
0.667	8.04	0.20	0.253	O | I | | |	1.24
0.750	10.52	0.20	0.315	O | | I | |	1.51
0.833	18.64	0.20	0.414	O | | | | I	1.90
0.917	14.94	0.20	0.529	O | | | I |	2.32
1.000	7.34	0.20	0.604	O | I | | |	2.58
1.083	2.83	0.20	0.638	O I | | | |	2.69
1.167	0.46	0.20	0.648	O | | | | |	2.72
1.250	0.09	0.20	0.648	O | | | | |	2.72
1.333	0.00	0.20	0.647	O | | | | |	2.72
1.417	0.00	0.20	0.646	O | | | | |	2.72
1.500	0.00	0.20	0.645	O | | | | |	2.71
1.583	0.00	0.20	0.643	O | | | | |	2.71

1.667	0.00	0.20	0.642	O				2.70
1.750	0.00	0.20	0.640	O				2.70
1.833	0.00	0.20	0.639	O				2.69
1.917	0.00	0.20	0.638	O				2.69
2.000	0.00	0.20	0.636	O				2.69
2.083	0.00	0.20	0.635	O				2.68
2.167	0.00	0.20	0.634	O				2.68
2.250	0.00	0.20	0.632	O				2.67
2.333	0.00	0.20	0.631	O				2.67
2.417	0.00	0.20	0.630	O				2.66
2.500	0.00	0.20	0.628	O				2.66
2.583	0.00	0.20	0.627	O				2.65
2.667	0.00	0.20	0.626	O				2.65
2.750	0.00	0.20	0.624	O				2.65
2.833	0.00	0.20	0.623	O				2.64
2.917	0.00	0.20	0.622	O				2.64
3.000	0.00	0.20	0.620	O				2.63
3.083	0.00	0.20	0.619	O				2.63
3.167	0.00	0.20	0.617	O				2.62
3.250	0.00	0.20	0.616	O				2.62
3.333	0.00	0.20	0.615	O				2.61
3.417	0.00	0.20	0.613	O				2.61
3.500	0.00	0.20	0.612	O				2.61
3.583	0.00	0.20	0.611	O				2.60
3.667	0.00	0.20	0.609	O				2.60
3.750	0.00	0.20	0.608	O				2.59
3.833	0.00	0.20	0.607	O				2.59
3.917	0.00	0.20	0.605	O				2.58
4.000	0.00	0.20	0.604	O				2.58
4.083	0.00	0.20	0.603	O				2.57
4.167	0.00	0.20	0.601	O				2.57
4.250	0.00	0.20	0.600	O				2.57
4.333	0.00	0.20	0.599	O				2.56
4.417	0.00	0.20	0.597	O				2.56
4.500	0.00	0.20	0.596	O				2.55
4.583	0.00	0.20	0.594	O				2.55
4.667	0.00	0.20	0.593	O				2.54
4.750	0.00	0.20	0.592	O				2.54
4.833	0.00	0.20	0.590	O				2.53
4.917	0.00	0.20	0.589	O				2.53
5.000	0.00	0.20	0.588	O				2.53
5.083	0.00	0.20	0.586	O				2.52
5.167	0.00	0.20	0.585	O				2.52
5.250	0.00	0.20	0.584	O				2.51
5.333	0.00	0.20	0.582	O				2.51
5.417	0.00	0.20	0.581	O				2.50
5.500	0.00	0.20	0.580	O				2.50
5.583	0.00	0.20	0.578	O				2.49
5.667	0.00	0.20	0.577	O				2.49
5.750	0.00	0.20	0.576	O				2.48

5.833	0.00	0.20	0.574	O	|	|	|	2.48
5.917	0.00	0.20	0.573	O	|	|	|	2.47
6.000	0.00	0.20	0.571	O	|	|	|	2.47
6.083	0.00	0.20	0.570	O	|	|	|	2.46
6.167	0.00	0.20	0.569	O	|	|	|	2.46
6.250	0.00	0.20	0.567	O	|	|	|	2.46
6.333	0.00	0.20	0.566	O	|	|	|	2.45
6.417	0.00	0.20	0.565	O	|	|	|	2.45
6.500	0.00	0.20	0.563	O	|	|	|	2.44
6.583	0.00	0.20	0.562	O	|	|	|	2.44
6.667	0.00	0.20	0.561	O	|	|	|	2.43
6.750	0.00	0.20	0.559	O	|	|	|	2.43
6.833	0.00	0.20	0.558	O	|	|	|	2.42
6.917	0.00	0.20	0.557	O	|	|	|	2.42
7.000	0.00	0.20	0.555	O	|	|	|	2.41
7.083	0.00	0.20	0.554	O	|	|	|	2.41
7.167	0.00	0.20	0.553	O	|	|	|	2.40
7.250	0.00	0.20	0.551	O	|	|	|	2.40
7.333	0.00	0.20	0.550	O	|	|	|	2.39
7.417	0.00	0.20	0.548	O	|	|	|	2.39
7.500	0.00	0.20	0.547	O	|	|	|	2.38
7.583	0.00	0.20	0.546	O	|	|	|	2.38
7.667	0.00	0.20	0.544	O	|	|	|	2.37
7.750	0.00	0.20	0.543	O	|	|	|	2.37
7.833	0.00	0.20	0.542	O	|	|	|	2.36
7.917	0.00	0.20	0.540	O	|	|	|	2.36
8.000	0.00	0.20	0.539	O	|	|	|	2.35
8.083	0.00	0.20	0.538	O	|	|	|	2.35
8.167	0.00	0.20	0.536	O	|	|	|	2.34
8.250	0.00	0.20	0.535	O	|	|	|	2.34
8.333	0.00	0.20	0.534	O	|	|	|	2.33
8.417	0.00	0.20	0.532	O	|	|	|	2.33
8.500	0.00	0.20	0.531	O	|	|	|	2.32
8.583	0.00	0.20	0.530	O	|	|	|	2.32
8.667	0.00	0.20	0.528	O	|	|	|	2.32
8.750	0.00	0.20	0.527	O	|	|	|	2.31
8.833	0.00	0.20	0.526	O	|	|	|	2.31
8.917	0.00	0.20	0.524	O	|	|	|	2.30
9.000	0.00	0.20	0.523	O	|	|	|	2.30
9.083	0.00	0.20	0.521	O	|	|	|	2.29
9.167	0.00	0.20	0.520	O	|	|	|	2.29
9.250	0.00	0.20	0.519	O	|	|	|	2.28
9.333	0.00	0.20	0.517	O	|	|	|	2.28
9.417	0.00	0.20	0.516	O	|	|	|	2.27
9.500	0.00	0.20	0.515	O	|	|	|	2.27
9.583	0.00	0.20	0.513	O	|	|	|	2.26
9.667	0.00	0.20	0.512	O	|	|	|	2.26
9.750	0.00	0.20	0.511	O	|	|	|	2.25
9.833	0.00	0.20	0.509	O	|	|	|	2.25
9.917	0.00	0.20	0.508	O	|	|	|	2.24

10.000	0.00	0.20	0.507	O	|	|	|	2.24
10.083	0.00	0.20	0.505	O	|	|	|	2.23
10.167	0.00	0.20	0.504	O	|	|	|	2.23
10.250	0.00	0.20	0.503	O	|	|	|	2.22
10.333	0.00	0.20	0.501	O	|	|	|	2.22
10.417	0.00	0.20	0.500	O	|	|	|	2.21
10.500	0.00	0.20	0.498	O	|	|	|	2.21
10.583	0.00	0.20	0.497	O	|	|	|	2.20
10.667	0.00	0.20	0.496	O	|	|	|	2.20
10.750	0.00	0.20	0.494	O	|	|	|	2.19
10.833	0.00	0.20	0.493	O	|	|	|	2.19
10.917	0.00	0.20	0.492	O	|	|	|	2.18
11.000	0.00	0.20	0.490	O	|	|	|	2.18
11.083	0.00	0.20	0.489	O	|	|	|	2.17
11.167	0.00	0.20	0.488	O	|	|	|	2.17
11.250	0.00	0.20	0.486	O	|	|	|	2.17
11.333	0.00	0.20	0.485	O	|	|	|	2.16
11.417	0.00	0.20	0.484	O	|	|	|	2.16
11.500	0.00	0.20	0.482	O	|	|	|	2.15
11.583	0.00	0.20	0.481	O	|	|	|	2.15
11.667	0.00	0.20	0.480	O	|	|	|	2.14
11.750	0.00	0.20	0.478	O	|	|	|	2.14
11.833	0.00	0.20	0.477	O	|	|	|	2.13
11.917	0.00	0.20	0.475	O	|	|	|	2.13
12.000	0.00	0.20	0.474	O	|	|	|	2.12
12.083	0.00	0.20	0.473	O	|	|	|	2.12
12.167	0.00	0.20	0.471	O	|	|	|	2.11
12.250	0.00	0.20	0.470	O	|	|	|	2.11
12.333	0.00	0.20	0.469	O	|	|	|	2.10
12.417	0.00	0.20	0.467	O	|	|	|	2.10
12.500	0.00	0.20	0.466	O	|	|	|	2.09
12.583	0.00	0.20	0.465	O	|	|	|	2.09
12.667	0.00	0.20	0.463	O	|	|	|	2.08
12.750	0.00	0.20	0.462	O	|	|	|	2.08
12.833	0.00	0.20	0.461	O	|	|	|	2.07
12.917	0.00	0.20	0.459	O	|	|	|	2.07
13.000	0.00	0.20	0.458	O	|	|	|	2.06
13.083	0.00	0.20	0.457	O	|	|	|	2.06
13.167	0.00	0.20	0.455	O	|	|	|	2.05
13.250	0.00	0.20	0.454	O	|	|	|	2.05
13.333	0.00	0.20	0.452	O	|	|	|	2.04
13.417	0.00	0.20	0.451	O	|	|	|	2.04
13.500	0.00	0.20	0.450	O	|	|	|	2.03
13.583	0.00	0.20	0.448	O	|	|	|	2.03
13.667	0.00	0.20	0.447	O	|	|	|	2.03
13.750	0.00	0.20	0.446	O	|	|	|	2.02
13.833	0.00	0.20	0.444	O	|	|	|	2.02
13.917	0.00	0.20	0.443	O	|	|	|	2.01
14.000	0.00	0.20	0.442	O	|	|	|	2.01
14.083	0.00	0.20	0.440	O	|	|	|	2.00

14.167	0.00	0.20	0.439	O	|	|	|	2.00
14.250	0.00	0.20	0.438	O	|	|	|	1.99
14.333	0.00	0.20	0.436	O	|	|	|	1.99
14.417	0.00	0.20	0.435	O	|	|	|	1.98
14.500	0.00	0.20	0.434	O	|	|	|	1.97
14.583	0.00	0.20	0.432	O	|	|	|	1.97
14.667	0.00	0.20	0.431	O	|	|	|	1.96
14.750	0.00	0.20	0.429	O	|	|	|	1.96
14.833	0.00	0.20	0.428	O	|	|	|	1.95
14.917	0.00	0.20	0.427	O	|	|	|	1.95
15.000	0.00	0.20	0.425	O	|	|	|	1.94
15.083	0.00	0.20	0.424	O	|	|	|	1.94
15.167	0.00	0.20	0.423	O	|	|	|	1.93
15.250	0.00	0.20	0.421	O	|	|	|	1.93
15.333	0.00	0.20	0.420	O	|	|	|	1.92
15.417	0.00	0.20	0.419	O	|	|	|	1.92
15.500	0.00	0.20	0.417	O	|	|	|	1.91
15.583	0.00	0.20	0.416	O	|	|	|	1.91
15.667	0.00	0.20	0.415	O	|	|	|	1.90
15.750	0.00	0.20	0.413	O	|	|	|	1.89
15.833	0.00	0.20	0.412	O	|	|	|	1.89
15.917	0.00	0.20	0.411	O	|	|	|	1.88
16.000	0.00	0.20	0.409	O	|	|	|	1.88
16.083	0.00	0.20	0.408	O	|	|	|	1.87
16.167	0.00	0.20	0.407	O	|	|	|	1.87
16.250	0.00	0.20	0.405	O	|	|	|	1.86
16.333	0.00	0.20	0.404	O	|	|	|	1.86
16.417	0.00	0.20	0.402	O	|	|	|	1.85
16.500	0.00	0.20	0.401	O	|	|	|	1.85
16.583	0.00	0.20	0.400	O	|	|	|	1.84
16.667	0.00	0.20	0.398	O	|	|	|	1.84
16.750	0.00	0.20	0.397	O	|	|	|	1.83
16.833	0.00	0.20	0.396	O	|	|	|	1.83
16.917	0.00	0.20	0.394	O	|	|	|	1.82
17.000	0.00	0.20	0.393	O	|	|	|	1.81
17.083	0.00	0.20	0.392	O	|	|	|	1.81
17.167	0.00	0.20	0.390	O	|	|	|	1.80
17.250	0.00	0.20	0.389	O	|	|	|	1.80
17.333	0.00	0.20	0.388	O	|	|	|	1.79
17.417	0.00	0.20	0.386	O	|	|	|	1.79
17.500	0.00	0.20	0.385	O	|	|	|	1.78
17.583	0.00	0.20	0.384	O	|	|	|	1.78
17.667	0.00	0.20	0.382	O	|	|	|	1.77
17.750	0.00	0.20	0.381	O	|	|	|	1.77
17.833	0.00	0.20	0.379	O	|	|	|	1.76
17.917	0.00	0.20	0.378	O	|	|	|	1.76
18.000	0.00	0.20	0.377	O	|	|	|	1.75
18.083	0.00	0.20	0.375	O	|	|	|	1.75
18.167	0.00	0.20	0.374	O	|	|	|	1.74
18.250	0.00	0.20	0.373	O	|	|	|	1.74

18.333	0.00	0.20	0.371	O	|	|	|	1.73
18.417	0.00	0.20	0.370	O	|	|	|	1.72
18.500	0.00	0.20	0.369	O	|	|	|	1.72
18.583	0.00	0.20	0.367	O	|	|	|	1.71
18.667	0.00	0.20	0.366	O	|	|	|	1.71
18.750	0.00	0.20	0.365	O	|	|	|	1.70
18.833	0.00	0.20	0.363	O	|	|	|	1.70
18.917	0.00	0.20	0.362	O	|	|	|	1.69
19.000	0.00	0.20	0.361	O	|	|	|	1.69
19.083	0.00	0.20	0.359	O	|	|	|	1.68
19.167	0.00	0.20	0.358	O	|	|	|	1.68
19.250	0.00	0.20	0.356	O	|	|	|	1.67
19.333	0.00	0.20	0.355	O	|	|	|	1.67
19.417	0.00	0.20	0.354	O	|	|	|	1.66
19.500	0.00	0.20	0.352	O	|	|	|	1.66
19.583	0.00	0.20	0.351	O	|	|	|	1.65
19.667	0.00	0.20	0.350	O	|	|	|	1.64
19.750	0.00	0.20	0.348	O	|	|	|	1.64
19.833	0.00	0.20	0.347	O	|	|	|	1.63
19.917	0.00	0.20	0.346	O	|	|	|	1.63
20.000	0.00	0.20	0.344	O	|	|	|	1.62
20.083	0.00	0.20	0.343	O	|	|	|	1.62
20.167	0.00	0.20	0.342	O	|	|	|	1.61
20.250	0.00	0.20	0.340	O	|	|	|	1.61
20.333	0.00	0.20	0.339	O	|	|	|	1.60
20.417	0.00	0.20	0.338	O	|	|	|	1.60
20.500	0.00	0.20	0.336	O	|	|	|	1.59
20.583	0.00	0.20	0.335	O	|	|	|	1.59
20.667	0.00	0.20	0.333	O	|	|	|	1.58
20.750	0.00	0.20	0.332	O	|	|	|	1.58
20.833	0.00	0.20	0.331	O	|	|	|	1.57
20.917	0.00	0.20	0.329	O	|	|	|	1.56
21.000	0.00	0.20	0.328	O	|	|	|	1.56
21.083	0.00	0.20	0.327	O	|	|	|	1.55
21.167	0.00	0.20	0.325	O	|	|	|	1.55
21.250	0.00	0.20	0.324	O	|	|	|	1.54
21.333	0.00	0.20	0.323	O	|	|	|	1.54
21.417	0.00	0.20	0.321	O	|	|	|	1.53
21.500	0.00	0.20	0.320	O	|	|	|	1.53
21.583	0.00	0.20	0.319	O	|	|	|	1.52
21.667	0.00	0.20	0.317	O	|	|	|	1.52
21.750	0.00	0.20	0.316	O	|	|	|	1.51
21.833	0.00	0.20	0.315	O	|	|	|	1.51
21.917	0.00	0.20	0.313	O	|	|	|	1.50
22.000	0.00	0.20	0.312	O	|	|	|	1.50
22.083	0.00	0.20	0.310	O	|	|	|	1.49
22.167	0.00	0.20	0.309	O	|	|	|	1.48
22.250	0.00	0.20	0.308	O	|	|	|	1.48
22.333	0.00	0.20	0.306	O	|	|	|	1.47
22.417	0.00	0.20	0.305	O	|	|	|	1.47

22.500	0.00	0.20	0.304	O	|	|	|	1.46
22.583	0.00	0.20	0.302	O	|	|	|	1.45
22.667	0.00	0.20	0.301	O	|	|	|	1.45
22.750	0.00	0.20	0.300	O	|	|	|	1.44
22.833	0.00	0.20	0.298	O	|	|	|	1.44
22.917	0.00	0.20	0.297	O	|	|	|	1.43
23.000	0.00	0.20	0.296	O	|	|	|	1.43
23.083	0.00	0.20	0.294	O	|	|	|	1.42
23.167	0.00	0.20	0.293	O	|	|	|	1.41
23.250	0.00	0.20	0.292	O	|	|	|	1.41
23.333	0.00	0.20	0.290	O	|	|	|	1.40
23.417	0.00	0.20	0.289	O	|	|	|	1.40
23.500	0.00	0.20	0.288	O	|	|	|	1.39
23.583	0.00	0.20	0.286	O	|	|	|	1.38
23.667	0.00	0.20	0.285	O	|	|	|	1.38
23.750	0.00	0.20	0.283	O	|	|	|	1.37
23.833	0.00	0.20	0.282	O	|	|	|	1.37
23.917	0.00	0.20	0.281	O	|	|	|	1.36
24.000	0.00	0.20	0.279	O	|	|	|	1.36
24.083	0.00	0.20	0.278	O	|	|	|	1.35
24.167	0.00	0.20	0.277	O	|	|	|	1.34
24.250	0.00	0.20	0.275	O	|	|	|	1.34
24.333	0.00	0.20	0.274	O	|	|	|	1.33
24.417	0.00	0.20	0.273	O	|	|	|	1.33
24.500	0.00	0.20	0.271	O	|	|	|	1.32
24.583	0.00	0.20	0.270	O	|	|	|	1.31
24.667	0.00	0.20	0.269	O	|	|	|	1.31
24.750	0.00	0.20	0.267	O	|	|	|	1.30
24.833	0.00	0.20	0.266	O	|	|	|	1.30
24.917	0.00	0.20	0.265	O	|	|	|	1.29
25.000	0.00	0.20	0.263	O	|	|	|	1.29
25.083	0.00	0.20	0.262	O	|	|	|	1.28
25.167	0.00	0.20	0.260	O	|	|	|	1.27
25.250	0.00	0.20	0.259	O	|	|	|	1.27
25.333	0.00	0.20	0.258	O	|	|	|	1.26
25.417	0.00	0.20	0.256	O	|	|	|	1.26
25.500	0.00	0.20	0.255	O	|	|	|	1.25
25.583	0.00	0.20	0.254	O	|	|	|	1.24
25.667	0.00	0.20	0.252	O	|	|	|	1.24
25.750	0.00	0.20	0.251	O	|	|	|	1.23
25.833	0.00	0.20	0.250	O	|	|	|	1.23
25.917	0.00	0.20	0.248	O	|	|	|	1.22
26.000	0.00	0.20	0.247	O	|	|	|	1.22
26.083	0.00	0.20	0.246	O	|	|	|	1.21
26.167	0.00	0.20	0.244	O	|	|	|	1.20
26.250	0.00	0.20	0.243	O	|	|	|	1.20
26.333	0.00	0.20	0.242	O	|	|	|	1.19
26.417	0.00	0.20	0.240	O	|	|	|	1.19
26.500	0.00	0.20	0.239	O	|	|	|	1.18
26.583	0.00	0.20	0.237	O	|	|	|	1.17

26.667	0.00	0.20	0.236	O				1.17
26.750	0.00	0.20	0.235	O				1.16
26.833	0.00	0.20	0.233	O				1.16
26.917	0.00	0.20	0.232	O				1.15
27.000	0.00	0.20	0.231	O				1.15
27.083	0.00	0.20	0.229	O				1.14
27.167	0.00	0.20	0.228	O				1.13
27.250	0.00	0.20	0.227	O				1.13
27.333	0.00	0.20	0.225	O				1.12
27.417	0.00	0.20	0.224	O				1.12
27.500	0.00	0.20	0.223	O				1.11
27.583	0.00	0.20	0.221	O				1.10
27.667	0.00	0.20	0.220	O				1.10
27.750	0.00	0.20	0.219	O				1.09
27.833	0.00	0.20	0.217	O				1.09
27.917	0.00	0.20	0.216	O				1.08
28.000	0.00	0.20	0.214	O				1.08
28.083	0.00	0.20	0.213	O				1.07
28.167	0.00	0.20	0.212	O				1.06
28.250	0.00	0.20	0.210	O				1.06
28.333	0.00	0.20	0.209	O				1.05
28.417	0.00	0.20	0.208	O				1.05
28.500	0.00	0.20	0.206	O				1.04
28.583	0.00	0.20	0.205	O				1.03
28.667	0.00	0.20	0.204	O				1.03
28.750	0.00	0.20	0.202	O				1.02
28.833	0.00	0.20	0.201	O				1.02
28.917	0.00	0.20	0.200	O				1.01
29.000	0.00	0.20	0.198	O				1.01
29.083	0.00	0.20	0.197	O				1.00
29.167	0.00	0.19	0.196	O				0.99
29.250	0.00	0.19	0.194	O				0.99
29.333	0.00	0.19	0.193	O				0.98
29.417	0.00	0.19	0.192	O				0.97
29.500	0.00	0.18	0.190	O				0.97
29.583	0.00	0.18	0.189	O				0.96
29.667	0.00	0.18	0.188	O				0.96
29.750	0.00	0.18	0.187	O				0.95
29.833	0.00	0.17	0.185	O				0.94
29.917	0.00	0.17	0.184	O				0.94
30.000	0.00	0.17	0.183	O				0.93
30.083	0.00	0.17	0.182	O				0.93
30.167	0.00	0.17	0.181	O				0.92
30.250	0.00	0.16	0.180	O				0.92
30.333	0.00	0.16	0.178	O				0.91
30.417	0.00	0.16	0.177	O				0.91
30.500	0.00	0.16	0.176	O				0.90
30.583	0.00	0.16	0.175	O				0.90
30.667	0.00	0.15	0.174	O				0.89
30.750	0.00	0.15	0.173	O				0.89

30.833	0.00	0.15	0.172	O	|	|	|	0.88
30.917	0.00	0.15	0.171	O	|	|	|	0.88
31.000	0.00	0.15	0.170	O	|	|	|	0.87
31.083	0.00	0.14	0.169	O	|	|	|	0.87
31.167	0.00	0.14	0.168	O	|	|	|	0.86
31.250	0.00	0.14	0.167	O	|	|	|	0.86
31.333	0.00	0.14	0.166	O	|	|	|	0.85
31.417	0.00	0.14	0.165	O	|	|	|	0.85
31.500	0.00	0.13	0.164	O	|	|	|	0.84
31.583	0.00	0.13	0.163	O	|	|	|	0.84
31.667	0.00	0.13	0.162	O	|	|	|	0.83
31.750	0.00	0.13	0.162	O	|	|	|	0.83
31.833	0.00	0.13	0.161	O	|	|	|	0.83
31.917	0.00	0.13	0.160	O	|	|	|	0.82
32.000	0.00	0.12	0.159	O	|	|	|	0.82
32.083	0.00	0.12	0.158	O	|	|	|	0.81
32.167	0.00	0.12	0.157	O	|	|	|	0.81
32.250	0.00	0.12	0.156	O	|	|	|	0.80
32.333	0.00	0.12	0.156	O	|	|	|	0.80
32.417	0.00	0.12	0.155	O	|	|	|	0.80
32.500	0.00	0.12	0.154	O	|	|	|	0.79
32.583	0.00	0.11	0.153	O	|	|	|	0.79
32.667	0.00	0.11	0.152	O	|	|	|	0.79
32.750	0.00	0.11	0.152	O	|	|	|	0.78
32.833	0.00	0.11	0.151	O	|	|	|	0.78
32.917	0.00	0.11	0.150	O	|	|	|	0.77
33.000	0.00	0.11	0.149	O	|	|	|	0.77
33.083	0.00	0.11	0.149	O	|	|	|	0.77
33.167	0.00	0.10	0.148	O	|	|	|	0.76
33.250	0.00	0.10	0.147	O	|	|	|	0.76
33.333	0.00	0.10	0.147	O	|	|	|	0.76
33.417	0.00	0.10	0.146	O	|	|	|	0.75
33.500	0.00	0.10	0.145	O	|	|	|	0.75
33.583	0.00	0.10	0.144	O	|	|	|	0.75
33.667	0.00	0.10	0.144	O	|	|	|	0.74
33.750	0.00	0.09	0.143	O	|	|	|	0.74
33.833	0.00	0.09	0.143	O	|	|	|	0.74
33.917	0.00	0.09	0.142	O	|	|	|	0.73
34.000	0.00	0.09	0.141	O	|	|	|	0.73
34.083	0.00	0.09	0.141	O	|	|	|	0.73
34.167	0.00	0.09	0.140	O	|	|	|	0.73
34.250	0.00	0.09	0.139	O	|	|	|	0.72
34.333	0.00	0.09	0.139	O	|	|	|	0.72
34.417	0.00	0.09	0.138	O	|	|	|	0.72
34.500	0.00	0.08	0.138	O	|	|	|	0.71
34.583	0.00	0.08	0.137	O	|	|	|	0.71
34.667	0.00	0.08	0.136	O	|	|	|	0.71
34.750	0.00	0.08	0.136	O	|	|	|	0.71
34.833	0.00	0.08	0.135	O	|	|	|	0.70
34.917	0.00	0.08	0.135	O	|	|	|	0.70

35.000	0.00	0.08	0.134	O				0.70
35.083	0.00	0.08	0.134	O				0.70
35.167	0.00	0.08	0.133	O				0.69
35.250	0.00	0.07	0.133	O				0.69
35.333	0.00	0.07	0.132	O				0.69
35.417	0.00	0.07	0.132	O				0.69
35.500	0.00	0.07	0.131	O				0.68
35.583	0.00	0.07	0.131	O				0.68
35.667	0.00	0.07	0.130	O				0.68
35.750	0.00	0.07	0.130	O				0.68
35.833	0.00	0.07	0.129	O				0.67
35.917	0.00	0.07	0.129	O				0.67
36.000	0.00	0.07	0.128	O				0.67
36.083	0.00	0.07	0.128	O				0.67
36.167	0.00	0.06	0.127	O				0.67
36.250	0.00	0.06	0.127	O				0.66
36.333	0.00	0.06	0.127	O				0.66
36.417	0.00	0.06	0.126	O				0.66
36.500	0.00	0.06	0.126	O				0.66
36.583	0.00	0.06	0.125	O				0.65
36.667	0.00	0.06	0.125	O				0.65
36.750	0.00	0.06	0.124	O				0.65
36.833	0.00	0.06	0.124	O				0.65
36.917	0.00	0.06	0.124	O				0.65
37.000	0.00	0.06	0.123	O				0.65
37.083	0.00	0.06	0.123	O				0.64
37.167	0.00	0.06	0.122	O				0.64
37.250	0.00	0.05	0.122	O				0.64
37.333	0.00	0.05	0.122	O				0.64
37.417	0.00	0.05	0.121	O				0.64
37.500	0.00	0.05	0.121	O				0.63
37.583	0.00	0.05	0.121	O				0.63
37.667	0.00	0.05	0.120	O				0.63
37.750	0.00	0.05	0.120	O				0.63
37.833	0.00	0.05	0.120	O				0.63
37.917	0.00	0.05	0.119	O				0.63
38.000	0.00	0.05	0.119	O				0.62
38.083	0.00	0.05	0.119	O				0.62
38.167	0.00	0.05	0.118	O				0.62
38.250	0.00	0.05	0.118	O				0.62
38.333	0.00	0.05	0.118	O				0.62
38.417	0.00	0.05	0.117	O				0.62
38.500	0.00	0.05	0.117	O				0.61
38.583	0.00	0.04	0.117	O				0.61
38.667	0.00	0.04	0.116	O				0.61
38.750	0.00	0.04	0.116	O				0.61
38.833	0.00	0.04	0.116	O				0.61
38.917	0.00	0.04	0.115	O				0.61
39.000	0.00	0.04	0.115	O				0.61
39.083	0.00	0.04	0.115	O				0.60

39.167	0.00	0.04	0.115	O	|	|	|	0.60
39.250	0.00	0.04	0.114	O	|	|	|	0.60
39.333	0.00	0.04	0.114	O	|	|	|	0.60
39.417	0.00	0.04	0.114	O	|	|	|	0.60
39.500	0.00	0.04	0.113	O	|	|	|	0.60
39.583	0.00	0.04	0.113	O	|	|	|	0.60
39.667	0.00	0.04	0.113	O	|	|	|	0.60
39.750	0.00	0.04	0.113	O	|	|	|	0.59
39.833	0.00	0.04	0.112	O	|	|	|	0.59
39.917	0.00	0.04	0.112	O	|	|	|	0.59
40.000	0.00	0.04	0.112	O	|	|	|	0.59
40.083	0.00	0.04	0.112	O	|	|	|	0.59
40.167	0.00	0.03	0.111	O	|	|	|	0.59
40.250	0.00	0.03	0.111	O	|	|	|	0.59
40.333	0.00	0.03	0.111	O	|	|	|	0.59
40.417	0.00	0.03	0.111	O	|	|	|	0.59
40.500	0.00	0.03	0.110	O	|	|	|	0.58
40.583	0.00	0.03	0.110	O	|	|	|	0.58
40.667	0.00	0.03	0.110	O	|	|	|	0.58
40.750	0.00	0.03	0.110	O	|	|	|	0.58
40.833	0.00	0.03	0.110	O	|	|	|	0.58
40.917	0.00	0.03	0.109	O	|	|	|	0.58
41.000	0.00	0.03	0.109	O	|	|	|	0.58
41.083	0.00	0.03	0.109	O	|	|	|	0.58
41.167	0.00	0.03	0.109	O	|	|	|	0.58
41.250	0.00	0.03	0.109	O	|	|	|	0.57
41.333	0.00	0.03	0.108	O	|	|	|	0.57
41.417	0.00	0.03	0.108	O	|	|	|	0.57
41.500	0.00	0.03	0.108	O	|	|	|	0.57
41.583	0.00	0.03	0.108	O	|	|	|	0.57
41.667	0.00	0.03	0.108	O	|	|	|	0.57
41.750	0.00	0.03	0.107	O	|	|	|	0.57
41.833	0.00	0.03	0.107	O	|	|	|	0.57
41.917	0.00	0.03	0.107	O	|	|	|	0.57
42.000	0.00	0.03	0.107	O	|	|	|	0.57
42.083	0.00	0.03	0.107	O	|	|	|	0.57
42.167	0.00	0.03	0.106	O	|	|	|	0.56
42.250	0.00	0.03	0.106	O	|	|	|	0.56
42.333	0.00	0.02	0.106	O	|	|	|	0.56
42.417	0.00	0.02	0.106	O	|	|	|	0.56
42.500	0.00	0.02	0.106	O	|	|	|	0.56
42.583	0.00	0.02	0.106	O	|	|	|	0.56
42.667	0.00	0.02	0.105	O	|	|	|	0.56
42.750	0.00	0.02	0.105	O	|	|	|	0.56
42.833	0.00	0.02	0.105	O	|	|	|	0.56
42.917	0.00	0.02	0.105	O	|	|	|	0.56
43.000	0.00	0.02	0.105	O	|	|	|	0.56
43.083	0.00	0.02	0.105	O	|	|	|	0.56
43.167	0.00	0.02	0.105	O	|	|	|	0.56
43.250	0.00	0.02	0.104	O	|	|	|	0.55

43.333	0.00	0.02	0.104	O	|	|	|	0.55
43.417	0.00	0.02	0.104	O	|	|	|	0.55
43.500	0.00	0.02	0.104	O	|	|	|	0.55
43.583	0.00	0.02	0.104	O	|	|	|	0.55
43.667	0.00	0.02	0.104	O	|	|	|	0.55
43.750	0.00	0.02	0.104	O	|	|	|	0.55
43.833	0.00	0.02	0.103	O	|	|	|	0.55
43.917	0.00	0.02	0.103	O	|	|	|	0.55
44.000	0.00	0.02	0.103	O	|	|	|	0.55
44.083	0.00	0.02	0.103	O	|	|	|	0.55
44.167	0.00	0.02	0.103	O	|	|	|	0.55
44.250	0.00	0.02	0.103	O	|	|	|	0.55
44.333	0.00	0.02	0.103	O	|	|	|	0.55
44.417	0.00	0.02	0.102	O	|	|	|	0.55
44.500	0.00	0.02	0.102	O	|	|	|	0.55
44.583	0.00	0.02	0.102	O	|	|	|	0.54
44.667	0.00	0.02	0.102	O	|	|	|	0.54
44.750	0.00	0.02	0.102	O	|	|	|	0.54
44.833	0.00	0.02	0.102	O	|	|	|	0.54
44.917	0.00	0.02	0.102	O	|	|	|	0.54
45.000	0.00	0.02	0.102	O	|	|	|	0.54
45.083	0.00	0.02	0.102	O	|	|	|	0.54
45.167	0.00	0.02	0.101	O	|	|	|	0.54
45.250	0.00	0.02	0.101	O	|	|	|	0.54
45.333	0.00	0.02	0.101	O	|	|	|	0.54
45.417	0.00	0.02	0.101	O	|	|	|	0.54
45.500	0.00	0.02	0.101	O	|	|	|	0.54
45.583	0.00	0.01	0.101	O	|	|	|	0.54
45.667	0.00	0.01	0.101	O	|	|	|	0.54
45.750	0.00	0.01	0.101	O	|	|	|	0.54
45.833	0.00	0.01	0.101	O	|	|	|	0.54
45.917	0.00	0.01	0.101	O	|	|	|	0.54
46.000	0.00	0.01	0.100	O	|	|	|	0.54
46.083	0.00	0.01	0.100	O	|	|	|	0.54
46.167	0.00	0.01	0.100	O	|	|	|	0.53
46.250	0.00	0.01	0.100	O	|	|	|	0.53
46.333	0.00	0.01	0.100	O	|	|	|	0.53
46.417	0.00	0.01	0.100	O	|	|	|	0.53
46.500	0.00	0.01	0.100	O	|	|	|	0.53
46.583	0.00	0.01	0.100	O	|	|	|	0.53
46.667	0.00	0.01	0.100	O	|	|	|	0.53
46.750	0.00	0.01	0.100	O	|	|	|	0.53
46.833	0.00	0.01	0.100	O	|	|	|	0.53
46.917	0.00	0.01	0.099	O	|	|	|	0.53
47.000	0.00	0.01	0.099	O	|	|	|	0.53
47.083	0.00	0.01	0.099	O	|	|	|	0.53
47.167	0.00	0.01	0.099	O	|	|	|	0.53
47.250	0.00	0.01	0.099	O	|	|	|	0.53
47.333	0.00	0.01	0.099	O	|	|	|	0.53
47.417	0.00	0.01	0.099	O	|	|	|	0.53

47.500	0.00	0.01	0.099	O	|	|	|	0.53
47.583	0.00	0.01	0.099	O	|	|	|	0.53
47.667	0.00	0.01	0.099	O	|	|	|	0.53
47.750	0.00	0.01	0.099	O	|	|	|	0.53
47.833	0.00	0.01	0.099	O	|	|	|	0.53
47.917	0.00	0.01	0.099	O	|	|	|	0.53
48.000	0.00	0.01	0.098	O	|	|	|	0.53
48.083	0.00	0.01	0.098	O	|	|	|	0.53
48.167	0.00	0.01	0.098	O	|	|	|	0.53
48.250	0.00	0.01	0.098	O	|	|	|	0.53
48.333	0.00	0.01	0.098	O	|	|	|	0.52
48.417	0.00	0.01	0.098	O	|	|	|	0.52
48.500	0.00	0.01	0.098	O	|	|	|	0.52
48.583	0.00	0.01	0.098	O	|	|	|	0.52
48.667	0.00	0.01	0.098	O	|	|	|	0.52
48.750	0.00	0.01	0.098	O	|	|	|	0.52
48.833	0.00	0.01	0.098	O	|	|	|	0.52
48.917	0.00	0.01	0.098	O	|	|	|	0.52
49.000	0.00	0.01	0.098	O	|	|	|	0.52
49.083	0.00	0.01	0.098	O	|	|	|	0.52
49.167	0.00	0.01	0.098	O	|	|	|	0.52
49.250	0.00	0.01	0.097	O	|	|	|	0.52
49.333	0.00	0.01	0.097	O	|	|	|	0.52
49.417	0.00	0.01	0.097	O	|	|	|	0.52
49.500	0.00	0.01	0.097	O	|	|	|	0.52
49.583	0.00	0.01	0.097	O	|	|	|	0.52
49.667	0.00	0.01	0.097	O	|	|	|	0.52
49.750	0.00	0.01	0.097	O	|	|	|	0.52
49.833	0.00	0.01	0.097	O	|	|	|	0.52
49.917	0.00	0.01	0.097	O	|	|	|	0.52
50.000	0.00	0.01	0.097	O	|	|	|	0.52
50.083	0.00	0.01	0.097	O	|	|	|	0.52
50.167	0.00	0.01	0.097	O	|	|	|	0.52
50.250	0.00	0.01	0.097	O	|	|	|	0.52
50.333	0.00	0.01	0.097	O	|	|	|	0.52
50.417	0.00	0.01	0.097	O	|	|	|	0.52
50.500	0.00	0.01	0.097	O	|	|	|	0.52
50.583	0.00	0.01	0.097	O	|	|	|	0.52
50.667	0.00	0.01	0.097	O	|	|	|	0.52
50.750	0.00	0.01	0.097	O	|	|	|	0.52
50.833	0.00	0.01	0.096	O	|	|	|	0.52
50.917	0.00	0.01	0.096	O	|	|	|	0.52
51.000	0.00	0.01	0.096	O	|	|	|	0.52
51.083	0.00	0.01	0.096	O	|	|	|	0.52
51.167	0.00	0.01	0.096	O	|	|	|	0.52
51.250	0.00	0.01	0.096	O	|	|	|	0.52
51.333	0.00	0.01	0.096	O	|	|	|	0.52
51.417	0.00	0.01	0.096	O	|	|	|	0.52
51.500	0.00	0.01	0.096	O	|	|	|	0.52
51.583	0.00	0.01	0.096	O	|	|	|	0.51

51.667	0.00	0.01	0.096	O	|	|	|	0.51
51.750	0.00	0.01	0.096	O	|	|	|	0.51
51.833	0.00	0.01	0.096	O	|	|	|	0.51
51.917	0.00	0.01	0.096	O	|	|	|	0.51
52.000	0.00	0.01	0.096	O	|	|	|	0.51
52.083	0.00	0.01	0.096	O	|	|	|	0.51
52.167	0.00	0.01	0.096	O	|	|	|	0.51
52.250	0.00	0.01	0.096	O	|	|	|	0.51
52.333	0.00	0.01	0.096	O	|	|	|	0.51
52.417	0.00	0.01	0.096	O	|	|	|	0.51
52.500	0.00	0.01	0.096	O	|	|	|	0.51
52.583	0.00	0.01	0.096	O	|	|	|	0.51
52.667	0.00	0.00	0.096	O	|	|	|	0.51
52.750	0.00	0.00	0.096	O	|	|	|	0.51
52.833	0.00	0.00	0.096	O	|	|	|	0.51
52.917	0.00	0.00	0.096	O	|	|	|	0.51
53.000	0.00	0.00	0.095	O	|	|	|	0.51
53.083	0.00	0.00	0.095	O	|	|	|	0.51
53.167	0.00	0.00	0.095	O	|	|	|	0.51
53.250	0.00	0.00	0.095	O	|	|	|	0.51
53.333	0.00	0.00	0.095	O	|	|	|	0.51
53.417	0.00	0.00	0.095	O	|	|	|	0.51
53.500	0.00	0.00	0.095	O	|	|	|	0.51
53.583	0.00	0.00	0.095	O	|	|	|	0.51
53.667	0.00	0.00	0.095	O	|	|	|	0.51
53.750	0.00	0.00	0.095	O	|	|	|	0.51
53.833	0.00	0.00	0.095	O	|	|	|	0.51
53.917	0.00	0.00	0.095	O	|	|	|	0.51
54.000	0.00	0.00	0.095	O	|	|	|	0.51
54.083	0.00	0.00	0.095	O	|	|	|	0.51
54.167	0.00	0.00	0.095	O	|	|	|	0.51
54.250	0.00	0.00	0.095	O	|	|	|	0.51
54.333	0.00	0.00	0.095	O	|	|	|	0.51
54.417	0.00	0.00	0.095	O	|	|	|	0.51
54.500	0.00	0.00	0.095	O	|	|	|	0.51
54.583	0.00	0.00	0.095	O	|	|	|	0.51
54.667	0.00	0.00	0.095	O	|	|	|	0.51
54.750	0.00	0.00	0.095	O	|	|	|	0.51
54.833	0.00	0.00	0.095	O	|	|	|	0.51
54.917	0.00	0.00	0.095	O	|	|	|	0.51
55.000	0.00	0.00	0.095	O	|	|	|	0.51
55.083	0.00	0.00	0.095	O	|	|	|	0.51
55.167	0.00	0.00	0.095	O	|	|	|	0.51
55.250	0.00	0.00	0.095	O	|	|	|	0.51
55.333	0.00	0.00	0.095	O	|	|	|	0.51
55.417	0.00	0.00	0.095	O	|	|	|	0.51
55.500	0.00	0.00	0.095	O	|	|	|	0.51
55.583	0.00	0.00	0.095	O	|	|	|	0.51
55.667	0.00	0.00	0.095	O	|	|	|	0.51
55.750	0.00	0.00	0.095	O	|	|	|	0.51

55.833	0.00	0.00	0.095	O	|	|	|	0.51
55.917	0.00	0.00	0.095	O	|	|	|	0.51
56.000	0.00	0.00	0.095	O	|	|	|	0.51
56.083	0.00	0.00	0.095	O	|	|	|	0.51
56.167	0.00	0.00	0.095	O	|	|	|	0.51
56.250	0.00	0.00	0.094	O	|	|	|	0.51
56.333	0.00	0.00	0.094	O	|	|	|	0.51
56.417	0.00	0.00	0.094	O	|	|	|	0.51
56.500	0.00	0.00	0.094	O	|	|	|	0.51
56.583	0.00	0.00	0.094	O	|	|	|	0.51
56.667	0.00	0.00	0.094	O	|	|	|	0.51
56.750	0.00	0.00	0.094	O	|	|	|	0.51
56.833	0.00	0.00	0.094	O	|	|	|	0.51
56.917	0.00	0.00	0.094	O	|	|	|	0.51
57.000	0.00	0.00	0.094	O	|	|	|	0.51
57.083	0.00	0.00	0.094	O	|	|	|	0.51
57.167	0.00	0.00	0.094	O	|	|	|	0.51
57.250	0.00	0.00	0.094	O	|	|	|	0.51
57.333	0.00	0.00	0.094	O	|	|	|	0.51
57.417	0.00	0.00	0.094	O	|	|	|	0.51
57.500	0.00	0.00	0.094	O	|	|	|	0.51
57.583	0.00	0.00	0.094	O	|	|	|	0.51
57.667	0.00	0.00	0.094	O	|	|	|	0.51
57.750	0.00	0.00	0.094	O	|	|	|	0.51
57.833	0.00	0.00	0.094	O	|	|	|	0.51
57.917	0.00	0.00	0.094	O	|	|	|	0.51
58.000	0.00	0.00	0.094	O	|	|	|	0.51
58.083	0.00	0.00	0.094	O	|	|	|	0.51
58.167	0.00	0.00	0.094	O	|	|	|	0.51
58.250	0.00	0.00	0.094	O	|	|	|	0.51
58.333	0.00	0.00	0.094	O	|	|	|	0.51
58.417	0.00	0.00	0.094	O	|	|	|	0.51
58.500	0.00	0.00	0.094	O	|	|	|	0.51
58.583	0.00	0.00	0.094	O	|	|	|	0.51
58.667	0.00	0.00	0.094	O	|	|	|	0.50
58.750	0.00	0.00	0.094	O	|	|	|	0.50
58.833	0.00	0.00	0.094	O	|	|	|	0.50
58.917	0.00	0.00	0.094	O	|	|	|	0.50
59.000	0.00	0.00	0.094	O	|	|	|	0.50
59.083	0.00	0.00	0.094	O	|	|	|	0.50
59.167	0.00	0.00	0.094	O	|	|	|	0.50
59.250	0.00	0.00	0.094	O	|	|	|	0.50
59.333	0.00	0.00	0.094	O	|	|	|	0.50
59.417	0.00	0.00	0.094	O	|	|	|	0.50
59.500	0.00	0.00	0.094	O	|	|	|	0.50
59.583	0.00	0.00	0.094	O	|	|	|	0.50
59.667	0.00	0.00	0.094	O	|	|	|	0.50
59.750	0.00	0.00	0.094	O	|	|	|	0.50
59.833	0.00	0.00	0.094	O	|	|	|	0.50
59.917	0.00	0.00	0.094	O	|	|	|	0.50

60.000	0.00	0.00	0.094	O	|	|	|	0.50
60.083	0.00	0.00	0.094	O	|	|	|	0.50
60.167	0.00	0.00	0.094	O	|	|	|	0.50
60.250	0.00	0.00	0.094	O	|	|	|	0.50
60.333	0.00	0.00	0.094	O	|	|	|	0.50
60.417	0.00	0.00	0.094	O	|	|	|	0.50
60.500	0.00	0.00	0.094	O	|	|	|	0.50
60.583	0.00	0.00	0.094	O	|	|	|	0.50
60.667	0.00	0.00	0.094	O	|	|	|	0.50
60.750	0.00	0.00	0.094	O	|	|	|	0.50
60.833	0.00	0.00	0.094	O	|	|	|	0.50
60.917	0.00	0.00	0.094	O	|	|	|	0.50
61.000	0.00	0.00	0.094	O	|	|	|	0.50
61.083	0.00	0.00	0.094	O	|	|	|	0.50
61.167	0.00	0.00	0.094	O	|	|	|	0.50
61.250	0.00	0.00	0.094	O	|	|	|	0.50
61.333	0.00	0.00	0.094	O	|	|	|	0.50
61.417	0.00	0.00	0.094	O	|	|	|	0.50
61.500	0.00	0.00	0.094	O	|	|	|	0.50
61.583	0.00	0.00	0.094	O	|	|	|	0.50
61.667	0.00	0.00	0.094	O	|	|	|	0.50
61.750	0.00	0.00	0.094	O	|	|	|	0.50
61.833	0.00	0.00	0.094	O	|	|	|	0.50
61.917	0.00	0.00	0.094	O	|	|	|	0.50
62.000	0.00	0.00	0.094	O	|	|	|	0.50
62.083	0.00	0.00	0.094	O	|	|	|	0.50
62.167	0.00	0.00	0.094	O	|	|	|	0.50
62.250	0.00	0.00	0.094	O	|	|	|	0.50
62.333	0.00	0.00	0.094	O	|	|	|	0.50
62.417	0.00	0.00	0.094	O	|	|	|	0.50
62.500	0.00	0.00	0.094	O	|	|	|	0.50
62.583	0.00	0.00	0.094	O	|	|	|	0.50
62.667	0.00	0.00	0.094	O	|	|	|	0.50
62.750	0.00	0.00	0.094	O	|	|	|	0.50
62.833	0.00	0.00	0.094	O	|	|	|	0.50
62.917	0.00	0.00	0.094	O	|	|	|	0.50

Remaining water in basin = 0.09 (Ac.Ft)

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

Number of intervals = 755
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.568 (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

Study date: 08/24/22

A21626 DMA 1 100YR-3HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA1Q100UH3100.rte
**********HYDROGRAPH DATA**********
Number of intervals = 39
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 11.594 (CFS)
Total volume = 0.998 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.00(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.50(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   4.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   1.00(Ft.)    Capacity =   6.28(CFS)

Total outflow at this depth =      6.48(CFS)

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Total number of inflow hydrograph intervals = 39
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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
0.500	0.093	0.000	0.093	0.093
1.000	0.197	0.196	0.196	0.198
1.500	0.313	0.196	0.312	0.314
2.000	0.440	0.196	0.439	0.441
2.500	0.580	0.196	0.579	0.581
3.000	0.732	0.196	0.731	0.733
3.500	0.897	0.196	0.896	0.898
4.000	1.075	4.639	1.059	1.091
4.500	1.267	6.480	1.245	1.289

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 2.9 5.80 8.70 11.59	Depth (Ft.)
0.083	0.89	0.00	0.003	O I	0.02
0.167	1.58	0.00	0.012	O I	0.06
0.250	1.54	0.00	0.022	O I	0.12
0.333	1.77	0.00	0.034	O I	0.18
0.417	1.99	0.00	0.047	O I	0.25
0.500	2.27	0.00	0.061	O I	0.33
0.583	2.23	0.00	0.077	O I	0.41
0.667	2.31	0.00	0.092	O I	0.50
0.750	2.47	0.03	0.109	O I	0.58
0.833	2.26	0.06	0.125	O I	0.65
0.917	2.16	0.09	0.139	O I	0.72
1.000	2.35	0.12	0.154	O I	0.79
1.083	2.79	0.15	0.171	O I	0.88
1.167	3.07	0.18	0.190	O I	0.97
1.250	3.11	0.20	0.210	O I	1.06
1.333	2.97	0.20	0.230	O I	1.14
1.417	3.32	0.20	0.250	O I	1.23
1.500	3.75	0.20	0.273	O I	1.33
1.583	3.63	0.20	0.297	O I	1.43

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1.667    3.71    0.20      0.321  O       | I     |       |       |     1.53
1.750    4.35    0.20      0.347  O       |   I   |       |       |     1.64
1.833    4.58    0.20      0.377  O       |   I   |       |       |     1.75
1.917    4.37    0.20      0.406  O       |   I   |       |       |     1.87
2.000    4.33    0.20      0.435  O       |  I    |       |       |     1.98
2.083    4.44    0.20      0.464  O       |   I   |       |       |     2.08
2.167    5.38    0.20      0.496  O       |     I |       |       |     2.20
2.250    6.72    0.20      0.536  O       |       | I     |       |     2.34
2.333    6.13    0.20      0.579  O       |       I       |       |     2.50
2.417    7.96    0.20      0.627  O       |       |    I  |       |     2.65
2.500   10.26    0.20      0.688  O       |       |       |   I   |     2.85
2.583   11.59    0.20      0.762  O       |       |       |       I     3.09
2.667   10.47    0.20      0.836  O       |       |       |   I   |     3.32
2.750    6.05    0.20      0.892  O       |       I       |       |     3.48
2.833    3.26    0.79      0.921  | O     I       |       |       |     3.57
2.917    2.65    1.13      0.934  |  O   I|       |       |       |     3.60
3.000    1.60    1.29      0.941  |  OI   |       |       |       |     3.62
3.083    0.51    1.25      0.939  |I O    |       |       |       |     3.62
3.167    0.10    1.10      0.933  I  O    |       |       |       |     3.60
3.250    0.01    0.94      0.927  I O     |       |       |       |     3.58
3.333    0.00    0.79      0.921  I O     |       |       |       |     3.57
3.417    0.00    0.66      0.916  IO      |       |       |       |     3.55
3.500    0.00    0.56      0.912  IO      |       |       |       |     3.54
3.583    0.00    0.47      0.908  IO      |       |       |       |     3.53
3.667    0.00    0.40      0.905  IO      |       |       |       |     3.52
3.750    0.00    0.33      0.902  O       |       |       |       |     3.52
3.833    0.00    0.28      0.900  O       |       |       |       |     3.51
3.917    0.00    0.24      0.899  O       |       |       |       |     3.50
4.000    0.00    0.20      0.897  O       |       |       |       |     3.50
4.083    0.00    0.20      0.896  O       |       |       |       |     3.50
4.167    0.00    0.20      0.894  O       |       |       |       |     3.49
4.250    0.00    0.20      0.893  O       |       |       |       |     3.49
4.333    0.00    0.20      0.892  O       |       |       |       |     3.48
4.417    0.00    0.20      0.890  O       |       |       |       |     3.48
4.500    0.00    0.20      0.889  O       |       |       |       |     3.48
4.583    0.00    0.20      0.888  O       |       |       |       |     3.47
4.667    0.00    0.20      0.886  O       |       |       |       |     3.47
4.750    0.00    0.20      0.885  O       |       |       |       |     3.46
4.833    0.00    0.20      0.884  O       |       |       |       |     3.46
4.917    0.00    0.20      0.882  O       |       |       |       |     3.46
5.000    0.00    0.20      0.881  O       |       |       |       |     3.45
5.083    0.00    0.20      0.880  O       |       |       |       |     3.45
5.167    0.00    0.20      0.878  O       |       |       |       |     3.44
5.250    0.00    0.20      0.877  O       |       |       |       |     3.44
5.333    0.00    0.20      0.875  O       |       |       |       |     3.43
5.417    0.00    0.20      0.874  O       |       |       |       |     3.43
5.500    0.00    0.20      0.873  O       |       |       |       |     3.43
5.583    0.00    0.20      0.871  O       |       |       |       |     3.42
5.667    0.00    0.20      0.870  O       |       |       |       |     3.42
5.750    0.00    0.20      0.869  O       |       |       |       |     3.41
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5.833	0.00	0.20	0.867	O				3.41
5.917	0.00	0.20	0.866	O				3.41
6.000	0.00	0.20	0.865	O				3.40
6.083	0.00	0.20	0.863	O				3.40
6.167	0.00	0.20	0.862	O				3.39
6.250	0.00	0.20	0.861	O				3.39
6.333	0.00	0.20	0.859	O				3.39
6.417	0.00	0.20	0.858	O				3.38
6.500	0.00	0.20	0.857	O				3.38
6.583	0.00	0.20	0.855	O				3.37
6.667	0.00	0.20	0.854	O				3.37
6.750	0.00	0.20	0.852	O				3.37
6.833	0.00	0.20	0.851	O				3.36
6.917	0.00	0.20	0.850	O				3.36
7.000	0.00	0.20	0.848	O				3.35
7.083	0.00	0.20	0.847	O				3.35
7.167	0.00	0.20	0.846	O				3.34
7.250	0.00	0.20	0.844	O				3.34
7.333	0.00	0.20	0.843	O				3.34
7.417	0.00	0.20	0.842	O				3.33
7.500	0.00	0.20	0.840	O				3.33
7.583	0.00	0.20	0.839	O				3.32
7.667	0.00	0.20	0.838	O				3.32
7.750	0.00	0.20	0.836	O				3.32
7.833	0.00	0.20	0.835	O				3.31
7.917	0.00	0.20	0.834	O				3.31
8.000	0.00	0.20	0.832	O				3.30
8.083	0.00	0.20	0.831	O				3.30
8.167	0.00	0.20	0.829	O				3.30
8.250	0.00	0.20	0.828	O				3.29
8.333	0.00	0.20	0.827	O				3.29
8.417	0.00	0.20	0.825	O				3.28
8.500	0.00	0.20	0.824	O				3.28
8.583	0.00	0.20	0.823	O				3.27
8.667	0.00	0.20	0.821	O				3.27
8.750	0.00	0.20	0.820	O				3.27
8.833	0.00	0.20	0.819	O				3.26
8.917	0.00	0.20	0.817	O				3.26
9.000	0.00	0.20	0.816	O				3.25
9.083	0.00	0.20	0.815	O				3.25
9.167	0.00	0.20	0.813	O				3.25
9.250	0.00	0.20	0.812	O				3.24
9.333	0.00	0.20	0.811	O				3.24
9.417	0.00	0.20	0.809	O				3.23
9.500	0.00	0.20	0.808	O				3.23
9.583	0.00	0.20	0.806	O				3.23
9.667	0.00	0.20	0.805	O				3.22
9.750	0.00	0.20	0.804	O				3.22
9.833	0.00	0.20	0.802	O				3.21
9.917	0.00	0.20	0.801	O				3.21

10.000	0.00	0.20	0.800	O	|	|	|	3.21
10.083	0.00	0.20	0.798	O	|	|	|	3.20
10.167	0.00	0.20	0.797	O	|	|	|	3.20
10.250	0.00	0.20	0.796	O	|	|	|	3.19
10.333	0.00	0.20	0.794	O	|	|	|	3.19
10.417	0.00	0.20	0.793	O	|	|	|	3.18
10.500	0.00	0.20	0.792	O	|	|	|	3.18
10.583	0.00	0.20	0.790	O	|	|	|	3.18
10.667	0.00	0.20	0.789	O	|	|	|	3.17
10.750	0.00	0.20	0.788	O	|	|	|	3.17
10.833	0.00	0.20	0.786	O	|	|	|	3.16
10.917	0.00	0.20	0.785	O	|	|	|	3.16
11.000	0.00	0.20	0.783	O	|	|	|	3.16
11.083	0.00	0.20	0.782	O	|	|	|	3.15
11.167	0.00	0.20	0.781	O	|	|	|	3.15
11.250	0.00	0.20	0.779	O	|	|	|	3.14
11.333	0.00	0.20	0.778	O	|	|	|	3.14
11.417	0.00	0.20	0.777	O	|	|	|	3.14
11.500	0.00	0.20	0.775	O	|	|	|	3.13
11.583	0.00	0.20	0.774	O	|	|	|	3.13
11.667	0.00	0.20	0.773	O	|	|	|	3.12
11.750	0.00	0.20	0.771	O	|	|	|	3.12
11.833	0.00	0.20	0.770	O	|	|	|	3.12
11.917	0.00	0.20	0.769	O	|	|	|	3.11
12.000	0.00	0.20	0.767	O	|	|	|	3.11
12.083	0.00	0.20	0.766	O	|	|	|	3.10
12.167	0.00	0.20	0.765	O	|	|	|	3.10
12.250	0.00	0.20	0.763	O	|	|	|	3.09
12.333	0.00	0.20	0.762	O	|	|	|	3.09
12.417	0.00	0.20	0.761	O	|	|	|	3.09
12.500	0.00	0.20	0.759	O	|	|	|	3.08
12.583	0.00	0.20	0.758	O	|	|	|	3.08
12.667	0.00	0.20	0.756	O	|	|	|	3.07
12.750	0.00	0.20	0.755	O	|	|	|	3.07
12.833	0.00	0.20	0.754	O	|	|	|	3.07
12.917	0.00	0.20	0.752	O	|	|	|	3.06
13.000	0.00	0.20	0.751	O	|	|	|	3.06
13.083	0.00	0.20	0.750	O	|	|	|	3.05
13.167	0.00	0.20	0.748	O	|	|	|	3.05
13.250	0.00	0.20	0.747	O	|	|	|	3.05
13.333	0.00	0.20	0.746	O	|	|	|	3.04
13.417	0.00	0.20	0.744	O	|	|	|	3.04
13.500	0.00	0.20	0.743	O	|	|	|	3.03
13.583	0.00	0.20	0.742	O	|	|	|	3.03
13.667	0.00	0.20	0.740	O	|	|	|	3.02
13.750	0.00	0.20	0.739	O	|	|	|	3.02
13.833	0.00	0.20	0.738	O	|	|	|	3.02
13.917	0.00	0.20	0.736	O	|	|	|	3.01
14.000	0.00	0.20	0.735	O	|	|	|	3.01
14.083	0.00	0.20	0.733	O	|	|	|	3.00

14.167	0.00	0.20	0.732	O				3.00
14.250	0.00	0.20	0.731	O				3.00
14.333	0.00	0.20	0.729	O				2.99
14.417	0.00	0.20	0.728	O				2.99
14.500	0.00	0.20	0.727	O				2.98
14.583	0.00	0.20	0.725	O				2.98
14.667	0.00	0.20	0.724	O				2.97
14.750	0.00	0.20	0.723	O				2.97
14.833	0.00	0.20	0.721	O				2.96
14.917	0.00	0.20	0.720	O				2.96
15.000	0.00	0.20	0.719	O				2.96
15.083	0.00	0.20	0.717	O				2.95
15.167	0.00	0.20	0.716	O				2.95
15.250	0.00	0.20	0.715	O				2.94
15.333	0.00	0.20	0.713	O				2.94
15.417	0.00	0.20	0.712	O				2.93
15.500	0.00	0.20	0.710	O				2.93
15.583	0.00	0.20	0.709	O				2.92
15.667	0.00	0.20	0.708	O				2.92
15.750	0.00	0.20	0.706	O				2.92
15.833	0.00	0.20	0.705	O				2.91
15.917	0.00	0.20	0.704	O				2.91
16.000	0.00	0.20	0.702	O				2.90
16.083	0.00	0.20	0.701	O				2.90
16.167	0.00	0.20	0.700	O				2.89
16.250	0.00	0.20	0.698	O				2.89
16.333	0.00	0.20	0.697	O				2.88
16.417	0.00	0.20	0.696	O				2.88
16.500	0.00	0.20	0.694	O				2.88
16.583	0.00	0.20	0.693	O				2.87
16.667	0.00	0.20	0.692	O				2.87
16.750	0.00	0.20	0.690	O				2.86
16.833	0.00	0.20	0.689	O				2.86
16.917	0.00	0.20	0.687	O				2.85
17.000	0.00	0.20	0.686	O				2.85
17.083	0.00	0.20	0.685	O				2.84
17.167	0.00	0.20	0.683	O				2.84
17.250	0.00	0.20	0.682	O				2.84
17.333	0.00	0.20	0.681	O				2.83
17.417	0.00	0.20	0.679	O				2.83
17.500	0.00	0.20	0.678	O				2.82
17.583	0.00	0.20	0.677	O				2.82
17.667	0.00	0.20	0.675	O				2.81
17.750	0.00	0.20	0.674	O				2.81
17.833	0.00	0.20	0.673	O				2.80
17.917	0.00	0.20	0.671	O				2.80
18.000	0.00	0.20	0.670	O				2.80
18.083	0.00	0.20	0.669	O				2.79
18.167	0.00	0.20	0.667	O				2.79
18.250	0.00	0.20	0.666	O				2.78

18.333	0.00	0.20	0.664	O	|	|	|	2.78
18.417	0.00	0.20	0.663	O	|	|	|	2.77
18.500	0.00	0.20	0.662	O	|	|	|	2.77
18.583	0.00	0.20	0.660	O	|	|	|	2.76
18.667	0.00	0.20	0.659	O	|	|	|	2.76
18.750	0.00	0.20	0.658	O	|	|	|	2.76
18.833	0.00	0.20	0.656	O	|	|	|	2.75
18.917	0.00	0.20	0.655	O	|	|	|	2.75
19.000	0.00	0.20	0.654	O	|	|	|	2.74
19.083	0.00	0.20	0.652	O	|	|	|	2.74
19.167	0.00	0.20	0.651	O	|	|	|	2.73
19.250	0.00	0.20	0.650	O	|	|	|	2.73
19.333	0.00	0.20	0.648	O	|	|	|	2.72
19.417	0.00	0.20	0.647	O	|	|	|	2.72
19.500	0.00	0.20	0.646	O	|	|	|	2.72
19.583	0.00	0.20	0.644	O	|	|	|	2.71
19.667	0.00	0.20	0.643	O	|	|	|	2.71
19.750	0.00	0.20	0.642	O	|	|	|	2.70
19.833	0.00	0.20	0.640	O	|	|	|	2.70
19.917	0.00	0.20	0.639	O	|	|	|	2.69
20.000	0.00	0.20	0.637	O	|	|	|	2.69
20.083	0.00	0.20	0.636	O	|	|	|	2.68
20.167	0.00	0.20	0.635	O	|	|	|	2.68
20.250	0.00	0.20	0.633	O	|	|	|	2.68
20.333	0.00	0.20	0.632	O	|	|	|	2.67
20.417	0.00	0.20	0.631	O	|	|	|	2.67
20.500	0.00	0.20	0.629	O	|	|	|	2.66
20.583	0.00	0.20	0.628	O	|	|	|	2.66
20.667	0.00	0.20	0.627	O	|	|	|	2.65
20.750	0.00	0.20	0.625	O	|	|	|	2.65
20.833	0.00	0.20	0.624	O	|	|	|	2.64
20.917	0.00	0.20	0.623	O	|	|	|	2.64
21.000	0.00	0.20	0.621	O	|	|	|	2.64
21.083	0.00	0.20	0.620	O	|	|	|	2.63
21.167	0.00	0.20	0.619	O	|	|	|	2.63
21.250	0.00	0.20	0.617	O	|	|	|	2.62
21.333	0.00	0.20	0.616	O	|	|	|	2.62
21.417	0.00	0.20	0.614	O	|	|	|	2.61
21.500	0.00	0.20	0.613	O	|	|	|	2.61
21.583	0.00	0.20	0.612	O	|	|	|	2.60
21.667	0.00	0.20	0.610	O	|	|	|	2.60
21.750	0.00	0.20	0.609	O	|	|	|	2.60
21.833	0.00	0.20	0.608	O	|	|	|	2.59
21.917	0.00	0.20	0.606	O	|	|	|	2.59
22.000	0.00	0.20	0.605	O	|	|	|	2.58
22.083	0.00	0.20	0.604	O	|	|	|	2.58
22.167	0.00	0.20	0.602	O	|	|	|	2.57
22.250	0.00	0.20	0.601	O	|	|	|	2.57
22.333	0.00	0.20	0.600	O	|	|	|	2.56
22.417	0.00	0.20	0.598	O	|	|	|	2.56

22.500	0.00	0.20	0.597	O				2.56
22.583	0.00	0.20	0.596	O				2.55
22.667	0.00	0.20	0.594	O				2.55
22.750	0.00	0.20	0.593	O				2.54
22.833	0.00	0.20	0.591	O				2.54
22.917	0.00	0.20	0.590	O				2.53
23.000	0.00	0.20	0.589	O				2.53
23.083	0.00	0.20	0.587	O				2.52
23.167	0.00	0.20	0.586	O				2.52
23.250	0.00	0.20	0.585	O				2.52
23.333	0.00	0.20	0.583	O				2.51
23.417	0.00	0.20	0.582	O				2.51
23.500	0.00	0.20	0.581	O				2.50
23.583	0.00	0.20	0.579	O				2.50
23.667	0.00	0.20	0.578	O				2.49
23.750	0.00	0.20	0.577	O				2.49
23.833	0.00	0.20	0.575	O				2.48
23.917	0.00	0.20	0.574	O				2.48
24.000	0.00	0.20	0.573	O				2.47
24.083	0.00	0.20	0.571	O				2.47
24.167	0.00	0.20	0.570	O				2.46
24.250	0.00	0.20	0.568	O				2.46
24.333	0.00	0.20	0.567	O				2.45
24.417	0.00	0.20	0.566	O				2.45
24.500	0.00	0.20	0.564	O				2.44
24.583	0.00	0.20	0.563	O				2.44
24.667	0.00	0.20	0.562	O				2.43
24.750	0.00	0.20	0.560	O				2.43
24.833	0.00	0.20	0.559	O				2.43
24.917	0.00	0.20	0.558	O				2.42
25.000	0.00	0.20	0.556	O				2.42
25.083	0.00	0.20	0.555	O				2.41
25.167	0.00	0.20	0.554	O				2.41
25.250	0.00	0.20	0.552	O				2.40
25.333	0.00	0.20	0.551	O				2.40
25.417	0.00	0.20	0.550	O				2.39
25.500	0.00	0.20	0.548	O				2.39
25.583	0.00	0.20	0.547	O				2.38
25.667	0.00	0.20	0.545	O				2.38
25.750	0.00	0.20	0.544	O				2.37
25.833	0.00	0.20	0.543	O				2.37
25.917	0.00	0.20	0.541	O				2.36
26.000	0.00	0.20	0.540	O				2.36
26.083	0.00	0.20	0.539	O				2.35
26.167	0.00	0.20	0.537	O				2.35
26.250	0.00	0.20	0.536	O				2.34
26.333	0.00	0.20	0.535	O				2.34
26.417	0.00	0.20	0.533	O				2.33
26.500	0.00	0.20	0.532	O				2.33
26.583	0.00	0.20	0.531	O				2.32

26.667	0.00	0.20	0.529	O				2.32
26.750	0.00	0.20	0.528	O				2.31
26.833	0.00	0.20	0.527	O				2.31
26.917	0.00	0.20	0.525	O				2.30
27.000	0.00	0.20	0.524	O				2.30
27.083	0.00	0.20	0.523	O				2.29
27.167	0.00	0.20	0.521	O				2.29
27.250	0.00	0.20	0.520	O				2.28
27.333	0.00	0.20	0.518	O				2.28
27.417	0.00	0.20	0.517	O				2.28
27.500	0.00	0.20	0.516	O				2.27
27.583	0.00	0.20	0.514	O				2.27
27.667	0.00	0.20	0.513	O				2.26
27.750	0.00	0.20	0.512	O				2.26
27.833	0.00	0.20	0.510	O				2.25
27.917	0.00	0.20	0.509	O				2.25
28.000	0.00	0.20	0.508	O				2.24
28.083	0.00	0.20	0.506	O				2.24
28.167	0.00	0.20	0.505	O				2.23
28.250	0.00	0.20	0.504	O				2.23
28.333	0.00	0.20	0.502	O				2.22
28.417	0.00	0.20	0.501	O				2.22
28.500	0.00	0.20	0.500	O				2.21
28.583	0.00	0.20	0.498	O				2.21
28.667	0.00	0.20	0.497	O				2.20
28.750	0.00	0.20	0.495	O				2.20
28.833	0.00	0.20	0.494	O				2.19
28.917	0.00	0.20	0.493	O				2.19
29.000	0.00	0.20	0.491	O				2.18
29.083	0.00	0.20	0.490	O				2.18
29.167	0.00	0.20	0.489	O				2.17
29.250	0.00	0.20	0.487	O				2.17
29.333	0.00	0.20	0.486	O				2.16
29.417	0.00	0.20	0.485	O				2.16
29.500	0.00	0.20	0.483	O				2.15
29.583	0.00	0.20	0.482	O				2.15
29.667	0.00	0.20	0.481	O				2.14
29.750	0.00	0.20	0.479	O				2.14
29.833	0.00	0.20	0.478	O				2.14
29.917	0.00	0.20	0.477	O				2.13
30.000	0.00	0.20	0.475	O				2.13
30.083	0.00	0.20	0.474	O				2.12
30.167	0.00	0.20	0.472	O				2.12
30.250	0.00	0.20	0.471	O				2.11
30.333	0.00	0.20	0.470	O				2.11
30.417	0.00	0.20	0.468	O				2.10
30.500	0.00	0.20	0.467	O				2.10
30.583	0.00	0.20	0.466	O				2.09
30.667	0.00	0.20	0.464	O				2.09
30.750	0.00	0.20	0.463	O				2.08

30.833	0.00	0.20	0.462	O	|	|	|	2.08
30.917	0.00	0.20	0.460	O	|	|	|	2.07
31.000	0.00	0.20	0.459	O	|	|	|	2.07
31.083	0.00	0.20	0.458	O	|	|	|	2.06
31.167	0.00	0.20	0.456	O	|	|	|	2.06
31.250	0.00	0.20	0.455	O	|	|	|	2.05
31.333	0.00	0.20	0.454	O	|	|	|	2.05
31.417	0.00	0.20	0.452	O	|	|	|	2.04
31.500	0.00	0.20	0.451	O	|	|	|	2.04
31.583	0.00	0.20	0.449	O	|	|	|	2.03
31.667	0.00	0.20	0.448	O	|	|	|	2.03
31.750	0.00	0.20	0.447	O	|	|	|	2.02
31.833	0.00	0.20	0.445	O	|	|	|	2.02
31.917	0.00	0.20	0.444	O	|	|	|	2.01
32.000	0.00	0.20	0.443	O	|	|	|	2.01
32.083	0.00	0.20	0.441	O	|	|	|	2.00
32.167	0.00	0.20	0.440	O	|	|	|	2.00
32.250	0.00	0.20	0.439	O	|	|	|	1.99
32.333	0.00	0.20	0.437	O	|	|	|	1.99
32.417	0.00	0.20	0.436	O	|	|	|	1.98
32.500	0.00	0.20	0.435	O	|	|	|	1.98
32.583	0.00	0.20	0.433	O	|	|	|	1.97
32.667	0.00	0.20	0.432	O	|	|	|	1.97
32.750	0.00	0.20	0.431	O	|	|	|	1.96
32.833	0.00	0.20	0.429	O	|	|	|	1.96
32.917	0.00	0.20	0.428	O	|	|	|	1.95
33.000	0.00	0.20	0.426	O	|	|	|	1.95
33.083	0.00	0.20	0.425	O	|	|	|	1.94
33.167	0.00	0.20	0.424	O	|	|	|	1.94
33.250	0.00	0.20	0.422	O	|	|	|	1.93
33.333	0.00	0.20	0.421	O	|	|	|	1.93
33.417	0.00	0.20	0.420	O	|	|	|	1.92
33.500	0.00	0.20	0.418	O	|	|	|	1.91
33.583	0.00	0.20	0.417	O	|	|	|	1.91
33.667	0.00	0.20	0.416	O	|	|	|	1.90
33.750	0.00	0.20	0.414	O	|	|	|	1.90
33.833	0.00	0.20	0.413	O	|	|	|	1.89
33.917	0.00	0.20	0.412	O	|	|	|	1.89
34.000	0.00	0.20	0.410	O	|	|	|	1.88
34.083	0.00	0.20	0.409	O	|	|	|	1.88
34.167	0.00	0.20	0.408	O	|	|	|	1.87
34.250	0.00	0.20	0.406	O	|	|	|	1.87
34.333	0.00	0.20	0.405	O	|	|	|	1.86
34.417	0.00	0.20	0.404	O	|	|	|	1.86
34.500	0.00	0.20	0.402	O	|	|	|	1.85
34.583	0.00	0.20	0.401	O	|	|	|	1.85
34.667	0.00	0.20	0.399	O	|	|	|	1.84
34.750	0.00	0.20	0.398	O	|	|	|	1.84
34.833	0.00	0.20	0.397	O	|	|	|	1.83
34.917	0.00	0.20	0.395	O	|	|	|	1.82

35.000	0.00	0.20	0.394	O	|	|	|	1.82
35.083	0.00	0.20	0.393	O	|	|	|	1.81
35.167	0.00	0.20	0.391	O	|	|	|	1.81
35.250	0.00	0.20	0.390	O	|	|	|	1.80
35.333	0.00	0.20	0.389	O	|	|	|	1.80
35.417	0.00	0.20	0.387	O	|	|	|	1.79
35.500	0.00	0.20	0.386	O	|	|	|	1.79
35.583	0.00	0.20	0.385	O	|	|	|	1.78
35.667	0.00	0.20	0.383	O	|	|	|	1.78
35.750	0.00	0.20	0.382	O	|	|	|	1.77
35.833	0.00	0.20	0.381	O	|	|	|	1.77
35.917	0.00	0.20	0.379	O	|	|	|	1.76
36.000	0.00	0.20	0.378	O	|	|	|	1.76
36.083	0.00	0.20	0.376	O	|	|	|	1.75
36.167	0.00	0.20	0.375	O	|	|	|	1.74
36.250	0.00	0.20	0.374	O	|	|	|	1.74
36.333	0.00	0.20	0.372	O	|	|	|	1.73
36.417	0.00	0.20	0.371	O	|	|	|	1.73
36.500	0.00	0.20	0.370	O	|	|	|	1.72
36.583	0.00	0.20	0.368	O	|	|	|	1.72
36.667	0.00	0.20	0.367	O	|	|	|	1.71
36.750	0.00	0.20	0.366	O	|	|	|	1.71
36.833	0.00	0.20	0.364	O	|	|	|	1.70
36.917	0.00	0.20	0.363	O	|	|	|	1.70
37.000	0.00	0.20	0.362	O	|	|	|	1.69
37.083	0.00	0.20	0.360	O	|	|	|	1.69
37.167	0.00	0.20	0.359	O	|	|	|	1.68
37.250	0.00	0.20	0.358	O	|	|	|	1.68
37.333	0.00	0.20	0.356	O	|	|	|	1.67
37.417	0.00	0.20	0.355	O	|	|	|	1.66
37.500	0.00	0.20	0.353	O	|	|	|	1.66
37.583	0.00	0.20	0.352	O	|	|	|	1.65
37.667	0.00	0.20	0.351	O	|	|	|	1.65
37.750	0.00	0.20	0.349	O	|	|	|	1.64
37.833	0.00	0.20	0.348	O	|	|	|	1.64
37.917	0.00	0.20	0.347	O	|	|	|	1.63
38.000	0.00	0.20	0.345	O	|	|	|	1.63
38.083	0.00	0.20	0.344	O	|	|	|	1.62
38.167	0.00	0.20	0.343	O	|	|	|	1.62
38.250	0.00	0.20	0.341	O	|	|	|	1.61
38.333	0.00	0.20	0.340	O	|	|	|	1.61
38.417	0.00	0.20	0.339	O	|	|	|	1.60
38.500	0.00	0.20	0.337	O	|	|	|	1.60
38.583	0.00	0.20	0.336	O	|	|	|	1.59
38.667	0.00	0.20	0.335	O	|	|	|	1.58
38.750	0.00	0.20	0.333	O	|	|	|	1.58
38.833	0.00	0.20	0.332	O	|	|	|	1.57
38.917	0.00	0.20	0.330	O	|	|	|	1.57
39.000	0.00	0.20	0.329	O	|	|	|	1.56
39.083	0.00	0.20	0.328	O	|	|	|	1.56

39.167	0.00	0.20	0.326	O	|	|	|	1.55
39.250	0.00	0.20	0.325	O	|	|	|	1.55
39.333	0.00	0.20	0.324	O	|	|	|	1.54
39.417	0.00	0.20	0.322	O	|	|	|	1.54
39.500	0.00	0.20	0.321	O	|	|	|	1.53
39.583	0.00	0.20	0.320	O	|	|	|	1.53
39.667	0.00	0.20	0.318	O	|	|	|	1.52
39.750	0.00	0.20	0.317	O	|	|	|	1.52
39.833	0.00	0.20	0.316	O	|	|	|	1.51
39.917	0.00	0.20	0.314	O	|	|	|	1.50
40.000	0.00	0.20	0.313	O	|	|	|	1.50
40.083	0.00	0.20	0.312	O	|	|	|	1.49
40.167	0.00	0.20	0.310	O	|	|	|	1.49
40.250	0.00	0.20	0.309	O	|	|	|	1.48
40.333	0.00	0.20	0.307	O	|	|	|	1.48
40.417	0.00	0.20	0.306	O	|	|	|	1.47
40.500	0.00	0.20	0.305	O	|	|	|	1.46
40.583	0.00	0.20	0.303	O	|	|	|	1.46
40.667	0.00	0.20	0.302	O	|	|	|	1.45
40.750	0.00	0.20	0.301	O	|	|	|	1.45
40.833	0.00	0.20	0.299	O	|	|	|	1.44
40.917	0.00	0.20	0.298	O	|	|	|	1.44
41.000	0.00	0.20	0.297	O	|	|	|	1.43
41.083	0.00	0.20	0.295	O	|	|	|	1.42
41.167	0.00	0.20	0.294	O	|	|	|	1.42
41.250	0.00	0.20	0.293	O	|	|	|	1.41
41.333	0.00	0.20	0.291	O	|	|	|	1.41
41.417	0.00	0.20	0.290	O	|	|	|	1.40
41.500	0.00	0.20	0.289	O	|	|	|	1.39
41.583	0.00	0.20	0.287	O	|	|	|	1.39
41.667	0.00	0.20	0.286	O	|	|	|	1.38
41.750	0.00	0.20	0.285	O	|	|	|	1.38
41.833	0.00	0.20	0.283	O	|	|	|	1.37
41.917	0.00	0.20	0.282	O	|	|	|	1.37
42.000	0.00	0.20	0.280	O	|	|	|	1.36
42.083	0.00	0.20	0.279	O	|	|	|	1.35
42.167	0.00	0.20	0.278	O	|	|	|	1.35
42.250	0.00	0.20	0.276	O	|	|	|	1.34
42.333	0.00	0.20	0.275	O	|	|	|	1.34
42.417	0.00	0.20	0.274	O	|	|	|	1.33
42.500	0.00	0.20	0.272	O	|	|	|	1.32
42.583	0.00	0.20	0.271	O	|	|	|	1.32
42.667	0.00	0.20	0.270	O	|	|	|	1.31
42.750	0.00	0.20	0.268	O	|	|	|	1.31
42.833	0.00	0.20	0.267	O	|	|	|	1.30
42.917	0.00	0.20	0.266	O	|	|	|	1.30
43.000	0.00	0.20	0.264	O	|	|	|	1.29
43.083	0.00	0.20	0.263	O	|	|	|	1.28
43.167	0.00	0.20	0.262	O	|	|	|	1.28
43.250	0.00	0.20	0.260	O	|	|	|	1.27

43.333	0.00	0.20	0.259	O				1.27
43.417	0.00	0.20	0.257	O				1.26
43.500	0.00	0.20	0.256	O				1.25
43.583	0.00	0.20	0.255	O				1.25
43.667	0.00	0.20	0.253	O				1.24
43.750	0.00	0.20	0.252	O				1.24
43.833	0.00	0.20	0.251	O				1.23
43.917	0.00	0.20	0.249	O				1.23
44.000	0.00	0.20	0.248	O				1.22
44.083	0.00	0.20	0.247	O				1.21
44.167	0.00	0.20	0.245	O				1.21
44.250	0.00	0.20	0.244	O				1.20
44.333	0.00	0.20	0.243	O				1.20
44.417	0.00	0.20	0.241	O				1.19
44.500	0.00	0.20	0.240	O				1.18
44.583	0.00	0.20	0.239	O				1.18
44.667	0.00	0.20	0.237	O				1.17
44.750	0.00	0.20	0.236	O				1.17
44.833	0.00	0.20	0.234	O				1.16
44.917	0.00	0.20	0.233	O				1.16
45.000	0.00	0.20	0.232	O				1.15
45.083	0.00	0.20	0.230	O				1.14
45.167	0.00	0.20	0.229	O				1.14
45.250	0.00	0.20	0.228	O				1.13
45.333	0.00	0.20	0.226	O				1.13
45.417	0.00	0.20	0.225	O				1.12
45.500	0.00	0.20	0.224	O				1.11
45.583	0.00	0.20	0.222	O				1.11
45.667	0.00	0.20	0.221	O				1.10
45.750	0.00	0.20	0.220	O				1.10
45.833	0.00	0.20	0.218	O				1.09
45.917	0.00	0.20	0.217	O				1.09
46.000	0.00	0.20	0.216	O				1.08
46.083	0.00	0.20	0.214	O				1.07
46.167	0.00	0.20	0.213	O				1.07
46.250	0.00	0.20	0.211	O				1.06
46.333	0.00	0.20	0.210	O				1.06
46.417	0.00	0.20	0.209	O				1.05
46.500	0.00	0.20	0.207	O				1.04
46.583	0.00	0.20	0.206	O				1.04
46.667	0.00	0.20	0.205	O				1.03
46.750	0.00	0.20	0.203	O				1.03
46.833	0.00	0.20	0.202	O				1.02
46.917	0.00	0.20	0.201	O				1.02
47.000	0.00	0.20	0.199	O				1.01
47.083	0.00	0.20	0.198	O				1.00
47.167	0.00	0.20	0.197	O				1.00
47.250	0.00	0.19	0.195	O				0.99
47.333	0.00	0.19	0.194	O				0.99
47.417	0.00	0.19	0.193	O				0.98

47.500	0.00	0.19	0.191	O	|	|	|	0.97
47.583	0.00	0.18	0.190	O	|	|	|	0.97
47.667	0.00	0.18	0.189	O	|	|	|	0.96
47.750	0.00	0.18	0.188	O	|	|	|	0.95
47.833	0.00	0.18	0.186	O	|	|	|	0.95
47.917	0.00	0.17	0.185	O	|	|	|	0.94
48.000	0.00	0.17	0.184	O	|	|	|	0.94
48.083	0.00	0.17	0.183	O	|	|	|	0.93
48.167	0.00	0.17	0.182	O	|	|	|	0.93
48.250	0.00	0.17	0.180	O	|	|	|	0.92
48.333	0.00	0.16	0.179	O	|	|	|	0.92
48.417	0.00	0.16	0.178	O	|	|	|	0.91
48.500	0.00	0.16	0.177	O	|	|	|	0.90
48.583	0.00	0.16	0.176	O	|	|	|	0.90
48.667	0.00	0.15	0.175	O	|	|	|	0.89
48.750	0.00	0.15	0.174	O	|	|	|	0.89
48.833	0.00	0.15	0.173	O	|	|	|	0.88
48.917	0.00	0.15	0.172	O	|	|	|	0.88
49.000	0.00	0.15	0.171	O	|	|	|	0.87
49.083	0.00	0.15	0.170	O	|	|	|	0.87
49.167	0.00	0.14	0.169	O	|	|	|	0.86
49.250	0.00	0.14	0.168	O	|	|	|	0.86
49.333	0.00	0.14	0.167	O	|	|	|	0.86
49.417	0.00	0.14	0.166	O	|	|	|	0.85
49.500	0.00	0.14	0.165	O	|	|	|	0.85
49.583	0.00	0.13	0.164	O	|	|	|	0.84
49.667	0.00	0.13	0.163	O	|	|	|	0.84
49.750	0.00	0.13	0.162	O	|	|	|	0.83
49.833	0.00	0.13	0.161	O	|	|	|	0.83
49.917	0.00	0.13	0.160	O	|	|	|	0.82
50.000	0.00	0.13	0.160	O	|	|	|	0.82
50.083	0.00	0.12	0.159	O	|	|	|	0.82
50.167	0.00	0.12	0.158	O	|	|	|	0.81
50.250	0.00	0.12	0.157	O	|	|	|	0.81
50.333	0.00	0.12	0.156	O	|	|	|	0.80
50.417	0.00	0.12	0.155	O	|	|	|	0.80
50.500	0.00	0.12	0.155	O	|	|	|	0.80
50.583	0.00	0.11	0.154	O	|	|	|	0.79
50.667	0.00	0.11	0.153	O	|	|	|	0.79
50.750	0.00	0.11	0.152	O	|	|	|	0.78
50.833	0.00	0.11	0.151	O	|	|	|	0.78
50.917	0.00	0.11	0.151	O	|	|	|	0.78
51.000	0.00	0.11	0.150	O	|	|	|	0.77
51.083	0.00	0.11	0.149	O	|	|	|	0.77
51.167	0.00	0.10	0.149	O	|	|	|	0.77
51.250	0.00	0.10	0.148	O	|	|	|	0.76
51.333	0.00	0.10	0.147	O	|	|	|	0.76
51.417	0.00	0.10	0.146	O	|	|	|	0.76
51.500	0.00	0.10	0.146	O	|	|	|	0.75
51.583	0.00	0.10	0.145	O	|	|	|	0.75

51.667	0.00	0.10	0.144	O				0.75
51.750	0.00	0.10	0.144	O				0.74
51.833	0.00	0.09	0.143	O				0.74
51.917	0.00	0.09	0.142	O				0.74
52.000	0.00	0.09	0.142	O				0.73
52.083	0.00	0.09	0.141	O				0.73
52.167	0.00	0.09	0.140	O				0.73
52.250	0.00	0.09	0.140	O				0.73
52.333	0.00	0.09	0.139	O				0.72
52.417	0.00	0.09	0.139	O				0.72
52.500	0.00	0.09	0.138	O				0.72
52.583	0.00	0.08	0.137	O				0.71
52.667	0.00	0.08	0.137	O				0.71
52.750	0.00	0.08	0.136	O				0.71
52.833	0.00	0.08	0.136	O				0.71
52.917	0.00	0.08	0.135	O				0.70
53.000	0.00	0.08	0.135	O				0.70
53.083	0.00	0.08	0.134	O				0.70
53.167	0.00	0.08	0.134	O				0.70
53.250	0.00	0.08	0.133	O				0.69
53.333	0.00	0.07	0.133	O				0.69
53.417	0.00	0.07	0.132	O				0.69
53.500	0.00	0.07	0.132	O				0.69
53.583	0.00	0.07	0.131	O				0.68
53.667	0.00	0.07	0.131	O				0.68
53.750	0.00	0.07	0.130	O				0.68
53.833	0.00	0.07	0.130	O				0.68
53.917	0.00	0.07	0.129	O				0.67
54.000	0.00	0.07	0.129	O				0.67
54.083	0.00	0.07	0.128	O				0.67
54.167	0.00	0.07	0.128	O				0.67
54.250	0.00	0.06	0.127	O				0.66
54.333	0.00	0.06	0.127	O				0.66
54.417	0.00	0.06	0.126	O				0.66
54.500	0.00	0.06	0.126	O				0.66
54.583	0.00	0.06	0.126	O				0.66
54.667	0.00	0.06	0.125	O				0.65
54.750	0.00	0.06	0.125	O				0.65
54.833	0.00	0.06	0.124	O				0.65
54.917	0.00	0.06	0.124	O				0.65
55.000	0.00	0.06	0.124	O				0.65
55.083	0.00	0.06	0.123	O				0.64
55.167	0.00	0.06	0.123	O				0.64
55.250	0.00	0.06	0.122	O				0.64
55.333	0.00	0.05	0.122	O				0.64
55.417	0.00	0.05	0.122	O				0.64
55.500	0.00	0.05	0.121	O				0.64
55.583	0.00	0.05	0.121	O				0.63
55.667	0.00	0.05	0.121	O				0.63
55.750	0.00	0.05	0.120	O				0.63

55.833	0.00	0.05	0.120	O	|	|	|	0.63
55.917	0.00	0.05	0.119	O	|	|	|	0.63
56.000	0.00	0.05	0.119	O	|	|	|	0.63
56.083	0.00	0.05	0.119	O	|	|	|	0.62
56.167	0.00	0.05	0.118	O	|	|	|	0.62
56.250	0.00	0.05	0.118	O	|	|	|	0.62
56.333	0.00	0.05	0.118	O	|	|	|	0.62
56.417	0.00	0.05	0.117	O	|	|	|	0.62
56.500	0.00	0.05	0.117	O	|	|	|	0.62
56.583	0.00	0.05	0.117	O	|	|	|	0.61
56.667	0.00	0.04	0.117	O	|	|	|	0.61
56.750	0.00	0.04	0.116	O	|	|	|	0.61
56.833	0.00	0.04	0.116	O	|	|	|	0.61
56.917	0.00	0.04	0.116	O	|	|	|	0.61
57.000	0.00	0.04	0.115	O	|	|	|	0.61
57.083	0.00	0.04	0.115	O	|	|	|	0.61
57.167	0.00	0.04	0.115	O	|	|	|	0.60
57.250	0.00	0.04	0.114	O	|	|	|	0.60
57.333	0.00	0.04	0.114	O	|	|	|	0.60
57.417	0.00	0.04	0.114	O	|	|	|	0.60
57.500	0.00	0.04	0.114	O	|	|	|	0.60
57.583	0.00	0.04	0.113	O	|	|	|	0.60
57.667	0.00	0.04	0.113	O	|	|	|	0.60
57.750	0.00	0.04	0.113	O	|	|	|	0.60
57.833	0.00	0.04	0.113	O	|	|	|	0.59
57.917	0.00	0.04	0.112	O	|	|	|	0.59
58.000	0.00	0.04	0.112	O	|	|	|	0.59
58.083	0.00	0.04	0.112	O	|	|	|	0.59
58.167	0.00	0.04	0.112	O	|	|	|	0.59
58.250	0.00	0.03	0.111	O	|	|	|	0.59
58.333	0.00	0.03	0.111	O	|	|	|	0.59
58.417	0.00	0.03	0.111	O	|	|	|	0.59
58.500	0.00	0.03	0.111	O	|	|	|	0.58
58.583	0.00	0.03	0.110	O	|	|	|	0.58
58.667	0.00	0.03	0.110	O	|	|	|	0.58
58.750	0.00	0.03	0.110	O	|	|	|	0.58
58.833	0.00	0.03	0.110	O	|	|	|	0.58
58.917	0.00	0.03	0.110	O	|	|	|	0.58
59.000	0.00	0.03	0.109	O	|	|	|	0.58
59.083	0.00	0.03	0.109	O	|	|	|	0.58
59.167	0.00	0.03	0.109	O	|	|	|	0.58
59.250	0.00	0.03	0.109	O	|	|	|	0.58
59.333	0.00	0.03	0.109	O	|	|	|	0.57
59.417	0.00	0.03	0.108	O	|	|	|	0.57
59.500	0.00	0.03	0.108	O	|	|	|	0.57
59.583	0.00	0.03	0.108	O	|	|	|	0.57
59.667	0.00	0.03	0.108	O	|	|	|	0.57
59.750	0.00	0.03	0.108	O	|	|	|	0.57
59.833	0.00	0.03	0.107	O	|	|	|	0.57
59.917	0.00	0.03	0.107	O	|	|	|	0.57

60.000	0.00	0.03	0.107	O	|	|	|	0.57
60.083	0.00	0.03	0.107	O	|	|	|	0.57
60.167	0.00	0.03	0.107	O	|	|	|	0.57
60.250	0.00	0.03	0.106	O	|	|	|	0.56
60.333	0.00	0.03	0.106	O	|	|	|	0.56
60.417	0.00	0.02	0.106	O	|	|	|	0.56
60.500	0.00	0.02	0.106	O	|	|	|	0.56
60.583	0.00	0.02	0.106	O	|	|	|	0.56
60.667	0.00	0.02	0.106	O	|	|	|	0.56
60.750	0.00	0.02	0.105	O	|	|	|	0.56
60.833	0.00	0.02	0.105	O	|	|	|	0.56
60.917	0.00	0.02	0.105	O	|	|	|	0.56
61.000	0.00	0.02	0.105	O	|	|	|	0.56
61.083	0.00	0.02	0.105	O	|	|	|	0.56
61.167	0.00	0.02	0.105	O	|	|	|	0.56
61.250	0.00	0.02	0.105	O	|	|	|	0.56
61.333	0.00	0.02	0.104	O	|	|	|	0.55
61.417	0.00	0.02	0.104	O	|	|	|	0.55
61.500	0.00	0.02	0.104	O	|	|	|	0.55
61.583	0.00	0.02	0.104	O	|	|	|	0.55
61.667	0.00	0.02	0.104	O	|	|	|	0.55
61.750	0.00	0.02	0.104	O	|	|	|	0.55
61.833	0.00	0.02	0.104	O	|	|	|	0.55
61.917	0.00	0.02	0.103	O	|	|	|	0.55
62.000	0.00	0.02	0.103	O	|	|	|	0.55
62.083	0.00	0.02	0.103	O	|	|	|	0.55
62.167	0.00	0.02	0.103	O	|	|	|	0.55
62.250	0.00	0.02	0.103	O	|	|	|	0.55
62.333	0.00	0.02	0.103	O	|	|	|	0.55
62.417	0.00	0.02	0.103	O	|	|	|	0.55
62.500	0.00	0.02	0.102	O	|	|	|	0.55
62.583	0.00	0.02	0.102	O	|	|	|	0.54
62.667	0.00	0.02	0.102	O	|	|	|	0.54
62.750	0.00	0.02	0.102	O	|	|	|	0.54
62.833	0.00	0.02	0.102	O	|	|	|	0.54
62.917	0.00	0.02	0.102	O	|	|	|	0.54
63.000	0.00	0.02	0.102	O	|	|	|	0.54
63.083	0.00	0.02	0.102	O	|	|	|	0.54
63.167	0.00	0.02	0.102	O	|	|	|	0.54
63.250	0.00	0.02	0.101	O	|	|	|	0.54
63.333	0.00	0.02	0.101	O	|	|	|	0.54
63.417	0.00	0.02	0.101	O	|	|	|	0.54
63.500	0.00	0.02	0.101	O	|	|	|	0.54
63.583	0.00	0.02	0.101	O	|	|	|	0.54
63.667	0.00	0.01	0.101	O	|	|	|	0.54
63.750	0.00	0.01	0.101	O	|	|	|	0.54
63.833	0.00	0.01	0.101	O	|	|	|	0.54
63.917	0.00	0.01	0.101	O	|	|	|	0.54
64.000	0.00	0.01	0.100	O	|	|	|	0.54
64.083	0.00	0.01	0.100	O	|	|	|	0.54

64.167	0.00	0.01	0.100	O	|	|	|	0.54
64.250	0.00	0.01	0.100	O	|	|	|	0.53
64.333	0.00	0.01	0.100	O	|	|	|	0.53
64.417	0.00	0.01	0.100	O	|	|	|	0.53
64.500	0.00	0.01	0.100	O	|	|	|	0.53
64.583	0.00	0.01	0.100	O	|	|	|	0.53
64.667	0.00	0.01	0.100	O	|	|	|	0.53
64.750	0.00	0.01	0.100	O	|	|	|	0.53
64.833	0.00	0.01	0.100	O	|	|	|	0.53
64.917	0.00	0.01	0.099	O	|	|	|	0.53
65.000	0.00	0.01	0.099	O	|	|	|	0.53
65.083	0.00	0.01	0.099	O	|	|	|	0.53
65.167	0.00	0.01	0.099	O	|	|	|	0.53
65.250	0.00	0.01	0.099	O	|	|	|	0.53
65.333	0.00	0.01	0.099	O	|	|	|	0.53
65.417	0.00	0.01	0.099	O	|	|	|	0.53
65.500	0.00	0.01	0.099	O	|	|	|	0.53
65.583	0.00	0.01	0.099	O	|	|	|	0.53
65.667	0.00	0.01	0.099	O	|	|	|	0.53
65.750	0.00	0.01	0.099	O	|	|	|	0.53
65.833	0.00	0.01	0.099	O	|	|	|	0.53
65.917	0.00	0.01	0.099	O	|	|	|	0.53
66.000	0.00	0.01	0.098	O	|	|	|	0.53
66.083	0.00	0.01	0.098	O	|	|	|	0.53
66.167	0.00	0.01	0.098	O	|	|	|	0.53
66.250	0.00	0.01	0.098	O	|	|	|	0.53
66.333	0.00	0.01	0.098	O	|	|	|	0.53
66.417	0.00	0.01	0.098	O	|	|	|	0.52
66.500	0.00	0.01	0.098	O	|	|	|	0.52
66.583	0.00	0.01	0.098	O	|	|	|	0.52
66.667	0.00	0.01	0.098	O	|	|	|	0.52
66.750	0.00	0.01	0.098	O	|	|	|	0.52
66.833	0.00	0.01	0.098	O	|	|	|	0.52
66.917	0.00	0.01	0.098	O	|	|	|	0.52
67.000	0.00	0.01	0.098	O	|	|	|	0.52
67.083	0.00	0.01	0.098	O	|	|	|	0.52
67.167	0.00	0.01	0.098	O	|	|	|	0.52
67.250	0.00	0.01	0.098	O	|	|	|	0.52
67.333	0.00	0.01	0.097	O	|	|	|	0.52
67.417	0.00	0.01	0.097	O	|	|	|	0.52
67.500	0.00	0.01	0.097	O	|	|	|	0.52
67.583	0.00	0.01	0.097	O	|	|	|	0.52
67.667	0.00	0.01	0.097	O	|	|	|	0.52
67.750	0.00	0.01	0.097	O	|	|	|	0.52
67.833	0.00	0.01	0.097	O	|	|	|	0.52
67.917	0.00	0.01	0.097	O	|	|	|	0.52
68.000	0.00	0.01	0.097	O	|	|	|	0.52
68.083	0.00	0.01	0.097	O	|	|	|	0.52
68.167	0.00	0.01	0.097	O	|	|	|	0.52
68.250	0.00	0.01	0.097	O	|	|	|	0.52

68.333	0.00	0.01	0.097	O	|	|	|	0.52
68.417	0.00	0.01	0.097	O	|	|	|	0.52
68.500	0.00	0.01	0.097	O	|	|	|	0.52
68.583	0.00	0.01	0.097	O	|	|	|	0.52
68.667	0.00	0.01	0.097	O	|	|	|	0.52
68.750	0.00	0.01	0.097	O	|	|	|	0.52
68.833	0.00	0.01	0.097	O	|	|	|	0.52
68.917	0.00	0.01	0.096	O	|	|	|	0.52
69.000	0.00	0.01	0.096	O	|	|	|	0.52
69.083	0.00	0.01	0.096	O	|	|	|	0.52
69.167	0.00	0.01	0.096	O	|	|	|	0.52
69.250	0.00	0.01	0.096	O	|	|	|	0.52
69.333	0.00	0.01	0.096	O	|	|	|	0.52
69.417	0.00	0.01	0.096	O	|	|	|	0.52
69.500	0.00	0.01	0.096	O	|	|	|	0.52
69.583	0.00	0.01	0.096	O	|	|	|	0.52
69.667	0.00	0.01	0.096	O	|	|	|	0.51
69.750	0.00	0.01	0.096	O	|	|	|	0.51
69.833	0.00	0.01	0.096	O	|	|	|	0.51
69.917	0.00	0.01	0.096	O	|	|	|	0.51
70.000	0.00	0.01	0.096	O	|	|	|	0.51
70.083	0.00	0.01	0.096	O	|	|	|	0.51
70.167	0.00	0.01	0.096	O	|	|	|	0.51
70.250	0.00	0.01	0.096	O	|	|	|	0.51
70.333	0.00	0.01	0.096	O	|	|	|	0.51
70.417	0.00	0.01	0.096	O	|	|	|	0.51
70.500	0.00	0.01	0.096	O	|	|	|	0.51
70.583	0.00	0.01	0.096	O	|	|	|	0.51
70.667	0.00	0.00	0.096	O	|	|	|	0.51
70.750	0.00	0.00	0.096	O	|	|	|	0.51
70.833	0.00	0.00	0.096	O	|	|	|	0.51
70.917	0.00	0.00	0.096	O	|	|	|	0.51
71.000	0.00	0.00	0.096	O	|	|	|	0.51
71.083	0.00	0.00	0.095	O	|	|	|	0.51
71.167	0.00	0.00	0.095	O	|	|	|	0.51
71.250	0.00	0.00	0.095	O	|	|	|	0.51
71.333	0.00	0.00	0.095	O	|	|	|	0.51
71.417	0.00	0.00	0.095	O	|	|	|	0.51
71.500	0.00	0.00	0.095	O	|	|	|	0.51
71.583	0.00	0.00	0.095	O	|	|	|	0.51
71.667	0.00	0.00	0.095	O	|	|	|	0.51
71.750	0.00	0.00	0.095	O	|	|	|	0.51
71.833	0.00	0.00	0.095	O	|	|	|	0.51
71.917	0.00	0.00	0.095	O	|	|	|	0.51
72.000	0.00	0.00	0.095	O	|	|	|	0.51
72.083	0.00	0.00	0.095	O	|	|	|	0.51
72.167	0.00	0.00	0.095	O	|	|	|	0.51
72.250	0.00	0.00	0.095	O	|	|	|	0.51
72.333	0.00	0.00	0.095	O	|	|	|	0.51
72.417	0.00	0.00	0.095	O	|	|	|	0.51

72.500	0.00	0.00	0.095	O				0.51
72.583	0.00	0.00	0.095	O				0.51
72.667	0.00	0.00	0.095	O				0.51
72.750	0.00	0.00	0.095	O				0.51
72.833	0.00	0.00	0.095	O				0.51
72.917	0.00	0.00	0.095	O				0.51
73.000	0.00	0.00	0.095	O				0.51
73.083	0.00	0.00	0.095	O				0.51
73.167	0.00	0.00	0.095	O				0.51
73.250	0.00	0.00	0.095	O				0.51
73.333	0.00	0.00	0.095	O				0.51
73.417	0.00	0.00	0.095	O				0.51
73.500	0.00	0.00	0.095	O				0.51
73.583	0.00	0.00	0.095	O				0.51
73.667	0.00	0.00	0.095	O				0.51
73.750	0.00	0.00	0.095	O				0.51
73.833	0.00	0.00	0.095	O				0.51
73.917	0.00	0.00	0.095	O				0.51
74.000	0.00	0.00	0.095	O				0.51
74.083	0.00	0.00	0.095	O				0.51
74.167	0.00	0.00	0.095	O				0.51
74.250	0.00	0.00	0.095	O				0.51
74.333	0.00	0.00	0.094	O				0.51
74.417	0.00	0.00	0.094	O				0.51
74.500	0.00	0.00	0.094	O				0.51
74.583	0.00	0.00	0.094	O				0.51
74.667	0.00	0.00	0.094	O				0.51
74.750	0.00	0.00	0.094	O				0.51
74.833	0.00	0.00	0.094	O				0.51
74.917	0.00	0.00	0.094	O				0.51
75.000	0.00	0.00	0.094	O				0.51
75.083	0.00	0.00	0.094	O				0.51
75.167	0.00	0.00	0.094	O				0.51
75.250	0.00	0.00	0.094	O				0.51
75.333	0.00	0.00	0.094	O				0.51
75.417	0.00	0.00	0.094	O				0.51
75.500	0.00	0.00	0.094	O				0.51
75.583	0.00	0.00	0.094	O				0.51
75.667	0.00	0.00	0.094	O				0.51
75.750	0.00	0.00	0.094	O				0.51
75.833	0.00	0.00	0.094	O				0.51
75.917	0.00	0.00	0.094	O				0.51
76.000	0.00	0.00	0.094	O				0.51
76.083	0.00	0.00	0.094	O				0.51
76.167	0.00	0.00	0.094	O				0.51
76.250	0.00	0.00	0.094	O				0.51
76.333	0.00	0.00	0.094	O				0.51
76.417	0.00	0.00	0.094	O				0.51
76.500	0.00	0.00	0.094	O				0.51
76.583	0.00	0.00	0.094	O				0.51

76.667	0.00	0.00	0.094	O	|	|	|	|	0.50
76.750	0.00	0.00	0.094	O	|	|	|	|	0.50
76.833	0.00	0.00	0.094	O	|	|	|	|	0.50
76.917	0.00	0.00	0.094	O	|	|	|	|	0.50
77.000	0.00	0.00	0.094	O	|	|	|	|	0.50
77.083	0.00	0.00	0.094	O	|	|	|	|	0.50
77.167	0.00	0.00	0.094	O	|	|	|	|	0.50
77.250	0.00	0.00	0.094	O	|	|	|	|	0.50
77.333	0.00	0.00	0.094	O	|	|	|	|	0.50
77.417	0.00	0.00	0.094	O	|	|	|	|	0.50
77.500	0.00	0.00	0.094	O	|	|	|	|	0.50
77.583	0.00	0.00	0.094	O	|	|	|	|	0.50
77.667	0.00	0.00	0.094	O	|	|	|	|	0.50
77.750	0.00	0.00	0.094	O	|	|	|	|	0.50
77.833	0.00	0.00	0.094	O	|	|	|	|	0.50
77.917	0.00	0.00	0.094	O	|	|	|	|	0.50
78.000	0.00	0.00	0.094	O	|	|	|	|	0.50
78.083	0.00	0.00	0.094	O	|	|	|	|	0.50
78.167	0.00	0.00	0.094	O	|	|	|	|	0.50
78.250	0.00	0.00	0.094	O	|	|	|	|	0.50
78.333	0.00	0.00	0.094	O	|	|	|	|	0.50
78.417	0.00	0.00	0.094	O	|	|	|	|	0.50
78.500	0.00	0.00	0.094	O	|	|	|	|	0.50
78.583	0.00	0.00	0.094	O	|	|	|	|	0.50
78.667	0.00	0.00	0.094	O	|	|	|	|	0.50
78.750	0.00	0.00	0.094	O	|	|	|	|	0.50
78.833	0.00	0.00	0.094	O	|	|	|	|	0.50
78.917	0.00	0.00	0.094	O	|	|	|	|	0.50
79.000	0.00	0.00	0.094	O	|	|	|	|	0.50
79.083	0.00	0.00	0.094	O	|	|	|	|	0.50
79.167	0.00	0.00	0.094	O	|	|	|	|	0.50
79.250	0.00	0.00	0.094	O	|	|	|	|	0.50
79.333	0.00	0.00	0.094	O	|	|	|	|	0.50
79.417	0.00	0.00	0.094	O	|	|	|	|	0.50
79.500	0.00	0.00	0.094	O	|	|	|	|	0.50
79.583	0.00	0.00	0.094	O	|	|	|	|	0.50
79.667	0.00	0.00	0.094	O	|	|	|	|	0.50
79.750	0.00	0.00	0.094	O	|	|	|	|	0.50
79.833	0.00	0.00	0.094	O	|	|	|	|	0.50
79.917	0.00	0.00	0.094	O	|	|	|	|	0.50
80.000	0.00	0.00	0.094	O	|	|	|	|	0.50
80.083	0.00	0.00	0.094	O	|	|	|	|	0.50
80.167	0.00	0.00	0.094	O	|	|	|	|	0.50
80.250	0.00	0.00	0.094	O	|	|	|	|	0.50
80.333	0.00	0.00	0.094	O	|	|	|	|	0.50
80.417	0.00	0.00	0.094	O	|	|	|	|	0.50
80.500	0.00	0.00	0.094	O	|	|	|	|	0.50
80.583	0.00	0.00	0.094	O	|	|	|	|	0.50
80.667	0.00	0.00	0.094	O	|	|	|	|	0.50
80.750	0.00	0.00	0.094	O	|	|	|	|	0.50

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80.833    0.00    0.00      0.094  O       |       |       |       |     0.50
80.917    0.00    0.00      0.094  O       |       |       |       |     0.50
81.000    0.00    0.00      0.094  O       |       |       |       |     0.50

       Remaining water in basin =    0.09 (Ac.Ft)


       ****************************HYDROGRAPH DATA****************************
                     Number of intervals =   972
                     Time interval =    5.0 (Min.)
                     Maximum/Peak flow rate =        1.286 (CFS)
                     Total volume =       0.905 (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

Study date: 08/24/22

A21626 DMA 1 100YR-6HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA1Q100UH6100.rte
**********HYDROGRAPH DATA**********
Number of intervals = 75
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 10.699 (CFS)
Total volume = 1.341 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.00(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.50(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   4.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   1.00(Ft.)    Capacity =   6.28(CFS)

Total outflow at this depth =      6.48(CFS)

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Total number of inflow hydrograph intervals = 75
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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
0.500	0.093	0.000	0.093	0.093
1.000	0.197	0.196	0.196	0.198
1.500	0.313	0.196	0.312	0.314
2.000	0.440	0.196	0.439	0.441
2.500	0.580	0.196	0.579	0.581
3.000	0.732	0.196	0.731	0.733
3.500	0.897	0.196	0.896	0.898
4.000	1.075	4.639	1.059	1.091
4.500	1.267	6.480	1.245	1.289

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 2.7 5.35 8.02 10.70	Depth (Ft.)
0.083	0.44	0.00	0.002	OI | | | |	0.01
0.167	0.86	0.00	0.006	O I | | | |	0.03
0.250	0.99	0.00	0.012	O I | | | |	0.07
0.333	1.02	0.00	0.019	O I | | | |	0.10
0.417	1.02	0.00	0.026	O I | | | |	0.14
0.500	1.12	0.00	0.034	O I | | | |	0.18
0.583	1.20	0.00	0.042	O I | | | |	0.22
0.667	1.21	0.00	0.050	O I | | | |	0.27
0.750	1.22	0.00	0.058	O I | | | |	0.31
0.833	1.22	0.00	0.067	O I | | | |	0.36
0.917	1.22	0.00	0.075	O I | | | |	0.40
1.000	1.33	0.00	0.084	O I | | | |	0.45
1.083	1.41	0.00	0.093	O I | | | |	0.50
1.167	1.43	0.02	0.103	O I | | | |	0.55
1.250	1.43	0.04	0.113	O I | | | |	0.59
1.333	1.43	0.05	0.122	O I | | | |	0.64
1.417	1.43	0.07	0.132	O I | | | |	0.69
1.500	1.43	0.09	0.141	O I | | | |	0.73
1.583	1.43	0.11	0.150	O I | | | |	0.77

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1.667    1.43    0.12      0.159  O   I   |       |       |       |     0.82
1.750    1.43    0.14      0.168  O   I   |       |       |       |     0.86
1.833    1.43    0.16      0.177  O   I   |       |       |       |     0.90
1.917    1.43    0.17      0.185  O   I   |       |       |       |     0.94
2.000    1.54    0.19      0.194  O   I   |       |       |       |     0.99
2.083    1.52    0.20      0.204  O   I   |       |       |       |     1.03
2.167    1.56    0.20      0.213  O   I   |       |       |       |     1.07
2.250    1.63    0.20      0.223  O   I   |       |       |       |     1.11
2.333    1.64    0.20      0.232  O   I   |       |       |       |     1.15
2.417    1.65    0.20      0.242  O   I   |       |       |       |     1.20
2.500    1.65    0.20      0.252  O   I   |       |       |       |     1.24
2.583    1.65    0.20      0.262  O   I   |       |       |       |     1.28
2.667    1.65    0.20      0.272  O   I   |       |       |       |     1.32
2.750    1.76    0.20      0.283  O    I  |       |       |       |     1.37
2.833    1.84    0.20      0.294  O    I  |       |       |       |     1.42
2.917    1.86    0.20      0.305  O    I  |       |       |       |     1.47
3.000    1.86    0.20      0.317  O    I  |       |       |       |     1.51
3.083    1.86    0.20      0.328  O    I  |       |       |       |     1.56
3.167    1.97    0.20      0.340  O    I  |       |       |       |     1.61
3.250    2.06    0.20      0.352  O     I |       |       |       |     1.66
3.333    2.07    0.20      0.365  O     I |       |       |       |     1.71
3.417    2.19    0.20      0.379  O     I |       |       |       |     1.76
3.500    2.38    0.20      0.393  O      I|       |       |       |     1.81
3.583    2.59    0.20      0.409  O      I|       |       |       |     1.88
3.667    2.70    0.20      0.426  O       I       |       |       |     1.94
3.750    2.83    0.20      0.443  O       I       |       |       |     2.01
3.833    2.92    0.20      0.462  O       I       |       |       |     2.08
3.917    3.04    0.20      0.481  O       |I      |       |       |     2.15
4.000    3.13    0.20      0.501  O       |I      |       |       |     2.22
4.083    3.26    0.20      0.521  O       |I      |       |       |     2.29
4.167    3.46    0.20      0.543  O       | I     |       |       |     2.37
4.250    3.67    0.20      0.566  O       | I     |       |       |     2.45
4.333    3.88    0.20      0.591  O       |  I    |       |       |     2.54
4.417    4.10    0.20      0.617  O       |   I   |       |       |     2.62
4.500    4.20    0.20      0.644  O       |   I   |       |       |     2.71
4.583    4.33    0.20      0.672  O       |   I   |       |       |     2.80
4.667    4.53    0.20      0.702  O       |    I  |       |       |     2.90
4.750    4.74    0.20      0.732  O       |     I |       |       |     3.00
4.833    4.85    0.20      0.764  O       |     I |       |       |     3.10
4.917    4.98    0.20      0.796  O       |     I |       |       |     3.19
5.000    5.18    0.20      0.830  O       |      I|       |       |     3.30
5.083    5.83    0.20      0.866  O       |       |I      |       |     3.41
5.167    6.83    0.46      0.908  |O      |       |   I   |       |     3.53
5.250    7.66    1.54      0.951  |   O   |       |     I |       |     3.65
5.333    8.35    2.56      0.992  |      O|       |       I       |     3.77
5.417    9.22    3.55      1.031  |       | O     |       |  I    |     3.88
5.500   10.70    4.56      1.072  |       |    O  |       |      I|     3.99
5.583    7.47    4.90      1.102  |       |     O |     I |       |     4.07
5.667    3.35    4.93      1.105  |       | I   O |       |       |     4.08
5.750    1.66    4.77      1.089  |   I   |     O |       |       |     4.04
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5.833	1.03	4.43	1.067	| I | O |				3.98
5.917	0.70	3.87	1.044	| I | O |				3.91
6.000	0.46	3.35	1.023	|I | O |				3.85
6.083	0.19	2.87	1.004	I O |				3.80
6.167	0.03	2.43	0.987	I O|				3.75
6.250	0.01	2.05	0.971	I O |				3.71
6.333	0.00	1.73	0.958	I O |				3.67
6.417	0.00	1.45	0.947	I O |				3.64
6.500	0.00	1.22	0.938	I O |				3.62
6.583	0.00	1.03	0.930	I O |				3.59
6.667	0.00	0.87	0.924	I O |				3.58
6.750	0.00	0.73	0.918	I O |				3.56
6.833	0.00	0.61	0.914	IO |				3.55
6.917	0.00	0.52	0.910	IO |				3.54
7.000	0.00	0.43	0.907	IO |				3.53
7.083	0.00	0.37	0.904	IO |				3.52
7.167	0.00	0.31	0.901	O |				3.51
7.250	0.00	0.26	0.900	O |				3.51
7.333	0.00	0.22	0.898	O |				3.50
7.417	0.00	0.20	0.896	O |				3.50
7.500	0.00	0.20	0.895	O |				3.49
7.583	0.00	0.20	0.894	O |				3.49
7.667	0.00	0.20	0.892	O |				3.49
7.750	0.00	0.20	0.891	O |				3.48
7.833	0.00	0.20	0.890	O |				3.48
7.917	0.00	0.20	0.888	O |				3.47
8.000	0.00	0.20	0.887	O |				3.47
8.083	0.00	0.20	0.886	O |				3.47
8.167	0.00	0.20	0.884	O |				3.46
8.250	0.00	0.20	0.883	O |				3.46
8.333	0.00	0.20	0.882	O |				3.45
8.417	0.00	0.20	0.880	O |				3.45
8.500	0.00	0.20	0.879	O |				3.45
8.583	0.00	0.20	0.878	O |				3.44
8.667	0.00	0.20	0.876	O |				3.44
8.750	0.00	0.20	0.875	O |				3.43
8.833	0.00	0.20	0.873	O |				3.43
8.917	0.00	0.20	0.872	O |				3.42
9.000	0.00	0.20	0.871	O |				3.42
9.083	0.00	0.20	0.869	O |				3.42
9.167	0.00	0.20	0.868	O |				3.41
9.250	0.00	0.20	0.867	O |				3.41
9.333	0.00	0.20	0.865	O |				3.40
9.417	0.00	0.20	0.864	O |				3.40
9.500	0.00	0.20	0.863	O |				3.40
9.583	0.00	0.20	0.861	O |				3.39
9.667	0.00	0.20	0.860	O |				3.39
9.750	0.00	0.20	0.859	O |				3.38
9.833	0.00	0.20	0.857	O |				3.38
9.917	0.00	0.20	0.856	O |				3.38

10.000	0.00	0.20	0.855	O	|	|	|	3.37
10.083	0.00	0.20	0.853	O	|	|	|	3.37
10.167	0.00	0.20	0.852	O	|	|	|	3.36
10.250	0.00	0.20	0.850	O	|	|	|	3.36
10.333	0.00	0.20	0.849	O	|	|	|	3.35
10.417	0.00	0.20	0.848	O	|	|	|	3.35
10.500	0.00	0.20	0.846	O	|	|	|	3.35
10.583	0.00	0.20	0.845	O	|	|	|	3.34
10.667	0.00	0.20	0.844	O	|	|	|	3.34
10.750	0.00	0.20	0.842	O	|	|	|	3.33
10.833	0.00	0.20	0.841	O	|	|	|	3.33
10.917	0.00	0.20	0.840	O	|	|	|	3.33
11.000	0.00	0.20	0.838	O	|	|	|	3.32
11.083	0.00	0.20	0.837	O	|	|	|	3.32
11.167	0.00	0.20	0.836	O	|	|	|	3.31
11.250	0.00	0.20	0.834	O	|	|	|	3.31
11.333	0.00	0.20	0.833	O	|	|	|	3.31
11.417	0.00	0.20	0.832	O	|	|	|	3.30
11.500	0.00	0.20	0.830	O	|	|	|	3.30
11.583	0.00	0.20	0.829	O	|	|	|	3.29
11.667	0.00	0.20	0.827	O	|	|	|	3.29
11.750	0.00	0.20	0.826	O	|	|	|	3.29
11.833	0.00	0.20	0.825	O	|	|	|	3.28
11.917	0.00	0.20	0.823	O	|	|	|	3.28
12.000	0.00	0.20	0.822	O	|	|	|	3.27
12.083	0.00	0.20	0.821	O	|	|	|	3.27
12.167	0.00	0.20	0.819	O	|	|	|	3.26
12.250	0.00	0.20	0.818	O	|	|	|	3.26
12.333	0.00	0.20	0.817	O	|	|	|	3.26
12.417	0.00	0.20	0.815	O	|	|	|	3.25
12.500	0.00	0.20	0.814	O	|	|	|	3.25
12.583	0.00	0.20	0.813	O	|	|	|	3.24
12.667	0.00	0.20	0.811	O	|	|	|	3.24
12.750	0.00	0.20	0.810	O	|	|	|	3.24
12.833	0.00	0.20	0.809	O	|	|	|	3.23
12.917	0.00	0.20	0.807	O	|	|	|	3.23
13.000	0.00	0.20	0.806	O	|	|	|	3.22
13.083	0.00	0.20	0.804	O	|	|	|	3.22
13.167	0.00	0.20	0.803	O	|	|	|	3.22
13.250	0.00	0.20	0.802	O	|	|	|	3.21
13.333	0.00	0.20	0.800	O	|	|	|	3.21
13.417	0.00	0.20	0.799	O	|	|	|	3.20
13.500	0.00	0.20	0.798	O	|	|	|	3.20
13.583	0.00	0.20	0.796	O	|	|	|	3.20
13.667	0.00	0.20	0.795	O	|	|	|	3.19
13.750	0.00	0.20	0.794	O	|	|	|	3.19
13.833	0.00	0.20	0.792	O	|	|	|	3.18
13.917	0.00	0.20	0.791	O	|	|	|	3.18
14.000	0.00	0.20	0.790	O	|	|	|	3.17
14.083	0.00	0.20	0.788	O	|	|	|	3.17

14.167	0.00	0.20	0.787	O	|	|	|	3.17
14.250	0.00	0.20	0.786	O	|	|	|	3.16
14.333	0.00	0.20	0.784	O	|	|	|	3.16
14.417	0.00	0.20	0.783	O	|	|	|	3.15
14.500	0.00	0.20	0.782	O	|	|	|	3.15
14.583	0.00	0.20	0.780	O	|	|	|	3.15
14.667	0.00	0.20	0.779	O	|	|	|	3.14
14.750	0.00	0.20	0.777	O	|	|	|	3.14
14.833	0.00	0.20	0.776	O	|	|	|	3.13
14.917	0.00	0.20	0.775	O	|	|	|	3.13
15.000	0.00	0.20	0.773	O	|	|	|	3.13
15.083	0.00	0.20	0.772	O	|	|	|	3.12
15.167	0.00	0.20	0.771	O	|	|	|	3.12
15.250	0.00	0.20	0.769	O	|	|	|	3.11
15.333	0.00	0.20	0.768	O	|	|	|	3.11
15.417	0.00	0.20	0.767	O	|	|	|	3.10
15.500	0.00	0.20	0.765	O	|	|	|	3.10
15.583	0.00	0.20	0.764	O	|	|	|	3.10
15.667	0.00	0.20	0.763	O	|	|	|	3.09
15.750	0.00	0.20	0.761	O	|	|	|	3.09
15.833	0.00	0.20	0.760	O	|	|	|	3.08
15.917	0.00	0.20	0.759	O	|	|	|	3.08
16.000	0.00	0.20	0.757	O	|	|	|	3.08
16.083	0.00	0.20	0.756	O	|	|	|	3.07
16.167	0.00	0.20	0.754	O	|	|	|	3.07
16.250	0.00	0.20	0.753	O	|	|	|	3.06
16.333	0.00	0.20	0.752	O	|	|	|	3.06
16.417	0.00	0.20	0.750	O	|	|	|	3.06
16.500	0.00	0.20	0.749	O	|	|	|	3.05
16.583	0.00	0.20	0.748	O	|	|	|	3.05
16.667	0.00	0.20	0.746	O	|	|	|	3.04
16.750	0.00	0.20	0.745	O	|	|	|	3.04
16.833	0.00	0.20	0.744	O	|	|	|	3.04
16.917	0.00	0.20	0.742	O	|	|	|	3.03
17.000	0.00	0.20	0.741	O	|	|	|	3.03
17.083	0.00	0.20	0.740	O	|	|	|	3.02
17.167	0.00	0.20	0.738	O	|	|	|	3.02
17.250	0.00	0.20	0.737	O	|	|	|	3.01
17.333	0.00	0.20	0.736	O	|	|	|	3.01
17.417	0.00	0.20	0.734	O	|	|	|	3.01
17.500	0.00	0.20	0.733	O	|	|	|	3.00
17.583	0.00	0.20	0.731	O	|	|	|	3.00
17.667	0.00	0.20	0.730	O	|	|	|	2.99
17.750	0.00	0.20	0.729	O	|	|	|	2.99
17.833	0.00	0.20	0.727	O	|	|	|	2.98
17.917	0.00	0.20	0.726	O	|	|	|	2.98
18.000	0.00	0.20	0.725	O	|	|	|	2.98
18.083	0.00	0.20	0.723	O	|	|	|	2.97
18.167	0.00	0.20	0.722	O	|	|	|	2.97
18.250	0.00	0.20	0.721	O	|	|	|	2.96

18.333	0.00	0.20	0.719	O				2.96
18.417	0.00	0.20	0.718	O				2.95
18.500	0.00	0.20	0.717	O				2.95
18.583	0.00	0.20	0.715	O				2.94
18.667	0.00	0.20	0.714	O				2.94
18.750	0.00	0.20	0.713	O				2.94
18.833	0.00	0.20	0.711	O				2.93
18.917	0.00	0.20	0.710	O				2.93
19.000	0.00	0.20	0.708	O				2.92
19.083	0.00	0.20	0.707	O				2.92
19.167	0.00	0.20	0.706	O				2.91
19.250	0.00	0.20	0.704	O				2.91
19.333	0.00	0.20	0.703	O				2.90
19.417	0.00	0.20	0.702	O				2.90
19.500	0.00	0.20	0.700	O				2.90
19.583	0.00	0.20	0.699	O				2.89
19.667	0.00	0.20	0.698	O				2.89
19.750	0.00	0.20	0.696	O				2.88
19.833	0.00	0.20	0.695	O				2.88
19.917	0.00	0.20	0.694	O				2.87
20.000	0.00	0.20	0.692	O				2.87
20.083	0.00	0.20	0.691	O				2.86
20.167	0.00	0.20	0.690	O				2.86
20.250	0.00	0.20	0.688	O				2.86
20.333	0.00	0.20	0.687	O				2.85
20.417	0.00	0.20	0.685	O				2.85
20.500	0.00	0.20	0.684	O				2.84
20.583	0.00	0.20	0.683	O				2.84
20.667	0.00	0.20	0.681	O				2.83
20.750	0.00	0.20	0.680	O				2.83
20.833	0.00	0.20	0.679	O				2.82
20.917	0.00	0.20	0.677	O				2.82
21.000	0.00	0.20	0.676	O				2.82
21.083	0.00	0.20	0.675	O				2.81
21.167	0.00	0.20	0.673	O				2.81
21.250	0.00	0.20	0.672	O				2.80
21.333	0.00	0.20	0.671	O				2.80
21.417	0.00	0.20	0.669	O				2.79
21.500	0.00	0.20	0.668	O				2.79
21.583	0.00	0.20	0.667	O				2.78
21.667	0.00	0.20	0.665	O				2.78
21.750	0.00	0.20	0.664	O				2.78
21.833	0.00	0.20	0.663	O				2.77
21.917	0.00	0.20	0.661	O				2.77
22.000	0.00	0.20	0.660	O				2.76
22.083	0.00	0.20	0.658	O				2.76
22.167	0.00	0.20	0.657	O				2.75
22.250	0.00	0.20	0.656	O				2.75
22.333	0.00	0.20	0.654	O				2.74
22.417	0.00	0.20	0.653	O				2.74

22.500	0.00	0.20	0.652	O				2.74
22.583	0.00	0.20	0.650	O				2.73
22.667	0.00	0.20	0.649	O				2.73
22.750	0.00	0.20	0.648	O				2.72
22.833	0.00	0.20	0.646	O				2.72
22.917	0.00	0.20	0.645	O				2.71
23.000	0.00	0.20	0.644	O				2.71
23.083	0.00	0.20	0.642	O				2.70
23.167	0.00	0.20	0.641	O				2.70
23.250	0.00	0.20	0.640	O				2.70
23.333	0.00	0.20	0.638	O				2.69
23.417	0.00	0.20	0.637	O				2.69
23.500	0.00	0.20	0.635	O				2.68
23.583	0.00	0.20	0.634	O				2.68
23.667	0.00	0.20	0.633	O				2.67
23.750	0.00	0.20	0.631	O				2.67
23.833	0.00	0.20	0.630	O				2.66
23.917	0.00	0.20	0.629	O				2.66
24.000	0.00	0.20	0.627	O				2.66
24.083	0.00	0.20	0.626	O				2.65
24.167	0.00	0.20	0.625	O				2.65
24.250	0.00	0.20	0.623	O				2.64
24.333	0.00	0.20	0.622	O				2.64
24.417	0.00	0.20	0.621	O				2.63
24.500	0.00	0.20	0.619	O				2.63
24.583	0.00	0.20	0.618	O				2.62
24.667	0.00	0.20	0.617	O				2.62
24.750	0.00	0.20	0.615	O				2.62
24.833	0.00	0.20	0.614	O				2.61
24.917	0.00	0.20	0.612	O				2.61
25.000	0.00	0.20	0.611	O				2.60
25.083	0.00	0.20	0.610	O				2.60
25.167	0.00	0.20	0.608	O				2.59
25.250	0.00	0.20	0.607	O				2.59
25.333	0.00	0.20	0.606	O				2.58
25.417	0.00	0.20	0.604	O				2.58
25.500	0.00	0.20	0.603	O				2.58
25.583	0.00	0.20	0.602	O				2.57
25.667	0.00	0.20	0.600	O				2.57
25.750	0.00	0.20	0.599	O				2.56
25.833	0.00	0.20	0.598	O				2.56
25.917	0.00	0.20	0.596	O				2.55
26.000	0.00	0.20	0.595	O				2.55
26.083	0.00	0.20	0.594	O				2.54
26.167	0.00	0.20	0.592	O				2.54
26.250	0.00	0.20	0.591	O				2.54
26.333	0.00	0.20	0.589	O				2.53
26.417	0.00	0.20	0.588	O				2.53
26.500	0.00	0.20	0.587	O				2.52
26.583	0.00	0.20	0.585	O				2.52

26.667	0.00	0.20	0.584	O				2.51
26.750	0.00	0.20	0.583	O				2.51
26.833	0.00	0.20	0.581	O				2.50
26.917	0.00	0.20	0.580	O				2.50
27.000	0.00	0.20	0.579	O				2.50
27.083	0.00	0.20	0.577	O				2.49
27.167	0.00	0.20	0.576	O				2.49
27.250	0.00	0.20	0.575	O				2.48
27.333	0.00	0.20	0.573	O				2.48
27.417	0.00	0.20	0.572	O				2.47
27.500	0.00	0.20	0.571	O				2.47
27.583	0.00	0.20	0.569	O				2.46
27.667	0.00	0.20	0.568	O				2.46
27.750	0.00	0.20	0.566	O				2.45
27.833	0.00	0.20	0.565	O				2.45
27.917	0.00	0.20	0.564	O				2.44
28.000	0.00	0.20	0.562	O				2.44
28.083	0.00	0.20	0.561	O				2.43
28.167	0.00	0.20	0.560	O				2.43
28.250	0.00	0.20	0.558	O				2.42
28.333	0.00	0.20	0.557	O				2.42
28.417	0.00	0.20	0.556	O				2.41
28.500	0.00	0.20	0.554	O				2.41
28.583	0.00	0.20	0.553	O				2.40
28.667	0.00	0.20	0.552	O				2.40
28.750	0.00	0.20	0.550	O				2.39
28.833	0.00	0.20	0.549	O				2.39
28.917	0.00	0.20	0.548	O				2.38
29.000	0.00	0.20	0.546	O				2.38
29.083	0.00	0.20	0.545	O				2.37
29.167	0.00	0.20	0.544	O				2.37
29.250	0.00	0.20	0.542	O				2.36
29.333	0.00	0.20	0.541	O				2.36
29.417	0.00	0.20	0.539	O				2.36
29.500	0.00	0.20	0.538	O				2.35
29.583	0.00	0.20	0.537	O				2.35
29.667	0.00	0.20	0.535	O				2.34
29.750	0.00	0.20	0.534	O				2.34
29.833	0.00	0.20	0.533	O				2.33
29.917	0.00	0.20	0.531	O				2.33
30.000	0.00	0.20	0.530	O				2.32
30.083	0.00	0.20	0.529	O				2.32
30.167	0.00	0.20	0.527	O				2.31
30.250	0.00	0.20	0.526	O				2.31
30.333	0.00	0.20	0.525	O				2.30
30.417	0.00	0.20	0.523	O				2.30
30.500	0.00	0.20	0.522	O				2.29
30.583	0.00	0.20	0.521	O				2.29
30.667	0.00	0.20	0.519	O				2.28
30.750	0.00	0.20	0.518	O				2.28

30.833	0.00	0.20	0.516	O	|	|	|	2.27
30.917	0.00	0.20	0.515	O	|	|	|	2.27
31.000	0.00	0.20	0.514	O	|	|	|	2.26
31.083	0.00	0.20	0.512	O	|	|	|	2.26
31.167	0.00	0.20	0.511	O	|	|	|	2.25
31.250	0.00	0.20	0.510	O	|	|	|	2.25
31.333	0.00	0.20	0.508	O	|	|	|	2.24
31.417	0.00	0.20	0.507	O	|	|	|	2.24
31.500	0.00	0.20	0.506	O	|	|	|	2.23
31.583	0.00	0.20	0.504	O	|	|	|	2.23
31.667	0.00	0.20	0.503	O	|	|	|	2.22
31.750	0.00	0.20	0.502	O	|	|	|	2.22
31.833	0.00	0.20	0.500	O	|	|	|	2.22
31.917	0.00	0.20	0.499	O	|	|	|	2.21
32.000	0.00	0.20	0.498	O	|	|	|	2.21
32.083	0.00	0.20	0.496	O	|	|	|	2.20
32.167	0.00	0.20	0.495	O	|	|	|	2.20
32.250	0.00	0.20	0.493	O	|	|	|	2.19
32.333	0.00	0.20	0.492	O	|	|	|	2.19
32.417	0.00	0.20	0.491	O	|	|	|	2.18
32.500	0.00	0.20	0.489	O	|	|	|	2.18
32.583	0.00	0.20	0.488	O	|	|	|	2.17
32.667	0.00	0.20	0.487	O	|	|	|	2.17
32.750	0.00	0.20	0.485	O	|	|	|	2.16
32.833	0.00	0.20	0.484	O	|	|	|	2.16
32.917	0.00	0.20	0.483	O	|	|	|	2.15
33.000	0.00	0.20	0.481	O	|	|	|	2.15
33.083	0.00	0.20	0.480	O	|	|	|	2.14
33.167	0.00	0.20	0.479	O	|	|	|	2.14
33.250	0.00	0.20	0.477	O	|	|	|	2.13
33.333	0.00	0.20	0.476	O	|	|	|	2.13
33.417	0.00	0.20	0.475	O	|	|	|	2.12
33.500	0.00	0.20	0.473	O	|	|	|	2.12
33.583	0.00	0.20	0.472	O	|	|	|	2.11
33.667	0.00	0.20	0.470	O	|	|	|	2.11
33.750	0.00	0.20	0.469	O	|	|	|	2.10
33.833	0.00	0.20	0.468	O	|	|	|	2.10
33.917	0.00	0.20	0.466	O	|	|	|	2.09
34.000	0.00	0.20	0.465	O	|	|	|	2.09
34.083	0.00	0.20	0.464	O	|	|	|	2.08
34.167	0.00	0.20	0.462	O	|	|	|	2.08
34.250	0.00	0.20	0.461	O	|	|	|	2.08
34.333	0.00	0.20	0.460	O	|	|	|	2.07
34.417	0.00	0.20	0.458	O	|	|	|	2.07
34.500	0.00	0.20	0.457	O	|	|	|	2.06
34.583	0.00	0.20	0.456	O	|	|	|	2.06
34.667	0.00	0.20	0.454	O	|	|	|	2.05
34.750	0.00	0.20	0.453	O	|	|	|	2.05
34.833	0.00	0.20	0.452	O	|	|	|	2.04
34.917	0.00	0.20	0.450	O	|	|	|	2.04

35.000	0.00	0.20	0.449	O	|	|	|	2.03
35.083	0.00	0.20	0.447	O	|	|	|	2.03
35.167	0.00	0.20	0.446	O	|	|	|	2.02
35.250	0.00	0.20	0.445	O	|	|	|	2.02
35.333	0.00	0.20	0.443	O	|	|	|	2.01
35.417	0.00	0.20	0.442	O	|	|	|	2.01
35.500	0.00	0.20	0.441	O	|	|	|	2.00
35.583	0.00	0.20	0.439	O	|	|	|	2.00
35.667	0.00	0.20	0.438	O	|	|	|	1.99
35.750	0.00	0.20	0.437	O	|	|	|	1.99
35.833	0.00	0.20	0.435	O	|	|	|	1.98
35.917	0.00	0.20	0.434	O	|	|	|	1.98
36.000	0.00	0.20	0.433	O	|	|	|	1.97
36.083	0.00	0.20	0.431	O	|	|	|	1.97
36.167	0.00	0.20	0.430	O	|	|	|	1.96
36.250	0.00	0.20	0.429	O	|	|	|	1.95
36.333	0.00	0.20	0.427	O	|	|	|	1.95
36.417	0.00	0.20	0.426	O	|	|	|	1.94
36.500	0.00	0.20	0.425	O	|	|	|	1.94
36.583	0.00	0.20	0.423	O	|	|	|	1.93
36.667	0.00	0.20	0.422	O	|	|	|	1.93
36.750	0.00	0.20	0.420	O	|	|	|	1.92
36.833	0.00	0.20	0.419	O	|	|	|	1.92
36.917	0.00	0.20	0.418	O	|	|	|	1.91
37.000	0.00	0.20	0.416	O	|	|	|	1.91
37.083	0.00	0.20	0.415	O	|	|	|	1.90
37.167	0.00	0.20	0.414	O	|	|	|	1.90
37.250	0.00	0.20	0.412	O	|	|	|	1.89
37.333	0.00	0.20	0.411	O	|	|	|	1.89
37.417	0.00	0.20	0.410	O	|	|	|	1.88
37.500	0.00	0.20	0.408	O	|	|	|	1.88
37.583	0.00	0.20	0.407	O	|	|	|	1.87
37.667	0.00	0.20	0.406	O	|	|	|	1.86
37.750	0.00	0.20	0.404	O	|	|	|	1.86
37.833	0.00	0.20	0.403	O	|	|	|	1.85
37.917	0.00	0.20	0.402	O	|	|	|	1.85
38.000	0.00	0.20	0.400	O	|	|	|	1.84
38.083	0.00	0.20	0.399	O	|	|	|	1.84
38.167	0.00	0.20	0.397	O	|	|	|	1.83
38.250	0.00	0.20	0.396	O	|	|	|	1.83
38.333	0.00	0.20	0.395	O	|	|	|	1.82
38.417	0.00	0.20	0.393	O	|	|	|	1.82
38.500	0.00	0.20	0.392	O	|	|	|	1.81
38.583	0.00	0.20	0.391	O	|	|	|	1.81
38.667	0.00	0.20	0.389	O	|	|	|	1.80
38.750	0.00	0.20	0.388	O	|	|	|	1.80
38.833	0.00	0.20	0.387	O	|	|	|	1.79
38.917	0.00	0.20	0.385	O	|	|	|	1.78
39.000	0.00	0.20	0.384	O	|	|	|	1.78
39.083	0.00	0.20	0.383	O	|	|	|	1.77

39.167	0.00	0.20	0.381	O	|	|	|	1.77
39.250	0.00	0.20	0.380	O	|	|	|	1.76
39.333	0.00	0.20	0.379	O	|	|	|	1.76
39.417	0.00	0.20	0.377	O	|	|	|	1.75
39.500	0.00	0.20	0.376	O	|	|	|	1.75
39.583	0.00	0.20	0.374	O	|	|	|	1.74
39.667	0.00	0.20	0.373	O	|	|	|	1.74
39.750	0.00	0.20	0.372	O	|	|	|	1.73
39.833	0.00	0.20	0.370	O	|	|	|	1.73
39.917	0.00	0.20	0.369	O	|	|	|	1.72
40.000	0.00	0.20	0.368	O	|	|	|	1.72
40.083	0.00	0.20	0.366	O	|	|	|	1.71
40.167	0.00	0.20	0.365	O	|	|	|	1.70
40.250	0.00	0.20	0.364	O	|	|	|	1.70
40.333	0.00	0.20	0.362	O	|	|	|	1.69
40.417	0.00	0.20	0.361	O	|	|	|	1.69
40.500	0.00	0.20	0.360	O	|	|	|	1.68
40.583	0.00	0.20	0.358	O	|	|	|	1.68
40.667	0.00	0.20	0.357	O	|	|	|	1.67
40.750	0.00	0.20	0.356	O	|	|	|	1.67
40.833	0.00	0.20	0.354	O	|	|	|	1.66
40.917	0.00	0.20	0.353	O	|	|	|	1.66
41.000	0.00	0.20	0.351	O	|	|	|	1.65
41.083	0.00	0.20	0.350	O	|	|	|	1.65
41.167	0.00	0.20	0.349	O	|	|	|	1.64
41.250	0.00	0.20	0.347	O	|	|	|	1.64
41.333	0.00	0.20	0.346	O	|	|	|	1.63
41.417	0.00	0.20	0.345	O	|	|	|	1.62
41.500	0.00	0.20	0.343	O	|	|	|	1.62
41.583	0.00	0.20	0.342	O	|	|	|	1.61
41.667	0.00	0.20	0.341	O	|	|	|	1.61
41.750	0.00	0.20	0.339	O	|	|	|	1.60
41.833	0.00	0.20	0.338	O	|	|	|	1.60
41.917	0.00	0.20	0.337	O	|	|	|	1.59
42.000	0.00	0.20	0.335	O	|	|	|	1.59
42.083	0.00	0.20	0.334	O	|	|	|	1.58
42.167	0.00	0.20	0.333	O	|	|	|	1.58
42.250	0.00	0.20	0.331	O	|	|	|	1.57
42.333	0.00	0.20	0.330	O	|	|	|	1.57
42.417	0.00	0.20	0.328	O	|	|	|	1.56
42.500	0.00	0.20	0.327	O	|	|	|	1.56
42.583	0.00	0.20	0.326	O	|	|	|	1.55
42.667	0.00	0.20	0.324	O	|	|	|	1.55
42.750	0.00	0.20	0.323	O	|	|	|	1.54
42.833	0.00	0.20	0.322	O	|	|	|	1.53
42.917	0.00	0.20	0.320	O	|	|	|	1.53
43.000	0.00	0.20	0.319	O	|	|	|	1.52
43.083	0.00	0.20	0.318	O	|	|	|	1.52
43.167	0.00	0.20	0.316	O	|	|	|	1.51
43.250	0.00	0.20	0.315	O	|	|	|	1.51

43.333	0.00	0.20	0.314	O	|	|	|	1.50
43.417	0.00	0.20	0.312	O	|	|	|	1.50
43.500	0.00	0.20	0.311	O	|	|	|	1.49
43.583	0.00	0.20	0.310	O	|	|	|	1.49
43.667	0.00	0.20	0.308	O	|	|	|	1.48
43.750	0.00	0.20	0.307	O	|	|	|	1.47
43.833	0.00	0.20	0.306	O	|	|	|	1.47
43.917	0.00	0.20	0.304	O	|	|	|	1.46
44.000	0.00	0.20	0.303	O	|	|	|	1.46
44.083	0.00	0.20	0.301	O	|	|	|	1.45
44.167	0.00	0.20	0.300	O	|	|	|	1.44
44.250	0.00	0.20	0.299	O	|	|	|	1.44
44.333	0.00	0.20	0.297	O	|	|	|	1.43
44.417	0.00	0.20	0.296	O	|	|	|	1.43
44.500	0.00	0.20	0.295	O	|	|	|	1.42
44.583	0.00	0.20	0.293	O	|	|	|	1.42
44.667	0.00	0.20	0.292	O	|	|	|	1.41
44.750	0.00	0.20	0.291	O	|	|	|	1.40
44.833	0.00	0.20	0.289	O	|	|	|	1.40
44.917	0.00	0.20	0.288	O	|	|	|	1.39
45.000	0.00	0.20	0.287	O	|	|	|	1.39
45.083	0.00	0.20	0.285	O	|	|	|	1.38
45.167	0.00	0.20	0.284	O	|	|	|	1.37
45.250	0.00	0.20	0.283	O	|	|	|	1.37
45.333	0.00	0.20	0.281	O	|	|	|	1.36
45.417	0.00	0.20	0.280	O	|	|	|	1.36
45.500	0.00	0.20	0.278	O	|	|	|	1.35
45.583	0.00	0.20	0.277	O	|	|	|	1.35
45.667	0.00	0.20	0.276	O	|	|	|	1.34
45.750	0.00	0.20	0.274	O	|	|	|	1.33
45.833	0.00	0.20	0.273	O	|	|	|	1.33
45.917	0.00	0.20	0.272	O	|	|	|	1.32
46.000	0.00	0.20	0.270	O	|	|	|	1.32
46.083	0.00	0.20	0.269	O	|	|	|	1.31
46.167	0.00	0.20	0.268	O	|	|	|	1.30
46.250	0.00	0.20	0.266	O	|	|	|	1.30
46.333	0.00	0.20	0.265	O	|	|	|	1.29
46.417	0.00	0.20	0.264	O	|	|	|	1.29
46.500	0.00	0.20	0.262	O	|	|	|	1.28
46.583	0.00	0.20	0.261	O	|	|	|	1.28
46.667	0.00	0.20	0.260	O	|	|	|	1.27
46.750	0.00	0.20	0.258	O	|	|	|	1.26
46.833	0.00	0.20	0.257	O	|	|	|	1.26
46.917	0.00	0.20	0.255	O	|	|	|	1.25
47.000	0.00	0.20	0.254	O	|	|	|	1.25
47.083	0.00	0.20	0.253	O	|	|	|	1.24
47.167	0.00	0.20	0.251	O	|	|	|	1.23
47.250	0.00	0.20	0.250	O	|	|	|	1.23
47.333	0.00	0.20	0.249	O	|	|	|	1.22
47.417	0.00	0.20	0.247	O	|	|	|	1.22

47.500	0.00	0.20	0.246	O	|	|	|	1.21
47.583	0.00	0.20	0.245	O	|	|	|	1.21
47.667	0.00	0.20	0.243	O	|	|	|	1.20
47.750	0.00	0.20	0.242	O	|	|	|	1.19
47.833	0.00	0.20	0.241	O	|	|	|	1.19
47.917	0.00	0.20	0.239	O	|	|	|	1.18
48.000	0.00	0.20	0.238	O	|	|	|	1.18
48.083	0.00	0.20	0.237	O	|	|	|	1.17
48.167	0.00	0.20	0.235	O	|	|	|	1.16
48.250	0.00	0.20	0.234	O	|	|	|	1.16
48.333	0.00	0.20	0.232	O	|	|	|	1.15
48.417	0.00	0.20	0.231	O	|	|	|	1.15
48.500	0.00	0.20	0.230	O	|	|	|	1.14
48.583	0.00	0.20	0.228	O	|	|	|	1.14
48.667	0.00	0.20	0.227	O	|	|	|	1.13
48.750	0.00	0.20	0.226	O	|	|	|	1.12
48.833	0.00	0.20	0.224	O	|	|	|	1.12
48.917	0.00	0.20	0.223	O	|	|	|	1.11
49.000	0.00	0.20	0.222	O	|	|	|	1.11
49.083	0.00	0.20	0.220	O	|	|	|	1.10
49.167	0.00	0.20	0.219	O	|	|	|	1.09
49.250	0.00	0.20	0.218	O	|	|	|	1.09
49.333	0.00	0.20	0.216	O	|	|	|	1.08
49.417	0.00	0.20	0.215	O	|	|	|	1.08
49.500	0.00	0.20	0.214	O	|	|	|	1.07
49.583	0.00	0.20	0.212	O	|	|	|	1.07
49.667	0.00	0.20	0.211	O	|	|	|	1.06
49.750	0.00	0.20	0.209	O	|	|	|	1.05
49.833	0.00	0.20	0.208	O	|	|	|	1.05
49.917	0.00	0.20	0.207	O	|	|	|	1.04
50.000	0.00	0.20	0.205	O	|	|	|	1.04
50.083	0.00	0.20	0.204	O	|	|	|	1.03
50.167	0.00	0.20	0.203	O	|	|	|	1.02
50.250	0.00	0.20	0.201	O	|	|	|	1.02
50.333	0.00	0.20	0.200	O	|	|	|	1.01
50.417	0.00	0.20	0.199	O	|	|	|	1.01
50.500	0.00	0.20	0.197	O	|	|	|	1.00
50.583	0.00	0.19	0.196	O	|	|	|	1.00
50.667	0.00	0.19	0.195	O	|	|	|	0.99
50.750	0.00	0.19	0.193	O	|	|	|	0.98
50.833	0.00	0.19	0.192	O	|	|	|	0.98
50.917	0.00	0.18	0.191	O	|	|	|	0.97
51.000	0.00	0.18	0.189	O	|	|	|	0.96
51.083	0.00	0.18	0.188	O	|	|	|	0.96
51.167	0.00	0.18	0.187	O	|	|	|	0.95
51.250	0.00	0.18	0.186	O	|	|	|	0.95
51.333	0.00	0.17	0.185	O	|	|	|	0.94
51.417	0.00	0.17	0.183	O	|	|	|	0.93
51.500	0.00	0.17	0.182	O	|	|	|	0.93
51.583	0.00	0.17	0.181	O	|	|	|	0.92

51.667	0.00	0.16	0.180	O				0.92
51.750	0.00	0.16	0.179	O				0.91
51.833	0.00	0.16	0.178	O				0.91
51.917	0.00	0.16	0.177	O				0.90
52.000	0.00	0.16	0.176	O				0.90
52.083	0.00	0.15	0.174	O				0.89
52.167	0.00	0.15	0.173	O				0.89
52.250	0.00	0.15	0.172	O				0.88
52.333	0.00	0.15	0.171	O				0.88
52.417	0.00	0.15	0.170	O				0.87
52.500	0.00	0.14	0.169	O				0.87
52.583	0.00	0.14	0.168	O				0.86
52.667	0.00	0.14	0.167	O				0.86
52.750	0.00	0.14	0.166	O				0.85
52.833	0.00	0.14	0.165	O				0.85
52.917	0.00	0.14	0.165	O				0.84
53.000	0.00	0.13	0.164	O				0.84
53.083	0.00	0.13	0.163	O				0.84
53.167	0.00	0.13	0.162	O				0.83
53.250	0.00	0.13	0.161	O				0.83
53.333	0.00	0.13	0.160	O				0.82
53.417	0.00	0.12	0.159	O				0.82
53.500	0.00	0.12	0.158	O				0.81
53.583	0.00	0.12	0.157	O				0.81
53.667	0.00	0.12	0.157	O				0.81
53.750	0.00	0.12	0.156	O				0.80
53.833	0.00	0.12	0.155	O				0.80
53.917	0.00	0.12	0.154	O				0.79
54.000	0.00	0.11	0.153	O				0.79
54.083	0.00	0.11	0.153	O				0.79
54.167	0.00	0.11	0.152	O				0.78
54.250	0.00	0.11	0.151	O				0.78
54.333	0.00	0.11	0.150	O				0.78
54.417	0.00	0.11	0.150	O				0.77
54.500	0.00	0.11	0.149	O				0.77
54.583	0.00	0.10	0.148	O				0.77
54.667	0.00	0.10	0.147	O				0.76
54.750	0.00	0.10	0.147	O				0.76
54.833	0.00	0.10	0.146	O				0.76
54.917	0.00	0.10	0.145	O				0.75
55.000	0.00	0.10	0.145	O				0.75
55.083	0.00	0.10	0.144	O				0.75
55.167	0.00	0.10	0.143	O				0.74
55.250	0.00	0.09	0.143	O				0.74
55.333	0.00	0.09	0.142	O				0.74
55.417	0.00	0.09	0.141	O				0.73
55.500	0.00	0.09	0.141	O				0.73
55.583	0.00	0.09	0.140	O				0.73
55.667	0.00	0.09	0.140	O				0.72
55.750	0.00	0.09	0.139	O				0.72

55.833	0.00	0.09	0.138	O				0.72
55.917	0.00	0.08	0.138	O				0.72
56.000	0.00	0.08	0.137	O				0.71
56.083	0.00	0.08	0.137	O				0.71
56.167	0.00	0.08	0.136	O				0.71
56.250	0.00	0.08	0.136	O				0.70
56.333	0.00	0.08	0.135	O				0.70
56.417	0.00	0.08	0.134	O				0.70
56.500	0.00	0.08	0.134	O				0.70
56.583	0.00	0.08	0.133	O				0.69
56.667	0.00	0.08	0.133	O				0.69
56.750	0.00	0.07	0.132	O				0.69
56.833	0.00	0.07	0.132	O				0.69
56.917	0.00	0.07	0.131	O				0.68
57.000	0.00	0.07	0.131	O				0.68
57.083	0.00	0.07	0.130	O				0.68
57.167	0.00	0.07	0.130	O				0.68
57.250	0.00	0.07	0.129	O				0.67
57.333	0.00	0.07	0.129	O				0.67
57.417	0.00	0.07	0.128	O				0.67
57.500	0.00	0.07	0.128	O				0.67
57.583	0.00	0.07	0.128	O				0.67
57.667	0.00	0.06	0.127	O				0.66
57.750	0.00	0.06	0.127	O				0.66
57.833	0.00	0.06	0.126	O				0.66
57.917	0.00	0.06	0.126	O				0.66
58.000	0.00	0.06	0.125	O				0.66
58.083	0.00	0.06	0.125	O				0.65
58.167	0.00	0.06	0.125	O				0.65
58.250	0.00	0.06	0.124	O				0.65
58.333	0.00	0.06	0.124	O				0.65
58.417	0.00	0.06	0.123	O				0.65
58.500	0.00	0.06	0.123	O				0.64
58.583	0.00	0.06	0.123	O				0.64
58.667	0.00	0.06	0.122	O				0.64
58.750	0.00	0.05	0.122	O				0.64
58.833	0.00	0.05	0.121	O				0.64
58.917	0.00	0.05	0.121	O				0.63
59.000	0.00	0.05	0.121	O				0.63
59.083	0.00	0.05	0.120	O				0.63
59.167	0.00	0.05	0.120	O				0.63
59.250	0.00	0.05	0.120	O				0.63
59.333	0.00	0.05	0.119	O				0.63
59.417	0.00	0.05	0.119	O				0.62
59.500	0.00	0.05	0.119	O				0.62
59.583	0.00	0.05	0.118	O				0.62
59.667	0.00	0.05	0.118	O				0.62
59.750	0.00	0.05	0.118	O				0.62
59.833	0.00	0.05	0.117	O				0.62
59.917	0.00	0.05	0.117	O				0.62

60.000	0.00	0.04	0.117	O	|	|	|	0.61
60.083	0.00	0.04	0.116	O	|	|	|	0.61
60.167	0.00	0.04	0.116	O	|	|	|	0.61
60.250	0.00	0.04	0.116	O	|	|	|	0.61
60.333	0.00	0.04	0.115	O	|	|	|	0.61
60.417	0.00	0.04	0.115	O	|	|	|	0.61
60.500	0.00	0.04	0.115	O	|	|	|	0.61
60.583	0.00	0.04	0.115	O	|	|	|	0.60
60.667	0.00	0.04	0.114	O	|	|	|	0.60
60.750	0.00	0.04	0.114	O	|	|	|	0.60
60.833	0.00	0.04	0.114	O	|	|	|	0.60
60.917	0.00	0.04	0.114	O	|	|	|	0.60
61.000	0.00	0.04	0.113	O	|	|	|	0.60
61.083	0.00	0.04	0.113	O	|	|	|	0.60
61.167	0.00	0.04	0.113	O	|	|	|	0.59
61.250	0.00	0.04	0.112	O	|	|	|	0.59
61.333	0.00	0.04	0.112	O	|	|	|	0.59
61.417	0.00	0.04	0.112	O	|	|	|	0.59
61.500	0.00	0.04	0.112	O	|	|	|	0.59
61.583	0.00	0.03	0.112	O	|	|	|	0.59
61.667	0.00	0.03	0.111	O	|	|	|	0.59
61.750	0.00	0.03	0.111	O	|	|	|	0.59
61.833	0.00	0.03	0.111	O	|	|	|	0.59
61.917	0.00	0.03	0.111	O	|	|	|	0.58
62.000	0.00	0.03	0.110	O	|	|	|	0.58
62.083	0.00	0.03	0.110	O	|	|	|	0.58
62.167	0.00	0.03	0.110	O	|	|	|	0.58
62.250	0.00	0.03	0.110	O	|	|	|	0.58
62.333	0.00	0.03	0.109	O	|	|	|	0.58
62.417	0.00	0.03	0.109	O	|	|	|	0.58
62.500	0.00	0.03	0.109	O	|	|	|	0.58
62.583	0.00	0.03	0.109	O	|	|	|	0.58
62.667	0.00	0.03	0.109	O	|	|	|	0.58
62.750	0.00	0.03	0.108	O	|	|	|	0.57
62.833	0.00	0.03	0.108	O	|	|	|	0.57
62.917	0.00	0.03	0.108	O	|	|	|	0.57
63.000	0.00	0.03	0.108	O	|	|	|	0.57
63.083	0.00	0.03	0.108	O	|	|	|	0.57
63.167	0.00	0.03	0.107	O	|	|	|	0.57
63.250	0.00	0.03	0.107	O	|	|	|	0.57
63.333	0.00	0.03	0.107	O	|	|	|	0.57
63.417	0.00	0.03	0.107	O	|	|	|	0.57
63.500	0.00	0.03	0.107	O	|	|	|	0.57
63.583	0.00	0.03	0.107	O	|	|	|	0.57
63.667	0.00	0.03	0.106	O	|	|	|	0.56
63.750	0.00	0.02	0.106	O	|	|	|	0.56
63.833	0.00	0.02	0.106	O	|	|	|	0.56
63.917	0.00	0.02	0.106	O	|	|	|	0.56
64.000	0.00	0.02	0.106	O	|	|	|	0.56
64.083	0.00	0.02	0.106	O	|	|	|	0.56

64.167	0.00	0.02	0.105	O	|	|	|	0.56
64.250	0.00	0.02	0.105	O	|	|	|	0.56
64.333	0.00	0.02	0.105	O	|	|	|	0.56
64.417	0.00	0.02	0.105	O	|	|	|	0.56
64.500	0.00	0.02	0.105	O	|	|	|	0.56
64.583	0.00	0.02	0.105	O	|	|	|	0.56
64.667	0.00	0.02	0.104	O	|	|	|	0.55
64.750	0.00	0.02	0.104	O	|	|	|	0.55
64.833	0.00	0.02	0.104	O	|	|	|	0.55
64.917	0.00	0.02	0.104	O	|	|	|	0.55
65.000	0.00	0.02	0.104	O	|	|	|	0.55
65.083	0.00	0.02	0.104	O	|	|	|	0.55
65.167	0.00	0.02	0.104	O	|	|	|	0.55
65.250	0.00	0.02	0.103	O	|	|	|	0.55
65.333	0.00	0.02	0.103	O	|	|	|	0.55
65.417	0.00	0.02	0.103	O	|	|	|	0.55
65.500	0.00	0.02	0.103	O	|	|	|	0.55
65.583	0.00	0.02	0.103	O	|	|	|	0.55
65.667	0.00	0.02	0.103	O	|	|	|	0.55
65.750	0.00	0.02	0.103	O	|	|	|	0.55
65.833	0.00	0.02	0.103	O	|	|	|	0.55
65.917	0.00	0.02	0.102	O	|	|	|	0.55
66.000	0.00	0.02	0.102	O	|	|	|	0.54
66.083	0.00	0.02	0.102	O	|	|	|	0.54
66.167	0.00	0.02	0.102	O	|	|	|	0.54
66.250	0.00	0.02	0.102	O	|	|	|	0.54
66.333	0.00	0.02	0.102	O	|	|	|	0.54
66.417	0.00	0.02	0.102	O	|	|	|	0.54
66.500	0.00	0.02	0.102	O	|	|	|	0.54
66.583	0.00	0.02	0.101	O	|	|	|	0.54
66.667	0.00	0.02	0.101	O	|	|	|	0.54
66.750	0.00	0.02	0.101	O	|	|	|	0.54
66.833	0.00	0.02	0.101	O	|	|	|	0.54
66.917	0.00	0.02	0.101	O	|	|	|	0.54
67.000	0.00	0.02	0.101	O	|	|	|	0.54
67.083	0.00	0.01	0.101	O	|	|	|	0.54
67.167	0.00	0.01	0.101	O	|	|	|	0.54
67.250	0.00	0.01	0.101	O	|	|	|	0.54
67.333	0.00	0.01	0.101	O	|	|	|	0.54
67.417	0.00	0.01	0.100	O	|	|	|	0.54
67.500	0.00	0.01	0.100	O	|	|	|	0.54
67.583	0.00	0.01	0.100	O	|	|	|	0.53
67.667	0.00	0.01	0.100	O	|	|	|	0.53
67.750	0.00	0.01	0.100	O	|	|	|	0.53
67.833	0.00	0.01	0.100	O	|	|	|	0.53
67.917	0.00	0.01	0.100	O	|	|	|	0.53
68.000	0.00	0.01	0.100	O	|	|	|	0.53
68.083	0.00	0.01	0.100	O	|	|	|	0.53
68.167	0.00	0.01	0.100	O	|	|	|	0.53
68.250	0.00	0.01	0.100	O	|	|	|	0.53

68.333	0.00	0.01	0.099	O				0.53
68.417	0.00	0.01	0.099	O				0.53
68.500	0.00	0.01	0.099	O				0.53
68.583	0.00	0.01	0.099	O				0.53
68.667	0.00	0.01	0.099	O				0.53
68.750	0.00	0.01	0.099	O				0.53
68.833	0.00	0.01	0.099	O				0.53
68.917	0.00	0.01	0.099	O				0.53
69.000	0.00	0.01	0.099	O				0.53
69.083	0.00	0.01	0.099	O				0.53
69.167	0.00	0.01	0.099	O				0.53
69.250	0.00	0.01	0.099	O				0.53
69.333	0.00	0.01	0.099	O				0.53
69.417	0.00	0.01	0.098	O				0.53
69.500	0.00	0.01	0.098	O				0.53
69.583	0.00	0.01	0.098	O				0.53
69.667	0.00	0.01	0.098	O				0.53
69.750	0.00	0.01	0.098	O				0.52
69.833	0.00	0.01	0.098	O				0.52
69.917	0.00	0.01	0.098	O				0.52
70.000	0.00	0.01	0.098	O				0.52
70.083	0.00	0.01	0.098	O				0.52
70.167	0.00	0.01	0.098	O				0.52
70.250	0.00	0.01	0.098	O				0.52
70.333	0.00	0.01	0.098	O				0.52
70.417	0.00	0.01	0.098	O				0.52
70.500	0.00	0.01	0.098	O				0.52
70.583	0.00	0.01	0.098	O				0.52
70.667	0.00	0.01	0.097	O				0.52
70.750	0.00	0.01	0.097	O				0.52
70.833	0.00	0.01	0.097	O				0.52
70.917	0.00	0.01	0.097	O				0.52
71.000	0.00	0.01	0.097	O				0.52
71.083	0.00	0.01	0.097	O				0.52
71.167	0.00	0.01	0.097	O				0.52
71.250	0.00	0.01	0.097	O				0.52
71.333	0.00	0.01	0.097	O				0.52
71.417	0.00	0.01	0.097	O				0.52
71.500	0.00	0.01	0.097	O				0.52
71.583	0.00	0.01	0.097	O				0.52
71.667	0.00	0.01	0.097	O				0.52
71.750	0.00	0.01	0.097	O				0.52
71.833	0.00	0.01	0.097	O				0.52
71.917	0.00	0.01	0.097	O				0.52
72.000	0.00	0.01	0.097	O				0.52
72.083	0.00	0.01	0.097	O				0.52
72.167	0.00	0.01	0.097	O				0.52
72.250	0.00	0.01	0.097	O				0.52
72.333	0.00	0.01	0.096	O				0.52
72.417	0.00	0.01	0.096	O				0.52

72.500	0.00	0.01	0.096	O				0.52
72.583	0.00	0.01	0.096	O				0.52
72.667	0.00	0.01	0.096	O				0.52
72.750	0.00	0.01	0.096	O				0.52
72.833	0.00	0.01	0.096	O				0.52
72.917	0.00	0.01	0.096	O				0.52
73.000	0.00	0.01	0.096	O				0.51
73.083	0.00	0.01	0.096	O				0.51
73.167	0.00	0.01	0.096	O				0.51
73.250	0.00	0.01	0.096	O				0.51
73.333	0.00	0.01	0.096	O				0.51
73.417	0.00	0.01	0.096	O				0.51
73.500	0.00	0.01	0.096	O				0.51
73.583	0.00	0.01	0.096	O				0.51
73.667	0.00	0.01	0.096	O				0.51
73.750	0.00	0.01	0.096	O				0.51
73.833	0.00	0.01	0.096	O				0.51
73.917	0.00	0.01	0.096	O				0.51
74.000	0.00	0.01	0.096	O				0.51
74.083	0.00	0.00	0.096	O				0.51
74.167	0.00	0.00	0.096	O				0.51
74.250	0.00	0.00	0.096	O				0.51
74.333	0.00	0.00	0.096	O				0.51
74.417	0.00	0.00	0.095	O				0.51
74.500	0.00	0.00	0.095	O				0.51
74.583	0.00	0.00	0.095	O				0.51
74.667	0.00	0.00	0.095	O				0.51
74.750	0.00	0.00	0.095	O				0.51
74.833	0.00	0.00	0.095	O				0.51
74.917	0.00	0.00	0.095	O				0.51
75.000	0.00	0.00	0.095	O				0.51
75.083	0.00	0.00	0.095	O				0.51
75.167	0.00	0.00	0.095	O				0.51
75.250	0.00	0.00	0.095	O				0.51
75.333	0.00	0.00	0.095	O				0.51
75.417	0.00	0.00	0.095	O				0.51
75.500	0.00	0.00	0.095	O				0.51
75.583	0.00	0.00	0.095	O				0.51
75.667	0.00	0.00	0.095	O				0.51
75.750	0.00	0.00	0.095	O				0.51
75.833	0.00	0.00	0.095	O				0.51
75.917	0.00	0.00	0.095	O				0.51
76.000	0.00	0.00	0.095	O				0.51
76.083	0.00	0.00	0.095	O				0.51
76.167	0.00	0.00	0.095	O				0.51
76.250	0.00	0.00	0.095	O				0.51
76.333	0.00	0.00	0.095	O				0.51
76.417	0.00	0.00	0.095	O				0.51
76.500	0.00	0.00	0.095	O				0.51
76.583	0.00	0.00	0.095	O				0.51

76.667	0.00	0.00	0.095	O	|	|	|	0.51
76.750	0.00	0.00	0.095	O	|	|	|	0.51
76.833	0.00	0.00	0.095	O	|	|	|	0.51
76.917	0.00	0.00	0.095	O	|	|	|	0.51
77.000	0.00	0.00	0.095	O	|	|	|	0.51
77.083	0.00	0.00	0.095	O	|	|	|	0.51
77.167	0.00	0.00	0.095	O	|	|	|	0.51
77.250	0.00	0.00	0.095	O	|	|	|	0.51
77.333	0.00	0.00	0.095	O	|	|	|	0.51
77.417	0.00	0.00	0.095	O	|	|	|	0.51
77.500	0.00	0.00	0.095	O	|	|	|	0.51
77.583	0.00	0.00	0.095	O	|	|	|	0.51
77.667	0.00	0.00	0.095	O	|	|	|	0.51
77.750	0.00	0.00	0.094	O	|	|	|	0.51
77.833	0.00	0.00	0.094	O	|	|	|	0.51
77.917	0.00	0.00	0.094	O	|	|	|	0.51
78.000	0.00	0.00	0.094	O	|	|	|	0.51
78.083	0.00	0.00	0.094	O	|	|	|	0.51
78.167	0.00	0.00	0.094	O	|	|	|	0.51
78.250	0.00	0.00	0.094	O	|	|	|	0.51
78.333	0.00	0.00	0.094	O	|	|	|	0.51
78.417	0.00	0.00	0.094	O	|	|	|	0.51
78.500	0.00	0.00	0.094	O	|	|	|	0.51
78.583	0.00	0.00	0.094	O	|	|	|	0.51
78.667	0.00	0.00	0.094	O	|	|	|	0.51
78.750	0.00	0.00	0.094	O	|	|	|	0.51
78.833	0.00	0.00	0.094	O	|	|	|	0.51
78.917	0.00	0.00	0.094	O	|	|	|	0.51
79.000	0.00	0.00	0.094	O	|	|	|	0.51
79.083	0.00	0.00	0.094	O	|	|	|	0.51
79.167	0.00	0.00	0.094	O	|	|	|	0.51
79.250	0.00	0.00	0.094	O	|	|	|	0.51
79.333	0.00	0.00	0.094	O	|	|	|	0.51
79.417	0.00	0.00	0.094	O	|	|	|	0.51
79.500	0.00	0.00	0.094	O	|	|	|	0.51
79.583	0.00	0.00	0.094	O	|	|	|	0.51
79.667	0.00	0.00	0.094	O	|	|	|	0.51
79.750	0.00	0.00	0.094	O	|	|	|	0.51
79.833	0.00	0.00	0.094	O	|	|	|	0.51
79.917	0.00	0.00	0.094	O	|	|	|	0.51
80.000	0.00	0.00	0.094	O	|	|	|	0.51
80.083	0.00	0.00	0.094	O	|	|	|	0.50
80.167	0.00	0.00	0.094	O	|	|	|	0.50
80.250	0.00	0.00	0.094	O	|	|	|	0.50
80.333	0.00	0.00	0.094	O	|	|	|	0.50
80.417	0.00	0.00	0.094	O	|	|	|	0.50
80.500	0.00	0.00	0.094	O	|	|	|	0.50
80.583	0.00	0.00	0.094	O	|	|	|	0.50
80.667	0.00	0.00	0.094	O	|	|	|	0.50
80.750	0.00	0.00	0.094	O	|	|	|	0.50

80.833	0.00	0.00	0.094	O	|	|	|	|	0.50
80.917	0.00	0.00	0.094	O	|	|	|	|	0.50
81.000	0.00	0.00	0.094	O	|	|	|	|	0.50
81.083	0.00	0.00	0.094	O	|	|	|	|	0.50
81.167	0.00	0.00	0.094	O	|	|	|	|	0.50
81.250	0.00	0.00	0.094	O	|	|	|	|	0.50
81.333	0.00	0.00	0.094	O	|	|	|	|	0.50
81.417	0.00	0.00	0.094	O	|	|	|	|	0.50
81.500	0.00	0.00	0.094	O	|	|	|	|	0.50
81.583	0.00	0.00	0.094	O	|	|	|	|	0.50
81.667	0.00	0.00	0.094	O	|	|	|	|	0.50
81.750	0.00	0.00	0.094	O	|	|	|	|	0.50
81.833	0.00	0.00	0.094	O	|	|	|	|	0.50
81.917	0.00	0.00	0.094	O	|	|	|	|	0.50
82.000	0.00	0.00	0.094	O	|	|	|	|	0.50
82.083	0.00	0.00	0.094	O	|	|	|	|	0.50
82.167	0.00	0.00	0.094	O	|	|	|	|	0.50
82.250	0.00	0.00	0.094	O	|	|	|	|	0.50
82.333	0.00	0.00	0.094	O	|	|	|	|	0.50
82.417	0.00	0.00	0.094	O	|	|	|	|	0.50
82.500	0.00	0.00	0.094	O	|	|	|	|	0.50
82.583	0.00	0.00	0.094	O	|	|	|	|	0.50
82.667	0.00	0.00	0.094	O	|	|	|	|	0.50
82.750	0.00	0.00	0.094	O	|	|	|	|	0.50
82.833	0.00	0.00	0.094	O	|	|	|	|	0.50
82.917	0.00	0.00	0.094	O	|	|	|	|	0.50
83.000	0.00	0.00	0.094	O	|	|	|	|	0.50
83.083	0.00	0.00	0.094	O	|	|	|	|	0.50
83.167	0.00	0.00	0.094	O	|	|	|	|	0.50
83.250	0.00	0.00	0.094	O	|	|	|	|	0.50
83.333	0.00	0.00	0.094	O	|	|	|	|	0.50
83.417	0.00	0.00	0.094	O	|	|	|	|	0.50
83.500	0.00	0.00	0.094	O	|	|	|	|	0.50
83.583	0.00	0.00	0.094	O	|	|	|	|	0.50
83.667	0.00	0.00	0.094	O	|	|	|	|	0.50
83.750	0.00	0.00	0.094	O	|	|	|	|	0.50
83.833	0.00	0.00	0.094	O	|	|	|	|	0.50
83.917	0.00	0.00	0.094	O	|	|	|	|	0.50
84.000	0.00	0.00	0.094	O	|	|	|	|	0.50
84.083	0.00	0.00	0.094	O	|	|	|	|	0.50
84.167	0.00	0.00	0.094	O	|	|	|	|	0.50
84.250	0.00	0.00	0.094	O	|	|	|	|	0.50
84.333	0.00	0.00	0.094	O	|	|	|	|	0.50
84.417	0.00	0.00	0.094	O	|	|	|	|	0.50

Remaining water in basin = 0.09 (Ac.Ft)

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

```
                Number of intervals =  1013
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =        4.930 (CFS)
                Total volume =       1.247 (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
****************************************************************************

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

FLOOD HYDROGRAPH ROUTING PROGRAM

Study date: 08/24/22

A21626 DMA 1 100YR-24HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA1Q100UH24100.rte
**********HYDROGRAPH DATA**********
Number of intervals = 291
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 4.082 (CFS)
Total volume = 2.285 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
_____

Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.00(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.50(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    4.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   4.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   1.00(Ft.)    Capacity =   6.28(CFS)

Total outflow at this depth =      6.48(CFS)

------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 291
```

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
0.500	0.093	0.000	0.093	0.093
1.000	0.197	0.196	0.196	0.198
1.500	0.313	0.196	0.312	0.314
2.000	0.440	0.196	0.439	0.441
2.500	0.580	0.196	0.579	0.581
3.000	0.732	0.196	0.731	0.733
3.500	0.897	0.196	0.896	0.898
4.000	1.075	4.639	1.059	1.091
4.500	1.267	6.480	1.245	1.289

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 1.0 2.04 3.06 4.08	Depth (Ft.)
0.083	0.10	0.00	0.000	O	0.00
0.167	0.18	0.00	0.001	OI	0.01
0.250	0.20	0.00	0.003	OI	0.01
0.333	0.25	0.00	0.004	OI	0.02
0.417	0.29	0.00	0.006	O I	0.03
0.500	0.30	0.00	0.008	O I	0.04
0.583	0.30	0.00	0.010	O I	0.05
0.667	0.30	0.00	0.012	O I	0.07
0.750	0.30	0.00	0.014	O I	0.08
0.833	0.35	0.00	0.017	O I	0.09
0.917	0.39	0.00	0.019	O I	0.10
1.000	0.40	0.00	0.022	O I	0.12
1.083	0.35	0.00	0.025	O I	0.13
1.167	0.31	0.00	0.027	O I	0.14
1.250	0.30	0.00	0.029	O I	0.16
1.333	0.30	0.00	0.031	O I	0.17
1.417	0.30	0.00	0.033	O I	0.18
1.500	0.30	0.00	0.035	O I	0.19
1.583	0.30	0.00	0.037	O I	0.20

1.667	0.30	0.00	0.039	O I	|	|	|	0.21
1.750	0.30	0.00	0.041	O I	|	|	|	0.22
1.833	0.35	0.00	0.044	O I	|	|	|	0.23
1.917	0.39	0.00	0.046	O I	|	|	|	0.25
2.000	0.40	0.00	0.049	O I	|	|	|	0.26
2.083	0.40	0.00	0.052	O I	|	|	|	0.28
2.167	0.40	0.00	0.054	O I	|	|	|	0.29
2.250	0.40	0.00	0.057	O I	|	|	|	0.31
2.333	0.40	0.00	0.060	O I	|	|	|	0.32
2.417	0.40	0.00	0.063	O I	|	|	|	0.34
2.500	0.40	0.00	0.066	O I	|	|	|	0.35
2.583	0.45	0.00	0.069	O I	|	|	|	0.37
2.667	0.49	0.00	0.072	O I	|	|	|	0.39
2.750	0.50	0.00	0.075	O I	|	|	|	0.40
2.833	0.50	0.00	0.079	O I	|	|	|	0.42
2.917	0.50	0.00	0.082	O I	|	|	|	0.44
3.000	0.50	0.00	0.086	O I	|	|	|	0.46
3.083	0.50	0.00	0.089	O I	|	|	|	0.48
3.167	0.50	0.00	0.093	O I	|	|	|	0.50
3.250	0.50	0.01	0.096	O I	|	|	|	0.51
3.333	0.50	0.01	0.099	O I	|	|	|	0.53
3.417	0.50	0.02	0.103	O I	|	|	|	0.55
3.500	0.50	0.02	0.106	O I	|	|	|	0.56
3.583	0.50	0.03	0.109	O I	|	|	|	0.58
3.667	0.50	0.04	0.113	O I	|	|	|	0.59
3.750	0.50	0.04	0.116	O I	|	|	|	0.61
3.833	0.55	0.05	0.119	O I	|	|	|	0.63
3.917	0.59	0.06	0.123	O I	|	|	|	0.64
4.000	0.60	0.06	0.126	O I	|	|	|	0.66
4.083	0.60	0.07	0.130	O I	|	|	|	0.68
4.167	0.60	0.08	0.134	O I	|	|	|	0.70
4.250	0.60	0.08	0.137	O I	|	|	|	0.71
4.333	0.66	0.09	0.141	O I	|	|	|	0.73
4.417	0.70	0.10	0.145	O I	|	|	|	0.75
4.500	0.70	0.11	0.149	O I	|	|	|	0.77
4.583	0.70	0.11	0.153	O I	|	|	|	0.79
4.667	0.70	0.12	0.157	O I	|	|	|	0.81
4.750	0.70	0.13	0.161	|O I	|	|	|	0.83
4.833	0.76	0.14	0.165	|O I	|	|	|	0.85
4.917	0.80	0.14	0.170	|O I	|	|	|	0.87
5.000	0.80	0.15	0.174	|O I	|	|	|	0.89
5.083	0.70	0.16	0.178	|O I	|	|	|	0.91
5.167	0.62	0.17	0.182	|O I	|	|	|	0.93
5.250	0.61	0.17	0.185	|O I	|	|	|	0.94
5.333	0.66	0.18	0.188	|O I	|	|	|	0.96
5.417	0.70	0.19	0.191	|O I	|	|	|	0.97
5.500	0.70	0.19	0.195	|O I	|	|	|	0.99
5.583	0.76	0.20	0.199	|O I	|	|	|	1.01
5.667	0.80	0.20	0.203	|O I	|	|	|	1.02
5.750	0.80	0.20	0.207	|O I	|	|	|	1.04

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5.833    0.80    0.20      0.211  |O    I |       |       |       |     1.06
5.917    0.80    0.20      0.215  |O    I |       |       |       |     1.08
6.000    0.80    0.20      0.219  |O    I |       |       |       |     1.10
6.083    0.86    0.20      0.224  |O    I |       |       |       |     1.11
6.167    0.90    0.20      0.228  |O     I|       |       |       |     1.13
6.250    0.90    0.20      0.233  |O     I|       |       |       |     1.16
6.333    0.91    0.20      0.238  |O     I|       |       |       |     1.18
6.417    0.91    0.20      0.243  |O     I|       |       |       |     1.20
6.500    0.91    0.20      0.248  |O     I|       |       |       |     1.22
6.583    0.96    0.20      0.253  |O     I|       |       |       |     1.24
6.667    1.00    0.20      0.258  |O     I|       |       |       |     1.26
6.750    1.00    0.20      0.264  |O     I|       |       |       |     1.29
6.833    1.01    0.20      0.269  |O     I|       |       |       |     1.31
6.917    1.01    0.20      0.275  |O     I|       |       |       |     1.34
7.000    1.01    0.20      0.281  |O     I|       |       |       |     1.36
7.083    1.01    0.20      0.286  |O     I|       |       |       |     1.38
7.167    1.01    0.20      0.292  |O     I|       |       |       |     1.41
7.250    1.01    0.20      0.297  |O     I|       |       |       |     1.43
7.333    1.06    0.20      0.303  |O      I       |       |       |     1.46
7.417    1.10    0.20      0.309  |O      I       |       |       |     1.48
7.500    1.10    0.20      0.315  |O      I       |       |       |     1.51
7.583    1.16    0.20      0.322  |O      |I      |       |       |     1.53
7.667    1.20    0.20      0.328  |O      |I      |       |       |     1.56
7.750    1.21    0.20      0.335  |O      |I      |       |       |     1.59
7.833    1.26    0.20      0.343  |O      |I      |       |       |     1.62
7.917    1.30    0.20      0.350  |O      | I     |       |       |     1.65
8.000    1.31    0.20      0.358  |O      | I     |       |       |     1.68
8.083    1.45    0.20      0.366  |O      |  I    |       |       |     1.71
8.167    1.55    0.20      0.375  |O      |   I   |       |       |     1.74
8.250    1.57    0.20      0.384  |O      |   I   |       |       |     1.78
8.333    1.57    0.20      0.394  |O      |   I   |       |       |     1.82
8.417    1.58    0.20      0.403  |O      |   I   |       |       |     1.85
8.500    1.58    0.20      0.413  |O      |   I   |       |       |     1.89
8.583    1.64    0.20      0.422  |O      |   I   |       |       |     1.93
8.667    1.70    0.20      0.433  |O      |    I  |       |       |     1.97
8.750    1.71    0.20      0.443  |O      |    I  |       |       |     2.01
8.833    1.78    0.20      0.454  |O      |    I  |       |       |     2.05
8.917    1.83    0.20      0.465  |O      |     I |       |       |     2.09
9.000    1.84    0.20      0.476  |O      |     I |       |       |     2.13
9.083    1.97    0.20      0.488  |O      |      I|       |       |     2.17
9.167    2.08    0.20      0.500  |O      |       I       |       |     2.22
9.250    2.10    0.20      0.513  |O      |       I       |       |     2.26
9.333    2.17    0.20      0.527  |O      |       I       |       |     2.31
9.417    2.22    0.20      0.540  |O      |       |I      |       |     2.36
9.500    2.23    0.20      0.554  |O      |       |I      |       |     2.41
9.583    2.30    0.20      0.569  |O      |       | I     |       |     2.46
9.667    2.35    0.20      0.583  |O      |       | I     |       |     2.51
9.750    2.36    0.20      0.598  |O      |       | I     |       |     2.56
9.833    2.43    0.20      0.613  |O      |       |  I    |       |     2.61
9.917    2.48    0.20      0.629  |O      |       |  I    |       |     2.66
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10.000    2.49    0.20      0.645  |O      |       |  I    |       |     2.71
10.083    2.04    0.20      0.659  |O      |      I|       |       |     2.76
10.167    1.69    0.20      0.670  |O      |    I  |       |       |     2.80
10.250    1.63    0.20      0.680  |O      |   I   |       |       |     2.83
10.333    1.61    0.20      0.690  |O      |   I   |       |       |     2.86
10.417    1.61    0.20      0.700  |O      |   I   |       |       |     2.89
10.500    1.61    0.20      0.710  |O      |   I   |       |       |     2.93
10.583    1.94    0.20      0.721  |O      |      I|       |       |     2.96
10.667    2.20    0.20      0.734  |O      |       |I      |       |     3.00
10.750    2.24    0.20      0.747  |O      |       |I      |       |     3.05
10.833    2.26    0.20      0.762  |O      |       |I      |       |     3.09
10.917    2.26    0.20      0.776  |O      |       |I      |       |     3.13
11.000    2.26    0.20      0.790  |O      |       |I      |       |     3.18
11.083    2.20    0.20      0.804  |O      |       |I      |       |     3.22
11.167    2.15    0.20      0.818  |O      |       I       |       |     3.26
11.250    2.14    0.20      0.831  |O      |       I       |       |     3.30
11.333    2.14    0.20      0.844  |O      |       I       |       |     3.34
11.417    2.14    0.20      0.858  |O      |       I       |       |     3.38
11.500    2.14    0.20      0.871  |O      |       I       |       |     3.42
11.583    2.01    0.20      0.884  |O      |      I|       |       |     3.46
11.667    1.91    0.20      0.896  |O      |     I |       |       |     3.50
11.750    1.89    0.45      0.907  |  O    |     I |       |       |     3.53
11.833    1.96    0.68      0.916  |    O  |      I|       |       |     3.55
11.917    2.01    0.89      0.925  |     O |      I|       |       |     3.58
12.000    2.02    1.07      0.932  |       O      I|       |       |     3.60
12.083    2.48    1.25      0.939  |       |O      |  I    |       |     3.62
12.167    2.84    1.48      0.948  |       |  O    |     I |       |     3.64
12.250    2.90    1.70      0.957  |       |    O  |     I |       |     3.67
12.333    2.98    1.89      0.965  |       |     O |      I|       |     3.69
12.417    3.04    2.07      0.972  |       |       O      I|       |     3.71
12.500    3.05    2.22      0.978  |       |       |O     I|       |     3.73
12.583    3.18    2.36      0.984  |       |       | O     I       |     3.74
12.667    3.28    2.50      0.989  |       |       |  O    |I      |     3.76
12.750    3.30    2.63      0.994  |       |       |   O   |I      |     3.77
12.833    3.37    2.74      0.999  |       |       |    O  | I     |     3.79
12.917    3.43    2.84      1.003  |       |       |     O | I     |     3.80
13.000    3.44    2.94      1.007  |       |       |      O| I     |     3.81
13.083    3.77    3.04      1.011  |       |       |      O|    I  |     3.82
13.167    4.02    3.18      1.016  |       |       |       O      I|     3.84
13.250    4.07    3.31      1.022  |       |       |       |O     I|     3.85
13.333    4.08    3.43      1.027  |       |       |       | O    I|     3.86
13.417    4.08    3.54      1.031  |       |       |       |  O   I|     3.88
13.500    4.08    3.62      1.034  |       |       |       |   O   I     3.89
13.583    3.36    3.64      1.035  |       |       |       | I O   |     3.89
13.667    2.81    3.55      1.031  |       |       |     I |  O    |     3.88
13.750    2.71    3.43      1.026  |       |       |    I  | O     |     3.86
13.833    2.69    3.31      1.022  |       |       |    I  |O      |     3.85
13.917    2.69    3.21      1.018  |       |       |    I  |O      |     3.84
14.000    2.69    3.13      1.014  |       |       |    I  O       |     3.83
14.083    2.95    3.08      1.013  |       |       |      IO       |     3.82
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14.167	3.16	3.08	1.012	|	|	O |	3.82
14.250	3.19	3.09	1.013	|	|	OI |	3.83
14.333	3.14	3.10	1.013	|	|	O |	3.83
14.417	3.09	3.10	1.014	|	|	O |	3.83
14.500	3.08	3.10	1.013	|	|	O |	3.83
14.583	3.08	3.10	1.013	|	|	O |	3.83
14.667	3.08	3.10	1.013	|	|	O |	3.83
14.750	3.08	3.09	1.013	|	|	O |	3.83
14.833	3.02	3.09	1.013	|	|	IO |	3.83
14.917	2.97	3.07	1.012	|	|	IO |	3.82
15.000	2.96	3.05	1.012	|	|	O|	3.82
15.083	2.89	3.03	1.011	|	|	IO|	3.82
15.167	2.84	3.01	1.010	|	|	IO|	3.82
15.250	2.84	2.98	1.009	|	|	IO|	3.81
15.333	2.77	2.95	1.007	|	|	I O|	3.81
15.417	2.72	2.92	1.006	|	|	IO |	3.81
15.500	2.71	2.89	1.005	|	|	IO |	3.80
15.583	2.45	2.84	1.003	|	|	I O |	3.80
15.667	2.25	2.76	1.000	|	|	I O |	3.79
15.750	2.21	2.68	0.996	|	|	I O |	3.78
15.833	2.21	2.60	0.993	|	|	I O |	3.77
15.917	2.21	2.54	0.991	|	|	I O |	3.76
16.000	2.21	2.49	0.989	|	|	I O |	3.76
16.083	1.28	2.37	0.984	|	I | O |	|	3.74
16.167	0.56	2.14	0.975	| I |	O |	|	3.72
16.250	0.44	1.88	0.964	| I |	O |	|	3.69
16.333	0.40	1.65	0.955	| I |	O |	|	3.66
16.417	0.40	1.45	0.947	| I |	O |	|	3.64
16.500	0.40	1.29	0.941	| I |	O |	|	3.62
16.583	0.35	1.14	0.935	| I |	O |	|	3.61
16.667	0.31	1.01	0.930	| I |	O|	|	3.59
16.750	0.30	0.90	0.925	| I |	O|	|	3.58
16.833	0.30	0.81	0.921	| I |	O |	|	3.57
16.917	0.30	0.73	0.918	| I |	O |	|	3.56
17.000	0.30	0.66	0.916	| I |	O |	|	3.55
17.083	0.41	0.61	0.914	| |	IO |	|	3.55
17.167	0.49	0.58	0.913	| |	IO |	|	3.54
17.250	0.50	0.57	0.912	| |	IO |	|	3.54
17.333	0.50	0.56	0.912	| |	IO |	|	3.54
17.417	0.50	0.55	0.911	| |	IO |	|	3.54
17.500	0.50	0.54	0.911	| |	IO |	|	3.54
17.583	0.50	0.54	0.911	| |	IO |	|	3.54
17.667	0.50	0.53	0.910	| |	IO |	|	3.54
17.750	0.50	0.53	0.910	| |	IO |	|	3.54
17.833	0.45	0.52	0.910	| |	IO |	|	3.54
17.917	0.41	0.51	0.909	| |	O |	|	3.53
18.000	0.40	0.49	0.909	| |	O |	|	3.53
18.083	0.40	0.48	0.908	| |	O |	|	3.53
18.167	0.40	0.46	0.908	| |	O |	|	3.53
18.250	0.40	0.45	0.907	| |	O |	|	3.53

18.333	0.40	0.45	0.907	O				3.53
18.417	0.40	0.44	0.907	O				3.53
18.500	0.40	0.43	0.907	O				3.53
18.583	0.35	0.42	0.906	IO				3.53
18.667	0.31	0.41	0.906	IO				3.52
18.750	0.30	0.39	0.905	IO				3.52
18.833	0.25	0.37	0.904	IO				3.52
18.917	0.21	0.35	0.903	IO				3.52
19.000	0.20	0.33	0.902	IO				3.51
19.083	0.25	0.31	0.902	IO				3.51
19.167	0.29	0.31	0.901	O				3.51
19.250	0.30	0.31	0.901	O				3.51
19.333	0.35	0.31	0.901	O				3.51
19.417	0.39	0.32	0.902	OI				3.51
19.500	0.40	0.33	0.902	OI				3.52
19.583	0.35	0.34	0.903	O				3.52
19.667	0.31	0.34	0.903	O				3.52
19.750	0.30	0.33	0.902	O				3.52
19.833	0.25	0.32	0.902	IO				3.51
19.917	0.21	0.31	0.902	IO				3.51
20.000	0.20	0.29	0.901	IO				3.51
20.083	0.25	0.28	0.900	IO				3.51
20.167	0.29	0.28	0.900	O				3.51
20.250	0.30	0.28	0.900	O				3.51
20.333	0.30	0.29	0.901	O				3.51
20.417	0.30	0.29	0.901	O				3.51
20.500	0.30	0.29	0.901	O				3.51
20.583	0.30	0.29	0.901	O				3.51
20.667	0.30	0.29	0.901	O				3.51
20.750	0.30	0.30	0.901	O				3.51
20.833	0.25	0.29	0.901	IO				3.51
20.917	0.21	0.28	0.900	IO				3.51
21.000	0.20	0.27	0.900	IO				3.51
21.083	0.25	0.26	0.900	IO				3.51
21.167	0.29	0.27	0.900	O				3.51
21.250	0.30	0.27	0.900	O				3.51
21.333	0.25	0.27	0.900	IO				3.51
21.417	0.21	0.26	0.900	IO				3.51
21.500	0.20	0.26	0.899	IO				3.51
21.583	0.25	0.25	0.899	O				3.51
21.667	0.29	0.25	0.899	OI				3.51
21.750	0.30	0.26	0.900	O				3.51
21.833	0.25	0.26	0.900	IO				3.51
21.917	0.21	0.26	0.899	IO				3.51
22.000	0.20	0.25	0.899	O				3.51
22.083	0.25	0.25	0.899	O				3.51
22.167	0.29	0.25	0.899	OI				3.51
22.250	0.30	0.26	0.899	O				3.51
22.333	0.25	0.26	0.900	IO				3.51
22.417	0.21	0.26	0.899	IO				3.51

22.500	0.20	0.25	0.899	|O	|	|	|	3.51
22.583	0.20	0.24	0.899	|O	|	|	|	3.50
22.667	0.20	0.23	0.899	|O	|	|	|	3.50
22.750	0.20	0.23	0.898	|O	|	|	|	3.50
22.833	0.20	0.22	0.898	|O	|	|	|	3.50
22.917	0.20	0.22	0.898	|O	|	|	|	3.50
23.000	0.20	0.22	0.898	|O	|	|	|	3.50
23.083	0.20	0.22	0.898	|O	|	|	|	3.50
23.167	0.20	0.21	0.898	|O	|	|	|	3.50
23.250	0.20	0.21	0.898	|O	|	|	|	3.50
23.333	0.20	0.21	0.898	|O	|	|	|	3.50
23.417	0.20	0.21	0.897	|O	|	|	|	3.50
23.500	0.20	0.21	0.897	|O	|	|	|	3.50
23.583	0.20	0.21	0.897	|O	|	|	|	3.50
23.667	0.20	0.21	0.897	|O	|	|	|	3.50
23.750	0.20	0.20	0.897	|O	|	|	|	3.50
23.833	0.20	0.20	0.897	|O	|	|	|	3.50
23.917	0.20	0.20	0.897	|O	|	|	|	3.50
24.000	0.20	0.20	0.897	|O	|	|	|	3.50
24.083	0.10	0.20	0.897	IO	|	|	|	3.50
24.167	0.02	0.20	0.896	IO	|	|	|	3.50
24.250	0.00	0.20	0.895	IO	|	|	|	3.49
24.333	0.00	0.20	0.893	IO	|	|	|	3.49
24.417	0.00	0.20	0.892	IO	|	|	|	3.48
24.500	0.00	0.20	0.891	IO	|	|	|	3.48
24.583	0.00	0.20	0.889	IO	|	|	|	3.48
24.667	0.00	0.20	0.888	IO	|	|	|	3.47
24.750	0.00	0.20	0.887	IO	|	|	|	3.47
24.833	0.00	0.20	0.885	IO	|	|	|	3.46
24.917	0.00	0.20	0.884	IO	|	|	|	3.46
25.000	0.00	0.20	0.883	IO	|	|	|	3.46
25.083	0.00	0.20	0.881	IO	|	|	|	3.45
25.167	0.00	0.20	0.880	IO	|	|	|	3.45
25.250	0.00	0.20	0.878	IO	|	|	|	3.44
25.333	0.00	0.20	0.877	IO	|	|	|	3.44
25.417	0.00	0.20	0.876	IO	|	|	|	3.44
25.500	0.00	0.20	0.874	IO	|	|	|	3.43
25.583	0.00	0.20	0.873	IO	|	|	|	3.43
25.667	0.00	0.20	0.872	IO	|	|	|	3.42
25.750	0.00	0.20	0.870	IO	|	|	|	3.42
25.833	0.00	0.20	0.869	IO	|	|	|	3.42
25.917	0.00	0.20	0.868	IO	|	|	|	3.41
26.000	0.00	0.20	0.866	IO	|	|	|	3.41
26.083	0.00	0.20	0.865	IO	|	|	|	3.40
26.167	0.00	0.20	0.864	IO	|	|	|	3.40
26.250	0.00	0.20	0.862	IO	|	|	|	3.39
26.333	0.00	0.20	0.861	IO	|	|	|	3.39
26.417	0.00	0.20	0.860	IO	|	|	|	3.39
26.500	0.00	0.20	0.858	IO	|	|	|	3.38
26.583	0.00	0.20	0.857	IO	|	|	|	3.38

26.667	0.00	0.20	0.855	IO				3.37
26.750	0.00	0.20	0.854	IO				3.37
26.833	0.00	0.20	0.853	IO				3.37
26.917	0.00	0.20	0.851	IO				3.36
27.000	0.00	0.20	0.850	IO				3.36
27.083	0.00	0.20	0.849	IO				3.35
27.167	0.00	0.20	0.847	IO				3.35
27.250	0.00	0.20	0.846	IO				3.35
27.333	0.00	0.20	0.845	IO				3.34
27.417	0.00	0.20	0.843	IO				3.34
27.500	0.00	0.20	0.842	IO				3.33
27.583	0.00	0.20	0.841	IO				3.33
27.667	0.00	0.20	0.839	IO				3.33
27.750	0.00	0.20	0.838	IO				3.32
27.833	0.00	0.20	0.837	IO				3.32
27.917	0.00	0.20	0.835	IO				3.31
28.000	0.00	0.20	0.834	IO				3.31
28.083	0.00	0.20	0.833	IO				3.30
28.167	0.00	0.20	0.831	IO				3.30
28.250	0.00	0.20	0.830	IO				3.30
28.333	0.00	0.20	0.828	IO				3.29
28.417	0.00	0.20	0.827	IO				3.29
28.500	0.00	0.20	0.826	IO				3.28
28.583	0.00	0.20	0.824	IO				3.28
28.667	0.00	0.20	0.823	IO				3.28
28.750	0.00	0.20	0.822	IO				3.27
28.833	0.00	0.20	0.820	IO				3.27
28.917	0.00	0.20	0.819	IO				3.26
29.000	0.00	0.20	0.818	IO				3.26
29.083	0.00	0.20	0.816	IO				3.26
29.167	0.00	0.20	0.815	IO				3.25
29.250	0.00	0.20	0.814	IO				3.25
29.333	0.00	0.20	0.812	IO				3.24
29.417	0.00	0.20	0.811	IO				3.24
29.500	0.00	0.20	0.810	IO				3.23
29.583	0.00	0.20	0.808	IO				3.23
29.667	0.00	0.20	0.807	IO				3.23
29.750	0.00	0.20	0.805	IO				3.22
29.833	0.00	0.20	0.804	IO				3.22
29.917	0.00	0.20	0.803	IO				3.21
30.000	0.00	0.20	0.801	IO				3.21
30.083	0.00	0.20	0.800	IO				3.21
30.167	0.00	0.20	0.799	IO				3.20
30.250	0.00	0.20	0.797	IO				3.20
30.333	0.00	0.20	0.796	IO				3.19
30.417	0.00	0.20	0.795	IO				3.19
30.500	0.00	0.20	0.793	IO				3.19
30.583	0.00	0.20	0.792	IO				3.18
30.667	0.00	0.20	0.791	IO				3.18
30.750	0.00	0.20	0.789	IO				3.17

30.833	0.00	0.20	0.788	IO				3.17
30.917	0.00	0.20	0.787	IO				3.17
31.000	0.00	0.20	0.785	IO				3.16
31.083	0.00	0.20	0.784	IO				3.16
31.167	0.00	0.20	0.782	IO				3.15
31.250	0.00	0.20	0.781	IO				3.15
31.333	0.00	0.20	0.780	IO				3.14
31.417	0.00	0.20	0.778	IO				3.14
31.500	0.00	0.20	0.777	IO				3.14
31.583	0.00	0.20	0.776	IO				3.13
31.667	0.00	0.20	0.774	IO				3.13
31.750	0.00	0.20	0.773	IO				3.12
31.833	0.00	0.20	0.772	IO				3.12
31.917	0.00	0.20	0.770	IO				3.12
32.000	0.00	0.20	0.769	IO				3.11
32.083	0.00	0.20	0.768	IO				3.11
32.167	0.00	0.20	0.766	IO				3.10
32.250	0.00	0.20	0.765	IO				3.10
32.333	0.00	0.20	0.764	IO				3.10
32.417	0.00	0.20	0.762	IO				3.09
32.500	0.00	0.20	0.761	IO				3.09
32.583	0.00	0.20	0.759	IO				3.08
32.667	0.00	0.20	0.758	IO				3.08
32.750	0.00	0.20	0.757	IO				3.08
32.833	0.00	0.20	0.755	IO				3.07
32.917	0.00	0.20	0.754	IO				3.07
33.000	0.00	0.20	0.753	IO				3.06
33.083	0.00	0.20	0.751	IO				3.06
33.167	0.00	0.20	0.750	IO				3.05
33.250	0.00	0.20	0.749	IO				3.05
33.333	0.00	0.20	0.747	IO				3.05
33.417	0.00	0.20	0.746	IO				3.04
33.500	0.00	0.20	0.745	IO				3.04
33.583	0.00	0.20	0.743	IO				3.03
33.667	0.00	0.20	0.742	IO				3.03
33.750	0.00	0.20	0.741	IO				3.03
33.833	0.00	0.20	0.739	IO				3.02
33.917	0.00	0.20	0.738	IO				3.02
34.000	0.00	0.20	0.736	IO				3.01
34.083	0.00	0.20	0.735	IO				3.01
34.167	0.00	0.20	0.734	IO				3.01
34.250	0.00	0.20	0.732	IO				3.00
34.333	0.00	0.20	0.731	IO				3.00
34.417	0.00	0.20	0.730	IO				2.99
34.500	0.00	0.20	0.728	IO				2.99
34.583	0.00	0.20	0.727	IO				2.98
34.667	0.00	0.20	0.726	IO				2.98
34.750	0.00	0.20	0.724	IO				2.97
34.833	0.00	0.20	0.723	IO				2.97
34.917	0.00	0.20	0.722	IO				2.97

35.000	0.00	0.20	0.720	IO				2.96
35.083	0.00	0.20	0.719	IO				2.96
35.167	0.00	0.20	0.718	IO				2.95
35.250	0.00	0.20	0.716	IO				2.95
35.333	0.00	0.20	0.715	IO				2.94
35.417	0.00	0.20	0.714	IO				2.94
35.500	0.00	0.20	0.712	IO				2.93
35.583	0.00	0.20	0.711	IO				2.93
35.667	0.00	0.20	0.709	IO				2.93
35.750	0.00	0.20	0.708	IO				2.92
35.833	0.00	0.20	0.707	IO				2.92
35.917	0.00	0.20	0.705	IO				2.91
36.000	0.00	0.20	0.704	IO				2.91
36.083	0.00	0.20	0.703	IO				2.90
36.167	0.00	0.20	0.701	IO				2.90
36.250	0.00	0.20	0.700	IO				2.89
36.333	0.00	0.20	0.699	IO				2.89
36.417	0.00	0.20	0.697	IO				2.89
36.500	0.00	0.20	0.696	IO				2.88
36.583	0.00	0.20	0.695	IO				2.88
36.667	0.00	0.20	0.693	IO				2.87
36.750	0.00	0.20	0.692	IO				2.87
36.833	0.00	0.20	0.691	IO				2.86
36.917	0.00	0.20	0.689	IO				2.86
37.000	0.00	0.20	0.688	IO				2.85
37.083	0.00	0.20	0.686	IO				2.85
37.167	0.00	0.20	0.685	IO				2.85
37.250	0.00	0.20	0.684	IO				2.84
37.333	0.00	0.20	0.682	IO				2.84
37.417	0.00	0.20	0.681	IO				2.83
37.500	0.00	0.20	0.680	IO				2.83
37.583	0.00	0.20	0.678	IO				2.82
37.667	0.00	0.20	0.677	IO				2.82
37.750	0.00	0.20	0.676	IO				2.81
37.833	0.00	0.20	0.674	IO				2.81
37.917	0.00	0.20	0.673	IO				2.81
38.000	0.00	0.20	0.672	IO				2.80
38.083	0.00	0.20	0.670	IO				2.80
38.167	0.00	0.20	0.669	IO				2.79
38.250	0.00	0.20	0.668	IO				2.79
38.333	0.00	0.20	0.666	IO				2.78
38.417	0.00	0.20	0.665	IO				2.78
38.500	0.00	0.20	0.663	IO				2.77
38.583	0.00	0.20	0.662	IO				2.77
38.667	0.00	0.20	0.661	IO				2.77
38.750	0.00	0.20	0.659	IO				2.76
38.833	0.00	0.20	0.658	IO				2.76
38.917	0.00	0.20	0.657	IO				2.75
39.000	0.00	0.20	0.655	IO				2.75
39.083	0.00	0.20	0.654	IO				2.74

39.167	0.00	0.20	0.653	IO				2.74
39.250	0.00	0.20	0.651	IO				2.73
39.333	0.00	0.20	0.650	IO				2.73
39.417	0.00	0.20	0.649	IO				2.73
39.500	0.00	0.20	0.647	IO				2.72
39.583	0.00	0.20	0.646	IO				2.72
39.667	0.00	0.20	0.645	IO				2.71
39.750	0.00	0.20	0.643	IO				2.71
39.833	0.00	0.20	0.642	IO				2.70
39.917	0.00	0.20	0.640	IO				2.70
40.000	0.00	0.20	0.639	IO				2.69
40.083	0.00	0.20	0.638	IO				2.69
40.167	0.00	0.20	0.636	IO				2.69
40.250	0.00	0.20	0.635	IO				2.68
40.333	0.00	0.20	0.634	IO				2.68
40.417	0.00	0.20	0.632	IO				2.67
40.500	0.00	0.20	0.631	IO				2.67
40.583	0.00	0.20	0.630	IO				2.66
40.667	0.00	0.20	0.628	IO				2.66
40.750	0.00	0.20	0.627	IO				2.65
40.833	0.00	0.20	0.626	IO				2.65
40.917	0.00	0.20	0.624	IO				2.65
41.000	0.00	0.20	0.623	IO				2.64
41.083	0.00	0.20	0.622	IO				2.64
41.167	0.00	0.20	0.620	IO				2.63
41.250	0.00	0.20	0.619	IO				2.63
41.333	0.00	0.20	0.617	IO				2.62
41.417	0.00	0.20	0.616	IO				2.62
41.500	0.00	0.20	0.615	IO				2.61
41.583	0.00	0.20	0.613	IO				2.61
41.667	0.00	0.20	0.612	IO				2.61
41.750	0.00	0.20	0.611	IO				2.60
41.833	0.00	0.20	0.609	IO				2.60
41.917	0.00	0.20	0.608	IO				2.59
42.000	0.00	0.20	0.607	IO				2.59
42.083	0.00	0.20	0.605	IO				2.58
42.167	0.00	0.20	0.604	IO				2.58
42.250	0.00	0.20	0.603	IO				2.57
42.333	0.00	0.20	0.601	IO				2.57
42.417	0.00	0.20	0.600	IO				2.57
42.500	0.00	0.20	0.599	IO				2.56
42.583	0.00	0.20	0.597	IO				2.56
42.667	0.00	0.20	0.596	IO				2.55
42.750	0.00	0.20	0.595	IO				2.55
42.833	0.00	0.20	0.593	IO				2.54
42.917	0.00	0.20	0.592	IO				2.54
43.000	0.00	0.20	0.590	IO				2.53
43.083	0.00	0.20	0.589	IO				2.53
43.167	0.00	0.20	0.588	IO				2.53
43.250	0.00	0.20	0.586	IO				2.52

43.333	0.00	0.20	0.585	IO				2.52
43.417	0.00	0.20	0.584	IO				2.51
43.500	0.00	0.20	0.582	IO				2.51
43.583	0.00	0.20	0.581	IO				2.50
43.667	0.00	0.20	0.580	IO				2.50
43.750	0.00	0.20	0.578	IO				2.49
43.833	0.00	0.20	0.577	IO				2.49
43.917	0.00	0.20	0.576	IO				2.48
44.000	0.00	0.20	0.574	IO				2.48
44.083	0.00	0.20	0.573	IO				2.47
44.167	0.00	0.20	0.572	IO				2.47
44.250	0.00	0.20	0.570	IO				2.46
44.333	0.00	0.20	0.569	IO				2.46
44.417	0.00	0.20	0.567	IO				2.46
44.500	0.00	0.20	0.566	IO				2.45
44.583	0.00	0.20	0.565	IO				2.45
44.667	0.00	0.20	0.563	IO				2.44
44.750	0.00	0.20	0.562	IO				2.44
44.833	0.00	0.20	0.561	IO				2.43
44.917	0.00	0.20	0.559	IO				2.43
45.000	0.00	0.20	0.558	IO				2.42
45.083	0.00	0.20	0.557	IO				2.42
45.167	0.00	0.20	0.555	IO				2.41
45.250	0.00	0.20	0.554	IO				2.41
45.333	0.00	0.20	0.553	IO				2.40
45.417	0.00	0.20	0.551	IO				2.40
45.500	0.00	0.20	0.550	IO				2.39
45.583	0.00	0.20	0.549	IO				2.39
45.667	0.00	0.20	0.547	IO				2.38
45.750	0.00	0.20	0.546	IO				2.38
45.833	0.00	0.20	0.544	IO				2.37
45.917	0.00	0.20	0.543	IO				2.37
46.000	0.00	0.20	0.542	IO				2.36
46.083	0.00	0.20	0.540	IO				2.36
46.167	0.00	0.20	0.539	IO				2.35
46.250	0.00	0.20	0.538	IO				2.35
46.333	0.00	0.20	0.536	IO				2.34
46.417	0.00	0.20	0.535	IO				2.34
46.500	0.00	0.20	0.534	IO				2.33
46.583	0.00	0.20	0.532	IO				2.33
46.667	0.00	0.20	0.531	IO				2.32
46.750	0.00	0.20	0.530	IO				2.32
46.833	0.00	0.20	0.528	IO				2.32
46.917	0.00	0.20	0.527	IO				2.31
47.000	0.00	0.20	0.526	IO				2.31
47.083	0.00	0.20	0.524	IO				2.30
47.167	0.00	0.20	0.523	IO				2.30
47.250	0.00	0.20	0.521	IO				2.29
47.333	0.00	0.20	0.520	IO				2.29
47.417	0.00	0.20	0.519	IO				2.28

47.500	0.00	0.20	0.517	IO				2.28
47.583	0.00	0.20	0.516	IO				2.27
47.667	0.00	0.20	0.515	IO				2.27
47.750	0.00	0.20	0.513	IO				2.26
47.833	0.00	0.20	0.512	IO				2.26
47.917	0.00	0.20	0.511	IO				2.25
48.000	0.00	0.20	0.509	IO				2.25
48.083	0.00	0.20	0.508	IO				2.24
48.167	0.00	0.20	0.507	IO				2.24
48.250	0.00	0.20	0.505	IO				2.23
48.333	0.00	0.20	0.504	IO				2.23
48.417	0.00	0.20	0.503	IO				2.22
48.500	0.00	0.20	0.501	IO				2.22
48.583	0.00	0.20	0.500	IO				2.21
48.667	0.00	0.20	0.498	IO				2.21
48.750	0.00	0.20	0.497	IO				2.20
48.833	0.00	0.20	0.496	IO				2.20
48.917	0.00	0.20	0.494	IO				2.19
49.000	0.00	0.20	0.493	IO				2.19
49.083	0.00	0.20	0.492	IO				2.18
49.167	0.00	0.20	0.490	IO				2.18
49.250	0.00	0.20	0.489	IO				2.18
49.333	0.00	0.20	0.488	IO				2.17
49.417	0.00	0.20	0.486	IO				2.17
49.500	0.00	0.20	0.485	IO				2.16
49.583	0.00	0.20	0.484	IO				2.16
49.667	0.00	0.20	0.482	IO				2.15
49.750	0.00	0.20	0.481	IO				2.15
49.833	0.00	0.20	0.480	IO				2.14
49.917	0.00	0.20	0.478	IO				2.14
50.000	0.00	0.20	0.477	IO				2.13
50.083	0.00	0.20	0.476	IO				2.13
50.167	0.00	0.20	0.474	IO				2.12
50.250	0.00	0.20	0.473	IO				2.12
50.333	0.00	0.20	0.471	IO				2.11
50.417	0.00	0.20	0.470	IO				2.11
50.500	0.00	0.20	0.469	IO				2.10
50.583	0.00	0.20	0.467	IO				2.10
50.667	0.00	0.20	0.466	IO				2.09
50.750	0.00	0.20	0.465	IO				2.09
50.833	0.00	0.20	0.463	IO				2.08
50.917	0.00	0.20	0.462	IO				2.08
51.000	0.00	0.20	0.461	IO				2.07
51.083	0.00	0.20	0.459	IO				2.07
51.167	0.00	0.20	0.458	IO				2.06
51.250	0.00	0.20	0.457	IO				2.06
51.333	0.00	0.20	0.455	IO				2.05
51.417	0.00	0.20	0.454	IO				2.05
51.500	0.00	0.20	0.453	IO				2.04
51.583	0.00	0.20	0.451	IO				2.04

51.667	0.00	0.20	0.450	IO				2.04
51.750	0.00	0.20	0.448	IO				2.03
51.833	0.00	0.20	0.447	IO				2.03
51.917	0.00	0.20	0.446	IO				2.02
52.000	0.00	0.20	0.444	IO				2.02
52.083	0.00	0.20	0.443	IO				2.01
52.167	0.00	0.20	0.442	IO				2.01
52.250	0.00	0.20	0.440	IO				2.00
52.333	0.00	0.20	0.439	IO				2.00
52.417	0.00	0.20	0.438	IO				1.99
52.500	0.00	0.20	0.436	IO				1.99
52.583	0.00	0.20	0.435	IO				1.98
52.667	0.00	0.20	0.434	IO				1.97
52.750	0.00	0.20	0.432	IO				1.97
52.833	0.00	0.20	0.431	IO				1.96
52.917	0.00	0.20	0.430	IO				1.96
53.000	0.00	0.20	0.428	IO				1.95
53.083	0.00	0.20	0.427	IO				1.95
53.167	0.00	0.20	0.425	IO				1.94
53.250	0.00	0.20	0.424	IO				1.94
53.333	0.00	0.20	0.423	IO				1.93
53.417	0.00	0.20	0.421	IO				1.93
53.500	0.00	0.20	0.420	IO				1.92
53.583	0.00	0.20	0.419	IO				1.92
53.667	0.00	0.20	0.417	IO				1.91
53.750	0.00	0.20	0.416	IO				1.91
53.833	0.00	0.20	0.415	IO				1.90
53.917	0.00	0.20	0.413	IO				1.89
54.000	0.00	0.20	0.412	IO				1.89
54.083	0.00	0.20	0.411	IO				1.88
54.167	0.00	0.20	0.409	IO				1.88
54.250	0.00	0.20	0.408	IO				1.87
54.333	0.00	0.20	0.407	IO				1.87
54.417	0.00	0.20	0.405	IO				1.86
54.500	0.00	0.20	0.404	IO				1.86
54.583	0.00	0.20	0.402	IO				1.85
54.667	0.00	0.20	0.401	IO				1.85
54.750	0.00	0.20	0.400	IO				1.84
54.833	0.00	0.20	0.398	IO				1.84
54.917	0.00	0.20	0.397	IO				1.83
55.000	0.00	0.20	0.396	IO				1.83
55.083	0.00	0.20	0.394	IO				1.82
55.167	0.00	0.20	0.393	IO				1.82
55.250	0.00	0.20	0.392	IO				1.81
55.333	0.00	0.20	0.390	IO				1.80
55.417	0.00	0.20	0.389	IO				1.80
55.500	0.00	0.20	0.388	IO				1.79
55.583	0.00	0.20	0.386	IO				1.79
55.667	0.00	0.20	0.385	IO				1.78
55.750	0.00	0.20	0.384	IO				1.78

55.833	0.00	0.20	0.382	IO				1.77
55.917	0.00	0.20	0.381	IO				1.77
56.000	0.00	0.20	0.379	IO				1.76
56.083	0.00	0.20	0.378	IO				1.76
56.167	0.00	0.20	0.377	IO				1.75
56.250	0.00	0.20	0.375	IO				1.75
56.333	0.00	0.20	0.374	IO				1.74
56.417	0.00	0.20	0.373	IO				1.74
56.500	0.00	0.20	0.371	IO				1.73
56.583	0.00	0.20	0.370	IO				1.72
56.667	0.00	0.20	0.369	IO				1.72
56.750	0.00	0.20	0.367	IO				1.71
56.833	0.00	0.20	0.366	IO				1.71
56.917	0.00	0.20	0.365	IO				1.70
57.000	0.00	0.20	0.363	IO				1.70
57.083	0.00	0.20	0.362	IO				1.69
57.167	0.00	0.20	0.361	IO				1.69
57.250	0.00	0.20	0.359	IO				1.68
57.333	0.00	0.20	0.358	IO				1.68
57.417	0.00	0.20	0.357	IO				1.67
57.500	0.00	0.20	0.355	IO				1.67
57.583	0.00	0.20	0.354	IO				1.66
57.667	0.00	0.20	0.352	IO				1.66
57.750	0.00	0.20	0.351	IO				1.65
57.833	0.00	0.20	0.350	IO				1.64
57.917	0.00	0.20	0.348	IO				1.64
58.000	0.00	0.20	0.347	IO				1.63
58.083	0.00	0.20	0.346	IO				1.63
58.167	0.00	0.20	0.344	IO				1.62
58.250	0.00	0.20	0.343	IO				1.62
58.333	0.00	0.20	0.342	IO				1.61
58.417	0.00	0.20	0.340	IO				1.61
58.500	0.00	0.20	0.339	IO				1.60
58.583	0.00	0.20	0.338	IO				1.60
58.667	0.00	0.20	0.336	IO				1.59
58.750	0.00	0.20	0.335	IO				1.59
58.833	0.00	0.20	0.334	IO				1.58
58.917	0.00	0.20	0.332	IO				1.58
59.000	0.00	0.20	0.331	IO				1.57
59.083	0.00	0.20	0.329	IO				1.56
59.167	0.00	0.20	0.328	IO				1.56
59.250	0.00	0.20	0.327	IO				1.55
59.333	0.00	0.20	0.325	IO				1.55
59.417	0.00	0.20	0.324	IO				1.54
59.500	0.00	0.20	0.323	IO				1.54
59.583	0.00	0.20	0.321	IO				1.53
59.667	0.00	0.20	0.320	IO				1.53
59.750	0.00	0.20	0.319	IO				1.52
59.833	0.00	0.20	0.317	IO				1.52
59.917	0.00	0.20	0.316	IO				1.51

60.000	0.00	0.20	0.315	IO				1.51
60.083	0.00	0.20	0.313	IO				1.50
60.167	0.00	0.20	0.312	IO				1.50
60.250	0.00	0.20	0.311	IO				1.49
60.333	0.00	0.20	0.309	IO				1.48
60.417	0.00	0.20	0.308	IO				1.48
60.500	0.00	0.20	0.306	IO				1.47
60.583	0.00	0.20	0.305	IO				1.47
60.667	0.00	0.20	0.304	IO				1.46
60.750	0.00	0.20	0.302	IO				1.45
60.833	0.00	0.20	0.301	IO				1.45
60.917	0.00	0.20	0.300	IO				1.44
61.000	0.00	0.20	0.298	IO				1.44
61.083	0.00	0.20	0.297	IO				1.43
61.167	0.00	0.20	0.296	IO				1.43
61.250	0.00	0.20	0.294	IO				1.42
61.333	0.00	0.20	0.293	IO				1.41
61.417	0.00	0.20	0.292	IO				1.41
61.500	0.00	0.20	0.290	IO				1.40
61.583	0.00	0.20	0.289	IO				1.40
61.667	0.00	0.20	0.288	IO				1.39
61.750	0.00	0.20	0.286	IO				1.38
61.833	0.00	0.20	0.285	IO				1.38
61.917	0.00	0.20	0.283	IO				1.37
62.000	0.00	0.20	0.282	IO				1.37
62.083	0.00	0.20	0.281	IO				1.36
62.167	0.00	0.20	0.279	IO				1.36
62.250	0.00	0.20	0.278	IO				1.35
62.333	0.00	0.20	0.277	IO				1.34
62.417	0.00	0.20	0.275	IO				1.34
62.500	0.00	0.20	0.274	IO				1.33
62.583	0.00	0.20	0.273	IO				1.33
62.667	0.00	0.20	0.271	IO				1.32
62.750	0.00	0.20	0.270	IO				1.31
62.833	0.00	0.20	0.269	IO				1.31
62.917	0.00	0.20	0.267	IO				1.30
63.000	0.00	0.20	0.266	IO				1.30
63.083	0.00	0.20	0.265	IO				1.29
63.167	0.00	0.20	0.263	IO				1.29
63.250	0.00	0.20	0.262	IO				1.28
63.333	0.00	0.20	0.260	IO				1.27
63.417	0.00	0.20	0.259	IO				1.27
63.500	0.00	0.20	0.258	IO				1.26
63.583	0.00	0.20	0.256	IO				1.26
63.667	0.00	0.20	0.255	IO				1.25
63.750	0.00	0.20	0.254	IO				1.24
63.833	0.00	0.20	0.252	IO				1.24
63.917	0.00	0.20	0.251	IO				1.23
64.000	0.00	0.20	0.250	IO				1.23
64.083	0.00	0.20	0.248	IO				1.22

64.167	0.00	0.20	0.247	IO				1.22
64.250	0.00	0.20	0.246	IO				1.21
64.333	0.00	0.20	0.244	IO				1.20
64.417	0.00	0.20	0.243	IO				1.20
64.500	0.00	0.20	0.242	IO				1.19
64.583	0.00	0.20	0.240	IO				1.19
64.667	0.00	0.20	0.239	IO				1.18
64.750	0.00	0.20	0.238	IO				1.17
64.833	0.00	0.20	0.236	IO				1.17
64.917	0.00	0.20	0.235	IO				1.16
65.000	0.00	0.20	0.233	IO				1.16
65.083	0.00	0.20	0.232	IO				1.15
65.167	0.00	0.20	0.231	IO				1.15
65.250	0.00	0.20	0.229	IO				1.14
65.333	0.00	0.20	0.228	IO				1.13
65.417	0.00	0.20	0.227	IO				1.13
65.500	0.00	0.20	0.225	IO				1.12
65.583	0.00	0.20	0.224	IO				1.12
65.667	0.00	0.20	0.223	IO				1.11
65.750	0.00	0.20	0.221	IO				1.10
65.833	0.00	0.20	0.220	IO				1.10
65.917	0.00	0.20	0.219	IO				1.09
66.000	0.00	0.20	0.217	IO				1.09
66.083	0.00	0.20	0.216	IO				1.08
66.167	0.00	0.20	0.215	IO				1.08
66.250	0.00	0.20	0.213	IO				1.07
66.333	0.00	0.20	0.212	IO				1.06
66.417	0.00	0.20	0.210	IO				1.06
66.500	0.00	0.20	0.209	IO				1.05
66.583	0.00	0.20	0.208	IO				1.05
66.667	0.00	0.20	0.206	IO				1.04
66.750	0.00	0.20	0.205	IO				1.03
66.833	0.00	0.20	0.204	IO				1.03
66.917	0.00	0.20	0.202	IO				1.02
67.000	0.00	0.20	0.201	IO				1.02
67.083	0.00	0.20	0.200	IO				1.01
67.167	0.00	0.20	0.198	IO				1.01
67.250	0.00	0.20	0.197	IO				1.00
67.333	0.00	0.19	0.196	IO				0.99
67.417	0.00	0.19	0.194	IO				0.99
67.500	0.00	0.19	0.193	IO				0.98
67.583	0.00	0.19	0.192	IO				0.97
67.667	0.00	0.18	0.190	IO				0.97
67.750	0.00	0.18	0.189	IO				0.96
67.833	0.00	0.18	0.188	IO				0.96
67.917	0.00	0.18	0.187	IO				0.95
68.000	0.00	0.17	0.185	IO				0.94
68.083	0.00	0.17	0.184	IO				0.94
68.167	0.00	0.17	0.183	IO				0.93
68.250	0.00	0.17	0.182	IO				0.93

68.333	0.00	0.17	0.181	IO				0.92
68.417	0.00	0.16	0.180	IO				0.92
68.500	0.00	0.16	0.179	IO				0.91
68.583	0.00	0.16	0.177	IO				0.91
68.667	0.00	0.16	0.176	IO				0.90
68.750	0.00	0.16	0.175	IO				0.90
68.833	0.00	0.15	0.174	IO				0.89
68.917	0.00	0.15	0.173	IO				0.89
69.000	0.00	0.15	0.172	IO				0.88
69.083	0.00	0.15	0.171	IO				0.88
69.167	0.00	0.15	0.170	IO				0.87
69.250	0.00	0.14	0.169	IO				0.87
69.333	0.00	0.14	0.168	IO				0.86
69.417	0.00	0.14	0.167	IO				0.86
69.500	0.00	0.14	0.166	IO				0.85
69.583	0.00	0.14	0.165	IO				0.85
69.667	0.00	0.13	0.164	IO				0.84
69.750	0.00	0.13	0.163	IO				0.84
69.833	0.00	0.13	0.162	IO				0.83
69.917	0.00	0.13	0.162	IO				0.83
70.000	0.00	0.13	0.161	IO				0.83
70.083	0.00	0.13	0.160	O				0.82
70.167	0.00	0.12	0.159	O				0.82
70.250	0.00	0.12	0.158	O				0.81
70.333	0.00	0.12	0.157	O				0.81
70.417	0.00	0.12	0.156	O				0.80
70.500	0.00	0.12	0.156	O				0.80
70.583	0.00	0.12	0.155	O				0.80
70.667	0.00	0.12	0.154	O				0.79
70.750	0.00	0.11	0.153	O				0.79
70.833	0.00	0.11	0.152	O				0.79
70.917	0.00	0.11	0.152	O				0.78
71.000	0.00	0.11	0.151	O				0.78
71.083	0.00	0.11	0.150	O				0.77
71.167	0.00	0.11	0.149	O				0.77
71.250	0.00	0.11	0.149	O				0.77
71.333	0.00	0.10	0.148	O				0.76
71.417	0.00	0.10	0.147	O				0.76
71.500	0.00	0.10	0.147	O				0.76
71.583	0.00	0.10	0.146	O				0.75
71.667	0.00	0.10	0.145	O				0.75
71.750	0.00	0.10	0.145	O				0.75
71.833	0.00	0.10	0.144	O				0.74
71.917	0.00	0.09	0.143	O				0.74
72.000	0.00	0.09	0.143	O				0.74
72.083	0.00	0.09	0.142	O				0.74
72.167	0.00	0.09	0.141	O				0.73
72.250	0.00	0.09	0.141	O				0.73
72.333	0.00	0.09	0.140	O				0.73
72.417	0.00	0.09	0.139	O				0.72

72.500	0.00	0.09	0.139	O				0.72
72.583	0.00	0.09	0.138	O				0.72
72.667	0.00	0.08	0.138	O				0.71
72.750	0.00	0.08	0.137	O				0.71
72.833	0.00	0.08	0.136	O				0.71
72.917	0.00	0.08	0.136	O				0.71
73.000	0.00	0.08	0.135	O				0.70
73.083	0.00	0.08	0.135	O				0.70
73.167	0.00	0.08	0.134	O				0.70
73.250	0.00	0.08	0.134	O				0.70
73.333	0.00	0.08	0.133	O				0.69
73.417	0.00	0.07	0.133	O				0.69
73.500	0.00	0.07	0.132	O				0.69
73.583	0.00	0.07	0.132	O				0.69
73.667	0.00	0.07	0.131	O				0.68
73.750	0.00	0.07	0.131	O				0.68
73.833	0.00	0.07	0.130	O				0.68
73.917	0.00	0.07	0.130	O				0.68
74.000	0.00	0.07	0.129	O				0.67
74.083	0.00	0.07	0.129	O				0.67
74.167	0.00	0.07	0.128	O				0.67
74.250	0.00	0.07	0.128	O				0.67
74.333	0.00	0.06	0.127	O				0.67
74.417	0.00	0.06	0.127	O				0.66
74.500	0.00	0.06	0.127	O				0.66
74.583	0.00	0.06	0.126	O				0.66
74.667	0.00	0.06	0.126	O				0.66
74.750	0.00	0.06	0.125	O				0.66
74.833	0.00	0.06	0.125	O				0.65
74.917	0.00	0.06	0.124	O				0.65
75.000	0.00	0.06	0.124	O				0.65
75.083	0.00	0.06	0.124	O				0.65
75.167	0.00	0.06	0.123	O				0.65
75.250	0.00	0.06	0.123	O				0.64
75.333	0.00	0.06	0.122	O				0.64
75.417	0.00	0.05	0.122	O				0.64
75.500	0.00	0.05	0.122	O				0.64
75.583	0.00	0.05	0.121	O				0.64
75.667	0.00	0.05	0.121	O				0.63
75.750	0.00	0.05	0.121	O				0.63
75.833	0.00	0.05	0.120	O				0.63
75.917	0.00	0.05	0.120	O				0.63
76.000	0.00	0.05	0.120	O				0.63
76.083	0.00	0.05	0.119	O				0.63
76.167	0.00	0.05	0.119	O				0.62
76.250	0.00	0.05	0.119	O				0.62
76.333	0.00	0.05	0.118	O				0.62
76.417	0.00	0.05	0.118	O				0.62
76.500	0.00	0.05	0.118	O				0.62
76.583	0.00	0.05	0.117	O				0.62

76.667	0.00	0.05	0.117	O	|	|	|	0.61
76.750	0.00	0.04	0.117	O	|	|	|	0.61
76.833	0.00	0.04	0.116	O	|	|	|	0.61
76.917	0.00	0.04	0.116	O	|	|	|	0.61
77.000	0.00	0.04	0.116	O	|	|	|	0.61
77.083	0.00	0.04	0.115	O	|	|	|	0.61
77.167	0.00	0.04	0.115	O	|	|	|	0.61
77.250	0.00	0.04	0.115	O	|	|	|	0.60
77.333	0.00	0.04	0.115	O	|	|	|	0.60
77.417	0.00	0.04	0.114	O	|	|	|	0.60
77.500	0.00	0.04	0.114	O	|	|	|	0.60
77.583	0.00	0.04	0.114	O	|	|	|	0.60
77.667	0.00	0.04	0.113	O	|	|	|	0.60
77.750	0.00	0.04	0.113	O	|	|	|	0.60
77.833	0.00	0.04	0.113	O	|	|	|	0.60
77.917	0.00	0.04	0.113	O	|	|	|	0.59
78.000	0.00	0.04	0.112	O	|	|	|	0.59
78.083	0.00	0.04	0.112	O	|	|	|	0.59
78.167	0.00	0.04	0.112	O	|	|	|	0.59
78.250	0.00	0.04	0.112	O	|	|	|	0.59
78.333	0.00	0.03	0.111	O	|	|	|	0.59
78.417	0.00	0.03	0.111	O	|	|	|	0.59
78.500	0.00	0.03	0.111	O	|	|	|	0.59
78.583	0.00	0.03	0.111	O	|	|	|	0.59
78.667	0.00	0.03	0.111	O	|	|	|	0.58
78.750	0.00	0.03	0.110	O	|	|	|	0.58
78.833	0.00	0.03	0.110	O	|	|	|	0.58
78.917	0.00	0.03	0.110	O	|	|	|	0.58
79.000	0.00	0.03	0.110	O	|	|	|	0.58
79.083	0.00	0.03	0.109	O	|	|	|	0.58
79.167	0.00	0.03	0.109	O	|	|	|	0.58
79.250	0.00	0.03	0.109	O	|	|	|	0.58
79.333	0.00	0.03	0.109	O	|	|	|	0.58
79.417	0.00	0.03	0.109	O	|	|	|	0.57
79.500	0.00	0.03	0.108	O	|	|	|	0.57
79.583	0.00	0.03	0.108	O	|	|	|	0.57
79.667	0.00	0.03	0.108	O	|	|	|	0.57
79.750	0.00	0.03	0.108	O	|	|	|	0.57
79.833	0.00	0.03	0.108	O	|	|	|	0.57
79.917	0.00	0.03	0.107	O	|	|	|	0.57
80.000	0.00	0.03	0.107	O	|	|	|	0.57
80.083	0.00	0.03	0.107	O	|	|	|	0.57
80.167	0.00	0.03	0.107	O	|	|	|	0.57
80.250	0.00	0.03	0.107	O	|	|	|	0.57
80.333	0.00	0.03	0.106	O	|	|	|	0.56
80.417	0.00	0.03	0.106	O	|	|	|	0.56
80.500	0.00	0.02	0.106	O	|	|	|	0.56
80.583	0.00	0.02	0.106	O	|	|	|	0.56
80.667	0.00	0.02	0.106	O	|	|	|	0.56
80.750	0.00	0.02	0.106	O	|	|	|	0.56

80.833	0.00	0.02	0.105	O	|	|	|	0.56
80.917	0.00	0.02	0.105	O	|	|	|	0.56
81.000	0.00	0.02	0.105	O	|	|	|	0.56
81.083	0.00	0.02	0.105	O	|	|	|	0.56
81.167	0.00	0.02	0.105	O	|	|	|	0.56
81.250	0.00	0.02	0.105	O	|	|	|	0.56
81.333	0.00	0.02	0.105	O	|	|	|	0.56
81.417	0.00	0.02	0.104	O	|	|	|	0.55
81.500	0.00	0.02	0.104	O	|	|	|	0.55
81.583	0.00	0.02	0.104	O	|	|	|	0.55
81.667	0.00	0.02	0.104	O	|	|	|	0.55
81.750	0.00	0.02	0.104	O	|	|	|	0.55
81.833	0.00	0.02	0.104	O	|	|	|	0.55
81.917	0.00	0.02	0.104	O	|	|	|	0.55
82.000	0.00	0.02	0.103	O	|	|	|	0.55
82.083	0.00	0.02	0.103	O	|	|	|	0.55
82.167	0.00	0.02	0.103	O	|	|	|	0.55
82.250	0.00	0.02	0.103	O	|	|	|	0.55
82.333	0.00	0.02	0.103	O	|	|	|	0.55
82.417	0.00	0.02	0.103	O	|	|	|	0.55
82.500	0.00	0.02	0.103	O	|	|	|	0.55
82.583	0.00	0.02	0.103	O	|	|	|	0.55
82.667	0.00	0.02	0.102	O	|	|	|	0.55
82.750	0.00	0.02	0.102	O	|	|	|	0.54
82.833	0.00	0.02	0.102	O	|	|	|	0.54
82.917	0.00	0.02	0.102	O	|	|	|	0.54
83.000	0.00	0.02	0.102	O	|	|	|	0.54
83.083	0.00	0.02	0.102	O	|	|	|	0.54
83.167	0.00	0.02	0.102	O	|	|	|	0.54
83.250	0.00	0.02	0.102	O	|	|	|	0.54
83.333	0.00	0.02	0.101	O	|	|	|	0.54
83.417	0.00	0.02	0.101	O	|	|	|	0.54
83.500	0.00	0.02	0.101	O	|	|	|	0.54
83.583	0.00	0.02	0.101	O	|	|	|	0.54
83.667	0.00	0.02	0.101	O	|	|	|	0.54
83.750	0.00	0.01	0.101	O	|	|	|	0.54
83.833	0.00	0.01	0.101	O	|	|	|	0.54
83.917	0.00	0.01	0.101	O	|	|	|	0.54
84.000	0.00	0.01	0.101	O	|	|	|	0.54
84.083	0.00	0.01	0.101	O	|	|	|	0.54
84.167	0.00	0.01	0.100	O	|	|	|	0.54
84.250	0.00	0.01	0.100	O	|	|	|	0.54
84.333	0.00	0.01	0.100	O	|	|	|	0.53
84.417	0.00	0.01	0.100	O	|	|	|	0.53
84.500	0.00	0.01	0.100	O	|	|	|	0.53
84.583	0.00	0.01	0.100	O	|	|	|	0.53
84.667	0.00	0.01	0.100	O	|	|	|	0.53
84.750	0.00	0.01	0.100	O	|	|	|	0.53
84.833	0.00	0.01	0.100	O	|	|	|	0.53
84.917	0.00	0.01	0.100	O	|	|	|	0.53

85.000	0.00	0.01	0.100	O	|	|	|	0.53
85.083	0.00	0.01	0.099	O	|	|	|	0.53
85.167	0.00	0.01	0.099	O	|	|	|	0.53
85.250	0.00	0.01	0.099	O	|	|	|	0.53
85.333	0.00	0.01	0.099	O	|	|	|	0.53
85.417	0.00	0.01	0.099	O	|	|	|	0.53
85.500	0.00	0.01	0.099	O	|	|	|	0.53
85.583	0.00	0.01	0.099	O	|	|	|	0.53
85.667	0.00	0.01	0.099	O	|	|	|	0.53
85.750	0.00	0.01	0.099	O	|	|	|	0.53
85.833	0.00	0.01	0.099	O	|	|	|	0.53
85.917	0.00	0.01	0.099	O	|	|	|	0.53
86.000	0.00	0.01	0.099	O	|	|	|	0.53
86.083	0.00	0.01	0.099	O	|	|	|	0.53
86.167	0.00	0.01	0.098	O	|	|	|	0.53
86.250	0.00	0.01	0.098	O	|	|	|	0.53
86.333	0.00	0.01	0.098	O	|	|	|	0.53
86.417	0.00	0.01	0.098	O	|	|	|	0.53
86.500	0.00	0.01	0.098	O	|	|	|	0.52
86.583	0.00	0.01	0.098	O	|	|	|	0.52
86.667	0.00	0.01	0.098	O	|	|	|	0.52
86.750	0.00	0.01	0.098	O	|	|	|	0.52
86.833	0.00	0.01	0.098	O	|	|	|	0.52
86.917	0.00	0.01	0.098	O	|	|	|	0.52
87.000	0.00	0.01	0.098	O	|	|	|	0.52
87.083	0.00	0.01	0.098	O	|	|	|	0.52
87.167	0.00	0.01	0.098	O	|	|	|	0.52
87.250	0.00	0.01	0.098	O	|	|	|	0.52
87.333	0.00	0.01	0.098	O	|	|	|	0.52
87.417	0.00	0.01	0.097	O	|	|	|	0.52
87.500	0.00	0.01	0.097	O	|	|	|	0.52
87.583	0.00	0.01	0.097	O	|	|	|	0.52
87.667	0.00	0.01	0.097	O	|	|	|	0.52
87.750	0.00	0.01	0.097	O	|	|	|	0.52
87.833	0.00	0.01	0.097	O	|	|	|	0.52
87.917	0.00	0.01	0.097	O	|	|	|	0.52
88.000	0.00	0.01	0.097	O	|	|	|	0.52
88.083	0.00	0.01	0.097	O	|	|	|	0.52
88.167	0.00	0.01	0.097	O	|	|	|	0.52
88.250	0.00	0.01	0.097	O	|	|	|	0.52
88.333	0.00	0.01	0.097	O	|	|	|	0.52
88.417	0.00	0.01	0.097	O	|	|	|	0.52
88.500	0.00	0.01	0.097	O	|	|	|	0.52
88.583	0.00	0.01	0.097	O	|	|	|	0.52
88.667	0.00	0.01	0.097	O	|	|	|	0.52
88.750	0.00	0.01	0.097	O	|	|	|	0.52
88.833	0.00	0.01	0.097	O	|	|	|	0.52
88.917	0.00	0.01	0.097	O	|	|	|	0.52
89.000	0.00	0.01	0.096	O	|	|	|	0.52
89.083	0.00	0.01	0.096	O	|	|	|	0.52

89.167	0.00	0.01	0.096	O	|	|	|	0.52
89.250	0.00	0.01	0.096	O	|	|	|	0.52
89.333	0.00	0.01	0.096	O	|	|	|	0.52
89.417	0.00	0.01	0.096	O	|	|	|	0.52
89.500	0.00	0.01	0.096	O	|	|	|	0.52
89.583	0.00	0.01	0.096	O	|	|	|	0.52
89.667	0.00	0.01	0.096	O	|	|	|	0.52
89.750	0.00	0.01	0.096	O	|	|	|	0.51
89.833	0.00	0.01	0.096	O	|	|	|	0.51
89.917	0.00	0.01	0.096	O	|	|	|	0.51
90.000	0.00	0.01	0.096	O	|	|	|	0.51
90.083	0.00	0.01	0.096	O	|	|	|	0.51
90.167	0.00	0.01	0.096	O	|	|	|	0.51
90.250	0.00	0.01	0.096	O	|	|	|	0.51
90.333	0.00	0.01	0.096	O	|	|	|	0.51
90.417	0.00	0.01	0.096	O	|	|	|	0.51
90.500	0.00	0.01	0.096	O	|	|	|	0.51
90.583	0.00	0.01	0.096	O	|	|	|	0.51
90.667	0.00	0.01	0.096	O	|	|	|	0.51
90.750	0.00	0.01	0.096	O	|	|	|	0.51
90.833	0.00	0.00	0.096	O	|	|	|	0.51
90.917	0.00	0.00	0.096	O	|	|	|	0.51
91.000	0.00	0.00	0.096	O	|	|	|	0.51
91.083	0.00	0.00	0.096	O	|	|	|	0.51
91.167	0.00	0.00	0.095	O	|	|	|	0.51
91.250	0.00	0.00	0.095	O	|	|	|	0.51
91.333	0.00	0.00	0.095	O	|	|	|	0.51
91.417	0.00	0.00	0.095	O	|	|	|	0.51
91.500	0.00	0.00	0.095	O	|	|	|	0.51
91.583	0.00	0.00	0.095	O	|	|	|	0.51
91.667	0.00	0.00	0.095	O	|	|	|	0.51
91.750	0.00	0.00	0.095	O	|	|	|	0.51
91.833	0.00	0.00	0.095	O	|	|	|	0.51
91.917	0.00	0.00	0.095	O	|	|	|	0.51
92.000	0.00	0.00	0.095	O	|	|	|	0.51
92.083	0.00	0.00	0.095	O	|	|	|	0.51
92.167	0.00	0.00	0.095	O	|	|	|	0.51
92.250	0.00	0.00	0.095	O	|	|	|	0.51
92.333	0.00	0.00	0.095	O	|	|	|	0.51
92.417	0.00	0.00	0.095	O	|	|	|	0.51
92.500	0.00	0.00	0.095	O	|	|	|	0.51
92.583	0.00	0.00	0.095	O	|	|	|	0.51
92.667	0.00	0.00	0.095	O	|	|	|	0.51
92.750	0.00	0.00	0.095	O	|	|	|	0.51
92.833	0.00	0.00	0.095	O	|	|	|	0.51
92.917	0.00	0.00	0.095	O	|	|	|	0.51
93.000	0.00	0.00	0.095	O	|	|	|	0.51
93.083	0.00	0.00	0.095	O	|	|	|	0.51
93.167	0.00	0.00	0.095	O	|	|	|	0.51
93.250	0.00	0.00	0.095	O	|	|	|	0.51

93.333	0.00	0.00	0.095	O	|	|	|	0.51
93.417	0.00	0.00	0.095	O	|	|	|	0.51
93.500	0.00	0.00	0.095	O	|	|	|	0.51
93.583	0.00	0.00	0.095	O	|	|	|	0.51
93.667	0.00	0.00	0.095	O	|	|	|	0.51
93.750	0.00	0.00	0.095	O	|	|	|	0.51
93.833	0.00	0.00	0.095	O	|	|	|	0.51
93.917	0.00	0.00	0.095	O	|	|	|	0.51
94.000	0.00	0.00	0.095	O	|	|	|	0.51
94.083	0.00	0.00	0.095	O	|	|	|	0.51
94.167	0.00	0.00	0.095	O	|	|	|	0.51
94.250	0.00	0.00	0.095	O	|	|	|	0.51
94.333	0.00	0.00	0.095	O	|	|	|	0.51
94.417	0.00	0.00	0.094	O	|	|	|	0.51
94.500	0.00	0.00	0.094	O	|	|	|	0.51
94.583	0.00	0.00	0.094	O	|	|	|	0.51
94.667	0.00	0.00	0.094	O	|	|	|	0.51
94.750	0.00	0.00	0.094	O	|	|	|	0.51
94.833	0.00	0.00	0.094	O	|	|	|	0.51
94.917	0.00	0.00	0.094	O	|	|	|	0.51
95.000	0.00	0.00	0.094	O	|	|	|	0.51
95.083	0.00	0.00	0.094	O	|	|	|	0.51
95.167	0.00	0.00	0.094	O	|	|	|	0.51
95.250	0.00	0.00	0.094	O	|	|	|	0.51
95.333	0.00	0.00	0.094	O	|	|	|	0.51
95.417	0.00	0.00	0.094	O	|	|	|	0.51
95.500	0.00	0.00	0.094	O	|	|	|	0.51
95.583	0.00	0.00	0.094	O	|	|	|	0.51
95.667	0.00	0.00	0.094	O	|	|	|	0.51
95.750	0.00	0.00	0.094	O	|	|	|	0.51
95.833	0.00	0.00	0.094	O	|	|	|	0.51
95.917	0.00	0.00	0.094	O	|	|	|	0.51
96.000	0.00	0.00	0.094	O	|	|	|	0.51
96.083	0.00	0.00	0.094	O	|	|	|	0.51
96.167	0.00	0.00	0.094	O	|	|	|	0.51
96.250	0.00	0.00	0.094	O	|	|	|	0.51
96.333	0.00	0.00	0.094	O	|	|	|	0.51
96.417	0.00	0.00	0.094	O	|	|	|	0.51
96.500	0.00	0.00	0.094	O	|	|	|	0.51
96.583	0.00	0.00	0.094	O	|	|	|	0.51
96.667	0.00	0.00	0.094	O	|	|	|	0.51
96.750	0.00	0.00	0.094	O	|	|	|	0.51
96.833	0.00	0.00	0.094	O	|	|	|	0.50
96.917	0.00	0.00	0.094	O	|	|	|	0.50
97.000	0.00	0.00	0.094	O	|	|	|	0.50
97.083	0.00	0.00	0.094	O	|	|	|	0.50
97.167	0.00	0.00	0.094	O	|	|	|	0.50
97.250	0.00	0.00	0.094	O	|	|	|	0.50
97.333	0.00	0.00	0.094	O	|	|	|	0.50
97.417	0.00	0.00	0.094	O	|	|	|	0.50

97.500	0.00	0.00	0.094	O	|	|	|	0.50
97.583	0.00	0.00	0.094	O	|	|	|	0.50
97.667	0.00	0.00	0.094	O	|	|	|	0.50
97.750	0.00	0.00	0.094	O	|	|	|	0.50
97.833	0.00	0.00	0.094	O	|	|	|	0.50
97.917	0.00	0.00	0.094	O	|	|	|	0.50
98.000	0.00	0.00	0.094	O	|	|	|	0.50
98.083	0.00	0.00	0.094	O	|	|	|	0.50
98.167	0.00	0.00	0.094	O	|	|	|	0.50
98.250	0.00	0.00	0.094	O	|	|	|	0.50
98.333	0.00	0.00	0.094	O	|	|	|	0.50
98.417	0.00	0.00	0.094	O	|	|	|	0.50
98.500	0.00	0.00	0.094	O	|	|	|	0.50
98.583	0.00	0.00	0.094	O	|	|	|	0.50
98.667	0.00	0.00	0.094	O	|	|	|	0.50
98.750	0.00	0.00	0.094	O	|	|	|	0.50
98.833	0.00	0.00	0.094	O	|	|	|	0.50
98.917	0.00	0.00	0.094	O	|	|	|	0.50
99.000	0.00	0.00	0.094	O	|	|	|	0.50
99.083	0.00	0.00	0.094	O	|	|	|	0.50
99.167	0.00	0.00	0.094	O	|	|	|	0.50
99.250	0.00	0.00	0.094	O	|	|	|	0.50
99.333	0.00	0.00	0.094	O	|	|	|	0.50
99.417	0.00	0.00	0.094	O	|	|	|	0.50
99.500	0.00	0.00	0.094	O	|	|	|	0.50
99.583	0.00	0.00	0.094	O	|	|	|	0.50
99.667	0.00	0.00	0.094	O	|	|	|	0.50
99.750	0.00	0.00	0.094	O	|	|	|	0.50
99.833	0.00	0.00	0.094	O	|	|	|	0.50
99.917	0.00	0.00	0.094	O	|	|	|	0.50
100.000	0.00	0.00	0.094	O	|	|	|	0.50
100.083	0.00	0.00	0.094	O	|	|	|	0.50
100.167	0.00	0.00	0.094	O	|	|	|	0.50
100.250	0.00	0.00	0.094	O	|	|	|	0.50
100.333	0.00	0.00	0.094	O	|	|	|	0.50
100.417	0.00	0.00	0.094	O	|	|	|	0.50
100.500	0.00	0.00	0.094	O	|	|	|	0.50
100.583	0.00	0.00	0.094	O	|	|	|	0.50
100.667	0.00	0.00	0.094	O	|	|	|	0.50
100.750	0.00	0.00	0.094	O	|	|	|	0.50
100.833	0.00	0.00	0.094	O	|	|	|	0.50
100.917	0.00	0.00	0.094	O	|	|	|	0.50
101.000	0.00	0.00	0.094	O	|	|	|	0.50
101.083	0.00	0.00	0.094	O	|	|	|	0.50
101.167	0.00	0.00	0.094	O	|	|	|	0.50

Remaining water in basin = 0.09 (Ac.Ft)

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**************************HYDROGRAPH DATA**************************
                Number of intervals =  1214
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =        3.639 (CFS)
                Total volume =       2.192 (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
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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

Study date 08/02/22 File: a21626dma1q100uh1100.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 100YR - 1HR UH

Drainage Area = 6.58(Ac.) = 0.010 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 6.58(Ac.) = 0.010 Sq. Mi.
Length along longest watercourse = 808.65(Ft.)
Length along longest watercourse measured to centroid = 622.75(Ft.)
Length along longest watercourse = 0.153 Mi.
Length along longest watercourse measured to centroid = 0.118 Mi.
Difference in elevation = 7.00(Ft.)
Slope along watercourse = 45.7058 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.033 Hr.
Lag time = 1.97 Min.
25% of lag time = 0.49 Min.
40% of lag time = 0.79 Min.
Unit time = 5.00 Min.
Duration of storm = 1 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

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Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        6.58            0.48                    3.16

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        6.58            1.25                    8.22

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.480(In)
Area Averaged 100-Year Rainfall =    1.250(In)

Point rain (area averaged) =    1.250(In)
Areal adjustment factor =   99.99 %
Adjusted average point rain =    1.250(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     6.578           69.00         0.862
 Total Area Entered =      6.58(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     0.862        0.043       1.000      0.043
                                                 Sum (F) =   0.043
Area averaged mean soil loss (F) (In/Hr) =  0.043
Minimum soil loss rate ((In/Hr)) =  0.022
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.210
------------------------------------------------------------------------
Slope of intensity-duration curve for a 1 hour storm =0.4800
------------------------------------------------------------------------

                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        253.789         51.385              3.407
    2   0.167        507.577         39.821              2.640
    3   0.250        761.366          6.897              0.457
    4   0.333       1015.155          1.897              0.126
                              Sum = 100.000   Sum=       6.629
-----------------------------------------------------------------
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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	4.40	0.660	0.043	(0.139)	0.617
2	0.17	4.50	0.675	0.043	(0.142)	0.632
3	0.25	5.40	0.810	0.043	(0.170)	0.766
4	0.33	5.40	0.810	0.043	(0.170)	0.766
5	0.42	5.70	0.855	0.043	(0.180)	0.811
6	0.50	6.40	0.960	0.043	(0.202)	0.916
7	0.58	7.90	1.185	0.043	(0.249)	1.141
8	0.67	9.10	1.365	0.043	(0.287)	1.321
9	0.75	12.80	1.920	0.043	(0.403)	1.876
10	0.83	25.60	3.840	0.043	(0.806)	3.796
11	0.92	7.90	1.185	0.043	(0.249)	1.141
12	1.00	4.90	0.735	0.043	(0.154)	0.691
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	14.5

Flood volume = Effective rainfall 1.21(In)
times area 6.6(Ac.)/[(In)/(Ft.)] = 0.7(Ac.Ft)
Total soil loss = 0.04(In)
Total soil loss = 0.024(Ac.Ft)
Total rainfall = 1.25(In)
Flood volume = 28808.2 Cubic Feet
Total soil loss = 1037.7 Cubic Feet

Peak flow rate of this hydrograph = 18.643(CFS)

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

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	5.0	10.0	15.0	20.0
0+ 5	0.0145	2.10	V Q	|	|	|	|
0+10	0.0405	3.78	| V Q	|	|	|	|
0+15	0.0719	4.56	| V Q|	|	|	|	|
0+20	0.1064	5.00	| V Q	|	|	|	|
0+25	0.1423	5.22	| V Q	|	|	|	|
0+30	0.1817	5.71	| VQ	|	|	|	|
0+35	0.2284	6.78	| | Q	|	|	|	|
0+40	0.2838	8.04	| | QV	|	|	|	|
0+45	0.3562	10.52	| | |Q	|	|	|	|
0+50	0.4846	18.64	| | |	|	V|	Q |	|

```
    0+55       0.5875     14.94  |         |         |        Q|    V    |
    1+ 0       0.6381      7.34  |         |   Q     |         |       V |
    1+ 5       0.6576      2.83  |    Q    |         |         |        V|
    1+10       0.6607      0.46  Q         |         |         |        V|
    1+15       0.6613      0.09  Q         |         |         |         V
---------------------------------------------------------------------------
```

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

Study date 08/02/22 File: a21626dma1q100uh3100.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 100YR - 6HR UH

Drainage Area = 6.58(Ac.) = 0.010 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 6.58(Ac.) = 0.010 Sq. Mi.
Length along longest watercourse = 808.65(Ft.)
Length along longest watercourse measured to centroid = 622.75(Ft.)
Length along longest watercourse = 0.153 Mi.
Length along longest watercourse measured to centroid = 0.118 Mi.
Difference in elevation = 7.00(Ft.)
Slope along watercourse = 45.7058 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.033 Hr.
Lag time = 1.97 Min.
25% of lag time = 0.49 Min.
40% of lag time = 0.79 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]
        6.58            0.80                  5.26

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        6.58            1.95                 12.83

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.800(In)
Area Averaged 100-Year Rainfall =    1.950(In)

Point rain (area averaged) =    1.950(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.950(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     6.578           69.00         0.862
 Total Area Entered =      6.58(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     0.862        0.043       1.000      0.043
                                                 Sum (F) =   0.043
Area averaged mean soil loss (F) (In/Hr) =  0.043
Minimum soil loss rate ((In/Hr)) =  0.022
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.210
------------------------------------------------------------------------

               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        253.789         51.385              3.407
    2   0.167        507.577         39.821              2.640
    3   0.250        761.366          6.897              0.457
    4   0.333       1015.155          1.897              0.126
                               Sum = 100.000   Sum=       6.629
------------------------------------------------------------------------
```

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	0.304	0.043	(0.064)	0.261
2	0.17	1.30	0.304	0.043	(0.064)	0.261
3	0.25	1.10	0.257	0.043	(0.054)	0.214
4	0.33	1.50	0.351	0.043	(0.074)	0.308
5	0.42	1.50	0.351	0.043	(0.074)	0.308
6	0.50	1.80	0.421	0.043	(0.088)	0.378
7	0.58	1.50	0.351	0.043	(0.074)	0.308
8	0.67	1.80	0.421	0.043	(0.088)	0.378
9	0.75	1.80	0.421	0.043	(0.088)	0.378
10	0.83	1.50	0.351	0.043	(0.074)	0.308
11	0.92	1.60	0.374	0.043	(0.079)	0.331
12	1.00	1.80	0.421	0.043	(0.088)	0.378
13	1.08	2.20	0.515	0.043	(0.108)	0.471
14	1.17	2.20	0.515	0.043	(0.108)	0.471
15	1.25	2.20	0.515	0.043	(0.108)	0.471
16	1.33	2.00	0.468	0.043	(0.098)	0.425
17	1.42	2.60	0.608	0.043	(0.128)	0.565
18	1.50	2.70	0.632	0.043	(0.133)	0.588
19	1.58	2.40	0.562	0.043	(0.118)	0.518
20	1.67	2.70	0.632	0.043	(0.133)	0.588
21	1.75	3.30	0.772	0.043	(0.162)	0.729
22	1.83	3.10	0.725	0.043	(0.152)	0.682
23	1.92	2.90	0.679	0.043	(0.143)	0.635
24	2.00	3.00	0.702	0.043	(0.147)	0.659
25	2.08	3.10	0.725	0.043	(0.152)	0.682
26	2.17	4.20	0.983	0.043	(0.206)	0.939
27	2.25	5.00	1.170	0.043	(0.246)	1.127
28	2.33	3.50	0.819	0.043	(0.172)	0.776
29	2.42	6.80	1.591	0.043	(0.334)	1.548
30	2.50	7.30	1.708	0.043	(0.359)	1.665
31	2.58	8.20	1.919	0.043	(0.403)	1.875
32	2.67	5.90	1.381	0.043	(0.290)	1.337
33	2.75	2.00	0.468	0.043	(0.098)	0.425
34	2.83	1.80	0.421	0.043	(0.088)	0.378
35	2.92	1.80	0.421	0.043	(0.088)	0.378
36	3.00	0.60	0.140	(0.043)	0.029	0.111
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	21.8

Flood volume = Effective rainfall 1.82(In)
times area 6.6(Ac.)/[(In)/(Ft.)] = 1.0(Ac.Ft)
Total soil loss = 0.13(In)
Total soil loss = 0.071(Ac.Ft)
Total rainfall = 1.95(In)
Flood volume = 43475.7 Cubic Feet
Total soil loss = 3085.3 Cubic Feet

Peak flow rate of this hydrograph = 11.594(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 5.0 10.0 15.0 20.0
0+ 5	0.0061	0.89	VQ
0+10	0.0170	1.58	V Q
0+15	0.0276	1.54	|V Q
0+20	0.0397	1.77	|V Q
0+25	0.0534	1.99	| VQ
0+30	0.0691	2.27	| V Q
0+35	0.0844	2.23	| VQ
0+40	0.1003	2.31	| Q
0+45	0.1173	2.47	| Q
0+50	0.1329	2.26	| QV
0+55	0.1478	2.16	| QV
1+ 0	0.1639	2.35	| Q V
1+ 5	0.1832	2.79	| Q V
1+10	0.2043	3.07	| Q V
1+15	0.2257	3.11	| Q V|
1+20	0.2462	2.97	| Q V|
1+25	0.2691	3.32	| Q V
1+30	0.2949	3.75	| Q |V
1+35	0.3199	3.63	| Q | V
1+40	0.3455	3.71	| Q | V
1+45	0.3754	4.35	| Q | V
1+50	0.4070	4.58	| Q| V
1+55	0.4371	4.37	| Q | V
2+ 0	0.4669	4.33	| Q | V
2+ 5	0.4975	4.44	| Q | V|
2+10	0.5346	5.38	| Q |V
2+15	0.5808	6.72	| | Q | V
2+20	0.6230	6.13	| | Q | V
2+25	0.6778	7.96	| | Q | V
2+30	0.7485	10.26	| | Q V|
2+35	0.8283	11.59	| | | Q | V
2+40	0.9004	10.47	| | Q | V
2+45	0.9421	6.05	| | Q | | V
2+50	0.9645	3.26	| Q | | V
2+55	0.9827	2.65	| Q | | V|
3+ 0	0.9938	1.60	| Q | | V|
3+ 5	0.9973	0.51	|Q | | V|
3+10	0.9980	0.10	Q | | V|

```
    3+15       0.9981      0.01  Q         |         |         |         V
-------------------------------------------------------------------------
```

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

Study date 08/02/22 File: a21626dma1q100uh6100.out

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

Program License Serial Number 6509

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

English Units used in output format

A2126 100 YR - 6 HR UH

Drainage Area = 6.58(Ac.) = 0.010 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 6.58(Ac.) = 0.010 Sq. Mi.
Length along longest watercourse = 808.65(Ft.)
Length along longest watercourse measured to centroid = 622.75(Ft.)
Length along longest watercourse = 0.153 Mi.
Length along longest watercourse measured to centroid = 0.118 Mi.
Difference in elevation = 7.00(Ft.)
Slope along watercourse = 45.7058 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.033 Hr.
Lag time = 1.97 Min.
25% of lag time = 0.49 Min.
40% of lag time = 0.79 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]
        6.58            1.11                  7.30

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        6.58            2.70                 17.76

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    1.110(In)
Area Averaged 100-Year Rainfall =    2.700(In)

Point rain (area averaged) =    2.700(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    2.700(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     6.578           69.00         0.862
 Total Area Entered =      6.58(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     0.862        0.043       1.000      0.043
                                                 Sum (F) =   0.043
Area averaged mean soil loss (F) (In/Hr) =  0.043
Minimum soil loss rate ((In/Hr)) =  0.022
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.210
------------------------------------------------------------------------

               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        253.789         51.385              3.407
    2   0.167        507.577         39.821              2.640
    3   0.250        761.366          6.897              0.457
    4   0.333       1015.155          1.897              0.126
                               Sum = 100.000   Sum=       6.629
------------------------------------------------------------------------
```

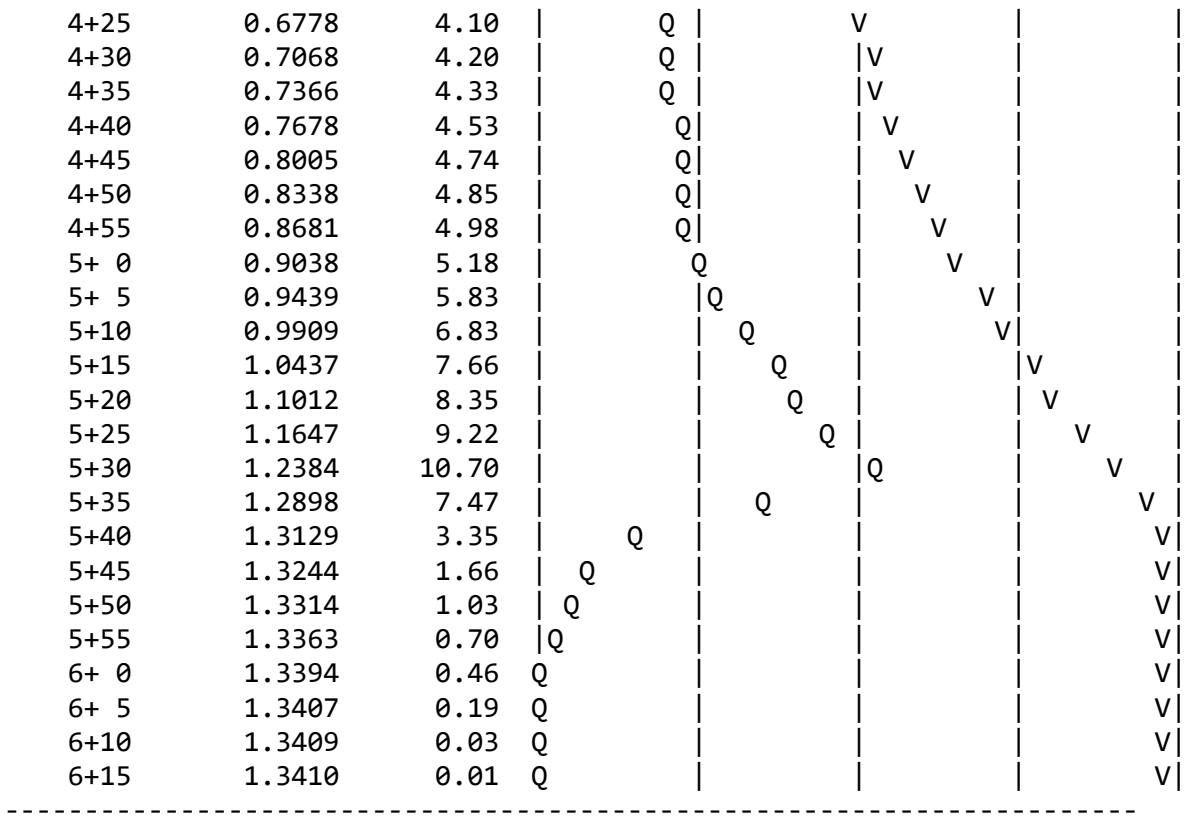
The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.50	0.162	(0.043)	0.034	0.128
2	0.17	0.60	0.194	(0.043)	0.041	0.154
3	0.25	0.60	0.194	(0.043)	0.041	0.154
4	0.33	0.60	0.194	(0.043)	0.041	0.154
5	0.42	0.60	0.194	(0.043)	0.041	0.154
6	0.50	0.70	0.227	0.043	(0.048)	0.183
7	0.58	0.70	0.227	0.043	(0.048)	0.183
8	0.67	0.70	0.227	0.043	(0.048)	0.183
9	0.75	0.70	0.227	0.043	(0.048)	0.183
10	0.83	0.70	0.227	0.043	(0.048)	0.183
11	0.92	0.70	0.227	0.043	(0.048)	0.183
12	1.00	0.80	0.259	0.043	(0.054)	0.216
13	1.08	0.80	0.259	0.043	(0.054)	0.216
14	1.17	0.80	0.259	0.043	(0.054)	0.216
15	1.25	0.80	0.259	0.043	(0.054)	0.216
16	1.33	0.80	0.259	0.043	(0.054)	0.216
17	1.42	0.80	0.259	0.043	(0.054)	0.216
18	1.50	0.80	0.259	0.043	(0.054)	0.216
19	1.58	0.80	0.259	0.043	(0.054)	0.216
20	1.67	0.80	0.259	0.043	(0.054)	0.216
21	1.75	0.80	0.259	0.043	(0.054)	0.216
22	1.83	0.80	0.259	0.043	(0.054)	0.216
23	1.92	0.80	0.259	0.043	(0.054)	0.216
24	2.00	0.90	0.292	0.043	(0.061)	0.248
25	2.08	0.80	0.259	0.043	(0.054)	0.216
26	2.17	0.90	0.292	0.043	(0.061)	0.248
27	2.25	0.90	0.292	0.043	(0.061)	0.248
28	2.33	0.90	0.292	0.043	(0.061)	0.248
29	2.42	0.90	0.292	0.043	(0.061)	0.248
30	2.50	0.90	0.292	0.043	(0.061)	0.248
31	2.58	0.90	0.292	0.043	(0.061)	0.248
32	2.67	0.90	0.292	0.043	(0.061)	0.248
33	2.75	1.00	0.324	0.043	(0.068)	0.281
34	2.83	1.00	0.324	0.043	(0.068)	0.281
35	2.92	1.00	0.324	0.043	(0.068)	0.281
36	3.00	1.00	0.324	0.043	(0.068)	0.281
37	3.08	1.00	0.324	0.043	(0.068)	0.281
38	3.17	1.10	0.356	0.043	(0.075)	0.313
39	3.25	1.10	0.356	0.043	(0.075)	0.313
40	3.33	1.10	0.356	0.043	(0.075)	0.313
41	3.42	1.20	0.389	0.043	(0.082)	0.345
42	3.50	1.30	0.421	0.043	(0.088)	0.378
43	3.58	1.40	0.454	0.043	(0.095)	0.410
44	3.67	1.40	0.454	0.043	(0.095)	0.410
45	3.75	1.50	0.486	0.043	(0.102)	0.443

```
46   3.83     1.50      0.486          0.043    (  0.102)        0.443
47   3.92     1.60      0.518          0.043    (  0.109)        0.475
48   4.00     1.60      0.518          0.043    (  0.109)        0.475
49   4.08     1.70      0.551          0.043    (  0.116)        0.507
50   4.17     1.80      0.583          0.043    (  0.122)        0.540
51   4.25     1.90      0.616          0.043    (  0.129)        0.572
52   4.33     2.00      0.648          0.043    (  0.136)        0.605
53   4.42     2.10      0.680          0.043    (  0.143)        0.637
54   4.50     2.10      0.680          0.043    (  0.143)        0.637
55   4.58     2.20      0.713          0.043    (  0.150)        0.669
56   4.67     2.30      0.745          0.043    (  0.156)        0.702
57   4.75     2.40      0.778          0.043    (  0.163)        0.734
58   4.83     2.40      0.778          0.043    (  0.163)        0.734
59   4.92     2.50      0.810          0.043    (  0.170)        0.767
60   5.00     2.60      0.842          0.043    (  0.177)        0.799
61   5.08     3.10      1.004          0.043    (  0.211)        0.961
62   5.17     3.60      1.166          0.043    (  0.245)        1.123
63   5.25     3.90      1.264          0.043    (  0.265)        1.220
64   5.33     4.20      1.361          0.043    (  0.286)        1.317
65   5.42     4.70      1.523          0.043    (  0.320)        1.479
66   5.50     5.60      1.814          0.043    (  0.381)        1.771
67   5.58     1.90      0.616          0.043    (  0.129)        0.572
68   5.67     0.90      0.292          0.043    (  0.061)        0.248
69   5.75     0.60      0.194       (  0.043)       0.041        0.154
70   5.83     0.50      0.162       (  0.043)       0.034        0.128
71   5.92     0.30      0.097       (  0.043)       0.020        0.077
72   6.00     0.20      0.065       (  0.043)       0.014        0.051
               (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    29.4
      Flood volume = Effective rainfall      2.45(In)
       times area       6.6(Ac.)/[(In)/(Ft.)] =       1.3(Ac.Ft)
      Total soil loss =      0.25(In)
      Total soil loss =     0.139(Ac.Ft)
      Total rainfall =      2.70(In)
      Flood volume =       58412.3 Cubic Feet
      Total soil loss =        6057.3 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =     10.699(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        5.0      10.0      15.0      20.0
-------------------------------------------------------------------------
  0+ 5       0.0030      0.44  Q         |         |         |         |
  0+10       0.0089      0.86  VQ        |         |         |         |
```

```
0+15       0.0157      0.99  VQ        |         |         |         |
0+20       0.0227      1.02  V Q       |         |         |         |
0+25       0.0297      1.02  V Q       |         |         |         |
0+30       0.0375      1.12  |VQ       |         |         |         |
0+35       0.0457      1.20  |VQ       |         |         |         |
0+40       0.0541      1.21  |VQ       |         |         |         |
0+45       0.0624      1.22  |VQ       |         |         |         |
0+50       0.0708      1.22  | Q       |         |         |         |
0+55       0.0792      1.22  | Q       |         |         |         |
1+ 0       0.0883      1.33  | Q       |         |         |         |
1+ 5       0.0980      1.41  | Q       |         |         |         |
1+10       0.1079      1.43  | QV      |         |         |         |
1+15       0.1177      1.43  | QV      |         |         |         |
1+20       0.1276      1.43  | QV      |         |         |         |
1+25       0.1374      1.43  | Q V     |         |         |         |
1+30       0.1473      1.43  | Q V     |         |         |         |
1+35       0.1572      1.43  | Q V     |         |         |         |
1+40       0.1670      1.43  | Q V     |         |         |         |
1+45       0.1769      1.43  | Q  V    |         |         |         |
1+50       0.1867      1.43  | Q  V    |         |         |         |
1+55       0.1966      1.43  | Q  V    |         |         |         |
2+ 0       0.2072      1.54  |  Q  V   |         |         |         |
2+ 5       0.2176      1.52  |  Q  V   |         |         |         |
2+10       0.2283      1.56  |  Q  V   |         |         |         |
2+15       0.2396      1.63  |  Q   V  |         |         |         |
2+20       0.2509      1.64  |  Q   V  |         |         |         |
2+25       0.2622      1.65  |  Q   V  |         |         |         |
2+30       0.2736      1.65  |  Q    V |         |         |         |
2+35       0.2849      1.65  |  Q    V |         |         |         |
2+40       0.2962      1.65  |  Q    V |         |         |         |
2+45       0.3083      1.76  |  Q     V|         |         |         |
2+50       0.3210      1.84  |  Q     V|         |         |         |
2+55       0.3338      1.86  |  Q     V|         |         |         |
3+ 0       0.3466      1.86  |  Q      V         |         |         |
3+ 5       0.3594      1.86  |  Q      V         |         |         |
3+10       0.3730      1.97  |  Q      |V        |         |         |
3+15       0.3872      2.06  |   Q     |V        |         |         |
3+20       0.4014      2.07  |   Q     |V        |         |         |
3+25       0.4165      2.19  |   Q     | V       |         |         |
3+30       0.4329      2.38  |   Q     | V       |         |         |
3+35       0.4507      2.59  |    Q    |  V      |         |         |
3+40       0.4693      2.70  |    Q    |  V      |         |         |
3+45       0.4888      2.83  |    Q    |   V     |         |         |
3+50       0.5089      2.92  |    Q    |    V    |         |         |
3+55       0.5298      3.04  |     Q   |    V    |         |         |
4+ 0       0.5514      3.13  |     Q   |     V   |         |         |
4+ 5       0.5738      3.26  |     Q   |      V  |         |         |
4+10       0.5976      3.46  |     Q   |      V  |         |         |
4+15       0.6229      3.67  |      Q  |       V |         |         |
4+20       0.6496      3.88  |      Q  |        V|         |         |
```



4+25	0.6778	4.10	
4+30	0.7068	4.20	
4+35	0.7366	4.33	
4+40	0.7678	4.53	
4+45	0.8005	4.74	
4+50	0.8338	4.85	
4+55	0.8681	4.98	
5+ 0	0.9038	5.18	
5+ 5	0.9439	5.83	
5+10	0.9909	6.83	
5+15	1.0437	7.66	
5+20	1.1012	8.35	
5+25	1.1647	9.22	
5+30	1.2384	10.70	
5+35	1.2898	7.47	
5+40	1.3129	3.35	
5+45	1.3244	1.66	
5+50	1.3314	1.03	
5+55	1.3363	0.70	
6+ 0	1.3394	0.46	
6+ 5	1.3407	0.19	
6+10	1.3409	0.03	
6+15	1.3410	0.01	

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

Study date 08/02/22 File: a21626dma1q100uh24100.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 100HR 24 HR UH

Drainage Area = 6.58(Ac.) = 0.010 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 6.58(Ac.) = 0.010 Sq. Mi.
Length along longest watercourse = 808.65(Ft.)
Length along longest watercourse measured to centroid = 622.75(Ft.)
Length along longest watercourse = 0.153 Mi.
Length along longest watercourse measured to centroid = 0.118 Mi.
Difference in elevation = 7.00(Ft.)
Slope along watercourse = 45.7058 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.033 Hr.
Lag time = 1.97 Min.
25% of lag time = 0.49 Min.
40% of lag time = 0.79 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]
        6.58            1.90                  12.50

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        6.58            4.80                  31.57

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    1.900(In)
Area Averaged 100-Year Rainfall =    4.800(In)

Point rain (area averaged) =    4.800(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    4.800(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     6.578           69.00         0.862
 Total Area Entered =      6.58(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     0.862        0.043       1.000      0.043
                                                 Sum (F) =   0.043
Area averaged mean soil loss (F) (In/Hr) =  0.043
Minimum soil loss rate ((In/Hr)) =  0.022
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.210
------------------------------------------------------------------------

               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        253.789         51.385              3.407
    2   0.167        507.577         39.821              2.640
    3   0.250        761.366          6.897              0.457
    4   0.333       1015.155          1.897              0.126
                               Sum = 100.000   Sum=       6.629
------------------------------------------------------------------------
```

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	0.038	(0.077)	0.008	0.030
2	0.17	0.07	0.038	(0.077)	0.008	0.030
3	0.25	0.07	0.038	(0.076)	0.008	0.030
4	0.33	0.10	0.058	(0.076)	0.012	0.046
5	0.42	0.10	0.058	(0.076)	0.012	0.046
6	0.50	0.10	0.058	(0.076)	0.012	0.046
7	0.58	0.10	0.058	(0.075)	0.012	0.046
8	0.67	0.10	0.058	(0.075)	0.012	0.046
9	0.75	0.10	0.058	(0.075)	0.012	0.046
10	0.83	0.13	0.077	(0.074)	0.016	0.061
11	0.92	0.13	0.077	(0.074)	0.016	0.061
12	1.00	0.13	0.077	(0.074)	0.016	0.061
13	1.08	0.10	0.058	(0.074)	0.012	0.046
14	1.17	0.10	0.058	(0.073)	0.012	0.046
15	1.25	0.10	0.058	(0.073)	0.012	0.046
16	1.33	0.10	0.058	(0.073)	0.012	0.046
17	1.42	0.10	0.058	(0.072)	0.012	0.046
18	1.50	0.10	0.058	(0.072)	0.012	0.046
19	1.58	0.10	0.058	(0.072)	0.012	0.046
20	1.67	0.10	0.058	(0.071)	0.012	0.046
21	1.75	0.10	0.058	(0.071)	0.012	0.046
22	1.83	0.13	0.077	(0.071)	0.016	0.061
23	1.92	0.13	0.077	(0.071)	0.016	0.061
24	2.00	0.13	0.077	(0.070)	0.016	0.061
25	2.08	0.13	0.077	(0.070)	0.016	0.061
26	2.17	0.13	0.077	(0.070)	0.016	0.061
27	2.25	0.13	0.077	(0.069)	0.016	0.061
28	2.33	0.13	0.077	(0.069)	0.016	0.061
29	2.42	0.13	0.077	(0.069)	0.016	0.061
30	2.50	0.13	0.077	(0.069)	0.016	0.061
31	2.58	0.17	0.096	(0.068)	0.020	0.076
32	2.67	0.17	0.096	(0.068)	0.020	0.076
33	2.75	0.17	0.096	(0.068)	0.020	0.076
34	2.83	0.17	0.096	(0.068)	0.020	0.076
35	2.92	0.17	0.096	(0.067)	0.020	0.076
36	3.00	0.17	0.096	(0.067)	0.020	0.076
37	3.08	0.17	0.096	(0.067)	0.020	0.076
38	3.17	0.17	0.096	(0.066)	0.020	0.076
39	3.25	0.17	0.096	(0.066)	0.020	0.076
40	3.33	0.17	0.096	(0.066)	0.020	0.076
41	3.42	0.17	0.096	(0.066)	0.020	0.076
42	3.50	0.17	0.096	(0.065)	0.020	0.076
43	3.58	0.17	0.096	(0.065)	0.020	0.076
44	3.67	0.17	0.096	(0.065)	0.020	0.076
45	3.75	0.17	0.096	(0.064)	0.020	0.076

46	3.83	0.20	0.115	(0.064)	0.024	0.091
47	3.92	0.20	0.115	(0.064)	0.024	0.091
48	4.00	0.20	0.115	(0.064)	0.024	0.091
49	4.08	0.20	0.115	(0.063)	0.024	0.091
50	4.17	0.20	0.115	(0.063)	0.024	0.091
51	4.25	0.20	0.115	(0.063)	0.024	0.091
52	4.33	0.23	0.134	(0.063)	0.028	0.106
53	4.42	0.23	0.134	(0.062)	0.028	0.106
54	4.50	0.23	0.134	(0.062)	0.028	0.106
55	4.58	0.23	0.134	(0.062)	0.028	0.106
56	4.67	0.23	0.134	(0.062)	0.028	0.106
57	4.75	0.23	0.134	(0.061)	0.028	0.106
58	4.83	0.27	0.154	(0.061)	0.032	0.121
59	4.92	0.27	0.154	(0.061)	0.032	0.121
60	5.00	0.27	0.154	(0.060)	0.032	0.121
61	5.08	0.20	0.115	(0.060)	0.024	0.091
62	5.17	0.20	0.115	(0.060)	0.024	0.091
63	5.25	0.20	0.115	(0.060)	0.024	0.091
64	5.33	0.23	0.134	(0.059)	0.028	0.106
65	5.42	0.23	0.134	(0.059)	0.028	0.106
66	5.50	0.23	0.134	(0.059)	0.028	0.106
67	5.58	0.27	0.154	(0.059)	0.032	0.121
68	5.67	0.27	0.154	(0.058)	0.032	0.121
69	5.75	0.27	0.154	(0.058)	0.032	0.121
70	5.83	0.27	0.154	(0.058)	0.032	0.121
71	5.92	0.27	0.154	(0.058)	0.032	0.121
72	6.00	0.27	0.154	(0.057)	0.032	0.121
73	6.08	0.30	0.173	(0.057)	0.036	0.137
74	6.17	0.30	0.173	(0.057)	0.036	0.137
75	6.25	0.30	0.173	(0.057)	0.036	0.137
76	6.33	0.30	0.173	(0.056)	0.036	0.137
77	6.42	0.30	0.173	(0.056)	0.036	0.137
78	6.50	0.30	0.173	(0.056)	0.036	0.137
79	6.58	0.33	0.192	(0.056)	0.040	0.152
80	6.67	0.33	0.192	(0.055)	0.040	0.152
81	6.75	0.33	0.192	(0.055)	0.040	0.152
82	6.83	0.33	0.192	(0.055)	0.040	0.152
83	6.92	0.33	0.192	(0.055)	0.040	0.152
84	7.00	0.33	0.192	(0.054)	0.040	0.152
85	7.08	0.33	0.192	(0.054)	0.040	0.152
86	7.17	0.33	0.192	(0.054)	0.040	0.152
87	7.25	0.33	0.192	(0.054)	0.040	0.152
88	7.33	0.37	0.211	(0.053)	0.044	0.167
89	7.42	0.37	0.211	(0.053)	0.044	0.167
90	7.50	0.37	0.211	(0.053)	0.044	0.167
91	7.58	0.40	0.230	(0.053)	0.048	0.182
92	7.67	0.40	0.230	(0.052)	0.048	0.182
93	7.75	0.40	0.230	(0.052)	0.048	0.182
94	7.83	0.43	0.250	0.052	(0.052)	0.198
95	7.92	0.43	0.250	0.052	(0.052)	0.198

96	8.00	0.43	0.250	0.051	(	0.052)	0.198
97	8.08	0.50	0.288	0.051	(	0.060)	0.237
98	8.17	0.50	0.288	0.051	(	0.060)	0.237
99	8.25	0.50	0.288	0.051	(	0.060)	0.237
100	8.33	0.50	0.288	0.050	(	0.060)	0.238
101	8.42	0.50	0.288	0.050	(	0.060)	0.238
102	8.50	0.50	0.288	0.050	(	0.060)	0.238
103	8.58	0.53	0.307	0.050	(	0.065)	0.257
104	8.67	0.53	0.307	0.050	(	0.065)	0.258
105	8.75	0.53	0.307	0.049	(	0.065)	0.258
106	8.83	0.57	0.326	0.049	(	0.069)	0.277
107	8.92	0.57	0.326	0.049	(	0.069)	0.278
108	9.00	0.57	0.326	0.049	(	0.069)	0.278
109	9.08	0.63	0.365	0.048	(	0.077)	0.316
110	9.17	0.63	0.365	0.048	(	0.077)	0.317
111	9.25	0.63	0.365	0.048	(	0.077)	0.317
112	9.33	0.67	0.384	0.048	(	0.081)	0.336
113	9.42	0.67	0.384	0.047	(	0.081)	0.337
114	9.50	0.67	0.384	0.047	(	0.081)	0.337
115	9.58	0.70	0.403	0.047	(	0.085)	0.356
116	9.67	0.70	0.403	0.047	(	0.085)	0.356
117	9.75	0.70	0.403	0.047	(	0.085)	0.357
118	9.83	0.73	0.422	0.046	(	0.089)	0.376
119	9.92	0.73	0.422	0.046	(	0.089)	0.376
120	10.00	0.73	0.422	0.046	(	0.089)	0.377
121	10.08	0.50	0.288	0.046	(	0.060)	0.242
122	10.17	0.50	0.288	0.045	(	0.060)	0.243
123	10.25	0.50	0.288	0.045	(	0.060)	0.243
124	10.33	0.50	0.288	0.045	(	0.060)	0.243
125	10.42	0.50	0.288	0.045	(	0.060)	0.243
126	10.50	0.50	0.288	0.045	(	0.060)	0.243
127	10.58	0.67	0.384	0.044	(	0.081)	0.340
128	10.67	0.67	0.384	0.044	(	0.081)	0.340
129	10.75	0.67	0.384	0.044	(	0.081)	0.340
130	10.83	0.67	0.384	0.044	(	0.081)	0.340
131	10.92	0.67	0.384	0.043	(	0.081)	0.341
132	11.00	0.67	0.384	0.043	(	0.081)	0.341
133	11.08	0.63	0.365	0.043	(	0.077)	0.322
134	11.17	0.63	0.365	0.043	(	0.077)	0.322
135	11.25	0.63	0.365	0.043	(	0.077)	0.322
136	11.33	0.63	0.365	0.042	(	0.077)	0.322
137	11.42	0.63	0.365	0.042	(	0.077)	0.323
138	11.50	0.63	0.365	0.042	(	0.077)	0.323
139	11.58	0.57	0.326	0.042	(	0.069)	0.285
140	11.67	0.57	0.326	0.042	(	0.069)	0.285
141	11.75	0.57	0.326	0.041	(	0.069)	0.285
142	11.83	0.60	0.346	0.041	(	0.073)	0.304
143	11.92	0.60	0.346	0.041	(	0.073)	0.305
144	12.00	0.60	0.346	0.041	(	0.073)	0.305
145	12.08	0.83	0.480	0.041	(	0.101)	0.439

146	12.17	0.83	0.480	0.040	(0.101)	0.440
147	12.25	0.83	0.480	0.040	(0.101)	0.440
148	12.33	0.87	0.499	0.040	(0.105)	0.459
149	12.42	0.87	0.499	0.040	(0.105)	0.459
150	12.50	0.87	0.499	0.040	(0.105)	0.460
151	12.58	0.93	0.538	0.039	(0.113)	0.498
152	12.67	0.93	0.538	0.039	(0.113)	0.498
153	12.75	0.93	0.538	0.039	(0.113)	0.499
154	12.83	0.97	0.557	0.039	(0.117)	0.518
155	12.92	0.97	0.557	0.039	(0.117)	0.518
156	13.00	0.97	0.557	0.038	(0.117)	0.518
157	13.08	1.13	0.653	0.038	(0.137)	0.615
158	13.17	1.13	0.653	0.038	(0.137)	0.615
159	13.25	1.13	0.653	0.038	(0.137)	0.615
160	13.33	1.13	0.653	0.038	(0.137)	0.615
161	13.42	1.13	0.653	0.037	(0.137)	0.615
162	13.50	1.13	0.653	0.037	(0.137)	0.616
163	13.58	0.77	0.442	0.037	(0.093)	0.405
164	13.67	0.77	0.442	0.037	(0.093)	0.405
165	13.75	0.77	0.442	0.037	(0.093)	0.405
166	13.83	0.77	0.442	0.036	(0.093)	0.405
167	13.92	0.77	0.442	0.036	(0.093)	0.405
168	14.00	0.77	0.442	0.036	(0.093)	0.405
169	14.08	0.90	0.518	0.036	(0.109)	0.482
170	14.17	0.90	0.518	0.036	(0.109)	0.483
171	14.25	0.90	0.518	0.036	(0.109)	0.483
172	14.33	0.87	0.499	0.035	(0.105)	0.464
173	14.42	0.87	0.499	0.035	(0.105)	0.464
174	14.50	0.87	0.499	0.035	(0.105)	0.464
175	14.58	0.87	0.499	0.035	(0.105)	0.464
176	14.67	0.87	0.499	0.035	(0.105)	0.465
177	14.75	0.87	0.499	0.034	(0.105)	0.465
178	14.83	0.83	0.480	0.034	(0.101)	0.446
179	14.92	0.83	0.480	0.034	(0.101)	0.446
180	15.00	0.83	0.480	0.034	(0.101)	0.446
181	15.08	0.80	0.461	0.034	(0.097)	0.427
182	15.17	0.80	0.461	0.034	(0.097)	0.427
183	15.25	0.80	0.461	0.033	(0.097)	0.427
184	15.33	0.77	0.442	0.033	(0.093)	0.408
185	15.42	0.77	0.442	0.033	(0.093)	0.409
186	15.50	0.77	0.442	0.033	(0.093)	0.409
187	15.58	0.63	0.365	0.033	(0.077)	0.332
188	15.67	0.63	0.365	0.033	(0.077)	0.332
189	15.75	0.63	0.365	0.032	(0.077)	0.332
190	15.83	0.63	0.365	0.032	(0.077)	0.333
191	15.92	0.63	0.365	0.032	(0.077)	0.333
192	16.00	0.63	0.365	0.032	(0.077)	0.333
193	16.08	0.13	0.077	(0.032)	0.016	0.061
194	16.17	0.13	0.077	(0.032)	0.016	0.061
195	16.25	0.13	0.077	(0.031)	0.016	0.061

196	16.33	0.13	0.077	(0.031)	0.016	0.061
197	16.42	0.13	0.077	(0.031)	0.016	0.061
198	16.50	0.13	0.077	(0.031)	0.016	0.061
199	16.58	0.10	0.058	(0.031)	0.012	0.046
200	16.67	0.10	0.058	(0.031)	0.012	0.046
201	16.75	0.10	0.058	(0.030)	0.012	0.046
202	16.83	0.10	0.058	(0.030)	0.012	0.046
203	16.92	0.10	0.058	(0.030)	0.012	0.046
204	17.00	0.10	0.058	(0.030)	0.012	0.046
205	17.08	0.17	0.096	(0.030)	0.020	0.076
206	17.17	0.17	0.096	(0.030)	0.020	0.076
207	17.25	0.17	0.096	(0.030)	0.020	0.076
208	17.33	0.17	0.096	(0.029)	0.020	0.076
209	17.42	0.17	0.096	(0.029)	0.020	0.076
210	17.50	0.17	0.096	(0.029)	0.020	0.076
211	17.58	0.17	0.096	(0.029)	0.020	0.076
212	17.67	0.17	0.096	(0.029)	0.020	0.076
213	17.75	0.17	0.096	(0.029)	0.020	0.076
214	17.83	0.13	0.077	(0.029)	0.016	0.061
215	17.92	0.13	0.077	(0.028)	0.016	0.061
216	18.00	0.13	0.077	(0.028)	0.016	0.061
217	18.08	0.13	0.077	(0.028)	0.016	0.061
218	18.17	0.13	0.077	(0.028)	0.016	0.061
219	18.25	0.13	0.077	(0.028)	0.016	0.061
220	18.33	0.13	0.077	(0.028)	0.016	0.061
221	18.42	0.13	0.077	(0.028)	0.016	0.061
222	18.50	0.13	0.077	(0.027)	0.016	0.061
223	18.58	0.10	0.058	(0.027)	0.012	0.046
224	18.67	0.10	0.058	(0.027)	0.012	0.046
225	18.75	0.10	0.058	(0.027)	0.012	0.046
226	18.83	0.07	0.038	(0.027)	0.008	0.030
227	18.92	0.07	0.038	(0.027)	0.008	0.030
228	19.00	0.07	0.038	(0.027)	0.008	0.030
229	19.08	0.10	0.058	(0.027)	0.012	0.046
230	19.17	0.10	0.058	(0.026)	0.012	0.046
231	19.25	0.10	0.058	(0.026)	0.012	0.046
232	19.33	0.13	0.077	(0.026)	0.016	0.061
233	19.42	0.13	0.077	(0.026)	0.016	0.061
234	19.50	0.13	0.077	(0.026)	0.016	0.061
235	19.58	0.10	0.058	(0.026)	0.012	0.046
236	19.67	0.10	0.058	(0.026)	0.012	0.046
237	19.75	0.10	0.058	(0.026)	0.012	0.046
238	19.83	0.07	0.038	(0.025)	0.008	0.030
239	19.92	0.07	0.038	(0.025)	0.008	0.030
240	20.00	0.07	0.038	(0.025)	0.008	0.030
241	20.08	0.10	0.058	(0.025)	0.012	0.046
242	20.17	0.10	0.058	(0.025)	0.012	0.046
243	20.25	0.10	0.058	(0.025)	0.012	0.046
244	20.33	0.10	0.058	(0.025)	0.012	0.046
245	20.42	0.10	0.058	(0.025)	0.012	0.046

246	20.50	0.10	0.058	(0.025)	0.012	0.046
247	20.58	0.10	0.058	(0.024)	0.012	0.046
248	20.67	0.10	0.058	(0.024)	0.012	0.046
249	20.75	0.10	0.058	(0.024)	0.012	0.046
250	20.83	0.07	0.038	(0.024)	0.008	0.030
251	20.92	0.07	0.038	(0.024)	0.008	0.030
252	21.00	0.07	0.038	(0.024)	0.008	0.030
253	21.08	0.10	0.058	(0.024)	0.012	0.046
254	21.17	0.10	0.058	(0.024)	0.012	0.046
255	21.25	0.10	0.058	(0.024)	0.012	0.046
256	21.33	0.07	0.038	(0.024)	0.008	0.030
257	21.42	0.07	0.038	(0.024)	0.008	0.030
258	21.50	0.07	0.038	(0.023)	0.008	0.030
259	21.58	0.10	0.058	(0.023)	0.012	0.046
260	21.67	0.10	0.058	(0.023)	0.012	0.046
261	21.75	0.10	0.058	(0.023)	0.012	0.046
262	21.83	0.07	0.038	(0.023)	0.008	0.030
263	21.92	0.07	0.038	(0.023)	0.008	0.030
264	22.00	0.07	0.038	(0.023)	0.008	0.030
265	22.08	0.10	0.058	(0.023)	0.012	0.046
266	22.17	0.10	0.058	(0.023)	0.012	0.046
267	22.25	0.10	0.058	(0.023)	0.012	0.046
268	22.33	0.07	0.038	(0.023)	0.008	0.030
269	22.42	0.07	0.038	(0.023)	0.008	0.030
270	22.50	0.07	0.038	(0.023)	0.008	0.030
271	22.58	0.07	0.038	(0.022)	0.008	0.030
272	22.67	0.07	0.038	(0.022)	0.008	0.030
273	22.75	0.07	0.038	(0.022)	0.008	0.030
274	22.83	0.07	0.038	(0.022)	0.008	0.030
275	22.92	0.07	0.038	(0.022)	0.008	0.030
276	23.00	0.07	0.038	(0.022)	0.008	0.030
277	23.08	0.07	0.038	(0.022)	0.008	0.030
278	23.17	0.07	0.038	(0.022)	0.008	0.030
279	23.25	0.07	0.038	(0.022)	0.008	0.030
280	23.33	0.07	0.038	(0.022)	0.008	0.030
281	23.42	0.07	0.038	(0.022)	0.008	0.030
282	23.50	0.07	0.038	(0.022)	0.008	0.030
283	23.58	0.07	0.038	(0.022)	0.008	0.030
284	23.67	0.07	0.038	(0.022)	0.008	0.030
285	23.75	0.07	0.038	(0.022)	0.008	0.030
286	23.83	0.07	0.038	(0.022)	0.008	0.030
287	23.92	0.07	0.038	(0.022)	0.008	0.030
288	24.00	0.07	0.038	(0.022)	0.008	0.030

(Loss Rate Not Used)

Sum = 100.0 Sum = 50.0

Flood volume = Effective rainfall 4.17(In)
times area 6.6(Ac.)/[(In)/(Ft.)] = 2.3(Ac.Ft)
Total soil loss = 0.63(In)
Total soil loss = 0.346(Ac.Ft)
Total rainfall = 4.80(In)

Flood volume = 99547.0 Cubic Feet
Total soil loss = 15066.6 Cubic Feet

Peak flow rate of this hydrograph = 4.082(CFS)

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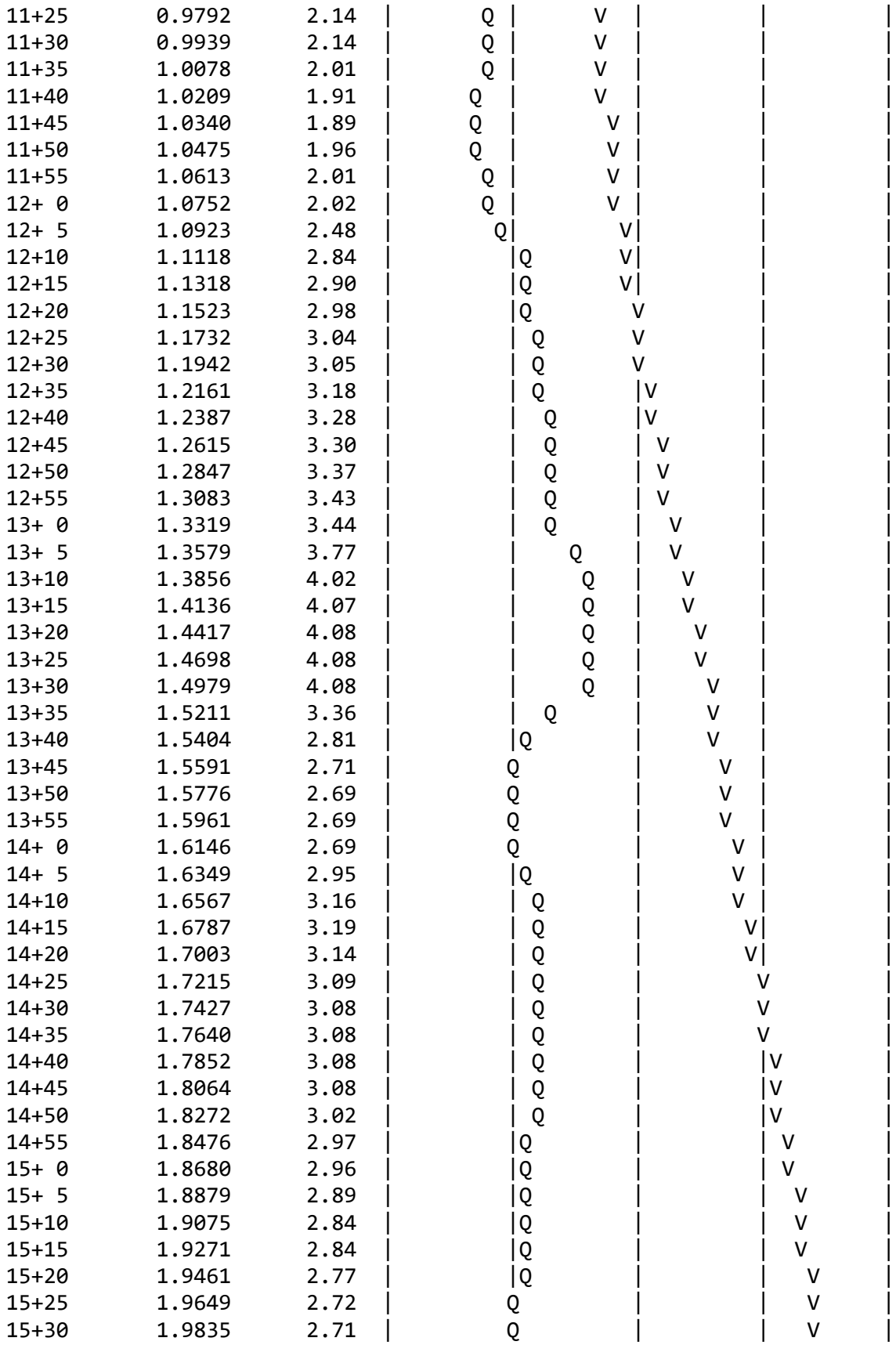
24 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	2.5	5.0	7.5	10.0
0+ 5	0.0007	0.10	Q				
0+10	0.0020	0.18	Q				
0+15	0.0033	0.20	Q				
0+20	0.0051	0.25	VQ				
0+25	0.0071	0.29	VQ				
0+30	0.0092	0.30	VQ				
0+35	0.0112	0.30	VQ				
0+40	0.0133	0.30	VQ				
0+45	0.0154	0.30	VQ				
0+50	0.0178	0.35	VQ				
0+55	0.0205	0.39	VQ				
1+ 0	0.0233	0.40	VQ				
1+ 5	0.0257	0.35	VQ				
1+10	0.0279	0.31	VQ				
1+15	0.0299	0.30	VQ				
1+20	0.0320	0.30	VQ				
1+25	0.0341	0.30	VQ				
1+30	0.0362	0.30	VQ				
1+35	0.0383	0.30	VQ				
1+40	0.0403	0.30	VQ				
1+45	0.0424	0.30	VQ				
1+50	0.0449	0.35	VQ				
1+55	0.0476	0.39	VQ				
2+ 0	0.0503	0.40	VQ				
2+ 5	0.0531	0.40	VQ				
2+10	0.0559	0.40	VQ				
2+15	0.0586	0.40	|Q				
2+20	0.0614	0.40	|Q				
2+25	0.0642	0.40	|Q				
2+30	0.0670	0.40	|Q				
2+35	0.0701	0.45	|Q				
2+40	0.0735	0.49	|Q				
2+45	0.0769	0.50	|VQ				
2+50	0.0804	0.50	|VQ				
2+55	0.0839	0.50	|VQ				
3+ 0	0.0873	0.50	|VQ				

3+ 5	0.0908	0.50	VQ				
3+10	0.0943	0.50	VQ				
3+15	0.0977	0.50	VQ				
3+20	0.1012	0.50	VQ				
3+25	0.1046	0.50	VQ				
3+30	0.1081	0.50	VQ				
3+35	0.1116	0.50	VQ				
3+40	0.1150	0.50	Q				
3+45	0.1185	0.50	Q				
3+50	0.1223	0.55	Q				
3+55	0.1264	0.59	Q				
4+ 0	0.1306	0.60	Q				
4+ 5	0.1347	0.60	Q				
4+10	0.1389	0.60	Q				
4+15	0.1430	0.60	Q				
4+20	0.1476	0.66	Q				
4+25	0.1523	0.70	Q				
4+30	0.1572	0.70	Q				
4+35	0.1620	0.70	Q				
4+40	0.1669	0.70	Q				
4+45	0.1717	0.70	QV				
4+50	0.1769	0.76	Q				
4+55	0.1824	0.80	Q				
5+ 0	0.1879	0.80	Q				
5+ 5	0.1928	0.70	QV				
5+10	0.1971	0.62	QV				
5+15	0.2012	0.61	QV				
5+20	0.2058	0.66	QV				
5+25	0.2105	0.70	QV				
5+30	0.2154	0.70	QV				
5+35	0.2206	0.76	Q				
5+40	0.2261	0.80	Q				
5+45	0.2316	0.80	QV				
5+50	0.2371	0.80	QV				
5+55	0.2427	0.80	QV				
6+ 0	0.2482	0.80	QV				
6+ 5	0.2541	0.86	QV				
6+10	0.2603	0.90	QV				
6+15	0.2665	0.90	QV				
6+20	0.2728	0.91	QV				
6+25	0.2790	0.91	QV				
6+30	0.2852	0.91	QV				
6+35	0.2918	0.96	Q V				
6+40	0.2987	1.00	Q V				
6+45	0.3056	1.00	QV				
6+50	0.3125	1.01	QV				
6+55	0.3195	1.01	QV				
7+ 0	0.3264	1.01	QV				
7+ 5	0.3333	1.01	QV				
7+10	0.3402	1.01	QV				

7+15	0.3472	1.01	Q V			
7+20	0.3545	1.06	Q V			
7+25	0.3620	1.10	Q V			
7+30	0.3696	1.10	Q V			
7+35	0.3776	1.16	Q V			
7+40	0.3859	1.20	Q V			
7+45	0.3942	1.21	Q V			
7+50	0.4028	1.26	Q V			
7+55	0.4118	1.30	Q V			
8+ 0	0.4209	1.31	Q V			
8+ 5	0.4308	1.45	Q V			
8+10	0.4415	1.55	QV			
8+15	0.4523	1.57	QV			
8+20	0.4631	1.57	Q V			
8+25	0.4740	1.58	Q V			
8+30	0.4848	1.58	Q V			
8+35	0.4962	1.64	Q V			
8+40	0.5079	1.70	Q V			
8+45	0.5196	1.71	Q V			
8+50	0.5318	1.78	Q V			
8+55	0.5444	1.83	Q V			
9+ 0	0.5571	1.84	Q V			
9+ 5	0.5707	1.97	Q V			
9+10	0.5850	2.08	Q V			
9+15	0.5994	2.10	Q V			
9+20	0.6144	2.17	Q V			
9+25	0.6297	2.22	Q V			
9+30	0.6450	2.23	Q V			
9+35	0.6609	2.30	Q V			
9+40	0.6771	2.35	Q V			
9+45	0.6933	2.36	Q V			
9+50	0.7101	2.43	Q V			
9+55	0.7272	2.48	Q V			
10+ 0	0.7444	2.49	Q V			
10+ 5	0.7584	2.04	Q V			
10+10	0.7700	1.69	Q V			
10+15	0.7812	1.63	Q V			
10+20	0.7923	1.61	Q V			
10+25	0.8034	1.61	Q V			
10+30	0.8145	1.61	Q V			
10+35	0.8279	1.94	Q V			
10+40	0.8430	2.20	Q V			
10+45	0.8585	2.24	Q V			
10+50	0.8740	2.26	Q V			
10+55	0.8896	2.26	Q V			
11+ 0	0.9051	2.26	Q V			
11+ 5	0.9202	2.20	Q V			
11+10	0.9350	2.15	Q V			
11+15	0.9498	2.14	Q V			
11+20	0.9645	2.14	Q V			



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15+35       2.0004      2.45  |         Q|          |          |     V    |
15+40       2.0159      2.25  |        Q |          |          |     V    |
15+45       2.0311      2.21  |        Q |          |          |     V    |
15+50       2.0463      2.21  |        Q |          |          |     V    |
15+55       2.0615      2.21  |        Q |          |          |      V   |
16+ 0       2.0767      2.21  |        Q |          |          |      V   |
16+ 5       2.0855      1.28  |     Q    |          |          |      V   |
16+10       2.0894      0.56  | Q        |          |          |      V   |
16+15       2.0924      0.44  |Q         |          |          |      V   |
16+20       2.0952      0.40  |Q         |          |          |      V   |
16+25       2.0980      0.40  |Q         |          |          |      V   |
16+30       2.1007      0.40  |Q         |          |          |      V   |
16+35       2.1031      0.35  |Q         |          |          |      V   |
16+40       2.1053      0.31  |Q         |          |          |      V   |
16+45       2.1074      0.30  |Q         |          |          |      V   |
16+50       2.1094      0.30  |Q         |          |          |      V   |
16+55       2.1115      0.30  |Q         |          |          |      V   |
17+ 0       2.1136      0.30  |Q         |          |          |      V   |
17+ 5       2.1164      0.41  |Q         |          |          |       V  |
17+10       2.1197      0.49  |Q         |          |          |       V  |
17+15       2.1232      0.50  |Q         |          |          |       V  |
17+20       2.1266      0.50  | Q        |          |          |       V  |
17+25       2.1301      0.50  | Q        |          |          |       V  |
17+30       2.1336      0.50  | Q        |          |          |       V  |
17+35       2.1370      0.50  | Q        |          |          |       V  |
17+40       2.1405      0.50  | Q        |          |          |       V  |
17+45       2.1440      0.50  | Q        |          |          |       V  |
17+50       2.1471      0.45  |Q         |          |          |       V  |
17+55       2.1499      0.41  |Q         |          |          |       V  |
18+ 0       2.1527      0.40  |Q         |          |          |       V  |
18+ 5       2.1555      0.40  |Q         |          |          |       V  |
18+10       2.1582      0.40  |Q         |          |          |       V  |
18+15       2.1610      0.40  |Q         |          |          |       V  |
18+20       2.1638      0.40  |Q         |          |          |       V  |
18+25       2.1665      0.40  |Q         |          |          |       V  |
18+30       2.1693      0.40  |Q         |          |          |       V  |
18+35       2.1717      0.35  |Q         |          |          |        V |
18+40       2.1739      0.31  |Q         |          |          |        V |
18+45       2.1760      0.30  |Q         |          |          |        V |
18+50       2.1777      0.25  |Q         |          |          |        V |
18+55       2.1791      0.21  Q          |          |          |        V |
19+ 0       2.1805      0.20  Q          |          |          |        V |
19+ 5       2.1823      0.25  |Q         |          |          |        V |
19+10       2.1843      0.29  |Q         |          |          |        V |
19+15       2.1864      0.30  |Q         |          |          |        V |
19+20       2.1888      0.35  |Q         |          |          |        V |
19+25       2.1915      0.39  |Q         |          |          |        V |
19+30       2.1943      0.40  |Q         |          |          |        V |
19+35       2.1967      0.35  |Q         |          |          |        V |
19+40       2.1988      0.31  |Q         |          |          |        V |
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19+45	2.2009	0.30	|Q	|	|	|	V |
19+50	2.2026	0.25	|Q	|	|	|	V |
19+55	2.2041	0.21	Q	|	|	|	V |
20+ 0	2.2055	0.20	Q	|	|	|	V |
20+ 5	2.2072	0.25	|Q	|	|	|	V |
20+10	2.2092	0.29	|Q	|	|	|	V |
20+15	2.2113	0.30	|Q	|	|	|	V |
20+20	2.2134	0.30	|Q	|	|	|	V |
20+25	2.2155	0.30	|Q	|	|	|	V |
20+30	2.2175	0.30	|Q	|	|	|	V |
20+35	2.2196	0.30	|Q	|	|	|	V |
20+40	2.2217	0.30	|Q	|	|	|	V |
20+45	2.2238	0.30	|Q	|	|	|	V |
20+50	2.2255	0.25	|Q	|	|	|	V |
20+55	2.2269	0.21	Q	|	|	|	V |
21+ 0	2.2283	0.20	Q	|	|	|	V|
21+ 5	2.2301	0.25	|Q	|	|	|	V|
21+10	2.2321	0.29	|Q	|	|	|	V|
21+15	2.2342	0.30	|Q	|	|	|	V|
21+20	2.2359	0.25	|Q	|	|	|	V|
21+25	2.2373	0.21	Q	|	|	|	V|
21+30	2.2387	0.20	Q	|	|	|	V|
21+35	2.2405	0.25	|Q	|	|	|	V|
21+40	2.2425	0.29	|Q	|	|	|	V|
21+45	2.2446	0.30	|Q	|	|	|	V|
21+50	2.2463	0.25	|Q	|	|	|	V|
21+55	2.2477	0.21	Q	|	|	|	V|
22+ 0	2.2491	0.20	Q	|	|	|	V|
22+ 5	2.2509	0.25	|Q	|	|	|	V|
22+10	2.2529	0.29	|Q	|	|	|	V|
22+15	2.2550	0.30	|Q	|	|	|	V|
22+20	2.2567	0.25	|Q	|	|	|	V|
22+25	2.2581	0.21	Q	|	|	|	V|
22+30	2.2595	0.20	Q	|	|	|	V|
22+35	2.2609	0.20	Q	|	|	|	V|
22+40	2.2623	0.20	Q	|	|	|	V|
22+45	2.2637	0.20	Q	|	|	|	V|
22+50	2.2651	0.20	Q	|	|	|	V|
22+55	2.2664	0.20	Q	|	|	|	V|
23+ 0	2.2678	0.20	Q	|	|	|	V|
23+ 5	2.2692	0.20	Q	|	|	|	V|
23+10	2.2706	0.20	Q	|	|	|	V|
23+15	2.2720	0.20	Q	|	|	|	V|
23+20	2.2734	0.20	Q	|	|	|	V|
23+25	2.2748	0.20	Q	|	|	|	V|
23+30	2.2761	0.20	Q	|	|	|	V|
23+35	2.2775	0.20	Q	|	|	|	V|
23+40	2.2789	0.20	Q	|	|	|	V|
23+45	2.2803	0.20	Q	|	|	|	V|
23+50	2.2817	0.20	Q	|	|	|	V|

23+55	2.2831	0.20	Q	|	|	|	V|
24+ 0	2.2845	0.20	Q	|	|	|	V|
24+ 5	2.2851	0.10	Q	|	|	|	V|
24+10	2.2853	0.02	Q	|	|	|	V|
24+15	2.2853	0.00	Q	|	|	|	V|

DMA 2 Proposed 2-Year

FLOOD HYDROGRAPH ROUTING PROGRAM

Study date: 08/24/22

A21626 DMA 2 2YR-1HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA2Q100UH12.rte
**********HYDROGRAPH DATA**********
Number of intervals = 13
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 1.735 (CFS)
Total volume = 0.048 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   0.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.00(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.00(Ft.)   Capacity =   0.20(CFS)

Free outlet pipe flow: Pipe Diameter =   1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)   Capacity =   4.44(CFS)

Total outflow at this depth =   4.64(CFS)

Total number of inflow hydrograph intervals = 13

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
0.500	0.052	0.000	0.052	0.052
1.000	0.111	0.196	0.110	0.112
1.500	0.177	0.196	0.176	0.178
2.000	0.251	0.196	0.250	0.252
2.500	0.333	4.639	0.317	0.349

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.4	0.87	1.30	1.74 (Ft.)	Depth
0.083	0.21	0.00	0.001	O I	|	|	|	|	0.01
0.167	0.29	0.00	0.002	O I	|	|	|	|	0.02
0.250	0.34	0.00	0.005	O I	|	|	|	|	0.04
0.333	0.35	0.00	0.007	O I	|	|	|	|	0.07
0.417	0.37	0.00	0.009	O I	|	|	|	|	0.09
0.500	0.40	0.00	0.012	O I	|	|	|	|	0.12
0.583	0.49	0.00	0.015	O I	|	|	|	|	0.15
0.667	0.57	0.00	0.019	O I	|	|	|	|	0.18
0.750	0.80	0.00	0.024	O I	|	|	|	|	0.23
0.833	1.74	0.00	0.032	O I	|	|	|	|	0.31
0.917	0.94	0.00	0.041	O I	|	|	|	|	0.40
1.000	0.37	0.00	0.046	O I	|	|	|	|	0.44
1.083	0.09	0.00	0.048	OI	|	|	|	|	0.46
1.167	0.00	0.00	0.048	O	|	|	|	|	0.46

Remaining water in basin = 0.05 (Ac.Ft)

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

Number of intervals = 14
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.000 (CFS)

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                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

Study date: 08/24/22

A21626 DMA 2 2YR-3HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA2Q100UH32.rte
**********HYDROGRAPH DATA**********
Number of intervals = 37
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.928 (CFS)
Total volume = 0.076 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   0.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.00(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.00(Ft.)   Capacity =   0.20(CFS)

Free outlet pipe flow: Pipe Diameter =   1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)   Capacity =   4.44(CFS)

Total outflow at this depth =   4.64(CFS)

Total number of inflow hydrograph intervals = 37

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
0.500	0.052	0.000	0.052	0.052
1.000	0.111	0.196	0.110	0.112
1.500	0.177	0.196	0.176	0.178
2.000	0.251	0.196	0.250	0.252
2.500	0.333	4.639	0.317	0.349

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.2	0.46	0.70	0.93 (Ft.)	Depth
0.083	0.10	0.00	0.000	O I	|	|	|	|	0.00
0.167	0.14	0.00	0.001	O I	|	|	|	|	0.01
0.250	0.13	0.00	0.002	O I	|	|	|	|	0.02
0.333	0.15	0.00	0.003	O I	|	|	|	|	0.03
0.417	0.16	0.00	0.004	O I	|	|	|	|	0.04
0.500	0.19	0.00	0.005	O I	|	|	|	|	0.05
0.583	0.17	0.00	0.007	O I	|	|	|	|	0.06
0.667	0.19	0.00	0.008	O I	|	|	|	|	0.07
0.750	0.20	0.00	0.009	O I	|	|	|	|	0.09
0.833	0.17	0.00	0.010	O I	|	|	|	|	0.10
0.917	0.17	0.00	0.012	O I	|	|	|	|	0.11
1.000	0.19	0.00	0.013	O I	|	|	|	|	0.12
1.083	0.23	0.00	0.014	O I	|	|	|	|	0.14
1.167	0.24	0.00	0.016	O I	|	|	|	|	0.15
1.250	0.24	0.00	0.017	O I	|	|	|	|	0.17
1.333	0.22	0.00	0.019	O I	|	|	|	|	0.18
1.417	0.26	0.00	0.021	O |	I	|	|	|	0.20
1.500	0.29	0.00	0.023	O |	I	|	|	|	0.22
1.583	0.27	0.00	0.025	O |	I	|	|	|	0.24
1.667	0.28	0.00	0.026	O |	I	|	|	|	0.25
1.750	0.34	0.00	0.029	O |	I	|	|	|	0.28
1.833	0.34	0.00	0.031	O |	I	|	|	|	0.30
1.917	0.32	0.00	0.033	O |	I	|	|	|	0.32

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2.000    0.32    0.00      0.035  O       |  I    |       |       |      0.34
2.083    0.33    0.00      0.038  O       |  I    |       |       |      0.36
2.167    0.42    0.00      0.040  O       |     I |       |       |      0.39
2.250    0.52    0.00      0.044  O       |       |I      |       |      0.42
2.333    0.42    0.00      0.047  O       |     I |       |       |      0.45
2.417    0.65    0.00      0.050  O       |       |     I |       |      0.49
2.500    0.81    0.01      0.055  O       |       |       |  I    |      0.53
2.583    0.93    0.03      0.061  |O      |       |       |      I|      0.58
2.667    0.73    0.05      0.067  |O      |       |       |I      |      0.62
2.750    0.33    0.06      0.070  | O     |  I    |       |       |      0.65
2.833    0.20    0.06      0.071  | O   I |       |       |       |      0.66
2.917    0.20    0.07      0.072  | O   I |       |       |       |      0.67
3.000    0.10    0.07      0.073  | OI    |       |       |       |      0.68
3.083    0.02    0.07      0.073  I O     |       |       |       |      0.68
3.167    0.00    0.07      0.072  I O     |       |       |       |      0.67
3.250    0.00    0.07      0.072  I O     |       |       |       |      0.67
3.333    0.00    0.06      0.072  I O     |       |       |       |      0.67
3.417    0.00    0.06      0.071  I O     |       |       |       |      0.66
3.500    0.00    0.06      0.071  I O     |       |       |       |      0.66
3.583    0.00    0.06      0.070  I O     |       |       |       |      0.65
3.667    0.00    0.06      0.070  I O     |       |       |       |      0.65
3.750    0.00    0.06      0.069  IO      |       |       |       |      0.65
3.833    0.00    0.06      0.069  IO      |       |       |       |      0.64
3.917    0.00    0.06      0.069  IO      |       |       |       |      0.64
4.000    0.00    0.05      0.068  IO      |       |       |       |      0.64
4.083    0.00    0.05      0.068  IO      |       |       |       |      0.63
4.167    0.00    0.05      0.068  IO      |       |       |       |      0.63
4.250    0.00    0.05      0.067  IO      |       |       |       |      0.63
4.333    0.00    0.05      0.067  IO      |       |       |       |      0.63
4.417    0.00    0.05      0.066  IO      |       |       |       |      0.62
4.500    0.00    0.05      0.066  IO      |       |       |       |      0.62
4.583    0.00    0.05      0.066  IO      |       |       |       |      0.62
4.667    0.00    0.04      0.066  IO      |       |       |       |      0.61
4.750    0.00    0.04      0.065  IO      |       |       |       |      0.61
4.833    0.00    0.04      0.065  IO      |       |       |       |      0.61
4.917    0.00    0.04      0.065  IO      |       |       |       |      0.61
5.000    0.00    0.04      0.064  IO      |       |       |       |      0.60
5.083    0.00    0.04      0.064  IO      |       |       |       |      0.60
5.167    0.00    0.04      0.064  IO      |       |       |       |      0.60
5.250    0.00    0.04      0.064  IO      |       |       |       |      0.60
5.333    0.00    0.04      0.063  IO      |       |       |       |      0.60
5.417    0.00    0.04      0.063  IO      |       |       |       |      0.59
5.500    0.00    0.04      0.063  IO      |       |       |       |      0.59
5.583    0.00    0.03      0.063  IO      |       |       |       |      0.59
5.667    0.00    0.03      0.062  IO      |       |       |       |      0.59
5.750    0.00    0.03      0.062  IO      |       |       |       |      0.59
5.833    0.00    0.03      0.062  IO      |       |       |       |      0.58
5.917    0.00    0.03      0.062  IO      |       |       |       |      0.58
6.000    0.00    0.03      0.061  IO      |       |       |       |      0.58
6.083    0.00    0.03      0.061  IO      |       |       |       |      0.58
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6.167	0.00	0.03	0.061	IO				0.58
6.250	0.00	0.03	0.061	IO				0.57
6.333	0.00	0.03	0.061	O				0.57
6.417	0.00	0.03	0.060	O				0.57
6.500	0.00	0.03	0.060	O				0.57
6.583	0.00	0.03	0.060	O				0.57
6.667	0.00	0.03	0.060	O				0.57
6.750	0.00	0.03	0.060	O				0.56
6.833	0.00	0.02	0.059	O				0.56
6.917	0.00	0.02	0.059	O				0.56
7.000	0.00	0.02	0.059	O				0.56
7.083	0.00	0.02	0.059	O				0.56
7.167	0.00	0.02	0.059	O				0.56
7.250	0.00	0.02	0.059	O				0.56
7.333	0.00	0.02	0.058	O				0.56
7.417	0.00	0.02	0.058	O				0.55
7.500	0.00	0.02	0.058	O				0.55
7.583	0.00	0.02	0.058	O				0.55
7.667	0.00	0.02	0.058	O				0.55
7.750	0.00	0.02	0.058	O				0.55
7.833	0.00	0.02	0.058	O				0.55
7.917	0.00	0.02	0.058	O				0.55
8.000	0.00	0.02	0.057	O				0.55
8.083	0.00	0.02	0.057	O				0.54
8.167	0.00	0.02	0.057	O				0.54
8.250	0.00	0.02	0.057	O				0.54
8.333	0.00	0.02	0.057	O				0.54
8.417	0.00	0.02	0.057	O				0.54
8.500	0.00	0.02	0.057	O				0.54
8.583	0.00	0.02	0.057	O				0.54
8.667	0.00	0.01	0.056	O				0.54
8.750	0.00	0.01	0.056	O				0.54
8.833	0.00	0.01	0.056	O				0.54
8.917	0.00	0.01	0.056	O				0.54
9.000	0.00	0.01	0.056	O				0.53
9.083	0.00	0.01	0.056	O				0.53
9.167	0.00	0.01	0.056	O				0.53
9.250	0.00	0.01	0.056	O				0.53
9.333	0.00	0.01	0.056	O				0.53
9.417	0.00	0.01	0.056	O				0.53
9.500	0.00	0.01	0.056	O				0.53
9.583	0.00	0.01	0.055	O				0.53
9.667	0.00	0.01	0.055	O				0.53
9.750	0.00	0.01	0.055	O				0.53
9.833	0.00	0.01	0.055	O				0.53
9.917	0.00	0.01	0.055	O				0.53
10.000	0.00	0.01	0.055	O				0.53
10.083	0.00	0.01	0.055	O				0.53
10.167	0.00	0.01	0.055	O				0.53
10.250	0.00	0.01	0.055	O				0.52

10.333	0.00	0.01	0.055	O	|	|	|	0.52
10.417	0.00	0.01	0.055	O	|	|	|	0.52
10.500	0.00	0.01	0.055	O	|	|	|	0.52
10.583	0.00	0.01	0.055	O	|	|	|	0.52
10.667	0.00	0.01	0.055	O	|	|	|	0.52
10.750	0.00	0.01	0.055	O	|	|	|	0.52
10.833	0.00	0.01	0.054	O	|	|	|	0.52
10.917	0.00	0.01	0.054	O	|	|	|	0.52
11.000	0.00	0.01	0.054	O	|	|	|	0.52
11.083	0.00	0.01	0.054	O	|	|	|	0.52
11.167	0.00	0.01	0.054	O	|	|	|	0.52
11.250	0.00	0.01	0.054	O	|	|	|	0.52
11.333	0.00	0.01	0.054	O	|	|	|	0.52
11.417	0.00	0.01	0.054	O	|	|	|	0.52
11.500	0.00	0.01	0.054	O	|	|	|	0.52
11.583	0.00	0.01	0.054	O	|	|	|	0.52
11.667	0.00	0.01	0.054	O	|	|	|	0.52
11.750	0.00	0.01	0.054	O	|	|	|	0.52
11.833	0.00	0.01	0.054	O	|	|	|	0.52
11.917	0.00	0.01	0.054	O	|	|	|	0.52
12.000	0.00	0.01	0.054	O	|	|	|	0.52
12.083	0.00	0.01	0.054	O	|	|	|	0.51
12.167	0.00	0.01	0.054	O	|	|	|	0.51
12.250	0.00	0.01	0.054	O	|	|	|	0.51
12.333	0.00	0.01	0.054	O	|	|	|	0.51
12.417	0.00	0.01	0.054	O	|	|	|	0.51
12.500	0.00	0.01	0.054	O	|	|	|	0.51
12.583	0.00	0.01	0.054	O	|	|	|	0.51
12.667	0.00	0.00	0.053	O	|	|	|	0.51
12.750	0.00	0.00	0.053	O	|	|	|	0.51
12.833	0.00	0.00	0.053	O	|	|	|	0.51
12.917	0.00	0.00	0.053	O	|	|	|	0.51
13.000	0.00	0.00	0.053	O	|	|	|	0.51
13.083	0.00	0.00	0.053	O	|	|	|	0.51
13.167	0.00	0.00	0.053	O	|	|	|	0.51
13.250	0.00	0.00	0.053	O	|	|	|	0.51
13.333	0.00	0.00	0.053	O	|	|	|	0.51
13.417	0.00	0.00	0.053	O	|	|	|	0.51
13.500	0.00	0.00	0.053	O	|	|	|	0.51
13.583	0.00	0.00	0.053	O	|	|	|	0.51
13.667	0.00	0.00	0.053	O	|	|	|	0.51
13.750	0.00	0.00	0.053	O	|	|	|	0.51
13.833	0.00	0.00	0.053	O	|	|	|	0.51
13.917	0.00	0.00	0.053	O	|	|	|	0.51
14.000	0.00	0.00	0.053	O	|	|	|	0.51
14.083	0.00	0.00	0.053	O	|	|	|	0.51
14.167	0.00	0.00	0.053	O	|	|	|	0.51
14.250	0.00	0.00	0.053	O	|	|	|	0.51
14.333	0.00	0.00	0.053	O	|	|	|	0.51
14.417	0.00	0.00	0.053	O	|	|	|	0.51

14.500	0.00	0.00	0.053	O	|	|	|	0.51
14.583	0.00	0.00	0.053	O	|	|	|	0.51
14.667	0.00	0.00	0.053	O	|	|	|	0.51
14.750	0.00	0.00	0.053	O	|	|	|	0.51
14.833	0.00	0.00	0.053	O	|	|	|	0.51
14.917	0.00	0.00	0.053	O	|	|	|	0.51
15.000	0.00	0.00	0.053	O	|	|	|	0.51
15.083	0.00	0.00	0.053	O	|	|	|	0.51
15.167	0.00	0.00	0.053	O	|	|	|	0.51
15.250	0.00	0.00	0.053	O	|	|	|	0.51
15.333	0.00	0.00	0.053	O	|	|	|	0.51
15.417	0.00	0.00	0.053	O	|	|	|	0.51
15.500	0.00	0.00	0.053	O	|	|	|	0.51
15.583	0.00	0.00	0.053	O	|	|	|	0.51
15.667	0.00	0.00	0.053	O	|	|	|	0.51
15.750	0.00	0.00	0.053	O	|	|	|	0.51
15.833	0.00	0.00	0.053	O	|	|	|	0.51
15.917	0.00	0.00	0.053	O	|	|	|	0.51
16.000	0.00	0.00	0.053	O	|	|	|	0.51
16.083	0.00	0.00	0.053	O	|	|	|	0.50
16.167	0.00	0.00	0.053	O	|	|	|	0.50
16.250	0.00	0.00	0.053	O	|	|	|	0.50
16.333	0.00	0.00	0.053	O	|	|	|	0.50
16.417	0.00	0.00	0.053	O	|	|	|	0.50
16.500	0.00	0.00	0.053	O	|	|	|	0.50
16.583	0.00	0.00	0.053	O	|	|	|	0.50
16.667	0.00	0.00	0.052	O	|	|	|	0.50
16.750	0.00	0.00	0.052	O	|	|	|	0.50
16.833	0.00	0.00	0.052	O	|	|	|	0.50
16.917	0.00	0.00	0.052	O	|	|	|	0.50
17.000	0.00	0.00	0.052	O	|	|	|	0.50
17.083	0.00	0.00	0.052	O	|	|	|	0.50
17.167	0.00	0.00	0.052	O	|	|	|	0.50
17.250	0.00	0.00	0.052	O	|	|	|	0.50
17.333	0.00	0.00	0.052	O	|	|	|	0.50
17.417	0.00	0.00	0.052	O	|	|	|	0.50
17.500	0.00	0.00	0.052	O	|	|	|	0.50
17.583	0.00	0.00	0.052	O	|	|	|	0.50
17.667	0.00	0.00	0.052	O	|	|	|	0.50
17.750	0.00	0.00	0.052	O	|	|	|	0.50
17.833	0.00	0.00	0.052	O	|	|	|	0.50
17.917	0.00	0.00	0.052	O	|	|	|	0.50
18.000	0.00	0.00	0.052	O	|	|	|	0.50
18.083	0.00	0.00	0.052	O	|	|	|	0.50
18.167	0.00	0.00	0.052	O	|	|	|	0.50
18.250	0.00	0.00	0.052	O	|	|	|	0.50
18.333	0.00	0.00	0.052	O	|	|	|	0.50
18.417	0.00	0.00	0.052	O	|	|	|	0.50
18.500	0.00	0.00	0.052	O	|	|	|	0.50
18.583	0.00	0.00	0.052	O	|	|	|	0.50

Remaining water in basin = 0.05 (Ac.Ft)

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

Number of intervals = 223
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.070 (CFS)
Total volume = 0.023 (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

Study date: 08/24/22

A21626 DMA 2 2YR-6HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA2Q100UH62.rte
**********HYDROGRAPH DATA**********
Number of intervals = 73
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.847 (CFS)
Total volume = 0.104 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Free outlet pipe flow: Pipe Diameter = 1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe = 0.50(Ft.) Capacity = 4.44(CFS)

Total outflow at this depth = 4.64(CFS)

Total number of inflow hydrograph intervals = 73

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
0.500	0.052	0.000	0.052	0.052
1.000	0.111	0.196	0.110	0.112
1.500	0.177	0.196	0.176	0.178
2.000	0.251	0.196	0.250	0.252
2.500	0.333	4.639	0.317	0.349

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 0.2 0.42 0.64 0.85 (Ft.)	Depth
0.083	0.05	0.00	0.000	O I	0.00
0.167	0.09	0.00	0.001	O I	0.01
0.250	0.09	0.00	0.001	O I	0.01
0.333	0.09	0.00	0.002	O I	0.02
0.417	0.09	0.00	0.003	O I	0.02
0.500	0.10	0.00	0.003	O I	0.03
0.583	0.11	0.00	0.004	O I	0.04
0.667	0.11	0.00	0.005	O I	0.04
0.750	0.11	0.00	0.005	O I	0.05
0.833	0.11	0.00	0.006	O I	0.06
0.917	0.11	0.00	0.007	O I	0.07
1.000	0.12	0.00	0.008	O I	0.07
1.083	0.12	0.00	0.008	O I	0.08
1.167	0.12	0.00	0.009	O I	0.09
1.250	0.12	0.00	0.010	O I	0.10
1.333	0.12	0.00	0.011	O I	0.10
1.417	0.12	0.00	0.012	O I	0.11
1.500	0.12	0.00	0.013	O I	0.12
1.583	0.12	0.00	0.013	O I	0.13
1.667	0.12	0.00	0.014	O I	0.14
1.750	0.12	0.00	0.015	O I	0.14
1.833	0.12	0.00	0.016	O I	0.15
1.917	0.12	0.00	0.017	O I	0.16

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2.000    0.13    0.00      0.018  O   I   |       |       |       |     0.17
2.083    0.12    0.00      0.018  O   I   |       |       |       |     0.18
2.167    0.13    0.00      0.019  O   I   |       |       |       |     0.19
2.250    0.14    0.00      0.020  O    I  |       |       |       |     0.19
2.333    0.14    0.00      0.021  O    I  |       |       |       |     0.20
2.417    0.14    0.00      0.022  O    I  |       |       |       |     0.21
2.500    0.14    0.00      0.023  O    I  |       |       |       |     0.22
2.583    0.14    0.00      0.024  O    I  |       |       |       |     0.23
2.667    0.14    0.00      0.025  O    I  |       |       |       |     0.24
2.750    0.15    0.00      0.026  O    I  |       |       |       |     0.25
2.833    0.15    0.00      0.027  O    I  |       |       |       |     0.26
2.917    0.15    0.00      0.028  O    I  |       |       |       |     0.27
3.000    0.15    0.00      0.029  O    I  |       |       |       |     0.28
3.083    0.15    0.00      0.030  O    I  |       |       |       |     0.29
3.167    0.16    0.00      0.031  O     I |       |       |       |     0.30
3.250    0.17    0.00      0.032  O     I |       |       |       |     0.31
3.333    0.17    0.00      0.033  O     I |       |       |       |     0.32
3.417    0.18    0.00      0.034  O     I |       |       |       |     0.33
3.500    0.19    0.00      0.036  O      I|       |       |       |     0.34
3.583    0.21    0.00      0.037  O      I|       |       |       |     0.36
3.667    0.21    0.00      0.039  O      I|       |       |       |     0.37
3.750    0.22    0.00      0.040  O       I       |       |       |     0.39
3.833    0.23    0.00      0.042  O       I       |       |       |     0.40
3.917    0.24    0.00      0.043  O       I       |       |       |     0.42
4.000    0.24    0.00      0.045  O       |I      |       |       |     0.43
4.083    0.25    0.00      0.047  O       |I      |       |       |     0.45
4.167    0.27    0.00      0.048  O       | I     |       |       |     0.46
4.250    0.28    0.00      0.050  O       | I     |       |       |     0.48
4.333    0.30    0.00      0.052  O       |  I    |       |       |     0.50
4.417    0.31    0.01      0.054  O       |  I    |       |       |     0.52
4.500    0.32    0.01      0.056  O       |  I    |       |       |     0.54
4.583    0.33    0.02      0.058  O       |   I   |       |       |     0.55
4.667    0.34    0.03      0.061  |O      |   I   |       |       |     0.57
4.750    0.36    0.04      0.063  |O      |    I  |       |       |     0.59
4.833    0.36    0.04      0.065  |O      |    I  |       |       |     0.61
4.917    0.37    0.05      0.067  |O      |     I |       |       |     0.63
5.000    0.39    0.06      0.069  | O     |     I |       |       |     0.65
5.083    0.45    0.07      0.072  | O     |       I       |       |     0.67
5.167    0.52    0.08      0.075  | O     |       |  I    |       |     0.69
5.250    0.57    0.09      0.078  |  O    |       |    I  |       |     0.72
5.333    0.62    0.10      0.081  |  O    |       |      I|       |     0.75
5.417    0.69    0.11      0.085  |   O   |       |       |I      |     0.78
5.500    0.85    0.13      0.090  |   O   |       |       |      I|     0.82
5.583    0.46    0.14      0.093  |    O  |       |I      |       |     0.85
5.667    0.18    0.14      0.094  |    OI |       |       |       |     0.86
5.750    0.10    0.14      0.094  |  I O  |       |       |       |     0.86
5.833    0.08    0.14      0.094  | I  O  |       |       |       |     0.86
5.917    0.05    0.14      0.094  | I  O  |       |       |       |     0.85
6.000    0.03    0.14      0.093  |I   O  |       |       |       |     0.85
6.083    0.01    0.13      0.092  I    O  |       |       |       |     0.84
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6.167	0.00	0.13	0.091	I O				0.83
6.250	0.00	0.13	0.090	I O				0.83
6.333	0.00	0.12	0.090	I O				0.82
6.417	0.00	0.12	0.089	I O				0.81
6.500	0.00	0.12	0.088	I O				0.80
6.583	0.00	0.12	0.087	I O				0.80
6.667	0.00	0.11	0.086	I O				0.79
6.750	0.00	0.11	0.085	I O				0.78
6.833	0.00	0.11	0.085	I O				0.78
6.917	0.00	0.11	0.084	I O				0.77
7.000	0.00	0.10	0.083	I O				0.76
7.083	0.00	0.10	0.083	I O				0.76
7.167	0.00	0.10	0.082	I O				0.75
7.250	0.00	0.10	0.081	I O				0.75
7.333	0.00	0.09	0.080	I O				0.74
7.417	0.00	0.09	0.080	I O				0.74
7.500	0.00	0.09	0.079	I O				0.73
7.583	0.00	0.09	0.079	I O				0.73
7.667	0.00	0.09	0.078	I O				0.72
7.750	0.00	0.08	0.077	I O				0.72
7.833	0.00	0.08	0.077	I O				0.71
7.917	0.00	0.08	0.076	I O				0.71
8.000	0.00	0.08	0.076	I O				0.70
8.083	0.00	0.08	0.075	I O				0.70
8.167	0.00	0.08	0.075	I O				0.69
8.250	0.00	0.07	0.074	I O				0.69
8.333	0.00	0.07	0.074	I O				0.68
8.417	0.00	0.07	0.073	I O				0.68
8.500	0.00	0.07	0.073	I O				0.68
8.583	0.00	0.07	0.072	I O				0.67
8.667	0.00	0.07	0.072	I O				0.67
8.750	0.00	0.06	0.071	I O				0.66
8.833	0.00	0.06	0.071	I O				0.66
8.917	0.00	0.06	0.070	I O				0.66
9.000	0.00	0.06	0.070	I O				0.65
9.083	0.00	0.06	0.070	I O				0.65
9.167	0.00	0.06	0.069	I O				0.65
9.250	0.00	0.06	0.069	I O				0.64
9.333	0.00	0.05	0.068	I O				0.64
9.417	0.00	0.05	0.068	I O				0.64
9.500	0.00	0.05	0.068	IO				0.63
9.583	0.00	0.05	0.067	IO				0.63
9.667	0.00	0.05	0.067	IO				0.63
9.750	0.00	0.05	0.067	IO				0.62
9.833	0.00	0.05	0.066	IO				0.62
9.917	0.00	0.05	0.066	IO				0.62
10.000	0.00	0.05	0.066	IO				0.62
10.083	0.00	0.04	0.065	IO				0.61
10.167	0.00	0.04	0.065	IO				0.61
10.250	0.00	0.04	0.065	IO				0.61

10.333	0.00	0.04	0.064	IO				0.61
10.417	0.00	0.04	0.064	IO				0.60
10.500	0.00	0.04	0.064	IO				0.60
10.583	0.00	0.04	0.064	IO				0.60
10.667	0.00	0.04	0.063	IO				0.60
10.750	0.00	0.04	0.063	IO				0.59
10.833	0.00	0.04	0.063	IO				0.59
10.917	0.00	0.04	0.063	IO				0.59
11.000	0.00	0.03	0.062	IO				0.59
11.083	0.00	0.03	0.062	IO				0.59
11.167	0.00	0.03	0.062	IO				0.58
11.250	0.00	0.03	0.062	IO				0.58
11.333	0.00	0.03	0.061	IO				0.58
11.417	0.00	0.03	0.061	IO				0.58
11.500	0.00	0.03	0.061	IO				0.58
11.583	0.00	0.03	0.061	IO				0.58
11.667	0.00	0.03	0.061	IO				0.57
11.750	0.00	0.03	0.060	IO				0.57
11.833	0.00	0.03	0.060	IO				0.57
11.917	0.00	0.03	0.060	IO				0.57
12.000	0.00	0.03	0.060	O				0.57
12.083	0.00	0.03	0.060	O				0.57
12.167	0.00	0.03	0.060	O				0.56
12.250	0.00	0.02	0.059	O				0.56
12.333	0.00	0.02	0.059	O				0.56
12.417	0.00	0.02	0.059	O				0.56
12.500	0.00	0.02	0.059	O				0.56
12.583	0.00	0.02	0.059	O				0.56
12.667	0.00	0.02	0.059	O				0.56
12.750	0.00	0.02	0.058	O				0.55
12.833	0.00	0.02	0.058	O				0.55
12.917	0.00	0.02	0.058	O				0.55
13.000	0.00	0.02	0.058	O				0.55
13.083	0.00	0.02	0.058	O				0.55
13.167	0.00	0.02	0.058	O				0.55
13.250	0.00	0.02	0.058	O				0.55
13.333	0.00	0.02	0.057	O				0.55
13.417	0.00	0.02	0.057	O				0.55
13.500	0.00	0.02	0.057	O				0.54
13.583	0.00	0.02	0.057	O				0.54
13.667	0.00	0.02	0.057	O				0.54
13.750	0.00	0.02	0.057	O				0.54
13.833	0.00	0.02	0.057	O				0.54
13.917	0.00	0.02	0.057	O				0.54
14.000	0.00	0.02	0.057	O				0.54
14.083	0.00	0.01	0.056	O				0.54
14.167	0.00	0.01	0.056	O				0.54
14.250	0.00	0.01	0.056	O				0.54
14.333	0.00	0.01	0.056	O				0.54
14.417	0.00	0.01	0.056	O				0.53

14.500	0.00	0.01	0.056	O				0.53
14.583	0.00	0.01	0.056	O				0.53
14.667	0.00	0.01	0.056	O				0.53
14.750	0.00	0.01	0.056	O				0.53
14.833	0.00	0.01	0.056	O				0.53
14.917	0.00	0.01	0.056	O				0.53
15.000	0.00	0.01	0.055	O				0.53
15.083	0.00	0.01	0.055	O				0.53
15.167	0.00	0.01	0.055	O				0.53
15.250	0.00	0.01	0.055	O				0.53
15.333	0.00	0.01	0.055	O				0.53
15.417	0.00	0.01	0.055	O				0.53
15.500	0.00	0.01	0.055	O				0.53
15.583	0.00	0.01	0.055	O				0.52
15.667	0.00	0.01	0.055	O				0.52
15.750	0.00	0.01	0.055	O				0.52
15.833	0.00	0.01	0.055	O				0.52
15.917	0.00	0.01	0.055	O				0.52
16.000	0.00	0.01	0.055	O				0.52
16.083	0.00	0.01	0.055	O				0.52
16.167	0.00	0.01	0.055	O				0.52
16.250	0.00	0.01	0.054	O				0.52
16.333	0.00	0.01	0.054	O				0.52
16.417	0.00	0.01	0.054	O				0.52
16.500	0.00	0.01	0.054	O				0.52
16.583	0.00	0.01	0.054	O				0.52
16.667	0.00	0.01	0.054	O				0.52
16.750	0.00	0.01	0.054	O				0.52
16.833	0.00	0.01	0.054	O				0.52
16.917	0.00	0.01	0.054	O				0.52
17.000	0.00	0.01	0.054	O				0.52
17.083	0.00	0.01	0.054	O				0.52
17.167	0.00	0.01	0.054	O				0.52
17.250	0.00	0.01	0.054	O				0.52
17.333	0.00	0.01	0.054	O				0.52
17.417	0.00	0.01	0.054	O				0.52
17.500	0.00	0.01	0.054	O				0.51
17.583	0.00	0.01	0.054	O				0.51
17.667	0.00	0.01	0.054	O				0.51
17.750	0.00	0.01	0.054	O				0.51
17.833	0.00	0.01	0.054	O				0.51
17.917	0.00	0.01	0.054	O				0.51
18.000	0.00	0.01	0.054	O				0.51
18.083	0.00	0.00	0.053	O				0.51
18.167	0.00	0.00	0.053	O				0.51
18.250	0.00	0.00	0.053	O				0.51
18.333	0.00	0.00	0.053	O				0.51
18.417	0.00	0.00	0.053	O				0.51
18.500	0.00	0.00	0.053	O				0.51
18.583	0.00	0.00	0.053	O				0.51

18.667	0.00	0.00	0.053	O	|	|	|	0.51
18.750	0.00	0.00	0.053	O	|	|	|	0.51
18.833	0.00	0.00	0.053	O	|	|	|	0.51
18.917	0.00	0.00	0.053	O	|	|	|	0.51
19.000	0.00	0.00	0.053	O	|	|	|	0.51
19.083	0.00	0.00	0.053	O	|	|	|	0.51
19.167	0.00	0.00	0.053	O	|	|	|	0.51
19.250	0.00	0.00	0.053	O	|	|	|	0.51
19.333	0.00	0.00	0.053	O	|	|	|	0.51
19.417	0.00	0.00	0.053	O	|	|	|	0.51
19.500	0.00	0.00	0.053	O	|	|	|	0.51
19.583	0.00	0.00	0.053	O	|	|	|	0.51
19.667	0.00	0.00	0.053	O	|	|	|	0.51
19.750	0.00	0.00	0.053	O	|	|	|	0.51
19.833	0.00	0.00	0.053	O	|	|	|	0.51
19.917	0.00	0.00	0.053	O	|	|	|	0.51
20.000	0.00	0.00	0.053	O	|	|	|	0.51
20.083	0.00	0.00	0.053	O	|	|	|	0.51
20.167	0.00	0.00	0.053	O	|	|	|	0.51
20.250	0.00	0.00	0.053	O	|	|	|	0.51
20.333	0.00	0.00	0.053	O	|	|	|	0.51
20.417	0.00	0.00	0.053	O	|	|	|	0.51
20.500	0.00	0.00	0.053	O	|	|	|	0.51
20.583	0.00	0.00	0.053	O	|	|	|	0.51
20.667	0.00	0.00	0.053	O	|	|	|	0.51
20.750	0.00	0.00	0.053	O	|	|	|	0.51
20.833	0.00	0.00	0.053	O	|	|	|	0.51
20.917	0.00	0.00	0.053	O	|	|	|	0.51
21.000	0.00	0.00	0.053	O	|	|	|	0.51
21.083	0.00	0.00	0.053	O	|	|	|	0.51
21.167	0.00	0.00	0.053	O	|	|	|	0.51
21.250	0.00	0.00	0.053	O	|	|	|	0.51
21.333	0.00	0.00	0.053	O	|	|	|	0.51
21.417	0.00	0.00	0.053	O	|	|	|	0.51
21.500	0.00	0.00	0.053	O	|	|	|	0.50
21.583	0.00	0.00	0.053	O	|	|	|	0.50
21.667	0.00	0.00	0.053	O	|	|	|	0.50
21.750	0.00	0.00	0.053	O	|	|	|	0.50
21.833	0.00	0.00	0.053	O	|	|	|	0.50
21.917	0.00	0.00	0.053	O	|	|	|	0.50
22.000	0.00	0.00	0.053	O	|	|	|	0.50
22.083	0.00	0.00	0.052	O	|	|	|	0.50
22.167	0.00	0.00	0.052	O	|	|	|	0.50
22.250	0.00	0.00	0.052	O	|	|	|	0.50
22.333	0.00	0.00	0.052	O	|	|	|	0.50
22.417	0.00	0.00	0.052	O	|	|	|	0.50
22.500	0.00	0.00	0.052	O	|	|	|	0.50
22.583	0.00	0.00	0.052	O	|	|	|	0.50
22.667	0.00	0.00	0.052	O	|	|	|	0.50
22.750	0.00	0.00	0.052	O	|	|	|	0.50

22.833	0.00	0.00	0.052	O	|	|	|	0.50
22.917	0.00	0.00	0.052	O	|	|	|	0.50
23.000	0.00	0.00	0.052	O	|	|	|	0.50
23.083	0.00	0.00	0.052	O	|	|	|	0.50
23.167	0.00	0.00	0.052	O	|	|	|	0.50
23.250	0.00	0.00	0.052	O	|	|	|	0.50
23.333	0.00	0.00	0.052	O	|	|	|	0.50
23.417	0.00	0.00	0.052	O	|	|	|	0.50
23.500	0.00	0.00	0.052	O	|	|	|	0.50
23.583	0.00	0.00	0.052	O	|	|	|	0.50
23.667	0.00	0.00	0.052	O	|	|	|	0.50
23.750	0.00	0.00	0.052	O	|	|	|	0.50
23.833	0.00	0.00	0.052	O	|	|	|	0.50
23.917	0.00	0.00	0.052	O	|	|	|	0.50

Remaining water in basin = 0.05 (Ac.Ft)

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

Number of intervals = 287
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.141 (CFS)
Total volume = 0.052 (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

Study date: 08/24/22

A21626 DMA 2 2YR-24HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA2Q100UH242.rte
**********HYDROGRAPH DATA**********
Number of intervals = 289
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.292 (CFS)
Total volume = 0.177 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   0.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.00(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.00(Ft.)   Capacity =   0.20(CFS)

Free outlet pipe flow: Pipe Diameter =   1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)   Capacity =   4.44(CFS)

Total outflow at this depth =   4.64(CFS)

Total number of inflow hydrograph intervals = 289

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
0.500	0.052	0.000	0.052	0.052
1.000	0.111	0.196	0.110	0.112
1.500	0.177	0.196	0.176	0.178
2.000	0.251	0.196	0.250	0.252
2.500	0.333	4.639	0.317	0.349

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.1	0.15	0.22	0.29	Depth (Ft.)
0.083	0.01	0.00	0.000	OI	|	|	|	|	0.00
0.167	0.02	0.00	0.000	OI	|	|	|	|	0.00
0.250	0.02	0.00	0.000	OI	|	|	|	|	0.00
0.333	0.02	0.00	0.000	O I	|	|	|	|	0.00
0.417	0.03	0.00	0.001	O I	|	|	|	|	0.01
0.500	0.03	0.00	0.001	O I	|	|	|	|	0.01
0.583	0.03	0.00	0.001	O I	|	|	|	|	0.01
0.667	0.03	0.00	0.001	O I	|	|	|	|	0.01
0.750	0.03	0.00	0.001	O I	|	|	|	|	0.01
0.833	0.03	0.00	0.001	O I	|	|	|	|	0.01
0.917	0.03	0.00	0.002	O I	|	|	|	|	0.02
1.000	0.03	0.00	0.002	O I	|	|	|	|	0.02
1.083	0.03	0.00	0.002	O I	|	|	|	|	0.02
1.167	0.03	0.00	0.002	O I	|	|	|	|	0.02
1.250	0.03	0.00	0.003	O I	|	|	|	|	0.02
1.333	0.03	0.00	0.003	O I	|	|	|	|	0.03
1.417	0.03	0.00	0.003	O I	|	|	|	|	0.03
1.500	0.03	0.00	0.003	O I	|	|	|	|	0.03
1.583	0.03	0.00	0.003	O I	|	|	|	|	0.03
1.667	0.03	0.00	0.003	O I	|	|	|	|	0.03
1.750	0.03	0.00	0.004	O I	|	|	|	|	0.03
1.833	0.03	0.00	0.004	O I	|	|	|	|	0.04
1.917	0.03	0.00	0.004	O I	|	|	|	|	0.04

2.000	0.03	0.00	0.004	O	I	|	|	|	0.04
2.083	0.03	0.00	0.004	O	I	|	|	|	0.04
2.167	0.03	0.00	0.005	O	I	|	|	|	0.05
2.250	0.03	0.00	0.005	O	I	|	|	|	0.05
2.333	0.03	0.00	0.005	O	I	|	|	|	0.05
2.417	0.03	0.00	0.005	O	I	|	|	|	0.05
2.500	0.03	0.00	0.006	O	I	|	|	|	0.05
2.583	0.04	0.00	0.006	O	I	|	|	|	0.06
2.667	0.04	0.00	0.006	O	I	|	|	|	0.06
2.750	0.04	0.00	0.007	O	I	|	|	|	0.06
2.833	0.04	0.00	0.007	O	I	|	|	|	0.07
2.917	0.04	0.00	0.007	O	I	|	|	|	0.07
3.000	0.04	0.00	0.007	O	I	|	|	|	0.07
3.083	0.04	0.00	0.008	O	I	|	|	|	0.07
3.167	0.04	0.00	0.008	O	I	|	|	|	0.08
3.250	0.04	0.00	0.008	O	I	|	|	|	0.08
3.333	0.04	0.00	0.009	O	I	|	|	|	0.08
3.417	0.04	0.00	0.009	O	I	|	|	|	0.09
3.500	0.04	0.00	0.009	O	I	|	|	|	0.09
3.583	0.04	0.00	0.009	O	I	|	|	|	0.09
3.667	0.04	0.00	0.010	O	I	|	|	|	0.09
3.750	0.04	0.00	0.010	O	I	|	|	|	0.10
3.833	0.05	0.00	0.010	O	I	|	|	|	0.10
3.917	0.05	0.00	0.011	O	I	|	|	|	0.10
4.000	0.05	0.00	0.011	O	I	|	|	|	0.11
4.083	0.05	0.00	0.011	O	I	|	|	|	0.11
4.167	0.05	0.00	0.012	O	I	|	|	|	0.11
4.250	0.05	0.00	0.012	O	I	|	|	|	0.12
4.333	0.06	0.00	0.013	O	I	|	|	|	0.12
4.417	0.06	0.00	0.013	O	I	|	|	|	0.12
4.500	0.06	0.00	0.013	O	I	|	|	|	0.13
4.583	0.06	0.00	0.014	O	I	|	|	|	0.13
4.667	0.06	0.00	0.014	O	I	|	|	|	0.14
4.750	0.06	0.00	0.015	O	I	|	|	|	0.14
4.833	0.07	0.00	0.015	O	I	|	|	|	0.14
4.917	0.07	0.00	0.015	O	I	|	|	|	0.15
5.000	0.07	0.00	0.016	O	I	|	|	|	0.15
5.083	0.06	0.00	0.016	O	I	|	|	|	0.16
5.167	0.05	0.00	0.017	O	I	|	|	|	0.16
5.250	0.05	0.00	0.017	O	I	|	|	|	0.16
5.333	0.06	0.00	0.017	O	I	|	|	|	0.17
5.417	0.06	0.00	0.018	O	I	|	|	|	0.17
5.500	0.06	0.00	0.018	O	I	|	|	|	0.18
5.583	0.07	0.00	0.019	O	I	|	|	|	0.18
5.667	0.07	0.00	0.019	O	I	|	|	|	0.18
5.750	0.07	0.00	0.020	O	I	|	|	|	0.19
5.833	0.07	0.00	0.020	O	I	|	|	|	0.19
5.917	0.07	0.00	0.021	O	I	|	|	|	0.20
6.000	0.07	0.00	0.021	O	I	|	|	|	0.20
6.083	0.07	0.00	0.022	O	I	|	|	|	0.21

6.167	0.08	0.00	0.022	O	I	|	|	|	0.21
6.250	0.08	0.00	0.023	O	I	|	|	|	0.22
6.333	0.08	0.00	0.023	O	I	|	|	|	0.22
6.417	0.08	0.00	0.024	O	I	|	|	|	0.23
6.500	0.08	0.00	0.024	O	I	|	|	|	0.23
6.583	0.08	0.00	0.025	O	|I	|	|	|	0.24
6.667	0.09	0.00	0.025	O	|I	|	|	|	0.24
6.750	0.09	0.00	0.026	O	|I	|	|	|	0.25
6.833	0.09	0.00	0.027	O	|I	|	|	|	0.26
6.917	0.09	0.00	0.027	O	|I	|	|	|	0.26
7.000	0.09	0.00	0.028	O	|I	|	|	|	0.27
7.083	0.09	0.00	0.028	O	|I	|	|	|	0.27
7.167	0.09	0.00	0.029	O	|I	|	|	|	0.28
7.250	0.09	0.00	0.030	O	|I	|	|	|	0.28
7.333	0.09	0.00	0.030	O	| I	|	|	|	0.29
7.417	0.09	0.00	0.031	O	| I	|	|	|	0.30
7.500	0.09	0.00	0.031	O	| I	|	|	|	0.30
7.583	0.10	0.00	0.032	O	| I	|	|	|	0.31
7.667	0.10	0.00	0.033	O	| I	|	|	|	0.32
7.750	0.10	0.00	0.034	O	| I	|	|	|	0.32
7.833	0.11	0.00	0.034	O	| I	|	|	|	0.33
7.917	0.11	0.00	0.035	O	| I	|	|	|	0.34
8.000	0.11	0.00	0.036	O	| I	|	|	|	0.34
8.083	0.12	0.00	0.037	O	| I	|	|	|	0.35
8.167	0.13	0.00	0.037	O	| I	|	|	|	0.36
8.250	0.13	0.00	0.038	O	| I	|	|	|	0.37
8.333	0.13	0.00	0.039	O	| I	|	|	|	0.38
8.417	0.13	0.00	0.040	O	| I	|	|	|	0.39
8.500	0.13	0.00	0.041	O	| I	|	|	|	0.39
8.583	0.13	0.00	0.042	O	| I	|	|	|	0.40
8.667	0.14	0.00	0.043	O	| I|	|	|	0.41
8.750	0.14	0.00	0.044	O	| I|	|	|	0.42
8.833	0.14	0.00	0.045	O	| I|	|	|	0.43
8.917	0.15	0.00	0.046	O	| I	|	|	0.44
9.000	0.15	0.00	0.047	O	| I	|	|	0.45
9.083	0.16	0.00	0.048	O	| |I	|	|	0.46
9.167	0.16	0.00	0.049	O	| |I	|	|	0.47
9.250	0.16	0.00	0.050	O	| |I	|	|	0.48
9.333	0.17	0.00	0.051	O	| | I	|	|	0.49
9.417	0.17	0.00	0.052	O	| | I	|	|	0.50
9.500	0.17	0.01	0.054	O	| | I	|	|	0.51
9.583	0.18	0.01	0.055	O	| | I	|	|	0.52
9.667	0.18	0.01	0.056	|O	| | I	|	|	0.53
9.750	0.18	0.02	0.057	|O	| | I	|	|	0.54
9.833	0.19	0.02	0.058	| O	| | I	|	|	0.55
9.917	0.19	0.02	0.059	| O	| | I	|	|	0.56
10.000	0.19	0.03	0.060	| O	| | I	|	|	0.57
10.083	0.15	0.03	0.061	| O	| I|	|	|	0.58
10.167	0.13	0.03	0.062	| O	| I |	|	|	0.59
10.250	0.13	0.04	0.063	| O	| I |	|	|	0.59

10.333	0.13	0.04	0.063	| O |	I |	|	|	0.60
10.417	0.13	0.04	0.064	| O |	I |	|	|	0.60
10.500	0.13	0.04	0.065	| O |	I |	|	|	0.61
10.583	0.16	0.04	0.065	| O |	|I |	|	|	0.61
10.667	0.17	0.05	0.066	| O |	| I |	|	|	0.62
10.750	0.17	0.05	0.067	| O |	| I |	|	|	0.63
10.833	0.17	0.05	0.068	| O |	| I |	|	|	0.63
10.917	0.17	0.06	0.069	| O |	| I |	|	|	0.64
11.000	0.17	0.06	0.069	| O |	| I |	|	|	0.65
11.083	0.17	0.06	0.070	| O |	| I |	|	|	0.65
11.167	0.16	0.06	0.071	| O |	|I |	|	|	0.66
11.250	0.16	0.06	0.072	| O|	|I |	|	|	0.67
11.333	0.16	0.07	0.072	| O|	|I |	|	|	0.67
11.417	0.16	0.07	0.073	| O|	|I |	|	|	0.68
11.500	0.16	0.07	0.073	| O|	|I |	|	|	0.68
11.583	0.15	0.07	0.074	| O |	I |	|	|	0.69
11.667	0.15	0.08	0.075	| O |	I |	|	|	0.69
11.750	0.15	0.08	0.075	| O |	I |	|	|	0.70
11.833	0.15	0.08	0.076	| O |	I |	|	|	0.70
11.917	0.15	0.08	0.076	| O |	I |	|	|	0.70
12.000	0.15	0.08	0.077	| O |	I |	|	|	0.71
12.083	0.20	0.08	0.077	| |O |	| I |	|	|	0.71
12.167	0.21	0.09	0.078	| |O |	| I|	|	|	0.72
12.250	0.21	0.09	0.079	| |O |	| I|	|	|	0.73
12.333	0.22	0.09	0.080	| | O |	| I |	|	|	0.74
12.417	0.22	0.10	0.081	| | O |	| I |	|	|	0.74
12.500	0.22	0.10	0.082	| | O |	| I |	|	|	0.75
12.583	0.24	0.10	0.082	| | O |	| |I |	|	|	0.76
12.667	0.24	0.10	0.083	| | O |	| | I |	|	|	0.77
12.750	0.24	0.11	0.084	| | O |	| | I |	|	|	0.77
12.833	0.25	0.11	0.085	| | O |	| | I |	|	|	0.78
12.917	0.25	0.11	0.086	| | O |	| | I |	|	|	0.79
13.000	0.25	0.12	0.087	| | O |	| | I |	|	|	0.80
13.083	0.28	0.12	0.088	| | O |	| | |	| I |	|	0.81
13.167	0.29	0.12	0.089	| | O |	| | |	| I |	|	0.82
13.250	0.29	0.13	0.090	| | O |	| | |	| I |	|	0.82
13.333	0.29	0.13	0.091	| | O |	| | |	| I |	|	0.83
13.417	0.29	0.13	0.093	| | O |	| | |	| I |	|	0.84
13.500	0.29	0.14	0.094	| | O|	| | |	| I |	|	0.85
13.583	0.22	0.14	0.094	| | O|	| | I |	|	0.86
13.667	0.20	0.14	0.095	| | O|	| I |	|	|	0.86
13.750	0.20	0.14	0.095	| | O|	| I |	|	|	0.87
13.833	0.20	0.15	0.096	| | O|	| I |	|	|	0.87
13.917	0.20	0.15	0.096	| | O |	| I |	|	|	0.87
14.000	0.20	0.15	0.096	| | O |	| I |	|	|	0.88
14.083	0.22	0.15	0.097	| | O |	| | I |	|	|	0.88
14.167	0.23	0.15	0.097	| | O |	| | |I |	|	|	0.88
14.250	0.23	0.15	0.098	| | O |	| | |I |	|	|	0.89
14.333	0.23	0.15	0.098	| | O |	| | I |	|	|	0.89
14.417	0.22	0.16	0.099	| | |O |	| | I |	|	|	0.90

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14.500    0.22    0.16      0.099  |        |        |O      I       |      0.90
14.583    0.22    0.16      0.100  |        |        |O      I       |      0.90
14.667    0.22    0.16      0.100  |        |        |O      I       |      0.91
14.750    0.22    0.16      0.101  |        |        |O      I       |      0.91
14.833    0.22    0.16      0.101  |        |        |O     I|       |      0.92
14.917    0.21    0.16      0.101  |        |        | O    I|       |      0.92
15.000    0.21    0.17      0.102  |        |        | O    I|       |      0.92
15.083    0.21    0.17      0.102  |        |        | O   I |       |      0.92
15.167    0.21    0.17      0.102  |        |        | O   I |       |      0.93
15.250    0.21    0.17      0.103  |        |        | O   I |       |      0.93
15.333    0.20    0.17      0.103  |        |        | O  I  |       |      0.93
15.417    0.20    0.17      0.103  |        |        | O  I  |       |      0.93
15.500    0.20    0.17      0.103  |        |        | O  I  |       |      0.93
15.583    0.17    0.17      0.103  |        |        | O     |       |      0.93
15.667    0.16    0.17      0.103  |        |        |IO     |       |      0.93
15.750    0.16    0.17      0.103  |        |        |IO     |       |      0.93
15.833    0.16    0.17      0.103  |        |        |IO     |       |      0.93
15.917    0.16    0.17      0.103  |        |        |IO     |       |      0.93
16.000    0.16    0.17      0.103  |        |        |IO     |       |      0.93
16.083    0.07    0.17      0.103  |       I|        | O     |       |      0.93
16.167    0.03    0.17      0.102  |  I     |        | O     |       |      0.92
16.250    0.03    0.16      0.101  |  I     |        |O      |       |      0.92
16.333    0.03    0.16      0.100  |  I     |        |O      |       |      0.91
16.417    0.03    0.16      0.099  |  I     |        |O      |       |      0.90
16.500    0.03    0.15      0.098  |  I     |       O       |       |      0.89
16.583    0.03    0.15      0.098  |  I     |       O       |       |      0.89
16.667    0.03    0.15      0.097  | I      |       O       |       |      0.88
16.750    0.03    0.15      0.096  | I      |       O       |       |      0.87
16.833    0.03    0.14      0.095  | I      |      O|       |       |      0.87
16.917    0.03    0.14      0.094  | I      |      O|       |       |      0.86
17.000    0.03    0.14      0.094  | I      |      O|       |       |      0.85
17.083    0.04    0.14      0.093  |   I    |     O |       |       |      0.85
17.167    0.04    0.13      0.092  |   I    |     O |       |       |      0.84
17.250    0.04    0.13      0.092  |   I    |     O |       |       |      0.83
17.333    0.04    0.13      0.091  |   I    |     O |       |       |      0.83
17.417    0.04    0.13      0.090  |   I    |    O  |       |       |      0.82
17.500    0.04    0.13      0.090  |   I    |    O  |       |       |      0.82
17.583    0.04    0.12      0.089  |   I    |    O  |       |       |      0.82
17.667    0.04    0.12      0.089  |   I    |    O  |       |       |      0.81
17.750    0.04    0.12      0.088  |   I    |    O  |       |       |      0.81
17.833    0.04    0.12      0.088  |   I    |   O   |       |       |      0.80
17.917    0.03    0.12      0.087  |  I     |   O   |       |       |      0.80
18.000    0.03    0.11      0.086  |  I     |   O   |       |       |      0.79
18.083    0.03    0.11      0.086  |  I     |   O   |       |       |      0.79
18.167    0.03    0.11      0.085  |  I     |   O   |       |       |      0.78
18.250    0.03    0.11      0.085  |  I     |  O    |       |       |      0.78
18.333    0.03    0.11      0.084  |  I     |  O    |       |       |      0.77
18.417    0.03    0.11      0.084  |  I     |  O    |       |       |      0.77
18.500    0.03    0.10      0.083  |  I     |  O    |       |       |      0.77
18.583    0.03    0.10      0.083  |  I     |  O    |       |       |      0.76
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18.667	0.03	0.10	0.082	| I |	O |	|	|	0.76
18.750	0.03	0.10	0.082	| I |	O |	|	|	0.75
18.833	0.02	0.10	0.081	| I |	O |	|	|	0.75
18.917	0.02	0.10	0.081	|I |	O |	|	|	0.74
19.000	0.02	0.09	0.080	|I |	O |	|	|	0.74
19.083	0.02	0.09	0.080	| I |	O |	|	|	0.73
19.167	0.03	0.09	0.079	| I |	O |	|	|	0.73
19.250	0.03	0.09	0.079	| I |	O |	|	|	0.73
19.333	0.03	0.09	0.078	| I |	O |	|	|	0.72
19.417	0.03	0.09	0.078	| I |	O |	|	|	0.72
19.500	0.03	0.09	0.078	| I |	O |	|	|	0.72
19.583	0.03	0.08	0.077	| I |	O |	|	|	0.71
19.667	0.03	0.08	0.077	| I |	O |	|	|	0.71
19.750	0.03	0.08	0.077	| I |	O |	|	|	0.71
19.833	0.02	0.08	0.076	| I |	O |	|	|	0.70
19.917	0.02	0.08	0.076	|I |	O |	|	|	0.70
20.000	0.02	0.08	0.075	|I |	O |	|	|	0.70
20.083	0.02	0.08	0.075	| I |	O |	|	|	0.69
20.167	0.03	0.08	0.075	| I |	O |	|	|	0.69
20.250	0.03	0.07	0.074	| I |	O |	|	|	0.69
20.333	0.03	0.07	0.074	| I |	O|	|	|	0.69
20.417	0.03	0.07	0.074	| I |	O|	|	|	0.68
20.500	0.03	0.07	0.073	| I |	O|	|	|	0.68
20.583	0.03	0.07	0.073	| I |	O|	|	|	0.68
20.667	0.03	0.07	0.073	| I |	O|	|	|	0.67
20.750	0.03	0.07	0.072	| I |	O|	|	|	0.67
20.833	0.02	0.07	0.072	| I |	O|	|	|	0.67
20.917	0.02	0.07	0.072	|I |	O|	|	|	0.67
21.000	0.02	0.06	0.071	|I |	O|	|	|	0.66
21.083	0.02	0.06	0.071	| I | O |	|	|	0.66
21.167	0.03	0.06	0.071	| I | O |	|	|	0.66
21.250	0.03	0.06	0.071	| I | O |	|	|	0.66
21.333	0.02	0.06	0.070	| I | O |	|	|	0.66
21.417	0.02	0.06	0.070	|I | O |	|	|	0.65
21.500	0.02	0.06	0.070	|I | O |	|	|	0.65
21.583	0.02	0.06	0.069	| I | O |	|	|	0.65
21.667	0.03	0.06	0.069	| I | O |	|	|	0.65
21.750	0.03	0.06	0.069	| I | O |	|	|	0.64
21.833	0.02	0.06	0.069	| I | O |	|	|	0.64
21.917	0.02	0.05	0.069	|I | O |	|	|	0.64
22.000	0.02	0.05	0.068	|I | O |	|	|	0.64
22.083	0.02	0.05	0.068	| I | O |	|	|	0.64
22.167	0.03	0.05	0.068	| I | O |	|	|	0.63
22.250	0.03	0.05	0.068	| I | O |	|	|	0.63
22.333	0.02	0.05	0.067	| I | O |	|	|	0.63
22.417	0.02	0.05	0.067	|I | O |	|	|	0.63
22.500	0.02	0.05	0.067	|I | O |	|	|	0.63
22.583	0.02	0.05	0.067	|I | O |	|	|	0.63
22.667	0.02	0.05	0.067	|I | O |	|	|	0.62
22.750	0.02	0.05	0.066	|I | O |	|	|	0.62

22.833	0.02	0.05	0.066	|I O |				0.62
22.917	0.02	0.05	0.066	|I O |				0.62
23.000	0.02	0.05	0.066	|I O |				0.62
23.083	0.02	0.05	0.066	|I O |				0.61
23.167	0.02	0.04	0.065	|I O |				0.61
23.250	0.02	0.04	0.065	|I O |				0.61
23.333	0.02	0.04	0.065	|I O |				0.61
23.417	0.02	0.04	0.065	|I O |				0.61
23.500	0.02	0.04	0.065	|I O |				0.61
23.583	0.02	0.04	0.064	|I O |				0.61
23.667	0.02	0.04	0.064	|I O |				0.60
23.750	0.02	0.04	0.064	|I O |				0.60
23.833	0.02	0.04	0.064	|I O |				0.60
23.917	0.02	0.04	0.064	|I O |				0.60
24.000	0.02	0.04	0.064	|I O |				0.60
24.083	0.00	0.04	0.063	I O |				0.60
24.167	0.00	0.04	0.063	I O |				0.60
24.250	0.00	0.04	0.063	I O |				0.59
24.333	0.00	0.04	0.063	I O |				0.59
24.417	0.00	0.03	0.062	I O |				0.59
24.500	0.00	0.03	0.062	I O |				0.59
24.583	0.00	0.03	0.062	I O |				0.58
24.667	0.00	0.03	0.062	I O |				0.58
24.750	0.00	0.03	0.062	I O |				0.58
24.833	0.00	0.03	0.061	I O |				0.58
24.917	0.00	0.03	0.061	I O |				0.58
25.000	0.00	0.03	0.061	I O |				0.58
25.083	0.00	0.03	0.061	I O |				0.57
25.167	0.00	0.03	0.061	I O |				0.57
25.250	0.00	0.03	0.060	I O |				0.57
25.333	0.00	0.03	0.060	I O |				0.57
25.417	0.00	0.03	0.060	I O |				0.57
25.500	0.00	0.03	0.060	I O |				0.57
25.583	0.00	0.03	0.060	I O |				0.56
25.667	0.00	0.02	0.059	I O |				0.56
25.750	0.00	0.02	0.059	I O |				0.56
25.833	0.00	0.02	0.059	I O |				0.56
25.917	0.00	0.02	0.059	I O |				0.56
26.000	0.00	0.02	0.059	I O |				0.56
26.083	0.00	0.02	0.059	I O |				0.56
26.167	0.00	0.02	0.058	I O |				0.55
26.250	0.00	0.02	0.058	I O |				0.55
26.333	0.00	0.02	0.058	I O |				0.55
26.417	0.00	0.02	0.058	I O |				0.55
26.500	0.00	0.02	0.058	I O |				0.55
26.583	0.00	0.02	0.058	I O |				0.55
26.667	0.00	0.02	0.058	I O |				0.55
26.750	0.00	0.02	0.058	I O |				0.55
26.833	0.00	0.02	0.057	IO |				0.55
26.917	0.00	0.02	0.057	IO |				0.54

27.000	0.00	0.02	0.057	IO				0.54
27.083	0.00	0.02	0.057	IO				0.54
27.167	0.00	0.02	0.057	IO				0.54
27.250	0.00	0.02	0.057	IO				0.54
27.333	0.00	0.02	0.057	IO				0.54
27.417	0.00	0.02	0.057	IO				0.54
27.500	0.00	0.01	0.056	IO				0.54
27.583	0.00	0.01	0.056	IO				0.54
27.667	0.00	0.01	0.056	IO				0.54
27.750	0.00	0.01	0.056	IO				0.54
27.833	0.00	0.01	0.056	IO				0.53
27.917	0.00	0.01	0.056	IO				0.53
28.000	0.00	0.01	0.056	IO				0.53
28.083	0.00	0.01	0.056	IO				0.53
28.167	0.00	0.01	0.056	IO				0.53
28.250	0.00	0.01	0.056	IO				0.53
28.333	0.00	0.01	0.056	IO				0.53
28.417	0.00	0.01	0.055	IO				0.53
28.500	0.00	0.01	0.055	IO				0.53
28.583	0.00	0.01	0.055	IO				0.53
28.667	0.00	0.01	0.055	IO				0.53
28.750	0.00	0.01	0.055	IO				0.53
28.833	0.00	0.01	0.055	IO				0.53
28.917	0.00	0.01	0.055	IO				0.53
29.000	0.00	0.01	0.055	IO				0.53
29.083	0.00	0.01	0.055	IO				0.52
29.167	0.00	0.01	0.055	IO				0.52
29.250	0.00	0.01	0.055	IO				0.52
29.333	0.00	0.01	0.055	O				0.52
29.417	0.00	0.01	0.055	O				0.52
29.500	0.00	0.01	0.055	O				0.52
29.583	0.00	0.01	0.055	O				0.52
29.667	0.00	0.01	0.054	O				0.52
29.750	0.00	0.01	0.054	O				0.52
29.833	0.00	0.01	0.054	O				0.52
29.917	0.00	0.01	0.054	O				0.52
30.000	0.00	0.01	0.054	O				0.52
30.083	0.00	0.01	0.054	O				0.52
30.167	0.00	0.01	0.054	O				0.52
30.250	0.00	0.01	0.054	O				0.52
30.333	0.00	0.01	0.054	O				0.52
30.417	0.00	0.01	0.054	O				0.52
30.500	0.00	0.01	0.054	O				0.52
30.583	0.00	0.01	0.054	O				0.52
30.667	0.00	0.01	0.054	O				0.52
30.750	0.00	0.01	0.054	O				0.52
30.833	0.00	0.01	0.054	O				0.52
30.917	0.00	0.01	0.054	O				0.51
31.000	0.00	0.01	0.054	O				0.51
31.083	0.00	0.01	0.054	O				0.51

31.167	0.00	0.01	0.054	O	|	|	|	0.51
31.250	0.00	0.01	0.054	O	|	|	|	0.51
31.333	0.00	0.01	0.054	O	|	|	|	0.51
31.417	0.00	0.01	0.054	O	|	|	|	0.51
31.500	0.00	0.00	0.053	O	|	|	|	0.51
31.583	0.00	0.00	0.053	O	|	|	|	0.51
31.667	0.00	0.00	0.053	O	|	|	|	0.51
31.750	0.00	0.00	0.053	O	|	|	|	0.51
31.833	0.00	0.00	0.053	O	|	|	|	0.51
31.917	0.00	0.00	0.053	O	|	|	|	0.51
32.000	0.00	0.00	0.053	O	|	|	|	0.51
32.083	0.00	0.00	0.053	O	|	|	|	0.51
32.167	0.00	0.00	0.053	O	|	|	|	0.51
32.250	0.00	0.00	0.053	O	|	|	|	0.51
32.333	0.00	0.00	0.053	O	|	|	|	0.51
32.417	0.00	0.00	0.053	O	|	|	|	0.51
32.500	0.00	0.00	0.053	O	|	|	|	0.51
32.583	0.00	0.00	0.053	O	|	|	|	0.51
32.667	0.00	0.00	0.053	O	|	|	|	0.51
32.750	0.00	0.00	0.053	O	|	|	|	0.51
32.833	0.00	0.00	0.053	O	|	|	|	0.51
32.917	0.00	0.00	0.053	O	|	|	|	0.51
33.000	0.00	0.00	0.053	O	|	|	|	0.51
33.083	0.00	0.00	0.053	O	|	|	|	0.51
33.167	0.00	0.00	0.053	O	|	|	|	0.51
33.250	0.00	0.00	0.053	O	|	|	|	0.51
33.333	0.00	0.00	0.053	O	|	|	|	0.51
33.417	0.00	0.00	0.053	O	|	|	|	0.51
33.500	0.00	0.00	0.053	O	|	|	|	0.51
33.583	0.00	0.00	0.053	O	|	|	|	0.51
33.667	0.00	0.00	0.053	O	|	|	|	0.51
33.750	0.00	0.00	0.053	O	|	|	|	0.51
33.833	0.00	0.00	0.053	O	|	|	|	0.51
33.917	0.00	0.00	0.053	O	|	|	|	0.51
34.000	0.00	0.00	0.053	O	|	|	|	0.51
34.083	0.00	0.00	0.053	O	|	|	|	0.51
34.167	0.00	0.00	0.053	O	|	|	|	0.51
34.250	0.00	0.00	0.053	O	|	|	|	0.51
34.333	0.00	0.00	0.053	O	|	|	|	0.51
34.417	0.00	0.00	0.053	O	|	|	|	0.51
34.500	0.00	0.00	0.053	O	|	|	|	0.51
34.583	0.00	0.00	0.053	O	|	|	|	0.51
34.667	0.00	0.00	0.053	O	|	|	|	0.51
34.750	0.00	0.00	0.053	O	|	|	|	0.51
34.833	0.00	0.00	0.053	O	|	|	|	0.51
34.917	0.00	0.00	0.053	O	|	|	|	0.50
35.000	0.00	0.00	0.053	O	|	|	|	0.50
35.083	0.00	0.00	0.053	O	|	|	|	0.50
35.167	0.00	0.00	0.053	O	|	|	|	0.50
35.250	0.00	0.00	0.053	O	|	|	|	0.50

35.333	0.00	0.00	0.053	O	|	|	|	|	0.50
35.417	0.00	0.00	0.053	O	|	|	|	|	0.50
35.500	0.00	0.00	0.052	O	|	|	|	|	0.50
35.583	0.00	0.00	0.052	O	|	|	|	|	0.50
35.667	0.00	0.00	0.052	O	|	|	|	|	0.50
35.750	0.00	0.00	0.052	O	|	|	|	|	0.50
35.833	0.00	0.00	0.052	O	|	|	|	|	0.50
35.917	0.00	0.00	0.052	O	|	|	|	|	0.50
36.000	0.00	0.00	0.052	O	|	|	|	|	0.50
36.083	0.00	0.00	0.052	O	|	|	|	|	0.50
36.167	0.00	0.00	0.052	O	|	|	|	|	0.50
36.250	0.00	0.00	0.052	O	|	|	|	|	0.50
36.333	0.00	0.00	0.052	O	|	|	|	|	0.50
36.417	0.00	0.00	0.052	O	|	|	|	|	0.50
36.500	0.00	0.00	0.052	O	|	|	|	|	0.50
36.583	0.00	0.00	0.052	O	|	|	|	|	0.50
36.667	0.00	0.00	0.052	O	|	|	|	|	0.50
36.750	0.00	0.00	0.052	O	|	|	|	|	0.50
36.833	0.00	0.00	0.052	O	|	|	|	|	0.50
36.917	0.00	0.00	0.052	O	|	|	|	|	0.50
37.000	0.00	0.00	0.052	O	|	|	|	|	0.50
37.083	0.00	0.00	0.052	O	|	|	|	|	0.50
37.167	0.00	0.00	0.052	O	|	|	|	|	0.50
37.250	0.00	0.00	0.052	O	|	|	|	|	0.50
37.333	0.00	0.00	0.052	O	|	|	|	|	0.50
37.417	0.00	0.00	0.052	O	|	|	|	|	0.50

Remaining water in basin = 0.05 (Ac.Ft)

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

Number of intervals = 449
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.171 (CFS)
Total volume = 0.125 (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

****

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

Study date 08/02/22 File: A21626DMA2Q100UH12.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 2YR-1HR UH

Drainage Area = 1.58(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.58(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 336.00(Ft.)
Length along longest watercourse measured to centroid = 234.53(Ft.)
Length along longest watercourse = 0.064 Mi.
Length along longest watercourse measured to centroid = 0.044 Mi.
Difference in elevation = 3.36(Ft.)
Slope along watercourse = 52.8000 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.016 Hr.
Lag time = 0.95 Min.
25% of lag time = 0.24 Min.
40% of lag time = 0.38 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]
        1.58            0.48                  0.76

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.58            1.25                  1.98

STORM EVENT (YEAR) =    2.00
Area Averaged 2-Year Rainfall =    0.480(In)
Area Averaged 100-Year Rainfall =    1.250(In)

Point rain (area averaged) =    0.480(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    0.480(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.580           69.00         0.761
 Total Area Entered =      1.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.761        0.181       1.000      0.181
                                                 Sum (F) =   0.181
Area averaged mean soil loss (F) (In/Hr) =  0.181
Minimum soil loss rate ((In/Hr)) =  0.090
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.291
------------------------------------------------------------------------
Slope of intensity-duration curve for a 1 hour storm =0.4800
------------------------------------------------------------------------

                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        527.815         72.250              1.150
    2   0.167       1055.631         27.750              0.442
                               Sum = 100.000   Sum=       1.592
-----------------------------------------------------------------
```

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	4.40	0.253	(0.181)	0.074	0.180
2	0.17	4.50	0.259	(0.181)	0.075	0.184
3	0.25	5.40	0.311	(0.181)	0.091	0.221
4	0.33	5.40	0.311	(0.181)	0.091	0.221
5	0.42	5.70	0.328	(0.181)	0.096	0.233
6	0.50	6.40	0.369	(0.181)	0.107	0.261
7	0.58	7.90	0.455	(0.181)	0.132	0.323
8	0.67	9.10	0.524	(0.181)	0.153	0.372
9	0.75	12.80	0.737	0.181	(0.215)	0.556
10	0.83	25.60	1.475	0.181	(0.429)	1.294
11	0.92	7.90	0.455	(0.181)	0.132	0.323
12	1.00	4.90	0.282	(0.181)	0.082	0.200
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	4.4

Flood volume = Effective rainfall 0.36(In)
times area 1.6(Ac.)/[(In)/(Ft.)] = 0.0(Ac.Ft)
Total soil loss = 0.12(In)
Total soil loss = 0.015(Ac.Ft)
Total rainfall = 0.48(In)
Flood volume = 2086.6 Cubic Feet
Total soil loss = 666.4 Cubic Feet

Peak flow rate of this hydrograph = 1.735(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	2.5	5.0	7.5	10.0
0+ 5	0.0014	0.21	QV				
0+10	0.0034	0.29	QV				
0+15	0.0057	0.34	Q V				
0+20	0.0082	0.35	Q V				
0+25	0.0107	0.37	Q V				
0+30	0.0135	0.40	Q V				
0+35	0.0168	0.49	Q V				
0+40	0.0207	0.57	Q V				
0+45	0.0263	0.80	Q V				
0+50	0.0382	1.74	Q V				
0+55	0.0447	0.94	Q V				
1+ 0	0.0473	0.37	Q V				

```
    1+ 5       0.0479      0.09  Q         |         |         |         V
-------------------------------------------------------------------------
```

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

Study date 08/02/22 File: A21626DMA2Q100UH32.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 2YR-3HR UH

Drainage Area = 1.58(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.58(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 336.00(Ft.)
Length along longest watercourse measured to centroid = 234.53(Ft.)
Length along longest watercourse = 0.064 Mi.
Length along longest watercourse measured to centroid = 0.044 Mi.
Difference in elevation = 3.36(Ft.)
Slope along watercourse = 52.8000 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.016 Hr.
Lag time = 0.95 Min.
25% of lag time = 0.24 Min.
40% of lag time = 0.38 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]
        1.58            0.80                  1.26

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.58            1.95                  3.08

STORM EVENT (YEAR) =    2.00
Area Averaged 2-Year Rainfall =    0.800(In)
Area Averaged 100-Year Rainfall =    1.950(In)

Point rain (area averaged) =    0.800(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    0.800(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.580           69.00         0.761
 Total Area Entered =      1.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.761        0.181       1.000      0.181
                                                 Sum (F) =   0.181
Area averaged mean soil loss (F) (In/Hr) =  0.181
Minimum soil loss rate ((In/Hr)) =  0.090
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.291
------------------------------------------------------------------------

               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        527.815         72.250              1.150
    2   0.167       1055.631         27.750              0.442
                               Sum = 100.000   Sum=       1.592
------------------------------------------------------------------------

 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	0.125	(0.181)	0.036	0.088
2	0.17	1.30	0.125	(0.181)	0.036	0.088
3	0.25	1.10	0.106	(0.181)	0.031	0.075
4	0.33	1.50	0.144	(0.181)	0.042	0.102
5	0.42	1.50	0.144	(0.181)	0.042	0.102
6	0.50	1.80	0.173	(0.181)	0.050	0.123
7	0.58	1.50	0.144	(0.181)	0.042	0.102
8	0.67	1.80	0.173	(0.181)	0.050	0.123
9	0.75	1.80	0.173	(0.181)	0.050	0.123
10	0.83	1.50	0.144	(0.181)	0.042	0.102
11	0.92	1.60	0.154	(0.181)	0.045	0.109
12	1.00	1.80	0.173	(0.181)	0.050	0.123
13	1.08	2.20	0.211	(0.181)	0.061	0.150
14	1.17	2.20	0.211	(0.181)	0.061	0.150
15	1.25	2.20	0.211	(0.181)	0.061	0.150
16	1.33	2.00	0.192	(0.181)	0.056	0.136
17	1.42	2.60	0.250	(0.181)	0.073	0.177
18	1.50	2.70	0.259	(0.181)	0.075	0.184
19	1.58	2.40	0.230	(0.181)	0.067	0.163
20	1.67	2.70	0.259	(0.181)	0.075	0.184
21	1.75	3.30	0.317	(0.181)	0.092	0.225
22	1.83	3.10	0.298	(0.181)	0.087	0.211
23	1.92	2.90	0.278	(0.181)	0.081	0.197
24	2.00	3.00	0.288	(0.181)	0.084	0.204
25	2.08	3.10	0.298	(0.181)	0.087	0.211
26	2.17	4.20	0.403	(0.181)	0.117	0.286
27	2.25	5.00	0.480	(0.181)	0.140	0.340
28	2.33	3.50	0.336	(0.181)	0.098	0.238
29	2.42	6.80	0.653	0.181	(0.190)	0.472
30	2.50	7.30	0.701	0.181	(0.204)	0.520
31	2.58	8.20	0.787	0.181	(0.229)	0.606
32	2.67	5.90	0.566	(0.181)	0.165	0.402
33	2.75	2.00	0.192	(0.181)	0.056	0.136
34	2.83	1.80	0.173	(0.181)	0.050	0.123
35	2.92	1.80	0.173	(0.181)	0.050	0.123
36	3.00	0.60	0.058	(0.181)	0.017	0.041
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	6.9

Flood volume = Effective rainfall 0.57(In)
times area 1.6(Ac.)/[(In)/(Ft.)] = 0.1(Ac.Ft)
Total soil loss = 0.23(In)
Total soil loss = 0.030(Ac.Ft)
Total rainfall = 0.80(In)
Flood volume = 3291.5 Cubic Feet
Total soil loss = 1296.8 Cubic Feet

Peak flow rate of this hydrograph = 0.928(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	2.5	5.0	7.5	10.0
0+ 5	0.0007	0.10	Q				
0+10	0.0017	0.14	Q				
0+15	0.0025	0.13	QV				
0+20	0.0036	0.15	QV				
0+25	0.0047	0.16	Q V				
0+30	0.0060	0.19	Q V				
0+35	0.0072	0.17	Q V				
0+40	0.0084	0.19	Q V				
0+45	0.0098	0.20	Q V				
0+50	0.0110	0.17	Q V				
0+55	0.0121	0.17	Q V				
1+ 0	0.0134	0.19	Q V				
1+ 5	0.0150	0.23	Q V				
1+10	0.0166	0.24	Q V				
1+15	0.0183	0.24	Q V				
1+20	0.0198	0.22	Q V				
1+25	0.0216	0.26	Q V				
1+30	0.0236	0.29	Q V				
1+35	0.0255	0.27	Q V				
1+40	0.0274	0.28	Q V				
1+45	0.0298	0.34	Q V				
1+50	0.0321	0.34	Q V				
1+55	0.0343	0.32	Q V				
2+ 0	0.0366	0.32	Q V				
2+ 5	0.0389	0.33	Q V				
2+10	0.0418	0.42	Q V				
2+15	0.0453	0.52	Q V				
2+20	0.0483	0.42	Q V				
2+25	0.0527	0.65	Q V				
2+30	0.0583	0.81	Q V				
2+35	0.0647	0.93	Q V				
2+40	0.0697	0.73	Q V				
2+45	0.0720	0.33	Q V				
2+50	0.0734	0.20	Q V				
2+55	0.0747	0.20	Q V				
3+ 0	0.0754	0.10	Q V				
3+ 5	0.0756	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

Study date 08/02/22 File: A21626DMA2Q100UH62.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 2YR 6HR UH

Drainage Area = 1.58(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.58(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 336.00(Ft.)
Length along longest watercourse measured to centroid = 234.53(Ft.)
Length along longest watercourse = 0.064 Mi.
Length along longest watercourse measured to centroid = 0.044 Mi.
Difference in elevation = 3.36(Ft.)
Slope along watercourse = 52.8000 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.016 Hr.
Lag time = 0.95 Min.
25% of lag time = 0.24 Min.
40% of lag time = 0.38 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]
        1.58            1.11                  1.75

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.58            2.70                  4.27

STORM EVENT (YEAR) =    2.00
Area Averaged 2-Year Rainfall =    1.110(In)
Area Averaged 100-Year Rainfall =    2.700(In)

Point rain (area averaged) =    1.110(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.110(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.580           69.00         0.761
 Total Area Entered =      1.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.761        0.181       1.000      0.181
                                                 Sum (F) =   0.181
Area averaged mean soil loss (F) (In/Hr) =  0.181
Minimum soil loss rate ((In/Hr)) =  0.090
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.291
------------------------------------------------------------------------

                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        527.815         72.250              1.150
    2   0.167       1055.631         27.750              0.442
                               Sum = 100.000   Sum=       1.592
------------------------------------------------------------------------

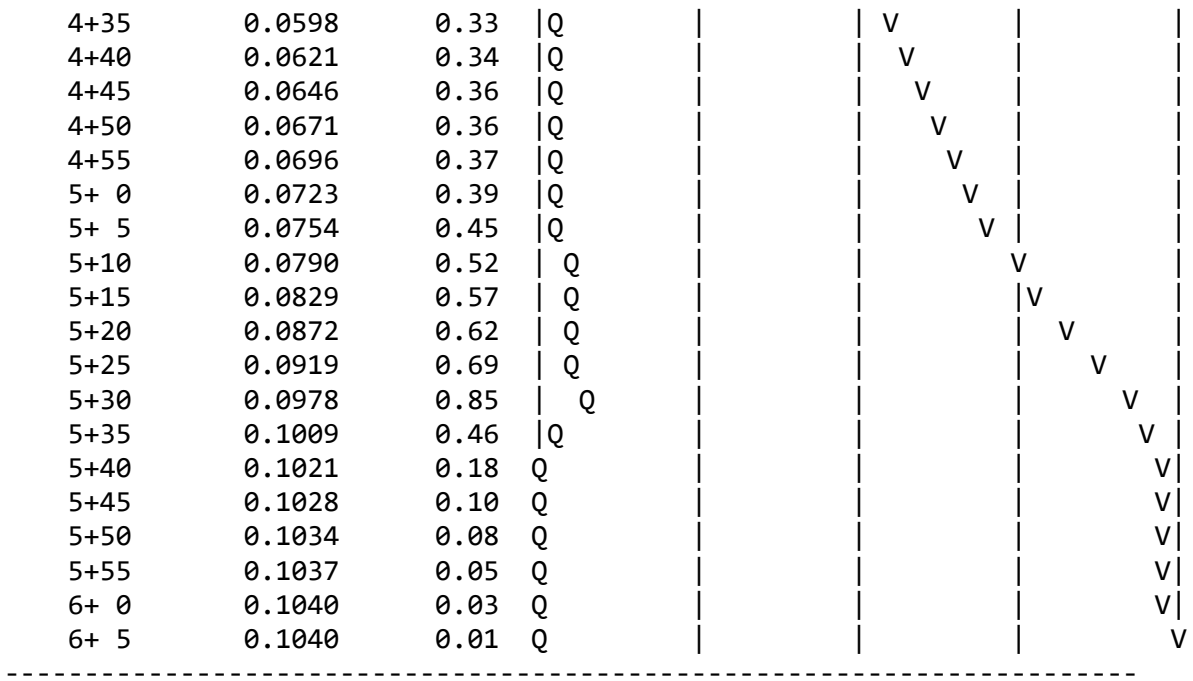
 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value
```

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.50	0.067	(0.181)	0.019	0.047
2	0.17	0.60	0.080	(0.181)	0.023	0.057
3	0.25	0.60	0.080	(0.181)	0.023	0.057
4	0.33	0.60	0.080	(0.181)	0.023	0.057
5	0.42	0.60	0.080	(0.181)	0.023	0.057
6	0.50	0.70	0.093	(0.181)	0.027	0.066
7	0.58	0.70	0.093	(0.181)	0.027	0.066
8	0.67	0.70	0.093	(0.181)	0.027	0.066
9	0.75	0.70	0.093	(0.181)	0.027	0.066
10	0.83	0.70	0.093	(0.181)	0.027	0.066
11	0.92	0.70	0.093	(0.181)	0.027	0.066
12	1.00	0.80	0.107	(0.181)	0.031	0.076
13	1.08	0.80	0.107	(0.181)	0.031	0.076
14	1.17	0.80	0.107	(0.181)	0.031	0.076
15	1.25	0.80	0.107	(0.181)	0.031	0.076
16	1.33	0.80	0.107	(0.181)	0.031	0.076
17	1.42	0.80	0.107	(0.181)	0.031	0.076
18	1.50	0.80	0.107	(0.181)	0.031	0.076
19	1.58	0.80	0.107	(0.181)	0.031	0.076
20	1.67	0.80	0.107	(0.181)	0.031	0.076
21	1.75	0.80	0.107	(0.181)	0.031	0.076
22	1.83	0.80	0.107	(0.181)	0.031	0.076
23	1.92	0.80	0.107	(0.181)	0.031	0.076
24	2.00	0.90	0.120	(0.181)	0.035	0.085
25	2.08	0.80	0.107	(0.181)	0.031	0.076
26	2.17	0.90	0.120	(0.181)	0.035	0.085
27	2.25	0.90	0.120	(0.181)	0.035	0.085
28	2.33	0.90	0.120	(0.181)	0.035	0.085
29	2.42	0.90	0.120	(0.181)	0.035	0.085
30	2.50	0.90	0.120	(0.181)	0.035	0.085
31	2.58	0.90	0.120	(0.181)	0.035	0.085
32	2.67	0.90	0.120	(0.181)	0.035	0.085
33	2.75	1.00	0.133	(0.181)	0.039	0.094
34	2.83	1.00	0.133	(0.181)	0.039	0.094
35	2.92	1.00	0.133	(0.181)	0.039	0.094
36	3.00	1.00	0.133	(0.181)	0.039	0.094
37	3.08	1.00	0.133	(0.181)	0.039	0.094
38	3.17	1.10	0.147	(0.181)	0.043	0.104
39	3.25	1.10	0.147	(0.181)	0.043	0.104
40	3.33	1.10	0.147	(0.181)	0.043	0.104
41	3.42	1.20	0.160	(0.181)	0.047	0.113
42	3.50	1.30	0.173	(0.181)	0.050	0.123
43	3.58	1.40	0.186	(0.181)	0.054	0.132
44	3.67	1.40	0.186	(0.181)	0.054	0.132
45	3.75	1.50	0.200	(0.181)	0.058	0.142
46	3.83	1.50	0.200	(0.181)	0.058	0.142
47	3.92	1.60	0.213	(0.181)	0.062	0.151

```
48   4.00     1.60      0.213       (  0.181)       0.062        0.151
49   4.08     1.70      0.226       (  0.181)       0.066        0.161
50   4.17     1.80      0.240       (  0.181)       0.070        0.170
51   4.25     1.90      0.253       (  0.181)       0.074        0.179
52   4.33     2.00      0.266       (  0.181)       0.078        0.189
53   4.42     2.10      0.280       (  0.181)       0.081        0.198
54   4.50     2.10      0.280       (  0.181)       0.081        0.198
55   4.58     2.20      0.293       (  0.181)       0.085        0.208
56   4.67     2.30      0.306       (  0.181)       0.089        0.217
57   4.75     2.40      0.320       (  0.181)       0.093        0.227
58   4.83     2.40      0.320       (  0.181)       0.093        0.227
59   4.92     2.50      0.333       (  0.181)       0.097        0.236
60   5.00     2.60      0.346       (  0.181)       0.101        0.246
61   5.08     3.10      0.413       (  0.181)       0.120        0.293
62   5.17     3.60      0.480       (  0.181)       0.140        0.340
63   5.25     3.90      0.519       (  0.181)       0.151        0.368
64   5.33     4.20      0.559       (  0.181)       0.163        0.397
65   5.42     4.70      0.626          0.181    (  0.182)       0.445
66   5.50     5.60      0.746          0.181    (  0.217)       0.565
67   5.58     1.90      0.253       (  0.181)       0.074        0.179
68   5.67     0.90      0.120       (  0.181)       0.035        0.085
69   5.75     0.60      0.080       (  0.181)       0.023        0.057
70   5.83     0.50      0.067       (  0.181)       0.019        0.047
71   5.92     0.30      0.040       (  0.181)       0.012        0.028
72   6.00     0.20      0.027       (  0.181)       0.008        0.019
               (Loss Rate Not Used)
   Sum =     100.0                                   Sum =     9.5
      Flood volume = Effective rainfall      0.79(In)
       times area       1.6(Ac.)/[(In)/(Ft.)] =       0.1(Ac.Ft)
      Total soil loss =      0.32(In)
      Total soil loss =     0.042(Ac.Ft)
      Total rainfall =      1.11(In)
      Flood volume =        4531.6 Cubic Feet
      Total soil loss =        1834.6 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =      0.847(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        2.5       5.0       7.5      10.0
-------------------------------------------------------------------------
  0+ 5       0.0004      0.05  Q         |         |         |         |
  0+10       0.0010      0.09  Q         |         |         |         |
  0+15       0.0016      0.09  Q         |         |         |         |
  0+20       0.0022      0.09  Q         |         |         |         |
```

```
0+25       0.0028      0.09  QV        |         |         |         |
0+30       0.0035      0.10  QV        |         |         |         |
0+35       0.0043      0.11  QV        |         |         |         |
0+40       0.0050      0.11  QV        |         |         |         |
0+45       0.0057      0.11  Q V       |         |         |         |
0+50       0.0064      0.11  Q V       |         |         |         |
0+55       0.0072      0.11  Q V       |         |         |         |
1+ 0       0.0080      0.12  Q  V      |         |         |         |
1+ 5       0.0088      0.12  Q  V      |         |         |         |
1+10       0.0096      0.12  Q  V      |         |         |         |
1+15       0.0104      0.12  Q   V     |         |         |         |
1+20       0.0113      0.12  Q   V     |         |         |         |
1+25       0.0121      0.12  Q   V     |         |         |         |
1+30       0.0129      0.12  Q   V     |         |         |         |
1+35       0.0138      0.12  Q    V    |         |         |         |
1+40       0.0146      0.12  Q    V    |         |         |         |
1+45       0.0154      0.12  Q    V    |         |         |         |
1+50       0.0162      0.12  Q     V   |         |         |         |
1+55       0.0171      0.12  Q     V   |         |         |         |
2+ 0       0.0180      0.13  Q     V   |         |         |         |
2+ 5       0.0188      0.12  Q      V  |         |         |         |
2+10       0.0197      0.13  Q      V  |         |         |         |
2+15       0.0207      0.14  Q      V  |         |         |         |
2+20       0.0216      0.14  Q       V |         |         |         |
2+25       0.0225      0.14  Q       V |         |         |         |
2+30       0.0235      0.14  Q        V|         |         |         |
2+35       0.0244      0.14  Q        V|         |         |         |
2+40       0.0253      0.14  Q        V|         |         |         |
2+45       0.0263      0.15  Q         V         |         |         |
2+50       0.0274      0.15  Q         V         |         |         |
2+55       0.0284      0.15  Q         V         |         |         |
3+ 0       0.0295      0.15  Q         |V        |         |         |
3+ 5       0.0305      0.15  Q         |V        |         |         |
3+10       0.0316      0.16  Q         | V       |         |         |
3+15       0.0327      0.17  Q         | V       |         |         |
3+20       0.0339      0.17  Q         |  V      |         |         |
3+25       0.0351      0.18  Q         |  V      |         |         |
3+30       0.0364      0.19  Q         |   V     |         |         |
3+35       0.0378      0.21  Q         |   V     |         |         |
3+40       0.0393      0.21  Q         |    V    |         |         |
3+45       0.0408      0.22  Q         |    V    |         |         |
3+50       0.0424      0.23  Q         |     V   |         |         |
3+55       0.0440      0.24  Q         |     V   |         |         |
4+ 0       0.0457      0.24  Q         |      V  |         |         |
4+ 5       0.0474      0.25  |Q        |       V |         |         |
4+10       0.0492      0.27  |Q        |       V |         |         |
4+15       0.0512      0.28  |Q        |        V|         |         |
4+20       0.0532      0.30  |Q        |         V         |         |
4+25       0.0554      0.31  |Q        |         |V        |         |
4+30       0.0575      0.32  |Q        |         | V       |         |
```


4+35 0.0598 0.33
4+40 0.0621 0.34
4+45 0.0646 0.36
4+50 0.0671 0.36
4+55 0.0696 0.37
5+ 0 0.0723 0.39
5+ 5 0.0754 0.45
5+10 0.0790 0.52
5+15 0.0829 0.57
5+20 0.0872 0.62
5+25 0.0919 0.69
5+30 0.0978 0.85
5+35 0.1009 0.46
5+40 0.1021 0.18
5+45 0.1028 0.10
5+50 0.1034 0.08
5+55 0.1037 0.05
6+ 0 0.1040 0.03
6+ 5 0.1040 0.01

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

Study date 08/02/22 File: A21626DMA2Q100UH242.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 2YR-24HR UH

Drainage Area = 1.58(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.58(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 336.00(Ft.)
Length along longest watercourse measured to centroid = 234.53(Ft.)
Length along longest watercourse = 0.064 Mi.
Length along longest watercourse measured to centroid = 0.044 Mi.
Difference in elevation = 3.36(Ft.)
Slope along watercourse = 52.8000 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.016 Hr.
Lag time = 0.95 Min.
25% of lag time = 0.24 Min.
40% of lag time = 0.38 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]
        1.58            1.90                   3.00

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.58            4.80                   7.58

STORM EVENT (YEAR) =    2.00
Area Averaged 2-Year Rainfall =    1.900(In)
Area Averaged 100-Year Rainfall =    4.800(In)

Point rain (area averaged) =    1.900(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.900(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.580           69.00         0.761
 Total Area Entered =      1.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.761        0.181       1.000      0.181
                                                 Sum (F) =   0.181
Area averaged mean soil loss (F) (In/Hr) =  0.181
Minimum soil loss rate ((In/Hr)) =  0.090
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.291
------------------------------------------------------------------------

               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        527.815         72.250              1.150
    2   0.167       1055.631         27.750              0.442
                               Sum = 100.000   Sum=       1.592
------------------------------------------------------------------------

 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	0.015	(0.321)	0.004	0.011
2	0.17	0.07	0.015	(0.319)	0.004	0.011
3	0.25	0.07	0.015	(0.318)	0.004	0.011
4	0.33	0.10	0.023	(0.317)	0.007	0.016
5	0.42	0.10	0.023	(0.316)	0.007	0.016
6	0.50	0.10	0.023	(0.314)	0.007	0.016
7	0.58	0.10	0.023	(0.313)	0.007	0.016
8	0.67	0.10	0.023	(0.312)	0.007	0.016
9	0.75	0.10	0.023	(0.311)	0.007	0.016
10	0.83	0.13	0.030	(0.310)	0.009	0.022
11	0.92	0.13	0.030	(0.308)	0.009	0.022
12	1.00	0.13	0.030	(0.307)	0.009	0.022
13	1.08	0.10	0.023	(0.306)	0.007	0.016
14	1.17	0.10	0.023	(0.305)	0.007	0.016
15	1.25	0.10	0.023	(0.303)	0.007	0.016
16	1.33	0.10	0.023	(0.302)	0.007	0.016
17	1.42	0.10	0.023	(0.301)	0.007	0.016
18	1.50	0.10	0.023	(0.300)	0.007	0.016
19	1.58	0.10	0.023	(0.299)	0.007	0.016
20	1.67	0.10	0.023	(0.297)	0.007	0.016
21	1.75	0.10	0.023	(0.296)	0.007	0.016
22	1.83	0.13	0.030	(0.295)	0.009	0.022
23	1.92	0.13	0.030	(0.294)	0.009	0.022
24	2.00	0.13	0.030	(0.293)	0.009	0.022
25	2.08	0.13	0.030	(0.292)	0.009	0.022
26	2.17	0.13	0.030	(0.290)	0.009	0.022
27	2.25	0.13	0.030	(0.289)	0.009	0.022
28	2.33	0.13	0.030	(0.288)	0.009	0.022
29	2.42	0.13	0.030	(0.287)	0.009	0.022
30	2.50	0.13	0.030	(0.286)	0.009	0.022
31	2.58	0.17	0.038	(0.284)	0.011	0.027
32	2.67	0.17	0.038	(0.283)	0.011	0.027
33	2.75	0.17	0.038	(0.282)	0.011	0.027
34	2.83	0.17	0.038	(0.281)	0.011	0.027
35	2.92	0.17	0.038	(0.280)	0.011	0.027
36	3.00	0.17	0.038	(0.279)	0.011	0.027
37	3.08	0.17	0.038	(0.277)	0.011	0.027
38	3.17	0.17	0.038	(0.276)	0.011	0.027
39	3.25	0.17	0.038	(0.275)	0.011	0.027
40	3.33	0.17	0.038	(0.274)	0.011	0.027
41	3.42	0.17	0.038	(0.273)	0.011	0.027
42	3.50	0.17	0.038	(0.272)	0.011	0.027
43	3.58	0.17	0.038	(0.271)	0.011	0.027
44	3.67	0.17	0.038	(0.269)	0.011	0.027
45	3.75	0.17	0.038	(0.268)	0.011	0.027
46	3.83	0.20	0.046	(0.267)	0.013	0.032
47	3.92	0.20	0.046	(0.266)	0.013	0.032

48	4.00	0.20	0.046	(0.265)	0.013	0.032
49	4.08	0.20	0.046	(0.264)	0.013	0.032
50	4.17	0.20	0.046	(0.263)	0.013	0.032
51	4.25	0.20	0.046	(0.262)	0.013	0.032
52	4.33	0.23	0.053	(0.260)	0.015	0.038
53	4.42	0.23	0.053	(0.259)	0.015	0.038
54	4.50	0.23	0.053	(0.258)	0.015	0.038
55	4.58	0.23	0.053	(0.257)	0.015	0.038
56	4.67	0.23	0.053	(0.256)	0.015	0.038
57	4.75	0.23	0.053	(0.255)	0.015	0.038
58	4.83	0.27	0.061	(0.254)	0.018	0.043
59	4.92	0.27	0.061	(0.253)	0.018	0.043
60	5.00	0.27	0.061	(0.252)	0.018	0.043
61	5.08	0.20	0.046	(0.251)	0.013	0.032
62	5.17	0.20	0.046	(0.249)	0.013	0.032
63	5.25	0.20	0.046	(0.248)	0.013	0.032
64	5.33	0.23	0.053	(0.247)	0.015	0.038
65	5.42	0.23	0.053	(0.246)	0.015	0.038
66	5.50	0.23	0.053	(0.245)	0.015	0.038
67	5.58	0.27	0.061	(0.244)	0.018	0.043
68	5.67	0.27	0.061	(0.243)	0.018	0.043
69	5.75	0.27	0.061	(0.242)	0.018	0.043
70	5.83	0.27	0.061	(0.241)	0.018	0.043
71	5.92	0.27	0.061	(0.240)	0.018	0.043
72	6.00	0.27	0.061	(0.239)	0.018	0.043
73	6.08	0.30	0.068	(0.238)	0.020	0.048
74	6.17	0.30	0.068	(0.237)	0.020	0.048
75	6.25	0.30	0.068	(0.236)	0.020	0.048
76	6.33	0.30	0.068	(0.235)	0.020	0.048
77	6.42	0.30	0.068	(0.233)	0.020	0.048
78	6.50	0.30	0.068	(0.232)	0.020	0.048
79	6.58	0.33	0.076	(0.231)	0.022	0.054
80	6.67	0.33	0.076	(0.230)	0.022	0.054
81	6.75	0.33	0.076	(0.229)	0.022	0.054
82	6.83	0.33	0.076	(0.228)	0.022	0.054
83	6.92	0.33	0.076	(0.227)	0.022	0.054
84	7.00	0.33	0.076	(0.226)	0.022	0.054
85	7.08	0.33	0.076	(0.225)	0.022	0.054
86	7.17	0.33	0.076	(0.224)	0.022	0.054
87	7.25	0.33	0.076	(0.223)	0.022	0.054
88	7.33	0.37	0.084	(0.222)	0.024	0.059
89	7.42	0.37	0.084	(0.221)	0.024	0.059
90	7.50	0.37	0.084	(0.220)	0.024	0.059
91	7.58	0.40	0.091	(0.219)	0.027	0.065
92	7.67	0.40	0.091	(0.218)	0.027	0.065
93	7.75	0.40	0.091	(0.217)	0.027	0.065
94	7.83	0.43	0.099	(0.216)	0.029	0.070
95	7.92	0.43	0.099	(0.215)	0.029	0.070
96	8.00	0.43	0.099	(0.214)	0.029	0.070
97	8.08	0.50	0.114	(0.213)	0.033	0.081

98	8.17	0.50	0.114	(0.212)	0.033	0.081
99	8.25	0.50	0.114	(0.211)	0.033	0.081
100	8.33	0.50	0.114	(0.210)	0.033	0.081
101	8.42	0.50	0.114	(0.209)	0.033	0.081
102	8.50	0.50	0.114	(0.208)	0.033	0.081
103	8.58	0.53	0.122	(0.207)	0.035	0.086
104	8.67	0.53	0.122	(0.206)	0.035	0.086
105	8.75	0.53	0.122	(0.205)	0.035	0.086
106	8.83	0.57	0.129	(0.204)	0.038	0.092
107	8.92	0.57	0.129	(0.203)	0.038	0.092
108	9.00	0.57	0.129	(0.202)	0.038	0.092
109	9.08	0.63	0.144	(0.201)	0.042	0.102
110	9.17	0.63	0.144	(0.200)	0.042	0.102
111	9.25	0.63	0.144	(0.199)	0.042	0.102
112	9.33	0.67	0.152	(0.198)	0.044	0.108
113	9.42	0.67	0.152	(0.198)	0.044	0.108
114	9.50	0.67	0.152	(0.197)	0.044	0.108
115	9.58	0.70	0.160	(0.196)	0.046	0.113
116	9.67	0.70	0.160	(0.195)	0.046	0.113
117	9.75	0.70	0.160	(0.194)	0.046	0.113
118	9.83	0.73	0.167	(0.193)	0.049	0.119
119	9.92	0.73	0.167	(0.192)	0.049	0.119
120	10.00	0.73	0.167	(0.191)	0.049	0.119
121	10.08	0.50	0.114	(0.190)	0.033	0.081
122	10.17	0.50	0.114	(0.189)	0.033	0.081
123	10.25	0.50	0.114	(0.188)	0.033	0.081
124	10.33	0.50	0.114	(0.187)	0.033	0.081
125	10.42	0.50	0.114	(0.186)	0.033	0.081
126	10.50	0.50	0.114	(0.185)	0.033	0.081
127	10.58	0.67	0.152	(0.185)	0.044	0.108
128	10.67	0.67	0.152	(0.184)	0.044	0.108
129	10.75	0.67	0.152	(0.183)	0.044	0.108
130	10.83	0.67	0.152	(0.182)	0.044	0.108
131	10.92	0.67	0.152	(0.181)	0.044	0.108
132	11.00	0.67	0.152	(0.180)	0.044	0.108
133	11.08	0.63	0.144	(0.179)	0.042	0.102
134	11.17	0.63	0.144	(0.178)	0.042	0.102
135	11.25	0.63	0.144	(0.177)	0.042	0.102
136	11.33	0.63	0.144	(0.177)	0.042	0.102
137	11.42	0.63	0.144	(0.176)	0.042	0.102
138	11.50	0.63	0.144	(0.175)	0.042	0.102
139	11.58	0.57	0.129	(0.174)	0.038	0.092
140	11.67	0.57	0.129	(0.173)	0.038	0.092
141	11.75	0.57	0.129	(0.172)	0.038	0.092
142	11.83	0.60	0.137	(0.171)	0.040	0.097
143	11.92	0.60	0.137	(0.171)	0.040	0.097
144	12.00	0.60	0.137	(0.170)	0.040	0.097
145	12.08	0.83	0.190	(0.169)	0.055	0.135
146	12.17	0.83	0.190	(0.168)	0.055	0.135
147	12.25	0.83	0.190	(0.167)	0.055	0.135

148	12.33	0.87	0.198	(0.166)	0.058	0.140
149	12.42	0.87	0.198	(0.165)	0.058	0.140
150	12.50	0.87	0.198	(0.165)	0.058	0.140
151	12.58	0.93	0.213	(0.164)	0.062	0.151
152	12.67	0.93	0.213	(0.163)	0.062	0.151
153	12.75	0.93	0.213	(0.162)	0.062	0.151
154	12.83	0.97	0.220	(0.161)	0.064	0.156
155	12.92	0.97	0.220	(0.161)	0.064	0.156
156	13.00	0.97	0.220	(0.160)	0.064	0.156
157	13.08	1.13	0.258	(0.159)	0.075	0.183
158	13.17	1.13	0.258	(0.158)	0.075	0.183
159	13.25	1.13	0.258	(0.157)	0.075	0.183
160	13.33	1.13	0.258	(0.156)	0.075	0.183
161	13.42	1.13	0.258	(0.156)	0.075	0.183
162	13.50	1.13	0.258	(0.155)	0.075	0.183
163	13.58	0.77	0.175	(0.154)	0.051	0.124
164	13.67	0.77	0.175	(0.153)	0.051	0.124
165	13.75	0.77	0.175	(0.153)	0.051	0.124
166	13.83	0.77	0.175	(0.152)	0.051	0.124
167	13.92	0.77	0.175	(0.151)	0.051	0.124
168	14.00	0.77	0.175	(0.150)	0.051	0.124
169	14.08	0.90	0.205	(0.149)	0.060	0.145
170	14.17	0.90	0.205	(0.149)	0.060	0.145
171	14.25	0.90	0.205	(0.148)	0.060	0.145
172	14.33	0.87	0.198	(0.147)	0.058	0.140
173	14.42	0.87	0.198	(0.146)	0.058	0.140
174	14.50	0.87	0.198	(0.146)	0.058	0.140
175	14.58	0.87	0.198	(0.145)	0.058	0.140
176	14.67	0.87	0.198	(0.144)	0.058	0.140
177	14.75	0.87	0.198	(0.143)	0.058	0.140
178	14.83	0.83	0.190	(0.143)	0.055	0.135
179	14.92	0.83	0.190	(0.142)	0.055	0.135
180	15.00	0.83	0.190	(0.141)	0.055	0.135
181	15.08	0.80	0.182	(0.141)	0.053	0.129
182	15.17	0.80	0.182	(0.140)	0.053	0.129
183	15.25	0.80	0.182	(0.139)	0.053	0.129
184	15.33	0.77	0.175	(0.138)	0.051	0.124
185	15.42	0.77	0.175	(0.138)	0.051	0.124
186	15.50	0.77	0.175	(0.137)	0.051	0.124
187	15.58	0.63	0.144	(0.136)	0.042	0.102
188	15.67	0.63	0.144	(0.136)	0.042	0.102
189	15.75	0.63	0.144	(0.135)	0.042	0.102
190	15.83	0.63	0.144	(0.134)	0.042	0.102
191	15.92	0.63	0.144	(0.133)	0.042	0.102
192	16.00	0.63	0.144	(0.133)	0.042	0.102
193	16.08	0.13	0.030	(0.132)	0.009	0.022
194	16.17	0.13	0.030	(0.131)	0.009	0.022
195	16.25	0.13	0.030	(0.131)	0.009	0.022
196	16.33	0.13	0.030	(0.130)	0.009	0.022
197	16.42	0.13	0.030	(0.129)	0.009	0.022

198	16.50	0.13	0.030	(0.129)	0.009	0.022
199	16.58	0.10	0.023	(0.128)	0.007	0.016
200	16.67	0.10	0.023	(0.127)	0.007	0.016
201	16.75	0.10	0.023	(0.127)	0.007	0.016
202	16.83	0.10	0.023	(0.126)	0.007	0.016
203	16.92	0.10	0.023	(0.126)	0.007	0.016
204	17.00	0.10	0.023	(0.125)	0.007	0.016
205	17.08	0.17	0.038	(0.124)	0.011	0.027
206	17.17	0.17	0.038	(0.124)	0.011	0.027
207	17.25	0.17	0.038	(0.123)	0.011	0.027
208	17.33	0.17	0.038	(0.122)	0.011	0.027
209	17.42	0.17	0.038	(0.122)	0.011	0.027
210	17.50	0.17	0.038	(0.121)	0.011	0.027
211	17.58	0.17	0.038	(0.121)	0.011	0.027
212	17.67	0.17	0.038	(0.120)	0.011	0.027
213	17.75	0.17	0.038	(0.119)	0.011	0.027
214	17.83	0.13	0.030	(0.119)	0.009	0.022
215	17.92	0.13	0.030	(0.118)	0.009	0.022
216	18.00	0.13	0.030	(0.118)	0.009	0.022
217	18.08	0.13	0.030	(0.117)	0.009	0.022
218	18.17	0.13	0.030	(0.116)	0.009	0.022
219	18.25	0.13	0.030	(0.116)	0.009	0.022
220	18.33	0.13	0.030	(0.115)	0.009	0.022
221	18.42	0.13	0.030	(0.115)	0.009	0.022
222	18.50	0.13	0.030	(0.114)	0.009	0.022
223	18.58	0.10	0.023	(0.114)	0.007	0.016
224	18.67	0.10	0.023	(0.113)	0.007	0.016
225	18.75	0.10	0.023	(0.113)	0.007	0.016
226	18.83	0.07	0.015	(0.112)	0.004	0.011
227	18.92	0.07	0.015	(0.112)	0.004	0.011
228	19.00	0.07	0.015	(0.111)	0.004	0.011
229	19.08	0.10	0.023	(0.110)	0.007	0.016
230	19.17	0.10	0.023	(0.110)	0.007	0.016
231	19.25	0.10	0.023	(0.109)	0.007	0.016
232	19.33	0.13	0.030	(0.109)	0.009	0.022
233	19.42	0.13	0.030	(0.108)	0.009	0.022
234	19.50	0.13	0.030	(0.108)	0.009	0.022
235	19.58	0.10	0.023	(0.107)	0.007	0.016
236	19.67	0.10	0.023	(0.107)	0.007	0.016
237	19.75	0.10	0.023	(0.106)	0.007	0.016
238	19.83	0.07	0.015	(0.106)	0.004	0.011
239	19.92	0.07	0.015	(0.105)	0.004	0.011
240	20.00	0.07	0.015	(0.105)	0.004	0.011
241	20.08	0.10	0.023	(0.105)	0.007	0.016
242	20.17	0.10	0.023	(0.104)	0.007	0.016
243	20.25	0.10	0.023	(0.104)	0.007	0.016
244	20.33	0.10	0.023	(0.103)	0.007	0.016
245	20.42	0.10	0.023	(0.103)	0.007	0.016
246	20.50	0.10	0.023	(0.102)	0.007	0.016
247	20.58	0.10	0.023	(0.102)	0.007	0.016

248	20.67	0.10	0.023	(0.101)	0.007	0.016
249	20.75	0.10	0.023	(0.101)	0.007	0.016
250	20.83	0.07	0.015	(0.101)	0.004	0.011
251	20.92	0.07	0.015	(0.100)	0.004	0.011
252	21.00	0.07	0.015	(0.100)	0.004	0.011
253	21.08	0.10	0.023	(0.099)	0.007	0.016
254	21.17	0.10	0.023	(0.099)	0.007	0.016
255	21.25	0.10	0.023	(0.099)	0.007	0.016
256	21.33	0.07	0.015	(0.098)	0.004	0.011
257	21.42	0.07	0.015	(0.098)	0.004	0.011
258	21.50	0.07	0.015	(0.098)	0.004	0.011
259	21.58	0.10	0.023	(0.097)	0.007	0.016
260	21.67	0.10	0.023	(0.097)	0.007	0.016
261	21.75	0.10	0.023	(0.096)	0.007	0.016
262	21.83	0.07	0.015	(0.096)	0.004	0.011
263	21.92	0.07	0.015	(0.096)	0.004	0.011
264	22.00	0.07	0.015	(0.095)	0.004	0.011
265	22.08	0.10	0.023	(0.095)	0.007	0.016
266	22.17	0.10	0.023	(0.095)	0.007	0.016
267	22.25	0.10	0.023	(0.095)	0.007	0.016
268	22.33	0.07	0.015	(0.094)	0.004	0.011
269	22.42	0.07	0.015	(0.094)	0.004	0.011
270	22.50	0.07	0.015	(0.094)	0.004	0.011
271	22.58	0.07	0.015	(0.093)	0.004	0.011
272	22.67	0.07	0.015	(0.093)	0.004	0.011
273	22.75	0.07	0.015	(0.093)	0.004	0.011
274	22.83	0.07	0.015	(0.093)	0.004	0.011
275	22.92	0.07	0.015	(0.092)	0.004	0.011
276	23.00	0.07	0.015	(0.092)	0.004	0.011
277	23.08	0.07	0.015	(0.092)	0.004	0.011
278	23.17	0.07	0.015	(0.092)	0.004	0.011
279	23.25	0.07	0.015	(0.092)	0.004	0.011
280	23.33	0.07	0.015	(0.091)	0.004	0.011
281	23.42	0.07	0.015	(0.091)	0.004	0.011
282	23.50	0.07	0.015	(0.091)	0.004	0.011
283	23.58	0.07	0.015	(0.091)	0.004	0.011
284	23.67	0.07	0.015	(0.091)	0.004	0.011
285	23.75	0.07	0.015	(0.091)	0.004	0.011
286	23.83	0.07	0.015	(0.091)	0.004	0.011
287	23.92	0.07	0.015	(0.090)	0.004	0.011
288	24.00	0.07	0.015	(0.090)	0.004	0.011
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	16.2

Flood volume = Effective rainfall 1.35(In)
times area 1.6(Ac.)/[(In)/(Ft.)] = 0.2(Ac.Ft)
Total soil loss = 0.55(In)
Total soil loss = 0.073(Ac.Ft)
Total rainfall = 1.90(In)
Flood volume = 7726.1 Cubic Feet
Total soil loss = 3171.1 Cubic Feet

Peak flow rate of this hydrograph = 0.292(CFS)

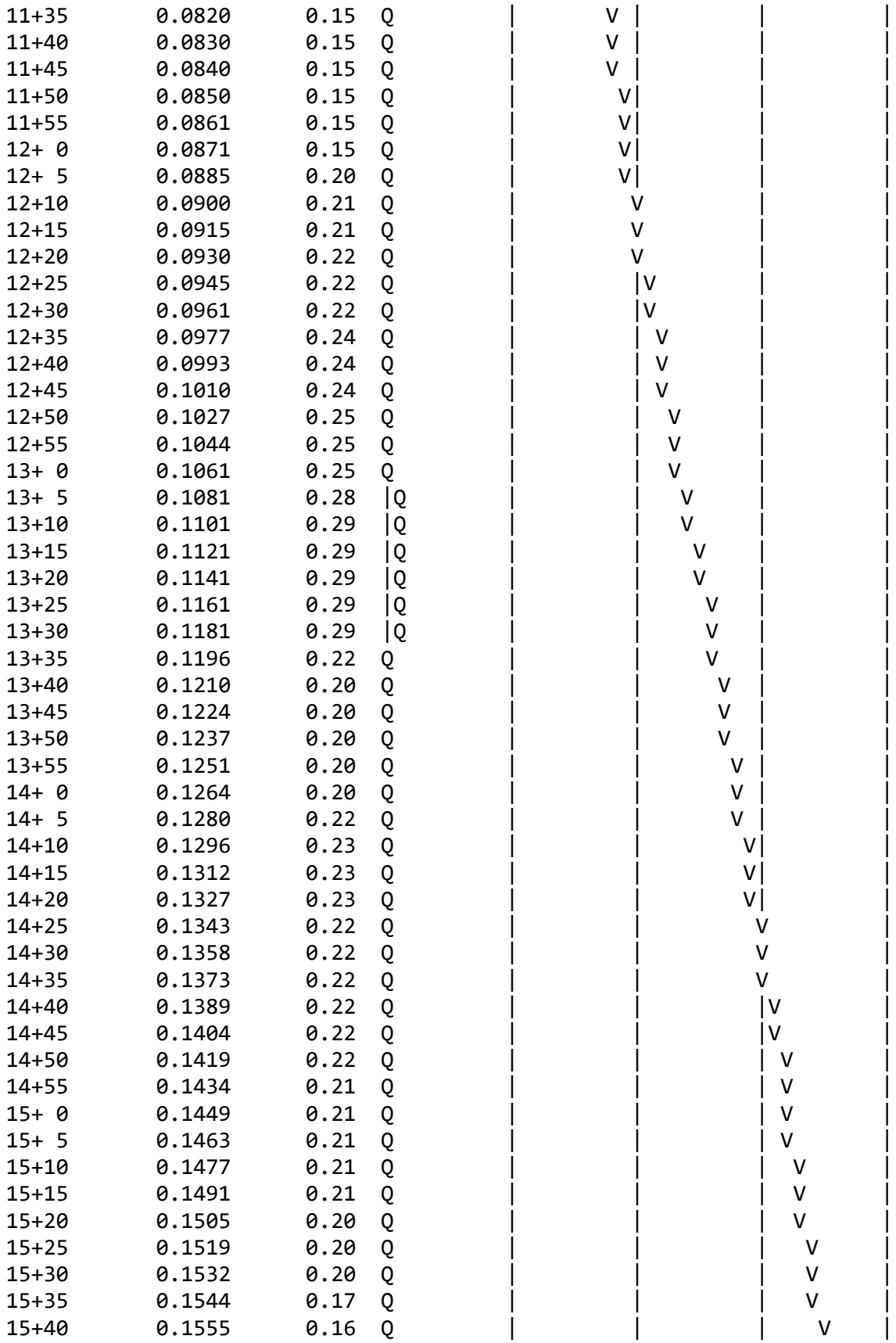
24 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	2.5	5.0	7.5	10.0
0+ 5	0.0001	0.01	Q				
0+10	0.0002	0.02	Q				
0+15	0.0003	0.02	Q				
0+20	0.0005	0.02	Q				
0+25	0.0007	0.03	Q				
0+30	0.0008	0.03	Q				
0+35	0.0010	0.03	Q				
0+40	0.0012	0.03	Q				
0+45	0.0014	0.03	Q				
0+50	0.0016	0.03	Q				
0+55	0.0018	0.03	Q				
1+ 0	0.0021	0.03	Q				
1+ 5	0.0023	0.03	Q				
1+10	0.0024	0.03	Q				
1+15	0.0026	0.03	Q				
1+20	0.0028	0.03	Q				
1+25	0.0030	0.03	Q				
1+30	0.0031	0.03	Q				
1+35	0.0033	0.03	Q				
1+40	0.0035	0.03	Q				
1+45	0.0037	0.03	Q				
1+50	0.0039	0.03	Q				
1+55	0.0041	0.03	Q				
2+ 0	0.0044	0.03	Q				
2+ 5	0.0046	0.03	QV				
2+10	0.0048	0.03	QV				
2+15	0.0051	0.03	QV				
2+20	0.0053	0.03	QV				
2+25	0.0056	0.03	QV				
2+30	0.0058	0.03	QV				
2+35	0.0061	0.04	QV				
2+40	0.0064	0.04	QV				
2+45	0.0067	0.04	QV				
2+50	0.0070	0.04	QV				
2+55	0.0072	0.04	QV				
3+ 0	0.0075	0.04	QV				
3+ 5	0.0078	0.04	QV				
3+10	0.0081	0.04	QV				

3+15	0.0084	0.04	QV	|	|	|	|
3+20	0.0087	0.04	QV	|	|	|	|
3+25	0.0090	0.04	Q V	|	|	|	|
3+30	0.0093	0.04	Q V	|	|	|	|
3+35	0.0096	0.04	Q V	|	|	|	|
3+40	0.0099	0.04	Q V	|	|	|	|
3+45	0.0102	0.04	Q V	|	|	|	|
3+50	0.0105	0.05	Q V	|	|	|	|
3+55	0.0109	0.05	Q V	|	|	|	|
4+ 0	0.0113	0.05	Q V	|	|	|	|
4+ 5	0.0116	0.05	Q V	|	|	|	|
4+10	0.0120	0.05	Q V	|	|	|	|
4+15	0.0123	0.05	Q V	|	|	|	|
4+20	0.0127	0.06	Q V	|	|	|	|
4+25	0.0131	0.06	Q V	|	|	|	|
4+30	0.0135	0.06	Q V	|	|	|	|
4+35	0.0140	0.06	Q V	|	|	|	|
4+40	0.0144	0.06	Q V	|	|	|	|
4+45	0.0148	0.06	Q V	|	|	|	|
4+50	0.0152	0.07	Q V	|	|	|	|
4+55	0.0157	0.07	Q V	|	|	|	|
5+ 0	0.0162	0.07	Q V	|	|	|	|
5+ 5	0.0166	0.06	Q V	|	|	|	|
5+10	0.0169	0.05	Q V	|	|	|	|
5+15	0.0173	0.05	Q V	|	|	|	|
5+20	0.0177	0.06	Q V	|	|	|	|
5+25	0.0181	0.06	Q V	|	|	|	|
5+30	0.0185	0.06	Q V	|	|	|	|
5+35	0.0190	0.07	Q V	|	|	|	|
5+40	0.0194	0.07	Q V	|	|	|	|
5+45	0.0199	0.07	Q V	|	|	|	|
5+50	0.0204	0.07	Q V	|	|	|	|
5+55	0.0209	0.07	Q V	|	|	|	|
6+ 0	0.0213	0.07	Q V	|	|	|	|
6+ 5	0.0218	0.07	Q V	|	|	|	|
6+10	0.0224	0.08	Q V	|	|	|	|
6+15	0.0229	0.08	Q V	|	|	|	|
6+20	0.0234	0.08	Q V	|	|	|	|
6+25	0.0240	0.08	Q V	|	|	|	|
6+30	0.0245	0.08	Q V	|	|	|	|
6+35	0.0251	0.08	Q V	|	|	|	|
6+40	0.0257	0.09	Q V	|	|	|	|
6+45	0.0263	0.09	Q V	|	|	|	|
6+50	0.0269	0.09	Q V	|	|	|	|
6+55	0.0274	0.09	Q V	|	|	|	|
7+ 0	0.0280	0.09	Q V	|	|	|	|
7+ 5	0.0286	0.09	Q V	|	|	|	|
7+10	0.0292	0.09	Q V	|	|	|	|
7+15	0.0298	0.09	Q V	|	|	|	|
7+20	0.0304	0.09	Q V	|	|	|	|

7+25	0.0311	0.09	Q	V	|	|	|	|
7+30	0.0317	0.09	Q	V	|	|	|	|
7+35	0.0324	0.10	Q	V	|	|	|	|
7+40	0.0331	0.10	Q	V	|	|	|	|
7+45	0.0339	0.10	Q	V	|	|	|	|
7+50	0.0346	0.11	Q	V	|	|	|	|
7+55	0.0354	0.11	Q	V	|	|	|	|
8+ 0	0.0361	0.11	Q	V	|	|	|	|
8+ 5	0.0370	0.12	Q	V	|	|	|	|
8+10	0.0379	0.13	Q	V	|	|	|	|
8+15	0.0388	0.13	Q	V	|	|	|	|
8+20	0.0397	0.13	Q	V	|	|	|	|
8+25	0.0405	0.13	Q	V	|	|	|	|
8+30	0.0414	0.13	Q	V	|	|	|	|
8+35	0.0424	0.13	Q	V	|	|	|	|
8+40	0.0433	0.14	Q	V	|	|	|	|
8+45	0.0443	0.14	Q	V	|	|	|	|
8+50	0.0452	0.14	Q	V	|	|	|	|
8+55	0.0463	0.15	Q	V	|	|	|	|
9+ 0	0.0473	0.15	Q	V	|	|	|	|
9+ 5	0.0483	0.16	Q	V	|	|	|	|
9+10	0.0495	0.16	Q	|	V	|	|	|
9+15	0.0506	0.16	Q	|	V	|	|	|
9+20	0.0518	0.17	Q	|	V	|	|	|
9+25	0.0529	0.17	Q	|	V	|	|	|
9+30	0.0541	0.17	Q	|	|	V	|	|
9+35	0.0553	0.18	Q	|	|	V	|	|
9+40	0.0566	0.18	Q	|	|	V	|	|
9+45	0.0578	0.18	Q	|	|	V	|	|
9+50	0.0591	0.19	Q	|	|	V	|	|
9+55	0.0604	0.19	Q	|	|	V	|	|
10+ 0	0.0617	0.19	Q	|	|	V	|	|
10+ 5	0.0627	0.15	Q	|	|	V	|	|
10+10	0.0636	0.13	Q	|	|	V	|	|
10+15	0.0645	0.13	Q	|	|	V	|	|
10+20	0.0654	0.13	Q	|	|	V	|	|
10+25	0.0663	0.13	Q	|	|	V	|	|
10+30	0.0672	0.13	Q	|	|	V	|	|
10+35	0.0683	0.16	Q	|	|	V	|	|
10+40	0.0694	0.17	Q	|	|	V	|	|
10+45	0.0706	0.17	Q	|	|	V	|	|
10+50	0.0718	0.17	Q	|	|	V	|	|
10+55	0.0730	0.17	Q	|	|	V	|	|
11+ 0	0.0742	0.17	Q	|	|	V	|	|
11+ 5	0.0753	0.17	Q	|	|	V	|	|
11+10	0.0764	0.16	Q	|	|	|	V	|
11+15	0.0776	0.16	Q	|	|	|	V	|
11+20	0.0787	0.16	Q	|	|	|	V	|
11+25	0.0798	0.16	Q	|	|	|	V	|
11+30	0.0809	0.16	Q	|	|	|	V	|



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15+45       0.1567      0.16  Q        |          |          |    V     |
15+50       0.1578      0.16  Q        |          |          |    V     |
15+55       0.1589      0.16  Q        |          |          |    V     |
16+ 0       0.1600      0.16  Q        |          |          |     V    |
16+ 5       0.1605      0.07  Q        |          |          |     V    |
16+10       0.1607      0.03  Q        |          |          |     V    |
16+15       0.1610      0.03  Q        |          |          |     V    |
16+20       0.1612      0.03  Q        |          |          |     V    |
16+25       0.1615      0.03  Q        |          |          |     V    |
16+30       0.1617      0.03  Q        |          |          |     V    |
16+35       0.1619      0.03  Q        |          |          |     V    |
16+40       0.1621      0.03  Q        |          |          |     V    |
16+45       0.1622      0.03  Q        |          |          |     V    |
16+50       0.1624      0.03  Q        |          |          |     V    |
16+55       0.1626      0.03  Q        |          |          |     V    |
17+ 0       0.1628      0.03  Q        |          |          |     V    |
17+ 5       0.1630      0.04  Q        |          |          |     V    |
17+10       0.1633      0.04  Q        |          |          |     V    |
17+15       0.1636      0.04  Q        |          |          |     V    |
17+20       0.1639      0.04  Q        |          |          |     V    |
17+25       0.1642      0.04  Q        |          |          |      V   |
17+30       0.1645      0.04  Q        |          |          |      V   |
17+35       0.1648      0.04  Q        |          |          |      V   |
17+40       0.1651      0.04  Q        |          |          |      V   |
17+45       0.1654      0.04  Q        |          |          |      V   |
17+50       0.1657      0.04  Q        |          |          |      V   |
17+55       0.1659      0.03  Q        |          |          |      V   |
18+ 0       0.1661      0.03  Q        |          |          |      V   |
18+ 5       0.1664      0.03  Q        |          |          |      V   |
18+10       0.1666      0.03  Q        |          |          |      V   |
18+15       0.1668      0.03  Q        |          |          |      V   |
18+20       0.1671      0.03  Q        |          |          |      V   |
18+25       0.1673      0.03  Q        |          |          |      V   |
18+30       0.1675      0.03  Q        |          |          |      V   |
18+35       0.1677      0.03  Q        |          |          |      V   |
18+40       0.1679      0.03  Q        |          |          |      V   |
18+45       0.1681      0.03  Q        |          |          |      V   |
18+50       0.1682      0.02  Q        |          |          |      V   |
18+55       0.1683      0.02  Q        |          |          |      V   |
19+ 0       0.1685      0.02  Q        |          |          |      V   |
19+ 5       0.1686      0.02  Q        |          |          |       V  |
19+10       0.1688      0.03  Q        |          |          |       V  |
19+15       0.1690      0.03  Q        |          |          |       V  |
19+20       0.1692      0.03  Q        |          |          |       V  |
19+25       0.1694      0.03  Q        |          |          |       V  |
19+30       0.1697      0.03  Q        |          |          |       V  |
19+35       0.1699      0.03  Q        |          |          |       V  |
19+40       0.1700      0.03  Q        |          |          |       V  |
19+45       0.1702      0.03  Q        |          |          |       V  |
19+50       0.1704      0.02  Q        |          |          |       V  |
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19+55	0.1705	0.02	Q	|	|	|	V |
20+ 0	0.1706	0.02	Q	|	|	|	V |
20+ 5	0.1708	0.02	Q	|	|	|	V |
20+10	0.1709	0.03	Q	|	|	|	V |
20+15	0.1711	0.03	Q	|	|	|	V |
20+20	0.1713	0.03	Q	|	|	|	V |
20+25	0.1715	0.03	Q	|	|	|	V |
20+30	0.1716	0.03	Q	|	|	|	V |
20+35	0.1718	0.03	Q	|	|	|	V |
20+40	0.1720	0.03	Q	|	|	|	V |
20+45	0.1722	0.03	Q	|	|	|	V |
20+50	0.1723	0.02	Q	|	|	|	V |
20+55	0.1724	0.02	Q	|	|	|	V |
21+ 0	0.1725	0.02	Q	|	|	|	V |
21+ 5	0.1727	0.02	Q	|	|	|	V |
21+10	0.1729	0.03	Q	|	|	|	V |
21+15	0.1731	0.03	Q	|	|	|	V|
21+20	0.1732	0.02	Q	|	|	|	V|
21+25	0.1733	0.02	Q	|	|	|	V|
21+30	0.1734	0.02	Q	|	|	|	V|
21+35	0.1736	0.02	Q	|	|	|	V|
21+40	0.1738	0.03	Q	|	|	|	V|
21+45	0.1739	0.03	Q	|	|	|	V|
21+50	0.1741	0.02	Q	|	|	|	V|
21+55	0.1742	0.02	Q	|	|	|	V|
22+ 0	0.1743	0.02	Q	|	|	|	V|
22+ 5	0.1745	0.02	Q	|	|	|	V|
22+10	0.1747	0.03	Q	|	|	|	V|
22+15	0.1748	0.03	Q	|	|	|	V|
22+20	0.1750	0.02	Q	|	|	|	V|
22+25	0.1751	0.02	Q	|	|	|	V|
22+30	0.1752	0.02	Q	|	|	|	V|
22+35	0.1753	0.02	Q	|	|	|	V|
22+40	0.1754	0.02	Q	|	|	|	V|
22+45	0.1756	0.02	Q	|	|	|	V|
22+50	0.1757	0.02	Q	|	|	|	V|
22+55	0.1758	0.02	Q	|	|	|	V|
23+ 0	0.1759	0.02	Q	|	|	|	V|
23+ 5	0.1760	0.02	Q	|	|	|	V|
23+10	0.1762	0.02	Q	|	|	|	V|
23+15	0.1763	0.02	Q	|	|	|	V|
23+20	0.1764	0.02	Q	|	|	|	V|
23+25	0.1765	0.02	Q	|	|	|	V|
23+30	0.1766	0.02	Q	|	|	|	V|
23+35	0.1767	0.02	Q	|	|	|	V|
23+40	0.1769	0.02	Q	|	|	|	V|
23+45	0.1770	0.02	Q	|	|	|	V|
23+50	0.1771	0.02	Q	|	|	|	V|
23+55	0.1772	0.02	Q	|	|	|	V|
24+ 0	0.1773	0.02	Q	|	|	|	V|

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   24+ 5       0.1774      0.00  Q         |         |         |        V|
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DMA 2 Proposed 5-Year

FLOOD HYDROGRAPH ROUTING PROGRAM

Study date: 08/24/22

A21626 DMA 2 5YR-1HR BASIN

Program License Serial Number 6509

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

From study/file name: a21626DMA2Q100UH15.rte
**********HYDROGRAPH DATA**********
Number of intervals = 13
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 2.495 (CFS)
Total volume = 0.068 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   0.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.00(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.00(Ft.)   Capacity =   0.20(CFS)

Free outlet pipe flow: Pipe Diameter =   1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)   Capacity =   4.44(CFS)

Total outflow at this depth =   4.64(CFS)

Total number of inflow hydrograph intervals = 13

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
0.500	0.052	0.000	0.052	0.052
1.000	0.111	0.196	0.110	0.112
1.500	0.177	0.196	0.176	0.178
2.000	0.251	0.196	0.250	0.252
2.500	0.333	4.639	0.317	0.349

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.6	1.25	1.87	2.50 (Ft.)	Depth
0.083	0.28	0.00	0.001	O I	|	|	|	|	0.01
0.167	0.40	0.00	0.003	O I	|	|	|	|	0.03
0.250	0.46	0.00	0.006	O I	|	|	|	|	0.06
0.333	0.48	0.00	0.010	O I	|	|	|	|	0.09
0.417	0.50	0.00	0.013	O I	|	|	|	|	0.12
0.500	0.56	0.00	0.017	O I	|	|	|	|	0.16
0.583	0.67	0.00	0.021	O I	|	|	|	|	0.20
0.667	0.82	0.00	0.026	O I	|	|	|	|	0.25
0.750	1.20	0.00	0.033	O I	|	|	|	|	0.32
0.833	2.50	0.00	0.046	O I	|	|	|	|	0.44
0.917	1.33	0.02	0.059	O I	|	|	|	|	0.56
1.000	0.51	0.04	0.065	O I	|	|	|	|	0.61
1.083	0.12	0.05	0.067	OI	|	|	|	|	0.62
1.167	0.00	0.05	0.067	O	|	|	|	|	0.63
1.250	0.00	0.05	0.066	O	|	|	|	|	0.62
1.333	0.00	0.05	0.066	O	|	|	|	|	0.62
1.417	0.00	0.05	0.066	O	|	|	|	|	0.62
1.500	0.00	0.04	0.065	O	|	|	|	|	0.61
1.583	0.00	0.04	0.065	O	|	|	|	|	0.61
1.667	0.00	0.04	0.065	O	|	|	|	|	0.61
1.750	0.00	0.04	0.065	O	|	|	|	|	0.61
1.833	0.00	0.04	0.064	O	|	|	|	|	0.60
1.917	0.00	0.04	0.064	O	|	|	|	|	0.60

2.000	0.00	0.04	0.064	O				0.60
2.083	0.00	0.04	0.063	O				0.60
2.167	0.00	0.04	0.063	O				0.60
2.250	0.00	0.04	0.063	O				0.59
2.333	0.00	0.04	0.063	O				0.59
2.417	0.00	0.03	0.062	O				0.59
2.500	0.00	0.03	0.062	O				0.59
2.583	0.00	0.03	0.062	O				0.58
2.667	0.00	0.03	0.062	O				0.58
2.750	0.00	0.03	0.062	O				0.58
2.833	0.00	0.03	0.061	O				0.58
2.917	0.00	0.03	0.061	O				0.58
3.000	0.00	0.03	0.061	O				0.58
3.083	0.00	0.03	0.061	O				0.57
3.167	0.00	0.03	0.061	O				0.57
3.250	0.00	0.03	0.060	O				0.57
3.333	0.00	0.03	0.060	O				0.57
3.417	0.00	0.03	0.060	O				0.57
3.500	0.00	0.03	0.060	O				0.57
3.583	0.00	0.03	0.060	O				0.56
3.667	0.00	0.02	0.059	O				0.56
3.750	0.00	0.02	0.059	O				0.56
3.833	0.00	0.02	0.059	O				0.56
3.917	0.00	0.02	0.059	O				0.56
4.000	0.00	0.02	0.059	O				0.56
4.083	0.00	0.02	0.059	O				0.56
4.167	0.00	0.02	0.058	O				0.55
4.250	0.00	0.02	0.058	O				0.55
4.333	0.00	0.02	0.058	O				0.55
4.417	0.00	0.02	0.058	O				0.55
4.500	0.00	0.02	0.058	O				0.55
4.583	0.00	0.02	0.058	O				0.55
4.667	0.00	0.02	0.058	O				0.55
4.750	0.00	0.02	0.058	O				0.55
4.833	0.00	0.02	0.057	O				0.55
4.917	0.00	0.02	0.057	O				0.54
5.000	0.00	0.02	0.057	O				0.54
5.083	0.00	0.02	0.057	O				0.54
5.167	0.00	0.02	0.057	O				0.54
5.250	0.00	0.02	0.057	O				0.54
5.333	0.00	0.02	0.057	O				0.54
5.417	0.00	0.02	0.057	O				0.54
5.500	0.00	0.01	0.056	O				0.54
5.583	0.00	0.01	0.056	O				0.54
5.667	0.00	0.01	0.056	O				0.54
5.750	0.00	0.01	0.056	O				0.54
5.833	0.00	0.01	0.056	O				0.53
5.917	0.00	0.01	0.056	O				0.53
6.000	0.00	0.01	0.056	O				0.53
6.083	0.00	0.01	0.056	O				0.53

6.167	0.00	0.01	0.056	O				0.53
6.250	0.00	0.01	0.056	O				0.53
6.333	0.00	0.01	0.056	O				0.53
6.417	0.00	0.01	0.055	O				0.53
6.500	0.00	0.01	0.055	O				0.53
6.583	0.00	0.01	0.055	O				0.53
6.667	0.00	0.01	0.055	O				0.53
6.750	0.00	0.01	0.055	O				0.53
6.833	0.00	0.01	0.055	O				0.53
6.917	0.00	0.01	0.055	O				0.53
7.000	0.00	0.01	0.055	O				0.53
7.083	0.00	0.01	0.055	O				0.52
7.167	0.00	0.01	0.055	O				0.52
7.250	0.00	0.01	0.055	O				0.52
7.333	0.00	0.01	0.055	O				0.52
7.417	0.00	0.01	0.055	O				0.52
7.500	0.00	0.01	0.055	O				0.52
7.583	0.00	0.01	0.055	O				0.52
7.667	0.00	0.01	0.054	O				0.52
7.750	0.00	0.01	0.054	O				0.52
7.833	0.00	0.01	0.054	O				0.52
7.917	0.00	0.01	0.054	O				0.52
8.000	0.00	0.01	0.054	O				0.52
8.083	0.00	0.01	0.054	O				0.52
8.167	0.00	0.01	0.054	O				0.52
8.250	0.00	0.01	0.054	O				0.52
8.333	0.00	0.01	0.054	O				0.52
8.417	0.00	0.01	0.054	O				0.52
8.500	0.00	0.01	0.054	O				0.52
8.583	0.00	0.01	0.054	O				0.52
8.667	0.00	0.01	0.054	O				0.52
8.750	0.00	0.01	0.054	O				0.52
8.833	0.00	0.01	0.054	O				0.52
8.917	0.00	0.01	0.054	O				0.51
9.000	0.00	0.01	0.054	O				0.51
9.083	0.00	0.01	0.054	O				0.51
9.167	0.00	0.01	0.054	O				0.51
9.250	0.00	0.01	0.054	O				0.51
9.333	0.00	0.01	0.054	O				0.51
9.417	0.00	0.01	0.054	O				0.51
9.500	0.00	0.00	0.053	O				0.51
9.583	0.00	0.00	0.053	O				0.51
9.667	0.00	0.00	0.053	O				0.51
9.750	0.00	0.00	0.053	O				0.51
9.833	0.00	0.00	0.053	O				0.51
9.917	0.00	0.00	0.053	O				0.51
10.000	0.00	0.00	0.053	O				0.51
10.083	0.00	0.00	0.053	O				0.51
10.167	0.00	0.00	0.053	O				0.51
10.250	0.00	0.00	0.053	O				0.51

10.333	0.00	0.00	0.053	O	|	|	|	0.51
10.417	0.00	0.00	0.053	O	|	|	|	0.51
10.500	0.00	0.00	0.053	O	|	|	|	0.51
10.583	0.00	0.00	0.053	O	|	|	|	0.51
10.667	0.00	0.00	0.053	O	|	|	|	0.51
10.750	0.00	0.00	0.053	O	|	|	|	0.51
10.833	0.00	0.00	0.053	O	|	|	|	0.51
10.917	0.00	0.00	0.053	O	|	|	|	0.51
11.000	0.00	0.00	0.053	O	|	|	|	0.51
11.083	0.00	0.00	0.053	O	|	|	|	0.51
11.167	0.00	0.00	0.053	O	|	|	|	0.51
11.250	0.00	0.00	0.053	O	|	|	|	0.51
11.333	0.00	0.00	0.053	O	|	|	|	0.51
11.417	0.00	0.00	0.053	O	|	|	|	0.51
11.500	0.00	0.00	0.053	O	|	|	|	0.51
11.583	0.00	0.00	0.053	O	|	|	|	0.51
11.667	0.00	0.00	0.053	O	|	|	|	0.51
11.750	0.00	0.00	0.053	O	|	|	|	0.51
11.833	0.00	0.00	0.053	O	|	|	|	0.51
11.917	0.00	0.00	0.053	O	|	|	|	0.51
12.000	0.00	0.00	0.053	O	|	|	|	0.51
12.083	0.00	0.00	0.053	O	|	|	|	0.51
12.167	0.00	0.00	0.053	O	|	|	|	0.51
12.250	0.00	0.00	0.053	O	|	|	|	0.51
12.333	0.00	0.00	0.053	O	|	|	|	0.51
12.417	0.00	0.00	0.053	O	|	|	|	0.51
12.500	0.00	0.00	0.053	O	|	|	|	0.51
12.583	0.00	0.00	0.053	O	|	|	|	0.51
12.667	0.00	0.00	0.053	O	|	|	|	0.51
12.750	0.00	0.00	0.053	O	|	|	|	0.51
12.833	0.00	0.00	0.053	O	|	|	|	0.51
12.917	0.00	0.00	0.053	O	|	|	|	0.50
13.000	0.00	0.00	0.053	O	|	|	|	0.50
13.083	0.00	0.00	0.053	O	|	|	|	0.50
13.167	0.00	0.00	0.053	O	|	|	|	0.50
13.250	0.00	0.00	0.053	O	|	|	|	0.50
13.333	0.00	0.00	0.053	O	|	|	|	0.50
13.417	0.00	0.00	0.053	O	|	|	|	0.50
13.500	0.00	0.00	0.052	O	|	|	|	0.50
13.583	0.00	0.00	0.052	O	|	|	|	0.50
13.667	0.00	0.00	0.052	O	|	|	|	0.50
13.750	0.00	0.00	0.052	O	|	|	|	0.50
13.833	0.00	0.00	0.052	O	|	|	|	0.50
13.917	0.00	0.00	0.052	O	|	|	|	0.50
14.000	0.00	0.00	0.052	O	|	|	|	0.50
14.083	0.00	0.00	0.052	O	|	|	|	0.50
14.167	0.00	0.00	0.052	O	|	|	|	0.50
14.250	0.00	0.00	0.052	O	|	|	|	0.50
14.333	0.00	0.00	0.052	O	|	|	|	0.50
14.417	0.00	0.00	0.052	O	|	|	|	0.50

14.500	0.00	0.00	0.052	O	|	|	|	|	0.50
14.583	0.00	0.00	0.052	O	|	|	|	|	0.50
14.667	0.00	0.00	0.052	O	|	|	|	|	0.50
14.750	0.00	0.00	0.052	O	|	|	|	|	0.50
14.833	0.00	0.00	0.052	O	|	|	|	|	0.50
14.917	0.00	0.00	0.052	O	|	|	|	|	0.50
15.000	0.00	0.00	0.052	O	|	|	|	|	0.50
15.083	0.00	0.00	0.052	O	|	|	|	|	0.50
15.167	0.00	0.00	0.052	O	|	|	|	|	0.50
15.250	0.00	0.00	0.052	O	|	|	|	|	0.50
15.333	0.00	0.00	0.052	O	|	|	|	|	0.50

Remaining water in basin = 0.05 (Ac.Ft)

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

Number of intervals = 184
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.049 (CFS)
Total volume = 0.015 (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

Study date: 08/24/22

A21626 DMA 2 5YR-3HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA2Q100UH35.rte
**********HYDROGRAPH DATA**********
Number of intervals = 37
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 1.337 (CFS)
Total volume = 0.104 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   0.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.00(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.00(Ft.)   Capacity =   0.20(CFS)

Free outlet pipe flow: Pipe Diameter =   1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)   Capacity =   4.44(CFS)

Total outflow at this depth =   4.64(CFS)

Total number of inflow hydrograph intervals = 37

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
0.500	0.052	0.000	0.052	0.052
1.000	0.111	0.196	0.110	0.112
1.500	0.177	0.196	0.176	0.178
2.000	0.251	0.196	0.250	0.252
2.500	0.333	4.639	0.317	0.349

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.3	0.67	1.00	1.34	Depth (Ft.)
0.083	0.14	0.00	0.000	O I	|	|	|	|	0.00
0.167	0.19	0.00	0.002	O I	|	|	|	|	0.02
0.250	0.17	0.00	0.003	O I	|	|	|	|	0.03
0.333	0.20	0.00	0.004	O I	|	|	|	|	0.04
0.417	0.22	0.00	0.006	O I	|	|	|	|	0.05
0.500	0.25	0.00	0.007	O I	|	|	|	|	0.07
0.583	0.23	0.00	0.009	O I	|	|	|	|	0.08
0.667	0.25	0.00	0.010	O I	|	|	|	|	0.10
0.750	0.26	0.00	0.012	O I	|	|	|	|	0.12
0.833	0.23	0.00	0.014	O I	|	|	|	|	0.13
0.917	0.23	0.00	0.015	O I	|	|	|	|	0.15
1.000	0.25	0.00	0.017	O I	|	|	|	|	0.16
1.083	0.30	0.00	0.019	O I	|	|	|	|	0.18
1.167	0.32	0.00	0.021	O I	|	|	|	|	0.20
1.250	0.32	0.00	0.023	O I	|	|	|	|	0.22
1.333	0.30	0.00	0.025	O I	|	|	|	|	0.24
1.417	0.35	0.00	0.028	O I	|	|	|	|	0.27
1.500	0.39	0.00	0.030	O I	|	|	|	|	0.29
1.583	0.36	0.00	0.033	O I	|	|	|	|	0.32
1.667	0.38	0.00	0.035	O I	|	|	|	|	0.34
1.750	0.45	0.00	0.038	O I	|	|	|	|	0.37
1.833	0.46	0.00	0.041	O I	|	|	|	|	0.40
1.917	0.43	0.00	0.044	O I	|	|	|	|	0.43

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2.000    0.43    0.00      0.047  O       | I     |       |       |     0.46
2.083    0.45    0.00      0.050  O       | I     |       |       |     0.48
2.167    0.56    0.01      0.054  O       |    I  |       |       |     0.52
2.250    0.70    0.02      0.058  O       |       I       |       |     0.55
2.333    0.57    0.03      0.062  O       |    I  |       |       |     0.59
2.417    0.94    0.05      0.067  |O      |       |    I  |       |     0.63
2.500    1.18    0.07      0.074  |O      |       |       |   I   |     0.69
2.583    1.34    0.10      0.082  | O     |       |       |       I     0.76
2.667    1.05    0.12      0.090  | O     |       |       |I      |     0.82
2.750    0.46    0.14      0.094  |  O    |  I    |       |       |     0.85
2.833    0.27    0.14      0.095  |  O  I |       |       |       |     0.87
2.917    0.26    0.15      0.096  |  O  I |       |       |       |     0.87
3.000    0.14    0.15      0.097  |  O    |       |       |       |     0.88
3.083    0.02    0.15      0.096  I  O    |       |       |       |     0.87
3.167    0.00    0.14      0.095  I  O    |       |       |       |     0.87
3.250    0.00    0.14      0.094  I  O    |       |       |       |     0.86
3.333    0.00    0.14      0.093  I  O    |       |       |       |     0.85
3.417    0.00    0.13      0.092  I  O    |       |       |       |     0.84
3.500    0.00    0.13      0.091  I  O    |       |       |       |     0.83
3.583    0.00    0.13      0.091  I  O    |       |       |       |     0.83
3.667    0.00    0.13      0.090  I O     |       |       |       |     0.82
3.750    0.00    0.12      0.089  I O     |       |       |       |     0.81
3.833    0.00    0.12      0.088  I O     |       |       |       |     0.80
3.917    0.00    0.12      0.087  I O     |       |       |       |     0.80
4.000    0.00    0.11      0.086  I O     |       |       |       |     0.79
4.083    0.00    0.11      0.086  I O     |       |       |       |     0.78
4.167    0.00    0.11      0.085  I O     |       |       |       |     0.78
4.250    0.00    0.11      0.084  I O     |       |       |       |     0.77
4.333    0.00    0.10      0.083  I O     |       |       |       |     0.77
4.417    0.00    0.10      0.083  I O     |       |       |       |     0.76
4.500    0.00    0.10      0.082  I O     |       |       |       |     0.75
4.583    0.00    0.10      0.081  I O     |       |       |       |     0.75
4.667    0.00    0.10      0.081  I O     |       |       |       |     0.74
4.750    0.00    0.09      0.080  I O     |       |       |       |     0.74
4.833    0.00    0.09      0.079  I O     |       |       |       |     0.73
4.917    0.00    0.09      0.079  I O     |       |       |       |     0.73
5.000    0.00    0.09      0.078  I O     |       |       |       |     0.72
5.083    0.00    0.08      0.077  I O     |       |       |       |     0.72
5.167    0.00    0.08      0.077  IO      |       |       |       |     0.71
5.250    0.00    0.08      0.076  IO      |       |       |       |     0.71
5.333    0.00    0.08      0.076  IO      |       |       |       |     0.70
5.417    0.00    0.08      0.075  IO      |       |       |       |     0.70
5.500    0.00    0.08      0.075  IO      |       |       |       |     0.69
5.583    0.00    0.07      0.074  IO      |       |       |       |     0.69
5.667    0.00    0.07      0.074  IO      |       |       |       |     0.68
5.750    0.00    0.07      0.073  IO      |       |       |       |     0.68
5.833    0.00    0.07      0.073  IO      |       |       |       |     0.68
5.917    0.00    0.07      0.072  IO      |       |       |       |     0.67
6.000    0.00    0.07      0.072  IO      |       |       |       |     0.67
6.083    0.00    0.06      0.071  IO      |       |       |       |     0.66
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6.167	0.00	0.06	0.071	IO				0.66
6.250	0.00	0.06	0.070	IO				0.66
6.333	0.00	0.06	0.070	IO				0.65
6.417	0.00	0.06	0.070	IO				0.65
6.500	0.00	0.06	0.069	IO				0.65
6.583	0.00	0.06	0.069	IO				0.64
6.667	0.00	0.05	0.068	IO				0.64
6.750	0.00	0.05	0.068	IO				0.64
6.833	0.00	0.05	0.068	IO				0.63
6.917	0.00	0.05	0.067	IO				0.63
7.000	0.00	0.05	0.067	IO				0.63
7.083	0.00	0.05	0.067	IO				0.62
7.167	0.00	0.05	0.066	IO				0.62
7.250	0.00	0.05	0.066	IO				0.62
7.333	0.00	0.05	0.066	IO				0.62
7.417	0.00	0.04	0.065	IO				0.61
7.500	0.00	0.04	0.065	IO				0.61
7.583	0.00	0.04	0.065	IO				0.61
7.667	0.00	0.04	0.065	O				0.61
7.750	0.00	0.04	0.064	O				0.60
7.833	0.00	0.04	0.064	O				0.60
7.917	0.00	0.04	0.064	O				0.60
8.000	0.00	0.04	0.063	O				0.60
8.083	0.00	0.04	0.063	O				0.59
8.167	0.00	0.04	0.063	O				0.59
8.250	0.00	0.04	0.063	O				0.59
8.333	0.00	0.03	0.062	O				0.59
8.417	0.00	0.03	0.062	O				0.59
8.500	0.00	0.03	0.062	O				0.58
8.583	0.00	0.03	0.062	O				0.58
8.667	0.00	0.03	0.062	O				0.58
8.750	0.00	0.03	0.061	O				0.58
8.833	0.00	0.03	0.061	O				0.58
8.917	0.00	0.03	0.061	O				0.58
9.000	0.00	0.03	0.061	O				0.57
9.083	0.00	0.03	0.060	O				0.57
9.167	0.00	0.03	0.060	O				0.57
9.250	0.00	0.03	0.060	O				0.57
9.333	0.00	0.03	0.060	O				0.57
9.417	0.00	0.03	0.060	O				0.57
9.500	0.00	0.03	0.060	O				0.56
9.583	0.00	0.02	0.059	O				0.56
9.667	0.00	0.02	0.059	O				0.56
9.750	0.00	0.02	0.059	O				0.56
9.833	0.00	0.02	0.059	O				0.56
9.917	0.00	0.02	0.059	O				0.56
10.000	0.00	0.02	0.059	O				0.56
10.083	0.00	0.02	0.058	O				0.55
10.167	0.00	0.02	0.058	O				0.55
10.250	0.00	0.02	0.058	O				0.55

10.333	0.00	0.02	0.058	O	|	|	|	0.55
10.417	0.00	0.02	0.058	O	|	|	|	0.55
10.500	0.00	0.02	0.058	O	|	|	|	0.55
10.583	0.00	0.02	0.058	O	|	|	|	0.55
10.667	0.00	0.02	0.057	O	|	|	|	0.55
10.750	0.00	0.02	0.057	O	|	|	|	0.55
10.833	0.00	0.02	0.057	O	|	|	|	0.54
10.917	0.00	0.02	0.057	O	|	|	|	0.54
11.000	0.00	0.02	0.057	O	|	|	|	0.54
11.083	0.00	0.02	0.057	O	|	|	|	0.54
11.167	0.00	0.02	0.057	O	|	|	|	0.54
11.250	0.00	0.02	0.057	O	|	|	|	0.54
11.333	0.00	0.02	0.057	O	|	|	|	0.54
11.417	0.00	0.01	0.056	O	|	|	|	0.54
11.500	0.00	0.01	0.056	O	|	|	|	0.54
11.583	0.00	0.01	0.056	O	|	|	|	0.54
11.667	0.00	0.01	0.056	O	|	|	|	0.54
11.750	0.00	0.01	0.056	O	|	|	|	0.53
11.833	0.00	0.01	0.056	O	|	|	|	0.53
11.917	0.00	0.01	0.056	O	|	|	|	0.53
12.000	0.00	0.01	0.056	O	|	|	|	0.53
12.083	0.00	0.01	0.056	O	|	|	|	0.53
12.167	0.00	0.01	0.056	O	|	|	|	0.53
12.250	0.00	0.01	0.056	O	|	|	|	0.53
12.333	0.00	0.01	0.055	O	|	|	|	0.53
12.417	0.00	0.01	0.055	O	|	|	|	0.53
12.500	0.00	0.01	0.055	O	|	|	|	0.53
12.583	0.00	0.01	0.055	O	|	|	|	0.53
12.667	0.00	0.01	0.055	O	|	|	|	0.53
12.750	0.00	0.01	0.055	O	|	|	|	0.53
12.833	0.00	0.01	0.055	O	|	|	|	0.53
12.917	0.00	0.01	0.055	O	|	|	|	0.53
13.000	0.00	0.01	0.055	O	|	|	|	0.52
13.083	0.00	0.01	0.055	O	|	|	|	0.52
13.167	0.00	0.01	0.055	O	|	|	|	0.52
13.250	0.00	0.01	0.055	O	|	|	|	0.52
13.333	0.00	0.01	0.055	O	|	|	|	0.52
13.417	0.00	0.01	0.055	O	|	|	|	0.52
13.500	0.00	0.01	0.055	O	|	|	|	0.52
13.583	0.00	0.01	0.054	O	|	|	|	0.52
13.667	0.00	0.01	0.054	O	|	|	|	0.52
13.750	0.00	0.01	0.054	O	|	|	|	0.52
13.833	0.00	0.01	0.054	O	|	|	|	0.52
13.917	0.00	0.01	0.054	O	|	|	|	0.52
14.000	0.00	0.01	0.054	O	|	|	|	0.52
14.083	0.00	0.01	0.054	O	|	|	|	0.52
14.167	0.00	0.01	0.054	O	|	|	|	0.52
14.250	0.00	0.01	0.054	O	|	|	|	0.52
14.333	0.00	0.01	0.054	O	|	|	|	0.52
14.417	0.00	0.01	0.054	O	|	|	|	0.52

14.500	0.00	0.01	0.054	O	|	|	|	0.52
14.583	0.00	0.01	0.054	O	|	|	|	0.52
14.667	0.00	0.01	0.054	O	|	|	|	0.52
14.750	0.00	0.01	0.054	O	|	|	|	0.52
14.833	0.00	0.01	0.054	O	|	|	|	0.51
14.917	0.00	0.01	0.054	O	|	|	|	0.51
15.000	0.00	0.01	0.054	O	|	|	|	0.51
15.083	0.00	0.01	0.054	O	|	|	|	0.51
15.167	0.00	0.01	0.054	O	|	|	|	0.51
15.250	0.00	0.01	0.054	O	|	|	|	0.51
15.333	0.00	0.01	0.054	O	|	|	|	0.51
15.417	0.00	0.00	0.053	O	|	|	|	0.51
15.500	0.00	0.00	0.053	O	|	|	|	0.51
15.583	0.00	0.00	0.053	O	|	|	|	0.51
15.667	0.00	0.00	0.053	O	|	|	|	0.51
15.750	0.00	0.00	0.053	O	|	|	|	0.51
15.833	0.00	0.00	0.053	O	|	|	|	0.51
15.917	0.00	0.00	0.053	O	|	|	|	0.51
16.000	0.00	0.00	0.053	O	|	|	|	0.51
16.083	0.00	0.00	0.053	O	|	|	|	0.51
16.167	0.00	0.00	0.053	O	|	|	|	0.51
16.250	0.00	0.00	0.053	O	|	|	|	0.51
16.333	0.00	0.00	0.053	O	|	|	|	0.51
16.417	0.00	0.00	0.053	O	|	|	|	0.51
16.500	0.00	0.00	0.053	O	|	|	|	0.51
16.583	0.00	0.00	0.053	O	|	|	|	0.51
16.667	0.00	0.00	0.053	O	|	|	|	0.51
16.750	0.00	0.00	0.053	O	|	|	|	0.51
16.833	0.00	0.00	0.053	O	|	|	|	0.51
16.917	0.00	0.00	0.053	O	|	|	|	0.51
17.000	0.00	0.00	0.053	O	|	|	|	0.51
17.083	0.00	0.00	0.053	O	|	|	|	0.51
17.167	0.00	0.00	0.053	O	|	|	|	0.51
17.250	0.00	0.00	0.053	O	|	|	|	0.51
17.333	0.00	0.00	0.053	O	|	|	|	0.51
17.417	0.00	0.00	0.053	O	|	|	|	0.51
17.500	0.00	0.00	0.053	O	|	|	|	0.51
17.583	0.00	0.00	0.053	O	|	|	|	0.51
17.667	0.00	0.00	0.053	O	|	|	|	0.51
17.750	0.00	0.00	0.053	O	|	|	|	0.51
17.833	0.00	0.00	0.053	O	|	|	|	0.51
17.917	0.00	0.00	0.053	O	|	|	|	0.51
18.000	0.00	0.00	0.053	O	|	|	|	0.51
18.083	0.00	0.00	0.053	O	|	|	|	0.51
18.167	0.00	0.00	0.053	O	|	|	|	0.51
18.250	0.00	0.00	0.053	O	|	|	|	0.51
18.333	0.00	0.00	0.053	O	|	|	|	0.51
18.417	0.00	0.00	0.053	O	|	|	|	0.51
18.500	0.00	0.00	0.053	O	|	|	|	0.51
18.583	0.00	0.00	0.053	O	|	|	|	0.51

18.667	0.00	0.00	0.053	O	|	|	|	|	0.51
18.750	0.00	0.00	0.053	O	|	|	|	|	0.51
18.833	0.00	0.00	0.053	O	|	|	|	|	0.50
18.917	0.00	0.00	0.053	O	|	|	|	|	0.50
19.000	0.00	0.00	0.053	O	|	|	|	|	0.50
19.083	0.00	0.00	0.053	O	|	|	|	|	0.50
19.167	0.00	0.00	0.053	O	|	|	|	|	0.50
19.250	0.00	0.00	0.053	O	|	|	|	|	0.50
19.333	0.00	0.00	0.053	O	|	|	|	|	0.50
19.417	0.00	0.00	0.052	O	|	|	|	|	0.50
19.500	0.00	0.00	0.052	O	|	|	|	|	0.50
19.583	0.00	0.00	0.052	O	|	|	|	|	0.50
19.667	0.00	0.00	0.052	O	|	|	|	|	0.50
19.750	0.00	0.00	0.052	O	|	|	|	|	0.50
19.833	0.00	0.00	0.052	O	|	|	|	|	0.50
19.917	0.00	0.00	0.052	O	|	|	|	|	0.50
20.000	0.00	0.00	0.052	O	|	|	|	|	0.50
20.083	0.00	0.00	0.052	O	|	|	|	|	0.50
20.167	0.00	0.00	0.052	O	|	|	|	|	0.50
20.250	0.00	0.00	0.052	O	|	|	|	|	0.50
20.333	0.00	0.00	0.052	O	|	|	|	|	0.50
20.417	0.00	0.00	0.052	O	|	|	|	|	0.50
20.500	0.00	0.00	0.052	O	|	|	|	|	0.50
20.583	0.00	0.00	0.052	O	|	|	|	|	0.50
20.667	0.00	0.00	0.052	O	|	|	|	|	0.50
20.750	0.00	0.00	0.052	O	|	|	|	|	0.50
20.833	0.00	0.00	0.052	O	|	|	|	|	0.50
20.917	0.00	0.00	0.052	O	|	|	|	|	0.50
21.000	0.00	0.00	0.052	O	|	|	|	|	0.50
21.083	0.00	0.00	0.052	O	|	|	|	|	0.50
21.167	0.00	0.00	0.052	O	|	|	|	|	0.50
21.250	0.00	0.00	0.052	O	|	|	|	|	0.50

Remaining water in basin = 0.05 (Ac.Ft)

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

Number of intervals = 255
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.148 (CFS)
Total volume = 0.051 (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

Study date: 08/24/22

A21626 DMA 2 5YR-6HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA2Q100UH65.rte
**********HYDROGRAPH DATA**********
Number of intervals = 73
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 1.228 (CFS)
Total volume = 0.141 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Free outlet pipe flow: Pipe Diameter = 1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe = 0.50(Ft.) Capacity = 4.44(CFS)

Total outflow at this depth = 4.64(CFS)

Total number of inflow hydrograph intervals = 73

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
0.500	0.052	0.000	0.052	0.052
1.000	0.111	0.196	0.110	0.112
1.500	0.177	0.196	0.176	0.178
2.000	0.251	0.196	0.250	0.252
2.500	0.333	4.639	0.317	0.349

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.3	0.61	0.92	1.23	Depth (Ft.)
0.083	0.07	0.00	0.000	OI	|	|	|	|	0.00
0.167	0.11	0.00	0.001	O I	|	|	|	|	0.01
0.250	0.12	0.00	0.002	O I	|	|	|	|	0.02
0.333	0.12	0.00	0.003	O I	|	|	|	|	0.02
0.417	0.12	0.00	0.003	O I	|	|	|	|	0.03
0.500	0.14	0.00	0.004	O I	|	|	|	|	0.04
0.583	0.14	0.00	0.005	O I	|	|	|	|	0.05
0.667	0.14	0.00	0.006	O I	|	|	|	|	0.06
0.750	0.14	0.00	0.007	O I	|	|	|	|	0.07
0.833	0.14	0.00	0.008	O I	|	|	|	|	0.08
0.917	0.14	0.00	0.009	O I	|	|	|	|	0.09
1.000	0.16	0.00	0.010	O I	|	|	|	|	0.10
1.083	0.16	0.00	0.011	O I	|	|	|	|	0.11
1.167	0.16	0.00	0.012	O I	|	|	|	|	0.12
1.250	0.16	0.00	0.013	O I	|	|	|	|	0.13
1.333	0.16	0.00	0.015	O I	|	|	|	|	0.14
1.417	0.16	0.00	0.016	O I	|	|	|	|	0.15
1.500	0.16	0.00	0.017	O I	|	|	|	|	0.16
1.583	0.16	0.00	0.018	O I	|	|	|	|	0.17
1.667	0.16	0.00	0.019	O I	|	|	|	|	0.18
1.750	0.16	0.00	0.020	O I	|	|	|	|	0.19
1.833	0.16	0.00	0.021	O I	|	|	|	|	0.20
1.917	0.16	0.00	0.022	O I	|	|	|	|	0.21

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2.000    0.18    0.00      0.023  O   I   |       |       |       |     0.23
2.083    0.17    0.00      0.025  O   I   |       |       |       |     0.24
2.167    0.18    0.00      0.026  O   I   |       |       |       |     0.25
2.250    0.18    0.00      0.027  O   I   |       |       |       |     0.26
2.333    0.18    0.00      0.028  O   I   |       |       |       |     0.27
2.417    0.18    0.00      0.029  O   I   |       |       |       |     0.28
2.500    0.18    0.00      0.031  O   I   |       |       |       |     0.30
2.583    0.18    0.00      0.032  O   I   |       |       |       |     0.31
2.667    0.18    0.00      0.033  O   I   |       |       |       |     0.32
2.750    0.20    0.00      0.035  O    I  |       |       |       |     0.33
2.833    0.20    0.00      0.036  O    I  |       |       |       |     0.34
2.917    0.20    0.00      0.037  O    I  |       |       |       |     0.36
3.000    0.20    0.00      0.039  O    I  |       |       |       |     0.37
3.083    0.20    0.00      0.040  O    I  |       |       |       |     0.38
3.167    0.22    0.00      0.041  O    I  |       |       |       |     0.40
3.250    0.22    0.00      0.043  O    I  |       |       |       |     0.41
3.333    0.22    0.00      0.044  O    I  |       |       |       |     0.43
3.417    0.24    0.00      0.046  O     I |       |       |       |     0.44
3.500    0.26    0.00      0.048  O     I |       |       |       |     0.46
3.583    0.28    0.00      0.050  O      I|       |       |       |     0.48
3.667    0.28    0.00      0.051  O      I|       |       |       |     0.50
3.750    0.30    0.00      0.053  O      I|       |       |       |     0.51
3.833    0.30    0.01      0.055  O      I|       |       |       |     0.53
3.917    0.32    0.02      0.057  O       I       |       |       |     0.55
4.000    0.32    0.03      0.060  O       I       |       |       |     0.56
4.083    0.34    0.03      0.062  O       I       |       |       |     0.58
4.167    0.36    0.04      0.064  |O      |I      |       |       |     0.60
4.250    0.38    0.05      0.066  |O      |I      |       |       |     0.62
4.333    0.40    0.05      0.068  |O      | I     |       |       |     0.64
4.417    0.42    0.06      0.071  |O      | I     |       |       |     0.66
4.500    0.42    0.07      0.073  |O      | I     |       |       |     0.68
4.583    0.44    0.08      0.076  | O     |  I    |       |       |     0.70
4.667    0.46    0.09      0.078  | O     |  I    |       |       |     0.72
4.750    0.48    0.10      0.081  | O     |   I   |       |       |     0.74
4.833    0.48    0.10      0.083  | O     |   I   |       |       |     0.76
4.917    0.50    0.11      0.086  | O     |   I   |       |       |     0.79
5.000    0.52    0.12      0.089  |  O    |    I  |       |       |     0.81
5.083    0.60    0.13      0.092  |  O    |      I|       |       |     0.83
5.167    0.70    0.14      0.095  |  O    |       | I     |       |     0.86
5.250    0.79    0.16      0.099  |   O   |       |   I   |       |     0.90
5.333    0.88    0.17      0.104  |   O   |       |     I |       |     0.94
5.417    1.00    0.19      0.109  |   O   |       |       | I     |     0.98
5.500    1.23    0.20      0.115  |    O  |       |       |      I    1.03
5.583    0.64    0.20      0.120  |    O  |       I       |       |     1.07
5.667    0.24    0.20      0.122  |    OI |       |       |       |     1.08
5.750    0.14    0.20      0.122  |  I O  |       |       |       |     1.08
5.833    0.11    0.20      0.122  | I  O  |       |       |       |     1.08
5.917    0.07    0.20      0.121  |I   O  |       |       |       |     1.07
6.000    0.05    0.20      0.120  |I   O  |       |       |       |     1.07
6.083    0.01    0.20      0.119  I    O  |       |       |       |     1.06
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6.167	0.00	0.20	0.117	I	O				1.05
6.250	0.00	0.20	0.116	I	O				1.04
6.333	0.00	0.20	0.115	I	O				1.03
6.417	0.00	0.20	0.113	I	O				1.02
6.500	0.00	0.20	0.112	I	O				1.01
6.583	0.00	0.20	0.111	I	O				1.00
6.667	0.00	0.19	0.109	I	O				0.99
6.750	0.00	0.19	0.108	I	O				0.97
6.833	0.00	0.18	0.107	I	O				0.96
6.917	0.00	0.18	0.105	I	O				0.95
7.000	0.00	0.17	0.104	I	O				0.94
7.083	0.00	0.17	0.103	I	O				0.93
7.167	0.00	0.17	0.102	I	O				0.92
7.250	0.00	0.16	0.101	I	O				0.91
7.333	0.00	0.16	0.100	I	O				0.90
7.417	0.00	0.16	0.099	I	O				0.89
7.500	0.00	0.15	0.098	I	O				0.89
7.583	0.00	0.15	0.097	I	O				0.88
7.667	0.00	0.14	0.096	I	O				0.87
7.750	0.00	0.14	0.095	I	O				0.86
7.833	0.00	0.14	0.094	I	O				0.85
7.917	0.00	0.14	0.093	I	O				0.84
8.000	0.00	0.13	0.092	I	O				0.84
8.083	0.00	0.13	0.091	I	O				0.83
8.167	0.00	0.13	0.090	I	O				0.82
8.250	0.00	0.12	0.089	I	O				0.81
8.333	0.00	0.12	0.088	I	O				0.81
8.417	0.00	0.12	0.087	I	O				0.80
8.500	0.00	0.12	0.087	I	O				0.79
8.583	0.00	0.11	0.086	I	O				0.79
8.667	0.00	0.11	0.085	I	O				0.78
8.750	0.00	0.11	0.084	I	O				0.77
8.833	0.00	0.11	0.084	I	O				0.77
8.917	0.00	0.10	0.083	I	O				0.76
9.000	0.00	0.10	0.082	I	O				0.76
9.083	0.00	0.10	0.081	I	O				0.75
9.167	0.00	0.10	0.081	I	O				0.74
9.250	0.00	0.09	0.080	I	O				0.74
9.333	0.00	0.09	0.080	I	O				0.73
9.417	0.00	0.09	0.079	I	O				0.73
9.500	0.00	0.09	0.078	I	O				0.72
9.583	0.00	0.09	0.078	I	O				0.72
9.667	0.00	0.08	0.077	I	O				0.71
9.750	0.00	0.08	0.077	I	O				0.71
9.833	0.00	0.08	0.076	I	O				0.70
9.917	0.00	0.08	0.075	I	O				0.70
10.000	0.00	0.08	0.075	I	O				0.69
10.083	0.00	0.07	0.074	I	O				0.69
10.167	0.00	0.07	0.074	I	O				0.69
10.250	0.00	0.07	0.073	I	O				0.68

10.333	0.00	0.07	0.073	IO				0.68
10.417	0.00	0.07	0.072	IO				0.67
10.500	0.00	0.07	0.072	IO				0.67
10.583	0.00	0.06	0.072	IO				0.67
10.667	0.00	0.06	0.071	IO				0.66
10.750	0.00	0.06	0.071	IO				0.66
10.833	0.00	0.06	0.070	IO				0.65
10.917	0.00	0.06	0.070	IO				0.65
11.000	0.00	0.06	0.069	IO				0.65
11.083	0.00	0.06	0.069	IO				0.64
11.167	0.00	0.06	0.069	IO				0.64
11.250	0.00	0.05	0.068	IO				0.64
11.333	0.00	0.05	0.068	IO				0.63
11.417	0.00	0.05	0.068	IO				0.63
11.500	0.00	0.05	0.067	IO				0.63
11.583	0.00	0.05	0.067	IO				0.63
11.667	0.00	0.05	0.066	IO				0.62
11.750	0.00	0.05	0.066	IO				0.62
11.833	0.00	0.05	0.066	IO				0.62
11.917	0.00	0.04	0.066	IO				0.61
12.000	0.00	0.04	0.065	IO				0.61
12.083	0.00	0.04	0.065	IO				0.61
12.167	0.00	0.04	0.065	IO				0.61
12.250	0.00	0.04	0.064	IO				0.60
12.333	0.00	0.04	0.064	IO				0.60
12.417	0.00	0.04	0.064	IO				0.60
12.500	0.00	0.04	0.064	O				0.60
12.583	0.00	0.04	0.063	O				0.60
12.667	0.00	0.04	0.063	O				0.59
12.750	0.00	0.04	0.063	O				0.59
12.833	0.00	0.03	0.063	O				0.59
12.917	0.00	0.03	0.062	O				0.59
13.000	0.00	0.03	0.062	O				0.59
13.083	0.00	0.03	0.062	O				0.58
13.167	0.00	0.03	0.062	O				0.58
13.250	0.00	0.03	0.061	O				0.58
13.333	0.00	0.03	0.061	O				0.58
13.417	0.00	0.03	0.061	O				0.58
13.500	0.00	0.03	0.061	O				0.57
13.583	0.00	0.03	0.061	O				0.57
13.667	0.00	0.03	0.060	O				0.57
13.750	0.00	0.03	0.060	O				0.57
13.833	0.00	0.03	0.060	O				0.57
13.917	0.00	0.03	0.060	O				0.57
14.000	0.00	0.03	0.060	O				0.56
14.083	0.00	0.02	0.059	O				0.56
14.167	0.00	0.02	0.059	O				0.56
14.250	0.00	0.02	0.059	O				0.56
14.333	0.00	0.02	0.059	O				0.56
14.417	0.00	0.02	0.059	O				0.56

14.500	0.00	0.02	0.059	O	|	|	|	0.56
14.583	0.00	0.02	0.058	O	|	|	|	0.56
14.667	0.00	0.02	0.058	O	|	|	|	0.55
14.750	0.00	0.02	0.058	O	|	|	|	0.55
14.833	0.00	0.02	0.058	O	|	|	|	0.55
14.917	0.00	0.02	0.058	O	|	|	|	0.55
15.000	0.00	0.02	0.058	O	|	|	|	0.55
15.083	0.00	0.02	0.058	O	|	|	|	0.55
15.167	0.00	0.02	0.058	O	|	|	|	0.55
15.250	0.00	0.02	0.057	O	|	|	|	0.55
15.333	0.00	0.02	0.057	O	|	|	|	0.54
15.417	0.00	0.02	0.057	O	|	|	|	0.54
15.500	0.00	0.02	0.057	O	|	|	|	0.54
15.583	0.00	0.02	0.057	O	|	|	|	0.54
15.667	0.00	0.02	0.057	O	|	|	|	0.54
15.750	0.00	0.02	0.057	O	|	|	|	0.54
15.833	0.00	0.02	0.057	O	|	|	|	0.54
15.917	0.00	0.01	0.056	O	|	|	|	0.54
16.000	0.00	0.01	0.056	O	|	|	|	0.54
16.083	0.00	0.01	0.056	O	|	|	|	0.54
16.167	0.00	0.01	0.056	O	|	|	|	0.54
16.250	0.00	0.01	0.056	O	|	|	|	0.53
16.333	0.00	0.01	0.056	O	|	|	|	0.53
16.417	0.00	0.01	0.056	O	|	|	|	0.53
16.500	0.00	0.01	0.056	O	|	|	|	0.53
16.583	0.00	0.01	0.056	O	|	|	|	0.53
16.667	0.00	0.01	0.056	O	|	|	|	0.53
16.750	0.00	0.01	0.056	O	|	|	|	0.53
16.833	0.00	0.01	0.055	O	|	|	|	0.53
16.917	0.00	0.01	0.055	O	|	|	|	0.53
17.000	0.00	0.01	0.055	O	|	|	|	0.53
17.083	0.00	0.01	0.055	O	|	|	|	0.53
17.167	0.00	0.01	0.055	O	|	|	|	0.53
17.250	0.00	0.01	0.055	O	|	|	|	0.53
17.333	0.00	0.01	0.055	O	|	|	|	0.53
17.417	0.00	0.01	0.055	O	|	|	|	0.53
17.500	0.00	0.01	0.055	O	|	|	|	0.52
17.583	0.00	0.01	0.055	O	|	|	|	0.52
17.667	0.00	0.01	0.055	O	|	|	|	0.52
17.750	0.00	0.01	0.055	O	|	|	|	0.52
17.833	0.00	0.01	0.055	O	|	|	|	0.52
17.917	0.00	0.01	0.055	O	|	|	|	0.52
18.000	0.00	0.01	0.055	O	|	|	|	0.52
18.083	0.00	0.01	0.054	O	|	|	|	0.52
18.167	0.00	0.01	0.054	O	|	|	|	0.52
18.250	0.00	0.01	0.054	O	|	|	|	0.52
18.333	0.00	0.01	0.054	O	|	|	|	0.52
18.417	0.00	0.01	0.054	O	|	|	|	0.52
18.500	0.00	0.01	0.054	O	|	|	|	0.52
18.583	0.00	0.01	0.054	O	|	|	|	0.52

18.667	0.00	0.01	0.054	O				0.52
18.750	0.00	0.01	0.054	O				0.52
18.833	0.00	0.01	0.054	O				0.52
18.917	0.00	0.01	0.054	O				0.52
19.000	0.00	0.01	0.054	O				0.52
19.083	0.00	0.01	0.054	O				0.52
19.167	0.00	0.01	0.054	O				0.52
19.250	0.00	0.01	0.054	O				0.52
19.333	0.00	0.01	0.054	O				0.51
19.417	0.00	0.01	0.054	O				0.51
19.500	0.00	0.01	0.054	O				0.51
19.583	0.00	0.01	0.054	O				0.51
19.667	0.00	0.01	0.054	O				0.51
19.750	0.00	0.01	0.054	O				0.51
19.833	0.00	0.01	0.054	O				0.51
19.917	0.00	0.00	0.053	O				0.51
20.000	0.00	0.00	0.053	O				0.51
20.083	0.00	0.00	0.053	O				0.51
20.167	0.00	0.00	0.053	O				0.51
20.250	0.00	0.00	0.053	O				0.51
20.333	0.00	0.00	0.053	O				0.51
20.417	0.00	0.00	0.053	O				0.51
20.500	0.00	0.00	0.053	O				0.51
20.583	0.00	0.00	0.053	O				0.51
20.667	0.00	0.00	0.053	O				0.51
20.750	0.00	0.00	0.053	O				0.51
20.833	0.00	0.00	0.053	O				0.51
20.917	0.00	0.00	0.053	O				0.51
21.000	0.00	0.00	0.053	O				0.51
21.083	0.00	0.00	0.053	O				0.51
21.167	0.00	0.00	0.053	O				0.51
21.250	0.00	0.00	0.053	O				0.51
21.333	0.00	0.00	0.053	O				0.51
21.417	0.00	0.00	0.053	O				0.51
21.500	0.00	0.00	0.053	O				0.51
21.583	0.00	0.00	0.053	O				0.51
21.667	0.00	0.00	0.053	O				0.51
21.750	0.00	0.00	0.053	O				0.51
21.833	0.00	0.00	0.053	O				0.51
21.917	0.00	0.00	0.053	O				0.51
22.000	0.00	0.00	0.053	O				0.51
22.083	0.00	0.00	0.053	O				0.51
22.167	0.00	0.00	0.053	O				0.51
22.250	0.00	0.00	0.053	O				0.51
22.333	0.00	0.00	0.053	O				0.51
22.417	0.00	0.00	0.053	O				0.51
22.500	0.00	0.00	0.053	O				0.51
22.583	0.00	0.00	0.053	O				0.51
22.667	0.00	0.00	0.053	O				0.51
22.750	0.00	0.00	0.053	O				0.51

22.833	0.00	0.00	0.053	O	|	|	|	|	0.51
22.917	0.00	0.00	0.053	O	|	|	|	|	0.51
23.000	0.00	0.00	0.053	O	|	|	|	|	0.51
23.083	0.00	0.00	0.053	O	|	|	|	|	0.51
23.167	0.00	0.00	0.053	O	|	|	|	|	0.51
23.250	0.00	0.00	0.053	O	|	|	|	|	0.51
23.333	0.00	0.00	0.053	O	|	|	|	|	0.50
23.417	0.00	0.00	0.053	O	|	|	|	|	0.50
23.500	0.00	0.00	0.053	O	|	|	|	|	0.50
23.583	0.00	0.00	0.053	O	|	|	|	|	0.50
23.667	0.00	0.00	0.053	O	|	|	|	|	0.50
23.750	0.00	0.00	0.053	O	|	|	|	|	0.50
23.833	0.00	0.00	0.053	O	|	|	|	|	0.50
23.917	0.00	0.00	0.052	O	|	|	|	|	0.50
24.000	0.00	0.00	0.052	O	|	|	|	|	0.50
24.083	0.00	0.00	0.052	O	|	|	|	|	0.50
24.167	0.00	0.00	0.052	O	|	|	|	|	0.50
24.250	0.00	0.00	0.052	O	|	|	|	|	0.50
24.333	0.00	0.00	0.052	O	|	|	|	|	0.50
24.417	0.00	0.00	0.052	O	|	|	|	|	0.50
24.500	0.00	0.00	0.052	O	|	|	|	|	0.50
24.583	0.00	0.00	0.052	O	|	|	|	|	0.50
24.667	0.00	0.00	0.052	O	|	|	|	|	0.50
24.750	0.00	0.00	0.052	O	|	|	|	|	0.50
24.833	0.00	0.00	0.052	O	|	|	|	|	0.50
24.917	0.00	0.00	0.052	O	|	|	|	|	0.50
25.000	0.00	0.00	0.052	O	|	|	|	|	0.50
25.083	0.00	0.00	0.052	O	|	|	|	|	0.50
25.167	0.00	0.00	0.052	O	|	|	|	|	0.50
25.250	0.00	0.00	0.052	O	|	|	|	|	0.50
25.333	0.00	0.00	0.052	O	|	|	|	|	0.50
25.417	0.00	0.00	0.052	O	|	|	|	|	0.50
25.500	0.00	0.00	0.052	O	|	|	|	|	0.50
25.583	0.00	0.00	0.052	O	|	|	|	|	0.50
25.667	0.00	0.00	0.052	O	|	|	|	|	0.50
25.750	0.00	0.00	0.052	O	|	|	|	|	0.50
25.833	0.00	0.00	0.052	O	|	|	|	|	0.50

Remaining water in basin = 0.05 (Ac.Ft)

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

Number of intervals = 310
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.089 (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

Study date: 08/24/22

A21626 DMA 2 5YR-24HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA2Q100UH245.rte
**********HYDROGRAPH DATA**********
Number of intervals = 289
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.396 (CFS)
Total volume = 0.241 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   0.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.00(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.00(Ft.)   Capacity =   0.20(CFS)

Free outlet pipe flow: Pipe Diameter =   1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)   Capacity =   4.44(CFS)

Total outflow at this depth =   4.64(CFS)

Total number of inflow hydrograph intervals = 289

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
0.500	0.052	0.000	0.052	0.052
1.000	0.111	0.196	0.110	0.112
1.500	0.177	0.196	0.176	0.178
2.000	0.251	0.196	0.250	0.252
2.500	0.333	4.639	0.317	0.349

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 0.1 0.20 0.30 0.40	Depth (Ft.)
0.083	0.02	0.00	0.000	OI	0.00
0.167	0.02	0.00	0.000	OI	0.00
0.250	0.02	0.00	0.000	OI	0.00
0.333	0.03	0.00	0.001	O I	0.01
0.417	0.03	0.00	0.001	O I	0.01
0.500	0.03	0.00	0.001	O I	0.01
0.583	0.03	0.00	0.001	O I	0.01
0.667	0.03	0.00	0.001	O I	0.01
0.750	0.03	0.00	0.002	O I	0.02
0.833	0.04	0.00	0.002	O I	0.02
0.917	0.05	0.00	0.002	O I	0.02
1.000	0.05	0.00	0.003	O I	0.03
1.083	0.04	0.00	0.003	O I	0.03
1.167	0.03	0.00	0.003	O I	0.03
1.250	0.03	0.00	0.003	O I	0.03
1.333	0.03	0.00	0.004	O I	0.04
1.417	0.03	0.00	0.004	O I	0.04
1.500	0.03	0.00	0.004	O I	0.04
1.583	0.03	0.00	0.004	O I	0.04
1.667	0.03	0.00	0.005	O I	0.04
1.750	0.03	0.00	0.005	O I	0.05
1.833	0.04	0.00	0.005	O I	0.05
1.917	0.05	0.00	0.005	O I	0.05

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2.000    0.05    0.00      0.006  O  I    |        |        |        |      0.06
2.083    0.05    0.00      0.006  O  I    |        |        |        |      0.06
2.167    0.05    0.00      0.006  O  I    |        |        |        |      0.06
2.250    0.05    0.00      0.007  O  I    |        |        |        |      0.06
2.333    0.05    0.00      0.007  O  I    |        |        |        |      0.07
2.417    0.05    0.00      0.007  O  I    |        |        |        |      0.07
2.500    0.05    0.00      0.008  O  I    |        |        |        |      0.07
2.583    0.06    0.00      0.008  O   I   |        |        |        |      0.08
2.667    0.06    0.00      0.008  O   I   |        |        |        |      0.08
2.750    0.06    0.00      0.009  O   I   |        |        |        |      0.08
2.833    0.06    0.00      0.009  O   I   |        |        |        |      0.09
2.917    0.06    0.00      0.010  O   I   |        |        |        |      0.09
3.000    0.06    0.00      0.010  O   I   |        |        |        |      0.10
3.083    0.06    0.00      0.010  O   I   |        |        |        |      0.10
3.167    0.06    0.00      0.011  O   I   |        |        |        |      0.10
3.250    0.06    0.00      0.011  O   I   |        |        |        |      0.11
3.333    0.06    0.00      0.012  O   I   |        |        |        |      0.11
3.417    0.06    0.00      0.012  O   I   |        |        |        |      0.12
3.500    0.06    0.00      0.012  O   I   |        |        |        |      0.12
3.583    0.06    0.00      0.013  O   I   |        |        |        |      0.12
3.667    0.06    0.00      0.013  O   I   |        |        |        |      0.13
3.750    0.06    0.00      0.014  O   I   |        |        |        |      0.13
3.833    0.07    0.00      0.014  O    I  |        |        |        |      0.14
3.917    0.07    0.00      0.015  O    I  |        |        |        |      0.14
4.000    0.07    0.00      0.015  O    I  |        |        |        |      0.14
4.083    0.07    0.00      0.016  O    I  |        |        |        |      0.15
4.167    0.07    0.00      0.016  O    I  |        |        |        |      0.15
4.250    0.07    0.00      0.016  O    I  |        |        |        |      0.16
4.333    0.08    0.00      0.017  O     I |        |        |        |      0.16
4.417    0.08    0.00      0.018  O     I |        |        |        |      0.17
4.500    0.08    0.00      0.018  O     I |        |        |        |      0.17
4.583    0.08    0.00      0.019  O     I |        |        |        |      0.18
4.667    0.08    0.00      0.019  O     I |        |        |        |      0.18
4.750    0.08    0.00      0.020  O     I |        |        |        |      0.19
4.833    0.09    0.00      0.020  O      I|        |        |        |      0.20
4.917    0.09    0.00      0.021  O      I|        |        |        |      0.20
5.000    0.09    0.00      0.022  O      I|        |        |        |      0.21
5.083    0.08    0.00      0.022  O     I |        |        |        |      0.21
5.167    0.07    0.00      0.023  O    I  |        |        |        |      0.22
5.250    0.07    0.00      0.023  O    I  |        |        |        |      0.22
5.333    0.08    0.00      0.024  O     I |        |        |        |      0.23
5.417    0.08    0.00      0.024  O     I |        |        |        |      0.23
5.500    0.08    0.00      0.025  O     I |        |        |        |      0.24
5.583    0.09    0.00      0.025  O      I|        |        |        |      0.24
5.667    0.09    0.00      0.026  O      I|        |        |        |      0.25
5.750    0.09    0.00      0.027  O      I|        |        |        |      0.26
5.833    0.09    0.00      0.027  O      I|        |        |        |      0.26
5.917    0.09    0.00      0.028  O      I|        |        |        |      0.27
6.000    0.09    0.00      0.029  O      I|        |        |        |      0.28
6.083    0.10    0.00      0.029  O       I        |        |        |      0.28
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6.167	0.10	0.00	0.030	O	I	|	|	|	0.29
6.250	0.10	0.00	0.031	O	I	|	|	|	0.30
6.333	0.10	0.00	0.031	O	I	|	|	|	0.30
6.417	0.10	0.00	0.032	O	I	|	|	|	0.31
6.500	0.10	0.00	0.033	O	I	|	|	|	0.32
6.583	0.11	0.00	0.034	O	|I	|	|	|	0.32
6.667	0.12	0.00	0.034	O	|I	|	|	|	0.33
6.750	0.12	0.00	0.035	O	|I	|	|	|	0.34
6.833	0.12	0.00	0.036	O	|I	|	|	|	0.35
6.917	0.12	0.00	0.037	O	|I	|	|	|	0.35
7.000	0.12	0.00	0.038	O	|I	|	|	|	0.36
7.083	0.12	0.00	0.038	O	|I	|	|	|	0.37
7.167	0.12	0.00	0.039	O	|I	|	|	|	0.38
7.250	0.12	0.00	0.040	O	|I	|	|	|	0.39
7.333	0.12	0.00	0.041	O	| I	|	|	|	0.39
7.417	0.13	0.00	0.042	O	| I	|	|	|	0.40
7.500	0.13	0.00	0.043	O	| I	|	|	|	0.41
7.583	0.14	0.00	0.044	O	| I	|	|	|	0.42
7.667	0.14	0.00	0.045	O	| I	|	|	|	0.43
7.750	0.14	0.00	0.045	O	| I	|	|	|	0.44
7.833	0.15	0.00	0.046	O	| I	|	|	|	0.45
7.917	0.15	0.00	0.048	O	| I	|	|	|	0.46
8.000	0.15	0.00	0.049	O	| I	|	|	|	0.47
8.083	0.17	0.00	0.050	O	| I	|	|	|	0.48
8.167	0.17	0.00	0.051	O	| I	|	|	|	0.49
8.250	0.17	0.00	0.052	O	| I	|	|	|	0.50
8.333	0.17	0.00	0.053	O	| I	|	|	|	0.51
8.417	0.17	0.01	0.054	O	| I	|	|	|	0.52
8.500	0.17	0.01	0.056	O	| I	|	|	|	0.53
8.583	0.18	0.02	0.057	|O	| I	|	|	|	0.54
8.667	0.19	0.02	0.058	|O	| I	|	|	|	0.55
8.750	0.19	0.02	0.059	|O	| I	|	|	|	0.56
8.833	0.19	0.03	0.060	| O	| I	|	|	|	0.57
8.917	0.20	0.03	0.061	| O	| I	|	|	|	0.58
9.000	0.20	0.03	0.062	| O	| I	|	|	|	0.59
9.083	0.21	0.04	0.064	| O	| |I	|	|	|	0.60
9.167	0.22	0.04	0.065	| O	| |I	|	|	|	0.61
9.250	0.22	0.05	0.066	| O	| |I	|	|	|	0.62
9.333	0.23	0.05	0.067	| O	| | I	|	|	|	0.63
9.417	0.23	0.05	0.068	| O	| | I	|	|	|	0.64
9.500	0.23	0.06	0.070	| O	| | I	|	|	|	0.65
9.583	0.24	0.06	0.071	| O	| | I	|	|	|	0.66
9.667	0.24	0.07	0.072	| O	| | I	|	|	|	0.67
9.750	0.24	0.07	0.073	| O	| | I	|	|	|	0.68
9.833	0.25	0.07	0.075	| O	| | I	|	|	|	0.69
9.917	0.26	0.08	0.076	| O	| | I	|	|	|	0.70
10.000	0.26	0.08	0.077	| O	| | I	|	|	|	0.71
10.083	0.20	0.09	0.078	| O	| I|	|	|	|	0.72
10.167	0.17	0.09	0.079	| O|	I	|	|	|	0.73
10.250	0.17	0.09	0.079	| O|	I	|	|	|	0.73

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10.333    0.17    0.09      0.080  |      O|     I |       |       |     0.74
10.417    0.17    0.09      0.080  |      O|     I |       |       |     0.74
10.500    0.17    0.10      0.081  |      O|     I |       |       |     0.74
10.583    0.22    0.10      0.082  |      O|       |I      |       |     0.75
10.667    0.23    0.10      0.082  |       O       | I     |       |     0.76
10.750    0.23    0.10      0.083  |       O       | I     |       |     0.77
10.833    0.23    0.11      0.084  |       O       | I     |       |     0.77
10.917    0.23    0.11      0.085  |       O       | I     |       |     0.78
11.000    0.23    0.11      0.086  |       |O      | I     |       |     0.79
11.083    0.22    0.12      0.087  |       |O      | I     |       |     0.79
11.167    0.22    0.12      0.087  |       |O      |I      |       |     0.80
11.250    0.22    0.12      0.088  |       |O      |I      |       |     0.81
11.333    0.22    0.12      0.089  |       |O      |I      |       |     0.81
11.417    0.22    0.12      0.089  |       | O     |I      |       |     0.82
11.500    0.22    0.13      0.090  |       | O     |I      |       |     0.82
11.583    0.20    0.13      0.091  |       | O     I       |       |     0.83
11.667    0.20    0.13      0.091  |       | O     I       |       |     0.83
11.750    0.20    0.13      0.092  |       | O     I       |       |     0.84
11.833    0.21    0.13      0.092  |       | O     I       |       |     0.84
11.917    0.21    0.14      0.093  |       | O     I       |       |     0.84
12.000    0.21    0.14      0.093  |       |  O    I       |       |     0.85
12.083    0.27    0.14      0.094  |       |  O    |    I  |       |     0.85
12.167    0.29    0.14      0.095  |       |  O    |      I|       |     0.86
12.250    0.29    0.15      0.096  |       |  O    |      I|       |     0.87
12.333    0.30    0.15      0.097  |       |   O   |       I       |     0.88
12.417    0.30    0.15      0.098  |       |   O   |       I       |     0.89
12.500    0.30    0.16      0.099  |       |   O   |       I       |     0.90
12.583    0.32    0.16      0.100  |       |   O   |       |I      |     0.91
12.667    0.33    0.16      0.101  |       |    O  |       | I     |     0.92
12.750    0.33    0.17      0.102  |       |    O  |       | I     |     0.93
12.833    0.33    0.17      0.103  |       |    O  |       |  I    |     0.93
12.917    0.34    0.17      0.104  |       |     O |       |  I    |     0.94
13.000    0.34    0.18      0.106  |       |     O |       |  I    |     0.95
13.083    0.38    0.18      0.107  |       |     O |       |     I |     0.96
13.167    0.40    0.19      0.108  |       |      O|       |       I     0.98
13.250    0.40    0.19      0.110  |       |      O|       |       I     0.99
13.333    0.40    0.20      0.111  |       |      O|       |       I     1.00
13.417    0.40    0.20      0.112  |       |      O|       |       I     1.01
13.500    0.40    0.20      0.114  |       |      O|       |       I     1.02
13.583    0.30    0.20      0.115  |       |      O|       I       |     1.03
13.667    0.27    0.20      0.115  |       |      O|    I  |       |     1.03
13.750    0.27    0.20      0.116  |       |      O|    I  |       |     1.04
13.833    0.27    0.20      0.116  |       |      O|    I  |       |     1.04
13.917    0.27    0.20      0.117  |       |      O|    I  |       |     1.04
14.000    0.27    0.20      0.117  |       |      O|    I  |       |     1.05
14.083    0.30    0.20      0.118  |       |      O|       I       |     1.05
14.167    0.31    0.20      0.119  |       |      O|       |I      |     1.06
14.250    0.31    0.20      0.120  |       |      O|       |I      |     1.07
14.333    0.31    0.20      0.120  |       |      O|       I       |     1.07
14.417    0.30    0.20      0.121  |       |      O|       I       |     1.08
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14.500	0.30	0.20	0.122	|	|	O|	I	|	1.08
14.583	0.30	0.20	0.123	|	|	O|	I	|	1.09
14.667	0.30	0.20	0.123	|	|	O|	I	|	1.09
14.750	0.30	0.20	0.124	|	|	O|	I	|	1.10
14.833	0.29	0.20	0.125	|	|	O|	I|	|	1.10
14.917	0.29	0.20	0.125	|	|	O|	I|	|	1.11
15.000	0.29	0.20	0.126	|	|	O|	I|	|	1.11
15.083	0.28	0.20	0.127	|	|	O|	I |	|	1.12
15.167	0.28	0.20	0.127	|	|	O|	I |	|	1.12
15.250	0.28	0.20	0.128	|	|	O|	I |	|	1.13
15.333	0.27	0.20	0.128	|	|	O|	I |	|	1.13
15.417	0.27	0.20	0.129	|	|	O|	I |	|	1.14
15.500	0.27	0.20	0.129	|	|	O|	I |	|	1.14
15.583	0.23	0.20	0.130	|	|	O| I	|	|	1.14
15.667	0.22	0.20	0.130	|	|	O|I	|	|	1.14
15.750	0.22	0.20	0.130	|	|	O|I	|	|	1.15
15.833	0.22	0.20	0.130	|	|	O|I	|	|	1.15
15.917	0.22	0.20	0.131	|	|	O|I	|	|	1.15
16.000	0.22	0.20	0.131	|	|	O|I	|	|	1.15
16.083	0.10	0.20	0.130	|	I|	O|	|	|	1.15
16.167	0.05	0.20	0.130	| I	|	O|	|	|	1.14
16.250	0.05	0.20	0.129	| I	|	O|	|	|	1.13
16.333	0.05	0.20	0.128	| I	|	O|	|	|	1.13
16.417	0.05	0.20	0.126	| I	|	O|	|	|	1.12
16.500	0.05	0.20	0.125	| I	|	O|	|	|	1.11
16.583	0.04	0.20	0.124	| I	|	O|	|	|	1.10
16.667	0.03	0.20	0.123	| I	|	O|	|	|	1.09
16.750	0.03	0.20	0.122	| I	|	O|	|	|	1.08
16.833	0.03	0.20	0.121	| I	|	O|	|	|	1.08
16.917	0.03	0.20	0.120	| I	|	O|	|	|	1.07
17.000	0.03	0.20	0.119	| I	|	O|	|	|	1.06
17.083	0.05	0.20	0.118	| I	|	O|	|	|	1.05
17.167	0.06	0.20	0.117	| I	|	O|	|	|	1.04
17.250	0.06	0.20	0.116	| I	|	O|	|	|	1.04
17.333	0.06	0.20	0.115	| I	|	O|	|	|	1.03
17.417	0.06	0.20	0.114	| I	|	O|	|	|	1.02
17.500	0.06	0.20	0.113	| I	|	O|	|	|	1.02
17.583	0.06	0.20	0.112	| I	|	O|	|	|	1.01
17.667	0.06	0.20	0.111	| I	|	O|	|	|	1.00
17.750	0.06	0.19	0.110	| I	|	O|	|	|	0.99
17.833	0.05	0.19	0.109	| I	|	O|	|	|	0.98
17.917	0.05	0.19	0.108	| I	|	O|	|	|	0.98
18.000	0.05	0.18	0.107	| I	|	O |	|	|	0.97
18.083	0.05	0.18	0.106	| I	|	O |	|	|	0.96
18.167	0.05	0.18	0.105	| I	|	O |	|	|	0.95
18.250	0.05	0.17	0.105	| I	|	O |	|	|	0.95
18.333	0.05	0.17	0.104	| I	|	O |	|	|	0.94
18.417	0.05	0.17	0.103	| I	|	O |	|	|	0.93
18.500	0.05	0.17	0.102	| I	|	O |	|	|	0.92
18.583	0.04	0.16	0.101	| I	|	O |	|	|	0.92

18.667	0.03	0.16	0.100	| I |	O |	|	|	0.91
18.750	0.03	0.16	0.099	| I |	O |	|	|	0.90
18.833	0.03	0.15	0.099	| I |	O |	|	|	0.89
18.917	0.02	0.15	0.098	|I |	O |	|	|	0.89
19.000	0.02	0.15	0.097	|I |	O |	|	|	0.88
19.083	0.03	0.15	0.096	| I |	O |	|	|	0.87
19.167	0.03	0.14	0.095	| I |	O |	|	|	0.87
19.250	0.03	0.14	0.094	| I |	O |	|	|	0.86
19.333	0.04	0.14	0.094	| I |	O |	|	|	0.85
19.417	0.05	0.14	0.093	| I |	O |	|	|	0.85
19.500	0.05	0.13	0.093	| I | O	|	|	|	0.84
19.583	0.04	0.13	0.092	| I | O	|	|	|	0.84
19.667	0.03	0.13	0.091	| I | O	|	|	|	0.83
19.750	0.03	0.13	0.091	| I | O	|	|	|	0.83
19.833	0.03	0.13	0.090	| I | O	|	|	|	0.82
19.917	0.02	0.12	0.089	|I | O	|	|	|	0.82
20.000	0.02	0.12	0.089	|I |O	|	|	|	0.81
20.083	0.03	0.12	0.088	| I |O	|	|	|	0.80
20.167	0.03	0.12	0.087	| I |O	|	|	|	0.80
20.250	0.03	0.12	0.087	| I |O	|	|	|	0.79
20.333	0.03	0.11	0.086	| I |O	|	|	|	0.79
20.417	0.03	0.11	0.086	| I |O	|	|	|	0.79
20.500	0.03	0.11	0.085	| I O	|	|	|	0.78
20.583	0.03	0.11	0.085	| I O	|	|	|	0.78
20.667	0.03	0.11	0.084	| I O	|	|	|	0.77
20.750	0.03	0.11	0.084	| I O	|	|	|	0.77
20.833	0.03	0.10	0.083	| I O	|	|	|	0.76
20.917	0.02	0.10	0.083	|I O	|	|	|	0.76
21.000	0.02	0.10	0.082	|I O	|	|	|	0.75
21.083	0.03	0.10	0.082	| I O|	|	|	|	0.75
21.167	0.03	0.10	0.081	| I O|	|	|	|	0.75
21.250	0.03	0.10	0.081	| I O|	|	|	|	0.74
21.333	0.03	0.09	0.080	| I O|	|	|	|	0.74
21.417	0.02	0.09	0.080	|I O|	|	|	|	0.74
21.500	0.02	0.09	0.079	|I O|	|	|	|	0.73
21.583	0.03	0.09	0.079	| I O|	|	|	|	0.73
21.667	0.03	0.09	0.079	| I O|	|	|	|	0.72
21.750	0.03	0.09	0.078	| I O|	|	|	|	0.72
21.833	0.03	0.09	0.078	| I O |	|	|	|	0.72
21.917	0.02	0.08	0.077	|I O |	|	|	|	0.71
22.000	0.02	0.08	0.077	|I O |	|	|	|	0.71
22.083	0.03	0.08	0.077	| I O |	|	|	|	0.71
22.167	0.03	0.08	0.076	| I O |	|	|	|	0.71
22.250	0.03	0.08	0.076	| I O |	|	|	|	0.70
22.333	0.03	0.08	0.076	| I O |	|	|	|	0.70
22.417	0.02	0.08	0.075	|I O |	|	|	|	0.70
22.500	0.02	0.08	0.075	|I O |	|	|	|	0.69
22.583	0.02	0.07	0.074	|I O |	|	|	|	0.69
22.667	0.02	0.07	0.074	|I O |	|	|	|	0.69
22.750	0.02	0.07	0.074	|I O |	|	|	|	0.68

22.833	0.02	0.07	0.073	|I O |				0.68
22.917	0.02	0.07	0.073	|I O |				0.68
23.000	0.02	0.07	0.073	|I O |				0.68
23.083	0.02	0.07	0.072	|I O |				0.67
23.167	0.02	0.07	0.072	|I O |				0.67
23.250	0.02	0.07	0.072	|I O |				0.67
23.333	0.02	0.07	0.072	|I O |				0.67
23.417	0.02	0.06	0.071	|I O |				0.66
23.500	0.02	0.06	0.071	|I O |				0.66
23.583	0.02	0.06	0.071	|I O |				0.66
23.667	0.02	0.06	0.070	|I O |				0.66
23.750	0.02	0.06	0.070	|I O |				0.65
23.833	0.02	0.06	0.070	|I O |				0.65
23.917	0.02	0.06	0.070	|I O |				0.65
24.000	0.02	0.06	0.069	|I O |				0.65
24.083	0.01	0.06	0.069	I O |				0.65
24.167	0.00	0.06	0.069	I O |				0.64
24.250	0.00	0.05	0.068	I O |				0.64
24.333	0.00	0.05	0.068	I O |				0.64
24.417	0.00	0.05	0.068	I O |				0.63
24.500	0.00	0.05	0.067	I O |				0.63
24.583	0.00	0.05	0.067	I O |				0.63
24.667	0.00	0.05	0.067	I O |				0.62
24.750	0.00	0.05	0.066	I O |				0.62
24.833	0.00	0.05	0.066	I O |				0.62
24.917	0.00	0.05	0.066	I O |				0.62
25.000	0.00	0.04	0.065	I O |				0.61
25.083	0.00	0.04	0.065	I O |				0.61
25.167	0.00	0.04	0.065	I O |				0.61
25.250	0.00	0.04	0.064	I O |				0.61
25.333	0.00	0.04	0.064	I O |				0.60
25.417	0.00	0.04	0.064	I O |				0.60
25.500	0.00	0.04	0.064	I O |				0.60
25.583	0.00	0.04	0.063	I O |				0.60
25.667	0.00	0.04	0.063	I O |				0.59
25.750	0.00	0.04	0.063	I O |				0.59
25.833	0.00	0.04	0.063	I O |				0.59
25.917	0.00	0.03	0.062	I O |				0.59
26.000	0.00	0.03	0.062	I O |				0.59
26.083	0.00	0.03	0.062	I O |				0.58
26.167	0.00	0.03	0.062	I O |				0.58
26.250	0.00	0.03	0.061	I O |				0.58
26.333	0.00	0.03	0.061	I O |				0.58
26.417	0.00	0.03	0.061	I O |				0.58
26.500	0.00	0.03	0.061	I O |				0.58
26.583	0.00	0.03	0.061	I O |				0.57
26.667	0.00	0.03	0.060	I O |				0.57
26.750	0.00	0.03	0.060	I O |				0.57
26.833	0.00	0.03	0.060	I O |				0.57
26.917	0.00	0.03	0.060	I O |				0.57

27.000	0.00	0.03	0.060	I O				0.57
27.083	0.00	0.03	0.060	I O				0.56
27.167	0.00	0.02	0.059	IO				0.56
27.250	0.00	0.02	0.059	IO				0.56
27.333	0.00	0.02	0.059	IO				0.56
27.417	0.00	0.02	0.059	IO				0.56
27.500	0.00	0.02	0.059	IO				0.56
27.583	0.00	0.02	0.059	IO				0.56
27.667	0.00	0.02	0.058	IO				0.55
27.750	0.00	0.02	0.058	IO				0.55
27.833	0.00	0.02	0.058	IO				0.55
27.917	0.00	0.02	0.058	IO				0.55
28.000	0.00	0.02	0.058	IO				0.55
28.083	0.00	0.02	0.058	IO				0.55
28.167	0.00	0.02	0.058	IO				0.55
28.250	0.00	0.02	0.057	IO				0.55
28.333	0.00	0.02	0.057	IO				0.55
28.417	0.00	0.02	0.057	IO				0.54
28.500	0.00	0.02	0.057	IO				0.54
28.583	0.00	0.02	0.057	IO				0.54
28.667	0.00	0.02	0.057	IO				0.54
28.750	0.00	0.02	0.057	IO				0.54
28.833	0.00	0.02	0.057	IO				0.54
28.917	0.00	0.02	0.057	IO				0.54
29.000	0.00	0.01	0.056	IO				0.54
29.083	0.00	0.01	0.056	IO				0.54
29.167	0.00	0.01	0.056	IO				0.54
29.250	0.00	0.01	0.056	IO				0.54
29.333	0.00	0.01	0.056	IO				0.53
29.417	0.00	0.01	0.056	IO				0.53
29.500	0.00	0.01	0.056	IO				0.53
29.583	0.00	0.01	0.056	IO				0.53
29.667	0.00	0.01	0.056	O				0.53
29.750	0.00	0.01	0.056	O				0.53
29.833	0.00	0.01	0.056	O				0.53
29.917	0.00	0.01	0.055	O				0.53
30.000	0.00	0.01	0.055	O				0.53
30.083	0.00	0.01	0.055	O				0.53
30.167	0.00	0.01	0.055	O				0.53
30.250	0.00	0.01	0.055	O				0.53
30.333	0.00	0.01	0.055	O				0.53
30.417	0.00	0.01	0.055	O				0.53
30.500	0.00	0.01	0.055	O				0.52
30.583	0.00	0.01	0.055	O				0.52
30.667	0.00	0.01	0.055	O				0.52
30.750	0.00	0.01	0.055	O				0.52
30.833	0.00	0.01	0.055	O				0.52
30.917	0.00	0.01	0.055	O				0.52
31.000	0.00	0.01	0.055	O				0.52
31.083	0.00	0.01	0.055	O				0.52

31.167	0.00	0.01	0.054	O	|	|	|	0.52
31.250	0.00	0.01	0.054	O	|	|	|	0.52
31.333	0.00	0.01	0.054	O	|	|	|	0.52
31.417	0.00	0.01	0.054	O	|	|	|	0.52
31.500	0.00	0.01	0.054	O	|	|	|	0.52
31.583	0.00	0.01	0.054	O	|	|	|	0.52
31.667	0.00	0.01	0.054	O	|	|	|	0.52
31.750	0.00	0.01	0.054	O	|	|	|	0.52
31.833	0.00	0.01	0.054	O	|	|	|	0.52
31.917	0.00	0.01	0.054	O	|	|	|	0.52
32.000	0.00	0.01	0.054	O	|	|	|	0.52
32.083	0.00	0.01	0.054	O	|	|	|	0.52
32.167	0.00	0.01	0.054	O	|	|	|	0.52
32.250	0.00	0.01	0.054	O	|	|	|	0.52
32.333	0.00	0.01	0.054	O	|	|	|	0.52
32.417	0.00	0.01	0.054	O	|	|	|	0.51
32.500	0.00	0.01	0.054	O	|	|	|	0.51
32.583	0.00	0.01	0.054	O	|	|	|	0.51
32.667	0.00	0.01	0.054	O	|	|	|	0.51
32.750	0.00	0.01	0.054	O	|	|	|	0.51
32.833	0.00	0.01	0.054	O	|	|	|	0.51
32.917	0.00	0.01	0.054	O	|	|	|	0.51
33.000	0.00	0.00	0.053	O	|	|	|	0.51
33.083	0.00	0.00	0.053	O	|	|	|	0.51
33.167	0.00	0.00	0.053	O	|	|	|	0.51
33.250	0.00	0.00	0.053	O	|	|	|	0.51
33.333	0.00	0.00	0.053	O	|	|	|	0.51
33.417	0.00	0.00	0.053	O	|	|	|	0.51
33.500	0.00	0.00	0.053	O	|	|	|	0.51
33.583	0.00	0.00	0.053	O	|	|	|	0.51
33.667	0.00	0.00	0.053	O	|	|	|	0.51
33.750	0.00	0.00	0.053	O	|	|	|	0.51
33.833	0.00	0.00	0.053	O	|	|	|	0.51
33.917	0.00	0.00	0.053	O	|	|	|	0.51
34.000	0.00	0.00	0.053	O	|	|	|	0.51
34.083	0.00	0.00	0.053	O	|	|	|	0.51
34.167	0.00	0.00	0.053	O	|	|	|	0.51
34.250	0.00	0.00	0.053	O	|	|	|	0.51
34.333	0.00	0.00	0.053	O	|	|	|	0.51
34.417	0.00	0.00	0.053	O	|	|	|	0.51
34.500	0.00	0.00	0.053	O	|	|	|	0.51
34.583	0.00	0.00	0.053	O	|	|	|	0.51
34.667	0.00	0.00	0.053	O	|	|	|	0.51
34.750	0.00	0.00	0.053	O	|	|	|	0.51
34.833	0.00	0.00	0.053	O	|	|	|	0.51
34.917	0.00	0.00	0.053	O	|	|	|	0.51
35.000	0.00	0.00	0.053	O	|	|	|	0.51
35.083	0.00	0.00	0.053	O	|	|	|	0.51
35.167	0.00	0.00	0.053	O	|	|	|	0.51
35.250	0.00	0.00	0.053	O	|	|	|	0.51

35.333	0.00	0.00	0.053	O	|	|	|	|	0.51
35.417	0.00	0.00	0.053	O	|	|	|	|	0.51
35.500	0.00	0.00	0.053	O	|	|	|	|	0.51
35.583	0.00	0.00	0.053	O	|	|	|	|	0.51
35.667	0.00	0.00	0.053	O	|	|	|	|	0.51
35.750	0.00	0.00	0.053	O	|	|	|	|	0.51
35.833	0.00	0.00	0.053	O	|	|	|	|	0.51
35.917	0.00	0.00	0.053	O	|	|	|	|	0.51
36.000	0.00	0.00	0.053	O	|	|	|	|	0.51
36.083	0.00	0.00	0.053	O	|	|	|	|	0.51
36.167	0.00	0.00	0.053	O	|	|	|	|	0.51
36.250	0.00	0.00	0.053	O	|	|	|	|	0.51
36.333	0.00	0.00	0.053	O	|	|	|	|	0.51
36.417	0.00	0.00	0.053	O	|	|	|	|	0.50
36.500	0.00	0.00	0.053	O	|	|	|	|	0.50
36.583	0.00	0.00	0.053	O	|	|	|	|	0.50
36.667	0.00	0.00	0.053	O	|	|	|	|	0.50
36.750	0.00	0.00	0.053	O	|	|	|	|	0.50
36.833	0.00	0.00	0.053	O	|	|	|	|	0.50
36.917	0.00	0.00	0.053	O	|	|	|	|	0.50
37.000	0.00	0.00	0.052	O	|	|	|	|	0.50
37.083	0.00	0.00	0.052	O	|	|	|	|	0.50
37.167	0.00	0.00	0.052	O	|	|	|	|	0.50
37.250	0.00	0.00	0.052	O	|	|	|	|	0.50
37.333	0.00	0.00	0.052	O	|	|	|	|	0.50
37.417	0.00	0.00	0.052	O	|	|	|	|	0.50
37.500	0.00	0.00	0.052	O	|	|	|	|	0.50
37.583	0.00	0.00	0.052	O	|	|	|	|	0.50
37.667	0.00	0.00	0.052	O	|	|	|	|	0.50
37.750	0.00	0.00	0.052	O	|	|	|	|	0.50
37.833	0.00	0.00	0.052	O	|	|	|	|	0.50
37.917	0.00	0.00	0.052	O	|	|	|	|	0.50
38.000	0.00	0.00	0.052	O	|	|	|	|	0.50
38.083	0.00	0.00	0.052	O	|	|	|	|	0.50
38.167	0.00	0.00	0.052	O	|	|	|	|	0.50
38.250	0.00	0.00	0.052	O	|	|	|	|	0.50
38.333	0.00	0.00	0.052	O	|	|	|	|	0.50
38.417	0.00	0.00	0.052	O	|	|	|	|	0.50
38.500	0.00	0.00	0.052	O	|	|	|	|	0.50
38.583	0.00	0.00	0.052	O	|	|	|	|	0.50
38.667	0.00	0.00	0.052	O	|	|	|	|	0.50
38.750	0.00	0.00	0.052	O	|	|	|	|	0.50
38.833	0.00	0.00	0.052	O	|	|	|	|	0.50

Remaining water in basin = 0.05 (Ac.Ft)

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

Number of intervals = 466

```
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =        0.196 (CFS)
                Total volume =       0.188 (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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U n i t H y d r o g r a p h A n a l y s i s

Study date 08/02/22 File: A21626DMA2Q100UH15.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 5YR-1HR UH

Drainage Area = 1.58(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.58(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 336.00(Ft.)
Length along longest watercourse measured to centroid = 234.53(Ft.)
Length along longest watercourse = 0.064 Mi.
Length along longest watercourse measured to centroid = 0.044 Mi.
Difference in elevation = 3.36(Ft.)
Slope along watercourse = 52.8000 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.016 Hr.
Lag time = 0.95 Min.
25% of lag time = 0.24 Min.
40% of lag time = 0.38 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]
        1.58            0.48                  0.76

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.58            1.25                  1.98

STORM EVENT (YEAR) =    5.00
Area Averaged 2-Year Rainfall =    0.480(In)
Area Averaged 100-Year Rainfall =    1.250(In)

Point rain (area averaged) =    0.660(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    0.660(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.580           69.00         0.761
 Total Area Entered =      1.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.761        0.181       1.000      0.181
                                                 Sum (F) =   0.181
Area averaged mean soil loss (F) (In/Hr) =  0.181
Minimum soil loss rate ((In/Hr)) =  0.090
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.291
------------------------------------------------------------------------
Slope of intensity-duration curve for a 1 hour storm =0.4800
------------------------------------------------------------------------

                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        527.815         72.250              1.150
    2   0.167       1055.631         27.750              0.442
                               Sum = 100.000   Sum=       1.592
-----------------------------------------------------------------
```

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	4.40	0.349	(0.181)	0.101	0.247
2	0.17	4.50	0.357	(0.181)	0.104	0.253
3	0.25	5.40	0.428	(0.181)	0.125	0.303
4	0.33	5.40	0.428	(0.181)	0.125	0.303
5	0.42	5.70	0.452	(0.181)	0.131	0.320
6	0.50	6.40	0.507	(0.181)	0.148	0.360
7	0.58	7.90	0.626	0.181	(0.182)	0.445
8	0.67	9.10	0.721	0.181	(0.210)	0.540
9	0.75	12.80	1.014	0.181	(0.295)	0.833
10	0.83	25.60	2.029	0.181	(0.590)	1.848
11	0.92	7.90	0.626	0.181	(0.182)	0.445
12	1.00	4.90	0.388	(0.181)	0.113	0.275
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	6.2

Flood volume = Effective rainfall 0.51(In)
times area 1.6(Ac.)/[(In)/(Ft.)] = 0.1(Ac.Ft)
Total soil loss = 0.15(In)
Total soil loss = 0.019(Ac.Ft)
Total rainfall = 0.66(In)
Flood volume = 2950.7 Cubic Feet
Total soil loss = 836.7 Cubic Feet

Peak flow rate of this hydrograph = 2.495(CFS)

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

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	2.5	5.0	7.5	10.0
0+ 5	0.0020	0.28	Q				
0+10	0.0047	0.40	QV				
0+15	0.0079	0.46	Q V				
0+20	0.0112	0.48	Q V				
0+25	0.0147	0.50	Q V				
0+30	0.0185	0.56	Q V				
0+35	0.0231	0.67	Q V				
0+40	0.0288	0.82	Q V				
0+45	0.0370	1.20	Q V				
0+50	0.0542	2.50	Q V				
0+55	0.0634	1.33	Q V				
1+ 0	0.0669	0.51	Q V				

```
    1+ 5       0.0677      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

Study date 08/02/22 File: A21626DMA2Q100UH35.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 5YR-3HR UH

Drainage Area = 1.58(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.58(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 336.00(Ft.)
Length along longest watercourse measured to centroid = 234.53(Ft.)
Length along longest watercourse = 0.064 Mi.
Length along longest watercourse measured to centroid = 0.044 Mi.
Difference in elevation = 3.36(Ft.)
Slope along watercourse = 52.8000 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.016 Hr.
Lag time = 0.95 Min.
25% of lag time = 0.24 Min.
40% of lag time = 0.38 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]
        1.58            0.80                  1.26

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.58            1.95                  3.08

STORM EVENT (YEAR) =    5.00
Area Averaged 2-Year Rainfall =    0.800(In)
Area Averaged 100-Year Rainfall =    1.950(In)

Point rain (area averaged) =    1.069(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.069(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.580           69.00         0.761
 Total Area Entered =      1.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.761        0.181       1.000      0.181
                                                 Sum (F) =   0.181
Area averaged mean soil loss (F) (In/Hr) =  0.181
Minimum soil loss rate ((In/Hr)) =  0.090
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.291
------------------------------------------------------------------------

               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        527.815         72.250              1.150
    2   0.167       1055.631         27.750              0.442
                               Sum = 100.000   Sum=       1.592
------------------------------------------------------------------------

 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	0.167	(0.181)	0.049	0.118
2	0.17	1.30	0.167	(0.181)	0.049	0.118
3	0.25	1.10	0.141	(0.181)	0.041	0.100
4	0.33	1.50	0.192	(0.181)	0.056	0.136
5	0.42	1.50	0.192	(0.181)	0.056	0.136
6	0.50	1.80	0.231	(0.181)	0.067	0.164
7	0.58	1.50	0.192	(0.181)	0.056	0.136
8	0.67	1.80	0.231	(0.181)	0.067	0.164
9	0.75	1.80	0.231	(0.181)	0.067	0.164
10	0.83	1.50	0.192	(0.181)	0.056	0.136
11	0.92	1.60	0.205	(0.181)	0.060	0.146
12	1.00	1.80	0.231	(0.181)	0.067	0.164
13	1.08	2.20	0.282	(0.181)	0.082	0.200
14	1.17	2.20	0.282	(0.181)	0.082	0.200
15	1.25	2.20	0.282	(0.181)	0.082	0.200
16	1.33	2.00	0.257	(0.181)	0.075	0.182
17	1.42	2.60	0.334	(0.181)	0.097	0.237
18	1.50	2.70	0.346	(0.181)	0.101	0.246
19	1.58	2.40	0.308	(0.181)	0.090	0.218
20	1.67	2.70	0.346	(0.181)	0.101	0.246
21	1.75	3.30	0.423	(0.181)	0.123	0.300
22	1.83	3.10	0.398	(0.181)	0.116	0.282
23	1.92	2.90	0.372	(0.181)	0.108	0.264
24	2.00	3.00	0.385	(0.181)	0.112	0.273
25	2.08	3.10	0.398	(0.181)	0.116	0.282
26	2.17	4.20	0.539	(0.181)	0.157	0.382
27	2.25	5.00	0.642	0.181	(0.187)	0.461
28	2.33	3.50	0.449	(0.181)	0.131	0.318
29	2.42	6.80	0.873	0.181	(0.254)	0.692
30	2.50	7.30	0.937	0.181	(0.273)	0.756
31	2.58	8.20	1.052	0.181	(0.306)	0.871
32	2.67	5.90	0.757	0.181	(0.220)	0.576
33	2.75	2.00	0.257	(0.181)	0.075	0.182
34	2.83	1.80	0.231	(0.181)	0.067	0.164
35	2.92	1.80	0.231	(0.181)	0.067	0.164
36	3.00	0.60	0.077	(0.181)	0.022	0.055
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	9.4

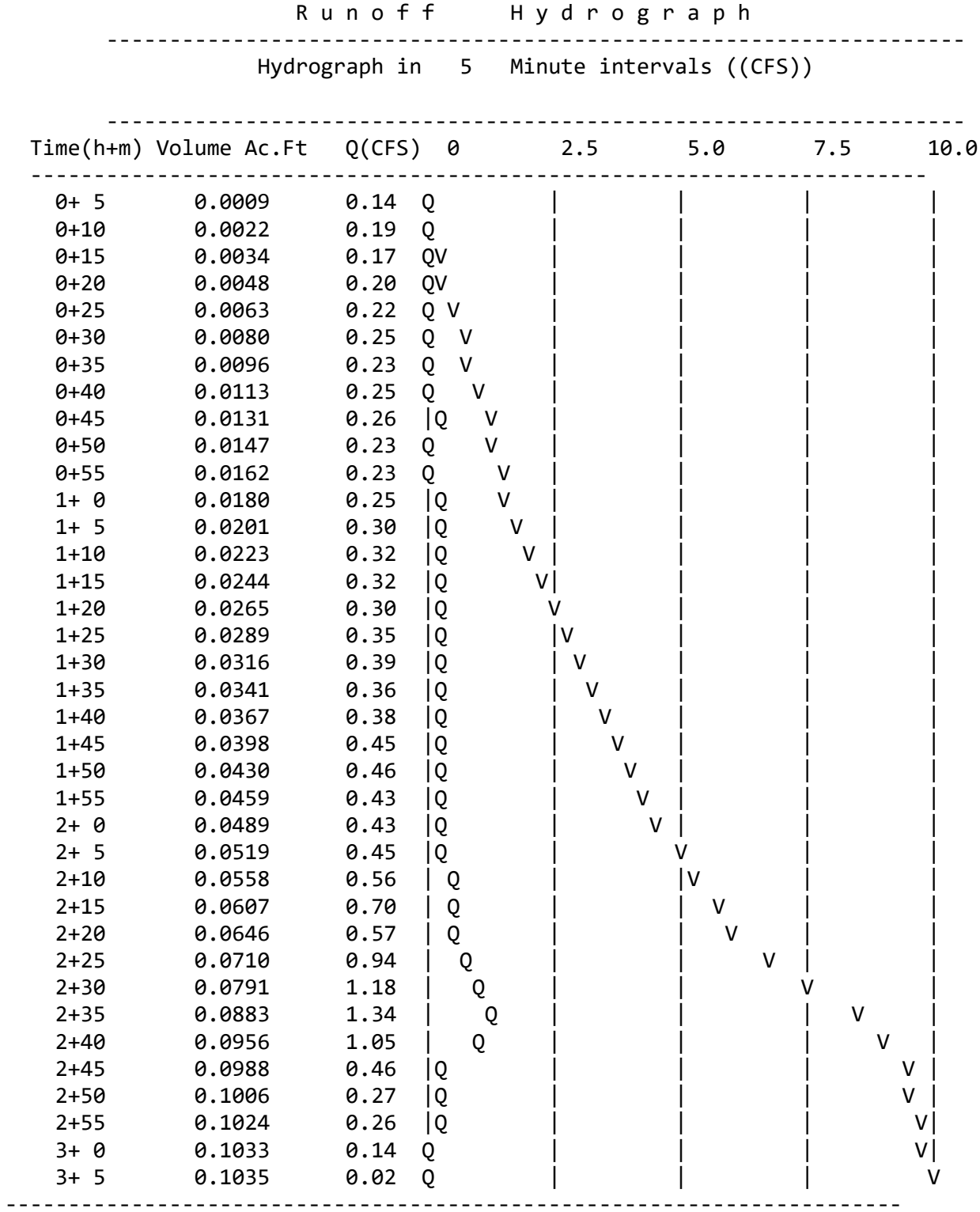
Flood volume = Effective rainfall 0.79(In)
times area 1.6(Ac.)/[(In)/(Ft.)] = 0.1(Ac.Ft)
Total soil loss = 0.28(In)
Total soil loss = 0.037(Ac.Ft)
Total rainfall = 1.07(In)
Flood volume = 4508.7 Cubic Feet
Total soil loss = 1624.4 Cubic Feet

Peak flow rate of this hydrograph = 1.337(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	2.5	5.0	7.5	10.0
0+ 5	0.0009	0.14	Q				
0+10	0.0022	0.19	Q				
0+15	0.0034	0.17	QV				
0+20	0.0048	0.20	QV				
0+25	0.0063	0.22	Q V				
0+30	0.0080	0.25	Q V				
0+35	0.0096	0.23	Q V				
0+40	0.0113	0.25	Q V				
0+45	0.0131	0.26	Q V				
0+50	0.0147	0.23	Q V				
0+55	0.0162	0.23	Q V				
1+ 0	0.0180	0.25	Q V				
1+ 5	0.0201	0.30	Q V				
1+10	0.0223	0.32	Q V				
1+15	0.0244	0.32	Q V				
1+20	0.0265	0.30	Q V				
1+25	0.0289	0.35	Q V				
1+30	0.0316	0.39	Q V				
1+35	0.0341	0.36	Q V				
1+40	0.0367	0.38	Q V				
1+45	0.0398	0.45	Q V				
1+50	0.0430	0.46	Q V				
1+55	0.0459	0.43	Q V				
2+ 0	0.0489	0.43	Q V				
2+ 5	0.0519	0.45	Q V				
2+10	0.0558	0.56	Q V				
2+15	0.0607	0.70	Q V				
2+20	0.0646	0.57	Q V				
2+25	0.0710	0.94	Q V				
2+30	0.0791	1.18	Q V				
2+35	0.0883	1.34	Q V				
2+40	0.0956	1.05	Q V				
2+45	0.0988	0.46	Q V				
2+50	0.1006	0.27	Q V				
2+55	0.1024	0.26	Q V				
3+ 0	0.1033	0.14	Q V				
3+ 5	0.1035	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

Study date 08/02/22 File: A21626DMA2Q100UH65.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 5YR-6HR UH

Drainage Area = 1.58(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.58(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 336.00(Ft.)
Length along longest watercourse measured to centroid = 234.53(Ft.)
Length along longest watercourse = 0.064 Mi.
Length along longest watercourse measured to centroid = 0.044 Mi.
Difference in elevation = 3.36(Ft.)
Slope along watercourse = 52.8000 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.016 Hr.
Lag time = 0.95 Min.
25% of lag time = 0.24 Min.
40% of lag time = 0.38 Min.
Unit time = 5.00 Min.
Duration of storm = 6 Hour(s)
User Entered Base Flow = 0.00(CFS)

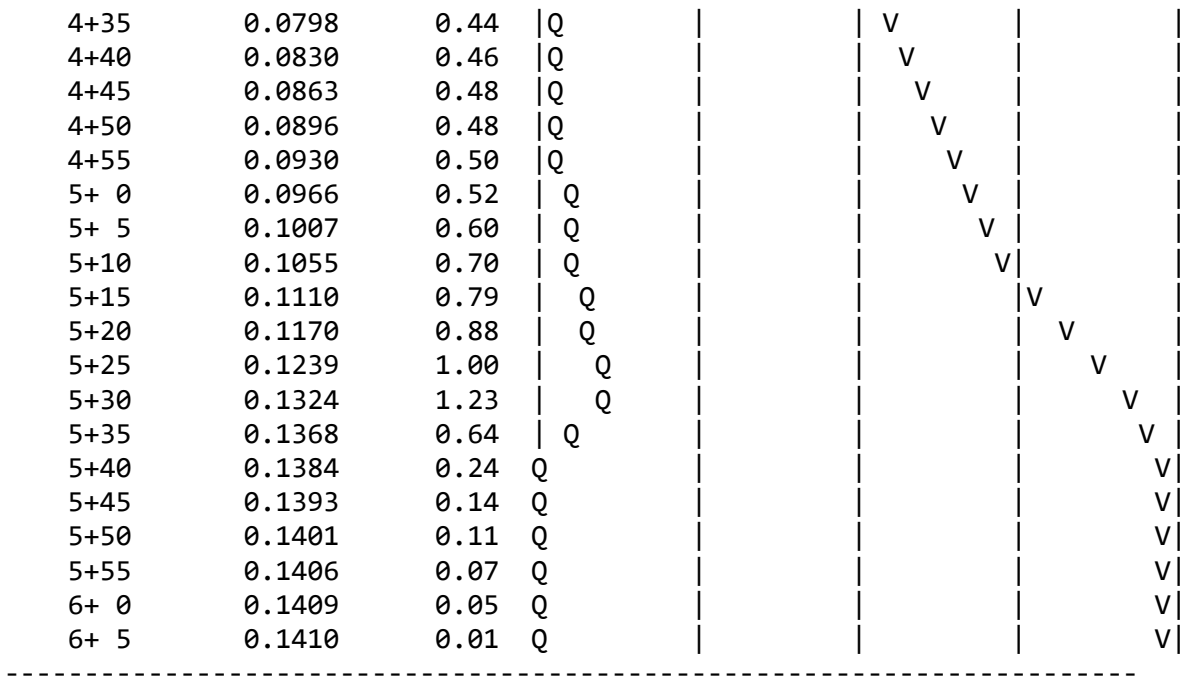
2 YEAR Area rainfall data:

```
Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.58            1.11                  1.75

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.58            2.70                  4.27

STORM EVENT (YEAR) =    5.00
Area Averaged 2-Year Rainfall =    1.110(In)
Area Averaged 100-Year Rainfall =    2.700(In)

Point rain (area averaged) =    1.482(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.482(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.580           69.00         0.761
 Total Area Entered =      1.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.761        0.181       1.000      0.181
                                                 Sum (F) =   0.181
Area averaged mean soil loss (F) (In/Hr) =  0.181
Minimum soil loss rate ((In/Hr)) =  0.090
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.291
------------------------------------------------------------------------

               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        527.815         72.250              1.150
    2   0.167       1055.631         27.750              0.442
                               Sum = 100.000   Sum=       1.592
------------------------------------------------------------------------

 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	0.089	(0.181)	0.026	0.063
2	0.17	0.60	0.107	(0.181)	0.031	0.076
3	0.25	0.60	0.107	(0.181)	0.031	0.076
4	0.33	0.60	0.107	(0.181)	0.031	0.076
5	0.42	0.60	0.107	(0.181)	0.031	0.076
6	0.50	0.70	0.125	(0.181)	0.036	0.088
7	0.58	0.70	0.125	(0.181)	0.036	0.088
8	0.67	0.70	0.125	(0.181)	0.036	0.088
9	0.75	0.70	0.125	(0.181)	0.036	0.088
10	0.83	0.70	0.125	(0.181)	0.036	0.088
11	0.92	0.70	0.125	(0.181)	0.036	0.088
12	1.00	0.80	0.142	(0.181)	0.041	0.101
13	1.08	0.80	0.142	(0.181)	0.041	0.101
14	1.17	0.80	0.142	(0.181)	0.041	0.101
15	1.25	0.80	0.142	(0.181)	0.041	0.101
16	1.33	0.80	0.142	(0.181)	0.041	0.101
17	1.42	0.80	0.142	(0.181)	0.041	0.101
18	1.50	0.80	0.142	(0.181)	0.041	0.101
19	1.58	0.80	0.142	(0.181)	0.041	0.101
20	1.67	0.80	0.142	(0.181)	0.041	0.101
21	1.75	0.80	0.142	(0.181)	0.041	0.101
22	1.83	0.80	0.142	(0.181)	0.041	0.101
23	1.92	0.80	0.142	(0.181)	0.041	0.101
24	2.00	0.90	0.160	(0.181)	0.047	0.114
25	2.08	0.80	0.142	(0.181)	0.041	0.101
26	2.17	0.90	0.160	(0.181)	0.047	0.114
27	2.25	0.90	0.160	(0.181)	0.047	0.114
28	2.33	0.90	0.160	(0.181)	0.047	0.114
29	2.42	0.90	0.160	(0.181)	0.047	0.114
30	2.50	0.90	0.160	(0.181)	0.047	0.114
31	2.58	0.90	0.160	(0.181)	0.047	0.114
32	2.67	0.90	0.160	(0.181)	0.047	0.114
33	2.75	1.00	0.178	(0.181)	0.052	0.126
34	2.83	1.00	0.178	(0.181)	0.052	0.126
35	2.92	1.00	0.178	(0.181)	0.052	0.126
36	3.00	1.00	0.178	(0.181)	0.052	0.126
37	3.08	1.00	0.178	(0.181)	0.052	0.126
38	3.17	1.10	0.196	(0.181)	0.057	0.139
39	3.25	1.10	0.196	(0.181)	0.057	0.139
40	3.33	1.10	0.196	(0.181)	0.057	0.139
41	3.42	1.20	0.213	(0.181)	0.062	0.151
42	3.50	1.30	0.231	(0.181)	0.067	0.164
43	3.58	1.40	0.249	(0.181)	0.072	0.177
44	3.67	1.40	0.249	(0.181)	0.072	0.177
45	3.75	1.50	0.267	(0.181)	0.078	0.189
46	3.83	1.50	0.267	(0.181)	0.078	0.189
47	3.92	1.60	0.285	(0.181)	0.083	0.202

```
48   4.00     1.60      0.285       (  0.181)       0.083        0.202
49   4.08     1.70      0.302       (  0.181)       0.088        0.214
50   4.17     1.80      0.320       (  0.181)       0.093        0.227
51   4.25     1.90      0.338       (  0.181)       0.098        0.240
52   4.33     2.00      0.356       (  0.181)       0.104        0.252
53   4.42     2.10      0.374       (  0.181)       0.109        0.265
54   4.50     2.10      0.374       (  0.181)       0.109        0.265
55   4.58     2.20      0.391       (  0.181)       0.114        0.277
56   4.67     2.30      0.409       (  0.181)       0.119        0.290
57   4.75     2.40      0.427       (  0.181)       0.124        0.303
58   4.83     2.40      0.427       (  0.181)       0.124        0.303
59   4.92     2.50      0.445       (  0.181)       0.129        0.315
60   5.00     2.60      0.463       (  0.181)       0.135        0.328
61   5.08     3.10      0.551       (  0.181)       0.160        0.391
62   5.17     3.60      0.640          0.181    (  0.186)       0.460
63   5.25     3.90      0.694          0.181    (  0.202)       0.513
64   5.33     4.20      0.747          0.181    (  0.217)       0.566
65   5.42     4.70      0.836          0.181    (  0.243)       0.655
66   5.50     5.60      0.996          0.181    (  0.290)       0.815
67   5.58     1.90      0.338       (  0.181)       0.098        0.240
68   5.67     0.90      0.160       (  0.181)       0.047        0.114
69   5.75     0.60      0.107       (  0.181)       0.031        0.076
70   5.83     0.50      0.089       (  0.181)       0.026        0.063
71   5.92     0.30      0.053       (  0.181)       0.016        0.038
72   6.00     0.20      0.036       (  0.181)       0.010        0.025
               (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    12.8
      Flood volume = Effective rainfall      1.07(In)
       times area       1.6(Ac.)/[(In)/(Ft.)] =       0.1(Ac.Ft)
      Total soil loss =      0.41(In)
      Total soil loss =     0.054(Ac.Ft)
      Total rainfall =      1.48(In)
      Flood volume =        6140.2 Cubic Feet
      Total soil loss =        2362.0 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =      1.228(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        2.5       5.0       7.5      10.0
-------------------------------------------------------------------------
  0+ 5       0.0005      0.07  Q         |         |         |         |
  0+10       0.0013      0.11  Q         |         |         |         |
  0+15       0.0021      0.12  Q         |         |         |         |
  0+20       0.0030      0.12  Q         |         |         |         |
```

```
0+25       0.0038      0.12  QV        |         |         |         |
0+30       0.0047      0.14  QV        |         |         |         |
0+35       0.0057      0.14  QV        |         |         |         |
0+40       0.0067      0.14  QV        |         |         |         |
0+45       0.0076      0.14  Q V       |         |         |         |
0+50       0.0086      0.14  Q V       |         |         |         |
0+55       0.0096      0.14  Q V       |         |         |         |
1+ 0       0.0106      0.16  Q  V      |         |         |         |
1+ 5       0.0117      0.16  Q  V      |         |         |         |
1+10       0.0128      0.16  Q  V      |         |         |         |
1+15       0.0139      0.16  Q  V      |         |         |         |
1+20       0.0151      0.16  Q   V     |         |         |         |
1+25       0.0162      0.16  Q   V     |         |         |         |
1+30       0.0173      0.16  Q   V     |         |         |         |
1+35       0.0184      0.16  Q    V    |         |         |         |
1+40       0.0195      0.16  Q    V    |         |         |         |
1+45       0.0206      0.16  Q    V    |         |         |         |
1+50       0.0217      0.16  Q     V   |         |         |         |
1+55       0.0228      0.16  Q     V   |         |         |         |
2+ 0       0.0240      0.18  Q     V   |         |         |         |
2+ 5       0.0252      0.17  Q      V  |         |         |         |
2+10       0.0264      0.18  Q      V  |         |         |         |
2+15       0.0276      0.18  Q      V  |         |         |         |
2+20       0.0289      0.18  Q       V |         |         |         |
2+25       0.0301      0.18  Q       V |         |         |         |
2+30       0.0313      0.18  Q       V |         |         |         |
2+35       0.0326      0.18  Q        V|         |         |         |
2+40       0.0338      0.18  Q        V|         |         |         |
2+45       0.0352      0.20  Q        V|         |         |         |
2+50       0.0366      0.20  Q         V         |         |         |
2+55       0.0379      0.20  Q         V         |         |         |
3+ 0       0.0393      0.20  Q         |V        |         |         |
3+ 5       0.0407      0.20  Q         |V        |         |         |
3+10       0.0422      0.22  Q         |V        |         |         |
3+15       0.0437      0.22  Q         | V       |         |         |
3+20       0.0452      0.22  Q         | V       |         |         |
3+25       0.0469      0.24  Q         |  V      |         |         |
3+30       0.0486      0.26  |Q        |  V      |         |         |
3+35       0.0505      0.28  |Q        |   V     |         |         |
3+40       0.0525      0.28  |Q        |   V     |         |         |
3+45       0.0545      0.30  |Q        |    V    |         |         |
3+50       0.0566      0.30  |Q        |     V   |         |         |
3+55       0.0588      0.32  |Q        |     V   |         |         |
4+ 0       0.0610      0.32  |Q        |      V  |         |         |
4+ 5       0.0633      0.34  |Q        |      V  |         |         |
4+10       0.0657      0.36  |Q        |       V |         |         |
4+15       0.0683      0.38  |Q        |        V|         |         |
4+20       0.0711      0.40  |Q        |         V         |         |
4+25       0.0739      0.42  |Q        |         V         |         |
4+30       0.0768      0.42  |Q        |         |V        |         |
```


4+35 0.0798 0.44
4+40 0.0830 0.46
4+45 0.0863 0.48
4+50 0.0896 0.48
4+55 0.0930 0.50
5+ 0 0.0966 0.52
5+ 5 0.1007 0.60
5+10 0.1055 0.70
5+15 0.1110 0.79
5+20 0.1170 0.88
5+25 0.1239 1.00
5+30 0.1324 1.23
5+35 0.1368 0.64
5+40 0.1384 0.24
5+45 0.1393 0.14
5+50 0.1401 0.11
5+55 0.1406 0.07
6+ 0 0.1409 0.05
6+ 5 0.1410 0.01

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

Study date 08/02/22 File: A21626DMA2Q100UH245.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 5YR-24HR UH

Drainage Area = 1.58(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.58(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 336.00(Ft.)
Length along longest watercourse measured to centroid = 234.53(Ft.)
Length along longest watercourse = 0.064 Mi.
Length along longest watercourse measured to centroid = 0.044 Mi.
Difference in elevation = 3.36(Ft.)
Slope along watercourse = 52.8000 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.016 Hr.
Lag time = 0.95 Min.
25% of lag time = 0.24 Min.
40% of lag time = 0.38 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]
        1.58            1.90                   3.00

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.58            4.80                   7.58

STORM EVENT (YEAR) =    5.00
Area Averaged 2-Year Rainfall =    1.900(In)
Area Averaged 100-Year Rainfall =    4.800(In)

Point rain (area averaged) =    2.579(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    2.579(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.580           69.00         0.761
 Total Area Entered =      1.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.761        0.181       1.000      0.181
                                                 Sum (F) =   0.181
Area averaged mean soil loss (F) (In/Hr) =  0.181
Minimum soil loss rate ((In/Hr)) =  0.090
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.291
------------------------------------------------------------------------

               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        527.815         72.250              1.150
    2   0.167       1055.631         27.750              0.442
                               Sum = 100.000   Sum=       1.592
------------------------------------------------------------------------

 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	0.021	(0.321)	0.006	0.015
2	0.17	0.07	0.021	(0.319)	0.006	0.015
3	0.25	0.07	0.021	(0.318)	0.006	0.015
4	0.33	0.10	0.031	(0.317)	0.009	0.022
5	0.42	0.10	0.031	(0.316)	0.009	0.022
6	0.50	0.10	0.031	(0.314)	0.009	0.022
7	0.58	0.10	0.031	(0.313)	0.009	0.022
8	0.67	0.10	0.031	(0.312)	0.009	0.022
9	0.75	0.10	0.031	(0.311)	0.009	0.022
10	0.83	0.13	0.041	(0.310)	0.012	0.029
11	0.92	0.13	0.041	(0.308)	0.012	0.029
12	1.00	0.13	0.041	(0.307)	0.012	0.029
13	1.08	0.10	0.031	(0.306)	0.009	0.022
14	1.17	0.10	0.031	(0.305)	0.009	0.022
15	1.25	0.10	0.031	(0.303)	0.009	0.022
16	1.33	0.10	0.031	(0.302)	0.009	0.022
17	1.42	0.10	0.031	(0.301)	0.009	0.022
18	1.50	0.10	0.031	(0.300)	0.009	0.022
19	1.58	0.10	0.031	(0.299)	0.009	0.022
20	1.67	0.10	0.031	(0.297)	0.009	0.022
21	1.75	0.10	0.031	(0.296)	0.009	0.022
22	1.83	0.13	0.041	(0.295)	0.012	0.029
23	1.92	0.13	0.041	(0.294)	0.012	0.029
24	2.00	0.13	0.041	(0.293)	0.012	0.029
25	2.08	0.13	0.041	(0.292)	0.012	0.029
26	2.17	0.13	0.041	(0.290)	0.012	0.029
27	2.25	0.13	0.041	(0.289)	0.012	0.029
28	2.33	0.13	0.041	(0.288)	0.012	0.029
29	2.42	0.13	0.041	(0.287)	0.012	0.029
30	2.50	0.13	0.041	(0.286)	0.012	0.029
31	2.58	0.17	0.052	(0.284)	0.015	0.037
32	2.67	0.17	0.052	(0.283)	0.015	0.037
33	2.75	0.17	0.052	(0.282)	0.015	0.037
34	2.83	0.17	0.052	(0.281)	0.015	0.037
35	2.92	0.17	0.052	(0.280)	0.015	0.037
36	3.00	0.17	0.052	(0.279)	0.015	0.037
37	3.08	0.17	0.052	(0.277)	0.015	0.037
38	3.17	0.17	0.052	(0.276)	0.015	0.037
39	3.25	0.17	0.052	(0.275)	0.015	0.037
40	3.33	0.17	0.052	(0.274)	0.015	0.037
41	3.42	0.17	0.052	(0.273)	0.015	0.037
42	3.50	0.17	0.052	(0.272)	0.015	0.037
43	3.58	0.17	0.052	(0.271)	0.015	0.037
44	3.67	0.17	0.052	(0.269)	0.015	0.037
45	3.75	0.17	0.052	(0.268)	0.015	0.037
46	3.83	0.20	0.062	(0.267)	0.018	0.044
47	3.92	0.20	0.062	(0.266)	0.018	0.044

48	4.00	0.20	0.062	(0.265)	0.018	0.044
49	4.08	0.20	0.062	(0.264)	0.018	0.044
50	4.17	0.20	0.062	(0.263)	0.018	0.044
51	4.25	0.20	0.062	(0.262)	0.018	0.044
52	4.33	0.23	0.072	(0.260)	0.021	0.051
53	4.42	0.23	0.072	(0.259)	0.021	0.051
54	4.50	0.23	0.072	(0.258)	0.021	0.051
55	4.58	0.23	0.072	(0.257)	0.021	0.051
56	4.67	0.23	0.072	(0.256)	0.021	0.051
57	4.75	0.23	0.072	(0.255)	0.021	0.051
58	4.83	0.27	0.083	(0.254)	0.024	0.059
59	4.92	0.27	0.083	(0.253)	0.024	0.059
60	5.00	0.27	0.083	(0.252)	0.024	0.059
61	5.08	0.20	0.062	(0.251)	0.018	0.044
62	5.17	0.20	0.062	(0.249)	0.018	0.044
63	5.25	0.20	0.062	(0.248)	0.018	0.044
64	5.33	0.23	0.072	(0.247)	0.021	0.051
65	5.42	0.23	0.072	(0.246)	0.021	0.051
66	5.50	0.23	0.072	(0.245)	0.021	0.051
67	5.58	0.27	0.083	(0.244)	0.024	0.059
68	5.67	0.27	0.083	(0.243)	0.024	0.059
69	5.75	0.27	0.083	(0.242)	0.024	0.059
70	5.83	0.27	0.083	(0.241)	0.024	0.059
71	5.92	0.27	0.083	(0.240)	0.024	0.059
72	6.00	0.27	0.083	(0.239)	0.024	0.059
73	6.08	0.30	0.093	(0.238)	0.027	0.066
74	6.17	0.30	0.093	(0.237)	0.027	0.066
75	6.25	0.30	0.093	(0.236)	0.027	0.066
76	6.33	0.30	0.093	(0.235)	0.027	0.066
77	6.42	0.30	0.093	(0.233)	0.027	0.066
78	6.50	0.30	0.093	(0.232)	0.027	0.066
79	6.58	0.33	0.103	(0.231)	0.030	0.073
80	6.67	0.33	0.103	(0.230)	0.030	0.073
81	6.75	0.33	0.103	(0.229)	0.030	0.073
82	6.83	0.33	0.103	(0.228)	0.030	0.073
83	6.92	0.33	0.103	(0.227)	0.030	0.073
84	7.00	0.33	0.103	(0.226)	0.030	0.073
85	7.08	0.33	0.103	(0.225)	0.030	0.073
86	7.17	0.33	0.103	(0.224)	0.030	0.073
87	7.25	0.33	0.103	(0.223)	0.030	0.073
88	7.33	0.37	0.113	(0.222)	0.033	0.080
89	7.42	0.37	0.113	(0.221)	0.033	0.080
90	7.50	0.37	0.113	(0.220)	0.033	0.080
91	7.58	0.40	0.124	(0.219)	0.036	0.088
92	7.67	0.40	0.124	(0.218)	0.036	0.088
93	7.75	0.40	0.124	(0.217)	0.036	0.088
94	7.83	0.43	0.134	(0.216)	0.039	0.095
95	7.92	0.43	0.134	(0.215)	0.039	0.095
96	8.00	0.43	0.134	(0.214)	0.039	0.095
97	8.08	0.50	0.155	(0.213)	0.045	0.110

98	8.17	0.50	0.155	(0.212)	0.045	0.110
99	8.25	0.50	0.155	(0.211)	0.045	0.110
100	8.33	0.50	0.155	(0.210)	0.045	0.110
101	8.42	0.50	0.155	(0.209)	0.045	0.110
102	8.50	0.50	0.155	(0.208)	0.045	0.110
103	8.58	0.53	0.165	(0.207)	0.048	0.117
104	8.67	0.53	0.165	(0.206)	0.048	0.117
105	8.75	0.53	0.165	(0.205)	0.048	0.117
106	8.83	0.57	0.175	(0.204)	0.051	0.124
107	8.92	0.57	0.175	(0.203)	0.051	0.124
108	9.00	0.57	0.175	(0.202)	0.051	0.124
109	9.08	0.63	0.196	(0.201)	0.057	0.139
110	9.17	0.63	0.196	(0.200)	0.057	0.139
111	9.25	0.63	0.196	(0.199)	0.057	0.139
112	9.33	0.67	0.206	(0.198)	0.060	0.146
113	9.42	0.67	0.206	(0.198)	0.060	0.146
114	9.50	0.67	0.206	(0.197)	0.060	0.146
115	9.58	0.70	0.217	(0.196)	0.063	0.154
116	9.67	0.70	0.217	(0.195)	0.063	0.154
117	9.75	0.70	0.217	(0.194)	0.063	0.154
118	9.83	0.73	0.227	(0.193)	0.066	0.161
119	9.92	0.73	0.227	(0.192)	0.066	0.161
120	10.00	0.73	0.227	(0.191)	0.066	0.161
121	10.08	0.50	0.155	(0.190)	0.045	0.110
122	10.17	0.50	0.155	(0.189)	0.045	0.110
123	10.25	0.50	0.155	(0.188)	0.045	0.110
124	10.33	0.50	0.155	(0.187)	0.045	0.110
125	10.42	0.50	0.155	(0.186)	0.045	0.110
126	10.50	0.50	0.155	(0.185)	0.045	0.110
127	10.58	0.67	0.206	(0.185)	0.060	0.146
128	10.67	0.67	0.206	(0.184)	0.060	0.146
129	10.75	0.67	0.206	(0.183)	0.060	0.146
130	10.83	0.67	0.206	(0.182)	0.060	0.146
131	10.92	0.67	0.206	(0.181)	0.060	0.146
132	11.00	0.67	0.206	(0.180)	0.060	0.146
133	11.08	0.63	0.196	(0.179)	0.057	0.139
134	11.17	0.63	0.196	(0.178)	0.057	0.139
135	11.25	0.63	0.196	(0.177)	0.057	0.139
136	11.33	0.63	0.196	(0.177)	0.057	0.139
137	11.42	0.63	0.196	(0.176)	0.057	0.139
138	11.50	0.63	0.196	(0.175)	0.057	0.139
139	11.58	0.57	0.175	(0.174)	0.051	0.124
140	11.67	0.57	0.175	(0.173)	0.051	0.124
141	11.75	0.57	0.175	(0.172)	0.051	0.124
142	11.83	0.60	0.186	(0.171)	0.054	0.132
143	11.92	0.60	0.186	(0.171)	0.054	0.132
144	12.00	0.60	0.186	(0.170)	0.054	0.132
145	12.08	0.83	0.258	(0.169)	0.075	0.183
146	12.17	0.83	0.258	(0.168)	0.075	0.183
147	12.25	0.83	0.258	(0.167)	0.075	0.183

148	12.33	0.87	0.268	(0.166)	0.078	0.190
149	12.42	0.87	0.268	(0.165)	0.078	0.190
150	12.50	0.87	0.268	(0.165)	0.078	0.190
151	12.58	0.93	0.289	(0.164)	0.084	0.205
152	12.67	0.93	0.289	(0.163)	0.084	0.205
153	12.75	0.93	0.289	(0.162)	0.084	0.205
154	12.83	0.97	0.299	(0.161)	0.087	0.212
155	12.92	0.97	0.299	(0.161)	0.087	0.212
156	13.00	0.97	0.299	(0.160)	0.087	0.212
157	13.08	1.13	0.351	(0.159)	0.102	0.249
158	13.17	1.13	0.351	(0.158)	0.102	0.249
159	13.25	1.13	0.351	(0.157)	0.102	0.249
160	13.33	1.13	0.351	(0.156)	0.102	0.249
161	13.42	1.13	0.351	(0.156)	0.102	0.249
162	13.50	1.13	0.351	(0.155)	0.102	0.249
163	13.58	0.77	0.237	(0.154)	0.069	0.168
164	13.67	0.77	0.237	(0.153)	0.069	0.168
165	13.75	0.77	0.237	(0.153)	0.069	0.168
166	13.83	0.77	0.237	(0.152)	0.069	0.168
167	13.92	0.77	0.237	(0.151)	0.069	0.168
168	14.00	0.77	0.237	(0.150)	0.069	0.168
169	14.08	0.90	0.279	(0.149)	0.081	0.197
170	14.17	0.90	0.279	(0.149)	0.081	0.197
171	14.25	0.90	0.279	(0.148)	0.081	0.197
172	14.33	0.87	0.268	(0.147)	0.078	0.190
173	14.42	0.87	0.268	(0.146)	0.078	0.190
174	14.50	0.87	0.268	(0.146)	0.078	0.190
175	14.58	0.87	0.268	(0.145)	0.078	0.190
176	14.67	0.87	0.268	(0.144)	0.078	0.190
177	14.75	0.87	0.268	(0.143)	0.078	0.190
178	14.83	0.83	0.258	(0.143)	0.075	0.183
179	14.92	0.83	0.258	(0.142)	0.075	0.183
180	15.00	0.83	0.258	(0.141)	0.075	0.183
181	15.08	0.80	0.248	(0.141)	0.072	0.176
182	15.17	0.80	0.248	(0.140)	0.072	0.176
183	15.25	0.80	0.248	(0.139)	0.072	0.176
184	15.33	0.77	0.237	(0.138)	0.069	0.168
185	15.42	0.77	0.237	(0.138)	0.069	0.168
186	15.50	0.77	0.237	(0.137)	0.069	0.168
187	15.58	0.63	0.196	(0.136)	0.057	0.139
188	15.67	0.63	0.196	(0.136)	0.057	0.139
189	15.75	0.63	0.196	(0.135)	0.057	0.139
190	15.83	0.63	0.196	(0.134)	0.057	0.139
191	15.92	0.63	0.196	(0.133)	0.057	0.139
192	16.00	0.63	0.196	(0.133)	0.057	0.139
193	16.08	0.13	0.041	(0.132)	0.012	0.029
194	16.17	0.13	0.041	(0.131)	0.012	0.029
195	16.25	0.13	0.041	(0.131)	0.012	0.029
196	16.33	0.13	0.041	(0.130)	0.012	0.029
197	16.42	0.13	0.041	(0.129)	0.012	0.029

198	16.50	0.13	0.041	(0.129)	0.012	0.029
199	16.58	0.10	0.031	(0.128)	0.009	0.022
200	16.67	0.10	0.031	(0.127)	0.009	0.022
201	16.75	0.10	0.031	(0.127)	0.009	0.022
202	16.83	0.10	0.031	(0.126)	0.009	0.022
203	16.92	0.10	0.031	(0.126)	0.009	0.022
204	17.00	0.10	0.031	(0.125)	0.009	0.022
205	17.08	0.17	0.052	(0.124)	0.015	0.037
206	17.17	0.17	0.052	(0.124)	0.015	0.037
207	17.25	0.17	0.052	(0.123)	0.015	0.037
208	17.33	0.17	0.052	(0.122)	0.015	0.037
209	17.42	0.17	0.052	(0.122)	0.015	0.037
210	17.50	0.17	0.052	(0.121)	0.015	0.037
211	17.58	0.17	0.052	(0.121)	0.015	0.037
212	17.67	0.17	0.052	(0.120)	0.015	0.037
213	17.75	0.17	0.052	(0.119)	0.015	0.037
214	17.83	0.13	0.041	(0.119)	0.012	0.029
215	17.92	0.13	0.041	(0.118)	0.012	0.029
216	18.00	0.13	0.041	(0.118)	0.012	0.029
217	18.08	0.13	0.041	(0.117)	0.012	0.029
218	18.17	0.13	0.041	(0.116)	0.012	0.029
219	18.25	0.13	0.041	(0.116)	0.012	0.029
220	18.33	0.13	0.041	(0.115)	0.012	0.029
221	18.42	0.13	0.041	(0.115)	0.012	0.029
222	18.50	0.13	0.041	(0.114)	0.012	0.029
223	18.58	0.10	0.031	(0.114)	0.009	0.022
224	18.67	0.10	0.031	(0.113)	0.009	0.022
225	18.75	0.10	0.031	(0.113)	0.009	0.022
226	18.83	0.07	0.021	(0.112)	0.006	0.015
227	18.92	0.07	0.021	(0.112)	0.006	0.015
228	19.00	0.07	0.021	(0.111)	0.006	0.015
229	19.08	0.10	0.031	(0.110)	0.009	0.022
230	19.17	0.10	0.031	(0.110)	0.009	0.022
231	19.25	0.10	0.031	(0.109)	0.009	0.022
232	19.33	0.13	0.041	(0.109)	0.012	0.029
233	19.42	0.13	0.041	(0.108)	0.012	0.029
234	19.50	0.13	0.041	(0.108)	0.012	0.029
235	19.58	0.10	0.031	(0.107)	0.009	0.022
236	19.67	0.10	0.031	(0.107)	0.009	0.022
237	19.75	0.10	0.031	(0.106)	0.009	0.022
238	19.83	0.07	0.021	(0.106)	0.006	0.015
239	19.92	0.07	0.021	(0.105)	0.006	0.015
240	20.00	0.07	0.021	(0.105)	0.006	0.015
241	20.08	0.10	0.031	(0.105)	0.009	0.022
242	20.17	0.10	0.031	(0.104)	0.009	0.022
243	20.25	0.10	0.031	(0.104)	0.009	0.022
244	20.33	0.10	0.031	(0.103)	0.009	0.022
245	20.42	0.10	0.031	(0.103)	0.009	0.022
246	20.50	0.10	0.031	(0.102)	0.009	0.022
247	20.58	0.10	0.031	(0.102)	0.009	0.022

248	20.67	0.10	0.031	(0.101)	0.009	0.022
249	20.75	0.10	0.031	(0.101)	0.009	0.022
250	20.83	0.07	0.021	(0.101)	0.006	0.015
251	20.92	0.07	0.021	(0.100)	0.006	0.015
252	21.00	0.07	0.021	(0.100)	0.006	0.015
253	21.08	0.10	0.031	(0.099)	0.009	0.022
254	21.17	0.10	0.031	(0.099)	0.009	0.022
255	21.25	0.10	0.031	(0.099)	0.009	0.022
256	21.33	0.07	0.021	(0.098)	0.006	0.015
257	21.42	0.07	0.021	(0.098)	0.006	0.015
258	21.50	0.07	0.021	(0.098)	0.006	0.015
259	21.58	0.10	0.031	(0.097)	0.009	0.022
260	21.67	0.10	0.031	(0.097)	0.009	0.022
261	21.75	0.10	0.031	(0.096)	0.009	0.022
262	21.83	0.07	0.021	(0.096)	0.006	0.015
263	21.92	0.07	0.021	(0.096)	0.006	0.015
264	22.00	0.07	0.021	(0.095)	0.006	0.015
265	22.08	0.10	0.031	(0.095)	0.009	0.022
266	22.17	0.10	0.031	(0.095)	0.009	0.022
267	22.25	0.10	0.031	(0.095)	0.009	0.022
268	22.33	0.07	0.021	(0.094)	0.006	0.015
269	22.42	0.07	0.021	(0.094)	0.006	0.015
270	22.50	0.07	0.021	(0.094)	0.006	0.015
271	22.58	0.07	0.021	(0.093)	0.006	0.015
272	22.67	0.07	0.021	(0.093)	0.006	0.015
273	22.75	0.07	0.021	(0.093)	0.006	0.015
274	22.83	0.07	0.021	(0.093)	0.006	0.015
275	22.92	0.07	0.021	(0.092)	0.006	0.015
276	23.00	0.07	0.021	(0.092)	0.006	0.015
277	23.08	0.07	0.021	(0.092)	0.006	0.015
278	23.17	0.07	0.021	(0.092)	0.006	0.015
279	23.25	0.07	0.021	(0.092)	0.006	0.015
280	23.33	0.07	0.021	(0.091)	0.006	0.015
281	23.42	0.07	0.021	(0.091)	0.006	0.015
282	23.50	0.07	0.021	(0.091)	0.006	0.015
283	23.58	0.07	0.021	(0.091)	0.006	0.015
284	23.67	0.07	0.021	(0.091)	0.006	0.015
285	23.75	0.07	0.021	(0.091)	0.006	0.015
286	23.83	0.07	0.021	(0.091)	0.006	0.015
287	23.92	0.07	0.021	(0.090)	0.006	0.015
288	24.00	0.07	0.021	(0.090)	0.006	0.015
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	21.9

Flood volume = Effective rainfall 1.83(In)
times area 1.6(Ac.)/[(In)/(Ft.)] = 0.2(Ac.Ft)
Total soil loss = 0.75(In)
Total soil loss = 0.099(Ac.Ft)
Total rainfall = 2.58(In)
Flood volume = 10488.2 Cubic Feet
Total soil loss = 4304.8 Cubic Feet

Peak flow rate of this hydrograph = 0.396(CFS)

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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	2.5	5.0	7.5	10.0
0+ 5	0.0001	0.02	Q				
0+10	0.0003	0.02	Q				
0+15	0.0004	0.02	Q				
0+20	0.0007	0.03	Q				
0+25	0.0009	0.03	Q				
0+30	0.0011	0.03	Q				
0+35	0.0014	0.03	Q				
0+40	0.0016	0.03	Q				
0+45	0.0019	0.03	Q				
0+50	0.0022	0.04	Q				
0+55	0.0025	0.05	Q				
1+ 0	0.0028	0.05	Q				
1+ 5	0.0031	0.04	Q				
1+10	0.0033	0.03	Q				
1+15	0.0035	0.03	Q				
1+20	0.0038	0.03	Q				
1+25	0.0040	0.03	Q				
1+30	0.0043	0.03	Q				
1+35	0.0045	0.03	Q				
1+40	0.0047	0.03	Q				
1+45	0.0050	0.03	Q				
1+50	0.0053	0.04	Q				
1+55	0.0056	0.05	Q				
2+ 0	0.0059	0.05	Q				
2+ 5	0.0063	0.05	QV				
2+10	0.0066	0.05	QV				
2+15	0.0069	0.05	QV				
2+20	0.0072	0.05	QV				
2+25	0.0075	0.05	QV				
2+30	0.0079	0.05	QV				
2+35	0.0082	0.06	QV				
2+40	0.0086	0.06	QV				
2+45	0.0090	0.06	QV				
2+50	0.0094	0.06	QV				
2+55	0.0098	0.06	QV				
3+ 0	0.0102	0.06	QV				
3+ 5	0.0106	0.06	QV				
3+10	0.0110	0.06	QV				

3+15	0.0114	0.06	QV	|	|	|	|
3+20	0.0118	0.06	QV	|	|	|	|
3+25	0.0122	0.06	Q V	|	|	|	|
3+30	0.0126	0.06	Q V	|	|	|	|
3+35	0.0131	0.06	Q V	|	|	|	|
3+40	0.0135	0.06	Q V	|	|	|	|
3+45	0.0139	0.06	Q V	|	|	|	|
3+50	0.0143	0.07	Q V	|	|	|	|
3+55	0.0148	0.07	Q V	|	|	|	|
4+ 0	0.0153	0.07	Q V	|	|	|	|
4+ 5	0.0158	0.07	Q V	|	|	|	|
4+10	0.0162	0.07	Q V	|	|	|	|
4+15	0.0167	0.07	Q V	|	|	|	|
4+20	0.0173	0.08	Q V	|	|	|	|
4+25	0.0178	0.08	Q V	|	|	|	|
4+30	0.0184	0.08	Q V	|	|	|	|
4+35	0.0189	0.08	Q V	|	|	|	|
4+40	0.0195	0.08	Q V	|	|	|	|
4+45	0.0201	0.08	Q V	|	|	|	|
4+50	0.0207	0.09	Q V	|	|	|	|
4+55	0.0213	0.09	Q V	|	|	|	|
5+ 0	0.0220	0.09	Q V	|	|	|	|
5+ 5	0.0225	0.08	Q V	|	|	|	|
5+10	0.0230	0.07	Q V	|	|	|	|
5+15	0.0235	0.07	Q V	|	|	|	|
5+20	0.0240	0.08	Q V	|	|	|	|
5+25	0.0246	0.08	Q V	|	|	|	|
5+30	0.0251	0.08	Q V	|	|	|	|
5+35	0.0257	0.09	Q V	|	|	|	|
5+40	0.0264	0.09	Q V	|	|	|	|
5+45	0.0270	0.09	Q V	|	|	|	|
5+50	0.0277	0.09	Q V	|	|	|	|
5+55	0.0283	0.09	Q V	|	|	|	|
6+ 0	0.0290	0.09	Q V	|	|	|	|
6+ 5	0.0297	0.10	Q V	|	|	|	|
6+10	0.0304	0.10	Q V	|	|	|	|
6+15	0.0311	0.10	Q V	|	|	|	|
6+20	0.0318	0.10	Q V	|	|	|	|
6+25	0.0325	0.10	Q V	|	|	|	|
6+30	0.0333	0.10	Q V	|	|	|	|
6+35	0.0340	0.11	Q V	|	|	|	|
6+40	0.0349	0.12	Q V	|	|	|	|
6+45	0.0357	0.12	Q V	|	|	|	|
6+50	0.0365	0.12	Q V	|	|	|	|
6+55	0.0373	0.12	Q V	|	|	|	|
7+ 0	0.0381	0.12	Q V	|	|	|	|
7+ 5	0.0389	0.12	Q V	|	|	|	|
7+10	0.0397	0.12	Q V	|	|	|	|
7+15	0.0405	0.12	Q V	|	|	|	|
7+20	0.0413	0.12	Q V	|	|	|	|

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 7+25       0.0422      0.13  Q      V  |          |          |          |
 7+30       0.0431      0.13  Q      V  |          |          |          |
 7+35       0.0440      0.14  Q      V  |          |          |          |
 7+40       0.0450      0.14  Q      V  |          |          |          |
 7+45       0.0460      0.14  Q      V  |          |          |          |
 7+50       0.0470      0.15  Q      V  |          |          |          |
 7+55       0.0480      0.15  Q      V  |          |          |          |
 8+ 0       0.0491      0.15  Q       V |          |          |          |
 8+ 5       0.0502      0.17  Q       V |          |          |          |
 8+10       0.0514      0.17  Q       V |          |          |          |
 8+15       0.0526      0.17  Q       V |          |          |          |
 8+20       0.0538      0.17  Q       V |          |          |          |
 8+25       0.0550      0.17  Q        V|          |          |          |
 8+30       0.0562      0.17  Q        V|          |          |          |
 8+35       0.0575      0.18  Q        V|          |          |          |
 8+40       0.0588      0.19  Q        V|          |          |          |
 8+45       0.0601      0.19  Q        V|          |          |          |
 8+50       0.0614      0.19  Q         V          |          |          |
 8+55       0.0628      0.20  Q         V          |          |          |
 9+ 0       0.0641      0.20  Q         V          |          |          |
 9+ 5       0.0656      0.21  Q         V          |          |          |
 9+10       0.0672      0.22  Q         |V         |          |          |
 9+15       0.0687      0.22  Q         |V         |          |          |
 9+20       0.0703      0.23  Q         |V         |          |          |
 9+25       0.0719      0.23  Q         |V         |          |          |
 9+30       0.0735      0.23  Q         | V        |          |          |
 9+35       0.0751      0.24  Q         | V        |          |          |
 9+40       0.0768      0.24  Q         | V        |          |          |
 9+45       0.0785      0.24  Q         |  V       |          |          |
 9+50       0.0803      0.25  |Q        |  V       |          |          |
 9+55       0.0820      0.26  |Q        |  V       |          |          |
10+ 0       0.0838      0.26  |Q        |  V       |          |          |
10+ 5       0.0851      0.20  Q         |   V      |          |          |
10+10       0.0863      0.17  Q         |   V      |          |          |
10+15       0.0875      0.17  Q         |   V      |          |          |
10+20       0.0888      0.17  Q         |   V      |          |          |
10+25       0.0900      0.17  Q         |   V      |          |          |
10+30       0.0912      0.17  Q         |    V     |          |          |
10+35       0.0927      0.22  Q         |    V     |          |          |
10+40       0.0943      0.23  Q         |    V     |          |          |
10+45       0.0959      0.23  Q         |    V     |          |          |
10+50       0.0975      0.23  Q         |     V    |          |          |
10+55       0.0991      0.23  Q         |     V    |          |          |
11+ 0       0.1007      0.23  Q         |     V    |          |          |
11+ 5       0.1022      0.22  Q         |     V    |          |          |
11+10       0.1038      0.22  Q         |      V   |          |          |
11+15       0.1053      0.22  Q         |      V   |          |          |
11+20       0.1068      0.22  Q         |      V   |          |          |
11+25       0.1083      0.22  Q         |      V   |          |          |
11+30       0.1099      0.22  Q         |       V  |          |          |
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11+35       0.1113      0.20  Q          |        V |          |          |
11+40       0.1126      0.20  Q          |        V |          |          |
11+45       0.1140      0.20  Q          |        V |          |          |
11+50       0.1154      0.21  Q          |         V|          |          |
11+55       0.1169      0.21  Q          |         V|          |          |
12+ 0       0.1183      0.21  Q          |         V|          |          |
12+ 5       0.1202      0.27  |Q         |         V|          |          |
12+10       0.1222      0.29  |Q         |          V          |          |
12+15       0.1242      0.29  |Q         |          V          |          |
12+20       0.1262      0.30  |Q         |          V          |          |
12+25       0.1283      0.30  |Q         |          |V         |          |
12+30       0.1304      0.30  |Q         |          |V         |          |
12+35       0.1326      0.32  |Q         |          | V        |          |
12+40       0.1349      0.33  |Q         |          | V        |          |
12+45       0.1371      0.33  |Q         |          | V        |          |
12+50       0.1394      0.33  |Q         |          |  V       |          |
12+55       0.1417      0.34  |Q         |          |  V       |          |
13+ 0       0.1441      0.34  |Q         |          |  V       |          |
13+ 5       0.1467      0.38  |Q         |          |   V      |          |
13+10       0.1494      0.40  |Q         |          |   V      |          |
13+15       0.1521      0.40  |Q         |          |    V     |          |
13+20       0.1549      0.40  |Q         |          |    V     |          |
13+25       0.1576      0.40  |Q         |          |     V    |          |
13+30       0.1603      0.40  |Q         |          |     V    |          |
13+35       0.1624      0.30  |Q         |          |     V    |          |
13+40       0.1643      0.27  |Q         |          |      V   |          |
13+45       0.1661      0.27  |Q         |          |      V   |          |
13+50       0.1680      0.27  |Q         |          |      V   |          |
13+55       0.1698      0.27  |Q         |          |       V  |          |
14+ 0       0.1716      0.27  |Q         |          |       V  |          |
14+ 5       0.1737      0.30  |Q         |          |       V  |          |
14+10       0.1759      0.31  |Q         |          |        V |          |
14+15       0.1781      0.31  |Q         |          |        V |          |
14+20       0.1802      0.31  |Q         |          |        V |          |
14+25       0.1823      0.30  |Q         |          |         V          |
14+30       0.1843      0.30  |Q         |          |         V          |
14+35       0.1864      0.30  |Q         |          |         V          |
14+40       0.1885      0.30  |Q         |          |         |V         |
14+45       0.1906      0.30  |Q         |          |         |V         |
14+50       0.1926      0.29  |Q         |          |         | V        |
14+55       0.1946      0.29  |Q         |          |         | V        |
15+ 0       0.1966      0.29  |Q         |          |         | V        |
15+ 5       0.1986      0.28  |Q         |          |         | V        |
15+10       0.2005      0.28  |Q         |          |         |  V       |
15+15       0.2024      0.28  |Q         |          |         |  V       |
15+20       0.2043      0.27  |Q         |          |         |  V       |
15+25       0.2062      0.27  |Q         |          |         |   V      |
15+30       0.2080      0.27  |Q         |          |         |   V      |
15+35       0.2096      0.23  Q          |          |         |   V      |
15+40       0.2111      0.22  Q          |          |         |    V     |
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15+45	0.2127	0.22	Q	|	|	|	V |
15+50	0.2142	0.22	Q	|	|	|	V |
15+55	0.2157	0.22	Q	|	|	|	V |
16+ 0	0.2172	0.22	Q	|	|	|	V |
16+ 5	0.2179	0.10	Q	|	|	|	V |
16+10	0.2182	0.05	Q	|	|	|	V |
16+15	0.2185	0.05	Q	|	|	|	V |
16+20	0.2189	0.05	Q	|	|	|	V |
16+25	0.2192	0.05	Q	|	|	|	V |
16+30	0.2195	0.05	Q	|	|	|	V |
16+35	0.2198	0.04	Q	|	|	|	V |
16+40	0.2200	0.03	Q	|	|	|	V |
16+45	0.2202	0.03	Q	|	|	|	V |
16+50	0.2205	0.03	Q	|	|	|	V |
16+55	0.2207	0.03	Q	|	|	|	V |
17+ 0	0.2210	0.03	Q	|	|	|	V |
17+ 5	0.2213	0.05	Q	|	|	|	V |
17+10	0.2217	0.06	Q	|	|	|	V |
17+15	0.2221	0.06	Q	|	|	|	V |
17+20	0.2225	0.06	Q	|	|	|	V |
17+25	0.2229	0.06	Q	|	|	|	V |
17+30	0.2233	0.06	Q	|	|	|	V |
17+35	0.2237	0.06	Q	|	|	|	V |
17+40	0.2241	0.06	Q	|	|	|	V |
17+45	0.2245	0.06	Q	|	|	|	V |
17+50	0.2249	0.05	Q	|	|	|	V |
17+55	0.2252	0.05	Q	|	|	|	V |
18+ 0	0.2255	0.05	Q	|	|	|	V |
18+ 5	0.2258	0.05	Q	|	|	|	V |
18+10	0.2262	0.05	Q	|	|	|	V |
18+15	0.2265	0.05	Q	|	|	|	V |
18+20	0.2268	0.05	Q	|	|	|	V |
18+25	0.2271	0.05	Q	|	|	|	V |
18+30	0.2274	0.05	Q	|	|	|	V |
18+35	0.2277	0.04	Q	|	|	|	V |
18+40	0.2279	0.03	Q	|	|	|	V |
18+45	0.2282	0.03	Q	|	|	|	V |
18+50	0.2284	0.03	Q	|	|	|	V |
18+55	0.2285	0.02	Q	|	|	|	V |
19+ 0	0.2287	0.02	Q	|	|	|	V |
19+ 5	0.2289	0.03	Q	|	|	|	V |
19+10	0.2292	0.03	Q	|	|	|	V |
19+15	0.2294	0.03	Q	|	|	|	V |
19+20	0.2297	0.04	Q	|	|	|	V |
19+25	0.2300	0.05	Q	|	|	|	V |
19+30	0.2303	0.05	Q	|	|	|	V |
19+35	0.2306	0.04	Q	|	|	|	V |
19+40	0.2308	0.03	Q	|	|	|	V |
19+45	0.2311	0.03	Q	|	|	|	V |
19+50	0.2313	0.03	Q	|	|	|	V |

19+55	0.2314	0.02	Q	|	|	|	V |
20+ 0	0.2316	0.02	Q	|	|	|	V |
20+ 5	0.2318	0.03	Q	|	|	|	V |
20+10	0.2320	0.03	Q	|	|	|	V |
20+15	0.2323	0.03	Q	|	|	|	V |
20+20	0.2325	0.03	Q	|	|	|	V |
20+25	0.2328	0.03	Q	|	|	|	V |
20+30	0.2330	0.03	Q	|	|	|	V |
20+35	0.2332	0.03	Q	|	|	|	V |
20+40	0.2335	0.03	Q	|	|	|	V |
20+45	0.2337	0.03	Q	|	|	|	V |
20+50	0.2339	0.03	Q	|	|	|	V |
20+55	0.2341	0.02	Q	|	|	|	V |
21+ 0	0.2342	0.02	Q	|	|	|	V |
21+ 5	0.2344	0.03	Q	|	|	|	V |
21+10	0.2347	0.03	Q	|	|	|	V |
21+15	0.2349	0.03	Q	|	|	|	V|
21+20	0.2351	0.03	Q	|	|	|	V|
21+25	0.2353	0.02	Q	|	|	|	V|
21+30	0.2354	0.02	Q	|	|	|	V|
21+35	0.2357	0.03	Q	|	|	|	V|
21+40	0.2359	0.03	Q	|	|	|	V|
21+45	0.2361	0.03	Q	|	|	|	V|
21+50	0.2363	0.03	Q	|	|	|	V|
21+55	0.2365	0.02	Q	|	|	|	V|
22+ 0	0.2366	0.02	Q	|	|	|	V|
22+ 5	0.2369	0.03	Q	|	|	|	V|
22+10	0.2371	0.03	Q	|	|	|	V|
22+15	0.2373	0.03	Q	|	|	|	V|
22+20	0.2375	0.03	Q	|	|	|	V|
22+25	0.2377	0.02	Q	|	|	|	V|
22+30	0.2378	0.02	Q	|	|	|	V|
22+35	0.2380	0.02	Q	|	|	|	V|
22+40	0.2382	0.02	Q	|	|	|	V|
22+45	0.2383	0.02	Q	|	|	|	V|
22+50	0.2385	0.02	Q	|	|	|	V|
22+55	0.2386	0.02	Q	|	|	|	V|
23+ 0	0.2388	0.02	Q	|	|	|	V|
23+ 5	0.2390	0.02	Q	|	|	|	V|
23+10	0.2391	0.02	Q	|	|	|	V|
23+15	0.2393	0.02	Q	|	|	|	V|
23+20	0.2394	0.02	Q	|	|	|	V|
23+25	0.2396	0.02	Q	|	|	|	V|
23+30	0.2398	0.02	Q	|	|	|	V|
23+35	0.2399	0.02	Q	|	|	|	V|
23+40	0.2401	0.02	Q	|	|	|	V|
23+45	0.2403	0.02	Q	|	|	|	V|
23+50	0.2404	0.02	Q	|	|	|	V|
23+55	0.2406	0.02	Q	|	|	|	V|
24+ 0	0.2407	0.02	Q	|	|	|	V|

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   24+ 5       0.2408      0.01  Q          |          |          |          V
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DMA 2 Proposed 10-Year

FLOOD HYDROGRAPH ROUTING PROGRAM

Study date: 08/24/22

A21626 DMA 2 10YR-1HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA2Q100UH110.rte
**********HYDROGRAPH DATA**********
Number of intervals = 13
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 3.171 (CFS)
Total volume = 0.089 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   0.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.00(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.00(Ft.)   Capacity =   0.20(CFS)

Free outlet pipe flow: Pipe Diameter =   1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)   Capacity =   4.44(CFS)

Total outflow at this depth =   4.64(CFS)

Total number of inflow hydrograph intervals = 13

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
0.500	0.052	0.000	0.052	0.052
1.000	0.111	0.196	0.110	0.112
1.500	0.177	0.196	0.176	0.178
2.000	0.251	0.196	0.250	0.252
2.500	0.333	4.639	0.317	0.349

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.8	1.59	2.38	3.17	Depth (Ft.)
0.083	0.35	0.00	0.001	O I	|	|	|	|	0.01
0.167	0.49	0.00	0.004	O I	|	|	|	|	0.04
0.250	0.60	0.00	0.008	O I	|	|	|	|	0.08
0.333	0.64	0.00	0.012	O I	|	|	|	|	0.12
0.417	0.67	0.00	0.017	O I	|	|	|	|	0.16
0.500	0.76	0.00	0.022	O I	|	|	|	|	0.21
0.583	0.95	0.00	0.027	O |I	|	|	|	|	0.26
0.667	1.15	0.00	0.035	O | I	|	|	|	|	0.33
0.750	1.61	0.00	0.044	O |	I	|	|	|	0.42
0.833	3.17	0.03	0.060	O |	|	|	|	I	0.57
0.917	1.76	0.08	0.077	O |	|	I	|	|	0.71
1.000	0.69	0.11	0.085	|O I	|	|	|	|	0.78
1.083	0.16	0.12	0.087	|O	|	|	|	|	0.80
1.167	0.00	0.12	0.087	IO	|	|	|	|	0.79
1.250	0.00	0.11	0.086	IO	|	|	|	|	0.79
1.333	0.00	0.11	0.085	IO	|	|	|	|	0.78
1.417	0.00	0.11	0.084	IO	|	|	|	|	0.77
1.500	0.00	0.11	0.084	IO	|	|	|	|	0.77
1.583	0.00	0.10	0.083	IO	|	|	|	|	0.76
1.667	0.00	0.10	0.082	IO	|	|	|	|	0.76
1.750	0.00	0.10	0.082	O	|	|	|	|	0.75
1.833	0.00	0.10	0.081	O	|	|	|	|	0.74
1.917	0.00	0.09	0.080	O	|	|	|	|	0.74

2.000	0.00	0.09	0.080	O				0.73
2.083	0.00	0.09	0.079	O				0.73
2.167	0.00	0.09	0.078	O				0.72
2.250	0.00	0.09	0.078	O				0.72
2.333	0.00	0.08	0.077	O				0.71
2.417	0.00	0.08	0.077	O				0.71
2.500	0.00	0.08	0.076	O				0.70
2.583	0.00	0.08	0.076	O				0.70
2.667	0.00	0.08	0.075	O				0.69
2.750	0.00	0.07	0.074	O				0.69
2.833	0.00	0.07	0.074	O				0.69
2.917	0.00	0.07	0.073	O				0.68
3.000	0.00	0.07	0.073	O				0.68
3.083	0.00	0.07	0.072	O				0.67
3.167	0.00	0.07	0.072	O				0.67
3.250	0.00	0.07	0.072	O				0.67
3.333	0.00	0.06	0.071	O				0.66
3.417	0.00	0.06	0.071	O				0.66
3.500	0.00	0.06	0.070	O				0.65
3.583	0.00	0.06	0.070	O				0.65
3.667	0.00	0.06	0.069	O				0.65
3.750	0.00	0.06	0.069	O				0.64
3.833	0.00	0.06	0.069	O				0.64
3.917	0.00	0.05	0.068	O				0.64
4.000	0.00	0.05	0.068	O				0.63
4.083	0.00	0.05	0.068	O				0.63
4.167	0.00	0.05	0.067	O				0.63
4.250	0.00	0.05	0.067	O				0.63
4.333	0.00	0.05	0.067	O				0.62
4.417	0.00	0.05	0.066	O				0.62
4.500	0.00	0.05	0.066	O				0.62
4.583	0.00	0.05	0.066	O				0.61
4.667	0.00	0.04	0.065	O				0.61
4.750	0.00	0.04	0.065	O				0.61
4.833	0.00	0.04	0.065	O				0.61
4.917	0.00	0.04	0.064	O				0.60
5.000	0.00	0.04	0.064	O				0.60
5.083	0.00	0.04	0.064	O				0.60
5.167	0.00	0.04	0.064	O				0.60
5.250	0.00	0.04	0.063	O				0.60
5.333	0.00	0.04	0.063	O				0.59
5.417	0.00	0.04	0.063	O				0.59
5.500	0.00	0.04	0.063	O				0.59
5.583	0.00	0.03	0.062	O				0.59
5.667	0.00	0.03	0.062	O				0.59
5.750	0.00	0.03	0.062	O				0.58
5.833	0.00	0.03	0.062	O				0.58
5.917	0.00	0.03	0.061	O				0.58
6.000	0.00	0.03	0.061	O				0.58
6.083	0.00	0.03	0.061	O				0.58

6.167	0.00	0.03	0.061	O				0.57
6.250	0.00	0.03	0.061	O				0.57
6.333	0.00	0.03	0.060	O				0.57
6.417	0.00	0.03	0.060	O				0.57
6.500	0.00	0.03	0.060	O				0.57
6.583	0.00	0.03	0.060	O				0.57
6.667	0.00	0.03	0.060	O				0.56
6.750	0.00	0.02	0.059	O				0.56
6.833	0.00	0.02	0.059	O				0.56
6.917	0.00	0.02	0.059	O				0.56
7.000	0.00	0.02	0.059	O				0.56
7.083	0.00	0.02	0.059	O				0.56
7.167	0.00	0.02	0.059	O				0.56
7.250	0.00	0.02	0.059	O				0.56
7.333	0.00	0.02	0.058	O				0.55
7.417	0.00	0.02	0.058	O				0.55
7.500	0.00	0.02	0.058	O				0.55
7.583	0.00	0.02	0.058	O				0.55
7.667	0.00	0.02	0.058	O				0.55
7.750	0.00	0.02	0.058	O				0.55
7.833	0.00	0.02	0.058	O				0.55
7.917	0.00	0.02	0.057	O				0.55
8.000	0.00	0.02	0.057	O				0.54
8.083	0.00	0.02	0.057	O				0.54
8.167	0.00	0.02	0.057	O				0.54
8.250	0.00	0.02	0.057	O				0.54
8.333	0.00	0.02	0.057	O				0.54
8.417	0.00	0.02	0.057	O				0.54
8.500	0.00	0.02	0.057	O				0.54
8.583	0.00	0.02	0.057	O				0.54
8.667	0.00	0.01	0.056	O				0.54
8.750	0.00	0.01	0.056	O				0.54
8.833	0.00	0.01	0.056	O				0.54
8.917	0.00	0.01	0.056	O				0.53
9.000	0.00	0.01	0.056	O				0.53
9.083	0.00	0.01	0.056	O				0.53
9.167	0.00	0.01	0.056	O				0.53
9.250	0.00	0.01	0.056	O				0.53
9.333	0.00	0.01	0.056	O				0.53
9.417	0.00	0.01	0.056	O				0.53
9.500	0.00	0.01	0.056	O				0.53
9.583	0.00	0.01	0.055	O				0.53
9.667	0.00	0.01	0.055	O				0.53
9.750	0.00	0.01	0.055	O				0.53
9.833	0.00	0.01	0.055	O				0.53
9.917	0.00	0.01	0.055	O				0.53
10.000	0.00	0.01	0.055	O				0.53
10.083	0.00	0.01	0.055	O				0.53
10.167	0.00	0.01	0.055	O				0.52
10.250	0.00	0.01	0.055	O				0.52

10.333	0.00	0.01	0.055	O	|	|	|	0.52
10.417	0.00	0.01	0.055	O	|	|	|	0.52
10.500	0.00	0.01	0.055	O	|	|	|	0.52
10.583	0.00	0.01	0.055	O	|	|	|	0.52
10.667	0.00	0.01	0.055	O	|	|	|	0.52
10.750	0.00	0.01	0.054	O	|	|	|	0.52
10.833	0.00	0.01	0.054	O	|	|	|	0.52
10.917	0.00	0.01	0.054	O	|	|	|	0.52
11.000	0.00	0.01	0.054	O	|	|	|	0.52
11.083	0.00	0.01	0.054	O	|	|	|	0.52
11.167	0.00	0.01	0.054	O	|	|	|	0.52
11.250	0.00	0.01	0.054	O	|	|	|	0.52
11.333	0.00	0.01	0.054	O	|	|	|	0.52
11.417	0.00	0.01	0.054	O	|	|	|	0.52
11.500	0.00	0.01	0.054	O	|	|	|	0.52
11.583	0.00	0.01	0.054	O	|	|	|	0.52
11.667	0.00	0.01	0.054	O	|	|	|	0.52
11.750	0.00	0.01	0.054	O	|	|	|	0.52
11.833	0.00	0.01	0.054	O	|	|	|	0.52
11.917	0.00	0.01	0.054	O	|	|	|	0.52
12.000	0.00	0.01	0.054	O	|	|	|	0.51
12.083	0.00	0.01	0.054	O	|	|	|	0.51
12.167	0.00	0.01	0.054	O	|	|	|	0.51
12.250	0.00	0.01	0.054	O	|	|	|	0.51
12.333	0.00	0.01	0.054	O	|	|	|	0.51
12.417	0.00	0.01	0.054	O	|	|	|	0.51
12.500	0.00	0.01	0.054	O	|	|	|	0.51
12.583	0.00	0.01	0.054	O	|	|	|	0.51
12.667	0.00	0.00	0.053	O	|	|	|	0.51
12.750	0.00	0.00	0.053	O	|	|	|	0.51
12.833	0.00	0.00	0.053	O	|	|	|	0.51
12.917	0.00	0.00	0.053	O	|	|	|	0.51
13.000	0.00	0.00	0.053	O	|	|	|	0.51
13.083	0.00	0.00	0.053	O	|	|	|	0.51
13.167	0.00	0.00	0.053	O	|	|	|	0.51
13.250	0.00	0.00	0.053	O	|	|	|	0.51
13.333	0.00	0.00	0.053	O	|	|	|	0.51
13.417	0.00	0.00	0.053	O	|	|	|	0.51
13.500	0.00	0.00	0.053	O	|	|	|	0.51
13.583	0.00	0.00	0.053	O	|	|	|	0.51
13.667	0.00	0.00	0.053	O	|	|	|	0.51
13.750	0.00	0.00	0.053	O	|	|	|	0.51
13.833	0.00	0.00	0.053	O	|	|	|	0.51
13.917	0.00	0.00	0.053	O	|	|	|	0.51
14.000	0.00	0.00	0.053	O	|	|	|	0.51
14.083	0.00	0.00	0.053	O	|	|	|	0.51
14.167	0.00	0.00	0.053	O	|	|	|	0.51
14.250	0.00	0.00	0.053	O	|	|	|	0.51
14.333	0.00	0.00	0.053	O	|	|	|	0.51
14.417	0.00	0.00	0.053	O	|	|	|	0.51

14.500	0.00	0.00	0.053	O	|	|	|	0.51
14.583	0.00	0.00	0.053	O	|	|	|	0.51
14.667	0.00	0.00	0.053	O	|	|	|	0.51
14.750	0.00	0.00	0.053	O	|	|	|	0.51
14.833	0.00	0.00	0.053	O	|	|	|	0.51
14.917	0.00	0.00	0.053	O	|	|	|	0.51
15.000	0.00	0.00	0.053	O	|	|	|	0.51
15.083	0.00	0.00	0.053	O	|	|	|	0.51
15.167	0.00	0.00	0.053	O	|	|	|	0.51
15.250	0.00	0.00	0.053	O	|	|	|	0.51
15.333	0.00	0.00	0.053	O	|	|	|	0.51
15.417	0.00	0.00	0.053	O	|	|	|	0.51
15.500	0.00	0.00	0.053	O	|	|	|	0.51
15.583	0.00	0.00	0.053	O	|	|	|	0.51
15.667	0.00	0.00	0.053	O	|	|	|	0.51
15.750	0.00	0.00	0.053	O	|	|	|	0.51
15.833	0.00	0.00	0.053	O	|	|	|	0.51
15.917	0.00	0.00	0.053	O	|	|	|	0.51
16.000	0.00	0.00	0.053	O	|	|	|	0.50
16.083	0.00	0.00	0.053	O	|	|	|	0.50
16.167	0.00	0.00	0.053	O	|	|	|	0.50
16.250	0.00	0.00	0.053	O	|	|	|	0.50
16.333	0.00	0.00	0.053	O	|	|	|	0.50
16.417	0.00	0.00	0.053	O	|	|	|	0.50
16.500	0.00	0.00	0.053	O	|	|	|	0.50
16.583	0.00	0.00	0.053	O	|	|	|	0.50
16.667	0.00	0.00	0.052	O	|	|	|	0.50
16.750	0.00	0.00	0.052	O	|	|	|	0.50
16.833	0.00	0.00	0.052	O	|	|	|	0.50
16.917	0.00	0.00	0.052	O	|	|	|	0.50
17.000	0.00	0.00	0.052	O	|	|	|	0.50
17.083	0.00	0.00	0.052	O	|	|	|	0.50
17.167	0.00	0.00	0.052	O	|	|	|	0.50
17.250	0.00	0.00	0.052	O	|	|	|	0.50
17.333	0.00	0.00	0.052	O	|	|	|	0.50
17.417	0.00	0.00	0.052	O	|	|	|	0.50
17.500	0.00	0.00	0.052	O	|	|	|	0.50
17.583	0.00	0.00	0.052	O	|	|	|	0.50
17.667	0.00	0.00	0.052	O	|	|	|	0.50
17.750	0.00	0.00	0.052	O	|	|	|	0.50
17.833	0.00	0.00	0.052	O	|	|	|	0.50
17.917	0.00	0.00	0.052	O	|	|	|	0.50
18.000	0.00	0.00	0.052	O	|	|	|	0.50
18.083	0.00	0.00	0.052	O	|	|	|	0.50
18.167	0.00	0.00	0.052	O	|	|	|	0.50
18.250	0.00	0.00	0.052	O	|	|	|	0.50
18.333	0.00	0.00	0.052	O	|	|	|	0.50
18.417	0.00	0.00	0.052	O	|	|	|	0.50
18.500	0.00	0.00	0.052	O	|	|	|	0.50

```
Remaining water in basin =    0.05 (Ac.Ft)


**************************HYDROGRAPH DATA**************************
                Number of intervals =   222
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =        0.116 (CFS)
                Total volume =       0.037 (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

Study date: 08/24/22

A21626 DMA 2 10YR-3HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA2Q100UH310.rte
**********HYDROGRAPH DATA**********
Number of intervals = 37
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 1.748 (CFS)
Total volume = 0.131 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   0.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.00(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.00(Ft.)   Capacity =   0.20(CFS)

Free outlet pipe flow: Pipe Diameter =   1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)   Capacity =   4.44(CFS)

Total outflow at this depth =   4.64(CFS)

Total number of inflow hydrograph intervals = 37

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
0.500	0.052	0.000	0.052	0.052
1.000	0.111	0.196	0.110	0.112
1.500	0.177	0.196	0.176	0.178
2.000	0.251	0.196	0.250	0.252
2.500	0.333	4.639	0.317	0.349

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.4	0.87	1.31	1.75	Depth (Ft.)
0.083	0.16	0.00	0.001	O I	|	|	|	|	0.01
0.167	0.22	0.00	0.002	O I	|	|	|	|	0.02
0.250	0.20	0.00	0.003	O I	|	|	|	|	0.03
0.333	0.24	0.00	0.005	O I	|	|	|	|	0.05
0.417	0.26	0.00	0.007	O I	|	|	|	|	0.06
0.500	0.30	0.00	0.008	O I	|	|	|	|	0.08
0.583	0.27	0.00	0.010	O I	|	|	|	|	0.10
0.667	0.30	0.00	0.012	O I	|	|	|	|	0.12
0.750	0.31	0.00	0.014	O I	|	|	|	|	0.14
0.833	0.27	0.00	0.017	O I	|	|	|	|	0.16
0.917	0.27	0.00	0.018	O I	|	|	|	|	0.18
1.000	0.30	0.00	0.020	O I	|	|	|	|	0.20
1.083	0.36	0.00	0.023	O I	|	|	|	|	0.22
1.167	0.38	0.00	0.025	O I	|	|	|	|	0.24
1.250	0.38	0.00	0.028	O I	|	|	|	|	0.27
1.333	0.35	0.00	0.030	O I	|	|	|	|	0.29
1.417	0.42	0.00	0.033	O I	|	|	|	|	0.32
1.500	0.46	0.00	0.036	O I	|	|	|	|	0.35
1.583	0.43	0.00	0.039	O I	|	|	|	|	0.38
1.667	0.45	0.00	0.042	O I	|	|	|	|	0.41
1.750	0.58	0.00	0.046	O | I	|	|	|	|	0.44
1.833	0.58	0.00	0.050	O | I	|	|	|	|	0.48
1.917	0.53	0.01	0.054	O |I	|	|	|	|	0.51

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2.000    0.54    0.02      0.057  O       |I      |       |       |     0.54
2.083    0.56    0.03      0.061  O       | I     |       |       |     0.57
2.167    0.76    0.04      0.065  O       |    I  |       |       |     0.61
2.250    0.98    0.06      0.071  |O      |       |I      |       |     0.66
2.333    0.77    0.08      0.076  |O      |     I |       |       |     0.70
2.417    1.25    0.10      0.082  |O      |       |     I |       |     0.76
2.500    1.56    0.13      0.091  | O     |       |       |   I   |     0.83
2.583    1.75    0.17      0.102  |  O    |       |       |       I     0.92
2.667    1.40    0.20      0.111  |  O    |       |       |I      |     1.00
2.750    0.60    0.20      0.117  |  O    | I     |       |       |     1.04
2.833    0.32    0.20      0.119  |  O I  |       |       |       |     1.06
2.917    0.31    0.20      0.119  |  O I  |       |       |       |     1.06
3.000    0.16    0.20      0.120  | IO    |       |       |       |     1.07
3.083    0.03    0.20      0.119  I  O    |       |       |       |     1.06
3.167    0.00    0.20      0.118  I  O    |       |       |       |     1.05
3.250    0.00    0.20      0.116  I  O    |       |       |       |     1.04
3.333    0.00    0.20      0.115  I  O    |       |       |       |     1.03
3.417    0.00    0.20      0.114  I  O    |       |       |       |     1.02
3.500    0.00    0.20      0.112  I  O    |       |       |       |     1.01
3.583    0.00    0.20      0.111  I  O    |       |       |       |     1.00
3.667    0.00    0.19      0.110  I  O    |       |       |       |     0.99
3.750    0.00    0.19      0.108  I  O    |       |       |       |     0.98
3.833    0.00    0.18      0.107  I  O    |       |       |       |     0.97
3.917    0.00    0.18      0.106  I  O    |       |       |       |     0.96
4.000    0.00    0.18      0.105  I  O    |       |       |       |     0.95
4.083    0.00    0.17      0.103  I  O    |       |       |       |     0.94
4.167    0.00    0.17      0.102  I  O    |       |       |       |     0.93
4.250    0.00    0.16      0.101  I O     |       |       |       |     0.92
4.333    0.00    0.16      0.100  I O     |       |       |       |     0.91
4.417    0.00    0.16      0.099  I O     |       |       |       |     0.90
4.500    0.00    0.15      0.098  I O     |       |       |       |     0.89
4.583    0.00    0.15      0.097  I O     |       |       |       |     0.88
4.667    0.00    0.15      0.096  I O     |       |       |       |     0.87
4.750    0.00    0.14      0.095  I O     |       |       |       |     0.86
4.833    0.00    0.14      0.094  I O     |       |       |       |     0.85
4.917    0.00    0.14      0.093  I O     |       |       |       |     0.85
5.000    0.00    0.13      0.092  I O     |       |       |       |     0.84
5.083    0.00    0.13      0.091  I O     |       |       |       |     0.83
5.167    0.00    0.13      0.090  I O     |       |       |       |     0.82
5.250    0.00    0.12      0.089  I O     |       |       |       |     0.82
5.333    0.00    0.12      0.088  I O     |       |       |       |     0.81
5.417    0.00    0.12      0.088  I O     |       |       |       |     0.80
5.500    0.00    0.12      0.087  I O     |       |       |       |     0.80
5.583    0.00    0.11      0.086  I O     |       |       |       |     0.79
5.667    0.00    0.11      0.085  I O     |       |       |       |     0.78
5.750    0.00    0.11      0.085  IO      |       |       |       |     0.78
5.833    0.00    0.11      0.084  IO      |       |       |       |     0.77
5.917    0.00    0.10      0.083  IO      |       |       |       |     0.76
6.000    0.00    0.10      0.082  IO      |       |       |       |     0.76
6.083    0.00    0.10      0.082  IO      |       |       |       |     0.75
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6.167	0.00	0.10	0.081	IO				0.75
6.250	0.00	0.09	0.080	IO				0.74
6.333	0.00	0.09	0.080	IO				0.73
6.417	0.00	0.09	0.079	IO				0.73
6.500	0.00	0.09	0.078	IO				0.72
6.583	0.00	0.09	0.078	IO				0.72
6.667	0.00	0.08	0.077	IO				0.71
6.750	0.00	0.08	0.077	IO				0.71
6.833	0.00	0.08	0.076	IO				0.70
6.917	0.00	0.08	0.076	IO				0.70
7.000	0.00	0.08	0.075	IO				0.70
7.083	0.00	0.07	0.075	IO				0.69
7.167	0.00	0.07	0.074	IO				0.69
7.250	0.00	0.07	0.074	IO				0.68
7.333	0.00	0.07	0.073	IO				0.68
7.417	0.00	0.07	0.073	IO				0.67
7.500	0.00	0.07	0.072	IO				0.67
7.583	0.00	0.07	0.072	IO				0.67
7.667	0.00	0.06	0.071	IO				0.66
7.750	0.00	0.06	0.071	IO				0.66
7.833	0.00	0.06	0.070	IO				0.66
7.917	0.00	0.06	0.070	IO				0.65
8.000	0.00	0.06	0.070	IO				0.65
8.083	0.00	0.06	0.069	IO				0.64
8.167	0.00	0.06	0.069	IO				0.64
8.250	0.00	0.05	0.068	O				0.64
8.333	0.00	0.05	0.068	O				0.64
8.417	0.00	0.05	0.068	O				0.63
8.500	0.00	0.05	0.067	O				0.63
8.583	0.00	0.05	0.067	O				0.63
8.667	0.00	0.05	0.067	O				0.62
8.750	0.00	0.05	0.066	O				0.62
8.833	0.00	0.05	0.066	O				0.62
8.917	0.00	0.05	0.066	O				0.62
9.000	0.00	0.04	0.065	O				0.61
9.083	0.00	0.04	0.065	O				0.61
9.167	0.00	0.04	0.065	O				0.61
9.250	0.00	0.04	0.064	O				0.61
9.333	0.00	0.04	0.064	O				0.60
9.417	0.00	0.04	0.064	O				0.60
9.500	0.00	0.04	0.064	O				0.60
9.583	0.00	0.04	0.063	O				0.60
9.667	0.00	0.04	0.063	O				0.59
9.750	0.00	0.04	0.063	O				0.59
9.833	0.00	0.04	0.063	O				0.59
9.917	0.00	0.03	0.062	O				0.59
10.000	0.00	0.03	0.062	O				0.59
10.083	0.00	0.03	0.062	O				0.58
10.167	0.00	0.03	0.062	O				0.58
10.250	0.00	0.03	0.061	O				0.58

10.333	0.00	0.03	0.061	O	|	|	|	0.58
10.417	0.00	0.03	0.061	O	|	|	|	0.58
10.500	0.00	0.03	0.061	O	|	|	|	0.57
10.583	0.00	0.03	0.061	O	|	|	|	0.57
10.667	0.00	0.03	0.060	O	|	|	|	0.57
10.750	0.00	0.03	0.060	O	|	|	|	0.57
10.833	0.00	0.03	0.060	O	|	|	|	0.57
10.917	0.00	0.03	0.060	O	|	|	|	0.57
11.000	0.00	0.03	0.060	O	|	|	|	0.56
11.083	0.00	0.02	0.059	O	|	|	|	0.56
11.167	0.00	0.02	0.059	O	|	|	|	0.56
11.250	0.00	0.02	0.059	O	|	|	|	0.56
11.333	0.00	0.02	0.059	O	|	|	|	0.56
11.417	0.00	0.02	0.059	O	|	|	|	0.56
11.500	0.00	0.02	0.059	O	|	|	|	0.56
11.583	0.00	0.02	0.059	O	|	|	|	0.56
11.667	0.00	0.02	0.058	O	|	|	|	0.55
11.750	0.00	0.02	0.058	O	|	|	|	0.55
11.833	0.00	0.02	0.058	O	|	|	|	0.55
11.917	0.00	0.02	0.058	O	|	|	|	0.55
12.000	0.00	0.02	0.058	O	|	|	|	0.55
12.083	0.00	0.02	0.058	O	|	|	|	0.55
12.167	0.00	0.02	0.058	O	|	|	|	0.55
12.250	0.00	0.02	0.057	O	|	|	|	0.55
12.333	0.00	0.02	0.057	O	|	|	|	0.55
12.417	0.00	0.02	0.057	O	|	|	|	0.54
12.500	0.00	0.02	0.057	O	|	|	|	0.54
12.583	0.00	0.02	0.057	O	|	|	|	0.54
12.667	0.00	0.02	0.057	O	|	|	|	0.54
12.750	0.00	0.02	0.057	O	|	|	|	0.54
12.833	0.00	0.02	0.057	O	|	|	|	0.54
12.917	0.00	0.02	0.057	O	|	|	|	0.54
13.000	0.00	0.01	0.056	O	|	|	|	0.54
13.083	0.00	0.01	0.056	O	|	|	|	0.54
13.167	0.00	0.01	0.056	O	|	|	|	0.54
13.250	0.00	0.01	0.056	O	|	|	|	0.54
13.333	0.00	0.01	0.056	O	|	|	|	0.53
13.417	0.00	0.01	0.056	O	|	|	|	0.53
13.500	0.00	0.01	0.056	O	|	|	|	0.53
13.583	0.00	0.01	0.056	O	|	|	|	0.53
13.667	0.00	0.01	0.056	O	|	|	|	0.53
13.750	0.00	0.01	0.056	O	|	|	|	0.53
13.833	0.00	0.01	0.056	O	|	|	|	0.53
13.917	0.00	0.01	0.055	O	|	|	|	0.53
14.000	0.00	0.01	0.055	O	|	|	|	0.53
14.083	0.00	0.01	0.055	O	|	|	|	0.53
14.167	0.00	0.01	0.055	O	|	|	|	0.53
14.250	0.00	0.01	0.055	O	|	|	|	0.53
14.333	0.00	0.01	0.055	O	|	|	|	0.53
14.417	0.00	0.01	0.055	O	|	|	|	0.53

14.500	0.00	0.01	0.055	O	|	|	|	0.52
14.583	0.00	0.01	0.055	O	|	|	|	0.52
14.667	0.00	0.01	0.055	O	|	|	|	0.52
14.750	0.00	0.01	0.055	O	|	|	|	0.52
14.833	0.00	0.01	0.055	O	|	|	|	0.52
14.917	0.00	0.01	0.055	O	|	|	|	0.52
15.000	0.00	0.01	0.055	O	|	|	|	0.52
15.083	0.00	0.01	0.054	O	|	|	|	0.52
15.167	0.00	0.01	0.054	O	|	|	|	0.52
15.250	0.00	0.01	0.054	O	|	|	|	0.52
15.333	0.00	0.01	0.054	O	|	|	|	0.52
15.417	0.00	0.01	0.054	O	|	|	|	0.52
15.500	0.00	0.01	0.054	O	|	|	|	0.52
15.583	0.00	0.01	0.054	O	|	|	|	0.52
15.667	0.00	0.01	0.054	O	|	|	|	0.52
15.750	0.00	0.01	0.054	O	|	|	|	0.52
15.833	0.00	0.01	0.054	O	|	|	|	0.52
15.917	0.00	0.01	0.054	O	|	|	|	0.52
16.000	0.00	0.01	0.054	O	|	|	|	0.52
16.083	0.00	0.01	0.054	O	|	|	|	0.52
16.167	0.00	0.01	0.054	O	|	|	|	0.52
16.250	0.00	0.01	0.054	O	|	|	|	0.52
16.333	0.00	0.01	0.054	O	|	|	|	0.51
16.417	0.00	0.01	0.054	O	|	|	|	0.51
16.500	0.00	0.01	0.054	O	|	|	|	0.51
16.583	0.00	0.01	0.054	O	|	|	|	0.51
16.667	0.00	0.01	0.054	O	|	|	|	0.51
16.750	0.00	0.01	0.054	O	|	|	|	0.51
16.833	0.00	0.01	0.054	O	|	|	|	0.51
16.917	0.00	0.01	0.054	O	|	|	|	0.51
17.000	0.00	0.00	0.053	O	|	|	|	0.51
17.083	0.00	0.00	0.053	O	|	|	|	0.51
17.167	0.00	0.00	0.053	O	|	|	|	0.51
17.250	0.00	0.00	0.053	O	|	|	|	0.51
17.333	0.00	0.00	0.053	O	|	|	|	0.51
17.417	0.00	0.00	0.053	O	|	|	|	0.51
17.500	0.00	0.00	0.053	O	|	|	|	0.51
17.583	0.00	0.00	0.053	O	|	|	|	0.51
17.667	0.00	0.00	0.053	O	|	|	|	0.51
17.750	0.00	0.00	0.053	O	|	|	|	0.51
17.833	0.00	0.00	0.053	O	|	|	|	0.51
17.917	0.00	0.00	0.053	O	|	|	|	0.51
18.000	0.00	0.00	0.053	O	|	|	|	0.51
18.083	0.00	0.00	0.053	O	|	|	|	0.51
18.167	0.00	0.00	0.053	O	|	|	|	0.51
18.250	0.00	0.00	0.053	O	|	|	|	0.51
18.333	0.00	0.00	0.053	O	|	|	|	0.51
18.417	0.00	0.00	0.053	O	|	|	|	0.51
18.500	0.00	0.00	0.053	O	|	|	|	0.51
18.583	0.00	0.00	0.053	O	|	|	|	0.51

18.667	0.00	0.00	0.053	O	|	|	|	0.51
18.750	0.00	0.00	0.053	O	|	|	|	0.51
18.833	0.00	0.00	0.053	O	|	|	|	0.51
18.917	0.00	0.00	0.053	O	|	|	|	0.51
19.000	0.00	0.00	0.053	O	|	|	|	0.51
19.083	0.00	0.00	0.053	O	|	|	|	0.51
19.167	0.00	0.00	0.053	O	|	|	|	0.51
19.250	0.00	0.00	0.053	O	|	|	|	0.51
19.333	0.00	0.00	0.053	O	|	|	|	0.51
19.417	0.00	0.00	0.053	O	|	|	|	0.51
19.500	0.00	0.00	0.053	O	|	|	|	0.51
19.583	0.00	0.00	0.053	O	|	|	|	0.51
19.667	0.00	0.00	0.053	O	|	|	|	0.51
19.750	0.00	0.00	0.053	O	|	|	|	0.51
19.833	0.00	0.00	0.053	O	|	|	|	0.51
19.917	0.00	0.00	0.053	O	|	|	|	0.51
20.000	0.00	0.00	0.053	O	|	|	|	0.51
20.083	0.00	0.00	0.053	O	|	|	|	0.51
20.167	0.00	0.00	0.053	O	|	|	|	0.51
20.250	0.00	0.00	0.053	O	|	|	|	0.51
20.333	0.00	0.00	0.053	O	|	|	|	0.50
20.417	0.00	0.00	0.053	O	|	|	|	0.50
20.500	0.00	0.00	0.053	O	|	|	|	0.50
20.583	0.00	0.00	0.053	O	|	|	|	0.50
20.667	0.00	0.00	0.053	O	|	|	|	0.50
20.750	0.00	0.00	0.053	O	|	|	|	0.50
20.833	0.00	0.00	0.053	O	|	|	|	0.50
20.917	0.00	0.00	0.053	O	|	|	|	0.50
21.000	0.00	0.00	0.052	O	|	|	|	0.50
21.083	0.00	0.00	0.052	O	|	|	|	0.50
21.167	0.00	0.00	0.052	O	|	|	|	0.50
21.250	0.00	0.00	0.052	O	|	|	|	0.50
21.333	0.00	0.00	0.052	O	|	|	|	0.50
21.417	0.00	0.00	0.052	O	|	|	|	0.50
21.500	0.00	0.00	0.052	O	|	|	|	0.50
21.583	0.00	0.00	0.052	O	|	|	|	0.50
21.667	0.00	0.00	0.052	O	|	|	|	0.50
21.750	0.00	0.00	0.052	O	|	|	|	0.50
21.833	0.00	0.00	0.052	O	|	|	|	0.50
21.917	0.00	0.00	0.052	O	|	|	|	0.50
22.000	0.00	0.00	0.052	O	|	|	|	0.50
22.083	0.00	0.00	0.052	O	|	|	|	0.50
22.167	0.00	0.00	0.052	O	|	|	|	0.50
22.250	0.00	0.00	0.052	O	|	|	|	0.50
22.333	0.00	0.00	0.052	O	|	|	|	0.50
22.417	0.00	0.00	0.052	O	|	|	|	0.50
22.500	0.00	0.00	0.052	O	|	|	|	0.50
22.583	0.00	0.00	0.052	O	|	|	|	0.50
22.667	0.00	0.00	0.052	O	|	|	|	0.50
22.750	0.00	0.00	0.052	O	|	|	|	0.50

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22.833    0.00    0.00      0.052  O       |       |       |       |     0.50

       Remaining water in basin =    0.05 (Ac.Ft)


       ****************************HYDROGRAPH DATA****************************
                      Number of intervals =   274
                      Time interval =    5.0 (Min.)
                      Maximum/Peak flow rate =        0.196 (CFS)
                      Total volume =       0.079 (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

Study date: 08/24/22

A21626 DMA 2 10YR-6HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA2Q100UH610.rte
**********HYDROGRAPH DATA**********
Number of intervals = 73
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 1.617 (CFS)
Total volume = 0.176 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Free outlet pipe flow: Pipe Diameter = 1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe = 0.50(Ft.) Capacity = 4.44(CFS)

Total outflow at this depth = 4.64(CFS)

Total number of inflow hydrograph intervals = 73

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
0.500	0.052	0.000	0.052	0.052
1.000	0.111	0.196	0.110	0.112
1.500	0.177	0.196	0.176	0.178
2.000	0.251	0.196	0.250	0.252
2.500	0.333	4.639	0.317	0.349

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 0.4 0.81 1.21 1.62	Depth (Ft.)
0.083	0.09	0.00	0.000	OI | | | |	0.00
0.167	0.14	0.00	0.001	O I | | | |	0.01
0.250	0.14	0.00	0.002	O I | | | |	0.02
0.333	0.14	0.00	0.003	O I | | | |	0.03
0.417	0.14	0.00	0.004	O I | | | |	0.04
0.500	0.16	0.00	0.005	O I | | | |	0.05
0.583	0.17	0.00	0.006	O I | | | |	0.06
0.667	0.17	0.00	0.007	O I | | | |	0.07
0.750	0.17	0.00	0.008	O I | | | |	0.08
0.833	0.17	0.00	0.010	O I | | | |	0.09
0.917	0.17	0.00	0.011	O I | | | |	0.10
1.000	0.18	0.00	0.012	O I | | | |	0.12
1.083	0.19	0.00	0.013	O I | | | |	0.13
1.167	0.19	0.00	0.015	O I | | | |	0.14
1.250	0.19	0.00	0.016	O I | | | |	0.15
1.333	0.19	0.00	0.017	O I | | | |	0.17
1.417	0.19	0.00	0.019	O I | | | |	0.18
1.500	0.19	0.00	0.020	O I | | | |	0.19
1.583	0.19	0.00	0.021	O I | | | |	0.20
1.667	0.19	0.00	0.023	O I | | | |	0.22
1.750	0.19	0.00	0.024	O I | | | |	0.23
1.833	0.19	0.00	0.025	O I | | | |	0.24
1.917	0.19	0.00	0.026	O I | | | |	0.25

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2.000    0.21    0.00      0.028  O   I   |       |       |       |      0.27
2.083    0.20    0.00      0.029  O  I    |       |       |       |      0.28
2.167    0.21    0.00      0.031  O   I   |       |       |       |      0.29
2.250    0.22    0.00      0.032  O   I   |       |       |       |      0.31
2.333    0.22    0.00      0.034  O   I   |       |       |       |      0.32
2.417    0.22    0.00      0.035  O   I   |       |       |       |      0.34
2.500    0.22    0.00      0.037  O   I   |       |       |       |      0.35
2.583    0.22    0.00      0.038  O   I   |       |       |       |      0.37
2.667    0.22    0.00      0.040  O   I   |       |       |       |      0.38
2.750    0.23    0.00      0.041  O   I   |       |       |       |      0.39
2.833    0.24    0.00      0.043  O   I   |       |       |       |      0.41
2.917    0.24    0.00      0.044  O   I   |       |       |       |      0.43
3.000    0.24    0.00      0.046  O   I   |       |       |       |      0.44
3.083    0.24    0.00      0.048  O   I   |       |       |       |      0.46
3.167    0.26    0.00      0.049  O    I  |       |       |       |      0.47
3.250    0.26    0.00      0.051  O    I  |       |       |       |      0.49
3.333    0.26    0.00      0.053  O    I  |       |       |       |      0.51
3.417    0.28    0.01      0.055  O    I  |       |       |       |      0.52
3.500    0.30    0.02      0.057  O     I |       |       |       |      0.54
3.583    0.33    0.02      0.059  O     I |       |       |       |      0.56
3.667    0.33    0.03      0.061  O     I |       |       |       |      0.57
3.750    0.35    0.04      0.063  O     I |       |       |       |      0.59
3.833    0.36    0.04      0.065  O      I|       |       |       |      0.61
3.917    0.38    0.05      0.067  |O     I|       |       |       |      0.63
4.000    0.38    0.06      0.070  |O     I|       |       |       |      0.65
4.083    0.40    0.07      0.072  |O     I|       |       |       |      0.67
4.167    0.42    0.07      0.074  |O      I       |       |       |      0.69
4.250    0.45    0.08      0.077  |O      I       |       |       |      0.71
4.333    0.48    0.09      0.079  |O      |I      |       |       |      0.73
4.417    0.51    0.10      0.082  |O      | I     |       |       |      0.75
4.500    0.52    0.11      0.085  | O     | I     |       |       |      0.78
4.583    0.55    0.12      0.088  | O     | I     |       |       |      0.80
4.667    0.58    0.13      0.091  | O     |  I    |       |       |      0.83
4.750    0.61    0.14      0.094  | O     |   I   |       |       |      0.86
4.833    0.62    0.15      0.097  | O     |   I   |       |       |      0.88
4.917    0.65    0.16      0.100  |  O    |   I   |       |       |      0.91
5.000    0.68    0.17      0.104  |  O    |    I  |       |       |      0.94
5.083    0.81    0.19      0.108  |  O    |       I       |       |      0.97
5.167    0.98    0.20      0.113  |  O    |       |  I    |       |      1.01
5.250    1.10    0.20      0.118  |  O    |       |    I  |       |      1.06
5.333    1.20    0.20      0.125  |  O    |       |      I|       |      1.11
5.417    1.35    0.20      0.132  |  O    |       |       | I     |      1.16
5.500    1.62    0.20      0.141  |  O    |       |       |       I      1.23
5.583    0.80    0.20      0.148  |  O    |      I|       |       |      1.28
5.667    0.28    0.20      0.151  |  O I  |       |       |       |      1.30
5.750    0.16    0.20      0.151  |  O    |       |       |       |      1.30
5.833    0.13    0.20      0.151  | IO    |       |       |       |      1.30
5.917    0.09    0.20      0.150  |I O    |       |       |       |      1.29
6.000    0.05    0.20      0.149  |I O    |       |       |       |      1.29
6.083    0.01    0.20      0.148  I  O    |       |       |       |      1.28
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6.167	0.00	0.20	0.147	I	O				1.27
6.250	0.00	0.20	0.145	I	O				1.26
6.333	0.00	0.20	0.144	I	O				1.25
6.417	0.00	0.20	0.143	I	O				1.24
6.500	0.00	0.20	0.141	I	O				1.23
6.583	0.00	0.20	0.140	I	O				1.22
6.667	0.00	0.20	0.138	I	O				1.21
6.750	0.00	0.20	0.137	I	O				1.20
6.833	0.00	0.20	0.136	I	O				1.19
6.917	0.00	0.20	0.134	I	O				1.18
7.000	0.00	0.20	0.133	I	O				1.17
7.083	0.00	0.20	0.132	I	O				1.16
7.167	0.00	0.20	0.130	I	O				1.15
7.250	0.00	0.20	0.129	I	O				1.14
7.333	0.00	0.20	0.128	I	O				1.13
7.417	0.00	0.20	0.126	I	O				1.12
7.500	0.00	0.20	0.125	I	O				1.11
7.583	0.00	0.20	0.124	I	O				1.10
7.667	0.00	0.20	0.122	I	O				1.09
7.750	0.00	0.20	0.121	I	O				1.08
7.833	0.00	0.20	0.120	I	O				1.06
7.917	0.00	0.20	0.118	I	O				1.05
8.000	0.00	0.20	0.117	I	O				1.04
8.083	0.00	0.20	0.116	I	O				1.03
8.167	0.00	0.20	0.114	I	O				1.02
8.250	0.00	0.20	0.113	I	O				1.01
8.333	0.00	0.20	0.111	I	O				1.00
8.417	0.00	0.19	0.110	I	O				0.99
8.500	0.00	0.19	0.109	I	O				0.98
8.583	0.00	0.18	0.107	I	O				0.97
8.667	0.00	0.18	0.106	I	O				0.96
8.750	0.00	0.18	0.105	I	O				0.95
8.833	0.00	0.17	0.104	I	O				0.94
8.917	0.00	0.17	0.103	I	O				0.93
9.000	0.00	0.16	0.101	I	O				0.92
9.083	0.00	0.16	0.100	I	O				0.91
9.167	0.00	0.16	0.099	I	O				0.90
9.250	0.00	0.15	0.098	I	O				0.89
9.333	0.00	0.15	0.097	I	O				0.88
9.417	0.00	0.15	0.096	I	O				0.87
9.500	0.00	0.14	0.095	I	O				0.87
9.583	0.00	0.14	0.094	I	O				0.86
9.667	0.00	0.14	0.093	I	O				0.85
9.750	0.00	0.13	0.092	I	O				0.84
9.833	0.00	0.13	0.091	I	O				0.83
9.917	0.00	0.13	0.090	I	O				0.83
10.000	0.00	0.13	0.090	I	O				0.82
10.083	0.00	0.12	0.089	I	O				0.81
10.167	0.00	0.12	0.088	I	O				0.80
10.250	0.00	0.12	0.087	I	O				0.80

10.333	0.00	0.11	0.086	I O				0.79
10.417	0.00	0.11	0.086	I O				0.78
10.500	0.00	0.11	0.085	I O				0.78
10.583	0.00	0.11	0.084	I O				0.77
10.667	0.00	0.10	0.083	I O				0.77
10.750	0.00	0.10	0.083	I O				0.76
10.833	0.00	0.10	0.082	IO				0.75
10.917	0.00	0.10	0.081	IO				0.75
11.000	0.00	0.10	0.081	IO				0.74
11.083	0.00	0.09	0.080	IO				0.74
11.167	0.00	0.09	0.079	IO				0.73
11.250	0.00	0.09	0.079	IO				0.73
11.333	0.00	0.09	0.078	IO				0.72
11.417	0.00	0.08	0.077	IO				0.72
11.500	0.00	0.08	0.077	IO				0.71
11.583	0.00	0.08	0.076	IO				0.71
11.667	0.00	0.08	0.076	IO				0.70
11.750	0.00	0.08	0.075	IO				0.70
11.833	0.00	0.08	0.075	IO				0.69
11.917	0.00	0.07	0.074	IO				0.69
12.000	0.00	0.07	0.074	IO				0.68
12.083	0.00	0.07	0.073	IO				0.68
12.167	0.00	0.07	0.073	IO				0.68
12.250	0.00	0.07	0.072	IO				0.67
12.333	0.00	0.07	0.072	IO				0.67
12.417	0.00	0.06	0.071	IO				0.66
12.500	0.00	0.06	0.071	IO				0.66
12.583	0.00	0.06	0.070	IO				0.66
12.667	0.00	0.06	0.070	IO				0.65
12.750	0.00	0.06	0.070	IO				0.65
12.833	0.00	0.06	0.069	IO				0.65
12.917	0.00	0.06	0.069	IO				0.64
13.000	0.00	0.05	0.068	IO				0.64
13.083	0.00	0.05	0.068	IO				0.64
13.167	0.00	0.05	0.068	IO				0.63
13.250	0.00	0.05	0.067	IO				0.63
13.333	0.00	0.05	0.067	O				0.63
13.417	0.00	0.05	0.067	O				0.62
13.500	0.00	0.05	0.066	O				0.62
13.583	0.00	0.05	0.066	O				0.62
13.667	0.00	0.05	0.066	O				0.62
13.750	0.00	0.04	0.065	O				0.61
13.833	0.00	0.04	0.065	O				0.61
13.917	0.00	0.04	0.065	O				0.61
14.000	0.00	0.04	0.065	O				0.61
14.083	0.00	0.04	0.064	O				0.60
14.167	0.00	0.04	0.064	O				0.60
14.250	0.00	0.04	0.064	O				0.60
14.333	0.00	0.04	0.063	O				0.60
14.417	0.00	0.04	0.063	O				0.59

14.500	0.00	0.04	0.063	O	|	|	|	0.59
14.583	0.00	0.04	0.063	O	|	|	|	0.59
14.667	0.00	0.03	0.062	O	|	|	|	0.59
14.750	0.00	0.03	0.062	O	|	|	|	0.59
14.833	0.00	0.03	0.062	O	|	|	|	0.58
14.917	0.00	0.03	0.062	O	|	|	|	0.58
15.000	0.00	0.03	0.062	O	|	|	|	0.58
15.083	0.00	0.03	0.061	O	|	|	|	0.58
15.167	0.00	0.03	0.061	O	|	|	|	0.58
15.250	0.00	0.03	0.061	O	|	|	|	0.58
15.333	0.00	0.03	0.061	O	|	|	|	0.57
15.417	0.00	0.03	0.060	O	|	|	|	0.57
15.500	0.00	0.03	0.060	O	|	|	|	0.57
15.583	0.00	0.03	0.060	O	|	|	|	0.57
15.667	0.00	0.03	0.060	O	|	|	|	0.57
15.750	0.00	0.03	0.060	O	|	|	|	0.57
15.833	0.00	0.03	0.060	O	|	|	|	0.56
15.917	0.00	0.02	0.059	O	|	|	|	0.56
16.000	0.00	0.02	0.059	O	|	|	|	0.56
16.083	0.00	0.02	0.059	O	|	|	|	0.56
16.167	0.00	0.02	0.059	O	|	|	|	0.56
16.250	0.00	0.02	0.059	O	|	|	|	0.56
16.333	0.00	0.02	0.059	O	|	|	|	0.56
16.417	0.00	0.02	0.058	O	|	|	|	0.55
16.500	0.00	0.02	0.058	O	|	|	|	0.55
16.583	0.00	0.02	0.058	O	|	|	|	0.55
16.667	0.00	0.02	0.058	O	|	|	|	0.55
16.750	0.00	0.02	0.058	O	|	|	|	0.55
16.833	0.00	0.02	0.058	O	|	|	|	0.55
16.917	0.00	0.02	0.058	O	|	|	|	0.55
17.000	0.00	0.02	0.057	O	|	|	|	0.55
17.083	0.00	0.02	0.057	O	|	|	|	0.55
17.167	0.00	0.02	0.057	O	|	|	|	0.54
17.250	0.00	0.02	0.057	O	|	|	|	0.54
17.333	0.00	0.02	0.057	O	|	|	|	0.54
17.417	0.00	0.02	0.057	O	|	|	|	0.54
17.500	0.00	0.02	0.057	O	|	|	|	0.54
17.583	0.00	0.02	0.057	O	|	|	|	0.54
17.667	0.00	0.02	0.057	O	|	|	|	0.54
17.750	0.00	0.01	0.056	O	|	|	|	0.54
17.833	0.00	0.01	0.056	O	|	|	|	0.54
17.917	0.00	0.01	0.056	O	|	|	|	0.54
18.000	0.00	0.01	0.056	O	|	|	|	0.54
18.083	0.00	0.01	0.056	O	|	|	|	0.53
18.167	0.00	0.01	0.056	O	|	|	|	0.53
18.250	0.00	0.01	0.056	O	|	|	|	0.53
18.333	0.00	0.01	0.056	O	|	|	|	0.53
18.417	0.00	0.01	0.056	O	|	|	|	0.53
18.500	0.00	0.01	0.056	O	|	|	|	0.53
18.583	0.00	0.01	0.056	O	|	|	|	0.53

18.667	0.00	0.01	0.055	O	|	|	|	0.53
18.750	0.00	0.01	0.055	O	|	|	|	0.53
18.833	0.00	0.01	0.055	O	|	|	|	0.53
18.917	0.00	0.01	0.055	O	|	|	|	0.53
19.000	0.00	0.01	0.055	O	|	|	|	0.53
19.083	0.00	0.01	0.055	O	|	|	|	0.53
19.167	0.00	0.01	0.055	O	|	|	|	0.53
19.250	0.00	0.01	0.055	O	|	|	|	0.53
19.333	0.00	0.01	0.055	O	|	|	|	0.52
19.417	0.00	0.01	0.055	O	|	|	|	0.52
19.500	0.00	0.01	0.055	O	|	|	|	0.52
19.583	0.00	0.01	0.055	O	|	|	|	0.52
19.667	0.00	0.01	0.055	O	|	|	|	0.52
19.750	0.00	0.01	0.055	O	|	|	|	0.52
19.833	0.00	0.01	0.055	O	|	|	|	0.52
19.917	0.00	0.01	0.054	O	|	|	|	0.52
20.000	0.00	0.01	0.054	O	|	|	|	0.52
20.083	0.00	0.01	0.054	O	|	|	|	0.52
20.167	0.00	0.01	0.054	O	|	|	|	0.52
20.250	0.00	0.01	0.054	O	|	|	|	0.52
20.333	0.00	0.01	0.054	O	|	|	|	0.52
20.417	0.00	0.01	0.054	O	|	|	|	0.52
20.500	0.00	0.01	0.054	O	|	|	|	0.52
20.583	0.00	0.01	0.054	O	|	|	|	0.52
20.667	0.00	0.01	0.054	O	|	|	|	0.52
20.750	0.00	0.01	0.054	O	|	|	|	0.52
20.833	0.00	0.01	0.054	O	|	|	|	0.52
20.917	0.00	0.01	0.054	O	|	|	|	0.52
21.000	0.00	0.01	0.054	O	|	|	|	0.52
21.083	0.00	0.01	0.054	O	|	|	|	0.52
21.167	0.00	0.01	0.054	O	|	|	|	0.51
21.250	0.00	0.01	0.054	O	|	|	|	0.51
21.333	0.00	0.01	0.054	O	|	|	|	0.51
21.417	0.00	0.01	0.054	O	|	|	|	0.51
21.500	0.00	0.01	0.054	O	|	|	|	0.51
21.583	0.00	0.01	0.054	O	|	|	|	0.51
21.667	0.00	0.01	0.054	O	|	|	|	0.51
21.750	0.00	0.00	0.053	O	|	|	|	0.51
21.833	0.00	0.00	0.053	O	|	|	|	0.51
21.917	0.00	0.00	0.053	O	|	|	|	0.51
22.000	0.00	0.00	0.053	O	|	|	|	0.51
22.083	0.00	0.00	0.053	O	|	|	|	0.51
22.167	0.00	0.00	0.053	O	|	|	|	0.51
22.250	0.00	0.00	0.053	O	|	|	|	0.51
22.333	0.00	0.00	0.053	O	|	|	|	0.51
22.417	0.00	0.00	0.053	O	|	|	|	0.51
22.500	0.00	0.00	0.053	O	|	|	|	0.51
22.583	0.00	0.00	0.053	O	|	|	|	0.51
22.667	0.00	0.00	0.053	O	|	|	|	0.51
22.750	0.00	0.00	0.053	O	|	|	|	0.51

22.833	0.00	0.00	0.053	O	|	|	|	0.51
22.917	0.00	0.00	0.053	O	|	|	|	0.51
23.000	0.00	0.00	0.053	O	|	|	|	0.51
23.083	0.00	0.00	0.053	O	|	|	|	0.51
23.167	0.00	0.00	0.053	O	|	|	|	0.51
23.250	0.00	0.00	0.053	O	|	|	|	0.51
23.333	0.00	0.00	0.053	O	|	|	|	0.51
23.417	0.00	0.00	0.053	O	|	|	|	0.51
23.500	0.00	0.00	0.053	O	|	|	|	0.51
23.583	0.00	0.00	0.053	O	|	|	|	0.51
23.667	0.00	0.00	0.053	O	|	|	|	0.51
23.750	0.00	0.00	0.053	O	|	|	|	0.51
23.833	0.00	0.00	0.053	O	|	|	|	0.51
23.917	0.00	0.00	0.053	O	|	|	|	0.51
24.000	0.00	0.00	0.053	O	|	|	|	0.51
24.083	0.00	0.00	0.053	O	|	|	|	0.51
24.167	0.00	0.00	0.053	O	|	|	|	0.51
24.250	0.00	0.00	0.053	O	|	|	|	0.51
24.333	0.00	0.00	0.053	O	|	|	|	0.51
24.417	0.00	0.00	0.053	O	|	|	|	0.51
24.500	0.00	0.00	0.053	O	|	|	|	0.51
24.583	0.00	0.00	0.053	O	|	|	|	0.51
24.667	0.00	0.00	0.053	O	|	|	|	0.51
24.750	0.00	0.00	0.053	O	|	|	|	0.51
24.833	0.00	0.00	0.053	O	|	|	|	0.51
24.917	0.00	0.00	0.053	O	|	|	|	0.51
25.000	0.00	0.00	0.053	O	|	|	|	0.51
25.083	0.00	0.00	0.053	O	|	|	|	0.51
25.167	0.00	0.00	0.053	O	|	|	|	0.50
25.250	0.00	0.00	0.053	O	|	|	|	0.50
25.333	0.00	0.00	0.053	O	|	|	|	0.50
25.417	0.00	0.00	0.053	O	|	|	|	0.50
25.500	0.00	0.00	0.053	O	|	|	|	0.50
25.583	0.00	0.00	0.053	O	|	|	|	0.50
25.667	0.00	0.00	0.053	O	|	|	|	0.50
25.750	0.00	0.00	0.052	O	|	|	|	0.50
25.833	0.00	0.00	0.052	O	|	|	|	0.50
25.917	0.00	0.00	0.052	O	|	|	|	0.50
26.000	0.00	0.00	0.052	O	|	|	|	0.50
26.083	0.00	0.00	0.052	O	|	|	|	0.50
26.167	0.00	0.00	0.052	O	|	|	|	0.50
26.250	0.00	0.00	0.052	O	|	|	|	0.50
26.333	0.00	0.00	0.052	O	|	|	|	0.50
26.417	0.00	0.00	0.052	O	|	|	|	0.50
26.500	0.00	0.00	0.052	O	|	|	|	0.50
26.583	0.00	0.00	0.052	O	|	|	|	0.50
26.667	0.00	0.00	0.052	O	|	|	|	0.50
26.750	0.00	0.00	0.052	O	|	|	|	0.50
26.833	0.00	0.00	0.052	O	|	|	|	0.50
26.917	0.00	0.00	0.052	O	|	|	|	0.50

27.000	0.00	0.00	0.052	O	|	|	|	|	0.50
27.083	0.00	0.00	0.052	O	|	|	|	|	0.50
27.167	0.00	0.00	0.052	O	|	|	|	|	0.50
27.250	0.00	0.00	0.052	O	|	|	|	|	0.50
27.333	0.00	0.00	0.052	O	|	|	|	|	0.50
27.417	0.00	0.00	0.052	O	|	|	|	|	0.50
27.500	0.00	0.00	0.052	O	|	|	|	|	0.50
27.583	0.00	0.00	0.052	O	|	|	|	|	0.50

Remaining water in basin = 0.05 (Ac.Ft)

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

Number of intervals = 331
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.124 (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

Study date: 08/24/22

A21626 DMA 2 10YR-24HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA2Q100UH2410.rte
**********HYDROGRAPH DATA**********
Number of intervals = 289
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.510 (CFS)
Total volume = 0.290 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   0.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.00(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.00(Ft.)   Capacity =   0.20(CFS)

Free outlet pipe flow: Pipe Diameter =   1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)   Capacity =   4.44(CFS)

Total outflow at this depth =   4.64(CFS)

Total number of inflow hydrograph intervals = 289

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
0.500	0.052	0.000	0.052	0.052
1.000	0.111	0.196	0.110	0.112
1.500	0.177	0.196	0.176	0.178
2.000	0.251	0.196	0.250	0.252
2.500	0.333	4.639	0.317	0.349

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.1	0.25	0.38	0.51	Depth (Ft.)
0.083	0.02	0.00	0.000	OI	|	|	|	|	0.00
0.167	0.03	0.00	0.000	OI	|	|	|	|	0.00
0.250	0.03	0.00	0.000	OI	|	|	|	|	0.00
0.333	0.04	0.00	0.001	O I	|	|	|	|	0.01
0.417	0.04	0.00	0.001	O I	|	|	|	|	0.01
0.500	0.04	0.00	0.001	O I	|	|	|	|	0.01
0.583	0.04	0.00	0.002	O I	|	|	|	|	0.01
0.667	0.04	0.00	0.002	O I	|	|	|	|	0.02
0.750	0.04	0.00	0.002	O I	|	|	|	|	0.02
0.833	0.05	0.00	0.002	O I	|	|	|	|	0.02
0.917	0.06	0.00	0.003	O I	|	|	|	|	0.03
1.000	0.06	0.00	0.003	O I	|	|	|	|	0.03
1.083	0.05	0.00	0.004	O I	|	|	|	|	0.03
1.167	0.04	0.00	0.004	O I	|	|	|	|	0.04
1.250	0.04	0.00	0.004	O I	|	|	|	|	0.04
1.333	0.04	0.00	0.004	O I	|	|	|	|	0.04
1.417	0.04	0.00	0.005	O I	|	|	|	|	0.05
1.500	0.04	0.00	0.005	O I	|	|	|	|	0.05
1.583	0.04	0.00	0.005	O I	|	|	|	|	0.05
1.667	0.04	0.00	0.006	O I	|	|	|	|	0.05
1.750	0.04	0.00	0.006	O I	|	|	|	|	0.06
1.833	0.05	0.00	0.006	O I	|	|	|	|	0.06
1.917	0.06	0.00	0.007	O I	|	|	|	|	0.06

2.000	0.06	0.00	0.007	O	I	|	|	|	|	0.07
2.083	0.06	0.00	0.007	O	I	|	|	|	|	0.07
2.167	0.06	0.00	0.008	O	I	|	|	|	|	0.07
2.250	0.06	0.00	0.008	O	I	|	|	|	|	0.08
2.333	0.06	0.00	0.008	O	I	|	|	|	|	0.08
2.417	0.06	0.00	0.009	O	I	|	|	|	|	0.09
2.500	0.06	0.00	0.009	O	I	|	|	|	|	0.09
2.583	0.07	0.00	0.010	O	I	|	|	|	|	0.09
2.667	0.07	0.00	0.010	O	I	|	|	|	|	0.10
2.750	0.07	0.00	0.011	O	I	|	|	|	|	0.10
2.833	0.07	0.00	0.011	O	I	|	|	|	|	0.11
2.917	0.07	0.00	0.012	O	I	|	|	|	|	0.11
3.000	0.07	0.00	0.012	O	I	|	|	|	|	0.12
3.083	0.07	0.00	0.013	O	I	|	|	|	|	0.12
3.167	0.07	0.00	0.013	O	I	|	|	|	|	0.13
3.250	0.07	0.00	0.013	O	I	|	|	|	|	0.13
3.333	0.07	0.00	0.014	O	I	|	|	|	|	0.13
3.417	0.07	0.00	0.014	O	I	|	|	|	|	0.14
3.500	0.07	0.00	0.015	O	I	|	|	|	|	0.14
3.583	0.07	0.00	0.015	O	I	|	|	|	|	0.15
3.667	0.07	0.00	0.016	O	I	|	|	|	|	0.15
3.750	0.07	0.00	0.016	O	I	|	|	|	|	0.16
3.833	0.08	0.00	0.017	O	I	|	|	|	|	0.16
3.917	0.08	0.00	0.017	O	I	|	|	|	|	0.17
4.000	0.08	0.00	0.018	O	I	|	|	|	|	0.17
4.083	0.08	0.00	0.019	O	I	|	|	|	|	0.18
4.167	0.08	0.00	0.019	O	I	|	|	|	|	0.18
4.250	0.08	0.00	0.020	O	I	|	|	|	|	0.19
4.333	0.09	0.00	0.020	O	I	|	|	|	|	0.20
4.417	0.10	0.00	0.021	O	I	|	|	|	|	0.20
4.500	0.10	0.00	0.022	O	I	|	|	|	|	0.21
4.583	0.10	0.00	0.022	O	I	|	|	|	|	0.22
4.667	0.10	0.00	0.023	O	I	|	|	|	|	0.22
4.750	0.10	0.00	0.024	O	I	|	|	|	|	0.23
4.833	0.11	0.00	0.024	O	I	|	|	|	|	0.23
4.917	0.11	0.00	0.025	O	I	|	|	|	|	0.24
5.000	0.11	0.00	0.026	O	I	|	|	|	|	0.25
5.083	0.09	0.00	0.027	O	I	|	|	|	|	0.26
5.167	0.08	0.00	0.027	O	I	|	|	|	|	0.26
5.250	0.08	0.00	0.028	O	I	|	|	|	|	0.27
5.333	0.09	0.00	0.028	O	I	|	|	|	|	0.27
5.417	0.10	0.00	0.029	O	I	|	|	|	|	0.28
5.500	0.10	0.00	0.030	O	I	|	|	|	|	0.29
5.583	0.11	0.00	0.031	O	I	|	|	|	|	0.29
5.667	0.11	0.00	0.031	O	I	|	|	|	|	0.30
5.750	0.11	0.00	0.032	O	I	|	|	|	|	0.31
5.833	0.11	0.00	0.033	O	I	|	|	|	|	0.32
5.917	0.11	0.00	0.034	O	I	|	|	|	|	0.32
6.000	0.11	0.00	0.034	O	I	|	|	|	|	0.33
6.083	0.12	0.00	0.035	O	I	|	|	|	|	0.34

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 6.167    0.13    0.00      0.036  O      I|       |       |       |     0.35
 6.250    0.13    0.00      0.037  O      I|       |       |       |     0.35
 6.333    0.13    0.00      0.038  O      I|       |       |       |     0.36
 6.417    0.13    0.00      0.039  O      I|       |       |       |     0.37
 6.500    0.13    0.00      0.039  O      I|       |       |       |     0.38
 6.583    0.14    0.00      0.040  O       I       |       |       |     0.39
 6.667    0.14    0.00      0.041  O       I       |       |       |     0.40
 6.750    0.14    0.00      0.042  O       I       |       |       |     0.41
 6.833    0.14    0.00      0.043  O       I       |       |       |     0.42
 6.917    0.14    0.00      0.044  O       I       |       |       |     0.42
 7.000    0.14    0.00      0.045  O       I       |       |       |     0.43
 7.083    0.14    0.00      0.046  O       I       |       |       |     0.44
 7.167    0.14    0.00      0.047  O       I       |       |       |     0.45
 7.250    0.14    0.00      0.048  O       I       |       |       |     0.46
 7.333    0.15    0.00      0.049  O       |I      |       |       |     0.47
 7.417    0.15    0.00      0.050  O       |I      |       |       |     0.48
 7.500    0.15    0.00      0.051  O       |I      |       |       |     0.49
 7.583    0.16    0.00      0.052  O       | I     |       |       |     0.50
 7.667    0.17    0.00      0.053  O       | I     |       |       |     0.51
 7.750    0.17    0.01      0.054  O       | I     |       |       |     0.52
 7.833    0.18    0.01      0.056  O       |  I    |       |       |     0.53
 7.917    0.18    0.02      0.057  O       |  I    |       |       |     0.54
 8.000    0.18    0.02      0.058  |O      |  I    |       |       |     0.55
 8.083    0.20    0.02      0.059  |O      |   I   |       |       |     0.56
 8.167    0.21    0.03      0.060  |O      |    I  |       |       |     0.57
 8.250    0.21    0.03      0.062  |O      |    I  |       |       |     0.58
 8.333    0.21    0.04      0.063  | O     |    I  |       |       |     0.59
 8.417    0.21    0.04      0.064  | O     |    I  |       |       |     0.60
 8.500    0.21    0.04      0.065  | O     |    I  |       |       |     0.61
 8.583    0.22    0.05      0.066  | O     |    I  |       |       |     0.62
 8.667    0.22    0.05      0.067  |  O    |     I |       |       |     0.63
 8.750    0.22    0.06      0.069  |  O    |     I |       |       |     0.64
 8.833    0.23    0.06      0.070  |  O    |     I |       |       |     0.65
 8.917    0.24    0.06      0.071  |  O    |     I |       |       |     0.66
 9.000    0.24    0.07      0.072  |   O   |     I |       |       |     0.67
 9.083    0.26    0.07      0.073  |   O   |       I       |       |     0.68
 9.167    0.27    0.08      0.075  |   O   |       I       |       |     0.69
 9.250    0.27    0.08      0.076  |    O  |       I       |       |     0.70
 9.333    0.28    0.08      0.077  |    O  |       |I      |       |     0.71
 9.417    0.28    0.09      0.079  |    O  |       |I      |       |     0.73
 9.500    0.28    0.09      0.080  |    O  |       |I      |       |     0.74
 9.583    0.29    0.10      0.081  |     O |       | I     |       |     0.75
 9.667    0.29    0.10      0.083  |     O |       | I     |       |     0.76
 9.750    0.29    0.11      0.084  |     O |       | I     |       |     0.77
 9.833    0.30    0.11      0.085  |     O |       |  I    |       |     0.78
 9.917    0.31    0.11      0.086  |      O|       |  I    |       |     0.79
10.000    0.31    0.12      0.088  |      O|       |  I    |       |     0.80
10.083    0.24    0.12      0.089  |      O|     I |       |       |     0.81
10.167    0.21    0.12      0.090  |      O|    I  |       |       |     0.82
10.250    0.21    0.13      0.090  |      O|    I  |       |       |     0.82
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10.333	0.21	0.13	0.091	|	O	I	|	|	0.83
10.417	0.21	0.13	0.091	|	O	I	|	|	0.83
10.500	0.21	0.13	0.092	|	O	I	|	|	0.84
10.583	0.26	0.13	0.092	|	O	I	|	|	0.84
10.667	0.28	0.14	0.093	|	O	|I	|	|	0.85
10.750	0.28	0.14	0.094	|	O	|I	|	|	0.86
10.833	0.28	0.14	0.095	|	|O	|I	|	|	0.87
10.917	0.28	0.15	0.096	|	|O	|I	|	|	0.87
11.000	0.28	0.15	0.097	|	|O	|I	|	|	0.88
11.083	0.27	0.15	0.098	|	|O	I	|	|	0.89
11.167	0.27	0.16	0.099	|	|O	I	|	|	0.90
11.250	0.27	0.16	0.099	|	|O	I	|	|	0.90
11.333	0.27	0.16	0.100	|	| O	I	|	|	0.91
11.417	0.27	0.16	0.101	|	| O	I	|	|	0.91
11.500	0.27	0.17	0.102	|	| O	I	|	|	0.92
11.583	0.25	0.17	0.102	|	| O	I|	|	|	0.93
11.667	0.24	0.17	0.103	|	| O	I |	|	|	0.93
11.750	0.24	0.17	0.103	|	| O	I |	|	|	0.93
11.833	0.25	0.17	0.104	|	| O	I|	|	|	0.94
11.917	0.25	0.17	0.104	|	| O	I|	|	|	0.94
12.000	0.25	0.18	0.105	|	| O	I|	|	|	0.95
12.083	0.32	0.18	0.106	|	| O	| I	|	|	0.95
12.167	0.35	0.18	0.107	|	| O	| I	|	|	0.96
12.250	0.35	0.19	0.108	|	| O	| I	|	|	0.97
12.333	0.36	0.19	0.109	|	| O	| I |	|	|	0.98
12.417	0.36	0.19	0.110	|	| O	| I |	|	|	0.99
12.500	0.36	0.20	0.111	|	| O	| I |	|	|	1.00
12.583	0.38	0.20	0.112	|	| O	| I	|	|	1.01
12.667	0.39	0.20	0.114	|	| O	| I	|	|	1.02
12.750	0.39	0.20	0.115	|	| O	| I	|	|	1.03
12.833	0.40	0.20	0.116	|	| O	| |I	|	|	1.04
12.917	0.41	0.20	0.118	|	| O	| |I	|	|	1.05
13.000	0.41	0.20	0.119	|	| O	| |I	|	|	1.06
13.083	0.48	0.20	0.121	|	| O	| |	I |	|	1.08
13.167	0.51	0.20	0.123	|	| O	| |	I|	|	1.09
13.250	0.51	0.20	0.125	|	| O	| |	I|	|	1.11
13.333	0.51	0.20	0.127	|	| O	| |	I|	|	1.12
13.417	0.51	0.20	0.130	|	| O	| |	I|	|	1.14
13.500	0.51	0.20	0.132	|	| O	| |	I	|	1.16
13.583	0.37	0.20	0.133	|	| O	| I|	|	|	1.17
13.667	0.32	0.20	0.134	|	| O	| I	|	|	1.18
13.750	0.32	0.20	0.135	|	| O	| I	|	|	1.18
13.833	0.32	0.20	0.136	|	| O	| I	|	|	1.19
13.917	0.32	0.20	0.137	|	| O	| I	|	|	1.20
14.000	0.32	0.20	0.138	|	| O	| I	|	|	1.20
14.083	0.36	0.20	0.139	|	| O	| I |	|	|	1.21
14.167	0.38	0.20	0.140	|	| O	| I|	|	|	1.22
14.250	0.38	0.20	0.141	|	| O	| I|	|	|	1.23
14.333	0.37	0.20	0.143	|	| O	| I|	|	|	1.24
14.417	0.36	0.20	0.144	|	| O	| I |	|	|	1.25

14.500	0.36	0.20	0.145		O	I		1.26
14.583	0.36	0.20	0.146		O	I		1.26
14.667	0.36	0.20	0.147		O	I		1.27
14.750	0.36	0.20	0.148		O	I		1.28
14.833	0.35	0.20	0.149		O	I		1.29
14.917	0.35	0.20	0.150		O	I		1.30
15.000	0.35	0.20	0.152		O	I		1.31
15.083	0.34	0.20	0.153		O	I		1.31
15.167	0.34	0.20	0.154		O	I		1.32
15.250	0.34	0.20	0.154		O	I		1.33
15.333	0.33	0.20	0.155		O	I		1.34
15.417	0.32	0.20	0.156		O	I		1.34
15.500	0.32	0.20	0.157		O	I		1.35
15.583	0.28	0.20	0.158		O	I		1.35
15.667	0.27	0.20	0.158		O	I		1.36
15.750	0.27	0.20	0.159		O	I		1.36
15.833	0.27	0.20	0.159		O	I		1.37
15.917	0.27	0.20	0.160		O	I		1.37
16.000	0.27	0.20	0.160		O	I		1.37
16.083	0.11	0.20	0.160	I	O			1.37
16.167	0.06	0.20	0.159	I	O			1.37
16.250	0.06	0.20	0.159	I	O			1.36
16.333	0.06	0.20	0.158	I	O			1.35
16.417	0.06	0.20	0.157	I	O			1.35
16.500	0.06	0.20	0.156	I	O			1.34
16.583	0.05	0.20	0.155	I	O			1.33
16.667	0.04	0.20	0.154	I	O			1.32
16.750	0.04	0.20	0.152	I	O			1.31
16.833	0.04	0.20	0.151	I	O			1.31
16.917	0.04	0.20	0.150	I	O			1.30
17.000	0.04	0.20	0.149	I	O			1.29
17.083	0.06	0.20	0.148	I	O			1.28
17.167	0.07	0.20	0.147	I	O			1.28
17.250	0.07	0.20	0.147	I	O			1.27
17.333	0.07	0.20	0.146	I	O			1.26
17.417	0.07	0.20	0.145	I	O			1.26
17.500	0.07	0.20	0.144	I	O			1.25
17.583	0.07	0.20	0.143	I	O			1.24
17.667	0.07	0.20	0.142	I	O			1.24
17.750	0.07	0.20	0.141	I	O			1.23
17.833	0.06	0.20	0.140	I	O			1.22
17.917	0.06	0.20	0.139	I	O			1.22
18.000	0.06	0.20	0.138	I	O			1.21
18.083	0.06	0.20	0.138	I	O			1.20
18.167	0.06	0.20	0.137	I	O			1.19
18.250	0.06	0.20	0.136	I	O			1.19
18.333	0.06	0.20	0.135	I	O			1.18
18.417	0.06	0.20	0.134	I	O			1.17
18.500	0.06	0.20	0.133	I	O			1.16
18.583	0.05	0.20	0.132	I	O			1.16

18.667	0.04	0.20	0.131	I	O			1.15
18.750	0.04	0.20	0.130	I	O			1.14
18.833	0.03	0.20	0.128	I	O			1.13
18.917	0.03	0.20	0.127	I	O			1.12
19.000	0.03	0.20	0.126	I	O			1.11
19.083	0.04	0.20	0.125	I	O			1.11
19.167	0.04	0.20	0.124	I	O			1.10
19.250	0.04	0.20	0.123	I	O			1.09
19.333	0.05	0.20	0.122	I	O			1.08
19.417	0.06	0.20	0.121	I	O			1.07
19.500	0.06	0.20	0.120	I	O			1.07
19.583	0.05	0.20	0.119	I	O			1.06
19.667	0.04	0.20	0.118	I	O			1.05
19.750	0.04	0.20	0.117	I	O			1.04
19.833	0.03	0.20	0.116	I	O			1.04
19.917	0.03	0.20	0.115	I	O			1.03
20.000	0.03	0.20	0.113	I	O			1.02
20.083	0.04	0.20	0.112	I	O			1.01
20.167	0.04	0.20	0.111	I	O			1.00
20.250	0.04	0.19	0.110	I	O			0.99
20.333	0.04	0.19	0.109	I	O			0.98
20.417	0.04	0.19	0.108	I	O			0.98
20.500	0.04	0.18	0.107	I	O			0.97
20.583	0.04	0.18	0.106	I	O			0.96
20.667	0.04	0.18	0.105	I	O			0.95
20.750	0.04	0.17	0.104	I	O			0.94
20.833	0.03	0.17	0.103	I	O			0.94
20.917	0.03	0.17	0.102	I	O			0.93
21.000	0.03	0.16	0.101	I	O			0.92
21.083	0.04	0.16	0.101	I	O			0.91
21.167	0.04	0.16	0.100	I	O			0.90
21.250	0.04	0.16	0.099	I	O			0.90
21.333	0.03	0.15	0.098	I	O			0.89
21.417	0.03	0.15	0.097	I	O			0.88
21.500	0.03	0.15	0.096	I	O			0.88
21.583	0.04	0.15	0.096	I	O			0.87
21.667	0.04	0.14	0.095	I	O			0.86
21.750	0.04	0.14	0.094	I	O			0.86
21.833	0.03	0.14	0.094	I	O			0.85
21.917	0.03	0.14	0.093	I	O			0.85
22.000	0.03	0.13	0.092	I	O			0.84
22.083	0.04	0.13	0.091	I	O			0.83
22.167	0.04	0.13	0.091	I	O			0.83
22.250	0.04	0.13	0.090	I	O			0.82
22.333	0.03	0.12	0.090	I	O			0.82
22.417	0.03	0.12	0.089	I	O			0.81
22.500	0.03	0.12	0.088	I	O			0.81
22.583	0.03	0.12	0.088	I	O			0.80
22.667	0.03	0.12	0.087	I	O			0.80
22.750	0.03	0.11	0.086	I	O			0.79

22.833	0.03	0.11	0.086	|I O|	|	|	|	0.79
22.917	0.03	0.11	0.085	|I O |	|	|	|	0.78
23.000	0.03	0.11	0.085	|I O |	|	|	|	0.78
23.083	0.03	0.11	0.084	|I O |	|	|	|	0.77
23.167	0.03	0.11	0.084	|I O |	|	|	|	0.77
23.250	0.03	0.10	0.083	|I O |	|	|	|	0.76
23.333	0.03	0.10	0.083	|I O |	|	|	|	0.76
23.417	0.03	0.10	0.082	|I O |	|	|	|	0.75
23.500	0.03	0.10	0.082	|I O |	|	|	|	0.75
23.583	0.03	0.10	0.081	|I O |	|	|	|	0.75
23.667	0.03	0.10	0.081	|I O |	|	|	|	0.74
23.750	0.03	0.09	0.080	|I O |	|	|	|	0.74
23.833	0.03	0.09	0.080	|I O |	|	|	|	0.73
23.917	0.03	0.09	0.079	|I O |	|	|	|	0.73
24.000	0.03	0.09	0.079	|I O |	|	|	|	0.73
24.083	0.01	0.09	0.078	I O |	|	|	|	0.72
24.167	0.00	0.09	0.078	I O |	|	|	|	0.72
24.250	0.00	0.08	0.077	I O |	|	|	|	0.71
24.333	0.00	0.08	0.077	I O |	|	|	|	0.71
24.417	0.00	0.08	0.076	I O |	|	|	|	0.70
24.500	0.00	0.08	0.076	I O |	|	|	|	0.70
24.583	0.00	0.08	0.075	I O |	|	|	|	0.69
24.667	0.00	0.07	0.074	I O |	|	|	|	0.69
24.750	0.00	0.07	0.074	I O |	|	|	|	0.69
24.833	0.00	0.07	0.073	I O |	|	|	|	0.68
24.917	0.00	0.07	0.073	I O |	|	|	|	0.68
25.000	0.00	0.07	0.073	I O |	|	|	|	0.67
25.083	0.00	0.07	0.072	I O |	|	|	|	0.67
25.167	0.00	0.07	0.072	I O |	|	|	|	0.67
25.250	0.00	0.06	0.071	I O |	|	|	|	0.66
25.333	0.00	0.06	0.071	I O |	|	|	|	0.66
25.417	0.00	0.06	0.070	I O |	|	|	|	0.65
25.500	0.00	0.06	0.070	I O |	|	|	|	0.65
25.583	0.00	0.06	0.069	I O |	|	|	|	0.65
25.667	0.00	0.06	0.069	I O |	|	|	|	0.64
25.750	0.00	0.06	0.069	I O |	|	|	|	0.64
25.833	0.00	0.05	0.068	I O |	|	|	|	0.64
25.917	0.00	0.05	0.068	I O |	|	|	|	0.64
26.000	0.00	0.05	0.068	I O |	|	|	|	0.63
26.083	0.00	0.05	0.067	I O |	|	|	|	0.63
26.167	0.00	0.05	0.067	I O |	|	|	|	0.63
26.250	0.00	0.05	0.067	I O |	|	|	|	0.62
26.333	0.00	0.05	0.066	I O |	|	|	|	0.62
26.417	0.00	0.05	0.066	I O |	|	|	|	0.62
26.500	0.00	0.05	0.066	I O |	|	|	|	0.62
26.583	0.00	0.04	0.065	I O |	|	|	|	0.61
26.667	0.00	0.04	0.065	I O |	|	|	|	0.61
26.750	0.00	0.04	0.065	I O |	|	|	|	0.61
26.833	0.00	0.04	0.064	I O |	|	|	|	0.60
26.917	0.00	0.04	0.064	I O |	|	|	|	0.60

27.000	0.00	0.04	0.064	I O				0.60
27.083	0.00	0.04	0.064	I O				0.60
27.167	0.00	0.04	0.063	I O				0.60
27.250	0.00	0.04	0.063	I O				0.59
27.333	0.00	0.04	0.063	I O				0.59
27.417	0.00	0.04	0.063	I O				0.59
27.500	0.00	0.03	0.062	I O				0.59
27.583	0.00	0.03	0.062	I O				0.59
27.667	0.00	0.03	0.062	I O				0.58
27.750	0.00	0.03	0.062	I O				0.58
27.833	0.00	0.03	0.061	IO				0.58
27.917	0.00	0.03	0.061	IO				0.58
28.000	0.00	0.03	0.061	IO				0.58
28.083	0.00	0.03	0.061	IO				0.57
28.167	0.00	0.03	0.061	IO				0.57
28.250	0.00	0.03	0.060	IO				0.57
28.333	0.00	0.03	0.060	IO				0.57
28.417	0.00	0.03	0.060	IO				0.57
28.500	0.00	0.03	0.060	IO				0.57
28.583	0.00	0.03	0.060	IO				0.56
28.667	0.00	0.02	0.059	IO				0.56
28.750	0.00	0.02	0.059	IO				0.56
28.833	0.00	0.02	0.059	IO				0.56
28.917	0.00	0.02	0.059	IO				0.56
29.000	0.00	0.02	0.059	IO				0.56
29.083	0.00	0.02	0.059	IO				0.56
29.167	0.00	0.02	0.059	IO				0.56
29.250	0.00	0.02	0.058	IO				0.55
29.333	0.00	0.02	0.058	IO				0.55
29.417	0.00	0.02	0.058	IO				0.55
29.500	0.00	0.02	0.058	IO				0.55
29.583	0.00	0.02	0.058	IO				0.55
29.667	0.00	0.02	0.058	IO				0.55
29.750	0.00	0.02	0.058	IO				0.55
29.833	0.00	0.02	0.057	IO				0.55
29.917	0.00	0.02	0.057	IO				0.54
30.000	0.00	0.02	0.057	IO				0.54
30.083	0.00	0.02	0.057	IO				0.54
30.167	0.00	0.02	0.057	IO				0.54
30.250	0.00	0.02	0.057	IO				0.54
30.333	0.00	0.02	0.057	O				0.54
30.417	0.00	0.02	0.057	O				0.54
30.500	0.00	0.02	0.057	O				0.54
30.583	0.00	0.01	0.056	O				0.54
30.667	0.00	0.01	0.056	O				0.54
30.750	0.00	0.01	0.056	O				0.54
30.833	0.00	0.01	0.056	O				0.53
30.917	0.00	0.01	0.056	O				0.53
31.000	0.00	0.01	0.056	O				0.53
31.083	0.00	0.01	0.056	O				0.53

31.167	0.00	0.01	0.056	O	|	|	|	0.53
31.250	0.00	0.01	0.056	O	|	|	|	0.53
31.333	0.00	0.01	0.056	O	|	|	|	0.53
31.417	0.00	0.01	0.056	O	|	|	|	0.53
31.500	0.00	0.01	0.055	O	|	|	|	0.53
31.583	0.00	0.01	0.055	O	|	|	|	0.53
31.667	0.00	0.01	0.055	O	|	|	|	0.53
31.750	0.00	0.01	0.055	O	|	|	|	0.53
31.833	0.00	0.01	0.055	O	|	|	|	0.53
31.917	0.00	0.01	0.055	O	|	|	|	0.53
32.000	0.00	0.01	0.055	O	|	|	|	0.53
32.083	0.00	0.01	0.055	O	|	|	|	0.52
32.167	0.00	0.01	0.055	O	|	|	|	0.52
32.250	0.00	0.01	0.055	O	|	|	|	0.52
32.333	0.00	0.01	0.055	O	|	|	|	0.52
32.417	0.00	0.01	0.055	O	|	|	|	0.52
32.500	0.00	0.01	0.055	O	|	|	|	0.52
32.583	0.00	0.01	0.055	O	|	|	|	0.52
32.667	0.00	0.01	0.054	O	|	|	|	0.52
32.750	0.00	0.01	0.054	O	|	|	|	0.52
32.833	0.00	0.01	0.054	O	|	|	|	0.52
32.917	0.00	0.01	0.054	O	|	|	|	0.52
33.000	0.00	0.01	0.054	O	|	|	|	0.52
33.083	0.00	0.01	0.054	O	|	|	|	0.52
33.167	0.00	0.01	0.054	O	|	|	|	0.52
33.250	0.00	0.01	0.054	O	|	|	|	0.52
33.333	0.00	0.01	0.054	O	|	|	|	0.52
33.417	0.00	0.01	0.054	O	|	|	|	0.52
33.500	0.00	0.01	0.054	O	|	|	|	0.52
33.583	0.00	0.01	0.054	O	|	|	|	0.52
33.667	0.00	0.01	0.054	O	|	|	|	0.52
33.750	0.00	0.01	0.054	O	|	|	|	0.52
33.833	0.00	0.01	0.054	O	|	|	|	0.52
33.917	0.00	0.01	0.054	O	|	|	|	0.51
34.000	0.00	0.01	0.054	O	|	|	|	0.51
34.083	0.00	0.01	0.054	O	|	|	|	0.51
34.167	0.00	0.01	0.054	O	|	|	|	0.51
34.250	0.00	0.01	0.054	O	|	|	|	0.51
34.333	0.00	0.01	0.054	O	|	|	|	0.51
34.417	0.00	0.01	0.054	O	|	|	|	0.51
34.500	0.00	0.01	0.054	O	|	|	|	0.51
34.583	0.00	0.00	0.053	O	|	|	|	0.51
34.667	0.00	0.00	0.053	O	|	|	|	0.51
34.750	0.00	0.00	0.053	O	|	|	|	0.51
34.833	0.00	0.00	0.053	O	|	|	|	0.51
34.917	0.00	0.00	0.053	O	|	|	|	0.51
35.000	0.00	0.00	0.053	O	|	|	|	0.51
35.083	0.00	0.00	0.053	O	|	|	|	0.51
35.167	0.00	0.00	0.053	O	|	|	|	0.51
35.250	0.00	0.00	0.053	O	|	|	|	0.51

35.333	0.00	0.00	0.053	O	|	|	|	0.51
35.417	0.00	0.00	0.053	O	|	|	|	0.51
35.500	0.00	0.00	0.053	O	|	|	|	0.51
35.583	0.00	0.00	0.053	O	|	|	|	0.51
35.667	0.00	0.00	0.053	O	|	|	|	0.51
35.750	0.00	0.00	0.053	O	|	|	|	0.51
35.833	0.00	0.00	0.053	O	|	|	|	0.51
35.917	0.00	0.00	0.053	O	|	|	|	0.51
36.000	0.00	0.00	0.053	O	|	|	|	0.51
36.083	0.00	0.00	0.053	O	|	|	|	0.51
36.167	0.00	0.00	0.053	O	|	|	|	0.51
36.250	0.00	0.00	0.053	O	|	|	|	0.51
36.333	0.00	0.00	0.053	O	|	|	|	0.51
36.417	0.00	0.00	0.053	O	|	|	|	0.51
36.500	0.00	0.00	0.053	O	|	|	|	0.51
36.583	0.00	0.00	0.053	O	|	|	|	0.51
36.667	0.00	0.00	0.053	O	|	|	|	0.51
36.750	0.00	0.00	0.053	O	|	|	|	0.51
36.833	0.00	0.00	0.053	O	|	|	|	0.51
36.917	0.00	0.00	0.053	O	|	|	|	0.51
37.000	0.00	0.00	0.053	O	|	|	|	0.51
37.083	0.00	0.00	0.053	O	|	|	|	0.51
37.167	0.00	0.00	0.053	O	|	|	|	0.51
37.250	0.00	0.00	0.053	O	|	|	|	0.51
37.333	0.00	0.00	0.053	O	|	|	|	0.51
37.417	0.00	0.00	0.053	O	|	|	|	0.51
37.500	0.00	0.00	0.053	O	|	|	|	0.51
37.583	0.00	0.00	0.053	O	|	|	|	0.51
37.667	0.00	0.00	0.053	O	|	|	|	0.51
37.750	0.00	0.00	0.053	O	|	|	|	0.51
37.833	0.00	0.00	0.053	O	|	|	|	0.51
37.917	0.00	0.00	0.053	O	|	|	|	0.50
38.000	0.00	0.00	0.053	O	|	|	|	0.50
38.083	0.00	0.00	0.053	O	|	|	|	0.50
38.167	0.00	0.00	0.053	O	|	|	|	0.50
38.250	0.00	0.00	0.053	O	|	|	|	0.50
38.333	0.00	0.00	0.053	O	|	|	|	0.50
38.417	0.00	0.00	0.053	O	|	|	|	0.50
38.500	0.00	0.00	0.053	O	|	|	|	0.50
38.583	0.00	0.00	0.052	O	|	|	|	0.50
38.667	0.00	0.00	0.052	O	|	|	|	0.50
38.750	0.00	0.00	0.052	O	|	|	|	0.50
38.833	0.00	0.00	0.052	O	|	|	|	0.50
38.917	0.00	0.00	0.052	O	|	|	|	0.50
39.000	0.00	0.00	0.052	O	|	|	|	0.50
39.083	0.00	0.00	0.052	O	|	|	|	0.50
39.167	0.00	0.00	0.052	O	|	|	|	0.50
39.250	0.00	0.00	0.052	O	|	|	|	0.50
39.333	0.00	0.00	0.052	O	|	|	|	0.50
39.417	0.00	0.00	0.052	O	|	|	|	0.50

39.500	0.00	0.00	0.052	O	|	|	|	0.50
39.583	0.00	0.00	0.052	O	|	|	|	0.50
39.667	0.00	0.00	0.052	O	|	|	|	0.50
39.750	0.00	0.00	0.052	O	|	|	|	0.50
39.833	0.00	0.00	0.052	O	|	|	|	0.50
39.917	0.00	0.00	0.052	O	|	|	|	0.50
40.000	0.00	0.00	0.052	O	|	|	|	0.50
40.083	0.00	0.00	0.052	O	|	|	|	0.50
40.167	0.00	0.00	0.052	O	|	|	|	0.50
40.250	0.00	0.00	0.052	O	|	|	|	0.50
40.333	0.00	0.00	0.052	O	|	|	|	0.50
40.417	0.00	0.00	0.052	O	|	|	|	0.50

Remaining water in basin = 0.05 (Ac.Ft)

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

Number of intervals = 485
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.238 (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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U n i t H y d r o g r a p h A n a l y s i s

Study date 08/02/22 File: A21626DMA2Q100UH110.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 10YR-1HR UH

A11626 DMA 2 Q10 UH

Drainage Area = 1.58(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.58(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 336.00(Ft.)
Length along longest watercourse measured to centroid = 234.53(Ft.)
Length along longest watercourse = 0.064 Mi.
Length along longest watercourse measured to centroid = 0.044 Mi.
Difference in elevation = 3.36(Ft.)
Slope along watercourse = 52.8000 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.016 Hr.
Lag time = 0.95 Min.
25% of lag time = 0.24 Min.
40% of lag time = 0.38 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]
        1.58            0.48                    0.76

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.58            1.25                    1.98

STORM EVENT (YEAR) =   10.00
Area Averaged 2-Year Rainfall =    0.480(In)
Area Averaged 100-Year Rainfall =    1.250(In)

Point rain (area averaged) =    0.797(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    0.797(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.580           69.00         0.761
 Total Area Entered =      1.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-2     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  69.0      0.373     0.761        0.117       1.000      0.117
                                                 Sum (F) =   0.117
Area averaged mean soil loss (F) (In/Hr) =  0.117
Minimum soil loss rate ((In/Hr)) =  0.059
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.291
------------------------------------------------------------------------
Slope of intensity-duration curve for a 1 hour storm =0.4800
------------------------------------------------------------------------

                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        527.815         72.250              1.150
    2   0.167       1055.631         27.750              0.442
                               Sum = 100.000   Sum=       1.592
-----------------------------------------------------------------
```

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	4.40	0.421	0.117	(0.122)	0.303
2	0.17	4.50	0.430	0.117	(0.125)	0.313
3	0.25	5.40	0.516	0.117	(0.150)	0.399
4	0.33	5.40	0.516	0.117	(0.150)	0.399
5	0.42	5.70	0.545	0.117	(0.159)	0.428
6	0.50	6.40	0.612	0.117	(0.178)	0.494
7	0.58	7.90	0.755	0.117	(0.220)	0.638
8	0.67	9.10	0.870	0.117	(0.253)	0.753
9	0.75	12.80	1.224	0.117	(0.356)	1.106
10	0.83	25.60	2.448	0.117	(0.712)	2.330
11	0.92	7.90	0.755	0.117	(0.220)	0.638
12	1.00	4.90	0.469	0.117	(0.136)	0.351
		(Loss Rate Not Used)				
	Sum =	100.0			Sum =	8.2

Flood volume = Effective rainfall 0.68(In)
times area 1.6(Ac.)/[(In)/(Ft.)] = 0.1(Ac.Ft)
Total soil loss = 0.12(In)
Total soil loss = 0.015(Ac.Ft)
Total rainfall = 0.80(In)
Flood volume = 3896.1 Cubic Feet
Total soil loss = 673.7 Cubic Feet

Peak flow rate of this hydrograph = 3.171(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	2.5	5.0	7.5	10.0
0+ 5	0.0024	0.35	Q				
0+10	0.0058	0.49	QV				
0+15	0.0099	0.60	Q V				
0+20	0.0143	0.64	Q V				
0+25	0.0189	0.67	Q V				
0+30	0.0241	0.76	Q V				
0+35	0.0307	0.95	Q V				
0+40	0.0386	1.15	Q V				
0+45	0.0497	1.61	Q V				
0+50	0.0715	3.17	Q V				
0+55	0.0836	1.76	Q V				
1+ 0	0.0884	0.69	Q V				

```
    1+ 5       0.0894      0.16  Q         |         |         |        V|
-------------------------------------------------------------------------
```

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

Study date 08/02/22 File: A21626DMA2Q100UH310.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 10YR 3HR UH

A11626 DMA 2 Q10 UH

Drainage Area = 1.58(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.58(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 336.00(Ft.)
Length along longest watercourse measured to centroid = 234.53(Ft.)
Length along longest watercourse = 0.064 Mi.
Length along longest watercourse measured to centroid = 0.044 Mi.
Difference in elevation = 3.36(Ft.)
Slope along watercourse = 52.8000 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.016 Hr.
Lag time = 0.95 Min.
25% of lag time = 0.24 Min.
40% of lag time = 0.38 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]
        1.58            0.80                  1.26

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.58            1.95                  3.08

STORM EVENT (YEAR) =   10.00
Area Averaged 2-Year Rainfall =    0.800(In)
Area Averaged 100-Year Rainfall =    1.950(In)

Point rain (area averaged) =    1.273(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.273(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.580           69.00         0.761
 Total Area Entered =      1.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-2     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  69.0      0.373     0.761        0.117       1.000      0.117
                                                 Sum (F) =   0.117
Area averaged mean soil loss (F) (In/Hr) =  0.117
Minimum soil loss rate ((In/Hr)) =  0.059
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.291
------------------------------------------------------------------------

                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        527.815         72.250              1.150
    2   0.167       1055.631         27.750              0.442
                               Sum = 100.000   Sum=       1.592
------------------------------------------------------------------------

 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	0.199	(0.117)	0.058	0.141
2	0.17	1.30	0.199	(0.117)	0.058	0.141
3	0.25	1.10	0.168	(0.117)	0.049	0.119
4	0.33	1.50	0.229	(0.117)	0.067	0.162
5	0.42	1.50	0.229	(0.117)	0.067	0.162
6	0.50	1.80	0.275	(0.117)	0.080	0.195
7	0.58	1.50	0.229	(0.117)	0.067	0.162
8	0.67	1.80	0.275	(0.117)	0.080	0.195
9	0.75	1.80	0.275	(0.117)	0.080	0.195
10	0.83	1.50	0.229	(0.117)	0.067	0.162
11	0.92	1.60	0.244	(0.117)	0.071	0.173
12	1.00	1.80	0.275	(0.117)	0.080	0.195
13	1.08	2.20	0.336	(0.117)	0.098	0.238
14	1.17	2.20	0.336	(0.117)	0.098	0.238
15	1.25	2.20	0.336	(0.117)	0.098	0.238
16	1.33	2.00	0.306	(0.117)	0.089	0.217
17	1.42	2.60	0.397	(0.117)	0.116	0.282
18	1.50	2.70	0.412	0.117	(0.120)	0.295
19	1.58	2.40	0.367	(0.117)	0.107	0.260
20	1.67	2.70	0.412	0.117	(0.120)	0.295
21	1.75	3.30	0.504	0.117	(0.147)	0.387
22	1.83	3.10	0.474	0.117	(0.138)	0.356
23	1.92	2.90	0.443	0.117	(0.129)	0.326
24	2.00	3.00	0.458	0.117	(0.133)	0.341
25	2.08	3.10	0.474	0.117	(0.138)	0.356
26	2.17	4.20	0.642	0.117	(0.187)	0.524
27	2.25	5.00	0.764	0.117	(0.222)	0.646
28	2.33	3.50	0.535	0.117	(0.156)	0.417
29	2.42	6.80	1.039	0.117	(0.302)	0.921
30	2.50	7.30	1.115	0.117	(0.325)	0.998
31	2.58	8.20	1.253	0.117	(0.365)	1.135
32	2.67	5.90	0.901	0.117	(0.262)	0.784
33	2.75	2.00	0.306	(0.117)	0.089	0.217
34	2.83	1.80	0.275	(0.117)	0.080	0.195
35	2.92	1.80	0.275	(0.117)	0.080	0.195
36	3.00	0.60	0.092	(0.117)	0.027	0.065
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	11.9

Flood volume = Effective rainfall 0.99(In)
times area 1.6(Ac.)/[(In)/(Ft.)] = 0.1(Ac.Ft)
Total soil loss = 0.28(In)
Total soil loss = 0.037(Ac.Ft)
Total rainfall = 1.27(In)
Flood volume = 5702.0 Cubic Feet
Total soil loss = 1599.8 Cubic Feet

Peak flow rate of this hydrograph = 1.748(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	2.5	5.0	7.5	10.0
0+ 5	0.0011	0.16	Q				
0+10	0.0027	0.22	Q				
0+15	0.0040	0.20	QV				
0+20	0.0057	0.24	QV				
0+25	0.0075	0.26	QV				
0+30	0.0095	0.30	QV				
0+35	0.0114	0.27	Q V				
0+40	0.0134	0.30	Q V				
0+45	0.0156	0.31	Q V				
0+50	0.0175	0.27	Q V				
0+55	0.0193	0.27	Q V				
1+ 0	0.0214	0.30	Q V				
1+ 5	0.0239	0.36	Q V				
1+10	0.0265	0.38	Q V				
1+15	0.0291	0.38	Q V				
1+20	0.0315	0.35	Q V				
1+25	0.0344	0.42	Q V				
1+30	0.0376	0.46	Q V				
1+35	0.0406	0.43	Q V				
1+40	0.0437	0.45	Q V				
1+45	0.0477	0.58	Q V				
1+50	0.0517	0.58	Q V				
1+55	0.0554	0.53	Q V				
2+ 0	0.0590	0.54	Q V				
2+ 5	0.0629	0.56	Q V				
2+10	0.0681	0.76	Q V				
2+15	0.0749	0.98	Q V				
2+20	0.0801	0.77	Q V				
2+25	0.0887	1.25	Q V				
2+30	0.0994	1.56	Q V				
2+35	0.1115	1.75	Q V				
2+40	0.1211	1.40	Q V				
2+45	0.1252	0.60	Q V				
2+50	0.1275	0.32	Q V				
2+55	0.1296	0.31	Q V				
3+ 0	0.1307	0.16	Q V				
3+ 5	0.1309	0.03	Q V				

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

Study date 08/02/22 File: A21626DMA2Q100UH610.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 10YR-6HR UH

A11626 DMA 2 Q10 UH

Drainage Area = 1.58(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.58(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 336.00(Ft.)
Length along longest watercourse measured to centroid = 234.53(Ft.)
Length along longest watercourse = 0.064 Mi.
Length along longest watercourse measured to centroid = 0.044 Mi.
Difference in elevation = 3.36(Ft.)
Slope along watercourse = 52.8000 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.016 Hr.
Lag time = 0.95 Min.
25% of lag time = 0.24 Min.
40% of lag time = 0.38 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]
        1.58            1.11                  1.75

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.58            2.70                  4.27

STORM EVENT (YEAR) =   10.00
Area Averaged 2-Year Rainfall =    1.110(In)
Area Averaged 100-Year Rainfall =    2.700(In)

Point rain (area averaged) =    1.764(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.764(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.580           69.00         0.761
 Total Area Entered =      1.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-2     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  69.0      0.373     0.761        0.117       1.000      0.117
                                                 Sum (F) =   0.117
Area averaged mean soil loss (F) (In/Hr) =  0.117
Minimum soil loss rate ((In/Hr)) =  0.059
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.291
------------------------------------------------------------------------

               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        527.815         72.250             1.150
    2   0.167       1055.631         27.750             0.442
                               Sum = 100.000   Sum=       1.592
------------------------------------------------------------------------

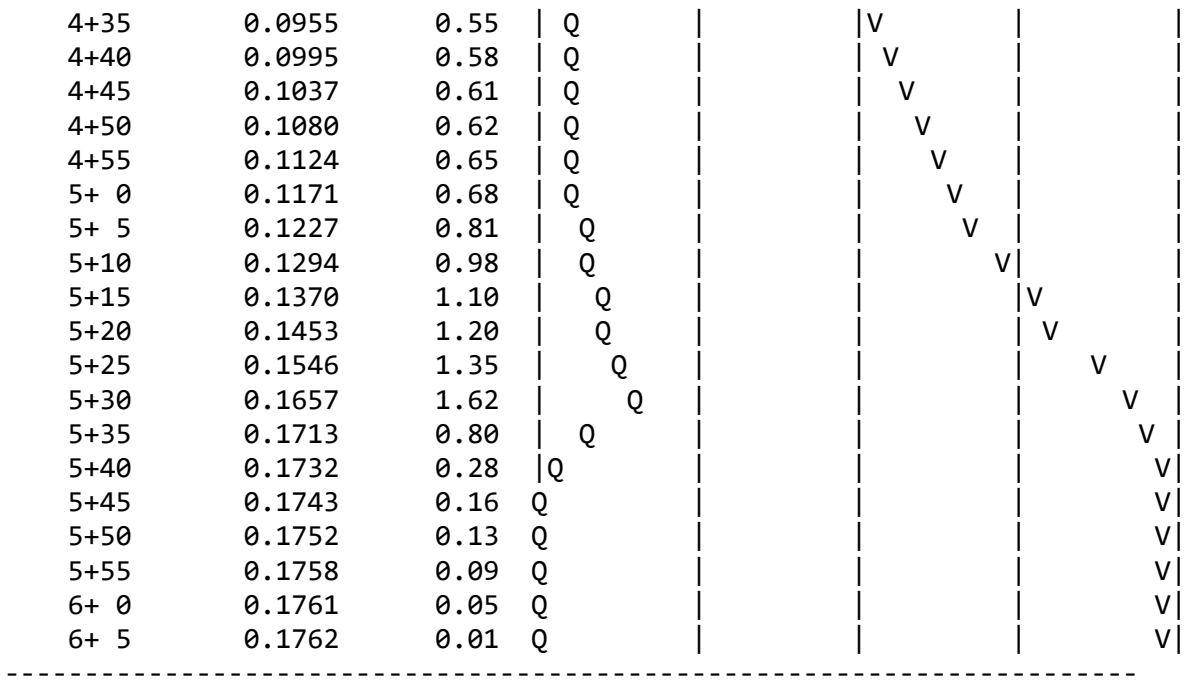
 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value
```

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.50	0.106	(0.117)	0.031	0.075
2	0.17	0.60	0.127	(0.117)	0.037	0.090
3	0.25	0.60	0.127	(0.117)	0.037	0.090
4	0.33	0.60	0.127	(0.117)	0.037	0.090
5	0.42	0.60	0.127	(0.117)	0.037	0.090
6	0.50	0.70	0.148	(0.117)	0.043	0.105
7	0.58	0.70	0.148	(0.117)	0.043	0.105
8	0.67	0.70	0.148	(0.117)	0.043	0.105
9	0.75	0.70	0.148	(0.117)	0.043	0.105
10	0.83	0.70	0.148	(0.117)	0.043	0.105
11	0.92	0.70	0.148	(0.117)	0.043	0.105
12	1.00	0.80	0.169	(0.117)	0.049	0.120
13	1.08	0.80	0.169	(0.117)	0.049	0.120
14	1.17	0.80	0.169	(0.117)	0.049	0.120
15	1.25	0.80	0.169	(0.117)	0.049	0.120
16	1.33	0.80	0.169	(0.117)	0.049	0.120
17	1.42	0.80	0.169	(0.117)	0.049	0.120
18	1.50	0.80	0.169	(0.117)	0.049	0.120
19	1.58	0.80	0.169	(0.117)	0.049	0.120
20	1.67	0.80	0.169	(0.117)	0.049	0.120
21	1.75	0.80	0.169	(0.117)	0.049	0.120
22	1.83	0.80	0.169	(0.117)	0.049	0.120
23	1.92	0.80	0.169	(0.117)	0.049	0.120
24	2.00	0.90	0.191	(0.117)	0.055	0.135
25	2.08	0.80	0.169	(0.117)	0.049	0.120
26	2.17	0.90	0.191	(0.117)	0.055	0.135
27	2.25	0.90	0.191	(0.117)	0.055	0.135
28	2.33	0.90	0.191	(0.117)	0.055	0.135
29	2.42	0.90	0.191	(0.117)	0.055	0.135
30	2.50	0.90	0.191	(0.117)	0.055	0.135
31	2.58	0.90	0.191	(0.117)	0.055	0.135
32	2.67	0.90	0.191	(0.117)	0.055	0.135
33	2.75	1.00	0.212	(0.117)	0.062	0.150
34	2.83	1.00	0.212	(0.117)	0.062	0.150
35	2.92	1.00	0.212	(0.117)	0.062	0.150
36	3.00	1.00	0.212	(0.117)	0.062	0.150
37	3.08	1.00	0.212	(0.117)	0.062	0.150
38	3.17	1.10	0.233	(0.117)	0.068	0.165
39	3.25	1.10	0.233	(0.117)	0.068	0.165
40	3.33	1.10	0.233	(0.117)	0.068	0.165
41	3.42	1.20	0.254	(0.117)	0.074	0.180
42	3.50	1.30	0.275	(0.117)	0.080	0.195
43	3.58	1.40	0.296	(0.117)	0.086	0.210
44	3.67	1.40	0.296	(0.117)	0.086	0.210
45	3.75	1.50	0.318	(0.117)	0.092	0.225
46	3.83	1.50	0.318	(0.117)	0.092	0.225
47	3.92	1.60	0.339	(0.117)	0.099	0.240

```
48   4.00     1.60      0.339       (  0.117)       0.099        0.240
49   4.08     1.70      0.360       (  0.117)       0.105        0.255
50   4.17     1.80      0.381       (  0.117)       0.111        0.270
51   4.25     1.90      0.402       (  0.117)       0.117        0.285
52   4.33     2.00      0.423          0.117    (  0.123)        0.306
53   4.42     2.10      0.445          0.117    (  0.129)        0.327
54   4.50     2.10      0.445          0.117    (  0.129)        0.327
55   4.58     2.20      0.466          0.117    (  0.136)        0.348
56   4.67     2.30      0.487          0.117    (  0.142)        0.369
57   4.75     2.40      0.508          0.117    (  0.148)        0.391
58   4.83     2.40      0.508          0.117    (  0.148)        0.391
59   4.92     2.50      0.529          0.117    (  0.154)        0.412
60   5.00     2.60      0.550          0.117    (  0.160)        0.433
61   5.08     3.10      0.656          0.117    (  0.191)        0.539
62   5.17     3.60      0.762          0.117    (  0.222)        0.645
63   5.25     3.90      0.826          0.117    (  0.240)        0.708
64   5.33     4.20      0.889          0.117    (  0.259)        0.772
65   5.42     4.70      0.995          0.117    (  0.290)        0.877
66   5.50     5.60      1.185          0.117    (  0.345)        1.068
67   5.58     1.90      0.402       (  0.117)       0.117        0.285
68   5.67     0.90      0.191       (  0.117)       0.055        0.135
69   5.75     0.60      0.127       (  0.117)       0.037        0.090
70   5.83     0.50      0.106       (  0.117)       0.031        0.075
71   5.92     0.30      0.064       (  0.117)       0.018        0.045
72   6.00     0.20      0.042       (  0.117)       0.012        0.030
               (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    16.1
      Flood volume = Effective rainfall      1.34(In)
       times area       1.6(Ac.)/[(In)/(Ft.)] =       0.2(Ac.Ft)
      Total soil loss =      0.43(In)
      Total soil loss =     0.056(Ac.Ft)
      Total rainfall =      1.76(In)
      Flood volume =        7677.0 Cubic Feet
      Total soil loss =        2440.9 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =      1.617(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        2.5       5.0       7.5      10.0
-------------------------------------------------------------------------
  0+ 5       0.0006      0.09  Q         |         |         |         |
  0+10       0.0015      0.14  Q         |         |         |         |
  0+15       0.0025      0.14  Q         |         |         |         |
  0+20       0.0035      0.14  Q         |         |         |         |
```

```
0+25       0.0045      0.14  QV        |         |         |         |
0+30       0.0056      0.16  QV        |         |         |         |
0+35       0.0068      0.17  QV        |         |         |         |
0+40       0.0079      0.17  QV        |         |         |         |
0+45       0.0091      0.17  Q V       |         |         |         |
0+50       0.0102      0.17  Q V       |         |         |         |
0+55       0.0114      0.17  Q V       |         |         |         |
1+ 0       0.0126      0.18  Q V       |         |         |         |
1+ 5       0.0140      0.19  Q  V      |         |         |         |
1+10       0.0153      0.19  Q  V      |         |         |         |
1+15       0.0166      0.19  Q  V      |         |         |         |
1+20       0.0179      0.19  Q   V     |         |         |         |
1+25       0.0192      0.19  Q   V     |         |         |         |
1+30       0.0205      0.19  Q   V     |         |         |         |
1+35       0.0219      0.19  Q   V     |         |         |         |
1+40       0.0232      0.19  Q    V    |         |         |         |
1+45       0.0245      0.19  Q    V    |         |         |         |
1+50       0.0258      0.19  Q    V    |         |         |         |
1+55       0.0271      0.19  Q     V   |         |         |         |
2+ 0       0.0286      0.21  Q     V   |         |         |         |
2+ 5       0.0299      0.20  Q     V   |         |         |         |
2+10       0.0314      0.21  Q      V  |         |         |         |
2+15       0.0329      0.22  Q      V  |         |         |         |
2+20       0.0343      0.22  Q      V  |         |         |         |
2+25       0.0358      0.22  Q       V |         |         |         |
2+30       0.0373      0.22  Q       V |         |         |         |
2+35       0.0388      0.22  Q       V |         |         |         |
2+40       0.0403      0.22  Q        V|         |         |         |
2+45       0.0419      0.23  Q        V|         |         |         |
2+50       0.0435      0.24  Q        V|         |         |         |
2+55       0.0452      0.24  Q         V         |         |         |
3+ 0       0.0468      0.24  Q         V         |         |         |
3+ 5       0.0485      0.24  Q         V         |         |         |
3+10       0.0502      0.26  |Q        |V        |         |         |
3+15       0.0520      0.26  |Q        |V        |         |         |
3+20       0.0538      0.26  |Q        | V       |         |         |
3+25       0.0558      0.28  |Q        | V       |         |         |
3+30       0.0579      0.30  |Q        |  V      |         |         |
3+35       0.0601      0.33  |Q        |  V      |         |         |
3+40       0.0624      0.33  |Q        |   V     |         |         |
3+45       0.0649      0.35  |Q        |   V     |         |         |
3+50       0.0673      0.36  |Q        |    V    |         |         |
3+55       0.0699      0.38  |Q        |    V    |         |         |
4+ 0       0.0726      0.38  |Q        |     V   |         |         |
4+ 5       0.0753      0.40  |Q        |      V  |         |         |
4+10       0.0782      0.42  |Q        |      V  |         |         |
4+15       0.0813      0.45  |Q        |       V |         |         |
4+20       0.0846      0.48  |Q        |        V|         |         |
4+25       0.0881      0.51  | Q       |         V         |         |
4+30       0.0917      0.52  | Q       |         V         |         |
```


4+35 0.0955 0.55
4+40 0.0995 0.58
4+45 0.1037 0.61
4+50 0.1080 0.62
4+55 0.1124 0.65
5+ 0 0.1171 0.68
5+ 5 0.1227 0.81
5+10 0.1294 0.98
5+15 0.1370 1.10
5+20 0.1453 1.20
5+25 0.1546 1.35
5+30 0.1657 1.62
5+35 0.1713 0.80
5+40 0.1732 0.28
5+45 0.1743 0.16
5+50 0.1752 0.13
5+55 0.1758 0.09
6+ 0 0.1761 0.05
6+ 5 0.1762 0.01

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

Study date 08/02/22 File: A21626DMA2Q100UH2410.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 10YR-24HR UH

A11626 DMA 2 Q10 UH

Drainage Area = 1.58(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.58(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 336.00(Ft.)
Length along longest watercourse measured to centroid = 234.53(Ft.)
Length along longest watercourse = 0.064 Mi.
Length along longest watercourse measured to centroid = 0.044 Mi.
Difference in elevation = 3.36(Ft.)
Slope along watercourse = 52.8000 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.016 Hr.
Lag time = 0.95 Min.
25% of lag time = 0.24 Min.
40% of lag time = 0.38 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]
        1.58            1.90                   3.00

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.58            4.80                   7.58

STORM EVENT (YEAR) =   10.00
Area Averaged 2-Year Rainfall =    1.900(In)
Area Averaged 100-Year Rainfall =    4.800(In)

Point rain (area averaged) =    3.093(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    3.093(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.580           69.00         0.761
 Total Area Entered =      1.58(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-2     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  69.0      0.373     0.761        0.117       1.000      0.117
                                                 Sum (F) =   0.117
Area averaged mean soil loss (F) (In/Hr) =  0.117
Minimum soil loss rate ((In/Hr)) =  0.059
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.291
------------------------------------------------------------------------

               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        527.815         72.250              1.150
    2   0.167       1055.631         27.750              0.442
                               Sum = 100.000   Sum=       1.592
------------------------------------------------------------------------

 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	0.025	(0.208)	0.007	0.018
2	0.17	0.07	0.025	(0.207)	0.007	0.018
3	0.25	0.07	0.025	(0.207)	0.007	0.018
4	0.33	0.10	0.037	(0.206)	0.011	0.026
5	0.42	0.10	0.037	(0.205)	0.011	0.026
6	0.50	0.10	0.037	(0.204)	0.011	0.026
7	0.58	0.10	0.037	(0.203)	0.011	0.026
8	0.67	0.10	0.037	(0.203)	0.011	0.026
9	0.75	0.10	0.037	(0.202)	0.011	0.026
10	0.83	0.13	0.049	(0.201)	0.014	0.035
11	0.92	0.13	0.049	(0.200)	0.014	0.035
12	1.00	0.13	0.049	(0.199)	0.014	0.035
13	1.08	0.10	0.037	(0.199)	0.011	0.026
14	1.17	0.10	0.037	(0.198)	0.011	0.026
15	1.25	0.10	0.037	(0.197)	0.011	0.026
16	1.33	0.10	0.037	(0.196)	0.011	0.026
17	1.42	0.10	0.037	(0.196)	0.011	0.026
18	1.50	0.10	0.037	(0.195)	0.011	0.026
19	1.58	0.10	0.037	(0.194)	0.011	0.026
20	1.67	0.10	0.037	(0.193)	0.011	0.026
21	1.75	0.10	0.037	(0.192)	0.011	0.026
22	1.83	0.13	0.049	(0.192)	0.014	0.035
23	1.92	0.13	0.049	(0.191)	0.014	0.035
24	2.00	0.13	0.049	(0.190)	0.014	0.035
25	2.08	0.13	0.049	(0.189)	0.014	0.035
26	2.17	0.13	0.049	(0.189)	0.014	0.035
27	2.25	0.13	0.049	(0.188)	0.014	0.035
28	2.33	0.13	0.049	(0.187)	0.014	0.035
29	2.42	0.13	0.049	(0.186)	0.014	0.035
30	2.50	0.13	0.049	(0.186)	0.014	0.035
31	2.58	0.17	0.062	(0.185)	0.018	0.044
32	2.67	0.17	0.062	(0.184)	0.018	0.044
33	2.75	0.17	0.062	(0.183)	0.018	0.044
34	2.83	0.17	0.062	(0.182)	0.018	0.044
35	2.92	0.17	0.062	(0.182)	0.018	0.044
36	3.00	0.17	0.062	(0.181)	0.018	0.044
37	3.08	0.17	0.062	(0.180)	0.018	0.044
38	3.17	0.17	0.062	(0.179)	0.018	0.044
39	3.25	0.17	0.062	(0.179)	0.018	0.044
40	3.33	0.17	0.062	(0.178)	0.018	0.044
41	3.42	0.17	0.062	(0.177)	0.018	0.044
42	3.50	0.17	0.062	(0.177)	0.018	0.044
43	3.58	0.17	0.062	(0.176)	0.018	0.044
44	3.67	0.17	0.062	(0.175)	0.018	0.044
45	3.75	0.17	0.062	(0.174)	0.018	0.044
46	3.83	0.20	0.074	(0.174)	0.022	0.053
47	3.92	0.20	0.074	(0.173)	0.022	0.053

48	4.00	0.20	0.074	(0.172)	0.022	0.053
49	4.08	0.20	0.074	(0.171)	0.022	0.053
50	4.17	0.20	0.074	(0.171)	0.022	0.053
51	4.25	0.20	0.074	(0.170)	0.022	0.053
52	4.33	0.23	0.087	(0.169)	0.025	0.061
53	4.42	0.23	0.087	(0.168)	0.025	0.061
54	4.50	0.23	0.087	(0.168)	0.025	0.061
55	4.58	0.23	0.087	(0.167)	0.025	0.061
56	4.67	0.23	0.087	(0.166)	0.025	0.061
57	4.75	0.23	0.087	(0.166)	0.025	0.061
58	4.83	0.27	0.099	(0.165)	0.029	0.070
59	4.92	0.27	0.099	(0.164)	0.029	0.070
60	5.00	0.27	0.099	(0.163)	0.029	0.070
61	5.08	0.20	0.074	(0.163)	0.022	0.053
62	5.17	0.20	0.074	(0.162)	0.022	0.053
63	5.25	0.20	0.074	(0.161)	0.022	0.053
64	5.33	0.23	0.087	(0.161)	0.025	0.061
65	5.42	0.23	0.087	(0.160)	0.025	0.061
66	5.50	0.23	0.087	(0.159)	0.025	0.061
67	5.58	0.27	0.099	(0.159)	0.029	0.070
68	5.67	0.27	0.099	(0.158)	0.029	0.070
69	5.75	0.27	0.099	(0.157)	0.029	0.070
70	5.83	0.27	0.099	(0.156)	0.029	0.070
71	5.92	0.27	0.099	(0.156)	0.029	0.070
72	6.00	0.27	0.099	(0.155)	0.029	0.070
73	6.08	0.30	0.111	(0.154)	0.032	0.079
74	6.17	0.30	0.111	(0.154)	0.032	0.079
75	6.25	0.30	0.111	(0.153)	0.032	0.079
76	6.33	0.30	0.111	(0.152)	0.032	0.079
77	6.42	0.30	0.111	(0.152)	0.032	0.079
78	6.50	0.30	0.111	(0.151)	0.032	0.079
79	6.58	0.33	0.124	(0.150)	0.036	0.088
80	6.67	0.33	0.124	(0.150)	0.036	0.088
81	6.75	0.33	0.124	(0.149)	0.036	0.088
82	6.83	0.33	0.124	(0.148)	0.036	0.088
83	6.92	0.33	0.124	(0.148)	0.036	0.088
84	7.00	0.33	0.124	(0.147)	0.036	0.088
85	7.08	0.33	0.124	(0.146)	0.036	0.088
86	7.17	0.33	0.124	(0.146)	0.036	0.088
87	7.25	0.33	0.124	(0.145)	0.036	0.088
88	7.33	0.37	0.136	(0.144)	0.040	0.096
89	7.42	0.37	0.136	(0.144)	0.040	0.096
90	7.50	0.37	0.136	(0.143)	0.040	0.096
91	7.58	0.40	0.148	(0.142)	0.043	0.105
92	7.67	0.40	0.148	(0.142)	0.043	0.105
93	7.75	0.40	0.148	(0.141)	0.043	0.105
94	7.83	0.43	0.161	(0.140)	0.047	0.114
95	7.92	0.43	0.161	(0.140)	0.047	0.114
96	8.00	0.43	0.161	(0.139)	0.047	0.114
97	8.08	0.50	0.186	(0.138)	0.054	0.132

98	8.17	0.50	0.186	(0.138)	0.054	0.132
99	8.25	0.50	0.186	(0.137)	0.054	0.132
100	8.33	0.50	0.186	(0.136)	0.054	0.132
101	8.42	0.50	0.186	(0.136)	0.054	0.132
102	8.50	0.50	0.186	(0.135)	0.054	0.132
103	8.58	0.53	0.198	(0.135)	0.058	0.140
104	8.67	0.53	0.198	(0.134)	0.058	0.140
105	8.75	0.53	0.198	(0.133)	0.058	0.140
106	8.83	0.57	0.210	(0.133)	0.061	0.149
107	8.92	0.57	0.210	(0.132)	0.061	0.149
108	9.00	0.57	0.210	(0.131)	0.061	0.149
109	9.08	0.63	0.235	(0.131)	0.068	0.167
110	9.17	0.63	0.235	(0.130)	0.068	0.167
111	9.25	0.63	0.235	(0.130)	0.068	0.167
112	9.33	0.67	0.247	(0.129)	0.072	0.175
113	9.42	0.67	0.247	(0.128)	0.072	0.175
114	9.50	0.67	0.247	(0.128)	0.072	0.175
115	9.58	0.70	0.260	(0.127)	0.076	0.184
116	9.67	0.70	0.260	(0.126)	0.076	0.184
117	9.75	0.70	0.260	(0.126)	0.076	0.184
118	9.83	0.73	0.272	(0.125)	0.079	0.193
119	9.92	0.73	0.272	(0.125)	0.079	0.193
120	10.00	0.73	0.272	(0.124)	0.079	0.193
121	10.08	0.50	0.186	(0.123)	0.054	0.132
122	10.17	0.50	0.186	(0.123)	0.054	0.132
123	10.25	0.50	0.186	(0.122)	0.054	0.132
124	10.33	0.50	0.186	(0.122)	0.054	0.132
125	10.42	0.50	0.186	(0.121)	0.054	0.132
126	10.50	0.50	0.186	(0.120)	0.054	0.132
127	10.58	0.67	0.247	(0.120)	0.072	0.175
128	10.67	0.67	0.247	(0.119)	0.072	0.175
129	10.75	0.67	0.247	(0.119)	0.072	0.175
130	10.83	0.67	0.247	(0.118)	0.072	0.175
131	10.92	0.67	0.247	(0.118)	0.072	0.175
132	11.00	0.67	0.247	(0.117)	0.072	0.175
133	11.08	0.63	0.235	(0.116)	0.068	0.167
134	11.17	0.63	0.235	(0.116)	0.068	0.167
135	11.25	0.63	0.235	(0.115)	0.068	0.167
136	11.33	0.63	0.235	(0.115)	0.068	0.167
137	11.42	0.63	0.235	(0.114)	0.068	0.167
138	11.50	0.63	0.235	(0.114)	0.068	0.167
139	11.58	0.57	0.210	(0.113)	0.061	0.149
140	11.67	0.57	0.210	(0.112)	0.061	0.149
141	11.75	0.57	0.210	(0.112)	0.061	0.149
142	11.83	0.60	0.223	(0.111)	0.065	0.158
143	11.92	0.60	0.223	(0.111)	0.065	0.158
144	12.00	0.60	0.223	(0.110)	0.065	0.158
145	12.08	0.83	0.309	(0.110)	0.090	0.219
146	12.17	0.83	0.309	(0.109)	0.090	0.219
147	12.25	0.83	0.309	(0.109)	0.090	0.219

148	12.33	0.87	0.322	(0.108)	0.094	0.228
149	12.42	0.87	0.322	(0.107)	0.094	0.228
150	12.50	0.87	0.322	(0.107)	0.094	0.228
151	12.58	0.93	0.346	(0.106)	0.101	0.246
152	12.67	0.93	0.346	(0.106)	0.101	0.246
153	12.75	0.93	0.346	(0.105)	0.101	0.246
154	12.83	0.97	0.359	(0.105)	0.104	0.254
155	12.92	0.97	0.359	0.104	(0.104)	0.255
156	13.00	0.97	0.359	0.104	(0.104)	0.255
157	13.08	1.13	0.421	0.103	(0.122)	0.317
158	13.17	1.13	0.421	0.103	(0.122)	0.318
159	13.25	1.13	0.421	0.102	(0.122)	0.318
160	13.33	1.13	0.421	0.102	(0.122)	0.319
161	13.42	1.13	0.421	0.101	(0.122)	0.320
162	13.50	1.13	0.421	0.101	(0.122)	0.320
163	13.58	0.77	0.285	(0.100)	0.083	0.202
164	13.67	0.77	0.285	(0.100)	0.083	0.202
165	13.75	0.77	0.285	(0.099)	0.083	0.202
166	13.83	0.77	0.285	(0.099)	0.083	0.202
167	13.92	0.77	0.285	(0.098)	0.083	0.202
168	14.00	0.77	0.285	(0.098)	0.083	0.202
169	14.08	0.90	0.334	0.097	(0.097)	0.237
170	14.17	0.90	0.334	0.097	(0.097)	0.237
171	14.25	0.90	0.334	0.096	(0.097)	0.238
172	14.33	0.87	0.322	(0.096)	0.094	0.228
173	14.42	0.87	0.322	(0.095)	0.094	0.228
174	14.50	0.87	0.322	(0.095)	0.094	0.228
175	14.58	0.87	0.322	(0.094)	0.094	0.228
176	14.67	0.87	0.322	(0.094)	0.094	0.228
177	14.75	0.87	0.322	0.093	(0.094)	0.229
178	14.83	0.83	0.309	(0.093)	0.090	0.219
179	14.92	0.83	0.309	(0.092)	0.090	0.219
180	15.00	0.83	0.309	(0.092)	0.090	0.219
181	15.08	0.80	0.297	(0.091)	0.086	0.211
182	15.17	0.80	0.297	(0.091)	0.086	0.211
183	15.25	0.80	0.297	(0.090)	0.086	0.211
184	15.33	0.77	0.285	(0.090)	0.083	0.202
185	15.42	0.77	0.285	(0.089)	0.083	0.202
186	15.50	0.77	0.285	(0.089)	0.083	0.202
187	15.58	0.63	0.235	(0.089)	0.068	0.167
188	15.67	0.63	0.235	(0.088)	0.068	0.167
189	15.75	0.63	0.235	(0.088)	0.068	0.167
190	15.83	0.63	0.235	(0.087)	0.068	0.167
191	15.92	0.63	0.235	(0.087)	0.068	0.167
192	16.00	0.63	0.235	(0.086)	0.068	0.167
193	16.08	0.13	0.049	(0.086)	0.014	0.035
194	16.17	0.13	0.049	(0.085)	0.014	0.035
195	16.25	0.13	0.049	(0.085)	0.014	0.035
196	16.33	0.13	0.049	(0.085)	0.014	0.035
197	16.42	0.13	0.049	(0.084)	0.014	0.035

198	16.50	0.13	0.049	(0.084)	0.014	0.035
199	16.58	0.10	0.037	(0.083)	0.011	0.026
200	16.67	0.10	0.037	(0.083)	0.011	0.026
201	16.75	0.10	0.037	(0.082)	0.011	0.026
202	16.83	0.10	0.037	(0.082)	0.011	0.026
203	16.92	0.10	0.037	(0.082)	0.011	0.026
204	17.00	0.10	0.037	(0.081)	0.011	0.026
205	17.08	0.17	0.062	(0.081)	0.018	0.044
206	17.17	0.17	0.062	(0.080)	0.018	0.044
207	17.25	0.17	0.062	(0.080)	0.018	0.044
208	17.33	0.17	0.062	(0.080)	0.018	0.044
209	17.42	0.17	0.062	(0.079)	0.018	0.044
210	17.50	0.17	0.062	(0.079)	0.018	0.044
211	17.58	0.17	0.062	(0.078)	0.018	0.044
212	17.67	0.17	0.062	(0.078)	0.018	0.044
213	17.75	0.17	0.062	(0.078)	0.018	0.044
214	17.83	0.13	0.049	(0.077)	0.014	0.035
215	17.92	0.13	0.049	(0.077)	0.014	0.035
216	18.00	0.13	0.049	(0.076)	0.014	0.035
217	18.08	0.13	0.049	(0.076)	0.014	0.035
218	18.17	0.13	0.049	(0.076)	0.014	0.035
219	18.25	0.13	0.049	(0.075)	0.014	0.035
220	18.33	0.13	0.049	(0.075)	0.014	0.035
221	18.42	0.13	0.049	(0.075)	0.014	0.035
222	18.50	0.13	0.049	(0.074)	0.014	0.035
223	18.58	0.10	0.037	(0.074)	0.011	0.026
224	18.67	0.10	0.037	(0.073)	0.011	0.026
225	18.75	0.10	0.037	(0.073)	0.011	0.026
226	18.83	0.07	0.025	(0.073)	0.007	0.018
227	18.92	0.07	0.025	(0.072)	0.007	0.018
228	19.00	0.07	0.025	(0.072)	0.007	0.018
229	19.08	0.10	0.037	(0.072)	0.011	0.026
230	19.17	0.10	0.037	(0.071)	0.011	0.026
231	19.25	0.10	0.037	(0.071)	0.011	0.026
232	19.33	0.13	0.049	(0.071)	0.014	0.035
233	19.42	0.13	0.049	(0.070)	0.014	0.035
234	19.50	0.13	0.049	(0.070)	0.014	0.035
235	19.58	0.10	0.037	(0.070)	0.011	0.026
236	19.67	0.10	0.037	(0.069)	0.011	0.026
237	19.75	0.10	0.037	(0.069)	0.011	0.026
238	19.83	0.07	0.025	(0.069)	0.007	0.018
239	19.92	0.07	0.025	(0.069)	0.007	0.018
240	20.00	0.07	0.025	(0.068)	0.007	0.018
241	20.08	0.10	0.037	(0.068)	0.011	0.026
242	20.17	0.10	0.037	(0.068)	0.011	0.026
243	20.25	0.10	0.037	(0.067)	0.011	0.026
244	20.33	0.10	0.037	(0.067)	0.011	0.026
245	20.42	0.10	0.037	(0.067)	0.011	0.026
246	20.50	0.10	0.037	(0.066)	0.011	0.026
247	20.58	0.10	0.037	(0.066)	0.011	0.026

248	20.67	0.10	0.037	(0.066)	0.011	0.026
249	20.75	0.10	0.037	(0.066)	0.011	0.026
250	20.83	0.07	0.025	(0.065)	0.007	0.018
251	20.92	0.07	0.025	(0.065)	0.007	0.018
252	21.00	0.07	0.025	(0.065)	0.007	0.018
253	21.08	0.10	0.037	(0.065)	0.011	0.026
254	21.17	0.10	0.037	(0.064)	0.011	0.026
255	21.25	0.10	0.037	(0.064)	0.011	0.026
256	21.33	0.07	0.025	(0.064)	0.007	0.018
257	21.42	0.07	0.025	(0.064)	0.007	0.018
258	21.50	0.07	0.025	(0.063)	0.007	0.018
259	21.58	0.10	0.037	(0.063)	0.011	0.026
260	21.67	0.10	0.037	(0.063)	0.011	0.026
261	21.75	0.10	0.037	(0.063)	0.011	0.026
262	21.83	0.07	0.025	(0.062)	0.007	0.018
263	21.92	0.07	0.025	(0.062)	0.007	0.018
264	22.00	0.07	0.025	(0.062)	0.007	0.018
265	22.08	0.10	0.037	(0.062)	0.011	0.026
266	22.17	0.10	0.037	(0.062)	0.011	0.026
267	22.25	0.10	0.037	(0.061)	0.011	0.026
268	22.33	0.07	0.025	(0.061)	0.007	0.018
269	22.42	0.07	0.025	(0.061)	0.007	0.018
270	22.50	0.07	0.025	(0.061)	0.007	0.018
271	22.58	0.07	0.025	(0.061)	0.007	0.018
272	22.67	0.07	0.025	(0.061)	0.007	0.018
273	22.75	0.07	0.025	(0.060)	0.007	0.018
274	22.83	0.07	0.025	(0.060)	0.007	0.018
275	22.92	0.07	0.025	(0.060)	0.007	0.018
276	23.00	0.07	0.025	(0.060)	0.007	0.018
277	23.08	0.07	0.025	(0.060)	0.007	0.018
278	23.17	0.07	0.025	(0.060)	0.007	0.018
279	23.25	0.07	0.025	(0.059)	0.007	0.018
280	23.33	0.07	0.025	(0.059)	0.007	0.018
281	23.42	0.07	0.025	(0.059)	0.007	0.018
282	23.50	0.07	0.025	(0.059)	0.007	0.018
283	23.58	0.07	0.025	(0.059)	0.007	0.018
284	23.67	0.07	0.025	(0.059)	0.007	0.018
285	23.75	0.07	0.025	(0.059)	0.007	0.018
286	23.83	0.07	0.025	(0.059)	0.007	0.018
287	23.92	0.07	0.025	(0.059)	0.007	0.018
288	24.00	0.07	0.025	(0.059)	0.007	0.018

(Loss Rate Not Used)

Sum = 100.0 Sum = 26.4

Flood volume = Effective rainfall 2.20(In)
times area 1.6(Ac.)/[(In)/(Ft.)] = 0.3(Ac.Ft)
Total soil loss = 0.89(In)
Total soil loss = 0.117(Ac.Ft)
Total rainfall = 3.09(In)
Flood volume = 12638.0 Cubic Feet
Total soil loss = 5102.0 Cubic Feet

Peak flow rate of this hydrograph = 0.510(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	2.5	5.0	7.5	10.0
0+ 5	0.0001	0.02	Q				
0+10	0.0003	0.03	Q				
0+15	0.0005	0.03	Q				
0+20	0.0008	0.04	Q				
0+25	0.0011	0.04	Q				
0+30	0.0014	0.04	Q				
0+35	0.0017	0.04	Q				
0+40	0.0019	0.04	Q				
0+45	0.0022	0.04	Q				
0+50	0.0026	0.05	Q				
0+55	0.0030	0.06	Q				
1+ 0	0.0034	0.06	Q				
1+ 5	0.0037	0.05	Q				
1+10	0.0040	0.04	Q				
1+15	0.0043	0.04	Q				
1+20	0.0045	0.04	Q				
1+25	0.0048	0.04	Q				
1+30	0.0051	0.04	Q				
1+35	0.0054	0.04	Q				
1+40	0.0057	0.04	Q				
1+45	0.0060	0.04	Q				
1+50	0.0063	0.05	Q				
1+55	0.0067	0.06	Q				
2+ 0	0.0071	0.06	Q				
2+ 5	0.0075	0.06	QV				
2+10	0.0079	0.06	QV				
2+15	0.0083	0.06	QV				
2+20	0.0087	0.06	QV				
2+25	0.0090	0.06	QV				
2+30	0.0094	0.06	QV				
2+35	0.0099	0.07	QV				
2+40	0.0104	0.07	QV				
2+45	0.0108	0.07	QV				
2+50	0.0113	0.07	QV				
2+55	0.0118	0.07	QV				
3+ 0	0.0123	0.07	QV				
3+ 5	0.0128	0.07	QV				
3+10	0.0132	0.07	QV				

3+15	0.0137	0.07	QV	|	|	|	|
3+20	0.0142	0.07	QV	|	|	|	|
3+25	0.0147	0.07	Q V	|	|	|	|
3+30	0.0152	0.07	Q V	|	|	|	|
3+35	0.0157	0.07	Q V	|	|	|	|
3+40	0.0161	0.07	Q V	|	|	|	|
3+45	0.0166	0.07	Q V	|	|	|	|
3+50	0.0172	0.08	Q V	|	|	|	|
3+55	0.0177	0.08	Q V	|	|	|	|
4+ 0	0.0183	0.08	Q V	|	|	|	|
4+ 5	0.0189	0.08	Q V	|	|	|	|
4+10	0.0195	0.08	Q V	|	|	|	|
4+15	0.0201	0.08	Q V	|	|	|	|
4+20	0.0207	0.09	Q V	|	|	|	|
4+25	0.0214	0.10	Q V	|	|	|	|
4+30	0.0220	0.10	Q V	|	|	|	|
4+35	0.0227	0.10	Q V	|	|	|	|
4+40	0.0234	0.10	Q V	|	|	|	|
4+45	0.0241	0.10	Q V	|	|	|	|
4+50	0.0248	0.11	Q V	|	|	|	|
4+55	0.0256	0.11	Q V	|	|	|	|
5+ 0	0.0264	0.11	Q V	|	|	|	|
5+ 5	0.0270	0.09	Q V	|	|	|	|
5+10	0.0276	0.08	Q V	|	|	|	|
5+15	0.0281	0.08	Q V	|	|	|	|
5+20	0.0288	0.09	Q V	|	|	|	|
5+25	0.0295	0.10	Q V	|	|	|	|
5+30	0.0301	0.10	Q V	|	|	|	|
5+35	0.0309	0.11	Q V	|	|	|	|
5+40	0.0316	0.11	Q V	|	|	|	|
5+45	0.0324	0.11	Q V	|	|	|	|
5+50	0.0332	0.11	Q V	|	|	|	|
5+55	0.0340	0.11	Q V	|	|	|	|
6+ 0	0.0347	0.11	Q V	|	|	|	|
6+ 5	0.0356	0.12	Q V	|	|	|	|
6+10	0.0364	0.13	Q V	|	|	|	|
6+15	0.0373	0.13	Q V	|	|	|	|
6+20	0.0382	0.13	Q V	|	|	|	|
6+25	0.0390	0.13	Q V	|	|	|	|
6+30	0.0399	0.13	Q V	|	|	|	|
6+35	0.0408	0.14	Q V	|	|	|	|
6+40	0.0418	0.14	Q V	|	|	|	|
6+45	0.0428	0.14	Q V	|	|	|	|
6+50	0.0437	0.14	Q V	|	|	|	|
6+55	0.0447	0.14	Q V	|	|	|	|
7+ 0	0.0456	0.14	Q V	|	|	|	|
7+ 5	0.0466	0.14	Q V	|	|	|	|
7+10	0.0476	0.14	Q V	|	|	|	|
7+15	0.0485	0.14	Q V	|	|	|	|
7+20	0.0496	0.15	Q V	|	|	|	|

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 7+25       0.0506      0.15  Q     V   |          |          |          |
 7+30       0.0517      0.15  Q      V  |          |          |          |
 7+35       0.0528      0.16  Q      V  |          |          |          |
 7+40       0.0540      0.17  Q      V  |          |          |          |
 7+45       0.0551      0.17  Q      V  |          |          |          |
 7+50       0.0563      0.18  Q      V  |          |          |          |
 7+55       0.0576      0.18  Q      V  |          |          |          |
 8+ 0       0.0588      0.18  Q       V |          |          |          |
 8+ 5       0.0602      0.20  Q       V |          |          |          |
 8+10       0.0617      0.21  Q       V |          |          |          |
 8+15       0.0631      0.21  Q       V |          |          |          |
 8+20       0.0646      0.21  Q       V |          |          |          |
 8+25       0.0660      0.21  Q        V|          |          |          |
 8+30       0.0675      0.21  Q        V|          |          |          |
 8+35       0.0690      0.22  Q        V|          |          |          |
 8+40       0.0705      0.22  Q        V|          |          |          |
 8+45       0.0720      0.22  Q        V|          |          |          |
 8+50       0.0737      0.23  Q         V          |          |          |
 8+55       0.0753      0.24  Q         V          |          |          |
 9+ 0       0.0769      0.24  Q         V          |          |          |
 9+ 5       0.0787      0.26  |Q        V          |          |          |
 9+10       0.0805      0.27  |Q        |V         |          |          |
 9+15       0.0824      0.27  |Q        |V         |          |          |
 9+20       0.0843      0.28  |Q        |V         |          |          |
 9+25       0.0862      0.28  |Q        |V         |          |          |
 9+30       0.0881      0.28  |Q        | V        |          |          |
 9+35       0.0901      0.29  |Q        | V        |          |          |
 9+40       0.0921      0.29  |Q        | V        |          |          |
 9+45       0.0941      0.29  |Q        | V        |          |          |
 9+50       0.0962      0.30  |Q        |  V       |          |          |
 9+55       0.0984      0.31  |Q        |  V       |          |          |
10+ 0       0.1005      0.31  |Q        |  V       |          |          |
10+ 5       0.1021      0.24  Q         |   V      |          |          |
10+10       0.1035      0.21  Q         |   V      |          |          |
10+15       0.1050      0.21  Q         |   V      |          |          |
10+20       0.1064      0.21  Q         |   V      |          |          |
10+25       0.1079      0.21  Q         |   V      |          |          |
10+30       0.1093      0.21  Q         |    V     |          |          |
10+35       0.1111      0.26  |Q        |    V     |          |          |
10+40       0.1130      0.28  |Q        |    V     |          |          |
10+45       0.1150      0.28  |Q        |    V     |          |          |
10+50       0.1169      0.28  |Q        |     V    |          |          |
10+55       0.1188      0.28  |Q        |     V    |          |          |
11+ 0       0.1207      0.28  |Q        |     V    |          |          |
11+ 5       0.1226      0.27  |Q        |     V    |          |          |
11+10       0.1244      0.27  |Q        |      V   |          |          |
11+15       0.1263      0.27  |Q        |      V   |          |          |
11+20       0.1281      0.27  |Q        |      V   |          |          |
11+25       0.1299      0.27  |Q        |      V   |          |          |
11+30       0.1317      0.27  |Q        |       V  |          |          |
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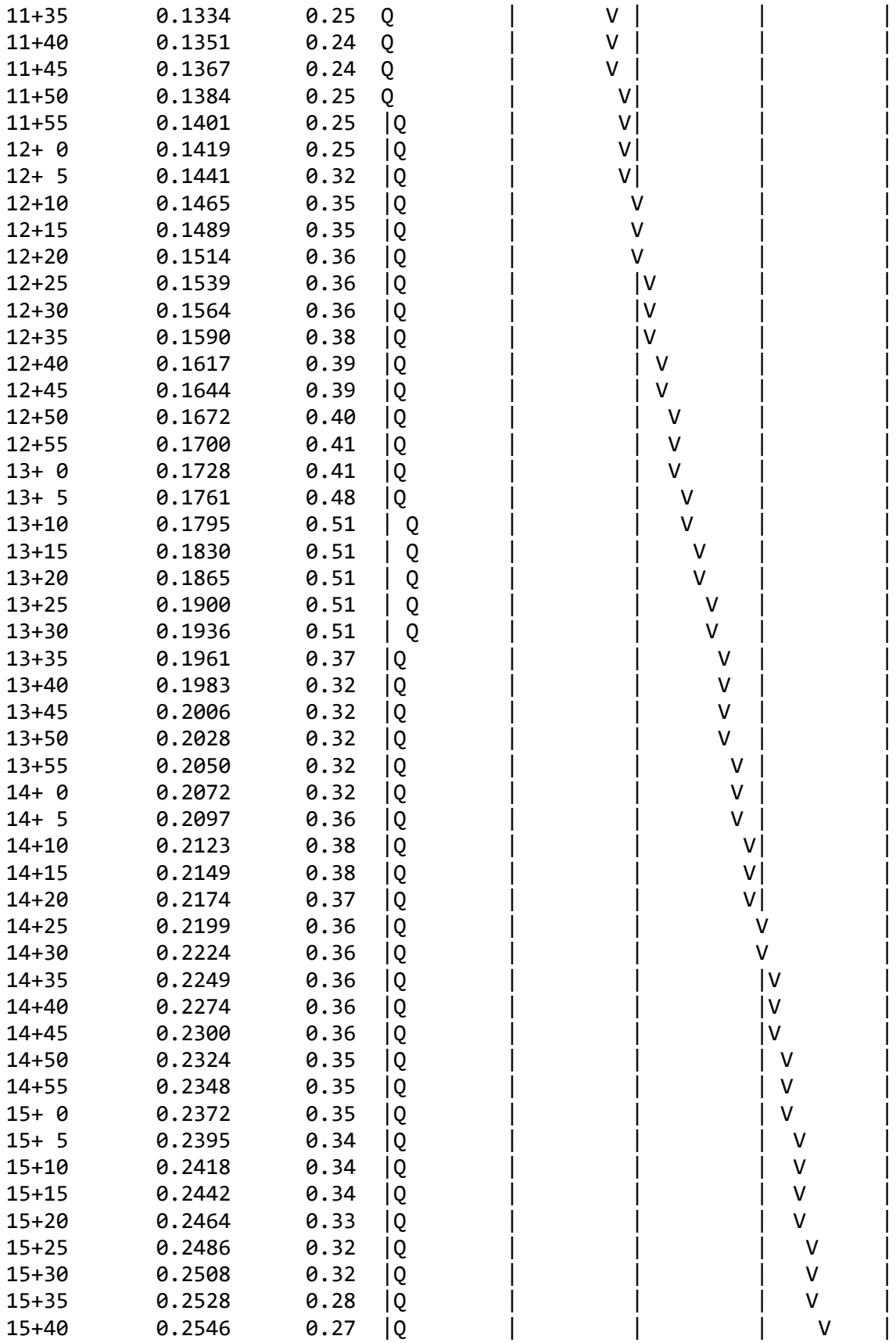

15+45	0.2564	0.27	|Q	|	|	|	V |
15+50	0.2582	0.27	|Q	|	|	|	V |
15+55	0.2601	0.27	|Q	|	|	|	V |
16+ 0	0.2619	0.27	|Q	|	|	|	V |
16+ 5	0.2627	0.11	Q	|	|	|	V |
16+10	0.2631	0.06	Q	|	|	|	V |
16+15	0.2635	0.06	Q	|	|	|	V |
16+20	0.2638	0.06	Q	|	|	|	V |
16+25	0.2642	0.06	Q	|	|	|	V |
16+30	0.2646	0.06	Q	|	|	|	V |
16+35	0.2649	0.05	Q	|	|	|	V |
16+40	0.2652	0.04	Q	|	|	|	V |
16+45	0.2655	0.04	Q	|	|	|	V |
16+50	0.2658	0.04	Q	|	|	|	V |
16+55	0.2661	0.04	Q	|	|	|	V |
17+ 0	0.2664	0.04	Q	|	|	|	V |
17+ 5	0.2668	0.06	Q	|	|	|	V |
17+10	0.2673	0.07	Q	|	|	|	V |
17+15	0.2678	0.07	Q	|	|	|	V |
17+20	0.2682	0.07	Q	|	|	|	V |
17+25	0.2687	0.07	Q	|	|	|	V |
17+30	0.2692	0.07	Q	|	|	|	V |
17+35	0.2697	0.07	Q	|	|	|	V |
17+40	0.2702	0.07	Q	|	|	|	V |
17+45	0.2706	0.07	Q	|	|	|	V |
17+50	0.2711	0.06	Q	|	|	|	V |
17+55	0.2714	0.06	Q	|	|	|	V |
18+ 0	0.2718	0.06	Q	|	|	|	V |
18+ 5	0.2722	0.06	Q	|	|	|	V |
18+10	0.2726	0.06	Q	|	|	|	V |
18+15	0.2730	0.06	Q	|	|	|	V |
18+20	0.2734	0.06	Q	|	|	|	V |
18+25	0.2738	0.06	Q	|	|	|	V |
18+30	0.2741	0.06	Q	|	|	|	V |
18+35	0.2745	0.05	Q	|	|	|	V |
18+40	0.2747	0.04	Q	|	|	|	V |
18+45	0.2750	0.04	Q	|	|	|	V |
18+50	0.2753	0.03	Q	|	|	|	V |
18+55	0.2754	0.03	Q	|	|	|	V |
19+ 0	0.2756	0.03	Q	|	|	|	V |
19+ 5	0.2759	0.04	Q	|	|	|	V |
19+10	0.2762	0.04	Q	|	|	|	V |
19+15	0.2765	0.04	Q	|	|	|	V |
19+20	0.2768	0.05	Q	|	|	|	V |
19+25	0.2772	0.06	Q	|	|	|	V |
19+30	0.2776	0.06	Q	|	|	|	V |
19+35	0.2779	0.05	Q	|	|	|	V |
19+40	0.2782	0.04	Q	|	|	|	V |
19+45	0.2785	0.04	Q	|	|	|	V |
19+50	0.2787	0.03	Q	|	|	|	V |

19+55	0.2789	0.03	Q	|	|	|	V |
20+ 0	0.2791	0.03	Q	|	|	|	V |
20+ 5	0.2794	0.04	Q	|	|	|	V |
20+10	0.2797	0.04	Q	|	|	|	V |
20+15	0.2799	0.04	Q	|	|	|	V |
20+20	0.2802	0.04	Q	|	|	|	V |
20+25	0.2805	0.04	Q	|	|	|	V |
20+30	0.2808	0.04	Q	|	|	|	V |
20+35	0.2811	0.04	Q	|	|	|	V |
20+40	0.2814	0.04	Q	|	|	|	V |
20+45	0.2817	0.04	Q	|	|	|	V |
20+50	0.2819	0.03	Q	|	|	|	V |
20+55	0.2821	0.03	Q	|	|	|	V |
21+ 0	0.2823	0.03	Q	|	|	|	V |
21+ 5	0.2825	0.04	Q	|	|	|	V |
21+10	0.2828	0.04	Q	|	|	|	V |
21+15	0.2831	0.04	Q	|	|	|	V|
21+20	0.2833	0.03	Q	|	|	|	V|
21+25	0.2835	0.03	Q	|	|	|	V|
21+30	0.2837	0.03	Q	|	|	|	V|
21+35	0.2840	0.04	Q	|	|	|	V|
21+40	0.2843	0.04	Q	|	|	|	V|
21+45	0.2846	0.04	Q	|	|	|	V|
21+50	0.2848	0.03	Q	|	|	|	V|
21+55	0.2850	0.03	Q	|	|	|	V|
22+ 0	0.2852	0.03	Q	|	|	|	V|
22+ 5	0.2854	0.04	Q	|	|	|	V|
22+10	0.2857	0.04	Q	|	|	|	V|
22+15	0.2860	0.04	Q	|	|	|	V|
22+20	0.2862	0.03	Q	|	|	|	V|
22+25	0.2864	0.03	Q	|	|	|	V|
22+30	0.2866	0.03	Q	|	|	|	V|
22+35	0.2868	0.03	Q	|	|	|	V|
22+40	0.2870	0.03	Q	|	|	|	V|
22+45	0.2872	0.03	Q	|	|	|	V|
22+50	0.2874	0.03	Q	|	|	|	V|
22+55	0.2876	0.03	Q	|	|	|	V|
23+ 0	0.2878	0.03	Q	|	|	|	V|
23+ 5	0.2880	0.03	Q	|	|	|	V|
23+10	0.2881	0.03	Q	|	|	|	V|
23+15	0.2883	0.03	Q	|	|	|	V|
23+20	0.2885	0.03	Q	|	|	|	V|
23+25	0.2887	0.03	Q	|	|	|	V|
23+30	0.2889	0.03	Q	|	|	|	V|
23+35	0.2891	0.03	Q	|	|	|	V|
23+40	0.2893	0.03	Q	|	|	|	V|
23+45	0.2895	0.03	Q	|	|	|	V|
23+50	0.2897	0.03	Q	|	|	|	V|
23+55	0.2899	0.03	Q	|	|	|	V|
24+ 0	0.2901	0.03	Q	|	|	|	V|

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   24+ 5       0.2901      0.01  Q         |         |         |         V
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DMA 2 Proposed 100-Year

FLOOD HYDROGRAPH ROUTING PROGRAM

Study date: 08/24/22

A21626 DMA 2 100YR-1HR BASIN

Program License Serial Number 6509

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

From study/file name: a21626DMA2Q100UH1100.rte
**********HYDROGRAPH DATA**********
Number of intervals = 13
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 5.172 (CFS)
Total volume = 0.157 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   0.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.00(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.00(Ft.)   Capacity =   0.20(CFS)

Free outlet pipe flow: Pipe Diameter =   1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)   Capacity =   4.44(CFS)

Total outflow at this depth =   4.64(CFS)

Total number of inflow hydrograph intervals = 13

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
0.500	0.052	0.000	0.052	0.052
1.000	0.111	0.196	0.110	0.112
1.500	0.177	0.196	0.176	0.178
2.000	0.251	0.196	0.250	0.252
2.500	0.333	4.639	0.317	0.349

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 1.3 2.59 3.88 5.17	Depth (Ft.)
0.083	0.69	0.00	0.002	O I | | | |	0.02
0.167	0.97	0.00	0.008	O I | | | |	0.08
0.250	1.13	0.00	0.015	O I| | | |	0.15
0.333	1.19	0.00	0.023	O I| | | |	0.22
0.417	1.24	0.00	0.032	O I| | | |	0.31
0.500	1.39	0.00	0.041	O I | | |	0.39
0.583	1.69	0.00	0.051	O | I | | |	0.49
0.667	2.00	0.04	0.064	O | I | |	0.60
0.750	2.72	0.09	0.080	O | I | |	0.74
0.833	5.17	0.18	0.106	|O | | | I	0.96
0.917	2.96	0.20	0.133	|O | | I | |	1.16
1.000	1.27	0.20	0.146	|O I| | | |	1.26
1.083	0.30	0.20	0.150	|O | | | |	1.30
1.167	0.00	0.20	0.150	IO | | | |	1.29
1.250	0.00	0.20	0.148	IO | | | |	1.28
1.333	0.00	0.20	0.147	IO | | | |	1.27
1.417	0.00	0.20	0.146	IO | | | |	1.26
1.500	0.00	0.20	0.144	IO | | | |	1.25
1.583	0.00	0.20	0.143	IO | | | |	1.24
1.667	0.00	0.20	0.142	IO | | | |	1.23
1.750	0.00	0.20	0.140	IO | | | |	1.22
1.833	0.00	0.20	0.139	IO | | | |	1.21
1.917	0.00	0.20	0.137	IO | | | |	1.20

2.000	0.00	0.20	0.136	IO				1.19
2.083	0.00	0.20	0.135	IO				1.18
2.167	0.00	0.20	0.133	IO				1.17
2.250	0.00	0.20	0.132	IO				1.16
2.333	0.00	0.20	0.131	IO				1.15
2.417	0.00	0.20	0.129	IO				1.14
2.500	0.00	0.20	0.128	IO				1.13
2.583	0.00	0.20	0.127	IO				1.12
2.667	0.00	0.20	0.125	IO				1.11
2.750	0.00	0.20	0.124	IO				1.10
2.833	0.00	0.20	0.123	IO				1.09
2.917	0.00	0.20	0.121	IO				1.08
3.000	0.00	0.20	0.120	IO				1.07
3.083	0.00	0.20	0.119	IO				1.06
3.167	0.00	0.20	0.117	IO				1.05
3.250	0.00	0.20	0.116	IO				1.04
3.333	0.00	0.20	0.114	IO				1.03
3.417	0.00	0.20	0.113	IO				1.02
3.500	0.00	0.20	0.112	IO				1.01
3.583	0.00	0.19	0.110	IO				1.00
3.667	0.00	0.19	0.109	IO				0.98
3.750	0.00	0.19	0.108	IO				0.97
3.833	0.00	0.18	0.107	IO				0.96
3.917	0.00	0.18	0.105	IO				0.95
4.000	0.00	0.17	0.104	IO				0.94
4.083	0.00	0.17	0.103	IO				0.93
4.167	0.00	0.17	0.102	IO				0.92
4.250	0.00	0.16	0.101	IO				0.91
4.333	0.00	0.16	0.100	O				0.90
4.417	0.00	0.15	0.098	O				0.89
4.500	0.00	0.15	0.097	O				0.88
4.583	0.00	0.15	0.096	O				0.88
4.667	0.00	0.14	0.095	O				0.87
4.750	0.00	0.14	0.094	O				0.86
4.833	0.00	0.14	0.093	O				0.85
4.917	0.00	0.13	0.093	O				0.84
5.000	0.00	0.13	0.092	O				0.84
5.083	0.00	0.13	0.091	O				0.83
5.167	0.00	0.13	0.090	O				0.82
5.250	0.00	0.12	0.089	O				0.81
5.333	0.00	0.12	0.088	O				0.81
5.417	0.00	0.12	0.087	O				0.80
5.500	0.00	0.11	0.087	O				0.79
5.583	0.00	0.11	0.086	O				0.79
5.667	0.00	0.11	0.085	O				0.78
5.750	0.00	0.11	0.084	O				0.77
5.833	0.00	0.10	0.083	O				0.77
5.917	0.00	0.10	0.083	O				0.76
6.000	0.00	0.10	0.082	O				0.75
6.083	0.00	0.10	0.081	O				0.75

6.167	0.00	0.10	0.081	O				0.74
6.250	0.00	0.09	0.080	O				0.74
6.333	0.00	0.09	0.079	O				0.73
6.417	0.00	0.09	0.079	O				0.73
6.500	0.00	0.09	0.078	O				0.72
6.583	0.00	0.09	0.078	O				0.72
6.667	0.00	0.08	0.077	O				0.71
6.750	0.00	0.08	0.076	O				0.71
6.833	0.00	0.08	0.076	O				0.70
6.917	0.00	0.08	0.075	O				0.70
7.000	0.00	0.08	0.075	O				0.69
7.083	0.00	0.07	0.074	O				0.69
7.167	0.00	0.07	0.074	O				0.68
7.250	0.00	0.07	0.073	O				0.68
7.333	0.00	0.07	0.073	O				0.68
7.417	0.00	0.07	0.072	O				0.67
7.500	0.00	0.07	0.072	O				0.67
7.583	0.00	0.06	0.071	O				0.66
7.667	0.00	0.06	0.071	O				0.66
7.750	0.00	0.06	0.071	O				0.66
7.833	0.00	0.06	0.070	O				0.65
7.917	0.00	0.06	0.070	O				0.65
8.000	0.00	0.06	0.069	O				0.65
8.083	0.00	0.06	0.069	O				0.64
8.167	0.00	0.06	0.069	O				0.64
8.250	0.00	0.05	0.068	O				0.64
8.333	0.00	0.05	0.068	O				0.63
8.417	0.00	0.05	0.067	O				0.63
8.500	0.00	0.05	0.067	O				0.63
8.583	0.00	0.05	0.067	O				0.63
8.667	0.00	0.05	0.066	O				0.62
8.750	0.00	0.05	0.066	O				0.62
8.833	0.00	0.05	0.066	O				0.62
8.917	0.00	0.04	0.065	O				0.61
9.000	0.00	0.04	0.065	O				0.61
9.083	0.00	0.04	0.065	O				0.61
9.167	0.00	0.04	0.065	O				0.61
9.250	0.00	0.04	0.064	O				0.60
9.333	0.00	0.04	0.064	O				0.60
9.417	0.00	0.04	0.064	O				0.60
9.500	0.00	0.04	0.063	O				0.60
9.583	0.00	0.04	0.063	O				0.60
9.667	0.00	0.04	0.063	O				0.59
9.750	0.00	0.04	0.063	O				0.59
9.833	0.00	0.03	0.062	O				0.59
9.917	0.00	0.03	0.062	O				0.59
10.000	0.00	0.03	0.062	O				0.58
10.083	0.00	0.03	0.062	O				0.58
10.167	0.00	0.03	0.062	O				0.58
10.250	0.00	0.03	0.061	O				0.58

10.333	0.00	0.03	0.061	O	|	|	|	0.58
10.417	0.00	0.03	0.061	O	|	|	|	0.58
10.500	0.00	0.03	0.061	O	|	|	|	0.57
10.583	0.00	0.03	0.061	O	|	|	|	0.57
10.667	0.00	0.03	0.060	O	|	|	|	0.57
10.750	0.00	0.03	0.060	O	|	|	|	0.57
10.833	0.00	0.03	0.060	O	|	|	|	0.57
10.917	0.00	0.03	0.060	O	|	|	|	0.57
11.000	0.00	0.03	0.060	O	|	|	|	0.56
11.083	0.00	0.02	0.059	O	|	|	|	0.56
11.167	0.00	0.02	0.059	O	|	|	|	0.56
11.250	0.00	0.02	0.059	O	|	|	|	0.56
11.333	0.00	0.02	0.059	O	|	|	|	0.56
11.417	0.00	0.02	0.059	O	|	|	|	0.56
11.500	0.00	0.02	0.059	O	|	|	|	0.56
11.583	0.00	0.02	0.058	O	|	|	|	0.55
11.667	0.00	0.02	0.058	O	|	|	|	0.55
11.750	0.00	0.02	0.058	O	|	|	|	0.55
11.833	0.00	0.02	0.058	O	|	|	|	0.55
11.917	0.00	0.02	0.058	O	|	|	|	0.55
12.000	0.00	0.02	0.058	O	|	|	|	0.55
12.083	0.00	0.02	0.058	O	|	|	|	0.55
12.167	0.00	0.02	0.058	O	|	|	|	0.55
12.250	0.00	0.02	0.057	O	|	|	|	0.55
12.333	0.00	0.02	0.057	O	|	|	|	0.54
12.417	0.00	0.02	0.057	O	|	|	|	0.54
12.500	0.00	0.02	0.057	O	|	|	|	0.54
12.583	0.00	0.02	0.057	O	|	|	|	0.54
12.667	0.00	0.02	0.057	O	|	|	|	0.54
12.750	0.00	0.02	0.057	O	|	|	|	0.54
12.833	0.00	0.02	0.057	O	|	|	|	0.54
12.917	0.00	0.01	0.056	O	|	|	|	0.54
13.000	0.00	0.01	0.056	O	|	|	|	0.54
13.083	0.00	0.01	0.056	O	|	|	|	0.54
13.167	0.00	0.01	0.056	O	|	|	|	0.54
13.250	0.00	0.01	0.056	O	|	|	|	0.53
13.333	0.00	0.01	0.056	O	|	|	|	0.53
13.417	0.00	0.01	0.056	O	|	|	|	0.53
13.500	0.00	0.01	0.056	O	|	|	|	0.53
13.583	0.00	0.01	0.056	O	|	|	|	0.53
13.667	0.00	0.01	0.056	O	|	|	|	0.53
13.750	0.00	0.01	0.056	O	|	|	|	0.53
13.833	0.00	0.01	0.055	O	|	|	|	0.53
13.917	0.00	0.01	0.055	O	|	|	|	0.53
14.000	0.00	0.01	0.055	O	|	|	|	0.53
14.083	0.00	0.01	0.055	O	|	|	|	0.53
14.167	0.00	0.01	0.055	O	|	|	|	0.53
14.250	0.00	0.01	0.055	O	|	|	|	0.53
14.333	0.00	0.01	0.055	O	|	|	|	0.53
14.417	0.00	0.01	0.055	O	|	|	|	0.53

14.500	0.00	0.01	0.055	O	|	|	|	0.52
14.583	0.00	0.01	0.055	O	|	|	|	0.52
14.667	0.00	0.01	0.055	O	|	|	|	0.52
14.750	0.00	0.01	0.055	O	|	|	|	0.52
14.833	0.00	0.01	0.055	O	|	|	|	0.52
14.917	0.00	0.01	0.055	O	|	|	|	0.52
15.000	0.00	0.01	0.055	O	|	|	|	0.52
15.083	0.00	0.01	0.054	O	|	|	|	0.52
15.167	0.00	0.01	0.054	O	|	|	|	0.52
15.250	0.00	0.01	0.054	O	|	|	|	0.52
15.333	0.00	0.01	0.054	O	|	|	|	0.52
15.417	0.00	0.01	0.054	O	|	|	|	0.52
15.500	0.00	0.01	0.054	O	|	|	|	0.52
15.583	0.00	0.01	0.054	O	|	|	|	0.52
15.667	0.00	0.01	0.054	O	|	|	|	0.52
15.750	0.00	0.01	0.054	O	|	|	|	0.52
15.833	0.00	0.01	0.054	O	|	|	|	0.52
15.917	0.00	0.01	0.054	O	|	|	|	0.52
16.000	0.00	0.01	0.054	O	|	|	|	0.52
16.083	0.00	0.01	0.054	O	|	|	|	0.52
16.167	0.00	0.01	0.054	O	|	|	|	0.52
16.250	0.00	0.01	0.054	O	|	|	|	0.52
16.333	0.00	0.01	0.054	O	|	|	|	0.51
16.417	0.00	0.01	0.054	O	|	|	|	0.51
16.500	0.00	0.01	0.054	O	|	|	|	0.51
16.583	0.00	0.01	0.054	O	|	|	|	0.51
16.667	0.00	0.01	0.054	O	|	|	|	0.51
16.750	0.00	0.01	0.054	O	|	|	|	0.51
16.833	0.00	0.01	0.054	O	|	|	|	0.51
16.917	0.00	0.00	0.053	O	|	|	|	0.51
17.000	0.00	0.00	0.053	O	|	|	|	0.51
17.083	0.00	0.00	0.053	O	|	|	|	0.51
17.167	0.00	0.00	0.053	O	|	|	|	0.51
17.250	0.00	0.00	0.053	O	|	|	|	0.51
17.333	0.00	0.00	0.053	O	|	|	|	0.51
17.417	0.00	0.00	0.053	O	|	|	|	0.51
17.500	0.00	0.00	0.053	O	|	|	|	0.51
17.583	0.00	0.00	0.053	O	|	|	|	0.51
17.667	0.00	0.00	0.053	O	|	|	|	0.51
17.750	0.00	0.00	0.053	O	|	|	|	0.51
17.833	0.00	0.00	0.053	O	|	|	|	0.51
17.917	0.00	0.00	0.053	O	|	|	|	0.51
18.000	0.00	0.00	0.053	O	|	|	|	0.51
18.083	0.00	0.00	0.053	O	|	|	|	0.51
18.167	0.00	0.00	0.053	O	|	|	|	0.51
18.250	0.00	0.00	0.053	O	|	|	|	0.51
18.333	0.00	0.00	0.053	O	|	|	|	0.51
18.417	0.00	0.00	0.053	O	|	|	|	0.51
18.500	0.00	0.00	0.053	O	|	|	|	0.51
18.583	0.00	0.00	0.053	O	|	|	|	0.51

18.667	0.00	0.00	0.053	O	|	|	|	0.51
18.750	0.00	0.00	0.053	O	|	|	|	0.51
18.833	0.00	0.00	0.053	O	|	|	|	0.51
18.917	0.00	0.00	0.053	O	|	|	|	0.51
19.000	0.00	0.00	0.053	O	|	|	|	0.51
19.083	0.00	0.00	0.053	O	|	|	|	0.51
19.167	0.00	0.00	0.053	O	|	|	|	0.51
19.250	0.00	0.00	0.053	O	|	|	|	0.51
19.333	0.00	0.00	0.053	O	|	|	|	0.51
19.417	0.00	0.00	0.053	O	|	|	|	0.51
19.500	0.00	0.00	0.053	O	|	|	|	0.51
19.583	0.00	0.00	0.053	O	|	|	|	0.51
19.667	0.00	0.00	0.053	O	|	|	|	0.51
19.750	0.00	0.00	0.053	O	|	|	|	0.51
19.833	0.00	0.00	0.053	O	|	|	|	0.51
19.917	0.00	0.00	0.053	O	|	|	|	0.51
20.000	0.00	0.00	0.053	O	|	|	|	0.51
20.083	0.00	0.00	0.053	O	|	|	|	0.51
20.167	0.00	0.00	0.053	O	|	|	|	0.51
20.250	0.00	0.00	0.053	O	|	|	|	0.51
20.333	0.00	0.00	0.053	O	|	|	|	0.50
20.417	0.00	0.00	0.053	O	|	|	|	0.50
20.500	0.00	0.00	0.053	O	|	|	|	0.50
20.583	0.00	0.00	0.053	O	|	|	|	0.50
20.667	0.00	0.00	0.053	O	|	|	|	0.50
20.750	0.00	0.00	0.053	O	|	|	|	0.50
20.833	0.00	0.00	0.053	O	|	|	|	0.50
20.917	0.00	0.00	0.052	O	|	|	|	0.50
21.000	0.00	0.00	0.052	O	|	|	|	0.50
21.083	0.00	0.00	0.052	O	|	|	|	0.50
21.167	0.00	0.00	0.052	O	|	|	|	0.50
21.250	0.00	0.00	0.052	O	|	|	|	0.50
21.333	0.00	0.00	0.052	O	|	|	|	0.50
21.417	0.00	0.00	0.052	O	|	|	|	0.50
21.500	0.00	0.00	0.052	O	|	|	|	0.50
21.583	0.00	0.00	0.052	O	|	|	|	0.50
21.667	0.00	0.00	0.052	O	|	|	|	0.50
21.750	0.00	0.00	0.052	O	|	|	|	0.50
21.833	0.00	0.00	0.052	O	|	|	|	0.50
21.917	0.00	0.00	0.052	O	|	|	|	0.50
22.000	0.00	0.00	0.052	O	|	|	|	0.50
22.083	0.00	0.00	0.052	O	|	|	|	0.50
22.167	0.00	0.00	0.052	O	|	|	|	0.50
22.250	0.00	0.00	0.052	O	|	|	|	0.50
22.333	0.00	0.00	0.052	O	|	|	|	0.50
22.417	0.00	0.00	0.052	O	|	|	|	0.50
22.500	0.00	0.00	0.052	O	|	|	|	0.50
22.583	0.00	0.00	0.052	O	|	|	|	0.50
22.667	0.00	0.00	0.052	O	|	|	|	0.50
22.750	0.00	0.00	0.052	O	|	|	|	0.50

Remaining water in basin = 0.05 (Ac.Ft)

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

Number of intervals = 273
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.104 (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

Study date: 08/24/22

A21626 DMA 2 100YR-3HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA2Q100UH3100.rte
**********HYDROGRAPH DATA**********
Number of intervals = 37
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 2.867 (CFS)
Total volume = 0.233 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   0.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.00(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.00(Ft.)   Capacity =   0.20(CFS)

Free outlet pipe flow: Pipe Diameter =   1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)   Capacity =   4.44(CFS)

Total outflow at this depth =   4.64(CFS)

Total number of inflow hydrograph intervals = 37

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
0.500	0.052	0.000	0.052	0.052
1.000	0.111	0.196	0.110	0.112
1.500	0.177	0.196	0.176	0.178
2.000	0.251	0.196	0.250	0.252
2.500	0.333	4.639	0.317	0.349

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 0.7 1.43 2.15 2.87	Depth (Ft.)
0.083	0.28	0.00	0.001	O I | | | |	0.01
0.167	0.39	0.00	0.003	O I | | | |	0.03
0.250	0.33	0.00	0.006	O I | | | |	0.06
0.333	0.42	0.00	0.008	O I | | | |	0.08
0.417	0.46	0.00	0.011	O I | | | |	0.11
0.500	0.54	0.00	0.015	O I | | | |	0.14
0.583	0.49	0.00	0.018	O I | | | |	0.18
0.667	0.54	0.00	0.022	O I | | | |	0.21
0.750	0.57	0.00	0.026	O I | | | |	0.25
0.833	0.49	0.00	0.029	O I | | | |	0.28
0.917	0.49	0.00	0.033	O I | | | |	0.32
1.000	0.55	0.00	0.036	O I | | | |	0.35
1.083	0.68	0.00	0.041	O I| | | |	0.39
1.167	0.72	0.00	0.046	O I | | | |	0.44
1.250	0.72	0.00	0.051	O I | | | |	0.49
1.333	0.67	0.01	0.055	O I| | | |	0.53
1.417	0.81	0.03	0.060	O |I | | |	0.57
1.500	0.90	0.05	0.066	O | I | | |	0.62
1.583	0.83	0.06	0.071	O |I | | |	0.66
1.667	0.88	0.08	0.077	O |I | | |	0.71
1.750	1.07	0.10	0.083	|O | I | |	0.76
1.833	1.08	0.12	0.089	|O | I | |	0.82
1.917	1.00	0.15	0.096	|O | I | |	0.87

2.000	1.01	0.17	0.102	O	I			0.92
2.083	1.05	0.18	0.107	O	I			0.97
2.167	1.35	0.20	0.114	O	I			1.03
2.250	1.68	0.20	0.124	O	I			1.10
2.333	1.36	0.20	0.133	O	I			1.16
2.417	2.10	0.20	0.143	O	I			1.24
2.500	2.57	0.20	0.158	O	I			1.36
2.583	2.87	0.20	0.175	O	I			1.49
2.667	2.34	0.20	0.192	O	I			1.60
2.750	1.05	0.20	0.202	O	I			1.67
2.833	0.59	0.20	0.207	O	I			1.70
2.917	0.57	0.20	0.209	O	I			1.72
3.000	0.27	0.20	0.211	OI				1.73
3.083	0.04	0.20	0.211	I O				1.73
3.167	0.00	0.20	0.209	I O				1.72
3.250	0.00	0.20	0.208	I O				1.71
3.333	0.00	0.20	0.207	I O				1.70
3.417	0.00	0.20	0.205	I O				1.69
3.500	0.00	0.20	0.204	I O				1.68
3.583	0.00	0.20	0.203	I O				1.67
3.667	0.00	0.20	0.201	I O				1.66
3.750	0.00	0.20	0.200	I O				1.65
3.833	0.00	0.20	0.199	I O				1.65
3.917	0.00	0.20	0.197	I O				1.64
4.000	0.00	0.20	0.196	I O				1.63
4.083	0.00	0.20	0.194	I O				1.62
4.167	0.00	0.20	0.193	I O				1.61
4.250	0.00	0.20	0.192	I O				1.60
4.333	0.00	0.20	0.190	I O				1.59
4.417	0.00	0.20	0.189	I O				1.58
4.500	0.00	0.20	0.188	I O				1.57
4.583	0.00	0.20	0.186	I O				1.56
4.667	0.00	0.20	0.185	I O				1.55
4.750	0.00	0.20	0.184	I O				1.55
4.833	0.00	0.20	0.182	I O				1.54
4.917	0.00	0.20	0.181	I O				1.53
5.000	0.00	0.20	0.180	I O				1.52
5.083	0.00	0.20	0.178	I O				1.51
5.167	0.00	0.20	0.177	I O				1.50
5.250	0.00	0.20	0.176	I O				1.49
5.333	0.00	0.20	0.174	I O				1.48
5.417	0.00	0.20	0.173	I O				1.47
5.500	0.00	0.20	0.172	I O				1.46
5.583	0.00	0.20	0.170	I O				1.45
5.667	0.00	0.20	0.169	I O				1.44
5.750	0.00	0.20	0.167	I O				1.43
5.833	0.00	0.20	0.166	I O				1.42
5.917	0.00	0.20	0.165	I O				1.41
6.000	0.00	0.20	0.163	I O				1.40
6.083	0.00	0.20	0.162	I O				1.39

6.167	0.00	0.20	0.161	I O				1.38
6.250	0.00	0.20	0.159	I O				1.37
6.333	0.00	0.20	0.158	I O				1.36
6.417	0.00	0.20	0.157	I O				1.35
6.500	0.00	0.20	0.155	I O				1.34
6.583	0.00	0.20	0.154	I O				1.33
6.667	0.00	0.20	0.153	I O				1.31
6.750	0.00	0.20	0.151	I O				1.30
6.833	0.00	0.20	0.150	I O				1.29
6.917	0.00	0.20	0.149	I O				1.28
7.000	0.00	0.20	0.147	I O				1.27
7.083	0.00	0.20	0.146	I O				1.26
7.167	0.00	0.20	0.144	I O				1.25
7.250	0.00	0.20	0.143	I O				1.24
7.333	0.00	0.20	0.142	I O				1.23
7.417	0.00	0.20	0.140	I O				1.22
7.500	0.00	0.20	0.139	I O				1.21
7.583	0.00	0.20	0.138	I O				1.20
7.667	0.00	0.20	0.136	I O				1.19
7.750	0.00	0.20	0.135	I O				1.18
7.833	0.00	0.20	0.134	I O				1.17
7.917	0.00	0.20	0.132	I O				1.16
8.000	0.00	0.20	0.131	I O				1.15
8.083	0.00	0.20	0.130	I O				1.14
8.167	0.00	0.20	0.128	I O				1.13
8.250	0.00	0.20	0.127	I O				1.12
8.333	0.00	0.20	0.126	I O				1.11
8.417	0.00	0.20	0.124	I O				1.10
8.500	0.00	0.20	0.123	I O				1.09
8.583	0.00	0.20	0.121	I O				1.08
8.667	0.00	0.20	0.120	I O				1.07
8.750	0.00	0.20	0.119	I O				1.06
8.833	0.00	0.20	0.117	I O				1.05
8.917	0.00	0.20	0.116	I O				1.04
9.000	0.00	0.20	0.115	I O				1.03
9.083	0.00	0.20	0.113	I O				1.02
9.167	0.00	0.20	0.112	I O				1.01
9.250	0.00	0.20	0.111	I O				1.00
9.333	0.00	0.19	0.109	I O				0.99
9.417	0.00	0.19	0.108	I O				0.97
9.500	0.00	0.18	0.107	I O				0.96
9.583	0.00	0.18	0.106	IO				0.95
9.667	0.00	0.17	0.104	IO				0.94
9.750	0.00	0.17	0.103	IO				0.93
9.833	0.00	0.17	0.102	IO				0.92
9.917	0.00	0.16	0.101	IO				0.91
10.000	0.00	0.16	0.100	IO				0.90
10.083	0.00	0.16	0.099	IO				0.90
10.167	0.00	0.15	0.098	IO				0.89
10.250	0.00	0.15	0.097	IO				0.88

10.333	0.00	0.14	0.096	IO				0.87
10.417	0.00	0.14	0.095	IO				0.86
10.500	0.00	0.14	0.094	IO				0.85
10.583	0.00	0.14	0.093	IO				0.84
10.667	0.00	0.13	0.092	IO				0.84
10.750	0.00	0.13	0.091	IO				0.83
10.833	0.00	0.13	0.090	IO				0.82
10.917	0.00	0.12	0.089	IO				0.81
11.000	0.00	0.12	0.088	IO				0.81
11.083	0.00	0.12	0.087	IO				0.80
11.167	0.00	0.12	0.087	IO				0.79
11.250	0.00	0.11	0.086	IO				0.79
11.333	0.00	0.11	0.085	IO				0.78
11.417	0.00	0.11	0.084	IO				0.77
11.500	0.00	0.11	0.084	IO				0.77
11.583	0.00	0.10	0.083	IO				0.76
11.667	0.00	0.10	0.082	IO				0.76
11.750	0.00	0.10	0.081	IO				0.75
11.833	0.00	0.10	0.081	IO				0.74
11.917	0.00	0.09	0.080	IO				0.74
12.000	0.00	0.09	0.080	IO				0.73
12.083	0.00	0.09	0.079	O				0.73
12.167	0.00	0.09	0.078	O				0.72
12.250	0.00	0.09	0.078	O				0.72
12.333	0.00	0.08	0.077	O				0.71
12.417	0.00	0.08	0.077	O				0.71
12.500	0.00	0.08	0.076	O				0.70
12.583	0.00	0.08	0.075	O				0.70
12.667	0.00	0.08	0.075	O				0.69
12.750	0.00	0.07	0.074	O				0.69
12.833	0.00	0.07	0.074	O				0.69
12.917	0.00	0.07	0.073	O				0.68
13.000	0.00	0.07	0.073	O				0.68
13.083	0.00	0.07	0.072	O				0.67
13.167	0.00	0.07	0.072	O				0.67
13.250	0.00	0.06	0.072	O				0.67
13.333	0.00	0.06	0.071	O				0.66
13.417	0.00	0.06	0.071	O				0.66
13.500	0.00	0.06	0.070	O				0.65
13.583	0.00	0.06	0.070	O				0.65
13.667	0.00	0.06	0.069	O				0.65
13.750	0.00	0.06	0.069	O				0.64
13.833	0.00	0.06	0.069	O				0.64
13.917	0.00	0.05	0.068	O				0.64
14.000	0.00	0.05	0.068	O				0.63
14.083	0.00	0.05	0.068	O				0.63
14.167	0.00	0.05	0.067	O				0.63
14.250	0.00	0.05	0.067	O				0.63
14.333	0.00	0.05	0.066	O				0.62
14.417	0.00	0.05	0.066	O				0.62

14.500	0.00	0.05	0.066	O	|	|	|	0.62
14.583	0.00	0.05	0.066	O	|	|	|	0.61
14.667	0.00	0.04	0.065	O	|	|	|	0.61
14.750	0.00	0.04	0.065	O	|	|	|	0.61
14.833	0.00	0.04	0.065	O	|	|	|	0.61
14.917	0.00	0.04	0.064	O	|	|	|	0.60
15.000	0.00	0.04	0.064	O	|	|	|	0.60
15.083	0.00	0.04	0.064	O	|	|	|	0.60
15.167	0.00	0.04	0.064	O	|	|	|	0.60
15.250	0.00	0.04	0.063	O	|	|	|	0.60
15.333	0.00	0.04	0.063	O	|	|	|	0.59
15.417	0.00	0.04	0.063	O	|	|	|	0.59
15.500	0.00	0.03	0.063	O	|	|	|	0.59
15.583	0.00	0.03	0.062	O	|	|	|	0.59
15.667	0.00	0.03	0.062	O	|	|	|	0.59
15.750	0.00	0.03	0.062	O	|	|	|	0.58
15.833	0.00	0.03	0.062	O	|	|	|	0.58
15.917	0.00	0.03	0.061	O	|	|	|	0.58
16.000	0.00	0.03	0.061	O	|	|	|	0.58
16.083	0.00	0.03	0.061	O	|	|	|	0.58
16.167	0.00	0.03	0.061	O	|	|	|	0.57
16.250	0.00	0.03	0.061	O	|	|	|	0.57
16.333	0.00	0.03	0.060	O	|	|	|	0.57
16.417	0.00	0.03	0.060	O	|	|	|	0.57
16.500	0.00	0.03	0.060	O	|	|	|	0.57
16.583	0.00	0.03	0.060	O	|	|	|	0.57
16.667	0.00	0.03	0.060	O	|	|	|	0.56
16.750	0.00	0.02	0.059	O	|	|	|	0.56
16.833	0.00	0.02	0.059	O	|	|	|	0.56
16.917	0.00	0.02	0.059	O	|	|	|	0.56
17.000	0.00	0.02	0.059	O	|	|	|	0.56
17.083	0.00	0.02	0.059	O	|	|	|	0.56
17.167	0.00	0.02	0.059	O	|	|	|	0.56
17.250	0.00	0.02	0.058	O	|	|	|	0.56
17.333	0.00	0.02	0.058	O	|	|	|	0.55
17.417	0.00	0.02	0.058	O	|	|	|	0.55
17.500	0.00	0.02	0.058	O	|	|	|	0.55
17.583	0.00	0.02	0.058	O	|	|	|	0.55
17.667	0.00	0.02	0.058	O	|	|	|	0.55
17.750	0.00	0.02	0.058	O	|	|	|	0.55
17.833	0.00	0.02	0.058	O	|	|	|	0.55
17.917	0.00	0.02	0.057	O	|	|	|	0.55
18.000	0.00	0.02	0.057	O	|	|	|	0.54
18.083	0.00	0.02	0.057	O	|	|	|	0.54
18.167	0.00	0.02	0.057	O	|	|	|	0.54
18.250	0.00	0.02	0.057	O	|	|	|	0.54
18.333	0.00	0.02	0.057	O	|	|	|	0.54
18.417	0.00	0.02	0.057	O	|	|	|	0.54
18.500	0.00	0.02	0.057	O	|	|	|	0.54
18.583	0.00	0.01	0.057	O	|	|	|	0.54

18.667	0.00	0.01	0.056	O				0.54
18.750	0.00	0.01	0.056	O				0.54
18.833	0.00	0.01	0.056	O				0.54
18.917	0.00	0.01	0.056	O				0.53
19.000	0.00	0.01	0.056	O				0.53
19.083	0.00	0.01	0.056	O				0.53
19.167	0.00	0.01	0.056	O				0.53
19.250	0.00	0.01	0.056	O				0.53
19.333	0.00	0.01	0.056	O				0.53
19.417	0.00	0.01	0.056	O				0.53
19.500	0.00	0.01	0.055	O				0.53
19.583	0.00	0.01	0.055	O				0.53
19.667	0.00	0.01	0.055	O				0.53
19.750	0.00	0.01	0.055	O				0.53
19.833	0.00	0.01	0.055	O				0.53
19.917	0.00	0.01	0.055	O				0.53
20.000	0.00	0.01	0.055	O				0.53
20.083	0.00	0.01	0.055	O				0.53
20.167	0.00	0.01	0.055	O				0.52
20.250	0.00	0.01	0.055	O				0.52
20.333	0.00	0.01	0.055	O				0.52
20.417	0.00	0.01	0.055	O				0.52
20.500	0.00	0.01	0.055	O				0.52
20.583	0.00	0.01	0.055	O				0.52
20.667	0.00	0.01	0.055	O				0.52
20.750	0.00	0.01	0.054	O				0.52
20.833	0.00	0.01	0.054	O				0.52
20.917	0.00	0.01	0.054	O				0.52
21.000	0.00	0.01	0.054	O				0.52
21.083	0.00	0.01	0.054	O				0.52
21.167	0.00	0.01	0.054	O				0.52
21.250	0.00	0.01	0.054	O				0.52
21.333	0.00	0.01	0.054	O				0.52
21.417	0.00	0.01	0.054	O				0.52
21.500	0.00	0.01	0.054	O				0.52
21.583	0.00	0.01	0.054	O				0.52
21.667	0.00	0.01	0.054	O				0.52
21.750	0.00	0.01	0.054	O				0.52
21.833	0.00	0.01	0.054	O				0.52
21.917	0.00	0.01	0.054	O				0.52
22.000	0.00	0.01	0.054	O				0.51
22.083	0.00	0.01	0.054	O				0.51
22.167	0.00	0.01	0.054	O				0.51
22.250	0.00	0.01	0.054	O				0.51
22.333	0.00	0.01	0.054	O				0.51
22.417	0.00	0.01	0.054	O				0.51
22.500	0.00	0.01	0.054	O				0.51
22.583	0.00	0.00	0.053	O				0.51
22.667	0.00	0.00	0.053	O				0.51
22.750	0.00	0.00	0.053	O				0.51

22.833	0.00	0.00	0.053	O				0.51
22.917	0.00	0.00	0.053	O				0.51
23.000	0.00	0.00	0.053	O				0.51
23.083	0.00	0.00	0.053	O				0.51
23.167	0.00	0.00	0.053	O				0.51
23.250	0.00	0.00	0.053	O				0.51
23.333	0.00	0.00	0.053	O				0.51
23.417	0.00	0.00	0.053	O				0.51
23.500	0.00	0.00	0.053	O				0.51
23.583	0.00	0.00	0.053	O				0.51
23.667	0.00	0.00	0.053	O				0.51
23.750	0.00	0.00	0.053	O				0.51
23.833	0.00	0.00	0.053	O				0.51
23.917	0.00	0.00	0.053	O				0.51
24.000	0.00	0.00	0.053	O				0.51
24.083	0.00	0.00	0.053	O				0.51
24.167	0.00	0.00	0.053	O				0.51
24.250	0.00	0.00	0.053	O				0.51
24.333	0.00	0.00	0.053	O				0.51
24.417	0.00	0.00	0.053	O				0.51
24.500	0.00	0.00	0.053	O				0.51
24.583	0.00	0.00	0.053	O				0.51
24.667	0.00	0.00	0.053	O				0.51
24.750	0.00	0.00	0.053	O				0.51
24.833	0.00	0.00	0.053	O				0.51
24.917	0.00	0.00	0.053	O				0.51
25.000	0.00	0.00	0.053	O				0.51
25.083	0.00	0.00	0.053	O				0.51
25.167	0.00	0.00	0.053	O				0.51
25.250	0.00	0.00	0.053	O				0.51
25.333	0.00	0.00	0.053	O				0.51
25.417	0.00	0.00	0.053	O				0.51
25.500	0.00	0.00	0.053	O				0.51
25.583	0.00	0.00	0.053	O				0.51
25.667	0.00	0.00	0.053	O				0.51
25.750	0.00	0.00	0.053	O				0.51
25.833	0.00	0.00	0.053	O				0.51
25.917	0.00	0.00	0.053	O				0.51
26.000	0.00	0.00	0.053	O				0.50
26.083	0.00	0.00	0.053	O				0.50
26.167	0.00	0.00	0.053	O				0.50
26.250	0.00	0.00	0.053	O				0.50
26.333	0.00	0.00	0.053	O				0.50
26.417	0.00	0.00	0.053	O				0.50
26.500	0.00	0.00	0.053	O				0.50
26.583	0.00	0.00	0.052	O				0.50
26.667	0.00	0.00	0.052	O				0.50
26.750	0.00	0.00	0.052	O				0.50
26.833	0.00	0.00	0.052	O				0.50
26.917	0.00	0.00	0.052	O				0.50

27.000	0.00	0.00	0.052	O	|	|	|	0.50
27.083	0.00	0.00	0.052	O	|	|	|	0.50
27.167	0.00	0.00	0.052	O	|	|	|	0.50
27.250	0.00	0.00	0.052	O	|	|	|	0.50
27.333	0.00	0.00	0.052	O	|	|	|	0.50
27.417	0.00	0.00	0.052	O	|	|	|	0.50
27.500	0.00	0.00	0.052	O	|	|	|	0.50
27.583	0.00	0.00	0.052	O	|	|	|	0.50
27.667	0.00	0.00	0.052	O	|	|	|	0.50
27.750	0.00	0.00	0.052	O	|	|	|	0.50
27.833	0.00	0.00	0.052	O	|	|	|	0.50
27.917	0.00	0.00	0.052	O	|	|	|	0.50
28.000	0.00	0.00	0.052	O	|	|	|	0.50
28.083	0.00	0.00	0.052	O	|	|	|	0.50
28.167	0.00	0.00	0.052	O	|	|	|	0.50
28.250	0.00	0.00	0.052	O	|	|	|	0.50
28.333	0.00	0.00	0.052	O	|	|	|	0.50
28.417	0.00	0.00	0.052	O	|	|	|	0.50
28.500	0.00	0.00	0.052	O	|	|	|	0.50

Remaining water in basin = 0.05 (Ac.Ft)

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

Number of intervals = 342
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.181 (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

Study date: 08/24/22

A21626 DMA 2 100YR-6HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA2Q100UH6100.rte
**********HYDROGRAPH DATA**********
Number of intervals = 73
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 2.664 (CFS)
Total volume = 0.309 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Free outlet pipe flow: Pipe Diameter = 1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe = 0.50(Ft.) Capacity = 4.44(CFS)

Total outflow at this depth = 4.64(CFS)

Total number of inflow hydrograph intervals = 73

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
0.500	0.052	0.000	0.052	0.052
1.000	0.111	0.196	0.110	0.112
1.500	0.177	0.196	0.176	0.178
2.000	0.251	0.196	0.250	0.252
2.500	0.333	4.639	0.317	0.349

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 0.7 1.33 2.00 2.66 (Ft.)	Depth
0.083	0.13	0.00	0.000	OI | | | |	0.00
0.167	0.21	0.00	0.002	O I | | | |	0.02
0.250	0.22	0.00	0.003	O I | | | |	0.03
0.333	0.22	0.00	0.005	O I | | | |	0.04
0.417	0.22	0.00	0.006	O I | | | |	0.06
0.500	0.25	0.00	0.008	O I | | | |	0.07
0.583	0.26	0.00	0.010	O I | | | |	0.09
0.667	0.26	0.00	0.011	O I | | | |	0.11
0.750	0.26	0.00	0.013	O I | | | |	0.13
0.833	0.26	0.00	0.015	O I | | | |	0.14
0.917	0.26	0.00	0.017	O I | | | |	0.16
1.000	0.30	0.00	0.019	O I | | | |	0.18
1.083	0.32	0.00	0.021	O I | | | |	0.20
1.167	0.32	0.00	0.023	O I | | | |	0.22
1.250	0.32	0.00	0.025	O I | | | |	0.24
1.333	0.32	0.00	0.027	O I | | | |	0.26
1.417	0.32	0.00	0.030	O I | | | |	0.28
1.500	0.32	0.00	0.032	O I | | | |	0.31
1.583	0.32	0.00	0.034	O I | | | |	0.33
1.667	0.32	0.00	0.036	O I | | | |	0.35
1.750	0.32	0.00	0.038	O I | | | |	0.37
1.833	0.32	0.00	0.040	O I | | | |	0.39
1.917	0.32	0.00	0.043	O I | | | |	0.41

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2.000    0.35    0.00      0.045  O   I   |       |       |       |     0.43
2.083    0.33    0.00      0.047  O  I    |       |       |       |     0.45
2.167    0.35    0.00      0.050  O   I   |       |       |       |     0.48
2.250    0.37    0.00      0.052  O   I   |       |       |       |     0.50
2.333    0.37    0.01      0.055  O   I   |       |       |       |     0.52
2.417    0.37    0.02      0.057  O   I   |       |       |       |     0.54
2.500    0.37    0.02      0.059  O   I   |       |       |       |     0.56
2.583    0.37    0.03      0.062  O   I   |       |       |       |     0.58
2.667    0.37    0.04      0.064  O   I   |       |       |       |     0.60
2.750    0.40    0.05      0.066  O   I   |       |       |       |     0.62
2.833    0.42    0.06      0.069  O    I  |       |       |       |     0.64
2.917    0.42    0.06      0.071  O    I  |       |       |       |     0.66
3.000    0.42    0.07      0.074  O    I  |       |       |       |     0.68
3.083    0.42    0.08      0.076  O    I  |       |       |       |     0.70
3.167    0.46    0.09      0.079  |O   I  |       |       |       |     0.72
3.250    0.47    0.10      0.081  |O   I  |       |       |       |     0.75
3.333    0.47    0.11      0.084  |O   I  |       |       |       |     0.77
3.417    0.51    0.11      0.086  |O    I |       |       |       |     0.79
3.500    0.56    0.12      0.089  |O    I |       |       |       |     0.81
3.583    0.61    0.13      0.092  |O     I|       |       |       |     0.84
3.667    0.63    0.14      0.096  |O     I|       |       |       |     0.87
3.750    0.66    0.16      0.099  |O     I|       |       |       |     0.90
3.833    0.68    0.17      0.102  | O     I       |       |       |     0.93
3.917    0.71    0.18      0.106  | O     I       |       |       |     0.96
4.000    0.73    0.19      0.110  | O     I       |       |       |     0.99
4.083    0.77    0.20      0.114  | O     |I      |       |       |     1.02
4.167    0.82    0.20      0.118  | O     |I      |       |       |     1.05
4.250    0.87    0.20      0.122  | O     | I     |       |       |     1.08
4.333    0.92    0.20      0.127  | O     |  I    |       |       |     1.12
4.417    0.97    0.20      0.132  | O     |  I    |       |       |     1.16
4.500    0.99    0.20      0.137  | O     |  I    |       |       |     1.20
4.583    1.02    0.20      0.143  | O     |   I   |       |       |     1.24
4.667    1.08    0.20      0.149  | O     |   I   |       |       |     1.29
4.750    1.13    0.20      0.155  | O     |    I  |       |       |     1.33
4.833    1.14    0.20      0.162  | O     |    I  |       |       |     1.38
4.917    1.18    0.20      0.168  | O     |     I |       |       |     1.43
5.000    1.23    0.20      0.175  | O     |     I |       |       |     1.49
5.083    1.43    0.20      0.183  | O     |       |I      |       |     1.54
5.167    1.69    0.20      0.192  | O     |       |   I   |       |     1.60
5.250    1.87    0.20      0.203  | O     |       |     I |       |     1.68
5.333    2.03    0.20      0.215  | O     |       |       I       |     1.76
5.417    2.26    0.20      0.229  | O     |       |       |  I    |     1.85
5.500    2.66    0.20      0.244  | O     |       |       |       I     1.96
5.583    1.41    0.47      0.256  |    O  |       I       |       |     2.03
5.667    0.51    0.63      0.259  |     IO|       |       |       |     2.05
5.750    0.26    0.55      0.258  |  I  O |       |       |       |     2.04
5.833    0.19    0.45      0.256  | I  O  |       |       |       |     2.03
5.917    0.13    0.36      0.254  |I  O   |       |       |       |     2.02
6.000    0.08    0.28      0.253  |I O    |       |       |       |     2.01
6.083    0.02    0.21      0.251  I O     |       |       |       |     2.00
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6.167	0.00	0.20	0.250	I O				1.99
6.250	0.00	0.20	0.249	I O				1.98
6.333	0.00	0.20	0.247	I O				1.97
6.417	0.00	0.20	0.246	I O				1.97
6.500	0.00	0.20	0.244	I O				1.96
6.583	0.00	0.20	0.243	I O				1.95
6.667	0.00	0.20	0.242	I O				1.94
6.750	0.00	0.20	0.240	I O				1.93
6.833	0.00	0.20	0.239	I O				1.92
6.917	0.00	0.20	0.238	I O				1.91
7.000	0.00	0.20	0.236	I O				1.90
7.083	0.00	0.20	0.235	I O				1.89
7.167	0.00	0.20	0.234	I O				1.88
7.250	0.00	0.20	0.232	I O				1.87
7.333	0.00	0.20	0.231	I O				1.86
7.417	0.00	0.20	0.230	I O				1.86
7.500	0.00	0.20	0.228	I O				1.85
7.583	0.00	0.20	0.227	I O				1.84
7.667	0.00	0.20	0.226	I O				1.83
7.750	0.00	0.20	0.224	I O				1.82
7.833	0.00	0.20	0.223	I O				1.81
7.917	0.00	0.20	0.221	I O				1.80
8.000	0.00	0.20	0.220	I O				1.79
8.083	0.00	0.20	0.219	I O				1.78
8.167	0.00	0.20	0.217	I O				1.77
8.250	0.00	0.20	0.216	I O				1.76
8.333	0.00	0.20	0.215	I O				1.75
8.417	0.00	0.20	0.213	I O				1.75
8.500	0.00	0.20	0.212	I O				1.74
8.583	0.00	0.20	0.211	I O				1.73
8.667	0.00	0.20	0.209	I O				1.72
8.750	0.00	0.20	0.208	I O				1.71
8.833	0.00	0.20	0.207	I O				1.70
8.917	0.00	0.20	0.205	I O				1.69
9.000	0.00	0.20	0.204	I O				1.68
9.083	0.00	0.20	0.203	I O				1.67
9.167	0.00	0.20	0.201	I O				1.66
9.250	0.00	0.20	0.200	I O				1.65
9.333	0.00	0.20	0.199	I O				1.65
9.417	0.00	0.20	0.197	I O				1.64
9.500	0.00	0.20	0.196	I O				1.63
9.583	0.00	0.20	0.194	I O				1.62
9.667	0.00	0.20	0.193	I O				1.61
9.750	0.00	0.20	0.192	I O				1.60
9.833	0.00	0.20	0.190	I O				1.59
9.917	0.00	0.20	0.189	I O				1.58
10.000	0.00	0.20	0.188	I O				1.57
10.083	0.00	0.20	0.186	I O				1.56
10.167	0.00	0.20	0.185	I O				1.55
10.250	0.00	0.20	0.184	I O				1.54

10.333	0.00	0.20	0.182	I O	|	|	|	1.54
10.417	0.00	0.20	0.181	I O	|	|	|	1.53
10.500	0.00	0.20	0.180	I O	|	|	|	1.52
10.583	0.00	0.20	0.178	I O	|	|	|	1.51
10.667	0.00	0.20	0.177	I O	|	|	|	1.50
10.750	0.00	0.20	0.176	I O	|	|	|	1.49
10.833	0.00	0.20	0.174	I O	|	|	|	1.48
10.917	0.00	0.20	0.173	I O	|	|	|	1.47
11.000	0.00	0.20	0.171	I O	|	|	|	1.46
11.083	0.00	0.20	0.170	I O	|	|	|	1.45
11.167	0.00	0.20	0.169	I O	|	|	|	1.44
11.250	0.00	0.20	0.167	I O	|	|	|	1.43
11.333	0.00	0.20	0.166	I O	|	|	|	1.42
11.417	0.00	0.20	0.165	I O	|	|	|	1.41
11.500	0.00	0.20	0.163	I O	|	|	|	1.40
11.583	0.00	0.20	0.162	I O	|	|	|	1.39
11.667	0.00	0.20	0.161	I O	|	|	|	1.38
11.750	0.00	0.20	0.159	I O	|	|	|	1.37
11.833	0.00	0.20	0.158	I O	|	|	|	1.36
11.917	0.00	0.20	0.157	I O	|	|	|	1.35
12.000	0.00	0.20	0.155	I O	|	|	|	1.34
12.083	0.00	0.20	0.154	I O	|	|	|	1.32
12.167	0.00	0.20	0.153	I O	|	|	|	1.31
12.250	0.00	0.20	0.151	I O	|	|	|	1.30
12.333	0.00	0.20	0.150	I O	|	|	|	1.29
12.417	0.00	0.20	0.148	I O	|	|	|	1.28
12.500	0.00	0.20	0.147	I O	|	|	|	1.27
12.583	0.00	0.20	0.146	I O	|	|	|	1.26
12.667	0.00	0.20	0.144	I O	|	|	|	1.25
12.750	0.00	0.20	0.143	I O	|	|	|	1.24
12.833	0.00	0.20	0.142	I O	|	|	|	1.23
12.917	0.00	0.20	0.140	I O	|	|	|	1.22
13.000	0.00	0.20	0.139	I O	|	|	|	1.21
13.083	0.00	0.20	0.138	I O	|	|	|	1.20
13.167	0.00	0.20	0.136	I O	|	|	|	1.19
13.250	0.00	0.20	0.135	I O	|	|	|	1.18
13.333	0.00	0.20	0.134	I O	|	|	|	1.17
13.417	0.00	0.20	0.132	I O	|	|	|	1.16
13.500	0.00	0.20	0.131	I O	|	|	|	1.15
13.583	0.00	0.20	0.130	I O	|	|	|	1.14
13.667	0.00	0.20	0.128	I O	|	|	|	1.13
13.750	0.00	0.20	0.127	I O	|	|	|	1.12
13.833	0.00	0.20	0.125	I O	|	|	|	1.11
13.917	0.00	0.20	0.124	I O	|	|	|	1.10
14.000	0.00	0.20	0.123	I O	|	|	|	1.09
14.083	0.00	0.20	0.121	I O	|	|	|	1.08
14.167	0.00	0.20	0.120	I O	|	|	|	1.07
14.250	0.00	0.20	0.119	I O	|	|	|	1.06
14.333	0.00	0.20	0.117	I O	|	|	|	1.05
14.417	0.00	0.20	0.116	I O	|	|	|	1.04

14.500	0.00	0.20	0.115	I O				1.03
14.583	0.00	0.20	0.113	I O				1.02
14.667	0.00	0.20	0.112	I O				1.01
14.750	0.00	0.20	0.111	I O				1.00
14.833	0.00	0.19	0.109	I O				0.99
14.917	0.00	0.19	0.108	I O				0.97
15.000	0.00	0.18	0.107	I O				0.96
15.083	0.00	0.18	0.105	I O				0.95
15.167	0.00	0.17	0.104	I O				0.94
15.250	0.00	0.17	0.103	I O				0.93
15.333	0.00	0.17	0.102	IO				0.92
15.417	0.00	0.16	0.101	IO				0.91
15.500	0.00	0.16	0.100	IO				0.90
15.583	0.00	0.16	0.099	IO				0.89
15.667	0.00	0.15	0.098	IO				0.89
15.750	0.00	0.15	0.097	IO				0.88
15.833	0.00	0.14	0.096	IO				0.87
15.917	0.00	0.14	0.095	IO				0.86
16.000	0.00	0.14	0.094	IO				0.85
16.083	0.00	0.14	0.093	IO				0.84
16.167	0.00	0.13	0.092	IO				0.84
16.250	0.00	0.13	0.091	IO				0.83
16.333	0.00	0.13	0.090	IO				0.82
16.417	0.00	0.12	0.089	IO				0.81
16.500	0.00	0.12	0.088	IO				0.81
16.583	0.00	0.12	0.087	IO				0.80
16.667	0.00	0.12	0.087	IO				0.79
16.750	0.00	0.11	0.086	IO				0.79
16.833	0.00	0.11	0.085	IO				0.78
16.917	0.00	0.11	0.084	IO				0.77
17.000	0.00	0.11	0.084	IO				0.77
17.083	0.00	0.10	0.083	IO				0.76
17.167	0.00	0.10	0.082	IO				0.76
17.250	0.00	0.10	0.081	IO				0.75
17.333	0.00	0.10	0.081	IO				0.74
17.417	0.00	0.09	0.080	IO				0.74
17.500	0.00	0.09	0.080	IO				0.73
17.583	0.00	0.09	0.079	IO				0.73
17.667	0.00	0.09	0.078	IO				0.72
17.750	0.00	0.09	0.078	IO				0.72
17.833	0.00	0.08	0.077	IO				0.71
17.917	0.00	0.08	0.077	O				0.71
18.000	0.00	0.08	0.076	O				0.70
18.083	0.00	0.08	0.075	O				0.70
18.167	0.00	0.08	0.075	O				0.69
18.250	0.00	0.07	0.074	O				0.69
18.333	0.00	0.07	0.074	O				0.69
18.417	0.00	0.07	0.073	O				0.68
18.500	0.00	0.07	0.073	O				0.68
18.583	0.00	0.07	0.072	O				0.67

18.667	0.00	0.07	0.072	O				0.67
18.750	0.00	0.06	0.072	O				0.67
18.833	0.00	0.06	0.071	O				0.66
18.917	0.00	0.06	0.071	O				0.66
19.000	0.00	0.06	0.070	O				0.65
19.083	0.00	0.06	0.070	O				0.65
19.167	0.00	0.06	0.069	O				0.65
19.250	0.00	0.06	0.069	O				0.64
19.333	0.00	0.06	0.069	O				0.64
19.417	0.00	0.05	0.068	O				0.64
19.500	0.00	0.05	0.068	O				0.63
19.583	0.00	0.05	0.068	O				0.63
19.667	0.00	0.05	0.067	O				0.63
19.750	0.00	0.05	0.067	O				0.63
19.833	0.00	0.05	0.066	O				0.62
19.917	0.00	0.05	0.066	O				0.62
20.000	0.00	0.05	0.066	O				0.62
20.083	0.00	0.04	0.066	O				0.61
20.167	0.00	0.04	0.065	O				0.61
20.250	0.00	0.04	0.065	O				0.61
20.333	0.00	0.04	0.065	O				0.61
20.417	0.00	0.04	0.064	O				0.60
20.500	0.00	0.04	0.064	O				0.60
20.583	0.00	0.04	0.064	O				0.60
20.667	0.00	0.04	0.064	O				0.60
20.750	0.00	0.04	0.063	O				0.60
20.833	0.00	0.04	0.063	O				0.59
20.917	0.00	0.04	0.063	O				0.59
21.000	0.00	0.03	0.063	O				0.59
21.083	0.00	0.03	0.062	O				0.59
21.167	0.00	0.03	0.062	O				0.59
21.250	0.00	0.03	0.062	O				0.58
21.333	0.00	0.03	0.062	O				0.58
21.417	0.00	0.03	0.061	O				0.58
21.500	0.00	0.03	0.061	O				0.58
21.583	0.00	0.03	0.061	O				0.58
21.667	0.00	0.03	0.061	O				0.57
21.750	0.00	0.03	0.061	O				0.57
21.833	0.00	0.03	0.060	O				0.57
21.917	0.00	0.03	0.060	O				0.57
22.000	0.00	0.03	0.060	O				0.57
22.083	0.00	0.03	0.060	O				0.57
22.167	0.00	0.03	0.060	O				0.56
22.250	0.00	0.02	0.059	O				0.56
22.333	0.00	0.02	0.059	O				0.56
22.417	0.00	0.02	0.059	O				0.56
22.500	0.00	0.02	0.059	O				0.56
22.583	0.00	0.02	0.059	O				0.56
22.667	0.00	0.02	0.059	O				0.56
22.750	0.00	0.02	0.058	O				0.56

22.833	0.00	0.02	0.058	O				0.55
22.917	0.00	0.02	0.058	O				0.55
23.000	0.00	0.02	0.058	O				0.55
23.083	0.00	0.02	0.058	O				0.55
23.167	0.00	0.02	0.058	O				0.55
23.250	0.00	0.02	0.058	O				0.55
23.333	0.00	0.02	0.058	O				0.55
23.417	0.00	0.02	0.057	O				0.55
23.500	0.00	0.02	0.057	O				0.54
23.583	0.00	0.02	0.057	O				0.54
23.667	0.00	0.02	0.057	O				0.54
23.750	0.00	0.02	0.057	O				0.54
23.833	0.00	0.02	0.057	O				0.54
23.917	0.00	0.02	0.057	O				0.54
24.000	0.00	0.02	0.057	O				0.54
24.083	0.00	0.01	0.056	O				0.54
24.167	0.00	0.01	0.056	O				0.54
24.250	0.00	0.01	0.056	O				0.54
24.333	0.00	0.01	0.056	O				0.54
24.417	0.00	0.01	0.056	O				0.53
24.500	0.00	0.01	0.056	O				0.53
24.583	0.00	0.01	0.056	O				0.53
24.667	0.00	0.01	0.056	O				0.53
24.750	0.00	0.01	0.056	O				0.53
24.833	0.00	0.01	0.056	O				0.53
24.917	0.00	0.01	0.056	O				0.53
25.000	0.00	0.01	0.055	O				0.53
25.083	0.00	0.01	0.055	O				0.53
25.167	0.00	0.01	0.055	O				0.53
25.250	0.00	0.01	0.055	O				0.53
25.333	0.00	0.01	0.055	O				0.53
25.417	0.00	0.01	0.055	O				0.53
25.500	0.00	0.01	0.055	O				0.53
25.583	0.00	0.01	0.055	O				0.53
25.667	0.00	0.01	0.055	O				0.52
25.750	0.00	0.01	0.055	O				0.52
25.833	0.00	0.01	0.055	O				0.52
25.917	0.00	0.01	0.055	O				0.52
26.000	0.00	0.01	0.055	O				0.52
26.083	0.00	0.01	0.055	O				0.52
26.167	0.00	0.01	0.055	O				0.52
26.250	0.00	0.01	0.054	O				0.52
26.333	0.00	0.01	0.054	O				0.52
26.417	0.00	0.01	0.054	O				0.52
26.500	0.00	0.01	0.054	O				0.52
26.583	0.00	0.01	0.054	O				0.52
26.667	0.00	0.01	0.054	O				0.52
26.750	0.00	0.01	0.054	O				0.52
26.833	0.00	0.01	0.054	O				0.52
26.917	0.00	0.01	0.054	O				0.52

27.000	0.00	0.01	0.054	O				0.52
27.083	0.00	0.01	0.054	O				0.52
27.167	0.00	0.01	0.054	O				0.52
27.250	0.00	0.01	0.054	O				0.52
27.333	0.00	0.01	0.054	O				0.52
27.417	0.00	0.01	0.054	O				0.52
27.500	0.00	0.01	0.054	O				0.51
27.583	0.00	0.01	0.054	O				0.51
27.667	0.00	0.01	0.054	O				0.51
27.750	0.00	0.01	0.054	O				0.51
27.833	0.00	0.01	0.054	O				0.51
27.917	0.00	0.01	0.054	O				0.51
28.000	0.00	0.01	0.054	O				0.51
28.083	0.00	0.00	0.053	O				0.51
28.167	0.00	0.00	0.053	O				0.51
28.250	0.00	0.00	0.053	O				0.51
28.333	0.00	0.00	0.053	O				0.51
28.417	0.00	0.00	0.053	O				0.51
28.500	0.00	0.00	0.053	O				0.51
28.583	0.00	0.00	0.053	O				0.51
28.667	0.00	0.00	0.053	O				0.51
28.750	0.00	0.00	0.053	O				0.51
28.833	0.00	0.00	0.053	O				0.51
28.917	0.00	0.00	0.053	O				0.51
29.000	0.00	0.00	0.053	O				0.51
29.083	0.00	0.00	0.053	O				0.51
29.167	0.00	0.00	0.053	O				0.51
29.250	0.00	0.00	0.053	O				0.51
29.333	0.00	0.00	0.053	O				0.51
29.417	0.00	0.00	0.053	O				0.51
29.500	0.00	0.00	0.053	O				0.51
29.583	0.00	0.00	0.053	O				0.51
29.667	0.00	0.00	0.053	O				0.51
29.750	0.00	0.00	0.053	O				0.51
29.833	0.00	0.00	0.053	O				0.51
29.917	0.00	0.00	0.053	O				0.51
30.000	0.00	0.00	0.053	O				0.51
30.083	0.00	0.00	0.053	O				0.51
30.167	0.00	0.00	0.053	O				0.51
30.250	0.00	0.00	0.053	O				0.51
30.333	0.00	0.00	0.053	O				0.51
30.417	0.00	0.00	0.053	O				0.51
30.500	0.00	0.00	0.053	O				0.51
30.583	0.00	0.00	0.053	O				0.51
30.667	0.00	0.00	0.053	O				0.51
30.750	0.00	0.00	0.053	O				0.51
30.833	0.00	0.00	0.053	O				0.51
30.917	0.00	0.00	0.053	O				0.51
31.000	0.00	0.00	0.053	O				0.51
31.083	0.00	0.00	0.053	O				0.51

31.167	0.00	0.00	0.053	O	|	|	|	|	0.51
31.250	0.00	0.00	0.053	O	|	|	|	|	0.51
31.333	0.00	0.00	0.053	O	|	|	|	|	0.51
31.417	0.00	0.00	0.053	O	|	|	|	|	0.51
31.500	0.00	0.00	0.053	O	|	|	|	|	0.50
31.583	0.00	0.00	0.053	O	|	|	|	|	0.50
31.667	0.00	0.00	0.053	O	|	|	|	|	0.50
31.750	0.00	0.00	0.053	O	|	|	|	|	0.50
31.833	0.00	0.00	0.053	O	|	|	|	|	0.50
31.917	0.00	0.00	0.053	O	|	|	|	|	0.50
32.000	0.00	0.00	0.053	O	|	|	|	|	0.50
32.083	0.00	0.00	0.052	O	|	|	|	|	0.50
32.167	0.00	0.00	0.052	O	|	|	|	|	0.50
32.250	0.00	0.00	0.052	O	|	|	|	|	0.50
32.333	0.00	0.00	0.052	O	|	|	|	|	0.50
32.417	0.00	0.00	0.052	O	|	|	|	|	0.50
32.500	0.00	0.00	0.052	O	|	|	|	|	0.50
32.583	0.00	0.00	0.052	O	|	|	|	|	0.50
32.667	0.00	0.00	0.052	O	|	|	|	|	0.50
32.750	0.00	0.00	0.052	O	|	|	|	|	0.50
32.833	0.00	0.00	0.052	O	|	|	|	|	0.50
32.917	0.00	0.00	0.052	O	|	|	|	|	0.50
33.000	0.00	0.00	0.052	O	|	|	|	|	0.50
33.083	0.00	0.00	0.052	O	|	|	|	|	0.50
33.167	0.00	0.00	0.052	O	|	|	|	|	0.50
33.250	0.00	0.00	0.052	O	|	|	|	|	0.50
33.333	0.00	0.00	0.052	O	|	|	|	|	0.50
33.417	0.00	0.00	0.052	O	|	|	|	|	0.50
33.500	0.00	0.00	0.052	O	|	|	|	|	0.50
33.583	0.00	0.00	0.052	O	|	|	|	|	0.50
33.667	0.00	0.00	0.052	O	|	|	|	|	0.50
33.750	0.00	0.00	0.052	O	|	|	|	|	0.50
33.833	0.00	0.00	0.052	O	|	|	|	|	0.50
33.917	0.00	0.00	0.052	O	|	|	|	|	0.50
34.000	0.00	0.00	0.052	O	|	|	|	|	0.50

Remaining water in basin = 0.05 (Ac.Ft)

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

Number of intervals = 408
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.627 (CFS)
Total volume = 0.256 (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

Study date: 08/24/22

A21626 DMA 2 100YR-24HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA2Q100UH24100.rte
**********HYDROGRAPH DATA**********
Number of intervals = 289
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.957 (CFS)
Total volume = 0.516 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
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Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   0.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   1.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.00(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.00(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   1.50(Ft.)   Capacity =   0.20(CFS)

Total outflow at this depth =   0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH =   2.50(Ft.))

Free outlet pipe flow: Pipe Diameter =   0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.00(Ft.)   Capacity =   0.20(CFS)

Free outlet pipe flow: Pipe Diameter =   1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)   Capacity =   4.44(CFS)

Total outflow at this depth =   4.64(CFS)

Total number of inflow hydrograph intervals = 289

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
0.500	0.052	0.000	0.052	0.052
1.000	0.111	0.196	0.110	0.112
1.500	0.177	0.196	0.176	0.178
2.000	0.251	0.196	0.250	0.252
2.500	0.333	4.639	0.317	0.349

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.2	0.48	0.72	0.96	Depth (Ft.)
0.083	0.03	0.00	0.000	OI	|	|	|	|	0.00
0.167	0.04	0.00	0.000	OI	|	|	|	|	0.00
0.250	0.04	0.00	0.001	OI	|	|	|	|	0.01
0.333	0.06	0.00	0.001	OI	|	|	|	|	0.01
0.417	0.07	0.00	0.001	O I	|	|	|	|	0.01
0.500	0.07	0.00	0.002	O I	|	|	|	|	0.02
0.583	0.07	0.00	0.002	O I	|	|	|	|	0.02
0.667	0.07	0.00	0.003	O I	|	|	|	|	0.03
0.750	0.07	0.00	0.003	O I	|	|	|	|	0.03
0.833	0.08	0.00	0.004	O I	|	|	|	|	0.04
0.917	0.09	0.00	0.004	O I	|	|	|	|	0.04
1.000	0.09	0.00	0.005	O I	|	|	|	|	0.05
1.083	0.07	0.00	0.005	O I	|	|	|	|	0.05
1.167	0.07	0.00	0.006	O I	|	|	|	|	0.06
1.250	0.07	0.00	0.006	O I	|	|	|	|	0.06
1.333	0.07	0.00	0.007	O I	|	|	|	|	0.07
1.417	0.07	0.00	0.007	O I	|	|	|	|	0.07
1.500	0.07	0.00	0.008	O I	|	|	|	|	0.07
1.583	0.07	0.00	0.008	O I	|	|	|	|	0.08
1.667	0.07	0.00	0.009	O I	|	|	|	|	0.08
1.750	0.07	0.00	0.009	O I	|	|	|	|	0.09
1.833	0.08	0.00	0.010	O I	|	|	|	|	0.09
1.917	0.09	0.00	0.010	O I	|	|	|	|	0.10

2.000	0.09	0.00	0.011	O I	|	|	|	0.10
2.083	0.09	0.00	0.011	O I	|	|	|	0.11
2.167	0.09	0.00	0.012	O I	|	|	|	0.11
2.250	0.09	0.00	0.013	O I	|	|	|	0.12
2.333	0.09	0.00	0.013	O I	|	|	|	0.13
2.417	0.09	0.00	0.014	O I	|	|	|	0.13
2.500	0.09	0.00	0.014	O I	|	|	|	0.14
2.583	0.10	0.00	0.015	O I	|	|	|	0.14
2.667	0.11	0.00	0.016	O I	|	|	|	0.15
2.750	0.11	0.00	0.016	O I	|	|	|	0.16
2.833	0.11	0.00	0.017	O I	|	|	|	0.17
2.917	0.11	0.00	0.018	O I	|	|	|	0.17
3.000	0.11	0.00	0.019	O I	|	|	|	0.18
3.083	0.11	0.00	0.019	O I	|	|	|	0.19
3.167	0.11	0.00	0.020	O I	|	|	|	0.19
3.250	0.11	0.00	0.021	O I	|	|	|	0.20
3.333	0.11	0.00	0.022	O I	|	|	|	0.21
3.417	0.11	0.00	0.022	O I	|	|	|	0.22
3.500	0.11	0.00	0.023	O I	|	|	|	0.22
3.583	0.11	0.00	0.024	O I	|	|	|	0.23
3.667	0.11	0.00	0.025	O I	|	|	|	0.24
3.750	0.11	0.00	0.025	O I	|	|	|	0.24
3.833	0.12	0.00	0.026	O I	|	|	|	0.25
3.917	0.13	0.00	0.027	O I	|	|	|	0.26
4.000	0.13	0.00	0.028	O I	|	|	|	0.27
4.083	0.13	0.00	0.029	O I	|	|	|	0.28
4.167	0.13	0.00	0.030	O I	|	|	|	0.29
4.250	0.13	0.00	0.031	O I	|	|	|	0.29
4.333	0.15	0.00	0.032	O I	|	|	|	0.30
4.417	0.15	0.00	0.033	O I	|	|	|	0.31
4.500	0.15	0.00	0.034	O I	|	|	|	0.32
4.583	0.15	0.00	0.035	O I	|	|	|	0.33
4.667	0.15	0.00	0.036	O I	|	|	|	0.34
4.750	0.15	0.00	0.037	O I	|	|	|	0.35
4.833	0.17	0.00	0.038	O I	|	|	|	0.36
4.917	0.17	0.00	0.039	O I	|	|	|	0.38
5.000	0.17	0.00	0.040	O I	|	|	|	0.39
5.083	0.14	0.00	0.041	O I	|	|	|	0.40
5.167	0.13	0.00	0.042	O I	|	|	|	0.41
5.250	0.13	0.00	0.043	O I	|	|	|	0.42
5.333	0.15	0.00	0.044	O I	|	|	|	0.42
5.417	0.15	0.00	0.045	O I	|	|	|	0.43
5.500	0.15	0.00	0.046	O I	|	|	|	0.44
5.583	0.17	0.00	0.047	O I	|	|	|	0.46
5.667	0.17	0.00	0.049	O I	|	|	|	0.47
5.750	0.17	0.00	0.050	O I	|	|	|	0.48
5.833	0.17	0.00	0.051	O I	|	|	|	0.49
5.917	0.17	0.00	0.052	O I	|	|	|	0.50
6.000	0.17	0.00	0.053	O I	|	|	|	0.51
6.083	0.19	0.01	0.054	O I	|	|	|	0.52

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 6.167    0.20    0.01      0.056  O     I |       |       |       |     0.53
 6.250    0.20    0.02      0.057  O     I |       |       |       |     0.54
 6.333    0.20    0.02      0.058  O     I |       |       |       |     0.55
 6.417    0.20    0.02      0.059  O     I |       |       |       |     0.56
 6.500    0.20    0.03      0.061  O     I |       |       |       |     0.57
 6.583    0.21    0.03      0.062  |O     I|       |       |       |     0.58
 6.667    0.22    0.04      0.063  |O     I|       |       |       |     0.59
 6.750    0.22    0.04      0.064  |O     I|       |       |       |     0.60
 6.833    0.22    0.04      0.065  |O     I|       |       |       |     0.61
 6.917    0.22    0.05      0.067  |O     I|       |       |       |     0.62
 7.000    0.22    0.05      0.068  |O     I|       |       |       |     0.63
 7.083    0.22    0.06      0.069  |O     I|       |       |       |     0.64
 7.167    0.22    0.06      0.070  |O     I|       |       |       |     0.65
 7.250    0.22    0.06      0.071  | O    I|       |       |       |     0.66
 7.333    0.23    0.07      0.072  | O    I|       |       |       |     0.67
 7.417    0.24    0.07      0.073  | O    I|       |       |       |     0.68
 7.500    0.24    0.07      0.074  | O    I|       |       |       |     0.69
 7.583    0.25    0.08      0.076  | O     I       |       |       |     0.70
 7.667    0.26    0.08      0.077  | O     I       |       |       |     0.71
 7.750    0.26    0.09      0.078  | O     I       |       |       |     0.72
 7.833    0.28    0.09      0.079  |  O    |I      |       |       |     0.73
 7.917    0.28    0.09      0.081  |  O    |I      |       |       |     0.74
 8.000    0.28    0.10      0.082  |  O    |I      |       |       |     0.75
 8.083    0.33    0.10      0.083  |  O    | I     |       |       |     0.76
 8.167    0.34    0.11      0.085  |  O    |  I    |       |       |     0.78
 8.250    0.35    0.11      0.086  |  O    |  I    |       |       |     0.79
 8.333    0.35    0.12      0.088  |   O   |  I    |       |       |     0.80
 8.417    0.35    0.12      0.089  |   O   |  I    |       |       |     0.82
 8.500    0.35    0.13      0.091  |   O   |  I    |       |       |     0.83
 8.583    0.37    0.13      0.093  |   O   |   I   |       |       |     0.84
 8.667    0.38    0.14      0.094  |   O   |   I   |       |       |     0.86
 8.750    0.38    0.15      0.096  |   O   |   I   |       |       |     0.87
 8.833    0.40    0.15      0.097  |    O  |    I  |       |       |     0.89
 8.917    0.41    0.16      0.099  |    O  |    I  |       |       |     0.90
 9.000    0.41    0.16      0.101  |    O  |    I  |       |       |     0.91
 9.083    0.46    0.17      0.103  |    O  |      I|       |       |     0.93
 9.167    0.47    0.18      0.105  |    O  |      I|       |       |     0.95
 9.250    0.47    0.18      0.107  |     O |      I|       |       |     0.96
 9.333    0.50    0.19      0.109  |     O |       I       |       |     0.98
 9.417    0.51    0.20      0.111  |     O |       I       |       |     1.00
 9.500    0.51    0.20      0.113  |     O |       I       |       |     1.02
 9.583    0.53    0.20      0.115  |     O |       |I      |       |     1.03
 9.667    0.54    0.20      0.118  |     O |       |I      |       |     1.05
 9.750    0.54    0.20      0.120  |     O |       |I      |       |     1.07
 9.833    0.56    0.20      0.122  |     O |       | I     |       |     1.09
 9.917    0.57    0.20      0.125  |     O |       |  I    |       |     1.11
10.000    0.57    0.20      0.128  |     O |       |  I    |       |     1.13
10.083    0.42    0.20      0.130  |     O |    I  |       |       |     1.14
10.167    0.36    0.20      0.131  |     O |  I    |       |       |     1.15
10.250    0.36    0.20      0.132  |     O |  I    |       |       |     1.16
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10.333    0.36    0.20      0.133  |      O |  I    |       |       |      1.17
10.417    0.36    0.20      0.134  |      O |  I    |       |       |      1.18
10.500    0.36    0.20      0.135  |      O |   I   |       |       |      1.18
10.583    0.47    0.20      0.137  |      O |      I|       |       |      1.20
10.667    0.51    0.20      0.139  |      O |       |I      |       |      1.21
10.750    0.51    0.20      0.141  |      O |       |I      |       |      1.23
10.833    0.51    0.20      0.143  |      O |       |I      |       |      1.24
10.917    0.51    0.20      0.145  |      O |       |I      |       |      1.26
11.000    0.51    0.20      0.148  |      O |       |I      |       |      1.28
11.083    0.49    0.20      0.150  |      O |       I       |       |      1.29
11.167    0.49    0.20      0.152  |      O |       I       |       |      1.31
11.250    0.49    0.20      0.154  |      O |       I       |       |      1.32
11.333    0.49    0.20      0.156  |      O |       I       |       |      1.34
11.417    0.49    0.20      0.158  |      O |       I       |       |      1.35
11.500    0.49    0.20      0.160  |      O |       I       |       |      1.37
11.583    0.44    0.20      0.162  |      O |     I |       |       |      1.38
11.667    0.43    0.20      0.163  |      O |     I |       |       |      1.40
11.750    0.43    0.20      0.165  |      O |     I |       |       |      1.41
11.833    0.45    0.20      0.166  |      O |      I|       |       |      1.42
11.917    0.46    0.20      0.168  |      O |      I|       |       |      1.43
12.000    0.46    0.20      0.170  |      O |      I|       |       |      1.45
12.083    0.61    0.20      0.172  |      O |       |   I   |       |      1.47
12.167    0.67    0.20      0.175  |      O |       |     I |       |      1.49
12.250    0.67    0.20      0.179  |      O |       |     I |       |      1.51
12.333    0.70    0.20      0.182  |      O |       |      I|       |      1.53
12.417    0.71    0.20      0.186  |      O |       |      I|       |      1.56
12.500    0.71    0.20      0.189  |      O |       |      I|       |      1.58
12.583    0.75    0.20      0.193  |      O |       |       |I      |      1.61
12.667    0.77    0.20      0.197  |      O |       |       |I      |      1.63
12.750    0.77    0.20      0.201  |      O |       |       |I      |      1.66
12.833    0.79    0.20      0.205  |      O |       |       | I     |      1.69
12.917    0.80    0.20      0.209  |      O |       |       | I     |      1.71
13.000    0.80    0.20      0.213  |      O |       |       | I     |      1.74
13.083    0.91    0.20      0.218  |      O |       |       |     I |      1.77
13.167    0.95    0.20      0.223  |      O |       |       |      I|      1.81
13.250    0.96    0.20      0.228  |      O |       |       |      I|      1.84
13.333    0.96    0.20      0.233  |      O |       |       |      I|      1.88
13.417    0.96    0.20      0.238  |      O |       |       |      I|      1.91
13.500    0.96    0.20      0.244  |      O |       |       |       I      1.95
13.583    0.71    0.20      0.248  |      O |       |      I|       |      1.98
13.667    0.62    0.20      0.251  |      O |       |   I   |       |      2.00
13.750    0.62    0.33      0.254  |        |  O    |   I   |       |      2.02
13.833    0.62    0.42      0.255  |        |    O  |   I   |       |      2.03
13.917    0.62    0.49      0.256  |        |       O   I   |       |      2.03
14.000    0.62    0.53      0.257  |        |       |O  I   |       |      2.04
14.083    0.71    0.57      0.258  |        |       |  O   I|       |      2.04
14.167    0.75    0.62      0.259  |        |       |   O   I       |      2.05
14.250    0.75    0.66      0.260  |        |       |     O I       |      2.05
14.333    0.72    0.68      0.260  |        |       |     O I       |      2.05
14.417    0.72    0.70      0.260  |        |       |      O|       |      2.06
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14.500	0.72	0.70	0.260				O		2.06
14.583	0.72	0.71	0.260				O		2.06
14.667	0.72	0.71	0.260				OI		2.06
14.750	0.72	0.71	0.261				OI		2.06
14.833	0.70	0.71	0.260				O		2.06
14.917	0.69	0.71	0.260				O		2.06
15.000	0.69	0.70	0.260				O		2.06
15.083	0.67	0.69	0.260				IO		2.06
15.167	0.66	0.68	0.260				O		2.05
15.250	0.66	0.68	0.260				O		2.05
15.333	0.64	0.67	0.260				IO		2.05
15.417	0.63	0.66	0.259				O		2.05
15.500	0.63	0.65	0.259				O		2.05
15.583	0.54	0.63	0.259			I	O		2.05
15.667	0.51	0.60	0.258			I	O		2.04
15.750	0.51	0.57	0.258			I	O		2.04
15.833	0.51	0.55	0.258			IO			2.04
15.917	0.51	0.54	0.257			O			2.04
16.000	0.51	0.53	0.257			O			2.04
16.083	0.20	0.47	0.256		I		O		2.03
16.167	0.09	0.37	0.254	I		O			2.02
16.250	0.09	0.28	0.253	I	O				2.01
16.333	0.09	0.22	0.251	I	O				2.00
16.417	0.09	0.20	0.251	I	O				2.00
16.500	0.09	0.20	0.250	I	O				1.99
16.583	0.07	0.20	0.249	I	O				1.99
16.667	0.07	0.20	0.248	I	O				1.98
16.750	0.07	0.20	0.247	I	O				1.97
16.833	0.07	0.20	0.246	I	O				1.97
16.917	0.07	0.20	0.245	I	O				1.96
17.000	0.07	0.20	0.245	I	O				1.96
17.083	0.10	0.20	0.244	I	O				1.95
17.167	0.11	0.20	0.243	I	O				1.95
17.250	0.11	0.20	0.242	I	O				1.94
17.333	0.11	0.20	0.242	I	O				1.94
17.417	0.11	0.20	0.241	I	O				1.93
17.500	0.11	0.20	0.241	I	O				1.93
17.583	0.11	0.20	0.240	I	O				1.93
17.667	0.11	0.20	0.239	I	O				1.92
17.750	0.11	0.20	0.239	I	O				1.92
17.833	0.09	0.20	0.238	I	O				1.91
17.917	0.09	0.20	0.237	I	O				1.91
18.000	0.09	0.20	0.237	I	O				1.90
18.083	0.09	0.20	0.236	I	O				1.90
18.167	0.09	0.20	0.235	I	O				1.89
18.250	0.09	0.20	0.234	I	O				1.89
18.333	0.09	0.20	0.234	I	O				1.88
18.417	0.09	0.20	0.233	I	O				1.88
18.500	0.09	0.20	0.232	I	O				1.87
18.583	0.07	0.20	0.231	I	O				1.87

18.667	0.07	0.20	0.230	I	O			1.86
18.750	0.07	0.20	0.230	I	O			1.86
18.833	0.05	0.20	0.229	I	O			1.85
18.917	0.04	0.20	0.228	I	O			1.84
19.000	0.04	0.20	0.227	I	O			1.83
19.083	0.06	0.20	0.226	I	O			1.83
19.167	0.07	0.20	0.225	I	O			1.82
19.250	0.07	0.20	0.224	I	O			1.82
19.333	0.08	0.20	0.223	I	O			1.81
19.417	0.09	0.20	0.222	I	O			1.80
19.500	0.09	0.20	0.221	I	O			1.80
19.583	0.07	0.20	0.221	I	O			1.79
19.667	0.07	0.20	0.220	I	O			1.79
19.750	0.07	0.20	0.219	I	O			1.78
19.833	0.05	0.20	0.218	I	O			1.78
19.917	0.04	0.20	0.217	I	O			1.77
20.000	0.04	0.20	0.216	I	O			1.76
20.083	0.06	0.20	0.215	I	O			1.75
20.167	0.07	0.20	0.214	I	O			1.75
20.250	0.07	0.20	0.213	I	O			1.74
20.333	0.07	0.20	0.212	I	O			1.74
20.417	0.07	0.20	0.211	I	O			1.73
20.500	0.07	0.20	0.210	I	O			1.72
20.583	0.07	0.20	0.209	I	O			1.72
20.667	0.07	0.20	0.208	I	O			1.71
20.750	0.07	0.20	0.207	I	O			1.71
20.833	0.05	0.20	0.206	I	O			1.70
20.917	0.04	0.20	0.205	I	O			1.69
21.000	0.04	0.20	0.204	I	O			1.69
21.083	0.06	0.20	0.203	I	O			1.68
21.167	0.07	0.20	0.202	I	O			1.67
21.250	0.07	0.20	0.202	I	O			1.67
21.333	0.05	0.20	0.201	I	O			1.66
21.417	0.04	0.20	0.200	I	O			1.65
21.500	0.04	0.20	0.199	I	O			1.65
21.583	0.06	0.20	0.198	I	O			1.64
21.667	0.07	0.20	0.197	I	O			1.63
21.750	0.07	0.20	0.196	I	O			1.63
21.833	0.05	0.20	0.195	I	O			1.62
21.917	0.04	0.20	0.194	I	O			1.61
22.000	0.04	0.20	0.193	I	O			1.61
22.083	0.06	0.20	0.192	I	O			1.60
22.167	0.07	0.20	0.191	I	O			1.59
22.250	0.07	0.20	0.190	I	O			1.59
22.333	0.05	0.20	0.189	I	O			1.58
22.417	0.04	0.20	0.188	I	O			1.57
22.500	0.04	0.20	0.187	I	O			1.57
22.583	0.04	0.20	0.186	I	O			1.56
22.667	0.04	0.20	0.185	I	O			1.55
22.750	0.04	0.20	0.184	I	O			1.54

22.833	0.04	0.20	0.183	I	O				1.54
22.917	0.04	0.20	0.182	I	O				1.53
23.000	0.04	0.20	0.180	I	O				1.52
23.083	0.04	0.20	0.179	I	O				1.52
23.167	0.04	0.20	0.178	I	O				1.51
23.250	0.04	0.20	0.177	I	O				1.50
23.333	0.04	0.20	0.176	I	O				1.49
23.417	0.04	0.20	0.175	I	O				1.49
23.500	0.04	0.20	0.174	I	O				1.48
23.583	0.04	0.20	0.173	I	O				1.47
23.667	0.04	0.20	0.172	I	O				1.46
23.750	0.04	0.20	0.171	I	O				1.45
23.833	0.04	0.20	0.170	I	O				1.45
23.917	0.04	0.20	0.169	I	O				1.44
24.000	0.04	0.20	0.168	I	O				1.43
24.083	0.01	0.20	0.167	I	O				1.42
24.167	0.00	0.20	0.165	I	O				1.41
24.250	0.00	0.20	0.164	I	O				1.40
24.333	0.00	0.20	0.163	I	O				1.39
24.417	0.00	0.20	0.161	I	O				1.38
24.500	0.00	0.20	0.160	I	O				1.37
24.583	0.00	0.20	0.159	I	O				1.36
24.667	0.00	0.20	0.157	I	O				1.35
24.750	0.00	0.20	0.156	I	O				1.34
24.833	0.00	0.20	0.155	I	O				1.33
24.917	0.00	0.20	0.153	I	O				1.32
25.000	0.00	0.20	0.152	I	O				1.31
25.083	0.00	0.20	0.150	I	O				1.30
25.167	0.00	0.20	0.149	I	O				1.29
25.250	0.00	0.20	0.148	I	O				1.28
25.333	0.00	0.20	0.146	I	O				1.27
25.417	0.00	0.20	0.145	I	O				1.26
25.500	0.00	0.20	0.144	I	O				1.25
25.583	0.00	0.20	0.142	I	O				1.24
25.667	0.00	0.20	0.141	I	O				1.23
25.750	0.00	0.20	0.140	I	O				1.22
25.833	0.00	0.20	0.138	I	O				1.21
25.917	0.00	0.20	0.137	I	O				1.20
26.000	0.00	0.20	0.136	I	O				1.19
26.083	0.00	0.20	0.134	I	O				1.18
26.167	0.00	0.20	0.133	I	O				1.17
26.250	0.00	0.20	0.132	I	O				1.16
26.333	0.00	0.20	0.130	I	O				1.15
26.417	0.00	0.20	0.129	I	O				1.14
26.500	0.00	0.20	0.127	I	O				1.12
26.583	0.00	0.20	0.126	I	O				1.11
26.667	0.00	0.20	0.125	I	O				1.10
26.750	0.00	0.20	0.123	I	O				1.09
26.833	0.00	0.20	0.122	I	O				1.08
26.917	0.00	0.20	0.121	I	O				1.07

27.000	0.00	0.20	0.119	I	O				1.06
27.083	0.00	0.20	0.118	I	O				1.05
27.167	0.00	0.20	0.117	I	O				1.04
27.250	0.00	0.20	0.115	I	O				1.03
27.333	0.00	0.20	0.114	I	O				1.02
27.417	0.00	0.20	0.113	I	O				1.01
27.500	0.00	0.20	0.111	I	O				1.00
27.583	0.00	0.19	0.110	I	O				0.99
27.667	0.00	0.19	0.109	I	O				0.98
27.750	0.00	0.18	0.107	I	O				0.97
27.833	0.00	0.18	0.106	I	O				0.96
27.917	0.00	0.18	0.105	I	O				0.95
28.000	0.00	0.17	0.104	I	O				0.94
28.083	0.00	0.17	0.102	I	O				0.93
28.167	0.00	0.16	0.101	I	O				0.92
28.250	0.00	0.16	0.100	I	O				0.91
28.333	0.00	0.16	0.099	I	O				0.90
28.417	0.00	0.15	0.098	I	O				0.89
28.500	0.00	0.15	0.097	I	O				0.88
28.583	0.00	0.15	0.096	I	O				0.87
28.667	0.00	0.14	0.095	I	O				0.86
28.750	0.00	0.14	0.094	I	O				0.86
28.833	0.00	0.14	0.093	I	O				0.85
28.917	0.00	0.13	0.092	I	O				0.84
29.000	0.00	0.13	0.091	I	O				0.83
29.083	0.00	0.13	0.090	I	O				0.82
29.167	0.00	0.12	0.089	I	O				0.82
29.250	0.00	0.12	0.089	I	O				0.81
29.333	0.00	0.12	0.088	I	O				0.80
29.417	0.00	0.12	0.087	I	O				0.80
29.500	0.00	0.11	0.086	I	O				0.79
29.583	0.00	0.11	0.085	I	O				0.78
29.667	0.00	0.11	0.085	I	O				0.78
29.750	0.00	0.11	0.084	I	O				0.77
29.833	0.00	0.10	0.083	I	O				0.76
29.917	0.00	0.10	0.082	I	O				0.76
30.000	0.00	0.10	0.082	I	O				0.75
30.083	0.00	0.10	0.081	I	O				0.75
30.167	0.00	0.09	0.080	I	O				0.74
30.250	0.00	0.09	0.080	I	O				0.74
30.333	0.00	0.09	0.079	I	O				0.73
30.417	0.00	0.09	0.079	I	O				0.73
30.500	0.00	0.09	0.078	I	O				0.72
30.583	0.00	0.08	0.077	I	O				0.72
30.667	0.00	0.08	0.077	I	O				0.71
30.750	0.00	0.08	0.076	I	O				0.71
30.833	0.00	0.08	0.076	I	O				0.70
30.917	0.00	0.08	0.075	I	O				0.70
31.000	0.00	0.08	0.075	I	O				0.69
31.083	0.00	0.07	0.074	I	O				0.69

31.167	0.00	0.07	0.074	I O				0.68
31.250	0.00	0.07	0.073	I O				0.68
31.333	0.00	0.07	0.073	I O				0.67
31.417	0.00	0.07	0.072	I O				0.67
31.500	0.00	0.07	0.072	I O				0.67
31.583	0.00	0.06	0.071	I O				0.66
31.667	0.00	0.06	0.071	I O				0.66
31.750	0.00	0.06	0.070	I O				0.66
31.833	0.00	0.06	0.070	I O				0.65
31.917	0.00	0.06	0.070	IO				0.65
32.000	0.00	0.06	0.069	IO				0.65
32.083	0.00	0.06	0.069	IO				0.64
32.167	0.00	0.05	0.068	IO				0.64
32.250	0.00	0.05	0.068	IO				0.64
32.333	0.00	0.05	0.068	IO				0.63
32.417	0.00	0.05	0.067	IO				0.63
32.500	0.00	0.05	0.067	IO				0.63
32.583	0.00	0.05	0.067	IO				0.62
32.667	0.00	0.05	0.066	IO				0.62
32.750	0.00	0.05	0.066	IO				0.62
32.833	0.00	0.05	0.066	IO				0.62
32.917	0.00	0.04	0.065	IO				0.61
33.000	0.00	0.04	0.065	IO				0.61
33.083	0.00	0.04	0.065	IO				0.61
33.167	0.00	0.04	0.064	IO				0.61
33.250	0.00	0.04	0.064	IO				0.60
33.333	0.00	0.04	0.064	IO				0.60
33.417	0.00	0.04	0.064	IO				0.60
33.500	0.00	0.04	0.063	IO				0.60
33.583	0.00	0.04	0.063	IO				0.59
33.667	0.00	0.04	0.063	IO				0.59
33.750	0.00	0.04	0.063	IO				0.59
33.833	0.00	0.03	0.062	IO				0.59
33.917	0.00	0.03	0.062	IO				0.59
34.000	0.00	0.03	0.062	IO				0.58
34.083	0.00	0.03	0.062	IO				0.58
34.167	0.00	0.03	0.061	IO				0.58
34.250	0.00	0.03	0.061	IO				0.58
34.333	0.00	0.03	0.061	IO				0.58
34.417	0.00	0.03	0.061	O				0.57
34.500	0.00	0.03	0.061	O				0.57
34.583	0.00	0.03	0.060	O				0.57
34.667	0.00	0.03	0.060	O				0.57
34.750	0.00	0.03	0.060	O				0.57
34.833	0.00	0.03	0.060	O				0.57
34.917	0.00	0.03	0.060	O				0.57
35.000	0.00	0.03	0.060	O				0.56
35.083	0.00	0.02	0.059	O				0.56
35.167	0.00	0.02	0.059	O				0.56
35.250	0.00	0.02	0.059	O				0.56

35.333	0.00	0.02	0.059	O	|	|	|	0.56
35.417	0.00	0.02	0.059	O	|	|	|	0.56
35.500	0.00	0.02	0.059	O	|	|	|	0.56
35.583	0.00	0.02	0.058	O	|	|	|	0.55
35.667	0.00	0.02	0.058	O	|	|	|	0.55
35.750	0.00	0.02	0.058	O	|	|	|	0.55
35.833	0.00	0.02	0.058	O	|	|	|	0.55
35.917	0.00	0.02	0.058	O	|	|	|	0.55
36.000	0.00	0.02	0.058	O	|	|	|	0.55
36.083	0.00	0.02	0.058	O	|	|	|	0.55
36.167	0.00	0.02	0.057	O	|	|	|	0.55
36.250	0.00	0.02	0.057	O	|	|	|	0.55
36.333	0.00	0.02	0.057	O	|	|	|	0.54
36.417	0.00	0.02	0.057	O	|	|	|	0.54
36.500	0.00	0.02	0.057	O	|	|	|	0.54
36.583	0.00	0.02	0.057	O	|	|	|	0.54
36.667	0.00	0.02	0.057	O	|	|	|	0.54
36.750	0.00	0.02	0.057	O	|	|	|	0.54
36.833	0.00	0.02	0.057	O	|	|	|	0.54
36.917	0.00	0.01	0.056	O	|	|	|	0.54
37.000	0.00	0.01	0.056	O	|	|	|	0.54
37.083	0.00	0.01	0.056	O	|	|	|	0.54
37.167	0.00	0.01	0.056	O	|	|	|	0.54
37.250	0.00	0.01	0.056	O	|	|	|	0.53
37.333	0.00	0.01	0.056	O	|	|	|	0.53
37.417	0.00	0.01	0.056	O	|	|	|	0.53
37.500	0.00	0.01	0.056	O	|	|	|	0.53
37.583	0.00	0.01	0.056	O	|	|	|	0.53
37.667	0.00	0.01	0.056	O	|	|	|	0.53
37.750	0.00	0.01	0.056	O	|	|	|	0.53
37.833	0.00	0.01	0.055	O	|	|	|	0.53
37.917	0.00	0.01	0.055	O	|	|	|	0.53
38.000	0.00	0.01	0.055	O	|	|	|	0.53
38.083	0.00	0.01	0.055	O	|	|	|	0.53
38.167	0.00	0.01	0.055	O	|	|	|	0.53
38.250	0.00	0.01	0.055	O	|	|	|	0.53
38.333	0.00	0.01	0.055	O	|	|	|	0.53
38.417	0.00	0.01	0.055	O	|	|	|	0.52
38.500	0.00	0.01	0.055	O	|	|	|	0.52
38.583	0.00	0.01	0.055	O	|	|	|	0.52
38.667	0.00	0.01	0.055	O	|	|	|	0.52
38.750	0.00	0.01	0.055	O	|	|	|	0.52
38.833	0.00	0.01	0.055	O	|	|	|	0.52
38.917	0.00	0.01	0.055	O	|	|	|	0.52
39.000	0.00	0.01	0.055	O	|	|	|	0.52
39.083	0.00	0.01	0.054	O	|	|	|	0.52
39.167	0.00	0.01	0.054	O	|	|	|	0.52
39.250	0.00	0.01	0.054	O	|	|	|	0.52
39.333	0.00	0.01	0.054	O	|	|	|	0.52
39.417	0.00	0.01	0.054	O	|	|	|	0.52

39.500	0.00	0.01	0.054	O	|	|	|	0.52
39.583	0.00	0.01	0.054	O	|	|	|	0.52
39.667	0.00	0.01	0.054	O	|	|	|	0.52
39.750	0.00	0.01	0.054	O	|	|	|	0.52
39.833	0.00	0.01	0.054	O	|	|	|	0.52
39.917	0.00	0.01	0.054	O	|	|	|	0.52
40.000	0.00	0.01	0.054	O	|	|	|	0.52
40.083	0.00	0.01	0.054	O	|	|	|	0.52
40.167	0.00	0.01	0.054	O	|	|	|	0.52
40.250	0.00	0.01	0.054	O	|	|	|	0.52
40.333	0.00	0.01	0.054	O	|	|	|	0.51
40.417	0.00	0.01	0.054	O	|	|	|	0.51
40.500	0.00	0.01	0.054	O	|	|	|	0.51
40.583	0.00	0.01	0.054	O	|	|	|	0.51
40.667	0.00	0.01	0.054	O	|	|	|	0.51
40.750	0.00	0.01	0.054	O	|	|	|	0.51
40.833	0.00	0.01	0.054	O	|	|	|	0.51
40.917	0.00	0.00	0.053	O	|	|	|	0.51
41.000	0.00	0.00	0.053	O	|	|	|	0.51
41.083	0.00	0.00	0.053	O	|	|	|	0.51
41.167	0.00	0.00	0.053	O	|	|	|	0.51
41.250	0.00	0.00	0.053	O	|	|	|	0.51
41.333	0.00	0.00	0.053	O	|	|	|	0.51
41.417	0.00	0.00	0.053	O	|	|	|	0.51
41.500	0.00	0.00	0.053	O	|	|	|	0.51
41.583	0.00	0.00	0.053	O	|	|	|	0.51
41.667	0.00	0.00	0.053	O	|	|	|	0.51
41.750	0.00	0.00	0.053	O	|	|	|	0.51
41.833	0.00	0.00	0.053	O	|	|	|	0.51
41.917	0.00	0.00	0.053	O	|	|	|	0.51
42.000	0.00	0.00	0.053	O	|	|	|	0.51
42.083	0.00	0.00	0.053	O	|	|	|	0.51
42.167	0.00	0.00	0.053	O	|	|	|	0.51
42.250	0.00	0.00	0.053	O	|	|	|	0.51
42.333	0.00	0.00	0.053	O	|	|	|	0.51
42.417	0.00	0.00	0.053	O	|	|	|	0.51
42.500	0.00	0.00	0.053	O	|	|	|	0.51
42.583	0.00	0.00	0.053	O	|	|	|	0.51
42.667	0.00	0.00	0.053	O	|	|	|	0.51
42.750	0.00	0.00	0.053	O	|	|	|	0.51
42.833	0.00	0.00	0.053	O	|	|	|	0.51
42.917	0.00	0.00	0.053	O	|	|	|	0.51
43.000	0.00	0.00	0.053	O	|	|	|	0.51
43.083	0.00	0.00	0.053	O	|	|	|	0.51
43.167	0.00	0.00	0.053	O	|	|	|	0.51
43.250	0.00	0.00	0.053	O	|	|	|	0.51
43.333	0.00	0.00	0.053	O	|	|	|	0.51
43.417	0.00	0.00	0.053	O	|	|	|	0.51
43.500	0.00	0.00	0.053	O	|	|	|	0.51
43.583	0.00	0.00	0.053	O	|	|	|	0.51

43.667	0.00	0.00	0.053	O	|	|	|	|	0.51
43.750	0.00	0.00	0.053	O	|	|	|	|	0.51
43.833	0.00	0.00	0.053	O	|	|	|	|	0.51
43.917	0.00	0.00	0.053	O	|	|	|	|	0.51
44.000	0.00	0.00	0.053	O	|	|	|	|	0.51
44.083	0.00	0.00	0.053	O	|	|	|	|	0.51
44.167	0.00	0.00	0.053	O	|	|	|	|	0.51
44.250	0.00	0.00	0.053	O	|	|	|	|	0.51
44.333	0.00	0.00	0.053	O	|	|	|	|	0.50
44.417	0.00	0.00	0.053	O	|	|	|	|	0.50
44.500	0.00	0.00	0.053	O	|	|	|	|	0.50
44.583	0.00	0.00	0.053	O	|	|	|	|	0.50
44.667	0.00	0.00	0.053	O	|	|	|	|	0.50
44.750	0.00	0.00	0.053	O	|	|	|	|	0.50
44.833	0.00	0.00	0.053	O	|	|	|	|	0.50
44.917	0.00	0.00	0.052	O	|	|	|	|	0.50
45.000	0.00	0.00	0.052	O	|	|	|	|	0.50
45.083	0.00	0.00	0.052	O	|	|	|	|	0.50
45.167	0.00	0.00	0.052	O	|	|	|	|	0.50
45.250	0.00	0.00	0.052	O	|	|	|	|	0.50
45.333	0.00	0.00	0.052	O	|	|	|	|	0.50
45.417	0.00	0.00	0.052	O	|	|	|	|	0.50
45.500	0.00	0.00	0.052	O	|	|	|	|	0.50
45.583	0.00	0.00	0.052	O	|	|	|	|	0.50
45.667	0.00	0.00	0.052	O	|	|	|	|	0.50
45.750	0.00	0.00	0.052	O	|	|	|	|	0.50
45.833	0.00	0.00	0.052	O	|	|	|	|	0.50
45.917	0.00	0.00	0.052	O	|	|	|	|	0.50
46.000	0.00	0.00	0.052	O	|	|	|	|	0.50
46.083	0.00	0.00	0.052	O	|	|	|	|	0.50
46.167	0.00	0.00	0.052	O	|	|	|	|	0.50
46.250	0.00	0.00	0.052	O	|	|	|	|	0.50
46.333	0.00	0.00	0.052	O	|	|	|	|	0.50
46.417	0.00	0.00	0.052	O	|	|	|	|	0.50
46.500	0.00	0.00	0.052	O	|	|	|	|	0.50
46.583	0.00	0.00	0.052	O	|	|	|	|	0.50
46.667	0.00	0.00	0.052	O	|	|	|	|	0.50
46.750	0.00	0.00	0.052	O	|	|	|	|	0.50

Remaining water in basin = 0.05 (Ac.Ft)

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

Number of intervals = 561
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.713 (CFS)
Total volume = 0.464 (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

****

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

Study date 08/02/22 File: A21626DMA2Q100UH1100.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 100YR-1HR UH

Drainage Area = 1.58(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.58(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 336.00(Ft.)
Length along longest watercourse measured to centroid = 234.53(Ft.)
Length along longest watercourse = 0.064 Mi.
Length along longest watercourse measured to centroid = 0.044 Mi.
Difference in elevation = 3.36(Ft.)
Slope along watercourse = 52.8000 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.016 Hr.
Lag time = 0.95 Min.
25% of lag time = 0.24 Min.
40% of lag time = 0.38 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]
        1.58            0.48                  0.76

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.58            1.25                  1.98

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.480(In)
Area Averaged 100-Year Rainfall =    1.250(In)

Point rain (area averaged) =    1.250(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.250(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.580           69.00         0.761
 Total Area Entered =      1.58(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     0.761        0.061       1.000      0.061
                                                 Sum (F) =   0.061
Area averaged mean soil loss (F) (In/Hr) =  0.061
Minimum soil loss rate ((In/Hr)) =  0.031
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.291
------------------------------------------------------------------------
Slope of intensity-duration curve for a 1 hour storm =0.4800
------------------------------------------------------------------------

                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        527.815         72.250              1.150
    2   0.167       1055.631         27.750              0.442
                               Sum = 100.000   Sum=       1.592
-----------------------------------------------------------------
```

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	4.40	0.660	0.061	(0.192)	0.599
2	0.17	4.50	0.675	0.061	(0.196)	0.614
3	0.25	5.40	0.810	0.061	(0.236)	0.749
4	0.33	5.40	0.810	0.061	(0.236)	0.749
5	0.42	5.70	0.855	0.061	(0.249)	0.794
6	0.50	6.40	0.960	0.061	(0.279)	0.899
7	0.58	7.90	1.185	0.061	(0.345)	1.124
8	0.67	9.10	1.365	0.061	(0.397)	1.304
9	0.75	12.80	1.920	0.061	(0.559)	1.859
10	0.83	25.60	3.840	0.061	(1.117)	3.779
11	0.92	7.90	1.185	0.061	(0.345)	1.124
12	1.00	4.90	0.735	0.061	(0.214)	0.674
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	14.3

Flood volume = Effective rainfall 1.19(In)
times area 1.6(Ac.)/[(In)/(Ft.)] = 0.2(Ac.Ft)
Total soil loss = 0.06(In)
Total soil loss = 0.008(Ac.Ft)
Total rainfall = 1.25(In)
Flood volume = 6818.8 Cubic Feet
Total soil loss = 350.3 Cubic Feet

Peak flow rate of this hydrograph = 5.172(CFS)

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

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	2.5	5.0	7.5	10.0
0+ 5	0.0047	0.69	VQ				
0+10	0.0114	0.97	VQ				
0+15	0.0192	1.13	Q				
0+20	0.0275	1.19	Q V				
0+25	0.0360	1.24	Q V				
0+30	0.0456	1.39	Q V				
0+35	0.0572	1.69	Q V				
0+40	0.0710	2.00	Q V				
0+45	0.0897	2.72	Q V				
0+50	0.1253	5.17	Q V				
0+55	0.1457	2.96	Q V				
1+ 0	0.1545	1.27	Q V				

```
    1+ 5       0.1565      0.30  |Q        |         |         V
-------------------------------------------------------------------------
```

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

Study date 08/02/22 File: A21626DMA2Q100UH3100.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 100YR-3HR UH

Drainage Area = 1.58(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.58(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 336.00(Ft.)
Length along longest watercourse measured to centroid = 234.53(Ft.)
Length along longest watercourse = 0.064 Mi.
Length along longest watercourse measured to centroid = 0.044 Mi.
Difference in elevation = 3.36(Ft.)
Slope along watercourse = 52.8000 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.016 Hr.
Lag time = 0.95 Min.
25% of lag time = 0.24 Min.
40% of lag time = 0.38 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]
        1.58            0.80                  1.26

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.58            1.95                  3.08

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.800(In)
Area Averaged 100-Year Rainfall =    1.950(In)

Point rain (area averaged) =    1.950(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.950(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.580           69.00         0.761
 Total Area Entered =      1.58(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     0.761        0.061       1.000      0.061
                                                 Sum (F) =   0.061
Area averaged mean soil loss (F) (In/Hr) =  0.061
Minimum soil loss rate ((In/Hr)) =  0.031
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.291
------------------------------------------------------------------------

               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        527.815         72.250              1.150
    2   0.167       1055.631         27.750              0.442
                               Sum = 100.000   Sum=       1.592
------------------------------------------------------------------------

 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	0.304	0.061	(0.089)	0.243
2	0.17	1.30	0.304	0.061	(0.089)	0.243
3	0.25	1.10	0.257	0.061	(0.075)	0.196
4	0.33	1.50	0.351	0.061	(0.102)	0.290
5	0.42	1.50	0.351	0.061	(0.102)	0.290
6	0.50	1.80	0.421	0.061	(0.123)	0.360
7	0.58	1.50	0.351	0.061	(0.102)	0.290
8	0.67	1.80	0.421	0.061	(0.123)	0.360
9	0.75	1.80	0.421	0.061	(0.123)	0.360
10	0.83	1.50	0.351	0.061	(0.102)	0.290
11	0.92	1.60	0.374	0.061	(0.109)	0.313
12	1.00	1.80	0.421	0.061	(0.123)	0.360
13	1.08	2.20	0.515	0.061	(0.150)	0.454
14	1.17	2.20	0.515	0.061	(0.150)	0.454
15	1.25	2.20	0.515	0.061	(0.150)	0.454
16	1.33	2.00	0.468	0.061	(0.136)	0.407
17	1.42	2.60	0.608	0.061	(0.177)	0.547
18	1.50	2.70	0.632	0.061	(0.184)	0.571
19	1.58	2.40	0.562	0.061	(0.163)	0.501
20	1.67	2.70	0.632	0.061	(0.184)	0.571
21	1.75	3.30	0.772	0.061	(0.225)	0.711
22	1.83	3.10	0.725	0.061	(0.211)	0.664
23	1.92	2.90	0.679	0.061	(0.197)	0.618
24	2.00	3.00	0.702	0.061	(0.204)	0.641
25	2.08	3.10	0.725	0.061	(0.211)	0.664
26	2.17	4.20	0.983	0.061	(0.286)	0.922
27	2.25	5.00	1.170	0.061	(0.340)	1.109
28	2.33	3.50	0.819	0.061	(0.238)	0.758
29	2.42	6.80	1.591	0.061	(0.463)	1.530
30	2.50	7.30	1.708	0.061	(0.497)	1.647
31	2.58	8.20	1.919	0.061	(0.558)	1.858
32	2.67	5.90	1.381	0.061	(0.402)	1.320
33	2.75	2.00	0.468	0.061	(0.136)	0.407
34	2.83	1.80	0.421	0.061	(0.123)	0.360
35	2.92	1.80	0.421	0.061	(0.123)	0.360
36	3.00	0.60	0.140	(0.061)	0.041	0.100
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	21.2

Flood volume = Effective rainfall 1.77(In)
times area 1.6(Ac.)/[(In)/(Ft.)] = 0.2(Ac.Ft)
Total soil loss = 0.18(In)
Total soil loss = 0.024(Ac.Ft)
Total rainfall = 1.95(In)
Flood volume = 10142.7 Cubic Feet
Total soil loss = 1041.3 Cubic Feet

Peak flow rate of this hydrograph = 2.867(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	2.5	5.0	7.5	10.0
0+ 5	0.0019	0.28	VQ				
0+10	0.0046	0.39	VQ				
0+15	0.0069	0.33	|Q				
0+20	0.0098	0.42	|Q				
0+25	0.0130	0.46	|QV				
0+30	0.0167	0.54	| Q				
0+35	0.0201	0.49	|Q V				
0+40	0.0238	0.54	| Q V				
0+45	0.0278	0.57	| Q V				
0+50	0.0312	0.49	|Q V				
0+55	0.0346	0.49	|Q V				
1+ 0	0.0384	0.55	| Q V				
1+ 5	0.0431	0.68	| Q V				
1+10	0.0480	0.72	| Q V				
1+15	0.0530	0.72	| Q V				
1+20	0.0576	0.67	| Q V				
1+25	0.0632	0.81	| Q V				
1+30	0.0694	0.90	| Q |V				
1+35	0.0751	0.83	| Q | V				
1+40	0.0811	0.88	| Q | V				
1+45	0.0885	1.07	| Q | V				
1+50	0.0959	1.08	| Q | V				
1+55	0.1029	1.00	| Q | V				
2+ 0	0.1098	1.01	| Q | V				
2+ 5	0.1170	1.05	| Q | V				
2+10	0.1264	1.35	| Q | V				
2+15	0.1380	1.68	| Q | V				
2+20	0.1474	1.36	| Q | V				
2+25	0.1618	2.10	| Q | V				
2+30	0.1795	2.57	| Q | V				
2+35	0.1993	2.87	| |Q | V				
2+40	0.2154	2.34	| Q| V				
2+45	0.2226	1.05	| Q V				
2+50	0.2267	0.59	| Q V				
2+55	0.2307	0.57	| Q V				
3+ 0	0.2325	0.27	|Q V				
3+ 5	0.2328	0.04	Q V				

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

Study date 08/02/22 File: A21626DMA2Q100UH6100.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 100YR-6HR UH

Drainage Area = 1.58(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.58(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 336.00(Ft.)
Length along longest watercourse measured to centroid = 234.53(Ft.)
Length along longest watercourse = 0.064 Mi.
Length along longest watercourse measured to centroid = 0.044 Mi.
Difference in elevation = 3.36(Ft.)
Slope along watercourse = 52.8000 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.016 Hr.
Lag time = 0.95 Min.
25% of lag time = 0.24 Min.
40% of lag time = 0.38 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]
        1.58            1.11                  1.75

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.58            2.70                  4.27

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    1.110(In)
Area Averaged 100-Year Rainfall =    2.700(In)

Point rain (area averaged) =    2.700(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    2.700(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.580           69.00         0.761
 Total Area Entered =      1.58(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     0.761        0.061       1.000      0.061
                                                 Sum (F) =   0.061
Area averaged mean soil loss (F) (In/Hr) =  0.061
Minimum soil loss rate ((In/Hr)) =  0.031
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.291
------------------------------------------------------------------------

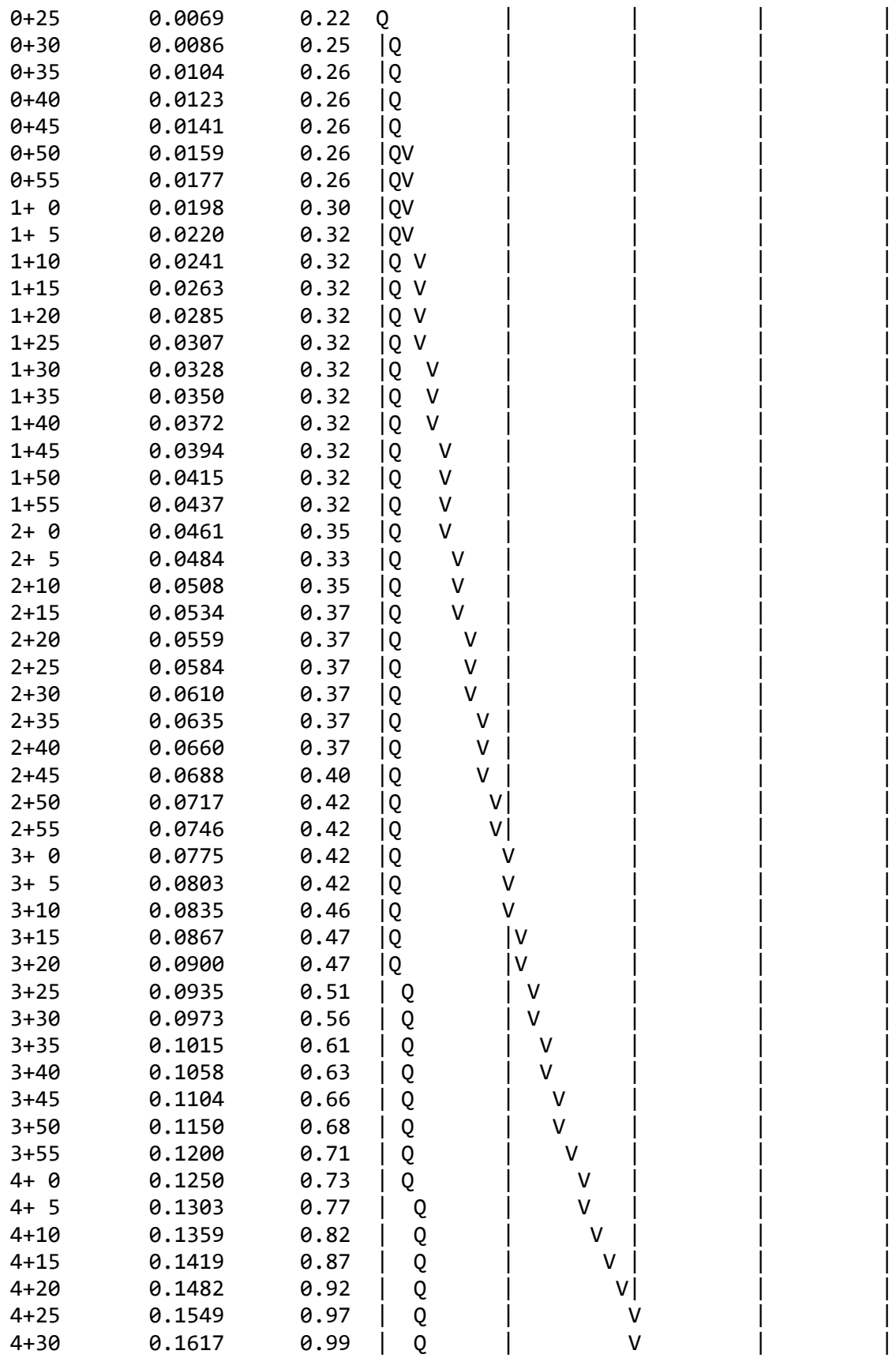
               U n i t  H y d r o g r a p h
                       VALLEY S-Curve
------------------------------------------------------------------------
               Unit Hydrograph Data
------------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                          Graph %           (CFS)
------------------------------------------------------------------------
    1   0.083        527.815         72.250             1.150
    2   0.167       1055.631         27.750             0.442
                               Sum = 100.000   Sum=       1.592
------------------------------------------------------------------------

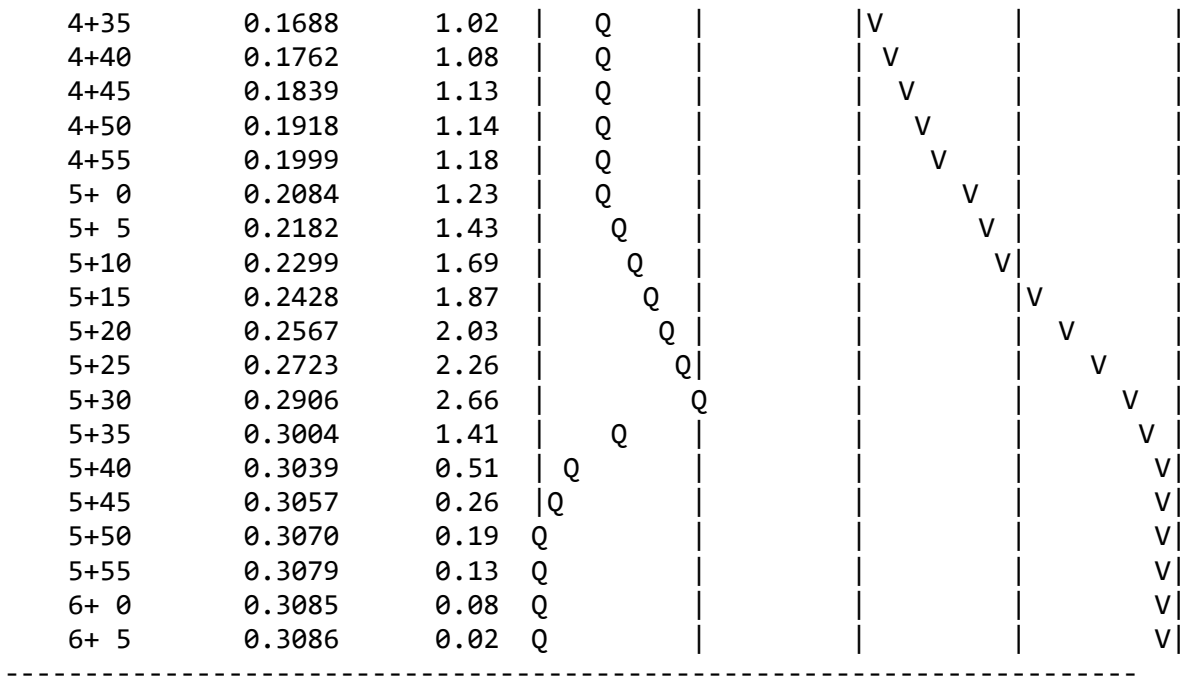
 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value
```

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.50	0.162	(0.061)	0.047	0.115
2	0.17	0.60	0.194	(0.061)	0.057	0.138
3	0.25	0.60	0.194	(0.061)	0.057	0.138
4	0.33	0.60	0.194	(0.061)	0.057	0.138
5	0.42	0.60	0.194	(0.061)	0.057	0.138
6	0.50	0.70	0.227	0.061	(0.066)	0.166
7	0.58	0.70	0.227	0.061	(0.066)	0.166
8	0.67	0.70	0.227	0.061	(0.066)	0.166
9	0.75	0.70	0.227	0.061	(0.066)	0.166
10	0.83	0.70	0.227	0.061	(0.066)	0.166
11	0.92	0.70	0.227	0.061	(0.066)	0.166
12	1.00	0.80	0.259	0.061	(0.075)	0.198
13	1.08	0.80	0.259	0.061	(0.075)	0.198
14	1.17	0.80	0.259	0.061	(0.075)	0.198
15	1.25	0.80	0.259	0.061	(0.075)	0.198
16	1.33	0.80	0.259	0.061	(0.075)	0.198
17	1.42	0.80	0.259	0.061	(0.075)	0.198
18	1.50	0.80	0.259	0.061	(0.075)	0.198
19	1.58	0.80	0.259	0.061	(0.075)	0.198
20	1.67	0.80	0.259	0.061	(0.075)	0.198
21	1.75	0.80	0.259	0.061	(0.075)	0.198
22	1.83	0.80	0.259	0.061	(0.075)	0.198
23	1.92	0.80	0.259	0.061	(0.075)	0.198
24	2.00	0.90	0.292	0.061	(0.085)	0.231
25	2.08	0.80	0.259	0.061	(0.075)	0.198
26	2.17	0.90	0.292	0.061	(0.085)	0.231
27	2.25	0.90	0.292	0.061	(0.085)	0.231
28	2.33	0.90	0.292	0.061	(0.085)	0.231
29	2.42	0.90	0.292	0.061	(0.085)	0.231
30	2.50	0.90	0.292	0.061	(0.085)	0.231
31	2.58	0.90	0.292	0.061	(0.085)	0.231
32	2.67	0.90	0.292	0.061	(0.085)	0.231
33	2.75	1.00	0.324	0.061	(0.094)	0.263
34	2.83	1.00	0.324	0.061	(0.094)	0.263
35	2.92	1.00	0.324	0.061	(0.094)	0.263
36	3.00	1.00	0.324	0.061	(0.094)	0.263
37	3.08	1.00	0.324	0.061	(0.094)	0.263
38	3.17	1.10	0.356	0.061	(0.104)	0.295
39	3.25	1.10	0.356	0.061	(0.104)	0.295
40	3.33	1.10	0.356	0.061	(0.104)	0.295
41	3.42	1.20	0.389	0.061	(0.113)	0.328
42	3.50	1.30	0.421	0.061	(0.123)	0.360
43	3.58	1.40	0.454	0.061	(0.132)	0.393
44	3.67	1.40	0.454	0.061	(0.132)	0.393
45	3.75	1.50	0.486	0.061	(0.141)	0.425
46	3.83	1.50	0.486	0.061	(0.141)	0.425
47	3.92	1.60	0.518	0.061	(0.151)	0.457

```
48   4.00     1.60      0.518          0.061    (  0.151)        0.457
49   4.08     1.70      0.551          0.061    (  0.160)        0.490
50   4.17     1.80      0.583          0.061    (  0.170)        0.522
51   4.25     1.90      0.616          0.061    (  0.179)        0.555
52   4.33     2.00      0.648          0.061    (  0.189)        0.587
53   4.42     2.10      0.680          0.061    (  0.198)        0.619
54   4.50     2.10      0.680          0.061    (  0.198)        0.619
55   4.58     2.20      0.713          0.061    (  0.207)        0.652
56   4.67     2.30      0.745          0.061    (  0.217)        0.684
57   4.75     2.40      0.778          0.061    (  0.226)        0.717
58   4.83     2.40      0.778          0.061    (  0.226)        0.717
59   4.92     2.50      0.810          0.061    (  0.236)        0.749
60   5.00     2.60      0.842          0.061    (  0.245)        0.781
61   5.08     3.10      1.004          0.061    (  0.292)        0.943
62   5.17     3.60      1.166          0.061    (  0.339)        1.105
63   5.25     3.90      1.264          0.061    (  0.368)        1.203
64   5.33     4.20      1.361          0.061    (  0.396)        1.300
65   5.42     4.70      1.523          0.061    (  0.443)        1.462
66   5.50     5.60      1.814          0.061    (  0.528)        1.753
67   5.58     1.90      0.616          0.061    (  0.179)        0.555
68   5.67     0.90      0.292          0.061    (  0.085)        0.231
69   5.75     0.60      0.194       (  0.061)       0.057        0.138
70   5.83     0.50      0.162       (  0.061)       0.047        0.115
71   5.92     0.30      0.097       (  0.061)       0.028        0.069
72   6.00     0.20      0.065       (  0.061)       0.019        0.046
               (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    28.1
      Flood volume = Effective rainfall      2.34(In)
       times area       1.6(Ac.)/[(In)/(Ft.)] =       0.3(Ac.Ft)
      Total soil loss =      0.36(In)
      Total soil loss =     0.047(Ac.Ft)
      Total rainfall =      2.70(In)
      Flood volume =       13443.6 Cubic Feet
      Total soil loss =        2041.9 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =      2.664(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        2.5       5.0       7.5      10.0
-------------------------------------------------------------------------
  0+ 5       0.0009      0.13  Q         |         |         |         |
  0+10       0.0024      0.21  Q         |         |         |         |
  0+15       0.0039      0.22  Q         |         |         |         |
  0+20       0.0054      0.22  Q         |         |         |         |
```


0+25 0.0069 0.22
0+30 0.0086 0.25
0+35 0.0104 0.26
0+40 0.0123 0.26
0+45 0.0141 0.26
0+50 0.0159 0.26
0+55 0.0177 0.26
1+ 0 0.0198 0.30
1+ 5 0.0220 0.32
1+10 0.0241 0.32
1+15 0.0263 0.32
1+20 0.0285 0.32
1+25 0.0307 0.32
1+30 0.0328 0.32
1+35 0.0350 0.32
1+40 0.0372 0.32
1+45 0.0394 0.32
1+50 0.0415 0.32
1+55 0.0437 0.32
2+ 0 0.0461 0.35
2+ 5 0.0484 0.33
2+10 0.0508 0.35
2+15 0.0534 0.37
2+20 0.0559 0.37
2+25 0.0584 0.37
2+30 0.0610 0.37
2+35 0.0635 0.37
2+40 0.0660 0.37
2+45 0.0688 0.40
2+50 0.0717 0.42
2+55 0.0746 0.42
3+ 0 0.0775 0.42
3+ 5 0.0803 0.42
3+10 0.0835 0.46
3+15 0.0867 0.47
3+20 0.0900 0.47
3+25 0.0935 0.51
3+30 0.0973 0.56
3+35 0.1015 0.61
3+40 0.1058 0.63
3+45 0.1104 0.66
3+50 0.1150 0.68
3+55 0.1200 0.71
4+ 0 0.1250 0.73
4+ 5 0.1303 0.77
4+10 0.1359 0.82
4+15 0.1419 0.87
4+20 0.1482 0.92
4+25 0.1549 0.97
4+30 0.1617 0.99


4+35 0.1688 1.02
4+40 0.1762 1.08
4+45 0.1839 1.13
4+50 0.1918 1.14
4+55 0.1999 1.18
5+ 0 0.2084 1.23
5+ 5 0.2182 1.43
5+10 0.2299 1.69
5+15 0.2428 1.87
5+20 0.2567 2.03
5+25 0.2723 2.26
5+30 0.2906 2.66
5+35 0.3004 1.41
5+40 0.3039 0.51
5+45 0.3057 0.26
5+50 0.3070 0.19
5+55 0.3079 0.13
6+ 0 0.3085 0.08
6+ 5 0.3086 0.02

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

Study date 08/02/22 File: A21626DMA2Q100UH24100.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 100YR-24HR UH

Drainage Area = 1.58(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.58(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 336.00(Ft.)
Length along longest watercourse measured to centroid = 234.53(Ft.)
Length along longest watercourse = 0.064 Mi.
Length along longest watercourse measured to centroid = 0.044 Mi.
Difference in elevation = 3.36(Ft.)
Slope along watercourse = 52.8000 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.016 Hr.
Lag time = 0.95 Min.
25% of lag time = 0.24 Min.
40% of lag time = 0.38 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]
        1.58            1.90                  3.00

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.58            4.80                  7.58

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    1.900(In)
Area Averaged 100-Year Rainfall =    4.800(In)

Point rain (area averaged) =    4.800(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    4.800(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.580           69.00         0.761
 Total Area Entered =      1.58(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     0.761        0.061       1.000      0.061
                                                 Sum (F) =   0.061
Area averaged mean soil loss (F) (In/Hr) =  0.061
Minimum soil loss rate ((In/Hr)) =  0.031
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.291
------------------------------------------------------------------------

                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        527.815         72.250              1.150
    2   0.167       1055.631         27.750              0.442
                               Sum = 100.000   Sum=       1.592
------------------------------------------------------------------------

 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	0.038	(0.108)	0.011	0.027
2	0.17	0.07	0.038	(0.108)	0.011	0.027
3	0.25	0.07	0.038	(0.107)	0.011	0.027
4	0.33	0.10	0.058	(0.107)	0.017	0.041
5	0.42	0.10	0.058	(0.107)	0.017	0.041
6	0.50	0.10	0.058	(0.106)	0.017	0.041
7	0.58	0.10	0.058	(0.106)	0.017	0.041
8	0.67	0.10	0.058	(0.105)	0.017	0.041
9	0.75	0.10	0.058	(0.105)	0.017	0.041
10	0.83	0.13	0.077	(0.105)	0.022	0.054
11	0.92	0.13	0.077	(0.104)	0.022	0.054
12	1.00	0.13	0.077	(0.104)	0.022	0.054
13	1.08	0.10	0.058	(0.103)	0.017	0.041
14	1.17	0.10	0.058	(0.103)	0.017	0.041
15	1.25	0.10	0.058	(0.102)	0.017	0.041
16	1.33	0.10	0.058	(0.102)	0.017	0.041
17	1.42	0.10	0.058	(0.102)	0.017	0.041
18	1.50	0.10	0.058	(0.101)	0.017	0.041
19	1.58	0.10	0.058	(0.101)	0.017	0.041
20	1.67	0.10	0.058	(0.100)	0.017	0.041
21	1.75	0.10	0.058	(0.100)	0.017	0.041
22	1.83	0.13	0.077	(0.100)	0.022	0.054
23	1.92	0.13	0.077	(0.099)	0.022	0.054
24	2.00	0.13	0.077	(0.099)	0.022	0.054
25	2.08	0.13	0.077	(0.098)	0.022	0.054
26	2.17	0.13	0.077	(0.098)	0.022	0.054
27	2.25	0.13	0.077	(0.098)	0.022	0.054
28	2.33	0.13	0.077	(0.097)	0.022	0.054
29	2.42	0.13	0.077	(0.097)	0.022	0.054
30	2.50	0.13	0.077	(0.096)	0.022	0.054
31	2.58	0.17	0.096	(0.096)	0.028	0.068
32	2.67	0.17	0.096	(0.096)	0.028	0.068
33	2.75	0.17	0.096	(0.095)	0.028	0.068
34	2.83	0.17	0.096	(0.095)	0.028	0.068
35	2.92	0.17	0.096	(0.094)	0.028	0.068
36	3.00	0.17	0.096	(0.094)	0.028	0.068
37	3.08	0.17	0.096	(0.094)	0.028	0.068
38	3.17	0.17	0.096	(0.093)	0.028	0.068
39	3.25	0.17	0.096	(0.093)	0.028	0.068
40	3.33	0.17	0.096	(0.093)	0.028	0.068
41	3.42	0.17	0.096	(0.092)	0.028	0.068
42	3.50	0.17	0.096	(0.092)	0.028	0.068
43	3.58	0.17	0.096	(0.091)	0.028	0.068
44	3.67	0.17	0.096	(0.091)	0.028	0.068
45	3.75	0.17	0.096	(0.091)	0.028	0.068
46	3.83	0.20	0.115	(0.090)	0.034	0.082
47	3.92	0.20	0.115	(0.090)	0.034	0.082

48	4.00	0.20	0.115	(0.089)	0.034	0.082
49	4.08	0.20	0.115	(0.089)	0.034	0.082
50	4.17	0.20	0.115	(0.089)	0.034	0.082
51	4.25	0.20	0.115	(0.088)	0.034	0.082
52	4.33	0.23	0.134	(0.088)	0.039	0.095
53	4.42	0.23	0.134	(0.088)	0.039	0.095
54	4.50	0.23	0.134	(0.087)	0.039	0.095
55	4.58	0.23	0.134	(0.087)	0.039	0.095
56	4.67	0.23	0.134	(0.086)	0.039	0.095
57	4.75	0.23	0.134	(0.086)	0.039	0.095
58	4.83	0.27	0.154	(0.086)	0.045	0.109
59	4.92	0.27	0.154	(0.085)	0.045	0.109
60	5.00	0.27	0.154	(0.085)	0.045	0.109
61	5.08	0.20	0.115	(0.085)	0.034	0.082
62	5.17	0.20	0.115	(0.084)	0.034	0.082
63	5.25	0.20	0.115	(0.084)	0.034	0.082
64	5.33	0.23	0.134	(0.084)	0.039	0.095
65	5.42	0.23	0.134	(0.083)	0.039	0.095
66	5.50	0.23	0.134	(0.083)	0.039	0.095
67	5.58	0.27	0.154	(0.082)	0.045	0.109
68	5.67	0.27	0.154	(0.082)	0.045	0.109
69	5.75	0.27	0.154	(0.082)	0.045	0.109
70	5.83	0.27	0.154	(0.081)	0.045	0.109
71	5.92	0.27	0.154	(0.081)	0.045	0.109
72	6.00	0.27	0.154	(0.081)	0.045	0.109
73	6.08	0.30	0.173	(0.080)	0.050	0.123
74	6.17	0.30	0.173	(0.080)	0.050	0.123
75	6.25	0.30	0.173	(0.080)	0.050	0.123
76	6.33	0.30	0.173	(0.079)	0.050	0.123
77	6.42	0.30	0.173	(0.079)	0.050	0.123
78	6.50	0.30	0.173	(0.078)	0.050	0.123
79	6.58	0.33	0.192	(0.078)	0.056	0.136
80	6.67	0.33	0.192	(0.078)	0.056	0.136
81	6.75	0.33	0.192	(0.077)	0.056	0.136
82	6.83	0.33	0.192	(0.077)	0.056	0.136
83	6.92	0.33	0.192	(0.077)	0.056	0.136
84	7.00	0.33	0.192	(0.076)	0.056	0.136
85	7.08	0.33	0.192	(0.076)	0.056	0.136
86	7.17	0.33	0.192	(0.076)	0.056	0.136
87	7.25	0.33	0.192	(0.075)	0.056	0.136
88	7.33	0.37	0.211	(0.075)	0.061	0.150
89	7.42	0.37	0.211	(0.075)	0.061	0.150
90	7.50	0.37	0.211	(0.074)	0.061	0.150
91	7.58	0.40	0.230	(0.074)	0.067	0.163
92	7.67	0.40	0.230	(0.074)	0.067	0.163
93	7.75	0.40	0.230	(0.073)	0.067	0.163
94	7.83	0.43	0.250	(0.073)	0.073	0.177
95	7.92	0.43	0.250	0.073	(0.073)	0.177
96	8.00	0.43	0.250	0.072	(0.073)	0.177
97	8.08	0.50	0.288	0.072	(0.084)	0.216

98	8.17	0.50	0.288	0.072	(	0.084)	0.216
99	8.25	0.50	0.288	0.071	(	0.084)	0.217
100	8.33	0.50	0.288	0.071	(	0.084)	0.217
101	8.42	0.50	0.288	0.071	(	0.084)	0.217
102	8.50	0.50	0.288	0.070	(	0.084)	0.218
103	8.58	0.53	0.307	0.070	(	0.089)	0.237
104	8.67	0.53	0.307	0.070	(	0.089)	0.238
105	8.75	0.53	0.307	0.069	(	0.089)	0.238
106	8.83	0.57	0.326	0.069	(	0.095)	0.257
107	8.92	0.57	0.326	0.069	(	0.095)	0.258
108	9.00	0.57	0.326	0.068	(	0.095)	0.258
109	9.08	0.63	0.365	0.068	(	0.106)	0.297
110	9.17	0.63	0.365	0.068	(	0.106)	0.297
111	9.25	0.63	0.365	0.067	(	0.106)	0.297
112	9.33	0.67	0.384	0.067	(	0.112)	0.317
113	9.42	0.67	0.384	0.067	(	0.112)	0.317
114	9.50	0.67	0.384	0.066	(	0.112)	0.318
115	9.58	0.70	0.403	0.066	(	0.117)	0.337
116	9.67	0.70	0.403	0.066	(	0.117)	0.337
117	9.75	0.70	0.403	0.065	(	0.117)	0.338
118	9.83	0.73	0.422	0.065	(	0.123)	0.357
119	9.92	0.73	0.422	0.065	(	0.123)	0.358
120	10.00	0.73	0.422	0.064	(	0.123)	0.358
121	10.08	0.50	0.288	0.064	(	0.084)	0.224
122	10.17	0.50	0.288	0.064	(	0.084)	0.224
123	10.25	0.50	0.288	0.064	(	0.084)	0.224
124	10.33	0.50	0.288	0.063	(	0.084)	0.225
125	10.42	0.50	0.288	0.063	(	0.084)	0.225
126	10.50	0.50	0.288	0.063	(	0.084)	0.225
127	10.58	0.67	0.384	0.062	(	0.112)	0.322
128	10.67	0.67	0.384	0.062	(	0.112)	0.322
129	10.75	0.67	0.384	0.062	(	0.112)	0.322
130	10.83	0.67	0.384	0.061	(	0.112)	0.323
131	10.92	0.67	0.384	0.061	(	0.112)	0.323
132	11.00	0.67	0.384	0.061	(	0.112)	0.323
133	11.08	0.63	0.365	0.061	(	0.106)	0.304
134	11.17	0.63	0.365	0.060	(	0.106)	0.305
135	11.25	0.63	0.365	0.060	(	0.106)	0.305
136	11.33	0.63	0.365	0.060	(	0.106)	0.305
137	11.42	0.63	0.365	0.059	(	0.106)	0.305
138	11.50	0.63	0.365	0.059	(	0.106)	0.306
139	11.58	0.57	0.326	0.059	(	0.095)	0.268
140	11.67	0.57	0.326	0.058	(	0.095)	0.268
141	11.75	0.57	0.326	0.058	(	0.095)	0.268
142	11.83	0.60	0.346	0.058	(	0.101)	0.288
143	11.92	0.60	0.346	0.058	(	0.101)	0.288
144	12.00	0.60	0.346	0.057	(	0.101)	0.288
145	12.08	0.83	0.480	0.057	(	0.140)	0.423
146	12.17	0.83	0.480	0.057	(	0.140)	0.423
147	12.25	0.83	0.480	0.056	(	0.140)	0.424

148	12.33	0.87	0.499	0.056	(0.145)	0.443
149	12.42	0.87	0.499	0.056	(0.145)	0.443
150	12.50	0.87	0.499	0.056	(0.145)	0.444
151	12.58	0.93	0.538	0.055	(0.156)	0.482
152	12.67	0.93	0.538	0.055	(0.156)	0.483
153	12.75	0.93	0.538	0.055	(0.156)	0.483
154	12.83	0.97	0.557	0.054	(0.162)	0.502
155	12.92	0.97	0.557	0.054	(0.162)	0.503
156	13.00	0.97	0.557	0.054	(0.162)	0.503
157	13.08	1.13	0.653	0.054	(0.190)	0.599
158	13.17	1.13	0.653	0.053	(0.190)	0.599
159	13.25	1.13	0.653	0.053	(0.190)	0.600
160	13.33	1.13	0.653	0.053	(0.190)	0.600
161	13.42	1.13	0.653	0.053	(0.190)	0.600
162	13.50	1.13	0.653	0.052	(0.190)	0.600
163	13.58	0.77	0.442	0.052	(0.129)	0.390
164	13.67	0.77	0.442	0.052	(0.129)	0.390
165	13.75	0.77	0.442	0.052	(0.129)	0.390
166	13.83	0.77	0.442	0.051	(0.129)	0.390
167	13.92	0.77	0.442	0.051	(0.129)	0.391
168	14.00	0.77	0.442	0.051	(0.129)	0.391
169	14.08	0.90	0.518	0.050	(0.151)	0.468
170	14.17	0.90	0.518	0.050	(0.151)	0.468
171	14.25	0.90	0.518	0.050	(0.151)	0.468
172	14.33	0.87	0.499	0.050	(0.145)	0.449
173	14.42	0.87	0.499	0.049	(0.145)	0.450
174	14.50	0.87	0.499	0.049	(0.145)	0.450
175	14.58	0.87	0.499	0.049	(0.145)	0.450
176	14.67	0.87	0.499	0.049	(0.145)	0.451
177	14.75	0.87	0.499	0.048	(0.145)	0.451
178	14.83	0.83	0.480	0.048	(0.140)	0.432
179	14.92	0.83	0.480	0.048	(0.140)	0.432
180	15.00	0.83	0.480	0.048	(0.140)	0.432
181	15.08	0.80	0.461	0.047	(0.134)	0.413
182	15.17	0.80	0.461	0.047	(0.134)	0.414
183	15.25	0.80	0.461	0.047	(0.134)	0.414
184	15.33	0.77	0.442	0.047	(0.129)	0.395
185	15.42	0.77	0.442	0.046	(0.129)	0.395
186	15.50	0.77	0.442	0.046	(0.129)	0.395
187	15.58	0.63	0.365	0.046	(0.106)	0.319
188	15.67	0.63	0.365	0.046	(0.106)	0.319
189	15.75	0.63	0.365	0.046	(0.106)	0.319
190	15.83	0.63	0.365	0.045	(0.106)	0.319
191	15.92	0.63	0.365	0.045	(0.106)	0.320
192	16.00	0.63	0.365	0.045	(0.106)	0.320
193	16.08	0.13	0.077	(0.045)	0.022	0.054
194	16.17	0.13	0.077	(0.044)	0.022	0.054
195	16.25	0.13	0.077	(0.044)	0.022	0.054
196	16.33	0.13	0.077	(0.044)	0.022	0.054
197	16.42	0.13	0.077	(0.044)	0.022	0.054

198	16.50	0.13	0.077	(0.043)	0.022	0.054
199	16.58	0.10	0.058	(0.043)	0.017	0.041
200	16.67	0.10	0.058	(0.043)	0.017	0.041
201	16.75	0.10	0.058	(0.043)	0.017	0.041
202	16.83	0.10	0.058	(0.043)	0.017	0.041
203	16.92	0.10	0.058	(0.042)	0.017	0.041
204	17.00	0.10	0.058	(0.042)	0.017	0.041
205	17.08	0.17	0.096	(0.042)	0.028	0.068
206	17.17	0.17	0.096	(0.042)	0.028	0.068
207	17.25	0.17	0.096	(0.042)	0.028	0.068
208	17.33	0.17	0.096	(0.041)	0.028	0.068
209	17.42	0.17	0.096	(0.041)	0.028	0.068
210	17.50	0.17	0.096	(0.041)	0.028	0.068
211	17.58	0.17	0.096	(0.041)	0.028	0.068
212	17.67	0.17	0.096	(0.041)	0.028	0.068
213	17.75	0.17	0.096	(0.040)	0.028	0.068
214	17.83	0.13	0.077	(0.040)	0.022	0.054
215	17.92	0.13	0.077	(0.040)	0.022	0.054
216	18.00	0.13	0.077	(0.040)	0.022	0.054
217	18.08	0.13	0.077	(0.040)	0.022	0.054
218	18.17	0.13	0.077	(0.039)	0.022	0.054
219	18.25	0.13	0.077	(0.039)	0.022	0.054
220	18.33	0.13	0.077	(0.039)	0.022	0.054
221	18.42	0.13	0.077	(0.039)	0.022	0.054
222	18.50	0.13	0.077	(0.039)	0.022	0.054
223	18.58	0.10	0.058	(0.038)	0.017	0.041
224	18.67	0.10	0.058	(0.038)	0.017	0.041
225	18.75	0.10	0.058	(0.038)	0.017	0.041
226	18.83	0.07	0.038	(0.038)	0.011	0.027
227	18.92	0.07	0.038	(0.038)	0.011	0.027
228	19.00	0.07	0.038	(0.037)	0.011	0.027
229	19.08	0.10	0.058	(0.037)	0.017	0.041
230	19.17	0.10	0.058	(0.037)	0.017	0.041
231	19.25	0.10	0.058	(0.037)	0.017	0.041
232	19.33	0.13	0.077	(0.037)	0.022	0.054
233	19.42	0.13	0.077	(0.037)	0.022	0.054
234	19.50	0.13	0.077	(0.036)	0.022	0.054
235	19.58	0.10	0.058	(0.036)	0.017	0.041
236	19.67	0.10	0.058	(0.036)	0.017	0.041
237	19.75	0.10	0.058	(0.036)	0.017	0.041
238	19.83	0.07	0.038	(0.036)	0.011	0.027
239	19.92	0.07	0.038	(0.036)	0.011	0.027
240	20.00	0.07	0.038	(0.035)	0.011	0.027
241	20.08	0.10	0.058	(0.035)	0.017	0.041
242	20.17	0.10	0.058	(0.035)	0.017	0.041
243	20.25	0.10	0.058	(0.035)	0.017	0.041
244	20.33	0.10	0.058	(0.035)	0.017	0.041
245	20.42	0.10	0.058	(0.035)	0.017	0.041
246	20.50	0.10	0.058	(0.035)	0.017	0.041
247	20.58	0.10	0.058	(0.034)	0.017	0.041

248	20.67	0.10	0.058	(0.034)	0.017	0.041
249	20.75	0.10	0.058	(0.034)	0.017	0.041
250	20.83	0.07	0.038	(0.034)	0.011	0.027
251	20.92	0.07	0.038	(0.034)	0.011	0.027
252	21.00	0.07	0.038	(0.034)	0.011	0.027
253	21.08	0.10	0.058	(0.034)	0.017	0.041
254	21.17	0.10	0.058	(0.033)	0.017	0.041
255	21.25	0.10	0.058	(0.033)	0.017	0.041
256	21.33	0.07	0.038	(0.033)	0.011	0.027
257	21.42	0.07	0.038	(0.033)	0.011	0.027
258	21.50	0.07	0.038	(0.033)	0.011	0.027
259	21.58	0.10	0.058	(0.033)	0.017	0.041
260	21.67	0.10	0.058	(0.033)	0.017	0.041
261	21.75	0.10	0.058	(0.033)	0.017	0.041
262	21.83	0.07	0.038	(0.032)	0.011	0.027
263	21.92	0.07	0.038	(0.032)	0.011	0.027
264	22.00	0.07	0.038	(0.032)	0.011	0.027
265	22.08	0.10	0.058	(0.032)	0.017	0.041
266	22.17	0.10	0.058	(0.032)	0.017	0.041
267	22.25	0.10	0.058	(0.032)	0.017	0.041
268	22.33	0.07	0.038	(0.032)	0.011	0.027
269	22.42	0.07	0.038	(0.032)	0.011	0.027
270	22.50	0.07	0.038	(0.032)	0.011	0.027
271	22.58	0.07	0.038	(0.032)	0.011	0.027
272	22.67	0.07	0.038	(0.031)	0.011	0.027
273	22.75	0.07	0.038	(0.031)	0.011	0.027
274	22.83	0.07	0.038	(0.031)	0.011	0.027
275	22.92	0.07	0.038	(0.031)	0.011	0.027
276	23.00	0.07	0.038	(0.031)	0.011	0.027
277	23.08	0.07	0.038	(0.031)	0.011	0.027
278	23.17	0.07	0.038	(0.031)	0.011	0.027
279	23.25	0.07	0.038	(0.031)	0.011	0.027
280	23.33	0.07	0.038	(0.031)	0.011	0.027
281	23.42	0.07	0.038	(0.031)	0.011	0.027
282	23.50	0.07	0.038	(0.031)	0.011	0.027
283	23.58	0.07	0.038	(0.031)	0.011	0.027
284	23.67	0.07	0.038	(0.031)	0.011	0.027
285	23.75	0.07	0.038	(0.031)	0.011	0.027
286	23.83	0.07	0.038	(0.031)	0.011	0.027
287	23.92	0.07	0.038	(0.031)	0.011	0.027
288	24.00	0.07	0.038	(0.031)	0.011	0.027

(Loss Rate Not Used)

Sum = 100.0 Sum = 47.0

Flood volume = Effective rainfall 3.92(In)
times area 1.6(Ac.)/[(In)/(Ft.)] = 0.5(Ac.Ft)
Total soil loss = 0.88(In)
Total soil loss = 0.116(Ac.Ft)
Total rainfall = 4.80(In)
Flood volume = 22476.7 Cubic Feet
Total soil loss = 5053.2 Cubic Feet

Peak flow rate of this hydrograph = 0.957(CFS)

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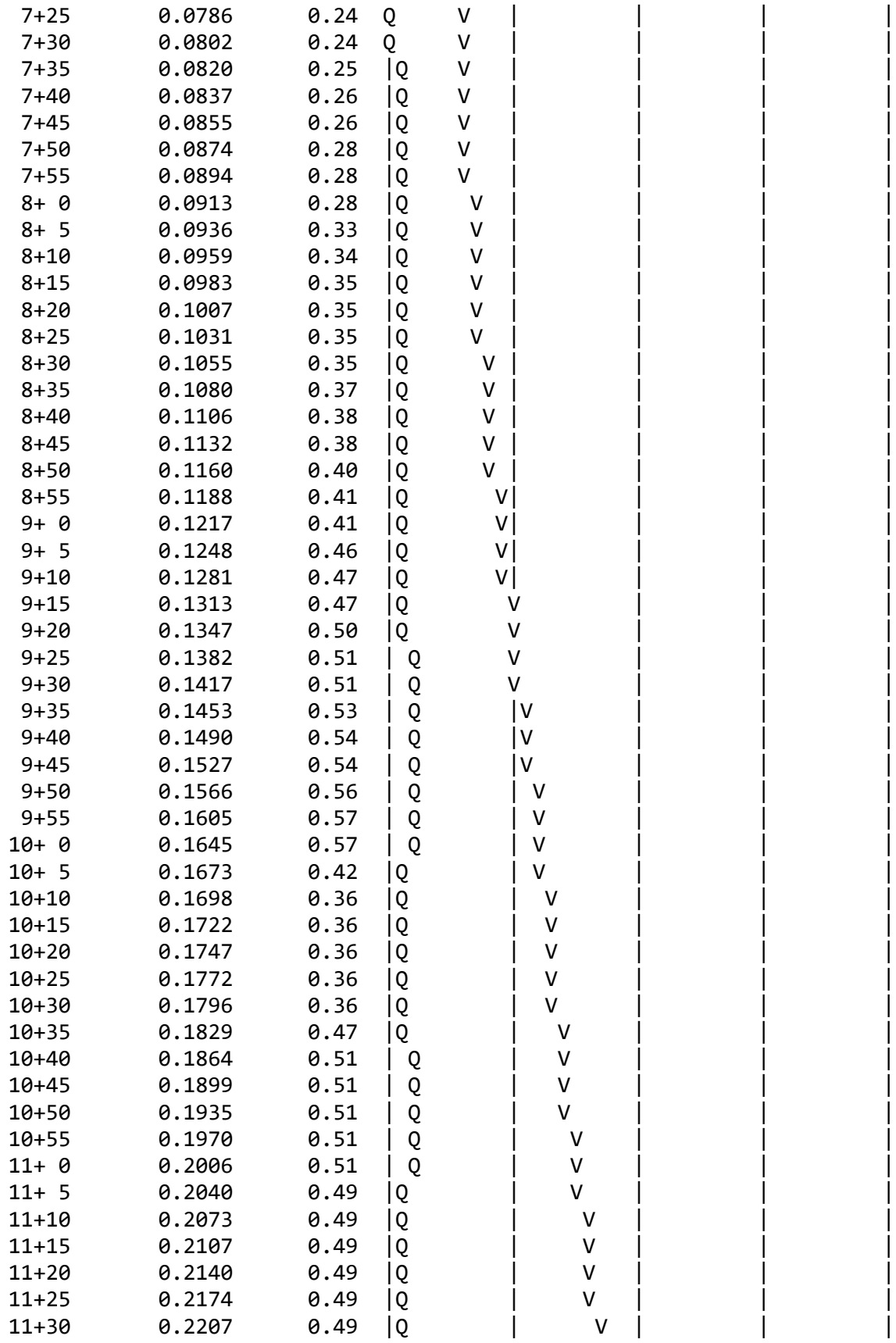
24 - H O U R S T O R M

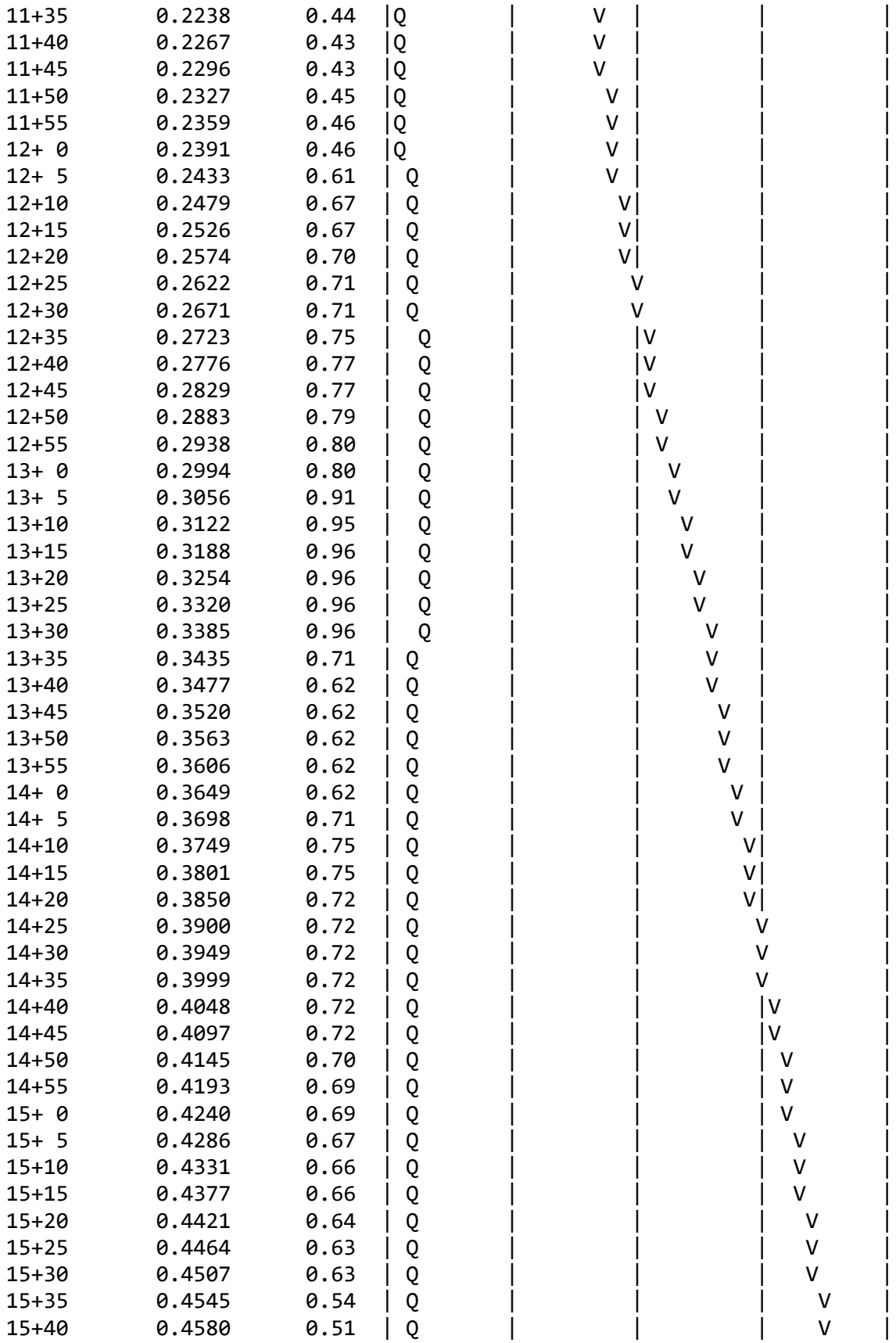
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	2.5	5.0	7.5	10.0
0+ 5	0.0002	0.03	Q				
0+10	0.0005	0.04	Q				
0+15	0.0008	0.04	Q				
0+20	0.0012	0.06	Q				
0+25	0.0017	0.07	Q				
0+30	0.0021	0.07	Q				
0+35	0.0026	0.07	Q				
0+40	0.0030	0.07	Q				
0+45	0.0035	0.07	Q				
0+50	0.0040	0.08	Q				
0+55	0.0046	0.09	Q				
1+ 0	0.0052	0.09	Q				
1+ 5	0.0057	0.07	Q				
1+10	0.0061	0.07	Q				
1+15	0.0066	0.07	Q				
1+20	0.0070	0.07	Q				
1+25	0.0075	0.07	Q				
1+30	0.0079	0.07	Q				
1+35	0.0084	0.07	Q				
1+40	0.0088	0.07	Q				
1+45	0.0093	0.07	Q				
1+50	0.0098	0.08	Q				
1+55	0.0104	0.09	Q				
2+ 0	0.0110	0.09	Q				
2+ 5	0.0116	0.09	Q				
2+10	0.0122	0.09	Q				
2+15	0.0128	0.09	Q				
2+20	0.0134	0.09	QV				
2+25	0.0140	0.09	QV				
2+30	0.0146	0.09	QV				
2+35	0.0153	0.10	QV				
2+40	0.0161	0.11	QV				
2+45	0.0168	0.11	QV				
2+50	0.0176	0.11	QV				
2+55	0.0183	0.11	QV				
3+ 0	0.0191	0.11	QV				
3+ 5	0.0198	0.11	QV				
3+10	0.0206	0.11	QV				

3+15	0.0213	0.11	QV	|	|	|	|
3+20	0.0220	0.11	QV	|	|	|	|
3+25	0.0228	0.11	QV	|	|	|	|
3+30	0.0235	0.11	QV	|	|	|	|
3+35	0.0243	0.11	QV	|	|	|	|
3+40	0.0250	0.11	QV	|	|	|	|
3+45	0.0258	0.11	QV	|	|	|	|
3+50	0.0266	0.12	Q V	|	|	|	|
3+55	0.0275	0.13	Q V	|	|	|	|
4+ 0	0.0284	0.13	Q V	|	|	|	|
4+ 5	0.0293	0.13	Q V	|	|	|	|
4+10	0.0302	0.13	Q V	|	|	|	|
4+15	0.0311	0.13	Q V	|	|	|	|
4+20	0.0321	0.15	Q V	|	|	|	|
4+25	0.0332	0.15	Q V	|	|	|	|
4+30	0.0342	0.15	Q V	|	|	|	|
4+35	0.0353	0.15	Q V	|	|	|	|
4+40	0.0363	0.15	Q V	|	|	|	|
4+45	0.0373	0.15	Q V	|	|	|	|
4+50	0.0385	0.17	Q V	|	|	|	|
4+55	0.0397	0.17	Q V	|	|	|	|
5+ 0	0.0409	0.17	Q V	|	|	|	|
5+ 5	0.0419	0.14	Q V	|	|	|	|
5+10	0.0428	0.13	Q V	|	|	|	|
5+15	0.0437	0.13	Q V	|	|	|	|
5+20	0.0447	0.15	Q V	|	|	|	|
5+25	0.0457	0.15	Q V	|	|	|	|
5+30	0.0468	0.15	Q V	|	|	|	|
5+35	0.0479	0.17	Q V	|	|	|	|
5+40	0.0491	0.17	Q V	|	|	|	|
5+45	0.0503	0.17	Q V	|	|	|	|
5+50	0.0515	0.17	Q V	|	|	|	|
5+55	0.0527	0.17	Q V	|	|	|	|
6+ 0	0.0539	0.17	Q V	|	|	|	|
6+ 5	0.0552	0.19	Q V	|	|	|	|
6+10	0.0565	0.20	Q V	|	|	|	|
6+15	0.0579	0.20	Q V	|	|	|	|
6+20	0.0592	0.20	Q V	|	|	|	|
6+25	0.0606	0.20	Q V	|	|	|	|
6+30	0.0619	0.20	Q V	|	|	|	|
6+35	0.0634	0.21	Q V	|	|	|	|
6+40	0.0649	0.22	Q V	|	|	|	|
6+45	0.0664	0.22	Q V	|	|	|	|
6+50	0.0678	0.22	Q V	|	|	|	|
6+55	0.0693	0.22	Q V	|	|	|	|
7+ 0	0.0708	0.22	Q V	|	|	|	|
7+ 5	0.0723	0.22	Q V	|	|	|	|
7+10	0.0738	0.22	Q V	|	|	|	|
7+15	0.0753	0.22	Q V	|	|	|	|
7+20	0.0769	0.23	Q V	|	|	|	|





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15+45       0.4615      0.51  | Q       |         |         |    V    |
15+50       0.4650      0.51  | Q       |         |         |     V   |
15+55       0.4685      0.51  | Q       |         |         |     V   |
16+ 0       0.4720      0.51  | Q       |         |         |     V   |
16+ 5       0.4734      0.20  Q         |         |         |     V   |
16+10       0.4740      0.09  Q         |         |         |     V   |
16+15       0.4746      0.09  Q         |         |         |     V   |
16+20       0.4752      0.09  Q         |         |         |     V   |
16+25       0.4758      0.09  Q         |         |         |     V   |
16+30       0.4764      0.09  Q         |         |         |     V   |
16+35       0.4769      0.07  Q         |         |         |     V   |
16+40       0.4773      0.07  Q         |         |         |      V  |
16+45       0.4778      0.07  Q         |         |         |      V  |
16+50       0.4782      0.07  Q         |         |         |      V  |
16+55       0.4787      0.07  Q         |         |         |      V  |
17+ 0       0.4791      0.07  Q         |         |         |      V  |
17+ 5       0.4798      0.10  Q         |         |         |      V  |
17+10       0.4805      0.11  Q         |         |         |      V  |
17+15       0.4813      0.11  Q         |         |         |      V  |
17+20       0.4820      0.11  Q         |         |         |      V  |
17+25       0.4828      0.11  Q         |         |         |      V  |
17+30       0.4835      0.11  Q         |         |         |      V  |
17+35       0.4843      0.11  Q         |         |         |      V  |
17+40       0.4850      0.11  Q         |         |         |      V  |
17+45       0.4858      0.11  Q         |         |         |      V  |
17+50       0.4864      0.09  Q         |         |         |      V  |
17+55       0.4870      0.09  Q         |         |         |      V  |
18+ 0       0.4876      0.09  Q         |         |         |      V  |
18+ 5       0.4882      0.09  Q         |         |         |      V  |
18+10       0.4888      0.09  Q         |         |         |      V  |
18+15       0.4894      0.09  Q         |         |         |      V  |
18+20       0.4900      0.09  Q         |         |         |      V  |
18+25       0.4906      0.09  Q         |         |         |       V |
18+30       0.4912      0.09  Q         |         |         |       V |
18+35       0.4917      0.07  Q         |         |         |       V |
18+40       0.4921      0.07  Q         |         |         |       V |
18+45       0.4926      0.07  Q         |         |         |       V |
18+50       0.4929      0.05  Q         |         |         |       V |
18+55       0.4932      0.04  Q         |         |         |       V |
19+ 0       0.4935      0.04  Q         |         |         |       V |
19+ 5       0.4939      0.06  Q         |         |         |       V |
19+10       0.4944      0.07  Q         |         |         |       V |
19+15       0.4948      0.07  Q         |         |         |       V |
19+20       0.4954      0.08  Q         |         |         |       V |
19+25       0.4960      0.09  Q         |         |         |       V |
19+30       0.4966      0.09  Q         |         |         |       V |
19+35       0.4970      0.07  Q         |         |         |       V |
19+40       0.4975      0.07  Q         |         |         |       V |
19+45       0.4979      0.07  Q         |         |         |       V |
19+50       0.4983      0.05  Q         |         |         |       V |
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19+55	0.4986	0.04	Q	|	|	|	V |
20+ 0	0.4989	0.04	Q	|	|	|	V |
20+ 5	0.4993	0.06	Q	|	|	|	V |
20+10	0.4997	0.07	Q	|	|	|	V |
20+15	0.5002	0.07	Q	|	|	|	V |
20+20	0.5006	0.07	Q	|	|	|	V |
20+25	0.5011	0.07	Q	|	|	|	V |
20+30	0.5015	0.07	Q	|	|	|	V |
20+35	0.5020	0.07	Q	|	|	|	V |
20+40	0.5024	0.07	Q	|	|	|	V |
20+45	0.5029	0.07	Q	|	|	|	V |
20+50	0.5032	0.05	Q	|	|	|	V|
20+55	0.5035	0.04	Q	|	|	|	V|
21+ 0	0.5038	0.04	Q	|	|	|	V|
21+ 5	0.5042	0.06	Q	|	|	|	V|
21+10	0.5047	0.07	Q	|	|	|	V|
21+15	0.5051	0.07	Q	|	|	|	V|
21+20	0.5055	0.05	Q	|	|	|	V|
21+25	0.5058	0.04	Q	|	|	|	V|
21+30	0.5061	0.04	Q	|	|	|	V|
21+35	0.5065	0.06	Q	|	|	|	V|
21+40	0.5069	0.07	Q	|	|	|	V|
21+45	0.5074	0.07	Q	|	|	|	V|
21+50	0.5077	0.05	Q	|	|	|	V|
21+55	0.5080	0.04	Q	|	|	|	V|
22+ 0	0.5083	0.04	Q	|	|	|	V|
22+ 5	0.5087	0.06	Q	|	|	|	V|
22+10	0.5091	0.07	Q	|	|	|	V|
22+15	0.5096	0.07	Q	|	|	|	V|
22+20	0.5099	0.05	Q	|	|	|	V|
22+25	0.5102	0.04	Q	|	|	|	V|
22+30	0.5105	0.04	Q	|	|	|	V|
22+35	0.5108	0.04	Q	|	|	|	V|
22+40	0.5111	0.04	Q	|	|	|	V|
22+45	0.5114	0.04	Q	|	|	|	V|
22+50	0.5117	0.04	Q	|	|	|	V|
22+55	0.5120	0.04	Q	|	|	|	V|
23+ 0	0.5123	0.04	Q	|	|	|	V|
23+ 5	0.5126	0.04	Q	|	|	|	V|
23+10	0.5129	0.04	Q	|	|	|	V|
23+15	0.5132	0.04	Q	|	|	|	V|
23+20	0.5135	0.04	Q	|	|	|	V|
23+25	0.5138	0.04	Q	|	|	|	V|
23+30	0.5141	0.04	Q	|	|	|	V|
23+35	0.5144	0.04	Q	|	|	|	V|
23+40	0.5147	0.04	Q	|	|	|	V|
23+45	0.5150	0.04	Q	|	|	|	V|
23+50	0.5153	0.04	Q	|	|	|	V|
23+55	0.5156	0.04	Q	|	|	|	V|
24+ 0	0.5159	0.04	Q	|	|	|	V|

```
   24+ 5       0.5160      0.01  Q         |         |         |        V|
-------------------------------------------------------------------------
```

DMA 3 Proposed 2-Year

FLOOD HYDROGRAPH ROUTING PROGRAM

Study date: 08/24/22

A21626 DMA 3 2YR-1HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA3Q100UH12.rte
**********HYDROGRAPH DATA**********
Number of intervals = 13
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 1.597 (CFS)
Total volume = 0.047 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
_____

Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)

------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 13
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      0.030      0.000      0.030        0.030
  1.000      0.065      0.196      0.064        0.066
  1.500      0.106      0.196      0.105        0.107
  2.000      0.152      0.196      0.151        0.153
  2.500      0.204      0.196      0.203        0.205
  3.000      0.262      0.196      0.261        0.263
  3.500      0.326      4.639      0.310        0.342
------------------------------------------------------------------------
                Hydrograph Detention Basin Routing
------------------------------------------------------------------------

Graph values: 'I'= unit inflow; 'O'=outflow at time shown
------------------------------------------------------------------------
```

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 0.4 0.80 1.20 1.60	Depth (Ft.)
0.083	0.20	0.00	0.001	O I | | | |	0.01
0.167	0.29	0.00	0.002	O I | | | |	0.04
0.250	0.33	0.00	0.005	O I | | | |	0.08
0.333	0.35	0.00	0.007	O I| | | |	0.11
0.417	0.37	0.00	0.009	O I| | | |	0.16
0.500	0.40	0.00	0.012	O I | | |	0.20
0.583	0.49	0.00	0.015	O |I | | |	0.25
0.667	0.57	0.00	0.019	O | I | | |	0.31
0.750	0.79	0.00	0.023	O | I| | |	0.39
0.833	1.60	0.01	0.032	O | | | I	0.52
0.917	0.96	0.06	0.040	|O | | I | |	0.65
1.000	0.38	0.08	0.044	|O I| | | |	0.70
1.083	0.10	0.09	0.045	|OI | | | |	0.72
1.167	0.00	0.09	0.045	IO | | | |	0.72
1.250	0.00	0.08	0.045	IO | | | |	0.71
1.333	0.00	0.08	0.044	IO | | | |	0.70
1.417	0.00	0.08	0.044	IO | | | |	0.69
1.500	0.00	0.07	0.043	IO | | | |	0.69
1.583	0.00	0.07	0.043	IO | | | |	0.68
1.667	0.00	0.07	0.042	IO | | | |	0.67
1.750	0.00	0.06	0.042	IO | | | |	0.67
1.833	0.00	0.06	0.041	IO | | | |	0.66
1.917	0.00	0.06	0.041	IO | | | |	0.65
2.000	0.00	0.06	0.040	IO | | | |	0.65
2.083	0.00	0.06	0.040	IO | | | |	0.64
2.167	0.00	0.05	0.040	IO | | | |	0.64
2.250	0.00	0.05	0.039	IO | | | |	0.63
2.333	0.00	0.05	0.039	O | | | |	0.63
2.417	0.00	0.05	0.038	O | | | |	0.62
2.500	0.00	0.05	0.038	O | | | |	0.62
2.583	0.00	0.04	0.038	O | | | |	0.61
2.667	0.00	0.04	0.038	O | | | |	0.61
2.750	0.00	0.04	0.037	O | | | |	0.60
2.833	0.00	0.04	0.037	O | | | |	0.60
2.917	0.00	0.04	0.037	O | | | |	0.60
3.000	0.00	0.04	0.036	O | | | |	0.59
3.083	0.00	0.03	0.036	O | | | |	0.59
3.167	0.00	0.03	0.036	O | | | |	0.59
3.250	0.00	0.03	0.036	O | | | |	0.58
3.333	0.00	0.03	0.036	O | | | |	0.58
3.417	0.00	0.03	0.035	O | | | |	0.58
3.500	0.00	0.03	0.035	O | | | |	0.57
3.583	0.00	0.03	0.035	O | | | |	0.57
3.667	0.00	0.03	0.035	O | | | |	0.57
3.750	0.00	0.03	0.035	O | | | |	0.57
3.833	0.00	0.02	0.034	O | | | |	0.56
3.917	0.00	0.02	0.034	O | | | |	0.56
4.000	0.00	0.02	0.034	O | | | |	0.56

4.083	0.00	0.02	0.034	O				0.56
4.167	0.00	0.02	0.034	O				0.55
4.250	0.00	0.02	0.034	O				0.55
4.333	0.00	0.02	0.033	O				0.55
4.417	0.00	0.02	0.033	O				0.55
4.500	0.00	0.02	0.033	O				0.55
4.583	0.00	0.02	0.033	O				0.54
4.667	0.00	0.02	0.033	O				0.54
4.750	0.00	0.02	0.033	O				0.54
4.833	0.00	0.02	0.033	O				0.54
4.917	0.00	0.01	0.033	O				0.54
5.000	0.00	0.01	0.033	O				0.54
5.083	0.00	0.01	0.032	O				0.54
5.167	0.00	0.01	0.032	O				0.53
5.250	0.00	0.01	0.032	O				0.53
5.333	0.00	0.01	0.032	O				0.53
5.417	0.00	0.01	0.032	O				0.53
5.500	0.00	0.01	0.032	O				0.53
5.583	0.00	0.01	0.032	O				0.53
5.667	0.00	0.01	0.032	O				0.53
5.750	0.00	0.01	0.032	O				0.53
5.833	0.00	0.01	0.032	O				0.52
5.917	0.00	0.01	0.032	O				0.52
6.000	0.00	0.01	0.032	O				0.52
6.083	0.00	0.01	0.032	O				0.52
6.167	0.00	0.01	0.031	O				0.52
6.250	0.00	0.01	0.031	O				0.52
6.333	0.00	0.01	0.031	O				0.52
6.417	0.00	0.01	0.031	O				0.52
6.500	0.00	0.01	0.031	O				0.52
6.583	0.00	0.01	0.031	O				0.52
6.667	0.00	0.01	0.031	O				0.52
6.750	0.00	0.01	0.031	O				0.52
6.833	0.00	0.01	0.031	O				0.52
6.917	0.00	0.01	0.031	O				0.52
7.000	0.00	0.01	0.031	O				0.51
7.083	0.00	0.01	0.031	O				0.51
7.167	0.00	0.01	0.031	O				0.51
7.250	0.00	0.01	0.031	O				0.51
7.333	0.00	0.00	0.031	O				0.51
7.417	0.00	0.00	0.031	O				0.51
7.500	0.00	0.00	0.031	O				0.51
7.583	0.00	0.00	0.031	O				0.51
7.667	0.00	0.00	0.031	O				0.51
7.750	0.00	0.00	0.031	O				0.51
7.833	0.00	0.00	0.031	O				0.51
7.917	0.00	0.00	0.031	O				0.51
8.000	0.00	0.00	0.031	O				0.51
8.083	0.00	0.00	0.031	O				0.51
8.167	0.00	0.00	0.031	O				0.51

8.250	0.00	0.00	0.031	O	|	|	|	|	0.51
8.333	0.00	0.00	0.031	O	|	|	|	|	0.51
8.417	0.00	0.00	0.031	O	|	|	|	|	0.51
8.500	0.00	0.00	0.031	O	|	|	|	|	0.51
8.583	0.00	0.00	0.030	O	|	|	|	|	0.51
8.667	0.00	0.00	0.030	O	|	|	|	|	0.51
8.750	0.00	0.00	0.030	O	|	|	|	|	0.51
8.833	0.00	0.00	0.030	O	|	|	|	|	0.51
8.917	0.00	0.00	0.030	O	|	|	|	|	0.51
9.000	0.00	0.00	0.030	O	|	|	|	|	0.51
9.083	0.00	0.00	0.030	O	|	|	|	|	0.51
9.167	0.00	0.00	0.030	O	|	|	|	|	0.51
9.250	0.00	0.00	0.030	O	|	|	|	|	0.51
9.333	0.00	0.00	0.030	O	|	|	|	|	0.50
9.417	0.00	0.00	0.030	O	|	|	|	|	0.50
9.500	0.00	0.00	0.030	O	|	|	|	|	0.50
9.583	0.00	0.00	0.030	O	|	|	|	|	0.50
9.667	0.00	0.00	0.030	O	|	|	|	|	0.50
9.750	0.00	0.00	0.030	O	|	|	|	|	0.50
9.833	0.00	0.00	0.030	O	|	|	|	|	0.50
9.917	0.00	0.00	0.030	O	|	|	|	|	0.50
10.000	0.00	0.00	0.030	O	|	|	|	|	0.50
10.083	0.00	0.00	0.030	O	|	|	|	|	0.50
10.167	0.00	0.00	0.030	O	|	|	|	|	0.50
10.250	0.00	0.00	0.030	O	|	|	|	|	0.50
10.333	0.00	0.00	0.030	O	|	|	|	|	0.50
10.417	0.00	0.00	0.030	O	|	|	|	|	0.50
10.500	0.00	0.00	0.030	O	|	|	|	|	0.50
10.583	0.00	0.00	0.030	O	|	|	|	|	0.50
10.667	0.00	0.00	0.030	O	|	|	|	|	0.50
10.750	0.00	0.00	0.030	O	|	|	|	|	0.50

Remaining water in basin = 0.03 (Ac.Ft)

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

Number of intervals = 129
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.086 (CFS)
Total volume = 0.017 (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

Study date: 08/24/22

A21626 DMA 3 2YR-3HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA3Q100UH32.rte
**********HYDROGRAPH DATA**********
Number of intervals = 37
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.907 (CFS)
Total volume = 0.076 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
_____

Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)

------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 37
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      0.030      0.000      0.030        0.030
  1.000      0.065      0.196      0.064        0.066
  1.500      0.106      0.196      0.105        0.107
  2.000      0.152      0.196      0.151        0.153
  2.500      0.204      0.196      0.203        0.205
  3.000      0.262      0.196      0.261        0.263
  3.500      0.326      4.639      0.310        0.342
------------------------------------------------------------------------
                Hydrograph Detention Basin Routing
------------------------------------------------------------------------

Graph values: 'I'= unit inflow; 'O'=outflow at time shown
------------------------------------------------------------------------
```

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.2	0.45	0.68	0.91	Depth (Ft.)
0.083	0.10	0.00	0.000	O I					0.01
0.167	0.14	0.00	0.001	O I					0.02
0.250	0.13	0.00	0.002	O I					0.03
0.333	0.15	0.00	0.003	O I					0.05
0.417	0.16	0.00	0.004	O I					0.07
0.500	0.19	0.00	0.005	O I					0.09
0.583	0.17	0.00	0.007	O I					0.11
0.667	0.19	0.00	0.008	O I					0.13
0.750	0.20	0.00	0.009	O I					0.15
0.833	0.17	0.00	0.010	O I					0.17
0.917	0.17	0.00	0.012	O I					0.19
1.000	0.19	0.00	0.013	O I					0.21
1.083	0.23	0.00	0.014	O I					0.24
1.167	0.24	0.00	0.016	O I					0.26
1.250	0.24	0.00	0.018	O I					0.29
1.333	0.22	0.00	0.019	O I					0.32
1.417	0.26	0.00	0.021	O I					0.35
1.500	0.29	0.00	0.023	O I					0.38
1.583	0.27	0.00	0.025	O I					0.41
1.667	0.28	0.00	0.027	O I					0.44
1.750	0.34	0.00	0.029	O I					0.48
1.833	0.34	0.01	0.031	O I					0.51
1.917	0.32	0.02	0.033	O I					0.55
2.000	0.32	0.03	0.035	O I					0.58
2.083	0.33	0.04	0.037	O I					0.60
2.167	0.42	0.05	0.040	O I					0.64
2.250	0.52	0.07	0.042	O	I				0.68
2.333	0.43	0.08	0.045	O	I				0.72
2.417	0.64	0.10	0.048	O		I			0.76
2.500	0.80	0.13	0.052	O			I		0.82
2.583	0.91	0.15	0.057	O				I	0.89
2.667	0.74	0.18	0.062	O			I		0.95
2.750	0.35	0.19	0.064	O	I				0.99
2.833	0.20	0.20	0.065	OI					1.00
2.917	0.20	0.20	0.065	O					1.00
3.000	0.11	0.19	0.065	I O					0.99
3.083	0.02	0.19	0.064	I O					0.98
3.167	0.00	0.18	0.063	I O					0.96
3.250	0.00	0.18	0.061	I O					0.95
3.333	0.00	0.17	0.060	I O					0.93
3.417	0.00	0.16	0.059	I O					0.91
3.500	0.00	0.16	0.058	I O					0.90
3.583	0.00	0.15	0.057	I O					0.88
3.667	0.00	0.14	0.056	I O					0.87
3.750	0.00	0.14	0.055	I O					0.85
3.833	0.00	0.13	0.054	I O					0.84
3.917	0.00	0.13	0.053	I O					0.83
4.000	0.00	0.12	0.052	I O					0.82

4.083	0.00	0.12	0.051	I O				0.80
4.167	0.00	0.11	0.050	I O				0.79
4.250	0.00	0.11	0.050	I O				0.78
4.333	0.00	0.11	0.049	I O				0.77
4.417	0.00	0.10	0.048	I O				0.76
4.500	0.00	0.10	0.048	I O				0.75
4.583	0.00	0.09	0.047	I O				0.74
4.667	0.00	0.09	0.046	I O				0.73
4.750	0.00	0.09	0.046	I O				0.72
4.833	0.00	0.08	0.045	I O				0.71
4.917	0.00	0.08	0.044	I O				0.71
5.000	0.00	0.08	0.044	I O				0.70
5.083	0.00	0.07	0.043	I O				0.69
5.167	0.00	0.07	0.043	I O				0.68
5.250	0.00	0.07	0.042	I O				0.68
5.333	0.00	0.07	0.042	I O				0.67
5.417	0.00	0.06	0.041	I O				0.66
5.500	0.00	0.06	0.041	I O				0.66
5.583	0.00	0.06	0.041	I O				0.65
5.667	0.00	0.06	0.040	I O				0.65
5.750	0.00	0.06	0.040	IO				0.64
5.833	0.00	0.05	0.039	IO				0.63
5.917	0.00	0.05	0.039	IO				0.63
6.000	0.00	0.05	0.039	IO				0.62
6.083	0.00	0.05	0.038	IO				0.62
6.167	0.00	0.05	0.038	IO				0.62
6.250	0.00	0.04	0.038	IO				0.61
6.333	0.00	0.04	0.037	IO				0.61
6.417	0.00	0.04	0.037	IO				0.60
6.500	0.00	0.04	0.037	IO				0.60
6.583	0.00	0.04	0.037	IO				0.60
6.667	0.00	0.04	0.036	IO				0.59
6.750	0.00	0.03	0.036	IO				0.59
6.833	0.00	0.03	0.036	IO				0.58
6.917	0.00	0.03	0.036	IO				0.58
7.000	0.00	0.03	0.035	IO				0.58
7.083	0.00	0.03	0.035	IO				0.58
7.167	0.00	0.03	0.035	IO				0.57
7.250	0.00	0.03	0.035	O				0.57
7.333	0.00	0.03	0.035	O				0.57
7.417	0.00	0.03	0.035	O				0.56
7.500	0.00	0.02	0.034	O				0.56
7.583	0.00	0.02	0.034	O				0.56
7.667	0.00	0.02	0.034	O				0.56
7.750	0.00	0.02	0.034	O				0.56
7.833	0.00	0.02	0.034	O				0.55
7.917	0.00	0.02	0.034	O				0.55
8.000	0.00	0.02	0.033	O				0.55
8.083	0.00	0.02	0.033	O				0.55
8.167	0.00	0.02	0.033	O				0.55

8.250	0.00	0.02	0.033	O	|	|	|	0.54
8.333	0.00	0.02	0.033	O	|	|	|	0.54
8.417	0.00	0.02	0.033	O	|	|	|	0.54
8.500	0.00	0.02	0.033	O	|	|	|	0.54
8.583	0.00	0.01	0.033	O	|	|	|	0.54
8.667	0.00	0.01	0.033	O	|	|	|	0.54
8.750	0.00	0.01	0.032	O	|	|	|	0.53
8.833	0.00	0.01	0.032	O	|	|	|	0.53
8.917	0.00	0.01	0.032	O	|	|	|	0.53
9.000	0.00	0.01	0.032	O	|	|	|	0.53
9.083	0.00	0.01	0.032	O	|	|	|	0.53
9.167	0.00	0.01	0.032	O	|	|	|	0.53
9.250	0.00	0.01	0.032	O	|	|	|	0.53
9.333	0.00	0.01	0.032	O	|	|	|	0.53
9.417	0.00	0.01	0.032	O	|	|	|	0.53
9.500	0.00	0.01	0.032	O	|	|	|	0.52
9.583	0.00	0.01	0.032	O	|	|	|	0.52
9.667	0.00	0.01	0.032	O	|	|	|	0.52
9.750	0.00	0.01	0.032	O	|	|	|	0.52
9.833	0.00	0.01	0.031	O	|	|	|	0.52
9.917	0.00	0.01	0.031	O	|	|	|	0.52
10.000	0.00	0.01	0.031	O	|	|	|	0.52
10.083	0.00	0.01	0.031	O	|	|	|	0.52
10.167	0.00	0.01	0.031	O	|	|	|	0.52
10.250	0.00	0.01	0.031	O	|	|	|	0.52
10.333	0.00	0.01	0.031	O	|	|	|	0.52
10.417	0.00	0.01	0.031	O	|	|	|	0.52
10.500	0.00	0.01	0.031	O	|	|	|	0.52
10.583	0.00	0.01	0.031	O	|	|	|	0.51
10.667	0.00	0.01	0.031	O	|	|	|	0.51
10.750	0.00	0.01	0.031	O	|	|	|	0.51
10.833	0.00	0.01	0.031	O	|	|	|	0.51
10.917	0.00	0.01	0.031	O	|	|	|	0.51
11.000	0.00	0.00	0.031	O	|	|	|	0.51
11.083	0.00	0.00	0.031	O	|	|	|	0.51
11.167	0.00	0.00	0.031	O	|	|	|	0.51
11.250	0.00	0.00	0.031	O	|	|	|	0.51
11.333	0.00	0.00	0.031	O	|	|	|	0.51
11.417	0.00	0.00	0.031	O	|	|	|	0.51
11.500	0.00	0.00	0.031	O	|	|	|	0.51
11.583	0.00	0.00	0.031	O	|	|	|	0.51
11.667	0.00	0.00	0.031	O	|	|	|	0.51
11.750	0.00	0.00	0.031	O	|	|	|	0.51
11.833	0.00	0.00	0.031	O	|	|	|	0.51
11.917	0.00	0.00	0.031	O	|	|	|	0.51
12.000	0.00	0.00	0.031	O	|	|	|	0.51
12.083	0.00	0.00	0.031	O	|	|	|	0.51
12.167	0.00	0.00	0.031	O	|	|	|	0.51
12.250	0.00	0.00	0.030	O	|	|	|	0.51
12.333	0.00	0.00	0.030	O	|	|	|	0.51

12.417	0.00	0.00	0.030	O	|	|	|	|	0.51
12.500	0.00	0.00	0.030	O	|	|	|	|	0.51
12.583	0.00	0.00	0.030	O	|	|	|	|	0.51
12.667	0.00	0.00	0.030	O	|	|	|	|	0.51
12.750	0.00	0.00	0.030	O	|	|	|	|	0.51
12.833	0.00	0.00	0.030	O	|	|	|	|	0.51
12.917	0.00	0.00	0.030	O	|	|	|	|	0.51
13.000	0.00	0.00	0.030	O	|	|	|	|	0.50
13.083	0.00	0.00	0.030	O	|	|	|	|	0.50
13.167	0.00	0.00	0.030	O	|	|	|	|	0.50
13.250	0.00	0.00	0.030	O	|	|	|	|	0.50
13.333	0.00	0.00	0.030	O	|	|	|	|	0.50
13.417	0.00	0.00	0.030	O	|	|	|	|	0.50
13.500	0.00	0.00	0.030	O	|	|	|	|	0.50
13.583	0.00	0.00	0.030	O	|	|	|	|	0.50
13.667	0.00	0.00	0.030	O	|	|	|	|	0.50
13.750	0.00	0.00	0.030	O	|	|	|	|	0.50
13.833	0.00	0.00	0.030	O	|	|	|	|	0.50
13.917	0.00	0.00	0.030	O	|	|	|	|	0.50
14.000	0.00	0.00	0.030	O	|	|	|	|	0.50
14.083	0.00	0.00	0.030	O	|	|	|	|	0.50
14.167	0.00	0.00	0.030	O	|	|	|	|	0.50
14.250	0.00	0.00	0.030	O	|	|	|	|	0.50
14.333	0.00	0.00	0.030	O	|	|	|	|	0.50
14.417	0.00	0.00	0.030	O	|	|	|	|	0.50

Remaining water in basin = 0.03 (Ac.Ft)

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

Number of intervals = 173
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.046 (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

Study date: 08/24/22

A21626 DMA 3 2YR-6HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA3Q100UH62.rte
**********HYDROGRAPH DATA**********
Number of intervals = 73
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.824 (CFS)
Total volume = 0.104 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
_____

Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)

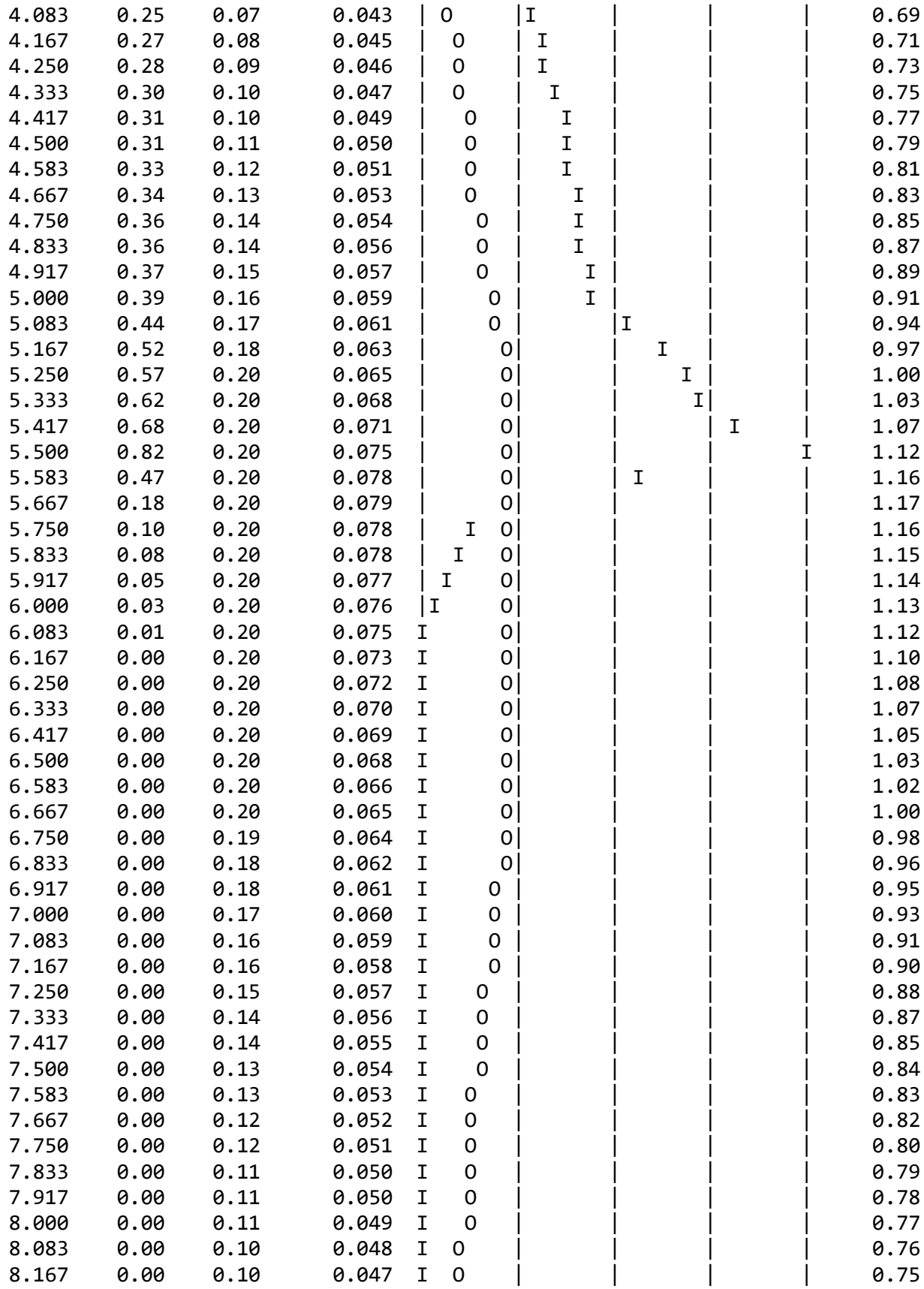

Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)

------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 73
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      0.030      0.000      0.030        0.030
  1.000      0.065      0.196      0.064        0.066
  1.500      0.106      0.196      0.105        0.107
  2.000      0.152      0.196      0.151        0.153
  2.500      0.204      0.196      0.203        0.205
  3.000      0.262      0.196      0.261        0.263
  3.500      0.326      4.639      0.310        0.342
------------------------------------------------------------------------
                Hydrograph Detention Basin Routing
------------------------------------------------------------------------

Graph values: 'I'= unit inflow; 'O'=outflow at time shown
------------------------------------------------------------------------
```

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.2	0.41	0.62	0.82	Depth (Ft.)
0.083	0.05	0.00	0.000	OI	|	|	|	|	0.00
0.167	0.09	0.00	0.001	O I	|	|	|	|	0.01
0.250	0.09	0.00	0.001	O I	|	|	|	|	0.02
0.333	0.09	0.00	0.002	O I	|	|	|	|	0.03
0.417	0.09	0.00	0.002	O I	|	|	|	|	0.04
0.500	0.10	0.00	0.003	O I	|	|	|	|	0.05
0.583	0.10	0.00	0.004	O I	|	|	|	|	0.06
0.667	0.10	0.00	0.005	O I	|	|	|	|	0.08
0.750	0.10	0.00	0.005	O I	|	|	|	|	0.09
0.833	0.10	0.00	0.006	O I	|	|	|	|	0.10
0.917	0.10	0.00	0.007	O I	|	|	|	|	0.11
1.000	0.12	0.00	0.008	O I	|	|	|	|	0.13
1.083	0.12	0.00	0.008	O I	|	|	|	|	0.14
1.167	0.12	0.00	0.009	O I	|	|	|	|	0.15
1.250	0.12	0.00	0.010	O I	|	|	|	|	0.17
1.333	0.12	0.00	0.011	O I	|	|	|	|	0.18
1.417	0.12	0.00	0.012	O I	|	|	|	|	0.19
1.500	0.12	0.00	0.012	O I	|	|	|	|	0.21
1.583	0.12	0.00	0.013	O I	|	|	|	|	0.22
1.667	0.12	0.00	0.014	O I	|	|	|	|	0.23
1.750	0.12	0.00	0.015	O I	|	|	|	|	0.25
1.833	0.12	0.00	0.016	O I	|	|	|	|	0.26
1.917	0.12	0.00	0.017	O I	|	|	|	|	0.28
2.000	0.13	0.00	0.017	O I	|	|	|	|	0.29
2.083	0.12	0.00	0.018	O I	|	|	|	|	0.31
2.167	0.13	0.00	0.019	O I	|	|	|	|	0.32
2.250	0.13	0.00	0.020	O I	|	|	|	|	0.34
2.333	0.13	0.00	0.021	O I	|	|	|	|	0.35
2.417	0.13	0.00	0.022	O I	|	|	|	|	0.37
2.500	0.13	0.00	0.023	O I	|	|	|	|	0.38
2.583	0.13	0.00	0.024	O I	|	|	|	|	0.40
2.667	0.13	0.00	0.025	O I	|	|	|	|	0.41
2.750	0.15	0.00	0.026	O I	|	|	|	|	0.43
2.833	0.15	0.00	0.027	O I	|	|	|	|	0.45
2.917	0.15	0.00	0.028	O I	|	|	|	|	0.46
3.000	0.15	0.00	0.029	O I	|	|	|	|	0.48
3.083	0.15	0.00	0.030	O I	|	|	|	|	0.50
3.167	0.16	0.00	0.031	O I	|	|	|	|	0.51
3.250	0.16	0.01	0.032	O I	|	|	|	|	0.53
3.333	0.16	0.02	0.033	O I	|	|	|	|	0.54
3.417	0.18	0.02	0.034	O I	|	|	|	|	0.56
3.500	0.19	0.03	0.035	|O I|	|	|	|	|	0.57
3.583	0.21	0.04	0.036	|O I|	|	|	|	|	0.59
3.667	0.21	0.04	0.037	|O I	|	|	|	|	0.61
3.750	0.22	0.05	0.039	|O I	|	|	|	|	0.62
3.833	0.22	0.05	0.040	| O I	|	|	|	|	0.64
3.917	0.24	0.06	0.041	| O |I	|	|	|	|	0.66
4.000	0.24	0.07	0.042	| O |I	|	|	|	|	0.67



8.250	0.00	0.09	0.047	I O				0.74
8.333	0.00	0.09	0.046	I O				0.73
8.417	0.00	0.09	0.046	I O				0.72
8.500	0.00	0.08	0.045	I O				0.71
8.583	0.00	0.08	0.044	I O				0.71
8.667	0.00	0.08	0.044	I O				0.70
8.750	0.00	0.07	0.043	I O				0.69
8.833	0.00	0.07	0.043	I O				0.68
8.917	0.00	0.07	0.042	I O				0.68
9.000	0.00	0.07	0.042	I O				0.67
9.083	0.00	0.06	0.041	I O				0.66
9.167	0.00	0.06	0.041	I O				0.66
9.250	0.00	0.06	0.041	I O				0.65
9.333	0.00	0.06	0.040	I O				0.65
9.417	0.00	0.05	0.040	I O				0.64
9.500	0.00	0.05	0.039	I O				0.63
9.583	0.00	0.05	0.039	IO				0.63
9.667	0.00	0.05	0.039	IO				0.62
9.750	0.00	0.05	0.038	IO				0.62
9.833	0.00	0.05	0.038	IO				0.62
9.917	0.00	0.04	0.038	IO				0.61
10.000	0.00	0.04	0.037	IO				0.61
10.083	0.00	0.04	0.037	IO				0.60
10.167	0.00	0.04	0.037	IO				0.60
10.250	0.00	0.04	0.037	IO				0.60
10.333	0.00	0.04	0.036	IO				0.59
10.417	0.00	0.03	0.036	IO				0.59
10.500	0.00	0.03	0.036	IO				0.58
10.583	0.00	0.03	0.036	IO				0.58
10.667	0.00	0.03	0.035	IO				0.58
10.750	0.00	0.03	0.035	IO				0.58
10.833	0.00	0.03	0.035	IO				0.57
10.917	0.00	0.03	0.035	IO				0.57
11.000	0.00	0.03	0.035	IO				0.57
11.083	0.00	0.03	0.035	O				0.56
11.167	0.00	0.02	0.034	O				0.56
11.250	0.00	0.02	0.034	O				0.56
11.333	0.00	0.02	0.034	O				0.56
11.417	0.00	0.02	0.034	O				0.56
11.500	0.00	0.02	0.034	O				0.55
11.583	0.00	0.02	0.034	O				0.55
11.667	0.00	0.02	0.033	O				0.55
11.750	0.00	0.02	0.033	O				0.55
11.833	0.00	0.02	0.033	O				0.55
11.917	0.00	0.02	0.033	O				0.54
12.000	0.00	0.02	0.033	O				0.54
12.083	0.00	0.02	0.033	O				0.54
12.167	0.00	0.02	0.033	O				0.54
12.250	0.00	0.01	0.033	O				0.54
12.333	0.00	0.01	0.033	O				0.54

12.417	0.00	0.01	0.032	O	|	|	|	0.53
12.500	0.00	0.01	0.032	O	|	|	|	0.53
12.583	0.00	0.01	0.032	O	|	|	|	0.53
12.667	0.00	0.01	0.032	O	|	|	|	0.53
12.750	0.00	0.01	0.032	O	|	|	|	0.53
12.833	0.00	0.01	0.032	O	|	|	|	0.53
12.917	0.00	0.01	0.032	O	|	|	|	0.53
13.000	0.00	0.01	0.032	O	|	|	|	0.53
13.083	0.00	0.01	0.032	O	|	|	|	0.53
13.167	0.00	0.01	0.032	O	|	|	|	0.52
13.250	0.00	0.01	0.032	O	|	|	|	0.52
13.333	0.00	0.01	0.032	O	|	|	|	0.52
13.417	0.00	0.01	0.032	O	|	|	|	0.52
13.500	0.00	0.01	0.031	O	|	|	|	0.52
13.583	0.00	0.01	0.031	O	|	|	|	0.52
13.667	0.00	0.01	0.031	O	|	|	|	0.52
13.750	0.00	0.01	0.031	O	|	|	|	0.52
13.833	0.00	0.01	0.031	O	|	|	|	0.52
13.917	0.00	0.01	0.031	O	|	|	|	0.52
14.000	0.00	0.01	0.031	O	|	|	|	0.52
14.083	0.00	0.01	0.031	O	|	|	|	0.52
14.167	0.00	0.01	0.031	O	|	|	|	0.52
14.250	0.00	0.01	0.031	O	|	|	|	0.51
14.333	0.00	0.01	0.031	O	|	|	|	0.51
14.417	0.00	0.01	0.031	O	|	|	|	0.51
14.500	0.00	0.01	0.031	O	|	|	|	0.51
14.583	0.00	0.01	0.031	O	|	|	|	0.51
14.667	0.00	0.00	0.031	O	|	|	|	0.51
14.750	0.00	0.00	0.031	O	|	|	|	0.51
14.833	0.00	0.00	0.031	O	|	|	|	0.51
14.917	0.00	0.00	0.031	O	|	|	|	0.51
15.000	0.00	0.00	0.031	O	|	|	|	0.51
15.083	0.00	0.00	0.031	O	|	|	|	0.51
15.167	0.00	0.00	0.031	O	|	|	|	0.51
15.250	0.00	0.00	0.031	O	|	|	|	0.51
15.333	0.00	0.00	0.031	O	|	|	|	0.51
15.417	0.00	0.00	0.031	O	|	|	|	0.51
15.500	0.00	0.00	0.031	O	|	|	|	0.51
15.583	0.00	0.00	0.031	O	|	|	|	0.51
15.667	0.00	0.00	0.031	O	|	|	|	0.51
15.750	0.00	0.00	0.031	O	|	|	|	0.51
15.833	0.00	0.00	0.031	O	|	|	|	0.51
15.917	0.00	0.00	0.030	O	|	|	|	0.51
16.000	0.00	0.00	0.030	O	|	|	|	0.51
16.083	0.00	0.00	0.030	O	|	|	|	0.51
16.167	0.00	0.00	0.030	O	|	|	|	0.51
16.250	0.00	0.00	0.030	O	|	|	|	0.51
16.333	0.00	0.00	0.030	O	|	|	|	0.51
16.417	0.00	0.00	0.030	O	|	|	|	0.51
16.500	0.00	0.00	0.030	O	|	|	|	0.51

16.583	0.00	0.00	0.030	O	|	|	|	|	0.51
16.667	0.00	0.00	0.030	O	|	|	|	|	0.50
16.750	0.00	0.00	0.030	O	|	|	|	|	0.50
16.833	0.00	0.00	0.030	O	|	|	|	|	0.50
16.917	0.00	0.00	0.030	O	|	|	|	|	0.50
17.000	0.00	0.00	0.030	O	|	|	|	|	0.50
17.083	0.00	0.00	0.030	O	|	|	|	|	0.50
17.167	0.00	0.00	0.030	O	|	|	|	|	0.50
17.250	0.00	0.00	0.030	O	|	|	|	|	0.50
17.333	0.00	0.00	0.030	O	|	|	|	|	0.50
17.417	0.00	0.00	0.030	O	|	|	|	|	0.50
17.500	0.00	0.00	0.030	O	|	|	|	|	0.50
17.583	0.00	0.00	0.030	O	|	|	|	|	0.50
17.667	0.00	0.00	0.030	O	|	|	|	|	0.50
17.750	0.00	0.00	0.030	O	|	|	|	|	0.50
17.833	0.00	0.00	0.030	O	|	|	|	|	0.50
17.917	0.00	0.00	0.030	O	|	|	|	|	0.50
18.000	0.00	0.00	0.030	O	|	|	|	|	0.50
18.083	0.00	0.00	0.030	O	|	|	|	|	0.50

Remaining water in basin = 0.03 (Ac.Ft)

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

Number of intervals = 217
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.073 (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

Study date: 08/24/22

A21626 DMA 3 2YR-24HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA3Q100UH242.rte
**********HYDROGRAPH DATA**********
Number of intervals = 289
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.294 (CFS)
Total volume = 0.178 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
_____

Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)

------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 289
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      0.030      0.000      0.030        0.030
  1.000      0.065      0.196      0.064        0.066
  1.500      0.106      0.196      0.105        0.107
  2.000      0.152      0.196      0.151        0.153
  2.500      0.204      0.196      0.203        0.205
  3.000      0.262      0.196      0.261        0.263
  3.500      0.326      4.639      0.310        0.342
------------------------------------------------------------------------
                Hydrograph Detention Basin Routing
------------------------------------------------------------------------

Graph values: 'I'= unit inflow; 'O'=outflow at time shown
------------------------------------------------------------------------
```

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.1	0.15	0.22	0.29	Depth (Ft.)
0.083	0.01	0.00	0.000	OI	|	|	|	|	0.00
0.167	0.02	0.00	0.000	OI	|	|	|	|	0.00
0.250	0.02	0.00	0.000	OI	|	|	|	|	0.00
0.333	0.02	0.00	0.000	O I	|	|	|	|	0.01
0.417	0.03	0.00	0.001	O I	|	|	|	|	0.01
0.500	0.03	0.00	0.001	O I	|	|	|	|	0.01
0.583	0.03	0.00	0.001	O I	|	|	|	|	0.02
0.667	0.03	0.00	0.001	O I	|	|	|	|	0.02
0.750	0.03	0.00	0.001	O I	|	|	|	|	0.02
0.833	0.03	0.00	0.001	O I	|	|	|	|	0.02
0.917	0.03	0.00	0.002	O I	|	|	|	|	0.03
1.000	0.03	0.00	0.002	O I	|	|	|	|	0.03
1.083	0.03	0.00	0.002	O I	|	|	|	|	0.04
1.167	0.03	0.00	0.002	O I	|	|	|	|	0.04
1.250	0.03	0.00	0.003	O I	|	|	|	|	0.04
1.333	0.03	0.00	0.003	O I	|	|	|	|	0.05
1.417	0.03	0.00	0.003	O I	|	|	|	|	0.05
1.500	0.03	0.00	0.003	O I	|	|	|	|	0.05
1.583	0.03	0.00	0.003	O I	|	|	|	|	0.05
1.667	0.03	0.00	0.003	O I	|	|	|	|	0.06
1.750	0.03	0.00	0.004	O I	|	|	|	|	0.06
1.833	0.03	0.00	0.004	O I	|	|	|	|	0.06
1.917	0.03	0.00	0.004	O I	|	|	|	|	0.07
2.000	0.03	0.00	0.004	O I	|	|	|	|	0.07
2.083	0.03	0.00	0.005	O I	|	|	|	|	0.08
2.167	0.03	0.00	0.005	O I	|	|	|	|	0.08
2.250	0.03	0.00	0.005	O I	|	|	|	|	0.08
2.333	0.03	0.00	0.005	O I	|	|	|	|	0.09
2.417	0.03	0.00	0.005	O I	|	|	|	|	0.09
2.500	0.03	0.00	0.006	O I	|	|	|	|	0.09
2.583	0.04	0.00	0.006	O I	|	|	|	|	0.10
2.667	0.04	0.00	0.006	O I	|	|	|	|	0.10
2.750	0.04	0.00	0.007	O I	|	|	|	|	0.11
2.833	0.04	0.00	0.007	O I	|	|	|	|	0.11
2.917	0.04	0.00	0.007	O I	|	|	|	|	0.12
3.000	0.04	0.00	0.007	O I	|	|	|	|	0.12
3.083	0.04	0.00	0.008	O I	|	|	|	|	0.13
3.167	0.04	0.00	0.008	O I	|	|	|	|	0.13
3.250	0.04	0.00	0.008	O I	|	|	|	|	0.14
3.333	0.04	0.00	0.009	O I	|	|	|	|	0.14
3.417	0.04	0.00	0.009	O I	|	|	|	|	0.15
3.500	0.04	0.00	0.009	O I	|	|	|	|	0.15
3.583	0.04	0.00	0.010	O I	|	|	|	|	0.16
3.667	0.04	0.00	0.010	O I	|	|	|	|	0.16
3.750	0.04	0.00	0.010	O I	|	|	|	|	0.17
3.833	0.05	0.00	0.010	O I	|	|	|	|	0.17
3.917	0.05	0.00	0.011	O I	|	|	|	|	0.18
4.000	0.05	0.00	0.011	O I	|	|	|	|	0.19

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4.083    0.05    0.00      0.011  O    I  |       |       |       |     0.19
4.167    0.05    0.00      0.012  O    I  |       |       |       |     0.20
4.250    0.05    0.00      0.012  O    I  |       |       |       |     0.20
4.333    0.06    0.00      0.013  O     I |       |       |       |     0.21
4.417    0.06    0.00      0.013  O     I |       |       |       |     0.22
4.500    0.06    0.00      0.013  O     I |       |       |       |     0.22
4.583    0.06    0.00      0.014  O     I |       |       |       |     0.23
4.667    0.06    0.00      0.014  O     I |       |       |       |     0.24
4.750    0.06    0.00      0.015  O     I |       |       |       |     0.24
4.833    0.07    0.00      0.015  O      I|       |       |       |     0.25
4.917    0.07    0.00      0.016  O      I|       |       |       |     0.26
5.000    0.07    0.00      0.016  O      I|       |       |       |     0.27
5.083    0.06    0.00      0.016  O     I |       |       |       |     0.27
5.167    0.05    0.00      0.017  O    I  |       |       |       |     0.28
5.250    0.05    0.00      0.017  O    I  |       |       |       |     0.29
5.333    0.06    0.00      0.018  O     I |       |       |       |     0.29
5.417    0.06    0.00      0.018  O     I |       |       |       |     0.30
5.500    0.06    0.00      0.018  O     I |       |       |       |     0.31
5.583    0.07    0.00      0.019  O      I|       |       |       |     0.31
5.667    0.07    0.00      0.019  O      I|       |       |       |     0.32
5.750    0.07    0.00      0.020  O      I|       |       |       |     0.33
5.833    0.07    0.00      0.020  O      I|       |       |       |     0.34
5.917    0.07    0.00      0.021  O      I|       |       |       |     0.35
6.000    0.07    0.00      0.021  O      I|       |       |       |     0.35
6.083    0.07    0.00      0.022  O       I       |       |       |     0.36
6.167    0.08    0.00      0.022  O       I       |       |       |     0.37
6.250    0.08    0.00      0.023  O       I       |       |       |     0.38
6.333    0.08    0.00      0.023  O       I       |       |       |     0.39
6.417    0.08    0.00      0.024  O       I       |       |       |     0.40
6.500    0.08    0.00      0.024  O       I       |       |       |     0.41
6.583    0.08    0.00      0.025  O       |I      |       |       |     0.42
6.667    0.09    0.00      0.025  O       |I      |       |       |     0.42
6.750    0.09    0.00      0.026  O       |I      |       |       |     0.43
6.833    0.09    0.00      0.027  O       |I      |       |       |     0.44
6.917    0.09    0.00      0.027  O       |I      |       |       |     0.45
7.000    0.09    0.00      0.028  O       |I      |       |       |     0.46
7.083    0.09    0.00      0.028  O       |I      |       |       |     0.47
7.167    0.09    0.00      0.029  O       |I      |       |       |     0.48
7.250    0.09    0.00      0.030  O       |I      |       |       |     0.49
7.333    0.09    0.00      0.030  O       | I     |       |       |     0.50
7.417    0.09    0.00      0.031  O       | I     |       |       |     0.51
7.500    0.09    0.01      0.031  O       | I     |       |       |     0.52
7.583    0.10    0.01      0.032  |O      | I     |       |       |     0.53
7.667    0.10    0.02      0.033  |O      |  I    |       |       |     0.54
7.750    0.10    0.02      0.033  | O     |  I    |       |       |     0.55
7.833    0.11    0.02      0.034  | O     |  I    |       |       |     0.56
7.917    0.11    0.03      0.035  | O     |   I   |       |       |     0.56
8.000    0.11    0.03      0.035  |  O    |   I   |       |       |     0.57
8.083    0.12    0.03      0.036  |  O    |    I  |       |       |     0.58
8.167    0.13    0.04      0.036  |  O    |     I |       |       |     0.59
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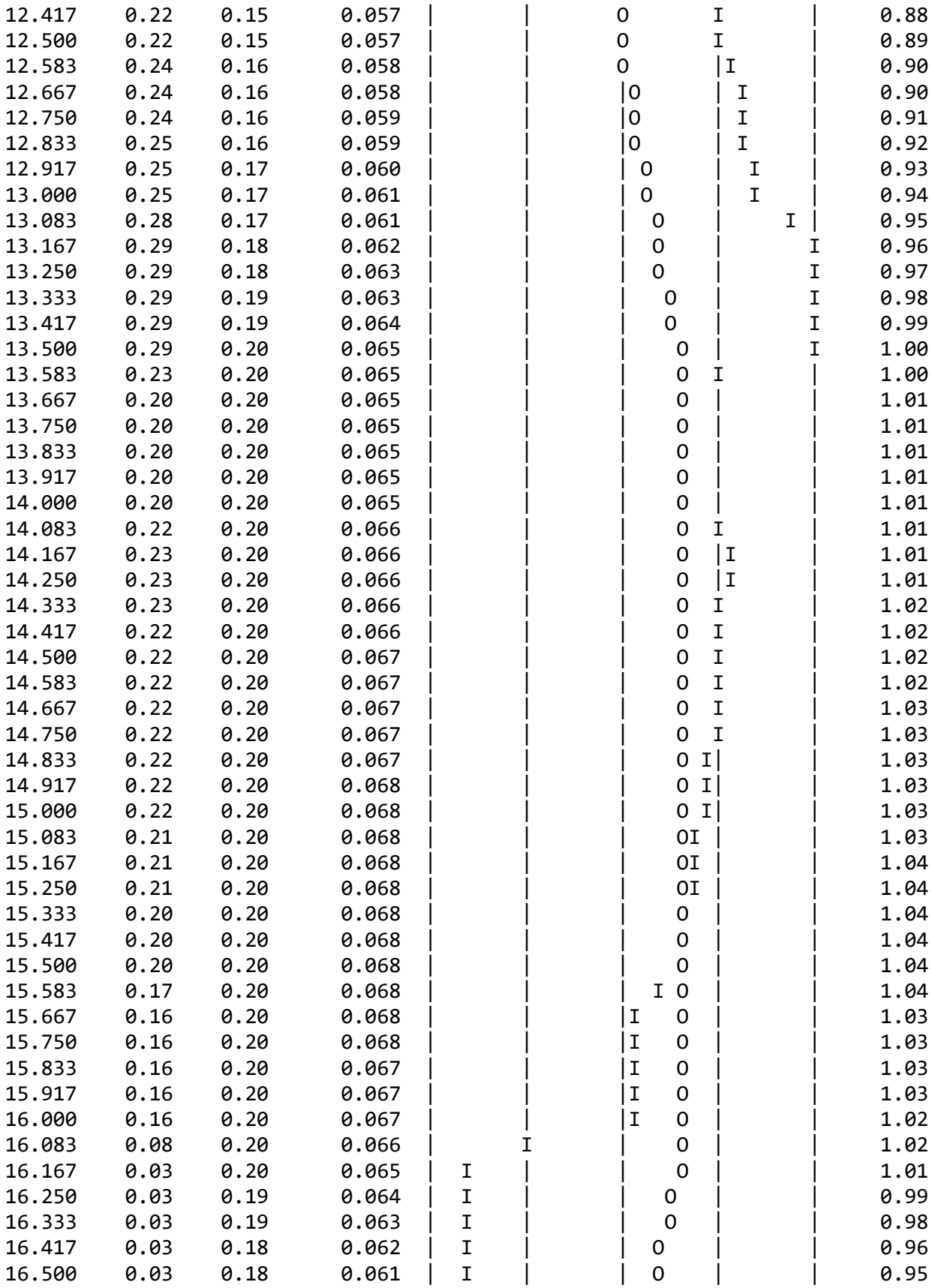
8.250	0.13	0.04	0.037	O	I			0.60
8.333	0.13	0.04	0.038	O	I			0.61
8.417	0.13	0.05	0.038	O	I			0.62
8.500	0.13	0.05	0.039	O	I			0.62
8.583	0.14	0.05	0.039	O	I			0.63
8.667	0.14	0.06	0.040	O	I			0.64
8.750	0.14	0.06	0.040	O	I			0.65
8.833	0.14	0.06	0.041	O	I			0.66
8.917	0.15	0.06	0.042	O	I			0.67
9.000	0.15	0.07	0.042	O	I			0.67
9.083	0.16	0.07	0.043	O	I			0.68
9.167	0.16	0.07	0.043	O	I			0.69
9.250	0.16	0.08	0.044	O	I			0.70
9.333	0.17	0.08	0.044	O	I			0.71
9.417	0.17	0.08	0.045	O	I			0.72
9.500	0.17	0.09	0.046	O	I			0.72
9.583	0.18	0.09	0.046	O	I			0.73
9.667	0.18	0.09	0.047	O	I			0.74
9.750	0.18	0.10	0.047	O	I			0.75
9.833	0.19	0.10	0.048	O	I			0.76
9.917	0.19	0.10	0.049	O	I			0.77
10.000	0.19	0.11	0.049	O	I			0.77
10.083	0.15	0.11	0.050	O	I			0.78
10.167	0.13	0.11	0.050	O	I			0.78
10.250	0.13	0.11	0.050	O	I			0.79
10.333	0.13	0.11	0.050	O	I			0.79
10.417	0.13	0.11	0.050	O	I			0.79
10.500	0.13	0.11	0.050	O	I			0.79
10.583	0.16	0.12	0.051	O	I			0.79
10.667	0.17	0.12	0.051	O	I			0.80
10.750	0.17	0.12	0.051	O	I			0.80
10.833	0.17	0.12	0.052	O	I			0.81
10.917	0.17	0.12	0.052	O	I			0.81
11.000	0.17	0.12	0.052	O	I			0.82
11.083	0.17	0.13	0.053	O	I			0.82
11.167	0.16	0.13	0.053	O	I			0.83
11.250	0.16	0.13	0.053	O	I			0.83
11.333	0.16	0.13	0.053	O	I			0.83
11.417	0.16	0.13	0.054	O	I			0.84
11.500	0.16	0.13	0.054	O	I			0.84
11.583	0.15	0.13	0.054	O	I			0.84
11.667	0.15	0.13	0.054	O	I			0.84
11.750	0.15	0.14	0.054	O	I			0.84
11.833	0.15	0.14	0.054	O	I			0.85
11.917	0.16	0.14	0.054	O	I			0.85
12.000	0.16	0.14	0.054	O	I			0.85
12.083	0.20	0.14	0.055	O	I			0.85
12.167	0.22	0.14	0.055	O	I			0.86
12.250	0.22	0.14	0.056	O	I			0.87
12.333	0.22	0.15	0.056	O	I			0.87



16.583	0.03	0.17	0.060	| I |	| | O |	|	0.93
16.667	0.03	0.16	0.059	| I |	| |O |	|	0.92
16.750	0.03	0.16	0.058	| I |	| |O |	|	0.91
16.833	0.03	0.15	0.057	| I |	| O |	|	0.89
16.917	0.03	0.15	0.057	| I |	| O |	|	0.88
17.000	0.03	0.14	0.056	| I |	| O|	|	0.87
17.083	0.04	0.14	0.055	| I |	| O|	|	0.86
17.167	0.04	0.14	0.054	| I |	| O |	|	0.85
17.250	0.04	0.13	0.054	| I |	| O |	|	0.84
17.333	0.04	0.13	0.053	| I |	| O |	|	0.83
17.417	0.04	0.13	0.053	| I |	| O |	|	0.82
17.500	0.04	0.12	0.052	| I |	| O |	|	0.81
17.583	0.04	0.12	0.051	| I |	| O |	|	0.81
17.667	0.04	0.12	0.051	| I |	| O |	|	0.80
17.750	0.04	0.11	0.050	| I |	| O |	|	0.79
17.833	0.04	0.11	0.050	| I |	| O |	|	0.78
17.917	0.03	0.11	0.049	| I |	| O |	|	0.78
18.000	0.03	0.11	0.049	| I |	| O |	|	0.77
18.083	0.03	0.10	0.048	| I |	| O |	|	0.76
18.167	0.03	0.10	0.048	| I |	| O |	|	0.76
18.250	0.03	0.10	0.047	| I |	| O |	|	0.75
18.333	0.03	0.10	0.047	| I |	| O |	|	0.74
18.417	0.03	0.09	0.047	| I |	| O |	|	0.74
18.500	0.03	0.09	0.046	| I |	|O |	|	0.73
18.583	0.03	0.09	0.046	| I |	|O |	|	0.73
18.667	0.03	0.09	0.045	| I |	|O |	|	0.72
18.750	0.03	0.08	0.045	| I |	|O |	|	0.71
18.833	0.02	0.08	0.045	| I |	O |	|	0.71
18.917	0.02	0.08	0.044	|I |	O |	|	0.70
19.000	0.02	0.08	0.044	|I |	O |	|	0.70
19.083	0.02	0.07	0.043	| I |	O |	|	0.69
19.167	0.03	0.07	0.043	| I |	O|	|	0.69
19.250	0.03	0.07	0.043	| I |	O|	|	0.68
19.333	0.03	0.07	0.042	| I |	O|	|	0.68
19.417	0.03	0.07	0.042	| I |	O|	|	0.67
19.500	0.03	0.07	0.042	| I |	O|	|	0.67
19.583	0.03	0.07	0.042	| I |	O|	|	0.67
19.667	0.03	0.06	0.041	| I |	O|	|	0.66
19.750	0.03	0.06	0.041	| I |	O |	|	0.66
19.833	0.02	0.06	0.041	| I |	O |	|	0.66
19.917	0.02	0.06	0.041	|I |	O |	|	0.65
20.000	0.02	0.06	0.040	|I |	O |	|	0.65
20.083	0.02	0.06	0.040	| I |	O |	|	0.64
20.167	0.03	0.06	0.040	| I |	O |	|	0.64
20.250	0.03	0.05	0.040	| I | O |	|	|	0.64
20.333	0.03	0.05	0.039	| I | O |	|	|	0.64
20.417	0.03	0.05	0.039	| I | O |	|	|	0.63
20.500	0.03	0.05	0.039	| I | O |	|	|	0.63
20.583	0.03	0.05	0.039	| I | O |	|	|	0.63
20.667	0.03	0.05	0.039	| I | O |	|	|	0.63

20.750	0.03	0.05	0.039	| I O |	|	|	|	0.62
20.833	0.02	0.05	0.038	| I O |	|	|	|	0.62
20.917	0.02	0.05	0.038	|I O |	|	|	|	0.62
21.000	0.02	0.05	0.038	|I O |	|	|	|	0.62
21.083	0.02	0.04	0.038	| I O |	|	|	|	0.61
21.167	0.03	0.04	0.038	| I O |	|	|	|	0.61
21.250	0.03	0.04	0.038	| I O |	|	|	|	0.61
21.333	0.02	0.04	0.038	| I O |	|	|	|	0.61
21.417	0.02	0.04	0.037	|I O |	|	|	|	0.60
21.500	0.02	0.04	0.037	|I O |	|	|	|	0.60
21.583	0.02	0.04	0.037	| I O |	|	|	|	0.60
21.667	0.03	0.04	0.037	| I O |	|	|	|	0.60
21.750	0.03	0.04	0.037	| I O |	|	|	|	0.60
21.833	0.02	0.04	0.037	| I O |	|	|	|	0.60
21.917	0.02	0.04	0.037	|I O |	|	|	|	0.59
22.000	0.02	0.04	0.036	|I O |	|	|	|	0.59
22.083	0.02	0.04	0.036	| IO |	|	|	|	0.59
22.167	0.03	0.04	0.036	| IO |	|	|	|	0.59
22.250	0.03	0.04	0.036	| IO |	|	|	|	0.59
22.333	0.02	0.03	0.036	| IO |	|	|	|	0.59
22.417	0.02	0.03	0.036	|I O |	|	|	|	0.59
22.500	0.02	0.03	0.036	|I O |	|	|	|	0.58
22.583	0.02	0.03	0.036	|I O |	|	|	|	0.58
22.667	0.02	0.03	0.036	|I O |	|	|	|	0.58
22.750	0.02	0.03	0.036	|I O |	|	|	|	0.58
22.833	0.02	0.03	0.036	|I O |	|	|	|	0.58
22.917	0.02	0.03	0.035	|I O |	|	|	|	0.58
23.000	0.02	0.03	0.035	|I O |	|	|	|	0.58
23.083	0.02	0.03	0.035	|I O |	|	|	|	0.58
23.167	0.02	0.03	0.035	|I O |	|	|	|	0.57
23.250	0.02	0.03	0.035	|I O |	|	|	|	0.57
23.333	0.02	0.03	0.035	|I O |	|	|	|	0.57
23.417	0.02	0.03	0.035	|I O |	|	|	|	0.57
23.500	0.02	0.03	0.035	|IO |	|	|	|	0.57
23.583	0.02	0.03	0.035	|IO |	|	|	|	0.57
23.667	0.02	0.03	0.035	|IO |	|	|	|	0.57
23.750	0.02	0.03	0.035	|IO |	|	|	|	0.57
23.833	0.02	0.03	0.035	|IO |	|	|	|	0.57
23.917	0.02	0.03	0.035	|IO |	|	|	|	0.57
24.000	0.02	0.03	0.035	|IO |	|	|	|	0.56
24.083	0.01	0.02	0.034	I O |	|	|	|	0.56
24.167	0.00	0.02	0.034	I O |	|	|	|	0.56
24.250	0.00	0.02	0.034	I O |	|	|	|	0.56
24.333	0.00	0.02	0.034	I O |	|	|	|	0.56
24.417	0.00	0.02	0.034	I O |	|	|	|	0.55
24.500	0.00	0.02	0.034	I O |	|	|	|	0.55
24.583	0.00	0.02	0.034	I O |	|	|	|	0.55
24.667	0.00	0.02	0.033	I O |	|	|	|	0.55
24.750	0.00	0.02	0.033	IO |	|	|	|	0.55
24.833	0.00	0.02	0.033	IO |	|	|	|	0.54

24.917	0.00	0.02	0.033	IO				0.54
25.000	0.00	0.02	0.033	IO				0.54
25.083	0.00	0.02	0.033	IO				0.54
25.167	0.00	0.02	0.033	IO				0.54
25.250	0.00	0.01	0.033	IO				0.54
25.333	0.00	0.01	0.032	IO				0.54
25.417	0.00	0.01	0.032	IO				0.53
25.500	0.00	0.01	0.032	IO				0.53
25.583	0.00	0.01	0.032	IO				0.53
25.667	0.00	0.01	0.032	IO				0.53
25.750	0.00	0.01	0.032	IO				0.53
25.833	0.00	0.01	0.032	IO				0.53
25.917	0.00	0.01	0.032	IO				0.53
26.000	0.00	0.01	0.032	IO				0.53
26.083	0.00	0.01	0.032	IO				0.53
26.167	0.00	0.01	0.032	IO				0.52
26.250	0.00	0.01	0.032	O				0.52
26.333	0.00	0.01	0.032	O				0.52
26.417	0.00	0.01	0.032	O				0.52
26.500	0.00	0.01	0.031	O				0.52
26.583	0.00	0.01	0.031	O				0.52
26.667	0.00	0.01	0.031	O				0.52
26.750	0.00	0.01	0.031	O				0.52
26.833	0.00	0.01	0.031	O				0.52
26.917	0.00	0.01	0.031	O				0.52
27.000	0.00	0.01	0.031	O				0.52
27.083	0.00	0.01	0.031	O				0.52
27.167	0.00	0.01	0.031	O				0.52
27.250	0.00	0.01	0.031	O				0.51
27.333	0.00	0.01	0.031	O				0.51
27.417	0.00	0.01	0.031	O				0.51
27.500	0.00	0.01	0.031	O				0.51
27.583	0.00	0.00	0.031	O				0.51
27.667	0.00	0.00	0.031	O				0.51
27.750	0.00	0.00	0.031	O				0.51
27.833	0.00	0.00	0.031	O				0.51
27.917	0.00	0.00	0.031	O				0.51
28.000	0.00	0.00	0.031	O				0.51
28.083	0.00	0.00	0.031	O				0.51
28.167	0.00	0.00	0.031	O				0.51
28.250	0.00	0.00	0.031	O				0.51
28.333	0.00	0.00	0.031	O				0.51
28.417	0.00	0.00	0.031	O				0.51
28.500	0.00	0.00	0.031	O				0.51
28.583	0.00	0.00	0.031	O				0.51
28.667	0.00	0.00	0.031	O				0.51
28.750	0.00	0.00	0.031	O				0.51
28.833	0.00	0.00	0.030	O				0.51
28.917	0.00	0.00	0.030	O				0.51
29.000	0.00	0.00	0.030	O				0.51

29.083	0.00	0.00	0.030	O	|	|	|	|	0.51
29.167	0.00	0.00	0.030	O	|	|	|	|	0.51
29.250	0.00	0.00	0.030	O	|	|	|	|	0.51
29.333	0.00	0.00	0.030	O	|	|	|	|	0.51
29.417	0.00	0.00	0.030	O	|	|	|	|	0.51
29.500	0.00	0.00	0.030	O	|	|	|	|	0.51
29.583	0.00	0.00	0.030	O	|	|	|	|	0.50
29.667	0.00	0.00	0.030	O	|	|	|	|	0.50
29.750	0.00	0.00	0.030	O	|	|	|	|	0.50
29.833	0.00	0.00	0.030	O	|	|	|	|	0.50
29.917	0.00	0.00	0.030	O	|	|	|	|	0.50
30.000	0.00	0.00	0.030	O	|	|	|	|	0.50
30.083	0.00	0.00	0.030	O	|	|	|	|	0.50
30.167	0.00	0.00	0.030	O	|	|	|	|	0.50
30.250	0.00	0.00	0.030	O	|	|	|	|	0.50
30.333	0.00	0.00	0.030	O	|	|	|	|	0.50
30.417	0.00	0.00	0.030	O	|	|	|	|	0.50
30.500	0.00	0.00	0.030	O	|	|	|	|	0.50
30.583	0.00	0.00	0.030	O	|	|	|	|	0.50
30.667	0.00	0.00	0.030	O	|	|	|	|	0.50
30.750	0.00	0.00	0.030	O	|	|	|	|	0.50
30.833	0.00	0.00	0.030	O	|	|	|	|	0.50
30.917	0.00	0.00	0.030	O	|	|	|	|	0.50
31.000	0.00	0.00	0.030	O	|	|	|	|	0.50
31.083	0.00	0.00	0.030	O	|	|	|	|	0.50

Remaining water in basin = 0.03 (Ac.Ft)

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

Number of intervals = 373
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.148 (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

****

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

Study date 08/02/22 File: A21626DMA3Q100UH12.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 2YR-1HR UH

Drainage Area = 1.42(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.42(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 440.21(Ft.)
Length along longest watercourse measured to centroid = 326.50(Ft.)
Length along longest watercourse = 0.083 Mi.
Length along longest watercourse measured to centroid = 0.062 Mi.
Difference in elevation = 6.70(Ft.)
Slope along watercourse = 80.3616 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.018 Hr.
Lag time = 1.10 Min.
25% of lag time = 0.27 Min.
40% of lag time = 0.44 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]
        1.42            0.48                  0.68

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.42            1.25                  1.77

STORM EVENT (YEAR) =    2.00
Area Averaged 2-Year Rainfall =    0.480(In)
Area Averaged 100-Year Rainfall =    1.250(In)

Point rain (area averaged) =    0.480(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    0.480(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.417           69.00         0.869
 Total Area Entered =      1.42(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.869        0.125       1.000      0.125
                                                 Sum (F) =   0.125
Area averaged mean soil loss (F) (In/Hr) =  0.125
Minimum soil loss rate ((In/Hr)) =  0.063
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.205
------------------------------------------------------------------------
Slope of intensity-duration curve for a 1 hour storm =0.4800
------------------------------------------------------------------------

                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        454.945         68.526              0.979
    2   0.167        909.890         31.474              0.449
                               Sum = 100.000   Sum=       1.428
-----------------------------------------------------------------
```

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	4.40	0.253	(0.125)	0.052	0.201
2	0.17	4.50	0.259	(0.125)	0.053	0.206
3	0.25	5.40	0.311	(0.125)	0.064	0.247
4	0.33	5.40	0.311	(0.125)	0.064	0.247
5	0.42	5.70	0.328	(0.125)	0.067	0.261
6	0.50	6.40	0.369	(0.125)	0.076	0.293
7	0.58	7.90	0.455	(0.125)	0.093	0.362
8	0.67	9.10	0.524	(0.125)	0.107	0.417
9	0.75	12.80	0.737	0.125	(0.151)	0.612
10	0.83	25.60	1.475	0.125	(0.302)	1.349
11	0.92	7.90	0.455	(0.125)	0.093	0.362
12	1.00	4.90	0.282	(0.125)	0.058	0.224
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	4.8

Flood volume = Effective rainfall 0.40(In)
times area 1.4(Ac.)/[(In)/(Ft.)] = 0.0(Ac.Ft)
Total soil loss = 0.08(In)
Total soil loss = 0.010(Ac.Ft)
Total rainfall = 0.48(In)
Flood volume = 2050.0 Cubic Feet
Total soil loss = 419.0 Cubic Feet

Peak flow rate of this hydrograph = 1.597(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	2.5	5.0	7.5	10.0
0+ 5	0.0014	0.20	QV				
0+10	0.0034	0.29	QV				
0+15	0.0057	0.33	Q V				
0+20	0.0081	0.35	Q V				
0+25	0.0106	0.37	Q V				
0+30	0.0134	0.40	Q V				
0+35	0.0168	0.49	Q V				
0+40	0.0207	0.57	Q V				
0+45	0.0261	0.79	Q V				
0+50	0.0371	1.60	Q V				
0+55	0.0437	0.96	Q V				
1+ 0	0.0464	0.38	Q V				

```
    1+ 5       0.0471      0.10  Q         |         |         |         V
-------------------------------------------------------------------------
```

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

Study date 08/02/22 File: A21626DMA3Q100UH32.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 2YR-3HR UH

Drainage Area = 1.42(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.42(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 440.21(Ft.)
Length along longest watercourse measured to centroid = 326.50(Ft.)
Length along longest watercourse = 0.083 Mi.
Length along longest watercourse measured to centroid = 0.062 Mi.
Difference in elevation = 6.70(Ft.)
Slope along watercourse = 80.3616 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.018 Hr.
Lag time = 1.10 Min.
25% of lag time = 0.27 Min.
40% of lag time = 0.44 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]
        1.42            0.80                    1.13

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.42            1.95                    2.76

STORM EVENT (YEAR) =    2.00
Area Averaged 2-Year Rainfall =    0.800(In)
Area Averaged 100-Year Rainfall =    1.950(In)

Point rain (area averaged) =    0.800(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    0.800(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.417           69.00         0.869
 Total Area Entered =      1.42(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.869        0.125       1.000      0.125
                                                 Sum (F) =   0.125
Area averaged mean soil loss (F) (In/Hr) =  0.125
Minimum soil loss rate ((In/Hr)) =  0.063
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.205
------------------------------------------------------------------------

               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        454.945         68.526              0.979
    2   0.167        909.890         31.474              0.449
                               Sum = 100.000   Sum=       1.428
------------------------------------------------------------------------

 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	0.125	(0.125)	0.026	0.099
2	0.17	1.30	0.125	(0.125)	0.026	0.099
3	0.25	1.10	0.106	(0.125)	0.022	0.084
4	0.33	1.50	0.144	(0.125)	0.030	0.114
5	0.42	1.50	0.144	(0.125)	0.030	0.114
6	0.50	1.80	0.173	(0.125)	0.035	0.137
7	0.58	1.50	0.144	(0.125)	0.030	0.114
8	0.67	1.80	0.173	(0.125)	0.035	0.137
9	0.75	1.80	0.173	(0.125)	0.035	0.137
10	0.83	1.50	0.144	(0.125)	0.030	0.114
11	0.92	1.60	0.154	(0.125)	0.031	0.122
12	1.00	1.80	0.173	(0.125)	0.035	0.137
13	1.08	2.20	0.211	(0.125)	0.043	0.168
14	1.17	2.20	0.211	(0.125)	0.043	0.168
15	1.25	2.20	0.211	(0.125)	0.043	0.168
16	1.33	2.00	0.192	(0.125)	0.039	0.153
17	1.42	2.60	0.250	(0.125)	0.051	0.198
18	1.50	2.70	0.259	(0.125)	0.053	0.206
19	1.58	2.40	0.230	(0.125)	0.047	0.183
20	1.67	2.70	0.259	(0.125)	0.053	0.206
21	1.75	3.30	0.317	(0.125)	0.065	0.252
22	1.83	3.10	0.298	(0.125)	0.061	0.237
23	1.92	2.90	0.278	(0.125)	0.057	0.221
24	2.00	3.00	0.288	(0.125)	0.059	0.229
25	2.08	3.10	0.298	(0.125)	0.061	0.237
26	2.17	4.20	0.403	(0.125)	0.083	0.321
27	2.25	5.00	0.480	(0.125)	0.098	0.382
28	2.33	3.50	0.336	(0.125)	0.069	0.267
29	2.42	6.80	0.653	0.125	(0.134)	0.528
30	2.50	7.30	0.701	0.125	(0.144)	0.576
31	2.58	8.20	0.787	0.125	(0.161)	0.662
32	2.67	5.90	0.566	(0.125)	0.116	0.450
33	2.75	2.00	0.192	(0.125)	0.039	0.153
34	2.83	1.80	0.173	(0.125)	0.035	0.137
35	2.92	1.80	0.173	(0.125)	0.035	0.137
36	3.00	0.60	0.058	(0.125)	0.012	0.046
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	7.7

Flood volume = Effective rainfall 0.64(In)
times area 1.4(Ac.)/[(In)/(Ft.)] = 0.1(Ac.Ft)
Total soil loss = 0.16(In)
Total soil loss = 0.019(Ac.Ft)
Total rainfall = 0.80(In)
Flood volume = 3298.7 Cubic Feet
Total soil loss = 816.3 Cubic Feet

Peak flow rate of this hydrograph = 0.907(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	2.5	5.0	7.5	10.0
0+ 5	0.0007	0.10	Q				
0+10	0.0016	0.14	Q				
0+15	0.0025	0.13	QV				
0+20	0.0036	0.15	QV				
0+25	0.0047	0.16	Q V				
0+30	0.0060	0.19	Q V				
0+35	0.0072	0.17	Q V				
0+40	0.0084	0.19	Q V				
0+45	0.0098	0.20	Q V				
0+50	0.0110	0.17	Q V				
0+55	0.0122	0.17	Q V				
1+ 0	0.0135	0.19	Q V				
1+ 5	0.0150	0.23	Q V				
1+10	0.0167	0.24	Q V				
1+15	0.0183	0.24	Q V				
1+20	0.0199	0.22	Q V				
1+25	0.0217	0.26	Q V				
1+30	0.0237	0.29	Q V				
1+35	0.0256	0.27	Q V				
1+40	0.0275	0.28	Q V				
1+45	0.0299	0.34	Q V				
1+50	0.0322	0.34	Q V				
1+55	0.0345	0.32	Q V				
2+ 0	0.0367	0.32	Q V				
2+ 5	0.0390	0.33	Q V				
2+10	0.0419	0.42	Q V				
2+15	0.0455	0.52	Q V				
2+20	0.0484	0.43	Q V				
2+25	0.0528	0.64	Q V				
2+30	0.0583	0.80	Q V				
2+35	0.0646	0.91	Q V				
2+40	0.0697	0.74	Q V				
2+45	0.0721	0.35	Q V				
2+50	0.0735	0.20	Q V				
2+55	0.0749	0.20	Q V				
3+ 0	0.0756	0.11	Q V				
3+ 5	0.0757	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

Study date 08/02/22 File: A21626DMA3Q100UH62.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 2YR-6HR UH

Drainage Area = 1.42(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.42(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 440.21(Ft.)
Length along longest watercourse measured to centroid = 326.50(Ft.)
Length along longest watercourse = 0.083 Mi.
Length along longest watercourse measured to centroid = 0.062 Mi.
Difference in elevation = 6.70(Ft.)
Slope along watercourse = 80.3616 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.018 Hr.
Lag time = 1.10 Min.
25% of lag time = 0.27 Min.
40% of lag time = 0.44 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]
        1.42            1.10                    1.56

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.42            2.70                    3.83

STORM EVENT (YEAR) =    2.00
Area Averaged 2-Year Rainfall =    1.100(In)
Area Averaged 100-Year Rainfall =    2.700(In)

Point rain (area averaged) =    1.100(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.100(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.417           69.00         0.869
 Total Area Entered =      1.42(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.869        0.125       1.000      0.125
                                                 Sum (F) =   0.125
Area averaged mean soil loss (F) (In/Hr) =  0.125
Minimum soil loss rate ((In/Hr)) =  0.063
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.205
------------------------------------------------------------------------

               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        454.945         68.526              0.979
    2   0.167        909.890         31.474              0.449
                               Sum = 100.000   Sum=       1.428
------------------------------------------------------------------------

 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	0.066	(0.125)	0.014	0.052
2	0.17	0.60	0.079	(0.125)	0.016	0.063
3	0.25	0.60	0.079	(0.125)	0.016	0.063
4	0.33	0.60	0.079	(0.125)	0.016	0.063
5	0.42	0.60	0.079	(0.125)	0.016	0.063
6	0.50	0.70	0.092	(0.125)	0.019	0.073
7	0.58	0.70	0.092	(0.125)	0.019	0.073
8	0.67	0.70	0.092	(0.125)	0.019	0.073
9	0.75	0.70	0.092	(0.125)	0.019	0.073
10	0.83	0.70	0.092	(0.125)	0.019	0.073
11	0.92	0.70	0.092	(0.125)	0.019	0.073
12	1.00	0.80	0.106	(0.125)	0.022	0.084
13	1.08	0.80	0.106	(0.125)	0.022	0.084
14	1.17	0.80	0.106	(0.125)	0.022	0.084
15	1.25	0.80	0.106	(0.125)	0.022	0.084
16	1.33	0.80	0.106	(0.125)	0.022	0.084
17	1.42	0.80	0.106	(0.125)	0.022	0.084
18	1.50	0.80	0.106	(0.125)	0.022	0.084
19	1.58	0.80	0.106	(0.125)	0.022	0.084
20	1.67	0.80	0.106	(0.125)	0.022	0.084
21	1.75	0.80	0.106	(0.125)	0.022	0.084
22	1.83	0.80	0.106	(0.125)	0.022	0.084
23	1.92	0.80	0.106	(0.125)	0.022	0.084
24	2.00	0.90	0.119	(0.125)	0.024	0.094
25	2.08	0.80	0.106	(0.125)	0.022	0.084
26	2.17	0.90	0.119	(0.125)	0.024	0.094
27	2.25	0.90	0.119	(0.125)	0.024	0.094
28	2.33	0.90	0.119	(0.125)	0.024	0.094
29	2.42	0.90	0.119	(0.125)	0.024	0.094
30	2.50	0.90	0.119	(0.125)	0.024	0.094
31	2.58	0.90	0.119	(0.125)	0.024	0.094
32	2.67	0.90	0.119	(0.125)	0.024	0.094
33	2.75	1.00	0.132	(0.125)	0.027	0.105
34	2.83	1.00	0.132	(0.125)	0.027	0.105
35	2.92	1.00	0.132	(0.125)	0.027	0.105
36	3.00	1.00	0.132	(0.125)	0.027	0.105
37	3.08	1.00	0.132	(0.125)	0.027	0.105
38	3.17	1.10	0.145	(0.125)	0.030	0.115
39	3.25	1.10	0.145	(0.125)	0.030	0.115
40	3.33	1.10	0.145	(0.125)	0.030	0.115
41	3.42	1.20	0.158	(0.125)	0.032	0.126
42	3.50	1.30	0.172	(0.125)	0.035	0.136
43	3.58	1.40	0.185	(0.125)	0.038	0.147
44	3.67	1.40	0.185	(0.125)	0.038	0.147
45	3.75	1.50	0.198	(0.125)	0.041	0.157
46	3.83	1.50	0.198	(0.125)	0.041	0.157
47	3.92	1.60	0.211	(0.125)	0.043	0.168

```
48   4.00     1.60      0.211       (  0.125)       0.043        0.168
49   4.08     1.70      0.224       (  0.125)       0.046        0.178
50   4.17     1.80      0.238       (  0.125)       0.049        0.189
51   4.25     1.90      0.251       (  0.125)       0.051        0.199
52   4.33     2.00      0.264       (  0.125)       0.054        0.210
53   4.42     2.10      0.277       (  0.125)       0.057        0.220
54   4.50     2.10      0.277       (  0.125)       0.057        0.220
55   4.58     2.20      0.290       (  0.125)       0.060        0.231
56   4.67     2.30      0.304       (  0.125)       0.062        0.241
57   4.75     2.40      0.317       (  0.125)       0.065        0.252
58   4.83     2.40      0.317       (  0.125)       0.065        0.252
59   4.92     2.50      0.330       (  0.125)       0.068        0.262
60   5.00     2.60      0.343       (  0.125)       0.070        0.273
61   5.08     3.10      0.409       (  0.125)       0.084        0.325
62   5.17     3.60      0.475       (  0.125)       0.097        0.378
63   5.25     3.90      0.515       (  0.125)       0.106        0.409
64   5.33     4.20      0.554       (  0.125)       0.114        0.441
65   5.42     4.70      0.620          0.125    (  0.127)        0.495
66   5.50     5.60      0.739          0.125    (  0.152)        0.614
67   5.58     1.90      0.251       (  0.125)       0.051        0.199
68   5.67     0.90      0.119       (  0.125)       0.024        0.094
69   5.75     0.60      0.079       (  0.125)       0.016        0.063
70   5.83     0.50      0.066       (  0.125)       0.014        0.052
71   5.92     0.30      0.040       (  0.125)       0.008        0.031
72   6.00     0.20      0.026       (  0.125)       0.005        0.021
               (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    10.5
      Flood volume = Effective rainfall      0.88(In)
       times area       1.4(Ac.)/[(In)/(Ft.)] =       0.1(Ac.Ft)
      Total soil loss =      0.22(In)
      Total soil loss =     0.026(Ac.Ft)
      Total rainfall =      1.10(In)
      Flood volume =        4510.4 Cubic Feet
      Total soil loss =        1147.6 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =      0.824(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        2.5       5.0       7.5      10.0
-------------------------------------------------------------------------
  0+ 5       0.0004      0.05  Q         |         |         |         |
  0+10       0.0009      0.09  Q         |         |         |         |
  0+15       0.0016      0.09  Q         |         |         |         |
  0+20       0.0022      0.09  Q         |         |         |         |
```

```
0+25       0.0028      0.09  QV        |         |         |         |
0+30       0.0035      0.10  QV        |         |         |         |
0+35       0.0042      0.10  QV        |         |         |         |
0+40       0.0049      0.10  QV        |         |         |         |
0+45       0.0057      0.10  Q V       |         |         |         |
0+50       0.0064      0.10  Q V       |         |         |         |
0+55       0.0071      0.10  Q V       |         |         |         |
1+ 0       0.0079      0.12  Q  V      |         |         |         |
1+ 5       0.0087      0.12  Q  V      |         |         |         |
1+10       0.0096      0.12  Q  V      |         |         |         |
1+15       0.0104      0.12  Q   V     |         |         |         |
1+20       0.0112      0.12  Q   V     |         |         |         |
1+25       0.0120      0.12  Q   V     |         |         |         |
1+30       0.0129      0.12  Q   V     |         |         |         |
1+35       0.0137      0.12  Q    V    |         |         |         |
1+40       0.0145      0.12  Q    V    |         |         |         |
1+45       0.0153      0.12  Q    V    |         |         |         |
1+50       0.0162      0.12  Q     V   |         |         |         |
1+55       0.0170      0.12  Q     V   |         |         |         |
2+ 0       0.0179      0.13  Q     V   |         |         |         |
2+ 5       0.0187      0.12  Q      V  |         |         |         |
2+10       0.0196      0.13  Q      V  |         |         |         |
2+15       0.0206      0.13  Q      V  |         |         |         |
2+20       0.0215      0.13  Q       V |         |         |         |
2+25       0.0224      0.13  Q       V |         |         |         |
2+30       0.0234      0.13  Q        V|         |         |         |
2+35       0.0243      0.13  Q        V|         |         |         |
2+40       0.0252      0.13  Q        V|         |         |         |
2+45       0.0262      0.15  Q         V         |         |         |
2+50       0.0272      0.15  Q         V         |         |         |
2+55       0.0283      0.15  Q         V         |         |         |
3+ 0       0.0293      0.15  Q         |V        |         |         |
3+ 5       0.0303      0.15  Q         |V        |         |         |
3+10       0.0314      0.16  Q         | V       |         |         |
3+15       0.0326      0.16  Q         | V       |         |         |
3+20       0.0337      0.16  Q         |  V      |         |         |
3+25       0.0349      0.18  Q         |  V      |         |         |
3+30       0.0362      0.19  Q         |  V      |         |         |
3+35       0.0376      0.21  Q         |   V     |         |         |
3+40       0.0391      0.21  Q         |    V    |         |         |
3+45       0.0406      0.22  Q         |    V    |         |         |
3+50       0.0422      0.22  Q         |     V   |         |         |
3+55       0.0438      0.24  Q         |     V   |         |         |
4+ 0       0.0454      0.24  Q         |      V  |         |         |
4+ 5       0.0472      0.25  |Q        |       V |         |         |
4+10       0.0490      0.27  |Q        |       V |         |         |
4+15       0.0509      0.28  |Q        |        V|         |         |
4+20       0.0529      0.30  |Q        |         V         |         |
4+25       0.0551      0.31  |Q        |         |V        |         |
4+30       0.0572      0.31  |Q        |         | V       |         |
```

```
   4+35       0.0595      0.33  |Q        |         | V       |         |
   4+40       0.0618      0.34  |Q        |         |  V      |         |
   4+45       0.0643      0.36  |Q        |         |   V     |         |
   4+50       0.0668      0.36  |Q        |         |    V    |         |
   4+55       0.0693      0.37  |Q        |         |     V   |         |
   5+ 0       0.0720      0.39  |Q        |         |      V  |         |
   5+ 5       0.0750      0.44  |Q        |         |       V |         |
   5+10       0.0785      0.52  | Q       |         |         V         |
   5+15       0.0825      0.57  | Q       |         |         |V        |
   5+20       0.0867      0.62  | Q       |         |         |  V      |
   5+25       0.0914      0.68  | Q       |         |         |    V    |
   5+30       0.0971      0.82  |  Q      |         |         |      V  |
   5+35       0.1003      0.47  |Q        |         |         |       V |
   5+40       0.1016      0.18  Q         |         |         |        V|
   5+45       0.1023      0.10  Q         |         |         |        V|
   5+50       0.1029      0.08  Q         |         |         |        V|
   5+55       0.1032      0.05  Q         |         |         |        V|
   6+ 0       0.1035      0.03  Q         |         |         |        V|
   6+ 5       0.1035      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

Study date 08/02/22 File: A21626DMA3Q100UH242.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 2YR-24HR UH

Drainage Area = 1.42(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.42(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 440.21(Ft.)
Length along longest watercourse measured to centroid = 326.50(Ft.)
Length along longest watercourse = 0.083 Mi.
Length along longest watercourse measured to centroid = 0.062 Mi.
Difference in elevation = 6.70(Ft.)
Slope along watercourse = 80.3616 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.018 Hr.
Lag time = 1.10 Min.
25% of lag time = 0.27 Min.
40% of lag time = 0.44 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]
        1.42            1.90                  2.69

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.42            4.80                  6.80

STORM EVENT (YEAR) =    2.00
Area Averaged 2-Year Rainfall =    1.900(In)
Area Averaged 100-Year Rainfall =    4.800(In)

Point rain (area averaged) =    1.900(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.900(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.417           69.00         0.869
 Total Area Entered =      1.42(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.869        0.125       1.000      0.125
                                                 Sum (F) =   0.125
Area averaged mean soil loss (F) (In/Hr) =  0.125
Minimum soil loss rate ((In/Hr)) =  0.063
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.205
------------------------------------------------------------------------

               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        454.945         68.526              0.979
    2   0.167        909.890         31.474              0.449
                               Sum = 100.000   Sum=       1.428
------------------------------------------------------------------------

 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	0.015	(0.222)	0.003	0.012
2	0.17	0.07	0.015	(0.221)	0.003	0.012
3	0.25	0.07	0.015	(0.220)	0.003	0.012
4	0.33	0.10	0.023	(0.219)	0.005	0.018
5	0.42	0.10	0.023	(0.218)	0.005	0.018
6	0.50	0.10	0.023	(0.217)	0.005	0.018
7	0.58	0.10	0.023	(0.217)	0.005	0.018
8	0.67	0.10	0.023	(0.216)	0.005	0.018
9	0.75	0.10	0.023	(0.215)	0.005	0.018
10	0.83	0.13	0.030	(0.214)	0.006	0.024
11	0.92	0.13	0.030	(0.213)	0.006	0.024
12	1.00	0.13	0.030	(0.212)	0.006	0.024
13	1.08	0.10	0.023	(0.212)	0.005	0.018
14	1.17	0.10	0.023	(0.211)	0.005	0.018
15	1.25	0.10	0.023	(0.210)	0.005	0.018
16	1.33	0.10	0.023	(0.209)	0.005	0.018
17	1.42	0.10	0.023	(0.208)	0.005	0.018
18	1.50	0.10	0.023	(0.207)	0.005	0.018
19	1.58	0.10	0.023	(0.207)	0.005	0.018
20	1.67	0.10	0.023	(0.206)	0.005	0.018
21	1.75	0.10	0.023	(0.205)	0.005	0.018
22	1.83	0.13	0.030	(0.204)	0.006	0.024
23	1.92	0.13	0.030	(0.203)	0.006	0.024
24	2.00	0.13	0.030	(0.202)	0.006	0.024
25	2.08	0.13	0.030	(0.202)	0.006	0.024
26	2.17	0.13	0.030	(0.201)	0.006	0.024
27	2.25	0.13	0.030	(0.200)	0.006	0.024
28	2.33	0.13	0.030	(0.199)	0.006	0.024
29	2.42	0.13	0.030	(0.198)	0.006	0.024
30	2.50	0.13	0.030	(0.198)	0.006	0.024
31	2.58	0.17	0.038	(0.197)	0.008	0.030
32	2.67	0.17	0.038	(0.196)	0.008	0.030
33	2.75	0.17	0.038	(0.195)	0.008	0.030
34	2.83	0.17	0.038	(0.194)	0.008	0.030
35	2.92	0.17	0.038	(0.193)	0.008	0.030
36	3.00	0.17	0.038	(0.193)	0.008	0.030
37	3.08	0.17	0.038	(0.192)	0.008	0.030
38	3.17	0.17	0.038	(0.191)	0.008	0.030
39	3.25	0.17	0.038	(0.190)	0.008	0.030
40	3.33	0.17	0.038	(0.190)	0.008	0.030
41	3.42	0.17	0.038	(0.189)	0.008	0.030
42	3.50	0.17	0.038	(0.188)	0.008	0.030
43	3.58	0.17	0.038	(0.187)	0.008	0.030
44	3.67	0.17	0.038	(0.186)	0.008	0.030
45	3.75	0.17	0.038	(0.186)	0.008	0.030
46	3.83	0.20	0.046	(0.185)	0.009	0.036
47	3.92	0.20	0.046	(0.184)	0.009	0.036

48	4.00	0.20	0.046	(0.183)	0.009	0.036
49	4.08	0.20	0.046	(0.182)	0.009	0.036
50	4.17	0.20	0.046	(0.182)	0.009	0.036
51	4.25	0.20	0.046	(0.181)	0.009	0.036
52	4.33	0.23	0.053	(0.180)	0.011	0.042
53	4.42	0.23	0.053	(0.179)	0.011	0.042
54	4.50	0.23	0.053	(0.179)	0.011	0.042
55	4.58	0.23	0.053	(0.178)	0.011	0.042
56	4.67	0.23	0.053	(0.177)	0.011	0.042
57	4.75	0.23	0.053	(0.176)	0.011	0.042
58	4.83	0.27	0.061	(0.176)	0.012	0.048
59	4.92	0.27	0.061	(0.175)	0.012	0.048
60	5.00	0.27	0.061	(0.174)	0.012	0.048
61	5.08	0.20	0.046	(0.173)	0.009	0.036
62	5.17	0.20	0.046	(0.173)	0.009	0.036
63	5.25	0.20	0.046	(0.172)	0.009	0.036
64	5.33	0.23	0.053	(0.171)	0.011	0.042
65	5.42	0.23	0.053	(0.170)	0.011	0.042
66	5.50	0.23	0.053	(0.170)	0.011	0.042
67	5.58	0.27	0.061	(0.169)	0.012	0.048
68	5.67	0.27	0.061	(0.168)	0.012	0.048
69	5.75	0.27	0.061	(0.167)	0.012	0.048
70	5.83	0.27	0.061	(0.167)	0.012	0.048
71	5.92	0.27	0.061	(0.166)	0.012	0.048
72	6.00	0.27	0.061	(0.165)	0.012	0.048
73	6.08	0.30	0.068	(0.164)	0.014	0.054
74	6.17	0.30	0.068	(0.164)	0.014	0.054
75	6.25	0.30	0.068	(0.163)	0.014	0.054
76	6.33	0.30	0.068	(0.162)	0.014	0.054
77	6.42	0.30	0.068	(0.161)	0.014	0.054
78	6.50	0.30	0.068	(0.161)	0.014	0.054
79	6.58	0.33	0.076	(0.160)	0.016	0.060
80	6.67	0.33	0.076	(0.159)	0.016	0.060
81	6.75	0.33	0.076	(0.159)	0.016	0.060
82	6.83	0.33	0.076	(0.158)	0.016	0.060
83	6.92	0.33	0.076	(0.157)	0.016	0.060
84	7.00	0.33	0.076	(0.156)	0.016	0.060
85	7.08	0.33	0.076	(0.156)	0.016	0.060
86	7.17	0.33	0.076	(0.155)	0.016	0.060
87	7.25	0.33	0.076	(0.154)	0.016	0.060
88	7.33	0.37	0.084	(0.154)	0.017	0.066
89	7.42	0.37	0.084	(0.153)	0.017	0.066
90	7.50	0.37	0.084	(0.152)	0.017	0.066
91	7.58	0.40	0.091	(0.151)	0.019	0.073
92	7.67	0.40	0.091	(0.151)	0.019	0.073
93	7.75	0.40	0.091	(0.150)	0.019	0.073
94	7.83	0.43	0.099	(0.149)	0.020	0.079
95	7.92	0.43	0.099	(0.149)	0.020	0.079
96	8.00	0.43	0.099	(0.148)	0.020	0.079
97	8.08	0.50	0.114	(0.147)	0.023	0.091

98	8.17	0.50	0.114	(0.147)	0.023	0.091
99	8.25	0.50	0.114	(0.146)	0.023	0.091
100	8.33	0.50	0.114	(0.145)	0.023	0.091
101	8.42	0.50	0.114	(0.145)	0.023	0.091
102	8.50	0.50	0.114	(0.144)	0.023	0.091
103	8.58	0.53	0.122	(0.143)	0.025	0.097
104	8.67	0.53	0.122	(0.143)	0.025	0.097
105	8.75	0.53	0.122	(0.142)	0.025	0.097
106	8.83	0.57	0.129	(0.141)	0.026	0.103
107	8.92	0.57	0.129	(0.141)	0.026	0.103
108	9.00	0.57	0.129	(0.140)	0.026	0.103
109	9.08	0.63	0.144	(0.139)	0.030	0.115
110	9.17	0.63	0.144	(0.139)	0.030	0.115
111	9.25	0.63	0.144	(0.138)	0.030	0.115
112	9.33	0.67	0.152	(0.137)	0.031	0.121
113	9.42	0.67	0.152	(0.137)	0.031	0.121
114	9.50	0.67	0.152	(0.136)	0.031	0.121
115	9.58	0.70	0.160	(0.135)	0.033	0.127
116	9.67	0.70	0.160	(0.135)	0.033	0.127
117	9.75	0.70	0.160	(0.134)	0.033	0.127
118	9.83	0.73	0.167	(0.133)	0.034	0.133
119	9.92	0.73	0.167	(0.133)	0.034	0.133
120	10.00	0.73	0.167	(0.132)	0.034	0.133
121	10.08	0.50	0.114	(0.131)	0.023	0.091
122	10.17	0.50	0.114	(0.131)	0.023	0.091
123	10.25	0.50	0.114	(0.130)	0.023	0.091
124	10.33	0.50	0.114	(0.130)	0.023	0.091
125	10.42	0.50	0.114	(0.129)	0.023	0.091
126	10.50	0.50	0.114	(0.128)	0.023	0.091
127	10.58	0.67	0.152	(0.128)	0.031	0.121
128	10.67	0.67	0.152	(0.127)	0.031	0.121
129	10.75	0.67	0.152	(0.126)	0.031	0.121
130	10.83	0.67	0.152	(0.126)	0.031	0.121
131	10.92	0.67	0.152	(0.125)	0.031	0.121
132	11.00	0.67	0.152	(0.125)	0.031	0.121
133	11.08	0.63	0.144	(0.124)	0.030	0.115
134	11.17	0.63	0.144	(0.123)	0.030	0.115
135	11.25	0.63	0.144	(0.123)	0.030	0.115
136	11.33	0.63	0.144	(0.122)	0.030	0.115
137	11.42	0.63	0.144	(0.122)	0.030	0.115
138	11.50	0.63	0.144	(0.121)	0.030	0.115
139	11.58	0.57	0.129	(0.120)	0.026	0.103
140	11.67	0.57	0.129	(0.120)	0.026	0.103
141	11.75	0.57	0.129	(0.119)	0.026	0.103
142	11.83	0.60	0.137	(0.119)	0.028	0.109
143	11.92	0.60	0.137	(0.118)	0.028	0.109
144	12.00	0.60	0.137	(0.117)	0.028	0.109
145	12.08	0.83	0.190	(0.117)	0.039	0.151
146	12.17	0.83	0.190	(0.116)	0.039	0.151
147	12.25	0.83	0.190	(0.116)	0.039	0.151

148	12.33	0.87	0.198	(0.115)	0.041	0.157
149	12.42	0.87	0.198	(0.114)	0.041	0.157
150	12.50	0.87	0.198	(0.114)	0.041	0.157
151	12.58	0.93	0.213	(0.113)	0.044	0.169
152	12.67	0.93	0.213	(0.113)	0.044	0.169
153	12.75	0.93	0.213	(0.112)	0.044	0.169
154	12.83	0.97	0.220	(0.112)	0.045	0.175
155	12.92	0.97	0.220	(0.111)	0.045	0.175
156	13.00	0.97	0.220	(0.110)	0.045	0.175
157	13.08	1.13	0.258	(0.110)	0.053	0.205
158	13.17	1.13	0.258	(0.109)	0.053	0.205
159	13.25	1.13	0.258	(0.109)	0.053	0.205
160	13.33	1.13	0.258	(0.108)	0.053	0.205
161	13.42	1.13	0.258	(0.108)	0.053	0.205
162	13.50	1.13	0.258	(0.107)	0.053	0.205
163	13.58	0.77	0.175	(0.107)	0.036	0.139
164	13.67	0.77	0.175	(0.106)	0.036	0.139
165	13.75	0.77	0.175	(0.105)	0.036	0.139
166	13.83	0.77	0.175	(0.105)	0.036	0.139
167	13.92	0.77	0.175	(0.104)	0.036	0.139
168	14.00	0.77	0.175	(0.104)	0.036	0.139
169	14.08	0.90	0.205	(0.103)	0.042	0.163
170	14.17	0.90	0.205	(0.103)	0.042	0.163
171	14.25	0.90	0.205	(0.102)	0.042	0.163
172	14.33	0.87	0.198	(0.102)	0.041	0.157
173	14.42	0.87	0.198	(0.101)	0.041	0.157
174	14.50	0.87	0.198	(0.101)	0.041	0.157
175	14.58	0.87	0.198	(0.100)	0.041	0.157
176	14.67	0.87	0.198	(0.100)	0.041	0.157
177	14.75	0.87	0.198	(0.099)	0.041	0.157
178	14.83	0.83	0.190	(0.099)	0.039	0.151
179	14.92	0.83	0.190	(0.098)	0.039	0.151
180	15.00	0.83	0.190	(0.098)	0.039	0.151
181	15.08	0.80	0.182	(0.097)	0.037	0.145
182	15.17	0.80	0.182	(0.097)	0.037	0.145
183	15.25	0.80	0.182	(0.096)	0.037	0.145
184	15.33	0.77	0.175	(0.096)	0.036	0.139
185	15.42	0.77	0.175	(0.095)	0.036	0.139
186	15.50	0.77	0.175	(0.095)	0.036	0.139
187	15.58	0.63	0.144	(0.094)	0.030	0.115
188	15.67	0.63	0.144	(0.094)	0.030	0.115
189	15.75	0.63	0.144	(0.093)	0.030	0.115
190	15.83	0.63	0.144	(0.093)	0.030	0.115
191	15.92	0.63	0.144	(0.092)	0.030	0.115
192	16.00	0.63	0.144	(0.092)	0.030	0.115
193	16.08	0.13	0.030	(0.091)	0.006	0.024
194	16.17	0.13	0.030	(0.091)	0.006	0.024
195	16.25	0.13	0.030	(0.090)	0.006	0.024
196	16.33	0.13	0.030	(0.090)	0.006	0.024
197	16.42	0.13	0.030	(0.090)	0.006	0.024

198	16.50	0.13	0.030	(0.089)	0.006	0.024
199	16.58	0.10	0.023	(0.089)	0.005	0.018
200	16.67	0.10	0.023	(0.088)	0.005	0.018
201	16.75	0.10	0.023	(0.088)	0.005	0.018
202	16.83	0.10	0.023	(0.087)	0.005	0.018
203	16.92	0.10	0.023	(0.087)	0.005	0.018
204	17.00	0.10	0.023	(0.086)	0.005	0.018
205	17.08	0.17	0.038	(0.086)	0.008	0.030
206	17.17	0.17	0.038	(0.086)	0.008	0.030
207	17.25	0.17	0.038	(0.085)	0.008	0.030
208	17.33	0.17	0.038	(0.085)	0.008	0.030
209	17.42	0.17	0.038	(0.084)	0.008	0.030
210	17.50	0.17	0.038	(0.084)	0.008	0.030
211	17.58	0.17	0.038	(0.083)	0.008	0.030
212	17.67	0.17	0.038	(0.083)	0.008	0.030
213	17.75	0.17	0.038	(0.083)	0.008	0.030
214	17.83	0.13	0.030	(0.082)	0.006	0.024
215	17.92	0.13	0.030	(0.082)	0.006	0.024
216	18.00	0.13	0.030	(0.081)	0.006	0.024
217	18.08	0.13	0.030	(0.081)	0.006	0.024
218	18.17	0.13	0.030	(0.081)	0.006	0.024
219	18.25	0.13	0.030	(0.080)	0.006	0.024
220	18.33	0.13	0.030	(0.080)	0.006	0.024
221	18.42	0.13	0.030	(0.079)	0.006	0.024
222	18.50	0.13	0.030	(0.079)	0.006	0.024
223	18.58	0.10	0.023	(0.079)	0.005	0.018
224	18.67	0.10	0.023	(0.078)	0.005	0.018
225	18.75	0.10	0.023	(0.078)	0.005	0.018
226	18.83	0.07	0.015	(0.077)	0.003	0.012
227	18.92	0.07	0.015	(0.077)	0.003	0.012
228	19.00	0.07	0.015	(0.077)	0.003	0.012
229	19.08	0.10	0.023	(0.076)	0.005	0.018
230	19.17	0.10	0.023	(0.076)	0.005	0.018
231	19.25	0.10	0.023	(0.076)	0.005	0.018
232	19.33	0.13	0.030	(0.075)	0.006	0.024
233	19.42	0.13	0.030	(0.075)	0.006	0.024
234	19.50	0.13	0.030	(0.075)	0.006	0.024
235	19.58	0.10	0.023	(0.074)	0.005	0.018
236	19.67	0.10	0.023	(0.074)	0.005	0.018
237	19.75	0.10	0.023	(0.074)	0.005	0.018
238	19.83	0.07	0.015	(0.073)	0.003	0.012
239	19.92	0.07	0.015	(0.073)	0.003	0.012
240	20.00	0.07	0.015	(0.073)	0.003	0.012
241	20.08	0.10	0.023	(0.072)	0.005	0.018
242	20.17	0.10	0.023	(0.072)	0.005	0.018
243	20.25	0.10	0.023	(0.072)	0.005	0.018
244	20.33	0.10	0.023	(0.071)	0.005	0.018
245	20.42	0.10	0.023	(0.071)	0.005	0.018
246	20.50	0.10	0.023	(0.071)	0.005	0.018
247	20.58	0.10	0.023	(0.070)	0.005	0.018

248	20.67	0.10	0.023	(0.070)	0.005	0.018
249	20.75	0.10	0.023	(0.070)	0.005	0.018
250	20.83	0.07	0.015	(0.070)	0.003	0.012
251	20.92	0.07	0.015	(0.069)	0.003	0.012
252	21.00	0.07	0.015	(0.069)	0.003	0.012
253	21.08	0.10	0.023	(0.069)	0.005	0.018
254	21.17	0.10	0.023	(0.068)	0.005	0.018
255	21.25	0.10	0.023	(0.068)	0.005	0.018
256	21.33	0.07	0.015	(0.068)	0.003	0.012
257	21.42	0.07	0.015	(0.068)	0.003	0.012
258	21.50	0.07	0.015	(0.067)	0.003	0.012
259	21.58	0.10	0.023	(0.067)	0.005	0.018
260	21.67	0.10	0.023	(0.067)	0.005	0.018
261	21.75	0.10	0.023	(0.067)	0.005	0.018
262	21.83	0.07	0.015	(0.066)	0.003	0.012
263	21.92	0.07	0.015	(0.066)	0.003	0.012
264	22.00	0.07	0.015	(0.066)	0.003	0.012
265	22.08	0.10	0.023	(0.066)	0.005	0.018
266	22.17	0.10	0.023	(0.066)	0.005	0.018
267	22.25	0.10	0.023	(0.065)	0.005	0.018
268	22.33	0.07	0.015	(0.065)	0.003	0.012
269	22.42	0.07	0.015	(0.065)	0.003	0.012
270	22.50	0.07	0.015	(0.065)	0.003	0.012
271	22.58	0.07	0.015	(0.065)	0.003	0.012
272	22.67	0.07	0.015	(0.064)	0.003	0.012
273	22.75	0.07	0.015	(0.064)	0.003	0.012
274	22.83	0.07	0.015	(0.064)	0.003	0.012
275	22.92	0.07	0.015	(0.064)	0.003	0.012
276	23.00	0.07	0.015	(0.064)	0.003	0.012
277	23.08	0.07	0.015	(0.064)	0.003	0.012
278	23.17	0.07	0.015	(0.063)	0.003	0.012
279	23.25	0.07	0.015	(0.063)	0.003	0.012
280	23.33	0.07	0.015	(0.063)	0.003	0.012
281	23.42	0.07	0.015	(0.063)	0.003	0.012
282	23.50	0.07	0.015	(0.063)	0.003	0.012
283	23.58	0.07	0.015	(0.063)	0.003	0.012
284	23.67	0.07	0.015	(0.063)	0.003	0.012
285	23.75	0.07	0.015	(0.063)	0.003	0.012
286	23.83	0.07	0.015	(0.063)	0.003	0.012
287	23.92	0.07	0.015	(0.063)	0.003	0.012
288	24.00	0.07	0.015	(0.063)	0.003	0.012
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	18.1

Flood volume = Effective rainfall 1.51(In)
times area 1.4(Ac.)/[(In)/(Ft.)] = 0.2(Ac.Ft)
Total soil loss = 0.39(In)
Total soil loss = 0.046(Ac.Ft)
Total rainfall = 1.90(In)
Flood volume = 7769.6 Cubic Feet
Total soil loss = 2003.5 Cubic Feet

Peak flow rate of this hydrograph = 0.294(CFS)

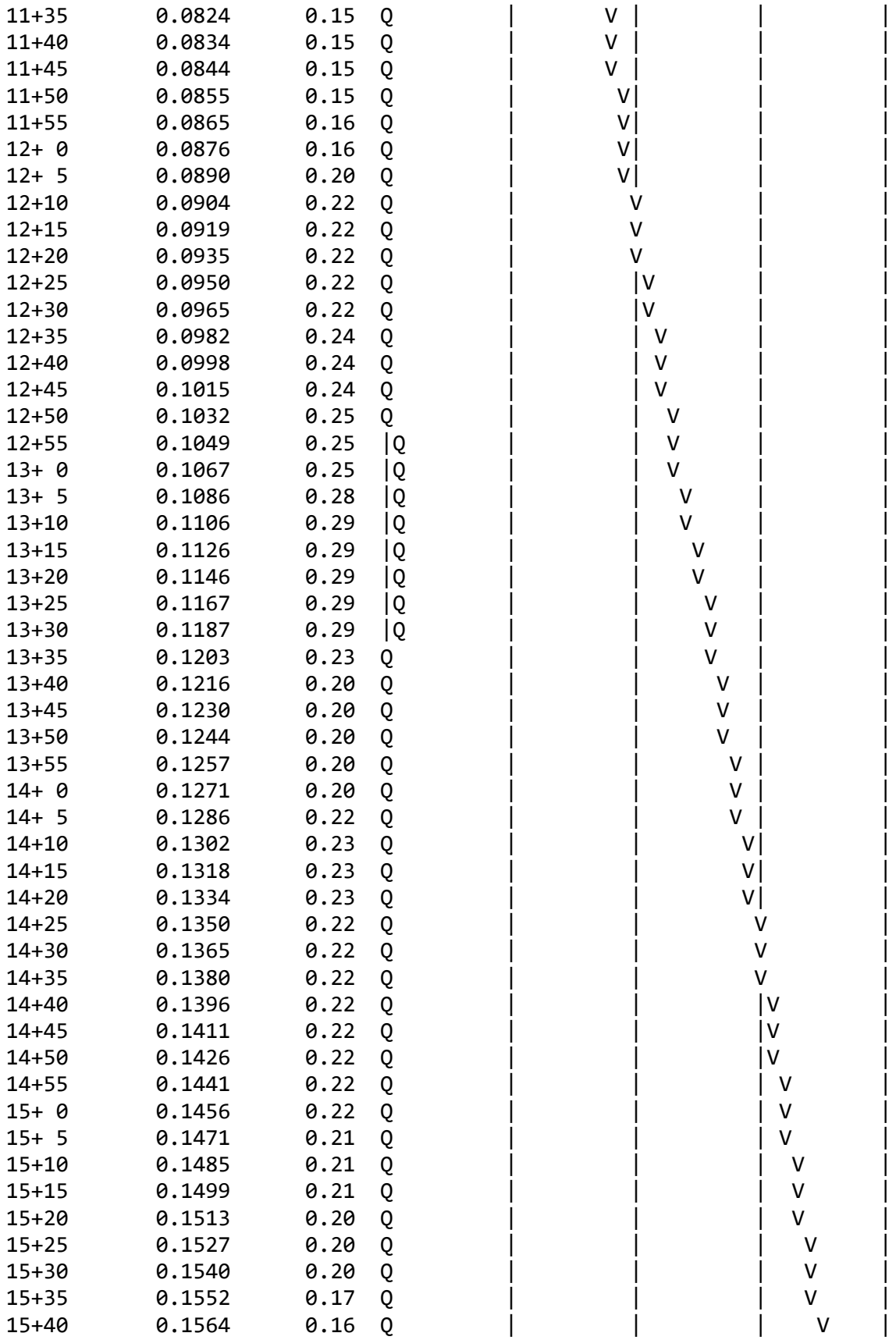
24 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	2.5	5.0	7.5	10.0
0+ 5	0.0001	0.01	Q				
0+10	0.0002	0.02	Q				
0+15	0.0003	0.02	Q				
0+20	0.0005	0.02	Q				
0+25	0.0007	0.03	Q				
0+30	0.0008	0.03	Q				
0+35	0.0010	0.03	Q				
0+40	0.0012	0.03	Q				
0+45	0.0014	0.03	Q				
0+50	0.0016	0.03	Q				
0+55	0.0018	0.03	Q				
1+ 0	0.0021	0.03	Q				
1+ 5	0.0023	0.03	Q				
1+10	0.0024	0.03	Q				
1+15	0.0026	0.03	Q				
1+20	0.0028	0.03	Q				
1+25	0.0030	0.03	Q				
1+30	0.0032	0.03	Q				
1+35	0.0033	0.03	Q				
1+40	0.0035	0.03	Q				
1+45	0.0037	0.03	Q				
1+50	0.0039	0.03	Q				
1+55	0.0041	0.03	Q				
2+ 0	0.0044	0.03	Q				
2+ 5	0.0046	0.03	QV				
2+10	0.0049	0.03	QV				
2+15	0.0051	0.03	QV				
2+20	0.0053	0.03	QV				
2+25	0.0056	0.03	QV				
2+30	0.0058	0.03	QV				
2+35	0.0061	0.04	QV				
2+40	0.0064	0.04	QV				
2+45	0.0067	0.04	QV				
2+50	0.0070	0.04	QV				
2+55	0.0073	0.04	QV				
3+ 0	0.0076	0.04	QV				
3+ 5	0.0079	0.04	QV				
3+10	0.0082	0.04	QV				

3+15	0.0085	0.04	QV	|	|	|	|
3+20	0.0088	0.04	QV	|	|	|	|
3+25	0.0091	0.04	Q V	|	|	|	|
3+30	0.0094	0.04	Q V	|	|	|	|
3+35	0.0097	0.04	Q V	|	|	|	|
3+40	0.0100	0.04	Q V	|	|	|	|
3+45	0.0103	0.04	Q V	|	|	|	|
3+50	0.0106	0.05	Q V	|	|	|	|
3+55	0.0109	0.05	Q V	|	|	|	|
4+ 0	0.0113	0.05	Q V	|	|	|	|
4+ 5	0.0117	0.05	Q V	|	|	|	|
4+10	0.0120	0.05	Q V	|	|	|	|
4+15	0.0124	0.05	Q V	|	|	|	|
4+20	0.0128	0.06	Q V	|	|	|	|
4+25	0.0132	0.06	Q V	|	|	|	|
4+30	0.0136	0.06	Q V	|	|	|	|
4+35	0.0140	0.06	Q V	|	|	|	|
4+40	0.0144	0.06	Q V	|	|	|	|
4+45	0.0149	0.06	Q V	|	|	|	|
4+50	0.0153	0.07	Q V	|	|	|	|
4+55	0.0158	0.07	Q V	|	|	|	|
5+ 0	0.0163	0.07	Q V	|	|	|	|
5+ 5	0.0167	0.06	Q V	|	|	|	|
5+10	0.0170	0.05	Q V	|	|	|	|
5+15	0.0174	0.05	Q V	|	|	|	|
5+20	0.0178	0.06	Q V	|	|	|	|
5+25	0.0182	0.06	Q V	|	|	|	|
5+30	0.0186	0.06	Q V	|	|	|	|
5+35	0.0191	0.07	Q V	|	|	|	|
5+40	0.0195	0.07	Q V	|	|	|	|
5+45	0.0200	0.07	Q V	|	|	|	|
5+50	0.0205	0.07	Q V	|	|	|	|
5+55	0.0210	0.07	Q V	|	|	|	|
6+ 0	0.0214	0.07	Q V	|	|	|	|
6+ 5	0.0219	0.07	Q V	|	|	|	|
6+10	0.0225	0.08	Q V	|	|	|	|
6+15	0.0230	0.08	Q V	|	|	|	|
6+20	0.0236	0.08	Q V	|	|	|	|
6+25	0.0241	0.08	Q V	|	|	|	|
6+30	0.0246	0.08	Q V	|	|	|	|
6+35	0.0252	0.08	Q V	|	|	|	|
6+40	0.0258	0.09	Q V	|	|	|	|
6+45	0.0264	0.09	Q V	|	|	|	|
6+50	0.0270	0.09	Q V	|	|	|	|
6+55	0.0276	0.09	Q V	|	|	|	|
7+ 0	0.0282	0.09	Q V	|	|	|	|
7+ 5	0.0288	0.09	Q V	|	|	|	|
7+10	0.0294	0.09	Q V	|	|	|	|
7+15	0.0300	0.09	Q V	|	|	|	|
7+20	0.0306	0.09	Q V	|	|	|	|

7+25	0.0312	0.09	Q	V	|	|	|	|
7+30	0.0319	0.09	Q	V	|	|	|	|
7+35	0.0326	0.10	Q	V	|	|	|	|
7+40	0.0333	0.10	Q	V	|	|	|	|
7+45	0.0340	0.10	Q	V	|	|	|	|
7+50	0.0348	0.11	Q	V	|	|	|	|
7+55	0.0355	0.11	Q	V	|	|	|	|
8+ 0	0.0363	0.11	Q	V	|	|	|	|
8+ 5	0.0372	0.12	Q	V	|	|	|	|
8+10	0.0381	0.13	Q	V	|	|	|	|
8+15	0.0390	0.13	Q	V	|	|	|	|
8+20	0.0399	0.13	Q	V	|	|	|	|
8+25	0.0407	0.13	Q	V	|	|	|	|
8+30	0.0416	0.13	Q	V	|	|	|	|
8+35	0.0426	0.14	Q	V	|	|	|	|
8+40	0.0435	0.14	Q	V	|	|	|	|
8+45	0.0445	0.14	Q	V	|	|	|	|
8+50	0.0455	0.14	Q	V	|	|	|	|
8+55	0.0465	0.15	Q	V	|	|	|	|
9+ 0	0.0475	0.15	Q	V	|	|	|	|
9+ 5	0.0486	0.16	Q	V	|	|	|	|
9+10	0.0497	0.16	Q	V	|	|	|	|
9+15	0.0508	0.16	Q	V	|	|	|	|
9+20	0.0520	0.17	Q	V	|	|	|	|
9+25	0.0532	0.17	Q	V	|	|	|	|
9+30	0.0544	0.17	Q	V	|	|	|	|
9+35	0.0556	0.18	Q	V	|	|	|	|
9+40	0.0569	0.18	Q	V	|	|	|	|
9+45	0.0581	0.18	Q	V	|	|	|	|
9+50	0.0594	0.19	Q	V	|	|	|	|
9+55	0.0607	0.19	Q	V	|	|	|	|
10+ 0	0.0620	0.19	Q	V	|	|	|	|
10+ 5	0.0630	0.15	Q	V	|	|	|	|
10+10	0.0639	0.13	Q	V	|	|	|	|
10+15	0.0648	0.13	Q	V	|	|	|	|
10+20	0.0657	0.13	Q	V	|	|	|	|
10+25	0.0666	0.13	Q	V	|	|	|	|
10+30	0.0675	0.13	Q	V	|	|	|	|
10+35	0.0686	0.16	Q	V	|	|	|	|
10+40	0.0698	0.17	Q	V	|	|	|	|
10+45	0.0710	0.17	Q	V	|	|	|	|
10+50	0.0722	0.17	Q	V	|	|	|	|
10+55	0.0733	0.17	Q	V	|	|	|	|
11+ 0	0.0745	0.17	Q	V	|	|	|	|
11+ 5	0.0757	0.17	Q	V	|	|	|	|
11+10	0.0768	0.16	Q	V	|	|	|	|
11+15	0.0779	0.16	Q	V	|	|	|	|
11+20	0.0791	0.16	Q	V	|	|	|	|
11+25	0.0802	0.16	Q	V	|	|	|	|
11+30	0.0813	0.16	Q	V	|	|	|	|


11+35 0.0824 0.15 Q
11+40 0.0834 0.15 Q
11+45 0.0844 0.15 Q
11+50 0.0855 0.15 Q
11+55 0.0865 0.16 Q
12+ 0 0.0876 0.16 Q
12+ 5 0.0890 0.20 Q
12+10 0.0904 0.22 Q
12+15 0.0919 0.22 Q
12+20 0.0935 0.22 Q
12+25 0.0950 0.22 Q
12+30 0.0965 0.22 Q
12+35 0.0982 0.24 Q
12+40 0.0998 0.24 Q
12+45 0.1015 0.24 Q
12+50 0.1032 0.25 Q
12+55 0.1049 0.25 Q
13+ 0 0.1067 0.25 Q
13+ 5 0.1086 0.28 Q
13+10 0.1106 0.29 Q
13+15 0.1126 0.29 Q
13+20 0.1146 0.29 Q
13+25 0.1167 0.29 Q
13+30 0.1187 0.29 Q
13+35 0.1203 0.23 Q
13+40 0.1216 0.20 Q
13+45 0.1230 0.20 Q
13+50 0.1244 0.20 Q
13+55 0.1257 0.20 Q
14+ 0 0.1271 0.20 Q
14+ 5 0.1286 0.22 Q
14+10 0.1302 0.23 Q
14+15 0.1318 0.23 Q
14+20 0.1334 0.23 Q
14+25 0.1350 0.22 Q
14+30 0.1365 0.22 Q
14+35 0.1380 0.22 Q
14+40 0.1396 0.22 Q
14+45 0.1411 0.22 Q
14+50 0.1426 0.22 Q
14+55 0.1441 0.22 Q
15+ 0 0.1456 0.22 Q
15+ 5 0.1471 0.21 Q
15+10 0.1485 0.21 Q
15+15 0.1499 0.21 Q
15+20 0.1513 0.20 Q
15+25 0.1527 0.20 Q
15+30 0.1540 0.20 Q
15+35 0.1552 0.17 Q
15+40 0.1564 0.16 Q

15+45	0.1575	0.16	Q	|	|	|	V |
15+50	0.1586	0.16	Q	|	|	|	V |
15+55	0.1598	0.16	Q	|	|	|	V |
16+ 0	0.1609	0.16	Q	|	|	|	V |
16+ 5	0.1614	0.08	Q	|	|	|	V |
16+10	0.1616	0.03	Q	|	|	|	V |
16+15	0.1619	0.03	Q	|	|	|	V |
16+20	0.1621	0.03	Q	|	|	|	V |
16+25	0.1624	0.03	Q	|	|	|	V |
16+30	0.1626	0.03	Q	|	|	|	V |
16+35	0.1628	0.03	Q	|	|	|	V |
16+40	0.1630	0.03	Q	|	|	|	V |
16+45	0.1631	0.03	Q	|	|	|	V |
16+50	0.1633	0.03	Q	|	|	|	V |
16+55	0.1635	0.03	Q	|	|	|	V |
17+ 0	0.1637	0.03	Q	|	|	|	V |
17+ 5	0.1639	0.04	Q	|	|	|	V |
17+10	0.1642	0.04	Q	|	|	|	V |
17+15	0.1645	0.04	Q	|	|	|	V |
17+20	0.1648	0.04	Q	|	|	|	V |
17+25	0.1651	0.04	Q	|	|	|	V |
17+30	0.1654	0.04	Q	|	|	|	V |
17+35	0.1657	0.04	Q	|	|	|	V |
17+40	0.1660	0.04	Q	|	|	|	V |
17+45	0.1663	0.04	Q	|	|	|	V |
17+50	0.1666	0.04	Q	|	|	|	V |
17+55	0.1668	0.03	Q	|	|	|	V |
18+ 0	0.1671	0.03	Q	|	|	|	V |
18+ 5	0.1673	0.03	Q	|	|	|	V |
18+10	0.1675	0.03	Q	|	|	|	V |
18+15	0.1678	0.03	Q	|	|	|	V |
18+20	0.1680	0.03	Q	|	|	|	V |
18+25	0.1682	0.03	Q	|	|	|	V |
18+30	0.1685	0.03	Q	|	|	|	V |
18+35	0.1687	0.03	Q	|	|	|	V |
18+40	0.1689	0.03	Q	|	|	|	V |
18+45	0.1690	0.03	Q	|	|	|	V |
18+50	0.1692	0.02	Q	|	|	|	V |
18+55	0.1693	0.02	Q	|	|	|	V |
19+ 0	0.1694	0.02	Q	|	|	|	V |
19+ 5	0.1696	0.02	Q	|	|	|	V |
19+10	0.1697	0.03	Q	|	|	|	V |
19+15	0.1699	0.03	Q	|	|	|	V |
19+20	0.1701	0.03	Q	|	|	|	V |
19+25	0.1704	0.03	Q	|	|	|	V |
19+30	0.1706	0.03	Q	|	|	|	V |
19+35	0.1708	0.03	Q	|	|	|	V |
19+40	0.1710	0.03	Q	|	|	|	V |
19+45	0.1712	0.03	Q	|	|	|	V |
19+50	0.1713	0.02	Q	|	|	|	V |

19+55	0.1714	0.02	Q	|	|	|	V |
20+ 0	0.1715	0.02	Q	|	|	|	V |
20+ 5	0.1717	0.02	Q	|	|	|	V |
20+10	0.1719	0.03	Q	|	|	|	V |
20+15	0.1721	0.03	Q	|	|	|	V |
20+20	0.1722	0.03	Q	|	|	|	V |
20+25	0.1724	0.03	Q	|	|	|	V |
20+30	0.1726	0.03	Q	|	|	|	V |
20+35	0.1728	0.03	Q	|	|	|	V |
20+40	0.1730	0.03	Q	|	|	|	V |
20+45	0.1731	0.03	Q	|	|	|	V |
20+50	0.1733	0.02	Q	|	|	|	V |
20+55	0.1734	0.02	Q	|	|	|	V |
21+ 0	0.1735	0.02	Q	|	|	|	V |
21+ 5	0.1737	0.02	Q	|	|	|	V |
21+10	0.1738	0.03	Q	|	|	|	V |
21+15	0.1740	0.03	Q	|	|	|	V|
21+20	0.1742	0.02	Q	|	|	|	V|
21+25	0.1743	0.02	Q	|	|	|	V|
21+30	0.1744	0.02	Q	|	|	|	V|
21+35	0.1746	0.02	Q	|	|	|	V|
21+40	0.1747	0.03	Q	|	|	|	V|
21+45	0.1749	0.03	Q	|	|	|	V|
21+50	0.1751	0.02	Q	|	|	|	V|
21+55	0.1752	0.02	Q	|	|	|	V|
22+ 0	0.1753	0.02	Q	|	|	|	V|
22+ 5	0.1755	0.02	Q	|	|	|	V|
22+10	0.1756	0.03	Q	|	|	|	V|
22+15	0.1758	0.03	Q	|	|	|	V|
22+20	0.1759	0.02	Q	|	|	|	V|
22+25	0.1761	0.02	Q	|	|	|	V|
22+30	0.1762	0.02	Q	|	|	|	V|
22+35	0.1763	0.02	Q	|	|	|	V|
22+40	0.1764	0.02	Q	|	|	|	V|
22+45	0.1765	0.02	Q	|	|	|	V|
22+50	0.1767	0.02	Q	|	|	|	V|
22+55	0.1768	0.02	Q	|	|	|	V|
23+ 0	0.1769	0.02	Q	|	|	|	V|
23+ 5	0.1770	0.02	Q	|	|	|	V|
23+10	0.1771	0.02	Q	|	|	|	V|
23+15	0.1773	0.02	Q	|	|	|	V|
23+20	0.1774	0.02	Q	|	|	|	V|
23+25	0.1775	0.02	Q	|	|	|	V|
23+30	0.1776	0.02	Q	|	|	|	V|
23+35	0.1777	0.02	Q	|	|	|	V|
23+40	0.1779	0.02	Q	|	|	|	V|
23+45	0.1780	0.02	Q	|	|	|	V|
23+50	0.1781	0.02	Q	|	|	|	V|
23+55	0.1782	0.02	Q	|	|	|	V|
24+ 0	0.1783	0.02	Q	|	|	|	V|

```
   24+ 5       0.1784      0.01  Q         |         |         |        V|
-------------------------------------------------------------------------
```

DMA 3 Proposed 5-Year

FLOOD HYDROGRAPH ROUTING PROGRAM

Study date: 08/24/22

A21626 DMA 3 5YR-1HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA3Q100UH15.rte
**********HYDROGRAPH DATA**********
Number of intervals = 13
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 2.264 (CFS)
Total volume = 0.066 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
_____

Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter

```
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)

------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 13
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      0.030      0.000      0.030        0.030
  1.000      0.065      0.196      0.064        0.066
  1.500      0.106      0.196      0.105        0.107
  2.000      0.152      0.196      0.151        0.153
  2.500      0.204      0.196      0.203        0.205
  3.000      0.262      0.196      0.261        0.263
  3.500      0.326      4.639      0.310        0.342
------------------------------------------------------------------------
                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	0.6	1.13	1.70	2.26 (Ft.)
0.083	0.27	0.00	0.001	O I	|	|	|	0.02
0.167	0.40	0.00	0.003	O I	|	|	|	0.05
0.250	0.46	0.00	0.006	O I	|	|	|	0.10
0.333	0.49	0.00	0.009	O I	|	|	|	0.16
0.417	0.50	0.00	0.013	O I	|	|	|	0.21
0.500	0.56	0.00	0.017	O I	|	|	|	0.28
0.583	0.67	0.00	0.021	O |I	|	|	|	0.35
0.667	0.81	0.00	0.026	O | I	|	|	|	0.43
0.750	1.14	0.01	0.033	O |	I	|	|	0.54
0.833	2.26	0.08	0.044	|O |	|	|	I	0.70
0.917	1.35	0.14	0.056	| O |	| I	|	|	0.87
1.000	0.53	0.17	0.061	| O I	|	|	|	0.94
1.083	0.14	0.18	0.062	|IO |	|	|	|	0.96
1.167	0.00	0.18	0.061	I O |	|	|	|	0.95
1.250	0.00	0.17	0.060	I O |	|	|	|	0.93
1.333	0.00	0.16	0.059	I O |	|	|	|	0.91
1.417	0.00	0.16	0.058	I O |	|	|	|	0.90
1.500	0.00	0.15	0.057	I O |	|	|	|	0.88
1.583	0.00	0.14	0.056	I O |	|	|	|	0.87
1.667	0.00	0.14	0.055	IO |	|	|	|	0.85
1.750	0.00	0.13	0.054	IO |	|	|	|	0.84
1.833	0.00	0.13	0.053	IO |	|	|	|	0.83
1.917	0.00	0.12	0.052	IO |	|	|	|	0.82
2.000	0.00	0.12	0.051	IO |	|	|	|	0.80
2.083	0.00	0.11	0.050	IO |	|	|	|	0.79
2.167	0.00	0.11	0.050	IO |	|	|	|	0.78
2.250	0.00	0.11	0.049	IO |	|	|	|	0.77
2.333	0.00	0.10	0.048	IO |	|	|	|	0.76
2.417	0.00	0.10	0.048	IO |	|	|	|	0.75
2.500	0.00	0.09	0.047	IO |	|	|	|	0.74
2.583	0.00	0.09	0.046	IO |	|	|	|	0.73
2.667	0.00	0.09	0.046	IO |	|	|	|	0.72
2.750	0.00	0.08	0.045	IO |	|	|	|	0.71
2.833	0.00	0.08	0.044	IO |	|	|	|	0.71
2.917	0.00	0.08	0.044	IO |	|	|	|	0.70
3.000	0.00	0.08	0.043	IO |	|	|	|	0.69
3.083	0.00	0.07	0.043	IO |	|	|	|	0.68
3.167	0.00	0.07	0.042	O |	|	|	|	0.68
3.250	0.00	0.07	0.042	O |	|	|	|	0.67
3.333	0.00	0.06	0.041	O |	|	|	|	0.66
3.417	0.00	0.06	0.041	O |	|	|	|	0.66
3.500	0.00	0.06	0.041	O |	|	|	|	0.65
3.583	0.00	0.06	0.040	O |	|	|	|	0.65
3.667	0.00	0.06	0.040	O |	|	|	|	0.64
3.750	0.00	0.05	0.039	O |	|	|	|	0.63
3.833	0.00	0.05	0.039	O |	|	|	|	0.63
3.917	0.00	0.05	0.039	O |	|	|	|	0.62
4.000	0.00	0.05	0.038	O |	|	|	|	0.62
4.083	0.00	0.05	0.038	O |	|	|	|	0.62

4.167	0.00	0.04	0.038	O				0.61
4.250	0.00	0.04	0.037	O				0.61
4.333	0.00	0.04	0.037	O				0.60
4.417	0.00	0.04	0.037	O				0.60
4.500	0.00	0.04	0.037	O				0.60
4.583	0.00	0.04	0.036	O				0.59
4.667	0.00	0.03	0.036	O				0.59
4.750	0.00	0.03	0.036	O				0.58
4.833	0.00	0.03	0.036	O				0.58
4.917	0.00	0.03	0.035	O				0.58
5.000	0.00	0.03	0.035	O				0.58
5.083	0.00	0.03	0.035	O				0.57
5.167	0.00	0.03	0.035	O				0.57
5.250	0.00	0.03	0.035	O				0.57
5.333	0.00	0.03	0.035	O				0.56
5.417	0.00	0.02	0.034	O				0.56
5.500	0.00	0.02	0.034	O				0.56
5.583	0.00	0.02	0.034	O				0.56
5.667	0.00	0.02	0.034	O				0.56
5.750	0.00	0.02	0.034	O				0.55
5.833	0.00	0.02	0.034	O				0.55
5.917	0.00	0.02	0.033	O				0.55
6.000	0.00	0.02	0.033	O				0.55
6.083	0.00	0.02	0.033	O				0.55
6.167	0.00	0.02	0.033	O				0.54
6.250	0.00	0.02	0.033	O				0.54
6.333	0.00	0.02	0.033	O				0.54
6.417	0.00	0.02	0.033	O				0.54
6.500	0.00	0.01	0.033	O				0.54
6.583	0.00	0.01	0.033	O				0.54
6.667	0.00	0.01	0.032	O				0.53
6.750	0.00	0.01	0.032	O				0.53
6.833	0.00	0.01	0.032	O				0.53
6.917	0.00	0.01	0.032	O				0.53
7.000	0.00	0.01	0.032	O				0.53
7.083	0.00	0.01	0.032	O				0.53
7.167	0.00	0.01	0.032	O				0.53
7.250	0.00	0.01	0.032	O				0.53
7.333	0.00	0.01	0.032	O				0.53
7.417	0.00	0.01	0.032	O				0.52
7.500	0.00	0.01	0.032	O				0.52
7.583	0.00	0.01	0.032	O				0.52
7.667	0.00	0.01	0.032	O				0.52
7.750	0.00	0.01	0.031	O				0.52
7.833	0.00	0.01	0.031	O				0.52
7.917	0.00	0.01	0.031	O				0.52
8.000	0.00	0.01	0.031	O				0.52
8.083	0.00	0.01	0.031	O				0.52
8.167	0.00	0.01	0.031	O				0.52
8.250	0.00	0.01	0.031	O				0.52

8.333	0.00	0.01	0.031	O	|	|	|	0.52
8.417	0.00	0.01	0.031	O	|	|	|	0.52
8.500	0.00	0.01	0.031	O	|	|	|	0.51
8.583	0.00	0.01	0.031	O	|	|	|	0.51
8.667	0.00	0.01	0.031	O	|	|	|	0.51
8.750	0.00	0.01	0.031	O	|	|	|	0.51
8.833	0.00	0.01	0.031	O	|	|	|	0.51
8.917	0.00	0.00	0.031	O	|	|	|	0.51
9.000	0.00	0.00	0.031	O	|	|	|	0.51
9.083	0.00	0.00	0.031	O	|	|	|	0.51
9.167	0.00	0.00	0.031	O	|	|	|	0.51
9.250	0.00	0.00	0.031	O	|	|	|	0.51
9.333	0.00	0.00	0.031	O	|	|	|	0.51
9.417	0.00	0.00	0.031	O	|	|	|	0.51
9.500	0.00	0.00	0.031	O	|	|	|	0.51
9.583	0.00	0.00	0.031	O	|	|	|	0.51
9.667	0.00	0.00	0.031	O	|	|	|	0.51
9.750	0.00	0.00	0.031	O	|	|	|	0.51
9.833	0.00	0.00	0.031	O	|	|	|	0.51
9.917	0.00	0.00	0.031	O	|	|	|	0.51
10.000	0.00	0.00	0.031	O	|	|	|	0.51
10.083	0.00	0.00	0.031	O	|	|	|	0.51
10.167	0.00	0.00	0.030	O	|	|	|	0.51
10.250	0.00	0.00	0.030	O	|	|	|	0.51
10.333	0.00	0.00	0.030	O	|	|	|	0.51
10.417	0.00	0.00	0.030	O	|	|	|	0.51
10.500	0.00	0.00	0.030	O	|	|	|	0.51
10.583	0.00	0.00	0.030	O	|	|	|	0.51
10.667	0.00	0.00	0.030	O	|	|	|	0.51
10.750	0.00	0.00	0.030	O	|	|	|	0.51
10.833	0.00	0.00	0.030	O	|	|	|	0.51
10.917	0.00	0.00	0.030	O	|	|	|	0.50
11.000	0.00	0.00	0.030	O	|	|	|	0.50
11.083	0.00	0.00	0.030	O	|	|	|	0.50
11.167	0.00	0.00	0.030	O	|	|	|	0.50
11.250	0.00	0.00	0.030	O	|	|	|	0.50
11.333	0.00	0.00	0.030	O	|	|	|	0.50
11.417	0.00	0.00	0.030	O	|	|	|	0.50
11.500	0.00	0.00	0.030	O	|	|	|	0.50
11.583	0.00	0.00	0.030	O	|	|	|	0.50
11.667	0.00	0.00	0.030	O	|	|	|	0.50
11.750	0.00	0.00	0.030	O	|	|	|	0.50
11.833	0.00	0.00	0.030	O	|	|	|	0.50
11.917	0.00	0.00	0.030	O	|	|	|	0.50
12.000	0.00	0.00	0.030	O	|	|	|	0.50
12.083	0.00	0.00	0.030	O	|	|	|	0.50
12.167	0.00	0.00	0.030	O	|	|	|	0.50
12.250	0.00	0.00	0.030	O	|	|	|	0.50
12.333	0.00	0.00	0.030	O	|	|	|	0.50

Remaining water in basin = 0.03 (Ac.Ft)

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

Number of intervals = 148
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.180 (CFS)
Total volume = 0.036 (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

Study date: 08/24/22

A21626 DMA 3 5YR-3HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA3Q100UH35.rte
**********HYDROGRAPH DATA**********
Number of intervals = 37
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 1.273 (CFS)
Total volume = 0.103 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
_____

Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)

------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 37
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      0.030      0.000      0.030        0.030
  1.000      0.065      0.196      0.064        0.066
  1.500      0.106      0.196      0.105        0.107
  2.000      0.152      0.196      0.151        0.153
  2.500      0.204      0.196      0.203        0.205
  3.000      0.262      0.196      0.261        0.263
  3.500      0.326      4.639      0.310        0.342
------------------------------------------------------------------------
                Hydrograph Detention Basin Routing
------------------------------------------------------------------------

Graph values: 'I'= unit inflow; 'O'=outflow at time shown
------------------------------------------------------------------------
```

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.3	0.64	0.95	1.27	Depth (Ft.)
0.083	0.13	0.00	0.000	O I					0.01
0.167	0.19	0.00	0.002	O I					0.03
0.250	0.17	0.00	0.003	O I					0.05
0.333	0.20	0.00	0.004	O I					0.07
0.417	0.22	0.00	0.005	O I					0.09
0.500	0.25	0.00	0.007	O I					0.12
0.583	0.23	0.00	0.009	O I					0.15
0.667	0.25	0.00	0.010	O I					0.17
0.750	0.26	0.00	0.012	O I					0.20
0.833	0.23	0.00	0.014	O I					0.23
0.917	0.23	0.00	0.015	O I					0.26
1.000	0.25	0.00	0.017	O I					0.29
1.083	0.30	0.00	0.019	O I					0.32
1.167	0.32	0.00	0.021	O I					0.35
1.250	0.32	0.00	0.023	O I					0.39
1.333	0.30	0.00	0.026	O I					0.43
1.417	0.35	0.00	0.028	O I					0.46
1.500	0.39	0.00	0.030	O I					0.50
1.583	0.36	0.02	0.033	O I					0.54
1.667	0.38	0.03	0.035	O I					0.58
1.750	0.45	0.04	0.038	O I					0.61
1.833	0.46	0.06	0.041	O I					0.65
1.917	0.43	0.07	0.043	O I					0.69
2.000	0.43	0.09	0.046	O I					0.72
2.083	0.45	0.10	0.048	O I					0.76
2.167	0.56	0.12	0.051	O I					0.80
2.250	0.70	0.14	0.054	O I					0.85
2.333	0.58	0.16	0.058	O I					0.90
2.417	0.89	0.18	0.062	O I					0.95
2.500	1.13	0.20	0.067	O I					1.03
2.583	1.27	0.20	0.074	O I					1.11
2.667	1.04	0.20	0.081	O I					1.19
2.750	0.48	0.20	0.085	O I					1.24
2.833	0.27	0.20	0.086	O I					1.26
2.917	0.26	0.20	0.086	O I					1.26
3.000	0.14	0.20	0.086	I O					1.26
3.083	0.03	0.20	0.086	I O					1.25
3.167	0.00	0.20	0.084	I O					1.24
3.250	0.00	0.20	0.083	I O					1.22
3.333	0.00	0.20	0.082	I O					1.20
3.417	0.00	0.20	0.080	I O					1.19
3.500	0.00	0.20	0.079	I O					1.17
3.583	0.00	0.20	0.078	I O					1.15
3.667	0.00	0.20	0.076	I O					1.14
3.750	0.00	0.20	0.075	I O					1.12
3.833	0.00	0.20	0.074	I O					1.11
3.917	0.00	0.20	0.072	I O					1.09
4.000	0.00	0.20	0.071	I O					1.07

4.083	0.00	0.20	0.070	I O				1.06
4.167	0.00	0.20	0.068	I O				1.04
4.250	0.00	0.20	0.067	I O				1.02
4.333	0.00	0.20	0.066	I O				1.01
4.417	0.00	0.19	0.064	I O				0.99
4.500	0.00	0.18	0.063	I O				0.97
4.583	0.00	0.18	0.062	I O				0.95
4.667	0.00	0.17	0.060	I O				0.93
4.750	0.00	0.16	0.059	I O				0.92
4.833	0.00	0.16	0.058	I O				0.90
4.917	0.00	0.15	0.057	I O				0.89
5.000	0.00	0.15	0.056	I O				0.87
5.083	0.00	0.14	0.055	I O				0.86
5.167	0.00	0.14	0.054	I O				0.84
5.250	0.00	0.13	0.053	I O				0.83
5.333	0.00	0.13	0.052	I O				0.82
5.417	0.00	0.12	0.051	I O				0.81
5.500	0.00	0.12	0.051	I O				0.80
5.583	0.00	0.11	0.050	I O				0.78
5.667	0.00	0.11	0.049	I O				0.77
5.750	0.00	0.10	0.048	I O				0.76
5.833	0.00	0.10	0.048	I O				0.75
5.917	0.00	0.10	0.047	I O				0.74
6.000	0.00	0.09	0.046	I O				0.73
6.083	0.00	0.09	0.046	I O				0.73
6.167	0.00	0.09	0.045	I O				0.72
6.250	0.00	0.08	0.045	I O				0.71
6.333	0.00	0.08	0.044	IO				0.70
6.417	0.00	0.08	0.044	IO				0.69
6.500	0.00	0.07	0.043	IO				0.69
6.583	0.00	0.07	0.043	IO				0.68
6.667	0.00	0.07	0.042	IO				0.67
6.750	0.00	0.06	0.042	IO				0.67
6.833	0.00	0.06	0.041	IO				0.66
6.917	0.00	0.06	0.041	IO				0.65
7.000	0.00	0.06	0.040	IO				0.65
7.083	0.00	0.06	0.040	IO				0.64
7.167	0.00	0.05	0.040	IO				0.64
7.250	0.00	0.05	0.039	IO				0.63
7.333	0.00	0.05	0.039	IO				0.63
7.417	0.00	0.05	0.039	IO				0.62
7.500	0.00	0.05	0.038	IO				0.62
7.583	0.00	0.04	0.038	IO				0.61
7.667	0.00	0.04	0.038	IO				0.61
7.750	0.00	0.04	0.037	IO				0.60
7.833	0.00	0.04	0.037	O				0.60
7.917	0.00	0.04	0.037	O				0.60
8.000	0.00	0.04	0.036	O				0.59
8.083	0.00	0.04	0.036	O				0.59
8.167	0.00	0.03	0.036	O				0.59

8.250	0.00	0.03	0.036	O				0.58
8.333	0.00	0.03	0.036	O				0.58
8.417	0.00	0.03	0.035	O				0.58
8.500	0.00	0.03	0.035	O				0.57
8.583	0.00	0.03	0.035	O				0.57
8.667	0.00	0.03	0.035	O				0.57
8.750	0.00	0.03	0.035	O				0.57
8.833	0.00	0.02	0.034	O				0.56
8.917	0.00	0.02	0.034	O				0.56
9.000	0.00	0.02	0.034	O				0.56
9.083	0.00	0.02	0.034	O				0.56
9.167	0.00	0.02	0.034	O				0.55
9.250	0.00	0.02	0.034	O				0.55
9.333	0.00	0.02	0.033	O				0.55
9.417	0.00	0.02	0.033	O				0.55
9.500	0.00	0.02	0.033	O				0.55
9.583	0.00	0.02	0.033	O				0.54
9.667	0.00	0.02	0.033	O				0.54
9.750	0.00	0.02	0.033	O				0.54
9.833	0.00	0.02	0.033	O				0.54
9.917	0.00	0.01	0.033	O				0.54
10.000	0.00	0.01	0.033	O				0.54
10.083	0.00	0.01	0.032	O				0.54
10.167	0.00	0.01	0.032	O				0.53
10.250	0.00	0.01	0.032	O				0.53
10.333	0.00	0.01	0.032	O				0.53
10.417	0.00	0.01	0.032	O				0.53
10.500	0.00	0.01	0.032	O				0.53
10.583	0.00	0.01	0.032	O				0.53
10.667	0.00	0.01	0.032	O				0.53
10.750	0.00	0.01	0.032	O				0.53
10.833	0.00	0.01	0.032	O				0.52
10.917	0.00	0.01	0.032	O				0.52
11.000	0.00	0.01	0.032	O				0.52
11.083	0.00	0.01	0.032	O				0.52
11.167	0.00	0.01	0.031	O				0.52
11.250	0.00	0.01	0.031	O				0.52
11.333	0.00	0.01	0.031	O				0.52
11.417	0.00	0.01	0.031	O				0.52
11.500	0.00	0.01	0.031	O				0.52
11.583	0.00	0.01	0.031	O				0.52
11.667	0.00	0.01	0.031	O				0.52
11.750	0.00	0.01	0.031	O				0.52
11.833	0.00	0.01	0.031	O				0.52
11.917	0.00	0.01	0.031	O				0.52
12.000	0.00	0.01	0.031	O				0.51
12.083	0.00	0.01	0.031	O				0.51
12.167	0.00	0.01	0.031	O				0.51
12.250	0.00	0.01	0.031	O				0.51
12.333	0.00	0.00	0.031	O				0.51

12.417	0.00	0.00	0.031	O	|	|	|	|	0.51
12.500	0.00	0.00	0.031	O	|	|	|	|	0.51
12.583	0.00	0.00	0.031	O	|	|	|	|	0.51
12.667	0.00	0.00	0.031	O	|	|	|	|	0.51
12.750	0.00	0.00	0.031	O	|	|	|	|	0.51
12.833	0.00	0.00	0.031	O	|	|	|	|	0.51
12.917	0.00	0.00	0.031	O	|	|	|	|	0.51
13.000	0.00	0.00	0.031	O	|	|	|	|	0.51
13.083	0.00	0.00	0.031	O	|	|	|	|	0.51
13.167	0.00	0.00	0.031	O	|	|	|	|	0.51
13.250	0.00	0.00	0.031	O	|	|	|	|	0.51
13.333	0.00	0.00	0.031	O	|	|	|	|	0.51
13.417	0.00	0.00	0.031	O	|	|	|	|	0.51
13.500	0.00	0.00	0.031	O	|	|	|	|	0.51
13.583	0.00	0.00	0.030	O	|	|	|	|	0.51
13.667	0.00	0.00	0.030	O	|	|	|	|	0.51
13.750	0.00	0.00	0.030	O	|	|	|	|	0.51
13.833	0.00	0.00	0.030	O	|	|	|	|	0.51
13.917	0.00	0.00	0.030	O	|	|	|	|	0.51
14.000	0.00	0.00	0.030	O	|	|	|	|	0.51
14.083	0.00	0.00	0.030	O	|	|	|	|	0.51
14.167	0.00	0.00	0.030	O	|	|	|	|	0.51
14.250	0.00	0.00	0.030	O	|	|	|	|	0.51
14.333	0.00	0.00	0.030	O	|	|	|	|	0.50
14.417	0.00	0.00	0.030	O	|	|	|	|	0.50
14.500	0.00	0.00	0.030	O	|	|	|	|	0.50
14.583	0.00	0.00	0.030	O	|	|	|	|	0.50
14.667	0.00	0.00	0.030	O	|	|	|	|	0.50
14.750	0.00	0.00	0.030	O	|	|	|	|	0.50
14.833	0.00	0.00	0.030	O	|	|	|	|	0.50
14.917	0.00	0.00	0.030	O	|	|	|	|	0.50
15.000	0.00	0.00	0.030	O	|	|	|	|	0.50
15.083	0.00	0.00	0.030	O	|	|	|	|	0.50
15.167	0.00	0.00	0.030	O	|	|	|	|	0.50
15.250	0.00	0.00	0.030	O	|	|	|	|	0.50
15.333	0.00	0.00	0.030	O	|	|	|	|	0.50
15.417	0.00	0.00	0.030	O	|	|	|	|	0.50
15.500	0.00	0.00	0.030	O	|	|	|	|	0.50
15.583	0.00	0.00	0.030	O	|	|	|	|	0.50
15.667	0.00	0.00	0.030	O	|	|	|	|	0.50
15.750	0.00	0.00	0.030	O	|	|	|	|	0.50
15.833	0.00	0.00	0.030	O	|	|	|	|	0.50

Remaining water in basin = 0.03 (Ac.Ft)

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

Number of intervals = 190

Time interval = 5.0 (Min.)

```
                Maximum/Peak flow rate =        0.196 (CFS)
                Total volume =       0.073 (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

Study date: 08/24/22

A21626 DMA 3 5YR-6HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA3Q100UH65.rte
**********HYDROGRAPH DATA**********
Number of intervals = 73
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 1.166 (CFS)
Total volume = 0.140 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
_____

Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)

------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 73
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      0.030      0.000      0.030        0.030
  1.000      0.065      0.196      0.064        0.066
  1.500      0.106      0.196      0.105        0.107
  2.000      0.152      0.196      0.151        0.153
  2.500      0.204      0.196      0.203        0.205
  3.000      0.262      0.196      0.261        0.263
  3.500      0.326      4.639      0.310        0.342
------------------------------------------------------------------------
                Hydrograph Detention Basin Routing
------------------------------------------------------------------------

Graph values: 'I'= unit inflow; 'O'=outflow at time shown
------------------------------------------------------------------------
```

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.3	0.58	0.87	1.17	Depth (Ft.)
0.083	0.07	0.00	0.000	OI	|	|	|	|	0.00
0.167	0.11	0.00	0.001	O I	|	|	|	|	0.01
0.250	0.12	0.00	0.002	O I	|	|	|	|	0.03
0.333	0.12	0.00	0.003	O I	|	|	|	|	0.04
0.417	0.12	0.00	0.003	O I	|	|	|	|	0.06
0.500	0.13	0.00	0.004	O I	|	|	|	|	0.07
0.583	0.14	0.00	0.005	O I	|	|	|	|	0.09
0.667	0.14	0.00	0.006	O I	|	|	|	|	0.10
0.750	0.14	0.00	0.007	O I	|	|	|	|	0.12
0.833	0.14	0.00	0.008	O I	|	|	|	|	0.13
0.917	0.14	0.00	0.009	O I	|	|	|	|	0.15
1.000	0.15	0.00	0.010	O I	|	|	|	|	0.17
1.083	0.16	0.00	0.011	O I	|	|	|	|	0.19
1.167	0.16	0.00	0.012	O I	|	|	|	|	0.20
1.250	0.16	0.00	0.013	O I	|	|	|	|	0.22
1.333	0.16	0.00	0.014	O I	|	|	|	|	0.24
1.417	0.16	0.00	0.016	O I	|	|	|	|	0.26
1.500	0.16	0.00	0.017	O I	|	|	|	|	0.28
1.583	0.16	0.00	0.018	O I	|	|	|	|	0.30
1.667	0.16	0.00	0.019	O I	|	|	|	|	0.31
1.750	0.16	0.00	0.020	O I	|	|	|	|	0.33
1.833	0.16	0.00	0.021	O I	|	|	|	|	0.35
1.917	0.16	0.00	0.022	O I	|	|	|	|	0.37
2.000	0.17	0.00	0.023	O I	|	|	|	|	0.39
2.083	0.17	0.00	0.025	O I	|	|	|	|	0.41
2.167	0.17	0.00	0.026	O I	|	|	|	|	0.43
2.250	0.18	0.00	0.027	O I	|	|	|	|	0.45
2.333	0.18	0.00	0.028	O I	|	|	|	|	0.47
2.417	0.18	0.00	0.029	O I	|	|	|	|	0.49
2.500	0.18	0.00	0.031	O I	|	|	|	|	0.51
2.583	0.18	0.01	0.032	O I	|	|	|	|	0.53
2.667	0.18	0.02	0.033	O I	|	|	|	|	0.54
2.750	0.19	0.02	0.034	O I	|	|	|	|	0.56
2.833	0.20	0.03	0.035	O I	|	|	|	|	0.58
2.917	0.20	0.04	0.037	|O I	|	|	|	|	0.59
3.000	0.20	0.04	0.038	|O I	|	|	|	|	0.61
3.083	0.20	0.05	0.039	|O I	|	|	|	|	0.62
3.167	0.21	0.05	0.040	|O I	|	|	|	|	0.64
3.250	0.22	0.06	0.041	|O I	|	|	|	|	0.66
3.333	0.22	0.07	0.042	|O I	|	|	|	|	0.67
3.417	0.23	0.07	0.043	| O I	|	|	|	|	0.69
3.500	0.26	0.08	0.044	| O I|	|	|	|	|	0.70
3.583	0.28	0.09	0.045	| O I|	|	|	|	|	0.72
3.667	0.28	0.09	0.047	| O I|	|	|	|	|	0.74
3.750	0.30	0.10	0.048	| O I	|	|	|	|	0.76
3.833	0.30	0.11	0.049	| O I	|	|	|	|	0.78
3.917	0.32	0.12	0.051	| O I	|	|	|	|	0.80
4.000	0.32	0.12	0.052	| O I	|	|	|	|	0.82

```
4.083    0.34    0.13      0.053  |  O    |I      |       |       |     0.84
4.167    0.36    0.14      0.055  |  O    |I      |       |       |     0.86
4.250    0.38    0.15      0.056  |   O   | I     |       |       |     0.88
4.333    0.40    0.16      0.058  |   O   | I     |       |       |     0.90
4.417    0.42    0.17      0.060  |   O   |  I    |       |       |     0.92
4.500    0.42    0.18      0.061  |   O   |  I    |       |       |     0.95
4.583    0.44    0.19      0.063  |    O  |  I    |       |       |     0.97
4.667    0.46    0.20      0.065  |    O  |   I   |       |       |     1.00
4.750    0.48    0.20      0.067  |    O  |    I  |       |       |     1.02
4.833    0.48    0.20      0.069  |    O  |    I  |       |       |     1.05
4.917    0.50    0.20      0.071  |    O  |    I  |       |       |     1.07
5.000    0.52    0.20      0.073  |    O  |     I |       |       |     1.10
5.083    0.59    0.20      0.075  |    O  |       I       |       |     1.13
5.167    0.70    0.20      0.078  |    O  |         |  I    |       |     1.16
5.250    0.78    0.20      0.082  |    O  |         |    I  |       |     1.21
5.333    0.86    0.20      0.086  |    O  |         |      I|       |     1.26
5.417    0.97    0.20      0.091  |    O  |         |       | I     |     1.32
5.500    1.17    0.20      0.097  |    O  |         |       |       I     1.40
5.583    0.65    0.20      0.102  |    O  |         |I      |       |     1.46
5.667    0.24    0.20      0.104  |    OI |         |       |       |     1.48
5.750    0.14    0.20      0.104  |  I O  |         |       |       |     1.48
5.833    0.11    0.20      0.104  | I  O  |         |       |       |     1.47
5.917    0.07    0.20      0.103  | I  O  |         |       |       |     1.46
6.000    0.05    0.20      0.102  |I   O  |         |       |       |     1.45
6.083    0.01    0.20      0.101  I    O  |         |       |       |     1.44
6.167    0.00    0.20      0.099  I    O  |         |       |       |     1.42
6.250    0.00    0.20      0.098  I    O  |         |       |       |     1.40
6.333    0.00    0.20      0.097  I    O  |         |       |       |     1.39
6.417    0.00    0.20      0.095  I    O  |         |       |       |     1.37
6.500    0.00    0.20      0.094  I    O  |         |       |       |     1.35
6.583    0.00    0.20      0.093  I    O  |         |       |       |     1.34
6.667    0.00    0.20      0.091  I    O  |         |       |       |     1.32
6.750    0.00    0.20      0.090  I    O  |         |       |       |     1.30
6.833    0.00    0.20      0.089  I    O  |         |       |       |     1.29
6.917    0.00    0.20      0.087  I    O  |         |       |       |     1.27
7.000    0.00    0.20      0.086  I    O  |         |       |       |     1.25
7.083    0.00    0.20      0.085  I    O  |         |       |       |     1.24
7.167    0.00    0.20      0.083  I    O  |         |       |       |     1.22
7.250    0.00    0.20      0.082  I    O  |         |       |       |     1.20
7.333    0.00    0.20      0.080  I    O  |         |       |       |     1.19
7.417    0.00    0.20      0.079  I    O  |         |       |       |     1.17
7.500    0.00    0.20      0.078  I    O  |         |       |       |     1.16
7.583    0.00    0.20      0.076  I    O  |         |       |       |     1.14
7.667    0.00    0.20      0.075  I    O  |         |       |       |     1.12
7.750    0.00    0.20      0.074  I    O  |         |       |       |     1.11
7.833    0.00    0.20      0.072  I    O  |         |       |       |     1.09
7.917    0.00    0.20      0.071  I    O  |         |       |       |     1.07
8.000    0.00    0.20      0.070  I    O  |         |       |       |     1.06
8.083    0.00    0.20      0.068  I    O  |         |       |       |     1.04
8.167    0.00    0.20      0.067  I    O  |         |       |       |     1.02
```

8.250	0.00	0.20	0.066	I O				1.01
8.333	0.00	0.19	0.064	I O				0.99
8.417	0.00	0.18	0.063	I O				0.97
8.500	0.00	0.18	0.062	I O				0.95
8.583	0.00	0.17	0.060	I O				0.94
8.667	0.00	0.16	0.059	I O				0.92
8.750	0.00	0.16	0.058	I O				0.90
8.833	0.00	0.15	0.057	I O				0.89
8.917	0.00	0.15	0.056	I O				0.87
9.000	0.00	0.14	0.055	I O				0.86
9.083	0.00	0.14	0.054	I O				0.85
9.167	0.00	0.13	0.053	I O				0.83
9.250	0.00	0.13	0.052	I O				0.82
9.333	0.00	0.12	0.052	I O				0.81
9.417	0.00	0.12	0.051	I O				0.80
9.500	0.00	0.11	0.050	I O				0.78
9.583	0.00	0.11	0.049	I O				0.77
9.667	0.00	0.10	0.048	I O				0.76
9.750	0.00	0.10	0.048	I O				0.75
9.833	0.00	0.10	0.047	I O				0.74
9.917	0.00	0.09	0.046	I O				0.73
10.000	0.00	0.09	0.046	I O				0.73
10.083	0.00	0.09	0.045	I O				0.72
10.167	0.00	0.08	0.045	I O				0.71
10.250	0.00	0.08	0.044	I O				0.70
10.333	0.00	0.08	0.044	I O				0.69
10.417	0.00	0.07	0.043	I O				0.69
10.500	0.00	0.07	0.043	IO				0.68
10.583	0.00	0.07	0.042	IO				0.67
10.667	0.00	0.07	0.042	IO				0.67
10.750	0.00	0.06	0.041	IO				0.66
10.833	0.00	0.06	0.041	IO				0.65
10.917	0.00	0.06	0.040	IO				0.65
11.000	0.00	0.06	0.040	IO				0.64
11.083	0.00	0.05	0.040	IO				0.64
11.167	0.00	0.05	0.039	IO				0.63
11.250	0.00	0.05	0.039	IO				0.63
11.333	0.00	0.05	0.039	IO				0.62
11.417	0.00	0.05	0.038	IO				0.62
11.500	0.00	0.04	0.038	IO				0.61
11.583	0.00	0.04	0.038	IO				0.61
11.667	0.00	0.04	0.037	IO				0.60
11.750	0.00	0.04	0.037	IO				0.60
11.833	0.00	0.04	0.037	IO				0.60
11.917	0.00	0.04	0.037	IO				0.59
12.000	0.00	0.04	0.036	O				0.59
12.083	0.00	0.03	0.036	O				0.59
12.167	0.00	0.03	0.036	O				0.58
12.250	0.00	0.03	0.036	O				0.58
12.333	0.00	0.03	0.035	O				0.58

12.417	0.00	0.03	0.035	O				0.57
12.500	0.00	0.03	0.035	O				0.57
12.583	0.00	0.03	0.035	O				0.57
12.667	0.00	0.03	0.035	O				0.57
12.750	0.00	0.02	0.034	O				0.56
12.833	0.00	0.02	0.034	O				0.56
12.917	0.00	0.02	0.034	O				0.56
13.000	0.00	0.02	0.034	O				0.56
13.083	0.00	0.02	0.034	O				0.55
13.167	0.00	0.02	0.034	O				0.55
13.250	0.00	0.02	0.034	O				0.55
13.333	0.00	0.02	0.033	O				0.55
13.417	0.00	0.02	0.033	O				0.55
13.500	0.00	0.02	0.033	O				0.54
13.583	0.00	0.02	0.033	O				0.54
13.667	0.00	0.02	0.033	O				0.54
13.750	0.00	0.02	0.033	O				0.54
13.833	0.00	0.01	0.033	O				0.54
13.917	0.00	0.01	0.033	O				0.54
14.000	0.00	0.01	0.032	O				0.54
14.083	0.00	0.01	0.032	O				0.53
14.167	0.00	0.01	0.032	O				0.53
14.250	0.00	0.01	0.032	O				0.53
14.333	0.00	0.01	0.032	O				0.53
14.417	0.00	0.01	0.032	O				0.53
14.500	0.00	0.01	0.032	O				0.53
14.583	0.00	0.01	0.032	O				0.53
14.667	0.00	0.01	0.032	O				0.53
14.750	0.00	0.01	0.032	O				0.52
14.833	0.00	0.01	0.032	O				0.52
14.917	0.00	0.01	0.032	O				0.52
15.000	0.00	0.01	0.032	O				0.52
15.083	0.00	0.01	0.031	O				0.52
15.167	0.00	0.01	0.031	O				0.52
15.250	0.00	0.01	0.031	O				0.52
15.333	0.00	0.01	0.031	O				0.52
15.417	0.00	0.01	0.031	O				0.52
15.500	0.00	0.01	0.031	O				0.52
15.583	0.00	0.01	0.031	O				0.52
15.667	0.00	0.01	0.031	O				0.52
15.750	0.00	0.01	0.031	O				0.52
15.833	0.00	0.01	0.031	O				0.52
15.917	0.00	0.01	0.031	O				0.51
16.000	0.00	0.01	0.031	O				0.51
16.083	0.00	0.01	0.031	O				0.51
16.167	0.00	0.01	0.031	O				0.51
16.250	0.00	0.00	0.031	O				0.51
16.333	0.00	0.00	0.031	O				0.51
16.417	0.00	0.00	0.031	O				0.51
16.500	0.00	0.00	0.031	O				0.51

16.583	0.00	0.00	0.031	O	|	|	|	|	0.51
16.667	0.00	0.00	0.031	O	|	|	|	|	0.51
16.750	0.00	0.00	0.031	O	|	|	|	|	0.51
16.833	0.00	0.00	0.031	O	|	|	|	|	0.51
16.917	0.00	0.00	0.031	O	|	|	|	|	0.51
17.000	0.00	0.00	0.031	O	|	|	|	|	0.51
17.083	0.00	0.00	0.031	O	|	|	|	|	0.51
17.167	0.00	0.00	0.031	O	|	|	|	|	0.51
17.250	0.00	0.00	0.031	O	|	|	|	|	0.51
17.333	0.00	0.00	0.031	O	|	|	|	|	0.51
17.417	0.00	0.00	0.031	O	|	|	|	|	0.51
17.500	0.00	0.00	0.030	O	|	|	|	|	0.51
17.583	0.00	0.00	0.030	O	|	|	|	|	0.51
17.667	0.00	0.00	0.030	O	|	|	|	|	0.51
17.750	0.00	0.00	0.030	O	|	|	|	|	0.51
17.833	0.00	0.00	0.030	O	|	|	|	|	0.51
17.917	0.00	0.00	0.030	O	|	|	|	|	0.51
18.000	0.00	0.00	0.030	O	|	|	|	|	0.51
18.083	0.00	0.00	0.030	O	|	|	|	|	0.51
18.167	0.00	0.00	0.030	O	|	|	|	|	0.51
18.250	0.00	0.00	0.030	O	|	|	|	|	0.50
18.333	0.00	0.00	0.030	O	|	|	|	|	0.50
18.417	0.00	0.00	0.030	O	|	|	|	|	0.50
18.500	0.00	0.00	0.030	O	|	|	|	|	0.50
18.583	0.00	0.00	0.030	O	|	|	|	|	0.50
18.667	0.00	0.00	0.030	O	|	|	|	|	0.50
18.750	0.00	0.00	0.030	O	|	|	|	|	0.50
18.833	0.00	0.00	0.030	O	|	|	|	|	0.50
18.917	0.00	0.00	0.030	O	|	|	|	|	0.50
19.000	0.00	0.00	0.030	O	|	|	|	|	0.50
19.083	0.00	0.00	0.030	O	|	|	|	|	0.50
19.167	0.00	0.00	0.030	O	|	|	|	|	0.50
19.250	0.00	0.00	0.030	O	|	|	|	|	0.50
19.333	0.00	0.00	0.030	O	|	|	|	|	0.50
19.417	0.00	0.00	0.030	O	|	|	|	|	0.50
19.500	0.00	0.00	0.030	O	|	|	|	|	0.50
19.583	0.00	0.00	0.030	O	|	|	|	|	0.50
19.667	0.00	0.00	0.030	O	|	|	|	|	0.50
19.750	0.00	0.00	0.030	O	|	|	|	|	0.50

Remaining water in basin = 0.03 (Ac.Ft)

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

Number of intervals = 237
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.110 (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

Study date: 08/24/22

A21626 DMA 3 5YR-24HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA3Q100UH245.rte
**********HYDROGRAPH DATA**********
Number of intervals = 289
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.398 (CFS)
Total volume = 0.242 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
_____

Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)

------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 289
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      0.030      0.000      0.030        0.030
  1.000      0.065      0.196      0.064        0.066
  1.500      0.106      0.196      0.105        0.107
  2.000      0.152      0.196      0.151        0.153
  2.500      0.204      0.196      0.203        0.205
  3.000      0.262      0.196      0.261        0.263
  3.500      0.326      4.639      0.310        0.342
------------------------------------------------------------------------
                Hydrograph Detention Basin Routing
------------------------------------------------------------------------

Graph values: 'I'= unit inflow; 'O'=outflow at time shown
------------------------------------------------------------------------
```

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.1	0.20	0.30	0.40	Depth (Ft.)
0.083	0.02	0.00	0.000	OI					0.00
0.167	0.02	0.00	0.000	OI					0.00
0.250	0.02	0.00	0.000	OI					0.01
0.333	0.03	0.00	0.001	O I					0.01
0.417	0.04	0.00	0.001	O I					0.01
0.500	0.04	0.00	0.001	O I					0.02
0.583	0.04	0.00	0.001	O I					0.02
0.667	0.04	0.00	0.001	O I					0.02
0.750	0.04	0.00	0.002	O I					0.03
0.833	0.04	0.00	0.002	O I					0.03
0.917	0.05	0.00	0.002	O I					0.04
1.000	0.05	0.00	0.003	O I					0.04
1.083	0.04	0.00	0.003	O I					0.05
1.167	0.04	0.00	0.003	O I					0.05
1.250	0.04	0.00	0.003	O I					0.06
1.333	0.04	0.00	0.004	O I					0.06
1.417	0.04	0.00	0.004	O I					0.07
1.500	0.04	0.00	0.004	O I					0.07
1.583	0.04	0.00	0.004	O I					0.07
1.667	0.04	0.00	0.005	O I					0.08
1.750	0.04	0.00	0.005	O I					0.08
1.833	0.04	0.00	0.005	O I					0.09
1.917	0.05	0.00	0.005	O I					0.09
2.000	0.05	0.00	0.006	O I					0.10
2.083	0.05	0.00	0.006	O I					0.10
2.167	0.05	0.00	0.006	O I					0.11
2.250	0.05	0.00	0.007	O I					0.11
2.333	0.05	0.00	0.007	O I					0.12
2.417	0.05	0.00	0.007	O I					0.12
2.500	0.05	0.00	0.008	O I					0.13
2.583	0.05	0.00	0.008	O I					0.13
2.667	0.06	0.00	0.008	O I					0.14
2.750	0.06	0.00	0.009	O I					0.15
2.833	0.06	0.00	0.009	O I					0.15
2.917	0.06	0.00	0.010	O I					0.16
3.000	0.06	0.00	0.010	O I					0.17
3.083	0.06	0.00	0.010	O I					0.17
3.167	0.06	0.00	0.011	O I					0.18
3.250	0.06	0.00	0.011	O I					0.19
3.333	0.06	0.00	0.012	O I					0.19
3.417	0.06	0.00	0.012	O I					0.20
3.500	0.06	0.00	0.013	O I					0.21
3.583	0.06	0.00	0.013	O I					0.22
3.667	0.06	0.00	0.013	O I					0.22
3.750	0.06	0.00	0.014	O I					0.23
3.833	0.07	0.00	0.014	O I					0.24
3.917	0.07	0.00	0.015	O I					0.24
4.000	0.07	0.00	0.015	O I					0.25

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4.083    0.07    0.00      0.016  O    I  |       |       |       |     0.26
4.167    0.07    0.00      0.016  O    I  |       |       |       |     0.27
4.250    0.07    0.00      0.017  O    I  |       |       |       |     0.28
4.333    0.08    0.00      0.017  O     I |       |       |       |     0.28
4.417    0.08    0.00      0.018  O     I |       |       |       |     0.29
4.500    0.08    0.00      0.018  O     I |       |       |       |     0.30
4.583    0.08    0.00      0.019  O     I |       |       |       |     0.31
4.667    0.08    0.00      0.019  O     I |       |       |       |     0.32
4.750    0.08    0.00      0.020  O     I |       |       |       |     0.33
4.833    0.09    0.00      0.020  O      I|       |       |       |     0.34
4.917    0.09    0.00      0.021  O      I|       |       |       |     0.35
5.000    0.09    0.00      0.022  O      I|       |       |       |     0.36
5.083    0.08    0.00      0.022  O     I |       |       |       |     0.37
5.167    0.07    0.00      0.023  O    I  |       |       |       |     0.38
5.250    0.07    0.00      0.023  O    I  |       |       |       |     0.39
5.333    0.08    0.00      0.024  O     I |       |       |       |     0.40
5.417    0.08    0.00      0.024  O     I |       |       |       |     0.41
5.500    0.08    0.00      0.025  O     I |       |       |       |     0.42
5.583    0.09    0.00      0.026  O      I|       |       |       |     0.43
5.667    0.09    0.00      0.026  O      I|       |       |       |     0.44
5.750    0.09    0.00      0.027  O      I|       |       |       |     0.45
5.833    0.09    0.00      0.027  O      I|       |       |       |     0.46
5.917    0.09    0.00      0.028  O      I|       |       |       |     0.47
6.000    0.09    0.00      0.029  O      I|       |       |       |     0.48
6.083    0.10    0.00      0.029  O       I       |       |       |     0.49
6.167    0.11    0.00      0.030  O       I       |       |       |     0.50
6.250    0.11    0.00      0.031  O       I       |       |       |     0.51
6.333    0.11    0.01      0.032  O       I       |       |       |     0.52
6.417    0.11    0.01      0.032  O       I       |       |       |     0.53
6.500    0.11    0.02      0.033  |O      I       |       |       |     0.54
6.583    0.11    0.02      0.033  |O      |I      |       |       |     0.55
6.667    0.12    0.02      0.034  |O      |I      |       |       |     0.56
6.750    0.12    0.03      0.035  | O     |I      |       |       |     0.57
6.833    0.12    0.03      0.035  | O     |I      |       |       |     0.58
6.917    0.12    0.03      0.036  | O     |I      |       |       |     0.58
7.000    0.12    0.04      0.037  | O     |I      |       |       |     0.59
7.083    0.12    0.04      0.037  |  O    |I      |       |       |     0.60
7.167    0.12    0.04      0.038  |  O    |I      |       |       |     0.61
7.250    0.12    0.05      0.038  |  O    |I      |       |       |     0.62
7.333    0.13    0.05      0.039  |  O    | I     |       |       |     0.62
7.417    0.13    0.05      0.039  |   O   | I     |       |       |     0.63
7.500    0.13    0.05      0.040  |   O   | I     |       |       |     0.64
7.583    0.14    0.06      0.040  |   O   | I     |       |       |     0.65
7.667    0.14    0.06      0.041  |   O   |  I    |       |       |     0.65
7.750    0.14    0.06      0.041  |    O  |  I    |       |       |     0.66
7.833    0.15    0.07      0.042  |    O  |  I    |       |       |     0.67
7.917    0.15    0.07      0.042  |    O  |   I   |       |       |     0.68
8.000    0.15    0.07      0.043  |    O  |   I   |       |       |     0.69
8.083    0.17    0.08      0.044  |     O |    I  |       |       |     0.69
8.167    0.18    0.08      0.044  |     O |     I |       |       |     0.70
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8.250	0.18	0.08	0.045	|	O |	I |	|	|	0.71
8.333	0.18	0.09	0.045	|	O |	I |	|	|	0.72
8.417	0.18	0.09	0.046	|	O|	I |	|	|	0.73
8.500	0.18	0.09	0.047	|	O|	I |	|	|	0.74
8.583	0.18	0.10	0.047	|	O|	I |	|	|	0.75
8.667	0.19	0.10	0.048	|	O	I|	|	|	0.75
8.750	0.19	0.10	0.048	|	O	I|	|	|	0.76
8.833	0.20	0.11	0.049	|	O	I|	|	|	0.77
8.917	0.20	0.11	0.050	|	O	I	|	|	0.78
9.000	0.20	0.11	0.050	|	|O	I	|	|	0.79
9.083	0.22	0.12	0.051	|	|O	|I	|	|	0.80
9.167	0.22	0.12	0.052	|	|O	|I	|	|	0.81
9.250	0.22	0.12	0.052	|	| O	|I	|	|	0.82
9.333	0.23	0.13	0.053	|	| O	| I	|	|	0.83
9.417	0.23	0.13	0.054	|	| O	| I	|	|	0.84
9.500	0.23	0.14	0.054	|	| O	| I	|	|	0.85
9.583	0.24	0.14	0.055	|	| O	| I	|	|	0.86
9.667	0.25	0.14	0.056	|	| O	| I	|	|	0.87
9.750	0.25	0.15	0.056	|	| O	| I	|	|	0.88
9.833	0.25	0.15	0.057	|	| O	| I	|	|	0.89
9.917	0.26	0.16	0.058	|	| O	| I	|	|	0.90
10.000	0.26	0.16	0.058	|	| O	| I	|	|	0.91
10.083	0.20	0.16	0.059	|	| O I		|	|	0.91
10.167	0.18	0.16	0.059	|	| OI |		|	|	0.92
10.250	0.18	0.16	0.059	|	| OI |		|	|	0.92
10.333	0.18	0.16	0.059	|	| OI |		|	|	0.92
10.417	0.18	0.16	0.059	|	| OI |		|	|	0.92
10.500	0.18	0.17	0.059	|	| OI |		|	|	0.92
10.583	0.22	0.17	0.060	|	| O |I		|	|	0.92
10.667	0.23	0.17	0.060	|	| O | I		|	|	0.93
10.750	0.23	0.17	0.060	|	| O | I		|	|	0.94
10.833	0.23	0.17	0.061	|	| O | I		|	|	0.94
10.917	0.23	0.18	0.061	|	| O | I		|	|	0.95
11.000	0.23	0.18	0.062	|	| O | I		|	|	0.95
11.083	0.23	0.18	0.062	|	| O | I		|	|	0.96
11.167	0.22	0.18	0.062	|	| O |I		|	|	0.96
11.250	0.22	0.18	0.063	|	| O |I		|	|	0.97
11.333	0.22	0.18	0.063	|	| O |I		|	|	0.97
11.417	0.22	0.19	0.063	|	| O |I		|	|	0.97
11.500	0.22	0.19	0.063	|	| O|I		|	|	0.98
11.583	0.21	0.19	0.064	|	| OI		|	|	0.98
11.667	0.20	0.19	0.064	|	| OI		|	|	0.98
11.750	0.20	0.19	0.064	|	| OI		|	|	0.98
11.833	0.21	0.19	0.064	|	| OI		|	|	0.98
11.917	0.21	0.19	0.064	|	| OI		|	|	0.99
12.000	0.21	0.19	0.064	|	| OI		|	|	0.99
12.083	0.27	0.19	0.064	|	| O|	I	|	|	0.99
12.167	0.29	0.20	0.065	|	| O|	I|	|	|	1.00
12.250	0.29	0.20	0.066	|	| O|	I|	|	|	1.01
12.333	0.30	0.20	0.066	|	| O|	I	|	|	1.02

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12.417    0.30    0.20      0.067  |        |       O|        I        |     1.03
12.500    0.30    0.20      0.068  |        |       O|        I        |     1.04
12.583    0.32    0.20      0.069  |        |       O|        |I       |     1.04
12.667    0.33    0.20      0.070  |        |       O|        | I      |     1.06
12.750    0.33    0.20      0.070  |        |       O|        | I      |     1.07
12.833    0.34    0.20      0.071  |        |       O|        | I      |     1.08
12.917    0.34    0.20      0.072  |        |       O|        |  I     |     1.09
13.000    0.34    0.20      0.073  |        |       O|        |  I     |     1.10
13.083    0.38    0.20      0.075  |        |       O|        |     I  |     1.12
13.167    0.40    0.20      0.076  |        |       O|        |       I|     1.13
13.250    0.40    0.20      0.077  |        |       O|        |       I|     1.15
13.333    0.40    0.20      0.079  |        |       O|        |       I|     1.17
13.417    0.40    0.20      0.080  |        |       O|        |       I|     1.18
13.500    0.40    0.20      0.081  |        |       O|        |       I|     1.20
13.583    0.31    0.20      0.082  |        |       O|        I        |     1.21
13.667    0.27    0.20      0.083  |        |       O|    I   |         |     1.22
13.750    0.27    0.20      0.084  |        |       O|    I   |         |     1.23
13.833    0.27    0.20      0.084  |        |       O|    I   |         |     1.23
13.917    0.27    0.20      0.085  |        |       O|    I   |         |     1.24
14.000    0.27    0.20      0.085  |        |       O|    I   |         |     1.25
14.083    0.30    0.20      0.086  |        |       O|        I        |     1.25
14.167    0.32    0.20      0.087  |        |       O|        |I       |     1.26
14.250    0.32    0.20      0.087  |        |       O|        |I       |     1.27
14.333    0.31    0.20      0.088  |        |       O|        I        |     1.28
14.417    0.30    0.20      0.089  |        |       O|        I        |     1.29
14.500    0.30    0.20      0.090  |        |       O|        I        |     1.30
14.583    0.30    0.20      0.090  |        |       O|        I        |     1.31
14.667    0.30    0.20      0.091  |        |       O|        I        |     1.32
14.750    0.30    0.20      0.092  |        |       O|        I        |     1.33
14.833    0.30    0.20      0.093  |        |       O|      I |        |     1.34
14.917    0.29    0.20      0.093  |        |       O|      I |        |     1.35
15.000    0.29    0.20      0.094  |        |       O|      I |        |     1.35
15.083    0.28    0.20      0.095  |        |       O|     I  |        |     1.36
15.167    0.28    0.20      0.095  |        |       O|     I  |        |     1.37
15.250    0.28    0.20      0.096  |        |       O|     I  |        |     1.38
15.333    0.27    0.20      0.096  |        |       O|    I   |        |     1.38
15.417    0.27    0.20      0.097  |        |       O|    I   |        |     1.39
15.500    0.27    0.20      0.097  |        |       O|    I   |        |     1.39
15.583    0.24    0.20      0.098  |        |       O|  I     |        |     1.40
15.667    0.22    0.20      0.098  |        |       O|I       |        |     1.40
15.750    0.22    0.20      0.098  |        |       O|I       |        |     1.40
15.833    0.22    0.20      0.098  |        |       O|I       |        |     1.41
15.917    0.22    0.20      0.099  |        |       O|I       |        |     1.41
16.000    0.22    0.20      0.099  |        |       O|I       |        |     1.41
16.083    0.10    0.20      0.098  |        I       O|        |        |     1.41
16.167    0.05    0.20      0.098  |  I     |       O|        |        |     1.40
16.250    0.05    0.20      0.097  |  I     |       O|        |        |     1.39
16.333    0.05    0.20      0.096  |  I     |       O|        |        |     1.37
16.417    0.05    0.20      0.095  |  I     |       O|        |        |     1.36
16.500    0.05    0.20      0.094  |  I     |       O|        |        |     1.35
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16.583	0.04	0.20	0.092	| I |	O|	|	|	1.33
16.667	0.04	0.20	0.091	| I |	O|	|	|	1.32
16.750	0.04	0.20	0.090	| I |	O|	|	|	1.31
16.833	0.04	0.20	0.089	| I |	O|	|	|	1.29
16.917	0.04	0.20	0.088	| I |	O|	|	|	1.28
17.000	0.04	0.20	0.087	| I |	O|	|	|	1.27
17.083	0.05	0.20	0.086	| I |	O|	|	|	1.25
17.167	0.06	0.20	0.085	| I |	O|	|	|	1.24
17.250	0.06	0.20	0.084	| I |	O|	|	|	1.23
17.333	0.06	0.20	0.083	| I |	O|	|	|	1.22
17.417	0.06	0.20	0.082	| I |	O|	|	|	1.21
17.500	0.06	0.20	0.081	| I |	O|	|	|	1.20
17.583	0.06	0.20	0.080	| I |	O|	|	|	1.18
17.667	0.06	0.20	0.079	| I |	O|	|	|	1.17
17.750	0.06	0.20	0.078	| I |	O|	|	|	1.16
17.833	0.05	0.20	0.077	| I |	O|	|	|	1.15
17.917	0.05	0.20	0.076	| I |	O|	|	|	1.14
18.000	0.05	0.20	0.075	| I |	O|	|	|	1.12
18.083	0.05	0.20	0.074	| I |	O|	|	|	1.11
18.167	0.05	0.20	0.073	| I |	O|	|	|	1.10
18.250	0.05	0.20	0.072	| I |	O|	|	|	1.09
18.333	0.05	0.20	0.071	| I |	O|	|	|	1.07
18.417	0.05	0.20	0.070	| I |	O|	|	|	1.06
18.500	0.05	0.20	0.069	| I |	O|	|	|	1.05
18.583	0.04	0.20	0.068	| I |	O|	|	|	1.04
18.667	0.04	0.20	0.067	| I |	O|	|	|	1.02
18.750	0.04	0.20	0.066	| I |	O|	|	|	1.01
18.833	0.03	0.19	0.065	| I |	O|	|	|	1.00
18.917	0.02	0.19	0.064	|I |	O|	|	|	0.98
19.000	0.02	0.18	0.062	|I |	O |	|	|	0.96
19.083	0.03	0.18	0.061	| I |	O |	|	|	0.95
19.167	0.04	0.17	0.060	| I |	O |	|	|	0.93
19.250	0.04	0.17	0.059	| I |	O |	|	|	0.92
19.333	0.04	0.16	0.059	| I |	O |	|	|	0.91
19.417	0.05	0.16	0.058	| I |	O |	|	|	0.90
19.500	0.05	0.15	0.057	| I |	O |	|	|	0.89
19.583	0.04	0.15	0.056	| I |	O |	|	|	0.88
19.667	0.04	0.14	0.056	| I |	O |	|	|	0.87
19.750	0.04	0.14	0.055	| I |	O |	|	|	0.86
19.833	0.03	0.14	0.054	| I |	O |	|	|	0.85
19.917	0.02	0.13	0.053	|I |	O |	|	|	0.83
20.000	0.02	0.13	0.053	|I |	O |	|	|	0.82
20.083	0.03	0.12	0.052	| I |	O |	|	|	0.81
20.167	0.04	0.12	0.051	| I |	O |	|	|	0.81
20.250	0.04	0.12	0.051	| I |	O |	|	|	0.80
20.333	0.04	0.11	0.050	| I |	O |	|	|	0.79
20.417	0.04	0.11	0.050	| I |	O |	|	|	0.78
20.500	0.04	0.11	0.049	| I |	O |	|	|	0.77
20.583	0.04	0.11	0.049	| I |	O |	|	|	0.77
20.667	0.04	0.10	0.048	| I |	O |	|	|	0.76

20.750	0.04	0.10	0.048	| I O |	|	|	|	0.75
20.833	0.03	0.10	0.047	| I O|	|	|	|	0.75
20.917	0.02	0.09	0.047	|I O|	|	|	|	0.74
21.000	0.02	0.09	0.046	|I O|	|	|	|	0.73
21.083	0.03	0.09	0.046	| I O|	|	|	|	0.73
21.167	0.04	0.09	0.046	| I O|	|	|	|	0.72
21.250	0.04	0.09	0.045	| I O |	|	|	|	0.72
21.333	0.03	0.08	0.045	| I O |	|	|	|	0.71
21.417	0.02	0.08	0.044	|I O |	|	|	|	0.71
21.500	0.02	0.08	0.044	|I O |	|	|	|	0.70
21.583	0.03	0.08	0.044	| I O |	|	|	|	0.70
21.667	0.04	0.08	0.043	| I O |	|	|	|	0.69
21.750	0.04	0.07	0.043	| I O |	|	|	|	0.69
21.833	0.03	0.07	0.043	| I O |	|	|	|	0.68
21.917	0.02	0.07	0.043	|I O |	|	|	|	0.68
22.000	0.02	0.07	0.042	|I O |	|	|	|	0.67
22.083	0.03	0.07	0.042	| I O |	|	|	|	0.67
22.167	0.04	0.07	0.042	| I O |	|	|	|	0.67
22.250	0.04	0.06	0.042	| I O |	|	|	|	0.66
22.333	0.03	0.06	0.041	| I O |	|	|	|	0.66
22.417	0.02	0.06	0.041	|I O |	|	|	|	0.66
22.500	0.02	0.06	0.041	|I O |	|	|	|	0.65
22.583	0.02	0.06	0.041	|I O |	|	|	|	0.65
22.667	0.02	0.06	0.040	|I O |	|	|	|	0.65
22.750	0.02	0.06	0.040	|I O |	|	|	|	0.64
22.833	0.02	0.06	0.040	|I O |	|	|	|	0.64
22.917	0.02	0.05	0.040	|I O |	|	|	|	0.64
23.000	0.02	0.05	0.039	|I O |	|	|	|	0.63
23.083	0.02	0.05	0.039	|I O |	|	|	|	0.63
23.167	0.02	0.05	0.039	|I O |	|	|	|	0.63
23.250	0.02	0.05	0.039	|I O |	|	|	|	0.63
23.333	0.02	0.05	0.039	|I O |	|	|	|	0.62
23.417	0.02	0.05	0.038	|I O |	|	|	|	0.62
23.500	0.02	0.05	0.038	|I O |	|	|	|	0.62
23.583	0.02	0.05	0.038	|I O |	|	|	|	0.62
23.667	0.02	0.04	0.038	|I O |	|	|	|	0.61
23.750	0.02	0.04	0.038	|I O |	|	|	|	0.61
23.833	0.02	0.04	0.038	|I O |	|	|	|	0.61
23.917	0.02	0.04	0.038	|I O |	|	|	|	0.61
24.000	0.02	0.04	0.037	|I O |	|	|	|	0.61
24.083	0.01	0.04	0.037	I O |	|	|	|	0.60
24.167	0.00	0.04	0.037	I O |	|	|	|	0.60
24.250	0.00	0.04	0.037	I O |	|	|	|	0.60
24.333	0.00	0.04	0.037	I O |	|	|	|	0.59
24.417	0.00	0.04	0.036	I O |	|	|	|	0.59
24.500	0.00	0.03	0.036	I O |	|	|	|	0.59
24.583	0.00	0.03	0.036	I O |	|	|	|	0.58
24.667	0.00	0.03	0.036	I O |	|	|	|	0.58
24.750	0.00	0.03	0.035	I O |	|	|	|	0.58
24.833	0.00	0.03	0.035	I O |	|	|	|	0.57

24.917	0.00	0.03	0.035	I O				0.57
25.000	0.00	0.03	0.035	I O				0.57
25.083	0.00	0.03	0.035	I O				0.57
25.167	0.00	0.02	0.034	IO				0.56
25.250	0.00	0.02	0.034	IO				0.56
25.333	0.00	0.02	0.034	IO				0.56
25.417	0.00	0.02	0.034	IO				0.56
25.500	0.00	0.02	0.034	IO				0.55
25.583	0.00	0.02	0.034	IO				0.55
25.667	0.00	0.02	0.034	IO				0.55
25.750	0.00	0.02	0.033	IO				0.55
25.833	0.00	0.02	0.033	IO				0.55
25.917	0.00	0.02	0.033	IO				0.54
26.000	0.00	0.02	0.033	IO				0.54
26.083	0.00	0.02	0.033	IO				0.54
26.167	0.00	0.02	0.033	IO				0.54
26.250	0.00	0.02	0.033	IO				0.54
26.333	0.00	0.01	0.033	IO				0.54
26.417	0.00	0.01	0.032	IO				0.54
26.500	0.00	0.01	0.032	IO				0.53
26.583	0.00	0.01	0.032	IO				0.53
26.667	0.00	0.01	0.032	O				0.53
26.750	0.00	0.01	0.032	O				0.53
26.833	0.00	0.01	0.032	O				0.53
26.917	0.00	0.01	0.032	O				0.53
27.000	0.00	0.01	0.032	O				0.53
27.083	0.00	0.01	0.032	O				0.53
27.167	0.00	0.01	0.032	O				0.53
27.250	0.00	0.01	0.032	O				0.52
27.333	0.00	0.01	0.032	O				0.52
27.417	0.00	0.01	0.032	O				0.52
27.500	0.00	0.01	0.032	O				0.52
27.583	0.00	0.01	0.031	O				0.52
27.667	0.00	0.01	0.031	O				0.52
27.750	0.00	0.01	0.031	O				0.52
27.833	0.00	0.01	0.031	O				0.52
27.917	0.00	0.01	0.031	O				0.52
28.000	0.00	0.01	0.031	O				0.52
28.083	0.00	0.01	0.031	O				0.52
28.167	0.00	0.01	0.031	O				0.52
28.250	0.00	0.01	0.031	O				0.52
28.333	0.00	0.01	0.031	O				0.51
28.417	0.00	0.01	0.031	O				0.51
28.500	0.00	0.01	0.031	O				0.51
28.583	0.00	0.01	0.031	O				0.51
28.667	0.00	0.00	0.031	O				0.51
28.750	0.00	0.00	0.031	O				0.51
28.833	0.00	0.00	0.031	O				0.51
28.917	0.00	0.00	0.031	O				0.51
29.000	0.00	0.00	0.031	O				0.51

29.083	0.00	0.00	0.031	O	|	|	|	|	0.51
29.167	0.00	0.00	0.031	O	|	|	|	|	0.51
29.250	0.00	0.00	0.031	O	|	|	|	|	0.51
29.333	0.00	0.00	0.031	O	|	|	|	|	0.51
29.417	0.00	0.00	0.031	O	|	|	|	|	0.51
29.500	0.00	0.00	0.031	O	|	|	|	|	0.51
29.583	0.00	0.00	0.031	O	|	|	|	|	0.51
29.667	0.00	0.00	0.031	O	|	|	|	|	0.51
29.750	0.00	0.00	0.031	O	|	|	|	|	0.51
29.833	0.00	0.00	0.031	O	|	|	|	|	0.51
29.917	0.00	0.00	0.030	O	|	|	|	|	0.51
30.000	0.00	0.00	0.030	O	|	|	|	|	0.51
30.083	0.00	0.00	0.030	O	|	|	|	|	0.51
30.167	0.00	0.00	0.030	O	|	|	|	|	0.51
30.250	0.00	0.00	0.030	O	|	|	|	|	0.51
30.333	0.00	0.00	0.030	O	|	|	|	|	0.51
30.417	0.00	0.00	0.030	O	|	|	|	|	0.51
30.500	0.00	0.00	0.030	O	|	|	|	|	0.51
30.583	0.00	0.00	0.030	O	|	|	|	|	0.51
30.667	0.00	0.00	0.030	O	|	|	|	|	0.50
30.750	0.00	0.00	0.030	O	|	|	|	|	0.50
30.833	0.00	0.00	0.030	O	|	|	|	|	0.50
30.917	0.00	0.00	0.030	O	|	|	|	|	0.50
31.000	0.00	0.00	0.030	O	|	|	|	|	0.50
31.083	0.00	0.00	0.030	O	|	|	|	|	0.50
31.167	0.00	0.00	0.030	O	|	|	|	|	0.50
31.250	0.00	0.00	0.030	O	|	|	|	|	0.50
31.333	0.00	0.00	0.030	O	|	|	|	|	0.50
31.417	0.00	0.00	0.030	O	|	|	|	|	0.50
31.500	0.00	0.00	0.030	O	|	|	|	|	0.50
31.583	0.00	0.00	0.030	O	|	|	|	|	0.50
31.667	0.00	0.00	0.030	O	|	|	|	|	0.50
31.750	0.00	0.00	0.030	O	|	|	|	|	0.50
31.833	0.00	0.00	0.030	O	|	|	|	|	0.50
31.917	0.00	0.00	0.030	O	|	|	|	|	0.50
32.000	0.00	0.00	0.030	O	|	|	|	|	0.50
32.083	0.00	0.00	0.030	O	|	|	|	|	0.50
32.167	0.00	0.00	0.030	O	|	|	|	|	0.50

Remaining water in basin = 0.03 (Ac.Ft)

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

Number of intervals = 386
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.212 (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

****

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

Study date 08/02/22 File: A21626DMA3Q100UH15.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 5YR-1HR UH

Drainage Area = 1.42(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.42(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 440.21(Ft.)
Length along longest watercourse measured to centroid = 326.50(Ft.)
Length along longest watercourse = 0.083 Mi.
Length along longest watercourse measured to centroid = 0.062 Mi.
Difference in elevation = 6.70(Ft.)
Slope along watercourse = 80.3616 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.018 Hr.
Lag time = 1.10 Min.
25% of lag time = 0.27 Min.
40% of lag time = 0.44 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]
        1.42            0.48                    0.68

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.42            1.25                    1.77

STORM EVENT (YEAR) =    5.00
Area Averaged 2-Year Rainfall =    0.480(In)
Area Averaged 100-Year Rainfall =    1.250(In)

Point rain (area averaged) =    0.660(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    0.660(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.417           69.00         0.869
 Total Area Entered =      1.42(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.869        0.125       1.000      0.125
                                                 Sum (F) =   0.125
Area averaged mean soil loss (F) (In/Hr) =  0.125
Minimum soil loss rate ((In/Hr)) =  0.063
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.205
------------------------------------------------------------------------
Slope of intensity-duration curve for a 1 hour storm =0.4800
------------------------------------------------------------------------

                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        454.945         68.526              0.979
    2   0.167        909.890         31.474              0.449
                               Sum = 100.000   Sum=       1.428
-----------------------------------------------------------------
```

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	4.40	0.349	(0.125)	0.071	0.277
2	0.17	4.50	0.357	(0.125)	0.073	0.283
3	0.25	5.40	0.428	(0.125)	0.088	0.340
4	0.33	5.40	0.428	(0.125)	0.088	0.340
5	0.42	5.70	0.452	(0.125)	0.093	0.359
6	0.50	6.40	0.507	(0.125)	0.104	0.403
7	0.58	7.90	0.626	0.125	(0.128)	0.501
8	0.67	9.10	0.721	0.125	(0.148)	0.596
9	0.75	12.80	1.014	0.125	(0.208)	0.889
10	0.83	25.60	2.029	0.125	(0.416)	1.904
11	0.92	7.90	0.626	0.125	(0.128)	0.501
12	1.00	4.90	0.388	(0.125)	0.080	0.309
	(Loss Rate Not Used)					
Sum =		100.0			Sum =	6.7

Flood volume = Effective rainfall 0.56(In)
times area 1.4(Ac.)/[(In)/(Ft.)] = 0.1(Ac.Ft)
Total soil loss = 0.10(In)
Total soil loss = 0.012(Ac.Ft)
Total rainfall = 0.66(In)
Flood volume = 2873.0 Cubic Feet
Total soil loss = 523.6 Cubic Feet

Peak flow rate of this hydrograph = 2.264(CFS)

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

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0 2.5 5.0 7.5 10.0
0+ 5	0.0019	0.27	Q
0+10	0.0046	0.40	QV
0+15	0.0078	0.46	Q V
0+20	0.0112	0.49	Q V
0+25	0.0146	0.50	Q V
0+30	0.0185	0.56	Q V
0+35	0.0231	0.67	Q V
0+40	0.0287	0.81	Q V
0+45	0.0365	1.14	Q V
0+50	0.0521	2.26	Q V
0+55	0.0614	1.35	Q V
1+ 0	0.0650	0.53	Q V

```
    1+ 5       0.0660      0.14  Q         |         |         |        V|
-------------------------------------------------------------------------
```

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

Study date 08/02/22 File: A21626DMA3Q100UH35.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 5YR-3HR UH

Drainage Area = 1.42(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.42(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 440.21(Ft.)
Length along longest watercourse measured to centroid = 326.50(Ft.)
Length along longest watercourse = 0.083 Mi.
Length along longest watercourse measured to centroid = 0.062 Mi.
Difference in elevation = 6.70(Ft.)
Slope along watercourse = 80.3616 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.018 Hr.
Lag time = 1.10 Min.
25% of lag time = 0.27 Min.
40% of lag time = 0.44 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]
        1.42            0.80                  1.13

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.42            1.95                  2.76

STORM EVENT (YEAR) =    5.00
Area Averaged 2-Year Rainfall =    0.800(In)
Area Averaged 100-Year Rainfall =    1.950(In)

Point rain (area averaged) =    1.069(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.069(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.417           69.00         0.869
 Total Area Entered =      1.42(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.869        0.125       1.000      0.125
                                                 Sum (F) =   0.125
Area averaged mean soil loss (F) (In/Hr) =  0.125
Minimum soil loss rate ((In/Hr)) =  0.063
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.205
------------------------------------------------------------------------

               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        454.945         68.526              0.979
    2   0.167        909.890         31.474              0.449
                              Sum = 100.000   Sum=       1.428
------------------------------------------------------------------------

 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	0.167	(0.125)	0.034	0.133
2	0.17	1.30	0.167	(0.125)	0.034	0.133
3	0.25	1.10	0.141	(0.125)	0.029	0.112
4	0.33	1.50	0.192	(0.125)	0.039	0.153
5	0.42	1.50	0.192	(0.125)	0.039	0.153
6	0.50	1.80	0.231	(0.125)	0.047	0.184
7	0.58	1.50	0.192	(0.125)	0.039	0.153
8	0.67	1.80	0.231	(0.125)	0.047	0.184
9	0.75	1.80	0.231	(0.125)	0.047	0.184
10	0.83	1.50	0.192	(0.125)	0.039	0.153
11	0.92	1.60	0.205	(0.125)	0.042	0.163
12	1.00	1.80	0.231	(0.125)	0.047	0.184
13	1.08	2.20	0.282	(0.125)	0.058	0.224
14	1.17	2.20	0.282	(0.125)	0.058	0.224
15	1.25	2.20	0.282	(0.125)	0.058	0.224
16	1.33	2.00	0.257	(0.125)	0.053	0.204
17	1.42	2.60	0.334	(0.125)	0.068	0.265
18	1.50	2.70	0.346	(0.125)	0.071	0.275
19	1.58	2.40	0.308	(0.125)	0.063	0.245
20	1.67	2.70	0.346	(0.125)	0.071	0.275
21	1.75	3.30	0.423	(0.125)	0.087	0.337
22	1.83	3.10	0.398	(0.125)	0.082	0.316
23	1.92	2.90	0.372	(0.125)	0.076	0.296
24	2.00	3.00	0.385	(0.125)	0.079	0.306
25	2.08	3.10	0.398	(0.125)	0.082	0.316
26	2.17	4.20	0.539	(0.125)	0.110	0.428
27	2.25	5.00	0.642	0.125	(0.132)	0.517
28	2.33	3.50	0.449	(0.125)	0.092	0.357
29	2.42	6.80	0.873	0.125	(0.179)	0.748
30	2.50	7.30	0.937	0.125	(0.192)	0.812
31	2.58	8.20	1.052	0.125	(0.216)	0.927
32	2.67	5.90	0.757	0.125	(0.155)	0.632
33	2.75	2.00	0.257	(0.125)	0.053	0.204
34	2.83	1.80	0.231	(0.125)	0.047	0.184
35	2.92	1.80	0.231	(0.125)	0.047	0.184
36	3.00	0.60	0.077	(0.125)	0.016	0.061
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	10.4

Flood volume = Effective rainfall 0.87(In)
times area 1.4(Ac.)/[(In)/(Ft.)] = 0.1(Ac.Ft)
Total soil loss = 0.20(In)
Total soil loss = 0.023(Ac.Ft)
Total rainfall = 1.07(In)
Flood volume = 4479.2 Cubic Feet
Total soil loss = 1021.3 Cubic Feet

Peak flow rate of this hydrograph = 1.273(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	2.5	5.0	7.5	10.0
0+ 5	0.0009	0.13	Q				
0+10	0.0022	0.19	Q				
0+15	0.0034	0.17	QV				
0+20	0.0047	0.20	QV				
0+25	0.0063	0.22	Q V				
0+30	0.0080	0.25	Q V				
0+35	0.0096	0.23	Q V				
0+40	0.0113	0.25	Q V				
0+45	0.0131	0.26	Q V				
0+50	0.0147	0.23	Q V				
0+55	0.0163	0.23	Q V				
1+ 0	0.0180	0.25	Q V				
1+ 5	0.0201	0.30	Q V				
1+10	0.0223	0.32	Q V				
1+15	0.0245	0.32	Q V				
1+20	0.0266	0.30	Q V				
1+25	0.0290	0.35	Q V				
1+30	0.0317	0.39	Q V				
1+35	0.0342	0.36	Q V				
1+40	0.0368	0.38	Q V				
1+45	0.0399	0.45	Q V				
1+50	0.0431	0.46	Q V				
1+55	0.0461	0.43	Q V				
2+ 0	0.0490	0.43	Q V				
2+ 5	0.0521	0.45	Q V				
2+10	0.0560	0.56	Q V				
2+15	0.0608	0.70	Q V				
2+20	0.0648	0.58	Q V				
2+25	0.0710	0.89	Q V				
2+30	0.0787	1.13	Q V				
2+35	0.0875	1.27	Q V				
2+40	0.0946	1.04	Q V				
2+45	0.0980	0.48	Q V				
2+50	0.0998	0.27	Q V				
2+55	0.1017	0.26	Q V				
3+ 0	0.1026	0.14	Q V				
3+ 5	0.1028	0.03	Q V				

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

Study date 08/02/22 File: A21626DMA3Q100UH65.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 5YR-6HR UH

Drainage Area = 1.42(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.42(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 440.21(Ft.)
Length along longest watercourse measured to centroid = 326.50(Ft.)
Length along longest watercourse = 0.083 Mi.
Length along longest watercourse measured to centroid = 0.062 Mi.
Difference in elevation = 6.70(Ft.)
Slope along watercourse = 80.3616 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.018 Hr.
Lag time = 1.10 Min.
25% of lag time = 0.27 Min.
40% of lag time = 0.44 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]
        1.42            1.10                   1.56

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.42            2.70                   3.83

STORM EVENT (YEAR) =    5.00
Area Averaged 2-Year Rainfall =    1.100(In)
Area Averaged 100-Year Rainfall =    2.700(In)

Point rain (area averaged) =    1.475(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.475(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.417           69.00         0.869
 Total Area Entered =      1.42(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.869        0.125       1.000      0.125
                                                 Sum (F) =   0.125
Area averaged mean soil loss (F) (In/Hr) =  0.125
Minimum soil loss rate ((In/Hr)) =  0.063
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.205
------------------------------------------------------------------------

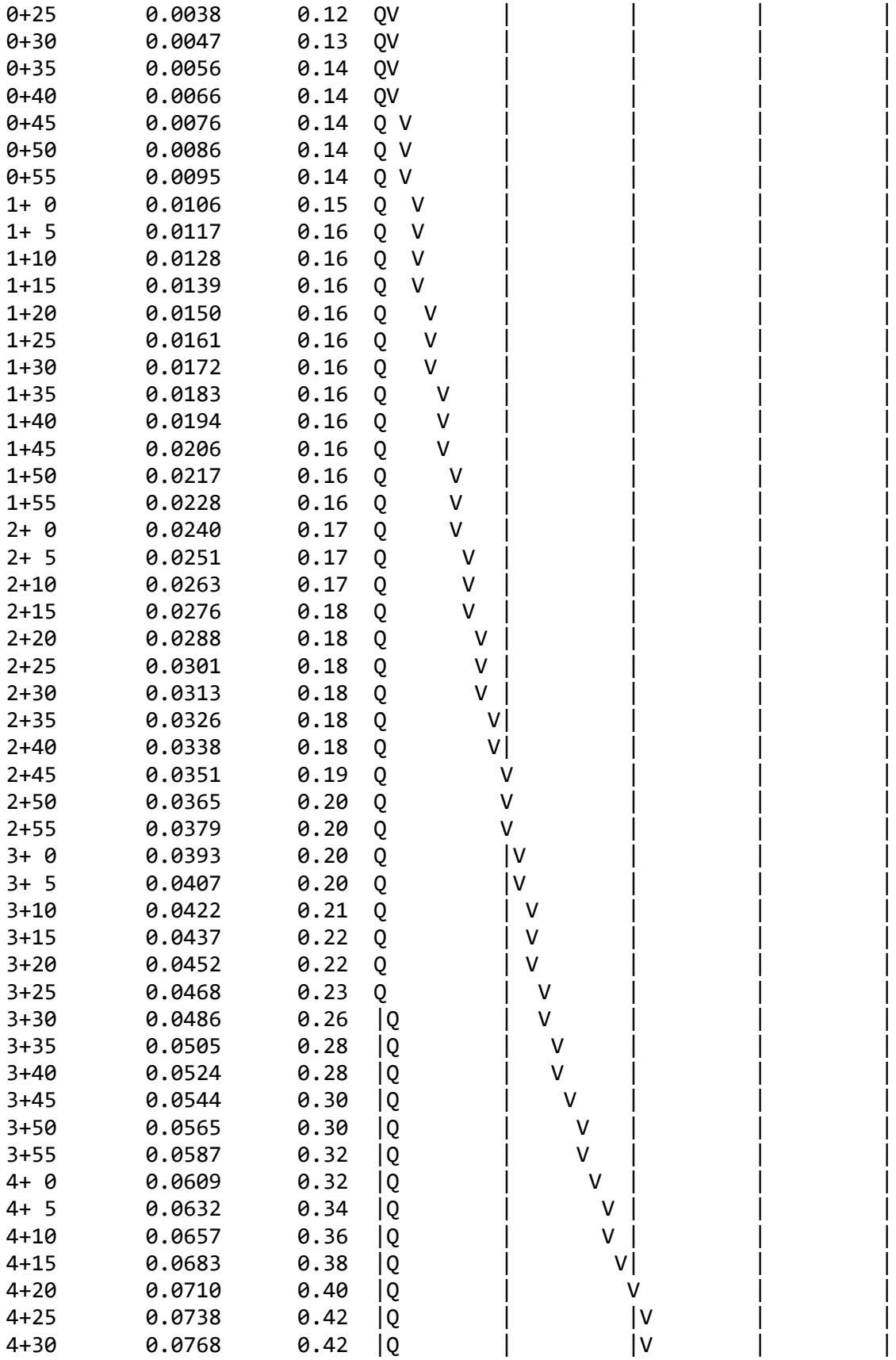
               U n i t  H y d r o g r a p h
                       VALLEY S-Curve
------------------------------------------------------------------------
               Unit Hydrograph Data
------------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                          Graph %            (CFS)
------------------------------------------------------------------------
    1   0.083        454.945         68.526              0.979
    2   0.167        909.890         31.474              0.449
                               Sum = 100.000   Sum=       1.428
------------------------------------------------------------------------

 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	0.088	(0.125)	0.018	0.070
2	0.17	0.60	0.106	(0.125)	0.022	0.084
3	0.25	0.60	0.106	(0.125)	0.022	0.084
4	0.33	0.60	0.106	(0.125)	0.022	0.084
5	0.42	0.60	0.106	(0.125)	0.022	0.084
6	0.50	0.70	0.124	(0.125)	0.025	0.098
7	0.58	0.70	0.124	(0.125)	0.025	0.098
8	0.67	0.70	0.124	(0.125)	0.025	0.098
9	0.75	0.70	0.124	(0.125)	0.025	0.098
10	0.83	0.70	0.124	(0.125)	0.025	0.098
11	0.92	0.70	0.124	(0.125)	0.025	0.098
12	1.00	0.80	0.142	(0.125)	0.029	0.113
13	1.08	0.80	0.142	(0.125)	0.029	0.113
14	1.17	0.80	0.142	(0.125)	0.029	0.113
15	1.25	0.80	0.142	(0.125)	0.029	0.113
16	1.33	0.80	0.142	(0.125)	0.029	0.113
17	1.42	0.80	0.142	(0.125)	0.029	0.113
18	1.50	0.80	0.142	(0.125)	0.029	0.113
19	1.58	0.80	0.142	(0.125)	0.029	0.113
20	1.67	0.80	0.142	(0.125)	0.029	0.113
21	1.75	0.80	0.142	(0.125)	0.029	0.113
22	1.83	0.80	0.142	(0.125)	0.029	0.113
23	1.92	0.80	0.142	(0.125)	0.029	0.113
24	2.00	0.90	0.159	(0.125)	0.033	0.127
25	2.08	0.80	0.142	(0.125)	0.029	0.113
26	2.17	0.90	0.159	(0.125)	0.033	0.127
27	2.25	0.90	0.159	(0.125)	0.033	0.127
28	2.33	0.90	0.159	(0.125)	0.033	0.127
29	2.42	0.90	0.159	(0.125)	0.033	0.127
30	2.50	0.90	0.159	(0.125)	0.033	0.127
31	2.58	0.90	0.159	(0.125)	0.033	0.127
32	2.67	0.90	0.159	(0.125)	0.033	0.127
33	2.75	1.00	0.177	(0.125)	0.036	0.141
34	2.83	1.00	0.177	(0.125)	0.036	0.141
35	2.92	1.00	0.177	(0.125)	0.036	0.141
36	3.00	1.00	0.177	(0.125)	0.036	0.141
37	3.08	1.00	0.177	(0.125)	0.036	0.141
38	3.17	1.10	0.195	(0.125)	0.040	0.155
39	3.25	1.10	0.195	(0.125)	0.040	0.155
40	3.33	1.10	0.195	(0.125)	0.040	0.155
41	3.42	1.20	0.212	(0.125)	0.044	0.169
42	3.50	1.30	0.230	(0.125)	0.047	0.183
43	3.58	1.40	0.248	(0.125)	0.051	0.197
44	3.67	1.40	0.248	(0.125)	0.051	0.197
45	3.75	1.50	0.265	(0.125)	0.054	0.211
46	3.83	1.50	0.265	(0.125)	0.054	0.211
47	3.92	1.60	0.283	(0.125)	0.058	0.225

```
48   4.00     1.60      0.283       (  0.125)       0.058        0.225
49   4.08     1.70      0.301       (  0.125)       0.062        0.239
50   4.17     1.80      0.319       (  0.125)       0.065        0.253
51   4.25     1.90      0.336       (  0.125)       0.069        0.267
52   4.33     2.00      0.354       (  0.125)       0.073        0.281
53   4.42     2.10      0.372       (  0.125)       0.076        0.295
54   4.50     2.10      0.372       (  0.125)       0.076        0.295
55   4.58     2.20      0.389       (  0.125)       0.080        0.310
56   4.67     2.30      0.407       (  0.125)       0.083        0.324
57   4.75     2.40      0.425       (  0.125)       0.087        0.338
58   4.83     2.40      0.425       (  0.125)       0.087        0.338
59   4.92     2.50      0.442       (  0.125)       0.091        0.352
60   5.00     2.60      0.460       (  0.125)       0.094        0.366
61   5.08     3.10      0.549       (  0.125)       0.112        0.436
62   5.17     3.60      0.637          0.125    (  0.131)       0.512
63   5.25     3.90      0.690          0.125    (  0.141)       0.565
64   5.33     4.20      0.743          0.125    (  0.152)       0.618
65   5.42     4.70      0.832          0.125    (  0.171)       0.707
66   5.50     5.60      0.991          0.125    (  0.203)       0.866
67   5.58     1.90      0.336       (  0.125)       0.069        0.267
68   5.67     0.90      0.159       (  0.125)       0.033        0.127
69   5.75     0.60      0.106       (  0.125)       0.022        0.084
70   5.83     0.50      0.088       (  0.125)       0.018        0.070
71   5.92     0.30      0.053       (  0.125)       0.011        0.042
72   6.00     0.20      0.035       (  0.125)       0.007        0.028
               (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    14.2
      Flood volume = Effective rainfall      1.19(In)
       times area       1.4(Ac.)/[(In)/(Ft.)] =       0.1(Ac.Ft)
      Total soil loss =      0.29(In)
      Total soil loss =     0.034(Ac.Ft)
      Total rainfall =      1.47(In)
      Flood volume =        6104.7 Cubic Feet
      Total soil loss =        1481.0 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =      1.166(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        2.5       5.0       7.5      10.0
-------------------------------------------------------------------------
  0+ 5       0.0005      0.07  Q         |         |         |         |
  0+10       0.0013      0.11  Q         |         |         |         |
  0+15       0.0021      0.12  Q         |         |         |         |
  0+20       0.0029      0.12  Q         |         |         |         |
```


0+25 0.0038 0.12 QV | | | |
0+30 0.0047 0.13 QV | | | |
0+35 0.0056 0.14 QV | | | |
0+40 0.0066 0.14 QV | | | |
0+45 0.0076 0.14 Q V | | | |
0+50 0.0086 0.14 Q V | | | |
0+55 0.0095 0.14 Q V | | | |
1+ 0 0.0106 0.15 Q V | | | |
1+ 5 0.0117 0.16 Q V | | | |
1+10 0.0128 0.16 Q V | | | |
1+15 0.0139 0.16 Q V | | | |
1+20 0.0150 0.16 Q V | | | |
1+25 0.0161 0.16 Q V | | | |
1+30 0.0172 0.16 Q V | | | |
1+35 0.0183 0.16 Q V | | | |
1+40 0.0194 0.16 Q V | | | |
1+45 0.0206 0.16 Q V | | | |
1+50 0.0217 0.16 Q V | | | |
1+55 0.0228 0.16 Q V | | | |
2+ 0 0.0240 0.17 Q V | | | |
2+ 5 0.0251 0.17 Q V | | | |
2+10 0.0263 0.17 Q V | | | |
2+15 0.0276 0.18 Q V | | | |
2+20 0.0288 0.18 Q V | | | |
2+25 0.0301 0.18 Q V | | | |
2+30 0.0313 0.18 Q V | | | |
2+35 0.0326 0.18 Q V| | | |
2+40 0.0338 0.18 Q V| | | |
2+45 0.0351 0.19 Q V | | | |
2+50 0.0365 0.20 Q V | | | |
2+55 0.0379 0.20 Q V | | | |
3+ 0 0.0393 0.20 Q |V | | |
3+ 5 0.0407 0.20 Q |V | | |
3+10 0.0422 0.21 Q | V | | |
3+15 0.0437 0.22 Q | V | | |
3+20 0.0452 0.22 Q | V | | |
3+25 0.0468 0.23 Q | V | | |
3+30 0.0486 0.26 |Q | V | | |
3+35 0.0505 0.28 |Q | V | | |
3+40 0.0524 0.28 |Q | V | | |
3+45 0.0544 0.30 |Q | V | | |
3+50 0.0565 0.30 |Q | V | | |
3+55 0.0587 0.32 |Q | V | | |
4+ 0 0.0609 0.32 |Q | V | | |
4+ 5 0.0632 0.34 |Q | V | | |
4+10 0.0657 0.36 |Q | V | | |
4+15 0.0683 0.38 |Q | V| | |
4+20 0.0710 0.40 |Q | V | |
4+25 0.0738 0.42 |Q | |V | |
4+30 0.0768 0.42 |Q | |V | |

```
   4+35       0.0798      0.44  |Q        |          | V       |          |
   4+40       0.0829      0.46  |Q        |          |  V      |          |
   4+45       0.0862      0.48  |Q        |          |   V     |          |
   4+50       0.0895      0.48  |Q        |          |    V    |          |
   4+55       0.0929      0.50  |Q        |          |     V   |          |
   5+ 0       0.0965      0.52  | Q       |          |      V  |          |
   5+ 5       0.1005      0.59  | Q       |          |       V |          |
   5+10       0.1053      0.70  | Q       |          |         V          |
   5+15       0.1107      0.78  |  Q      |          |         |V         |
   5+20       0.1167      0.86  |  Q      |          |         |  V       |
   5+25       0.1233      0.97  |  Q      |          |         |    V     |
   5+30       0.1314      1.17  |   Q     |          |         |      V   |
   5+35       0.1359      0.65  | Q       |          |         |       V  |
   5+40       0.1375      0.24  Q         |          |         |        V |
   5+45       0.1385      0.14  Q         |          |         |        V |
   5+50       0.1392      0.11  Q         |          |         |        V |
   5+55       0.1397      0.07  Q         |          |         |        V |
   6+ 0       0.1401      0.05  Q         |          |         |        V |
   6+ 5       0.1401      0.01  Q         |          |         |        V |
-------------------------------------------------------------------------
```

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

Study date 08/02/22 File: A21626DMA3Q100UH245.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 5YR-24HR UH

Drainage Area = 1.42(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.42(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 440.21(Ft.)
Length along longest watercourse measured to centroid = 326.50(Ft.)
Length along longest watercourse = 0.083 Mi.
Length along longest watercourse measured to centroid = 0.062 Mi.
Difference in elevation = 6.70(Ft.)
Slope along watercourse = 80.3616 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.018 Hr.
Lag time = 1.10 Min.
25% of lag time = 0.27 Min.
40% of lag time = 0.44 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]
        1.42            1.90                  2.69

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.42            4.80                  6.80

STORM EVENT (YEAR) =    5.00
Area Averaged 2-Year Rainfall =    1.900(In)
Area Averaged 100-Year Rainfall =    4.800(In)

Point rain (area averaged) =    2.579(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    2.579(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.417           69.00         0.869
 Total Area Entered =      1.42(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  49.8      0.574     0.869        0.125       1.000      0.125
                                                 Sum (F) =   0.125
Area averaged mean soil loss (F) (In/Hr) =  0.125
Minimum soil loss rate ((In/Hr)) =  0.063
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.205
------------------------------------------------------------------------

               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        454.945         68.526              0.979
    2   0.167        909.890         31.474              0.449
                              Sum = 100.000   Sum=       1.428
------------------------------------------------------------------------

 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	0.021	(0.222)	0.004	0.016
2	0.17	0.07	0.021	(0.221)	0.004	0.016
3	0.25	0.07	0.021	(0.220)	0.004	0.016
4	0.33	0.10	0.031	(0.219)	0.006	0.025
5	0.42	0.10	0.031	(0.218)	0.006	0.025
6	0.50	0.10	0.031	(0.217)	0.006	0.025
7	0.58	0.10	0.031	(0.217)	0.006	0.025
8	0.67	0.10	0.031	(0.216)	0.006	0.025
9	0.75	0.10	0.031	(0.215)	0.006	0.025
10	0.83	0.13	0.041	(0.214)	0.008	0.033
11	0.92	0.13	0.041	(0.213)	0.008	0.033
12	1.00	0.13	0.041	(0.212)	0.008	0.033
13	1.08	0.10	0.031	(0.212)	0.006	0.025
14	1.17	0.10	0.031	(0.211)	0.006	0.025
15	1.25	0.10	0.031	(0.210)	0.006	0.025
16	1.33	0.10	0.031	(0.209)	0.006	0.025
17	1.42	0.10	0.031	(0.208)	0.006	0.025
18	1.50	0.10	0.031	(0.207)	0.006	0.025
19	1.58	0.10	0.031	(0.207)	0.006	0.025
20	1.67	0.10	0.031	(0.206)	0.006	0.025
21	1.75	0.10	0.031	(0.205)	0.006	0.025
22	1.83	0.13	0.041	(0.204)	0.008	0.033
23	1.92	0.13	0.041	(0.203)	0.008	0.033
24	2.00	0.13	0.041	(0.202)	0.008	0.033
25	2.08	0.13	0.041	(0.202)	0.008	0.033
26	2.17	0.13	0.041	(0.201)	0.008	0.033
27	2.25	0.13	0.041	(0.200)	0.008	0.033
28	2.33	0.13	0.041	(0.199)	0.008	0.033
29	2.42	0.13	0.041	(0.198)	0.008	0.033
30	2.50	0.13	0.041	(0.198)	0.008	0.033
31	2.58	0.17	0.052	(0.197)	0.011	0.041
32	2.67	0.17	0.052	(0.196)	0.011	0.041
33	2.75	0.17	0.052	(0.195)	0.011	0.041
34	2.83	0.17	0.052	(0.194)	0.011	0.041
35	2.92	0.17	0.052	(0.193)	0.011	0.041
36	3.00	0.17	0.052	(0.193)	0.011	0.041
37	3.08	0.17	0.052	(0.192)	0.011	0.041
38	3.17	0.17	0.052	(0.191)	0.011	0.041
39	3.25	0.17	0.052	(0.190)	0.011	0.041
40	3.33	0.17	0.052	(0.190)	0.011	0.041
41	3.42	0.17	0.052	(0.189)	0.011	0.041
42	3.50	0.17	0.052	(0.188)	0.011	0.041
43	3.58	0.17	0.052	(0.187)	0.011	0.041
44	3.67	0.17	0.052	(0.186)	0.011	0.041
45	3.75	0.17	0.052	(0.186)	0.011	0.041
46	3.83	0.20	0.062	(0.185)	0.013	0.049
47	3.92	0.20	0.062	(0.184)	0.013	0.049

48	4.00	0.20	0.062	(0.183)	0.013	0.049
49	4.08	0.20	0.062	(0.182)	0.013	0.049
50	4.17	0.20	0.062	(0.182)	0.013	0.049
51	4.25	0.20	0.062	(0.181)	0.013	0.049
52	4.33	0.23	0.072	(0.180)	0.015	0.057
53	4.42	0.23	0.072	(0.179)	0.015	0.057
54	4.50	0.23	0.072	(0.179)	0.015	0.057
55	4.58	0.23	0.072	(0.178)	0.015	0.057
56	4.67	0.23	0.072	(0.177)	0.015	0.057
57	4.75	0.23	0.072	(0.176)	0.015	0.057
58	4.83	0.27	0.083	(0.176)	0.017	0.066
59	4.92	0.27	0.083	(0.175)	0.017	0.066
60	5.00	0.27	0.083	(0.174)	0.017	0.066
61	5.08	0.20	0.062	(0.173)	0.013	0.049
62	5.17	0.20	0.062	(0.173)	0.013	0.049
63	5.25	0.20	0.062	(0.172)	0.013	0.049
64	5.33	0.23	0.072	(0.171)	0.015	0.057
65	5.42	0.23	0.072	(0.170)	0.015	0.057
66	5.50	0.23	0.072	(0.170)	0.015	0.057
67	5.58	0.27	0.083	(0.169)	0.017	0.066
68	5.67	0.27	0.083	(0.168)	0.017	0.066
69	5.75	0.27	0.083	(0.167)	0.017	0.066
70	5.83	0.27	0.083	(0.167)	0.017	0.066
71	5.92	0.27	0.083	(0.166)	0.017	0.066
72	6.00	0.27	0.083	(0.165)	0.017	0.066
73	6.08	0.30	0.093	(0.164)	0.019	0.074
74	6.17	0.30	0.093	(0.164)	0.019	0.074
75	6.25	0.30	0.093	(0.163)	0.019	0.074
76	6.33	0.30	0.093	(0.162)	0.019	0.074
77	6.42	0.30	0.093	(0.161)	0.019	0.074
78	6.50	0.30	0.093	(0.161)	0.019	0.074
79	6.58	0.33	0.103	(0.160)	0.021	0.082
80	6.67	0.33	0.103	(0.159)	0.021	0.082
81	6.75	0.33	0.103	(0.159)	0.021	0.082
82	6.83	0.33	0.103	(0.158)	0.021	0.082
83	6.92	0.33	0.103	(0.157)	0.021	0.082
84	7.00	0.33	0.103	(0.156)	0.021	0.082
85	7.08	0.33	0.103	(0.156)	0.021	0.082
86	7.17	0.33	0.103	(0.155)	0.021	0.082
87	7.25	0.33	0.103	(0.154)	0.021	0.082
88	7.33	0.37	0.113	(0.154)	0.023	0.090
89	7.42	0.37	0.113	(0.153)	0.023	0.090
90	7.50	0.37	0.113	(0.152)	0.023	0.090
91	7.58	0.40	0.124	(0.151)	0.025	0.098
92	7.67	0.40	0.124	(0.151)	0.025	0.098
93	7.75	0.40	0.124	(0.150)	0.025	0.098
94	7.83	0.43	0.134	(0.149)	0.027	0.107
95	7.92	0.43	0.134	(0.149)	0.027	0.107
96	8.00	0.43	0.134	(0.148)	0.027	0.107
97	8.08	0.50	0.155	(0.147)	0.032	0.123

98	8.17	0.50	0.155	(0.147)	0.032	0.123
99	8.25	0.50	0.155	(0.146)	0.032	0.123
100	8.33	0.50	0.155	(0.145)	0.032	0.123
101	8.42	0.50	0.155	(0.145)	0.032	0.123
102	8.50	0.50	0.155	(0.144)	0.032	0.123
103	8.58	0.53	0.165	(0.143)	0.034	0.131
104	8.67	0.53	0.165	(0.143)	0.034	0.131
105	8.75	0.53	0.165	(0.142)	0.034	0.131
106	8.83	0.57	0.175	(0.141)	0.036	0.139
107	8.92	0.57	0.175	(0.141)	0.036	0.139
108	9.00	0.57	0.175	(0.140)	0.036	0.139
109	9.08	0.63	0.196	(0.139)	0.040	0.156
110	9.17	0.63	0.196	(0.139)	0.040	0.156
111	9.25	0.63	0.196	(0.138)	0.040	0.156
112	9.33	0.67	0.206	(0.137)	0.042	0.164
113	9.42	0.67	0.206	(0.137)	0.042	0.164
114	9.50	0.67	0.206	(0.136)	0.042	0.164
115	9.58	0.70	0.217	(0.135)	0.044	0.172
116	9.67	0.70	0.217	(0.135)	0.044	0.172
117	9.75	0.70	0.217	(0.134)	0.044	0.172
118	9.83	0.73	0.227	(0.133)	0.047	0.180
119	9.92	0.73	0.227	(0.133)	0.047	0.180
120	10.00	0.73	0.227	(0.132)	0.047	0.180
121	10.08	0.50	0.155	(0.131)	0.032	0.123
122	10.17	0.50	0.155	(0.131)	0.032	0.123
123	10.25	0.50	0.155	(0.130)	0.032	0.123
124	10.33	0.50	0.155	(0.130)	0.032	0.123
125	10.42	0.50	0.155	(0.129)	0.032	0.123
126	10.50	0.50	0.155	(0.128)	0.032	0.123
127	10.58	0.67	0.206	(0.128)	0.042	0.164
128	10.67	0.67	0.206	(0.127)	0.042	0.164
129	10.75	0.67	0.206	(0.126)	0.042	0.164
130	10.83	0.67	0.206	(0.126)	0.042	0.164
131	10.92	0.67	0.206	(0.125)	0.042	0.164
132	11.00	0.67	0.206	(0.125)	0.042	0.164
133	11.08	0.63	0.196	(0.124)	0.040	0.156
134	11.17	0.63	0.196	(0.123)	0.040	0.156
135	11.25	0.63	0.196	(0.123)	0.040	0.156
136	11.33	0.63	0.196	(0.122)	0.040	0.156
137	11.42	0.63	0.196	(0.122)	0.040	0.156
138	11.50	0.63	0.196	(0.121)	0.040	0.156
139	11.58	0.57	0.175	(0.120)	0.036	0.139
140	11.67	0.57	0.175	(0.120)	0.036	0.139
141	11.75	0.57	0.175	(0.119)	0.036	0.139
142	11.83	0.60	0.186	(0.119)	0.038	0.148
143	11.92	0.60	0.186	(0.118)	0.038	0.148
144	12.00	0.60	0.186	(0.117)	0.038	0.148
145	12.08	0.83	0.258	(0.117)	0.053	0.205
146	12.17	0.83	0.258	(0.116)	0.053	0.205
147	12.25	0.83	0.258	(0.116)	0.053	0.205

148	12.33	0.87	0.268	(0.115)	0.055	0.213
149	12.42	0.87	0.268	(0.114)	0.055	0.213
150	12.50	0.87	0.268	(0.114)	0.055	0.213
151	12.58	0.93	0.289	(0.113)	0.059	0.230
152	12.67	0.93	0.289	(0.113)	0.059	0.230
153	12.75	0.93	0.289	(0.112)	0.059	0.230
154	12.83	0.97	0.299	(0.112)	0.061	0.238
155	12.92	0.97	0.299	(0.111)	0.061	0.238
156	13.00	0.97	0.299	(0.110)	0.061	0.238
157	13.08	1.13	0.351	(0.110)	0.072	0.279
158	13.17	1.13	0.351	(0.109)	0.072	0.279
159	13.25	1.13	0.351	(0.109)	0.072	0.279
160	13.33	1.13	0.351	(0.108)	0.072	0.279
161	13.42	1.13	0.351	(0.108)	0.072	0.279
162	13.50	1.13	0.351	(0.107)	0.072	0.279
163	13.58	0.77	0.237	(0.107)	0.049	0.189
164	13.67	0.77	0.237	(0.106)	0.049	0.189
165	13.75	0.77	0.237	(0.105)	0.049	0.189
166	13.83	0.77	0.237	(0.105)	0.049	0.189
167	13.92	0.77	0.237	(0.104)	0.049	0.189
168	14.00	0.77	0.237	(0.104)	0.049	0.189
169	14.08	0.90	0.279	(0.103)	0.057	0.221
170	14.17	0.90	0.279	(0.103)	0.057	0.221
171	14.25	0.90	0.279	(0.102)	0.057	0.221
172	14.33	0.87	0.268	(0.102)	0.055	0.213
173	14.42	0.87	0.268	(0.101)	0.055	0.213
174	14.50	0.87	0.268	(0.101)	0.055	0.213
175	14.58	0.87	0.268	(0.100)	0.055	0.213
176	14.67	0.87	0.268	(0.100)	0.055	0.213
177	14.75	0.87	0.268	(0.099)	0.055	0.213
178	14.83	0.83	0.258	(0.099)	0.053	0.205
179	14.92	0.83	0.258	(0.098)	0.053	0.205
180	15.00	0.83	0.258	(0.098)	0.053	0.205
181	15.08	0.80	0.248	(0.097)	0.051	0.197
182	15.17	0.80	0.248	(0.097)	0.051	0.197
183	15.25	0.80	0.248	(0.096)	0.051	0.197
184	15.33	0.77	0.237	(0.096)	0.049	0.189
185	15.42	0.77	0.237	(0.095)	0.049	0.189
186	15.50	0.77	0.237	(0.095)	0.049	0.189
187	15.58	0.63	0.196	(0.094)	0.040	0.156
188	15.67	0.63	0.196	(0.094)	0.040	0.156
189	15.75	0.63	0.196	(0.093)	0.040	0.156
190	15.83	0.63	0.196	(0.093)	0.040	0.156
191	15.92	0.63	0.196	(0.092)	0.040	0.156
192	16.00	0.63	0.196	(0.092)	0.040	0.156
193	16.08	0.13	0.041	(0.091)	0.008	0.033
194	16.17	0.13	0.041	(0.091)	0.008	0.033
195	16.25	0.13	0.041	(0.090)	0.008	0.033
196	16.33	0.13	0.041	(0.090)	0.008	0.033
197	16.42	0.13	0.041	(0.090)	0.008	0.033

198	16.50	0.13	0.041	(0.089)	0.008	0.033
199	16.58	0.10	0.031	(0.089)	0.006	0.025
200	16.67	0.10	0.031	(0.088)	0.006	0.025
201	16.75	0.10	0.031	(0.088)	0.006	0.025
202	16.83	0.10	0.031	(0.087)	0.006	0.025
203	16.92	0.10	0.031	(0.087)	0.006	0.025
204	17.00	0.10	0.031	(0.086)	0.006	0.025
205	17.08	0.17	0.052	(0.086)	0.011	0.041
206	17.17	0.17	0.052	(0.086)	0.011	0.041
207	17.25	0.17	0.052	(0.085)	0.011	0.041
208	17.33	0.17	0.052	(0.085)	0.011	0.041
209	17.42	0.17	0.052	(0.084)	0.011	0.041
210	17.50	0.17	0.052	(0.084)	0.011	0.041
211	17.58	0.17	0.052	(0.083)	0.011	0.041
212	17.67	0.17	0.052	(0.083)	0.011	0.041
213	17.75	0.17	0.052	(0.083)	0.011	0.041
214	17.83	0.13	0.041	(0.082)	0.008	0.033
215	17.92	0.13	0.041	(0.082)	0.008	0.033
216	18.00	0.13	0.041	(0.081)	0.008	0.033
217	18.08	0.13	0.041	(0.081)	0.008	0.033
218	18.17	0.13	0.041	(0.081)	0.008	0.033
219	18.25	0.13	0.041	(0.080)	0.008	0.033
220	18.33	0.13	0.041	(0.080)	0.008	0.033
221	18.42	0.13	0.041	(0.079)	0.008	0.033
222	18.50	0.13	0.041	(0.079)	0.008	0.033
223	18.58	0.10	0.031	(0.079)	0.006	0.025
224	18.67	0.10	0.031	(0.078)	0.006	0.025
225	18.75	0.10	0.031	(0.078)	0.006	0.025
226	18.83	0.07	0.021	(0.077)	0.004	0.016
227	18.92	0.07	0.021	(0.077)	0.004	0.016
228	19.00	0.07	0.021	(0.077)	0.004	0.016
229	19.08	0.10	0.031	(0.076)	0.006	0.025
230	19.17	0.10	0.031	(0.076)	0.006	0.025
231	19.25	0.10	0.031	(0.076)	0.006	0.025
232	19.33	0.13	0.041	(0.075)	0.008	0.033
233	19.42	0.13	0.041	(0.075)	0.008	0.033
234	19.50	0.13	0.041	(0.075)	0.008	0.033
235	19.58	0.10	0.031	(0.074)	0.006	0.025
236	19.67	0.10	0.031	(0.074)	0.006	0.025
237	19.75	0.10	0.031	(0.074)	0.006	0.025
238	19.83	0.07	0.021	(0.073)	0.004	0.016
239	19.92	0.07	0.021	(0.073)	0.004	0.016
240	20.00	0.07	0.021	(0.073)	0.004	0.016
241	20.08	0.10	0.031	(0.072)	0.006	0.025
242	20.17	0.10	0.031	(0.072)	0.006	0.025
243	20.25	0.10	0.031	(0.072)	0.006	0.025
244	20.33	0.10	0.031	(0.071)	0.006	0.025
245	20.42	0.10	0.031	(0.071)	0.006	0.025
246	20.50	0.10	0.031	(0.071)	0.006	0.025
247	20.58	0.10	0.031	(0.070)	0.006	0.025

248	20.67	0.10	0.031	(0.070)	0.006	0.025
249	20.75	0.10	0.031	(0.070)	0.006	0.025
250	20.83	0.07	0.021	(0.070)	0.004	0.016
251	20.92	0.07	0.021	(0.069)	0.004	0.016
252	21.00	0.07	0.021	(0.069)	0.004	0.016
253	21.08	0.10	0.031	(0.069)	0.006	0.025
254	21.17	0.10	0.031	(0.068)	0.006	0.025
255	21.25	0.10	0.031	(0.068)	0.006	0.025
256	21.33	0.07	0.021	(0.068)	0.004	0.016
257	21.42	0.07	0.021	(0.068)	0.004	0.016
258	21.50	0.07	0.021	(0.067)	0.004	0.016
259	21.58	0.10	0.031	(0.067)	0.006	0.025
260	21.67	0.10	0.031	(0.067)	0.006	0.025
261	21.75	0.10	0.031	(0.067)	0.006	0.025
262	21.83	0.07	0.021	(0.066)	0.004	0.016
263	21.92	0.07	0.021	(0.066)	0.004	0.016
264	22.00	0.07	0.021	(0.066)	0.004	0.016
265	22.08	0.10	0.031	(0.066)	0.006	0.025
266	22.17	0.10	0.031	(0.066)	0.006	0.025
267	22.25	0.10	0.031	(0.065)	0.006	0.025
268	22.33	0.07	0.021	(0.065)	0.004	0.016
269	22.42	0.07	0.021	(0.065)	0.004	0.016
270	22.50	0.07	0.021	(0.065)	0.004	0.016
271	22.58	0.07	0.021	(0.065)	0.004	0.016
272	22.67	0.07	0.021	(0.064)	0.004	0.016
273	22.75	0.07	0.021	(0.064)	0.004	0.016
274	22.83	0.07	0.021	(0.064)	0.004	0.016
275	22.92	0.07	0.021	(0.064)	0.004	0.016
276	23.00	0.07	0.021	(0.064)	0.004	0.016
277	23.08	0.07	0.021	(0.064)	0.004	0.016
278	23.17	0.07	0.021	(0.063)	0.004	0.016
279	23.25	0.07	0.021	(0.063)	0.004	0.016
280	23.33	0.07	0.021	(0.063)	0.004	0.016
281	23.42	0.07	0.021	(0.063)	0.004	0.016
282	23.50	0.07	0.021	(0.063)	0.004	0.016
283	23.58	0.07	0.021	(0.063)	0.004	0.016
284	23.67	0.07	0.021	(0.063)	0.004	0.016
285	23.75	0.07	0.021	(0.063)	0.004	0.016
286	23.83	0.07	0.021	(0.063)	0.004	0.016
287	23.92	0.07	0.021	(0.063)	0.004	0.016
288	24.00	0.07	0.021	(0.063)	0.004	0.016
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	24.6

Flood volume = Effective rainfall 2.05(In)
times area 1.4(Ac.)/[(In)/(Ft.)] = 0.2(Ac.Ft)
Total soil loss = 0.53(In)
Total soil loss = 0.062(Ac.Ft)
Total rainfall = 2.58(In)
Flood volume = 10547.2 Cubic Feet
Total soil loss = 2719.7 Cubic Feet

Peak flow rate of this hydrograph = 0.398(CFS)

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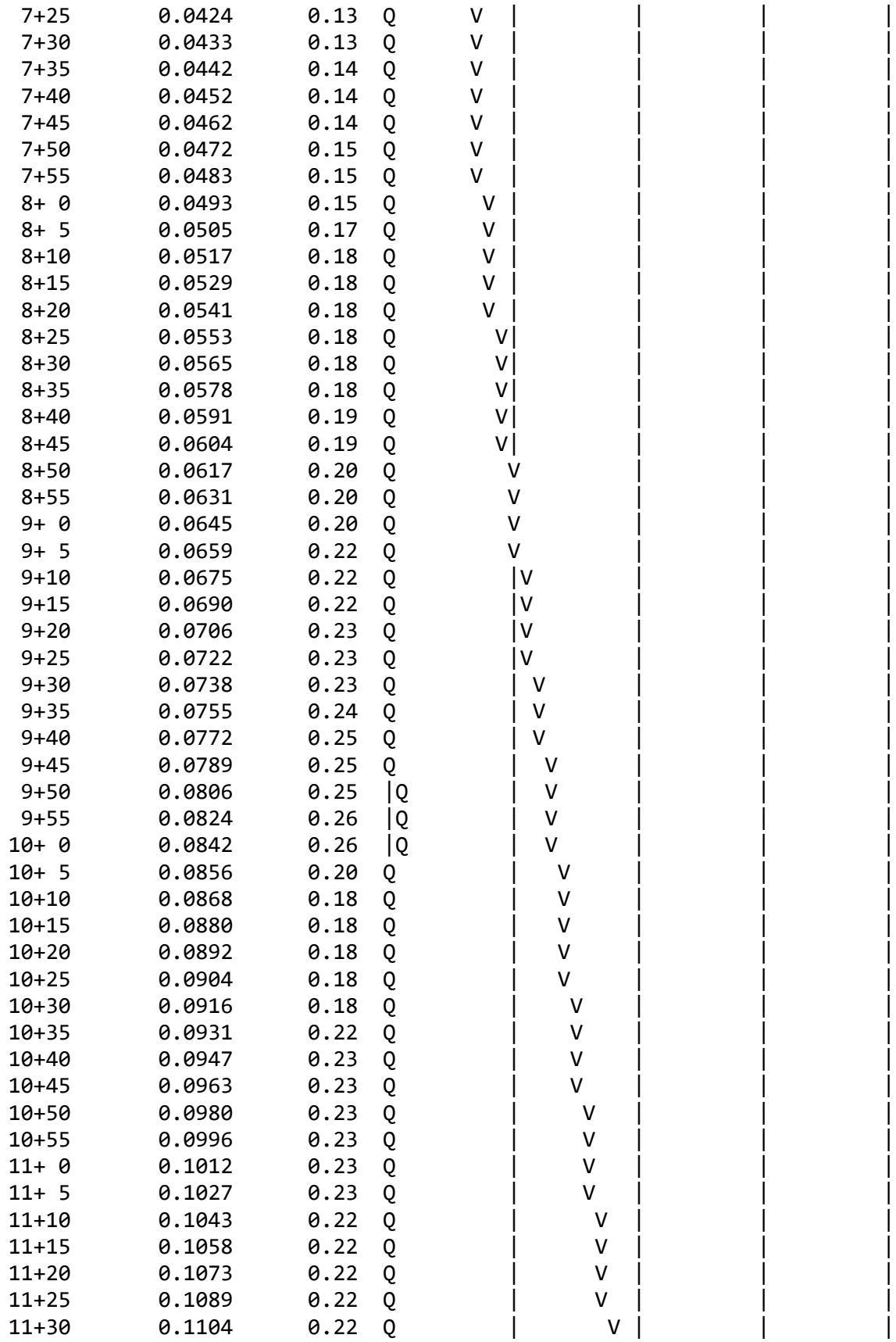
24 - H O U R S T O R M

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	2.5	5.0	7.5	10.0
0+ 5	0.0001	0.02	Q				
0+10	0.0003	0.02	Q				
0+15	0.0004	0.02	Q				
0+20	0.0007	0.03	Q				
0+25	0.0009	0.04	Q				
0+30	0.0011	0.04	Q				
0+35	0.0014	0.04	Q				
0+40	0.0016	0.04	Q				
0+45	0.0019	0.04	Q				
0+50	0.0022	0.04	Q				
0+55	0.0025	0.05	Q				
1+ 0	0.0028	0.05	Q				
1+ 5	0.0031	0.04	Q				
1+10	0.0033	0.04	Q				
1+15	0.0036	0.04	Q				
1+20	0.0038	0.04	Q				
1+25	0.0040	0.04	Q				
1+30	0.0043	0.04	Q				
1+35	0.0045	0.04	Q				
1+40	0.0048	0.04	Q				
1+45	0.0050	0.04	Q				
1+50	0.0053	0.04	Q				
1+55	0.0056	0.05	Q				
2+ 0	0.0060	0.05	Q				
2+ 5	0.0063	0.05	QV				
2+10	0.0066	0.05	QV				
2+15	0.0069	0.05	QV				
2+20	0.0072	0.05	QV				
2+25	0.0076	0.05	QV				
2+30	0.0079	0.05	QV				
2+35	0.0083	0.05	QV				
2+40	0.0087	0.06	QV				
2+45	0.0091	0.06	QV				
2+50	0.0095	0.06	QV				
2+55	0.0099	0.06	QV				
3+ 0	0.0103	0.06	QV				
3+ 5	0.0107	0.06	QV				
3+10	0.0111	0.06	QV				

3+15	0.0115	0.06	QV	|	|	|	|
3+20	0.0119	0.06	QV	|	|	|	|
3+25	0.0123	0.06	Q V	|	|	|	|
3+30	0.0127	0.06	Q V	|	|	|	|
3+35	0.0131	0.06	Q V	|	|	|	|
3+40	0.0135	0.06	Q V	|	|	|	|
3+45	0.0139	0.06	Q V	|	|	|	|
3+50	0.0144	0.07	Q V	|	|	|	|
3+55	0.0149	0.07	Q V	|	|	|	|
4+ 0	0.0153	0.07	Q V	|	|	|	|
4+ 5	0.0158	0.07	Q V	|	|	|	|
4+10	0.0163	0.07	Q V	|	|	|	|
4+15	0.0168	0.07	Q V	|	|	|	|
4+20	0.0173	0.08	Q V	|	|	|	|
4+25	0.0179	0.08	Q V	|	|	|	|
4+30	0.0185	0.08	Q V	|	|	|	|
4+35	0.0190	0.08	Q V	|	|	|	|
4+40	0.0196	0.08	Q V	|	|	|	|
4+45	0.0202	0.08	Q V	|	|	|	|
4+50	0.0208	0.09	Q V	|	|	|	|
4+55	0.0214	0.09	Q V	|	|	|	|
5+ 0	0.0221	0.09	Q V	|	|	|	|
5+ 5	0.0226	0.08	Q V	|	|	|	|
5+10	0.0231	0.07	Q V	|	|	|	|
5+15	0.0236	0.07	Q V	|	|	|	|
5+20	0.0241	0.08	Q V	|	|	|	|
5+25	0.0247	0.08	Q V	|	|	|	|
5+30	0.0252	0.08	Q V	|	|	|	|
5+35	0.0259	0.09	Q V	|	|	|	|
5+40	0.0265	0.09	Q V	|	|	|	|
5+45	0.0272	0.09	Q V	|	|	|	|
5+50	0.0278	0.09	Q V	|	|	|	|
5+55	0.0284	0.09	Q V	|	|	|	|
6+ 0	0.0291	0.09	Q V	|	|	|	|
6+ 5	0.0298	0.10	Q V	|	|	|	|
6+10	0.0305	0.11	Q V	|	|	|	|
6+15	0.0312	0.11	Q V	|	|	|	|
6+20	0.0320	0.11	Q V	|	|	|	|
6+25	0.0327	0.11	Q V	|	|	|	|
6+30	0.0334	0.11	Q V	|	|	|	|
6+35	0.0342	0.11	Q V	|	|	|	|
6+40	0.0350	0.12	Q V	|	|	|	|
6+45	0.0358	0.12	Q V	|	|	|	|
6+50	0.0366	0.12	Q V	|	|	|	|
6+55	0.0374	0.12	Q V	|	|	|	|
7+ 0	0.0382	0.12	Q V	|	|	|	|
7+ 5	0.0391	0.12	Q V	|	|	|	|
7+10	0.0399	0.12	Q V	|	|	|	|
7+15	0.0407	0.12	Q V	|	|	|	|
7+20	0.0415	0.13	Q V	|	|	|	|



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11+35       0.1118      0.21  Q          |        V |          |          |
11+40       0.1132      0.20  Q          |        V |          |          |
11+45       0.1146      0.20  Q          |        V |          |          |
11+50       0.1160      0.21  Q          |         V|          |          |
11+55       0.1175      0.21  Q          |         V|          |          |
12+ 0       0.1189      0.21  Q          |         V|          |          |
12+ 5       0.1208      0.27  |Q         |         V|          |          |
12+10       0.1228      0.29  |Q         |          V          |          |
12+15       0.1248      0.29  |Q         |          V          |          |
12+20       0.1269      0.30  |Q         |          V          |          |
12+25       0.1290      0.30  |Q         |          |V         |          |
12+30       0.1311      0.30  |Q         |          |V         |          |
12+35       0.1333      0.32  |Q         |          | V        |          |
12+40       0.1355      0.33  |Q         |          | V        |          |
12+45       0.1378      0.33  |Q         |          | V        |          |
12+50       0.1401      0.34  |Q         |          |  V       |          |
12+55       0.1424      0.34  |Q         |          |  V       |          |
13+ 0       0.1448      0.34  |Q         |          |  V       |          |
13+ 5       0.1474      0.38  |Q         |          |   V      |          |
13+10       0.1501      0.40  |Q         |          |   V      |          |
13+15       0.1529      0.40  |Q         |          |    V     |          |
13+20       0.1556      0.40  |Q         |          |    V     |          |
13+25       0.1584      0.40  |Q         |          |     V    |          |
13+30       0.1611      0.40  |Q         |          |     V    |          |
13+35       0.1633      0.31  |Q         |          |     V    |          |
13+40       0.1651      0.27  |Q         |          |      V   |          |
13+45       0.1670      0.27  |Q         |          |      V   |          |
13+50       0.1688      0.27  |Q         |          |      V   |          |
13+55       0.1707      0.27  |Q         |          |       V  |          |
14+ 0       0.1725      0.27  |Q         |          |       V  |          |
14+ 5       0.1746      0.30  |Q         |          |       V  |          |
14+10       0.1768      0.32  |Q         |          |        V |          |
14+15       0.1790      0.32  |Q         |          |        V |          |
14+20       0.1811      0.31  |Q         |          |        V |          |
14+25       0.1832      0.30  |Q         |          |         V          |
14+30       0.1853      0.30  |Q         |          |         V          |
14+35       0.1874      0.30  |Q         |          |         V          |
14+40       0.1895      0.30  |Q         |          |         |V         |
14+45       0.1916      0.30  |Q         |          |         |V         |
14+50       0.1936      0.30  |Q         |          |         |V         |
14+55       0.1957      0.29  |Q         |          |         | V        |
15+ 0       0.1977      0.29  |Q         |          |         | V        |
15+ 5       0.1996      0.28  |Q         |          |         | V        |
15+10       0.2016      0.28  |Q         |          |         |  V       |
15+15       0.2035      0.28  |Q         |          |         |  V       |
15+20       0.2054      0.27  |Q         |          |         |  V       |
15+25       0.2072      0.27  |Q         |          |         |   V      |
15+30       0.2091      0.27  |Q         |          |         |   V      |
15+35       0.2107      0.24  Q          |          |         |   V      |
15+40       0.2123      0.22  Q          |          |         |    V     |
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15+45	0.2138	0.22	Q	|	|	|	V |
15+50	0.2153	0.22	Q	|	|	|	V |
15+55	0.2169	0.22	Q	|	|	|	V |
16+ 0	0.2184	0.22	Q	|	|	|	V |
16+ 5	0.2191	0.10	Q	|	|	|	V |
16+10	0.2194	0.05	Q	|	|	|	V |
16+15	0.2198	0.05	Q	|	|	|	V |
16+20	0.2201	0.05	Q	|	|	|	V |
16+25	0.2204	0.05	Q	|	|	|	V |
16+30	0.2207	0.05	Q	|	|	|	V |
16+35	0.2210	0.04	Q	|	|	|	V |
16+40	0.2212	0.04	Q	|	|	|	V |
16+45	0.2215	0.04	Q	|	|	|	V |
16+50	0.2217	0.04	Q	|	|	|	V |
16+55	0.2220	0.04	Q	|	|	|	V |
17+ 0	0.2222	0.04	Q	|	|	|	V |
17+ 5	0.2226	0.05	Q	|	|	|	V |
17+10	0.2230	0.06	Q	|	|	|	V |
17+15	0.2234	0.06	Q	|	|	|	V |
17+20	0.2238	0.06	Q	|	|	|	V |
17+25	0.2242	0.06	Q	|	|	|	V |
17+30	0.2246	0.06	Q	|	|	|	V |
17+35	0.2250	0.06	Q	|	|	|	V |
17+40	0.2254	0.06	Q	|	|	|	V |
17+45	0.2258	0.06	Q	|	|	|	V |
17+50	0.2261	0.05	Q	|	|	|	V |
17+55	0.2265	0.05	Q	|	|	|	V |
18+ 0	0.2268	0.05	Q	|	|	|	V |
18+ 5	0.2271	0.05	Q	|	|	|	V |
18+10	0.2274	0.05	Q	|	|	|	V |
18+15	0.2277	0.05	Q	|	|	|	V |
18+20	0.2281	0.05	Q	|	|	|	V |
18+25	0.2284	0.05	Q	|	|	|	V |
18+30	0.2287	0.05	Q	|	|	|	V |
18+35	0.2290	0.04	Q	|	|	|	V |
18+40	0.2292	0.04	Q	|	|	|	V |
18+45	0.2295	0.04	Q	|	|	|	V |
18+50	0.2296	0.03	Q	|	|	|	V |
18+55	0.2298	0.02	Q	|	|	|	V |
19+ 0	0.2300	0.02	Q	|	|	|	V |
19+ 5	0.2302	0.03	Q	|	|	|	V |
19+10	0.2304	0.04	Q	|	|	|	V |
19+15	0.2307	0.04	Q	|	|	|	V |
19+20	0.2310	0.04	Q	|	|	|	V |
19+25	0.2313	0.05	Q	|	|	|	V |
19+30	0.2316	0.05	Q	|	|	|	V |
19+35	0.2319	0.04	Q	|	|	|	V |
19+40	0.2321	0.04	Q	|	|	|	V |
19+45	0.2324	0.04	Q	|	|	|	V |
19+50	0.2326	0.03	Q	|	|	|	V |

19+55	0.2327	0.02	Q	|	|	|	V |
20+ 0	0.2329	0.02	Q	|	|	|	V |
20+ 5	0.2331	0.03	Q	|	|	|	V |
20+10	0.2333	0.04	Q	|	|	|	V |
20+15	0.2336	0.04	Q	|	|	|	V |
20+20	0.2338	0.04	Q	|	|	|	V |
20+25	0.2341	0.04	Q	|	|	|	V |
20+30	0.2343	0.04	Q	|	|	|	V |
20+35	0.2345	0.04	Q	|	|	|	V |
20+40	0.2348	0.04	Q	|	|	|	V |
20+45	0.2350	0.04	Q	|	|	|	V |
20+50	0.2352	0.03	Q	|	|	|	V |
20+55	0.2354	0.02	Q	|	|	|	V |
21+ 0	0.2355	0.02	Q	|	|	|	V |
21+ 5	0.2358	0.03	Q	|	|	|	V |
21+10	0.2360	0.04	Q	|	|	|	V |
21+15	0.2362	0.04	Q	|	|	|	V|
21+20	0.2364	0.03	Q	|	|	|	V|
21+25	0.2366	0.02	Q	|	|	|	V|
21+30	0.2368	0.02	Q	|	|	|	V|
21+35	0.2370	0.03	Q	|	|	|	V|
21+40	0.2372	0.04	Q	|	|	|	V|
21+45	0.2375	0.04	Q	|	|	|	V|
21+50	0.2376	0.03	Q	|	|	|	V|
21+55	0.2378	0.02	Q	|	|	|	V|
22+ 0	0.2380	0.02	Q	|	|	|	V|
22+ 5	0.2382	0.03	Q	|	|	|	V|
22+10	0.2384	0.04	Q	|	|	|	V|
22+15	0.2387	0.04	Q	|	|	|	V|
22+20	0.2389	0.03	Q	|	|	|	V|
22+25	0.2390	0.02	Q	|	|	|	V|
22+30	0.2392	0.02	Q	|	|	|	V|
22+35	0.2393	0.02	Q	|	|	|	V|
22+40	0.2395	0.02	Q	|	|	|	V|
22+45	0.2397	0.02	Q	|	|	|	V|
22+50	0.2398	0.02	Q	|	|	|	V|
22+55	0.2400	0.02	Q	|	|	|	V|
23+ 0	0.2401	0.02	Q	|	|	|	V|
23+ 5	0.2403	0.02	Q	|	|	|	V|
23+10	0.2405	0.02	Q	|	|	|	V|
23+15	0.2406	0.02	Q	|	|	|	V|
23+20	0.2408	0.02	Q	|	|	|	V|
23+25	0.2409	0.02	Q	|	|	|	V|
23+30	0.2411	0.02	Q	|	|	|	V|
23+35	0.2413	0.02	Q	|	|	|	V|
23+40	0.2414	0.02	Q	|	|	|	V|
23+45	0.2416	0.02	Q	|	|	|	V|
23+50	0.2418	0.02	Q	|	|	|	V|
23+55	0.2419	0.02	Q	|	|	|	V|
24+ 0	0.2421	0.02	Q	|	|	|	V|

```
   24+ 5       0.2421      0.01  Q         |         |         |         V
-------------------------------------------------------------------------
```

DMA 3 Proposed 10-Year

FLOOD HYDROGRAPH ROUTING PROGRAM

Study date: 08/24/22

A21626 DMA 3 10YR-1HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA3Q100UH110.rte
**********HYDROGRAPH DATA**********
Number of intervals = 13
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 2.831 (CFS)
Total volume = 0.084 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
_____

Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)

------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 13
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      0.030      0.000      0.030        0.030
  1.000      0.065      0.196      0.064        0.066
  1.500      0.106      0.196      0.105        0.107
  2.000      0.152      0.196      0.151        0.153
  2.500      0.204      0.196      0.203        0.205
  3.000      0.262      0.196      0.261        0.263
  3.500      0.326      4.639      0.310        0.342
------------------------------------------------------------------------
                Hydrograph Detention Basin Routing
------------------------------------------------------------------------

Graph values: 'I'= unit inflow; 'O'=outflow at time shown
------------------------------------------------------------------------
```

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.7	1.42	2.12	2.83	Depth (Ft.)
0.083	0.33	0.00	0.001	O I	|	|	|	|	0.02
0.167	0.49	0.00	0.004	O I	|	|	|	|	0.07
0.250	0.58	0.00	0.008	O I	|	|	|	|	0.13
0.333	0.62	0.00	0.012	O I	|	|	|	|	0.20
0.417	0.65	0.00	0.016	O I	|	|	|	|	0.27
0.500	0.73	0.00	0.021	O I	|	|	|	|	0.35
0.583	0.90	0.00	0.027	O I	|	|	|	|	0.44
0.667	1.08	0.02	0.033	O I	|	|	|	|	0.55
0.750	1.47	0.07	0.042	O	I	|	|	|	0.67
0.833	2.83	0.15	0.056	|O	|	|	|	I	0.87
0.917	1.72	0.20	0.070	| O	|	| I	|	|	1.07
1.000	0.68	0.20	0.077	| O I	|	|	|	|	1.15
1.083	0.17	0.20	0.079	|IO	|	|	|	|	1.17
1.167	0.00	0.20	0.078	I O	|	|	|	|	1.16
1.250	0.00	0.20	0.077	I O	|	|	|	|	1.14
1.333	0.00	0.20	0.075	I O	|	|	|	|	1.13
1.417	0.00	0.20	0.074	I O	|	|	|	|	1.11
1.500	0.00	0.20	0.073	I O	|	|	|	|	1.09
1.583	0.00	0.20	0.071	I O	|	|	|	|	1.08
1.667	0.00	0.20	0.070	I O	|	|	|	|	1.06
1.750	0.00	0.20	0.069	I O	|	|	|	|	1.05
1.833	0.00	0.20	0.067	I O	|	|	|	|	1.03
1.917	0.00	0.20	0.066	I O	|	|	|	|	1.01
2.000	0.00	0.19	0.065	I O	|	|	|	|	1.00
2.083	0.00	0.19	0.063	I O	|	|	|	|	0.98
2.167	0.00	0.18	0.062	I O	|	|	|	|	0.96
2.250	0.00	0.17	0.061	IO	|	|	|	|	0.94
2.333	0.00	0.17	0.060	IO	|	|	|	|	0.92
2.417	0.00	0.16	0.059	IO	|	|	|	|	0.91
2.500	0.00	0.15	0.057	IO	|	|	|	|	0.89
2.583	0.00	0.15	0.056	IO	|	|	|	|	0.88
2.667	0.00	0.14	0.055	IO	|	|	|	|	0.86
2.750	0.00	0.14	0.054	IO	|	|	|	|	0.85
2.833	0.00	0.13	0.054	IO	|	|	|	|	0.84
2.917	0.00	0.13	0.053	IO	|	|	|	|	0.82
3.000	0.00	0.12	0.052	IO	|	|	|	|	0.81
3.083	0.00	0.12	0.051	IO	|	|	|	|	0.80
3.167	0.00	0.11	0.050	IO	|	|	|	|	0.79
3.250	0.00	0.11	0.049	IO	|	|	|	|	0.78
3.333	0.00	0.10	0.049	IO	|	|	|	|	0.77
3.417	0.00	0.10	0.048	IO	|	|	|	|	0.76
3.500	0.00	0.10	0.047	IO	|	|	|	|	0.75
3.583	0.00	0.09	0.047	IO	|	|	|	|	0.74
3.667	0.00	0.09	0.046	IO	|	|	|	|	0.73
3.750	0.00	0.09	0.045	O	|	|	|	|	0.72
3.833	0.00	0.08	0.045	O	|	|	|	|	0.71
3.917	0.00	0.08	0.044	O	|	|	|	|	0.70
4.000	0.00	0.08	0.044	O	|	|	|	|	0.70

4.083	0.00	0.07	0.043	O				0.69
4.167	0.00	0.07	0.043	O				0.68
4.250	0.00	0.07	0.042	O				0.67
4.333	0.00	0.07	0.042	O				0.67
4.417	0.00	0.06	0.041	O				0.66
4.500	0.00	0.06	0.041	O				0.66
4.583	0.00	0.06	0.040	O				0.65
4.667	0.00	0.06	0.040	O				0.64
4.750	0.00	0.05	0.040	O				0.64
4.833	0.00	0.05	0.039	O				0.63
4.917	0.00	0.05	0.039	O				0.63
5.000	0.00	0.05	0.039	O				0.62
5.083	0.00	0.05	0.038	O				0.62
5.167	0.00	0.04	0.038	O				0.61
5.250	0.00	0.04	0.038	O				0.61
5.333	0.00	0.04	0.037	O				0.61
5.417	0.00	0.04	0.037	O				0.60
5.500	0.00	0.04	0.037	O				0.60
5.583	0.00	0.04	0.037	O				0.59
5.667	0.00	0.04	0.036	O				0.59
5.750	0.00	0.03	0.036	O				0.59
5.833	0.00	0.03	0.036	O				0.58
5.917	0.00	0.03	0.036	O				0.58
6.000	0.00	0.03	0.035	O				0.58
6.083	0.00	0.03	0.035	O				0.57
6.167	0.00	0.03	0.035	O				0.57
6.250	0.00	0.03	0.035	O				0.57
6.333	0.00	0.03	0.035	O				0.57
6.417	0.00	0.03	0.034	O				0.56
6.500	0.00	0.02	0.034	O				0.56
6.583	0.00	0.02	0.034	O				0.56
6.667	0.00	0.02	0.034	O				0.56
6.750	0.00	0.02	0.034	O				0.55
6.833	0.00	0.02	0.034	O				0.55
6.917	0.00	0.02	0.034	O				0.55
7.000	0.00	0.02	0.033	O				0.55
7.083	0.00	0.02	0.033	O				0.55
7.167	0.00	0.02	0.033	O				0.55
7.250	0.00	0.02	0.033	O				0.54
7.333	0.00	0.02	0.033	O				0.54
7.417	0.00	0.02	0.033	O				0.54
7.500	0.00	0.02	0.033	O				0.54
7.583	0.00	0.01	0.033	O				0.54
7.667	0.00	0.01	0.033	O				0.54
7.750	0.00	0.01	0.032	O				0.53
7.833	0.00	0.01	0.032	O				0.53
7.917	0.00	0.01	0.032	O				0.53
8.000	0.00	0.01	0.032	O				0.53
8.083	0.00	0.01	0.032	O				0.53
8.167	0.00	0.01	0.032	O				0.53

8.250	0.00	0.01	0.032	O	|	|	|	0.53
8.333	0.00	0.01	0.032	O	|	|	|	0.53
8.417	0.00	0.01	0.032	O	|	|	|	0.53
8.500	0.00	0.01	0.032	O	|	|	|	0.52
8.583	0.00	0.01	0.032	O	|	|	|	0.52
8.667	0.00	0.01	0.032	O	|	|	|	0.52
8.750	0.00	0.01	0.032	O	|	|	|	0.52
8.833	0.00	0.01	0.031	O	|	|	|	0.52
8.917	0.00	0.01	0.031	O	|	|	|	0.52
9.000	0.00	0.01	0.031	O	|	|	|	0.52
9.083	0.00	0.01	0.031	O	|	|	|	0.52
9.167	0.00	0.01	0.031	O	|	|	|	0.52
9.250	0.00	0.01	0.031	O	|	|	|	0.52
9.333	0.00	0.01	0.031	O	|	|	|	0.52
9.417	0.00	0.01	0.031	O	|	|	|	0.52
9.500	0.00	0.01	0.031	O	|	|	|	0.52
9.583	0.00	0.01	0.031	O	|	|	|	0.51
9.667	0.00	0.01	0.031	O	|	|	|	0.51
9.750	0.00	0.01	0.031	O	|	|	|	0.51
9.833	0.00	0.01	0.031	O	|	|	|	0.51
9.917	0.00	0.00	0.031	O	|	|	|	0.51
10.000	0.00	0.00	0.031	O	|	|	|	0.51
10.083	0.00	0.00	0.031	O	|	|	|	0.51
10.167	0.00	0.00	0.031	O	|	|	|	0.51
10.250	0.00	0.00	0.031	O	|	|	|	0.51
10.333	0.00	0.00	0.031	O	|	|	|	0.51
10.417	0.00	0.00	0.031	O	|	|	|	0.51
10.500	0.00	0.00	0.031	O	|	|	|	0.51
10.583	0.00	0.00	0.031	O	|	|	|	0.51
10.667	0.00	0.00	0.031	O	|	|	|	0.51
10.750	0.00	0.00	0.031	O	|	|	|	0.51
10.833	0.00	0.00	0.031	O	|	|	|	0.51
10.917	0.00	0.00	0.031	O	|	|	|	0.51
11.000	0.00	0.00	0.031	O	|	|	|	0.51
11.083	0.00	0.00	0.031	O	|	|	|	0.51
11.167	0.00	0.00	0.030	O	|	|	|	0.51
11.250	0.00	0.00	0.030	O	|	|	|	0.51
11.333	0.00	0.00	0.030	O	|	|	|	0.51
11.417	0.00	0.00	0.030	O	|	|	|	0.51
11.500	0.00	0.00	0.030	O	|	|	|	0.51
11.583	0.00	0.00	0.030	O	|	|	|	0.51
11.667	0.00	0.00	0.030	O	|	|	|	0.51
11.750	0.00	0.00	0.030	O	|	|	|	0.51
11.833	0.00	0.00	0.030	O	|	|	|	0.51
11.917	0.00	0.00	0.030	O	|	|	|	0.50
12.000	0.00	0.00	0.030	O	|	|	|	0.50
12.083	0.00	0.00	0.030	O	|	|	|	0.50
12.167	0.00	0.00	0.030	O	|	|	|	0.50
12.250	0.00	0.00	0.030	O	|	|	|	0.50
12.333	0.00	0.00	0.030	O	|	|	|	0.50

12.417	0.00	0.00	0.030	O	|	|	|	0.50
12.500	0.00	0.00	0.030	O	|	|	|	0.50
12.583	0.00	0.00	0.030	O	|	|	|	0.50
12.667	0.00	0.00	0.030	O	|	|	|	0.50
12.750	0.00	0.00	0.030	O	|	|	|	0.50
12.833	0.00	0.00	0.030	O	|	|	|	0.50
12.917	0.00	0.00	0.030	O	|	|	|	0.50
13.000	0.00	0.00	0.030	O	|	|	|	0.50
13.083	0.00	0.00	0.030	O	|	|	|	0.50
13.167	0.00	0.00	0.030	O	|	|	|	0.50
13.250	0.00	0.00	0.030	O	|	|	|	0.50
13.333	0.00	0.00	0.030	O	|	|	|	0.50
13.417	0.00	0.00	0.030	O	|	|	|	0.50

Remaining water in basin = 0.03 (Ac.Ft)

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

Number of intervals = 161
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.054 (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

Study date: 08/24/22

A21626 DMA 3 10YR-3HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA3Q100UH310.rte
**********HYDROGRAPH DATA**********
Number of intervals = 37
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 1.612 (CFS)
Total volume = 0.127 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
_____

Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)

------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 37
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      0.030      0.000      0.030        0.030
  1.000      0.065      0.196      0.064        0.066
  1.500      0.106      0.196      0.105        0.107
  2.000      0.152      0.196      0.151        0.153
  2.500      0.204      0.196      0.203        0.205
  3.000      0.262      0.196      0.261        0.263
  3.500      0.326      4.639      0.310        0.342
------------------------------------------------------------------------
                Hydrograph Detention Basin Routing
------------------------------------------------------------------------

Graph values: 'I'= unit inflow; 'O'=outflow at time shown
------------------------------------------------------------------------
```

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.4	0.81	1.21	1.61	Depth (Ft.)
0.083	0.15	0.00	0.001	O I					0.01
0.167	0.23	0.00	0.002	O I					0.03
0.250	0.20	0.00	0.003	O I					0.06
0.333	0.24	0.00	0.005	O I					0.08
0.417	0.26	0.00	0.007	O I					0.11
0.500	0.30	0.00	0.008	O I					0.14
0.583	0.28	0.00	0.010	O I					0.17
0.667	0.30	0.00	0.012	O I					0.21
0.750	0.31	0.00	0.015	O I					0.24
0.833	0.28	0.00	0.017	O I					0.28
0.917	0.27	0.00	0.018	O I					0.31
1.000	0.30	0.00	0.020	O I					0.34
1.083	0.36	0.00	0.023	O I					0.38
1.167	0.38	0.00	0.025	O I					0.42
1.250	0.38	0.00	0.028	O I					0.46
1.333	0.36	0.00	0.030	O I					0.51
1.417	0.42	0.02	0.033	O I					0.54
1.500	0.47	0.03	0.036	O I					0.58
1.583	0.43	0.05	0.039	O I					0.62
1.667	0.46	0.06	0.041	O I					0.66
1.750	0.56	0.08	0.044	O I					0.71
1.833	0.57	0.10	0.048	O I					0.75
1.917	0.53	0.12	0.051	O I					0.80
2.000	0.53	0.13	0.054	O I					0.84
2.083	0.55	0.15	0.056	O I					0.88
2.167	0.73	0.17	0.060	O	I				0.92
2.250	0.92	0.19	0.064	O		I			0.99
2.333	0.75	0.20	0.069	O	I				1.04
2.417	1.14	0.20	0.074	O		I			1.11
2.500	1.44	0.20	0.081	O			I		1.20
2.583	1.61	0.20	0.090	O				I	1.31
2.667	1.33	0.20	0.099	O			I		1.42
2.750	0.61	0.20	0.104	O	I				1.48
2.833	0.32	0.20	0.106	O I					1.50
2.917	0.31	0.20	0.107	O I					1.51
3.000	0.17	0.20	0.107	O					1.52
3.083	0.03	0.20	0.107	I O					1.51
3.167	0.00	0.20	0.106	I O					1.49
3.250	0.00	0.20	0.104	I O					1.48
3.333	0.00	0.20	0.103	I O					1.46
3.417	0.00	0.20	0.102	I O					1.45
3.500	0.00	0.20	0.100	I O					1.43
3.583	0.00	0.20	0.099	I O					1.41
3.667	0.00	0.20	0.097	I O					1.40
3.750	0.00	0.20	0.096	I O					1.38
3.833	0.00	0.20	0.095	I O					1.36
3.917	0.00	0.20	0.093	I O					1.35
4.000	0.00	0.20	0.092	I O					1.33

4.083	0.00	0.20	0.091	I	O				1.31
4.167	0.00	0.20	0.089	I	O				1.30
4.250	0.00	0.20	0.088	I	O				1.28
4.333	0.00	0.20	0.087	I	O				1.26
4.417	0.00	0.20	0.085	I	O				1.25
4.500	0.00	0.20	0.084	I	O				1.23
4.583	0.00	0.20	0.083	I	O				1.21
4.667	0.00	0.20	0.081	I	O				1.20
4.750	0.00	0.20	0.080	I	O				1.18
4.833	0.00	0.20	0.079	I	O				1.17
4.917	0.00	0.20	0.077	I	O				1.15
5.000	0.00	0.20	0.076	I	O				1.13
5.083	0.00	0.20	0.074	I	O				1.12
5.167	0.00	0.20	0.073	I	O				1.10
5.250	0.00	0.20	0.072	I	O				1.08
5.333	0.00	0.20	0.070	I	O				1.07
5.417	0.00	0.20	0.069	I	O				1.05
5.500	0.00	0.20	0.068	I	O				1.03
5.583	0.00	0.20	0.066	I	O				1.02
5.667	0.00	0.20	0.065	I	O				1.00
5.750	0.00	0.19	0.064	I	O				0.98
5.833	0.00	0.18	0.062	I	O				0.96
5.917	0.00	0.17	0.061	I	O				0.95
6.000	0.00	0.17	0.060	I	O				0.93
6.083	0.00	0.16	0.059	I	O				0.91
6.167	0.00	0.16	0.058	I	O				0.90
6.250	0.00	0.15	0.057	I	O				0.88
6.333	0.00	0.14	0.056	I	O				0.87
6.417	0.00	0.14	0.055	I	O				0.85
6.500	0.00	0.13	0.054	I	O				0.84
6.583	0.00	0.13	0.053	I	O				0.83
6.667	0.00	0.12	0.052	I	O				0.81
6.750	0.00	0.12	0.051	I	O				0.80
6.833	0.00	0.11	0.050	I	O				0.79
6.917	0.00	0.11	0.050	I	O				0.78
7.000	0.00	0.11	0.049	I	O				0.77
7.083	0.00	0.10	0.048	I	O				0.76
7.167	0.00	0.10	0.047	I	O				0.75
7.250	0.00	0.09	0.047	I	O				0.74
7.333	0.00	0.09	0.046	I	O				0.73
7.417	0.00	0.09	0.046	I	O				0.72
7.500	0.00	0.08	0.045	I	O				0.71
7.583	0.00	0.08	0.044	I	O				0.71
7.667	0.00	0.08	0.044	I	O				0.70
7.750	0.00	0.07	0.043	I	O				0.69
7.833	0.00	0.07	0.043	I	O				0.68
7.917	0.00	0.07	0.042	I	O				0.68
8.000	0.00	0.07	0.042	I	O				0.67
8.083	0.00	0.06	0.041	I	O				0.66
8.167	0.00	0.06	0.041	I	O				0.66

8.250	0.00	0.06	0.041	IO				0.65
8.333	0.00	0.06	0.040	IO				0.65
8.417	0.00	0.05	0.040	IO				0.64
8.500	0.00	0.05	0.039	IO				0.63
8.583	0.00	0.05	0.039	IO				0.63
8.667	0.00	0.05	0.039	O				0.62
8.750	0.00	0.05	0.038	O				0.62
8.833	0.00	0.05	0.038	O				0.62
8.917	0.00	0.04	0.038	O				0.61
9.000	0.00	0.04	0.037	O				0.61
9.083	0.00	0.04	0.037	O				0.60
9.167	0.00	0.04	0.037	O				0.60
9.250	0.00	0.04	0.037	O				0.59
9.333	0.00	0.04	0.036	O				0.59
9.417	0.00	0.03	0.036	O				0.59
9.500	0.00	0.03	0.036	O				0.58
9.583	0.00	0.03	0.036	O				0.58
9.667	0.00	0.03	0.035	O				0.58
9.750	0.00	0.03	0.035	O				0.58
9.833	0.00	0.03	0.035	O				0.57
9.917	0.00	0.03	0.035	O				0.57
10.000	0.00	0.03	0.035	O				0.57
10.083	0.00	0.03	0.035	O				0.56
10.167	0.00	0.02	0.034	O				0.56
10.250	0.00	0.02	0.034	O				0.56
10.333	0.00	0.02	0.034	O				0.56
10.417	0.00	0.02	0.034	O				0.56
10.500	0.00	0.02	0.034	O				0.55
10.583	0.00	0.02	0.034	O				0.55
10.667	0.00	0.02	0.033	O				0.55
10.750	0.00	0.02	0.033	O				0.55
10.833	0.00	0.02	0.033	O				0.55
10.917	0.00	0.02	0.033	O				0.54
11.000	0.00	0.02	0.033	O				0.54
11.083	0.00	0.02	0.033	O				0.54
11.167	0.00	0.02	0.033	O				0.54
11.250	0.00	0.01	0.033	O				0.54
11.333	0.00	0.01	0.033	O				0.54
11.417	0.00	0.01	0.032	O				0.53
11.500	0.00	0.01	0.032	O				0.53
11.583	0.00	0.01	0.032	O				0.53
11.667	0.00	0.01	0.032	O				0.53
11.750	0.00	0.01	0.032	O				0.53
11.833	0.00	0.01	0.032	O				0.53
11.917	0.00	0.01	0.032	O				0.53
12.000	0.00	0.01	0.032	O				0.53
12.083	0.00	0.01	0.032	O				0.53
12.167	0.00	0.01	0.032	O				0.52
12.250	0.00	0.01	0.032	O				0.52
12.333	0.00	0.01	0.032	O				0.52

12.417	0.00	0.01	0.032	O	|	|	|	0.52
12.500	0.00	0.01	0.031	O	|	|	|	0.52
12.583	0.00	0.01	0.031	O	|	|	|	0.52
12.667	0.00	0.01	0.031	O	|	|	|	0.52
12.750	0.00	0.01	0.031	O	|	|	|	0.52
12.833	0.00	0.01	0.031	O	|	|	|	0.52
12.917	0.00	0.01	0.031	O	|	|	|	0.52
13.000	0.00	0.01	0.031	O	|	|	|	0.52
13.083	0.00	0.01	0.031	O	|	|	|	0.52
13.167	0.00	0.01	0.031	O	|	|	|	0.52
13.250	0.00	0.01	0.031	O	|	|	|	0.51
13.333	0.00	0.01	0.031	O	|	|	|	0.51
13.417	0.00	0.01	0.031	O	|	|	|	0.51
13.500	0.00	0.01	0.031	O	|	|	|	0.51
13.583	0.00	0.00	0.031	O	|	|	|	0.51
13.667	0.00	0.00	0.031	O	|	|	|	0.51
13.750	0.00	0.00	0.031	O	|	|	|	0.51
13.833	0.00	0.00	0.031	O	|	|	|	0.51
13.917	0.00	0.00	0.031	O	|	|	|	0.51
14.000	0.00	0.00	0.031	O	|	|	|	0.51
14.083	0.00	0.00	0.031	O	|	|	|	0.51
14.167	0.00	0.00	0.031	O	|	|	|	0.51
14.250	0.00	0.00	0.031	O	|	|	|	0.51
14.333	0.00	0.00	0.031	O	|	|	|	0.51
14.417	0.00	0.00	0.031	O	|	|	|	0.51
14.500	0.00	0.00	0.031	O	|	|	|	0.51
14.583	0.00	0.00	0.031	O	|	|	|	0.51
14.667	0.00	0.00	0.031	O	|	|	|	0.51
14.750	0.00	0.00	0.031	O	|	|	|	0.51
14.833	0.00	0.00	0.030	O	|	|	|	0.51
14.917	0.00	0.00	0.030	O	|	|	|	0.51
15.000	0.00	0.00	0.030	O	|	|	|	0.51
15.083	0.00	0.00	0.030	O	|	|	|	0.51
15.167	0.00	0.00	0.030	O	|	|	|	0.51
15.250	0.00	0.00	0.030	O	|	|	|	0.51
15.333	0.00	0.00	0.030	O	|	|	|	0.51
15.417	0.00	0.00	0.030	O	|	|	|	0.51
15.500	0.00	0.00	0.030	O	|	|	|	0.51
15.583	0.00	0.00	0.030	O	|	|	|	0.51
15.667	0.00	0.00	0.030	O	|	|	|	0.50
15.750	0.00	0.00	0.030	O	|	|	|	0.50
15.833	0.00	0.00	0.030	O	|	|	|	0.50
15.917	0.00	0.00	0.030	O	|	|	|	0.50
16.000	0.00	0.00	0.030	O	|	|	|	0.50
16.083	0.00	0.00	0.030	O	|	|	|	0.50
16.167	0.00	0.00	0.030	O	|	|	|	0.50
16.250	0.00	0.00	0.030	O	|	|	|	0.50
16.333	0.00	0.00	0.030	O	|	|	|	0.50
16.417	0.00	0.00	0.030	O	|	|	|	0.50
16.500	0.00	0.00	0.030	O	|	|	|	0.50

16.583	0.00	0.00	0.030	O	|	|	|	|	0.50
16.667	0.00	0.00	0.030	O	|	|	|	|	0.50
16.750	0.00	0.00	0.030	O	|	|	|	|	0.50
16.833	0.00	0.00	0.030	O	|	|	|	|	0.50
16.917	0.00	0.00	0.030	O	|	|	|	|	0.50
17.000	0.00	0.00	0.030	O	|	|	|	|	0.50
17.083	0.00	0.00	0.030	O	|	|	|	|	0.50

Remaining water in basin = 0.03 (Ac.Ft)

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

Number of intervals = 205
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.097 (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

Study date: 08/24/22

A21626 DMA 3 10YR-6HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA3Q100UH610.rte
**********HYDROGRAPH DATA**********
Number of intervals = 73
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 1.487 (CFS)
Total volume = 0.173 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
_____

Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)

------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 73
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      0.030      0.000      0.030        0.030
  1.000      0.065      0.196      0.064        0.066
  1.500      0.106      0.196      0.105        0.107
  2.000      0.152      0.196      0.151        0.153
  2.500      0.204      0.196      0.203        0.205
  3.000      0.262      0.196      0.261        0.263
  3.500      0.326      4.639      0.310        0.342
------------------------------------------------------------------------
                Hydrograph Detention Basin Routing
------------------------------------------------------------------------

Graph values: 'I'= unit inflow; 'O'=outflow at time shown
------------------------------------------------------------------------
```

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.4	0.74	1.12	1.49	Depth (Ft.)
0.083	0.08	0.00	0.000	OI	|	|	|	|	0.00
0.167	0.14	0.00	0.001	O I	|	|	|	|	0.02
0.250	0.14	0.00	0.002	O I	|	|	|	|	0.03
0.333	0.14	0.00	0.003	O I	|	|	|	|	0.05
0.417	0.14	0.00	0.004	O I	|	|	|	|	0.07
0.500	0.16	0.00	0.005	O I	|	|	|	|	0.08
0.583	0.17	0.00	0.006	O I	|	|	|	|	0.10
0.667	0.17	0.00	0.007	O I	|	|	|	|	0.12
0.750	0.17	0.00	0.008	O I	|	|	|	|	0.14
0.833	0.17	0.00	0.010	O I	|	|	|	|	0.16
0.917	0.17	0.00	0.011	O I	|	|	|	|	0.18
1.000	0.18	0.00	0.012	O I	|	|	|	|	0.20
1.083	0.19	0.00	0.013	O I	|	|	|	|	0.22
1.167	0.19	0.00	0.015	O I	|	|	|	|	0.24
1.250	0.19	0.00	0.016	O I	|	|	|	|	0.27
1.333	0.19	0.00	0.017	O I	|	|	|	|	0.29
1.417	0.19	0.00	0.019	O I	|	|	|	|	0.31
1.500	0.19	0.00	0.020	O I	|	|	|	|	0.33
1.583	0.19	0.00	0.021	O I	|	|	|	|	0.35
1.667	0.19	0.00	0.023	O I	|	|	|	|	0.38
1.750	0.19	0.00	0.024	O I	|	|	|	|	0.40
1.833	0.19	0.00	0.025	O I	|	|	|	|	0.42
1.917	0.19	0.00	0.026	O I	|	|	|	|	0.44
2.000	0.21	0.00	0.028	O I	|	|	|	|	0.46
2.083	0.20	0.00	0.029	O I	|	|	|	|	0.49
2.167	0.21	0.00	0.031	O I	|	|	|	|	0.51
2.250	0.22	0.01	0.032	O I	|	|	|	|	0.53
2.333	0.22	0.02	0.033	O I	|	|	|	|	0.55
2.417	0.22	0.03	0.035	O I	|	|	|	|	0.57
2.500	0.22	0.03	0.036	O I	|	|	|	|	0.59
2.583	0.22	0.04	0.037	O I	|	|	|	|	0.60
2.667	0.22	0.05	0.038	|O I	|	|	|	|	0.62
2.750	0.23	0.05	0.040	|O I	|	|	|	|	0.64
2.833	0.24	0.06	0.041	|O I	|	|	|	|	0.66
2.917	0.24	0.07	0.042	|O I	|	|	|	|	0.67
3.000	0.24	0.07	0.043	|O I	|	|	|	|	0.69
3.083	0.24	0.08	0.044	|O I	|	|	|	|	0.71
3.167	0.26	0.09	0.045	|O I	|	|	|	|	0.72
3.250	0.26	0.09	0.047	| O I	|	|	|	|	0.74
3.333	0.26	0.10	0.048	| O I	|	|	|	|	0.75
3.417	0.28	0.11	0.049	| O I	|	|	|	|	0.77
3.500	0.30	0.11	0.050	| O I	|	|	|	|	0.79
3.583	0.33	0.12	0.052	| O I|	|	|	|	0.81
3.667	0.34	0.13	0.053	| O I|	|	|	|	0.83
3.750	0.35	0.14	0.054	| O I|	|	|	|	0.85
3.833	0.36	0.15	0.056	| O I|	|	|	|	0.87
3.917	0.38	0.15	0.057	| O I	|	|	|	0.89
4.000	0.38	0.16	0.059	| O I	|	|	|	0.91

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4.083    0.40    0.17      0.061  |  O    I       |       |       |     0.94
4.167    0.42    0.18      0.062  |  O    |I      |       |       |     0.96
4.250    0.45    0.19      0.064  |   O   |I      |       |       |     0.98
4.333    0.48    0.20      0.066  |   O   | I     |       |       |     1.01
4.417    0.51    0.20      0.068  |   O   | I     |       |       |     1.03
4.500    0.52    0.20      0.070  |   O   |  I    |       |       |     1.06
4.583    0.54    0.20      0.072  |   O   |  I    |       |       |     1.09
4.667    0.57    0.20      0.075  |   O   |   I   |       |       |     1.12
4.750    0.60    0.20      0.077  |   O   |   I   |       |       |     1.15
4.833    0.61    0.20      0.080  |   O   |    I  |       |       |     1.18
4.917    0.63    0.20      0.083  |   O   |    I  |       |       |     1.22
5.000    0.66    0.20      0.086  |   O   |     I |       |       |     1.26
5.083    0.77    0.20      0.090  |   O   |       I       |       |     1.30
5.167    0.92    0.20      0.094  |   O   |       |  I    |       |     1.36
5.250    1.03    0.20      0.100  |   O   |       |     I |       |     1.42
5.333    1.12    0.20      0.106  |   O   |       |       I       |     1.50
5.417    1.25    0.20      0.112  |   O   |       |       | I     |     1.57
5.500    1.49    0.20      0.121  |   O   |       |       |       I     1.66
5.583    0.81    0.20      0.127  |   O   |       |I      |       |     1.73
5.667    0.29    0.20      0.129  |   O I |       |       |       |     1.76
5.750    0.17    0.20      0.130  |  IO   |       |       |       |     1.76
5.833    0.13    0.20      0.129  | I O   |       |       |       |     1.75
5.917    0.09    0.20      0.129  |I  O   |       |       |       |     1.75
6.000    0.06    0.20      0.128  |I  O   |       |       |       |     1.74
6.083    0.02    0.20      0.127  I   O   |       |       |       |     1.73
6.167    0.00    0.20      0.125  I   O   |       |       |       |     1.71
6.250    0.00    0.20      0.124  I   O   |       |       |       |     1.70
6.333    0.00    0.20      0.123  I   O   |       |       |       |     1.68
6.417    0.00    0.20      0.121  I   O   |       |       |       |     1.67
6.500    0.00    0.20      0.120  I   O   |       |       |       |     1.65
6.583    0.00    0.20      0.119  I   O   |       |       |       |     1.64
6.667    0.00    0.20      0.117  I   O   |       |       |       |     1.62
6.750    0.00    0.20      0.116  I   O   |       |       |       |     1.61
6.833    0.00    0.20      0.115  I   O   |       |       |       |     1.59
6.917    0.00    0.20      0.113  I   O   |       |       |       |     1.58
7.000    0.00    0.20      0.112  I   O   |       |       |       |     1.56
7.083    0.00    0.20      0.111  I   O   |       |       |       |     1.55
7.167    0.00    0.20      0.109  I   O   |       |       |       |     1.54
7.250    0.00    0.20      0.108  I   O   |       |       |       |     1.52
7.333    0.00    0.20      0.107  I   O   |       |       |       |     1.51
7.417    0.00    0.20      0.105  I   O   |       |       |       |     1.49
7.500    0.00    0.20      0.104  I   O   |       |       |       |     1.47
7.583    0.00    0.20      0.103  I   O   |       |       |       |     1.46
7.667    0.00    0.20      0.101  I   O   |       |       |       |     1.44
7.750    0.00    0.20      0.100  I   O   |       |       |       |     1.42
7.833    0.00    0.20      0.098  I   O   |       |       |       |     1.41
7.917    0.00    0.20      0.097  I   O   |       |       |       |     1.39
8.000    0.00    0.20      0.096  I   O   |       |       |       |     1.37
8.083    0.00    0.20      0.094  I   O   |       |       |       |     1.36
8.167    0.00    0.20      0.093  I   O   |       |       |       |     1.34
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8.250	0.00	0.20	0.092	I	O				1.33
8.333	0.00	0.20	0.090	I	O				1.31
8.417	0.00	0.20	0.089	I	O				1.29
8.500	0.00	0.20	0.088	I	O				1.28
8.583	0.00	0.20	0.086	I	O				1.26
8.667	0.00	0.20	0.085	I	O				1.24
8.750	0.00	0.20	0.084	I	O				1.23
8.833	0.00	0.20	0.082	I	O				1.21
8.917	0.00	0.20	0.081	I	O				1.19
9.000	0.00	0.20	0.080	I	O				1.18
9.083	0.00	0.20	0.078	I	O				1.16
9.167	0.00	0.20	0.077	I	O				1.14
9.250	0.00	0.20	0.075	I	O				1.13
9.333	0.00	0.20	0.074	I	O				1.11
9.417	0.00	0.20	0.073	I	O				1.09
9.500	0.00	0.20	0.071	I	O				1.08
9.583	0.00	0.20	0.070	I	O				1.06
9.667	0.00	0.20	0.069	I	O				1.05
9.750	0.00	0.20	0.067	I	O				1.03
9.833	0.00	0.20	0.066	I	O				1.01
9.917	0.00	0.19	0.065	I	O				0.99
10.000	0.00	0.19	0.063	I	O				0.98
10.083	0.00	0.18	0.062	I	O				0.96
10.167	0.00	0.17	0.061	I	O				0.94
10.250	0.00	0.17	0.060	I	O				0.92
10.333	0.00	0.16	0.059	I	O				0.91
10.417	0.00	0.15	0.057	I	O				0.89
10.500	0.00	0.15	0.056	I	O				0.88
10.583	0.00	0.14	0.055	I	O				0.86
10.667	0.00	0.14	0.054	I	O				0.85
10.750	0.00	0.13	0.054	I	O				0.84
10.833	0.00	0.13	0.053	I	O				0.82
10.917	0.00	0.12	0.052	I	O				0.81
11.000	0.00	0.12	0.051	I	O				0.80
11.083	0.00	0.11	0.050	I	O				0.79
11.167	0.00	0.11	0.049	I	O				0.78
11.250	0.00	0.10	0.049	I	O				0.77
11.333	0.00	0.10	0.048	I	O				0.76
11.417	0.00	0.10	0.047	I	O				0.75
11.500	0.00	0.09	0.047	I	O				0.74
11.583	0.00	0.09	0.046	I	O				0.73
11.667	0.00	0.09	0.045	I	O				0.72
11.750	0.00	0.08	0.045	I	O				0.71
11.833	0.00	0.08	0.044	I	O				0.70
11.917	0.00	0.08	0.044	I	O				0.70
12.000	0.00	0.07	0.043	I	O				0.69
12.083	0.00	0.07	0.043	I	O				0.68
12.167	0.00	0.07	0.042	I	O				0.67
12.250	0.00	0.07	0.042	I	O				0.67
12.333	0.00	0.06	0.041	I	O				0.66

12.417	0.00	0.06	0.041	IO				0.66
12.500	0.00	0.06	0.040	IO				0.65
12.583	0.00	0.06	0.040	IO				0.64
12.667	0.00	0.05	0.040	IO				0.64
12.750	0.00	0.05	0.039	IO				0.63
12.833	0.00	0.05	0.039	IO				0.63
12.917	0.00	0.05	0.039	IO				0.62
13.000	0.00	0.05	0.038	IO				0.62
13.083	0.00	0.04	0.038	O				0.61
13.167	0.00	0.04	0.038	O				0.61
13.250	0.00	0.04	0.037	O				0.61
13.333	0.00	0.04	0.037	O				0.60
13.417	0.00	0.04	0.037	O				0.60
13.500	0.00	0.04	0.037	O				0.59
13.583	0.00	0.04	0.036	O				0.59
13.667	0.00	0.03	0.036	O				0.59
13.750	0.00	0.03	0.036	O				0.58
13.833	0.00	0.03	0.036	O				0.58
13.917	0.00	0.03	0.035	O				0.58
14.000	0.00	0.03	0.035	O				0.57
14.083	0.00	0.03	0.035	O				0.57
14.167	0.00	0.03	0.035	O				0.57
14.250	0.00	0.03	0.035	O				0.57
14.333	0.00	0.03	0.034	O				0.56
14.417	0.00	0.02	0.034	O				0.56
14.500	0.00	0.02	0.034	O				0.56
14.583	0.00	0.02	0.034	O				0.56
14.667	0.00	0.02	0.034	O				0.55
14.750	0.00	0.02	0.034	O				0.55
14.833	0.00	0.02	0.034	O				0.55
14.917	0.00	0.02	0.033	O				0.55
15.000	0.00	0.02	0.033	O				0.55
15.083	0.00	0.02	0.033	O				0.55
15.167	0.00	0.02	0.033	O				0.54
15.250	0.00	0.02	0.033	O				0.54
15.333	0.00	0.02	0.033	O				0.54
15.417	0.00	0.02	0.033	O				0.54
15.500	0.00	0.01	0.033	O				0.54
15.583	0.00	0.01	0.033	O				0.54
15.667	0.00	0.01	0.032	O				0.53
15.750	0.00	0.01	0.032	O				0.53
15.833	0.00	0.01	0.032	O				0.53
15.917	0.00	0.01	0.032	O				0.53
16.000	0.00	0.01	0.032	O				0.53
16.083	0.00	0.01	0.032	O				0.53
16.167	0.00	0.01	0.032	O				0.53
16.250	0.00	0.01	0.032	O				0.53
16.333	0.00	0.01	0.032	O				0.53
16.417	0.00	0.01	0.032	O				0.52
16.500	0.00	0.01	0.032	O				0.52

16.583	0.00	0.01	0.032	O	|	|	|	0.52
16.667	0.00	0.01	0.032	O	|	|	|	0.52
16.750	0.00	0.01	0.031	O	|	|	|	0.52
16.833	0.00	0.01	0.031	O	|	|	|	0.52
16.917	0.00	0.01	0.031	O	|	|	|	0.52
17.000	0.00	0.01	0.031	O	|	|	|	0.52
17.083	0.00	0.01	0.031	O	|	|	|	0.52
17.167	0.00	0.01	0.031	O	|	|	|	0.52
17.250	0.00	0.01	0.031	O	|	|	|	0.52
17.333	0.00	0.01	0.031	O	|	|	|	0.52
17.417	0.00	0.01	0.031	O	|	|	|	0.52
17.500	0.00	0.01	0.031	O	|	|	|	0.51
17.583	0.00	0.01	0.031	O	|	|	|	0.51
17.667	0.00	0.01	0.031	O	|	|	|	0.51
17.750	0.00	0.01	0.031	O	|	|	|	0.51
17.833	0.00	0.00	0.031	O	|	|	|	0.51
17.917	0.00	0.00	0.031	O	|	|	|	0.51
18.000	0.00	0.00	0.031	O	|	|	|	0.51
18.083	0.00	0.00	0.031	O	|	|	|	0.51
18.167	0.00	0.00	0.031	O	|	|	|	0.51
18.250	0.00	0.00	0.031	O	|	|	|	0.51
18.333	0.00	0.00	0.031	O	|	|	|	0.51
18.417	0.00	0.00	0.031	O	|	|	|	0.51
18.500	0.00	0.00	0.031	O	|	|	|	0.51
18.583	0.00	0.00	0.031	O	|	|	|	0.51
18.667	0.00	0.00	0.031	O	|	|	|	0.51
18.750	0.00	0.00	0.031	O	|	|	|	0.51
18.833	0.00	0.00	0.031	O	|	|	|	0.51
18.917	0.00	0.00	0.031	O	|	|	|	0.51
19.000	0.00	0.00	0.031	O	|	|	|	0.51
19.083	0.00	0.00	0.030	O	|	|	|	0.51
19.167	0.00	0.00	0.030	O	|	|	|	0.51
19.250	0.00	0.00	0.030	O	|	|	|	0.51
19.333	0.00	0.00	0.030	O	|	|	|	0.51
19.417	0.00	0.00	0.030	O	|	|	|	0.51
19.500	0.00	0.00	0.030	O	|	|	|	0.51
19.583	0.00	0.00	0.030	O	|	|	|	0.51
19.667	0.00	0.00	0.030	O	|	|	|	0.51
19.750	0.00	0.00	0.030	O	|	|	|	0.51
19.833	0.00	0.00	0.030	O	|	|	|	0.50
19.917	0.00	0.00	0.030	O	|	|	|	0.50
20.000	0.00	0.00	0.030	O	|	|	|	0.50
20.083	0.00	0.00	0.030	O	|	|	|	0.50
20.167	0.00	0.00	0.030	O	|	|	|	0.50
20.250	0.00	0.00	0.030	O	|	|	|	0.50
20.333	0.00	0.00	0.030	O	|	|	|	0.50
20.417	0.00	0.00	0.030	O	|	|	|	0.50
20.500	0.00	0.00	0.030	O	|	|	|	0.50
20.583	0.00	0.00	0.030	O	|	|	|	0.50
20.667	0.00	0.00	0.030	O	|	|	|	0.50

20.750	0.00	0.00	0.030	O	|	|	|	|	0.50
20.833	0.00	0.00	0.030	O	|	|	|	|	0.50
20.917	0.00	0.00	0.030	O	|	|	|	|	0.50
21.000	0.00	0.00	0.030	O	|	|	|	|	0.50
21.083	0.00	0.00	0.030	O	|	|	|	|	0.50
21.167	0.00	0.00	0.030	O	|	|	|	|	0.50
21.250	0.00	0.00	0.030	O	|	|	|	|	0.50
21.333	0.00	0.00	0.030	O	|	|	|	|	0.50

Remaining water in basin = 0.03 (Ac.Ft)

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

Number of intervals = 256
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.142 (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

Study date: 08/24/22

A21626 DMA 3 10YR-24HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA3Q100UH2410.rte
**********HYDROGRAPH DATA**********
Number of intervals = 289
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.501 (CFS)
Total volume = 0.291 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
_____

Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)

------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 289
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      0.030      0.000      0.030        0.030
  1.000      0.065      0.196      0.064        0.066
  1.500      0.106      0.196      0.105        0.107
  2.000      0.152      0.196      0.151        0.153
  2.500      0.204      0.196      0.203        0.205
  3.000      0.262      0.196      0.261        0.263
  3.500      0.326      4.639      0.310        0.342
------------------------------------------------------------------------
                Hydrograph Detention Basin Routing
------------------------------------------------------------------------

Graph values: 'I'= unit inflow; 'O'=outflow at time shown
------------------------------------------------------------------------
```

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.1	0.25	0.38	0.50	Depth (Ft.)
0.083	0.02	0.00	0.000	OI					0.00
0.167	0.03	0.00	0.000	OI					0.00
0.250	0.03	0.00	0.000	OI					0.01
0.333	0.04	0.00	0.001	O I					0.01
0.417	0.04	0.00	0.001	O I					0.02
0.500	0.04	0.00	0.001	O I					0.02
0.583	0.04	0.00	0.002	O I					0.03
0.667	0.04	0.00	0.002	O I					0.03
0.750	0.04	0.00	0.002	O I					0.03
0.833	0.05	0.00	0.002	O I					0.04
0.917	0.06	0.00	0.003	O I					0.05
1.000	0.06	0.00	0.003	O I					0.05
1.083	0.05	0.00	0.004	O I					0.06
1.167	0.04	0.00	0.004	O I					0.06
1.250	0.04	0.00	0.004	O I					0.07
1.333	0.04	0.00	0.004	O I					0.07
1.417	0.04	0.00	0.005	O I					0.08
1.500	0.04	0.00	0.005	O I					0.08
1.583	0.04	0.00	0.005	O I					0.09
1.667	0.04	0.00	0.006	O I					0.09
1.750	0.04	0.00	0.006	O I					0.10
1.833	0.05	0.00	0.006	O I					0.10
1.917	0.06	0.00	0.007	O I					0.11
2.000	0.06	0.00	0.007	O I					0.12
2.083	0.06	0.00	0.007	O I					0.12
2.167	0.06	0.00	0.008	O I					0.13
2.250	0.06	0.00	0.008	O I					0.14
2.333	0.06	0.00	0.008	O I					0.14
2.417	0.06	0.00	0.009	O I					0.15
2.500	0.06	0.00	0.009	O I					0.15
2.583	0.07	0.00	0.010	O I					0.16
2.667	0.07	0.00	0.010	O I					0.17
2.750	0.07	0.00	0.011	O I					0.18
2.833	0.07	0.00	0.011	O I					0.19
2.917	0.07	0.00	0.012	O I					0.19
3.000	0.07	0.00	0.012	O I					0.20
3.083	0.07	0.00	0.013	O I					0.21
3.167	0.07	0.00	0.013	O I					0.22
3.250	0.07	0.00	0.014	O I					0.23
3.333	0.07	0.00	0.014	O I					0.23
3.417	0.07	0.00	0.015	O I					0.24
3.500	0.07	0.00	0.015	O I					0.25
3.583	0.07	0.00	0.015	O I					0.26
3.667	0.07	0.00	0.016	O I					0.27
3.750	0.07	0.00	0.016	O I					0.27
3.833	0.08	0.00	0.017	O I					0.28
3.917	0.08	0.00	0.018	O I					0.29
4.000	0.08	0.00	0.018	O I					0.30

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4.083    0.08    0.00      0.019  O    I  |       |       |       |     0.31
4.167    0.08    0.00      0.019  O    I  |       |       |       |     0.32
4.250    0.08    0.00      0.020  O    I  |       |       |       |     0.33
4.333    0.09    0.00      0.020  O    I  |       |       |       |     0.34
4.417    0.10    0.00      0.021  O     I |       |       |       |     0.35
4.500    0.10    0.00      0.022  O     I |       |       |       |     0.36
4.583    0.10    0.00      0.022  O     I |       |       |       |     0.37
4.667    0.10    0.00      0.023  O     I |       |       |       |     0.39
4.750    0.10    0.00      0.024  O     I |       |       |       |     0.40
4.833    0.11    0.00      0.025  O     I |       |       |       |     0.41
4.917    0.11    0.00      0.025  O      I|       |       |       |     0.42
5.000    0.11    0.00      0.026  O      I|       |       |       |     0.43
5.083    0.09    0.00      0.027  O    I  |       |       |       |     0.45
5.167    0.08    0.00      0.027  O    I  |       |       |       |     0.46
5.250    0.08    0.00      0.028  O    I  |       |       |       |     0.47
5.333    0.09    0.00      0.029  O    I  |       |       |       |     0.48
5.417    0.10    0.00      0.029  O     I |       |       |       |     0.49
5.500    0.10    0.00      0.030  O     I |       |       |       |     0.50
5.583    0.11    0.00      0.031  O     I |       |       |       |     0.51
5.667    0.11    0.01      0.031  O      I|       |       |       |     0.52
5.750    0.11    0.01      0.032  O      I|       |       |       |     0.53
5.833    0.11    0.02      0.033  O      I|       |       |       |     0.54
5.917    0.11    0.02      0.033  |O     I|       |       |       |     0.55
6.000    0.11    0.02      0.034  |O     I|       |       |       |     0.56
6.083    0.12    0.03      0.035  |O     I|       |       |       |     0.57
6.167    0.13    0.03      0.035  |O      I       |       |       |     0.58
6.250    0.13    0.03      0.036  | O     I       |       |       |     0.59
6.333    0.13    0.04      0.037  | O     I       |       |       |     0.59
6.417    0.13    0.04      0.037  | O     I       |       |       |     0.60
6.500    0.13    0.04      0.038  | O     I       |       |       |     0.61
6.583    0.14    0.05      0.038  |  O    I       |       |       |     0.62
6.667    0.14    0.05      0.039  |  O    I       |       |       |     0.63
6.750    0.14    0.05      0.040  |  O    I       |       |       |     0.64
6.833    0.14    0.06      0.040  |  O    I       |       |       |     0.65
6.917    0.14    0.06      0.041  |  O    I       |       |       |     0.65
7.000    0.14    0.06      0.041  |   O   I       |       |       |     0.66
7.083    0.14    0.07      0.042  |   O   I       |       |       |     0.67
7.167    0.14    0.07      0.042  |   O   I       |       |       |     0.68
7.250    0.14    0.07      0.043  |   O   I       |       |       |     0.68
7.333    0.15    0.07      0.043  |   O   |I      |       |       |     0.69
7.417    0.15    0.08      0.044  |   O   |I      |       |       |     0.70
7.500    0.15    0.08      0.044  |    O  |I      |       |       |     0.71
7.583    0.16    0.08      0.045  |    O  | I     |       |       |     0.71
7.667    0.17    0.09      0.045  |    O  | I     |       |       |     0.72
7.750    0.17    0.09      0.046  |    O  | I     |       |       |     0.73
7.833    0.18    0.09      0.047  |    O  |  I    |       |       |     0.74
7.917    0.18    0.10      0.047  |     O |  I    |       |       |     0.75
8.000    0.18    0.10      0.048  |     O |  I    |       |       |     0.75
8.083    0.20    0.10      0.048  |     O |   I   |       |       |     0.76
8.167    0.21    0.11      0.049  |     O |    I  |       |       |     0.77
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8.250	0.21	0.11	0.050	|	O|	I |	|	0.78
8.333	0.21	0.11	0.050	|	O|	I |	|	0.79
8.417	0.21	0.12	0.051	|	O|	I |	|	0.80
8.500	0.21	0.12	0.052	|	O|	I |	|	0.81
8.583	0.22	0.13	0.052	|	O	I |	|	0.82
8.667	0.22	0.13	0.053	|	O	I |	|	0.83
8.750	0.22	0.13	0.054	|	O	I |	|	0.84
8.833	0.23	0.14	0.054	|	O	I |	|	0.85
8.917	0.24	0.14	0.055	|	O	I|	|	0.86
9.000	0.24	0.14	0.056	|	|O	I|	|	0.87
9.083	0.26	0.15	0.056	|	|O	I	|	0.88
9.167	0.27	0.15	0.057	|	|O	|I	|	0.89
9.250	0.27	0.16	0.058	|	|O	|I	|	0.90
9.333	0.28	0.16	0.059	|	| O	|I	|	0.91
9.417	0.28	0.17	0.059	|	| O	|I	|	0.92
9.500	0.28	0.17	0.060	|	| O	|I	|	0.93
9.583	0.29	0.17	0.061	|	| O	| I	|	0.94
9.667	0.30	0.18	0.062	|	| O	| I	|	0.96
9.750	0.30	0.18	0.063	|	| O	| I	|	0.97
9.833	0.30	0.19	0.063	|	| O	| I	|	0.98
9.917	0.31	0.19	0.064	|	| O	| I	|	0.99
10.000	0.31	0.20	0.065	|	| O	| I	|	1.00
10.083	0.24	0.20	0.066	|	| O I|	|	1.01
10.167	0.21	0.20	0.066	|	| OI |	|	1.01
10.250	0.21	0.20	0.066	|	| OI |	|	1.01
10.333	0.21	0.20	0.066	|	| OI |	|	1.01
10.417	0.21	0.20	0.066	|	| OI |	|	1.01
10.500	0.21	0.20	0.066	|	| OI |	|	1.01
10.583	0.26	0.20	0.066	|	| O I	|	1.02
10.667	0.28	0.20	0.067	|	| O |I	|	1.02
10.750	0.28	0.20	0.068	|	| O |I	|	1.03
10.833	0.28	0.20	0.068	|	| O |I	|	1.04
10.917	0.28	0.20	0.069	|	| O |I	|	1.05
11.000	0.28	0.20	0.069	|	| O |I	|	1.05
11.083	0.27	0.20	0.070	|	| O |I	|	1.06
11.167	0.27	0.20	0.070	|	| O |I	|	1.07
11.250	0.27	0.20	0.071	|	| O |I	|	1.07
11.333	0.27	0.20	0.071	|	| O |I	|	1.08
11.417	0.27	0.20	0.072	|	| O |I	|	1.08
11.500	0.27	0.20	0.072	|	| O |I	|	1.09
11.583	0.25	0.20	0.073	|	| O I|	|	1.09
11.667	0.24	0.20	0.073	|	| O I|	|	1.10
11.750	0.24	0.20	0.073	|	| O I|	|	1.10
11.833	0.25	0.20	0.074	|	| O I|	|	1.11
11.917	0.25	0.20	0.074	|	| O I	|	1.11
12.000	0.25	0.20	0.074	|	| O I	|	1.11
12.083	0.32	0.20	0.075	|	| O | I	|	1.12
12.167	0.35	0.20	0.076	|	| O | I |	|	1.13
12.250	0.35	0.20	0.077	|	| O | I |	|	1.15
12.333	0.36	0.20	0.078	|	| O | I|	|	1.16

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12.417    0.37    0.20      0.079  |        |   O   |       I|        |     1.17
12.500    0.37    0.20      0.080  |        |   O   |       I|        |     1.19
12.583    0.38    0.20      0.082  |        |   O   |        I        |     1.20
12.667    0.39    0.20      0.083  |        |   O   |        |I       |     1.22
12.750    0.39    0.20      0.084  |        |   O   |        |I       |     1.24
12.833    0.40    0.20      0.086  |        |   O   |        |I       |     1.25
12.917    0.41    0.20      0.087  |        |   O   |        | I      |     1.27
13.000    0.41    0.20      0.089  |        |   O   |        | I      |     1.29
13.083    0.47    0.20      0.090  |        |   O   |        |     I  |     1.31
13.167    0.50    0.20      0.092  |        |   O   |        |       I|     1.33
13.250    0.50    0.20      0.094  |        |   O   |        |       I|     1.36
13.333    0.50    0.20      0.097  |        |   O   |        |       I|     1.38
13.417    0.50    0.20      0.099  |        |   O   |        |       I|     1.41
13.500    0.50    0.20      0.101  |        |   O   |        |        I    1.44
13.583    0.38    0.20      0.102  |        |   O   |        I        |     1.46
13.667    0.32    0.20      0.104  |        |   O   |    I   |        |     1.47
13.750    0.32    0.20      0.104  |        |   O   |    I   |        |     1.48
13.833    0.32    0.20      0.105  |        |   O   |    I   |        |     1.49
13.917    0.32    0.20      0.106  |        |   O   |    I   |        |     1.50
14.000    0.32    0.20      0.107  |        |   O   |    I   |        |     1.51
14.083    0.36    0.20      0.108  |        |   O   |       I|        |     1.52
14.167    0.38    0.20      0.109  |        |   O   |        I        |     1.54
14.250    0.38    0.20      0.111  |        |   O   |        I        |     1.55
14.333    0.37    0.20      0.112  |        |   O   |       I|        |     1.56
14.417    0.37    0.20      0.113  |        |   O   |       I|        |     1.58
14.500    0.37    0.20      0.114  |        |   O   |       I|        |     1.59
14.583    0.37    0.20      0.115  |        |   O   |       I|        |     1.60
14.667    0.37    0.20      0.116  |        |   O   |       I|        |     1.61
14.750    0.37    0.20      0.118  |        |   O   |       I|        |     1.63
14.833    0.36    0.20      0.119  |        |   O   |      I |        |     1.64
14.917    0.35    0.20      0.120  |        |   O   |      I |        |     1.65
15.000    0.35    0.20      0.121  |        |   O   |      I |        |     1.66
15.083    0.34    0.20      0.122  |        |   O   |     I  |        |     1.67
15.167    0.34    0.20      0.123  |        |   O   |     I  |        |     1.68
15.250    0.34    0.20      0.124  |        |   O   |     I  |        |     1.69
15.333    0.33    0.20      0.125  |        |   O   |    I   |        |     1.70
15.417    0.32    0.20      0.126  |        |   O   |    I   |        |     1.71
15.500    0.32    0.20      0.127  |        |   O   |    I   |        |     1.72
15.583    0.28    0.20      0.127  |        |   O   |  I     |        |     1.73
15.667    0.27    0.20      0.128  |        |   O   | I      |        |     1.74
15.750    0.27    0.20      0.128  |        |   O   | I      |        |     1.74
15.833    0.27    0.20      0.129  |        |   O   | I      |        |     1.75
15.917    0.27    0.20      0.129  |        |   O   | I      |        |     1.75
16.000    0.27    0.20      0.130  |        |   O   | I      |        |     1.76
16.083    0.12    0.20      0.130  |       I|   O   |        |        |     1.76
16.167    0.06    0.20      0.129  |  I     |   O   |        |        |     1.75
16.250    0.06    0.20      0.128  |  I     |   O   |        |        |     1.74
16.333    0.06    0.20      0.127  |  I     |   O   |        |        |     1.73
16.417    0.06    0.20      0.126  |  I     |   O   |        |        |     1.72
16.500    0.06    0.20      0.125  |  I     |   O   |        |        |     1.71
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16.583	0.05	0.20	0.124	I	O			1.70
16.667	0.04	0.20	0.123	I	O			1.69
16.750	0.04	0.20	0.122	I	O			1.68
16.833	0.04	0.20	0.121	I	O			1.66
16.917	0.04	0.20	0.120	I	O			1.65
17.000	0.04	0.20	0.119	I	O			1.64
17.083	0.06	0.20	0.118	I	O			1.63
17.167	0.07	0.20	0.117	I	O			1.62
17.250	0.07	0.20	0.116	I	O			1.61
17.333	0.07	0.20	0.115	I	O			1.60
17.417	0.07	0.20	0.114	I	O			1.59
17.500	0.07	0.20	0.114	I	O			1.58
17.583	0.07	0.20	0.113	I	O			1.57
17.667	0.07	0.20	0.112	I	O			1.56
17.750	0.07	0.20	0.111	I	O			1.55
17.833	0.06	0.20	0.110	I	O			1.54
17.917	0.06	0.20	0.109	I	O			1.53
18.000	0.06	0.20	0.108	I	O			1.52
18.083	0.06	0.20	0.107	I	O			1.51
18.167	0.06	0.20	0.106	I	O			1.50
18.250	0.06	0.20	0.105	I	O			1.49
18.333	0.06	0.20	0.104	I	O			1.48
18.417	0.06	0.20	0.103	I	O			1.47
18.500	0.06	0.20	0.102	I	O			1.46
18.583	0.05	0.20	0.101	I	O			1.44
18.667	0.04	0.20	0.100	I	O			1.43
18.750	0.04	0.20	0.099	I	O			1.42
18.833	0.03	0.20	0.098	I	O			1.40
18.917	0.03	0.20	0.097	I	O			1.39
19.000	0.03	0.20	0.096	I	O			1.38
19.083	0.04	0.20	0.095	I	O			1.36
19.167	0.04	0.20	0.094	I	O			1.35
19.250	0.04	0.20	0.093	I	O			1.34
19.333	0.05	0.20	0.092	I	O			1.32
19.417	0.06	0.20	0.091	I	O			1.31
19.500	0.06	0.20	0.090	I	O			1.30
19.583	0.05	0.20	0.089	I	O			1.29
19.667	0.04	0.20	0.088	I	O			1.28
19.750	0.04	0.20	0.087	I	O			1.26
19.833	0.03	0.20	0.085	I	O			1.25
19.917	0.03	0.20	0.084	I	O			1.23
20.000	0.03	0.20	0.083	I	O			1.22
20.083	0.04	0.20	0.082	I	O			1.21
20.167	0.04	0.20	0.081	I	O			1.19
20.250	0.04	0.20	0.080	I	O			1.18
20.333	0.04	0.20	0.079	I	O			1.17
20.417	0.04	0.20	0.078	I	O			1.16
20.500	0.04	0.20	0.077	I	O			1.14
20.583	0.04	0.20	0.076	I	O			1.13
20.667	0.04	0.20	0.075	I	O			1.12

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20.750    0.04    0.20      0.073  | I     |   O   |       |       |     1.10
20.833    0.03    0.20      0.072  | I     |   O   |       |       |     1.09
20.917    0.03    0.20      0.071  |I      |   O   |       |       |     1.08
21.000    0.03    0.20      0.070  |I      |   O   |       |       |     1.06
21.083    0.04    0.20      0.069  | I     |   O   |       |       |     1.05
21.167    0.04    0.20      0.068  | I     |   O   |       |       |     1.03
21.250    0.04    0.20      0.067  | I     |   O   |       |       |     1.02
21.333    0.03    0.20      0.066  | I     |   O   |       |       |     1.01
21.417    0.03    0.19      0.065  |I      |   O   |       |       |     0.99
21.500    0.03    0.19      0.063  |I      |  O    |       |       |     0.98
21.583    0.04    0.18      0.062  | I     |  O    |       |       |     0.96
21.667    0.04    0.18      0.061  | I     |  O    |       |       |     0.95
21.750    0.04    0.17      0.061  | I     | O     |       |       |     0.94
21.833    0.03    0.17      0.060  | I     | O     |       |       |     0.92
21.917    0.03    0.16      0.059  |I      | O     |       |       |     0.91
22.000    0.03    0.16      0.058  |I      |O      |       |       |     0.90
22.083    0.04    0.15      0.057  | I     |O      |       |       |     0.89
22.167    0.04    0.15      0.056  | I     |O      |       |       |     0.87
22.250    0.04    0.14      0.056  | I     |O      |       |       |     0.86
22.333    0.03    0.14      0.055  | I     O       |       |       |     0.85
22.417    0.03    0.14      0.054  |I      O       |       |       |     0.84
22.500    0.03    0.13      0.053  |I      O       |       |       |     0.83
22.583    0.03    0.13      0.053  |I      O       |       |       |     0.82
22.667    0.03    0.12      0.052  |I     O|       |       |       |     0.81
22.750    0.03    0.12      0.051  |I     O|       |       |       |     0.80
22.833    0.03    0.12      0.051  |I     O|       |       |       |     0.80
22.917    0.03    0.11      0.050  |I     O|       |       |       |     0.79
23.000    0.03    0.11      0.050  |I     O|       |       |       |     0.78
23.083    0.03    0.11      0.049  |I    O |       |       |       |     0.77
23.167    0.03    0.10      0.048  |I    O |       |       |       |     0.76
23.250    0.03    0.10      0.048  |I    O |       |       |       |     0.76
23.333    0.03    0.10      0.047  |I    O |       |       |       |     0.75
23.417    0.03    0.10      0.047  |I    O |       |       |       |     0.74
23.500    0.03    0.09      0.047  |I   O  |       |       |       |     0.74
23.583    0.03    0.09      0.046  |I   O  |       |       |       |     0.73
23.667    0.03    0.09      0.046  |I   O  |       |       |       |     0.72
23.750    0.03    0.09      0.045  |I   O  |       |       |       |     0.72
23.833    0.03    0.08      0.045  |I   O  |       |       |       |     0.71
23.917    0.03    0.08      0.045  |I   O  |       |       |       |     0.71
24.000    0.03    0.08      0.044  |I   O  |       |       |       |     0.70
24.083    0.01    0.08      0.044  I   O   |       |       |       |     0.70
24.167    0.00    0.07      0.043  I   O   |       |       |       |     0.69
24.250    0.00    0.07      0.043  I   O   |       |       |       |     0.68
24.333    0.00    0.07      0.042  I   O   |       |       |       |     0.68
24.417    0.00    0.07      0.042  I   O   |       |       |       |     0.67
24.500    0.00    0.06      0.041  I   O   |       |       |       |     0.66
24.583    0.00    0.06      0.041  I  O    |       |       |       |     0.66
24.667    0.00    0.06      0.041  I  O    |       |       |       |     0.65
24.750    0.00    0.06      0.040  I  O    |       |       |       |     0.64
24.833    0.00    0.05      0.040  I  O    |       |       |       |     0.64
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24.917	0.00	0.05	0.039	I O				0.63
25.000	0.00	0.05	0.039	I O				0.63
25.083	0.00	0.05	0.039	I O				0.62
25.167	0.00	0.05	0.038	I O				0.62
25.250	0.00	0.05	0.038	I O				0.61
25.333	0.00	0.04	0.038	I O				0.61
25.417	0.00	0.04	0.037	I O				0.61
25.500	0.00	0.04	0.037	I O				0.60
25.583	0.00	0.04	0.037	I O				0.60
25.667	0.00	0.04	0.037	I O				0.59
25.750	0.00	0.04	0.036	I O				0.59
25.833	0.00	0.03	0.036	I O				0.59
25.917	0.00	0.03	0.036	I O				0.58
26.000	0.00	0.03	0.036	I O				0.58
26.083	0.00	0.03	0.035	IO				0.58
26.167	0.00	0.03	0.035	IO				0.57
26.250	0.00	0.03	0.035	IO				0.57
26.333	0.00	0.03	0.035	IO				0.57
26.417	0.00	0.03	0.035	IO				0.57
26.500	0.00	0.03	0.034	IO				0.56
26.583	0.00	0.02	0.034	IO				0.56
26.667	0.00	0.02	0.034	IO				0.56
26.750	0.00	0.02	0.034	IO				0.56
26.833	0.00	0.02	0.034	IO				0.55
26.917	0.00	0.02	0.034	IO				0.55
27.000	0.00	0.02	0.034	IO				0.55
27.083	0.00	0.02	0.033	IO				0.55
27.167	0.00	0.02	0.033	IO				0.55
27.250	0.00	0.02	0.033	IO				0.55
27.333	0.00	0.02	0.033	IO				0.54
27.417	0.00	0.02	0.033	IO				0.54
27.500	0.00	0.02	0.033	IO				0.54
27.583	0.00	0.02	0.033	O				0.54
27.667	0.00	0.01	0.033	O				0.54
27.750	0.00	0.01	0.033	O				0.54
27.833	0.00	0.01	0.032	O				0.53
27.917	0.00	0.01	0.032	O				0.53
28.000	0.00	0.01	0.032	O				0.53
28.083	0.00	0.01	0.032	O				0.53
28.167	0.00	0.01	0.032	O				0.53
28.250	0.00	0.01	0.032	O				0.53
28.333	0.00	0.01	0.032	O				0.53
28.417	0.00	0.01	0.032	O				0.53
28.500	0.00	0.01	0.032	O				0.53
28.583	0.00	0.01	0.032	O				0.52
28.667	0.00	0.01	0.032	O				0.52
28.750	0.00	0.01	0.032	O				0.52
28.833	0.00	0.01	0.032	O				0.52
28.917	0.00	0.01	0.031	O				0.52
29.000	0.00	0.01	0.031	O				0.52

29.083	0.00	0.01	0.031	O	|	|	|	0.52
29.167	0.00	0.01	0.031	O	|	|	|	0.52
29.250	0.00	0.01	0.031	O	|	|	|	0.52
29.333	0.00	0.01	0.031	O	|	|	|	0.52
29.417	0.00	0.01	0.031	O	|	|	|	0.52
29.500	0.00	0.01	0.031	O	|	|	|	0.52
29.583	0.00	0.01	0.031	O	|	|	|	0.52
29.667	0.00	0.01	0.031	O	|	|	|	0.51
29.750	0.00	0.01	0.031	O	|	|	|	0.51
29.833	0.00	0.01	0.031	O	|	|	|	0.51
29.917	0.00	0.01	0.031	O	|	|	|	0.51
30.000	0.00	0.00	0.031	O	|	|	|	0.51
30.083	0.00	0.00	0.031	O	|	|	|	0.51
30.167	0.00	0.00	0.031	O	|	|	|	0.51
30.250	0.00	0.00	0.031	O	|	|	|	0.51
30.333	0.00	0.00	0.031	O	|	|	|	0.51
30.417	0.00	0.00	0.031	O	|	|	|	0.51
30.500	0.00	0.00	0.031	O	|	|	|	0.51
30.583	0.00	0.00	0.031	O	|	|	|	0.51
30.667	0.00	0.00	0.031	O	|	|	|	0.51
30.750	0.00	0.00	0.031	O	|	|	|	0.51
30.833	0.00	0.00	0.031	O	|	|	|	0.51
30.917	0.00	0.00	0.031	O	|	|	|	0.51
31.000	0.00	0.00	0.031	O	|	|	|	0.51
31.083	0.00	0.00	0.031	O	|	|	|	0.51
31.167	0.00	0.00	0.031	O	|	|	|	0.51
31.250	0.00	0.00	0.030	O	|	|	|	0.51
31.333	0.00	0.00	0.030	O	|	|	|	0.51
31.417	0.00	0.00	0.030	O	|	|	|	0.51
31.500	0.00	0.00	0.030	O	|	|	|	0.51
31.583	0.00	0.00	0.030	O	|	|	|	0.51
31.667	0.00	0.00	0.030	O	|	|	|	0.51
31.750	0.00	0.00	0.030	O	|	|	|	0.51
31.833	0.00	0.00	0.030	O	|	|	|	0.51
31.917	0.00	0.00	0.030	O	|	|	|	0.51
32.000	0.00	0.00	0.030	O	|	|	|	0.51
32.083	0.00	0.00	0.030	O	|	|	|	0.50
32.167	0.00	0.00	0.030	O	|	|	|	0.50
32.250	0.00	0.00	0.030	O	|	|	|	0.50
32.333	0.00	0.00	0.030	O	|	|	|	0.50
32.417	0.00	0.00	0.030	O	|	|	|	0.50
32.500	0.00	0.00	0.030	O	|	|	|	0.50
32.583	0.00	0.00	0.030	O	|	|	|	0.50
32.667	0.00	0.00	0.030	O	|	|	|	0.50
32.750	0.00	0.00	0.030	O	|	|	|	0.50
32.833	0.00	0.00	0.030	O	|	|	|	0.50
32.917	0.00	0.00	0.030	O	|	|	|	0.50
33.000	0.00	0.00	0.030	O	|	|	|	0.50
33.083	0.00	0.00	0.030	O	|	|	|	0.50
33.167	0.00	0.00	0.030	O	|	|	|	0.50

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33.250    0.00    0.00      0.030  O       |       |       |       |     0.50
33.333    0.00    0.00      0.030  O       |       |       |       |     0.50
33.417    0.00    0.00      0.030  O       |       |       |       |     0.50
33.500    0.00    0.00      0.030  O       |       |       |       |     0.50

       Remaining water in basin =    0.03 (Ac.Ft)


       ****************************HYDROGRAPH DATA****************************
                      Number of intervals =   402
                      Time interval =    5.0 (Min.)
                      Maximum/Peak flow rate =        0.196 (CFS)
                      Total volume =       0.261 (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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U n i t H y d r o g r a p h A n a l y s i s

Study date 08/02/22 File: A21626DMA3Q100UH110.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 10YR-1HR UH

Drainage Area = 1.42(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.42(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 440.21(Ft.)
Length along longest watercourse measured to centroid = 326.50(Ft.)
Length along longest watercourse = 0.083 Mi.
Length along longest watercourse measured to centroid = 0.062 Mi.
Difference in elevation = 6.70(Ft.)
Slope along watercourse = 80.3616 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.018 Hr.
Lag time = 1.10 Min.
25% of lag time = 0.27 Min.
40% of lag time = 0.44 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]
        1.42            0.48                    0.68

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.42            1.25                    1.77

STORM EVENT (YEAR) =   10.00
Area Averaged 2-Year Rainfall =    0.480(In)
Area Averaged 100-Year Rainfall =    1.250(In)

Point rain (area averaged) =    0.797(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    0.797(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.417           69.00         0.869
 Total Area Entered =      1.42(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-2     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  69.0      0.373     0.869        0.081       1.000      0.081
                                                 Sum (F) =   0.081
Area averaged mean soil loss (F) (In/Hr) =  0.081
Minimum soil loss rate ((In/Hr)) =  0.041
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.205
------------------------------------------------------------------------
Slope of intensity-duration curve for a 1 hour storm =0.4800
------------------------------------------------------------------------

                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        454.945         68.526              0.979
    2   0.167        909.890         31.474              0.449
                               Sum = 100.000   Sum=       1.428
-----------------------------------------------------------------
```

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	4.40	0.421	0.081	(0.086)	0.339
2	0.17	4.50	0.430	0.081	(0.088)	0.349
3	0.25	5.40	0.516	0.081	(0.106)	0.435
4	0.33	5.40	0.516	0.081	(0.106)	0.435
5	0.42	5.70	0.545	0.081	(0.112)	0.464
6	0.50	6.40	0.612	0.081	(0.125)	0.531
7	0.58	7.90	0.755	0.081	(0.155)	0.674
8	0.67	9.10	0.870	0.081	(0.178)	0.789
9	0.75	12.80	1.224	0.081	(0.251)	1.143
10	0.83	25.60	2.448	0.081	(0.502)	2.366
11	0.92	7.90	0.755	0.081	(0.155)	0.674
12	1.00	4.90	0.469	0.081	(0.096)	0.387
		(Loss Rate Not Used)				
	Sum =	100.0			Sum =	8.6

Flood volume = Effective rainfall 0.72(In)
times area 1.4(Ac.)/[(In)/(Ft.)] = 0.1(Ac.Ft)
Total soil loss = 0.08(In)
Total soil loss = 0.010(Ac.Ft)
Total rainfall = 0.80(In)
Flood volume = 3680.5 Cubic Feet
Total soil loss = 417.8 Cubic Feet

Peak flow rate of this hydrograph = 2.831(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	2.5	5.0	7.5	10.0
0+ 5	0.0023	0.33	Q				
0+10	0.0057	0.49	QV				
0+15	0.0097	0.58	Q V				
0+20	0.0140	0.62	Q V				
0+25	0.0185	0.65	Q V				
0+30	0.0235	0.73	Q V				
0+35	0.0297	0.90	Q V				
0+40	0.0371	1.08	Q V				
0+45	0.0472	1.47	Q V				
0+50	0.0667	2.83	Q V				
0+55	0.0786	1.72	Q V				
1+ 0	0.0833	0.68	Q V				

```
    1+ 5       0.0845      0.17  Q         |         |         |         V
-------------------------------------------------------------------------
```

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

Study date 08/02/22 File: A21626DMA3Q100UH310.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 10YR-3HR UH

Drainage Area = 1.42(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.42(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 440.21(Ft.)
Length along longest watercourse measured to centroid = 326.50(Ft.)
Length along longest watercourse = 0.083 Mi.
Length along longest watercourse measured to centroid = 0.062 Mi.
Difference in elevation = 6.70(Ft.)
Slope along watercourse = 80.3616 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.018 Hr.
Lag time = 1.10 Min.
25% of lag time = 0.27 Min.
40% of lag time = 0.44 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]
        1.42            0.80                  1.13

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.42            1.95                  2.76

STORM EVENT (YEAR) =   10.00
Area Averaged 2-Year Rainfall =    0.800(In)
Area Averaged 100-Year Rainfall =    1.950(In)

Point rain (area averaged) =    1.273(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.273(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.417           69.00         0.869
 Total Area Entered =      1.42(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-2     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  69.0      0.373     0.869        0.081       1.000      0.081
                                                 Sum (F) =   0.081
Area averaged mean soil loss (F) (In/Hr) =  0.081
Minimum soil loss rate ((In/Hr)) =  0.041
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.205
------------------------------------------------------------------------

               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        454.945         68.526              0.979
    2   0.167        909.890         31.474              0.449
                               Sum = 100.000   Sum=       1.428
------------------------------------------------------------------------

 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	0.199	(0.081)	0.041	0.158
2	0.17	1.30	0.199	(0.081)	0.041	0.158
3	0.25	1.10	0.168	(0.081)	0.034	0.134
4	0.33	1.50	0.229	(0.081)	0.047	0.182
5	0.42	1.50	0.229	(0.081)	0.047	0.182
6	0.50	1.80	0.275	(0.081)	0.056	0.219
7	0.58	1.50	0.229	(0.081)	0.047	0.182
8	0.67	1.80	0.275	(0.081)	0.056	0.219
9	0.75	1.80	0.275	(0.081)	0.056	0.219
10	0.83	1.50	0.229	(0.081)	0.047	0.182
11	0.92	1.60	0.244	(0.081)	0.050	0.194
12	1.00	1.80	0.275	(0.081)	0.056	0.219
13	1.08	2.20	0.336	(0.081)	0.069	0.267
14	1.17	2.20	0.336	(0.081)	0.069	0.267
15	1.25	2.20	0.336	(0.081)	0.069	0.267
16	1.33	2.00	0.306	(0.081)	0.063	0.243
17	1.42	2.60	0.397	0.081	(0.081)	0.316
18	1.50	2.70	0.412	0.081	(0.085)	0.331
19	1.58	2.40	0.367	(0.081)	0.075	0.291
20	1.67	2.70	0.412	0.081	(0.085)	0.331
21	1.75	3.30	0.504	0.081	(0.103)	0.423
22	1.83	3.10	0.474	0.081	(0.097)	0.392
23	1.92	2.90	0.443	0.081	(0.091)	0.362
24	2.00	3.00	0.458	0.081	(0.094)	0.377
25	2.08	3.10	0.474	0.081	(0.097)	0.392
26	2.17	4.20	0.642	0.081	(0.132)	0.560
27	2.25	5.00	0.764	0.081	(0.157)	0.683
28	2.33	3.50	0.535	0.081	(0.110)	0.453
29	2.42	6.80	1.039	0.081	(0.213)	0.958
30	2.50	7.30	1.115	0.081	(0.229)	1.034
31	2.58	8.20	1.253	0.081	(0.257)	1.172
32	2.67	5.90	0.901	0.081	(0.185)	0.820
33	2.75	2.00	0.306	(0.081)	0.063	0.243
34	2.83	1.80	0.275	(0.081)	0.056	0.219
35	2.92	1.80	0.275	(0.081)	0.056	0.219
36	3.00	0.60	0.092	(0.081)	0.019	0.073
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	12.9

Flood volume = Effective rainfall 1.08(In)
times area 1.4(Ac.)/[(In)/(Ft.)] = 0.1(Ac.Ft)
Total soil loss = 0.19(In)
Total soil loss = 0.023(Ac.Ft)
Total rainfall = 1.27(In)
Flood volume = 5547.0 Cubic Feet
Total soil loss = 1001.6 Cubic Feet

Peak flow rate of this hydrograph = 1.612(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	2.5	5.0	7.5	10.0
0+ 5	0.0011	0.15	Q				
0+10	0.0026	0.23	Q				
0+15	0.0040	0.20	QV				
0+20	0.0057	0.24	QV				
0+25	0.0074	0.26	QV				
0+30	0.0095	0.30	QV				
0+35	0.0114	0.28	Q V				
0+40	0.0134	0.30	Q V				
0+45	0.0156	0.31	Q V				
0+50	0.0175	0.28	Q V				
0+55	0.0194	0.27	Q V				
1+ 0	0.0214	0.30	Q V				
1+ 5	0.0239	0.36	Q V				
1+10	0.0265	0.38	Q V				
1+15	0.0292	0.38	Q V				
1+20	0.0316	0.36	Q V				
1+25	0.0345	0.42	Q V				
1+30	0.0377	0.47	Q V				
1+35	0.0407	0.43	Q V				
1+40	0.0439	0.46	Q V				
1+45	0.0477	0.56	Q V				
1+50	0.0517	0.57	Q V				
1+55	0.0553	0.53	Q V				
2+ 0	0.0590	0.53	Q V				
2+ 5	0.0628	0.55	Q V				
2+10	0.0678	0.73	Q V				
2+15	0.0742	0.92	Q V				
2+20	0.0793	0.75	Q V				
2+25	0.0872	1.14	Q V				
2+30	0.0971	1.44	Q V				
2+35	0.1082	1.61	Q V				
2+40	0.1174	1.33	Q V				
2+45	0.1216	0.61	Q V				
2+50	0.1238	0.32	Q V				
2+55	0.1259	0.31	Q V				
3+ 0	0.1271	0.17	Q V				
3+ 5	0.1273	0.03	Q V				

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

Study date 08/02/22 File: A21626DMA3Q100UH610.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 10YR-6HR UH

Drainage Area = 1.42(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.42(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 440.21(Ft.)
Length along longest watercourse measured to centroid = 326.50(Ft.)
Length along longest watercourse = 0.083 Mi.
Length along longest watercourse measured to centroid = 0.062 Mi.
Difference in elevation = 6.70(Ft.)
Slope along watercourse = 80.3616 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.018 Hr.
Lag time = 1.10 Min.
25% of lag time = 0.27 Min.
40% of lag time = 0.44 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]
        1.42            1.10                   1.56

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.42            2.70                   3.83

STORM EVENT (YEAR) =   10.00
Area Averaged 2-Year Rainfall =    1.100(In)
Area Averaged 100-Year Rainfall =    2.700(In)

Point rain (area averaged) =    1.758(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.758(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.417           69.00         0.869
 Total Area Entered =      1.42(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-2     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  69.0      0.373     0.869        0.081       1.000      0.081
                                                 Sum (F) =   0.081
Area averaged mean soil loss (F) (In/Hr) =  0.081
Minimum soil loss rate ((In/Hr)) =  0.041
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.205
------------------------------------------------------------------------

               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        454.945         68.526              0.979
    2   0.167        909.890         31.474              0.449
                               Sum = 100.000   Sum=       1.428
------------------------------------------------------------------------

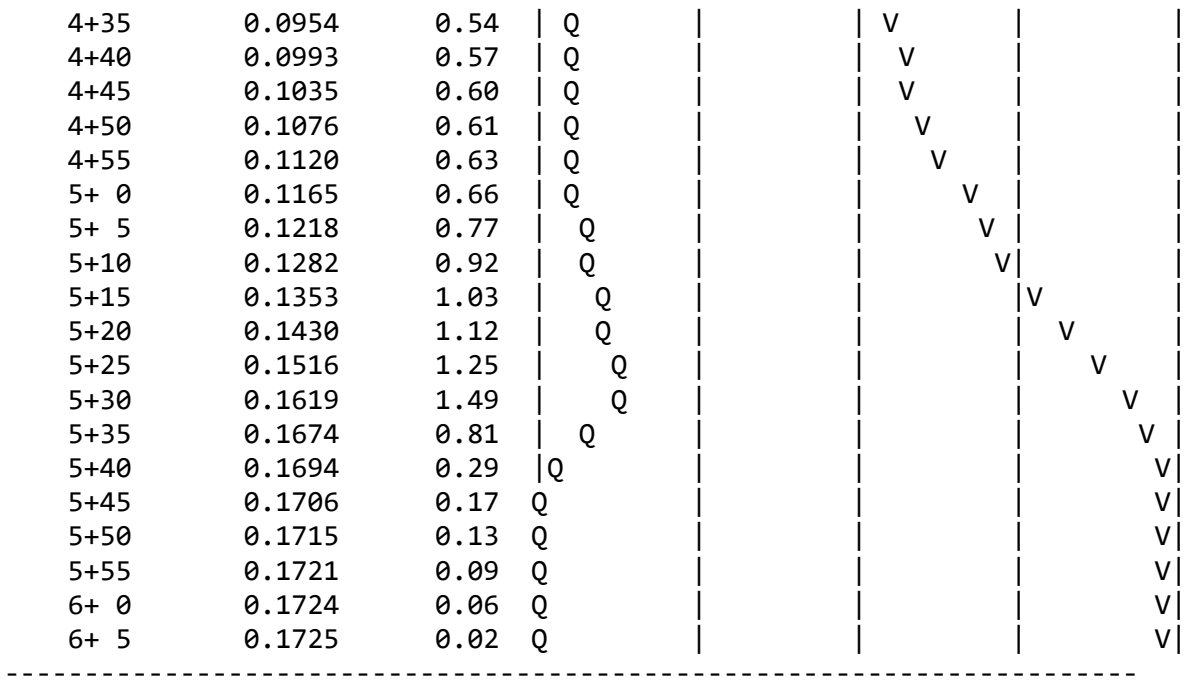
 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value
```

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.50	0.105	(0.081)	0.022	0.084
2	0.17	0.60	0.127	(0.081)	0.026	0.101
3	0.25	0.60	0.127	(0.081)	0.026	0.101
4	0.33	0.60	0.127	(0.081)	0.026	0.101
5	0.42	0.60	0.127	(0.081)	0.026	0.101
6	0.50	0.70	0.148	(0.081)	0.030	0.117
7	0.58	0.70	0.148	(0.081)	0.030	0.117
8	0.67	0.70	0.148	(0.081)	0.030	0.117
9	0.75	0.70	0.148	(0.081)	0.030	0.117
10	0.83	0.70	0.148	(0.081)	0.030	0.117
11	0.92	0.70	0.148	(0.081)	0.030	0.117
12	1.00	0.80	0.169	(0.081)	0.035	0.134
13	1.08	0.80	0.169	(0.081)	0.035	0.134
14	1.17	0.80	0.169	(0.081)	0.035	0.134
15	1.25	0.80	0.169	(0.081)	0.035	0.134
16	1.33	0.80	0.169	(0.081)	0.035	0.134
17	1.42	0.80	0.169	(0.081)	0.035	0.134
18	1.50	0.80	0.169	(0.081)	0.035	0.134
19	1.58	0.80	0.169	(0.081)	0.035	0.134
20	1.67	0.80	0.169	(0.081)	0.035	0.134
21	1.75	0.80	0.169	(0.081)	0.035	0.134
22	1.83	0.80	0.169	(0.081)	0.035	0.134
23	1.92	0.80	0.169	(0.081)	0.035	0.134
24	2.00	0.90	0.190	(0.081)	0.039	0.151
25	2.08	0.80	0.169	(0.081)	0.035	0.134
26	2.17	0.90	0.190	(0.081)	0.039	0.151
27	2.25	0.90	0.190	(0.081)	0.039	0.151
28	2.33	0.90	0.190	(0.081)	0.039	0.151
29	2.42	0.90	0.190	(0.081)	0.039	0.151
30	2.50	0.90	0.190	(0.081)	0.039	0.151
31	2.58	0.90	0.190	(0.081)	0.039	0.151
32	2.67	0.90	0.190	(0.081)	0.039	0.151
33	2.75	1.00	0.211	(0.081)	0.043	0.168
34	2.83	1.00	0.211	(0.081)	0.043	0.168
35	2.92	1.00	0.211	(0.081)	0.043	0.168
36	3.00	1.00	0.211	(0.081)	0.043	0.168
37	3.08	1.00	0.211	(0.081)	0.043	0.168
38	3.17	1.10	0.232	(0.081)	0.048	0.185
39	3.25	1.10	0.232	(0.081)	0.048	0.185
40	3.33	1.10	0.232	(0.081)	0.048	0.185
41	3.42	1.20	0.253	(0.081)	0.052	0.201
42	3.50	1.30	0.274	(0.081)	0.056	0.218
43	3.58	1.40	0.295	(0.081)	0.061	0.235
44	3.67	1.40	0.295	(0.081)	0.061	0.235
45	3.75	1.50	0.316	(0.081)	0.065	0.252
46	3.83	1.50	0.316	(0.081)	0.065	0.252
47	3.92	1.60	0.338	(0.081)	0.069	0.268

```
48   4.00     1.60      0.338       (  0.081)       0.069        0.268
49   4.08     1.70      0.359       (  0.081)       0.074        0.285
50   4.17     1.80      0.380       (  0.081)       0.078        0.302
51   4.25     1.90      0.401          0.081    (  0.082)        0.320
52   4.33     2.00      0.422          0.081    (  0.087)        0.341
53   4.42     2.10      0.443          0.081    (  0.091)        0.362
54   4.50     2.10      0.443          0.081    (  0.091)        0.362
55   4.58     2.20      0.464          0.081    (  0.095)        0.383
56   4.67     2.30      0.485          0.081    (  0.099)        0.404
57   4.75     2.40      0.506          0.081    (  0.104)        0.425
58   4.83     2.40      0.506          0.081    (  0.104)        0.425
59   4.92     2.50      0.527          0.081    (  0.108)        0.446
60   5.00     2.60      0.549          0.081    (  0.112)        0.467
61   5.08     3.10      0.654          0.081    (  0.134)        0.573
62   5.17     3.60      0.760          0.081    (  0.156)        0.678
63   5.25     3.90      0.823          0.081    (  0.169)        0.742
64   5.33     4.20      0.886          0.081    (  0.182)        0.805
65   5.42     4.70      0.992          0.081    (  0.203)        0.910
66   5.50     5.60      1.182          0.081    (  0.242)        1.100
67   5.58     1.90      0.401          0.081    (  0.082)        0.320
68   5.67     0.90      0.190       (  0.081)       0.039        0.151
69   5.75     0.60      0.127       (  0.081)       0.026        0.101
70   5.83     0.50      0.105       (  0.081)       0.022        0.084
71   5.92     0.30      0.063       (  0.081)       0.013        0.050
72   6.00     0.20      0.042       (  0.081)       0.009        0.034
               (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    17.5
      Flood volume = Effective rainfall      1.46(In)
       times area       1.4(Ac.)/[(In)/(Ft.)] =       0.2(Ac.Ft)
      Total soil loss =      0.30(In)
      Total soil loss =     0.035(Ac.Ft)
      Total rainfall =      1.76(In)
      Flood volume =        7515.7 Cubic Feet
      Total soil loss =        1528.2 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =      1.487(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        2.5       5.0       7.5      10.0
-------------------------------------------------------------------------
  0+ 5       0.0006      0.08  Q         |         |         |         |
  0+10       0.0015      0.14  Q         |         |         |         |
  0+15       0.0025      0.14  Q         |         |         |         |
  0+20       0.0035      0.14  Q         |         |         |         |
```

```
0+25       0.0045      0.14  QV        |         |         |         |
0+30       0.0056      0.16  QV        |         |         |         |
0+35       0.0067      0.17  QV        |         |         |         |
0+40       0.0079      0.17  QV        |         |         |         |
0+45       0.0090      0.17  Q V       |         |         |         |
0+50       0.0102      0.17  Q V       |         |         |         |
0+55       0.0114      0.17  Q V       |         |         |         |
1+ 0       0.0126      0.18  Q V       |         |         |         |
1+ 5       0.0139      0.19  Q  V      |         |         |         |
1+10       0.0153      0.19  Q  V      |         |         |         |
1+15       0.0166      0.19  Q  V      |         |         |         |
1+20       0.0179      0.19  Q   V     |         |         |         |
1+25       0.0192      0.19  Q   V     |         |         |         |
1+30       0.0205      0.19  Q   V     |         |         |         |
1+35       0.0219      0.19  Q    V    |         |         |         |
1+40       0.0232      0.19  Q    V    |         |         |         |
1+45       0.0245      0.19  Q    V    |         |         |         |
1+50       0.0258      0.19  Q    V    |         |         |         |
1+55       0.0271      0.19  Q     V   |         |         |         |
2+ 0       0.0286      0.21  Q     V   |         |         |         |
2+ 5       0.0300      0.20  Q     V   |         |         |         |
2+10       0.0314      0.21  Q      V  |         |         |         |
2+15       0.0329      0.22  Q      V  |         |         |         |
2+20       0.0344      0.22  Q      V  |         |         |         |
2+25       0.0358      0.22  Q       V |         |         |         |
2+30       0.0373      0.22  Q       V |         |         |         |
2+35       0.0388      0.22  Q       V |         |         |         |
2+40       0.0403      0.22  Q        V|         |         |         |
2+45       0.0419      0.23  Q        V|         |         |         |
2+50       0.0436      0.24  Q         V         |         |         |
2+55       0.0452      0.24  Q         V         |         |         |
3+ 0       0.0469      0.24  Q         V         |         |         |
3+ 5       0.0485      0.24  Q         |V        |         |         |
3+10       0.0503      0.26  |Q        |V        |         |         |
3+15       0.0521      0.26  |Q        | V       |         |         |
3+20       0.0539      0.26  |Q        | V       |         |         |
3+25       0.0558      0.28  |Q        | V       |         |         |
3+30       0.0579      0.30  |Q        |  V      |         |         |
3+35       0.0602      0.33  |Q        |  V      |         |         |
3+40       0.0625      0.34  |Q        |   V     |         |         |
3+45       0.0649      0.35  |Q        |    V    |         |         |
3+50       0.0674      0.36  |Q        |    V    |         |         |
3+55       0.0700      0.38  |Q        |     V   |         |         |
4+ 0       0.0726      0.38  |Q        |     V   |         |         |
4+ 5       0.0754      0.40  |Q        |      V  |         |         |
4+10       0.0783      0.42  |Q        |       V |         |         |
4+15       0.0814      0.45  |Q        |       V |         |         |
4+20       0.0847      0.48  |Q        |        V|         |         |
4+25       0.0882      0.51  | Q       |         V         |         |
4+30       0.0917      0.52  | Q       |         |V        |         |
```


4+35 0.0954 0.54
4+40 0.0993 0.57
4+45 0.1035 0.60
4+50 0.1076 0.61
4+55 0.1120 0.63
5+ 0 0.1165 0.66
5+ 5 0.1218 0.77
5+10 0.1282 0.92
5+15 0.1353 1.03
5+20 0.1430 1.12
5+25 0.1516 1.25
5+30 0.1619 1.49
5+35 0.1674 0.81
5+40 0.1694 0.29
5+45 0.1706 0.17
5+50 0.1715 0.13
5+55 0.1721 0.09
6+ 0 0.1724 0.06
6+ 5 0.1725 0.02

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

Study date 08/02/22 File: A21626DMA3Q100UH2410.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 10YR-24HR UH

Drainage Area = 1.42(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.42(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 440.21(Ft.)
Length along longest watercourse measured to centroid = 326.50(Ft.)
Length along longest watercourse = 0.083 Mi.
Length along longest watercourse measured to centroid = 0.062 Mi.
Difference in elevation = 6.70(Ft.)
Slope along watercourse = 80.3616 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.018 Hr.
Lag time = 1.10 Min.
25% of lag time = 0.27 Min.
40% of lag time = 0.44 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]
        1.42            1.90                  2.69

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.42            4.80                  6.80

STORM EVENT (YEAR) =   10.00
Area Averaged 2-Year Rainfall =    1.900(In)
Area Averaged 100-Year Rainfall =    4.800(In)

Point rain (area averaged) =    3.093(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    3.093(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.417           69.00         0.869
 Total Area Entered =      1.42(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-2     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  69.0      0.373     0.869        0.081       1.000      0.081
                                                 Sum (F) =   0.081
Area averaged mean soil loss (F) (In/Hr) =  0.081
Minimum soil loss rate ((In/Hr)) =  0.041
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.205
------------------------------------------------------------------------

               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        454.945         68.526              0.979
    2   0.167        909.890         31.474              0.449
                              Sum = 100.000   Sum=       1.428
------------------------------------------------------------------------

 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	0.025	(0.144)	0.005	0.020
2	0.17	0.07	0.025	(0.143)	0.005	0.020
3	0.25	0.07	0.025	(0.143)	0.005	0.020
4	0.33	0.10	0.037	(0.142)	0.008	0.030
5	0.42	0.10	0.037	(0.142)	0.008	0.030
6	0.50	0.10	0.037	(0.141)	0.008	0.030
7	0.58	0.10	0.037	(0.141)	0.008	0.030
8	0.67	0.10	0.037	(0.140)	0.008	0.030
9	0.75	0.10	0.037	(0.140)	0.008	0.030
10	0.83	0.13	0.049	(0.139)	0.010	0.039
11	0.92	0.13	0.049	(0.138)	0.010	0.039
12	1.00	0.13	0.049	(0.138)	0.010	0.039
13	1.08	0.10	0.037	(0.137)	0.008	0.030
14	1.17	0.10	0.037	(0.137)	0.008	0.030
15	1.25	0.10	0.037	(0.136)	0.008	0.030
16	1.33	0.10	0.037	(0.136)	0.008	0.030
17	1.42	0.10	0.037	(0.135)	0.008	0.030
18	1.50	0.10	0.037	(0.135)	0.008	0.030
19	1.58	0.10	0.037	(0.134)	0.008	0.030
20	1.67	0.10	0.037	(0.134)	0.008	0.030
21	1.75	0.10	0.037	(0.133)	0.008	0.030
22	1.83	0.13	0.049	(0.133)	0.010	0.039
23	1.92	0.13	0.049	(0.132)	0.010	0.039
24	2.00	0.13	0.049	(0.131)	0.010	0.039
25	2.08	0.13	0.049	(0.131)	0.010	0.039
26	2.17	0.13	0.049	(0.130)	0.010	0.039
27	2.25	0.13	0.049	(0.130)	0.010	0.039
28	2.33	0.13	0.049	(0.129)	0.010	0.039
29	2.42	0.13	0.049	(0.129)	0.010	0.039
30	2.50	0.13	0.049	(0.128)	0.010	0.039
31	2.58	0.17	0.062	(0.128)	0.013	0.049
32	2.67	0.17	0.062	(0.127)	0.013	0.049
33	2.75	0.17	0.062	(0.127)	0.013	0.049
34	2.83	0.17	0.062	(0.126)	0.013	0.049
35	2.92	0.17	0.062	(0.126)	0.013	0.049
36	3.00	0.17	0.062	(0.125)	0.013	0.049
37	3.08	0.17	0.062	(0.125)	0.013	0.049
38	3.17	0.17	0.062	(0.124)	0.013	0.049
39	3.25	0.17	0.062	(0.124)	0.013	0.049
40	3.33	0.17	0.062	(0.123)	0.013	0.049
41	3.42	0.17	0.062	(0.123)	0.013	0.049
42	3.50	0.17	0.062	(0.122)	0.013	0.049
43	3.58	0.17	0.062	(0.122)	0.013	0.049
44	3.67	0.17	0.062	(0.121)	0.013	0.049
45	3.75	0.17	0.062	(0.121)	0.013	0.049
46	3.83	0.20	0.074	(0.120)	0.015	0.059
47	3.92	0.20	0.074	(0.120)	0.015	0.059

48	4.00	0.20	0.074	(0.119)	0.015	0.059
49	4.08	0.20	0.074	(0.119)	0.015	0.059
50	4.17	0.20	0.074	(0.118)	0.015	0.059
51	4.25	0.20	0.074	(0.118)	0.015	0.059
52	4.33	0.23	0.087	(0.117)	0.018	0.069
53	4.42	0.23	0.087	(0.117)	0.018	0.069
54	4.50	0.23	0.087	(0.116)	0.018	0.069
55	4.58	0.23	0.087	(0.116)	0.018	0.069
56	4.67	0.23	0.087	(0.115)	0.018	0.069
57	4.75	0.23	0.087	(0.115)	0.018	0.069
58	4.83	0.27	0.099	(0.114)	0.020	0.079
59	4.92	0.27	0.099	(0.114)	0.020	0.079
60	5.00	0.27	0.099	(0.113)	0.020	0.079
61	5.08	0.20	0.074	(0.113)	0.015	0.059
62	5.17	0.20	0.074	(0.112)	0.015	0.059
63	5.25	0.20	0.074	(0.112)	0.015	0.059
64	5.33	0.23	0.087	(0.111)	0.018	0.069
65	5.42	0.23	0.087	(0.111)	0.018	0.069
66	5.50	0.23	0.087	(0.110)	0.018	0.069
67	5.58	0.27	0.099	(0.110)	0.020	0.079
68	5.67	0.27	0.099	(0.109)	0.020	0.079
69	5.75	0.27	0.099	(0.109)	0.020	0.079
70	5.83	0.27	0.099	(0.108)	0.020	0.079
71	5.92	0.27	0.099	(0.108)	0.020	0.079
72	6.00	0.27	0.099	(0.107)	0.020	0.079
73	6.08	0.30	0.111	(0.107)	0.023	0.089
74	6.17	0.30	0.111	(0.106)	0.023	0.089
75	6.25	0.30	0.111	(0.106)	0.023	0.089
76	6.33	0.30	0.111	(0.105)	0.023	0.089
77	6.42	0.30	0.111	(0.105)	0.023	0.089
78	6.50	0.30	0.111	(0.104)	0.023	0.089
79	6.58	0.33	0.124	(0.104)	0.025	0.098
80	6.67	0.33	0.124	(0.103)	0.025	0.098
81	6.75	0.33	0.124	(0.103)	0.025	0.098
82	6.83	0.33	0.124	(0.103)	0.025	0.098
83	6.92	0.33	0.124	(0.102)	0.025	0.098
84	7.00	0.33	0.124	(0.102)	0.025	0.098
85	7.08	0.33	0.124	(0.101)	0.025	0.098
86	7.17	0.33	0.124	(0.101)	0.025	0.098
87	7.25	0.33	0.124	(0.100)	0.025	0.098
88	7.33	0.37	0.136	(0.100)	0.028	0.108
89	7.42	0.37	0.136	(0.099)	0.028	0.108
90	7.50	0.37	0.136	(0.099)	0.028	0.108
91	7.58	0.40	0.148	(0.098)	0.030	0.118
92	7.67	0.40	0.148	(0.098)	0.030	0.118
93	7.75	0.40	0.148	(0.097)	0.030	0.118
94	7.83	0.43	0.161	(0.097)	0.033	0.128
95	7.92	0.43	0.161	(0.097)	0.033	0.128
96	8.00	0.43	0.161	(0.096)	0.033	0.128
97	8.08	0.50	0.186	(0.096)	0.038	0.148

98	8.17	0.50	0.186	(0.095)	0.038	0.148
99	8.25	0.50	0.186	(0.095)	0.038	0.148
100	8.33	0.50	0.186	(0.094)	0.038	0.148
101	8.42	0.50	0.186	(0.094)	0.038	0.148
102	8.50	0.50	0.186	(0.093)	0.038	0.148
103	8.58	0.53	0.198	(0.093)	0.041	0.157
104	8.67	0.53	0.198	(0.093)	0.041	0.157
105	8.75	0.53	0.198	(0.092)	0.041	0.157
106	8.83	0.57	0.210	(0.092)	0.043	0.167
107	8.92	0.57	0.210	(0.091)	0.043	0.167
108	9.00	0.57	0.210	(0.091)	0.043	0.167
109	9.08	0.63	0.235	(0.090)	0.048	0.187
110	9.17	0.63	0.235	(0.090)	0.048	0.187
111	9.25	0.63	0.235	(0.090)	0.048	0.187
112	9.33	0.67	0.247	(0.089)	0.051	0.197
113	9.42	0.67	0.247	(0.089)	0.051	0.197
114	9.50	0.67	0.247	(0.088)	0.051	0.197
115	9.58	0.70	0.260	(0.088)	0.053	0.207
116	9.67	0.70	0.260	(0.087)	0.053	0.207
117	9.75	0.70	0.260	(0.087)	0.053	0.207
118	9.83	0.73	0.272	(0.087)	0.056	0.216
119	9.92	0.73	0.272	(0.086)	0.056	0.216
120	10.00	0.73	0.272	(0.086)	0.056	0.216
121	10.08	0.50	0.186	(0.085)	0.038	0.148
122	10.17	0.50	0.186	(0.085)	0.038	0.148
123	10.25	0.50	0.186	(0.085)	0.038	0.148
124	10.33	0.50	0.186	(0.084)	0.038	0.148
125	10.42	0.50	0.186	(0.084)	0.038	0.148
126	10.50	0.50	0.186	(0.083)	0.038	0.148
127	10.58	0.67	0.247	(0.083)	0.051	0.197
128	10.67	0.67	0.247	(0.083)	0.051	0.197
129	10.75	0.67	0.247	(0.082)	0.051	0.197
130	10.83	0.67	0.247	(0.082)	0.051	0.197
131	10.92	0.67	0.247	(0.081)	0.051	0.197
132	11.00	0.67	0.247	(0.081)	0.051	0.197
133	11.08	0.63	0.235	(0.080)	0.048	0.187
134	11.17	0.63	0.235	(0.080)	0.048	0.187
135	11.25	0.63	0.235	(0.080)	0.048	0.187
136	11.33	0.63	0.235	(0.079)	0.048	0.187
137	11.42	0.63	0.235	(0.079)	0.048	0.187
138	11.50	0.63	0.235	(0.079)	0.048	0.187
139	11.58	0.57	0.210	(0.078)	0.043	0.167
140	11.67	0.57	0.210	(0.078)	0.043	0.167
141	11.75	0.57	0.210	(0.077)	0.043	0.167
142	11.83	0.60	0.223	(0.077)	0.046	0.177
143	11.92	0.60	0.223	(0.077)	0.046	0.177
144	12.00	0.60	0.223	(0.076)	0.046	0.177
145	12.08	0.83	0.309	(0.076)	0.063	0.246
146	12.17	0.83	0.309	(0.075)	0.063	0.246
147	12.25	0.83	0.309	(0.075)	0.063	0.246

148	12.33	0.87	0.322	(0.075)	0.066	0.256
149	12.42	0.87	0.322	(0.074)	0.066	0.256
150	12.50	0.87	0.322	(0.074)	0.066	0.256
151	12.58	0.93	0.346	(0.074)	0.071	0.275
152	12.67	0.93	0.346	(0.073)	0.071	0.275
153	12.75	0.93	0.346	(0.073)	0.071	0.275
154	12.83	0.97	0.359	0.072	(0.074)	0.286
155	12.92	0.97	0.359	0.072	(0.074)	0.287
156	13.00	0.97	0.359	0.072	(0.074)	0.287
157	13.08	1.13	0.421	0.071	(0.086)	0.349
158	13.17	1.13	0.421	0.071	(0.086)	0.350
159	13.25	1.13	0.421	0.071	(0.086)	0.350
160	13.33	1.13	0.421	0.070	(0.086)	0.350
161	13.42	1.13	0.421	0.070	(0.086)	0.351
162	13.50	1.13	0.421	0.070	(0.086)	0.351
163	13.58	0.77	0.285	(0.069)	0.058	0.226
164	13.67	0.77	0.285	(0.069)	0.058	0.226
165	13.75	0.77	0.285	(0.069)	0.058	0.226
166	13.83	0.77	0.285	(0.068)	0.058	0.226
167	13.92	0.77	0.285	(0.068)	0.058	0.226
168	14.00	0.77	0.285	(0.067)	0.058	0.226
169	14.08	0.90	0.334	0.067	(0.068)	0.267
170	14.17	0.90	0.334	0.067	(0.068)	0.267
171	14.25	0.90	0.334	0.066	(0.068)	0.268
172	14.33	0.87	0.322	(0.066)	0.066	0.256
173	14.42	0.87	0.322	0.066	(0.066)	0.256
174	14.50	0.87	0.322	0.065	(0.066)	0.256
175	14.58	0.87	0.322	0.065	(0.066)	0.257
176	14.67	0.87	0.322	0.065	(0.066)	0.257
177	14.75	0.87	0.322	0.064	(0.066)	0.257
178	14.83	0.83	0.309	(0.064)	0.063	0.246
179	14.92	0.83	0.309	(0.064)	0.063	0.246
180	15.00	0.83	0.309	(0.063)	0.063	0.246
181	15.08	0.80	0.297	(0.063)	0.061	0.236
182	15.17	0.80	0.297	(0.063)	0.061	0.236
183	15.25	0.80	0.297	(0.062)	0.061	0.236
184	15.33	0.77	0.285	(0.062)	0.058	0.226
185	15.42	0.77	0.285	(0.062)	0.058	0.226
186	15.50	0.77	0.285	(0.062)	0.058	0.226
187	15.58	0.63	0.235	(0.061)	0.048	0.187
188	15.67	0.63	0.235	(0.061)	0.048	0.187
189	15.75	0.63	0.235	(0.061)	0.048	0.187
190	15.83	0.63	0.235	(0.060)	0.048	0.187
191	15.92	0.63	0.235	(0.060)	0.048	0.187
192	16.00	0.63	0.235	(0.060)	0.048	0.187
193	16.08	0.13	0.049	(0.059)	0.010	0.039
194	16.17	0.13	0.049	(0.059)	0.010	0.039
195	16.25	0.13	0.049	(0.059)	0.010	0.039
196	16.33	0.13	0.049	(0.058)	0.010	0.039
197	16.42	0.13	0.049	(0.058)	0.010	0.039

198	16.50	0.13	0.049	(0.058)	0.010	0.039
199	16.58	0.10	0.037	(0.058)	0.008	0.030
200	16.67	0.10	0.037	(0.057)	0.008	0.030
201	16.75	0.10	0.037	(0.057)	0.008	0.030
202	16.83	0.10	0.037	(0.057)	0.008	0.030
203	16.92	0.10	0.037	(0.056)	0.008	0.030
204	17.00	0.10	0.037	(0.056)	0.008	0.030
205	17.08	0.17	0.062	(0.056)	0.013	0.049
206	17.17	0.17	0.062	(0.056)	0.013	0.049
207	17.25	0.17	0.062	(0.055)	0.013	0.049
208	17.33	0.17	0.062	(0.055)	0.013	0.049
209	17.42	0.17	0.062	(0.055)	0.013	0.049
210	17.50	0.17	0.062	(0.054)	0.013	0.049
211	17.58	0.17	0.062	(0.054)	0.013	0.049
212	17.67	0.17	0.062	(0.054)	0.013	0.049
213	17.75	0.17	0.062	(0.054)	0.013	0.049
214	17.83	0.13	0.049	(0.053)	0.010	0.039
215	17.92	0.13	0.049	(0.053)	0.010	0.039
216	18.00	0.13	0.049	(0.053)	0.010	0.039
217	18.08	0.13	0.049	(0.053)	0.010	0.039
218	18.17	0.13	0.049	(0.052)	0.010	0.039
219	18.25	0.13	0.049	(0.052)	0.010	0.039
220	18.33	0.13	0.049	(0.052)	0.010	0.039
221	18.42	0.13	0.049	(0.052)	0.010	0.039
222	18.50	0.13	0.049	(0.051)	0.010	0.039
223	18.58	0.10	0.037	(0.051)	0.008	0.030
224	18.67	0.10	0.037	(0.051)	0.008	0.030
225	18.75	0.10	0.037	(0.051)	0.008	0.030
226	18.83	0.07	0.025	(0.050)	0.005	0.020
227	18.92	0.07	0.025	(0.050)	0.005	0.020
228	19.00	0.07	0.025	(0.050)	0.005	0.020
229	19.08	0.10	0.037	(0.050)	0.008	0.030
230	19.17	0.10	0.037	(0.049)	0.008	0.030
231	19.25	0.10	0.037	(0.049)	0.008	0.030
232	19.33	0.13	0.049	(0.049)	0.010	0.039
233	19.42	0.13	0.049	(0.049)	0.010	0.039
234	19.50	0.13	0.049	(0.048)	0.010	0.039
235	19.58	0.10	0.037	(0.048)	0.008	0.030
236	19.67	0.10	0.037	(0.048)	0.008	0.030
237	19.75	0.10	0.037	(0.048)	0.008	0.030
238	19.83	0.07	0.025	(0.048)	0.005	0.020
239	19.92	0.07	0.025	(0.047)	0.005	0.020
240	20.00	0.07	0.025	(0.047)	0.005	0.020
241	20.08	0.10	0.037	(0.047)	0.008	0.030
242	20.17	0.10	0.037	(0.047)	0.008	0.030
243	20.25	0.10	0.037	(0.047)	0.008	0.030
244	20.33	0.10	0.037	(0.046)	0.008	0.030
245	20.42	0.10	0.037	(0.046)	0.008	0.030
246	20.50	0.10	0.037	(0.046)	0.008	0.030
247	20.58	0.10	0.037	(0.046)	0.008	0.030

248	20.67	0.10	0.037	(0.046)	0.008	0.030
249	20.75	0.10	0.037	(0.045)	0.008	0.030
250	20.83	0.07	0.025	(0.045)	0.005	0.020
251	20.92	0.07	0.025	(0.045)	0.005	0.020
252	21.00	0.07	0.025	(0.045)	0.005	0.020
253	21.08	0.10	0.037	(0.045)	0.008	0.030
254	21.17	0.10	0.037	(0.044)	0.008	0.030
255	21.25	0.10	0.037	(0.044)	0.008	0.030
256	21.33	0.07	0.025	(0.044)	0.005	0.020
257	21.42	0.07	0.025	(0.044)	0.005	0.020
258	21.50	0.07	0.025	(0.044)	0.005	0.020
259	21.58	0.10	0.037	(0.044)	0.008	0.030
260	21.67	0.10	0.037	(0.043)	0.008	0.030
261	21.75	0.10	0.037	(0.043)	0.008	0.030
262	21.83	0.07	0.025	(0.043)	0.005	0.020
263	21.92	0.07	0.025	(0.043)	0.005	0.020
264	22.00	0.07	0.025	(0.043)	0.005	0.020
265	22.08	0.10	0.037	(0.043)	0.008	0.030
266	22.17	0.10	0.037	(0.043)	0.008	0.030
267	22.25	0.10	0.037	(0.042)	0.008	0.030
268	22.33	0.07	0.025	(0.042)	0.005	0.020
269	22.42	0.07	0.025	(0.042)	0.005	0.020
270	22.50	0.07	0.025	(0.042)	0.005	0.020
271	22.58	0.07	0.025	(0.042)	0.005	0.020
272	22.67	0.07	0.025	(0.042)	0.005	0.020
273	22.75	0.07	0.025	(0.042)	0.005	0.020
274	22.83	0.07	0.025	(0.042)	0.005	0.020
275	22.92	0.07	0.025	(0.042)	0.005	0.020
276	23.00	0.07	0.025	(0.041)	0.005	0.020
277	23.08	0.07	0.025	(0.041)	0.005	0.020
278	23.17	0.07	0.025	(0.041)	0.005	0.020
279	23.25	0.07	0.025	(0.041)	0.005	0.020
280	23.33	0.07	0.025	(0.041)	0.005	0.020
281	23.42	0.07	0.025	(0.041)	0.005	0.020
282	23.50	0.07	0.025	(0.041)	0.005	0.020
283	23.58	0.07	0.025	(0.041)	0.005	0.020
284	23.67	0.07	0.025	(0.041)	0.005	0.020
285	23.75	0.07	0.025	(0.041)	0.005	0.020
286	23.83	0.07	0.025	(0.041)	0.005	0.020
287	23.92	0.07	0.025	(0.041)	0.005	0.020
288	24.00	0.07	0.025	(0.041)	0.005	0.020

(Loss Rate Not Used)

Sum = 100.0 Sum = 29.6

Flood volume = Effective rainfall 2.47(In)
times area 1.4(Ac.)/[(In)/(Ft.)] = 0.3(Ac.Ft)
Total soil loss = 0.63(In)
Total soil loss = 0.074(Ac.Ft)
Total rainfall = 3.09(In)
Flood volume = 12694.8 Cubic Feet
Total soil loss = 3215.1 Cubic Feet

Peak flow rate of this hydrograph = 0.501(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	2.5	5.0	7.5	10.0
0+ 5	0.0001	0.02	Q				
0+10	0.0003	0.03	Q				
0+15	0.0005	0.03	Q				
0+20	0.0008	0.04	Q				
0+25	0.0011	0.04	Q				
0+30	0.0014	0.04	Q				
0+35	0.0017	0.04	Q				
0+40	0.0019	0.04	Q				
0+45	0.0022	0.04	Q				
0+50	0.0026	0.05	Q				
0+55	0.0030	0.06	Q				
1+ 0	0.0034	0.06	Q				
1+ 5	0.0037	0.05	Q				
1+10	0.0040	0.04	Q				
1+15	0.0043	0.04	Q				
1+20	0.0046	0.04	Q				
1+25	0.0048	0.04	Q				
1+30	0.0051	0.04	Q				
1+35	0.0054	0.04	Q				
1+40	0.0057	0.04	Q				
1+45	0.0060	0.04	Q				
1+50	0.0064	0.05	Q				
1+55	0.0068	0.06	Q				
2+ 0	0.0071	0.06	Q				
2+ 5	0.0075	0.06	QV				
2+10	0.0079	0.06	QV				
2+15	0.0083	0.06	QV				
2+20	0.0087	0.06	QV				
2+25	0.0091	0.06	QV				
2+30	0.0095	0.06	QV				
2+35	0.0099	0.07	QV				
2+40	0.0104	0.07	QV				
2+45	0.0109	0.07	QV				
2+50	0.0114	0.07	QV				
2+55	0.0118	0.07	QV				
3+ 0	0.0123	0.07	QV				
3+ 5	0.0128	0.07	QV				
3+10	0.0133	0.07	QV				

3+15	0.0138	0.07	QV	|	|	|	|
3+20	0.0143	0.07	QV	|	|	|	|
3+25	0.0148	0.07	Q V	|	|	|	|
3+30	0.0152	0.07	Q V	|	|	|	|
3+35	0.0157	0.07	Q V	|	|	|	|
3+40	0.0162	0.07	Q V	|	|	|	|
3+45	0.0167	0.07	Q V	|	|	|	|
3+50	0.0172	0.08	Q V	|	|	|	|
3+55	0.0178	0.08	Q V	|	|	|	|
4+ 0	0.0184	0.08	Q V	|	|	|	|
4+ 5	0.0190	0.08	Q V	|	|	|	|
4+10	0.0196	0.08	Q V	|	|	|	|
4+15	0.0201	0.08	Q V	|	|	|	|
4+20	0.0208	0.09	Q V	|	|	|	|
4+25	0.0215	0.10	Q V	|	|	|	|
4+30	0.0221	0.10	Q V	|	|	|	|
4+35	0.0228	0.10	Q V	|	|	|	|
4+40	0.0235	0.10	Q V	|	|	|	|
4+45	0.0242	0.10	Q V	|	|	|	|
4+50	0.0249	0.11	Q V	|	|	|	|
4+55	0.0257	0.11	Q V	|	|	|	|
5+ 0	0.0265	0.11	Q V	|	|	|	|
5+ 5	0.0271	0.09	Q V	|	|	|	|
5+10	0.0277	0.08	Q V	|	|	|	|
5+15	0.0283	0.08	Q V	|	|	|	|
5+20	0.0289	0.09	Q V	|	|	|	|
5+25	0.0296	0.10	Q V	|	|	|	|
5+30	0.0303	0.10	Q V	|	|	|	|
5+35	0.0310	0.11	Q V	|	|	|	|
5+40	0.0318	0.11	Q V	|	|	|	|
5+45	0.0326	0.11	Q V	|	|	|	|
5+50	0.0333	0.11	Q V	|	|	|	|
5+55	0.0341	0.11	Q V	|	|	|	|
6+ 0	0.0349	0.11	Q V	|	|	|	|
6+ 5	0.0357	0.12	Q V	|	|	|	|
6+10	0.0366	0.13	Q V	|	|	|	|
6+15	0.0375	0.13	Q V	|	|	|	|
6+20	0.0383	0.13	Q V	|	|	|	|
6+25	0.0392	0.13	Q V	|	|	|	|
6+30	0.0401	0.13	Q V	|	|	|	|
6+35	0.0410	0.14	Q V	|	|	|	|
6+40	0.0420	0.14	Q V	|	|	|	|
6+45	0.0430	0.14	Q V	|	|	|	|
6+50	0.0439	0.14	Q V	|	|	|	|
6+55	0.0449	0.14	Q V	|	|	|	|
7+ 0	0.0459	0.14	Q V	|	|	|	|
7+ 5	0.0468	0.14	Q V	|	|	|	|
7+10	0.0478	0.14	Q V	|	|	|	|
7+15	0.0488	0.14	Q V	|	|	|	|
7+20	0.0498	0.15	Q V	|	|	|	|

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 7+25       0.0509      0.15  Q     V   |          |          |          |
 7+30       0.0519      0.15  Q      V  |          |          |          |
 7+35       0.0531      0.16  Q      V  |          |          |          |
 7+40       0.0542      0.17  Q      V  |          |          |          |
 7+45       0.0554      0.17  Q      V  |          |          |          |
 7+50       0.0566      0.18  Q      V  |          |          |          |
 7+55       0.0579      0.18  Q      V  |          |          |          |
 8+ 0       0.0591      0.18  Q       V |          |          |          |
 8+ 5       0.0605      0.20  Q       V |          |          |          |
 8+10       0.0620      0.21  Q       V |          |          |          |
 8+15       0.0634      0.21  Q       V |          |          |          |
 8+20       0.0649      0.21  Q       V |          |          |          |
 8+25       0.0663      0.21  Q        V|          |          |          |
 8+30       0.0678      0.21  Q        V|          |          |          |
 8+35       0.0693      0.22  Q        V|          |          |          |
 8+40       0.0708      0.22  Q        V|          |          |          |
 8+45       0.0724      0.22  Q        V|          |          |          |
 8+50       0.0740      0.23  Q         V          |          |          |
 8+55       0.0757      0.24  Q         V          |          |          |
 9+ 0       0.0773      0.24  Q         V          |          |          |
 9+ 5       0.0791      0.26  |Q        V          |          |          |
 9+10       0.0809      0.27  |Q        |V         |          |          |
 9+15       0.0828      0.27  |Q        |V         |          |          |
 9+20       0.0847      0.28  |Q        |V         |          |          |
 9+25       0.0866      0.28  |Q        |V         |          |          |
 9+30       0.0885      0.28  |Q        | V        |          |          |
 9+35       0.0905      0.29  |Q        | V        |          |          |
 9+40       0.0926      0.30  |Q        | V        |          |          |
 9+45       0.0946      0.30  |Q        | V        |          |          |
 9+50       0.0967      0.30  |Q        |  V       |          |          |
 9+55       0.0988      0.31  |Q        |  V       |          |          |
10+ 0       0.1010      0.31  |Q        |  V       |          |          |
10+ 5       0.1026      0.24  Q         |   V      |          |          |
10+10       0.1041      0.21  Q         |   V      |          |          |
10+15       0.1055      0.21  Q         |   V      |          |          |
10+20       0.1070      0.21  Q         |   V      |          |          |
10+25       0.1084      0.21  Q         |   V      |          |          |
10+30       0.1099      0.21  Q         |    V     |          |          |
10+35       0.1117      0.26  |Q        |    V     |          |          |
10+40       0.1136      0.28  |Q        |    V     |          |          |
10+45       0.1155      0.28  |Q        |    V     |          |          |
10+50       0.1175      0.28  |Q        |     V    |          |          |
10+55       0.1194      0.28  |Q        |     V    |          |          |
11+ 0       0.1213      0.28  |Q        |     V    |          |          |
11+ 5       0.1232      0.27  |Q        |     V    |          |          |
11+10       0.1251      0.27  |Q        |      V   |          |          |
11+15       0.1269      0.27  |Q        |      V   |          |          |
11+20       0.1287      0.27  |Q        |      V   |          |          |
11+25       0.1306      0.27  |Q        |      V   |          |          |
11+30       0.1324      0.27  |Q        |       V  |          |          |
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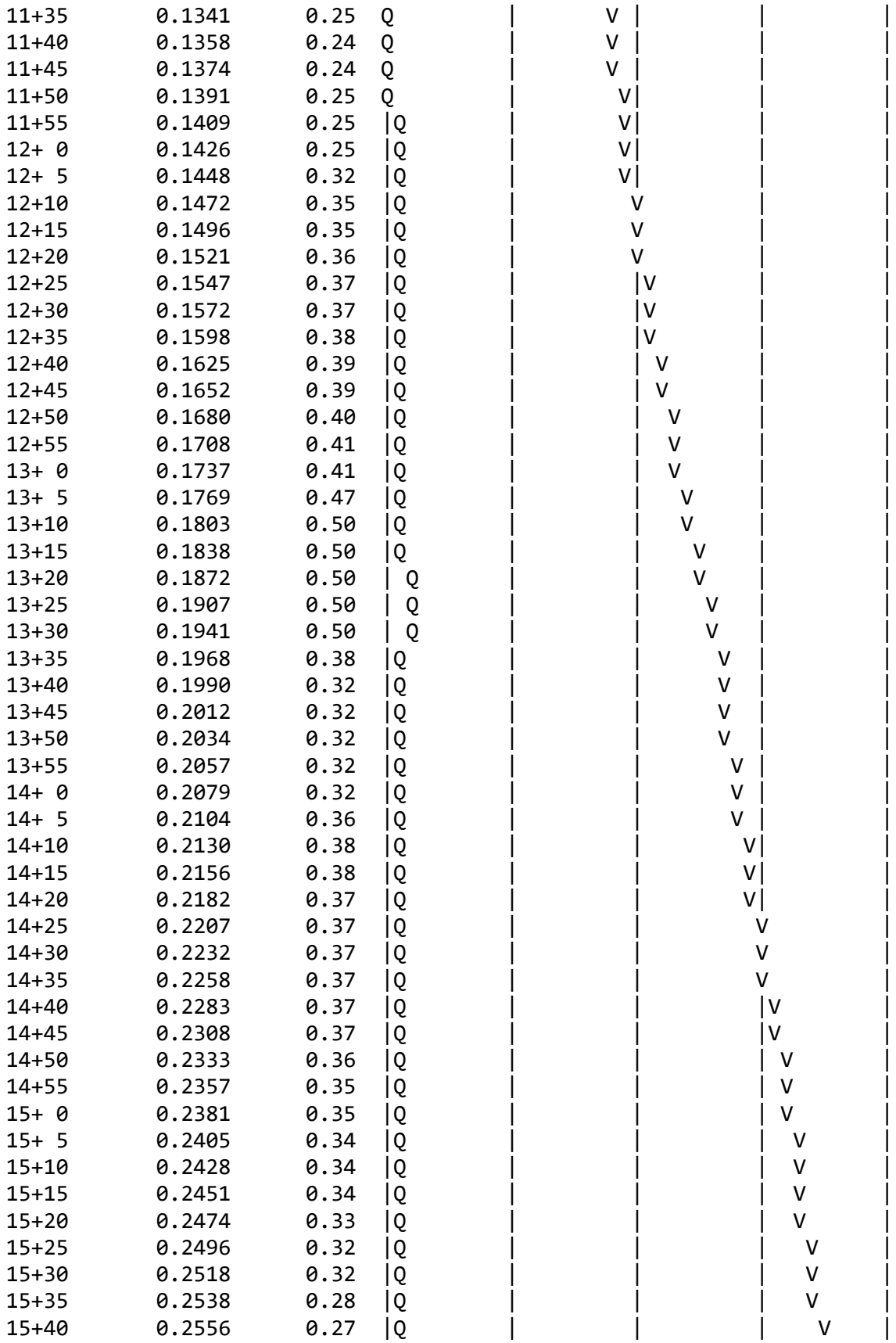
11+35 0.1341 0.25
11+40 0.1358 0.24
11+45 0.1374 0.24
11+50 0.1391 0.25
11+55 0.1409 0.25
12+ 0 0.1426 0.25
12+ 5 0.1448 0.32
12+10 0.1472 0.35
12+15 0.1496 0.35
12+20 0.1521 0.36
12+25 0.1547 0.37
12+30 0.1572 0.37
12+35 0.1598 0.38
12+40 0.1625 0.39
12+45 0.1652 0.39
12+50 0.1680 0.40
12+55 0.1708 0.41
13+ 0 0.1737 0.41
13+ 5 0.1769 0.47
13+10 0.1803 0.50
13+15 0.1838 0.50
13+20 0.1872 0.50
13+25 0.1907 0.50
13+30 0.1941 0.50
13+35 0.1968 0.38
13+40 0.1990 0.32
13+45 0.2012 0.32
13+50 0.2034 0.32
13+55 0.2057 0.32
14+ 0 0.2079 0.32
14+ 5 0.2104 0.36
14+10 0.2130 0.38
14+15 0.2156 0.38
14+20 0.2182 0.37
14+25 0.2207 0.37
14+30 0.2232 0.37
14+35 0.2258 0.37
14+40 0.2283 0.37
14+45 0.2308 0.37
14+50 0.2333 0.36
14+55 0.2357 0.35
15+ 0 0.2381 0.35
15+ 5 0.2405 0.34
15+10 0.2428 0.34
15+15 0.2451 0.34
15+20 0.2474 0.33
15+25 0.2496 0.32
15+30 0.2518 0.32
15+35 0.2538 0.28
15+40 0.2556 0.27

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15+45       0.2575      0.27  |Q        |         |         |    V    |
15+50       0.2593      0.27  |Q        |         |         |    V    |
15+55       0.2611      0.27  |Q        |         |         |    V    |
16+ 0       0.2630      0.27  |Q        |         |         |     V   |
16+ 5       0.2638      0.12  Q         |         |         |     V   |
16+10       0.2642      0.06  Q         |         |         |     V   |
16+15       0.2646      0.06  Q         |         |         |     V   |
16+20       0.2650      0.06  Q         |         |         |     V   |
16+25       0.2654      0.06  Q         |         |         |     V   |
16+30       0.2658      0.06  Q         |         |         |     V   |
16+35       0.2661      0.05  Q         |         |         |     V   |
16+40       0.2664      0.04  Q         |         |         |     V   |
16+45       0.2667      0.04  Q         |         |         |     V   |
16+50       0.2669      0.04  Q         |         |         |     V   |
16+55       0.2672      0.04  Q         |         |         |     V   |
17+ 0       0.2675      0.04  Q         |         |         |     V   |
17+ 5       0.2680      0.06  Q         |         |         |     V   |
17+10       0.2684      0.07  Q         |         |         |     V   |
17+15       0.2689      0.07  Q         |         |         |     V   |
17+20       0.2694      0.07  Q         |         |         |     V   |
17+25       0.2699      0.07  Q         |         |         |      V  |
17+30       0.2704      0.07  Q         |         |         |      V  |
17+35       0.2709      0.07  Q         |         |         |      V  |
17+40       0.2713      0.07  Q         |         |         |      V  |
17+45       0.2718      0.07  Q         |         |         |      V  |
17+50       0.2722      0.06  Q         |         |         |      V  |
17+55       0.2726      0.06  Q         |         |         |      V  |
18+ 0       0.2730      0.06  Q         |         |         |      V  |
18+ 5       0.2734      0.06  Q         |         |         |      V  |
18+10       0.2738      0.06  Q         |         |         |      V  |
18+15       0.2742      0.06  Q         |         |         |      V  |
18+20       0.2746      0.06  Q         |         |         |      V  |
18+25       0.2750      0.06  Q         |         |         |      V  |
18+30       0.2753      0.06  Q         |         |         |      V  |
18+35       0.2757      0.05  Q         |         |         |      V  |
18+40       0.2760      0.04  Q         |         |         |      V  |
18+45       0.2762      0.04  Q         |         |         |      V  |
18+50       0.2765      0.03  Q         |         |         |      V  |
18+55       0.2767      0.03  Q         |         |         |      V  |
19+ 0       0.2769      0.03  Q         |         |         |      V  |
19+ 5       0.2771      0.04  Q         |         |         |       V |
19+10       0.2774      0.04  Q         |         |         |       V |
19+15       0.2777      0.04  Q         |         |         |       V |
19+20       0.2780      0.05  Q         |         |         |       V |
19+25       0.2784      0.06  Q         |         |         |       V |
19+30       0.2788      0.06  Q         |         |         |       V |
19+35       0.2791      0.05  Q         |         |         |       V |
19+40       0.2794      0.04  Q         |         |         |       V |
19+45       0.2797      0.04  Q         |         |         |       V |
19+50       0.2799      0.03  Q         |         |         |       V |
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19+55	0.2801	0.03	Q	|	|	|	V |
20+ 0	0.2803	0.03	Q	|	|	|	V |
20+ 5	0.2806	0.04	Q	|	|	|	V |
20+10	0.2809	0.04	Q	|	|	|	V |
20+15	0.2812	0.04	Q	|	|	|	V |
20+20	0.2815	0.04	Q	|	|	|	V |
20+25	0.2818	0.04	Q	|	|	|	V |
20+30	0.2820	0.04	Q	|	|	|	V |
20+35	0.2823	0.04	Q	|	|	|	V |
20+40	0.2826	0.04	Q	|	|	|	V |
20+45	0.2829	0.04	Q	|	|	|	V |
20+50	0.2831	0.03	Q	|	|	|	V |
20+55	0.2833	0.03	Q	|	|	|	V |
21+ 0	0.2835	0.03	Q	|	|	|	V |
21+ 5	0.2838	0.04	Q	|	|	|	V |
21+10	0.2841	0.04	Q	|	|	|	V |
21+15	0.2844	0.04	Q	|	|	|	V|
21+20	0.2846	0.03	Q	|	|	|	V|
21+25	0.2848	0.03	Q	|	|	|	V|
21+30	0.2850	0.03	Q	|	|	|	V|
21+35	0.2852	0.04	Q	|	|	|	V|
21+40	0.2855	0.04	Q	|	|	|	V|
21+45	0.2858	0.04	Q	|	|	|	V|
21+50	0.2860	0.03	Q	|	|	|	V|
21+55	0.2862	0.03	Q	|	|	|	V|
22+ 0	0.2864	0.03	Q	|	|	|	V|
22+ 5	0.2867	0.04	Q	|	|	|	V|
22+10	0.2870	0.04	Q	|	|	|	V|
22+15	0.2873	0.04	Q	|	|	|	V|
22+20	0.2875	0.03	Q	|	|	|	V|
22+25	0.2877	0.03	Q	|	|	|	V|
22+30	0.2879	0.03	Q	|	|	|	V|
22+35	0.2881	0.03	Q	|	|	|	V|
22+40	0.2883	0.03	Q	|	|	|	V|
22+45	0.2885	0.03	Q	|	|	|	V|
22+50	0.2887	0.03	Q	|	|	|	V|
22+55	0.2889	0.03	Q	|	|	|	V|
23+ 0	0.2890	0.03	Q	|	|	|	V|
23+ 5	0.2892	0.03	Q	|	|	|	V|
23+10	0.2894	0.03	Q	|	|	|	V|
23+15	0.2896	0.03	Q	|	|	|	V|
23+20	0.2898	0.03	Q	|	|	|	V|
23+25	0.2900	0.03	Q	|	|	|	V|
23+30	0.2902	0.03	Q	|	|	|	V|
23+35	0.2904	0.03	Q	|	|	|	V|
23+40	0.2906	0.03	Q	|	|	|	V|
23+45	0.2908	0.03	Q	|	|	|	V|
23+50	0.2910	0.03	Q	|	|	|	V|
23+55	0.2912	0.03	Q	|	|	|	V|
24+ 0	0.2914	0.03	Q	|	|	|	V|

```
   24+ 5       0.2914      0.01  Q         |         |         |         V
-------------------------------------------------------------------------
```

DMA 3 Proposed 100-Year

FLOOD HYDROGRAPH ROUTING PROGRAM

Study date: 08/24/22

A21626 DMA 3 100YR-1HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA3Q100UH1100.rte
**********HYDROGRAPH DATA**********
Number of intervals = 13
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 4.563 (CFS)
Total volume = 0.143 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
_____

Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)

------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 13
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      0.030      0.000      0.030        0.030
  1.000      0.065      0.196      0.064        0.066
  1.500      0.106      0.196      0.105        0.107
  2.000      0.152      0.196      0.151        0.153
  2.500      0.204      0.196      0.203        0.205
  3.000      0.262      0.196      0.261        0.263
  3.500      0.326      4.639      0.310        0.342
------------------------------------------------------------------------
                Hydrograph Detention Basin Routing
------------------------------------------------------------------------

Graph values: 'I'= unit inflow; 'O'=outflow at time shown
------------------------------------------------------------------------
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Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	1.1	2.28	3.42	4.56	Depth (Ft.)
0.083	0.60	0.00	0.002	O I	|	|	|	|	0.03
0.167	0.90	0.00	0.007	O I	|	|	|	|	0.12
0.250	1.04	0.00	0.014	O I	|	|	|	|	0.23
0.333	1.10	0.00	0.021	O I	|	|	|	|	0.35
0.417	1.14	0.00	0.029	O I	|	|	|	|	0.48
0.500	1.26	0.04	0.037	O I	|	|	|	|	0.60
0.583	1.53	0.09	0.046	O | I	|	|	|	|	0.73
0.667	1.81	0.15	0.057	|O | I	|	|	|	|	0.89
0.750	2.43	0.20	0.070	|O |	| I	|	|	|	1.07
0.833	4.56	0.20	0.093	|O |	|	|	|	| I	1.34
0.917	2.83	0.20	0.117	|O |	| I	|	|	|	1.62
1.000	1.19	0.20	0.130	|O I	|	|	|	|	1.76
1.083	0.31	0.20	0.134	|OI	|	|	|	|	1.80
1.167	0.00	0.20	0.133	IO	|	|	|	|	1.80
1.250	0.00	0.20	0.132	IO	|	|	|	|	1.78
1.333	0.00	0.20	0.131	IO	|	|	|	|	1.77
1.417	0.00	0.20	0.129	IO	|	|	|	|	1.75
1.500	0.00	0.20	0.128	IO	|	|	|	|	1.74
1.583	0.00	0.20	0.126	IO	|	|	|	|	1.72
1.667	0.00	0.20	0.125	IO	|	|	|	|	1.71
1.750	0.00	0.20	0.124	IO	|	|	|	|	1.69
1.833	0.00	0.20	0.122	IO	|	|	|	|	1.68
1.917	0.00	0.20	0.121	IO	|	|	|	|	1.66
2.000	0.00	0.20	0.120	IO	|	|	|	|	1.65
2.083	0.00	0.20	0.118	IO	|	|	|	|	1.63
2.167	0.00	0.20	0.117	IO	|	|	|	|	1.62
2.250	0.00	0.20	0.116	IO	|	|	|	|	1.60
2.333	0.00	0.20	0.114	IO	|	|	|	|	1.59
2.417	0.00	0.20	0.113	IO	|	|	|	|	1.58
2.500	0.00	0.20	0.112	IO	|	|	|	|	1.56
2.583	0.00	0.20	0.110	IO	|	|	|	|	1.55
2.667	0.00	0.20	0.109	IO	|	|	|	|	1.53
2.750	0.00	0.20	0.108	IO	|	|	|	|	1.52
2.833	0.00	0.20	0.106	IO	|	|	|	|	1.50
2.917	0.00	0.20	0.105	IO	|	|	|	|	1.49
3.000	0.00	0.20	0.103	IO	|	|	|	|	1.47
3.083	0.00	0.20	0.102	IO	|	|	|	|	1.45
3.167	0.00	0.20	0.101	IO	|	|	|	|	1.44
3.250	0.00	0.20	0.099	IO	|	|	|	|	1.42
3.333	0.00	0.20	0.098	IO	|	|	|	|	1.40
3.417	0.00	0.20	0.097	IO	|	|	|	|	1.39
3.500	0.00	0.20	0.095	IO	|	|	|	|	1.37
3.583	0.00	0.20	0.094	IO	|	|	|	|	1.35
3.667	0.00	0.20	0.093	IO	|	|	|	|	1.34
3.750	0.00	0.20	0.091	IO	|	|	|	|	1.32
3.833	0.00	0.20	0.090	IO	|	|	|	|	1.30
3.917	0.00	0.20	0.089	IO	|	|	|	|	1.29
4.000	0.00	0.20	0.087	IO	|	|	|	|	1.27

4.083	0.00	0.20	0.086	IO				1.25
4.167	0.00	0.20	0.085	IO				1.24
4.250	0.00	0.20	0.083	IO				1.22
4.333	0.00	0.20	0.082	IO				1.21
4.417	0.00	0.20	0.080	IO				1.19
4.500	0.00	0.20	0.079	IO				1.17
4.583	0.00	0.20	0.078	IO				1.16
4.667	0.00	0.20	0.076	IO				1.14
4.750	0.00	0.20	0.075	IO				1.12
4.833	0.00	0.20	0.074	IO				1.11
4.917	0.00	0.20	0.072	IO				1.09
5.000	0.00	0.20	0.071	IO				1.07
5.083	0.00	0.20	0.070	IO				1.06
5.167	0.00	0.20	0.068	IO				1.04
5.250	0.00	0.20	0.067	IO				1.02
5.333	0.00	0.20	0.066	IO				1.01
5.417	0.00	0.19	0.064	IO				0.99
5.500	0.00	0.19	0.063	IO				0.97
5.583	0.00	0.18	0.062	IO				0.95
5.667	0.00	0.17	0.061	IO				0.94
5.750	0.00	0.16	0.059	IO				0.92
5.833	0.00	0.16	0.058	IO				0.90
5.917	0.00	0.15	0.057	IO				0.89
6.000	0.00	0.15	0.056	IO				0.87
6.083	0.00	0.14	0.055	O				0.86
6.167	0.00	0.14	0.054	O				0.85
6.250	0.00	0.13	0.053	O				0.83
6.333	0.00	0.13	0.052	O				0.82
6.417	0.00	0.12	0.052	O				0.81
6.500	0.00	0.12	0.051	O				0.80
6.583	0.00	0.11	0.050	O				0.79
6.667	0.00	0.11	0.049	O				0.77
6.750	0.00	0.10	0.048	O				0.76
6.833	0.00	0.10	0.048	O				0.75
6.917	0.00	0.10	0.047	O				0.74
7.000	0.00	0.09	0.046	O				0.74
7.083	0.00	0.09	0.046	O				0.73
7.167	0.00	0.09	0.045	O				0.72
7.250	0.00	0.08	0.045	O				0.71
7.333	0.00	0.08	0.044	O				0.70
7.417	0.00	0.08	0.044	O				0.69
7.500	0.00	0.07	0.043	O				0.69
7.583	0.00	0.07	0.043	O				0.68
7.667	0.00	0.07	0.042	O				0.67
7.750	0.00	0.07	0.042	O				0.67
7.833	0.00	0.06	0.041	O				0.66
7.917	0.00	0.06	0.041	O				0.65
8.000	0.00	0.06	0.040	O				0.65
8.083	0.00	0.06	0.040	O				0.64
8.167	0.00	0.05	0.040	O				0.64

8.250	0.00	0.05	0.039	O				0.63
8.333	0.00	0.05	0.039	O				0.63
8.417	0.00	0.05	0.039	O				0.62
8.500	0.00	0.05	0.038	O				0.62
8.583	0.00	0.04	0.038	O				0.61
8.667	0.00	0.04	0.038	O				0.61
8.750	0.00	0.04	0.037	O				0.60
8.833	0.00	0.04	0.037	O				0.60
8.917	0.00	0.04	0.037	O				0.60
9.000	0.00	0.04	0.037	O				0.59
9.083	0.00	0.04	0.036	O				0.59
9.167	0.00	0.03	0.036	O				0.59
9.250	0.00	0.03	0.036	O				0.58
9.333	0.00	0.03	0.036	O				0.58
9.417	0.00	0.03	0.035	O				0.58
9.500	0.00	0.03	0.035	O				0.57
9.583	0.00	0.03	0.035	O				0.57
9.667	0.00	0.03	0.035	O				0.57
9.750	0.00	0.03	0.035	O				0.57
9.833	0.00	0.02	0.034	O				0.56
9.917	0.00	0.02	0.034	O				0.56
10.000	0.00	0.02	0.034	O				0.56
10.083	0.00	0.02	0.034	O				0.56
10.167	0.00	0.02	0.034	O				0.55
10.250	0.00	0.02	0.034	O				0.55
10.333	0.00	0.02	0.034	O				0.55
10.417	0.00	0.02	0.033	O				0.55
10.500	0.00	0.02	0.033	O				0.55
10.583	0.00	0.02	0.033	O				0.54
10.667	0.00	0.02	0.033	O				0.54
10.750	0.00	0.02	0.033	O				0.54
10.833	0.00	0.02	0.033	O				0.54
10.917	0.00	0.02	0.033	O				0.54
11.000	0.00	0.01	0.033	O				0.54
11.083	0.00	0.01	0.032	O				0.54
11.167	0.00	0.01	0.032	O				0.53
11.250	0.00	0.01	0.032	O				0.53
11.333	0.00	0.01	0.032	O				0.53
11.417	0.00	0.01	0.032	O				0.53
11.500	0.00	0.01	0.032	O				0.53
11.583	0.00	0.01	0.032	O				0.53
11.667	0.00	0.01	0.032	O				0.53
11.750	0.00	0.01	0.032	O				0.53
11.833	0.00	0.01	0.032	O				0.52
11.917	0.00	0.01	0.032	O				0.52
12.000	0.00	0.01	0.032	O				0.52
12.083	0.00	0.01	0.032	O				0.52
12.167	0.00	0.01	0.031	O				0.52
12.250	0.00	0.01	0.031	O				0.52
12.333	0.00	0.01	0.031	O				0.52

12.417	0.00	0.01	0.031	O	|	|	|	0.52
12.500	0.00	0.01	0.031	O	|	|	|	0.52
12.583	0.00	0.01	0.031	O	|	|	|	0.52
12.667	0.00	0.01	0.031	O	|	|	|	0.52
12.750	0.00	0.01	0.031	O	|	|	|	0.52
12.833	0.00	0.01	0.031	O	|	|	|	0.52
12.917	0.00	0.01	0.031	O	|	|	|	0.52
13.000	0.00	0.01	0.031	O	|	|	|	0.51
13.083	0.00	0.01	0.031	O	|	|	|	0.51
13.167	0.00	0.01	0.031	O	|	|	|	0.51
13.250	0.00	0.01	0.031	O	|	|	|	0.51
13.333	0.00	0.00	0.031	O	|	|	|	0.51
13.417	0.00	0.00	0.031	O	|	|	|	0.51
13.500	0.00	0.00	0.031	O	|	|	|	0.51
13.583	0.00	0.00	0.031	O	|	|	|	0.51
13.667	0.00	0.00	0.031	O	|	|	|	0.51
13.750	0.00	0.00	0.031	O	|	|	|	0.51
13.833	0.00	0.00	0.031	O	|	|	|	0.51
13.917	0.00	0.00	0.031	O	|	|	|	0.51
14.000	0.00	0.00	0.031	O	|	|	|	0.51
14.083	0.00	0.00	0.031	O	|	|	|	0.51
14.167	0.00	0.00	0.031	O	|	|	|	0.51
14.250	0.00	0.00	0.031	O	|	|	|	0.51
14.333	0.00	0.00	0.031	O	|	|	|	0.51
14.417	0.00	0.00	0.031	O	|	|	|	0.51
14.500	0.00	0.00	0.031	O	|	|	|	0.51
14.583	0.00	0.00	0.030	O	|	|	|	0.51
14.667	0.00	0.00	0.030	O	|	|	|	0.51
14.750	0.00	0.00	0.030	O	|	|	|	0.51
14.833	0.00	0.00	0.030	O	|	|	|	0.51
14.917	0.00	0.00	0.030	O	|	|	|	0.51
15.000	0.00	0.00	0.030	O	|	|	|	0.51
15.083	0.00	0.00	0.030	O	|	|	|	0.51
15.167	0.00	0.00	0.030	O	|	|	|	0.51
15.250	0.00	0.00	0.030	O	|	|	|	0.51
15.333	0.00	0.00	0.030	O	|	|	|	0.50
15.417	0.00	0.00	0.030	O	|	|	|	0.50
15.500	0.00	0.00	0.030	O	|	|	|	0.50
15.583	0.00	0.00	0.030	O	|	|	|	0.50
15.667	0.00	0.00	0.030	O	|	|	|	0.50
15.750	0.00	0.00	0.030	O	|	|	|	0.50
15.833	0.00	0.00	0.030	O	|	|	|	0.50
15.917	0.00	0.00	0.030	O	|	|	|	0.50
16.000	0.00	0.00	0.030	O	|	|	|	0.50
16.083	0.00	0.00	0.030	O	|	|	|	0.50
16.167	0.00	0.00	0.030	O	|	|	|	0.50
16.250	0.00	0.00	0.030	O	|	|	|	0.50
16.333	0.00	0.00	0.030	O	|	|	|	0.50
16.417	0.00	0.00	0.030	O	|	|	|	0.50
16.500	0.00	0.00	0.030	O	|	|	|	0.50

```
16.583    0.00    0.00      0.030  O       |       |       |       |     0.50
16.667    0.00    0.00      0.030  O       |       |       |       |     0.50
16.750    0.00    0.00      0.030  O       |       |       |       |     0.50
16.833    0.00    0.00      0.030  O       |       |       |       |     0.50

       Remaining water in basin =    0.03 (Ac.Ft)


       ****************************HYDROGRAPH DATA****************************
                      Number of intervals =   202
                      Time interval =    5.0 (Min.)
                      Maximum/Peak flow rate =        0.196 (CFS)
                      Total volume =       0.112 (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

Study date: 08/24/22

A21626 DMA 3 100YR-3HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA3Q100UH3100.rte
**********HYDROGRAPH DATA**********
Number of intervals = 37
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 2.587 (CFS)
Total volume = 0.215 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
_____

Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)

------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 37
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      0.030      0.000      0.030        0.030
  1.000      0.065      0.196      0.064        0.066
  1.500      0.106      0.196      0.105        0.107
  2.000      0.152      0.196      0.151        0.153
  2.500      0.204      0.196      0.203        0.205
  3.000      0.262      0.196      0.261        0.263
  3.500      0.326      4.639      0.310        0.342
------------------------------------------------------------------------
                Hydrograph Detention Basin Routing
------------------------------------------------------------------------

Graph values: 'I'= unit inflow; 'O'=outflow at time shown
------------------------------------------------------------------------
```

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.6	1.29	1.94	2.59	Depth (Ft.)
0.083	0.26	0.00	0.001	O I	|	|	|	|	0.01
0.167	0.37	0.00	0.003	O I	|	|	|	|	0.05
0.250	0.33	0.00	0.005	O I	|	|	|	|	0.09
0.333	0.40	0.00	0.008	O I	|	|	|	|	0.13
0.417	0.44	0.00	0.011	O I	|	|	|	|	0.18
0.500	0.51	0.00	0.014	O I	|	|	|	|	0.24
0.583	0.47	0.00	0.018	O I	|	|	|	|	0.29
0.667	0.51	0.00	0.021	O I	|	|	|	|	0.35
0.750	0.54	0.00	0.025	O I	|	|	|	|	0.41
0.833	0.47	0.00	0.028	O I	|	|	|	|	0.47
0.917	0.46	0.01	0.031	O I	|	|	|	|	0.52
1.000	0.52	0.03	0.035	O I	|	|	|	|	0.56
1.083	0.63	0.05	0.038	O I	|	|	|	|	0.62
1.167	0.68	0.07	0.042	O I	|	|	|	|	0.68
1.250	0.68	0.09	0.046	O I	|	|	|	|	0.73
1.333	0.63	0.11	0.050	O I	|	|	|	|	0.79
1.417	0.75	0.14	0.054	O I	|	|	|	|	0.84
1.500	0.83	0.16	0.059	O I	|	|	|	|	0.91
1.583	0.77	0.18	0.063	O I	|	|	|	|	0.97
1.667	0.81	0.20	0.067	O I	|	|	|	|	1.02
1.750	0.98	0.20	0.072	O I	|	|	|	|	1.08
1.833	1.00	0.20	0.077	O I	|	|	|	|	1.15
1.917	0.93	0.20	0.083	O I	|	|	|	|	1.21
2.000	0.93	0.20	0.088	O I	|	|	|	|	1.28
2.083	0.97	0.20	0.093	O I	|	|	|	|	1.34
2.167	1.23	0.20	0.099	O I	|	|	|	|	1.41
2.250	1.53	0.20	0.107	O I	|	|	|	|	1.51
2.333	1.27	0.20	0.115	O I	|	|	|	|	1.60
2.417	1.87	0.20	0.125	O I	|	|	|	|	1.70
2.500	2.33	0.20	0.138	O I	|	|	|	|	1.85
2.583	2.59	0.20	0.154	O I	|	|	|	|	2.01
2.667	2.15	0.20	0.168	O I	|	|	|	|	2.16
2.750	1.02	0.20	0.178	O I	|	|	|	|	2.25
2.833	0.56	0.20	0.182	O I	|	|	|	|	2.29
2.917	0.54	0.20	0.185	O I	|	|	|	|	2.31
3.000	0.28	0.20	0.186	O I	|	|	|	|	2.33
3.083	0.05	0.20	0.186	I O	|	|	|	|	2.33
3.167	0.00	0.20	0.185	I O	|	|	|	|	2.31
3.250	0.00	0.20	0.183	I O	|	|	|	|	2.30
3.333	0.00	0.20	0.182	I O	|	|	|	|	2.29
3.417	0.00	0.20	0.181	I O	|	|	|	|	2.28
3.500	0.00	0.20	0.179	I O	|	|	|	|	2.26
3.583	0.00	0.20	0.178	I O	|	|	|	|	2.25
3.667	0.00	0.20	0.177	I O	|	|	|	|	2.24
3.750	0.00	0.20	0.175	I O	|	|	|	|	2.22
3.833	0.00	0.20	0.174	I O	|	|	|	|	2.21
3.917	0.00	0.20	0.173	I O	|	|	|	|	2.20
4.000	0.00	0.20	0.171	I O	|	|	|	|	2.18

4.083	0.00	0.20	0.170	I O	|	|	|	2.17
4.167	0.00	0.20	0.168	I O	|	|	|	2.16
4.250	0.00	0.20	0.167	I O	|	|	|	2.15
4.333	0.00	0.20	0.166	I O	|	|	|	2.13
4.417	0.00	0.20	0.164	I O	|	|	|	2.12
4.500	0.00	0.20	0.163	I O	|	|	|	2.11
4.583	0.00	0.20	0.162	I O	|	|	|	2.09
4.667	0.00	0.20	0.160	I O	|	|	|	2.08
4.750	0.00	0.20	0.159	I O	|	|	|	2.07
4.833	0.00	0.20	0.158	I O	|	|	|	2.05
4.917	0.00	0.20	0.156	I O	|	|	|	2.04
5.000	0.00	0.20	0.155	I O	|	|	|	2.03
5.083	0.00	0.20	0.154	I O	|	|	|	2.02
5.167	0.00	0.20	0.152	I O	|	|	|	2.00
5.250	0.00	0.20	0.151	I O	|	|	|	1.99
5.333	0.00	0.20	0.150	I O	|	|	|	1.97
5.417	0.00	0.20	0.148	I O	|	|	|	1.96
5.500	0.00	0.20	0.147	I O	|	|	|	1.94
5.583	0.00	0.20	0.145	I O	|	|	|	1.93
5.667	0.00	0.20	0.144	I O	|	|	|	1.91
5.750	0.00	0.20	0.143	I O	|	|	|	1.90
5.833	0.00	0.20	0.141	I O	|	|	|	1.88
5.917	0.00	0.20	0.140	I O	|	|	|	1.87
6.000	0.00	0.20	0.139	I O	|	|	|	1.86
6.083	0.00	0.20	0.137	I O	|	|	|	1.84
6.167	0.00	0.20	0.136	I O	|	|	|	1.83
6.250	0.00	0.20	0.135	I O	|	|	|	1.81
6.333	0.00	0.20	0.133	I O	|	|	|	1.80
6.417	0.00	0.20	0.132	I O	|	|	|	1.78
6.500	0.00	0.20	0.131	I O	|	|	|	1.77
6.583	0.00	0.20	0.129	I O	|	|	|	1.75
6.667	0.00	0.20	0.128	I O	|	|	|	1.74
6.750	0.00	0.20	0.127	I O	|	|	|	1.72
6.833	0.00	0.20	0.125	I O	|	|	|	1.71
6.917	0.00	0.20	0.124	I O	|	|	|	1.69
7.000	0.00	0.20	0.122	I O	|	|	|	1.68
7.083	0.00	0.20	0.121	I O	|	|	|	1.66
7.167	0.00	0.20	0.120	I O	|	|	|	1.65
7.250	0.00	0.20	0.118	I O	|	|	|	1.63
7.333	0.00	0.20	0.117	I O	|	|	|	1.62
7.417	0.00	0.20	0.116	I O	|	|	|	1.61
7.500	0.00	0.20	0.114	I O	|	|	|	1.59
7.583	0.00	0.20	0.113	I O	|	|	|	1.58
7.667	0.00	0.20	0.112	I O	|	|	|	1.56
7.750	0.00	0.20	0.110	I O	|	|	|	1.55
7.833	0.00	0.20	0.109	I O	|	|	|	1.53
7.917	0.00	0.20	0.108	I O	|	|	|	1.52
8.000	0.00	0.20	0.106	I O	|	|	|	1.50
8.083	0.00	0.20	0.105	I O	|	|	|	1.49
8.167	0.00	0.20	0.104	I O	|	|	|	1.47

8.250	0.00	0.20	0.102	I O				1.45
8.333	0.00	0.20	0.101	I O				1.44
8.417	0.00	0.20	0.099	I O				1.42
8.500	0.00	0.20	0.098	I O				1.40
8.583	0.00	0.20	0.097	I O				1.39
8.667	0.00	0.20	0.095	I O				1.37
8.750	0.00	0.20	0.094	I O				1.35
8.833	0.00	0.20	0.093	I O				1.34
8.917	0.00	0.20	0.091	I O				1.32
9.000	0.00	0.20	0.090	I O				1.31
9.083	0.00	0.20	0.089	I O				1.29
9.167	0.00	0.20	0.087	I O				1.27
9.250	0.00	0.20	0.086	I O				1.26
9.333	0.00	0.20	0.085	I O				1.24
9.417	0.00	0.20	0.083	I O				1.22
9.500	0.00	0.20	0.082	I O				1.21
9.583	0.00	0.20	0.081	I O				1.19
9.667	0.00	0.20	0.079	I O				1.17
9.750	0.00	0.20	0.078	I O				1.16
9.833	0.00	0.20	0.076	I O				1.14
9.917	0.00	0.20	0.075	I O				1.12
10.000	0.00	0.20	0.074	I O				1.11
10.083	0.00	0.20	0.072	I O				1.09
10.167	0.00	0.20	0.071	I O				1.07
10.250	0.00	0.20	0.070	I O				1.06
10.333	0.00	0.20	0.068	I O				1.04
10.417	0.00	0.20	0.067	I O				1.02
10.500	0.00	0.20	0.066	I O				1.01
10.583	0.00	0.19	0.064	I O				0.99
10.667	0.00	0.19	0.063	I O				0.97
10.750	0.00	0.18	0.062	I O				0.95
10.833	0.00	0.17	0.061	I O				0.94
10.917	0.00	0.17	0.059	I O				0.92
11.000	0.00	0.16	0.058	IO				0.90
11.083	0.00	0.15	0.057	IO				0.89
11.167	0.00	0.15	0.056	IO				0.87
11.250	0.00	0.14	0.055	IO				0.86
11.333	0.00	0.14	0.054	IO				0.85
11.417	0.00	0.13	0.053	IO				0.83
11.500	0.00	0.13	0.052	IO				0.82
11.583	0.00	0.12	0.052	IO				0.81
11.667	0.00	0.12	0.051	IO				0.80
11.750	0.00	0.11	0.050	IO				0.79
11.833	0.00	0.11	0.049	IO				0.77
11.917	0.00	0.10	0.049	IO				0.76
12.000	0.00	0.10	0.048	IO				0.75
12.083	0.00	0.10	0.047	IO				0.74
12.167	0.00	0.09	0.046	IO				0.74
12.250	0.00	0.09	0.046	IO				0.73
12.333	0.00	0.09	0.045	IO				0.72

12.417	0.00	0.08	0.045	IO				0.71
12.500	0.00	0.08	0.044	O				0.70
12.583	0.00	0.08	0.044	O				0.69
12.667	0.00	0.07	0.043	O				0.69
12.750	0.00	0.07	0.043	O				0.68
12.833	0.00	0.07	0.042	O				0.67
12.917	0.00	0.07	0.042	O				0.67
13.000	0.00	0.06	0.041	O				0.66
13.083	0.00	0.06	0.041	O				0.65
13.167	0.00	0.06	0.040	O				0.65
13.250	0.00	0.06	0.040	O				0.64
13.333	0.00	0.05	0.040	O				0.64
13.417	0.00	0.05	0.039	O				0.63
13.500	0.00	0.05	0.039	O				0.63
13.583	0.00	0.05	0.039	O				0.62
13.667	0.00	0.05	0.038	O				0.62
13.750	0.00	0.04	0.038	O				0.61
13.833	0.00	0.04	0.038	O				0.61
13.917	0.00	0.04	0.037	O				0.60
14.000	0.00	0.04	0.037	O				0.60
14.083	0.00	0.04	0.037	O				0.60
14.167	0.00	0.04	0.037	O				0.59
14.250	0.00	0.04	0.036	O				0.59
14.333	0.00	0.03	0.036	O				0.59
14.417	0.00	0.03	0.036	O				0.58
14.500	0.00	0.03	0.036	O				0.58
14.583	0.00	0.03	0.035	O				0.58
14.667	0.00	0.03	0.035	O				0.57
14.750	0.00	0.03	0.035	O				0.57
14.833	0.00	0.03	0.035	O				0.57
14.917	0.00	0.03	0.035	O				0.57
15.000	0.00	0.02	0.034	O				0.56
15.083	0.00	0.02	0.034	O				0.56
15.167	0.00	0.02	0.034	O				0.56
15.250	0.00	0.02	0.034	O				0.56
15.333	0.00	0.02	0.034	O				0.55
15.417	0.00	0.02	0.034	O				0.55
15.500	0.00	0.02	0.034	O				0.55
15.583	0.00	0.02	0.033	O				0.55
15.667	0.00	0.02	0.033	O				0.55
15.750	0.00	0.02	0.033	O				0.54
15.833	0.00	0.02	0.033	O				0.54
15.917	0.00	0.02	0.033	O				0.54
16.000	0.00	0.02	0.033	O				0.54
16.083	0.00	0.02	0.033	O				0.54
16.167	0.00	0.01	0.033	O				0.54
16.250	0.00	0.01	0.032	O				0.54
16.333	0.00	0.01	0.032	O				0.53
16.417	0.00	0.01	0.032	O				0.53
16.500	0.00	0.01	0.032	O				0.53

16.583	0.00	0.01	0.032	O	|	|	|	0.53
16.667	0.00	0.01	0.032	O	|	|	|	0.53
16.750	0.00	0.01	0.032	O	|	|	|	0.53
16.833	0.00	0.01	0.032	O	|	|	|	0.53
16.917	0.00	0.01	0.032	O	|	|	|	0.53
17.000	0.00	0.01	0.032	O	|	|	|	0.53
17.083	0.00	0.01	0.032	O	|	|	|	0.52
17.167	0.00	0.01	0.032	O	|	|	|	0.52
17.250	0.00	0.01	0.032	O	|	|	|	0.52
17.333	0.00	0.01	0.032	O	|	|	|	0.52
17.417	0.00	0.01	0.031	O	|	|	|	0.52
17.500	0.00	0.01	0.031	O	|	|	|	0.52
17.583	0.00	0.01	0.031	O	|	|	|	0.52
17.667	0.00	0.01	0.031	O	|	|	|	0.52
17.750	0.00	0.01	0.031	O	|	|	|	0.52
17.833	0.00	0.01	0.031	O	|	|	|	0.52
17.917	0.00	0.01	0.031	O	|	|	|	0.52
18.000	0.00	0.01	0.031	O	|	|	|	0.52
18.083	0.00	0.01	0.031	O	|	|	|	0.52
18.167	0.00	0.01	0.031	O	|	|	|	0.51
18.250	0.00	0.01	0.031	O	|	|	|	0.51
18.333	0.00	0.01	0.031	O	|	|	|	0.51
18.417	0.00	0.01	0.031	O	|	|	|	0.51
18.500	0.00	0.00	0.031	O	|	|	|	0.51
18.583	0.00	0.00	0.031	O	|	|	|	0.51
18.667	0.00	0.00	0.031	O	|	|	|	0.51
18.750	0.00	0.00	0.031	O	|	|	|	0.51
18.833	0.00	0.00	0.031	O	|	|	|	0.51
18.917	0.00	0.00	0.031	O	|	|	|	0.51
19.000	0.00	0.00	0.031	O	|	|	|	0.51
19.083	0.00	0.00	0.031	O	|	|	|	0.51
19.167	0.00	0.00	0.031	O	|	|	|	0.51
19.250	0.00	0.00	0.031	O	|	|	|	0.51
19.333	0.00	0.00	0.031	O	|	|	|	0.51
19.417	0.00	0.00	0.031	O	|	|	|	0.51
19.500	0.00	0.00	0.031	O	|	|	|	0.51
19.583	0.00	0.00	0.031	O	|	|	|	0.51
19.667	0.00	0.00	0.031	O	|	|	|	0.51
19.750	0.00	0.00	0.030	O	|	|	|	0.51
19.833	0.00	0.00	0.030	O	|	|	|	0.51
19.917	0.00	0.00	0.030	O	|	|	|	0.51
20.000	0.00	0.00	0.030	O	|	|	|	0.51
20.083	0.00	0.00	0.030	O	|	|	|	0.51
20.167	0.00	0.00	0.030	O	|	|	|	0.51
20.250	0.00	0.00	0.030	O	|	|	|	0.51
20.333	0.00	0.00	0.030	O	|	|	|	0.51
20.417	0.00	0.00	0.030	O	|	|	|	0.51
20.500	0.00	0.00	0.030	O	|	|	|	0.50
20.583	0.00	0.00	0.030	O	|	|	|	0.50
20.667	0.00	0.00	0.030	O	|	|	|	0.50

20.750	0.00	0.00	0.030	O	|	|	|	|	0.50
20.833	0.00	0.00	0.030	O	|	|	|	|	0.50
20.917	0.00	0.00	0.030	O	|	|	|	|	0.50
21.000	0.00	0.00	0.030	O	|	|	|	|	0.50
21.083	0.00	0.00	0.030	O	|	|	|	|	0.50
21.167	0.00	0.00	0.030	O	|	|	|	|	0.50
21.250	0.00	0.00	0.030	O	|	|	|	|	0.50
21.333	0.00	0.00	0.030	O	|	|	|	|	0.50
21.417	0.00	0.00	0.030	O	|	|	|	|	0.50
21.500	0.00	0.00	0.030	O	|	|	|	|	0.50
21.583	0.00	0.00	0.030	O	|	|	|	|	0.50
21.667	0.00	0.00	0.030	O	|	|	|	|	0.50
21.750	0.00	0.00	0.030	O	|	|	|	|	0.50
21.833	0.00	0.00	0.030	O	|	|	|	|	0.50
21.917	0.00	0.00	0.030	O	|	|	|	|	0.50
22.000	0.00	0.00	0.030	O	|	|	|	|	0.50

Remaining water in basin = 0.03 (Ac.Ft)

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

Number of intervals = 264
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.185 (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

Study date: 08/24/22

A21626 DMA 3 100YR-6HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA3Q100UH6100.rte
**********HYDROGRAPH DATA**********
Number of intervals = 73
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 2.401 (CFS)
Total volume = 0.290 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
_____

Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)

------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 73
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      0.030      0.000      0.030        0.030
  1.000      0.065      0.196      0.064        0.066
  1.500      0.106      0.196      0.105        0.107
  2.000      0.152      0.196      0.151        0.153
  2.500      0.204      0.196      0.203        0.205
  3.000      0.262      0.196      0.261        0.263
  3.500      0.326      4.639      0.310        0.342
------------------------------------------------------------------------
                Hydrograph Detention Basin Routing
------------------------------------------------------------------------

Graph values: 'I'= unit inflow; 'O'=outflow at time shown
------------------------------------------------------------------------
```

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.6	1.20	1.80	2.40	Depth (Ft.)
0.083	0.13	0.00	0.000	OI					0.01
0.167	0.21	0.00	0.002	O I					0.03
0.250	0.22	0.00	0.003	O I					0.05
0.333	0.22	0.00	0.005	O I					0.08
0.417	0.22	0.00	0.006	O I					0.10
0.500	0.25	0.00	0.008	O I					0.13
0.583	0.26	0.00	0.010	O I					0.16
0.667	0.26	0.00	0.011	O I					0.19
0.750	0.26	0.00	0.013	O I					0.22
0.833	0.26	0.00	0.015	O I					0.25
0.917	0.26	0.00	0.017	O I					0.28
1.000	0.30	0.00	0.019	O I					0.31
1.083	0.31	0.00	0.021	O I					0.35
1.167	0.31	0.00	0.023	O I					0.38
1.250	0.31	0.00	0.025	O I					0.42
1.333	0.31	0.00	0.027	O I					0.45
1.417	0.31	0.00	0.029	O I					0.49
1.500	0.31	0.01	0.031	O I					0.52
1.583	0.31	0.02	0.033	O I					0.55
1.667	0.31	0.03	0.035	O I					0.58
1.750	0.31	0.04	0.037	O I					0.60
1.833	0.31	0.05	0.039	O I					0.63
1.917	0.31	0.06	0.041	O I					0.66
2.000	0.34	0.07	0.043	O I					0.68
2.083	0.32	0.08	0.044	O I					0.71
2.167	0.34	0.09	0.046	O I					0.73
2.250	0.36	0.10	0.048	O I					0.76
2.333	0.36	0.11	0.050	O I					0.78
2.417	0.36	0.12	0.051	O I					0.80
2.500	0.36	0.13	0.053	O I					0.83
2.583	0.36	0.14	0.054	O I					0.85
2.667	0.36	0.15	0.056	O I					0.87
2.750	0.39	0.15	0.057	O I					0.89
2.833	0.40	0.16	0.059	O I					0.92
2.917	0.40	0.17	0.061	O I					0.94
3.000	0.40	0.18	0.062	O I					0.96
3.083	0.40	0.19	0.064	O I					0.98
3.167	0.43	0.20	0.065	O I					1.00
3.250	0.45	0.20	0.067	O I					1.02
3.333	0.45	0.20	0.069	O I					1.05
3.417	0.48	0.20	0.071	O I					1.07
3.500	0.53	0.20	0.073	O I					1.09
3.583	0.57	0.20	0.075	O I					1.12
3.667	0.59	0.20	0.078	O I					1.16
3.750	0.62	0.20	0.081	O I					1.19
3.833	0.63	0.20	0.084	O I					1.23
3.917	0.67	0.20	0.087	O I					1.26
4.000	0.68	0.20	0.090	O I					1.30

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4.083    0.71    0.20      0.093  | O     |I      |       |       |     1.35
4.167    0.76    0.20      0.097  | O     | I     |       |       |     1.39
4.250    0.80    0.20      0.101  | O     | I     |       |       |     1.44
4.333    0.85    0.20      0.105  | O     |  I    |       |       |     1.49
4.417    0.90    0.20      0.110  | O     |  I    |       |       |     1.55
4.500    0.91    0.20      0.115  | O     |   I   |       |       |     1.60
4.583    0.94    0.20      0.120  | O     |   I   |       |       |     1.65
4.667    0.99    0.20      0.125  | O     |    I  |       |       |     1.71
4.750    1.04    0.20      0.131  | O     |    I  |       |       |     1.77
4.833    1.05    0.20      0.137  | O     |     I |       |       |     1.84
4.917    1.08    0.20      0.143  | O     |     I |       |       |     1.90
5.000    1.13    0.20      0.149  | O     |      I|       |       |     1.97
5.083    1.30    0.20      0.156  | O     |       |I      |       |     2.04
5.167    1.53    0.20      0.165  | O     |       |   I   |       |     2.12
5.250    1.70    0.20      0.174  | O     |       |     I |       |     2.21
5.333    1.84    0.20      0.185  | O     |       |       I       |     2.32
5.417    2.04    0.20      0.197  | O     |       |       |  I    |     2.43
5.500    2.40    0.20      0.211  | O     |       |       |       I     2.56
5.583    1.36    0.20      0.223  | O     |       | I     |       |     2.66
5.667    0.50    0.20      0.228  | O   I |       |       |       |     2.70
5.750    0.26    0.20      0.229  | OI    |       |       |       |     2.72
5.833    0.20    0.20      0.229  | O     |       |       |       |     2.72
5.917    0.13    0.20      0.229  |IO     |       |       |       |     2.72
6.000    0.09    0.20      0.228  |IO     |       |       |       |     2.71
6.083    0.02    0.20      0.227  I O     |       |       |       |     2.70
6.167    0.00    0.20      0.226  I O     |       |       |       |     2.69
6.250    0.00    0.20      0.225  I O     |       |       |       |     2.68
6.333    0.00    0.20      0.223  I O     |       |       |       |     2.67
6.417    0.00    0.20      0.222  I O     |       |       |       |     2.66
6.500    0.00    0.20      0.221  I O     |       |       |       |     2.64
6.583    0.00    0.20      0.219  I O     |       |       |       |     2.63
6.667    0.00    0.20      0.218  I O     |       |       |       |     2.62
6.750    0.00    0.20      0.217  I O     |       |       |       |     2.61
6.833    0.00    0.20      0.215  I O     |       |       |       |     2.60
6.917    0.00    0.20      0.214  I O     |       |       |       |     2.59
7.000    0.00    0.20      0.213  I O     |       |       |       |     2.57
7.083    0.00    0.20      0.211  I O     |       |       |       |     2.56
7.167    0.00    0.20      0.210  I O     |       |       |       |     2.55
7.250    0.00    0.20      0.209  I O     |       |       |       |     2.54
7.333    0.00    0.20      0.207  I O     |       |       |       |     2.53
7.417    0.00    0.20      0.206  I O     |       |       |       |     2.52
7.500    0.00    0.20      0.205  I O     |       |       |       |     2.50
7.583    0.00    0.20      0.203  I O     |       |       |       |     2.49
7.667    0.00    0.20      0.202  I O     |       |       |       |     2.48
7.750    0.00    0.20      0.201  I O     |       |       |       |     2.47
7.833    0.00    0.20      0.199  I O     |       |       |       |     2.45
7.917    0.00    0.20      0.198  I O     |       |       |       |     2.44
8.000    0.00    0.20      0.196  I O     |       |       |       |     2.43
8.083    0.00    0.20      0.195  I O     |       |       |       |     2.41
8.167    0.00    0.20      0.194  I O     |       |       |       |     2.40
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8.250	0.00	0.20	0.192	I O				2.39
8.333	0.00	0.20	0.191	I O				2.38
8.417	0.00	0.20	0.190	I O				2.36
8.500	0.00	0.20	0.188	I O				2.35
8.583	0.00	0.20	0.187	I O				2.34
8.667	0.00	0.20	0.186	I O				2.32
8.750	0.00	0.20	0.184	I O				2.31
8.833	0.00	0.20	0.183	I O				2.30
8.917	0.00	0.20	0.182	I O				2.28
9.000	0.00	0.20	0.180	I O				2.27
9.083	0.00	0.20	0.179	I O				2.26
9.167	0.00	0.20	0.178	I O				2.25
9.250	0.00	0.20	0.176	I O				2.23
9.333	0.00	0.20	0.175	I O				2.22
9.417	0.00	0.20	0.173	I O				2.21
9.500	0.00	0.20	0.172	I O				2.19
9.583	0.00	0.20	0.171	I O				2.18
9.667	0.00	0.20	0.169	I O				2.17
9.750	0.00	0.20	0.168	I O				2.15
9.833	0.00	0.20	0.167	I O				2.14
9.917	0.00	0.20	0.165	I O				2.13
10.000	0.00	0.20	0.164	I O				2.12
10.083	0.00	0.20	0.163	I O				2.10
10.167	0.00	0.20	0.161	I O				2.09
10.250	0.00	0.20	0.160	I O				2.08
10.333	0.00	0.20	0.159	I O				2.06
10.417	0.00	0.20	0.157	I O				2.05
10.500	0.00	0.20	0.156	I O				2.04
10.583	0.00	0.20	0.155	I O				2.02
10.667	0.00	0.20	0.153	I O				2.01
10.750	0.00	0.20	0.152	I O				2.00
10.833	0.00	0.20	0.150	I O				1.98
10.917	0.00	0.20	0.149	I O				1.97
11.000	0.00	0.20	0.148	I O				1.95
11.083	0.00	0.20	0.146	I O				1.94
11.167	0.00	0.20	0.145	I O				1.92
11.250	0.00	0.20	0.144	I O				1.91
11.333	0.00	0.20	0.142	I O				1.90
11.417	0.00	0.20	0.141	I O				1.88
11.500	0.00	0.20	0.140	I O				1.87
11.583	0.00	0.20	0.138	I O				1.85
11.667	0.00	0.20	0.137	I O				1.84
11.750	0.00	0.20	0.136	I O				1.82
11.833	0.00	0.20	0.134	I O				1.81
11.917	0.00	0.20	0.133	I O				1.79
12.000	0.00	0.20	0.132	I O				1.78
12.083	0.00	0.20	0.130	I O				1.76
12.167	0.00	0.20	0.129	I O				1.75
12.250	0.00	0.20	0.127	I O				1.73
12.333	0.00	0.20	0.126	I O				1.72

12.417	0.00	0.20	0.125	I O	|	|	|	1.70
12.500	0.00	0.20	0.123	I O	|	|	|	1.69
12.583	0.00	0.20	0.122	I O	|	|	|	1.67
12.667	0.00	0.20	0.121	I O	|	|	|	1.66
12.750	0.00	0.20	0.119	I O	|	|	|	1.65
12.833	0.00	0.20	0.118	I O	|	|	|	1.63
12.917	0.00	0.20	0.117	I O	|	|	|	1.62
13.000	0.00	0.20	0.115	I O	|	|	|	1.60
13.083	0.00	0.20	0.114	I O	|	|	|	1.59
13.167	0.00	0.20	0.113	I O	|	|	|	1.57
13.250	0.00	0.20	0.111	I O	|	|	|	1.56
13.333	0.00	0.20	0.110	I O	|	|	|	1.54
13.417	0.00	0.20	0.109	I O	|	|	|	1.53
13.500	0.00	0.20	0.107	I O	|	|	|	1.51
13.583	0.00	0.20	0.106	I O	|	|	|	1.50
13.667	0.00	0.20	0.104	I O	|	|	|	1.48
13.750	0.00	0.20	0.103	I O	|	|	|	1.47
13.833	0.00	0.20	0.102	I O	|	|	|	1.45
13.917	0.00	0.20	0.100	I O	|	|	|	1.43
14.000	0.00	0.20	0.099	I O	|	|	|	1.42
14.083	0.00	0.20	0.098	I O	|	|	|	1.40
14.167	0.00	0.20	0.096	I O	|	|	|	1.38
14.250	0.00	0.20	0.095	I O	|	|	|	1.37
14.333	0.00	0.20	0.094	I O	|	|	|	1.35
14.417	0.00	0.20	0.092	I O	|	|	|	1.33
14.500	0.00	0.20	0.091	I O	|	|	|	1.32
14.583	0.00	0.20	0.090	I O	|	|	|	1.30
14.667	0.00	0.20	0.088	I O	|	|	|	1.28
14.750	0.00	0.20	0.087	I O	|	|	|	1.27
14.833	0.00	0.20	0.086	I O	|	|	|	1.25
14.917	0.00	0.20	0.084	I O	|	|	|	1.23
15.000	0.00	0.20	0.083	I O	|	|	|	1.22
15.083	0.00	0.20	0.082	I O	|	|	|	1.20
15.167	0.00	0.20	0.080	I O	|	|	|	1.18
15.250	0.00	0.20	0.079	I O	|	|	|	1.17
15.333	0.00	0.20	0.077	I O	|	|	|	1.15
15.417	0.00	0.20	0.076	I O	|	|	|	1.14
15.500	0.00	0.20	0.075	I O	|	|	|	1.12
15.583	0.00	0.20	0.073	I O	|	|	|	1.10
15.667	0.00	0.20	0.072	I O	|	|	|	1.09
15.750	0.00	0.20	0.071	I O	|	|	|	1.07
15.833	0.00	0.20	0.069	I O	|	|	|	1.05
15.917	0.00	0.20	0.068	I O	|	|	|	1.04
16.000	0.00	0.20	0.067	I O	|	|	|	1.02
16.083	0.00	0.20	0.065	I O	|	|	|	1.00
16.167	0.00	0.19	0.064	I O	|	|	|	0.98
16.250	0.00	0.18	0.063	I O	|	|	|	0.97
16.333	0.00	0.18	0.061	I O	|	|	|	0.95
16.417	0.00	0.17	0.060	I O	|	|	|	0.93
16.500	0.00	0.16	0.059	I O	|	|	|	0.92

16.583	0.00	0.16	0.058	I O				0.90
16.667	0.00	0.15	0.057	I O				0.88
16.750	0.00	0.15	0.056	IO				0.87
16.833	0.00	0.14	0.055	IO				0.86
16.917	0.00	0.13	0.054	IO				0.84
17.000	0.00	0.13	0.053	IO				0.83
17.083	0.00	0.12	0.052	IO				0.82
17.167	0.00	0.12	0.051	IO				0.80
17.250	0.00	0.12	0.051	IO				0.79
17.333	0.00	0.11	0.050	IO				0.78
17.417	0.00	0.11	0.049	IO				0.77
17.500	0.00	0.10	0.048	IO				0.76
17.583	0.00	0.10	0.048	IO				0.75
17.667	0.00	0.09	0.047	IO				0.74
17.750	0.00	0.09	0.046	IO				0.73
17.833	0.00	0.09	0.046	IO				0.72
17.917	0.00	0.08	0.045	IO				0.72
18.000	0.00	0.08	0.045	IO				0.71
18.083	0.00	0.08	0.044	IO				0.70
18.167	0.00	0.08	0.043	IO				0.69
18.250	0.00	0.07	0.043	O				0.68
18.333	0.00	0.07	0.042	O				0.68
18.417	0.00	0.07	0.042	O				0.67
18.500	0.00	0.06	0.042	O				0.66
18.583	0.00	0.06	0.041	O				0.66
18.667	0.00	0.06	0.041	O				0.65
18.750	0.00	0.06	0.040	O				0.65
18.833	0.00	0.06	0.040	O				0.64
18.917	0.00	0.05	0.039	O				0.64
19.000	0.00	0.05	0.039	O				0.63
19.083	0.00	0.05	0.039	O				0.63
19.167	0.00	0.05	0.038	O				0.62
19.250	0.00	0.05	0.038	O				0.62
19.333	0.00	0.04	0.038	O				0.61
19.417	0.00	0.04	0.038	O				0.61
19.500	0.00	0.04	0.037	O				0.60
19.583	0.00	0.04	0.037	O				0.60
19.667	0.00	0.04	0.037	O				0.60
19.750	0.00	0.04	0.036	O				0.59
19.833	0.00	0.03	0.036	O				0.59
19.917	0.00	0.03	0.036	O				0.59
20.000	0.00	0.03	0.036	O				0.58
20.083	0.00	0.03	0.036	O				0.58
20.167	0.00	0.03	0.035	O				0.58
20.250	0.00	0.03	0.035	O				0.57
20.333	0.00	0.03	0.035	O				0.57
20.417	0.00	0.03	0.035	O				0.57
20.500	0.00	0.03	0.035	O				0.57
20.583	0.00	0.02	0.034	O				0.56
20.667	0.00	0.02	0.034	O				0.56

20.750	0.00	0.02	0.034	O	|	|	|	0.56
20.833	0.00	0.02	0.034	O	|	|	|	0.56
20.917	0.00	0.02	0.034	O	|	|	|	0.55
21.000	0.00	0.02	0.034	O	|	|	|	0.55
21.083	0.00	0.02	0.033	O	|	|	|	0.55
21.167	0.00	0.02	0.033	O	|	|	|	0.55
21.250	0.00	0.02	0.033	O	|	|	|	0.55
21.333	0.00	0.02	0.033	O	|	|	|	0.54
21.417	0.00	0.02	0.033	O	|	|	|	0.54
21.500	0.00	0.02	0.033	O	|	|	|	0.54
21.583	0.00	0.02	0.033	O	|	|	|	0.54
21.667	0.00	0.01	0.033	O	|	|	|	0.54
21.750	0.00	0.01	0.033	O	|	|	|	0.54
21.833	0.00	0.01	0.032	O	|	|	|	0.54
21.917	0.00	0.01	0.032	O	|	|	|	0.53
22.000	0.00	0.01	0.032	O	|	|	|	0.53
22.083	0.00	0.01	0.032	O	|	|	|	0.53
22.167	0.00	0.01	0.032	O	|	|	|	0.53
22.250	0.00	0.01	0.032	O	|	|	|	0.53
22.333	0.00	0.01	0.032	O	|	|	|	0.53
22.417	0.00	0.01	0.032	O	|	|	|	0.53
22.500	0.00	0.01	0.032	O	|	|	|	0.53
22.583	0.00	0.01	0.032	O	|	|	|	0.52
22.667	0.00	0.01	0.032	O	|	|	|	0.52
22.750	0.00	0.01	0.032	O	|	|	|	0.52
22.833	0.00	0.01	0.032	O	|	|	|	0.52
22.917	0.00	0.01	0.031	O	|	|	|	0.52
23.000	0.00	0.01	0.031	O	|	|	|	0.52
23.083	0.00	0.01	0.031	O	|	|	|	0.52
23.167	0.00	0.01	0.031	O	|	|	|	0.52
23.250	0.00	0.01	0.031	O	|	|	|	0.52
23.333	0.00	0.01	0.031	O	|	|	|	0.52
23.417	0.00	0.01	0.031	O	|	|	|	0.52
23.500	0.00	0.01	0.031	O	|	|	|	0.52
23.583	0.00	0.01	0.031	O	|	|	|	0.52
23.667	0.00	0.01	0.031	O	|	|	|	0.51
23.750	0.00	0.01	0.031	O	|	|	|	0.51
23.833	0.00	0.01	0.031	O	|	|	|	0.51
23.917	0.00	0.01	0.031	O	|	|	|	0.51
24.000	0.00	0.01	0.031	O	|	|	|	0.51
24.083	0.00	0.00	0.031	O	|	|	|	0.51
24.167	0.00	0.00	0.031	O	|	|	|	0.51
24.250	0.00	0.00	0.031	O	|	|	|	0.51
24.333	0.00	0.00	0.031	O	|	|	|	0.51
24.417	0.00	0.00	0.031	O	|	|	|	0.51
24.500	0.00	0.00	0.031	O	|	|	|	0.51
24.583	0.00	0.00	0.031	O	|	|	|	0.51
24.667	0.00	0.00	0.031	O	|	|	|	0.51
24.750	0.00	0.00	0.031	O	|	|	|	0.51
24.833	0.00	0.00	0.031	O	|	|	|	0.51

24.917	0.00	0.00	0.031	O	|	|	|	|	0.51
25.000	0.00	0.00	0.031	O	|	|	|	|	0.51
25.083	0.00	0.00	0.031	O	|	|	|	|	0.51
25.167	0.00	0.00	0.031	O	|	|	|	|	0.51
25.250	0.00	0.00	0.031	O	|	|	|	|	0.51
25.333	0.00	0.00	0.030	O	|	|	|	|	0.51
25.417	0.00	0.00	0.030	O	|	|	|	|	0.51
25.500	0.00	0.00	0.030	O	|	|	|	|	0.51
25.583	0.00	0.00	0.030	O	|	|	|	|	0.51
25.667	0.00	0.00	0.030	O	|	|	|	|	0.51
25.750	0.00	0.00	0.030	O	|	|	|	|	0.51
25.833	0.00	0.00	0.030	O	|	|	|	|	0.51
25.917	0.00	0.00	0.030	O	|	|	|	|	0.51
26.000	0.00	0.00	0.030	O	|	|	|	|	0.51
26.083	0.00	0.00	0.030	O	|	|	|	|	0.50
26.167	0.00	0.00	0.030	O	|	|	|	|	0.50
26.250	0.00	0.00	0.030	O	|	|	|	|	0.50
26.333	0.00	0.00	0.030	O	|	|	|	|	0.50
26.417	0.00	0.00	0.030	O	|	|	|	|	0.50
26.500	0.00	0.00	0.030	O	|	|	|	|	0.50
26.583	0.00	0.00	0.030	O	|	|	|	|	0.50
26.667	0.00	0.00	0.030	O	|	|	|	|	0.50
26.750	0.00	0.00	0.030	O	|	|	|	|	0.50
26.833	0.00	0.00	0.030	O	|	|	|	|	0.50
26.917	0.00	0.00	0.030	O	|	|	|	|	0.50
27.000	0.00	0.00	0.030	O	|	|	|	|	0.50
27.083	0.00	0.00	0.030	O	|	|	|	|	0.50
27.167	0.00	0.00	0.030	O	|	|	|	|	0.50
27.250	0.00	0.00	0.030	O	|	|	|	|	0.50
27.333	0.00	0.00	0.030	O	|	|	|	|	0.50
27.417	0.00	0.00	0.030	O	|	|	|	|	0.50
27.500	0.00	0.00	0.030	O	|	|	|	|	0.50

Remaining water in basin = 0.03 (Ac.Ft)

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

Number of intervals = 330
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.196 (CFS)
Total volume = 0.260 (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

Study date: 08/24/22

A21626 DMA 3 100YR-24HR BASIN

Program License Serial Number 6509

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

From study/file name: A21626DMA3Q100UH24100.rte
**********HYDROGRAPH DATA**********
Number of intervals = 289
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.881 (CFS)
Total volume = 0.494 (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 1.000 to Point/Station 1.000
**** RETARDING BASIN ROUTING ****
_____

Program computation of outflow v. depth

CALCULATED OUTFLOW DATA AT DEPTH = 0.50(Ft.))
Total outflow at this depth = 0.00(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 0.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 1.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 1.50(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 2.50(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe = 2.00(Ft.) Capacity = 0.20(CFS)

Total outflow at this depth = 0.20(CFS)

CALCULATED OUTFLOW DATA AT DEPTH = 3.00(Ft.))

Free outlet pipe flow: Pipe Diameter = 0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of 0.25(Ft.) is greater than diameter of pipe,

```
flow capacity is being calculated using depth = diameter
Depth above pipe =   2.50(Ft.)    Capacity =   0.20(CFS)

Total outflow at this depth =      0.20(CFS)


CALCULATED OUTFLOW DATA AT DEPTH =    3.50(Ft.))

Free outlet pipe flow:  Pipe Diameter =     0.25(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Note: Depth of   0.25(Ft.) is greater than diameter of pipe,
flow capacity is being calculated using depth = diameter
Depth above pipe =   3.00(Ft.)    Capacity =   0.20(CFS)


Free outlet pipe flow:  Pipe Diameter =     1.00(Ft.)
Capacity = 8 * Pipe area * depth ^ 0.5(Using feet as units)
Depth above pipe =   0.50(Ft.)    Capacity =   4.44(CFS)

Total outflow at this depth =      4.64(CFS)

------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 289
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      0.030      0.000      0.030        0.030
  1.000      0.065      0.196      0.064        0.066
  1.500      0.106      0.196      0.105        0.107
  2.000      0.152      0.196      0.151        0.153
  2.500      0.204      0.196      0.203        0.205
  3.000      0.262      0.196      0.261        0.263
  3.500      0.326      4.639      0.310        0.342
------------------------------------------------------------------------
                Hydrograph Detention Basin Routing
------------------------------------------------------------------------

Graph values: 'I'= unit inflow; 'O'=outflow at time shown
------------------------------------------------------------------------
```

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.2	0.44	0.66	0.88	Depth (Ft.)
0.083	0.03	0.00	0.000	OI					0.00
0.167	0.04	0.00	0.000	OI					0.01
0.250	0.04	0.00	0.001	OI					0.01
0.333	0.06	0.00	0.001	O I					0.02
0.417	0.07	0.00	0.001	O I					0.02
0.500	0.07	0.00	0.002	O I					0.03
0.583	0.07	0.00	0.002	O I					0.04
0.667	0.07	0.00	0.003	O I					0.05
0.750	0.07	0.00	0.003	O I					0.05
0.833	0.08	0.00	0.004	O I					0.06
0.917	0.09	0.00	0.004	O I					0.07
1.000	0.09	0.00	0.005	O I					0.08
1.083	0.07	0.00	0.005	O I					0.09
1.167	0.07	0.00	0.006	O I					0.10
1.250	0.07	0.00	0.006	O I					0.11
1.333	0.07	0.00	0.007	O I					0.11
1.417	0.07	0.00	0.007	O I					0.12
1.500	0.07	0.00	0.008	O I					0.13
1.583	0.07	0.00	0.008	O I					0.14
1.667	0.07	0.00	0.009	O I					0.14
1.750	0.07	0.00	0.009	O I					0.15
1.833	0.08	0.00	0.010	O I					0.16
1.917	0.09	0.00	0.010	O I					0.17
2.000	0.09	0.00	0.011	O I					0.18
2.083	0.09	0.00	0.011	O I					0.19
2.167	0.09	0.00	0.012	O I					0.20
2.250	0.09	0.00	0.013	O I					0.21
2.333	0.09	0.00	0.013	O I					0.22
2.417	0.09	0.00	0.014	O I					0.23
2.500	0.09	0.00	0.014	O I					0.24
2.583	0.10	0.00	0.015	O I					0.25
2.667	0.11	0.00	0.016	O I					0.26
2.750	0.11	0.00	0.017	O I					0.28
2.833	0.11	0.00	0.017	O I					0.29
2.917	0.11	0.00	0.018	O I					0.30
3.000	0.11	0.00	0.019	O I					0.31
3.083	0.11	0.00	0.020	O I					0.33
3.167	0.11	0.00	0.020	O I					0.34
3.250	0.11	0.00	0.021	O I					0.35
3.333	0.11	0.00	0.022	O I					0.36
3.417	0.11	0.00	0.023	O I					0.38
3.500	0.11	0.00	0.023	O I					0.39
3.583	0.11	0.00	0.024	O I					0.40
3.667	0.11	0.00	0.025	O I					0.41
3.750	0.11	0.00	0.026	O I					0.43
3.833	0.12	0.00	0.026	O I					0.44
3.917	0.13	0.00	0.027	O I					0.45
4.000	0.13	0.00	0.028	O I					0.47

4.083	0.13	0.00	0.029	O I	|	|	|	0.48
4.167	0.13	0.00	0.030	O I	|	|	|	0.50
4.250	0.13	0.00	0.031	O I	|	|	|	0.51
4.333	0.15	0.01	0.032	O I	|	|	|	0.52
4.417	0.15	0.01	0.033	O I	|	|	|	0.54
4.500	0.15	0.02	0.034	O I	|	|	|	0.55
4.583	0.15	0.03	0.034	O I	|	|	|	0.56
4.667	0.15	0.03	0.035	|O I	|	|	|	0.58
4.750	0.15	0.03	0.036	|O I	|	|	|	0.59
4.833	0.17	0.04	0.037	|O I	|	|	|	0.60
4.917	0.17	0.04	0.038	|O I	|	|	|	0.61
5.000	0.17	0.05	0.039	|O I	|	|	|	0.63
5.083	0.14	0.05	0.040	|O I	|	|	|	0.64
5.167	0.13	0.06	0.040	| O I	|	|	|	0.64
5.250	0.13	0.06	0.041	| O I	|	|	|	0.65
5.333	0.15	0.06	0.041	| O I	|	|	|	0.66
5.417	0.15	0.07	0.042	| O I	|	|	|	0.67
5.500	0.15	0.07	0.042	| O I	|	|	|	0.68
5.583	0.17	0.07	0.043	| O I	|	|	|	0.68
5.667	0.17	0.08	0.044	| O I	|	|	|	0.69
5.750	0.17	0.08	0.044	| O I	|	|	|	0.70
5.833	0.17	0.08	0.045	| O I	|	|	|	0.71
5.917	0.17	0.09	0.046	| O I	|	|	|	0.72
6.000	0.17	0.09	0.046	| O I	|	|	|	0.73
6.083	0.19	0.09	0.047	| O I	|	|	|	0.74
6.167	0.20	0.10	0.047	| O I|	|	|	|	0.75
6.250	0.20	0.10	0.048	| O I|	|	|	|	0.76
6.333	0.20	0.10	0.049	| O I|	|	|	|	0.77
6.417	0.20	0.11	0.049	| O I|	|	|	|	0.78
6.500	0.20	0.11	0.050	| O I|	|	|	|	0.78
6.583	0.21	0.12	0.051	| O I|	|	|	|	0.79
6.667	0.22	0.12	0.051	| O I|	|	|	|	0.80
6.750	0.22	0.12	0.052	| O I|	|	|	|	0.81
6.833	0.22	0.13	0.053	| O I|	|	|	|	0.82
6.917	0.22	0.13	0.053	| O I|	|	|	|	0.83
7.000	0.22	0.13	0.054	| O I|	|	|	|	0.84
7.083	0.22	0.14	0.054	| O I|	|	|	|	0.85
7.167	0.22	0.14	0.055	| O I|	|	|	|	0.86
7.250	0.22	0.14	0.055	| O I|	|	|	|	0.86
7.333	0.23	0.15	0.056	| O I	|	|	|	0.87
7.417	0.24	0.15	0.057	| O I	|	|	|	0.88
7.500	0.24	0.15	0.057	| O I	|	|	|	0.89
7.583	0.25	0.16	0.058	| O |I	|	|	|	0.90
7.667	0.26	0.16	0.059	| O |I	|	|	|	0.91
7.750	0.26	0.16	0.059	| O |I	|	|	|	0.92
7.833	0.28	0.17	0.060	| O | I	|	|	|	0.93
7.917	0.28	0.17	0.061	| O | I	|	|	|	0.94
8.000	0.29	0.18	0.061	| O | I	|	|	|	0.95
8.083	0.32	0.18	0.062	| O | I	|	|	|	0.96
8.167	0.34	0.19	0.063	| O | I	|	|	|	0.98

8.250	0.34	0.19	0.064	|	O|	I	|	|	|	0.99
8.333	0.34	0.20	0.065	|	O|	I	|	|	|	1.00
8.417	0.34	0.20	0.066	|	O|	I	|	|	|	1.02
8.500	0.34	0.20	0.067	|	O|	I	|	|	|	1.03
8.583	0.36	0.20	0.068	|	O|	I	|	|	|	1.04
8.667	0.37	0.20	0.070	|	O|	I	|	|	|	1.06
8.750	0.37	0.20	0.071	|	O|	I	|	|	|	1.07
8.833	0.39	0.20	0.072	|	O|	I	|	|	|	1.09
8.917	0.40	0.20	0.073	|	O|	I	|	|	|	1.10
9.000	0.40	0.20	0.075	|	O|	I	|	|	|	1.12
9.083	0.44	0.20	0.076	|	O|	I	|	|	|	1.14
9.167	0.45	0.20	0.078	|	O|	I	|	|	|	1.16
9.250	0.45	0.20	0.080	|	O|	I	|	|	|	1.18
9.333	0.47	0.20	0.082	|	O|	I	|	|	|	1.20
9.417	0.48	0.20	0.084	|	O|	I	|	|	|	1.23
9.500	0.48	0.20	0.086	|	O|	I	|	|	|	1.25
9.583	0.50	0.20	0.088	|	O|	I	|	|	|	1.28
9.667	0.51	0.20	0.090	|	O|	I	|	|	|	1.30
9.750	0.51	0.20	0.092	|	O|	I	|	|	|	1.33
9.833	0.53	0.20	0.094	|	O|	I	|	|	|	1.36
9.917	0.54	0.20	0.097	|	O|	I	|	|	|	1.38
10.000	0.54	0.20	0.099	|	O|	I	|	|	|	1.41
10.083	0.41	0.20	0.101	|	O|	I	|	|	|	1.44
10.167	0.35	0.20	0.102	|	O|	I	|	|	|	1.45
10.250	0.35	0.20	0.103	|	O|	I	|	|	|	1.46
10.333	0.35	0.20	0.104	|	O|	I	|	|	|	1.48
10.417	0.35	0.20	0.105	|	O|	I	|	|	|	1.49
10.500	0.35	0.20	0.106	|	O|	I	|	|	|	1.50
10.583	0.44	0.20	0.108	|	O|	I	|	|	|	1.52
10.667	0.49	0.20	0.109	|	O|	I	|	|	|	1.54
10.750	0.49	0.20	0.111	|	O|	I	|	|	|	1.56
10.833	0.49	0.20	0.113	|	O|	I	|	|	|	1.58
10.917	0.49	0.20	0.115	|	O|	I	|	|	|	1.60
11.000	0.49	0.20	0.118	|	O|	I	|	|	|	1.63
11.083	0.47	0.20	0.119	|	O|	I	|	|	|	1.65
11.167	0.46	0.20	0.121	|	O|	I	|	|	|	1.67
11.250	0.46	0.20	0.123	|	O|	I	|	|	|	1.69
11.333	0.46	0.20	0.125	|	O|	I	|	|	|	1.71
11.417	0.46	0.20	0.127	|	O|	I	|	|	|	1.73
11.500	0.46	0.20	0.129	|	O|	I	|	|	|	1.75
11.583	0.43	0.20	0.130	|	O|	I	|	|	|	1.76
11.667	0.41	0.20	0.132	|	O|	I	|	|	|	1.78
11.750	0.41	0.20	0.133	|	O|	I	|	|	|	1.80
11.833	0.43	0.20	0.135	|	O|	I	|	|	|	1.81
11.917	0.44	0.20	0.136	|	O|	I	|	|	|	1.83
12.000	0.44	0.20	0.138	|	O|	I	|	|	|	1.85
12.083	0.57	0.20	0.140	|	O|	I	|	|	|	1.87
12.167	0.63	0.20	0.143	|	O|	I	|	|	|	1.90
12.250	0.63	0.20	0.146	|	O|	I	|	|	|	1.93
12.333	0.65	0.20	0.149	|	O|	I	|	|	|	1.97

12.417	0.66	0.20	0.152	| O| | | I| | 2.00
12.500	0.66	0.20	0.155	| O| | | I| | 2.03
12.583	0.70	0.20	0.159	| O| | | |I | 2.06
12.667	0.71	0.20	0.162	| O| | | |I | 2.10
12.750	0.71	0.20	0.166	| O| | | |I | 2.13
12.833	0.73	0.20	0.169	| O| | | | I | 2.17
12.917	0.74	0.20	0.173	| O| | | | I | 2.20
13.000	0.74	0.20	0.177	| O| | | | I | 2.24
13.083	0.84	0.20	0.181	| O| | | | I | 2.28
13.167	0.88	0.20	0.186	| O| | | | I| 2.32
13.250	0.88	0.20	0.190	| O| | | | I| 2.37
13.333	0.88	0.20	0.195	| O| | | | I| 2.41
13.417	0.88	0.20	0.200	| O| | | | I| 2.46
13.500	0.88	0.20	0.204	| O| | | | I 2.50
13.583	0.67	0.20	0.208	| O| | | I | 2.54
13.667	0.58	0.20	0.211	| O| | I | | 2.56
13.750	0.58	0.20	0.214	| O| | I | | 2.59
13.833	0.58	0.20	0.217	| O| | I | | 2.61
13.917	0.58	0.20	0.219	| O| | I | | 2.63
14.000	0.58	0.20	0.222	| O| | I | | 2.65
14.083	0.66	0.20	0.225	| O| | I| | 2.68
14.167	0.69	0.20	0.228	| O| | |I | 2.71
14.250	0.69	0.20	0.232	| O| | |I | 2.74
14.333	0.67	0.20	0.235	| O| | I | 2.77
14.417	0.66	0.20	0.238	| O| | I | 2.79
14.500	0.66	0.20	0.241	| O| | I | 2.82
14.583	0.66	0.20	0.245	| O| | I | 2.85
14.667	0.67	0.20	0.248	| O| | I | 2.88
14.750	0.67	0.20	0.251	| O| | I | 2.91
14.833	0.65	0.20	0.254	| O| | I| | 2.93
14.917	0.64	0.20	0.257	| O| | I| | 2.96
15.000	0.64	0.20	0.260	| O| | I| | 2.99
15.083	0.62	0.27	0.263	|O | I | | 3.01
15.167	0.61	0.40	0.265	| | O | I | | 3.02
15.250	0.61	0.48	0.266	| |O I | | 3.03
15.333	0.59	0.53	0.267	| | O I | | 3.04
15.417	0.58	0.55	0.267	| | OI | | 3.04
15.500	0.59	0.56	0.267	| | OI | | 3.04
15.583	0.51	0.56	0.267	| | I O | | 3.04
15.667	0.48	0.53	0.267	| |I O | | 3.04
15.750	0.48	0.51	0.267	| |IO | | 3.04
15.833	0.48	0.50	0.266	| |IO | | 3.03
15.917	0.48	0.49	0.266	| |O | | 3.03
16.000	0.48	0.48	0.266	| |O | | 3.03
16.083	0.21	0.43	0.265	| I| O| | | 3.03
16.167	0.09	0.32	0.264	| I | O | | | 3.01
16.250	0.09	0.23	0.263	| I O | | | 3.00
16.333	0.09	0.20	0.262	| I O| | | | 3.00
16.417	0.09	0.20	0.261	| I O| | | | 2.99
16.500	0.09	0.20	0.260	| I O| | | | 2.98

16.583	0.07	0.20	0.259	I	O			2.98
16.667	0.07	0.20	0.258	I	O			2.97
16.750	0.07	0.20	0.258	I	O			2.96
16.833	0.07	0.20	0.257	I	O			2.95
16.917	0.07	0.20	0.256	I	O			2.95
17.000	0.07	0.20	0.255	I	O			2.94
17.083	0.10	0.20	0.254	I	O			2.93
17.167	0.11	0.20	0.253	I	O			2.93
17.250	0.11	0.20	0.253	I	O			2.92
17.333	0.11	0.20	0.252	I	O			2.92
17.417	0.11	0.20	0.252	I	O			2.91
17.500	0.11	0.20	0.251	I	O			2.91
17.583	0.11	0.20	0.250	I	O			2.90
17.667	0.11	0.20	0.250	I	O			2.89
17.750	0.11	0.20	0.249	I	O			2.89
17.833	0.09	0.20	0.249	I	O			2.88
17.917	0.09	0.20	0.248	I	O			2.88
18.000	0.09	0.20	0.247	I	O			2.87
18.083	0.09	0.20	0.246	I	O			2.86
18.167	0.09	0.20	0.246	I	O			2.86
18.250	0.09	0.20	0.245	I	O			2.85
18.333	0.09	0.20	0.244	I	O			2.85
18.417	0.09	0.20	0.243	I	O			2.84
18.500	0.09	0.20	0.243	I	O			2.83
18.583	0.07	0.20	0.242	I	O			2.83
18.667	0.07	0.20	0.241	I	O			2.82
18.750	0.07	0.20	0.240	I	O			2.81
18.833	0.05	0.20	0.239	I	O			2.80
18.917	0.04	0.20	0.238	I	O			2.79
19.000	0.04	0.20	0.237	I	O			2.78
19.083	0.06	0.20	0.236	I	O			2.78
19.167	0.07	0.20	0.235	I	O			2.77
19.250	0.07	0.20	0.234	I	O			2.76
19.333	0.08	0.20	0.233	I	O			2.75
19.417	0.09	0.20	0.232	I	O			2.75
19.500	0.09	0.20	0.232	I	O			2.74
19.583	0.07	0.20	0.231	I	O			2.73
19.667	0.07	0.20	0.230	I	O			2.72
19.750	0.07	0.20	0.229	I	O			2.72
19.833	0.05	0.20	0.228	I	O			2.71
19.917	0.04	0.20	0.227	I	O			2.70
20.000	0.04	0.20	0.226	I	O			2.69
20.083	0.06	0.20	0.225	I	O			2.68
20.167	0.07	0.20	0.224	I	O			2.67
20.250	0.07	0.20	0.223	I	O			2.67
20.333	0.07	0.20	0.222	I	O			2.66
20.417	0.07	0.20	0.221	I	O			2.65
20.500	0.07	0.20	0.221	I	O			2.64
20.583	0.07	0.20	0.220	I	O			2.64
20.667	0.07	0.20	0.219	I	O			2.63

20.750	0.07	0.20	0.218	| I	O|	|	|	2.62
20.833	0.05	0.20	0.217	|I	O|	|	|	2.61
20.917	0.04	0.20	0.216	|I	O|	|	|	2.60
21.000	0.04	0.20	0.215	|I	O|	|	|	2.59
21.083	0.06	0.20	0.214	| I	O|	|	|	2.58
21.167	0.07	0.20	0.213	| I	O|	|	|	2.58
21.250	0.07	0.20	0.212	| I	O|	|	|	2.57
21.333	0.05	0.20	0.211	|I	O|	|	|	2.56
21.417	0.04	0.20	0.210	|I	O|	|	|	2.55
21.500	0.04	0.20	0.209	|I	O|	|	|	2.54
21.583	0.06	0.20	0.208	| I	O|	|	|	2.53
21.667	0.07	0.20	0.207	| I	O|	|	|	2.53
21.750	0.07	0.20	0.206	| I	O|	|	|	2.52
21.833	0.05	0.20	0.205	|I	O|	|	|	2.51
21.917	0.04	0.20	0.204	|I	O|	|	|	2.50
22.000	0.04	0.20	0.203	|I	O|	|	|	2.49
22.083	0.06	0.20	0.202	| I	O|	|	|	2.48
22.167	0.07	0.20	0.201	| I	O|	|	|	2.47
22.250	0.07	0.20	0.200	| I	O|	|	|	2.46
22.333	0.05	0.20	0.199	|I	O|	|	|	2.46
22.417	0.04	0.20	0.198	|I	O|	|	|	2.45
22.500	0.04	0.20	0.197	|I	O|	|	|	2.44
22.583	0.04	0.20	0.196	|I	O|	|	|	2.43
22.667	0.04	0.20	0.195	|I	O|	|	|	2.41
22.750	0.04	0.20	0.194	|I	O|	|	|	2.40
22.833	0.04	0.20	0.193	|I	O|	|	|	2.39
22.917	0.04	0.20	0.192	|I	O|	|	|	2.38
23.000	0.04	0.20	0.191	|I	O|	|	|	2.37
23.083	0.04	0.20	0.190	|I	O|	|	|	2.36
23.167	0.04	0.20	0.189	|I	O|	|	|	2.35
23.250	0.04	0.20	0.188	|I	O|	|	|	2.34
23.333	0.04	0.20	0.187	|I	O|	|	|	2.33
23.417	0.04	0.20	0.186	|I	O|	|	|	2.32
23.500	0.04	0.20	0.185	|I	O|	|	|	2.31
23.583	0.04	0.20	0.184	|I	O|	|	|	2.30
23.667	0.04	0.20	0.183	|I	O|	|	|	2.29
23.750	0.04	0.20	0.181	|I	O|	|	|	2.28
23.833	0.04	0.20	0.180	|I	O|	|	|	2.27
23.917	0.04	0.20	0.179	|I	O|	|	|	2.26
24.000	0.04	0.20	0.178	|I	O|	|	|	2.25
24.083	0.01	0.20	0.177	I	O|	|	|	2.24
24.167	0.00	0.20	0.176	I	O|	|	|	2.23
24.250	0.00	0.20	0.175	I	O|	|	|	2.22
24.333	0.00	0.20	0.173	I	O|	|	|	2.20
24.417	0.00	0.20	0.172	I	O|	|	|	2.19
24.500	0.00	0.20	0.170	I	O|	|	|	2.18
24.583	0.00	0.20	0.169	I	O|	|	|	2.16
24.667	0.00	0.20	0.168	I	O|	|	|	2.15
24.750	0.00	0.20	0.166	I	O|	|	|	2.14
24.833	0.00	0.20	0.165	I	O|	|	|	2.13

24.917	0.00	0.20	0.164	I	O				2.11
25.000	0.00	0.20	0.162	I	O				2.10
25.083	0.00	0.20	0.161	I	O				2.09
25.167	0.00	0.20	0.160	I	O				2.07
25.250	0.00	0.20	0.158	I	O				2.06
25.333	0.00	0.20	0.157	I	O				2.05
25.417	0.00	0.20	0.156	I	O				2.03
25.500	0.00	0.20	0.154	I	O				2.02
25.583	0.00	0.20	0.153	I	O				2.01
25.667	0.00	0.20	0.152	I	O				1.99
25.750	0.00	0.20	0.150	I	O				1.98
25.833	0.00	0.20	0.149	I	O				1.97
25.917	0.00	0.20	0.147	I	O				1.95
26.000	0.00	0.20	0.146	I	O				1.94
26.083	0.00	0.20	0.145	I	O				1.92
26.167	0.00	0.20	0.143	I	O				1.91
26.250	0.00	0.20	0.142	I	O				1.89
26.333	0.00	0.20	0.141	I	O				1.88
26.417	0.00	0.20	0.139	I	O				1.86
26.500	0.00	0.20	0.138	I	O				1.85
26.583	0.00	0.20	0.137	I	O				1.83
26.667	0.00	0.20	0.135	I	O				1.82
26.750	0.00	0.20	0.134	I	O				1.80
26.833	0.00	0.20	0.133	I	O				1.79
26.917	0.00	0.20	0.131	I	O				1.77
27.000	0.00	0.20	0.130	I	O				1.76
27.083	0.00	0.20	0.129	I	O				1.74
27.167	0.00	0.20	0.127	I	O				1.73
27.250	0.00	0.20	0.126	I	O				1.72
27.333	0.00	0.20	0.124	I	O				1.70
27.417	0.00	0.20	0.123	I	O				1.69
27.500	0.00	0.20	0.122	I	O				1.67
27.583	0.00	0.20	0.120	I	O				1.66
27.667	0.00	0.20	0.119	I	O				1.64
27.750	0.00	0.20	0.118	I	O				1.63
27.833	0.00	0.20	0.116	I	O				1.61
27.917	0.00	0.20	0.115	I	O				1.60
28.000	0.00	0.20	0.114	I	O				1.58
28.083	0.00	0.20	0.112	I	O				1.57
28.167	0.00	0.20	0.111	I	O				1.55
28.250	0.00	0.20	0.110	I	O				1.54
28.333	0.00	0.20	0.108	I	O				1.52
28.417	0.00	0.20	0.107	I	O				1.51
28.500	0.00	0.20	0.106	I	O				1.49
28.583	0.00	0.20	0.104	I	O				1.48
28.667	0.00	0.20	0.103	I	O				1.46
28.750	0.00	0.20	0.101	I	O				1.44
28.833	0.00	0.20	0.100	I	O				1.43
28.917	0.00	0.20	0.099	I	O				1.41
29.000	0.00	0.20	0.097	I	O				1.40

```
29.083    0.00    0.20      0.096  I      O|       |       |       |     1.38
29.167    0.00    0.20      0.095  I      O|       |       |       |     1.36
29.250    0.00    0.20      0.093  I      O|       |       |       |     1.35
29.333    0.00    0.20      0.092  I      O|       |       |       |     1.33
29.417    0.00    0.20      0.091  I      O|       |       |       |     1.31
29.500    0.00    0.20      0.089  I      O|       |       |       |     1.30
29.583    0.00    0.20      0.088  I      O|       |       |       |     1.28
29.667    0.00    0.20      0.087  I      O|       |       |       |     1.26
29.750    0.00    0.20      0.085  I      O|       |       |       |     1.25
29.833    0.00    0.20      0.084  I      O|       |       |       |     1.23
29.917    0.00    0.20      0.083  I      O|       |       |       |     1.21
30.000    0.00    0.20      0.081  I      O|       |       |       |     1.20
30.083    0.00    0.20      0.080  I      O|       |       |       |     1.18
30.167    0.00    0.20      0.078  I      O|       |       |       |     1.16
30.250    0.00    0.20      0.077  I      O|       |       |       |     1.15
30.333    0.00    0.20      0.076  I      O|       |       |       |     1.13
30.417    0.00    0.20      0.074  I      O|       |       |       |     1.12
30.500    0.00    0.20      0.073  I      O|       |       |       |     1.10
30.583    0.00    0.20      0.072  I      O|       |       |       |     1.08
30.667    0.00    0.20      0.070  I      O|       |       |       |     1.07
30.750    0.00    0.20      0.069  I      O|       |       |       |     1.05
30.833    0.00    0.20      0.068  I      O|       |       |       |     1.03
30.917    0.00    0.20      0.066  I      O|       |       |       |     1.02
31.000    0.00    0.20      0.065  I      O|       |       |       |     1.00
31.083    0.00    0.19      0.064  I     O |       |       |       |     0.98
31.167    0.00    0.18      0.062  I     O |       |       |       |     0.96
31.250    0.00    0.17      0.061  I     O |       |       |       |     0.94
31.333    0.00    0.17      0.060  I     O |       |       |       |     0.93
31.417    0.00    0.16      0.059  I    O  |       |       |       |     0.91
31.500    0.00    0.16      0.058  I    O  |       |       |       |     0.90
31.583    0.00    0.15      0.057  I    O  |       |       |       |     0.88
31.667    0.00    0.14      0.056  I    O  |       |       |       |     0.87
31.750    0.00    0.14      0.055  I    O  |       |       |       |     0.85
31.833    0.00    0.13      0.054  I   O   |       |       |       |     0.84
31.917    0.00    0.13      0.053  I   O   |       |       |       |     0.83
32.000    0.00    0.12      0.052  I   O   |       |       |       |     0.81
32.083    0.00    0.12      0.051  I   O   |       |       |       |     0.80
32.167    0.00    0.11      0.050  I   O   |       |       |       |     0.79
32.250    0.00    0.11      0.050  I  O    |       |       |       |     0.78
32.333    0.00    0.11      0.049  I  O    |       |       |       |     0.77
32.417    0.00    0.10      0.048  I  O    |       |       |       |     0.76
32.500    0.00    0.10      0.047  I  O    |       |       |       |     0.75
32.583    0.00    0.09      0.047  I  O    |       |       |       |     0.74
32.667    0.00    0.09      0.046  I  O    |       |       |       |     0.73
32.750    0.00    0.09      0.046  I  O    |       |       |       |     0.72
32.833    0.00    0.08      0.045  I  O    |       |       |       |     0.71
32.917    0.00    0.08      0.044  I O     |       |       |       |     0.71
33.000    0.00    0.08      0.044  I O     |       |       |       |     0.70
33.083    0.00    0.07      0.043  I O     |       |       |       |     0.69
33.167    0.00    0.07      0.043  I O     |       |       |       |     0.68
```

33.250	0.00	0.07	0.042	I O				0.68
33.333	0.00	0.07	0.042	I O				0.67
33.417	0.00	0.06	0.041	I O				0.66
33.500	0.00	0.06	0.041	I O				0.66
33.583	0.00	0.06	0.041	I O				0.65
33.667	0.00	0.06	0.040	I O				0.65
33.750	0.00	0.05	0.040	IO				0.64
33.833	0.00	0.05	0.039	IO				0.63
33.917	0.00	0.05	0.039	IO				0.63
34.000	0.00	0.05	0.039	IO				0.62
34.083	0.00	0.05	0.038	IO				0.62
34.167	0.00	0.05	0.038	IO				0.62
34.250	0.00	0.04	0.038	IO				0.61
34.333	0.00	0.04	0.037	IO				0.61
34.417	0.00	0.04	0.037	IO				0.60
34.500	0.00	0.04	0.037	IO				0.60
34.583	0.00	0.04	0.037	IO				0.59
34.667	0.00	0.04	0.036	IO				0.59
34.750	0.00	0.03	0.036	IO				0.59
34.833	0.00	0.03	0.036	IO				0.58
34.917	0.00	0.03	0.036	IO				0.58
35.000	0.00	0.03	0.035	IO				0.58
35.083	0.00	0.03	0.035	IO				0.58
35.167	0.00	0.03	0.035	IO				0.57
35.250	0.00	0.03	0.035	O				0.57
35.333	0.00	0.03	0.035	O				0.57
35.417	0.00	0.03	0.035	O				0.56
35.500	0.00	0.02	0.034	O				0.56
35.583	0.00	0.02	0.034	O				0.56
35.667	0.00	0.02	0.034	O				0.56
35.750	0.00	0.02	0.034	O				0.56
35.833	0.00	0.02	0.034	O				0.55
35.917	0.00	0.02	0.034	O				0.55
36.000	0.00	0.02	0.033	O				0.55
36.083	0.00	0.02	0.033	O				0.55
36.167	0.00	0.02	0.033	O				0.55
36.250	0.00	0.02	0.033	O				0.54
36.333	0.00	0.02	0.033	O				0.54
36.417	0.00	0.02	0.033	O				0.54
36.500	0.00	0.02	0.033	O				0.54
36.583	0.00	0.01	0.033	O				0.54
36.667	0.00	0.01	0.033	O				0.54
36.750	0.00	0.01	0.032	O				0.53
36.833	0.00	0.01	0.032	O				0.53
36.917	0.00	0.01	0.032	O				0.53
37.000	0.00	0.01	0.032	O				0.53
37.083	0.00	0.01	0.032	O				0.53
37.167	0.00	0.01	0.032	O				0.53
37.250	0.00	0.01	0.032	O				0.53
37.333	0.00	0.01	0.032	O				0.53

37.417	0.00	0.01	0.032	O	|	|	|	0.53
37.500	0.00	0.01	0.032	O	|	|	|	0.52
37.583	0.00	0.01	0.032	O	|	|	|	0.52
37.667	0.00	0.01	0.032	O	|	|	|	0.52
37.750	0.00	0.01	0.032	O	|	|	|	0.52
37.833	0.00	0.01	0.031	O	|	|	|	0.52
37.917	0.00	0.01	0.031	O	|	|	|	0.52
38.000	0.00	0.01	0.031	O	|	|	|	0.52
38.083	0.00	0.01	0.031	O	|	|	|	0.52
38.167	0.00	0.01	0.031	O	|	|	|	0.52
38.250	0.00	0.01	0.031	O	|	|	|	0.52
38.333	0.00	0.01	0.031	O	|	|	|	0.52
38.417	0.00	0.01	0.031	O	|	|	|	0.52
38.500	0.00	0.01	0.031	O	|	|	|	0.52
38.583	0.00	0.01	0.031	O	|	|	|	0.51
38.667	0.00	0.01	0.031	O	|	|	|	0.51
38.750	0.00	0.01	0.031	O	|	|	|	0.51
38.833	0.00	0.01	0.031	O	|	|	|	0.51
38.917	0.00	0.00	0.031	O	|	|	|	0.51
39.000	0.00	0.00	0.031	O	|	|	|	0.51
39.083	0.00	0.00	0.031	O	|	|	|	0.51
39.167	0.00	0.00	0.031	O	|	|	|	0.51
39.250	0.00	0.00	0.031	O	|	|	|	0.51
39.333	0.00	0.00	0.031	O	|	|	|	0.51
39.417	0.00	0.00	0.031	O	|	|	|	0.51
39.500	0.00	0.00	0.031	O	|	|	|	0.51
39.583	0.00	0.00	0.031	O	|	|	|	0.51
39.667	0.00	0.00	0.031	O	|	|	|	0.51
39.750	0.00	0.00	0.031	O	|	|	|	0.51
39.833	0.00	0.00	0.031	O	|	|	|	0.51
39.917	0.00	0.00	0.031	O	|	|	|	0.51
40.000	0.00	0.00	0.031	O	|	|	|	0.51
40.083	0.00	0.00	0.031	O	|	|	|	0.51
40.167	0.00	0.00	0.030	O	|	|	|	0.51
40.250	0.00	0.00	0.030	O	|	|	|	0.51
40.333	0.00	0.00	0.030	O	|	|	|	0.51
40.417	0.00	0.00	0.030	O	|	|	|	0.51
40.500	0.00	0.00	0.030	O	|	|	|	0.51
40.583	0.00	0.00	0.030	O	|	|	|	0.51
40.667	0.00	0.00	0.030	O	|	|	|	0.51
40.750	0.00	0.00	0.030	O	|	|	|	0.51
40.833	0.00	0.00	0.030	O	|	|	|	0.51
40.917	0.00	0.00	0.030	O	|	|	|	0.51
41.000	0.00	0.00	0.030	O	|	|	|	0.50
41.083	0.00	0.00	0.030	O	|	|	|	0.50
41.167	0.00	0.00	0.030	O	|	|	|	0.50
41.250	0.00	0.00	0.030	O	|	|	|	0.50
41.333	0.00	0.00	0.030	O	|	|	|	0.50
41.417	0.00	0.00	0.030	O	|	|	|	0.50
41.500	0.00	0.00	0.030	O	|	|	|	0.50

41.583	0.00	0.00	0.030	O	|	|	|	|	0.50
41.667	0.00	0.00	0.030	O	|	|	|	|	0.50
41.750	0.00	0.00	0.030	O	|	|	|	|	0.50
41.833	0.00	0.00	0.030	O	|	|	|	|	0.50
41.917	0.00	0.00	0.030	O	|	|	|	|	0.50
42.000	0.00	0.00	0.030	O	|	|	|	|	0.50
42.083	0.00	0.00	0.030	O	|	|	|	|	0.50
42.167	0.00	0.00	0.030	O	|	|	|	|	0.50
42.250	0.00	0.00	0.030	O	|	|	|	|	0.50
42.333	0.00	0.00	0.030	O	|	|	|	|	0.50
42.417	0.00	0.00	0.030	O	|	|	|	|	0.50

Remaining water in basin = 0.03 (Ac.Ft)

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

Number of intervals = 509
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.565 (CFS)
Total volume = 0.464 (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

****

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

Study date 08/02/22 File: A21626DMA3Q100UH1100.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 100YR-1HR UH

Drainage Area = 1.42(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.42(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 440.21(Ft.)
Length along longest watercourse measured to centroid = 326.50(Ft.)
Length along longest watercourse = 0.083 Mi.
Length along longest watercourse measured to centroid = 0.062 Mi.
Difference in elevation = 6.70(Ft.)
Slope along watercourse = 80.3616 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.018 Hr.
Lag time = 1.10 Min.
25% of lag time = 0.27 Min.
40% of lag time = 0.44 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]
        1.42            0.48                    0.68

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.42            1.25                    1.77

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.480(In)
Area Averaged 100-Year Rainfall =    1.250(In)

Point rain (area averaged) =    1.250(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.250(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.417           69.00         0.869
 Total Area Entered =      1.42(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     0.869        0.042       1.000      0.042
                                                 Sum (F) =   0.042
Area averaged mean soil loss (F) (In/Hr) =  0.042
Minimum soil loss rate ((In/Hr)) =  0.021
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.205
------------------------------------------------------------------------
Slope of intensity-duration curve for a 1 hour storm =0.4800
------------------------------------------------------------------------

                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        454.945         68.526              0.979
    2   0.167        909.890         31.474              0.449
                               Sum = 100.000   Sum=       1.428
-----------------------------------------------------------------
```

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	4.40	0.660	0.042	(0.135)	0.618
2	0.17	4.50	0.675	0.042	(0.138)	0.633
3	0.25	5.40	0.810	0.042	(0.166)	0.768
4	0.33	5.40	0.810	0.042	(0.166)	0.768
5	0.42	5.70	0.855	0.042	(0.175)	0.813
6	0.50	6.40	0.960	0.042	(0.197)	0.918
7	0.58	7.90	1.185	0.042	(0.243)	1.143
8	0.67	9.10	1.365	0.042	(0.280)	1.323
9	0.75	12.80	1.920	0.042	(0.394)	1.878
10	0.83	25.60	3.840	0.042	(0.787)	3.798
11	0.92	7.90	1.185	0.042	(0.243)	1.143
12	1.00	4.90	0.735	0.042	(0.151)	0.693
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	14.5

Flood volume = Effective rainfall 1.21(In)
times area 1.4(Ac.)/[(In)/(Ft.)] = 0.1(Ac.Ft)
Total soil loss = 0.04(In)
Total soil loss = 0.005(Ac.Ft)
Total rainfall = 1.25(In)
Flood volume = 6212.3 Cubic Feet
Total soil loss = 217.3 Cubic Feet

Peak flow rate of this hydrograph = 4.563(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 2.5 5.0 7.5 10.0
0+ 5	0.0042	0.60	VQ
0+10	0.0103	0.90	VQ
0+15	0.0175	1.04	Q
0+20	0.0250	1.10	Q V
0+25	0.0329	1.14	Q V
0+30	0.0416	1.26	Q V
0+35	0.0521	1.53	Q V
0+40	0.0646	1.81	Q V
0+45	0.0814	2.43	Q V
0+50	0.1128	4.56	Q V
0+55	0.1323	2.83	Q V
1+ 0	0.1405	1.19	Q V

```
    1+ 5       0.1426      0.31  |Q        |         |         V|
-------------------------------------------------------------------
```

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

Study date 08/02/22 File: A21626DMA3Q100UH3100.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 100YR-3HR UH

Drainage Area = 1.42(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.42(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 440.21(Ft.)
Length along longest watercourse measured to centroid = 326.50(Ft.)
Length along longest watercourse = 0.083 Mi.
Length along longest watercourse measured to centroid = 0.062 Mi.
Difference in elevation = 6.70(Ft.)
Slope along watercourse = 80.3616 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.018 Hr.
Lag time = 1.10 Min.
25% of lag time = 0.27 Min.
40% of lag time = 0.44 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]
        1.42            0.80                  1.13

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.42            1.95                  2.76

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.800(In)
Area Averaged 100-Year Rainfall =    1.950(In)

Point rain (area averaged) =    1.950(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    1.950(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.417           69.00         0.869
 Total Area Entered =      1.42(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     0.869        0.042       1.000      0.042
                                                 Sum (F) =   0.042
Area averaged mean soil loss (F) (In/Hr) =  0.042
Minimum soil loss rate ((In/Hr)) =  0.021
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.205
------------------------------------------------------------------------

               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        454.945         68.526              0.979
    2   0.167        909.890         31.474              0.449
                               Sum = 100.000   Sum=       1.428
------------------------------------------------------------------------

 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	0.304	0.042	(0.062)	0.262
2	0.17	1.30	0.304	0.042	(0.062)	0.262
3	0.25	1.10	0.257	0.042	(0.053)	0.215
4	0.33	1.50	0.351	0.042	(0.072)	0.309
5	0.42	1.50	0.351	0.042	(0.072)	0.309
6	0.50	1.80	0.421	0.042	(0.086)	0.379
7	0.58	1.50	0.351	0.042	(0.072)	0.309
8	0.67	1.80	0.421	0.042	(0.086)	0.379
9	0.75	1.80	0.421	0.042	(0.086)	0.379
10	0.83	1.50	0.351	0.042	(0.072)	0.309
11	0.92	1.60	0.374	0.042	(0.077)	0.332
12	1.00	1.80	0.421	0.042	(0.086)	0.379
13	1.08	2.20	0.515	0.042	(0.106)	0.473
14	1.17	2.20	0.515	0.042	(0.106)	0.473
15	1.25	2.20	0.515	0.042	(0.106)	0.473
16	1.33	2.00	0.468	0.042	(0.096)	0.426
17	1.42	2.60	0.608	0.042	(0.125)	0.566
18	1.50	2.70	0.632	0.042	(0.130)	0.590
19	1.58	2.40	0.562	0.042	(0.115)	0.519
20	1.67	2.70	0.632	0.042	(0.130)	0.590
21	1.75	3.30	0.772	0.042	(0.158)	0.730
22	1.83	3.10	0.725	0.042	(0.149)	0.683
23	1.92	2.90	0.679	0.042	(0.139)	0.636
24	2.00	3.00	0.702	0.042	(0.144)	0.660
25	2.08	3.10	0.725	0.042	(0.149)	0.683
26	2.17	4.20	0.983	0.042	(0.201)	0.941
27	2.25	5.00	1.170	0.042	(0.240)	1.128
28	2.33	3.50	0.819	0.042	(0.168)	0.777
29	2.42	6.80	1.591	0.042	(0.326)	1.549
30	2.50	7.30	1.708	0.042	(0.350)	1.666
31	2.58	8.20	1.919	0.042	(0.393)	1.877
32	2.67	5.90	1.381	0.042	(0.283)	1.338
33	2.75	2.00	0.468	0.042	(0.096)	0.426
34	2.83	1.80	0.421	0.042	(0.086)	0.379
35	2.92	1.80	0.421	0.042	(0.086)	0.379
36	3.00	0.60	0.140	(0.042)	0.029	0.112
		(Loss Rate Not Used)				
Sum =		100.0			Sum =	21.9

Flood volume = Effective rainfall 1.82(In)
times area 1.4(Ac.)/[(In)/(Ft.)] = 0.2(Ac.Ft)
Total soil loss = 0.13(In)
Total soil loss = 0.015(Ac.Ft)
Total rainfall = 1.95(In)
Flood volume = 9384.2 Cubic Feet
Total soil loss = 646.0 Cubic Feet

Peak flow rate of this hydrograph = 2.587(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 2.5 5.0 7.5 10.0
0+ 5	0.0018	0.26	VQ
0+10	0.0043	0.37	VQ
0+15	0.0066	0.33	|Q
0+20	0.0094	0.40	|Q
0+25	0.0124	0.44	|QV
0+30	0.0159	0.51	| Q
0+35	0.0192	0.47	|Q V
0+40	0.0227	0.51	| Q V
0+45	0.0264	0.54	| Q V
0+50	0.0297	0.47	|Q V
0+55	0.0329	0.46	|Q V
1+ 0	0.0364	0.52	| Q V
1+ 5	0.0408	0.63	| Q V
1+10	0.0454	0.68	| Q V
1+15	0.0501	0.68	| Q V|
1+20	0.0544	0.63	| Q V
1+25	0.0596	0.75	| Q |V
1+30	0.0653	0.83	| Q | V
1+35	0.0706	0.77	| Q | V
1+40	0.0762	0.81	| Q | V
1+45	0.0830	0.98	| Q | V
1+50	0.0898	1.00	| Q | V
1+55	0.0962	0.93	| Q | V
2+ 0	0.1027	0.93	| Q | V|
2+ 5	0.1093	0.97	| Q | V
2+10	0.1178	1.23	| Q | V
2+15	0.1283	1.53	| Q | V
2+20	0.1370	1.27	| Q | V
2+25	0.1499	1.87	| Q | V
2+30	0.1659	2.33	| Q| V
2+35	0.1837	2.59	| Q V
2+40	0.1985	2.15	| Q | V
2+45	0.2056	1.02	| Q | V
2+50	0.2094	0.56	| Q | V
2+55	0.2132	0.54	| Q | V|
3+ 0	0.2151	0.28	|Q | V|
3+ 5	0.2154	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

Study date 08/02/22 File: A21626DMA3Q100UH6100.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 100YR-6HR UH

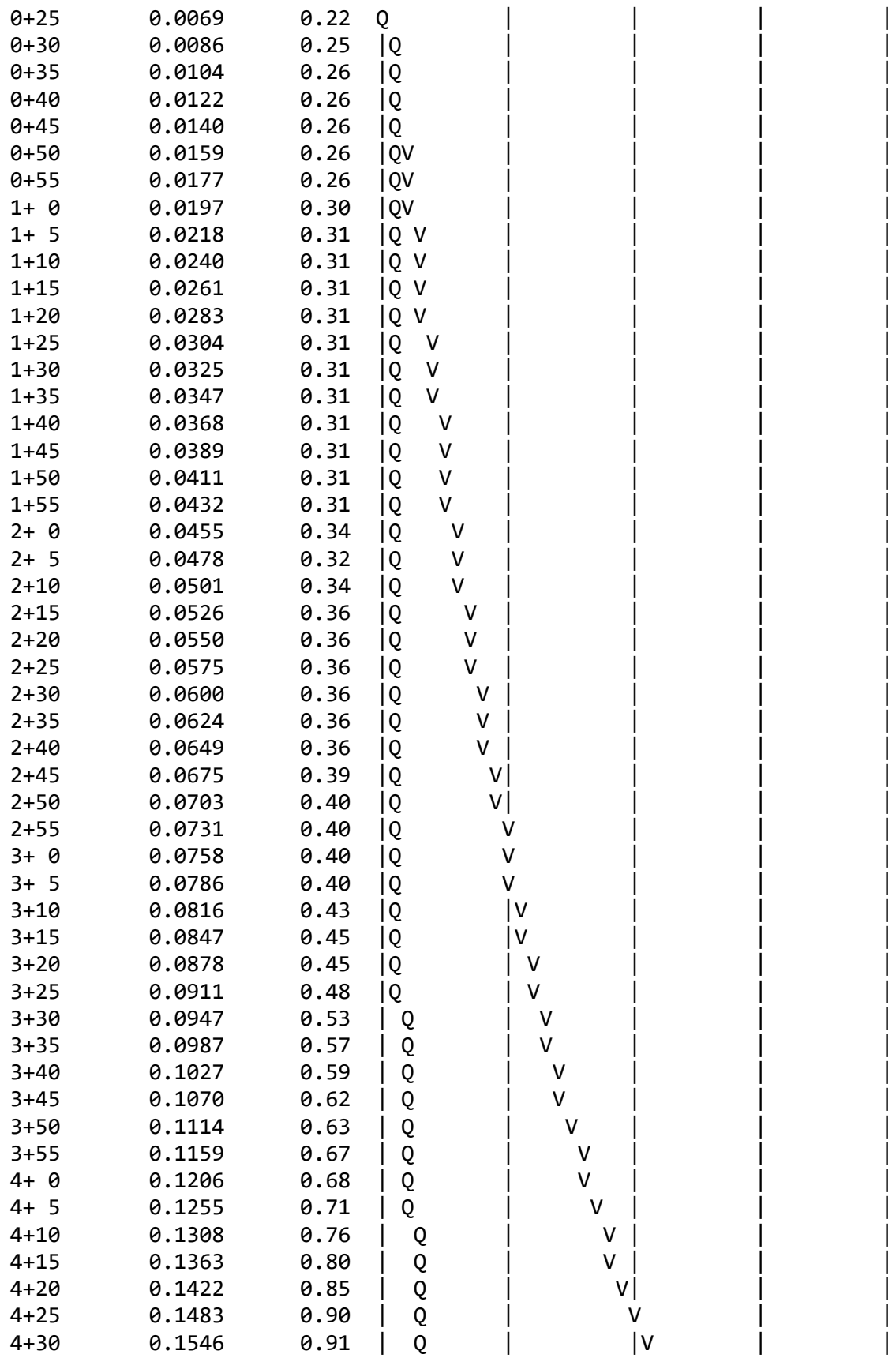
Drainage Area = 1.42(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.42(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 440.21(Ft.)
Length along longest watercourse measured to centroid = 326.50(Ft.)
Length along longest watercourse = 0.083 Mi.
Length along longest watercourse measured to centroid = 0.062 Mi.
Difference in elevation = 6.70(Ft.)
Slope along watercourse = 80.3616 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.018 Hr.
Lag time = 1.10 Min.
25% of lag time = 0.27 Min.
40% of lag time = 0.44 Min.
Unit time = 5.00 Min.
Duration of storm = 6 Hour(s)
User Entered Base Flow = 0.00(CFS)

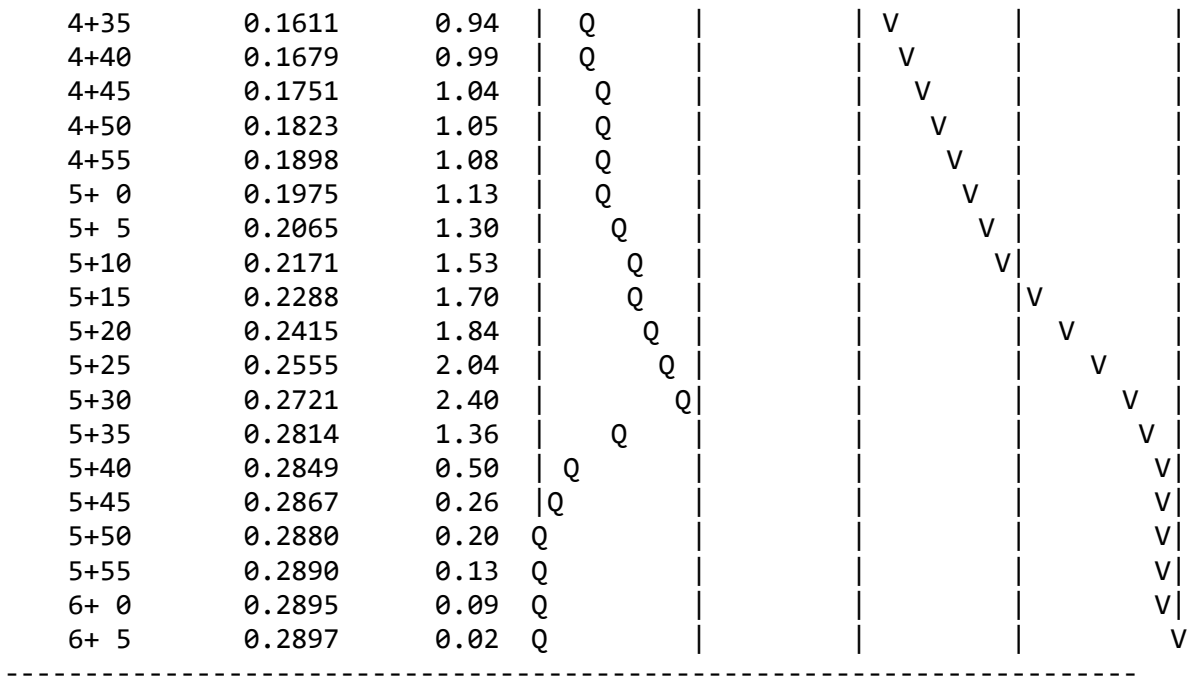
2 YEAR Area rainfall data:

```
Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.42            1.10                   1.56

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.42            2.70                   3.83

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    1.100(In)
Area Averaged 100-Year Rainfall =    2.700(In)

Point rain (area averaged) =    2.700(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    2.700(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.417           69.00         0.869
 Total Area Entered =      1.42(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     0.869        0.042       1.000      0.042
                                                 Sum (F) =   0.042
Area averaged mean soil loss (F) (In/Hr) =  0.042
Minimum soil loss rate ((In/Hr)) =  0.021
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.205
------------------------------------------------------------------------

               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        454.945         68.526              0.979
    2   0.167        909.890         31.474              0.449
                               Sum = 100.000   Sum=       1.428
------------------------------------------------------------------------

 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	0.162	(0.042)	0.033	0.129
2	0.17	0.60	0.194	(0.042)	0.040	0.155
3	0.25	0.60	0.194	(0.042)	0.040	0.155
4	0.33	0.60	0.194	(0.042)	0.040	0.155
5	0.42	0.60	0.194	(0.042)	0.040	0.155
6	0.50	0.70	0.227	0.042	(0.046)	0.185
7	0.58	0.70	0.227	0.042	(0.046)	0.185
8	0.67	0.70	0.227	0.042	(0.046)	0.185
9	0.75	0.70	0.227	0.042	(0.046)	0.185
10	0.83	0.70	0.227	0.042	(0.046)	0.185
11	0.92	0.70	0.227	0.042	(0.046)	0.185
12	1.00	0.80	0.259	0.042	(0.053)	0.217
13	1.08	0.80	0.259	0.042	(0.053)	0.217
14	1.17	0.80	0.259	0.042	(0.053)	0.217
15	1.25	0.80	0.259	0.042	(0.053)	0.217
16	1.33	0.80	0.259	0.042	(0.053)	0.217
17	1.42	0.80	0.259	0.042	(0.053)	0.217
18	1.50	0.80	0.259	0.042	(0.053)	0.217
19	1.58	0.80	0.259	0.042	(0.053)	0.217
20	1.67	0.80	0.259	0.042	(0.053)	0.217
21	1.75	0.80	0.259	0.042	(0.053)	0.217
22	1.83	0.80	0.259	0.042	(0.053)	0.217
23	1.92	0.80	0.259	0.042	(0.053)	0.217
24	2.00	0.90	0.292	0.042	(0.060)	0.249
25	2.08	0.80	0.259	0.042	(0.053)	0.217
26	2.17	0.90	0.292	0.042	(0.060)	0.249
27	2.25	0.90	0.292	0.042	(0.060)	0.249
28	2.33	0.90	0.292	0.042	(0.060)	0.249
29	2.42	0.90	0.292	0.042	(0.060)	0.249
30	2.50	0.90	0.292	0.042	(0.060)	0.249
31	2.58	0.90	0.292	0.042	(0.060)	0.249
32	2.67	0.90	0.292	0.042	(0.060)	0.249
33	2.75	1.00	0.324	0.042	(0.066)	0.282
34	2.83	1.00	0.324	0.042	(0.066)	0.282
35	2.92	1.00	0.324	0.042	(0.066)	0.282
36	3.00	1.00	0.324	0.042	(0.066)	0.282
37	3.08	1.00	0.324	0.042	(0.066)	0.282
38	3.17	1.10	0.356	0.042	(0.073)	0.314
39	3.25	1.10	0.356	0.042	(0.073)	0.314
40	3.33	1.10	0.356	0.042	(0.073)	0.314
41	3.42	1.20	0.389	0.042	(0.080)	0.347
42	3.50	1.30	0.421	0.042	(0.086)	0.379
43	3.58	1.40	0.454	0.042	(0.093)	0.411
44	3.67	1.40	0.454	0.042	(0.093)	0.411
45	3.75	1.50	0.486	0.042	(0.100)	0.444
46	3.83	1.50	0.486	0.042	(0.100)	0.444
47	3.92	1.60	0.518	0.042	(0.106)	0.476

```
48   4.00     1.60      0.518          0.042    (  0.106)        0.476
49   4.08     1.70      0.551          0.042    (  0.113)        0.509
50   4.17     1.80      0.583          0.042    (  0.120)        0.541
51   4.25     1.90      0.616          0.042    (  0.126)        0.573
52   4.33     2.00      0.648          0.042    (  0.133)        0.606
53   4.42     2.10      0.680          0.042    (  0.139)        0.638
54   4.50     2.10      0.680          0.042    (  0.139)        0.638
55   4.58     2.20      0.713          0.042    (  0.146)        0.671
56   4.67     2.30      0.745          0.042    (  0.153)        0.703
57   4.75     2.40      0.778          0.042    (  0.159)        0.735
58   4.83     2.40      0.778          0.042    (  0.159)        0.735
59   4.92     2.50      0.810          0.042    (  0.166)        0.768
60   5.00     2.60      0.842          0.042    (  0.173)        0.800
61   5.08     3.10      1.004          0.042    (  0.206)        0.962
62   5.17     3.60      1.166          0.042    (  0.239)        1.124
63   5.25     3.90      1.264          0.042    (  0.259)        1.221
64   5.33     4.20      1.361          0.042    (  0.279)        1.319
65   5.42     4.70      1.523          0.042    (  0.312)        1.481
66   5.50     5.60      1.814          0.042    (  0.372)        1.772
67   5.58     1.90      0.616          0.042    (  0.126)        0.573
68   5.67     0.90      0.292          0.042    (  0.060)        0.249
69   5.75     0.60      0.194       (  0.042)       0.040        0.155
70   5.83     0.50      0.162       (  0.042)       0.033        0.129
71   5.92     0.30      0.097       (  0.042)       0.020        0.077
72   6.00     0.20      0.065       (  0.042)       0.013        0.052
               (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    29.4
      Flood volume = Effective rainfall      2.45(In)
       times area       1.4(Ac.)/[(In)/(Ft.)] =       0.3(Ac.Ft)
      Total soil loss =      0.25(In)
      Total soil loss =     0.029(Ac.Ft)
      Total rainfall =      2.70(In)
      Flood volume =       12619.2 Cubic Feet
      Total soil loss =        1268.7 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =      2.401(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        2.5       5.0       7.5      10.0
-------------------------------------------------------------------------
  0+ 5       0.0009      0.13  Q         |         |         |         |
  0+10       0.0023      0.21  Q         |         |         |         |
  0+15       0.0038      0.22  Q         |         |         |         |
  0+20       0.0054      0.22  Q         |         |         |         |
```


0+25 0.0069 0.22
0+30 0.0086 0.25
0+35 0.0104 0.26
0+40 0.0122 0.26
0+45 0.0140 0.26
0+50 0.0159 0.26
0+55 0.0177 0.26
1+ 0 0.0197 0.30
1+ 5 0.0218 0.31
1+10 0.0240 0.31
1+15 0.0261 0.31
1+20 0.0283 0.31
1+25 0.0304 0.31
1+30 0.0325 0.31
1+35 0.0347 0.31
1+40 0.0368 0.31
1+45 0.0389 0.31
1+50 0.0411 0.31
1+55 0.0432 0.31
2+ 0 0.0455 0.34
2+ 5 0.0478 0.32
2+10 0.0501 0.34
2+15 0.0526 0.36
2+20 0.0550 0.36
2+25 0.0575 0.36
2+30 0.0600 0.36
2+35 0.0624 0.36
2+40 0.0649 0.36
2+45 0.0675 0.39
2+50 0.0703 0.40
2+55 0.0731 0.40
3+ 0 0.0758 0.40
3+ 5 0.0786 0.40
3+10 0.0816 0.43
3+15 0.0847 0.45
3+20 0.0878 0.45
3+25 0.0911 0.48
3+30 0.0947 0.53
3+35 0.0987 0.57
3+40 0.1027 0.59
3+45 0.1070 0.62
3+50 0.1114 0.63
3+55 0.1159 0.67
4+ 0 0.1206 0.68
4+ 5 0.1255 0.71
4+10 0.1308 0.76
4+15 0.1363 0.80
4+20 0.1422 0.85
4+25 0.1483 0.90
4+30 0.1546 0.91


4+35 0.1611 0.94
4+40 0.1679 0.99
4+45 0.1751 1.04
4+50 0.1823 1.05
4+55 0.1898 1.08
5+ 0 0.1975 1.13
5+ 5 0.2065 1.30
5+10 0.2171 1.53
5+15 0.2288 1.70
5+20 0.2415 1.84
5+25 0.2555 2.04
5+30 0.2721 2.40
5+35 0.2814 1.36
5+40 0.2849 0.50
5+45 0.2867 0.26
5+50 0.2880 0.20
5+55 0.2890 0.13
6+ 0 0.2895 0.09
6+ 5 0.2897 0.02

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

Study date 08/02/22 File: A21626DMA3Q100UH24100.out

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

Program License Serial Number 6509

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

English Units used in output format

A21626 PROPOSED 100YR-24HR UH

Drainage Area = 1.42(Ac.) = 0.002 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 1.42(Ac.) = 0.002 Sq. Mi.
Length along longest watercourse = 440.21(Ft.)
Length along longest watercourse measured to centroid = 326.50(Ft.)
Length along longest watercourse = 0.083 Mi.
Length along longest watercourse measured to centroid = 0.062 Mi.
Difference in elevation = 6.70(Ft.)
Slope along watercourse = 80.3616 Ft./Mi.
Average Manning's 'N' = 0.013
Lag time = 0.018 Hr.
Lag time = 1.10 Min.
25% of lag time = 0.27 Min.
40% of lag time = 0.44 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]
        1.42            1.90                  2.69

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        1.42            4.80                  6.80

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    1.900(In)
Area Averaged 100-Year Rainfall =    4.800(In)

Point rain (area averaged) =    4.800(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    4.800(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     1.417           69.00         0.869
 Total Area Entered =      1.42(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     0.869        0.042       1.000      0.042
                                                 Sum (F) =   0.042
Area averaged mean soil loss (F) (In/Hr) =  0.042
Minimum soil loss rate ((In/Hr)) =  0.021
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.205
------------------------------------------------------------------------

               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        454.945         68.526              0.979
    2   0.167        909.890         31.474              0.449
                               Sum = 100.000   Sum=       1.428
------------------------------------------------------------------------

 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	0.038	(0.075)	0.008	0.031
2	0.17	0.07	0.038	(0.075)	0.008	0.031
3	0.25	0.07	0.038	(0.074)	0.008	0.031
4	0.33	0.10	0.058	(0.074)	0.012	0.046
5	0.42	0.10	0.058	(0.074)	0.012	0.046
6	0.50	0.10	0.058	(0.073)	0.012	0.046
7	0.58	0.10	0.058	(0.073)	0.012	0.046
8	0.67	0.10	0.058	(0.073)	0.012	0.046
9	0.75	0.10	0.058	(0.073)	0.012	0.046
10	0.83	0.13	0.077	(0.072)	0.016	0.061
11	0.92	0.13	0.077	(0.072)	0.016	0.061
12	1.00	0.13	0.077	(0.072)	0.016	0.061
13	1.08	0.10	0.058	(0.071)	0.012	0.046
14	1.17	0.10	0.058	(0.071)	0.012	0.046
15	1.25	0.10	0.058	(0.071)	0.012	0.046
16	1.33	0.10	0.058	(0.071)	0.012	0.046
17	1.42	0.10	0.058	(0.070)	0.012	0.046
18	1.50	0.10	0.058	(0.070)	0.012	0.046
19	1.58	0.10	0.058	(0.070)	0.012	0.046
20	1.67	0.10	0.058	(0.069)	0.012	0.046
21	1.75	0.10	0.058	(0.069)	0.012	0.046
22	1.83	0.13	0.077	(0.069)	0.016	0.061
23	1.92	0.13	0.077	(0.069)	0.016	0.061
24	2.00	0.13	0.077	(0.068)	0.016	0.061
25	2.08	0.13	0.077	(0.068)	0.016	0.061
26	2.17	0.13	0.077	(0.068)	0.016	0.061
27	2.25	0.13	0.077	(0.068)	0.016	0.061
28	2.33	0.13	0.077	(0.067)	0.016	0.061
29	2.42	0.13	0.077	(0.067)	0.016	0.061
30	2.50	0.13	0.077	(0.067)	0.016	0.061
31	2.58	0.17	0.096	(0.066)	0.020	0.076
32	2.67	0.17	0.096	(0.066)	0.020	0.076
33	2.75	0.17	0.096	(0.066)	0.020	0.076
34	2.83	0.17	0.096	(0.066)	0.020	0.076
35	2.92	0.17	0.096	(0.065)	0.020	0.076
36	3.00	0.17	0.096	(0.065)	0.020	0.076
37	3.08	0.17	0.096	(0.065)	0.020	0.076
38	3.17	0.17	0.096	(0.065)	0.020	0.076
39	3.25	0.17	0.096	(0.064)	0.020	0.076
40	3.33	0.17	0.096	(0.064)	0.020	0.076
41	3.42	0.17	0.096	(0.064)	0.020	0.076
42	3.50	0.17	0.096	(0.063)	0.020	0.076
43	3.58	0.17	0.096	(0.063)	0.020	0.076
44	3.67	0.17	0.096	(0.063)	0.020	0.076
45	3.75	0.17	0.096	(0.063)	0.020	0.076
46	3.83	0.20	0.115	(0.062)	0.024	0.092
47	3.92	0.20	0.115	(0.062)	0.024	0.092

48	4.00	0.20	0.115	(0.062)	0.024	0.092
49	4.08	0.20	0.115	(0.062)	0.024	0.092
50	4.17	0.20	0.115	(0.061)	0.024	0.092
51	4.25	0.20	0.115	(0.061)	0.024	0.092
52	4.33	0.23	0.134	(0.061)	0.028	0.107
53	4.42	0.23	0.134	(0.061)	0.028	0.107
54	4.50	0.23	0.134	(0.060)	0.028	0.107
55	4.58	0.23	0.134	(0.060)	0.028	0.107
56	4.67	0.23	0.134	(0.060)	0.028	0.107
57	4.75	0.23	0.134	(0.060)	0.028	0.107
58	4.83	0.27	0.154	(0.059)	0.031	0.122
59	4.92	0.27	0.154	(0.059)	0.031	0.122
60	5.00	0.27	0.154	(0.059)	0.031	0.122
61	5.08	0.20	0.115	(0.059)	0.024	0.092
62	5.17	0.20	0.115	(0.058)	0.024	0.092
63	5.25	0.20	0.115	(0.058)	0.024	0.092
64	5.33	0.23	0.134	(0.058)	0.028	0.107
65	5.42	0.23	0.134	(0.058)	0.028	0.107
66	5.50	0.23	0.134	(0.057)	0.028	0.107
67	5.58	0.27	0.154	(0.057)	0.031	0.122
68	5.67	0.27	0.154	(0.057)	0.031	0.122
69	5.75	0.27	0.154	(0.056)	0.031	0.122
70	5.83	0.27	0.154	(0.056)	0.031	0.122
71	5.92	0.27	0.154	(0.056)	0.031	0.122
72	6.00	0.27	0.154	(0.056)	0.031	0.122
73	6.08	0.30	0.173	(0.056)	0.035	0.137
74	6.17	0.30	0.173	(0.055)	0.035	0.137
75	6.25	0.30	0.173	(0.055)	0.035	0.137
76	6.33	0.30	0.173	(0.055)	0.035	0.137
77	6.42	0.30	0.173	(0.055)	0.035	0.137
78	6.50	0.30	0.173	(0.054)	0.035	0.137
79	6.58	0.33	0.192	(0.054)	0.039	0.153
80	6.67	0.33	0.192	(0.054)	0.039	0.153
81	6.75	0.33	0.192	(0.054)	0.039	0.153
82	6.83	0.33	0.192	(0.053)	0.039	0.153
83	6.92	0.33	0.192	(0.053)	0.039	0.153
84	7.00	0.33	0.192	(0.053)	0.039	0.153
85	7.08	0.33	0.192	(0.053)	0.039	0.153
86	7.17	0.33	0.192	(0.052)	0.039	0.153
87	7.25	0.33	0.192	(0.052)	0.039	0.153
88	7.33	0.37	0.211	(0.052)	0.043	0.168
89	7.42	0.37	0.211	(0.052)	0.043	0.168
90	7.50	0.37	0.211	(0.051)	0.043	0.168
91	7.58	0.40	0.230	(0.051)	0.047	0.183
92	7.67	0.40	0.230	(0.051)	0.047	0.183
93	7.75	0.40	0.230	(0.051)	0.047	0.183
94	7.83	0.43	0.250	0.050	(0.051)	0.199
95	7.92	0.43	0.250	0.050	(0.051)	0.199
96	8.00	0.43	0.250	0.050	(0.051)	0.200
97	8.08	0.50	0.288	0.050	(0.059)	0.238

98	8.17	0.50	0.288	0.050	(	0.059)	0.238
99	8.25	0.50	0.288	0.049	(	0.059)	0.239
100	8.33	0.50	0.288	0.049	(	0.059)	0.239
101	8.42	0.50	0.288	0.049	(	0.059)	0.239
102	8.50	0.50	0.288	0.049	(	0.059)	0.239
103	8.58	0.53	0.307	0.048	(	0.063)	0.259
104	8.67	0.53	0.307	0.048	(	0.063)	0.259
105	8.75	0.53	0.307	0.048	(	0.063)	0.259
106	8.83	0.57	0.326	0.048	(	0.067)	0.279
107	8.92	0.57	0.326	0.047	(	0.067)	0.279
108	9.00	0.57	0.326	0.047	(	0.067)	0.279
109	9.08	0.63	0.365	0.047	(	0.075)	0.318
110	9.17	0.63	0.365	0.047	(	0.075)	0.318
111	9.25	0.63	0.365	0.047	(	0.075)	0.318
112	9.33	0.67	0.384	0.046	(	0.079)	0.338
113	9.42	0.67	0.384	0.046	(	0.079)	0.338
114	9.50	0.67	0.384	0.046	(	0.079)	0.338
115	9.58	0.70	0.403	0.046	(	0.083)	0.358
116	9.67	0.70	0.403	0.045	(	0.083)	0.358
117	9.75	0.70	0.403	0.045	(	0.083)	0.358
118	9.83	0.73	0.422	0.045	(	0.087)	0.377
119	9.92	0.73	0.422	0.045	(	0.087)	0.378
120	10.00	0.73	0.422	0.045	(	0.087)	0.378
121	10.08	0.50	0.288	0.044	(	0.059)	0.244
122	10.17	0.50	0.288	0.044	(	0.059)	0.244
123	10.25	0.50	0.288	0.044	(	0.059)	0.244
124	10.33	0.50	0.288	0.044	(	0.059)	0.244
125	10.42	0.50	0.288	0.044	(	0.059)	0.244
126	10.50	0.50	0.288	0.043	(	0.059)	0.245
127	10.58	0.67	0.384	0.043	(	0.079)	0.341
128	10.67	0.67	0.384	0.043	(	0.079)	0.341
129	10.75	0.67	0.384	0.043	(	0.079)	0.341
130	10.83	0.67	0.384	0.042	(	0.079)	0.342
131	10.92	0.67	0.384	0.042	(	0.079)	0.342
132	11.00	0.67	0.384	0.042	(	0.079)	0.342
133	11.08	0.63	0.365	0.042	(	0.075)	0.323
134	11.17	0.63	0.365	0.042	(	0.075)	0.323
135	11.25	0.63	0.365	0.041	(	0.075)	0.323
136	11.33	0.63	0.365	0.041	(	0.075)	0.324
137	11.42	0.63	0.365	0.041	(	0.075)	0.324
138	11.50	0.63	0.365	0.041	(	0.075)	0.324
139	11.58	0.57	0.326	0.041	(	0.067)	0.286
140	11.67	0.57	0.326	0.040	(	0.067)	0.286
141	11.75	0.57	0.326	0.040	(	0.067)	0.286
142	11.83	0.60	0.346	0.040	(	0.071)	0.306
143	11.92	0.60	0.346	0.040	(	0.071)	0.306
144	12.00	0.60	0.346	0.040	(	0.071)	0.306
145	12.08	0.83	0.480	0.039	(	0.098)	0.441
146	12.17	0.83	0.480	0.039	(	0.098)	0.441
147	12.25	0.83	0.480	0.039	(	0.098)	0.441

148	12.33	0.87	0.499	0.039	(0.102)	0.460
149	12.42	0.87	0.499	0.039	(0.102)	0.461
150	12.50	0.87	0.499	0.038	(0.102)	0.461
151	12.58	0.93	0.538	0.038	(0.110)	0.499
152	12.67	0.93	0.538	0.038	(0.110)	0.500
153	12.75	0.93	0.538	0.038	(0.110)	0.500
154	12.83	0.97	0.557	0.038	(0.114)	0.519
155	12.92	0.97	0.557	0.037	(0.114)	0.519
156	13.00	0.97	0.557	0.037	(0.114)	0.519
157	13.08	1.13	0.653	0.037	(0.134)	0.616
158	13.17	1.13	0.653	0.037	(0.134)	0.616
159	13.25	1.13	0.653	0.037	(0.134)	0.616
160	13.33	1.13	0.653	0.037	(0.134)	0.616
161	13.42	1.13	0.653	0.036	(0.134)	0.616
162	13.50	1.13	0.653	0.036	(0.134)	0.617
163	13.58	0.77	0.442	0.036	(0.091)	0.406
164	13.67	0.77	0.442	0.036	(0.091)	0.406
165	13.75	0.77	0.442	0.036	(0.091)	0.406
166	13.83	0.77	0.442	0.035	(0.091)	0.406
167	13.92	0.77	0.442	0.035	(0.091)	0.406
168	14.00	0.77	0.442	0.035	(0.091)	0.407
169	14.08	0.90	0.518	0.035	(0.106)	0.483
170	14.17	0.90	0.518	0.035	(0.106)	0.484
171	14.25	0.90	0.518	0.035	(0.106)	0.484
172	14.33	0.87	0.499	0.034	(0.102)	0.465
173	14.42	0.87	0.499	0.034	(0.102)	0.465
174	14.50	0.87	0.499	0.034	(0.102)	0.465
175	14.58	0.87	0.499	0.034	(0.102)	0.465
176	14.67	0.87	0.499	0.034	(0.102)	0.466
177	14.75	0.87	0.499	0.034	(0.102)	0.466
178	14.83	0.83	0.480	0.033	(0.098)	0.447
179	14.92	0.83	0.480	0.033	(0.098)	0.447
180	15.00	0.83	0.480	0.033	(0.098)	0.447
181	15.08	0.80	0.461	0.033	(0.094)	0.428
182	15.17	0.80	0.461	0.033	(0.094)	0.428
183	15.25	0.80	0.461	0.032	(0.094)	0.428
184	15.33	0.77	0.442	0.032	(0.091)	0.409
185	15.42	0.77	0.442	0.032	(0.091)	0.409
186	15.50	0.77	0.442	0.032	(0.091)	0.410
187	15.58	0.63	0.365	0.032	(0.075)	0.333
188	15.67	0.63	0.365	0.032	(0.075)	0.333
189	15.75	0.63	0.365	0.031	(0.075)	0.333
190	15.83	0.63	0.365	0.031	(0.075)	0.333
191	15.92	0.63	0.365	0.031	(0.075)	0.334
192	16.00	0.63	0.365	0.031	(0.075)	0.334
193	16.08	0.13	0.077	(0.031)	0.016	0.061
194	16.17	0.13	0.077	(0.031)	0.016	0.061
195	16.25	0.13	0.077	(0.031)	0.016	0.061
196	16.33	0.13	0.077	(0.030)	0.016	0.061
197	16.42	0.13	0.077	(0.030)	0.016	0.061

198	16.50	0.13	0.077	(0.030)	0.016	0.061
199	16.58	0.10	0.058	(0.030)	0.012	0.046
200	16.67	0.10	0.058	(0.030)	0.012	0.046
201	16.75	0.10	0.058	(0.030)	0.012	0.046
202	16.83	0.10	0.058	(0.029)	0.012	0.046
203	16.92	0.10	0.058	(0.029)	0.012	0.046
204	17.00	0.10	0.058	(0.029)	0.012	0.046
205	17.08	0.17	0.096	(0.029)	0.020	0.076
206	17.17	0.17	0.096	(0.029)	0.020	0.076
207	17.25	0.17	0.096	(0.029)	0.020	0.076
208	17.33	0.17	0.096	(0.029)	0.020	0.076
209	17.42	0.17	0.096	(0.028)	0.020	0.076
210	17.50	0.17	0.096	(0.028)	0.020	0.076
211	17.58	0.17	0.096	(0.028)	0.020	0.076
212	17.67	0.17	0.096	(0.028)	0.020	0.076
213	17.75	0.17	0.096	(0.028)	0.020	0.076
214	17.83	0.13	0.077	(0.028)	0.016	0.061
215	17.92	0.13	0.077	(0.028)	0.016	0.061
216	18.00	0.13	0.077	(0.027)	0.016	0.061
217	18.08	0.13	0.077	(0.027)	0.016	0.061
218	18.17	0.13	0.077	(0.027)	0.016	0.061
219	18.25	0.13	0.077	(0.027)	0.016	0.061
220	18.33	0.13	0.077	(0.027)	0.016	0.061
221	18.42	0.13	0.077	(0.027)	0.016	0.061
222	18.50	0.13	0.077	(0.027)	0.016	0.061
223	18.58	0.10	0.058	(0.027)	0.012	0.046
224	18.67	0.10	0.058	(0.026)	0.012	0.046
225	18.75	0.10	0.058	(0.026)	0.012	0.046
226	18.83	0.07	0.038	(0.026)	0.008	0.031
227	18.92	0.07	0.038	(0.026)	0.008	0.031
228	19.00	0.07	0.038	(0.026)	0.008	0.031
229	19.08	0.10	0.058	(0.026)	0.012	0.046
230	19.17	0.10	0.058	(0.026)	0.012	0.046
231	19.25	0.10	0.058	(0.026)	0.012	0.046
232	19.33	0.13	0.077	(0.025)	0.016	0.061
233	19.42	0.13	0.077	(0.025)	0.016	0.061
234	19.50	0.13	0.077	(0.025)	0.016	0.061
235	19.58	0.10	0.058	(0.025)	0.012	0.046
236	19.67	0.10	0.058	(0.025)	0.012	0.046
237	19.75	0.10	0.058	(0.025)	0.012	0.046
238	19.83	0.07	0.038	(0.025)	0.008	0.031
239	19.92	0.07	0.038	(0.025)	0.008	0.031
240	20.00	0.07	0.038	(0.025)	0.008	0.031
241	20.08	0.10	0.058	(0.024)	0.012	0.046
242	20.17	0.10	0.058	(0.024)	0.012	0.046
243	20.25	0.10	0.058	(0.024)	0.012	0.046
244	20.33	0.10	0.058	(0.024)	0.012	0.046
245	20.42	0.10	0.058	(0.024)	0.012	0.046
246	20.50	0.10	0.058	(0.024)	0.012	0.046
247	20.58	0.10	0.058	(0.024)	0.012	0.046

248	20.67	0.10	0.058	(0.024)	0.012	0.046
249	20.75	0.10	0.058	(0.024)	0.012	0.046
250	20.83	0.07	0.038	(0.024)	0.008	0.031
251	20.92	0.07	0.038	(0.023)	0.008	0.031
252	21.00	0.07	0.038	(0.023)	0.008	0.031
253	21.08	0.10	0.058	(0.023)	0.012	0.046
254	21.17	0.10	0.058	(0.023)	0.012	0.046
255	21.25	0.10	0.058	(0.023)	0.012	0.046
256	21.33	0.07	0.038	(0.023)	0.008	0.031
257	21.42	0.07	0.038	(0.023)	0.008	0.031
258	21.50	0.07	0.038	(0.023)	0.008	0.031
259	21.58	0.10	0.058	(0.023)	0.012	0.046
260	21.67	0.10	0.058	(0.023)	0.012	0.046
261	21.75	0.10	0.058	(0.023)	0.012	0.046
262	21.83	0.07	0.038	(0.022)	0.008	0.031
263	21.92	0.07	0.038	(0.022)	0.008	0.031
264	22.00	0.07	0.038	(0.022)	0.008	0.031
265	22.08	0.10	0.058	(0.022)	0.012	0.046
266	22.17	0.10	0.058	(0.022)	0.012	0.046
267	22.25	0.10	0.058	(0.022)	0.012	0.046
268	22.33	0.07	0.038	(0.022)	0.008	0.031
269	22.42	0.07	0.038	(0.022)	0.008	0.031
270	22.50	0.07	0.038	(0.022)	0.008	0.031
271	22.58	0.07	0.038	(0.022)	0.008	0.031
272	22.67	0.07	0.038	(0.022)	0.008	0.031
273	22.75	0.07	0.038	(0.022)	0.008	0.031
274	22.83	0.07	0.038	(0.022)	0.008	0.031
275	22.92	0.07	0.038	(0.022)	0.008	0.031
276	23.00	0.07	0.038	(0.022)	0.008	0.031
277	23.08	0.07	0.038	(0.021)	0.008	0.031
278	23.17	0.07	0.038	(0.021)	0.008	0.031
279	23.25	0.07	0.038	(0.021)	0.008	0.031
280	23.33	0.07	0.038	(0.021)	0.008	0.031
281	23.42	0.07	0.038	(0.021)	0.008	0.031
282	23.50	0.07	0.038	(0.021)	0.008	0.031
283	23.58	0.07	0.038	(0.021)	0.008	0.031
284	23.67	0.07	0.038	(0.021)	0.008	0.031
285	23.75	0.07	0.038	(0.021)	0.008	0.031
286	23.83	0.07	0.038	(0.021)	0.008	0.031
287	23.92	0.07	0.038	(0.021)	0.008	0.031
288	24.00	0.07	0.038	(0.021)	0.008	0.031

(Loss Rate Not Used)

Sum = 100.0 Sum = 50.2

Flood volume = Effective rainfall 4.19(In)
times area 1.4(Ac.)/[(In)/(Ft.)] = 0.5(Ac.Ft)
Total soil loss = 0.61(In)
Total soil loss = 0.073(Ac.Ft)
Total rainfall = 4.80(In)
Flood volume = 21529.0 Cubic Feet
Total soil loss = 3160.8 Cubic Feet

Peak flow rate of this hydrograph = 0.881(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	2.5	5.0	7.5	10.0
0+ 5	0.0002	0.03	Q				
0+10	0.0005	0.04	Q				
0+15	0.0008	0.04	Q				
0+20	0.0012	0.06	Q				
0+25	0.0017	0.07	Q				
0+30	0.0021	0.07	Q				
0+35	0.0026	0.07	Q				
0+40	0.0030	0.07	Q				
0+45	0.0035	0.07	Q				
0+50	0.0040	0.08	Q				
0+55	0.0046	0.09	Q				
1+ 0	0.0052	0.09	Q				
1+ 5	0.0057	0.07	Q				
1+10	0.0062	0.07	Q				
1+15	0.0066	0.07	Q				
1+20	0.0071	0.07	Q				
1+25	0.0075	0.07	Q				
1+30	0.0080	0.07	Q				
1+35	0.0084	0.07	Q				
1+40	0.0089	0.07	Q				
1+45	0.0093	0.07	Q				
1+50	0.0099	0.08	Q				
1+55	0.0105	0.09	Q				
2+ 0	0.0111	0.09	Q				
2+ 5	0.0117	0.09	Q				
2+10	0.0123	0.09	Q				
2+15	0.0129	0.09	QV				
2+20	0.0135	0.09	QV				
2+25	0.0141	0.09	QV				
2+30	0.0147	0.09	QV				
2+35	0.0154	0.10	QV				
2+40	0.0161	0.11	QV				
2+45	0.0169	0.11	QV				
2+50	0.0176	0.11	QV				
2+55	0.0184	0.11	QV				
3+ 0	0.0191	0.11	QV				
3+ 5	0.0199	0.11	QV				
3+10	0.0206	0.11	QV				

3+15	0.0214	0.11	QV	|	|	|	|
3+20	0.0221	0.11	QV	|	|	|	|
3+25	0.0229	0.11	QV	|	|	|	|
3+30	0.0236	0.11	QV	|	|	|	|
3+35	0.0244	0.11	QV	|	|	|	|
3+40	0.0251	0.11	Q V	|	|	|	|
3+45	0.0259	0.11	Q V	|	|	|	|
3+50	0.0268	0.12	Q V	|	|	|	|
3+55	0.0277	0.13	Q V	|	|	|	|
4+ 0	0.0286	0.13	Q V	|	|	|	|
4+ 5	0.0295	0.13	Q V	|	|	|	|
4+10	0.0304	0.13	Q V	|	|	|	|
4+15	0.0313	0.13	Q V	|	|	|	|
4+20	0.0323	0.15	Q V	|	|	|	|
4+25	0.0333	0.15	Q V	|	|	|	|
4+30	0.0344	0.15	Q V	|	|	|	|
4+35	0.0354	0.15	Q V	|	|	|	|
4+40	0.0365	0.15	Q V	|	|	|	|
4+45	0.0375	0.15	Q V	|	|	|	|
4+50	0.0387	0.17	Q V	|	|	|	|
4+55	0.0399	0.17	Q V	|	|	|	|
5+ 0	0.0411	0.17	Q V	|	|	|	|
5+ 5	0.0421	0.14	Q V	|	|	|	|
5+10	0.0430	0.13	Q V	|	|	|	|
5+15	0.0439	0.13	Q V	|	|	|	|
5+20	0.0449	0.15	Q V	|	|	|	|
5+25	0.0459	0.15	Q V	|	|	|	|
5+30	0.0470	0.15	Q V	|	|	|	|
5+35	0.0481	0.17	Q V	|	|	|	|
5+40	0.0493	0.17	Q V	|	|	|	|
5+45	0.0505	0.17	Q V	|	|	|	|
5+50	0.0517	0.17	Q V	|	|	|	|
5+55	0.0529	0.17	Q V	|	|	|	|
6+ 0	0.0541	0.17	Q V	|	|	|	|
6+ 5	0.0554	0.19	Q V	|	|	|	|
6+10	0.0568	0.20	Q V	|	|	|	|
6+15	0.0582	0.20	Q V	|	|	|	|
6+20	0.0595	0.20	Q V	|	|	|	|
6+25	0.0609	0.20	Q V	|	|	|	|
6+30	0.0622	0.20	Q V	|	|	|	|
6+35	0.0637	0.21	Q V	|	|	|	|
6+40	0.0652	0.22	Q V	|	|	|	|
6+45	0.0667	0.22	Q V	|	|	|	|
6+50	0.0682	0.22	Q V	|	|	|	|
6+55	0.0697	0.22	Q V	|	|	|	|
7+ 0	0.0712	0.22	Q V	|	|	|	|
7+ 5	0.0727	0.22	Q V	|	|	|	|
7+10	0.0742	0.22	Q V	|	|	|	|
7+15	0.0757	0.22	Q V	|	|	|	|
7+20	0.0773	0.23	Q V	|	|	|	|

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 7+25       0.0789      0.24  Q     V   |          |          |          |
 7+30       0.0806      0.24  Q     V   |          |          |          |
 7+35       0.0823      0.25  |Q    V   |          |          |          |
 7+40       0.0841      0.26  |Q    V   |          |          |          |
 7+45       0.0859      0.26  |Q    V   |          |          |          |
 7+50       0.0879      0.28  |Q     V  |          |          |          |
 7+55       0.0898      0.28  |Q     V  |          |          |          |
 8+ 0       0.0918      0.29  |Q     V  |          |          |          |
 8+ 5       0.0940      0.32  |Q     V  |          |          |          |
 8+10       0.0964      0.34  |Q     V  |          |          |          |
 8+15       0.0987      0.34  |Q     V  |          |          |          |
 8+20       0.1011      0.34  |Q      V |          |          |          |
 8+25       0.1034      0.34  |Q      V |          |          |          |
 8+30       0.1058      0.34  |Q      V |          |          |          |
 8+35       0.1082      0.36  |Q      V |          |          |          |
 8+40       0.1108      0.37  |Q      V |          |          |          |
 8+45       0.1133      0.37  |Q       V|          |          |          |
 8+50       0.1160      0.39  |Q       V|          |          |          |
 8+55       0.1188      0.40  |Q       V|          |          |          |
 9+ 0       0.1215      0.40  |Q       V|          |          |          |
 9+ 5       0.1245      0.44  |Q        V          |          |          |
 9+10       0.1277      0.45  |Q        V          |          |          |
 9+15       0.1308      0.45  |Q        V          |          |          |
 9+20       0.1340      0.47  |Q        V          |          |          |
 9+25       0.1374      0.48  |Q        |V         |          |          |
 9+30       0.1407      0.48  |Q        |V         |          |          |
 9+35       0.1442      0.50  | Q       |V         |          |          |
 9+40       0.1477      0.51  | Q       |V         |          |          |
 9+45       0.1512      0.51  | Q       | V        |          |          |
 9+50       0.1549      0.53  | Q       | V        |          |          |
 9+55       0.1586      0.54  | Q       | V        |          |          |
10+ 0       0.1623      0.54  | Q       |  V       |          |          |
10+ 5       0.1651      0.41  |Q        |  V       |          |          |
10+10       0.1675      0.35  |Q        |  V       |          |          |
10+15       0.1699      0.35  |Q        |  V       |          |          |
10+20       0.1723      0.35  |Q        |  V       |          |          |
10+25       0.1747      0.35  |Q        |   V      |          |          |
10+30       0.1771      0.35  |Q        |   V      |          |          |
10+35       0.1802      0.44  |Q        |   V      |          |          |
10+40       0.1835      0.49  |Q        |   V      |          |          |
10+45       0.1869      0.49  |Q        |    V     |          |          |
10+50       0.1902      0.49  |Q        |    V     |          |          |
10+55       0.1936      0.49  |Q        |    V     |          |          |
11+ 0       0.1970      0.49  |Q        |    V     |          |          |
11+ 5       0.2002      0.47  |Q        |     V    |          |          |
11+10       0.2034      0.46  |Q        |     V    |          |          |
11+15       0.2066      0.46  |Q        |     V    |          |          |
11+20       0.2097      0.46  |Q        |     V    |          |          |
11+25       0.2129      0.46  |Q        |      V   |          |          |
11+30       0.2161      0.46  |Q        |      V   |          |          |
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11+35       0.2190      0.43  |Q        |      V  |         |         |
11+40       0.2219      0.41  |Q        |      V  |         |         |
11+45       0.2247      0.41  |Q        |       V |         |         |
11+50       0.2276      0.43  |Q        |       V |         |         |
11+55       0.2306      0.44  |Q        |       V |         |         |
12+ 0       0.2336      0.44  |Q        |       V |         |         |
12+ 5       0.2376      0.57  | Q       |        V|         |         |
12+10       0.2419      0.63  | Q       |        V|         |         |
12+15       0.2462      0.63  | Q       |        V|         |         |
12+20       0.2507      0.65  | Q       |         V         |         |
12+25       0.2552      0.66  | Q       |         V         |         |
12+30       0.2598      0.66  | Q       |          |V       |         |
12+35       0.2646      0.70  | Q       |          |V       |         |
12+40       0.2695      0.71  | Q       |          |V       |         |
12+45       0.2744      0.71  | Q       |          | V      |         |
12+50       0.2794      0.73  | Q       |          | V      |         |
12+55       0.2846      0.74  | Q       |          |  V     |         |
13+ 0       0.2897      0.74  | Q       |          |  V     |         |
13+ 5       0.2954      0.84  |  Q      |          |  V     |         |
13+10       0.3015      0.88  |  Q      |          |   V    |         |
13+15       0.3075      0.88  |  Q      |          |   V    |         |
13+20       0.3136      0.88  |  Q      |          |    V   |         |
13+25       0.3197      0.88  |  Q      |          |    V   |         |
13+30       0.3257      0.88  |  Q      |          |     V  |         |
13+35       0.3304      0.67  | Q       |          |     V  |         |
13+40       0.3344      0.58  | Q       |          |      V |         |
13+45       0.3384      0.58  | Q       |          |      V |         |
13+50       0.3424      0.58  | Q       |          |      V |         |
13+55       0.3464      0.58  | Q       |          |       V|         |
14+ 0       0.3504      0.58  | Q       |          |       V|         |
14+ 5       0.3549      0.66  | Q       |          |       V|         |
14+10       0.3596      0.69  | Q       |          |        V|         |
14+15       0.3644      0.69  | Q       |          |        V|         |
14+20       0.3690      0.67  | Q       |          |        V|         |
14+25       0.3736      0.66  | Q       |          |         V         |
14+30       0.3782      0.66  | Q       |          |         V         |
14+35       0.3828      0.66  | Q       |          |         V         |
14+40       0.3874      0.67  | Q       |          |          |V       |
14+45       0.3919      0.67  | Q       |          |          |V       |
14+50       0.3964      0.65  | Q       |          |          | V      |
14+55       0.4008      0.64  | Q       |          |          | V      |
15+ 0       0.4052      0.64  | Q       |          |          | V      |
15+ 5       0.4095      0.62  | Q       |          |          |  V     |
15+10       0.4137      0.61  | Q       |          |          |  V     |
15+15       0.4179      0.61  | Q       |          |          |  V     |
15+20       0.4220      0.59  | Q       |          |          |   V    |
15+25       0.4260      0.58  | Q       |          |          |   V    |
15+30       0.4300      0.59  | Q       |          |          |   V    |
15+35       0.4335      0.51  | Q       |          |          |    V   |
15+40       0.4368      0.48  |Q        |          |          |    V   |
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15+45	0.4401	0.48	|Q	|	|	|	V |
15+50	0.4434	0.48	|Q	|	|	|	V |
15+55	0.4467	0.48	|Q	|	|	|	V |
16+ 0	0.4499	0.48	|Q	|	|	|	V |
16+ 5	0.4514	0.21	Q	|	|	|	V |
16+10	0.4520	0.09	Q	|	|	|	V |
16+15	0.4526	0.09	Q	|	|	|	V |
16+20	0.4532	0.09	Q	|	|	|	V |
16+25	0.4538	0.09	Q	|	|	|	V |
16+30	0.4544	0.09	Q	|	|	|	V |
16+35	0.4549	0.07	Q	|	|	|	V |
16+40	0.4553	0.07	Q	|	|	|	V |
16+45	0.4558	0.07	Q	|	|	|	V |
16+50	0.4562	0.07	Q	|	|	|	V |
16+55	0.4567	0.07	Q	|	|	|	V |
17+ 0	0.4571	0.07	Q	|	|	|	V |
17+ 5	0.4578	0.10	Q	|	|	|	V |
17+10	0.4586	0.11	Q	|	|	|	V |
17+15	0.4593	0.11	Q	|	|	|	V |
17+20	0.4601	0.11	Q	|	|	|	V |
17+25	0.4608	0.11	Q	|	|	|	V |
17+30	0.4616	0.11	Q	|	|	|	V |
17+35	0.4623	0.11	Q	|	|	|	V |
17+40	0.4631	0.11	Q	|	|	|	V |
17+45	0.4638	0.11	Q	|	|	|	V |
17+50	0.4645	0.09	Q	|	|	|	V |
17+55	0.4651	0.09	Q	|	|	|	V |
18+ 0	0.4657	0.09	Q	|	|	|	V |
18+ 5	0.4663	0.09	Q	|	|	|	V |
18+10	0.4669	0.09	Q	|	|	|	V |
18+15	0.4675	0.09	Q	|	|	|	V |
18+20	0.4681	0.09	Q	|	|	|	V |
18+25	0.4687	0.09	Q	|	|	|	V |
18+30	0.4693	0.09	Q	|	|	|	V |
18+35	0.4698	0.07	Q	|	|	|	V |
18+40	0.4702	0.07	Q	|	|	|	V |
18+45	0.4707	0.07	Q	|	|	|	V |
18+50	0.4710	0.05	Q	|	|	|	V |
18+55	0.4713	0.04	Q	|	|	|	V |
19+ 0	0.4716	0.04	Q	|	|	|	V |
19+ 5	0.4720	0.06	Q	|	|	|	V |
19+10	0.4725	0.07	Q	|	|	|	V |
19+15	0.4729	0.07	Q	|	|	|	V |
19+20	0.4735	0.08	Q	|	|	|	V |
19+25	0.4741	0.09	Q	|	|	|	V |
19+30	0.4747	0.09	Q	|	|	|	V |
19+35	0.4752	0.07	Q	|	|	|	V |
19+40	0.4756	0.07	Q	|	|	|	V |
19+45	0.4761	0.07	Q	|	|	|	V |
19+50	0.4764	0.05	Q	|	|	|	V |

19+55	0.4767	0.04	Q	|	|	|	V |
20+ 0	0.4770	0.04	Q	|	|	|	V |
20+ 5	0.4774	0.06	Q	|	|	|	V |
20+10	0.4779	0.07	Q	|	|	|	V |
20+15	0.4783	0.07	Q	|	|	|	V |
20+20	0.4788	0.07	Q	|	|	|	V |
20+25	0.4792	0.07	Q	|	|	|	V |
20+30	0.4797	0.07	Q	|	|	|	V |
20+35	0.4801	0.07	Q	|	|	|	V |
20+40	0.4806	0.07	Q	|	|	|	V |
20+45	0.4810	0.07	Q	|	|	|	V |
20+50	0.4814	0.05	Q	|	|	|	V |
20+55	0.4817	0.04	Q	|	|	|	V |
21+ 0	0.4820	0.04	Q	|	|	|	V|
21+ 5	0.4824	0.06	Q	|	|	|	V|
21+10	0.4828	0.07	Q	|	|	|	V|
21+15	0.4833	0.07	Q	|	|	|	V|
21+20	0.4836	0.05	Q	|	|	|	V|
21+25	0.4839	0.04	Q	|	|	|	V|
21+30	0.4842	0.04	Q	|	|	|	V|
21+35	0.4846	0.06	Q	|	|	|	V|
21+40	0.4851	0.07	Q	|	|	|	V|
21+45	0.4855	0.07	Q	|	|	|	V|
21+50	0.4859	0.05	Q	|	|	|	V|
21+55	0.4862	0.04	Q	|	|	|	V|
22+ 0	0.4865	0.04	Q	|	|	|	V|
22+ 5	0.4869	0.06	Q	|	|	|	V|
22+10	0.4873	0.07	Q	|	|	|	V|
22+15	0.4878	0.07	Q	|	|	|	V|
22+20	0.4881	0.05	Q	|	|	|	V|
22+25	0.4884	0.04	Q	|	|	|	V|
22+30	0.4887	0.04	Q	|	|	|	V|
22+35	0.4890	0.04	Q	|	|	|	V|
22+40	0.4893	0.04	Q	|	|	|	V|
22+45	0.4896	0.04	Q	|	|	|	V|
22+50	0.4899	0.04	Q	|	|	|	V|
22+55	0.4902	0.04	Q	|	|	|	V|
23+ 0	0.4905	0.04	Q	|	|	|	V|
23+ 5	0.4908	0.04	Q	|	|	|	V|
23+10	0.4911	0.04	Q	|	|	|	V|
23+15	0.4914	0.04	Q	|	|	|	V|
23+20	0.4917	0.04	Q	|	|	|	V|
23+25	0.4920	0.04	Q	|	|	|	V|
23+30	0.4923	0.04	Q	|	|	|	V|
23+35	0.4926	0.04	Q	|	|	|	V|
23+40	0.4929	0.04	Q	|	|	|	V|
23+45	0.4932	0.04	Q	|	|	|	V|
23+50	0.4935	0.04	Q	|	|	|	V|
23+55	0.4938	0.04	Q	|	|	|	V|
24+ 0	0.4941	0.04	Q	|	|	|	V|

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   24+ 5       0.4942      0.01  Q         |         |         |        V|
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Appendix 8: Source Control

Pollutant Sources/Source Control Checklist

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

How to use this worksheet (also see instructions in Section G of the WQMP Template):

1. Review Column 1 and identify which of these potential sources of stormwater pollutants apply to your site. Check each box that applies.
2. Review Column 2 and incorporate all of the corresponding applicable BMPs in your WQMP Exhibit.
3. Review Columns 3 and 4 and incorporate all of the corresponding applicable permanent controls and operational BMPs in your WQMP. Use the format shown in Table G.1on page 23 of this WQMP Template. Describe your specific BMPs in an accompanying narrative, and explain any special conditions or situations that required omitting BMPs or substituting alternative BMPs for those shown here.

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
☒ A. **On-site storm drain inlets**	☒ **Locations of inlets.**	☒ **Mark all inlets with the words "Only Rain Down the Storm Drain" or similar. Catch Basin Markers may be available from the Riverside County Flood Control and Water Conservation District, call 951.955.1200 to verify.**	☒ **Maintain and periodically repaint or replace inlet markings.** ☒ **Provide stormwater pollution prevention information to new site owners, lessees, or operators.** ☐ **See applicable operational BMPs in Fact Sheet SC-44, "Drainage System Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com** ☒ **Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."**
☐ B. **Interior floor drains and elevator shaft sump pumps**		☐ **State that interior floor drains and elevator shaft sump pumps will be plumbed to sanitary sewer.**	☐ **Inspect and maintain drains to prevent blockages and overflow.**
☐ C. **Interior parking garages**		☐ **State that parking garage floor drains will be plumbed to the sanitary sewer.**	☐ **Inspect and maintain drains to prevent blockages and overflow.**

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
☐ D1. **Need for future indoor & structural pest control**		☐ **Note building design features that discourage entry of pests.**	☐ **Provide Integrated Pest Management information to owners, lessees, and operators.**
☒ D2. **Landscape/ Outdoor Pesticide Use**	☒ **Show locations of native trees or areas of shrubs and ground cover to be undisturbed and retained.** ☒ **Show self-retaining landscape areas, if any.** ☒ **Show stormwater treatment and hydrograph modification management BMPs. (See instructions in Chapter 3, Step 5 and guidance in Chapter 5.)**	**State that final landscape plans will accomplish all of the following.** ☒ **Preserve existing native trees, shrubs, and ground cover to the maximum extent possible.** ☒ **Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution.** **Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions.** ☒ **Consider using pest-resistant plants, especially adjacent to hardscape.** ☒ **To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.**	☒ **Maintain landscaping using minimum or no pesticides.** ☐ **See applicable operational BMPs in "What you should know for…..Landscape and Gardening"** at http://rcflood.org/stormwater/**Error! Hyperlink reference not valid.** ☐ **Provide IPM information to new owners, lessees and operators.**

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
❑ E. **Pools, spas, ponds, decorative fountains, and other water features.**	❑ **Show location of water feature and a sanitary sewer cleanout in an accessible area within 10 feet. (Exception: Public pools must be plumbed according to County Department of Environmental Health Guidelines.)**	**If the Co-Permittee requires pools to be plumbed to the sanitary sewer, place a note on the plans and state in the narrative that this connection will be made according to local requirements.**	❑ **See applicable operational BMPs in** "Guidelines for Maintaining Your Swimming Pool, Jacuzzi and Garden Fountain" at http://rcflood.org/stormwater/
❑ F. **Food service**	❑ **For restaurants, grocery stores, and other food service operations, show location (indoors or in a covered area outdoors) of a floor sink or other area for cleaning floor mats, containers, and equipment.** ❑ **On the drawing, show a note that this drain will be connected to a grease interceptor before discharging to the sanitary sewer.**	❑ **Describe the location and features of the designated cleaning area.** ❑ **Describe the items to be cleaned in this facility and how it has been sized to insure that the largest items can be accommodated.**	❑ **See the brochure, "**The Food Service Industry Best Management Practices for: Restaurants, Grocery Stores, Delicatessens and Bakeries" at http://rcflood.org/stormwater/ **Provide this brochure to new site owners, lessees, and operators.**
❑ G. **Refuse areas**	❑ **Show where site refuse and recycled materials will be handled and stored for pickup. See local municipal requirements for sizes and other details of refuse areas.** ❑ **If dumpsters or other receptacles are outdoors, show how the designated area will be covered, graded, and paved to prevent run-on and show locations of berms to prevent runoff from the area.** ❑ **Any drains from dumpsters, compactors, and tallow bin areas shall be connected to a grease removal device before discharge to sanitary sewer.**	❑ **State how site refuse will be handled and provide supporting detail to what is shown on plans.** ❑ **State that signs will be posted on or near dumpsters with the words "Do not dump hazardous materials here" or similar.**	❑ **State how the following will be implemented:** **Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. Keep receptacles covered. Prohibit/prevent dumping of liquid or hazardous wastes. Post "no hazardous materials" signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available on-site. See Fact Sheet SC-34, "Waste Handling and Disposal" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com**

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
❑ H. **Industrial processes.**	❑ **Show process area.**	❑ **If industrial processes are to be located on site, state: "All process activities to be performed indoors. No processes to drain to exterior or to storm drain system."**	❑ **See Fact Sheet SC-10, "Non-Stormwater Discharges" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com** See the brochure "Industrial & Commercial Facilities Best Management Practices for: Industrial, Commercial Facilities" at http://rcflood.org/stormwater/

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
❑ I. **Outdoor storage of equipment or materials. (See rows J and K for source control measures for vehicle cleaning, repair, and maintenance.)**	❑ **Show any outdoor storage areas, including how materials will be covered. Show how areas will be graded and bermed to prevent run-on or run-off from area.** ❑ **Storage of non-hazardous liquids shall be covered by a roof and/or drain to the sanitary sewer system, and be contained by berms, dikes, liners, or vaults.** ❑ **Storage of hazardous materials and wastes must be in compliance with the local hazardous materials ordinance and a Hazardous Materials Management Plan for the site.**	**Include a detailed description of materials to be stored, storage areas, and structural features to prevent pollutants from entering storm drains.** **Where appropriate, reference documentation of compliance with the requirements of Hazardous Materials Programs for:** ▪ **Hazardous Waste Generation** ▪ **Hazardous Materials Release Response and Inventory** ▪ **California Accidental Release (CalARP)** ▪ **Aboveground Storage Tank** ▪ **Uniform Fire Code Article 80 Section 103(b) & (c) 1991** ▪ **Underground Storage Tank** **www.cchealth.org/groups/hazmat/**	❑ **See the Fact Sheets SC-31, "Outdoor Liquid Container Storage" and SC-33, "Outdoor Storage of Raw Materials " in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com**

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
❑ J. **Vehicle and Equipment Cleaning**	❑ **Show on drawings as appropriate:** **(1) Commercial/industrial facilities having vehicle/equipment cleaning needs shall either provide a covered, bermed area for washing activities or discourage vehicle/equipment washing by removing hose bibs and installing signs prohibiting such uses.** **(2) Multi-dwelling complexes shall have a paved, bermed, and covered car wash area (unless car washing is prohibited on-site and hoses are provided with an automatic shut-off to discourage such use).** **(3) Washing areas for cars, vehicles, and equipment shall be paved, designed to prevent run-on to or runoff from the area, and plumbed to drain to the sanitary sewer.** **(4) Commercial car wash facilities shall be designed such that no runoff from the facility is discharged to the storm drain system. Wastewater from the facility shall discharge to the sanitary sewer, or a wastewater reclamation system shall be installed.**	❑ **If a car wash area is not provided, describe any measures taken to discourage on-site car washing and explain how these will be enforced.**	**Describe operational measures to implement the following (if applicable):** ❑ **Washwater from vehicle and equipment washing operations shall not be discharged to the storm drain system.** Refer to "Outdoor Cleaning Activities and Professional Mobile Service Providers" for many of the Potential Sources of Runoff Pollutants categories below. Brochure can be found at http://rcflood.org/stormwater/ ❑**Car dealerships and similar may rinse cars with water only.**

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
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❑ K. **Vehicle/Equipment Repair and Maintenance**	❑ **Accommodate all vehicle equipment repair and maintenance indoors. Or designate an outdoor work area and design the area to prevent run-on and runoff of stormwater.** ❑ **Show secondary containment for exterior work areas where motor oil, brake fluid, gasoline, diesel fuel, radiator fluid, acid-containing batteries or other hazardous materials or hazardous wastes are used or stored. Drains shall not be installed within the secondary containment areas.** ❑ **Add a note on the plans that states either (1) there are no floor drains, or (2) floor drains are connected to wastewater pretreatment systems prior to discharge to the sanitary sewer and an industrial waste discharge permit will be obtained.**	❑ **State that no vehicle repair or maintenance will be done outdoors, or else describe the required features of the outdoor work area.** ❑ **State that there are no floor drains or if there are floor drains, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements.** ❑ **State that there are no tanks, containers or sinks to be used for parts cleaning or rinsing or, if there are, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements.**	**In the Stormwater Control Plan, note that all of the following restrictions apply to use the site:** ❑ **No person shall dispose of, nor permit the disposal, directly or indirectly of vehicle fluids, hazardous materials, or rinsewater from parts cleaning into storm drains.** ❑ **No vehicle fluid removal shall be performed outside a building, nor on asphalt or ground surfaces, whether inside or outside a building, except in such a manner as to ensure that any spilled fluid will be in an area of secondary containment. Leaking vehicle fluids shall be contained or drained from the vehicle immediately.** ❑ **No person shall leave unattended drip parts or other open containers containing vehicle fluid, unless such containers are in use or in an area of secondary containment.** Refer to "Automotive Maintenance & Car Care Best Management Practices for Auto Body Shops, Auto Repair Shops, Car Dealerships, Gas Stations and Fleet Service Operations". Brochure can be found at http://rcflood.org/stormwater/ Refer to Outdoor Cleaning Activities and Professional Mobile Service Providers for many of the Potential Sources of Runoff Pollutants categories below. Brochure can be found at http://rcflood.org/stormwater/

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
❑ L. **Fuel Dispensing Areas**	❑ **Fueling areas[6] shall have impermeable floors (i.e., portland cement concrete or equivalent smooth impervious surface) that are: a) graded at the minimum slope necessary to prevent ponding; and b) separated from the rest of the site by a grade break that prevents run-on of stormwater to the maximum extent practicable.** ❑ **Fueling areas shall be covered by a canopy that extends a minimum of ten feet in each direction from each pump. [Alternative: The fueling area must be covered and the cover's minimum dimensions must be equal to or greater than the area within the grade break or fuel dispensing area[1].] The canopy [or cover] shall not drain onto the fueling area.**		❑ **The property owner shall dry sweep the fueling area routinely.** ❑ **See the Fact Sheet SD-30 , "Fueling Areas" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com**

[6] **The fueling area shall be defined as the area extending a minimum of 6.5 feet from the corner of each fuel dispenser or the length at which the hose and nozzle assembly may be operated plus a minimum of one foot, whichever is greater.**

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
☒ M. **Loading Docks**	☒ **Show a preliminary design for the loading dock area, including roofing and drainage. Loading docks shall be covered and/or graded to minimize run-on to and runoff from the loading area. Roof downspouts shall be positioned to direct stormwater away from the loading area. Water from loading dock areas shall be drained to the sanitary sewer, or diverted and collected for ultimate discharge to the sanitary sewer.** ☒ **Loading dock areas draining directly to the sanitary sewer shall be equipped with a spill control valve or equivalent device, which shall be kept closed during periods of operation.** ☒ **Provide a roof overhang over the loading area or install door skirts (cowling) at each bay that enclose the end of the trailer.**		☒ **Move loaded and unloaded items indoors as soon as possible.** ☐ **See Fact Sheet SC-30, "Outdoor Loading and Unloading," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com**

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
❑ N. **Fire Sprinkler Test Water**		❑ **Provide a means to drain fire sprinkler test water to the sanitary sewer.**	❑ **See the note in Fact Sheet SC-41, "Building and Grounds Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com**
O. **Miscellaneous Drain or Wash Water or Other Sources** ❑ **Boiler drain lines** ❑ **Condensate drain lines** ❑ **Rooftop equipment** ❑ **Drainage sumps** ❑ **Roofing, gutters, and trim.** ❑ **Other sources**		❑ **Boiler drain lines shall be directly or indirectly connected to the sanitary sewer system and may not discharge to the storm drain system.** ❑ **Condensate drain lines may discharge to landscaped areas if the flow is small enough that runoff will not occur. Condensate drain lines may not discharge to the storm drain system.** ❑ **Rooftop equipment with potential to produce pollutants shall be roofed and/or have secondary containment.** ❑ **Any drainage sumps on-site shall feature a sediment sump to reduce the quantity of sediment in pumped water.** ❑ **Avoid roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff.** **Include controls for other sources as specified by local reviewer.**	

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
☒ P. **Plazas, sidewalks, and parking lots.**			☒ **Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.**

Appendix 9: O&M

Operation and Maintenance Plan and Documentation of Finance, Maintenance and Recording Mechanisms

TO BE PROVIDED IN FINAL WQMP

Appendix 10: Educational Materials

BMP Fact Sheets, Maintenance Guidelines and Other End-User BMP Information

Site Design & Landscape Planning SD-10

Design Objectives

- ☑ Maximize Infiltration
- ☑ Provide Retention
- ☑ Slow Runoff
- ☑ Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- Contain Pollutants
- Collect and Convey

Description

Each project site possesses unique topographic, hydrologic, and vegetative features, some of which are more suitable for development than others. Integrating and incorporating appropriate landscape planning methodologies into the project design is the most effective action that can be done to minimize surface and groundwater contamination from stormwater.

Approach

Landscape planning should couple consideration of land suitability for urban uses with consideration of community goals and projected growth. Project plan designs should conserve natural areas to the extent possible, maximize natural water storage and infiltration opportunities, and protect slopes and channels.

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment.

Design Considerations

Design requirements for site design and landscapes planning should conform to applicable standards and specifications of agencies with jurisdiction and be consistent with applicable General Plan and Local Area Plan policies.

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Designing New Installations

Begin the development of a plan for the landscape unit with attention to the following general principles:

- Formulate the plan on the basis of clearly articulated community goals. Carefully identify conflicts and choices between retaining and protecting desired resources and community growth.
- Map and assess land suitability for urban uses. Include the following landscape features in the assessment: wooded land, open unwooded land, steep slopes, erosion-prone soils, foundation suitability, soil suitability for waste disposal, aquifers, aquifer recharge areas, wetlands, floodplains, surface waters, agricultural lands, and various categories of urban land use. When appropriate, the assessment can highlight outstanding local or regional resources that the community determines should be protected (e.g., a scenic area, recreational area, threatened species habitat, farmland, fish run). Mapping and assessment should recognize not only these resources but also additional areas needed for their sustenance.

Project plan designs should conserve natural areas to the extent possible, maximize natural water storage and infiltration opportunities, and protect slopes and channels.

Conserve Natural Areas during Landscape Planning

If applicable, the following items are required and must be implemented in the site layout during the subdivision design and approval process, consistent with applicable General Plan and Local Area Plan policies:

- Cluster development on least-sensitive portions of a site while leaving the remaining land in a natural undisturbed condition.
- Limit clearing and grading of native vegetation at a site to the minimum amount needed to build lots, allow access, and provide fire protection.
- Maximize trees and other vegetation at each site by planting additional vegetation, clustering tree areas, and promoting the use of native and/or drought tolerant plants.
- Promote natural vegetation by using parking lot islands and other landscaped areas.
- Preserve riparian areas and wetlands.

Maximize Natural Water Storage and Infiltration Opportunities Within the Landscape Unit

- Promote the conservation of forest cover. Building on land that is already deforested affects basin hydrology to a lesser extent than converting forested land. Loss of forest cover reduces interception storage, detention in the organic forest floor layer, and water losses by evapotranspiration, resulting in large peak runoff increases and either their negative effects or the expense of countering them with structural solutions.
- Maintain natural storage reservoirs and drainage corridors, including depressions, areas of permeable soils, swales, and intermittent streams. Develop and implement policies and

regulations to discourage the clearing, filling, and channelization of these features. Utilize them in drainage networks in preference to pipes, culverts, and engineered ditches.

- Evaluating infiltration opportunities by referring to the stormwater management manual for the jurisdiction and pay particular attention to the selection criteria for avoiding groundwater contamination, poor soils, and hydrogeological conditions that cause these facilities to fail. If necessary, locate developments with large amounts of impervious surfaces or a potential to produce relatively contaminated runoff away from groundwater recharge areas.

Protection of Slopes and Channels during Landscape Design

- Convey runoff safely from the tops of slopes.
- Avoid disturbing steep or unstable slopes.
- Avoid disturbing natural channels.
- Stabilize disturbed slopes as quickly as possible.
- Vegetate slopes with native or drought tolerant vegetation.
- Control and treat flows in landscaping and/or other controls prior to reaching existing natural drainage systems.
- Stabilize temporary and permanent channel crossings as quickly as possible, and ensure that increases in run-off velocity and frequency caused by the project do not erode the channel.
- Install energy dissipaters, such as riprap, at the outlets of new storm drains, culverts, conduits, or channels that enter unlined channels in accordance with applicable specifications to minimize erosion. Energy dissipaters shall be installed in such a way as to minimize impacts to receiving waters.
- Line on-site conveyance channels where appropriate, to reduce erosion caused by increased flow velocity due to increases in tributary impervious area. The first choice for linings should be grass or some other vegetative surface, since these materials not only reduce runoff velocities, but also provide water quality benefits from filtration and infiltration. If velocities in the channel are high enough to erode grass or other vegetative linings, riprap, concrete, soil cement, or geo-grid stabilization are other alternatives.
- Consider other design principles that are comparable and equally effective.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define “redevelopment” in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of “ redevelopment” must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under “designing new installations” above should be followed.

Redevelopment may present significant opportunity to add features which had not previously been implemented. Examples include incorporation of depressions, areas of permeable soils, and swales in newly redeveloped areas. While some site constraints may exist due to the status of already existing infrastructure, opportunities should not be missed to maximize infiltration, slow runoff, reduce impervious areas, disconnect directly connected impervious areas.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Stormwater Management Manual for Western Washington, Washington State Department of Ecology, August 2001.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Efficient Irrigation SD-12

Design Objectives

- ☑ Maximize Infiltration
- ☑ Provide Retention
- ☑ Slow Runoff
- Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- Contain Pollutants
- Collect and Convey

Description

Irrigation water provided to landscaped areas may result in excess irrigation water being conveyed into stormwater drainage systems.

Approach

Project plan designs for development and redevelopment should include application methods of irrigation water that minimize runoff of excess irrigation water into the stormwater conveyance system.

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment. (Detached residential single-family homes are typically excluded from this requirement.)

Design Considerations

Designing New Installations

The following methods to reduce excessive irrigation runoff should be considered, and incorporated and implemented where determined applicable and feasible by the Permittee:

- Employ rain-triggered shutoff devices to prevent irrigation after precipitation.
- Design irrigation systems to each landscape area's specific water requirements.
- Include design featuring flow reducers or shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or lines.
- Implement landscape plans consistent with County or City water conservation resolutions, which may include provision of water sensors, programmable irrigation times (for short cycles), etc.

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- Design timing and application methods of irrigation water to minimize the runoff of excess irrigation water into the storm water drainage system.
- Group plants with similar water requirements in order to reduce excess irrigation runoff and promote surface filtration. Choose plants with low irrigation requirements (for example, native or drought tolerant species). Consider design features such as:
  - Using mulches (such as wood chips or bar) in planter areas without ground cover to minimize sediment in runoff
  - Installing appropriate plant materials for the location, in accordance with amount of sunlight and climate, and use native plant materials where possible and/or as recommended by the landscape architect
  - Leaving a vegetative barrier along the property boundary and interior watercourses, to act as a pollutant filter, where appropriate and feasible
  - Choosing plants that minimize or eliminate the use of fertilizer or pesticides to sustain growth
- Employ other comparable, equally effective methods to reduce irrigation water runoff.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Storm Drain Signage SD-13

Design Objectives

- Maximize Infiltration
- Provide Retention
- Slow Runoff
- Minimize Impervious Land Coverage
- ☑ Prohibit Dumping of Improper Materials
- Contain Pollutants
- Collect and Convey

Description

Waste materials dumped into storm drain inlets can have severe impacts on receiving and ground waters. Posting notices regarding discharge prohibitions at storm drain inlets can prevent waste dumping. Storm drain signs and stencils are highly visible source controls that are typically placed directly adjacent to storm drain inlets.

Approach

The stencil or affixed sign contains a brief statement that prohibits dumping of improper materials into the urban runoff conveyance system. Storm drain messages have become a popular method of alerting the public about the effects of and the prohibitions against waste disposal.

Suitable Applications

Stencils and signs alert the public to the destination of pollutants discharged to the storm drain. Signs are appropriate in residential, commercial, and industrial areas, as well as any other area where contributions or dumping to storm drains is likely.

Design Considerations

Storm drain message markers or placards are recommended at all storm drain inlets within the boundary of a development project. The marker should be placed in clear sight facing toward anyone approaching the inlet from either side. All storm drain inlet locations should be identified on the development site map.

Designing New Installations

The following methods should be considered for inclusion in the project design and show on project plans:

- Provide stenciling or labeling of all storm drain inlets and catch basins, constructed or modified, within the project area with prohibitive language. Examples include “NO DUMPING

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– DRAINS TO OCEAN" and/or other graphical icons to discourage illegal dumping.

- Post signs with prohibitive language and/or graphical icons, which prohibit illegal dumping at public access points along channels and creeks within the project area.

Note - Some local agencies have approved specific signage and/or storm drain message placards for use. Consult local agency stormwater staff to determine specific requirements for placard types and methods of application.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. If the project meets the definition of "redevelopment", then the requirements stated under " designing new installations" above should be included in all project design plans.

Additional Information

Maintenance Considerations

- Legibility of markers and signs should be maintained. If required by the agency with jurisdiction over the project, the owner/operator or homeowner's association should enter into a maintenance agreement with the agency or record a deed restriction upon the property title to maintain the legibility of placards or signs.

Placement

- Signage on top of curbs tends to weather and fade.

- Signage on face of curbs tends to be worn by contact with vehicle tires and sweeper brooms.

Supplemental Information

Examples

- Most MS4 programs have storm drain signage programs. Some MS4 programs will provide stencils, or arrange for volunteers to stencil storm drains as part of their outreach program.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Maintenance Bays & Docks SD-31

Design Objectives

- Maximize Infiltration
- Provide Retention
- Slow Runoff
- Minimize Impervious Land Coverage
- ☑ Prohibit Dumping of Improper Materials
- ☑ Contain Pollutants
- Collect and Convey

Description

Several measures can be taken to prevent operations at maintenance bays and loading docks from contributing a variety of toxic compounds, oil and grease, heavy metals, nutrients, suspended solids, and other pollutants to the stormwater conveyance system.

Approach

In designs for maintenance bays and loading docks, containment is encouraged. Preventative measures include overflow containment structures and dead-end sumps. However, in the case of loading docks from grocery stores and warehouse/distribution centers, engineered infiltration systems may be considered.

Suitable Applications

Appropriate applications include commercial and industrial areas planned for development or redevelopment.

Design Considerations

Design requirements for vehicle maintenance and repair are governed by Building and Fire Codes, and by current local agency ordinances, and zoning requirements. The design criteria described in this fact sheet are meant to enhance and be consistent with these code requirements.

Designing New Installations

Designs of maintenance bays should consider the following:

- Repair/maintenance bays and vehicle parts with fluids should be indoors; or designed to preclude urban run-on and runoff.
- Repair/maintenance floor areas should be paved with Portland cement concrete (or equivalent smooth impervious surface).

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- Repair/maintenance bays should be designed to capture all wash water leaks and spills. Provide impermeable berms, drop inlets, trench catch basins, or overflow containment structures around repair bays to prevent spilled materials and wash-down waters form entering the storm drain system. Connect drains to a sump for collection and disposal. Direct connection of the repair/maintenance bays to the storm drain system is prohibited. If required by local jurisdiction, obtain an Industrial Waste Discharge Permit.
- Other features may be comparable and equally effective.

The following designs of loading/unloading dock areas should be considered:

- Loading dock areas should be covered, or drainage should be designed to preclude urban run-on and runoff.
- Direct connections into storm drains from depressed loading docks (truck wells) are prohibited.
- Below-grade loading docks from grocery stores and warehouse/distribution centers of fresh food items should drain through water quality inlets, or to an engineered infiltration system, or an equally effective alternative. Pre-treatment may also be required.
- Other features may be comparable and equally effective.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Additional Information

Stormwater and non-stormwater will accumulate in containment areas and sumps with impervious surfaces. Contaminated accumulated water must be disposed of in accordance with applicable laws and cannot be discharged directly to the storm drain or sanitary sewer system without the appropriate permit.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Trash Storage Areas SD-32

Description

Trash storage areas are areas where a trash receptacle (s) are located for use as a repository for solid wastes. Stormwater runoff from areas where trash is stored or disposed of can be polluted. In addition, loose trash and debris can be easily transported by water or wind into nearby storm drain inlets, channels, and/or creeks. Waste handling operations that may be sources of stormwater pollution include dumpsters, litter control, and waste piles.

Design Objectives

- Maximize Infiltration
- Provide Retention
- Slow Runoff
- Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- ☑ Contain Pollutants
- Collect and Convey

Approach

This fact sheet contains details on the specific measures required to prevent or reduce pollutants in stormwater runoff associated with trash storage and handling. Preventative measures including enclosures, containment structures, and impervious pavements to mitigate spills, should be used to reduce the likelihood of contamination.

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment. (Detached residential single-family homes are typically excluded from this requirement.)

Design Considerations

Design requirements for waste handling areas are governed by Building and Fire Codes, and by current local agency ordinances and zoning requirements. The design criteria described in this fact sheet are meant to enhance and be consistent with these code and ordinance requirements. Hazardous waste should be handled in accordance with legal requirements established in Title 22, California Code of Regulation.

Wastes from commercial and industrial sites are typically hauled by either public or commercial carriers that may have design or access requirements for waste storage areas. The design criteria in this fact sheet are recommendations and are not intended to be in conflict with requirements established by the waste hauler. The waste hauler should be contacted prior to the design of your site trash collection areas. Conflicts or issues should be discussed with the local agency.

Designing New Installations

Trash storage areas should be designed to consider the following structural or treatment control BMPs:

- Design trash container areas so that drainage from adjoining roofs and pavement is diverted around the area(s) to avoid run-on. This might include berming or grading the waste handling area to prevent run-on of stormwater.
- Make sure trash container areas are screened or walled to prevent off-site transport of trash.

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- Use lined bins or dumpsters to reduce leaking of liquid waste.
- Provide roofs, awnings, or attached lids on all trash containers to minimize direct precipitation and prevent rainfall from entering containers.
- Pave trash storage areas with an impervious surface to mitigate spills.
- Do not locate storm drains in immediate vicinity of the trash storage area.
- Post signs on all dumpsters informing users that hazardous materials are not to be disposed of therein.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Additional Information

Maintenance Considerations

The integrity of structural elements that are subject to damage (i.e., screens, covers, and signs) must be maintained by the owner/operator. Maintenance agreements between the local agency and the owner/operator may be required. Some agencies will require maintenance deed restrictions to be recorded of the property title. If required by the local agency, maintenance agreements or deed restrictions must be executed by the owner/operator before improvement plans are approved.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Outdoor Processing Areas SD-36

Description

Outdoor process equipment operations such as rock grinding or crushing, painting or coating, grinding or sanding, degreasing or parts cleaning, landfills, waste piles, wastewater and solid waste treatment and disposal, and others operations may contribute a variety of toxic compounds, oil and grease, heavy metals, nutrients, suspended solids, and other pollutants to the storm conveyance system.

Approach

Outdoor processing areas require a drainage approach different from the typical infiltration/detention strategy. In outdoor process equipment areas, infiltration is discouraged. Containment is encouraged, accompanied by collection and conveyance. Preventative measures include enclosures, secondary containment structures, dead-end sumps, and conveyance to treatment facilities in accordance with conditions established by the applicable sewer agency.

Design Objectives

- Maximize Infiltration
- Provide Retention
- Slow Runoff
- Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- ☑ Contain Pollutants
- ☑ Collect and Convey

Suitable Applications

Appropriate applications include commercial and industrial areas planned for development or redevelopment.

Design Considerations

Design requirements for outdoor processing areas are governed by Building and Fire codes, and by current local agency ordinances, and zoning requirements.

Designing New Installations

Operations determined to be a potential threat to water quality should consider to the following recommendations:

- Cover or enclose areas that would be the most significant source of pollutants; or slope the area toward a dead-end sump; or, discharge to the sanitary sewer system following appropriate treatment in accordance with conditions established by the applicable sewer agency.
- Grade or berm area to prevent run-on from surrounding areas.
- Do not install storm drains in areas of equipment repair.
- Consider other features that are comparable or equally effective.
- Provide secondary containment structures (not double wall containers) where wet material processing occurs (e.g., electroplating), to hold spills resulting from accidents, leaking tanks, or equipment, or any other unplanned releases (Note:

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if these are plumbed to the sanitary sewer, they must be with the prior approval of the sewering agency.)

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Additional Information

Stormwater and non-stormwater will accumulate in containment areas and sumps with impervious surfaces. Contaminated accumulated water must be disposed of in accordance with applicable laws and cannot be discharged directly to the storm drain or sanitary sewer system without the appropriate permit.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Infiltration Basin TC-11

Design Considerations

- Soil for Infiltration
- Slope
- Aesthetics

Targeted Constituents

☑	Sediment	■
☑	Nutrients	■
☑	Trash	■
☑	Metals	■
☑	Bacteria	■
☑	Oil and Grease	■
☑	Organics	■

Legend ***(Removal Effectiveness)***

- ● Low
- ▲ Medium
- ■ High

Description

An infiltration basin is a shallow impoundment that is designed to infiltrate stormwater. Infiltration basins use the natural filtering ability of the soil to remove pollutants in stormwater runoff. Infiltration facilities store runoff until it gradually exfiltrates through the soil and eventually into the water table. This practice has high pollutant removal efficiency and can also help recharge groundwater, thus helping to maintain low flows in stream systems. Infiltration basins can be challenging to apply on many sites, however, because of soils requirements. In addition, some studies have shown relatively high failure rates compared with other management practices.

California Experience

Infiltration basins have a long history of use in California, especially in the Central Valley. Basins located in Fresno were among those initially evaluated in the National Urban Runoff Program and were found to be effective at reducing the volume of runoff, while posing little long-term threat to groundwater quality (EPA, 1983; Schroeder, 1995). Proper siting of these devices is crucial as underscored by the experience of Caltrans in siting two basins in Southern California. The basin with marginal separation from groundwater and soil permeability failed immediately and could never be rehabilitated.

Advantages

- Provides 100% reduction in the load discharged to surface waters.
- The principal benefit of infiltration basins is the approximation of pre-development hydrology during which a

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significant portion of the average annual rainfall runoff is infiltrated and evaporated rather than flushed directly to creeks.

- If the water quality volume is adequately sized, infiltration basins can be useful for providing control of channel forming (erosion) and high frequency (generally less than the 2-year) flood events.

Limitations

- May not be appropriate for industrial sites or locations where spills may occur.
- Infiltration basins require a minimum soil infiltration rate of 0.5 inches/hour, not appropriate at sites with Hydrologic Soil Types C and D.
- If infiltration rates exceed 2.4 inches/hour, then the runoff should be fully treated prior to infiltration to protect groundwater quality.
- Not suitable on fill sites or steep slopes.
- Risk of groundwater contamination in very coarse soils.
- Upstream drainage area must be completely stabilized before construction.
- Difficult to restore functioning of infiltration basins once clogged.

Design and Sizing Guidelines

- Water quality volume determined by local requirements or sized so that 85% of the annual runoff volume is captured.
- Basin sized so that the entire water quality volume is infiltrated within 48 hours.
- Vegetation establishment on the basin floor may help reduce the clogging rate.

Construction/Inspection Considerations

- Before construction begins, stabilize the entire area draining to the facility. If impossible, place a diversion berm around the perimeter of the infiltration site to prevent sediment entrance during construction or remove the top 2 inches of soil after the site is stabililized. Stabilize the entire contributing drainage area, including the side slopes, before allowing any runoff to enter once construction is complete.
- Place excavated material such that it can not be washed back into the basin if a storm occurs during construction of the facility.
- Build the basin without driving heavy equipment over the infiltration surface. Any equipment driven on the surface should have extra-wide ("low pressure") tires. Prior to any construction, rope off the infiltration area to stop entrance by unwanted equipment.
- After final grading, till the infiltration surface deeply.
- Use appropriate erosion control seed mix for the specific project and location.

Performance

As water migrates through porous soil and rock, pollutant attenuation mechanisms include precipitation, sorption, physical filtration, and bacterial degradation. If functioning properly, this approach is presumed to have high removal efficiencies for particulate pollutants and moderate removal of soluble pollutants. Actual pollutant removal in the subsurface would be expected to vary depending upon site-specific soil types. This technology eliminates discharge to surface waters except for the very largest storms; consequently, complete removal of all stormwater constituents can be assumed.

There remain some concerns about the potential for groundwater contamination despite the findings of the NURP and Nightingale (1975; 1987a,b,c; 1989). For instance, a report by Pitt et al. (1994) highlighted the potential for groundwater contamination from intentional and unintentional stormwater infiltration. That report recommends that infiltration facilities not be sited in areas where high concentrations are present or where there is a potential for spills of toxic material. Conversely, Schroeder (1995) reported that there was no evidence of groundwater impacts from an infiltration basin serving a large industrial catchment in Fresno, CA.

Siting Criteria

The key element in siting infiltration basins is identifying sites with appropriate soil and hydrogeologic properties, which is critical for long term performance. In one study conducted in Prince George's County, Maryland (Galli, 1992), all of the infiltration basins investigated clogged within 2 years. It is believed that these failures were for the most part due to allowing infiltration at sites with rates of less than 0.5 in/hr, basing siting on soil type rather than field infiltration tests, and poor construction practices that resulted in soil compaction of the basin invert.

A study of 23 infiltration basins in the Pacific Northwest showed better long-term performance in an area with highly permeable soils (Hilding, 1996). In this study, few of the infiltration basins had failed after 10 years. Consequently, the following guidelines for identifying appropriate soil and subsurface conditions should be rigorously adhered to.

- Determine soil type (consider RCS soil type 'A, B or C' only) from mapping and consult USDA soil survey tables to review other parameters such as the amount of silt and clay, presence of a restrictive layer or seasonal high water table, and estimated permeability. The soil should not have more than 30% clay or more than 40% of clay and silt combined. Eliminate sites that are clearly unsuitable for infiltration.

- Groundwater separation should be at least 3 m from the basin invert to the measured ground water elevation. There is concern at the state and regional levels of the impact on groundwater quality from infiltrated runoff, especially when the separation between groundwater and the surface is small.

- Location away from buildings, slopes and highway pavement (greater than 6 m) and wells and bridge structures (greater than 30 m). Sites constructed of fill, having a base flow or with a slope greater than 15% should not be considered.

- Ensure that adequate head is available to operate flow splitter structures (to allow the basin to be offline) without ponding in the splitter structure or creating backwater upstream of the splitter.

- Base flow should not be present in the tributary watershed.

Secondary Screening Based on Site Geotechnical Investigation

- At least three in-hole conductivity tests shall be performed using USBR 7300-89 or Bouwer-Rice procedures (the latter if groundwater is encountered within the boring), two tests at different locations within the proposed basin and the third down gradient by no more than approximately 10 m. The tests shall measure permeability in the side slopes and the bed within a depth of 3 m of the invert.

- The minimum acceptable hydraulic conductivity as measured in any of the three required test holes is 13 mm/hr. If any test hole shows less than the minimum value, the site should be disqualified from further consideration.

- Exclude from consideration sites constructed in fill or partially in fill unless no silts or clays are present in the soil boring. Fill tends to be compacted, with clays in a dispersed rather than flocculated state, greatly reducing permeability.

- The geotechnical investigation should be such that a good understanding is gained as to how the stormwater runoff will move in the soil (horizontally or vertically) and if there are any geological conditions that could inhibit the movement of water.

Additional Design Guidelines

(1) Basin Sizing - The required water quality volume is determined by local regulations or sufficient to capture 85% of the annual runoff.

(2) Provide pretreatment if sediment loading is a maintenance concern for the basin.

(3) Include energy dissipation in the inlet design for the basins. Avoid designs that include a permanent pool to reduce opportunity for standing water and associated vector problems.

(4) Basin invert area should be determined by the equation:

$$A = \frac{WQV}{kt}$$

where A = Basin invert area (m^2)

WQV = water quality volume (m^3)

k = 0.5 times the lowest field-measured hydraulic conductivity (m/hr)

t = drawdown time (48 hr)

(5) The use of vertical piping, either for distribution or infiltration enhancement shall not be allowed to avoid device classification as a Class V injection well per 40 CFR146.5(e)(4).

Maintenance

Regular maintenance is critical to the successful operation of infiltration basins. Recommended operation and maintenance guidelines include:

- Inspections and maintenance to ensure that water infiltrates into the subsurface completely (recommended infiltration rate of 72 hours or less) and that vegetation is carefully managed to prevent creating mosquito and other vector habitats.
- Observe drain time for the design storm after completion or modification of the facility to confirm that the desired drain time has been obtained.
- Schedule semiannual inspections for beginning and end of the wet season to identify potential problems such as erosion of the basin side slopes and invert, standing water, trash and debris, and sediment accumulation.
- Remove accumulated trash and debris in the basin at the start and end of the wet season.
- Inspect for standing water at the end of the wet season.
- Trim vegetation at the beginning and end of the wet season to prevent establishment of woody vegetation and for aesthetic and vector reasons.
- Remove accumulated sediment and regrade when the accumulated sediment volume exceeds 10% of the basin.
- If erosion is occurring within the basin, revegetate immediately and stabilize with an erosion control mulch or mat until vegetation cover is established.
- To avoid reversing soil development, scarification or other disturbance should only be performed when there are actual signs of clogging, rather than on a routine basis. Always remove deposited sediments before scarification, and use a hand-guided rotary tiller, if possible, or a disc harrow pulled by a very light tractor.

Cost

Infiltration basins are relatively cost-effective practices because little infrastructure is needed when constructing them. One study estimated the total construction cost at about $2 per ft (adjusted for inflation) of storage for a 0.25-acre basin (SWRPC, 1991). As with other BMPs, these published cost estimates may deviate greatly from what might be incurred at a specific site. For instance, Caltrans spent about $18/ft^3 for the two infiltration basins constructed in southern California, each of which had a water quality volume of about 0.34 ac.-ft. Much of the higher cost can be attributed to changes in the storm drain system necessary to route the runoff to the basin locations.

Infiltration basins typically consume about 2 to 3% of the site draining to them, which is relatively small. Additional space may be required for buffer, landscaping, access road, and fencing. Maintenance costs are estimated at 5 to 10% of construction costs.

One cost concern associated with infiltration practices is the maintenance burden and longevity. If improperly maintained, infiltration basins have a high failure rate. Thus, it may be necessary to replace the basin with a different technology after a relatively short period of time.

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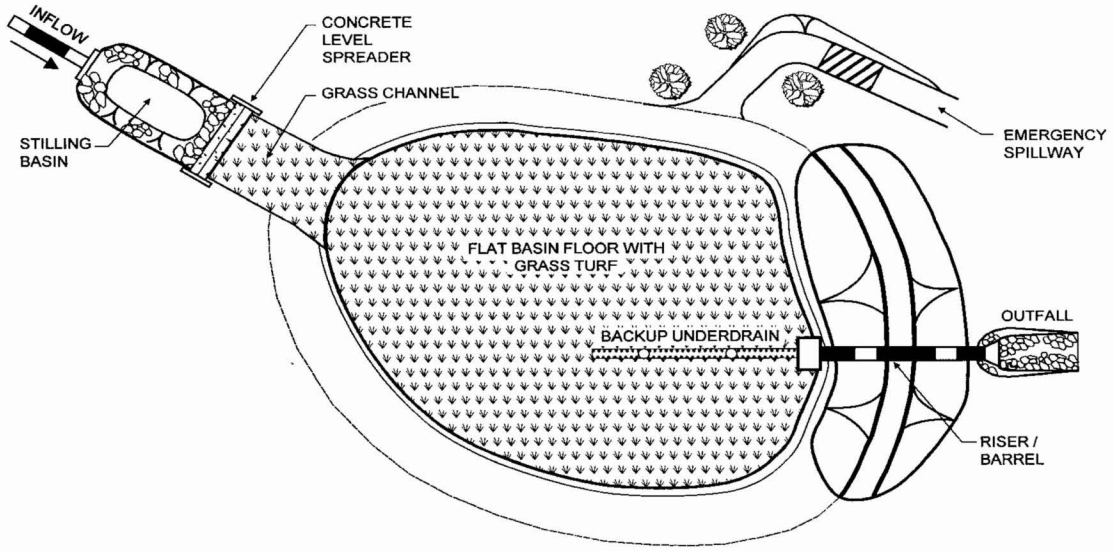
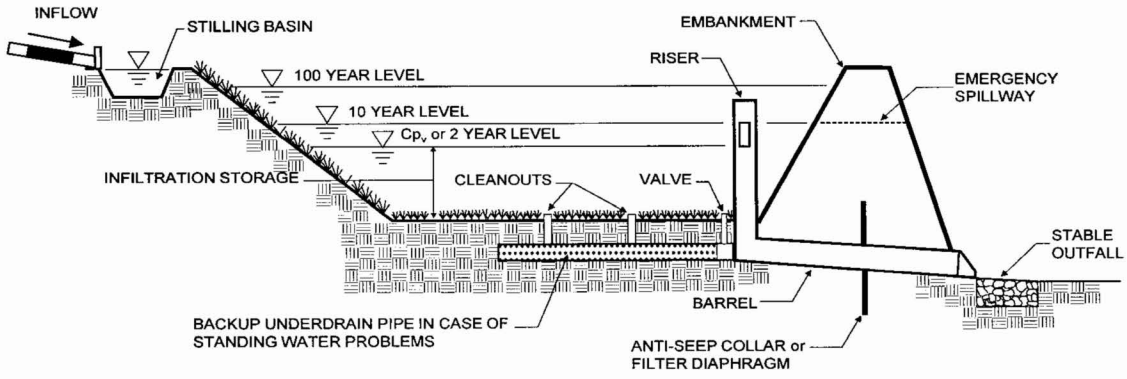


PLAN VIEW



PROFILE

Bioretention TC-32

Design Considerations

- Soil for Infiltration
- Tributary Area
- Slope
- Aesthetics
- Environmental Side-effects

Description

The bioretention best management practice (BMP) functions as a soil and plant-based filtration device that removes pollutants through a variety of physical, biological, and chemical treatment processes. These facilities normally consist of a grass buffer strip, sand bed, ponding area, organic layer or mulch layer, planting soil, and plants. The runoff's velocity is reduced by passing over or through buffer strip and subsequently distributed evenly along a ponding area. Exfiltration of the stored water in the bioretention area planting soil into the underlying soils occurs over a period of days.

Targeted Constituents

✓	Sediment	■
✓	Nutrients	▲
✓	Trash	■
✓	Metals	■
✓	Bacteria	■
✓	Oil and Grease	■
✓	Organics	■

Legend ***(Removal Effectiveness)***

- ● Low
- ▲ Medium
- ■ High

California Experience

None documented. Bioretention has been used as a stormwater BMP since 1992. In addition to Prince George's County, MD and Alexandria, VA, bioretention has been used successfully at urban and suburban areas in Montgomery County, MD; Baltimore County, MD; Chesterfield County, VA; Prince William County, VA; Smith Mountain Lake State Park, VA; and Cary, NC.

Advantages

- Bioretention provides stormwater treatment that enhances the quality of downstream water bodies by temporarily storing runoff in the BMP and releasing it over a period of four days to the receiving water (EPA, 1999).
- The vegetation provides shade and wind breaks, absorbs noise, and improves an area's landscape.

Limitations

- The bioretention BMP is not recommended for areas with slopes greater than 20% or where mature tree removal would

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be required since clogging may result, particularly if the BMP receives runoff with high sediment loads (EPA, 1999).

- Bioretention is not a suitable BMP at locations where the water table is within 6 feet of the ground surface and where the surrounding soil stratum is unstable.
- By design, bioretention BMPs have the potential to create very attractive habitats for mosquitoes and other vectors because of highly organic, often heavily vegetated areas mixed with shallow water.
- In cold climates the soil may freeze, preventing runoff from infiltrating into the planting soil.

Design and Sizing Guidelines

- The bioretention area should be sized to capture the design storm runoff.
- In areas where the native soil permeability is less than 0.5 in/hr an underdrain should be provided.
- Recommended minimum dimensions are 15 feet by 40 feet, although the preferred width is 25 feet. Excavated depth should be 4 feet.
- Area should drain completely within 72 hours.
- Approximately 1 tree or shrub per 50 ft^2 of bioretention area should be included.
- Cover area with about 3 inches of mulch.

Construction/Inspection Considerations

Bioretention area should not be established until contributing watershed is stabilized.

Performance

Bioretention removes stormwater pollutants through physical and biological processes, including adsorption, filtration, plant uptake, microbial activity, decomposition, sedimentation and volatilization (EPA, 1999). Adsorption is the process whereby particulate pollutants attach to soil (e.g., clay) or vegetation surfaces. Adequate contact time between the surface and pollutant must be provided for in the design of the system for this removal process to occur. Thus, the infiltration rate of the soils must not exceed those specified in the design criteria or pollutant removal may decrease. Pollutants removed by adsorption include metals, phosphorus, and hydrocarbons. Filtration occurs as runoff passes through the bioretention area media, such as the sand bed, ground cover, and planting soil.

Common particulates removed from stormwater include particulate organic matter, phosphorus, and suspended solids. Biological processes that occur in wetlands result in pollutant uptake by plants and microorganisms in the soil. Plant growth is sustained by the uptake of nutrients from the soils, with woody plants locking up these nutrients through the seasons. Microbial activity within the soil also contributes to the removal of nitrogen and organic matter. Nitrogen is removed by nitrifying and denitrifying bacteria, while aerobic bacteria are responsible for the decomposition of the organic matter. Microbial processes require oxygen and can result in depleted oxygen levels if the bioretention area is not adequately

aerated. Sedimentation occurs in the swale or ponding area as the velocity slows and solids fall out of suspension.

The removal effectiveness of bioretention has been studied during field and laboratory studies conducted by the University of Maryland (Davis et al, 1998). During these experiments, synthetic stormwater runoff was pumped through several laboratory and field bioretention areas to simulate typical storm events in Prince George's County, MD. Removal rates for heavy metals and nutrients are shown in Table 1.

Table 1 Laboratory and Estimated Bioretention Davis et al. (1998); PGDER (1993)

Pollutant	Removal Rate
Total Phosphorus	70-83%
Metals (Cu, Zn, Pb)	93-98%
TKN	68-80%
Total Suspended Solids	90%
Organics	90%
Bacteria	90%

Results for both the laboratory and field experiments were similar for each of the pollutants analyzed. Doubling or halving the influent pollutant levels had little effect on the effluent pollutants concentrations (Davis et al, 1998).

The microbial activity and plant uptake occurring in the bioretention area will likely result in higher removal rates than those determined for infiltration BMPs.

Siting Criteria

Bioretention BMPs are generally used to treat stormwater from impervious surfaces at commercial, residential, and industrial areas (EPA, 1999). Implementation of bioretention for stormwater management is ideal for median strips, parking lot islands, and swales. Moreover, the runoff in these areas can be designed to either divert directly into the bioretention area or convey into the bioretention area by a curb and gutter collection system.

The best location for bioretention areas is upland from inlets that receive sheet flow from graded areas and at areas that will be excavated (EPA, 1999). In order to maximize treatment effectiveness, the site must be graded in such a way that minimizes erosive conditions as sheet flow is conveyed to the treatment area. Locations where a bioretention area can be readily incorporated into the site plan without further environmental damage are preferred. Furthermore, to effectively minimize sediment loading in the treatment area, bioretention only should be used in stabilized drainage areas.

Additional Design Guidelines

The layout of the bioretention area is determined after site constraints such as location of utilities, underlying soils, existing vegetation, and drainage are considered (EPA, 1999). Sites with loamy sand soils are especially appropriate for bioretention because the excavated soil can be backfilled and used as the planting soil, thus eliminating the cost of importing planting soil.

The use of bioretention may not be feasible given an unstable surrounding soil stratum, soils with clay content greater than 25 percent, a site with slopes greater than 20 percent, and/or a site with mature trees that would be removed during construction of the BMP.

Bioretention can be designed to be off-line or on-line of the existing drainage system (EPA, 1999). The drainage area for a bioretention area should be between 0.1 and 0.4 hectares (0.25 and 1.0 acres). Larger drainage areas may require multiple bioretention areas. Furthermore, the maximum drainage area for a bioretention area is determined by the expected rainfall intensity and runoff rate. Stabilized areas may erode when velocities are greater than 5 feet per second (1.5 meter per second). The designer should determine the potential for erosive conditions at the site.

The size of the bioretention area, which is a function of the drainage area and the runoff generated from the area is sized to capture the water quality volume.

The recommended minimum dimensions of the bioretention area are 15 feet (4.6 meters) wide by 40 feet (12.2 meters) long, where the minimum width allows enough space for a dense, randomly-distributed area of trees and shrubs to become established. Thus replicating a natural forest and creating a microclimate, thereby enabling the bioretention area to tolerate the effects of heat stress, acid rain, runoff pollutants, and insect and disease infestations which landscaped areas in urban settings typically are unable to tolerate. The preferred width is 25 feet (7.6 meters), with a length of twice the width. Essentially, any facilities wider than 20 feet (6.1 meters) should be twice as long as they are wide, which promotes the distribution of flow and decreases the chances of concentrated flow.

In order to provide adequate storage and prevent water from standing for excessive periods of time the ponding depth of the bioretention area should not exceed 6 inches (15 centimeters). Water should not be left to stand for more than 72 hours. A restriction on the type of plants that can be used may be necessary due to some plants' water intolerance. Furthermore, if water is left standing for longer than 72 hours mosquitoes and other insects may start to breed.

The appropriate planting soil should be backfilled into the excavated bioretention area. Planting soils should be sandy loam, loamy sand, or loam texture with a clay content ranging from 10 to 25 percent.

Generally the soil should have infiltration rates greater than 0.5 inches (1.25 centimeters) per hour, which is typical of sandy loams, loamy sands, or loams. The pH of the soil should range between 5.5 and 6.5, where pollutants such as organic nitrogen and phosphorus can be adsorbed by the soil and microbial activity can flourish. Additional requirements for the planting soil include a 1.5 to 3 percent organic content and a maximum 500 ppm concentration of soluble salts.

Soil tests should be performed for every 500 cubic yards (382 cubic meters) of planting soil, with the exception of pH and organic content tests, which are required only once per bioretention area (EPA, 1999). Planting soil should be 4 inches (10.1 centimeters) deeper than the bottom of the largest root ball and 4 feet (1.2 meters) altogether. This depth will provide adequate soil for the plants' root systems to become established, prevent plant damage due to severe wind, and provide adequate moisture capacity. Most sites will require excavation in order to obtain the recommended depth.

Planting soil depths of greater than 4 feet (1.2 meters) may require additional construction practices such as shoring measures (EPA, 1999). Planting soil should be placed in 18 inches or greater lifts and lightly compacted until the desired depth is reached. Since high canopy trees may be destroyed during maintenance the bioretention area should be vegetated to resemble a terrestrial forest community ecosystem that is dominated by understory trees. Three species each of both trees and shrubs are recommended to be planted at a rate of 2500 trees and shrubs per hectare (1000 per acre). For instance, a 15 foot (4.6 meter) by 40 foot (12.2 meter) bioretention area (600 square feet or 55.75 square meters) would require 14 trees and shrubs. The shrub-to-tree ratio should be 2:1 to 3:1.

Trees and shrubs should be planted when conditions are favorable. Vegetation should be watered at the end of each day for fourteen days following its planting. Plant species tolerant of pollutant loads and varying wet and dry conditions should be used in the bioretention area.

The designer should assess aesthetics, site layout, and maintenance requirements when selecting plant species. Adjacent non-native invasive species should be identified and the designer should take measures, such as providing a soil breach to eliminate the threat of these species invading the bioretention area. Regional landscaping manuals should be consulted to ensure that the planting of the bioretention area meets the landscaping requirements established by the local authorities. The designers should evaluate the best placement of vegetation within the bioretention area. Plants should be placed at irregular intervals to replicate a natural forest. Trees should be placed on the perimeter of the area to provide shade and shelter from the wind. Trees and shrubs can be sheltered from damaging flows if they are placed away from the path of the incoming runoff. In cold climates, species that are more tolerant to cold winds, such as evergreens, should be placed in windier areas of the site.

Following placement of the trees and shrubs, the ground cover and/or mulch should be established. Ground cover such as grasses or legumes can be planted at the beginning of the growing season. Mulch should be placed immediately after trees and shrubs are planted. Two to 3 inches (5 to 7.6 cm) of commercially-available fine shredded hardwood mulch or shredded hardwood chips should be applied to the bioretention area to protect from erosion.

Maintenance

The primary maintenance requirement for bioretention areas is that of inspection and repair or replacement of the treatment area's components. Generally, this involves nothing more than the routine periodic maintenance that is required of any landscaped area. Plants that are appropriate for the site, climatic, and watering conditions should be selected for use in the bioretention cell. Appropriately selected plants will aide in reducing fertilizer, pesticide, water, and overall maintenance requirements. Bioretention system components should blend over time through plant and root growth, organic decomposition, and the development of a natural

soil horizon. These biologic and physical processes over time will lengthen the facility's life span and reduce the need for extensive maintenance.

Routine maintenance should include a biannual health evaluation of the trees and shrubs and subsequent removal of any dead or diseased vegetation (EPA, 1999). Diseased vegetation should be treated as needed using preventative and low-toxic measures to the extent possible. BMPs have the potential to create very attractive habitats for mosquitoes and other vectors because of highly organic, often heavily vegetated areas mixed with shallow water. Routine inspections for areas of standing water within the BMP and corrective measures to restore proper infiltration rates are necessary to prevent creating mosquito and other vector habitat. In addition, bioretention BMPs are susceptible to invasion by aggressive plant species such as cattails, which increase the chances of water standing and subsequent vector production if not routinely maintained.

In order to maintain the treatment area's appearance it may be necessary to prune and weed. Furthermore, mulch replacement is suggested when erosion is evident or when the site begins to look unattractive. Specifically, the entire area may require mulch replacement every two to three years, although spot mulching may be sufficient when there are random void areas. Mulch replacement should be done prior to the start of the wet season.

New Jersey's Department of Environmental Protection states in their bioretention systems standards that accumulated sediment and debris removal (especially at the inflow point) will normally be the primary maintenance function. Other potential tasks include replacement of dead vegetation, soil pH regulation, erosion repair at inflow points, mulch replenishment, unclogging the underdrain, and repairing overflow structures. There is also the possibility that the cation exchange capacity of the soils in the cell will be significantly reduced over time. Depending on pollutant loads, soils may need to be replaced within 5-10 years of construction (LID, 2000).

Cost

Construction Cost

Construction cost estimates for a bioretention area are slightly greater than those for the required landscaping for a new development (EPA, 1999). A general rule of thumb (Coffman, 1999) is that residential bioretention areas average about $3 to $4 per square foot, depending on soil conditions and the density and types of plants used. Commercial, industrial and institutional site costs can range between $10 to $40 per square foot, based on the need for control structures, curbing, storm drains and underdrains.

Retrofitting a site typically costs more, averaging $6,500 per bioretention area. The higher costs are attributed to the demolition of existing concrete, asphalt, and existing structures and the replacement of fill material with planting soil. The costs of retrofitting a commercial site in Maryland, Kettering Development, with 15 bioretention areas were estimated at $111,600.

In any bioretention area design, the cost of plants varies substantially and can account for a significant portion of the expenditures. While these cost estimates are slightly greater than those of typical landscaping treatment (due to the increased number of plantings, additional soil excavation, backfill material, use of underdrains etc.), those landscaping expenses that would be required regardless of the bioretention installation should be subtracted when determining the net cost.

Perhaps of most importance, however, the cost savings compared to the use of traditional structural stormwater conveyance systems makes bioretention areas quite attractive financially. For example, the use of bioretention can decrease the cost required for constructing stormwater conveyance systems at a site. A medical office building in Maryland was able to reduce the amount of storm drain pipe that was needed from 800 to 230 feet - a cost savings of $24,000 (PGDER, 1993). And a new residential development spent a total of approximately $100,000 using bioretention cells on each lot instead of nearly $400,000 for the traditional stormwater ponds that were originally planned (Rappahanock,). Also, in residential areas, stormwater management controls become a part of each property owner's landscape, reducing the public burden to maintain large centralized facilities.

Maintenance Cost

The operation and maintenance costs for a bioretention facility will be comparable to those of typical landscaping required for a site. Costs beyond the normal landscaping fees will include the cost for testing the soils and may include costs for a sand bed and planting soil.

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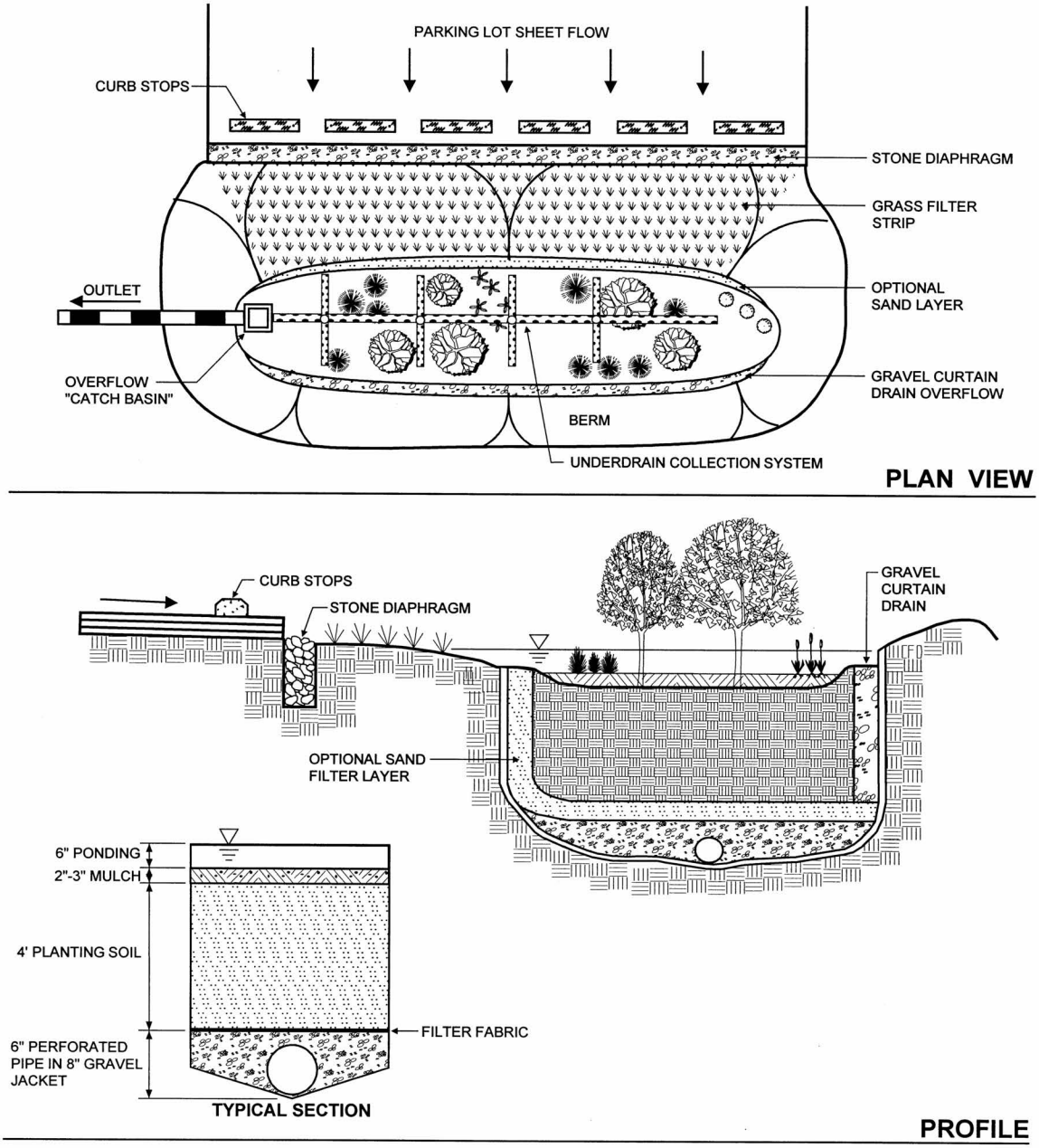

Schematic of a Bioretention Facility (MDE, 2000)

Water Quality Inlet TC-50

Description

Water quality inlets (WQIs), also commonly called trapping catch basins, oil/grit separators or oil/water separators, consist of one or more chambers that promote sedimentation of coarse materials and separation of free oil (as opposed to emulsified or dissolved oil) from stormwater. Some WQIs also contain screens to help retain larger or floating debris, and many of the newer designs also include a coalescing unit that helps promote oil/water separation. A typical WQI, as shown in the schematic, consists of a sedimentation chamber, an oil separation chamber, and a discharge chamber.

These devices are appropriate for capturing hydrocarbon spills, but provide very marginal sediment removal and are not very effective for treatment of stormwater runoff. WQIs typically capture only the first portion of runoff for treatment and are generally used for pretreatment before discharging to other best management practices (BMPs).

California Experience

Caltrans investigated the use of coalescing plate oil/water separators at maintenance stations in Southern California. Twenty-two maintenance stations were originally considered for implementation of this technology; however, only one site appeared to have concentrations that were sufficiently high to warrant installation of an oil-water separator. Concentrations of free oil in stormwater runoff observed during the course of the study even from this site were too low for effective operation of this technology, and no free oil was ever captured by the device.

Advantages

- Can provide spill control.

Limitations

- WQIs generally provide limited hydraulic and residuals storage. Due to the limited storage, WQIs do not provide substantial stormwater improvement.
- Standing water in the devices can provide a breeding ground for mosquitoes.
- Certain designs maintain permanent sources of standing water where mosquito and other vector breeding may to occur.

Design and Sizing Guidelines

- Water quality inlets are most effective for spill control and should be sized accordingly.

Design Considerations

- Area Required

Targeted Constituents

☑	Sediment	●
☑	Nutrients	●
☑	Trash	▲
☑	Metals	●
☑	Bacteria	●
☑	Oil and Grease	▲
☑	Organics	●

Legend ***(Removal Effectiveness)***

● Low ■ High

▲ Medium

CASQA
CALIFORNIA STORMWATER QUALITY ASSOCIATION

- Designs that utilize covered sedimentation and filtration basins should be accessible to vector control personnel via access doors to facilitate vector surveillance and controlling the basins if needed.

Performance

WQIs are primarily utilized to remove sediment from stormwater runoff. Grit and sediment are partially removed by gravity settling within the first two chambers. A WQI with a detention time of 1 hour may expect to have 20 to 40 percent removal of sediments. Hydrocarbons associated with the accumulated sediments are also often removed from the runoff through this process. The WQI achieves slight, if any, removal of nutrients, metals and organic pollutants other than free petroleum products (Schueler, 1992).

A 1993 MWCOG study found that an average of less than 5 centimeters (2 inches) of sediments (mostly coarse-grained grit and organic matter) were trapped in the WQIs. Hydrocarbon and total organic carbon (TOC) concentrations of the sediments averaged 8,150 and 53,900 milligrams per kilogram, respectively. The mean hydrocarbon concentration in the WQI water column was 10 milligrams per liter. The study also indicated that sediment accumulation did not increase over time, suggesting that the sediments become re-suspended during storm events. The authors concluded that although the WQI effectively separates oil and grease from water, re-suspension of the settled matter appears to limit removal efficiencies. Actual removal only occurs when the residuals are removed from the WQI (Schueler 1992).

A 1990 report by API found that the efficiency of oil and water separation in a WQI is inversely proportional to the ratio of the discharge rate to the unit's surface area. Due to the small capacity of the WQI, the discharge rate is typically very high and the detention time is very short. For example, the MWCOG study found that the average detention time in a WQI is less than 0.5 hour. This can result in minimal pollutant settling (API, 1990). However, the addition of coalescing units in many current WQI units may increase oil/water separation efficiency. Most coalescing units are designed to achieve a specific outlet concentration of oil and grease (for example, 10-1 5m/L oil and grease).

Pollutant removal in stormwater inlets can be somewhat improved using inserts, which are promoted for removal of oil and grease, trash, debris, and sediment. Some inserts are designed to drop directly into existing catch basins, while others may require extensive retrofit construction.

Siting Criteria

Oil/water separation units are often utilized in specific industrial areas, such as airport aprons, equipment washdown areas, or vehicle storage areas. In these instances, runoff from the area of concern will usually be diverted directly into the unit, while all other runoff is sent to the storm drain downstream from the oil/water separator. Oil/water separation tanks are often fitted with diffusion baffles at the inlets to prevent turbulent flow from entering the unit and resuspending settled pollutants.

Additional Design Guidelines

Prior to WQI design, the site should be evaluated to determine if another BMP would be more cost-effective in removing the pollutants of concern. WQIs should be used when no other BMP is feasible. The WQI should be constructed near a storm drain network so that flow can be easily diverted to the WQI for treatment (NVPDC, 1992). Any construction activities within the

drainage area should be completed before installation of the WQI, and the drainage area should be revegetated so that the sediment loading to the WQI is minimized.

WQIs are most effective for small drainage areas. Drainage areas of 0.4 hectares (1 acre) or less are often recommended. WQIs are typically used in an off-line configuration (i.e., portions of runoff are diverted to the WQI), but they can be used as on-line units (i.e., receive all runoff). Generally, off-line units are designed to handle the first 1.3 centimeters (0.5 inches) of runoff from the drainage areas. Upstream isolation/diversion structures can be used to divert the water to the off-line structure (Schueler, 1992). On-line units receive higher flows that will likely cause increased turbulence and resuspension of settled material, thereby reducing WQI performance.

Oil/water separation tanks are often fitted with diffusion baffles at the inlets to prevent turbulent flow from entering the unit and resuspending settled pollutants. WQIs are available as pre-manufactured units or can be cast in place. Reinforced concrete should be used to construct below-grade WQIs. The WQIs should be water tight to prevent possible ground water contamination.

Maintenance

Typical maintenance of WQIs includes trash removal if a screen or other debris capturing device is used, and removal of sediment using a vactor truck. Operators need to be properly trained in WQI maintenance. Maintenance should include keeping a log of the amount of sediment collected and the date of removal. Some cities have incorporated the use of GIS systems to track sediment collection and to optimize future catch basin cleaning efforts.

One study (Pitt, 1985) concluded that WQIs can capture sediments up to approximately 60 percent of the sump volume. When sediment fills greater than 60 percent of their volume, catch basins reach steady state. Storm flows can then resuspend sediments trapped in the catch basin, and will bypass treatment. Frequent clean-out can retain the volume in the catch basin sump available for treatment of stormwater flows.

At a minimum, these inlets should be cleaned at least twice during the wet season. Two studies suggest that increasing the frequency of maintenance can improve the performance of catch basins, particularly in industrial or commercial areas. One study of 60 catch basins in Alameda County, California, found that increasing the maintenance frequency from once per year to twice per year could increase the total sediment removed by catch basins on an annual basis (Mineart and Singh, 1994). Annual sediment removed per inlet was 54 pounds for annual cleaning, 70 pounds for semi-annual and quarterly cleaning, and 160 pounds for monthly cleaning. For catch basins draining industrial uses, monthly cleaning increased total annual sediment collected to six times the amount collected by annual cleaning (180 pounds versus 30 pounds). These results suggest that, at least for industrial uses, more frequent cleaning of catch basins may improve efficiency.

BMPs designed with permanent water sumps, vaults, and/or catch basins (frequently installed below-ground) can become a nuisance due to mosquito and other vector breeding. Preventing mosquito access to standing water sources in BMPs (particularly below-ground) is the best prevention plan, but can prove challenging due to multiple entrances and the need to maintain the hydraulic integrity of the system. BMPs that maintain permanent standing water may require routine inspections and treatments by local mosquito and vector control agencies to

suppress mosquito production. Standing water in oil/water separators may contain sufficient floating hydrocarbons to prevent mosquito breeding, but this is not a reliable control alternative to vector exclusion or chemical treatment.

Cost

A typical pre-cast catch basin costs between $2,000 and $3,000; however, oil/water separators can be much more expensive. The true pollutant removal cost associated with catch basins, however, is the long-term maintenance cost. A vactor truck, the most common method of catch basin cleaning, costs between $125,000 and $150,000. This initial cost may be high for smaller Phase II communities. However, it may be possible to share a vactor truck with another community. Typical vactor trucks can store between 10 and 15 cubic yards of material, which is enough storage for three to five catch basins. Assuming semi-annual cleaning, and that the vactor truck could be filled and material disposed of twice in one day, one truck would be sufficient to clean between 750 and 1,000 catch basins. Another maintenance cost is the staff time needed to operate the truck. Depending on the regulations within a community, disposal costs of the sediment captured in catch basins may be significant.

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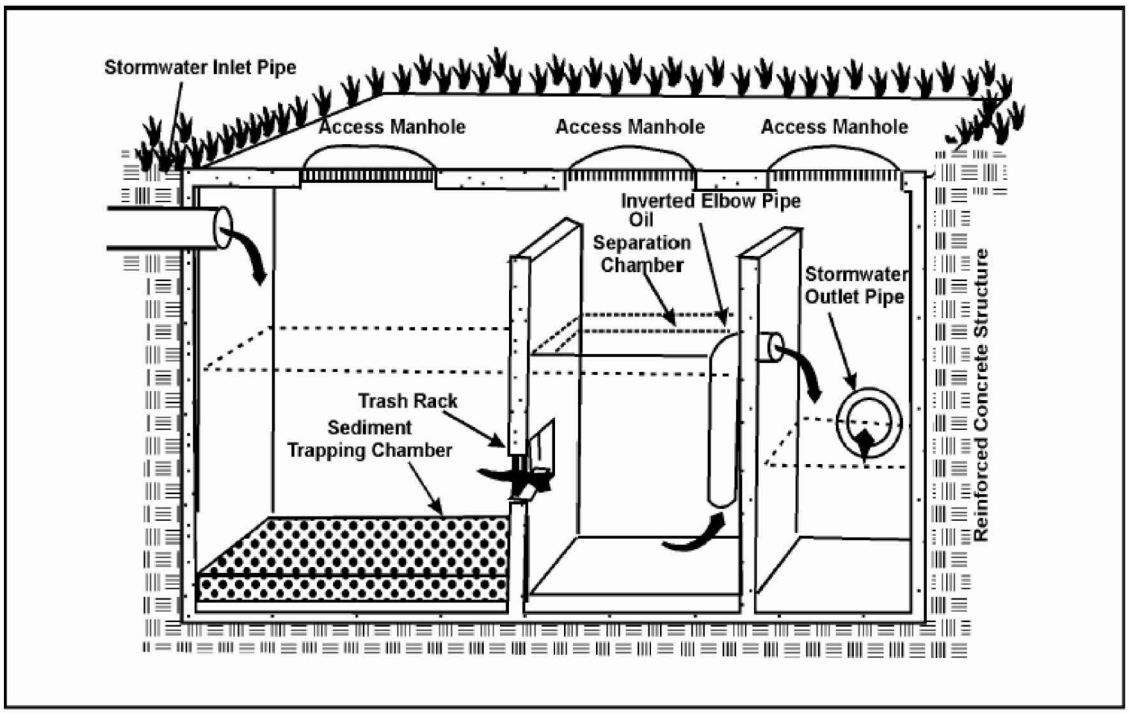
Stormwater Inlet Pipe
Access Manhole
Access Manhole
Access Manhole
Inverted Elbow Pipe
Oil
Separation
Chamber
Stormwater
Outlet Pipe
Trash Rack
Sediment
Trapping Chamber
Reinforced Concrete Structure